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AC DC

Switch - disconnectors and changeover switches general catalogue

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Presentation

TELERGON is a market leader in the design and manufacture of electromechanical products, providing solutions for the isolation and protection of low voltage electrical equipment.

Experience, knowledge, and innovation are the values of our talented team, providing a strong reputation for the products manufactured by TELERGON.

The various ranges of TELERGON switch disconnectors and changeover switches have numerous applications in the field of electrical engineering, including a range of product designed specifically for renewable energy applications.

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Management System
ISO 9001:2015
ISO 14001:2015
www.tuv.com
ID 9105003481

About the catalog

This catalog is organized in a way that you can choose and get quickly and easily all the product information required.

At the beginning (pages 2-3) you will find a complete overview of the range offered, classified by series over its full range of amperages, with an index that will take you to the page of presentation which corresponds, to a general guide for quick selection and to the page where you will find gathered all the information of the selected product.

1 Index & overview of all series



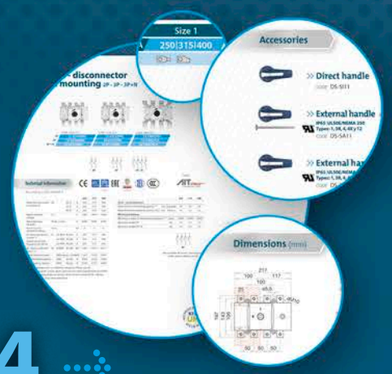
2 General information of the product range



3 Quick selection guide by series & index



4 Full information of selected product



PEFC
PEFC/14-38-00201
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INDEX OVERVIEW OF THE RANGE

Amperes: 10 12 16 20 25 32 40 50 63 80 100 125 160 200 250 315 400 500 | 630 800 1000 1250 1600 1800 2000 2500 3150 4000 5000 6300

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	S6 | S6N — Load-break, 2P | 3P | 3P+N | 6P | 8P	62-63	64-67	88-91 102-105
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Cam switches

series
T|TB|TF|TP

Cam switches available in different construction models over a wide current range with a large variety of accessories.

According to:
IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14
RoHS

Testing and approvals:



Cam switches are manufactured in different series under strict quality controls to provide a reliable product that meets the most demanding requirements.

They consist of chambers, each containing up to two double break contacts of positive opening. These contacts silver alloy plated providing a long electromechanical life.

In sizes 0 - 1 and 2, the terminals are equipped with captive clamp screws to facilitate installation work, and all the connections themselves are covered to provide an IP20 protection rating.

The different configurations of contacts available provide flexible, faster and safer solutions for several electrical operations at a highly competitive cost.

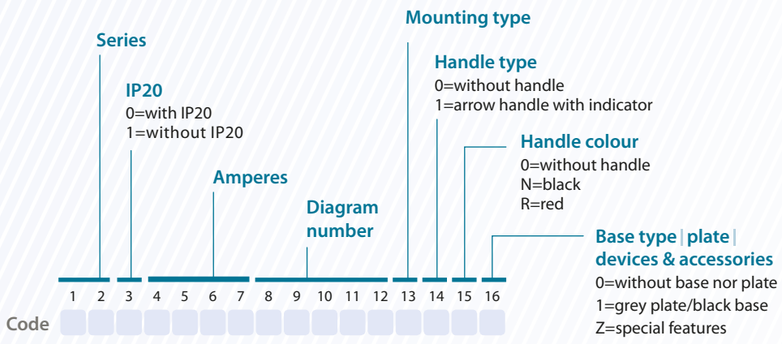
Range codification:

Standard products

They are listed in this section and are encoded according to the 16-digit bar logic explained below. This descriptive method will be used on all pages in the cam switches range for your convenience and better understanding.

Special products

They are made according to customer specifications or to comply with a diagram or special scheme. In these cases, the code is formed by the corresponding series (T-TB-TF-TP), the amperage and an order number assigned to the scheme (see blank diagrams form on page 33).



Example: T - 0 0 1 0 0 0 0 0 1 2 E 1 N 1

T series | 100 amperes | 012 diagram | E fixing | Standard handle | Black colour | Grey plate/black base |

series T



1 2 3 4 5 6
T -

Wide range of sizes and ratings.

Supplied with IP20 removable terminals protection on sizes 0 - 1 - 2 (except T175).

Wide range of devices and accessories.

series TB



1 2 3 4 5 6
T B -

Side access to all terminal screws (up and down).

Two different bodies depending on mounting type: door or base mounting.

Wide range of devices and accessories.

series TF



1 2 3 4 5 6
T F -

Square body, smooth sides, axial access to terminal screws.

Two different bodies depending on mounting type: door or base mounting.

Wide range of devices and accessories.

series TP



1 2 3 4 5 6
T P -

Reduce-sized body.

Door mounting only.

Wide range of devices and accessories.

series | type T|P



IP65

Serie T
1 2 3 4 5 6
C I T P

- Cam switch in plastic enclosure for gland entry.
- From 12 up to 40 A.
- Padlockable handle under request.

series | type T-TF|R



IP65

Serie T
1 2 3 4 5
C I T R

Serie TF
1 2 3 4 5
C T F R

- Cam switch in plastic enclosure for gland entry.
- From 25 up to 100 A.
- Padlockable handle under request.

series | type T-TB|A-C



IP55

Serie T
1 2 3 4 5
C I T A
1 2 3 4 5
C I T C

Serie TB
1 2 3 4 5
C T B A
1 2 3 4 5
C T B C

- Cam switch in metal enclosure of cast aluminium
  4 A From 12 up to 63 A.
- In sheet steel enclosure
  4 C From 100 A upwards.
- Gland entry.
- Several enclosure sizes.
- Padlockable handle under request.

>> **Ask for more information about these applications with enclosure.**

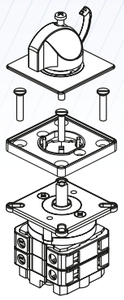
TP | T | TB | TF

Door mounting

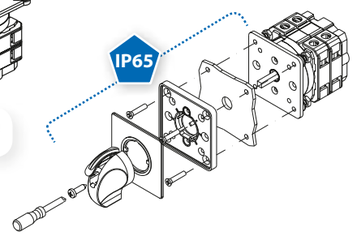
Fixing with screws | E type

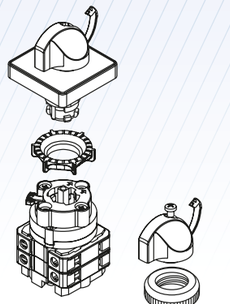
For T - TB - TF - TP series

- Frontal fixing plate for 4 screws, reversible mounting plate in T series (except T175 and size 3).
- Door mounting with arrow handle, indicating plate, escutcheon and fixing plate IP65.



12 13 14 **E**



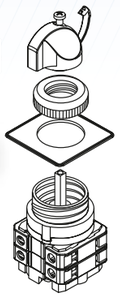


12 13 14 **C**

Central quick fixing ø 22 | C type

For T - TB - TF series

- Door mounting for Ø 22 mm available for sizes 0 and 1.
- For arrow handle with indicator or padlockable handle.
- Maximum number of chambers supported
  Size 0 = 6
  Size 1 = 4



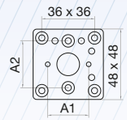
12 13 14 **Z**

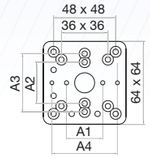
Central fixing with metal nut Ø 22 | Z type

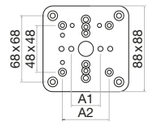
For T - TF series

- Door mounting for metal nut Ø 22 mm available for sizes 0 and 1.

(also Ø 30 mm under request).







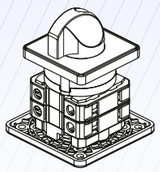
Size	Models		13
0	A1 = 28 mm	A2 = 32 mm	M
	A1 = 30 mm	A2 = 34 mm	N
	A1 = 35 mm	A2 = 38 mm	O
1	A1 = 28 mm A4 = 46 mm	A2 = 32 mm	M
	A1 = 33 mm A3 = 47 mm	A2 = 30 mm A4 = 50 mm	N
	A1 = 32 mm A3 = 45 mm	A2 = 32 mm A4 = 45 mm	P
2	A1 = 38 mm	A3 = 40 mm	M
	A1 = 30 mm	A2 = 50 mm	P

Multi-distance fixing plates with screws

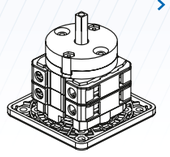
For T - TB - TF series

- Multidrill plates for different fixing distances.
- Fixing with two screws for mounting without base nor indicating plate.
- Available for sizes 0 - 1 - 2.
  (size 0 also supports multi-fixing plate size 1).

Base mounting



12 13 14 **D**



12 13 14 **G**

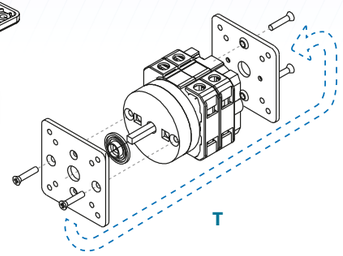
Base mounting by screws with direct handle | D type
Base mounting by screws without plate nor handle | G type

For T series

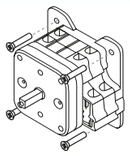
- Rear fixing plate for 4 screws, reversible mounting plate in T serie (except T175 and size 3).

For TB - TF series

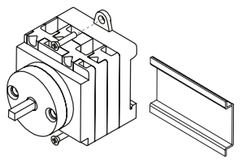
- Fixed rear support plate as standard.
- Serie TB for 4 screws.
- Serie TF for two screws (also DIN rail).



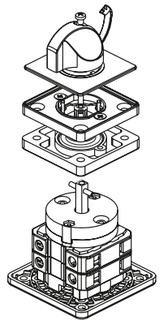
T



TB



TF

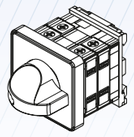


12 13 14 **F**

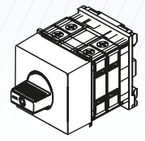
Base mounting with clutch device and door handle | F type

For T - TB - TF series

- Rear fixing plate for 4 screws in T - TB series or two screws and DIN rail in TF serie.
- With clutch device and door lock, according to series and sizes.
- The clutch device (D501) for size 0, if it is combined with other accessory, must be size 1.
- The clutch device (D501) and shaft extension are supplied separately (as accessories) or incorporated with the cam switch (size 3 is always incorporated with the cam switch).
- Specify useful depth of the space available when ordering.



12 13 14 **A**



12 13 14 15 16 **H 8 N 0**

DIN rail mounting with direct handle | A type

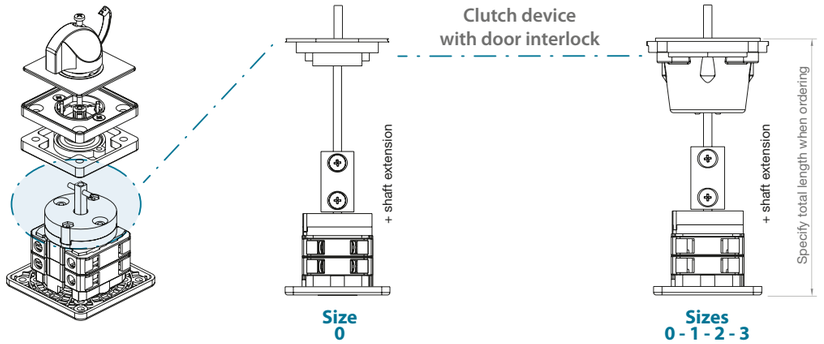
For T series

- Rear fixing support (D904) for T series sizes 0 and 1.
- DIN rail is included in TF series.

DIN rail mounting with modular handle | H type

For TF series

- Rear fixing support and modular handle tape (D905) for T - TF series size 0.



series TP|T|TB|TF

TP | T | TB | TF
Door mounting switch
1P up to 12P

Size 0
A 10|12|16|20|25|32



Technical information

consult consult consult consult

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				**TP10**	**T12**	**T20**	**TB20**	**TB25**	**TB32**	**TF12**	**TF16**	**TF25**
Rated thermal current	Ith		A	12	16	25	20	25	32	20	25	32
Rated insulation voltage	Ui		V	500	500	500	500	500	500	690	690	690
Rated impulse withstand voltage	Uimp		kV	4	6	6	4	4	4	6	6	6
AC rated operational current	Ie	Ue 415V AC21A	A	12	16	25	20	25	32	20	25	32
		Ue 415V AC22A	A	12	16	25	20	25	32	20	25	32
		Ue 415V AC23A	A	10	10	25	20	25	32	8	16	20
Rated conditional short-circuit current			kA	5	10	10	5	5	5	5	5	5
Rated maximum current	gL-gG		A	16	25	25	35	35	35	20	25	32
Rated breaking capacity	400V; cos φ=0,45		A	80	80	100	160	200	256	100	160	200
Rated short-time withstand current (1 sec)			A	100	240	400	240	400	500	350	400	500
Mechanical durability (according to the standards, for other values please consult)				1000	10000	10000	10000	10000	10000	10000	10000	10000
Rigid copper conductor			mm^2	2x4	2x4	2x4	1x10 2x6	1x10 2x6	1x10 2x6	1x10	1x10	1x10
Flexible copper conductor			mm^2	2x2,5	2x2,5	2x2,5	1x6 2x4	1x6 2x4	1x6 2x4	1x6	1x6	1x6
According to UL508 - CAN / CSA C22.2 Nº 14					**T12**	**T20**				**TF12**	**TF16**	**TF25**
Rated thermal current	Ith		A	-	12	20	-	-	-	16	20	25
General use rating			Vac	-	300	300	-	-	-	600	600	600
AC rated operational power		3x240V	HP	-	2	5	-	-	-	2	5	7,5
		3x480V	HP	-	-	-	-	-	-	5	10	12
		3x600V	HP	-	-	-	-	-	-	5	10	15

Normal service conditions:
Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.
Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series TP|T|TB|TF

Code: 1 2 3 4 5 6 7 | 8 9 10 11 12 | 13 | 14 15 16

Series | Amp

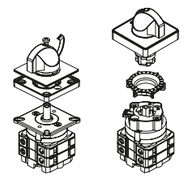
TP-0010	
T-00012	
T-00020	
TB-0020	
TB-0025	
TB-0032	
TF-0012	
TF-0016	
TF-0025	

Diagram

Poles	Posit. 0	Posit. 1		Chambers
1		X	0001 0	1
2		X	0001 1	
3		X	0001 2	2
4		X	0001 3	
5		X	0101 5	3
6		X	0101 6	
7		X	0101 7	4
8		X	0101 8	
9		X	0101 9	5
10		X	0101 0	
11		X	0101 11	6
12		X	0101 12	

Type

Model or fixing



E with screws — C Ø22

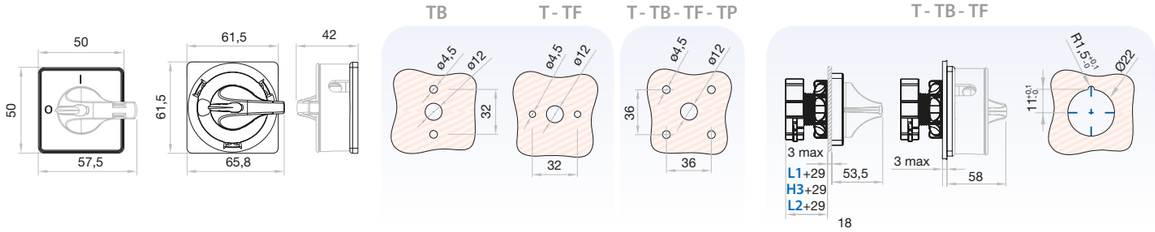
Plate and handle

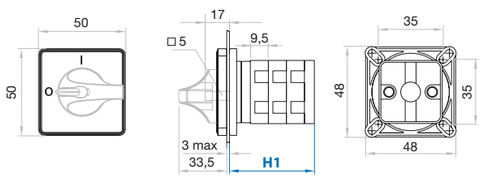


Dimensions (mm)

E — Frontal fixing with 2 screws: TB, T - TF — Frontal fixing with 4 screws: T - TB - TF - TP

C — Frontal fixing Ø22: T - TB - TF



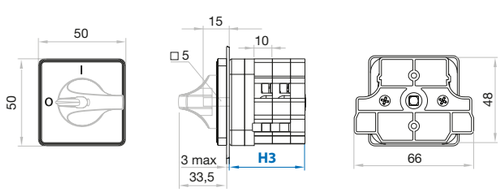


TP series

Chambers	1□	2□	3□	4□	5□	6□
H1	26,8	36,3	45,8	55,3	64,8	74,3

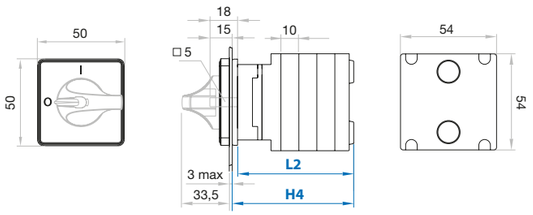
T series

Chambers	1□	2□	3□	4□	5□	6□
L1	34,5	46	57,5	69	80,5	92
H2	37,5	49	60,5	72	83,5	95



TB series

Chambers	1□	2□	3□	4□	5□	6□
H3	31,5	41,5	51,5	61,5	71,5	81,5



TF series

Chambers	1□	2□	3□	4□	5□	6□
L2	45	55	65	75	85	95
H4	48	58	68	78	88	98

›› For more information of these series; accessories see pages 24-31 | diagrams see pages 32-43

series T

T
Door mounting switch

1P up to 12P

Size 1

A 16|25|32|40



T

Technical information

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				T16	T25	T32	T40
Rated thermal current	Ith		A	25	32	40	50
Rated insulation voltage	Ui		V	690	690	690	690
Rated impulse withstand voltage	Uimp		kV	6	6	8	8
AC rated operational current	Ie	Ue 415V AC22A	A	25	32	40	50
		Ue 415V AC23A	A	16	20	25	32
Rated conditional short-circuit current			kA	10	10	10	10
Rated maximum current	gL-gG		A	32	32	50	50
Rated breaking capacity	400V; cos φ=0,45		A	160	200	256	320
Rated short-time withstand current (1 sec)			A	500	650	800	800
Mechanical durability (according to the standards, for other values please consult)				10000	10000	10000	10000
Rigid copper conductor			mm^2	2x6	2x6	2x10	2x10
Flexible copper conductor			mm^2	2x4	2x4	2x6	2x6
According to UL508 - CAN / CSA C22.2 Nº 14				**T16**	**T25**	**T32**	**T40**
Rated thermal current	Ith		A	16	25	32	40
General use rating			Vac	600	600	600	600
AC rated operational power		3x240V	HP	5	7,5	10	15
		3x480V	HP	10	15	20	25
		3x600V	HP	10	15	20	25

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series T

Code 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Series | Amp

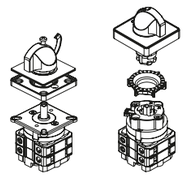
T-00016
T-00025
T-00032
T-00040

Diagram

Poles	Posit. 0	Posit. 1	Chambers
1	X	0 0 0 1 0	1
2	X	0 0 0 1 1	
3	X	0 0 0 1 2	2
4	X	0 0 0 1 3	
5	X	0 1 0 / 5	3
6	X	0 1 0 / 6	
7	X	0 1 0 / 7	4
8	X	0 1 0 / 8	
9	X	0 1 0 / 9	5
10	X	0 1 0 1 0	
11	X	0 1 0 1 1	6
12	X	0 1 0 1 2	

Type

Model or fixing



E with screws

C Ø22

Plate and handle



1N1



1RD Arrow handle



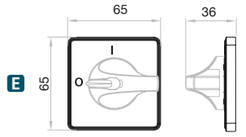
7N0

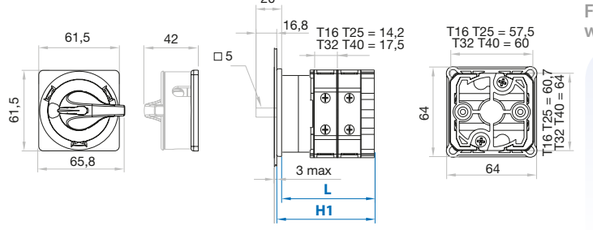


7RO Padlockable handle

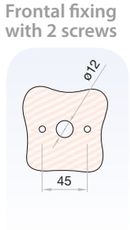
Dimensions (mm)

E

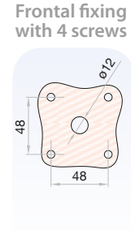




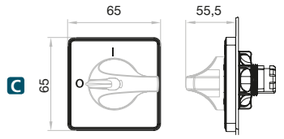
Frontal fixing with 2 screws

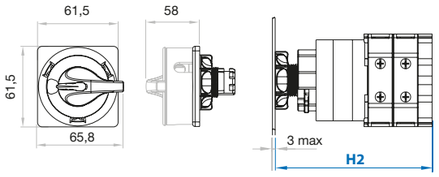


Frontal fixing with 4 screws

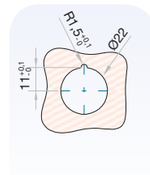


C





Frontal fixing Ø22



T series	Chambers	1□	2□	3□	4□	5□	6□
T16 T25	L	46,4	60,6	74,8	89	103,2	117,4
	H1	49,6	63,8	78	92,2	106,4	120,6
	H2	75,5	89,5	103,7	117,9	132,1	146,3
T32 T40	L	49,8	67,3	84,8	102,3	119,8	137,3
	H1	53	70,5	88	105,5	123	140,5
	H2	78,8	96,3	113,8	131,3	148,8	166,3

›› For more information of this serie; accessories see pages 24-31 | diagrams see pages 32-43

series T

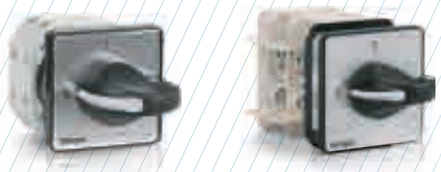
T
Door mounting switch

1P up to 12P

Size 2

A 50|63|80|100|125|175

* Except T175



T

Technical information

CE · IEC · EAC · c UL us (consult) · LLOYD'S REGISTER (consult) · APPROVED (consult) · CCC (consult)

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3			T50	T63	T80	T100	T125	T175
Rated thermal current	Ith	A	63	80	80	125	125	200
Rated insulation voltage	Ui	V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp	kV	8	8	8	8	8	8
AC rated operational current	Ue 415V AC21A	A	63	80	80	125	125	200
	Ue 415V AC22A	A	63	80	80	115	115	200
	Ue 415V AC23A	A	63	63	63	100	100	200
Rated conditional short-circuit current		kA	15	15	15	15	15	15*(2)
Rated maximum current	gL-gG	A	80	80	80	125	125	160
Rated breaking capacity	400V; cos φ=0,45	A	504	504	504	640	640	1600
Rated short-time withstand current (1 sec)		A	1600	1600	1600	2500	2500	3500
Mechanical durability (according to the standards, for other values please consult)			10000	10000	10000	8000	8000	8000
Rigid copper conductor		mm²	16/25*(1)	16/25*(1)	16/25*(1)	35/50*(1)	35/50*(1)	95
Flexible copper conductor		mm²	10/16*(1)	10/16*(1)	10/16*(1)	16/35*(1)	16/35*(1)	95
According to UL508 - CAN / CSA C22.2 Nº 14			**T50**	**T63**	**T80**	**T100**	**T125**	**T175**
Rated thermal current	Ith	A	63	63	63	100	100	200
General use rating		Vac	600	600	600	600	600	600
AC rated operational power	3x240V	HP	20	20	20	30	30	25
	3x480V	HP	40	40	40	50	50	60
	3x600V	HP	40	40	40	50	50	50

*(1) With terminals for connection

*(2) Mounting without connection terminals or terminals + phase barriers DT-90025

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series T

Code: 1 2 3 4 5 6 7 | 8 9 10 11 12 | 13 | 14 15 16

Series | Amp

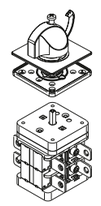
T-00050
T-00063
T-00080
T-00100
T-00125
T-00175

Diagram

Poles	Posit. 0	Posit. 1	Chambers
1	X	00010	1
2	X	00011	
3	X	00012	2
4	X	00013	
5	X	0107/5	3
6	X	0107/6	
7	X	0107/7	4
8	X	0107/8	
9	X	0107/9	5
10	X	01010	
11	X	01011	6
12	X	01012	

Type

Model or fixing



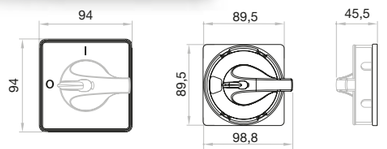
E

Plate and handle



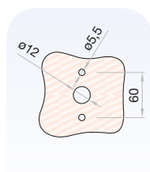
1N1 — Arrow handle
1RD
7N0 — Padlockable handle
7RO

Dimensions (mm)

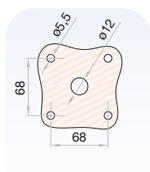


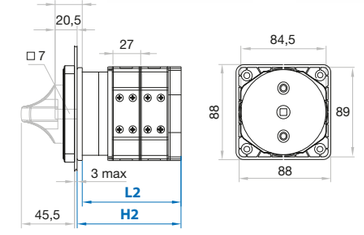
T series	Chambers	1□	2□	3□	4□	5□	6□
T50 T63 T80	L1	58,5	78,5	98,5	118,5	138,5	158,5
	H1	62,5	82,5	102,5	122,5	142,5	162,5

Frontal fixing with 2 screws



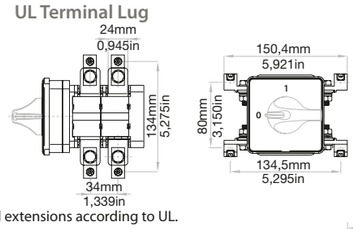
Frontal fixing with 4 screws



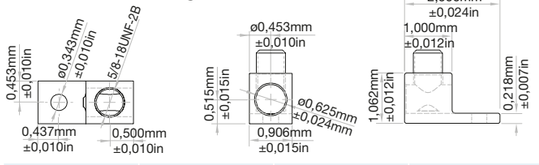


T series	Chambers	1□	2□	3□	4□	5□	6□
T100 T125	L2	67	94	121	148	175	202
	H2	71	98	125	152	179	206

UL Terminal Lug

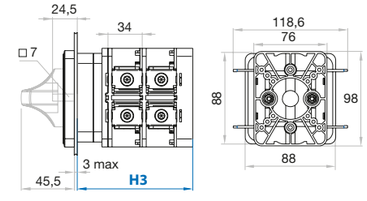


Terminal extensions according to UL.



Wire size	Wires per lug	Wire type	Kit reference
120 mm² / 250 kcmil	1	Cu	DS-TLU21 (2 pieces)

Note: The hardware needed to complete the wiring is supplied as standard.



T series	Chambers	1□	2□	3□	4□	5□	6□
T175	H3	80,8	114,8	148,8	182,8	216,8	250,8

›› For more information of this serie; accessories see pages 24-31 | diagrams see pages 32-43

series T

T
Door mounting switch

1P up to 12P

Size 3

200|250|315

* Under request also available in 400A, 500A, 630A, 800A, consult please



T

Technical information

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				T200	T250	T315
Rated thermal current	Ith		A	200	250	315
Rated insulation voltage	Ui		V	690	690	690
Rated impulse withstand voltage	Uimp		kV	8	8	8
AC rated operational current	Ie	Ue 415V AC21A	A	200	250	315
		Ue 415V AC22A	A	200	250	315
		Ue 415V AC23A	A	200	200	200
Rated conditional short-circuit current			kA	15	15	15
Rated maximum current	gL-gG		A	200	250	315
Rated breaking capacity	400V; cos φ=0,45		A	1450	2000	2240
Rated short-time withstand current (1 sec)			A	4400	4400	4400
Mechanical durability (according to the standards, for other values please consult)				8000	8000	8000
Rigid copper conductor			mm²	95	120	185
Flexible copper conductor			mm²	95	120	185
According to UL508 - CAN / CSA C22.2 Nº 14				**T200**	**T250**	**T315**
Rated thermal current	Ith		A	200	200	200
General use rating			Vac	600	600	600
AC rated operational power		3x240V	HP	60	60	60
		3x480V	HP	75	75	75
		3x600V	HP	60	60	60

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series T

Code 1 2 3 4 5 6 7 | 8 9 10 11 12 | 13 | 14 15 16

Series | Amp

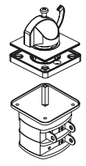
T-0020 0
T-0025 0
T-0031 5

Diagram

Poles	Posit. 0	Posit. 1	Chambers
1		X	0 0 0 1 0	1
2		X	0 0 0 1 1	
3		X	0 0 0 1 2	2
4		X	0 0 0 1 3	
5		X	0 1 0 / 5	3
6		X	0 1 0 / 6	
7		X	0 1 0 / 7	4
8		X	0 1 0 / 8	
9		X	0 1 0 / 9	5
10		X	0 1 0 1 0	
11		X	0 1 0 1 1	6
12		X	0 1 0 1 2	

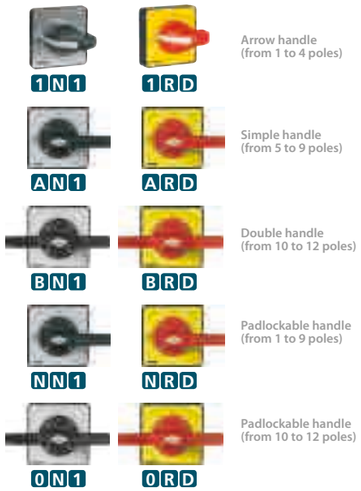
Type

Model or fixing

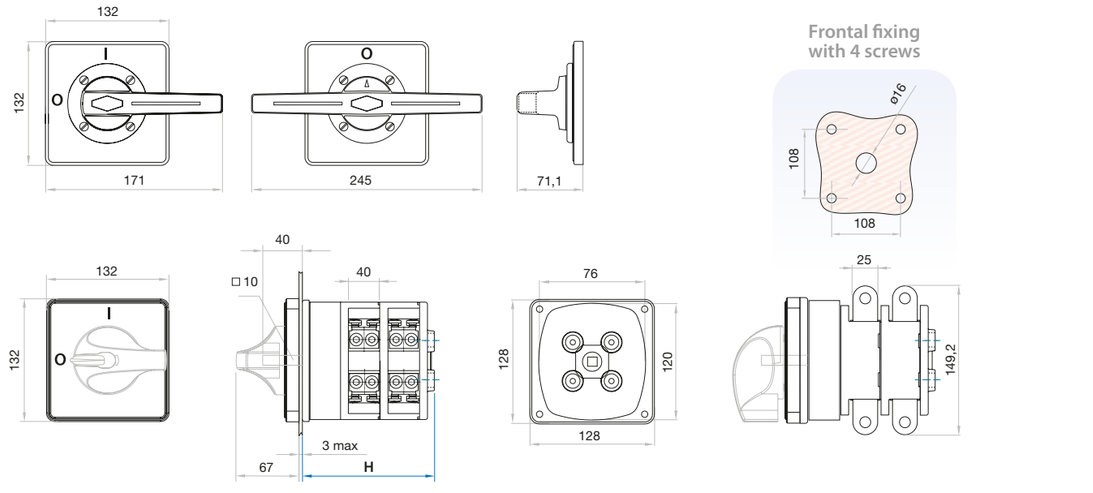


E

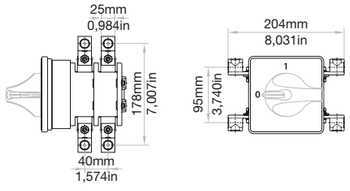
Plate and handle



Dimensions (mm)

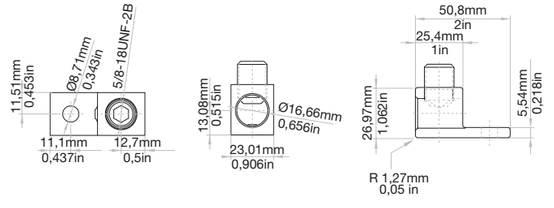


UL Terminal Lug



T series	Chambers	1□	2□	3□	4□	5□	6□
T200 T250 T315	H	95	135	175	215	255	295

Terminal extensions according to UL.



Wire size	Wires per lug	Wire type	Kit reference
150 mm² / 300 kcmil	1	Cu/Al	DS-TL01 (2 pieces)

Note: The hardware needed to complete the wiring is supplied as standard.

›› For more information of this serie; accessories see pages 24-31 | diagrams see pages 32-43

series TP|T|TB|TF

TP | T | TB | TF
Door mounting changeover

1P up to 4P

Size 0
A 10|12|16|20|25|32



Technical information

consult consult consult consult

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3			TP10	T12	T20	TB20	TB25	TB32	TF12	TF16	TF25
Rated thermal current	Ith	A	12	16	25	20	25	32	20	25	32
Rated insulation voltage	Ui	V	500	500	500	500	500	500	690	690	690
Rated impulse withstand voltage	Uimp	kV	4	6	6	4	4	4	6	6	6
AC rated operational current	Ie Ue 415V AC21A	A	12	16	25	20	25	32	20	25	32
	Ue 415V AC22A	A	12	16	25	20	25	32	20	25	32
	Ue 415V AC23A	A	10	10	25	20	25	32	8	16	20
Rated conditional short-circuit current		kA	5	10	10	5	5	5	5	5	5
Rated maximum current	gL-gG	A	16	25	25	35	35	35	20	25	32
Rated breaking capacity	400V; cos φ=0,45	A	80	80	100	160	200	256	100	160	200
Rated short-time withstand current (1 sec)		A	100	240	400	240	400	500	350	400	500
Mechanical durability (according to the standards, for other values please consult)			1000	10000	10000	10000	10000	10000	10000	10000	10000
Rigid copper conductor		mm^2	2x4	2x4	2x4	1x10 2x6	1x10 2x6	1x10 2x6	1x10	1x10	1x10
Flexible copper conductor		mm^2	2x2,5	2x2,5	2x2,5	1x6 2x4	1x6 2x4	1x6 2x4	1x6	1x6	1x6
According to UL508 - CAN / CSA C22.2 Nº 14				**T12**	**T20**				**TF12**	**TF16**	**TF25**
Rated thermal current	Ith	A	-	12	20	-	-	-	16	20	25
General use rating		Vac	-	300	300	-	-	-	600	600	600
AC rated operational power	3x240V	HP	-	2	5	-	-	-	2	5	7,5
	3x480V	HP	-	-	-	-	-	-	5	10	12
	3x600V	HP	-	-	-	-	-	-	5	10	15

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series TP|T|TB|TF

Code: 1 2 3 4 5 6 7 | 8 9 10 11 12 | 13 | 14 15 16

Series | Amp

- TP-0010
- T-00012
- T-00020
- TB-0020
- TB-0025
- TB-0032
- TF-0012
- TF-0016
- TF-0025

Diagram

Posit. 1 0 2 — Chambers — Poles

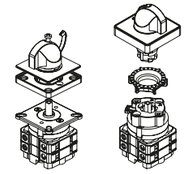
Poles	Chambers	1 0 2
1	1	00400
2	2	00401
3	3	00402
4	4	00403

Posit. 1 2 — Chambers — Poles

Poles	Chambers	1 2
1	1	00500
2	2	00501
3	3	00502
4	4	00503

Type

Model or fixing



- E — with screws
- C — Ø 22

Plate and handle



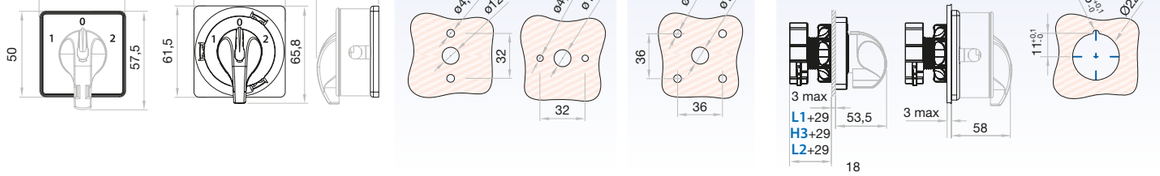
- 1N1 — Arrow handle
- 6N1 — Padlockable handle "mini" (E type only)
- CN0 — Padlockable handle open view

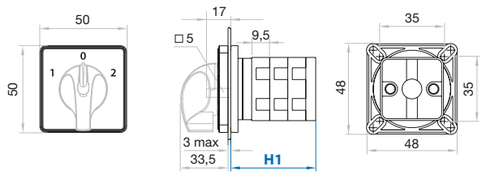
For red/yellow handle, please consult

Dimensions (mm)

E — Frontal fixing with 2 screws: TB, T - TF — Frontal fixing with 4 screws: T - TB - TF - TP

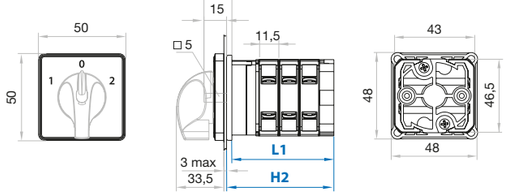
C — Frontal fixing Ø22: T - TB - TF





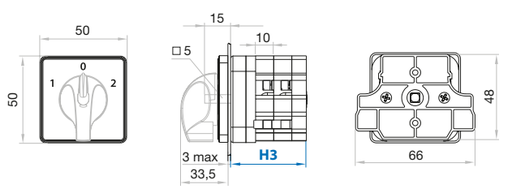
TP series

Chambers	1□	2□	3□	4□
H1	26,8	36,3	45,8	55,3



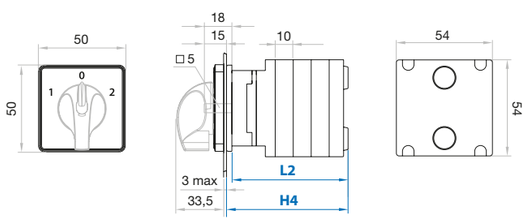
T series

Chambers	1□	2□	3□	4□
L1	34,5	46	57,5	69
H2	37,5	49	60,5	72



TB series

Chambers	1□	2□	3□	4□
H3	31,5	41,5	51,5	61,5



TF series

Chambers	1□	2□	3□	4□
L2	45	55	65	75
H4	48	58	68	78

›› For more information of these series; accessories see pages 24-31 | diagrams see pages 32-43

CAM SWITCHES I-O-II · I-II

series T

T
Door mounting changeover
1P up to 4P

Size 1
A 16|25|32|40



T

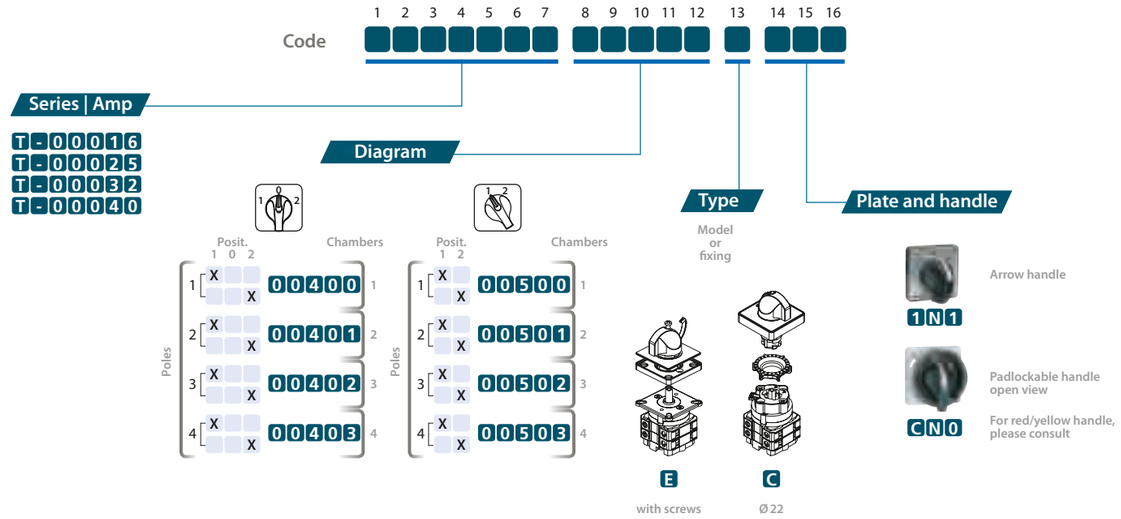
Technical information

consult consult consult consult

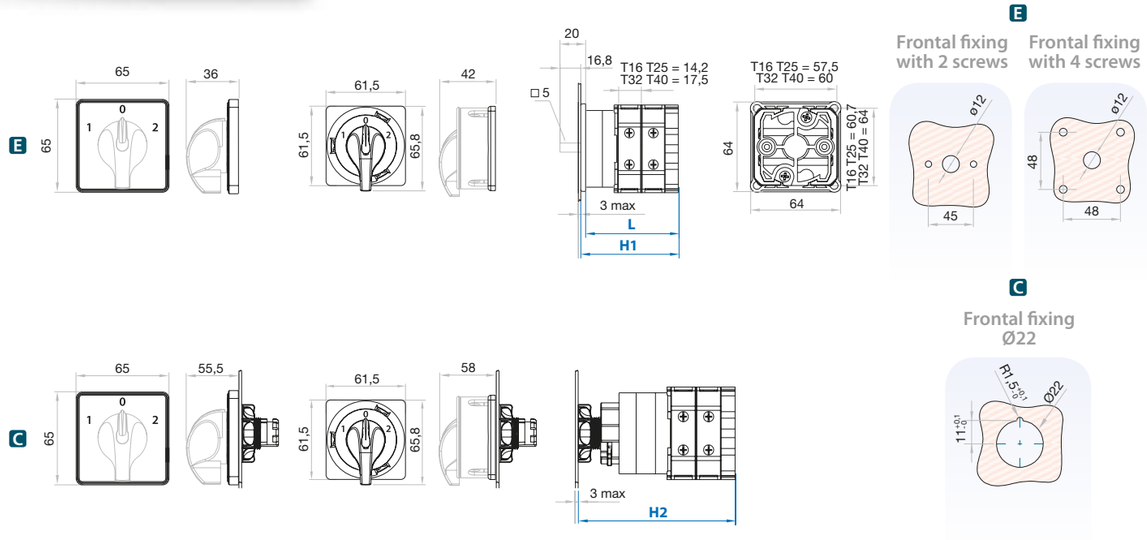
According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				T16	T25	T32	T40
Rated thermal current	Ith		A	25	32	40	50
Rated insulation voltage	Ui		V	690	690	690	690
Rated impulse withstand voltage	Uimp		kV	6	6	8	8
AC rated operational current	Ie	Ue 415V AC21A	A	25	32	40	50
		Ue 415V AC22A	A	25	32	40	50
		Ue 415V AC23A	A	16	20	25	32
Rated conditional short-circuit current			kA	10	10	10	10
Rated maximum current	gL-gG		A	32	32	50	50
Rated breaking capacity	400V; cos φ=0,45		A	160	200	256	320
Rated short-time withstand current (1 sec)			A	500	650	800	800
Mechanical durability (according to the standards, for other values please consult)				10000	10000	10000	10000
Rigid copper conductor			mm²	2x6	2x6	2x10	2x10
Flexible copper conductor			mm²	2x4	2x4	2x6	2x6
According to UL508 - CAN / CSA C22.2 Nº 14				**T16**	**T25**	**T32**	**T40**
Rated thermal current	Ith		A	16	25	32	40
General use rating			Vac	600	600	600	600
AC rated operational power		3x240V	HP	5	7,5	10	15
		3x480V	HP	10	15	20	25
		3x600V	HP	10	15	20	25

Normal service conditions:
Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.
Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.



Dimensions (mm)



T series	Chambers	1□	2□	3□	4□
T16 T25	L	46,4	60,6	74,8	89
	H1	49,6	63,8	78	92,2
	H2	75,5	89,5	103,7	117,9
T32 T40	L	49,8	67,3	84,8	102,3
	H1	53	70,5	88	105,5
	H2	78,8	96,3	113,8	131,3

» For more information of this serie; accessories see pages 24-31 | diagrams see pages 32-43

series T

T
Door mounting changeover

1P up to 4P

Size 2

A 50|63|80|100|125|175

* Except T175



T

Technical information

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				**T50**	**T63**	**T80**	**T100**	**T125**	**T175**
Rated thermal current	Ith		A	63	80	80	125	125	200
Rated insulation voltage	Ui		V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp		kV	8	8	8	8	8	8
AC rated operational current	Ie	Ue 415V AC21A	A	63	80	80	125	125	200
		Ue 415V AC22A	A	63	80	80	115	115	200
		Ue 415V AC23A	A	63	63	63	100	100	200
Rated conditional short-circuit current			kA	15	15	15	15	15	15*(2)
Rated maximum current	gL-gG		A	80	80	80	125	125	160
Rated breaking capacity	400V; cos φ=0,45		A	504	504	504	640	640	1600
Rated short-time withstand current (1 sec)			A	1600	1600	1600	2500	2500	3500
Mechanical durability (according to the standards, for other values please consult)				10000	10000	10000	8000	8000	8000
Rigid copper conductor			mm²	16/25*(1)	16/25*(1)	16/25*(1)	35/50*(1)	35/50*(1)	95
Flexible copper conductor			mm²	10/16*(1)	10/16*(1)	10/16*(1)	16/35*(1)	16/35*(1)	95
According to UL508 - CAN / CSA C22.2 Nº 14				**T50**	**T63**	**T80**	**T100**	**T125**	**T175**
Rated thermal current	Ith		A	63	63	63	100	100	200
General use rating			Vac	600	600	600	600	600	600
AC rated operational power		3x240V	HP	20	20	20	30	30	25
		3x480V	HP	40	40	40	50	50	60
		3x600V	HP	40	40	40	50	50	50

*(1) With terminals for connection

*(2) Mounting without connection terminals or terminals + phase barriers DT-90025

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

series T

Code: 1 2 3 4 5 6 7 | 8 9 10 11 12 | 13 | 14 15 16

Series | Amp

T-00050
T-00063
T-00080
T-00100
T-00125
T-00175

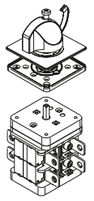
Diagram

Posit. 1 0 2	Chambers	Poles
X X	00400	1
X X	00401	2
X X	00402	3
X X	00403	4

Posit. 1 2	Chambers	Poles
X X	00500	1
X X	00501	2
X X	00502	3
X X	00503	4

Type

Model or fixing



E

Plate and handle



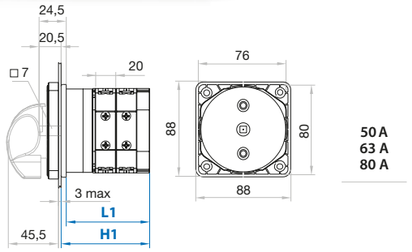
1N1 — Arrow handle



CN0 — Padlockable handle open view

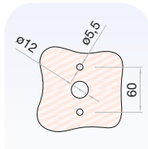
For red/yellow handle, please consult

Dimensions (mm)

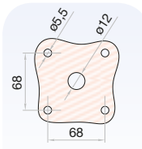


50 A
63 A
80 A

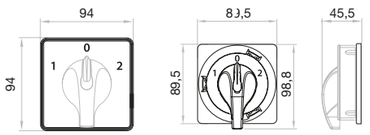
Frontal fixing with 2 screws



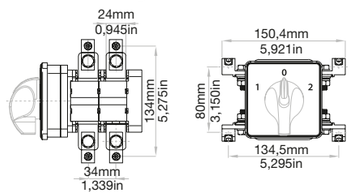
Frontal fixing with 4 screws



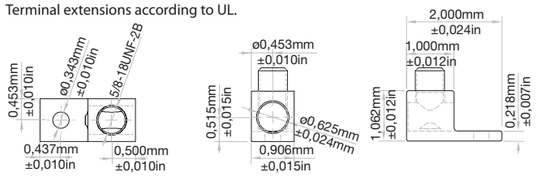
T series	Chambers	1□	2□	3□	4□
T50 T63 T80	L1	58,5	78,5	98,5	118,5
	H1	62,5	82,5	102,5	122,5



UL Terminal Lug

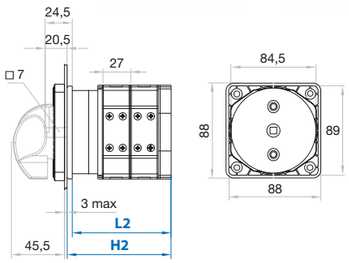


Terminal extensions according to UL.



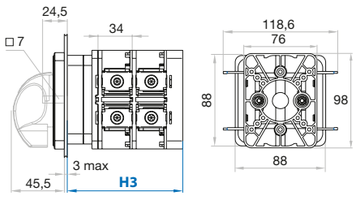
Wire size	Wires per lug	Wire type	Kit reference
120 mm² / 250 kcmil	1	Cu	DS-TLU21 (2 pieces)

Note: The hardware needed to complete the wiring is supplied as standard.



100 A
125 A

T series	Chambers	1□	2□	3□	4□
T100 T125	L2	67	94	121	148
	H2	71	98	125	152



175 A

T series	Chambers	1□	2□	3□	4□
T175	H3	80,8	114,8	148,8	182,8

›› For more information of these series; accessories see pages 24-31 | diagrams see pages 32-43

series T

T
Door mounting changeover

1P up to 4P

Size 3

A* 200|250|315

* Under request also available in 400A, 500A, 630A, 800A, consult please



T

Technical information

According to IEC 60947-3
UL508 - CAN/CSA C22.2 Nº 14

According to IEC 60947-3				T200	T250	T315
Rated thermal current	Ith		A	200	250	315
Rated insulation voltage	Ui		V	690	690	690
Rated impulse withstand voltage	Uimp		kV	8	8	8
AC rated operational current	Ie	Ue 415V AC21A	A	200	250	315
		Ue 415V AC22A	A	200	250	315
		Ue 415V AC23A	A	200	200	200
Rated conditional short-circuit current			kA	15	15	15
Rated maximum current	gL-gG		A	200	250	315
Rated breaking capacity	400V; cos φ=0,45		A	1450	2000	2240
Rated short-time withstand current (1 sec)			A	4400	4400	4400
Mechanical durability (according to the standards, for other values please consult)				8000	8000	8000
Rigid copper conductor			mm^2	95	120	185
Flexible copper conductor			mm^2	95	120	185
According to UL508 - CAN / CSA C22.2 Nº 14				**T200**	**T250**	**T315**
Rated thermal current	Ith		A	200	200	200
General use rating			Vac	600	600	600
AC rated operational power		3x240V	HP	60	60	60
		3x480V	HP	75	75	75
		3x600V	HP	60	60	60

Normal service conditions:

Ambient air temperature (ºC): -5º...+40º. Maximum altitude: 2.000 m. Maximum humidity: 90%. Pollution degree: 3 (standard for industrial applications). Rated frecuency at AC utilization categories: 50/60 Hz.

Rated duties at utilization categories AC21A, AC22A and AC23A: Continuing (8 hours); uninterrupted.

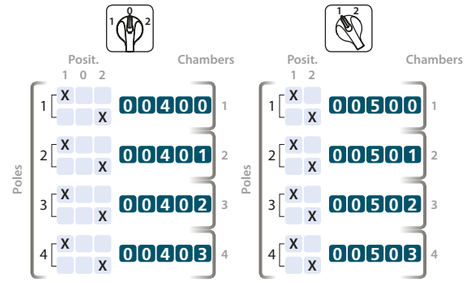
series T

Code 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Series | Amp

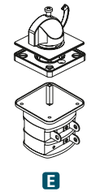
T-0020 0
T-0025 0
T-0031 5

Diagram



Type

Model or fixing



E

Plate and handle



1N1 Arrow handle

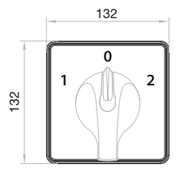


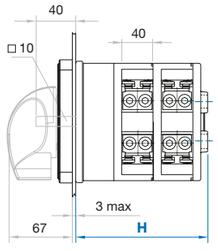
NN1 Padlockable handle

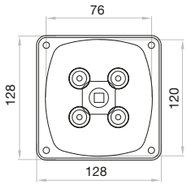
For red/yellow handle, please consult

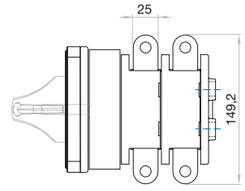
Dimensions (mm)

Frontal fixing with 4 screws

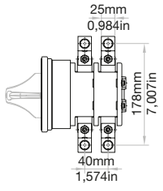


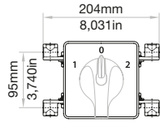




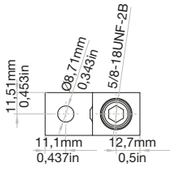


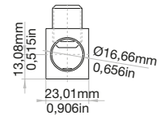
UL Terminal Lug

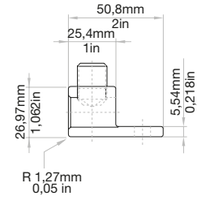




Terminal extensions according to UL.







T series	Chambers	1□	2□	3□	4□
T200 T250 T315	H	95	135	175	215

Wire size	Wires per lug	Wire type	Kit reference
150 mm^2 / 300 kcmil	1	Cu/Al	DS-TL01 (2 piezas)

» For more information of this serie; accessories see pages 24-31 | diagrams see pages 32-43

14 15 16 **D100** 4



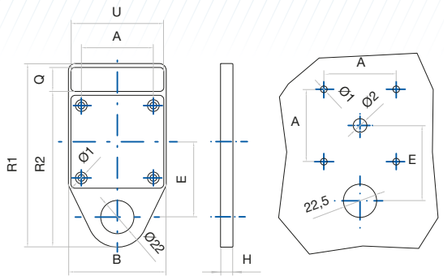
Light with white neon lamp
D100

14 15 16 **D101** 5



Light with white neon lamp and inscription plate
D101

D101 Inscription plate included with text as requested.



Supply	Size	For series	Code D100	Code D101
Spare or incorporated in the cam switch	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40	DT-10011	DT-10111
	2	T50-T63-T100-T175	DT-10021	DT-10121
	3	T200	DT-10031	DT-10131

Series	B	R1	R2	H	E	U	Q	A	Ø1	Ø2
T12 T20 T16 T25 T32 T40 TB20 TB32 TF12 TF25	65	123	102	6,5	50	61	16	48	4,5	9
T50 T63 T100 T175	94	160	137	7,5	70	90	19	68	5,5	12
T200 T800	132	198	173	10	85	126	21	108	6,5	16

13 14 15 16 **D201** E

13 14 15 16 **D200** D



Tandem drive operation*
D200 with two colums
D201 with three colums

13 14 15 16 **D301** G

13 14 15 16 **D300** F



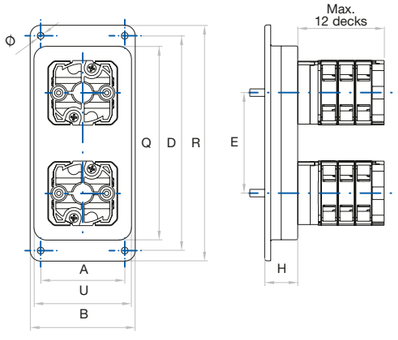
Blocking operation*
D300 with two colums
D301 with three colums

D200-201 Operation with one handle only and up to 48 contacts in two columns, or 72 contacts in three columns according to the electrical diagram.

D300-301 For switching up to 24 positions with two handles and two columns, or 36 positions with three handles and three columns according to the electrical diagram.

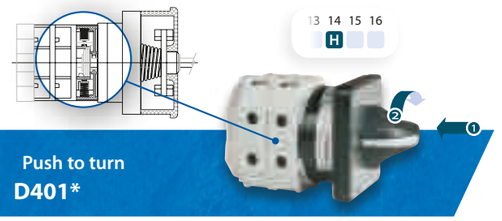
Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TF12-TF16-TF25 T16-T25-T32-T40
	2	T50-T63-T100
	3	T175- T200

* T Series (without IP20 protections).



Series	Tandem	Blocking	A	B	D	R	U	Q	E	H Tandem	H Blocking	Ø
T12 T20 T16 T25 T32 T40 TF12 TF16 TF25	D200 D201	D300 D301	56	70	143 210	157 224	64	128 195	67	22	22	4,5
T50 T63 T100	D200 D201	D300 D301	90	110	210 306	230 326	95	191 288	97	15	21	6,5
T175 T200	D200 D201	D300 D301	152	173	290 426	310 447	132	270 407	139	19	25	

13 14 15 16 **H**



Push to turn
D401*

Before operating the handle must be pressed to unlock, simultaneously an auxiliary contact is open or closed (e.g. for switching without load).

Supply	Size	For series
Only incorporated in the cam switch	0	T12-T20-TB20-TB25-TB32
	1	T16-T25-T32-T40

* for arrow handle with indicator, other combinations with special scheme

13 14 15 16 **3**



Dual voltage locking device
D420

The screw position, at left or at right, prevents the rotation of the handle.

This device always includes a mounting plate size 1.

Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40



Shaft extension

To extend the shaft length to the depth required.

To be complemented with the corresponding D501 device.

Supply	Size	Length (mm)	For series	Code
Spare or incorporated in the cam switch	0-1	200	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40	DT-EPR11
	5 □5	500		DT-EPR12
	2	200	T50-T63 T100-T175	DT-EPR21
	7 □7	500		DT-EPR22
Only incorporated in the cam switch	3	upon request	T200	-

*(L) Specify total length when ordering

13 14 15 16 **I**



One way rotation
D405

This device allows to rotate the handle just in one way.

Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40



Clutch device with door interlock
D501

With door interlock in ON position (switch 0-1 to 90°) or according to the electrical diagram.

1 Size 0 with padlockable handle included.

2 Size 0 - 1 - 2 - 3.

	Supply		Size	For series	Code
1	Spare	D501 + 704 90°	0	T12-T20 TB20-TB25-TB32 TF12-TF16-TF25	DT-75401N07
					DT-75401R01
	Incorporated in the cam switch				12 13 14 15 16 F 6 N 1
					12 13 14 15 16 F 6 R D
2	Spare	90°	0	T12-T20 TB20-TB25-TB32 TF12-TF16-TF25	DT-50102
			1	T16-T25-T32-T40	DT-50101
			2	T50-T63-T100-T175	DT-50121
			3	T200	DT-50131
		60°	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40	DT-50104
			2	T50-T63-T100-T175	DT-50124
			3	T200	DT-50134
		45°	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40	DT-50103
			2	T50-T63-T100-T175	DT-50123
			3	T200	DT-50133
	Incorporated in the cam switch				12 13 14 15 16 F

12 13 14 15 16
B



Coaxial coupling
D600

Simultaneous operation of two or more cam switches of different size (T series) coupled together with only one handle.

D701 Keya 12 13 14 15 16 Z 4 1 B



Key handle device
D701

D701 Supplied as standard with ø22mm fixing; ø30 mm also available under request.

The key can be locked and removed on request at 60°, 90° or 180°.

Assembly limitation:
4 contacts actuating simultaneously.

D711 Supplied as standard with screw mounting and different types of keys that can be locked and removed at 90°.

Assembly limitation:
4 contacts actuating simultaneously.

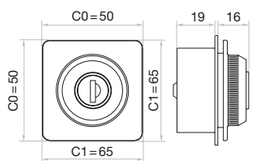
D711 Keya 13 14 15 16 M 1 1



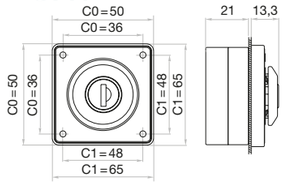
Key handle device
D711

Supply	Size	For series
Only incorporated in the cam switch	0 - 1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40

D701



D711



14 15 16
D702 6



Key lock device
D702

14 15 16
D703 7

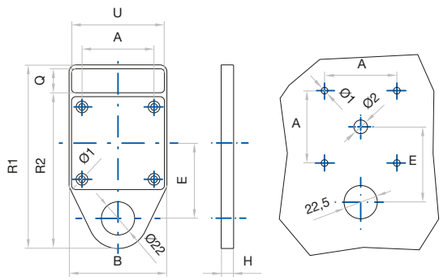


Key lock device with inscription plate
D703

D702 The key lok device allows the adaptation of 1 or 2 auxiliary contacts (1NO + 1NC) operated by turning the key (like signalling or control contacts).

D703 Inscription plate included with text as requested.

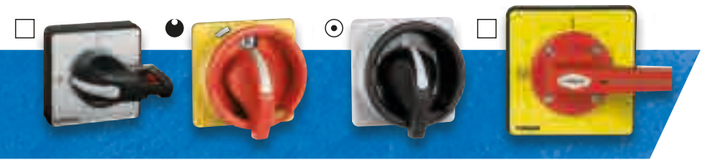
Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40
	2	T50-T63 T100-T175
	3	T200



✻ Auxiliary contacts 1NO + 1NC

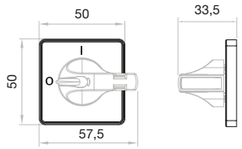


Series	B	R1	R2	H	E	U	Q	A	Ø1	Ø2
T12 T20 T16 T25 T32 T40 TB20 TB32 TF12 TF25	65	123	102	6,5	50	61	16	48	4,5	9
T50 T63 T100 T175	94	160	137	7,5	70	90	19	68	5,5	12
T200 T800	132	198	173	10	85	126	21	108	6,5	16



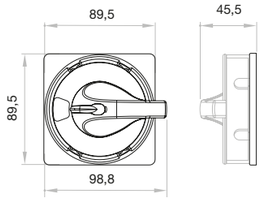
Padlockable handle
D704

- Allows the blockade of the handle in OFF position using padlock.
- Available in red colour on yellow background 15 R or black colour on grey background 15 N
- According to the machinery directive and the european standards, red & yellow handles 15 R are intended to be used only in ON - OFF safety switches.
- For switches O-I specify version 15 R or 15 N, for the rest will be supplied 15 N version (padlocks not included).

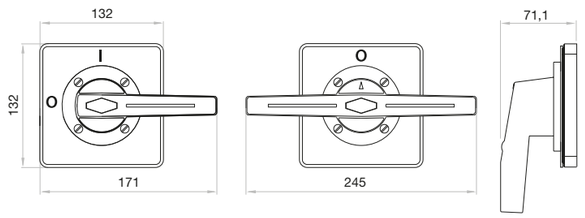


Size 0

Size 0-1



Size 2



Size 3

		Supply	Size	For series	Code
□	Square plate	Spare	0	T12-T20 TB20-TB25-TB32 TF12-TF16-TF25 TP10	DT-70401N07 DT-70401R01*
		Incorporated in the cam switch			13 14 15 16 6 N 1 13 14 15 16 6 R D
●	Closed view	Spare	0 - 1	T12-T20 TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40	DT-7041CN02 DT-7041CR02
		Incorporated in the cam switch			13 14 15 16 7 N 0 13 14 15 16 7 R 0
⊙	Open view	Spare			DT-7041AN02 DT-7041AR02
		Incorporated in the cam switch			13 14 15 16 C N 0 13 14 15 16 C R 0
●	Closed view	Spare	2	T50-T63 T100-T175	DT-7042CN02 DT-7042CR02
		Incorporated in the cam switch			13 14 15 16 7 N 0 13 14 15 16 7 R 0
⊙	Open view	Spare			DT-7042AN02 DT-7042AR02
		Incorporated in the cam switch			13 14 15 16 C N 0 13 14 15 16 C R 0
□	Square plate (single handle)	Spare	3	T200	DT-70431 DT-70433*
		Incorporated in the cam switch			13 14 15 16 N N 1 13 14 15 16 N R D
□	Square plate (double handle)	Spare			DT-70432 DT-70434*
		Incorporated in the cam switch			13 14 15 16 O N 1 13 14 15 16 O R D

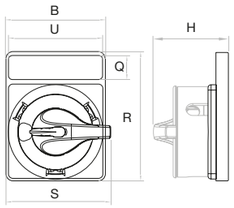
* Yellow plate with 0 - 1 positions included



Padlockable handle with inscription plate
D705

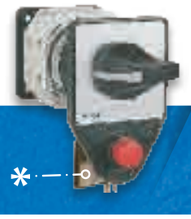
- Handle can be blocked in OFF position using padlocks.
- Available in red colour on yellow background 15 R or black colour on grey background 15 N
- Inscription plate included with text as requested.
- According to the machinery directive and the european standards, red & yellow handles 15 R are intended to be used only in ON - OFF safety switches.
- For switches O-I specify version 15 R or 15 N, for the rest will be supplied 15 N version (padlocks not included).

	Supply	Size	For series	Code
Closed view	Only incorporated in the cam switch	0 - 1	T12-T20 TB20-TB25-TB32 TF12-TF16-TF25 T16-T25 T32-T40	13 14 15 16 7 N 2
				13 14 15 16 7 R 2
Open view				13 14 15 16 C N 2
				13 14 15 16 C R 2
Closed view		2	T50-T63 T100-T175	13 14 15 16 7 N 2
				13 14 15 16 7 R 2
Open view				13 14 15 16 C N 2
				13 14 15 16 C R 2
Square plate (single handle)		3	T200	13 14 15 16 N N 2
				13 14 15 16 N R 2
Square plate (double handle)				13 14 15 16 O N 2
				13 14 15 16 O R 2



Size	B	H	Q	R	S	U
0-1	6 5	48,5	16	85	65,8	61
2	94	53,5	19	117	98,8	90
3	132	71,5	21	157	171 245	126

14 15 16 D708 8



Push button blocking system
D708

14 15 16 D709 9



Push button blocking system with inscription plate
D709

D708 Available in two versions (specify when ordering):

1) The handle is blocked in all positions.
2) The handle is blocked only in OFF position.

The switch in version 2 can be used for emergency operation since the handle is not blocked in ON position.

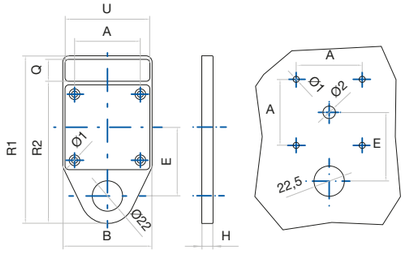
Both versions admit the adaptation of 1 and 2 changeover auxiliary contacts (1NO+1NC), which are activated when the button is pressed and it can be used as signalling and combined operation with contactors.

D709 Inscription plate included with text as requested.

Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TB20-TB25 TB32-TF12-TF16-TF25 T16-T25-T32-T40
	2	T50-T63-T100-T175
	3	T200

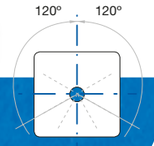


✻ Auxiliary contacts 1NO + 1NC 2NO + 2NC



Series	B	R1	R2	H	E	U	Q	A	Ø1	Ø2
T12 T20 T16 T25 T32 T40 TB20 TB32 TF12 TF25	65	123	102	6,5	50	61	16	48	4,5	9
T50 T63 T100 T175	94	160	137	7,5	70	90	19	68	5,5	12
T200 T800	132	198	173	10	85	126	21	108	6,5	16

13 14 15 16 K



Return from one or two ways up to 120°
D802

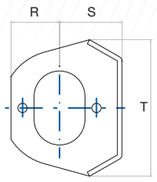
Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20-TB20-TB25-TB32 TF12-TF16-TF25 T16-T25-T32-T40

14 15 16 E



Terminal shrouds
D900

Sizes 0-1 and 2 are supplied as standard with removable protected terminals (IP20).

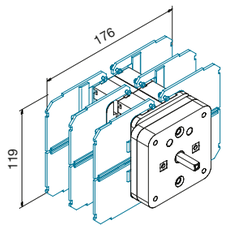


Series	R	S	S
T12 T20	21	27	59
T16 T25 T32 T40	28	34	72
T50 T63 T100	15	52	104
T200	40	155	130

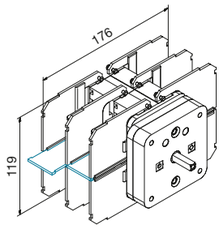
Supply	Size	For series	Code
Spare	0	T12-T20	DT-90002
	1	T16-T25-T32-T40	DT-90012
	2	T50-T63	DT-90022
		T100	DT-90024
	3*	T200	DT-90031
		T400	DT-90032

* Max. 2 chambers

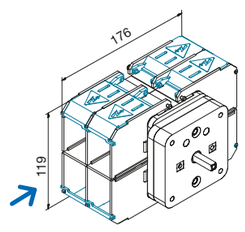
T175 terminal shrouds and phase barriers
D900



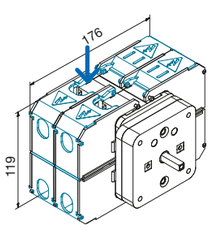
Phase barriers - Vertical
Code **DT-90025** (4 units)



Phase barriers - Horizontal
Code **DT-90026** (2 units)



Terminal shrouds (L)
Code **DT-90027** (4 units)



Terminal shrouds (S)
Code **DT-90028** (4 units)



12 13 14 15 16 A

DIN rail mounting device
D904



Front plates for distribution boards
D905

D904 Included as standard in D-F-G fixing types for TB-TF and T175 series.

D905 DIN rail mounting with frontal plate and handle for distribution boards.

	Supply	Size	For series	Code
D904	Spare or incorporated in the cam switch	0-1	T12-T20-T16 T25-T32-T40	DT-90401
		2	T50-T63-T100-T175	DT-90421
D905	Only incorporated in the cam switch	0	T12-T20 TF12-TF16-TF25	12 13 14 15 16 H 8 N 0

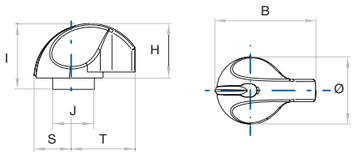


Handles (plastic)

- 14 1 Arrow handle with indicator.
- 14 2 Ball lever handle for size 1 and 3.
- 14 B Double handle for cam switches size 3.

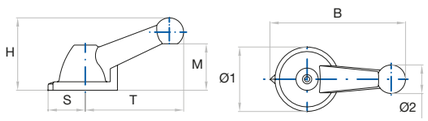
	Supply	Size		Code
Arrow handle with indicator	Spare or incorporated in the cam switch	0	●	40110030
			●	40110031
		1	●	40111034
			●	40111035
		2	●	40112028
			●	40112029
		3	●	40113023
			●	40113024
Ball lever	Spare or incorporated in the cam switch	1	●	40111002
			●	40111003
		3	●	40113002
			●	40113001
Double handle	Spare or incorporated in the cam switch	3	●	40113008
			●	40113007

Arrow hadle with indicator (sizes 0 - 1 - 2 - 3)



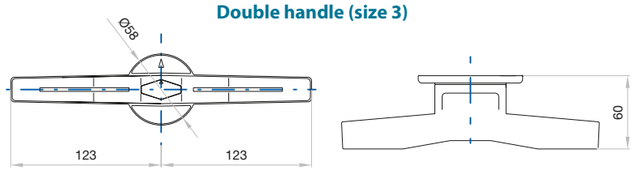
Size	B	H	I	J	S	T	Ø
0	39,3	26,8	30,5	14,5	13,5	24	27
1	50	28	33	14,5	18	32	36
2	66,5	36,5	-	-	22,5	44	45
3	100	54	-	-	38	62	76

Ball lever (sizes 1 - 3)



Size	B	H	S	T	M	Ø1	Ø2
1	89	48	24	65	32,5	37	18
3	151,5	81	41,5	110	52	72	32

Double handle (size 3)

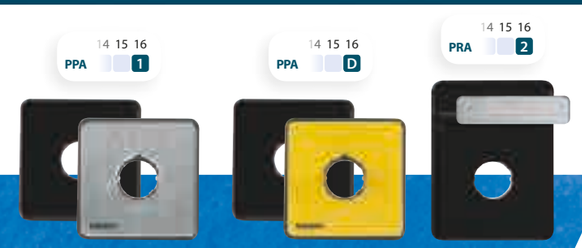




Handles (metal & plastic)

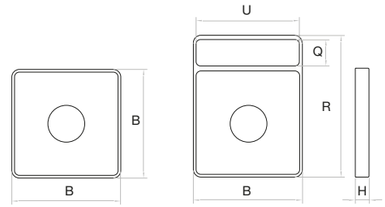


	Supply	Size		Code
Metal lever & plastic	Spare or incorporated in the cam switch	0	L=90mm	9-KN100146
			L=108mm	9-KN100145



Neutral name plates and neutral inscription plates

- Plastic indicating plate on square base with black engraving
- Also in yellow colour available (emergency handle).
- Different engravings are available under request.
- PPA model with inscription plate.



PPA **PRA**

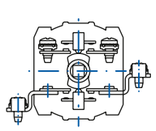
Size	B	R	H	U	Q
0	50	65	6,5	47	11
1	65	85	6,5	61	16
2	94	117	7	90	19
3	132	157	10	126	21

	Supply	Size	Code		
			○	○	○
PPA (neutral plate)	Spare or incorporated in the cam switch	0	40140045	40140061	40110028
		1	40141039	40141053	40111032
		2	40142020	40142028	40142025
		3	40143020	40143028	40143084

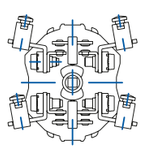
	Supply	Size	Code		
			▭		○
PRA (neutral plate)	Spare or incorporated in the cam switch	0	40140203		40110029
		1	40141188		40111033
		2	40142095		40112026
		3	40143088		40143086

Terminal extensions CP

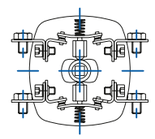
Supply	Size	For series
Only incorporated in the cam switch	0	T12-T20
	1	T16-T25-T32-T40
	2	T50-T63-T100



T12-T16-T20-T25



T32-T40-T63-T100



T200 standard connection as per drawing

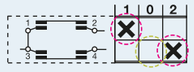
Fast-on terminals 6,25 x 0,8



Supply	Size	For series
Only incorporated in the cam switch	0-1	T12-T20 T16-T25-T32-T40

TP | T | TB | TF
Standard diagrams

For many switching operations that can be resolved using cam switches, we have a number of standard schemes applicable to the most common applications in electrical installations, equipment, machinery, etc. If you do not find what you are looking for in this selection, or have a special switching requirement, you can use the blank diagrams form on the next page and send it to our sales department. The descriptive logic representing and interpreting the circuits are explained below.

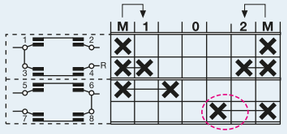


It represents "closed contact".

It represents "opened contact".

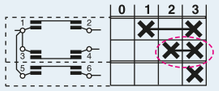
The contact 1/2 is closed in position 1 and opened in positions 0 & 2.

The contact 3/4 is closed in position 2 and opened in positions 0 & 1.



They represent "late break contact" or "early-make contact" in relation to others.

The contacts 5/6 & 7/8 close before the contacts 3/4 & 1/2 and they will also open after these contacts.

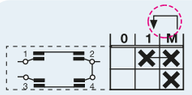


It represents closed contact "without interruption".

The contact 1/2 closes in position 1, and remains closed in position 2 & 3.

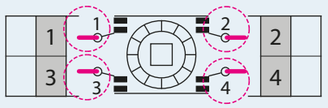
The contact 3/4 closes in position 2 and remains closed in position 3.

When passing from one position to another there is no contact interruption in any cases.

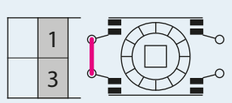


It represent "spring return" to previous position.

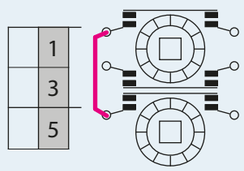
The M position is not fixed and it will return to position 1 when the handle is released.



Connection point.

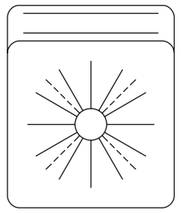


Vertical bridging link.



Horizontal bridging link.

Inscription plate
Name plate



ORDER SHEET FOR NON-STANDARD CAM SWITCHES 10 TO 315 AMP.

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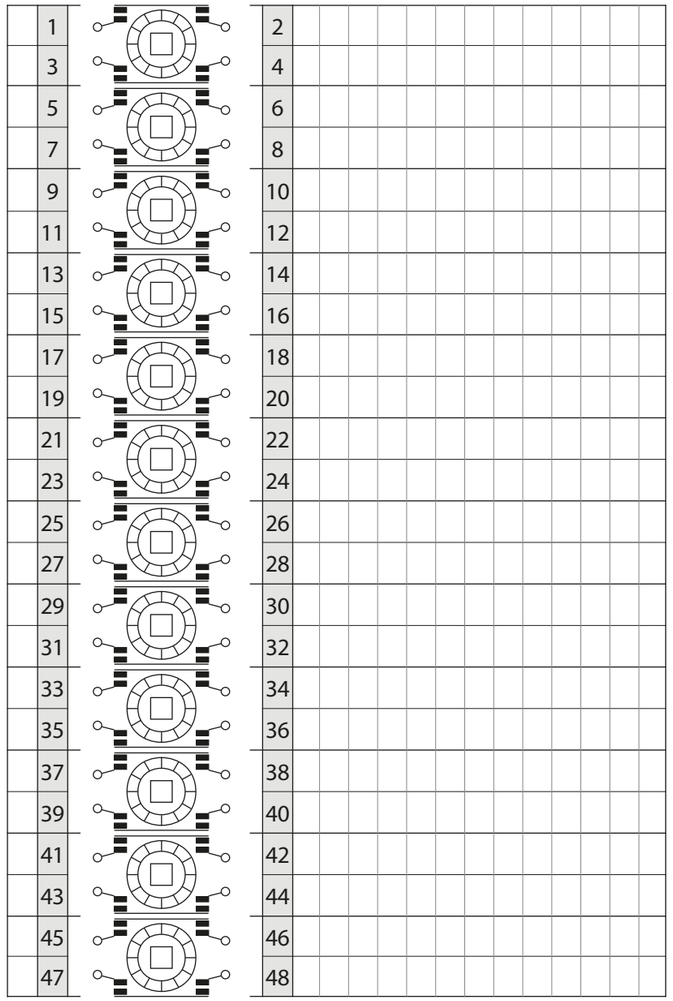
Series

Code

Contact closed
Closed contact without interruption
Late break contact
Early-make contact
Return from 30º

Rev.

Number of switch positions



Connections

1	5	9	13	17	21	25	29	33	37	41	45
3	7	11	15	19	23	27	31	35	39	43	47
46	42	38	34	30	26	22	18	14	10	6	2
48	44	40	36	32	28	24	20	16	12	8	4

T series

0	12	20				
1	16	25	32	40		
2	50	63	80	100	125	175
3	200	250	315			

TB series

20	25	32	40

TF series

12	16	25	32	40

TP series

10

Type

E | C | Z | D | G | H | F

Handle

Indicator arrow | Black
Ball lever handle | Red
Double handle | Red
Key | Yellow

Shaft extension

mm

Nameplate

Aluminium colour | Normal
Yellow colour | With inscription
Switching angle 30º -45º -60º -90º

Materials

Chambers

Notes

Validity

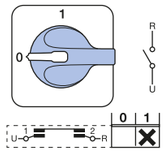
Date

Signature

Special devices

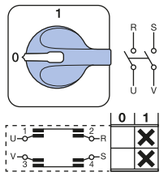
series TP|TTB|TF

On-Off switches



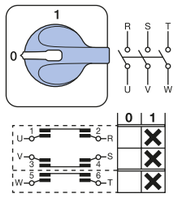
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 1 0

010
1 pole
1 chamber



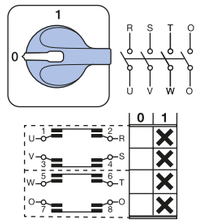
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 1 1

011
2 poles
1 chamber



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 1 2

012
3 poles
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 1 3

013
4 poles
2 chambers

010/5	5 poles	**010/10**	10 poles	**010/15**	15 poles	**010/20**	20 poles
010/6	6 poles	**010/11**	11 poles	**010/16**	16 poles	**010/21**	21 poles
010/7	7 poles	**010/12**	12 poles	**010/17**	17 poles	**010/22**	22 poles
010/8	8 poles	**010/13**	13 poles	**010/18**	18 poles	**010/23**	23 poles
010/9	9 poles	**010/14**	14 poles	**010/19**	19 poles	**010/24**	24 poles

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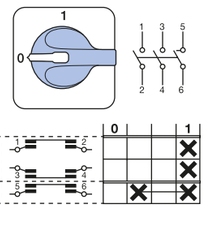
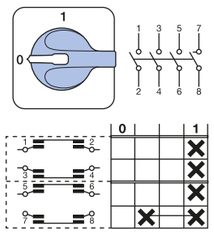
On-Off switches with contacts leading when making



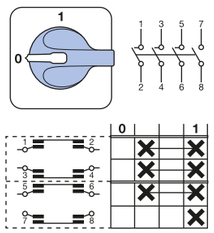
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 2 0

020
3 poles 1 preclosed pole
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 2 1

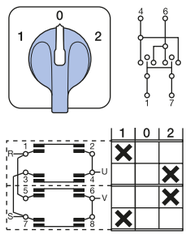
021
4 poles 1 preclosed pole
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 0 2 2

022
4 poles 3 preclosed poles
2 chambers

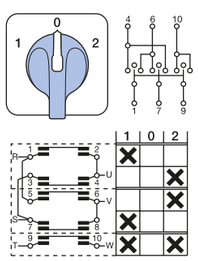
Reversing switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 1 0 1

101
2 poles
2 chambers

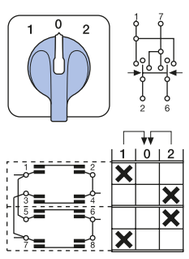
Reversing switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 1 0 2

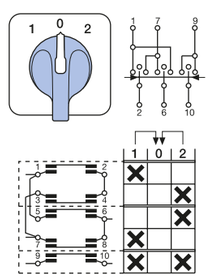
102
3 poles
3 chambers

Reversing switches with spring return



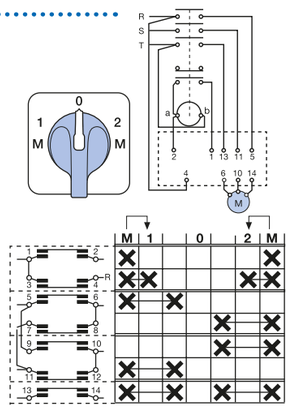
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 1 1 1

111
2 poles
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 1 1 2

112
3 poles
3 chambers

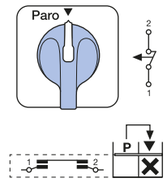


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 1 1 3

113
3 poles for use with reserving contactors
4 chambers

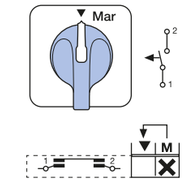
series TP|TTB|TF

Control switches with spring return



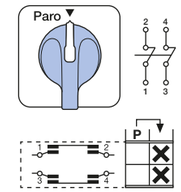
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 1

201
Start switch 1 pole
1 chamber



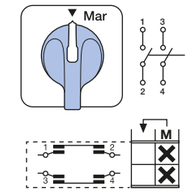
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 2

202
Stop switch 1 pole
1 chamber



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 3

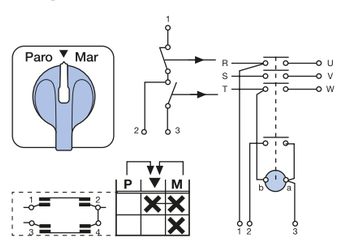
203
Start switch 2 poles
1 chamber



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 4

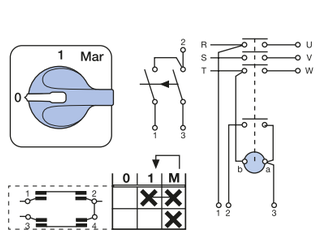
204
Stop switch 2 poles
1 chamber

Stop-Start switches



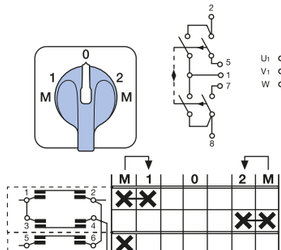
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 5

205
With contactor
1 chamber



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 6

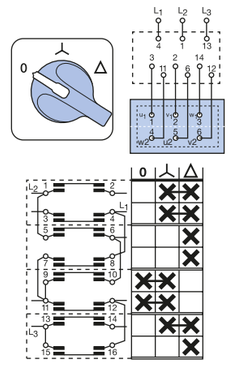
206
With contactor and spring return
1 chamber



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 2 0 7

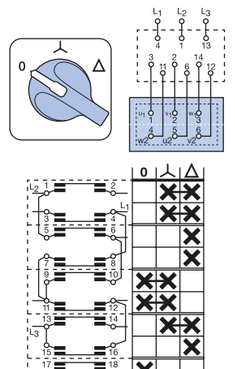
207
With spring return to run for 2 units
2 chambers

Star delta switches



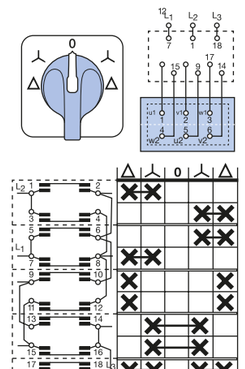
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 3 0 0

300
Normal type
4 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 3 0 1

301
Auxiliary contact closed in "0"
5 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 3 0 2

302
Reversing
5 chambers

303
Rotary
0 - λ - Δ - 0 - λ - Δ - 0
5 chambers

304
Position λ return to 0
0 - λ - Δ
4 chambers

305
Reversing. Return from λ to 0
Δ - λ - 0 - λ - Δ
5 chambers

308
Use with contactor
0 - λ - Δ
4 chambers

309
Reversing for use with contacto
Δ - λ - 0 - λ - Δ
7 chambers

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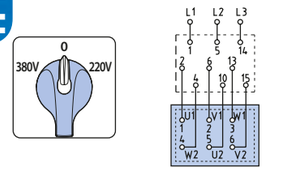
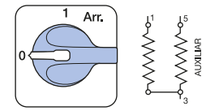
Star delta switches

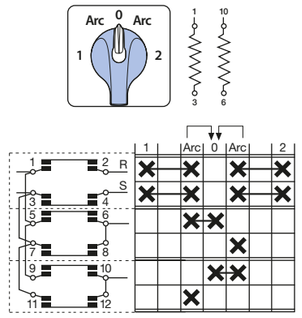


310
Selector λ - Δ
380 - 0 - 220
4 chambers

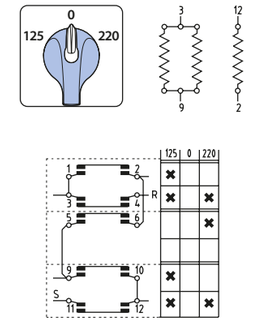
Split phase starting switches



315
Start return to 1
2 chambers

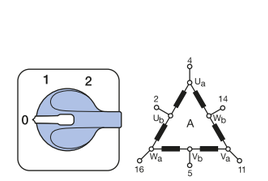


316
Reversing type of T315
1 - ARR - 0 - ARR - 2
3 chambers

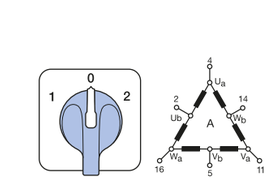


317
Start single phase 2 voltages
3 chambers

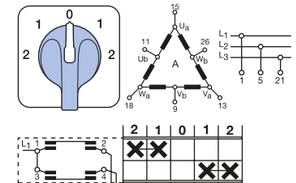
Dahlander multi-step switches



330
Dahlander 0 - Δ_A - $\lambda\,\lambda_A$
4 chambers



331
Dahlander Δ_A - 0 - $\lambda\,\lambda_A$
4 chambers



332
Reversing type of T330
7 chambers

333
Dahlander 0 - Δ_A - $\lambda\,\lambda_A$ - 0 - Δ_A - $\lambda\,\lambda_A$ - 0
0 - 1 - 2 - 0 - 1 - 2
5 chambers

334
For use with contactor
0 - 1 - 2
5 chambers

335
Selector Dahlander
0 - λ - Δ_A - $\lambda\,\lambda_A$
6 chambers

336
Reversing Dahlander
$\lambda\,\lambda_A$ - Δ_A - λ - 0 - λ - Δ_A - $\lambda\,\lambda_A$
2 - 1 - λ - 0 - λ - 1 - 2
8 chambers

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Separate winding to speed

340
0 - λ_A - Δ - λ_B
0 - λ - 1 - 2
6 chambers

341
0 - Δ_A - λ_B
0 - 1 - 2
4 chambers

342
0 - A - B en λ or Δ
0 - 1 - 2
3 chambers

343
Reversing del 342
2 - 1 - 0 - 1 - 2
5 chambers

344
Δ_B - λ_B - 0 - λ_A - Δ_A
1 - λ - 0 - λ - 2
8 chambers

350
0 - λ_A - Δ_B - $\lambda\,\lambda_B$
0 - 1 - 2 - 3
6 chambers

351
Reversing type of T350
3 - 2 - 1 - 0 - 1 - 2 - 3
9 chambers

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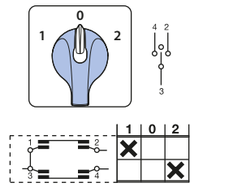
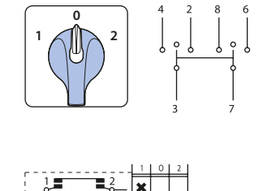
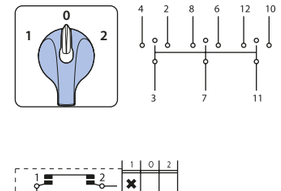
Changeover switches with center "Off"



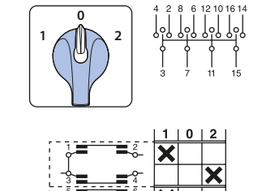
400
1 pole
1 chamber



401
2 poles
2 chambers



402
3 poles
3 chambers



403
4 poles
4 chambers

	Poles	Positions	Chambers
400/5	5	3	5
400/6	6	3	6

	Poles	Positions	Chambers
400/7	7	3	7
400/8	8	3	8

	Poles	Positions	Chambers
400/9	9	3	9
400/10	10	3	10

	Poles	Positions	Chambers
400/11	11	3	11
400/12	12	3	12

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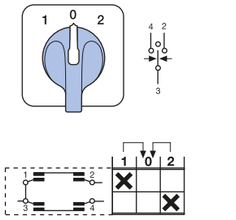
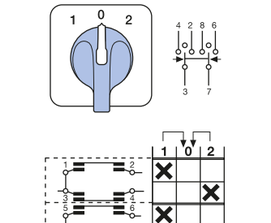
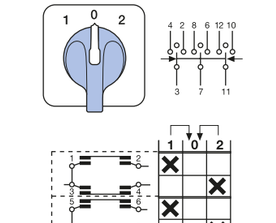
Changeover switches with spring return to center



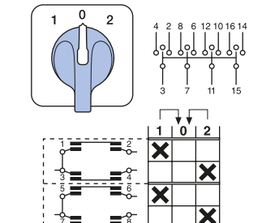
405
1 pole
1 chamber



406
2 poles
2 chambers

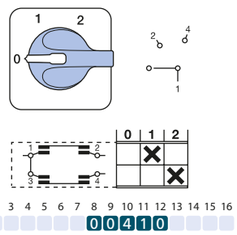


407
3 poles
3 chambers

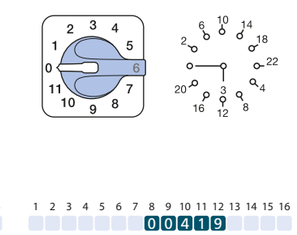


408
4 poles
4 chambers

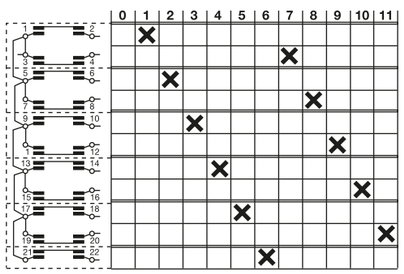
Multi-step switches with "Off" position



410
1 pole 2 positions
1 chamber



419
1 pole 11 positions
6 chambers



Multi-step switches with “Off” position

	Poles	Positions	Chambers
411	1	3	2
412	1	4	2
413	1	5	3
414	1	6	4
415	1	7	4
416	1	8	5
417	1	9	5
418	1	10	6
420	2	2	2
421	2	3	3

	Poles	Positions	Chambers
422	2	4	4
423	2	5	5
424	2	6	7
425	2	7	8
426	2	8	9
427	2	9	10
428	2	10	11
429	2	11	12
430	3	2	3
431	3	3	5

	Poles	Positions	Chambers
432	3	4	6
433	3	5	9
434	3	6	12
435	3	7	12
440	4	2	4
441	4	3	6
442	4	4	8
443	4	5	10
450	5	2	5
451	5	3	8

	Poles	Positions	Chambers
452	5	4	10
460	6	2	6
461	6	3	9
462	6	4	12
470	7	2	7
471	7	3	11
480	8	2	8
481	8	3	12
490	9	2	9

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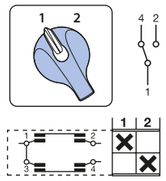
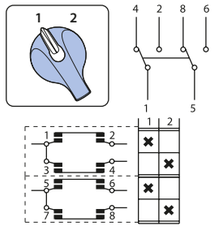
Changeover switches without “Off”



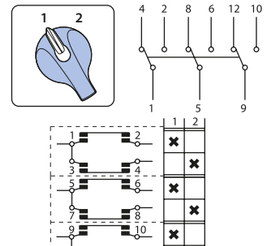
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 0 0

500
1 pole
1 chamber



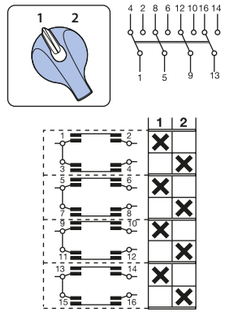
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 0 1

501
2 poles
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 0 2

502
3 poles
3 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 0 3

503
4 poles
4 chambers

	Poles	Positions	Chambers
500/5	5	2	5
500/6	6	2	6

	Poles	Positions	Chambers
500/7	7	2	7
500/8	8	2	8

	Poles	Positions	Chambers
500/9	9	2	9
500/10	10	2	10

	Poles	Positions	Chambers
500/11	11	2	11
500/12	12	2	12

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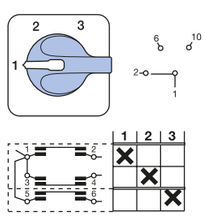
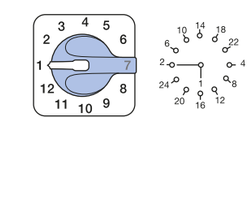
Multi-step switches without “Off” position



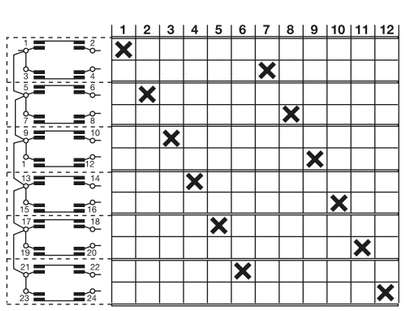
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 1 0

510
1 pole 3 positions
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 5 1 9

519
1 pole 12 positions
6 chambers



Multi-step switches without “Off” position

	Poles	Positions	Chambers
511	1	4	2
512	1	5	3
513	1	6	3
514	1	7	4
515	1	8	4
516	1	9	5
517	1	10	5
518	1	11	6
520	2	3	3

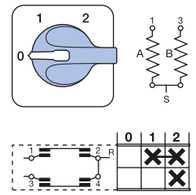
	Poles	Positions	Chambers
521	2	4	4
522	2	5	5
523	2	6	6
524	2	7	7
525	2	8	8
526	2	9	9
527	2	10	10
528	2	11	11
529	2	12	12

	Poles	Positions	Chambers
530	3	3	5
531	3	4	6
532	3	5	8
533	3	6	9
534	3	7	11
535	3	8	12
540	4	3	6
541	4	4	8
542	4	5	10

	Poles	Positions	Chambers
543	4	6	12
550	5	3	8
551	5	4	10
552	5	5	13
560	6	3	9
561	6	4	12
570	7	3	11
580	8	3	12

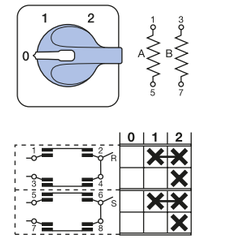
To view these wiring diagrams please visit our download area on www.telergon.com

Gang switches



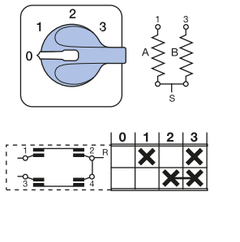
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 1

601
1 pole switching sequence
0 - A - (A+B)
1 chamber



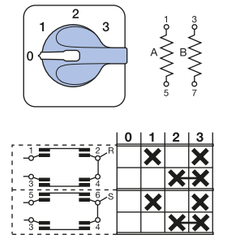
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 2

602
2 poles switching sequence
0 - A - (A+B)
2 chambers



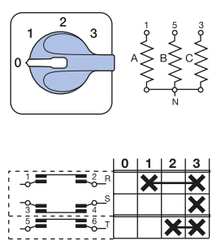
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 3

603
1 pole switching sequence
0 - A - B - (A+B)
1 chamber



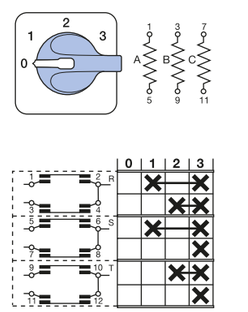
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 4

604
2 poles switching sequence
0 - A - B - (A+B)
2 chambers



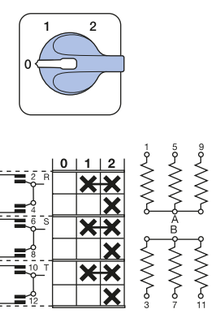
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 5

605
1 pole switching sequence
0 - A - (A+B) - (A+B+C)
2 chambers



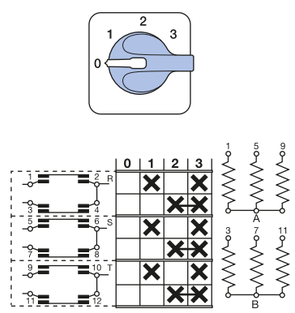
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 6

606
2 poles switching sequence
0 - A - (A+B)-(A+B+C)
3 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 7

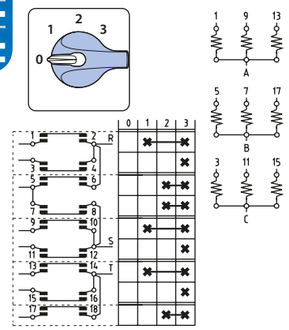
607
3 poles switching sequence
0 - A - (A+B)
3 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 6 0 8

608
3 poles switching sequence
0 - A - B - (A + B)
3 chambers

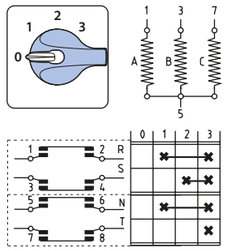
Gang switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 0 9

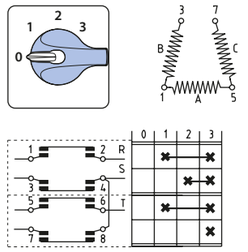
609
3 poles switching sequence
0 - A - (A+B) - (A+B+C)
5 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 1 0

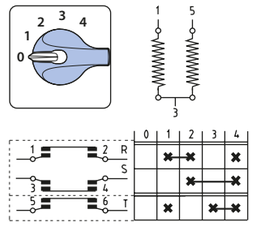
610
Switching sequence
λ 0 - A - (A+B) - (A+B+C)
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 1 1

611
Switching sequence
Δ 0 - A - (A+B) - (A+B+C)
2 chambers

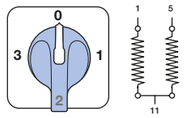


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 1 2

612
Switching sequence 0 - A + B series
A - B - (A + B) paralell
2 chambers

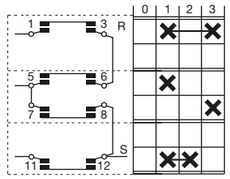
Kitchen and heating switches

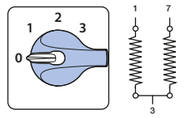


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 1 3

613
3 positions switching sequence
0-A+B paralell; A or B-A+B series -0
3 chambers

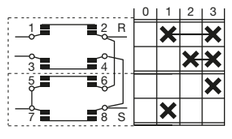




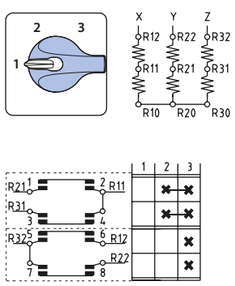
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 1 4

614
3 positions switching sequence
0-A+B series; A or B-A+B paralell
2 chambers



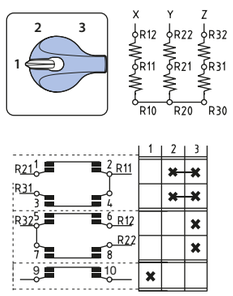
Resistance elimination switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 2 0

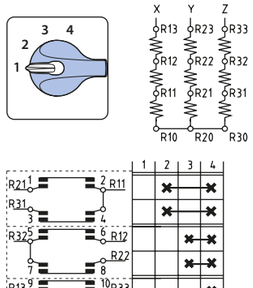
620
3 phases, 3 points
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 2 1

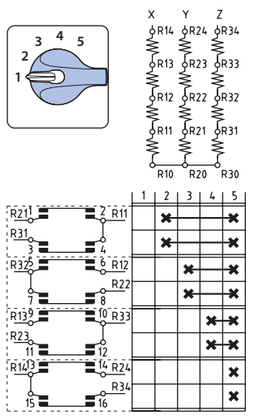
621
3 phases, 3 points
3 chambers
With auxiliary contact



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 2 2

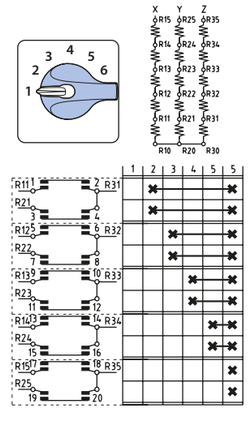
622
3 phases, 4 points
3 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 2 4

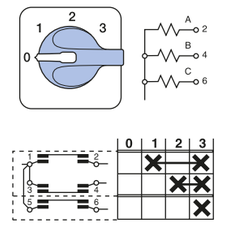
624
3 phases, 5 points
4 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 2 6

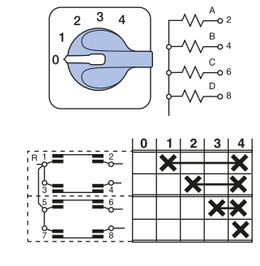
626
3 phases, 6 points
5 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 3 0

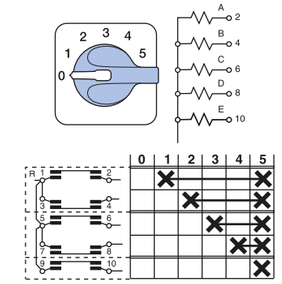
630
Switching sequence
0 - A - (A+B) - (A+B+C)
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 3 1

631
Switching sequence
0 - A - (A+B) - (A+B+C) - (A+B+C+D)
2 chambers

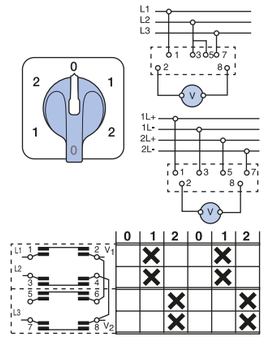


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 6 3 2

632
Switching sequence
0 - A - (A+B) - (A+B+C) - (A+B+C+D) - (A+B+C+D+E)
3 chambers

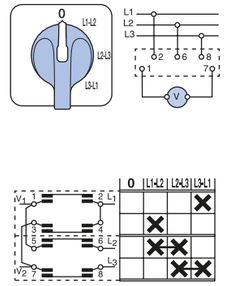
Voltmeter switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 0

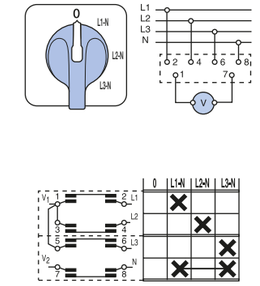
700
2 phases C.A. or 2 poles C.C.
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 1

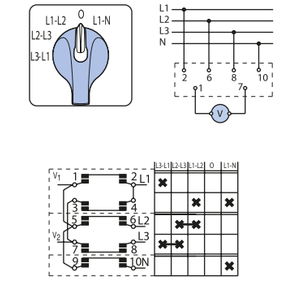
701
3 phases
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 2

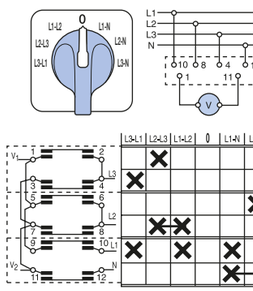
702
3 phases to neutral
2 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 4

704
3 phases and 1 phase to neutral
3 chambers



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 5

705
3 phases to phase and 3 phases to neutral
3 chambers

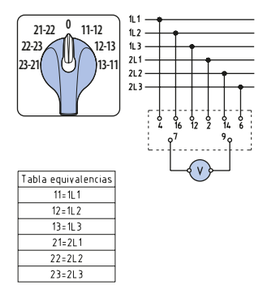
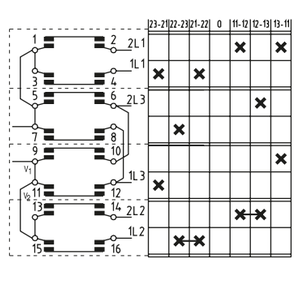


Tabla equivalencias
11=1L1
12=1L2
13=1L3
21=2L1
22=2L2
23=2L3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

0 0 7 0 6

706
2 three-phase lines (phase to phase)
4 chambers/chambers



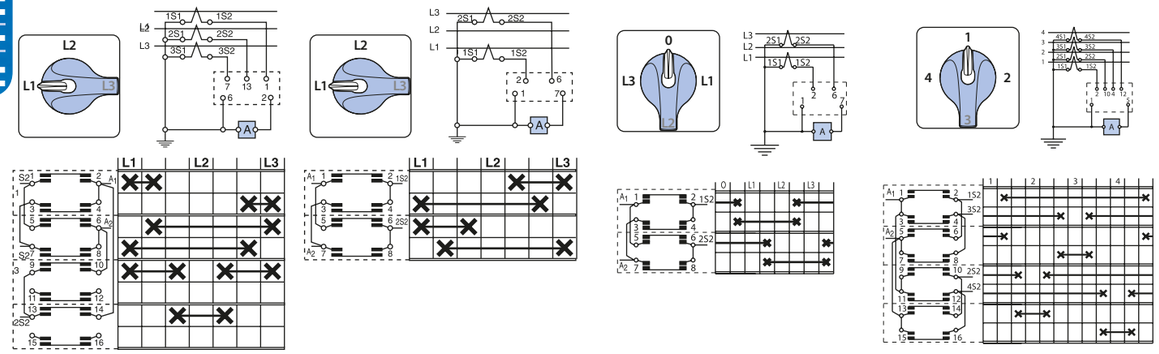
703
4 lines with 2 wires C.A. o C.C.
4 chambers

708
3 phases, 2 potencial transformers
1 pole
2 chambers

To view these wiring diagrams please visit our download area on www.telergon.com

series TP|TTB|TF

Ammeter switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 2 0

720*
3 phases, 3 current transformers,
1 pole
4 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 2 1

721
3 phases, 2 current transformers,
1 pole
2 chambers

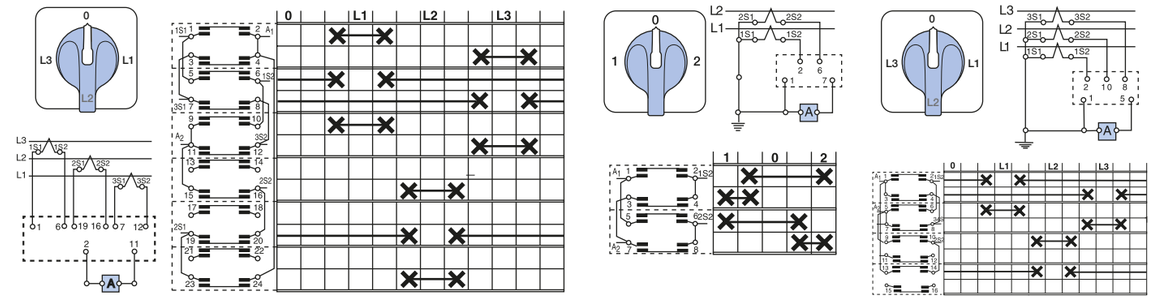
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 2 4

724
3 phases, 2 current transformers,
1 pole
2 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 2 5

725
4 lines, 4 current transformers,
1 pole
4 chambers

* New diagram 732



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 2 7

727
3 lines, 3 current transformers,
2 poles
6 chambers

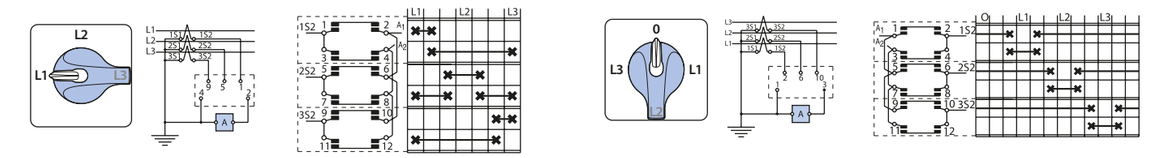
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 3 0

730
2 current transformers,
1 pole
2 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 3 1

731*
3 current transformers,
1 pole
4 chambers

* New diagram 733



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 3 2

732
3 phases, 3 current transformers,
1 pole
3 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 7 3 3

733
3 lines, 3 current transformers,
1 pole
3 chambers

722
3 phases, 2 or 3 current transformers,
1 pole
5 chambers

723
2 lines, 2 current transformers,
1 pole
3 chambers

726
2 lines, 2 current transformers,
2 poles
3 chambers

728
4 lines, 4 current transformers,
2 poles
6 chambers

729
1 current transformers,
1 pole
1 chamber

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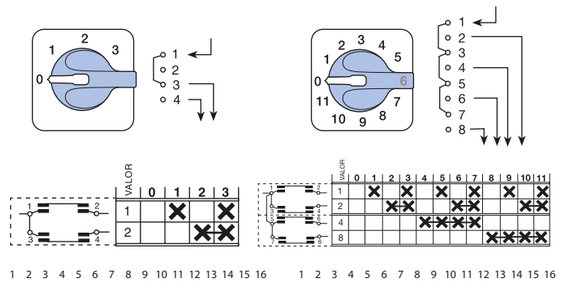
series TP|TTB|TF

Switches for B.C.D. codification with "Off"



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 B C D 3

0BCD3
3 positions
1 chamber

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 B C 1 1

0BCD11
11 positions
2 chambers

0BCD4
4 positions
2 chambers

0BCD5
5 positions
2 chambers

0BCD6
6 positions
2 chambers

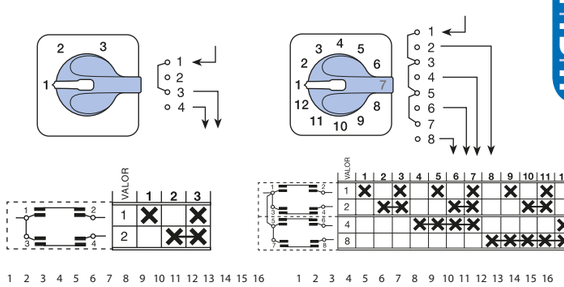
0BCD7
7 positions
2 chambers

0BCD8
8 positions
2 chambers

0BCD9
9 positions
2 chambers

0BCD10
10 positions
2 chambers

Switches for B.C.D. codification without "Off"



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 B C 0 3

1BCD3
3 positions
1 chamber

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 B C 1 2

1BCD12
12 positions
2 chambers

1BCD4
4 positions
2 chambers

1BCD5
5 positions
2 chambers

1BCD6
6 positions
2 chambers

1BCD7
7 positions
2 chambers

1BCD8
8 positions
2 chambers

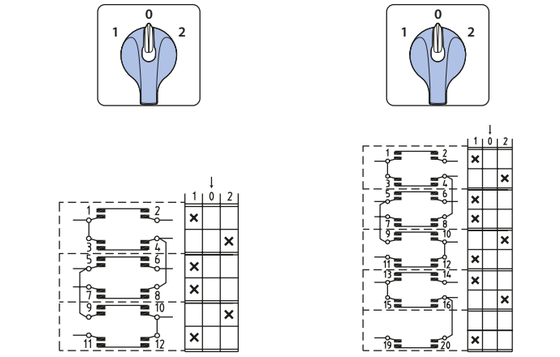
1BCD9
9 positions
2 chambers

1BCD10
10 positions
2 chambers

1BCD11
11 positions
2 chambers

To view these wiring diagrams please visit our download area on www.telergon.com

By-pass switches



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 0 0

800
2 poles
3 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 0 1

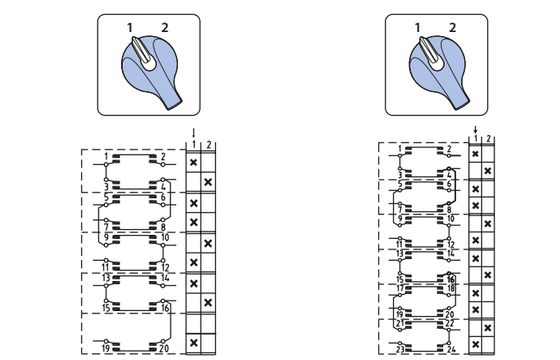
801
3 poles
5 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 0 2

802
3 poles + N
6 chambers

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 2 0

820
2 poles
3 chambers

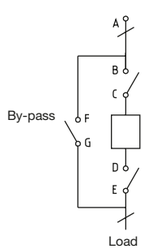


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 2 1

821
3 poles
5 chambers

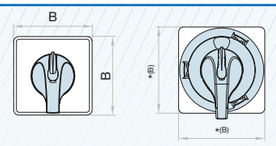
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
0 0 8 2 2

822
3 poles + N
6 chambers

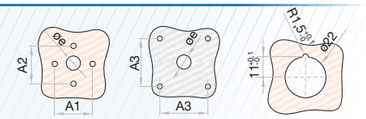


A	L1	L2	L3	N
B	1	5	13	17
C	2	6	14	18
D	7	11	19	23
E	4	10	16	22
F	1	5	13	17
G	4	10	16	22

T Door mounting E



Door mounting drilling



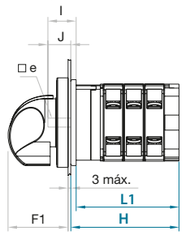
*(B) Features & dimensions in page 27.

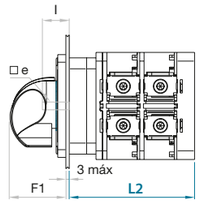
Note:

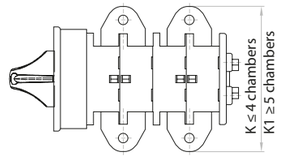
The cam switches allow a construction up to 12 chambers (24 contacts).

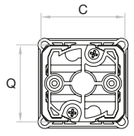
It's necessary to distribute in several columns (maximum three of 12 chambers each) when the number of contacts is higher than 24, so we use the tandem drives D200 or D201.

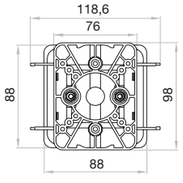
Depending on the number of contacts to be switched simultaneously, it's possible to supply up to 14 chambers switches in size 0.

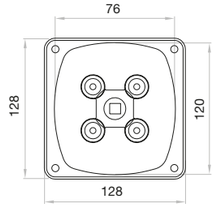








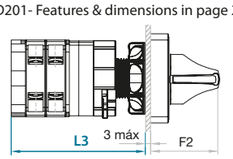


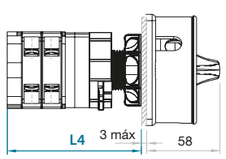


Size	Series	A1	øA1	A2	øA2	A3	øA3	B	C	øe	□e	Q	F1	I	J	K	K1
0	T12 T20	32	4,5	-	4,5	36	4,5	50	46,5	12	5	46	33,5	18	15	-	-
1	T16 25 T32 T40	45	4,5	-	4,5	48	4,5	65	60,5	12	5	57,5 64,5	36	20	16,8	-	-
2	T50 T63 T80	-	-	60	5,5	68	5,5	94	66	12	7	80	45	24,5	20,5	-	-
	T100 T125								84,5			89					
	T175	-	-	60	5,5	68	5,5	94	-	12	7	-	45	24,5	-	-	-
3	T200 T250 T315	-	-	-	-	108	6,5	128	76	16	10	120	67	-	40	150	-
	T400 T500															176	-
	T630 T800															218	256

Size	Series		Chambers 1□	2□	3□	4□	5□	6□	7□	8□	9□	10□	11□	12□	13□	14□
0	T12 T20	L1	34,5	46	57,5	69	80,5	92	103,5	115	126,5	138	149,5	161	172,5	184
		H	37,5	49	60,5	72	83,5	95	106,5	118	129,5	141	152,5	164	175,5	187
1	T16 T25	L1	46,4	60,6	74,8	89	103,2	117,4	131,6	145,8	160	174,2	188,4	202,6	*(1)	*(1)
		H	49,6	63,8	78	92,2	106,4	120,6	134,8	149	163,2	177,4	191,6	205,8	*(1)	*(1)
	T32 T40	L1	49,8	67,3	84,8	102,3	119,8	137,3	154,8	172,3	189,8	207,3	224,8	242,3	*(1)	*(1)
		H	53	70,5	88	105,5	123	140,5	158	175,5	193	210,5	228	245,5	*(1)	*(1)
2	T50 T63 T80	L1	58,5	78,5	98,5	118,5	138,5	158,5	178,5	198,5	218,5	238,5	258,5	278,5	*(1)	*(1)
		H	62,5	82,5	102,5	122,5	142,5	162,5	182,5	202,5	222,5	242,5	262,5	282,5	*(1)	*(1)
	T100 T125	L1	67	94	121	147,5	174	201	227,5	254	281	307,5	334	361	*(1)	*(1)
		L2	71	98	125	151,5	178	205	231,5	258	285	311,5	338	365	*(1)	*(1)
	T175	L2	80,8	114,8	148,8	182,8	216,8	250,8	284,8	318,8	352,8	386,8	420,8	454,8	*(1)	*(1)
3	T200 T250 T315	H	95	135	175	215	255	295	335	375	415	455	495	535	*(1)	*(1)
	T400 T500	H	135	215	295	375	455	535	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)
	T630	H	175	295	415	535	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)
	T800	H	215	375	535	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)	*(1)

*(1) Tandem drive D200/D201- Features & dimensions in page 24.

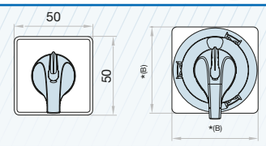




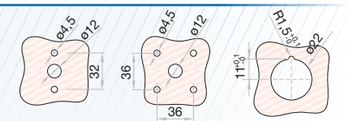
Size	Series		Chambers *(ch) 1□	2□	3□	4□	5□	6□	F2
0	T12 T20	L3	63,5	75	86,5	98	109,5	121	53,5
1	T16 T25	L4	75,5	89,5	103,8	118	-	-	55,5
	T32 T40	L4	78,8	96,3	116,8	131,3	-	-	55,5

*(ch) Central quick fixing ø22 - maximun number of chambers supported.

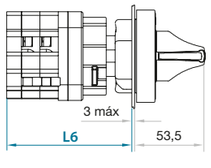
TB Door mounting E

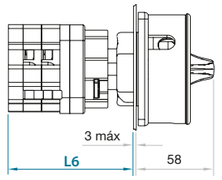


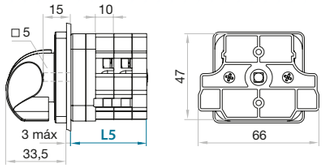
Door mounting drilling



*(B) Features & dimensions in page 27.

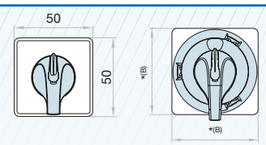




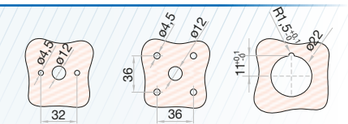


	Chambers 1□	2□	3□	4□	5□	6□	7□	8□	9□	10□	11□	12□
L5	31,5	41,5	51,5	61,5	71,5	81,5	91,5	101,5	111,5	121,5	131,5	141,5
L6	60,5	70,5	80,5	90,5	100,5	110,5	-	-	-	-	-	-

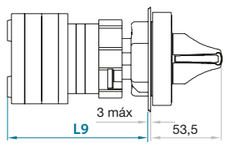
TF Door mounting E

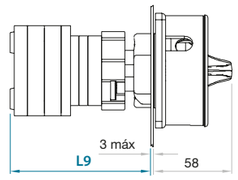


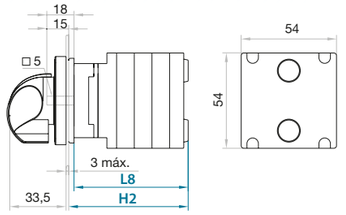
Door mounting drilling



*(B) Features & dimensions in page 27.





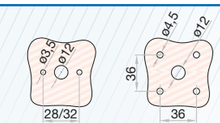


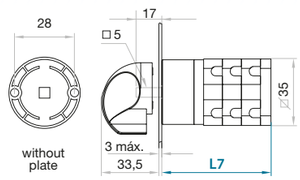
	Chambers 1□	2□	3□	4□	5□	6□	7□	8□	9□	10□	11□	12□
L8	45	55	65	75	85	95	105	115	125	135	145	155
L9	73,5	83,5	93,5	103,5	113,5	123,5	-	-	-	-	-	-
H2	48	58	68	78	88	98	108	118	128	138	148	158

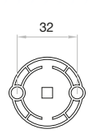
TP Door mounting E

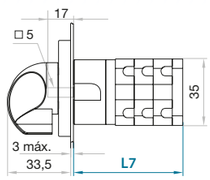


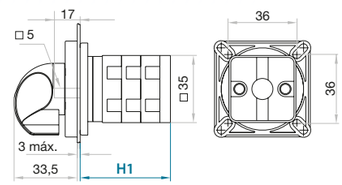
Door mounting drilling





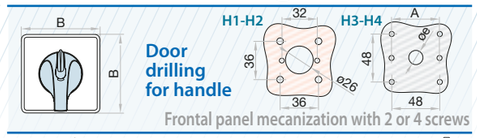


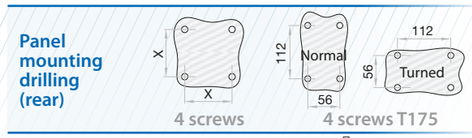


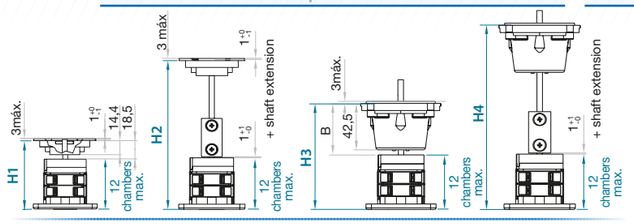


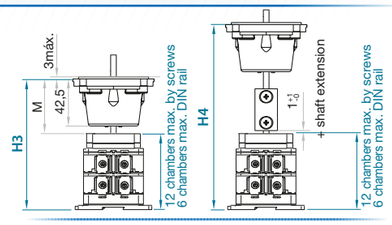
	Chambers 1□	2□	3□	4□	5□	6□	7□	8□	9□	10□	11□	12□
L7	37,5	47	56,5	66	75,5	85	94,5	104	113,5	123	132,5	142
H1	26,5	36	45,5	55	64,5	74	83,5	93	102,5	112	121,5	131

T Base mounting with clutch device F



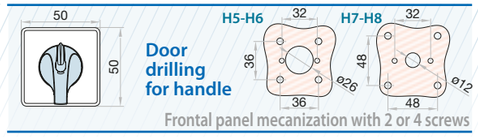


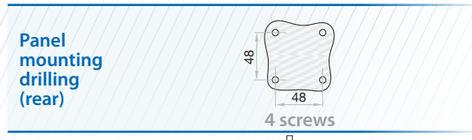


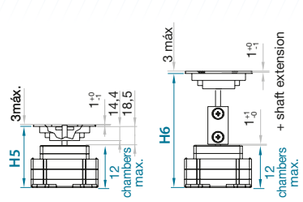


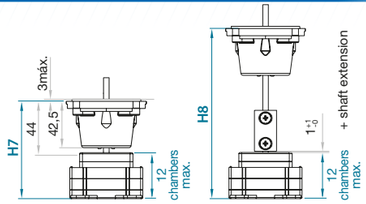
Size	Series		Chambers H1 1□	H1 +□	H2 1□	H2 +□	H3 1□	H3 +□	H4 1□	H4 +□	A	B	øe	M	X
0	T12 T20	min	56	+11,5	94	+11,5	83	+11,5	121	+11,5	32	50	12	45,5	43
		max			256				283						
1	T16 T25	min	-	-	-	-	97,1	+14,2	135,1	+14,2	32	65	12	47,5	48
		max							297,1						
	T32 T40	min	-	-	-	-	100,5	+17,5	138,5	+17,5	32	65	12	47,5	48
		max							300,5						
2	T50 T63 T80	min	-	-	-	-	114,5	+20	152,5	+20	60	94	12	52	68
		max							314,5						
	T100 T125	min	-	-	-	-	123	+27	161	+27	60	94	12	52	68
		max							323						
	T175	min	-	-	-	-	141,8	+34	179,8	+34	60	94	12	52	-
		max	-	-	-	-			341,8						
3	T200		-	-	-	-	162,5	+40	-	-	-	48	16	67,5	108

TB Base mounting with clutch device F



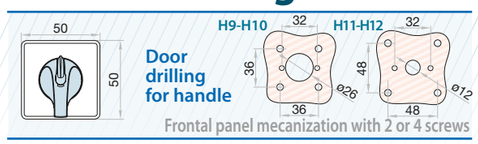




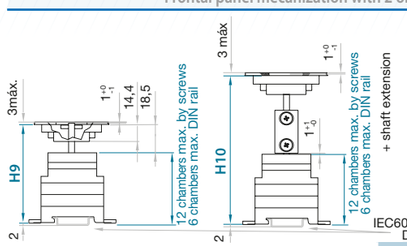


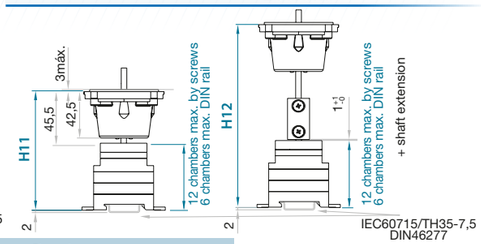
Size	Series		Chambers H5 1□	H5 +□	H6 1□	H6 +□	H7 1□	H7 +□	H8 1□	H8 +□
0	TB20 TB25 TB32	min	46	+10	84	+10	75,5	+10	113	+10
		max			246				275,5	

TF Base mounting with clutch device F



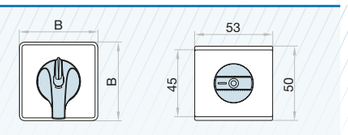


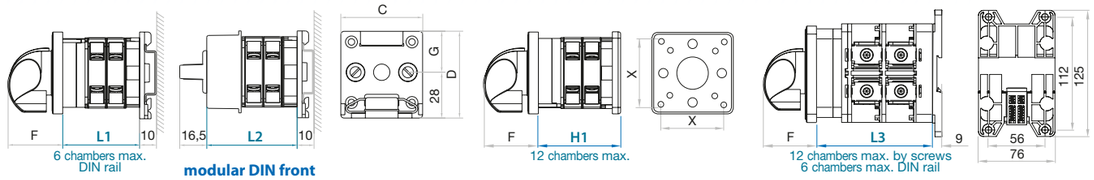




Size	Series		Chambers H9 1□	H9 +□	H10 1□	H10 +□	H11 1□	H11 +□	H12 1□	H12 +□
0	TF12 TF16 TF25	min	65,5	+10	103,5	+10	92,5	+10	130,5	+10
		max			265,5				292,5	

T Base mounting with screws or DIN rail (direct handle) D

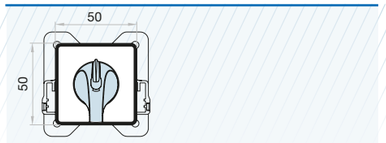


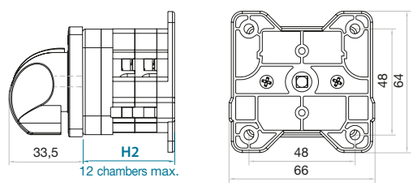


Size	Series		Chambers 1□	2□	3□	4□	5□	6□	+□	B	C	D	F	G	X
0	T12 T20	L1	34,5	46	57,5	69	80,5	92	+11,5	50	50	53	33,5	25	-
		L2	-	53,5	65	76,5*(1)	-	-		-	50	53	-	25	-
		H1	37,5	49	60,5	72	83,5	95		50	-	-	33,5	-	43
1	T16 T25	L1	46,4	60,6	74,8	89	-	-	+14,2	65	50	53	36	25	-
		H1	49,6	63,8	78	92,2	106,4	120,6		65	-	-	36	-	48
	T32 T40	L1	49,8	67,3	84,8	102,3	-	-	+17,5	65	-	-	36	-	-
		H1	53	70,5	88	105,5	123	140,5		65	-	-	36	-	48
2	T50 T63 T80	H1	62,5	82,5	102,5	122,5	142,5	162,5	+20	94	-	-	45,5	-	68
	T100 T125	H1	71	98	125	152	179	206	+27	94	-	-	45,5	-	68
	T175	L3	80,8	114,8	148,8	-	-	-	+34	94	-	-	45,5	-	-
3	T200	H1	95	135	175	215	255	295	+40	132	-	-	67	-	108

*(1) Modular enclosure 3 chambers max

TB Base mounting with screws (direct handle) D

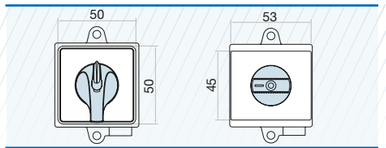


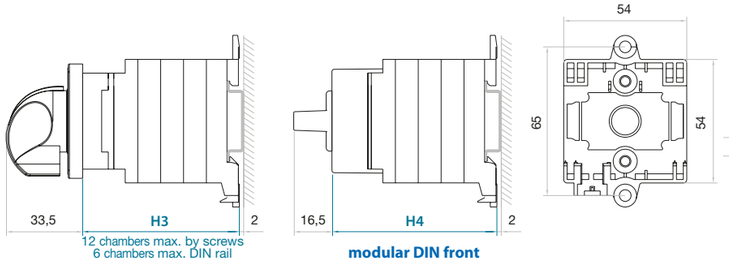


	Chambers 1□	2□	3□	4□	+□
H2	31,5	41,5	51,5	61,5*(2)	+10

*(2) Modular enclosure 3 chambers max

TF Base mounting with screws or DIN rail (direct handle) D





	Chambers 1□	2□	3□	4□	5□	6□	+□
H3	50	60	70	80	90	100	+10
H4	52,5	62,5	72,5	82,5*(3)	92,5*(3)	-	-

*(3) Modular enclosure 3 chambers max

Technical specifications

According to IEC 60947-3				Size 0		Size 1				Size 2						Size 3							
				T12	T20	T16	T25	T32	T40	T50	T63	T80	T100	T125	T175	T200	T250	T315	T400	T630	T800	T1250	T1600
Rated thermal current	Ith		A	16	25	25	32	40	50	63	80	80	125	125	200	200	250	315	400	630	800	1000	1600
Rated insulation voltage	Ui		V	500	500	690	690	690	690	690	690	690	690	690	1000	690	690	690	690	690	690	690	690
Rated impulse withstand voltage	Uimp		kV	6	6	6	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
		Ue																					
AC rated operational current	Ie	Ue 415V	AC21A	A	16	25	25	32	40	50	63	80	80	125	125	200	200	250	315	315	315	400	500	500
		Ue 415V	AC22A	A	16	25	25	32	40	50	63	80	80	115	115	200	200	250	315	250	315	315	315	400
		Ue 415V	AC23A	A	10	25	16	20	25	32	63	63	63	100	100	200	200	200	200	-	-	-	-	-
Rated conditional short-circuit current				kA	10	10	10	10	10	10	15	15	15	15	15	15*(3)	15	15	15	15	10	10	10	10
Rated maximum current	gL-gG			A	25	25	32	32	50	50	80	80	80	125	125	160	200	250	315	400	630	800	1000	2x800
Rated breaking capacity	400V; cos φ=0,45			A	80	100	160	200	256	320	504	504	504	640	640	1600	1450	2000	2240	1450	1450	1450	1450	1450
Rated short-time withstand current (1 sec)				A	240	400	500	650	800	800	1600	1600	1600	2500	2500	3500	4400	4400	4400	6000	7000	7600	8000	8200
Mechanical durability (according to the standards, for other values please consult)					10000	10000	10000	10000	10000	10000	10000	10000	10000	8000	8000	8000	8000	8000	8000	5000	5000	3000	3000	3000
Maximum connection capacity																								
Rigid copper conductor				mm^2	2x4	2x4	2x6	2x6	2x10	2x10	16/25*(2)	16/25*(2)	16/25*(2)	35/50*(2)	35/50*(2)	95	95	120	185	-	-	-	-	-
Flexible copper conductors				mm^2	2x2,5	2x2,5	2x4	2x4	2x6	2x6	10/16*(2)	10/16*(2)	10/16*(2)	16/35*(2)	16/35*(2)	95	95	120	185	-	-	-	-	-

According to UL508 - CAN / CSA C22.2 Nº 14				Size 0		Size 1				Size 2						Size 3							
				T12	T20	T16	T25	T32	T40	T50	T63	T80	T100	T125	T175	T200	T250	T315	T400	T630	T800	T1250	T1600
Rated thermal current	Ith		A	12	20	16	25	32	40	63	63	63	100	100	200	200	200	200	-	-	-	-	-
General use rating			A	12	20	16	25	32	40	63	63	63	100	100	200	200	200	200	-	-	-	-	-
			Vac	300	300	600	600	600	600	600	600	600	600	600	600	600	600	600	-	-	-	-	-
AC rated operational power		3x240V	HP	2	5	5	7,5	10	15	20	20	20	30	30	25	60	60	60	-	-	-	-	-
		3x480V	HP	-	-	10	15	20	25	40	40	40	50	50	60	75	75	75	-	-	-	-	-
		3x600V	HP	-	-	10	15	20	25	40	40	40	50	50	50	60	60	60	-	-	-	-	-

*(1) 500 V size "0" *(2) With extension terminals *(3) With phase barriers

Approvals T:

consult

Normal service conditions*

- Ambient air temperature (ºC): -5º...+40º.
- Maximum altitude: 2.000 m.
- Maximum humidity: 90%.
- Pollution degree: 3 (standard for industrial applications).
- Rated frecuency at AC utilization categories: 50/60 Hz.

- Rated duties at utilization categories AC21A, AC22A y AC23A: Continuing (8 hours); uninterrupted.
- Rated duties at utilization categories AC3 and AC4: Intermittent; temporary
- Switching direct currents: For L/R<50msg, rated operational current (Ie) can be dealt with up to 30Vdc. With higher voltages, several contacts have to be connected in series.

* Please consult for other service conditions.

According to IEC 60947-3				Size 0					
				TB20	TB25	TB32	TF12	TF16	TF25
Rated thermal current	Ith		A	20	25	32	20	25	32
Rated insulation voltage	Ui		V	500	500	500	690	690	690
Rated impulse withstand voltage	Uimp		kV	4	4	4	6	6	6
		Ue							
AC rated operational current	Ie	Ue 415V	AC21A	A	20	25	32	20	25	32
		Ue 415V	AC22A	A	20	25	32	20	25	32
		Ue 415V	AC23A	A	20	25	32	-	-	-
Rated conditional short-circuit current				kA	5	5	5	5	5	5
Rated maximum current	gL-gG			A	35	35	35	20	25	32
Rated breaking capacity	400V; cos φ=0,45			A	160	200	256	100	160	200
Rated short-time withstand current (1 sec)				A	240	400	500	350	400	500
Mechanical durability (according to the standards, for other values please consult)					10000	10000	10000	10000	10000	10000
Maximum connection capacity										
Rigid copper conductor				mm^2	1x10 2x6	1x10 2x6	1x10 2x6	1x10	1x10	1x10
Flexible copper conductors				mm^2	1x6 2x4	1x6 2x4	1x6 2x4	1x6	1x6	1x6

According to UL508 - CAN / CSA C22.2 Nº 14				Size 0				
				TF12	TF16	TF25		
Rated thermal current	Ith		A	-	-	-	16	20	25
General use rating			A	-	-	-	16	20	25
			Vac	-	-	-	600	600	600
AC rated operational power		3x240V	HP	-	-	-	2	5	7,5
		3x480V	HP	-	-	-	5	10	12
		3x600V	HP	-	-	-	5	10	15

Approvals TB:

Approvals TF:

consult

According to IEC 60947 -3 / IEC 60947-5				Size 0
				TP10
Rated thermal current	Ith		A	12
Rated insulation voltage	Ui		V	500
Rated impulse withstand voltage	Uimp		kV	4
		Ue		
AC rated operational current	Ie	Ue 415V	AC13A	A	10
		Ue 415V	AC21A	A	12
		Ue 415V	AC22A	A	12
		Ue 415V	AC23A	A	10
Rated conditional short-circuit current				kA	5
Rated maximum current	gL-gG			A	16
Rated breaking capacity	400V; cos φ=0,45			A	80
Rated short-time withstand current (1 sec)				A	100
Mechanical durability (thousand of operations)					1000
Maximum connection capacity					
Rigid copper conductor				mm^2	2x4
Flexible copper conductors				mm^2	2x2,5

Approvals TP:

AC
Modular switch - disconnectors and changeover switches

series
ZBK

Modular switch – disconnectors and changeover switches of reduced size, available in different fixation types with a wide range of currents and a variety of accessories.

According to:
VDE 0660, IEC 60947-3, IEC 60947-5-1
UL & cUL
RoHS

Testing and approvals:

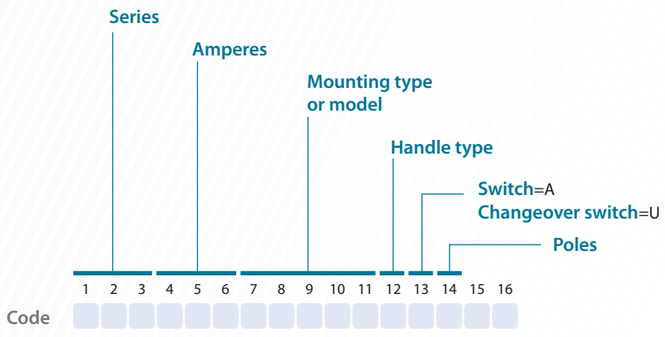


The ZBK switch - disconnectors are 3, 4, 6 and 8-pole modular devices with a high breaking capacity and contact pressure, which respond well to short circuits. They are designed for use in low voltage civil and industrial machines and facilities and made of different models depending on the type of mounting. Manufactured under strict quality controls to provide a reliable product that meets the most demanding requirements.

The ZBK series also includes a range of 1-0-2 changeover switches plus applications with plastic enclosures and various accessories.

Range codification:

The **ZBK** series, are identified by a code that describes their most important characteristics as described below.



series
ZBK O-I



Door mounting fixing by screws.
Two sizes of padlockable handles.
Auxiliary terminals and other accessories.



Base mounting fixing by screws or DIN rail and handle ø22
Two sizes of padlockable handles.
Shaft extension depth-adjustable.
Auxiliary terminals and other accessories.



Base mounting fixing by screws or DIN rail.
Direct handle (modular) with lock.
Auxiliary terminals and other accessories.

series
ZBK I-O-II



Modular switch in plastic enclosure (sealable).
Padlockable handles.



Base mounting fixing by screws or DIN rail.
Direct handle (modular) with lock.
Supplied with bridging links included.
Auxiliary terminals and other accessories.

Accessories


Auxiliary contacts


PE - Terminal


N - Terminal


N - Fixed neutral


Shaft extensions

series ZBK

ZBK
Switch door mounting with padlockable handle IP66

3P - 3P+N

Size 0

A 20|25|40|63|80|125





⍁		CODE - 20A	CODE - 25A	CODE - 40A	CODE - 63A	CODE - 80A	CODE - 125A
64	3P	ZBK20EHN4A3	ZBK25EHN4A3	ZBK40EHN4A3	ZBK63EHN4A3	ZBK80EHN4A3	ZBK125EHN4A3
	3P + N	ZBK20EHN4A4	ZBK25EHN4A4	ZBK40EHN4A4	ZBK63EHN4A4	ZBK80EHN4A4	ZBK125EHN4A4
	3P	ZBK20EH4A3	ZBK25EH4A3	ZBK40EH4A3	ZBK63EH4A3	ZBK80EH4A3	ZBK125EH4A3
	3P + N	ZBK20EH4A4	ZBK25EH4A4	ZBK40EH4A4	ZBK63EH4A4	ZBK80EH4A4	ZBK125EH4A4
48	3P	ZBK20EHN1A3	ZBK25EHN1A3	ZBK40EHN1A3	ZBK63EHN1A3	ZBK80EHN1A3	-
	3P + N	ZBK20EHN1A4	ZBK25EHN1A4	ZBK40EHN1A4	ZBK63EHN1A4	ZBK80EHN1A4	-
	3P	ZBK20EH1A3	ZBK25EH1A3	ZBK40EH1A3	ZBK63EH1A3	ZBK80EH1A3	-
	3P + N	ZBK20EH1A4	ZBK25EH1A4	ZBK40EH1A4	ZBK63EH1A4	ZBK80EH1A4	-

Technical information

CE IEC UL EAC

3P



3P + N



According to VDE 0660, IEC 60947-3, IEC 60947-5-1

				20	25	40	63	80	125
Rated thermal current	Ith		A	20	25	40	63	80	125
Rated thermal current enclosed	Ithe		A	20	25	40	63	80	110
Rated insulation voltage	Ui		V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp		kV	6	6	6	6	6	8
AC rated operational current	Ie	AC21A	A	20	25	40	63	80	125
Making capacity	Ieff	3x380-440V	A	160	190	300	370	440	850
Breaking capacity		3x220-240V	A	160	180	250	330	380	680
		3x380-440V	A	160	180	250	330	380	680
		3X660-690V	A	80	110	170	190	220	420
Direct switching motors	AC3	3x400V	A	12	16	30	37	37	72
	AC3	3x220-240V	kW	3	4	7,5	11	11	22
		3x380-440V	kW	5,5	7,5	15	18,5	18,5	37
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	30
Main & safety switch	AC23	3x400V	A	16	20	32	45	45	85
	AC23A	3x220-240V	kW	4	5,5	9	15	15	30
	AC23B	3x380-440V	kW	7,5	10	16	22	22	45
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	37
Rated conditional short-circuit current			kAeff	10	10	10	10	10	10
Max. fuse size	gL(gG)		A	25	35	50	63	80	125
Rated short-time withstand current (1sec.)	Icw		A	250	300	500	600	850	1500
Mechanical life			x10³	200	200	200	100	100	100
Connecting capacity									
Solid or stranded cable			mm²	0,5-10			1-25 *(1)		4-50
			AWG	20-8 (10)			16-4 (10)		10-0 (10)
Flexible cable			mm²	0,5-6			4-16 *(1)		10-35
			AWG	20-10			16-6		8-2
Size of terminal screw				M3,5			M5		M6
Tightening torque			Nm	0,8-1,7			2-4		3,5-4,5

According to UL & cUL FILE NO. E123623

				20	25	40	63	80	125
Rated voltage			V	600	600	600	600	600	600
Ampere-Rating "General use"			A	20	25	40	63	80	125
DOL-Rating 3-phase		110-220V	HP	1	1,5	2	3	5	15
		220-240V	HP	3	5	5	10	10	30
		440-480V	HP	7,5	10	10	20	20	60
		550-600V	HP	10	10	15	25	25	60
DOL-Rating 1-phase		110-120V	HP	1	1	1	2	2	7,5
		200-208V	HP	1	2	2	3	3	10
		220-240V	HP	2	2	3	5	5	15
Fuse size (RK5)	Manual Motor Controller		A	40	50	70	90	110	125
5kA / 600V	Motor Disconnect		A	40	50	50	70	70	125
Tightening torque			Nm	1,2-2,3	1,2-2,3	1,2-2,3	2,8-4	2,8-4	1,7-4,5
			lb.Inch	11-20	11-20	11-20	24-35	24-35	15-40

*(1) ZBK63___U stranded 16 mm² / flexible 10 mm²

series ZBK

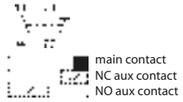
Accessories



» Auxiliary contacts

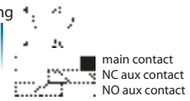
1NO+1NC

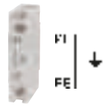
A	CODE
20 125	ZBKLH11



1NO+1NC overlapping

A	CODE
20 125	ZBKLH11X





» PE - Terminal

A	CODE
20 80	ZBKPE80E



» N - Terminal

A	CODE	A	CODE
20 40	ZBKN40E	63 80	ZBKN80E



» N - Fixed neutral

A	CODE
20 80	ZBKPEN80E

Auxiliary contacts technical information

Rated insulation voltage	Ui		V	690
Rated thermal current	Ith - Ithe		A	10
Switching capacity	AC15	220-240V	A	2,5
	AC15	380-440V	A	1,5
Rated conditional short-circuit current			kAeff	3
Max. short circuit protection		gL(gG)	A	10

Connecting capacity		
Solid or stranded cable	mm²	0,75-2,5
	AWG	14-12
Flexible cable (+ multicore cable end)	mm²	0,75-2,5 (1,5)
	AWG	18-14

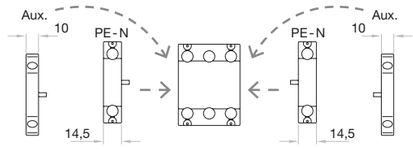
Dimensions (mm)

Door drilling for external handle



	3P	4P			
	A	A	E	G	P
20 - 80 A ⍁48	48	62,5	36	64	54
20 - 80 A ▢64	48	62,5	48	64	54
125 A ▢64	78	78	48	85	60

Auxiliary contacts
A1



» Other options also available on request:
- Products external mounting fixing ø 22
- Terminal shrouds

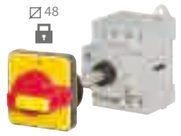
series ZBK

ZBK
Switch base mounting ø 22 door clutch padlockable handle IP66

Size 0
A 20|25|40|63|80|125

3P - 3P+N





⍁		CODE-20A	CODE-25A	CODE-40A	CODE-63A	CODE-80A	CODE-125A
64	3P	ZBK20VZVHN4A3	ZBK25VZVHN4A3	ZBK40VZVHN4A3	ZBK63VZVHN4A3	ZBK80VZVHN4A3	ZBK125VZVHN4A3
	3P + N	ZBK20VZVHN4A4	ZBK25VZVHN4A4	ZBK40VZVHN4A4	ZBK63VZVHN4A4	ZBK80VZVHN4A4	ZBK125VZVHN4A4
	3P	ZBK20VZVH4A3	ZBK25VZVH4A3	ZBK40VZVH4A3	ZBK63VZVH4A3	ZBK80VZVH4A3	ZBK125VZVH4A3
	3P + N	ZBK20VZVH4A4	ZBK25VZVH4A4	ZBK40VZVH4A4	ZBK63VZVH4A4	ZBK80VZVH4A4	ZBK125VZVH4A4
48	3P	-	ZBK25VZVHN1A3	ZBK40VZVHN1A3	ZBK63VZVHN1A3	ZBK80VZVHN1A3	ZBK125VZVHN1A3
	3P + N	-	ZBK25VZVHN1A4	ZBK40VZVHN1A4	ZBK63VZVHN1A4	ZBK80VZVHN1A4	ZBK125VZVHN1A4
	3P	-	ZBK25VZVH1A3	ZBK40VZVH1A3	ZBK63VZVH1A3	ZBK80VZVH1A3	ZBK125VZVH1A3
	3P + N	-	ZBK25VZVH1A4	ZBK40VZVH1A4	ZBK63VZVH1A4	ZBK80VZVH1A4	ZBK125VZVH1A4

Technical information

According to VDE 0660, IEC 60947-3, IEC 60947-5-1





				20	25	40	63	80	125
Rated thermal current	Ithe		A	20	25	40	63	80	125
Rated thermal current enclosed	Ithe		A	20	25	40	63	80	110
Rated insulation voltage	Ui		V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp		kV	6	6	6	6	6	8
AC rated operational current	Ie	AC21A	A	20	25	40	63	80	125
Making capacity	Ieff	3x380-440V	A	160	190	300	370	440	850
Breaking capacity		3x220-240V	A	160	180	250	330	380	680
		3x380-440V	A	160	180	250	330	380	680
		3X660-690V	A	80	110	170	190	220	420
Direct switching motors	AC3	3x400V	A	12	16	30	37	37	72
	AC3	3x220-240V	kW	3	4	7,5	11	11	22
		3x380-440V	kW	5,5	7,5	15	18,5	18,5	37
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	30
Main & safety switch	AC23	3x400V	A	16	20	32	45	45	85
	AC23A	3x220-240V	kW	4	5,5	9	15	15	30
	AC23B	3x380-440V	kW	7,5	10	16	22	22	45
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	37
Rated conditional short-circuit current			kAeff	10	10	10	10	10	10
Max. fuse size	gL(gG)		A	25	35	50	63	80	125
Rated short-time withstand current (1sec.)	Icw		A	250	300	500	600	850	1500
Mechanical life			x10³	200	200	200	100	100	100
Connecting capacity									
Solid or stranded cable			mm²	0,5-10			1-25 *(1)		4-50
			AWG	20-8 (10)			16-4 (10)		10-0 (10)
Flexible cable			mm²	0,5-6			4-16 *(1)		10-35
			AWG	20-10			16-6		8-2
Size of terminal screw				M3,5			M5		M6
Tightening torque			Nm	0,8-1,7			2-4		3,5-4,5

According to UL & cUL FILE NO. E123623

				20	25	40	63	80	125
Rated voltage			V	600	600	600	600	600	600
Ampere-Rating "General use"			A	20	25	40	63	80	125
DOL-Rating 3-phase		110-220V	HP	1	1,5	2	3	5	15
		220-240V	HP	3	5	5	10	10	30
		440-480V	HP	7,5	10	10	20	20	60
		550-600V	HP	10	10	15	25	25	60
DOL-Rating 1-phase		110-120V	HP	1	1	1	2	2	7,5
		200-208V	HP	1	2	2	3	3	10
		220-240V	HP	2	2	3	5	5	15
Fuse size (RK5)	Manual Motor Controller		A	40	50	70	90	110	125
5kA / 600V	Motor Disconnect		A	40	50	50	70	70	125
Tightening torque			Nm	1,2-2,3	1,2-2,3	1,2-2,3	2,8-4	2,8-4	1,7-4,5
			lb.Inch	11-20	11-20	11-20	24-35	24-35	15-40

*(1) ZBK63___U stranded 16 mm² / flexible 10 mm²

series ZBK

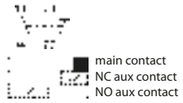
Accessories



» Auxiliary contacts

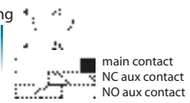
1NO+1NC

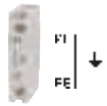
A	CODE
20 125	ZBKLH11



1NO+1NC overlapping

A	CODE
20 125	ZBKLH11X





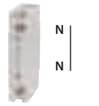
» PE - Terminal

A	CODE
20 80	ZBKPE80V



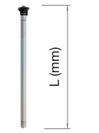
» N - Terminal

A	CODE	A	CODE
20 40	ZBKN40V	63 80	ZBKN80V



» N - Fixed neutral

A	CODE
20 80	ZBKPEN80V



» Shaft extensions

A	CÓDIGO	L
20 125	ZBK-0002 ZBK-0003	200 300

Auxiliary contacts technical information

Rated insulation voltage	Ui		V	690
Rated thermal current	Ith - Ithe		A	10
Switching capacity	AC15	220-240V	A	2,5
	AC15	380-440V	A	1,5
Rated conditional short-circuit current			kAeff	3
Max. short circuit protection	gL(gG)		A	10

Connecting capacity		
Solid or stranded cable	mm²	0,75-2,5
	AWG	14-12
Flexible cable (+ multicore cable end)	mm²	0,75-2,5 (1,5)
	AWG	18-14

Dimensions (mm)

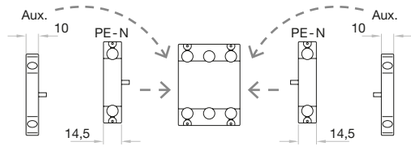
Door drilling for external handle





⍁	3P	4P				P	
	A	A	G	J	K	min	max
20 - 40 A	48	48	64	70	25	91	190
63 - 80 A	48	62,5	64	70	25	91	190
125 A	78	78	85	90	38	95	190

Auxiliary contacts
A1



» Other options also available on request:
- Products with customized shaft dimensions (L max = 400mm)
- Terminal shrouds

series ZBK

ZBK
Switch base mounting ø 22 door clutch padlockable handle IP66

6P - 8P

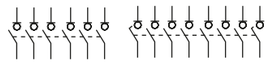
Size 0
A 25|40|80



	CODE - 25A	CODE - 40A	CODE - 80A
6P	ZBK25VZVHN4A6	ZBK40VZVHN4A6	ZBK80VZVHN4A6
8P	ZBK25VZVHN4A8	ZBK40VZVHN4A8	ZBK80VZVHN4A8
6P	ZBK25VZVH4A6	ZBK40VZVH4A6	ZBK80VZVH4A6
8P	ZBK25VZVH4A8	ZBK40VZVH4A8	ZBK80VZVH4A8

Technical information

CE IEC UL EAC



According to VDE 0660, IEC 60947-3, IEC 60947-5-1

				25	40	80
Rated thermal current	Ithe		A	25	40	80
Rated thermal current enclosed	Ithe		A	25	40	80
Rated insulation voltage	Ui		V	690	690	690
Rated impulse withstand voltage	Uimp		kV	6	6	6
AC rated operational current	Ie	AC21A	A	25	40	80
Making capacity	Ieff	3x380-440V	A	190	300	440
Breaking capacity		3x220-240V	A	180	250	380
		3x380-440V	A	180	250	380
		3X660-690V	A	110	170	220
Direct switching motors	AC3	3x400V	A	16	30	37
	AC3	3x220-240V	kW	4	7,5	11
		3x380-440V	kW	7,5	15	18,5
		3x660-690V	kW	7,5	15	18,5
Main & safety switch	AC23	3x400V	A	20	32	45
	AC23A	3x220-240V	kW	5,5	9	15
	AC23B	3x380-440V	kW	10	16	22
		3x660-690V	kW	7,5	15	18,5
Rated conditional short-circuit current			kAeff	10	10	10
Max. fuse size	gL(gG)		A	35	50	80
Rated short-time withstand current (1sec.)	Icw		A	300	500	850
Mechanical life			x10³	200	200	100
Connecting capacity						
Solid or stranded cable			mm²	0,5-10		1-25
			AWG	20-8 (10)		16-4 (10)
Flexible cable			mm²	0,5-6		4-16
			AWG	20-10		16-6
Size of terminal screw				M3,5		M5
Tightening torque			Nm	0,8-1,7		2-4

According to UL & cUL FILE NO. E123623

				25	40	80
Rated voltage			V	600	600	600
Ampere-Rating "General use"			A	25	40	80
DOL-Rating 3-phase		110-220V	HP	1,5	2	5
		220-240V	HP	5	5	10
		440-480V	HP	10	10	20
		550-600V	HP	10	15	25
DOL-Rating 1-phase		110-120V	HP	1	1	2
		200-208V	HP	2	2	3
		220-240V	HP	2	3	5
Fuse size (RK5)	Manual Motor Controller		A	50	70	110
5kA / 600V	Motor Disconnect		A	50	50	70
Tightening torque			Nm	1,2-2,3	1,2-2,3	2,8-4
			lb.Inch	11-20	11-20	24-35

series ZBK

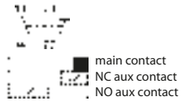
Accessories



» Auxiliary contacts

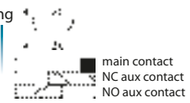
1NO+1NC

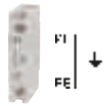
A	CODE
25 80	ZBKLH11



1NO+1NC overlapping

A	CODE
25 80	ZBKLH11X





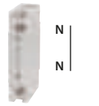
» PE - Terminal

A	CODE
25 80	ZBKPE80V



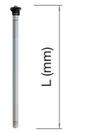
» N - Terminal

A	CODE	A	CODE
25 40	ZBKN40V	80	ZBKN80V



» N - Fixed neutral

A	CODE
25 80	ZBKPEN80V



» Shaft extensions

A	CÓDIGO	L
20	ZBK-0002	200
125	ZBK-0003	300

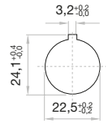
Auxiliary contacts technical information

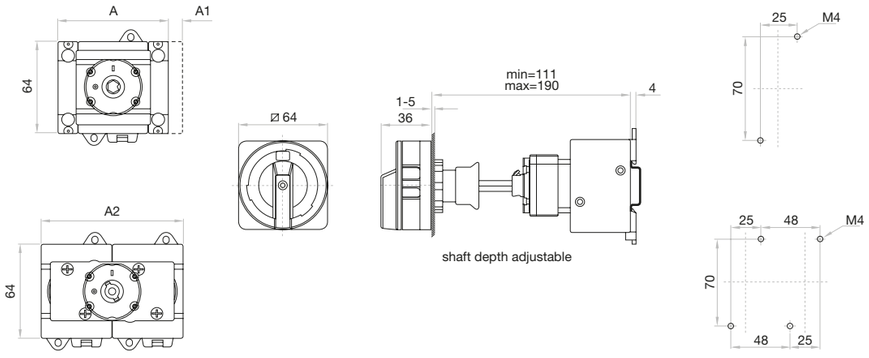
Rated insulation voltage	Ui		V	690
Rated thermal current	Ith - Ithe		A	10
Switching capacity	AC15	220-240V	A	2,5
	AC15	380-440V	A	1,5
Rated conditional short-circuit current			kAeff	3
Max. short circuit protection	gL(gG)		A	10

Connecting capacity		
Solid or stranded cable	mm²	0,75-2,5
	AWG	14-12
Flexible cable (+ multicore cable end)	mm²	0,75-2,5 (1,5)
	AWG	18-14

Dimensions (mm)

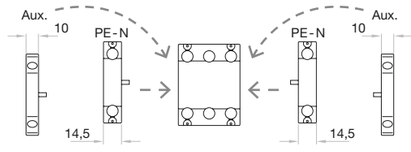
Door drilling for external handle





	6P	6P	8P
	A	A2	A2
25 - 40 A	77	-	97
80 A	-	97	126

Auxiliary contacts
A1



» Other options also available on request:
- Products with customized shaft dimensions (L max = 400mm)
- Terminal shrouds

series ZBK

ZBK
Switch & changeover DIN rail mounting modular padlockable handle IP40 3P - 3P+N - 6P - 8P

Size 0
A 20|25|40|63|80|125



Switch — Changeover

		CODE - 20A	CODE - 25A	CODE - 40A	CODE - 63A	CODE - 80A	CODE - 125A
Switch	3P	ZBK20SMAHN1A3	ZBK25SMAHN1A3	ZBK40SMAHN1A3	ZBK63SMAHN1A3	ZBK80SMAHN1A3	ZBK125SMAHN1A3
	3P + N	ZBK20SMAHN1A4	ZBK25SMAHN1A4	ZBK40SMAHN1A4	ZBK63SMAHN1A4	ZBK80SMAHN1A4	ZBK125SMAHN1A4
	3P	ZBK20SMAH1A3	ZBK25SMAH1A3	ZBK40SMAH1A3	ZBK63SMAH1A3	ZBK80SMAH1A3	ZBK125SMAH1A3
	3P + N	ZBK20SMAH1A4	ZBK25SMAH1A4	ZBK40SMAH1A4	ZBK63SMAH1A4	ZBK80SMAH1A4	ZBK125SMAH1A4
	6P	-	ZBK25SMAHN1A6	ZBK40SMAHN1A6	-	ZBK80SMAHN1A6	-
	8P	-	ZBK25SMAHN1A8	ZBK40SMAHN1A8	-	ZBK80SMAHN1A8	-
	6P	-	ZBK25SMAH1A6	ZBK40SMAH1A6	-	ZBK80SMAH1A6	-
	8P	-	ZBK25SMAH1A8	ZBK40SMAH1A8	-	ZBK80SMAH1A8	-
Changeover	3P + N	ZBK20SMAH1U4	ZBK25SMAH1U4	ZBK40SMAH1U4	ZBK63SMAH1U4	-	-

Bridging links included

Technical information

According to VDE 0660, IEC 60947-3, IEC 60947-5-1

				3P	3P + N	6P		8P	3P + N
				20	**25**	**40**	**63**	**80**	**125**
Rated thermal current	Ith		A	20	25	40	63	80	125
Rated thermal current enclosed	Ithe		A	20	25	40	63	80	110
Rated insulation voltage	Ui		V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp		kV	6	6	6	6	6	8
AC rated operational current	Ie	AC21A	A	20	25	40	63	80	125
Making capacity	Ieff	3x380-440V	A	160	190	300	370	440	850
Breaking capacity		3x220-240V	A	160	180	250	330	380	680
		3x380-440V	A	160	180	250	330	380	680
		3X660-690V	A	80	110	170	190	220	420
Direct switching motors	AC3	3x400V	A	12	16	30	37	37	72
	AC3	3x220-240V	kW	3	4	7,5	11	11	22
		3x380-440V	kW	5,5	7,5	15	18,5	18,5	37
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	30
Main & safety switch	AC23	3x400V	A	16	20	32	45	45	85
	AC23A	3x220-240V	kW	4	5,5	9	15	15	30
	AC23B	3x380-440V	kW	7,5	10	16	22	22	45
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	37
Rated conditional short-circuit current			kAeff	10	10	10	10	10	10
Max. fuse size	gL(gG)		A	25	35	50	63	80	125
Rated short-time withstand current (1sec.)	Icw		A	250	300	500	600	850	1500
Mechanical life			x10³	200	200	200	100	100	100
Connecting capacity									
Solid or stranded cable			mm²		0,5-10			1-25 *(1)	4-50
			AWG		20-8 (10)			16-4 (10)	10-0 (10)
Flexible cable			mm²		0,5-6			4-16 *(1)	10-35
			AWG		20-10			16-6	8-2
Size of terminal screw					M3,5			M5	M6
Tightening torque			Nm		0,8-1,7			2-4	3,5-4,5

According to UL & cUL FILE NO. E123623

				20	**25**	**40**	**63**	**80**	**125**
Rated voltage			V	600	600	600	600	600	600
Ampere-Rating "General use"			A	20	25	40	63	80	125
DOL-Rating 3-phase		110-220V	HP	1	1,5	2	3	5	15
		220-240V	HP	3	5	5	10	10	30
		440-480V	HP	7,5	10	10	20	20	60
		550-600V	HP	10	10	15	25	25	60
DOL-Rating 1-phase		110-120V	HP	1	1	1	2	2	7,5
		200-208V	HP	1	2	2	3	3	10
		220-240V	HP	2	2	3	5	5	15
Fuse size (RK5)	Manual Motor Controller		A	40	50	70	90	110	125
5kA / 600V	Motor Disconnect		A	40	50	50	70	70	125
Tightening torque			Nm	1,2-2,3	1,2-2,3	1,2-2,3	2,8-4	2,8-4	1,7-4,5
			lb.Inch	11-20	11-20	11-20	24-35	24-35	15-40

*(1) ZBK63___U stranded 16 mm² / flexible 10 mm²

series ZBK

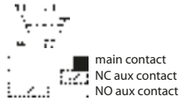
Accessories



>> Auxiliary contacts

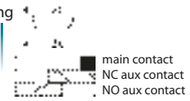
1NO+1NC

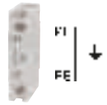
A	CODE
20 125	ZBKLH11



1NO+1NC overlapping

A	CODE
20 125	ZBKLH11X





>> PE - Terminal

A	CODE
20 80	ZBKPE80V



>> N - Fixed neutral

A	CODE
20 80	ZBKPEN80V

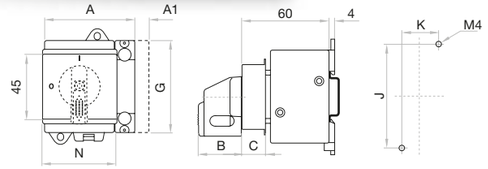
Auxiliary contacts technical information

Rated insulation voltage	Ui		V	690
Rated thermal current	Ith - Ithe		A	10
Switching capacity	AC15	220-240V	A	2,5
	AC15	380-440V	A	1,5
Rated conditional short-circuit current			kAeff	3
Max. short circuit protection		gL(gG)	A	10

Connecting capacity		
Solid or stranded cable	mm²	0,75-2,5
	AWG	14-12
Flexible cable (+ multicore cable end)	mm²	0,75-2,5 (1,5)
	AWG	18-14

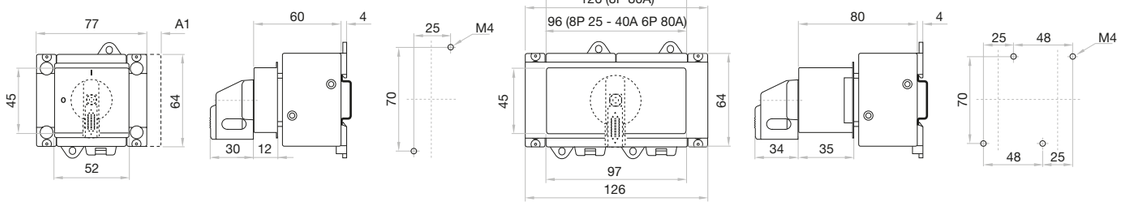
Dimensions (mm)

Switch



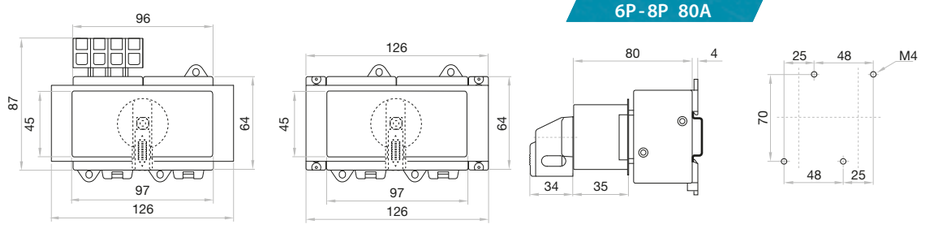
	3P A	4P A	B	C	G	J	K	N
20 - 40 A	48	48	30	12	64	70	25	52
63 - 80 A	48	62,5	30	12	64	70	25	52
125 A	78	78	35	10	85	90	38	78

3P - 4P 20 - 125A



6P 25 - 40A

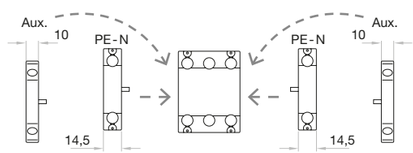
8P 25 - 40A
6P - 8P 80A



20 - 40A

63A

Auxiliary contacts
A1



Changeover

>> Other options also available on request:
- Terminal shrouds
- 3P changeovers

ZBK
Switch plastic enclosure padlockable handle IP66 3P - 3P+N - 6P - 8P

Size 0

A 20|25|40|63|80|125



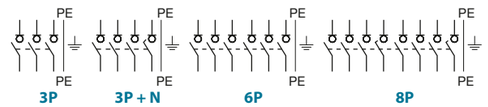
3P - 3P+N



6P - 8P

	CODE - 20A	CODE - 25A	CODE - 40A	CODE - 63A	CODE - 80A	CODE - 125A
3P	ZBK20PFHN4A3	ZBK25PFHN4A3	ZBK40PFHN4A3	ZBK63PFLHN4A3	ZBK80PFLHN4A3	ZBK125PFLHN4A3
3P + N	ZBK20PFHN4A4	ZBK25PFHN4A4	ZBK40PFHN4A4	ZBK63PFLHN4A4	ZBK80PFLHN4A4	ZBK125PFLHN4A4
6P	-	ZBK25PFLHN4A6	ZBK40PFLHN4A6	-	ZBK80PFLHN4A6	-
8P	-	ZBK25PFLHN4A8	ZBK40PFLHN4A8	-	ZBK80PFLHN4A8	-

Technical information



According to VDE 0660, IEC 60947-3, IEC 60947-5-1

				20	25	40	63	80	125
Rated thermal current	Ith		A	20	25	40	63	80	125
Rated thermal current enclosed	Ithe		A	20	25	40	63	80	110
Rated insulation voltage	Ui		V	690	690	690	690	690	1000
Rated impulse withstand voltage	Uimp		kV	6	6	6	6	6	8
AC rated operational current	Ie	AC21A	A	20	25	40	63	80	125
Making capacity	Ieff	3x380-440V	A	160	190	300	370	440	850
Breaking capacity		3x220-240V	A	160	180	250	330	380	680
		3x380-440V	A	160	180	250	330	380	680
		3X660-690V	A	80	110	170	190	220	420
Direct switching motors	AC3	3x400V	A	12	16	30	37	37	72
	AC3	3x220-240V	kW	3	4	7,5	11	11	22
		3x380-440V	kW	5,5	7,5	15	18,5	18,5	37
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	30
Main & safety switch	AC23	3x400V	A	16	20	32	45	45	85
	AC23A	3x220-240V	kW	4	5,5	9	15	15	30
	AC23B	3x380-440V	kW	7,5	10	16	22	22	45
		3x660-690V	kW	5,5	7,5	15	18,5	18,5	37
Rated conditional short-circuit current			kAeff	10	10	10	10	10	10
Max. fuse size	gL(gG)		A	25	35	50	63	80	125
Rated short-time withstand current (1sec.)	Icw		A	250	300	500	600	850	1500
Mechanical life			x10³	200	200	200	100	100	100
Connecting capacity									
Solid or stranded cable			mm²	0,5-10			1-25 *(1)		4-50
			AWG	20-8 (10)			16-4 (10)		10-0 (10)
Flexible cable			mm²	0,5-6			4-16 *(1)		10-35
			AWG	20-10			16-6		8-2
Size of terminal screw				M3,5			M5		M6
Tightening torque			Nm	0,8-1,7			2-4		3,5-4,5

According to UL & cUL FILE NO. E123623

				20	25	40	63	80	125
Rated voltage			V	600	600	600	600	600	600
Ampere-Rating "General use"			A	20	25	40	63	80	125
DOL-Rating 3-phase		110-220V	HP	1	1,5	2	3	5	15
		220-240V	HP	3	5	5	10	10	30
		440-480V	HP	7,5	10	10	20	20	60
		550-600V	HP	10	10	15	25	25	60
DOL-Rating 1-phase		110-120V	HP	1	1	1	2	2	7,5
		200-208V	HP	1	2	2	3	3	10
		220-240V	HP	2	2	3	5	5	15
Fuse size (RK5)	Manual Motor Controller		A	40	50	70	90	110	125
5kA / 600V	Motor Disconnect		A	40	50	50	70	70	125
Tightening torque			Nm	1,2-2,3	1,2-2,3	1,2-2,3	2,8-4	2,8-4	1,7-4,5
			lb.Inch	11-20	11-20	11-20	24-35	24-35	15-40

*(1) ZBK63___U stranded 16 mm² / flexible 10 mm²

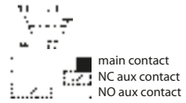
Accessories



>> Auxiliary contacts *(a1)

1NO+1NC

A	CODE
20 125	ZBKLH11

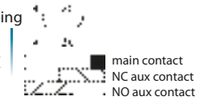




>> Auxiliary contacts *(a1)

1NO+1NC overlapping

A	CODE
20 125	ZBKLH11X

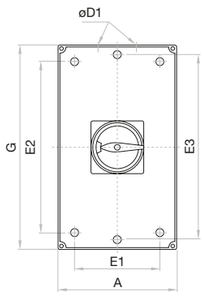


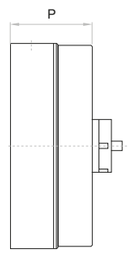
Auxiliary contacts technical information

Rated insulation voltage	Ui		V	690
Rated thermal current	Ith - Ithe		A	10
Switching capacity	AC15	220-240V	A	2,5
	AC15	380-440V	A	1,5
Rated conditional short-circuit current			kAeff	3
Max. short circuit protection		gL(gG)	A	10

Connecting capacity		
Solid or stranded cable	mm²	0,75-2,5
	AWG	14-12
Flexible cable (+ multicore cable end)	mm²	0,75-2,5 (1,5)
	AWG	18-14

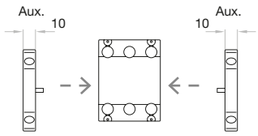
Dimensions (mm)





		A	D1	E1	E2	E3	G	P
20 - 40 A	**3/4P**	98	2 x 25,5/20,5/16,5/12,5	75	150	170	180	76
63 - 125 A	**3/4P**	140	40,5/32,5 + 16,5 + 12,5	100	160	188,5	200	86
25 - 40 A	**6P**	140	40,5/32,5 + 16,5 + 12,5	100	160	188,5	200	86
25 - 40 A	**8P**	176	2x40,5 / 32,5	120	200	228,5	240	120
80 A	**6/8P**	176	2x40,5 / 32,5	120	200	228,5	240	120

Auxiliary contacts *(a1)



*(a1) Standard enclosure capacity swit + 1 aux.
For other needs please consult.

>> Other options also available on request:
- Changeovers
- Black/grey handle

series S5|S5M|S5N | series S6|S6N | series CIS

AC
Switch - disconnectors

Switch - disconnectors with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in different construction models, with a wide range of currents and several accessories.

According to:
IEC 60947-3
IEC 61439-2
RoHS

Testing and approvals:



The switch - disconnectors in its different series, are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a sandwich-type body containing self-cleaning blade type contacts, with pre-arc zones to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life. The detent mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

Functional and ergonomic handle

- Good grip and excellent torque/ resistance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I** position
- When lock in **O OFF** position, door is interlocked
- Defeteable feature in **ON I** position (with the use of a tool for maintenance operations). Handle interlock is restored when closing
- Self-centering shaft for door handle



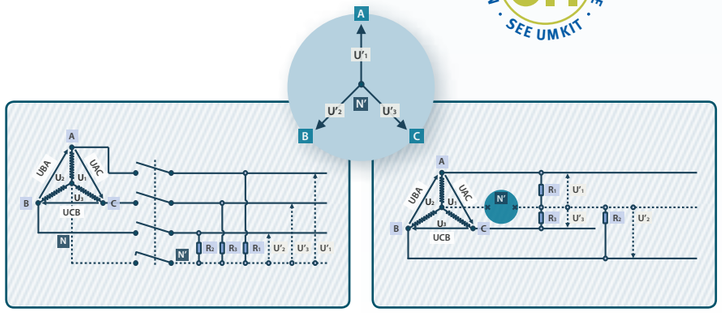
MOTORIZED KIT AVAILABLE · SEE UMKIT · KIT UM

Neutral pole early make & late break

N | N

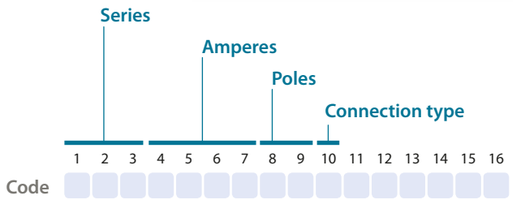
This safety feature prevents accidental overvoltage when making/breaking of loads connected between phase and neutral.

Due to the design in our 3P+N switch - disconnectors and changeover switches, the neutral contact closes before the main phases and opens later, thus ensuring this operation mode.



Range codification:

The S5|S5M|S5N|S6|S6N series, are identified by a code that describes their most important characteristics as described below.



series S5



1 2 3 4 5 6
S 5 -

Wide range of currents.

Base mounting with screws.

Switching under load up to 1000 Vac (inductive and capacitive).

Breaking current up to 8 times the operational current.

Able to establish and withstand short-circuit currents up to 100kA.

External or direct handles.

series S5M



1 2 3 4 5 6
S 5 M

Back to back with operating mechanism in side, arrangement to increase the number of available contacts between 6 or 8.

Base mounting with screws.

External or direct handles.

series S5N



1 2 3 4 5 6
S 5 N

Back to back with operating mechanism in front, arrangement to increase the number of available contacts between 6 or 8.

Base mounting with screws.

External or direct handles.

series S6



1 2 3 4 5 6
S 6 -

Switch - disconnectors with housings for 2P - 3P or 3P+N.

Base mounting with screws.

External or direct handles.

Wide range of devices and accesories.

series S6N



1 2 3 4 5 6
S 6 N

Back to back with operating mechanism in front, arrangement to increase the number of available contacts between 6 or 8.

Base mounting with screws.

External or direct handles.

series CIS25D



1 2 3 4 5 6 7
C I S 2 5 D

S5 polyester enclosed switch.

External padlockable handle with locking cover in ON I position.

Removing cover blocked by padlock when handle is in 0 OFF position.

series CIS25C



1 2 3 4 5 6 7
C I S 2 5 C

S5 metal enclosed switch.

External padlockable handle with locking door in ON I position.

Door opening blocked by padlock when handle is in 0 OFF position.

series CIS25A



1 2 3 4 5 6 7
C I S 2 5 A

S5 polyester enclosed switch and fuse holders.

External padlockable handle with locking cover in ON I position.

Removing cover blocked by padlock when handle is in 0 OFF position.

series CIS25F

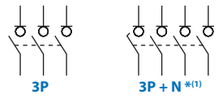


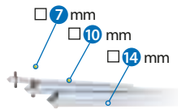
1 2 3 4 5 6 7
C I S 2 5 F

S5 metal enclosed switch and fuse holders.

External padlockable handle with locking door in ON I position.

Door opening blocked by padlock when handle is in 0 OFF position.













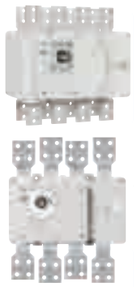


S5 / S5N — S5 switches 2, 3 & 4 poles (40 - 6300A) (O - I)

Manual handle



S5

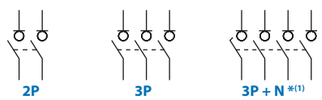


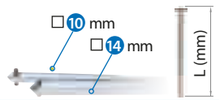
S5N

Amp.	Size	Connection	2 pole (2P) Code	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(2) Code	Direct Code	Emergency external *(2) Code	Shaft extensions *(4) Size	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)	Bridging links *(P2) Code (4 units)	Auxiliary contacts *(5) 1NO+1NC Code	Auxiliary contacts *(5) 2NO+2NC Code	DIN rail mounting Code (2 units)	Safety key lock device *(6) Simple Code *(e1)	Safety key lock device *(6) Double Code *(e1)	Terminal protection *(7) Code	Terminal shrouds *(7) (1 unit) Up 3P Code	Terminal shrouds *(7) (1 unit) Down 3P Code	Terminal shrouds *(7) (1 unit) Up or Down 4P Code	Terminal shrouds *(7) (2 units) Code	Full details in page
40	00		S5-00402PB0	S5-00403PB0	S5-00403NB0	DS-SA01	DS-SI01	DS-SR01	00	7	250	DS-EP04	-	D5LAU01	D5LAU02	-	DS-CAB1	DS-CEB1	-	-	-	-	-	70
63			S5-00632PB0	S5-00633PB0	S5-00633NB0						387	DS-EP05												
80			S5-00802PB0	S5-00803PB0	S5-00803NB0																			
125	0		S5-01252PB0	S5-01253PB0	S5-01253NB0	DS-SA01	DS-SI01	DS-SR01	0	7			-	D5LAU01	D5LAU02	DS-DN01	DS-CAB1	DS-CEB1	DS-CU01	-	-	-	-	72
125			S5-01252PS0	S5-01253PS0	S5-01253NS0											-				DS-CU02	DS-CU03	DS-CU04		
160			S5-01602PB0	S5-01603PB0	S5-01603NB0						250	DS-EP04				DS-DN01				-	-	-		
160			S5-01602PS0	S5-01603PS0	S5-01603NS0						387	DS-EP05				-				DS-CU02	DS-CU03	DS-CU04		
200			S5-02002PS0	S5-02003PS0	S5-02003NS0											-				DS-CU05	DS-CU06	DS-CU07		
250			S5-02502PD0	S5-02503PD0	S5-02503ND0											-				DS-CU05	DS-CU06	DS-CU07		
250	1		S5-02502PR0	S5-02503PR0	S5-02503NR0	DS-SA11	DS-SI11	DS-SR11	1	10	375	DS-EP14	-	D5LAU01	D5LAU02	-	DS-CA11	DS-CE11	DS-CU12	-	-	-	DS-CU11	74
315			S5-03152PR0	S5-03153PR0	S5-03153NR0						536	DS-EP15											DS-CU11	
400			S5-04002PC0	S5-04003PC0	S5-04003NC0																		-	
500	2		-	S5-05003PR0	S5-05003NR0	DS-LA21	DS-LI21	DS-LR21	2	14	345	DS-EP23	-	D5LAU01	D5LAU02	-	DS-CB21	DS-CF21	DS-CU22	-	-	-	DS-CU21	76
630			-	S5-06303PR0	S5-06303NR0						535	DS-EP24												
800			-	S5-08003PC0	S5-08003NC0																			
800	3		-	S5-08003PR0	S5-08003NR0	DS-LA31	DS-LI31	DS-LR31	3	14	345	DS-EP23	-	D5LAU01	D5LAU02	-	DS-CB31	DS-CF31	-	-	-	-	DS-CU31	78
1000			-	S5-10003PC0	S5-10003NC0						535	DS-EP24												
1250			-	S5-12503PC0	S5-12503NC0																			
2000			-	S5-20003PC0	S5-20003NC0	DS-LA41	DS-LI41	DS-LR41			345	DS-EP23	D5LPC32	DS-AU11	DS-AU12									
											535	DS-EP24												
1000	4		-	S5-10003PS0	S5-10003NS0	DS-LA41	DS-LI41	DS-LR41	4	14	485	DS-EP44	-	D5LAU01	D5LAU02	-	DS-CB41	DS-CF41	-	-	-	-	DS-CU41	80
1250			-	S5-12503PS0	S5-12503NS0						635	DS-EP45												
1600			-	S5-16003PS0	S5-16003NS0																			
1800			-	S5-18003PS0	S5-18003NS0																			
2000			-	S5-20003PD0	S5-20003ND0																			
2000	5 (S5N)		-	S5N20003PS0	S5N20003NS0	DS-LA41	DS-LI41	DS-LR41	5 (S5N)	-	-	-	D5LPC41	D5LAU01	D5LAU02	-	DS-CB41	DS-CF41	-	-	-	-	-	82
2500			-	S5N25003PS0	S5N25003NS0								D5LPC41											
3150			-	S5N31503PS0	S5N31503NS0								D5LPC42											
2000			-	S5N20003PP0	S5N20003NP0								-											84
2500			-	S5N25003PP0	S5N25003NP0																			
3150			-	S5N31503PP0	S5N31503NP0																			
4000	6		-	S5-40003PP0	S5-40003NP0	DS-EN61 *(3)	-	-	6	-	-	-	-	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	86
5000			-	S5-50003PP0	S5-50003NP0																			
6300			-	S5-63003PP0	S5-63003NP0																			

For high performance range (800Vac), please consult the corresponding full details.

*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.











S6 — S6 switches 2, 3 & 4 poles (200 - 800A) (O - I)

Manual handle



Amp.	Size	Connection	Bipolar (2P) Code	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(2) Code	Direct Code	Emergency external *(2) Code	Shaft extensions *(4) □	Type 1 & 2 L	Type 1 & 2 Code *(e1)	Auxiliary contacts *(5) 1NO+1NC Code	Auxiliary contacts *(5) 2NO+2NC Code	Safety key lock device *(6) Simple Code *(e1)	Safety key lock device *(6) Double Code *(e1)	Spacers (4 units) Code	Phase barriers (1 unit) Code	Phase barriers (2 units) Code	Phase barriers (3 units) Code	Terminal shrouds *(7) Code	Terminal shrouds *(7) Code	Terminal shrouds *(7) Code	Full details in page
200	1		S6-02002PS0	S6-02003PS0	S6-02003NS0	DS-SA11	DS-SI11	DS-SR11	10	375	DS-EP14	D5LAU01	D5LAU02	DS-CA11	DS-CE11	DR-EL11	DR-SF11	DR-SF12	DR-SF13	DR-CU11	DR-CU12	DR-CU13	88
250			S6-02502PS0	S6-02503PS0	S6-02503NS0					536	DS-EP15												
315			S6-03152PS0	S6-03153PS0	S6-03153NS0																		
400			S6-04002PD0	S6-04003PD0	S6-04003ND0																		
500	2		S6-05002PS0	S6-05003PS0	S6-05003NS0	DS-LA21	DS-LI21	DS-LR21	14	345	DS-EP23	D5LAU01	D5LAU02	DS-CB21	DS-CF21	DR-EL21	DR-SF21	DR-SF22	DR-SF23	DR-CU21	DR-CU22	DR-CU23	90
630			S6-06302PS0	S6-06303PS0	S6-06303NS0					535	DS-EP24												
800			S6-08002PD0	S6-08003PD0	S6-08003ND0																		

For high performance range (800Vac), please consult the corresponding full details.

*(1) Neutral pole early make-late break - Versions 4P with "simultaneous contacts" are also available, please consult.

*(2) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.

*(3) Slide bar handle, only standard door interlock, please consult the correspondig full details.

Please indicate in your order the switch code and the handle code, as these both products are managed separately. A standard shaft is included with the handle.

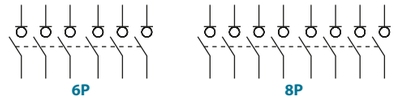
*(4) A standard shaft is included with the external handle.

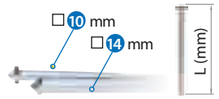
*(5) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac. Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.

*(6) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked. Interlocking in other positions available upon request.

*(7) One set or one unit for input or output. Terminals shrouds for S5N only for frontal switch. These accessories aren't compatible with each other.

*(e1) All these codes are related to the new handle, in case of replacements for old design handles, please consult.









S6N | S6 switches 6 & 8 poles (125 - 630A) (O - I)

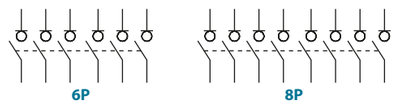
Manual handle

MOTORIZED HANDLE AVAILABLE KIT UM SEE PAGE 192





Amp.	Size	Connection	6 pole (6P) Code	8 pole (8P) Code	External *(1) Code	Direct Code	Emergency external *(1) Code	Size	□	Shaft extensions *(2) Type 1 & 2 L	Shaft extensions *(2) Type 1 & 2 Code *(e1)	Auxiliary contacts *(3) 1NO+1NC Code	Auxiliary contacts *(3) 2NO+2NC Code	Safety key lock device *(4) Simple Code *(e1)	Safety key lock device *(4) Double Code *(e1)	Full details in page
125	1		S6N01256PS0	S6N01258PS0	DS-SA11	DS-SI11	DS-SR11	1	10	375	DS-EP14	D5LAU01	D5LAU02	DS-CA11	DS-CE11	102
160			S6N01606PS0	S6N01608PS0						536	DS-EP15					
200			S6N02006PS0	S6N02008PS0												
250			S6N02506PS0	S6N02508PS0												
315			S6N03156PS0	S6N03158PS0												
400			S6N04006PD0	S6N04008PD0												
500	2		S6N05006PS0	S6N05008PS0	DS-LA21	DS-LI21	DS-LR21	2	14	345	DS-EP23	D5LAU01	D5LAU02	DS-CB21	DS-CF21	104
630			S6N06306PS0	S6N06308PS0						535	DS-EP24					















S5M S5N | S5 switches 6 & 8 poles (125 - 2000A) (O - I)

Manual handle

MOTORIZED HANDLE AVAILABLE KIT UM SEE PAGE 192



S5M



S5N

Amp.	Size	Connection	6 pole (6P) Code	8 pole (8P) Code	External *(1) Code	Direct Code	Emergency external *(1) Code	Size	Auxiliary contacts *(3) 1NO+1NC Code	Auxiliary contacts *(3) 2NO+2NC Code	Safety key lock device *(4) Simple Code *(e1)	Safety key lock device *(4) Double Code *(e1)	Phase barriers *(5) 6P Code	Phase barriers *(5) 8P Code	Terminal protection *(5) Code	Terminal shrouds *(5) (1 unit) Up 6P Code	Terminal shrouds *(5) (1 unit) Down 6P Code	Terminal shrouds *(5) (1 unit) Up or Down 8P Code	Terminal shrouds *(5) (2 units) Only switches Code	Full details in page
125	0		S5M01256PS0	S5M01258PS0	DS-LA01	DS-SI01	DS-LR01	0	DS-AU11	DS-AU12	DS-CAB1	DS-CEB1	DS-PB01	DS-PB02	-	DS-CU02	DS-CU03	DS-CU04	-	92
160			S5M01606PS0	S5M01608PS0									DS-PB01	DS-PB02		DS-CU02	DS-CU03	DS-CU04		
200			S5M02006PS0	S5M02008PS0									DS-PB04	DS-PB03		DS-CU05	DS-CU06	DS-CU07		
250	1		S5M02506PR0	S5M02508PR0	DS-LA12	DS-LI12	DS-LR12	1	DS-AU11	DS-AU12	DS-CB12	DS-CF11	DS-PB12	DS-PB11	DS-CU12	-	-	-	DS-CU11	94
315			S5M03156PR0	S5M03158PR0									DS-PB12	DS-PB11						
400			S5M04006PC0	S5M04008PC0									DS-PB14	DS-PB13						
500	2		S5M05006PR0	S5M05008PR0	DS-LA22	DS-LI22	DS-LR22	2	DS-AU11	DS-AU12	DS-CB21	DS-CF21	DS-PB22	DS-PB21	-	-	-	-	DS-CU21	96
630			S5M06306PR0	S5M06308PR0																
800	3		S5M08006PR0	S5M08008PR0	DS-LA41	DS-LI41	DS-LR41	3	DS-AU11	DS-AU12	DS-CB41	DS-CF41	DS-PB32	DS-PB31	-	-	-	-	DS-CU31	98
1000			S5M10006PC0	S5M10008PC0																
1250	4 (S5N)		S5N12506PS0	S5N12508PS0	DS-LA41	DS-LI41	DS-LR41	4 (S5N)	D5LAU01	D5LAU02	DS-CB41	DS-CF41	-	-	-	-	-	-	-	100
1600			S5N16006PS0	S5N16008PS0																
1800			S5N18006PS0	S5N18008PS0																
2000			S5N20006PD0	S5N20008PD0																

For high performance range (800Vac), please consult the corresponding full details.

*(1) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.

Please indicate in your order the switch code and the handle code, as these both products are managed separately. A standard shaft is included with the handle.

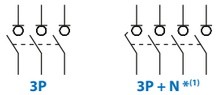
*(2) A standard shaft is included with the external handle.

*(3) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac. Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.

*(4) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked. Interlocking in other positions available upon request.

*(5) One set or one unit for input or output. Terminals shrouds for **S5M** or **S5N** only for frontal switch. These accessories aren't compatible with each other.

*(e1) All these codes are related to the new handle , in case of replacements for old design handles, please consult.







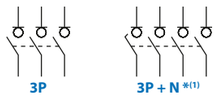


CIS25A | CIS25D — S5 polyester enclosed switches *(2) IP65 *(3)
3 & 4 poles (40 - 1600A) (O - I)


CIS25D


CIS25A

Amp.	Size	CIS25D___ Without fuse holders		CIS23A___With fuse holders NH *(4)		Size	Auxiliary contacts *(6)		Safety key lock device *(7)		Terminal shrouds *(8) (2 unidades)	Full details in page.
		3 pole (3P)	4 pole (3P + N) *(1)	3 pole (3P)	4 pole (3P + N) *(1)		1NO+1NC	2NO+2NC	Simple	Doble	Code	
		Code	Code	Code	Code		Code	Code	Code	Code		
40		CIS25D00403PB	CIS25D00403NB	CIS25A00403PB	CIS25A00403NB							
63	00	CIS25D00633PB	CIS25D00633NB	CIS25A00633PB	CIS25A00633NB	00	D5LAU01	D5LAU02	DS-CAB1	DS-CEB1	-	106
80		CIS25D00803PB	CIS25D00803NB	CIS25A00803PB	CIS25A00803NB							
125	0	CIS25D01253PB	CIS25D01253NB	CIS25A01253PB	CIS25A01253NB	0	D5LAU01	D5LAU02	DS-CAB1	DS-CEB1	-	108
160		CIS25D01603PB	CIS25D01603NB	CIS25A01603PB	CIS25A01603NB							
200		CIS25D02003PR	CIS25D02003NR	CIS25A02003PR	CIS25A02003NR							
250	1	CIS25D02503PR	CIS25D02503NR	CIS25A02503PR	CIS25A02503NR	1	D5LAU01	D5LAU02	DS-CA11	DS-CE11	DS-CU11	110
315		CIS25D03153PR	CIS25D03153NR	CIS25A03153PR	CIS25A03153NR							
400	2	CIS25D04003PR	CIS25D04003NR	CIS25A04003PR	CIS25A04003NR	2	D5LAU01	D5LAU02	DS-CB21	DS-CF21	DS-CU21	112
630		CIS25D06303PR	CIS25D06303NR	CIS25A06303PR	CIS25A06303NR							
800	3	CIS25D08003PR	CIS25D08003NR	CIS25A08003PR	CIS25A08003NR	3	D5LAU01	D5LAU02	DS-CB31	DS-CF31	DS-CU31	114
1000		CIS25D10003PS	CIS25D10003NS	CIS25A10003PS	CIS25A10003NS							
1250	4	CIS25D12503PS	CIS25D12503NS	CIS25A12503PS	CIS25A12503NS	4	D5LAU01	D5LAU02	DS-CB41	DS-CF41	DS-CU41	116
1600		CIS25D16003PS	CIS25D16003NS	CIS25A16003PS	CIS25A16003NS							









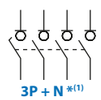
CIS25C | CIS25F — S5 metal enclosed switches *(2) IP65
3 & 4 poles (40 - 1600A) (O - I)


CIS25C


CIS25F

Amp	Size	CIS25C ___Without fuse holders		CIS25F___With fuse holders NH *(4)		Size	Auxiliary contacts *(6)		Safety key lock device *(7)		Terminal shrouds *(8) (2 unidades)	Full details in page.
		3 pole (3P)	4 pole (3P + N) *(1)	3 pole (3P)	4 pole (3P + N) *(1)		1NO+1NC	2NO+2NC	Simple	Doble	Code	
		Code	Code	Code	Code		Code	Code	Code	Code		
40		CIS25C00403PB	CIS25C00403NB	CIS25F00403PB	CIS25F00403NB							
63	00	CIS25C00633PB	CIS25C00633NB	CIS25F00633PB	CIS25F00633NB	00	D5LAU01	D5LAU02	DS-CAB1	DS-CEB1	-	106
80		CIS25C00803PB	CIS25C00803NB	CIS25F00803PB	CIS25F00803NB							
125	0	CIS25C01253PB	CIS25C01253NB	CIS25F01253PB	CIS25F01253NB	0	D5LAU01	D5LAU02	DS-CAB1	DS-CEB1	-	108
160		CIS25C01603PB	CIS25C01603NB	CIS25F01603PB	CIS25F01603NB							
200		CIS25C02003PR	CIS25C02003NR	CIS25F02003PR	CIS25F02003NR							
250	1	CIS25C02503PR	CIS25C02503NR	CIS25F02503PR	CIS25F02503NR	1	D5LAU01	D5LAU02	DS-CA11	DS-CE11	DS-CU11	110
315		CIS25C03153PR	CIS25C03153NR	CIS25F03153PR	CIS25F03153NR							
400		CIS25C04003PC	CIS25C04003NC	-	-							
400	2	CIS25C04003PR	CIS25C04003NR	CIS25F04003PR	CIS25F04003NR	2	D5LAU01	D5LAU02	DS-CB21	DS-CF21	DS-CU21	112
630		CIS25C06303PR	CIS25C06303NR	CIS25F06303PR	CIS25F06303NR							
800	3	CIS25C08003PR	CIS25C08003NR	CIS25F08003PR	CIS25F08003NR	3	D5LAU01	D5LAU02	DS-CB31	DS-CF31	DS-CU31	114
1000		CIS25C10003PS	CIS25C10003NS	CIS25F10003PS	CIS25F10003NS							
1250	4	CIS25C12503PS	CIS25C12503NS	CIS25F12503PS	CIS25F12503NS	4	D5LAU01	D5LAU02	DS-CB41	DS-CF41	DS-CU41	116
1600		CIS25C16003PS	CIS25C16003NS	CIS25F16003PS	CIS25F16003NS							

Under request higher currents are available, please consult.



IPTA | IPTR | IPTU — Switch disconnector for transformer secondary protection *(5) IP65
4 poles (40 - 630A) (O - I)


IPTR


IPTU


IPTA

Amp.	IPTR ___Manual single module*(4)	IPTU ___Manual double module*(4)	IPTA ___Automatic single module		Full details in page.
	4 pole (3P + N) *(1)	4 pole (3P + N) *(1)	4 pole		
	Code	Code	Amp.	Code	
160	IPTR01603NB0	IPTU01603NB0	40	IPTA00404PS0	
250	IPTR02503NB0	IPTU02503NB0	50... 63	IPTA00634PS0	
400	IPTR04003NB0	IPTU04003NB0	80... 100	IPTA01004PS0	
630	IPTR06303NT0	IPTU06303NT0	125... 160	IPTA01604PS0	118
			200	IPTA02004PS0	
			250	IPTA02504PS0	
			320... 400	IPTA04004PS0	
			630	IPTA06304PT0	

*(1) Neutral pole early make-late break - Versions 4P with "simultaneous contacts" are also available, please consult.
*(2) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.
*(3) CIS25A size 4 - IP43.
*(4) Fuses are not supplied, please consult.
*(5) All with control for pole drive.
*(6) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac. Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.
*(7) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.
*(8) One set for input or output in enclosures without fuse bases. With fuse bases in the input only.

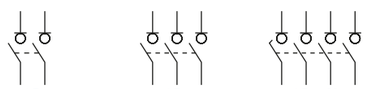
series S5

S5 AC
Switch - disconnector base mounting 2P - 3P - 3P+N

Size 00
A 40|63|80



	CODE - 40A	CODE - 63A	CODE - 80A
2P	S5-00402PB0	S5-00632PB0	S5-00802PB0
3P	S5-00403PB0	S5-00633PB0	S5-00803PB0
3P + N	S5-00403NB0	S5-00633NB0	S5-00803NB0



Technical information

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

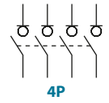
According to IEC 60947-3

					40	63	80
Rated thermal current in ambient at	Ith		40 °C	A	50	63	80
			50 °C	A	50	63	80
			60 °C	A	40	63	64
Rated insulation voltage	Ui			V	800	800	800
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	50	63	80
		Ue 400V	AC22A	A	50	63	63
		Ue 400V	AC23A	A	50	50	50
Rated breaking capacity		400V	AC23	A	400	400	400
Rated making capacity		400V	AC23	A	500	500	500

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			40	63	80
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	5	5	5
Rated short-time withstand current (1sec.)	Icw	kA rms	3	3	3
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	10000	10000
Maximum weight		Kg	0,4	0,4	0,4



Also available 4P switch - disconnectors under request, please consult

series S5

Accessories



Direct handle
CODE DS-SI01



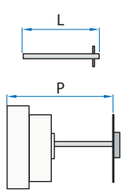
External handle included shaft *(e1)
IP65
CODE DS-SA01



External handle without shaft
IP65
CODE DS-SA03



Emergency external handle included shaft *(e1)
IP65
CODE DS-SR01



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
177	85... 195,5

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
250	85... 278	DS-EP04

Type 2

L (mm)	P (mm)	CODE
387	85... 415	DS-EP05



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

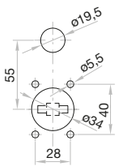


Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

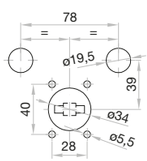
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

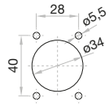


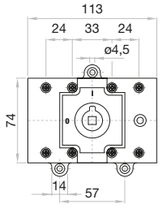
Double

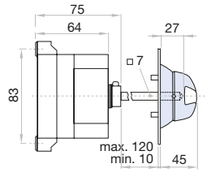


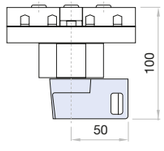
Dimensions (mm)

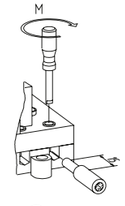
Door drilling for external handle









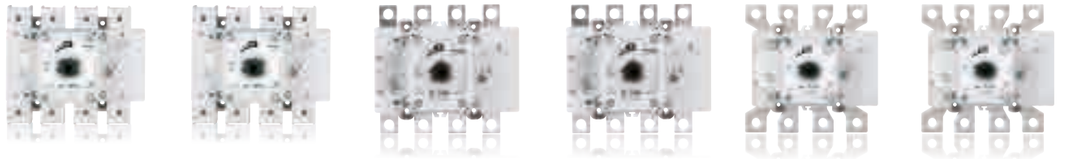


S max (Cu)	M
mm²	Nxm
25	2

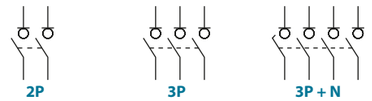
series S5

S5 AC
Switch - disconnector base mounting 2P - 3P - 3P+N

Size 0
A 125|160|200|250



	CODE - 125A	CODE - 160A	CODE - 125A	CODE - 160A	CODE - 200A	CODE - 250A
2P	S5-01252PB0	S5-01602PB0	S5-01252PS0	S5-01602PS0	S5-02002PS0	S5-02502PD0
3P	S5-01253PB0	S5-01603PB0	S5-01253PS0	S5-01603PS0	S5-02003PS0	S5-02503PD0
3P + N	S5-01253NB0	S5-01603NB0	S5-01253NS0	S5-01603NS0	S5-02003NS0	S5-02503ND0



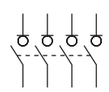
Technical information

According to IEC 60947-3

					125	160	200	250
Rated thermal current in ambient at	Ith		40 °C	A	125	160	200	250
			50 °C	A	125	160	200	250
			60 °C	A	125	160	200	200
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	125	160	200	250
		Ue 400V	AC22A	A	125	160	200	250*(3)
		Ue 400V	AC23A	A	125	160	160	160
Rated breaking capacity		400V	AC23	A	1000	1280	1280	1280
Rated making capacity		400V	AC23	A	1250	1600	1600	1600

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)
*(3) Rated operational current AC22B

			125	160	200	250
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	13	13	13	13
Rated short-time withstand current (1sec.)	Icw	kA rms	7	7	7	7
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000	8000
Maximum weight 3P		Kg	0,85	0,85	0,9	0,9
Maximum weight 3P + N		Kg	1	1	1	1



Also available 4P switch - disconnectors under request, please consult

series S5

Accessories



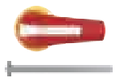
Direct handle
CODE DS-SI01



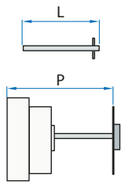
External handle included shaft *(e1)
IP65
CODE DS-SA01



External handle without shaft
IP65
CODE DS-SA03



Emergency external handle included shaft *(e1)
IP65
CODE DS-SR01



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
177	87... 197,5

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
250	87... 278	DS-EP04

Type 2

L (mm)	P (mm)	CODE
387	87... 415	DS-EP05



Terminal shrouds

	UP 3P (1 unit)	DOWN 3P (1 unit)	UP OR DOWN 4P (1 unit)
	DS-CU02	DS-CU03	DS-CU04
	DS-CU05	DS-CU06	DS-CU07



DIN rail mounting
CODE DS-DN01
(1 kit for 125-160A switches)



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Safety key lock device
Simple CODE DS-CAB1
Double CODE DS-CEB1

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

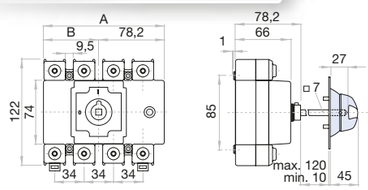


Double

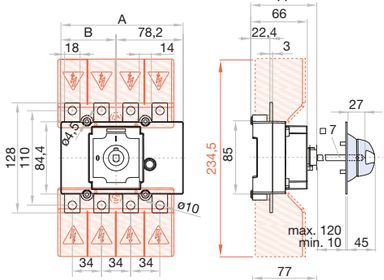


Door drilling for external handle

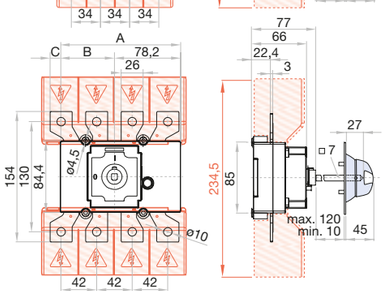
Dimensions (mm)



	A			B			S max (Cu)	M
	2P	3P	4P	2P	3P	4P	mm²	Nxm
125 A 160 A	131	131	142	53	53	64	95	4



	A			B			S max (Cu)	H max (Cu)	L max (Cu)		M
	2P	3P	4P	2P	3P	4P	mm²	mm	mm		Nxm
125 A 160 A	131	131	142	53	53	64	95	5	25	M8	13



	A			B			C	S max (Cu)	Z max	H max (Cu)	L max (Cu)		M
	2P	3P	4P	2P	3P	4P	4P	mm²		mm	mm		Nxm
200 A 250 A	131	131	142	53	53	64	11,8	120	30	5	30	M10	18

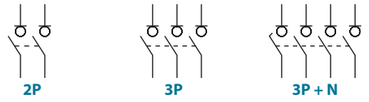
series S5

S5 AC
Switch - disconnector base mounting 2P - 3P - 3P+N

Size 1
A 250|315|400



	CODE - 250A	CODE - 315A	CODE - 400A
2P	S5-02502PR0	S5-03152PR0	S5-04002PC0
3P	S5-02503PR0	S5-03153PR0	S5-04003PC0
3P + N	S5-02503NR0	S5-03153NR0	S5-04003NC0



Technical information

tests:

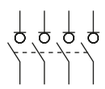
According to IEC 60947-3

					250	315	400
Rated thermal current in ambient at	Ith	40 °C		A	250	315	400
		50 °C		A	250	315	400
		60 °C		A	250	315	320
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	250	315	400
		Ue 400V	AC22A	A	250	315	400
		Ue 400V	AC23A	A	250	315	400
Rated breaking capacity		400V	AC23	A	2000	2520	3200
Rated making capacity		400V	AC23	A	2500	3150	4000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			250	315	400
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	20	20	20
Rated short-time withstand current (1sec.)	Icw	kA rms	12	12	12
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	5000
Maximum weight 3P		Kg	1,7	1,7	1,9
Maximum weight 3P + N		Kg	1,9	1,9	2,1



Also available 4P switch - disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S5

Accessories



Direct handle
CODE DS-SI11



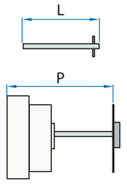
External handle included shaft *(e1)
IP65
CODE DS-SA11



External handle without shaft
IP65
CODE DS-SA14



Emergency external handle included shaft *(e1)
IP65
CODE DS-SR11



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



Terminal protection
CODE DS-CU12
(1 unit for input or output)



Terminal shrouds
CODE DS-CU11
(1 kit for input or output)



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

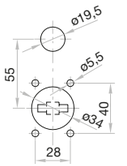


Safety key lock device
Simple *CODE* DS-CA11
Double *CODE* DS-CE11

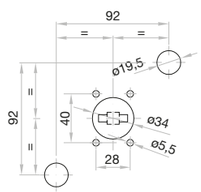
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

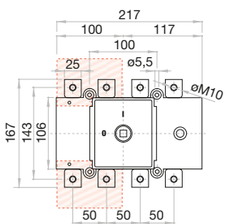
Simple

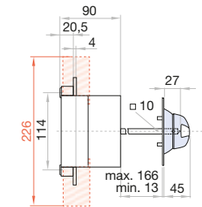


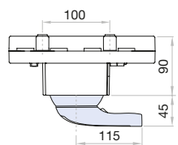
Double

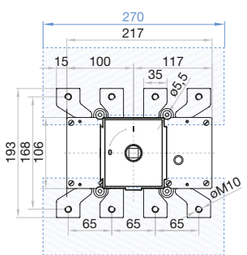


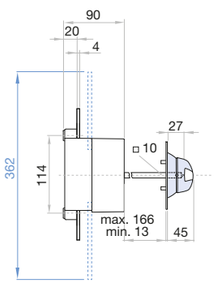
Dimensions (mm)

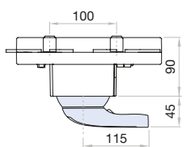




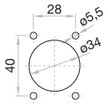


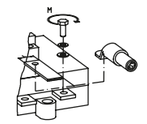




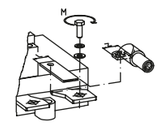


Door drilling for external handle





	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
250 A 315 A	185	7	25	M10	18



	S max (Cu) mm²	Z max	H max (Cu) mm	L max (Cu) mm		M Nxm
400 A	240	44	7	40	M10	24

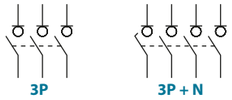
series S5

S5 AC
Switch - disconnector base mounting 3P - 3P+N

Size 2
A 500|630|800



	CODE - 500A	CODE - 630A	CODE - 800A
3P	S5-05003PR0	S5-06303PR0	S5-08003PC0
3P + N	S5-05003NR0	S5-06303NR0	S5-08003NC0



Technical information

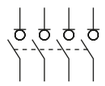
tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC 60947-3

					500	630	800
Rated thermal current in ambient at	Ith	40 °C		A	500	630	800
		50 °C		A	500	630	720
		60 °C		A	500	630	640
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	500	630	800
		Ue 400V	AC22A	A	500	630	800
		Ue 400V	AC23A	A	500	630	800
Rated breaking capacity		400V	AC23	A	4000	5000	6400
Rated making capacity		400V	AC23	A	5000	6300	8000

*(1) Other voltages and / or utilization categories. Please consult
*(3) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			500	630	800
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	26	26	26
Rated short-time withstand current (1sec.)	Icw	kA rms	16	16	16
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000	3000
Maximum weight 3P		Kg	4,2	4,2	4,2
Maximum weight 3P + N		Kg	4,5	4,5	4,5



Also available 4P switch - disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S5

Accessories



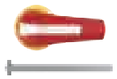
Direct handle
CODE DS-LI21



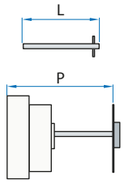
External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR21



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24



Terminal protection
CODE DS-CU22
(1 unit for input or output)



Terminal shrouds
CODE DS-CU21
(1 kit for input or output)



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

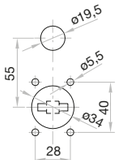


Safety key lock device
Simple *CODE* DS-CB21
Double *CODE* DS-CF21

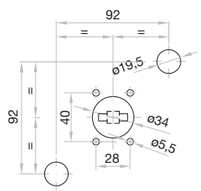
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

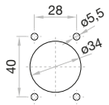


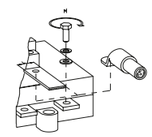
Double

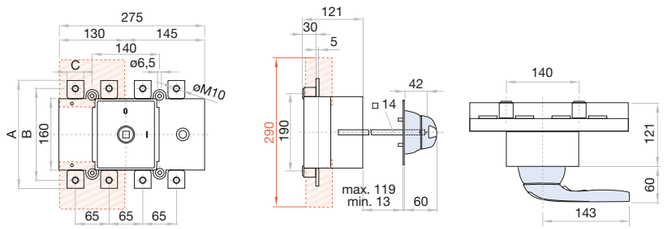


Dimensions (mm)

Door drilling for external handle







	A	B	C
500 A	220	190	25
630 A **800 A**	235	205	30

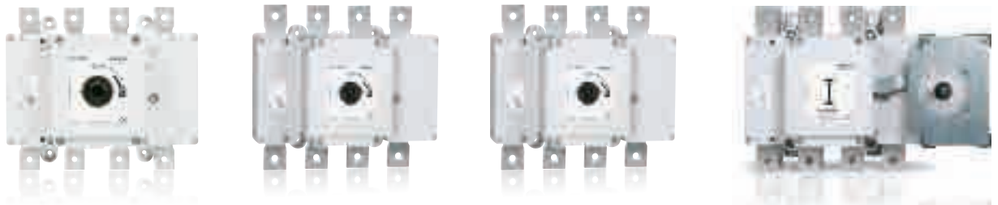
S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm	M Nxm
2x185	6	40	M10 24
2x240	2x5	40 50	

series S5

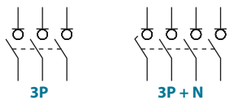
S5 AC
Switch - disconnector base mounting 3P - 3P+N

Size 3

A 800|1000|1250|2000



	CODE - 800A	CODE - 1000A	CODE - 1250A	CODE - 2000A
3P	S5-08003PR0	S5-10003PC0	S5-12503PC0	S5-20003PC0
3P + N	S5-08003NR0	S5-10003NC0	S5-12503NC0	S5-20003NC0



Technical information

According to IEC 60947-3

consult consult

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

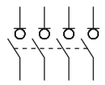
					800	1000	1250	2000
Rated thermal current in ambient at	Ith		40 °C	A	800	1000	1250	2000
			50 °C	A	800	1000	1125	1800
			60 °C	A	800	900	900	1600
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	800	1000	1250	2000
		Ue 400V	AC22A	A	800	1000	1250	2000*(3)
		Ue 400V	AC23A	A	800	1000	1000	-
Rated breaking capacity		400V	AC23	A	6400	8000	8000	6000
Rated making capacity		400V	AC23	A	8000	10000	10000	6000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

*(3) AC22B

			800	1000	1250	2000
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	60	60	60	80
Rated short-time withstand current (1sec.)	Icw	kA rms	25	25	25	38
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000	3000	3000	3000
Maximum weight 3P		Kg	7	7	7	18,5
Maximum weight 3P + N		Kg	7,6	7,6	7,6	20



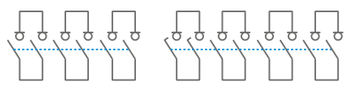
4P

Also available 4P switch - disconnectors under request, please consult

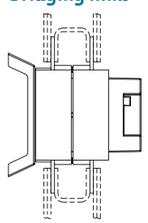
Connection diagram

Connection diagram
between front & rear

BI-1 S5-20003PC0 S5-20003NC0



Bridging links *(P2)



MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S5

Accessories



Direct handle
CODE DS-LI31
CODE DS-LI41 (2000 A)



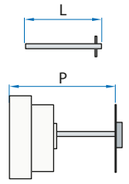
External handle included shaft *(e1)
IP65
CODE DS-LA31
CODE DS-LA41 (2000 A)



External handle without shaft
IP65
CODE DS-LA33 (for 800-1000-1250A)



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR31
CODE DS-LR41 (2000 A)



Shafts

Standard shaft included *(e1)

	L (mm)	P (mm)
	186	145... 242
(2000 A)	239	145... 242

Shaft extensions

Type 1

	L (mm)	P (mm)	CODE
	345	145... 411	DS-EP23
(2000 A)	485	145... 244	DS-EP44

Type 2

	L (mm)	P (mm)	CODE
	535	145... 600	DS-EP24
(2000 A)	635	145... 600	DS-EP45



Terminal shrouds
CODE DS-CU31
(1 kit for input or output, 2000 A on frontal side only)



Bridging links *(P2)
BH 2000 A CODE x2 D5LPC32 (4 units)

*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02
1NO+1NC CODE DS-AU11 (2000 A)
2NO+2NC CODE DS-AU12 (2000 A)

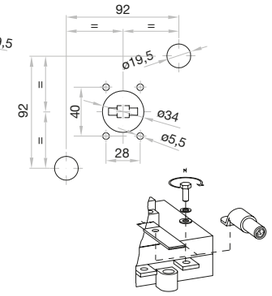
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Safety key lock device
Simple CODE DS-CB31
Double CODE DS-CF31

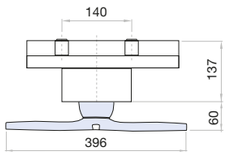
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

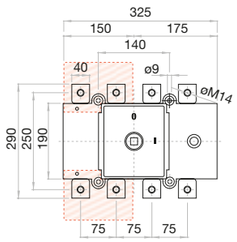
Door drilling for handle and key lock device
Simple Double

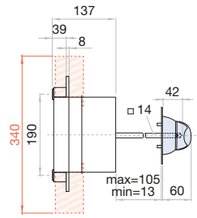


Dimensions (mm)

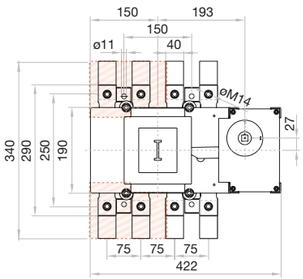
Door drilling for external handle

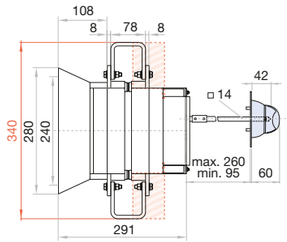


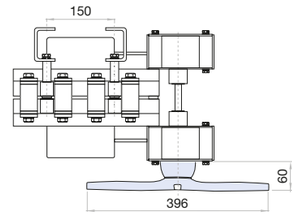


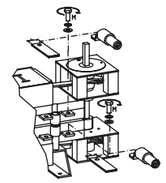


	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
800 A	2x240				
1000 A 1250 A	2x300	2x10	50	M14	45









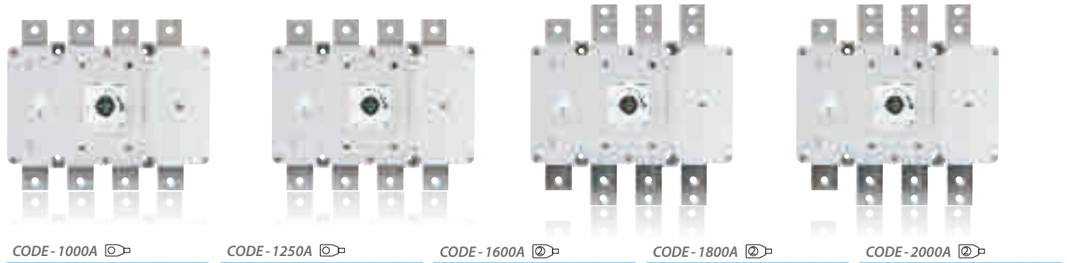
	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
2000 A	4x300	4x10	50	M14	45

series S5

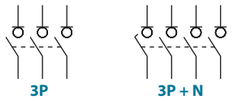
S5 AC
Switch - disconnector base mounting 3P - 3P+N

Size 4

A 1000|1250|1600|1800|2000



	CODE - 1000A	CODE - 1250A	CODE - 1600A	CODE - 1800A	CODE - 2000A
3P	S5-10003PS0	S5-12503PS0	S5-16003PS0	S5-18003PS0	S5-20003PD0
3P + N	S5-10003NS0	S5-12503NS0	S5-16003NS0	S5-18003NS0	S5-20003ND0



Technical information

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

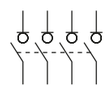
According to IEC 60947-3

					1000	1250	1600	1800	2000
Rated thermal current in ambient at	Ith	40 °C		A	1000	1250	1600	1800	2000
		50 °C		A	1000	1250	1600	1800	1800
		60 °C		A	1000	1000	1600	1600	1600
Rated insulation voltage	Ui			V	1000	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1000	1250	1600	1800	2000
		Ue 400V	AC22A	A	1000	1250	1600	1800	2000
		Ue 400V	AC23B	A	-	-	1600	1600	1600
		Ue 800V	AC21B	A	-	-	-	1600	-
Rated breaking capacity		400V	AC22	A	3000	3750	4800	5400	6000
Rated making capacity		400V	AC22	A	3000	3750	4800	5400	6000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			1000	1250	1600	1800	2000
Short - circuit behaviour							
Rated short-circuit making capacity *(2)	Icm	kA (peak)	60	60	75	75	75
Rated short-time withstand current (1sec.)	Icw	kA rms	25	25	50	50	50
Mechanical features							
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000	3000	3000	3000	3000
Maximum weight 3P		Kg	18,5	18,5	18,5	18,5	18,5
Maximum weight 3P + N		Kg	20,8	20,8	20,8	20,8	20,8



Also available 4P switch - disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S5

Accessories



» Direct handle

CODE DS-LI41



» External handle included shaft *(e1)

IP65

CODE DS-LA41



» External handle without shaft

IP65

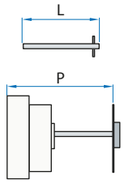
CODE DS-LA43



» Emergency external handle included shaft *(e1)

IP65

CODE DS-LR41



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	235... 400

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
485	235... 686	DS-EP44

Type 2

L (mm)	P (mm)	CODE
635	235... 836	DS-EP45



» Terminal shrouds

CODE DS-CU41
(1 kit for input or output)



» Auxiliary contacts

1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



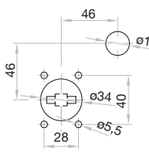
» Safety key lock device

Simple CODE DS-CB41
Double CODE DS-CF41

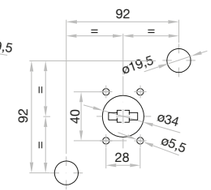
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

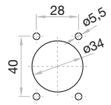


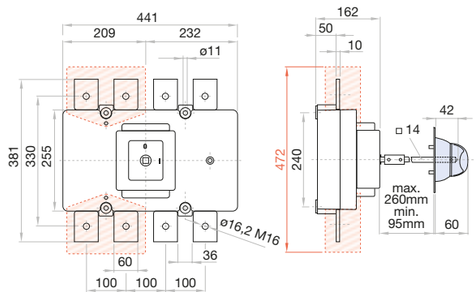
Double

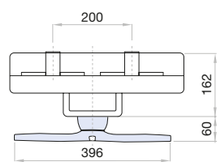


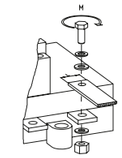
Dimensions (mm)

Door drilling for external handle

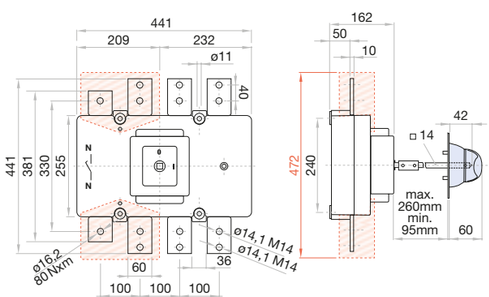


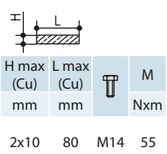






	H max (Cu) mm	L max (Cu) mm		M Nxm
1000 A 1250 A	2x10	80	M16	80





	H max (Cu) mm	L max (Cu) mm		M Nxm
1600 A 1800 A 2000 A	2x10	80	M14	55

series S5N

S5N AC
Switch - disconnector base mounting 3P - 3P+N

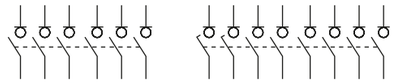
Size 5

A 2000|2500|3150





	CODE - 2000A	CODE - 2500A	CODE - 3150A
3P	S5N20003PS0	S5N25003PS0	S5N31503PS0
3P+N	S5N20003NS0	S5N25003NS0	S5N31503NS0



Technical information

CE IEC

According to IEC 60947-3

					2000	2500	3150
Rated thermal current in ambient at	Ith	40 °C		A	2000	2500	3150
		50 °C		A	2000	2500	2835
		60 °C		A	2000	2500	2520
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC rated operational current *(1)	Ie	Ue 400V	AC21B	A	2000	2500	3150
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22B	A	2000	2500	2500

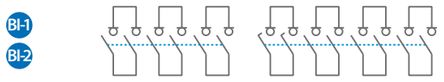
*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

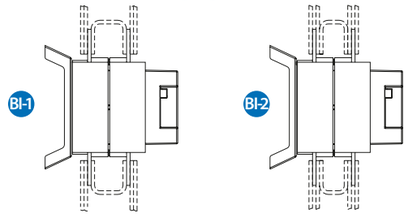
				2000	2500	3150
Rated breaking capacity	400V	AC21	A	-	-	4725
	400V	AC22	A	6000	7500	-
Rated making capacity	400V	AC21	A	-	-	4725
	400V	AC22	A	6000	7500	-
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm		kA (peak)	60	60	60
Rated short-time withstand current (1sec.)	Icw		kA rms	50	50	50
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	600	600	600
Maximum weight 3P (without bridging links)			Kg	42,9	42,9	42,9
Maximum weight 3P+N (without bridging links)			Kg	47,3	47,3	47,3

Connection diagram

Connection diagram
between front & rear



Bridging links *(P2)



MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S5N

Accessories



Direct handle
CODE DS-LI41



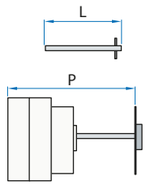
External handle included shaft *(e1)
IP65
CODE DS-LA41



External handle without shaft
IP65
CODE DS-LA43



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR41



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	458 ... 618



Bridging links *(P2)

BI-1 2000 A 2500 A *CODE* **x2** D5LPC41 (4 units)
3150 A *CODE* **x2** D5LPC42 (4 units)
BI-2 *CONSULT CODE*

*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.



Auxiliary contacts

1NO+1NC *CODE* DS-LA101
2NO+2NC *CODE* DS-LA102

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



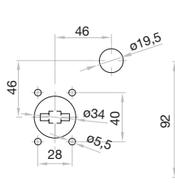
Safety key lock devices

Simple *CODE* DS-CB41
Double *CODE* DS-CF41

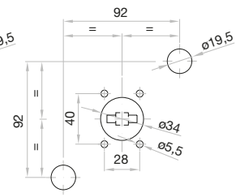
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

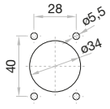
Simple



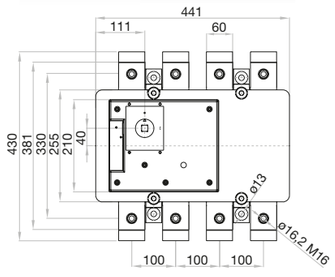
Double

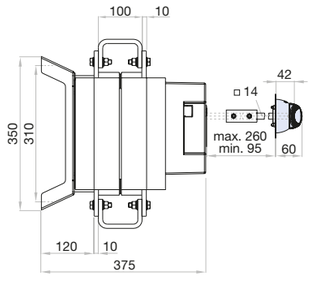


Door drilling for external handle

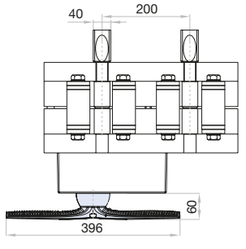


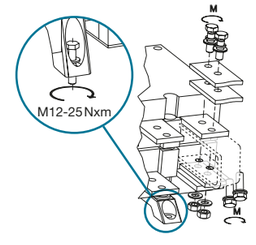
Dimensions (mm)

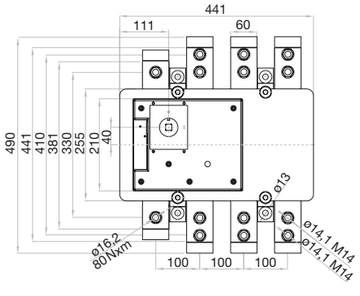


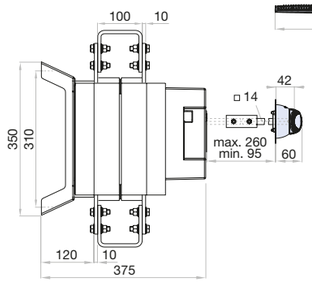


2000 A
2500 A

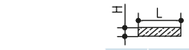








3150 A



	H max (Cu) mm	L max (Cu) mm	T	M Nxm
2000 A 2500 A	2x10	80	M16	80
3150 A	2x10	80	M14	55

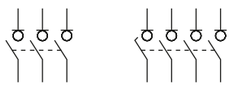
S5N AC
Switch - disconnector base mounting 3P - 3P+N

Size 5

A 2000|2500|3150



	CODE - 2000A	CODE - 2500A	CODE - 3150A
3P	S5N20003PP0	S5N25003PP0	S5N31503PP0
3P + N	S5N20003NP0	S5N25003NP0	S5N31503NP0



Technical information

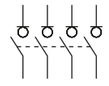
According to IEC 60947-3

					2000	2500	3150
Rated thermal current in ambient at	Ith		40 °C	A	2000	2500	3150
			50 °C	A	2000	2500	2835
			60 °C	A	2000	2500	2520
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC rated operational current *(1)	Ie	Ue 400V	AC21B	A	2000	2500	3150
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22B	A	2000	2500	2500

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

				2000	2500	3150
Rated breaking capacity	400V	AC21	A	-	-	4725
	400V	AC22	A	6000	7500	-
Rated making capacity	400V	AC21	A	-	-	4725
	400V	AC22	A	6000	7500	-
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm		kA (peak)	60	60	60
Rated short-time withstand current (1sec.)	Icw		kA rms	50	50	50
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	600	600	600
Maximum weight 3P (without bridging links)			Kg	42,9	42,9	42,9
Maximum weight 3P+N (without bridging links)			Kg	47,3	47,3	47,3



Also available 4P switch - disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · SEE UM KIT · KIT UM

Accessories



» Direct handle
CODE DS-LI41



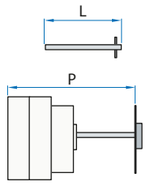
» External handle included shaft *(e1)
IP65
CODE DS-LA41



» External handle without shaft
IP65
CODE DS-LA43



» Emergency external handle included shaft *(e1)
IP65
CODE DS-LR41



» Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	458 ... 618



» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

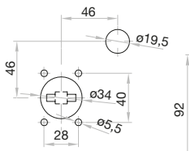


» Safety key lock device
Simple CODE DS-CB41
Double CODE DS-CF41

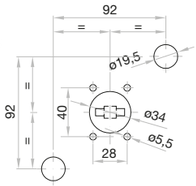
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

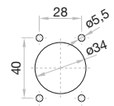


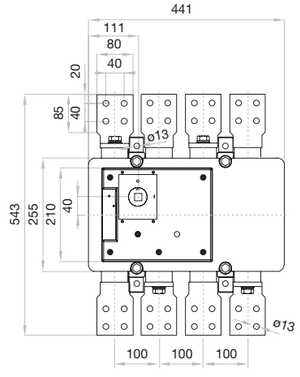
Double

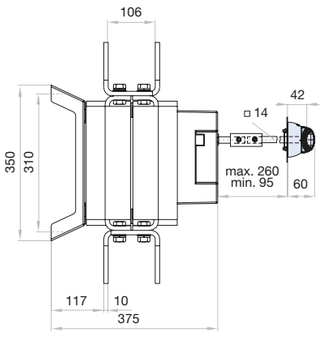


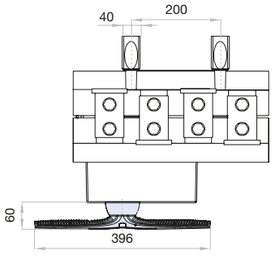
Dimensions (mm)

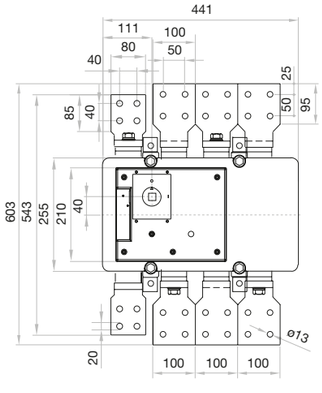
Door drilling for external handle

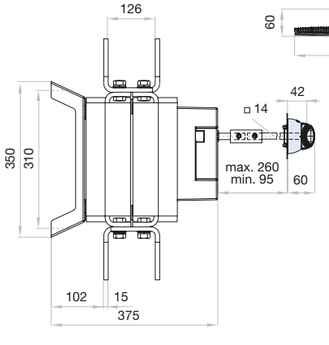




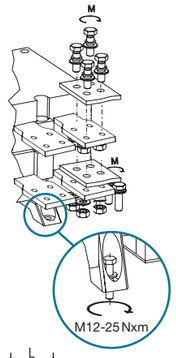








	H max (Cu) mm	L max (Cu) mm		M Nxm
2000 A 2500 A	4x10	80	M12	45



	H max (Cu) mm	L max (Cu) mm		M Nxm
3150 A	4x10	100	M12	45

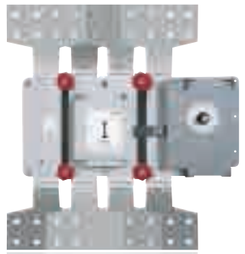
SWITCH - DISCONNECTORS O-I

series S5

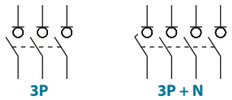
S5 AC
Switch - disconnector base mounting 3P - 3P+N

Size 6

A 4000|5000|6300



	CODE - 4000A	CODE - 5000A	CODE - 6300A
3P	S5-40003PP0	S5-50003PP0	S5-63003PP0
3P + N	S5-40003NP0	S5-50003NP0	S5-63003NP0



Technical information

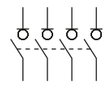
According to IEC 60947-3

					4000	5000	6300
Rated thermal current in ambient at	Ith		40 °C	A	4000	5000	6300
			50 °C	A	4000	5000	5670
			60 °C	A	3500	4400	5040
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	4000	5000	6300
		Ue 400V	AC22A	A	3500	4000	4000
		Ue 400V	AC23A	A	2000	2500	2500

*(1) Other voltages and / or utilization categories. Please consult

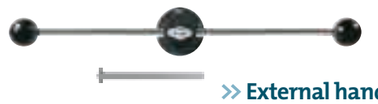
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

				4000	5000	6300
Rated breaking capacity	400V	AC21	A	6000	7500	9450
Rated making capacity	400V	AC21	A	6000	7500	9450
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm		kA (peak)	100	100	100
Rated short-time withstand current (1sec.)	Icw		kA rms	50	50	50
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	2000	2000	2000
Maximum weight 3P			Kg	100	130	130
Maximum weight 3P + N			Kg	110	140	140



Also available 4P switch - disconnectors under request, please consult

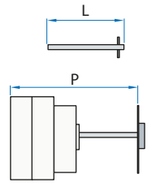
Accessories



External handle included shaft *(e1)

(Slider bar)

CODE DS-EN61



Shafts

Standard shaft included *(e1)

	L (mm)	P (mm)
4000 A	333	578... 728
5000 A 6300 A	333	720... 870



Auxiliary contacts

1NO+1NC *CODE* DS-AU11

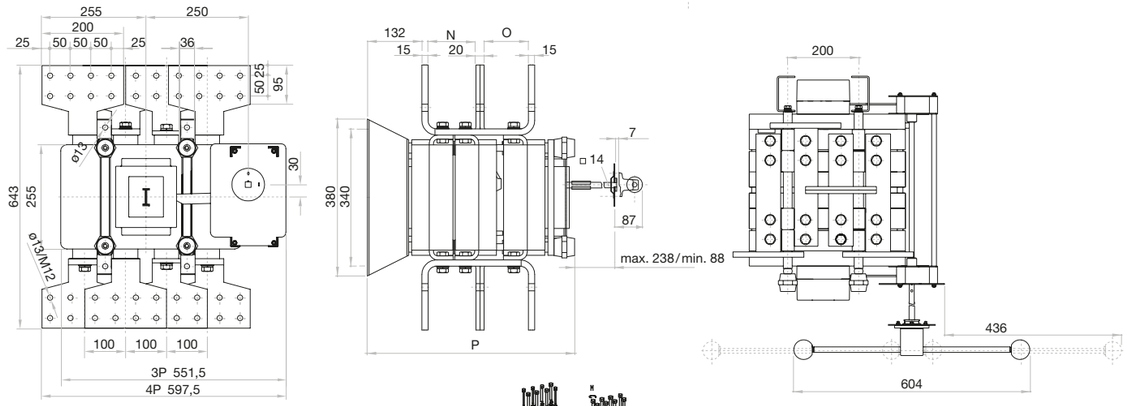
2NO+2NC *CODE* DS-AU12

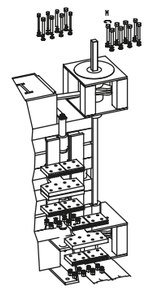
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Dimensions (mm)

Door drilling for external handle







	N	O	P	ø
4000 A	116	107,5	502,5	13
5000 A 6300 A	164,5	164,5	632	

	H max (Cu) mm	L max (Cu) mm		M Nxm
4000 A	4x10	100	M12	45
5000 A 6300 A	6x10			

series S6

S6 AC
Switch - disconnector base mounting 2P - 3P - 3P+N

Size 1
A 200|250|315|400



CODE - 2P
200A S6-02002PS0
250A S6-02502PS0
315A S6-03152PS0
400A S6-04002PD0

2P



CODE - 3P
200A S6-02003PS0
250A S6-02503PS0
315A S6-03153PS0
400A S6-04003PD0

3P



CODE - 3P + N
200A S6-02003NS0
250A S6-02503NS0
315A S6-03153NS0
400A S6-04003ND0

3P + N

Technical information

According to IEC 60947-3

consult

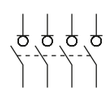
tests:

AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

					200	250	315	400
Rated thermal current in ambient at	Ith	40° C		A	200	250	315	400
		50° C		A	200	250	315	400
		60° C		A	200	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12
AC Rated operational current *(1)	Ie	Triphasic	Ue 400V AC23A	A	200	250	315	400
			Ue 690V AC21A	A	200	250	315	400
			Ue 800V AC21B	A	-	-	-	250*(3)
Rated breaking capacity		400V, cos φ=0,35-0,45		A	1600	2000	2520	3200
Rated making capacity		400V, cos φ=0,45		A	2000	2500	3150	4000

			200	250	315	400
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	20	20	20	20
Rated short-time withstand current (1sec)	Icw	kA rms	12	12	12	12
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000	8000
Maximum weight 2P		kg	1,65	1,65	1,65	1,68
Maximum weight 3P		kg	2,17	2,17	2,17	2,21
Maximum weight 3P+N		kg	2,70	2,70	2,70	2,76

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)
*(3) 3P/3P+N



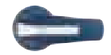
4P

Also available 4P switch-disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT ·

series S6

Accessories



» Direct handle
CODE DS-SI11



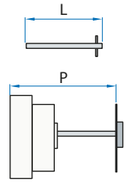
» External handle included shaft *(e1)
IP65
CODE DS-SA11



» External handle without shaft
IP65
CODE DS-SA14



» Emergency external handle included shaft *(e1)
IP65
CODE DS-SR11



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



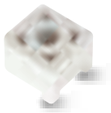
» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

» Terminal shrouds
CODE DR-CU11 (1 unit)
CODE DR-CU12 (1 unit)
CODE DR-CU13 (1 unit)



» Phase barriers
CODE DR-SF11 (1 unit)
CODE DR-SF12 (2 units)
CODE DR-SF13 (3 units)



» Spacers
CODE DR-EL11 (4 units)

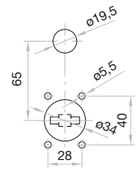


» Safety key lock device
Simple CODE DS-CA11
Double CODE DS-CE11

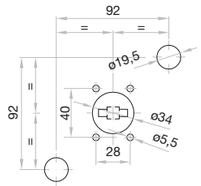
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

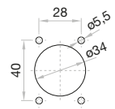


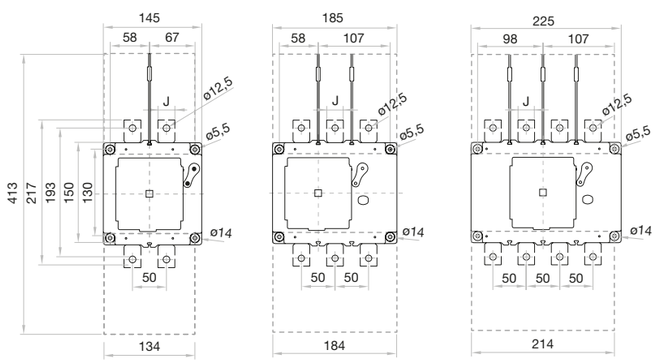
Double



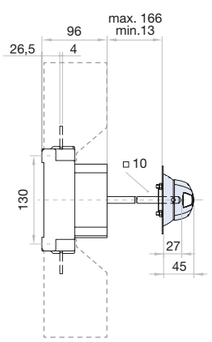
Dimensions (mm)

Door drilling for external handle

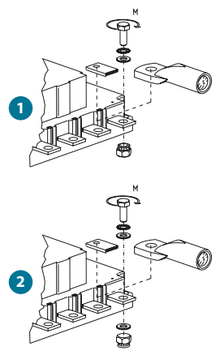


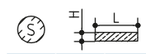


2P 3P 3P+N



	J mm
200 A	25
250 A	25
315 A	25
400 A	30





	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
200 A	185	8	25	M10	18
250 A	185	8	25	M10	18
315 A	185	8	25	M10	18
400 A	240*(t1)	8	30	M10	18

*(t1) Using phase barriers DR-SF__ to maintain the required clearance.

series S6

S6 AC
Switch - disconnector base mounting 2P - 3P - 3P+N

Size 2
A 500|630|800



CODE - 2P
500A S6-05002PS0
630A S6-06302PS0
800A S6-08002PD0

2P



CODE - 3P
500A S6-05003PS0
630A S6-06303PS0
800A S6-08003PD0

3P



CODE - 3P + N
500A S6-05003NS0
630A S6-06303NS0
800A S6-08003ND0

3P + N

Technical information

According to IEC 60947-3

					500	630	800
Rated thermal current in ambient at	Ith	40° C		A	500	630	800
		50° C		A	500	630	800
		60° C		A	500	630	800
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC Rated operational current *(1)	Ie	Triphasic	Ue 400V AC23A	A	500	630	800
			Ue 690V AC21A	A	500	630	630
			Ue 800V AC21B	A	-	-	630*(3)
Rated breaking capacity		400V, cos φ=0,35-0,45		A	4000	5040	6400
Rated making capacity		400V, cos φ=0,45		A	5000	6300	8000

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)
*(3) 3P/3P+N

			500	630	800
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	26	26	26
Rated short-time withstand current (1sec)	Icw	kA rms	16	16	16
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000	5000
Maximum weight 2P		kg	3,91	3,91	3,91
Maximum weight 3P		kg	4,76	4,76	4,76
Maximum weight 3P+N		kg	5,70	5,70	5,70

tests:

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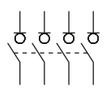


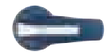
4P

Also available 4P switch-disconnectors under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT ·

series S6

Accessories



Direct handle
CODE DS-LI21



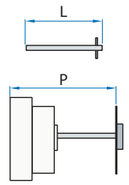
External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR21



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24



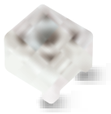
Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Terminal shrouds
CODE DR-CU21 (1 unit)
CODE DR-CU22 (1 unit)
CODE DR-CU23 (1 unit)



Phase barriers
CODE DR-SF21 (1 unit)
CODE DR-SF22 (2 units)
CODE DR-SF23 (3 units)



Spacers
CODE DR-EL21 (4 units)

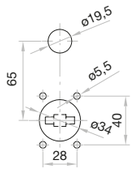


Safety key lock device
Simple CODE DS-CB21
Double CODE DS-CF21

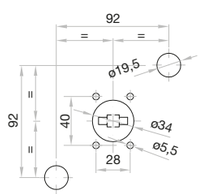
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

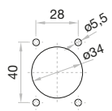


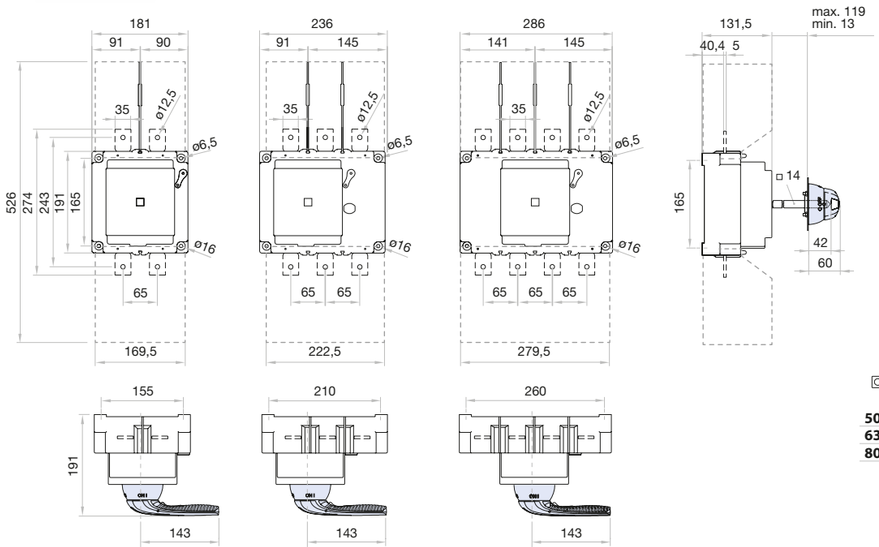
Double



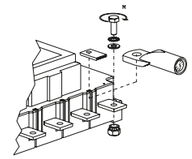
Dimensions (mm)

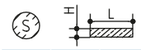
Door drilling for external handle





2P 3P 3P+N





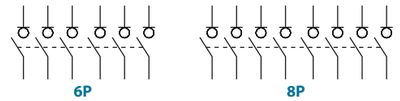
	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
500 A	2x150	2x5	35	M10	24
630 A	2x185	2x6	35	M10	24
800 A	2x240	2x7	35	M10	24

S5M AC
Switch - disconnector base mounting 6P - 8P

Size 0
A 125|160|200



	CODE - 125A	CODE - 160A	CODE - 200A
6P	S5M01256PS0	S5M01606PS0	S5M02006PS0
8P	S5M01258PS0	S5M01608PS0	S5M02008PS0



Technical information

According to IEC 60947-3

					125	160	200
Rated thermal current in ambient at	Ith	40 °C		A	125	160	200
		50 °C		A	125	160	200
		60 °C		A	125	160	200
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	125	160	200
		Ue 400V	AC22A	A	125	160	200
		Ue 400V	AC23A	A	125	160	160
Rated breaking capacity		400V	AC23	A	1000	1280	1280
Rated making capacity		400V	AC23	A	1250	1600	1600

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			125	160	200
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	13	13	13
Rated short-time withstand current (1sec.)	Icw	kA rms	7	7	7
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000
Maximum weight 6P		Kg	1,8	1,8	1,9
Maximum weight 8P		Kg	2,1	2,1	2,2

Accessories



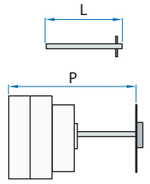
Direct handle
CODE DS-SI01



External handle included shaft *(e1)
IP65
CODE DS-LA01



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR01



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
177	155... 263



Auxiliary contacts
1NO+1NC CODE DS-AU11
2NO+2NC CODE DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds *(T)

	UP 6P (1 unit)	DOWN 6P (1 unit)	UP OR DOWN 8P (1 unit)
	DS-CU02	DS-CU03	DS-CU04
	DS-CU05	DS-CU06	DS-CU07

(For frontal switch only)



Phase barrier *(T)

	6P	8P
	DS-PB01	DS-PB02
	DS-PB04	DS-PB03

(1 kit for input or output)

*(T) These accessories aren't compatible with each other.

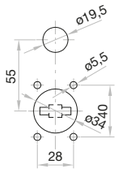


Safety key lock devices
Simple CODE DS-CAB1
Double CODE DS-CEB1

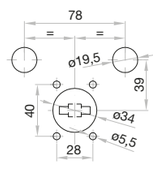
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

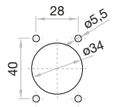


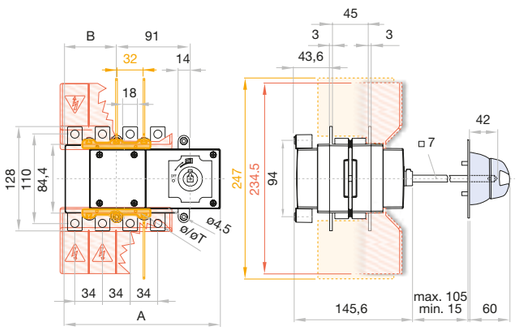
Double

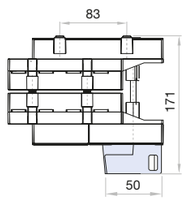


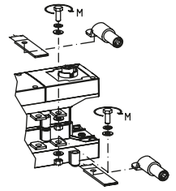
Dimensions (mm)

Door drilling for external handle

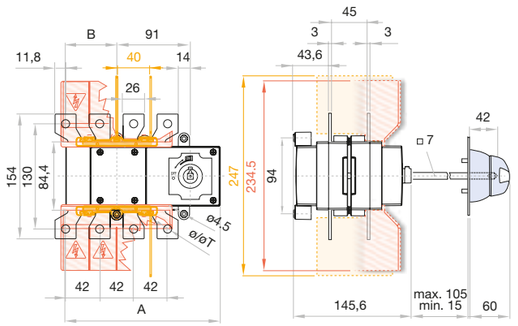


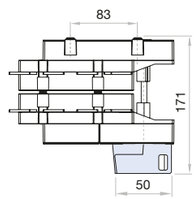


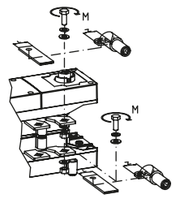




	A		B		ø	S max (Cu)	H max (Cu)	L max (Cu)		M
	6P	8P	6P	8P		mm²	mm	mm		Nxm
125 A 160 A	181	192	53	64	10	95	5	25	M8	13







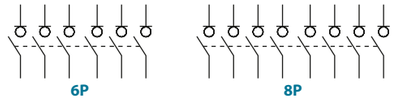
	A		B		ø	S max (Cu)	Z max	H max (Cu)	L max (Cu)		M
	6P	8P	6P	8P		mm²		mm	mm		Nxm
200 A	181	192	53	64	10	120	30	5	30	M10	18

S5M AC
Switch - disconnector base mounting 6P - 8P

Size 1
A 250|315|400



	CODE - 250A	CODE - 315A	CODE - 400A
6P	S5M02506PR0	S5M03156PR0	S5M04006PC0
8P	S5M02508PR0	S5M03158PR0	S5M04008PC0



Technical information

According to IEC 60947-3

					250	315	400
Rated thermal current in ambient at	Ith	40 °C		A	250	315	400
		50 °C		A	250	315	400
		60 °C		A	250	315	320
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	250	315	400
		Ue 400V	AC22A	A	250	315	400
		Ue 400V	AC23A	A	250	315	400
Rated breaking capacity		400V	AC23	A	2000	2520	3200
Rated making capacity		400V	AC23	A	2500	3150	4000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			250	315	400
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	20	20	20
Rated short-time withstand current (1sec.)	Icw	kA rms	12	12	12
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	5000
Maximum weight 6P		Kg	5,5	5,5	5,7
Maximum weight 8P		Kg	5,8	5,8	6

Accessories



» Direct handle
CODE DS-LI12



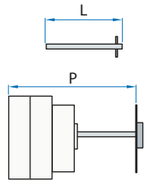
» External handle included shaft *(e1)
IP65
CODE DS-LA12



» External handle without shaft
IP65
CODE DS-LA15



» Emergency external handle included shaft *(e1)
IP65
CODE DS-LR12



» Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
277	288... 422



» Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



» Terminal protection *(T)
CODE DS-CU12
(1 unit for input or output only frontal side)



» Terminal shrouds *(T)
CODE DS-CU11
(1 kit for input or output only frontal side)



» Phase barrier *(T)

6P	8P
DS-PB12	DS-PB11
DS-PB14	DS-PB13

(1 kit for input or output)

*(T) These accessories aren't compatible with each other.

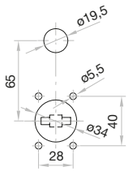


» Safety key lock devices
Simple *CODE* DS-CB12
Double *CODE* DS-CF11

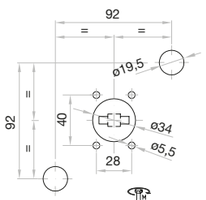
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

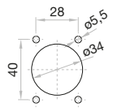


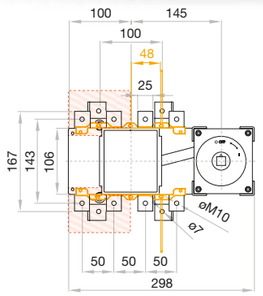
Double

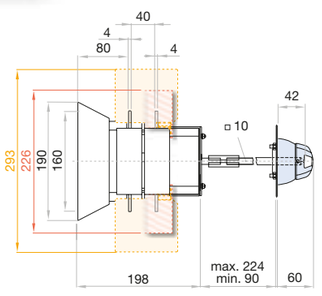


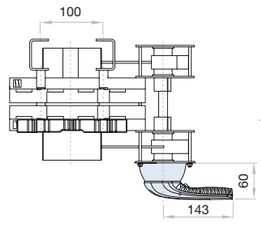
Dimensions (mm)

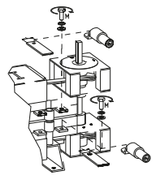
Door drilling for external handle



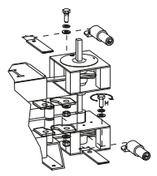




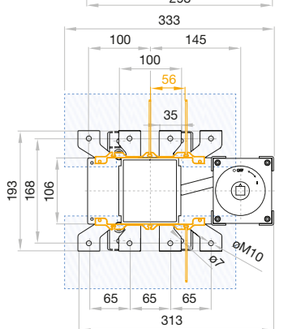


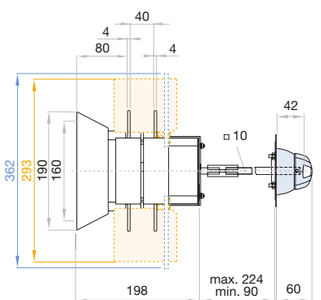


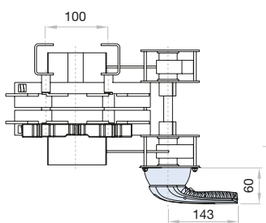
	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
250 A 315 A	185	7	25	M10	18



	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
400 A	240	7	40	M10	24







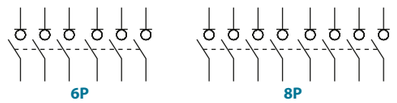
series S5M

S5M AC
Switch - disconnector base mounting 6P - 8P

Size 2
A 500|630



	CODE - 500A	CODE - 630A
6P	S5M05006PR0	S5M06306PR0
8P	S5M05008PR0	S5M06308PR0



Technical information

According to IEC 60947-3

					500	630
Rated thermal current in ambient at	Ith	40 °C		A	500	630
		50 °C		A	500	630
		60 °C		A	500	630
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	500	630
		Ue 400V	AC22A	A	500	630
		Ue 400V	AC23A	A	500	630
Rated breaking capacity		400V	AC23	A	4000	5000
Rated making capacity		400V	AC23	A	5000	6300

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			500	630
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	26	26
Rated short-time withstand current (1sec.)	Icw	kA rms	16	16
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000
Maximum weight 6P			12,3	12,3
Maximum weight 8P			13	13

series S5M

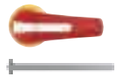
Accessories



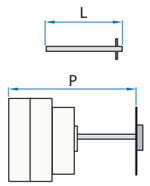
Direct handle
CODE DS-LI22



External handle included shaft *(e1)
IP65
CODE DS-LA22



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR22



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	325... 490



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds *(T)
CODE DS-CU21
(1 kit for input or output only frontal side)



Phase barrier *(T)

6P	8P
DS-PB22	DS-PB21

(1 kit for input or output)

*(T) These accessories aren't compatible with each other.

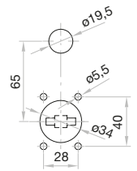


Safety key lock devices
Simple *CODE* DS-CB21
Double *CODE* DS-CF21

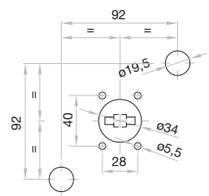
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



Double



Dimensions (mm)

Door drilling for external handle







	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
500 A	2x185	6	40	M10	24





	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
630 A	2x240	2x5	40	M10	24

series S5M

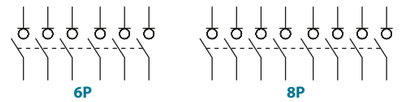
S5M AC
Switch - disconnector base mounting 6P - 8P

Size 3

A 800|1000



	CODE - 800A	CODE - 1000A
6P	S5M08006PR0	S5M10006PC0
8P	S5M08008PR0	S5M10008PC0



Technical information

According to IEC 60947-3

					800	1000
Rated thermal current in ambient at	Ith	40 °C		A	800	1000
		50 °C		A	800	1000
		60 °C		A	800	900
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	800	1000
		Ue 400V	AC22A	A	800	1000
		Ue 400V	AC23A	A	800	1000
Rated breaking capacity		400V	AC23	A	6400	8000
Rated making capacity		400V	AC23	A	8000	10000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			800	1000
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	60	60
Rated short-time withstand current (1sec.)	Icw	kA rms	25	25
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000	3000
Maximum weight 6P			18,5	18,5
Maximum weight 8P			20	20

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series S5M

Accessories



Direct handle
CODE DS-LI41



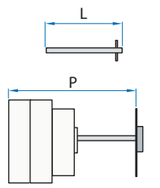
External handle included shaft *(e1)
IP65
CODE DS-LA41



External handle without shaft
IP65
CODE DS-LA43



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR41



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	408... 573



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds *(T)
CODE DS-CU31
(1 kit for input or output only frontal side)



Phase barrier *(T)

6P	8P
DS-PB32	DS-PB31

(1 kit for input or output)

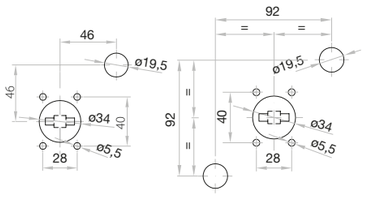
*(T) These accessories aren't compatible with each other.



Safety key lock devices
Simple *CODE* DS-CB41
Double *CODE* DS-CF41

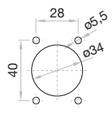
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

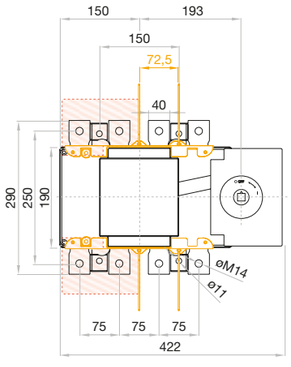
Door drilling for handle and key lock device
Simple Double

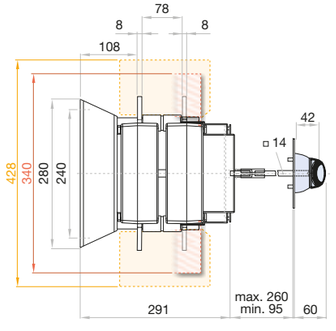


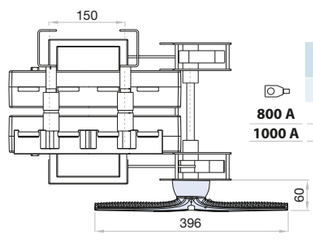
Dimensions (mm)

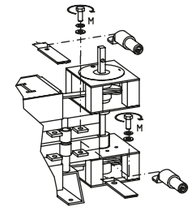
Door drilling for external handle











	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
800 A	2x240	2x10	50	M14	45
1000 A	2x300	2x10			

S5N AC
Switch - disconnector base mounting 6P - 8P

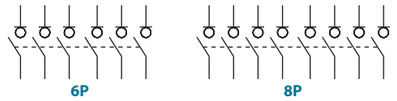
Size 4

A 1250|1600|1800|2000





	CODE - 1250A	CODE - 1600A	CODE - 1800A	CODE - 2000A
6P	S5N12506PS0	S5N16006PS0	S5N18006PS0	S5N20006PD0
8P	S5N12508PS0	S5N16008PS0	S5N18008PS0	S5N20008PD0



Technical information

CE IEC

According to IEC 60947-3

					1250	1600	1800	2000
Rated thermal current in ambient at	Ith	40 °C		A	1250	1600	1800	2000
		50 °C		A	1250	1600	1800	1800
		60 °C		A	1000	1600	1600	1600
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21B	A	1250	1600	1800	2000
		Ue 400V	AC22B	A	1250	1600	1800	2000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

				1250	1600	1800	2000
Rated breaking capacity	400V	AC22	A	3750	4800	5400	6000
Rated making capacity	400V	AC22	A	3750	4800	5400	6000
Short - circuit behaviour							
Rated short-circuit making capacity *(2)	Icm		kA (peak)	60	60	60	60
Rated short-time withstand current (1sec.)	Icw		kA rms	25	50	50	50
Mechanical features							
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	600	600	600	600
Maximum weight 6P			Kg	42,9	42,9	42,9	42,9
Maximum weight 8P			Kg	47,3	47,3	47,3	47,3

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Accessories



Direct handle
CODE DS-LI41



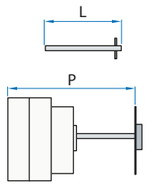
External handle included shaft *(e1)
IP65
CODE DS-LA41



External handle without shaft
IP65
CODE DS-LA43



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR41



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	420 ... 580



Auxiliary contacts
1NO+1NC *CODE* DS-LA101
2NO+2NC *CODE* DS-LA102

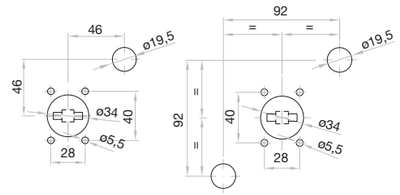
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Safety key lock devices
Simple *CODE* DS-CB41
Double *CODE* DS-CF41

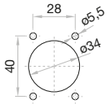
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

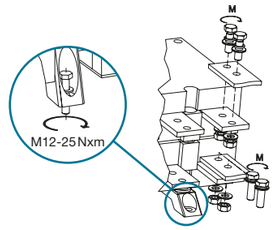
Door drilling for handle and key lock device
Simple Double

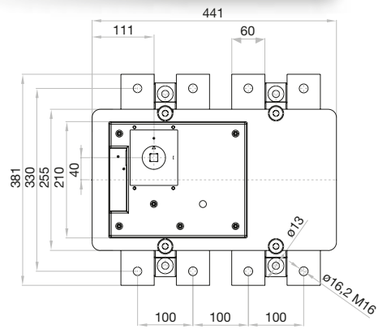


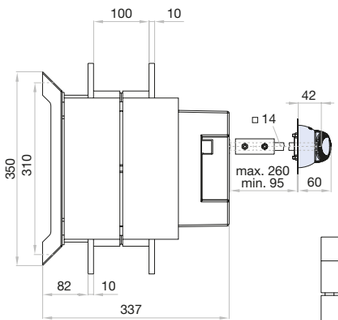
Dimensions (mm)

Door drilling for external handle

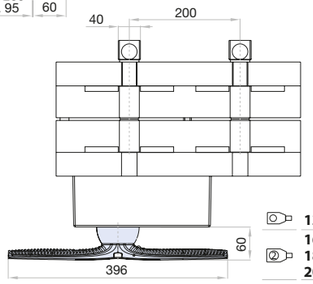






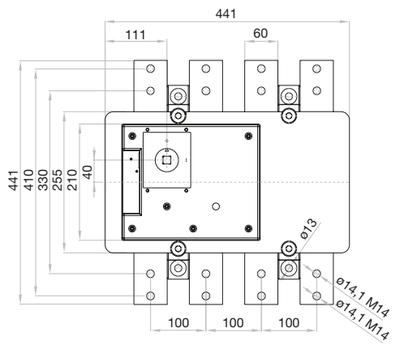


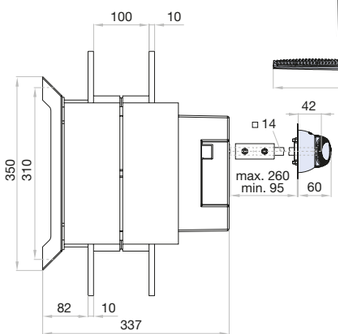
1250 A





	H max (Cu) mm	L max (Cu) mm		M Nxm
1250 A	2x10	80	M16	80
1600 A **1800 A** **2000 A**	2x10	80	M14	55





1600 A
1800 A
2000 A

series S6N

S6N AC
Switch - disconnector base mounting 6P - 8P

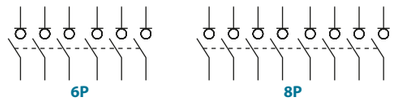
Size 1

A 125|160|200|250|315|400





	CODE-125A	CODE-160A	CODE-200A	CODE-250A	CODE-315A	CODE-400A
6P	S6N01256PS0	S6N01606PS0	S6N02006PS0	S6N02506PS0	S6N03156PS0	S6N04006PD0
8P	S6N01258PS0	S6N01608PS0	S6N02008PS0	S6N02508PS0	S6N03158PS0	S6N04008PD0



Technical information

According to IEC/EN 60947-3

					125	160	200	250	315	400
Rated thermal current in ambient at	Ith	40° C		A	125	160	200	250	315	400
		50° C		A	125	160	200	250	315	400
		60° C		A	125	160	200	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12	12	12
AC Rated operational current *(1)	Ie	Triphasic	Ue 400V AC21A	A	125	160	200	250	315	400
			AC22A	A	125	160	200	250	315	400
			AC23A	A	125	160	200	250	315	400
Rated breaking capacity		400V, cos φ=0,35-0,45		A	1000	1280	1600	2000	2520	3200
Rated making capacity		400V, cos φ=0,45		A	1250	1600	2000	2500	3150	4000

			125	160	200	250	315	400
Short - circuit behaviour								
Rated short-circuit making capacity *(2)	Icm	kA (peak)	20	20	20	20	20	20
Rated short-time withstand current (1sec)	Icw	kA rms	12	12	12	12	12	12
Mechanical features								
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000	8000	8000	5000

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

series S6N

Accessories



Direct handle
CODE DS-SI11



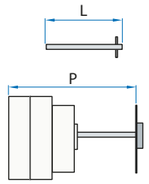
External handle included shaft *(e1)
IP65
CODE DS-SA11



External handle without shaft
IP65
CODE DS-SA14



Emergency external handle included shaft *(e1)
IP65
CODE DS-SR11



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	185... 336

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	185... 486	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	185... 647	DS-EP15



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

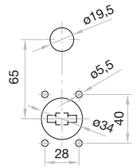


Safety key lock device
Simple *CODE* DS-CA11
Double *CODE* DS-CE11

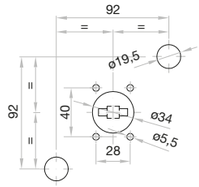
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

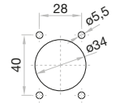


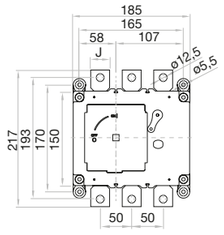
Double

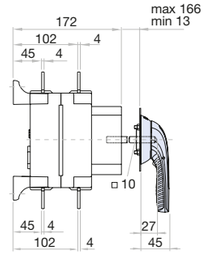


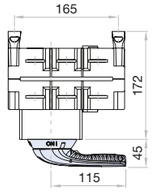
Dimensions (mm)

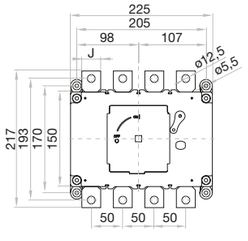
Door drilling for external handle

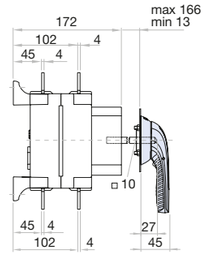


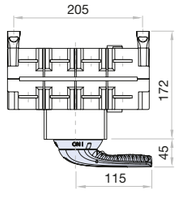


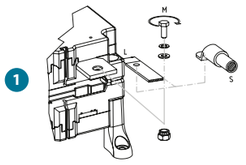


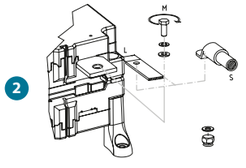


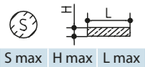












	J
125 A	25
160 A	25
200 A	25
250 A	25
315 A	25
400 A	30

	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
125 A	185	8	25	M10	8
160 A	185	8	25	M10	8
200 A	185	8	25	M10	8
250 A	185	8	25	M10	18
315 A	185	8	25	M10	18
400 A	240	8	30	M10	18

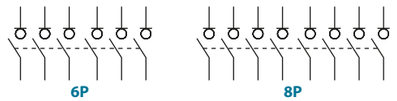
S6N AC
Switch - disconnector base mounting 6P - 8P

Size 2
A 500|630





	CODE - 500A	CODE - 630A
6P	S6N05006PS0	S6N06306PS0
8P	S6N05008PS0	S6N06308PS0



Technical information

According to IEC / EN 60947-3

					500	630
Rated thermal current in ambient at	Ith	40° C		A	500	630
		50° C		A	500	630
		60° C		A	500	630
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC Rated operational current *(1)	Ie	Triphasic	AC21B	A	500	630
		Ue 400V	AC22B	A	500	630
			AC23B	A	500	630
Rated breaking capacity		400V, cos φ=0,35-0,45		A	4000	5040
Rated making capacity		400V, cos φ=0,45		A	5000	6300

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			500	630
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	26	26
Rated short-time withstand current (1sec)	Icw	kA rms	16	16
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	800	800

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Accessories



Direct handle
CODE DS-LI21



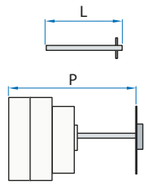
External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Emergency external handle included shaft *(e1)
IP65
CODE DS-LR21



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	244... 350

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	244... 500	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	244... 690	DS-EP24



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

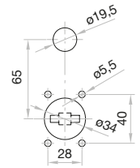


Safety key lock device
Simple CODE DS-CB21
Double CODE DS-CF21

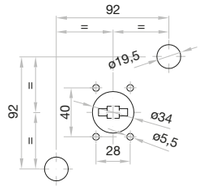
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

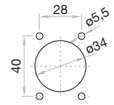


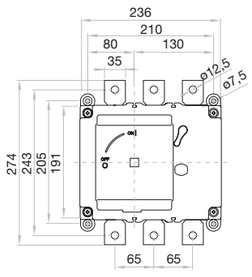
Double

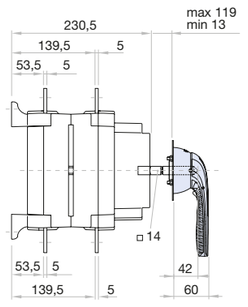


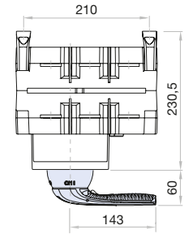
Dimensions (mm)

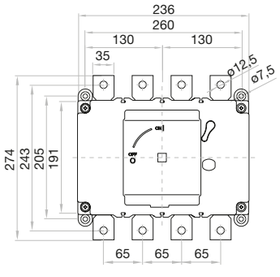
Door drilling for external handle

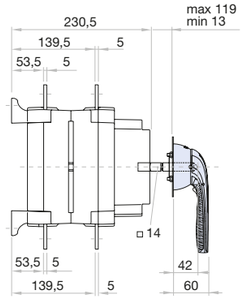


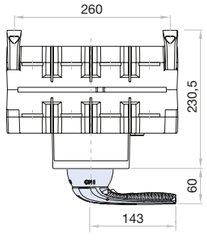


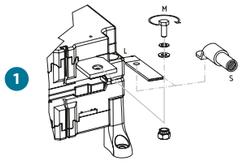


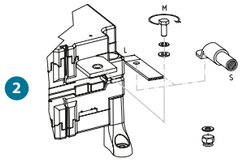


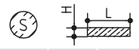












	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
500 A	2x150	2x5	35	M10	24
630 A	2x185	2x6	35	M10	24

series CIS25

CIS25 - A - C - D - F
Enclosed switch - disconnector
IP65 (with or without fuse holders) 3P - 3P+N

Size 00
A 40|63|80

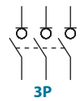

CIS25A

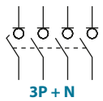

CIS25D


CIS25C


CIS25F

			CODE - 40A	CODE - 63A	CODE - 80A
polyester enclosure + fuse holders	CIS25A	3P	CIS25A00403PB	CIS25A00633PB	CIS25A00803PB
		3P + N	CIS25A00403NB	CIS25A00633NB	CIS25A00803NB
polyester enclosure	CIS25D	3P	CIS25D00403PB	CIS25D00633PB	CIS25D00803PB
		3P + N	CIS25D00403NB	CIS25D00633NB	CIS25D00803NB
metal enclosure	CIS25C	3P	CIS25C00403PB	CIS25C00633PB	CIS25C00803PB
		3P + N	CIS25C00403NB	CIS25C00633NB	CIS25C00803NB
metal enclosure + fuse holders	CIS25F	3P	CIS25F00403PB	CIS25F00633PB	CIS25F00803PB
		3P + N	CIS25F00403NB	CIS25F00633NB	CIS25F00803NB


3P


3P + N

Technical information

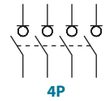
CE IEC

According to IEC 60947-3
IEC 61439-2

					40	63	80
Rated thermal current in ambient at	Ithe		40 °C	A	50	63	80
Rated insulation voltage	Ui			V	800	800	800
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	50	63	80
		Ue 400V	AC22A	A	50	63	63
		Ue 400V	AC23A	A	50	50	50
Rated breaking capacity		400V	AC23	A	400	400	400
Rated making capacity		400V	AC23	A	500	500	500

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			40	63	80
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	5	5	5
Rated short-time withstand current (1sec.)	Icw	kA rms	3	3	3
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	10000	10000
Maximum weight 3P		Kg		Consult	
Maximum weight 3P + N		Kg		Consult	


4P

Also available 4P switches
under request, please consult

series CIS25

Accessories



» External handle included
IP65



» Emergency external handle under request
IP65



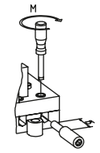
» Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



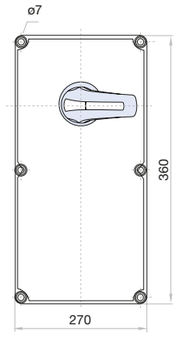
» Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

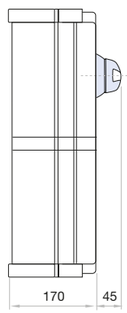
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



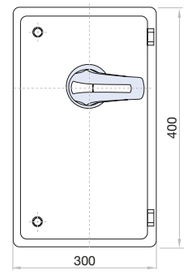
S max (Cu)	M
mm²	Nxm
25	2

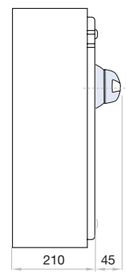
Dimensions (mm)



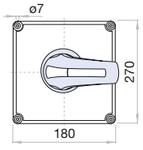


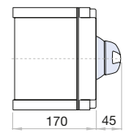
CIS25A
NH 00



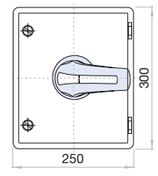


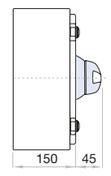
CIS25F
NH 00



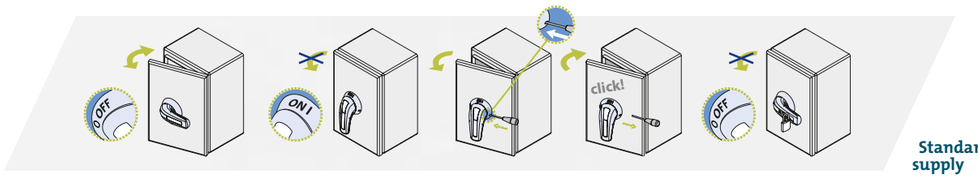


CIS25D





CIS25C



Standard supply

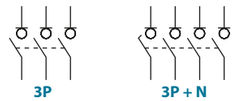
series CIS25

CIS25 - A - C - D - F
Enclosed switch - disconnector
IP65 (with or without fuse holders) 3P - 3P+N

Size 0
A 125|160



		CODE - 125A	CODE - 160A
polyester enclosure + fuse holders CIS25A	3P	CIS25A01253PB	CIS25A01603PB
	3P + N	CIS25A01253NB	CIS25A01603NB
polyester enclosure CIS25D	3P	CIS25D01253PB	CIS25D01603PB
	3P + N	CIS25D01253NB	CIS25D01603NB
metal enclosure CIS25C	3P	CIS25C01253PB	CIS25C01603PB
	3P + N	CIS25C01253NB	CIS25C01603NB
metal enclosure + fuse holders CIS25F	3P	CIS25F01253PB	CIS25F01603PB
	3P + N	CIS25F01253NB	CIS25F01603NB



Technical information

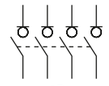
CE IEC

According to IEC 60947-3
IEC 61439-2

					125	160
Rated thermal current in ambient at	Ithe		40 °C	A	125	160
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	125	160
		Ue 400V	AC22A	A	125	160
		Ue 400V	AC23A	A	125	160
Rated breaking capacity		400V	AC23	A	1000	1280
Rated making capacity		400V	AC23	A	1250	1600

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			125	160
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	13	13
Rated short-time withstand current (1sec.)	Icw	kA rms	7	7
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000
Maximum weight 3P		Kg	Consult	
Maximum weight 3P + N		Kg	Consult	



Also available 4P switches under request, please consult

series CIS25

Accessories



» External handle included
IP65



» Emergency external handle under request
IP65



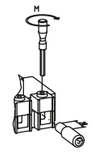
» Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



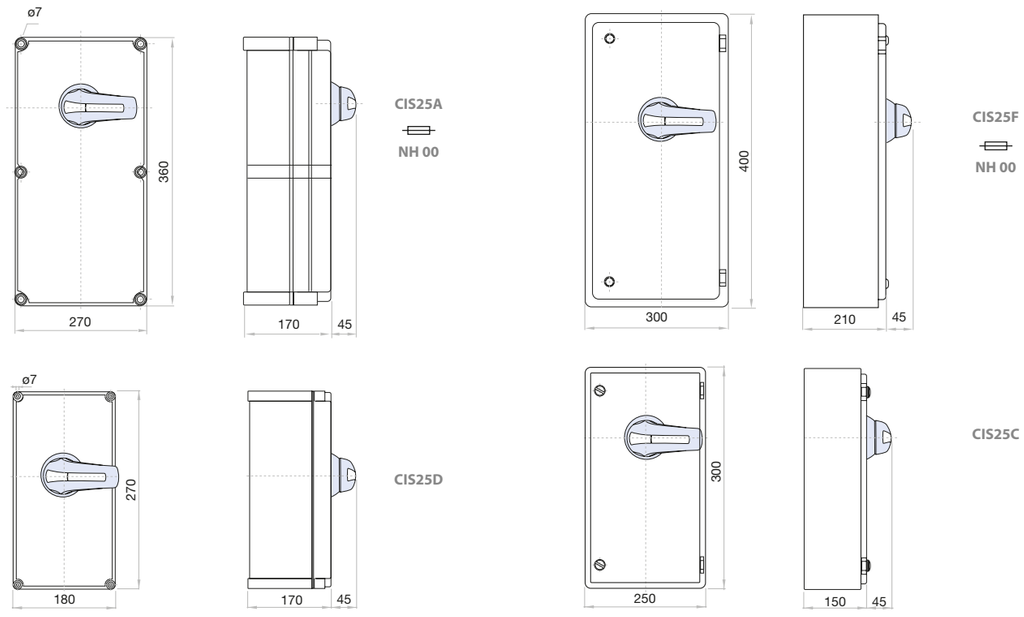
» Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

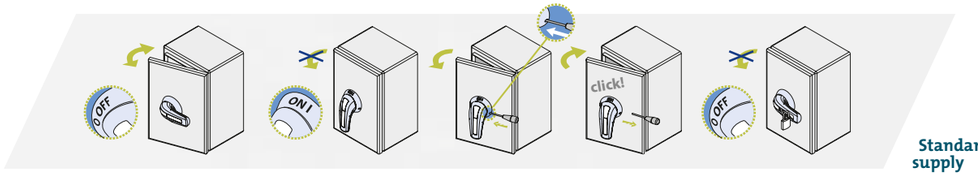
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



S max (Cu)	M
mm²	Nxm
95	4

Dimensions (mm)





Standard supply

series CIS25

CIS25 - A - C - D - F
Enclosed switch - disconnector
IP65 (with or without fuse holders) 3P - 3P+N

Size 1
A 200|250|315|400

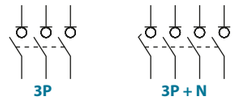

CIS25A


CIS25D


CIS25C


CIS25F

		CODE-200A	CODE-250A	CODE-315A	CODE-400A
polyester enclosure + fuse holders CIS25A	3P	CIS25A02003PR	CIS25A02503PR	CIS25A03153PR	-
	3P + N	CIS25A02003NR	CIS25A02503NR	CIS25A03153NR	-
polyester enclosure CIS25D	3P	CIS25D02003PR	CIS25D02503PR	CIS25D03153PR	-
	3P + N	CIS25D02003NR	CIS25D02503NR	CIS25D03153NR	-
metal enclosure CIS25C	3P	CIS25C02003PR	CIS25C02503PR	CIS25C03153PR	CIS25C04003PC
	3P + N	CIS25C02003NR	CIS25C02503NR	CIS25C03153NR	CIS25C04003NC
metal enclosure + fuse holders CIS25F	3P	CIS25F02003PR	CIS25F02503PR	CIS25F03153PR	-
	3P + N	CIS25F02003NR	CIS25F02503NR	CIS25F03153NR	-



Technical information

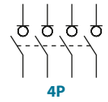
CE IEC

According to IEC 60947-3
IEC 61439-2

					200	250	315	400
Rated thermal current in ambient at	Ithe		40 °C	A	200	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8	8
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	200	250	315	400
		Ue 400V	AC22A	A	200	250	315	400
		Ue 400V	AC23A	A	200	250	315	400
Rated breaking capacity		400V	AC23	A	1600	2000	2520	3200
Rated making capacity		400V	AC23	A	2000	2500	3150	4000

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			200	250	315	400
Short - circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	20	20	20	20
Rated short-time withstand current (1sec.)	Icw	kA rms	12	12	12	12
Mechanical features						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000	5000
Maximum weight 3P		Kg	Consult			
Maximum weight 3P + N		Kg	Consult			



Also available 4P switches
under request, please consult

series CIS25

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

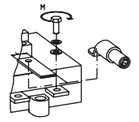


Terminal protection
CODE DS-CU11
(1 kit for input or output)



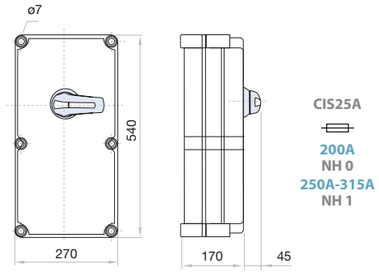
Safety key lock device
Simple *CODE* DS-CA11
Double *CODE* DS-CE11

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

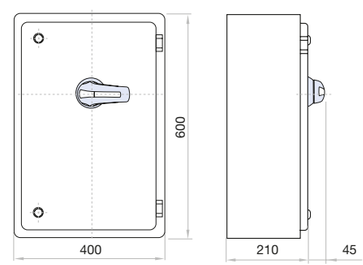


	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
200 A	185	7	25	M8	13
250 A				M10	18
315 A					
400 A	240	7	40	M10	24

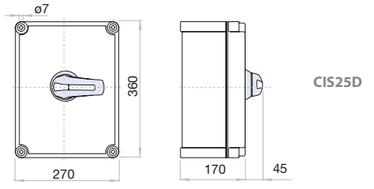
Dimensions (mm)



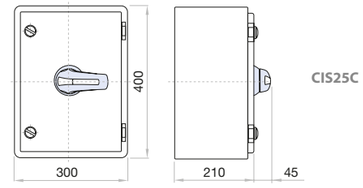
CIS25A
200A
NH 0
250A-315A
NH 1



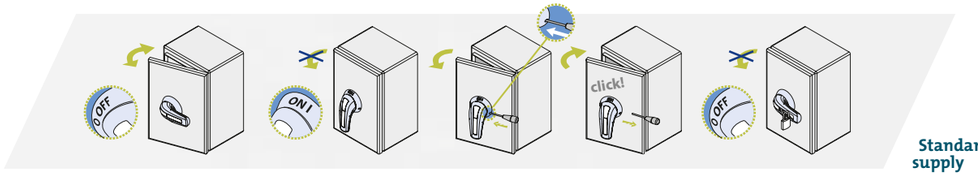
CIS25F
200A
NH 0
250A-315A
NH 1



CIS25D



CIS25C



Standard supply

CIS25 - A - C - D - F
Enclosed switch - disconnector
IP65 (with or without fuse holders) 3P - 3P+N

Size 2
A 400|630


CIS25A

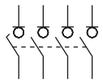

CIS25D


CIS25C


CIS25F

			CODE - 400A	CODE - 630A
polyester enclosure + fuse holders	CIS25A	3P	CIS25A04003PR	CIS25A06303PR
		3P + N	CIS25A04003NR	CIS25A06303NR
polyester enclosure	CIS25D	3P	CIS25D04003PR	CIS25D06303PR
		3P + N	CIS25D04003NR	CIS25D06303NR
metal enclosure	CIS25C	3P	CIS25C04003PR	CIS25C06303PR
		3P + N	CIS25C04003NR	CIS25C06303NR
metal enclosure + fuse holders	CIS25F	3P	CIS25F04003PR	CIS25F06303PR
		3P + N	CIS25F04003NR	CIS25F06303NR


3P


3P + N

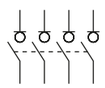
Technical information

According to IEC 60947-3
IEC 61439-2

					400	630
Rated thermal current in ambient at	Ithe		40 °C	A	400	630
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	400	630
		Ue 400V	AC22A	A	400	630
		Ue 400V	AC23A	A	400	630
Rated breaking capacity		400V	AC23	A	3200	5000
Rated making capacity		400V	AC23	A	4000	6300

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			400	630
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	26	26
Rated short-time withstand current (1sec.)	Icw	kA rms	16	16
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000
Maximum weight 3P		Kg	Consult	
Maximum weight 3P + N		Kg	Consult	


4P

Also available 4P switches
under request, please consult

Accessories



» External handle included
IP65



» Emergency external handle under request
IP65



» Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

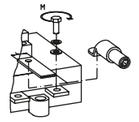


» Terminal protection
CODE DS-CU21
(1 kit for input or output)



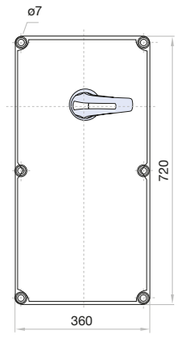
» Safety key lock device
Simple *CODE* DS-CB21
Double *CODE* DS-CF21

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

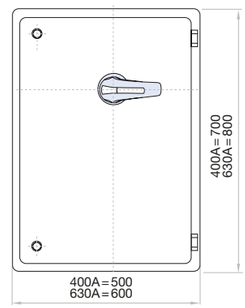


	S max (Cu)	H max (Cu)	L max (Cu)	T	M
	mm²	mm	mm		Nxm
400 A	2x185	6	40	M10	24
630 A	2x240	2x5	40		

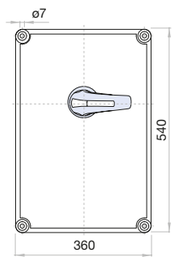
Dimensions (mm)



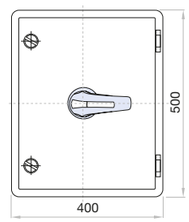
CIS25A
400A
NH 2
630A
NH 3



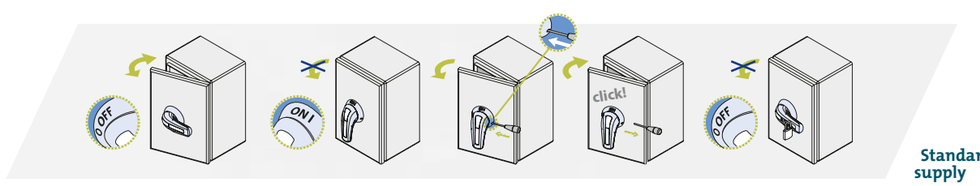
CIS25F
400A
NH 2
630A
NH 3



CIS25D



CIS25C



Standard supply

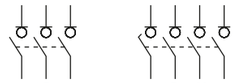
CIS25 - A - C - D - F
Enclosed switch - disconnector
IP65 (with or without fuse holders) 3P - 3P+N

Size 3
A 800



CODE - 800A

polyester enclosure + fuse holders	CIS25A	3P	CIS25A08003PR
		3P + N	CIS25A08003NR
polyester enclosure	CIS25D	3P	CIS25D08003PR
		3P + N	CIS25D08003NR
metal enclosure	CIS25C	3P	CIS25C08003PR
		3P + N	CIS25C08003NR
metal enclosure + fuse holders	CIS25F	3P	CIS25F08003PR
		3P + N	CIS25F08003NR



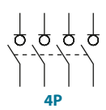
Technical information

According to IEC 60947-3
IEC 61439-2

					800
Rated thermal current in ambient at	Ithe		40 °C	A	800
Rated insulation voltage	Ui			V	1000
Rated impulse withstand voltage	Uimp			kV	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	800
		Ue 400V	AC22A	A	800
		Ue 400V	AC23A	A	800
Rated breaking capacity		400V	AC23	A	6400
Rated making capacity		400V	AC23	A	8000

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			800
Short - circuit behaviour			
Rated short-circuit making capacity *(2)	Icm	kA (peak)	60
Rated short-time withstand current (1sec.)	Icw	kA rms	25
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000
Maximum weight 3P		Kg	Consult
Maximum weight 3P + N		Kg	Consult



Also available 4P switches under request, please consult

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

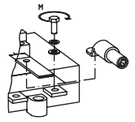


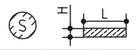
Terminal protection
CODE DS-CU31
(1 kit for input or output)



Safety key lock device
Simple *CODE* DS-CB31
Double *CODE* DS-CF31

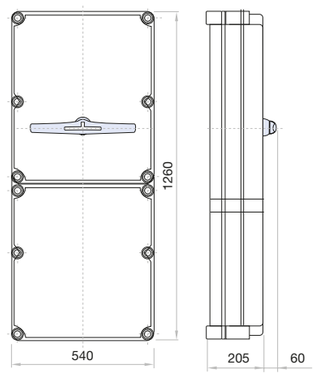
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

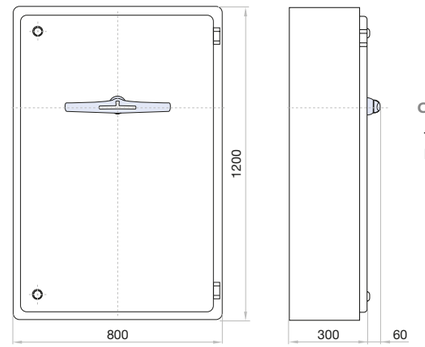


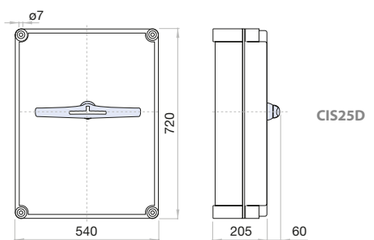


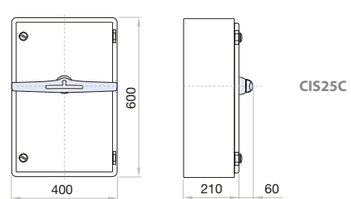
S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
2x240	2x10	50	M14	45

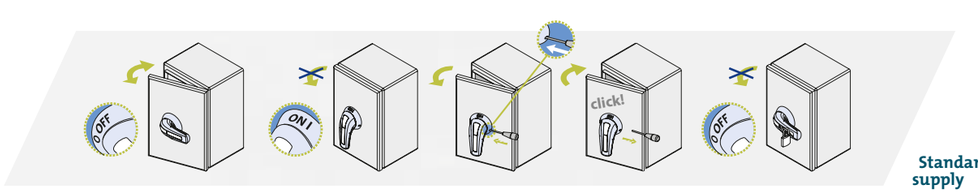
Dimensions (mm)











Standard supply

CIS25 - A - C - D - F
Enclosed switch - disconnector IP65 (with or without fuse holders) 3P - 3P+N

Size 4

***A 1000|1250|1600**

*(A) Under request higher currents are available, please consult.


CIS25A

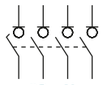

CIS25D


CIS25C


CIS25F

			CODE - 1000A	CODE - 1250A	CODE - 1600A
polyester enclosure + fuse holders	CIS25A *(5)	3P	CIS25A10003PS *(5)	CIS25A12503PS *(5)	CIS25A16003PS *(5)
		3P + N	CIS25A10003NS *(5)	CIS25A12503NS *(5)	CIS25A16003NS *(5)
polyester enclosure	CIS25D	3P	CIS25D10003PS	CIS25D12503PS	CIS25D16003PS
		3P + N	CIS25D10003NS	CIS25D12503NS	CIS25D16003NS
metal enclosure	CIS25C	3P	CIS25C10003PS	CIS25C12503PS	CIS25C16003PS
		3P + N	CIS25C10003NS	CIS25C12503NS	CIS25C16003NS
metal enclosure + fuse holders	CIS25F	3P	CIS25F10003PS	CIS25F12503PS	CIS25F16003PS
		3P + N	CIS25F10003NS	CIS25F12503NS	CIS25F16003NS


3P


3P + N

Technical information

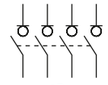
CE IEC

According to IEC 60947-3
IEC 61439-2

					1000	1250	1600
Rated thermal current in ambient at	Ithe		40 °C	A	1000	1250	1600
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1000	1250	1600
		Ue 400V	AC22A	A	1000	1250	1600
		Ue 400V	AC23B	A	-	-	1600
Rated breaking capacity		400V	AC23	A	3000	3750	4800
Rated making capacity		400V	AC23	A	3000	3750	4800

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)
*(3) IP43

			1000	1250	1600
Short - circuit behaviour					
Rated short-circuit making capacity *(2)	Icm	kA (peak)	60	60	75
Rated short-time withstand current (1sec.)	Icw	kA rms	25	25	50
Mechanical features					
Number of mechanical operations (according to the standards, for other values please consult) *(3)		Cycles	3000	3000	3000
Maximum weight 3P		Kg		Consult	
Maximum weight 3P + N		Kg		Consult	


4P

Also available 4P switches under request, please consult

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

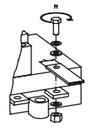


Terminal protection
CODE DS-CU41
(1 kit for input or output)



Safety key lock device
Simple *CODE* DS-CB41
Double *CODE* DS-CF41

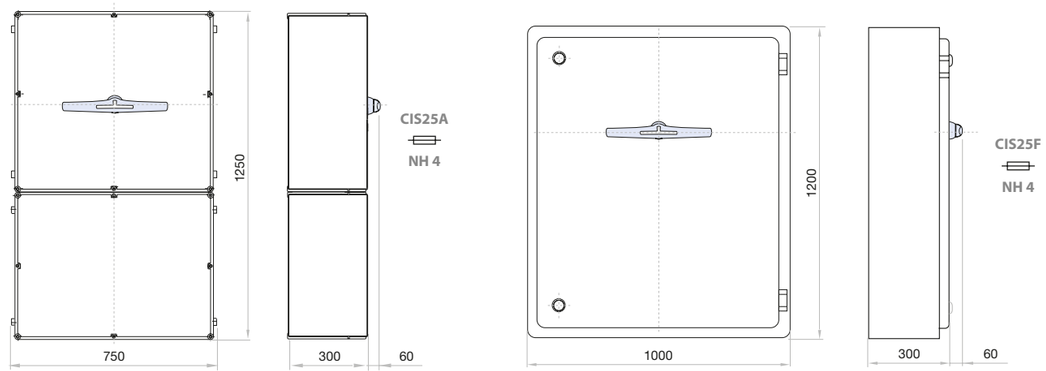
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

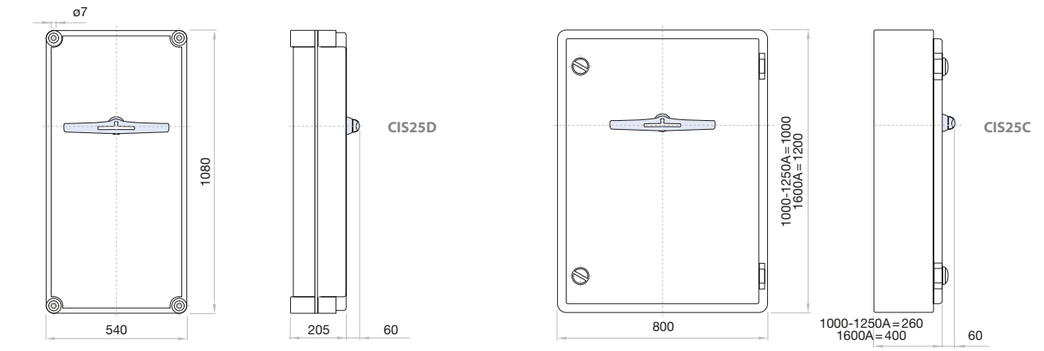


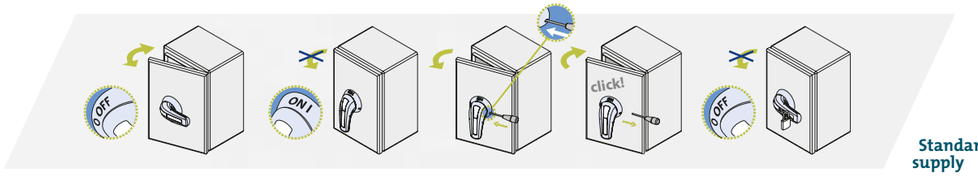


	H max (Cu)	L max (Cu)	T	M
	mm	mm		Nxm
1000 A 1250 A	2x10	80	M16	80
1600 A			M14	55

Dimensions (mm)







Standard supply

IPTA | IPTR | IPTU
Switch disconnector for transformer secondary protection
IP65 4P - 3P+N

A 40...630

IPTA (IP65)
automatic



IPTR (IP65)
manual single module



IPTU (IP65)
manual double module



		CODE - 40A	CODE - 50...63A	CODE - 80...100A	CODE - 125...160A
IPTA	4P	IPTA00404PS0	IPTA00634PS0	IPTA01004PS0	IPTA01604PS0
		CODE - 200A	CODE - 250A	CODE - 320...400A	CODE - 630A
		IPTA02004PS0	IPTA02504PS0	IPTA04004PS0	IPTA06304PT0
		CODE - 160A	CODE - 250A	CODE - 400A	CODE - 630A
IPTR	3P + N	IPTR01603NB0	IPTR02503NB0	IPTR04003NB0	IPTR06303NT0
		CODE - 160A	CODE - 250A	CODE - 400A	CODE - 630A
IPTU	3P + N	IPTU01603NB0	IPTU02503NB0	IPTU04003NB0	IPTU06303NT0



Technical information

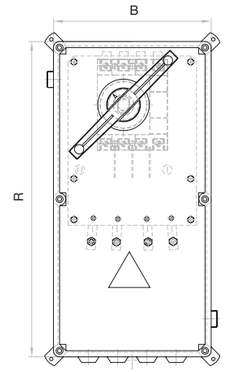
According to IEC 60947-3
IEC 61439-2

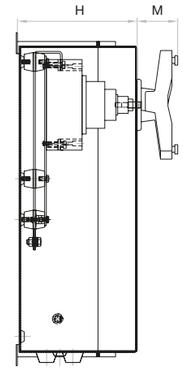
	Amps (Ith)	NH / DIN
IPTR	160	0
	250	1
	400	2
	630	3
IPTU	160	0
	250	1
	400	2
	630	3

Selection table

kVA	UF/UL (Vac)	In (A)
50	380 / 220	100
75	380 / 220	125
100	380 / 220	160
125	380 / 220	200
160	380 / 220	250
250	380 / 220	400
400	380 / 220	630

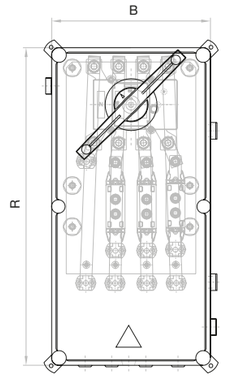
Dimensions (mm)

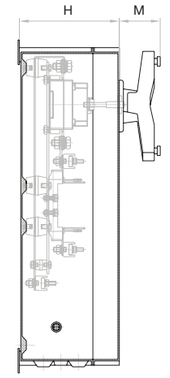




IPTA

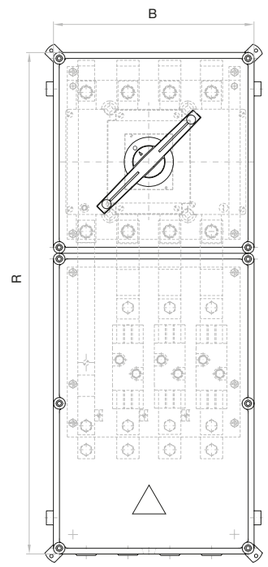
	R	B	H	M
40 - 63 - 80 - 100 A 160 - 200 - 250 A	540	270	205	69,5
400 A	540	360	263	69,5
630 A	720	360	205	69,5

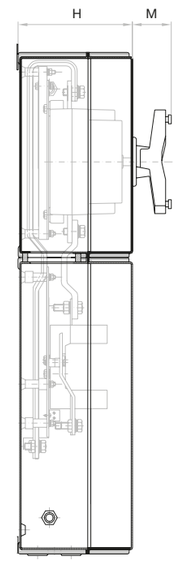




IPTR

	R	B	H	M
160 - 250 A	540	270	170	69,5
400 A	720	360	205	69,5
630 A	720	360	205	69,5





IPTU

	R	B	H	M
160 - 250 A	810	270	170	69,5
400 A	810	360	205	69,5
630 A	900	360	205	69,5

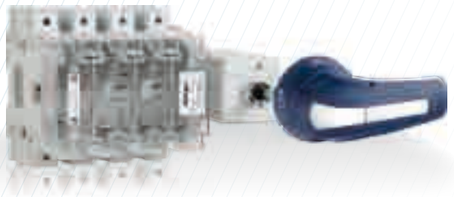
AC
Switch fuses

series **M11** series **M21**

Switch fuses with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in two construction models, with a wide range of currents, fusible types and various accessories.

According to:
IEC 60947-3
IEC 61439-2
RoHs

Testing and approvals:



The switch fuses in its two series, are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They combine in a compact unit the function of a switch - disconnector with the protection against overloads and short - circuits given by the fuses, these once installed remain fixed in the switch, ensuring a long electrical and mechanical life and safe operations for the user.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

The M21 serie consist of a sandwich-type body containing self-cleaning blade type contacts, with pre-arc zones to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life, externally has housings to insert fuses according to the appropriate format. The detent mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

The M11 series is of modular construction, with the contacts being moved by a cross shaft with tripping being positive opening.

Functional and ergonomic handle

- Good grip and excellent torque/ resistance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I** position
- When lock in **O OFF** position, door is interlocked
- Defeteable feature in **ON I** position (with the use of a tool for maintenance operations). Handle interlock is restored when closing
- Self-centering shaft for door handle

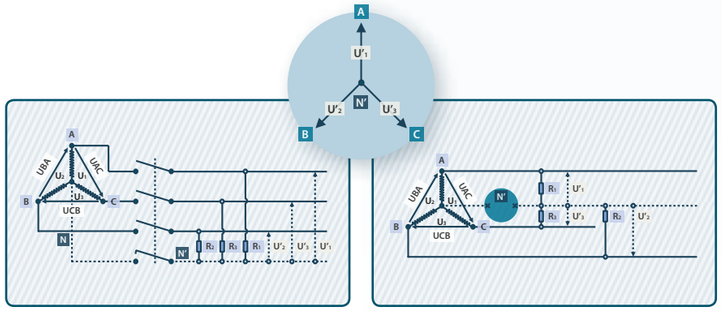


Neutral pole early make & late break



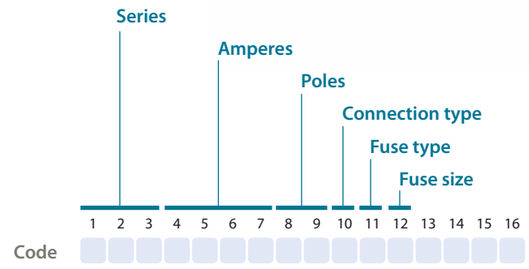
This safety feature prevents accidental overvoltage when making/breaking of loads connected between phase and neutral.

Due to the design in our 3P+N switch - disconnectors and changeover switches, the neutral contact closes before the main phases and opens later, thus ensuring this operation mode.



Range codification:

The M11|M21 series, are identified by a code that describes their most important characteristics as described below



series **M11**



1 2 3 4 5 6
M 1 1

Modular concept.

Fuse-links cylindrical, NH/DIN,BS.

Fuse cover interlock in the ON position.

Different handles depend on the installation mode.

series **M21**



1 2 3 4 5 6
M 2 1

Compact model.

Fuse-links NH/DIN,BS.

Fuse cover interlock in the ON position.

Different handles depend on the installation mode.

series **CIF21**



1 2 3 4 5 6 7
C I F 2 1 C

M11 metal enclosed fusible switch.

External padlockable handle with locking door in ON I position.

Removing door blocked by padlock when handle is in 0 OFF position.

series **CIF22**

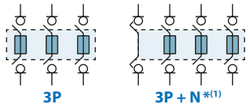


1 2 3 4 5 6 7
C I F 2 2 C

M21 metal enclosed fusible switch.

External padlockable handle with locking door in ON I position.

Removing door blocked by padlock when handle is in 0 OFF position.

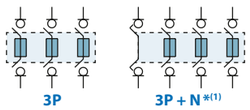


M11 Switches 2, 3 & 4 poles (32 - 160A) (O - I)
For fusibles BS - NFC 14x51 - NH00C *(3)

Manual handle



Amp.	Fuse	Size	Connection	Bipolar (2P)	3 pole (3P)	4 pole (3P + N) *(1)	External handle		Direct handle	
							Frontal *(2)	Side	Frontal	Side
				Code	Code	Code	Code	Code	Code	Code
50	14 x 51	00		M1100502PBC20	M1100503PBC20	M1100503NBC20	DS-SA02	DM1SLB1	DM1SI01	DM1SYB1
63	NH00C	00		M1100632PBDB0	M1100633PBDB0	M1100633NBDB0				
100	NH00C			M1101002PBDB0	M1101003PBDB0	M1101003NBDB0				
32	BSA1	00		M1100322PBBA0	M1100323PBBA0	M1100323NBBA0	DS-SA02	DM1SAB1	DM1SI01	DM1SYB1
63	BSA2 BSA3			M1100632PBBB0	M1100633PBBB0	M1100633NBBB0				
125	22 x 58	0		M1101252PBC30	M1101253PBC30	M1101253NBC30	DS-SA02	DM1SLB1	DM1SI01	DM1SYB1
125	22 x 58			M1101252PTC30	M1101253PTC30	M1101253NTC30				
125	NH00	0		M1101252PBDB0	M1101253PBDB0	M1101253NBDB0				
125	NH00			M1101252PTDB0	M1101253PTDB0	M1101253NTDB0				
160	NH00			M1101602PBDB0	M1101603PBDB0	M1101603NBDB0				
160	NH00			M1101602PTDB0	M1101603PTDB0	M1101603NTDB0				
100	BSA2 BSA3	0		M1101002PBB00	M1101003PBB00	M1101003NBB00	DS-SA02	DM1SAB1	DM1SI01	DM1SYB1
100	BSA2 BSA3			M1101002PTB00	M1101003PTB00	M1101003NTB00				

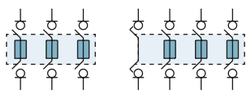


M21 Switches 3 & 4 poles (160 - 800A) (O - I)
For fusibles BS - NH *(3)

Manual handle



Amp.	Fuse	Size	Connection	3 pole (3P)	4 pole (3P + N) *(1)	External *(2)	Direct	Emergency external *(2)
				Code	Code	Code	Code	Code
160	Es NH0	1		M2101603PSD00	M2101603NSD00	DS-SA11	DM2SI11	DS-SR11
160	BSA4	1		M2101603PSB10	M2101603NSB10			
200	BSB1 BSB2			M2102003PSB20	M2102003NSB20			
250	BSB1 BSB2			M2102503PSB20	M2102503NSB20			
250	NH1	2		M2102503PSD10	M2102503NSD10	DS-LA22	DM2SI21	DS-LR22
400	NH2			M2104003PSD20	M2104003NSD20			
315	BSB1... BSB3	2		M2103153PSB40	M2103153NSB40			
400	BSB1... BSB4			M2104003PSB50	M2104003NSB50			
630	NH3	3		M2106303PSD30	M2106303NSD30	DS-LA31	DM2SI31	DS-LR31
800	NH3			M2108003PSD30	M2108003NSD30			
630	BSC1... BSC2	3		M2106303PSB70	M2106303NSB70			
800	BSC1... BSC3			M2108003PSB80	M2108003NSB80			



CIF Metal enclosed model *(2) *(3) IP65

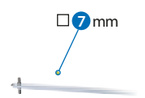


Amp.	Fuse	Size	Connection	Series	3 pole	4 pole (3P + N) *(1)
					Code	Code
63	NH00C	00		M-11	CIF21C00633PBDB	CIF21C00633NBDB
100	NH00C			M-11	CIF21C01003PBDB	CIF21C01003NBDB
125	NH00	0		M-11	CIF21C01253PBDB	CIF21C01253NBDB
125	NH00			M-11	CIF21C01253PTDB	CIF21C01253NTDB
160	NH00			M-11	CIF21C01603PBDB	CIF21C01603NBDB
160	NH00			M-11	CIF21C01603PTDB	CIF21C01603NTDB
160	NH0	1		M-21	CIF22C01603PSD0	CIF22C01603NSD0
250	NH1	2		M-21	CIF22C02503PSD1	CIF22C02503NSD1
400	NH2			M-21	CIF22C04003PSD2	CIF22C04003NSD2
630	NH3	3		M-21	CIF22C06303PSD3	CIF22C06303NSD3
800	NH3			M-21	CIF22C08003PSD3	CIF22C08003NSD3

*(1) Neutral pole early make-late break. Upon request also available 4P and 3P+NF.
*(2) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool).
Also door interlock by a padlock in OFF 0 position.
*(3) Fuses are not supplied.

Please indicate in your order the switch code and the handle code, as these both products are managed separately.
A standard shaft is included with the handle.

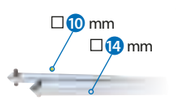








Size	Emergency external handle: Front *(2) Code	Emergency external handle: Side Code	Shaft extensions *(4): □	Shaft extensions *(4): For external handle L	Shaft extensions *(4): For external handle Code *(e1)	Auxiliary contacts *(5): 1NO+1NC Code	Auxiliary contacts *(5): 2NO+2NC Code	Safety key lock device *(6): Simple Code *(e1)	Safety key lock device *(6): Double Code *(e1)	Terminal shrouds *(7): 2 units Code	Terminal shrouds *(7): 3 units Code	Full details in page
00	DS-SR02	DM1RLB1	7	387	Front DS-EP05	DM1AUB1	DM1AUB2	DS-CAB1	DS-CEB1			124
		DM1SRB1		347	Side DS-EP02							
0	DS-SR02	DM1RLB1	7	387	Front DS-EP05	DM1AUB1	DM1AUB2	DS-CAB1	DS-CEB1	DM1CU01	DM1CU02	126
				347	Side DS-EP02							









Size	Shaft extensions *(4): □	Shaft extensions *(4): Type 1 L	Shaft extensions *(4): Type 1 Code *(e1)	Auxiliary contacts *(5): 1NO+1NC Code	Auxiliary contacts *(5): 2NO+2NC Code	Safety key lock device *(6): Simple Code *(e1)	Safety key lock device *(6): Double Code *(e1)	Rear protective plate: 160-200A Code	Rear protective plate: 250A Code	Terminal shrouds *(7): 3P input Code	Terminal shrouds *(7): 3P output Code	Terminal shrouds *(7): 4P input or output Code	Full details in page
1	10	375	DS-EP14	D5LAU01	D5LAU02	DS-CA11	DS-CEB1	3P DM2PP11	3P DM2PP21	DM2CU11	DM2CU12	DM2CU13	128
								4P DM2PP12	4P DM2PP22				
2	14	345	DS-EP23	D5LAU01	D5LAU02	DS-CB21	DS-CF21	3P DM2PP21		DM2CU21	DM2CU22	DM2CU23	130
								4P DM2PP22					
3	14	345	DS-EP23	D5LAU01	D5LAU02	DS-CB31	DS-CF31	3P DM2PP31		DM2CU31	DM2CU32	DM2CU33	132
								4P DM2PP32					





Size	Auxiliary contacts *(5): 1NO+1NC Code	Auxiliary contacts *(5): 2NO+2NC Code	Safety key lock device *(6): Simple Code *(e1)	Safety key lock device *(6): Double Code *(e1)	Terminal shrouds *(7): Code	Terminal shrouds *(7): 3P input Code	Terminal shrouds *(7): 3P output Code	Terminal shrouds *(7): 4P input or output Code	Full details in page
00	DM1AUB1	DM1AUB2	DS-CAB1	DS-CEB1		-	-	-	134
0	DM1AUB1	DM1AUB2	DS-CAB1	DS-CEB1	2 units DM1CU01	-	-	-	136
					3 units DM1CU02				
1	D5LAU01	D5LAU02	DS-CA11	DS-CEB1		DM2CU11	DM2CU12	DM2CU13	138
2	D5LAU01	D5LAU02	DS-CB21	DS-CF21		DM2CU21	DM2CU22	DM2CU23	140
3	D5LAU01	D5LAU02	DS-CB31	DS-CF31		DM2CU31	DM2CU32	DM2CU33	142

*(4) A standard shaft is included with the external handle.
*(5) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac.
Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.
*(6) For external handle lockable in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.
Interlocking in other positions available upon request.
*(7) One set for input or output.
*(e1) All these codes are related to the new handle, in case of replacements for old design handles, please consult.

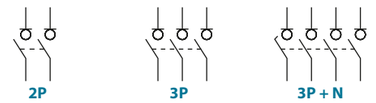
M11
Switch fuses base mounting 2P - 3P - 3P+N

Size 00
A 32|50|63|100
NFC 14x51 NH 00C
BS A1-A2-A3



	CODE - 50A	CODE - 63A	CODE - 100A
2P	M1100502PBC20	M1100632PBDB0	M1101002PBDB0
3P	M1100503PBC20	M1100633PBDB0	M1101003PBDB0
3P + N	M1100503NBC20	M1100633NBDB0	M1101003NBDB0
Fuses	NFC 14x51	NH 00C	NH 00C

	CODE - 32A	CODE - 63A
2P	M1100322PBBA0	M1100632PBBB0
3P	M1100323PBBA0	M1100633PBBB0
3P + N	M1100323NBBA0	M1100633NBBB0
Fuses	BS A1	BS A2 - BS A3*(Ø)

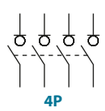


Technical information

According to IEC 60947-3

			32	50	63	100
Fuses	NH/DIN		-	-	00C	00C
	BS		A1	-	A2-A3*(Ø)	-
	NFC		-	14x51	-	-
Rated thermal current in ambient at 40 °C	Ith	A	32	50	63	100
Rated thermal current in enclosure	Ithe	A	-	-	63	100
Rated insulation voltage	Ui	V	800	800	800	800
Rated impulse withstand voltage	Uimp	kV	8	8	8	8
Power dissipation in fuse links *(1)	NH/DIN	W	-	-	5,1	6,9
	BS		2,8	-	6,6	-
	NFC		-	4,7	-	-
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ue 400 V AC21A	A	32	50	63	100
	Ue 400 V AC22A	A	32	50	63	100
	Ue 400 V AC23A	A	32	50	63	100

			32	50	63	100
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	256	400	504	800
Rated making capacity	400 V; cos φ = 0,45	A	320	500	630	1000
Short - circuit behaviour						
Rated conditional short-circuit current *(3)	Iq	kA rms	50	50	50	50
Rated conditional short-circuit making *(3)		kA rms	50	50	50	50
Maximum cut - off current		kA (peak)	13	13	13	13
Maximum power dissipation		A^2s (x 10^3)	76	76	76	76
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	10000	10000	10000
Maximum weight 2P		kg	0,7	0,7	0,7	0,7
Maximum weight 3P		kg	1,1	1,1	1,1	1,1
Maximum weight 3P+N		kg	1,5	1,5	1,5	1,5



Also available 4P switches under request, please consult

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

*(Ø) Only fuses with diameter < 25 mm

Accessories



Frontal external handle included shaft *(e1)
IP65
CODE DS-SA02



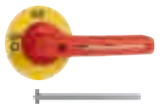
Emergency frontal external handle included shaft *(e1)
IP65
CODE DS-SR02



Direct handle
Frontal *CODE* DM1SI01
Side *CODE* DM1SYB1



Side handle included shaft *(e1)
IP65
CODE DM1SLB1

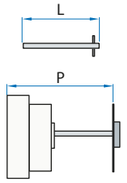


Emergency side handle included shaft *(e1)
IP65
CODE DM1RLB1

Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
250	144... 270



Shaft extensions

Frontal external handle

L (mm)	P (mm)	CODE
387	144... 407	DS-EP05

Side handle

L (mm)	P (mm)	CODE
347	144... 367	DS-EP02



Auxiliary contacts
1NO+1NC *CODE* DM1AUB1
2NO+2NC *CODE* DM1AUB2

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

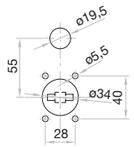


Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

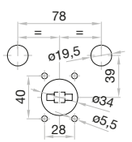
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

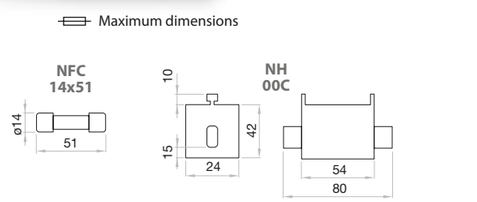


Double



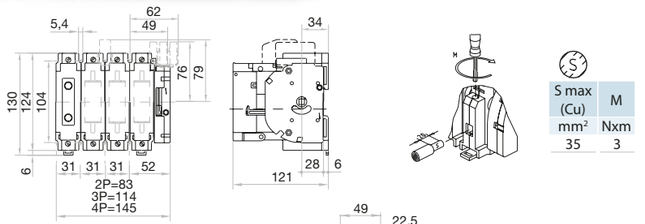
Fuses

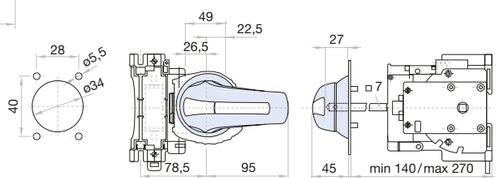
Maximum dimensions



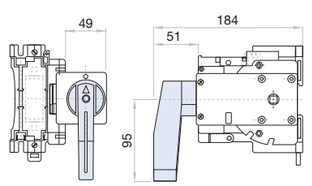
*(Ø) Only fuses with diameter < 25 mm

Dimensions (mm)

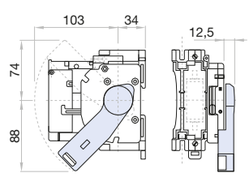




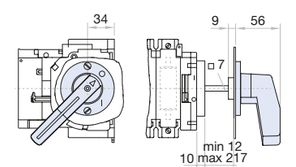
Frontal external handle



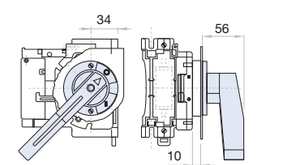
Frontal direct handle



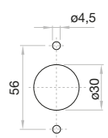
Side direct handle



Side handle



Side mounting

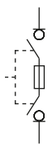


series M11

M11
Switch fuses base mounting 2P - 3P - 3P+N

Size 0
A 100|125|160
NFC 22x58 NH 00
BS A2-A3





	CODE - 125A	CODE - 125A	CODE - 125A	CODE - 125A	CODE - 160A	CODE - 160A
2P	M1101252PBC30	M1101252PTC30	M1101252PBDB0	M1101252PTDB0	M1101602PBDB0	M1101602PTDB0
3P	M1101253PBC30	M1101253PTC30	M1101253PBDB0	M1101253PTDB0	M1101603PBDB0	M1101603PTDB0
3P + N	M1101253NBC30	M1101253NTC30	M1101253NBDB0	M1101253NTDB0	M1101603NBDB0	M1101603NTDB0
Fuses	NFC 22x58	NFC 22x58	NH 00	NH 00	NH 00	NH 00

	CODE - 100A	CODE - 100A
2P	M1101002PBB00	M1101002PTB00
3P	M1101003PBB00	M1101003PTB00
3P + N	M1101003NBB00	M1101003NTB00
Fuses	BS A2 - BS A3	BS A2 - BS A3



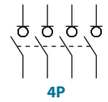
Technical information

CE IEC EAC IEL

According to IEC 60947-3

				100	125	160
Fuses	NH/DIN			-	00	00
	BS			A2-A3	-	-
	NFC			-	22x58	-
Rated thermal current in ambient at 40 °C	Ith	A		100	125	160
Rated thermal current in enclosure	Ithe	A		-	125	160
Rated insulation voltage	Ui	V		800	800	800
Rated impulse withstand voltage	Uimp	kV		8	8	8
Power dissipation in fuse links *(1)	NH/DIN	W		-	9,5	11,8
	BS			8,5	-	-
	NFC			-	12,5	-
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ue 400 V AC21A	A	Ie	100	125	160
	Ue 400 V AC22A	A	Ie	100	125	160
	Ue 400 V AC23A	A	Ie	100	125	160

				100	125	160
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A		800	1000	1280
Rated making capacity	400 V; cos φ = 0,45	A		1000	1250	1600
Short - circuit behaviour						
Rated conditional short-circuit current *(3)		Iq	kA rms	50	50	50
Rated conditional short-circuit making *(3)			kA rms	50	50	50
Maximum cut - off current			kA (peak)	17	17	17
Maximum power dissipation			A^2s (x 10^3)	190	190	190
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	10000	8000	8000
Maximum weight 2P			kg	1,2	1,2	1,2
Maximum weight 3P			kg	1,7	1,7	1,7
Maximum weight 3P+N			kg	2,2	2,2	2,2



Also available 4P switches under request, please consult

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

series M11

Accessories



Frontal external handle included shaft *(e1)
IP65
CODE DS-SA02



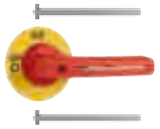
Emergency frontal external handle included shaft *(e1)
IP65
CODE DS-SR02



Direct handle
Frontal CODE DM1SI01
Side CODE DM1SYB1



Side handle included shaft *(e1)
IP65
CODE DM1SLB1

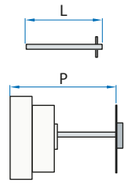


Emergency side handle included shaft *(e1)
IP65
CODE DM1RLB1

Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
250	144... 270



Shaft extensions

Frontal external handle

L (mm)	P (mm)	CODE
387	144... 407	DS-EP05

Side handle

L (mm)	P (mm)	CODE
347	144... 367	DS-EP02



Terminal shrouds

2 UNITS	3 UNITS
DM1CU01	DM1CU02

(1 kit for input or output)



Auxiliary contacts
1NO+1NC CODE DM1AUB1
2NO+2NC CODE DM1AUB2

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

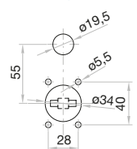


Safety key lock device
Simple CODE DS-CAB1
Double CODE DS-CEB1

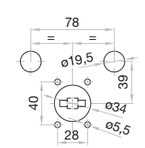
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



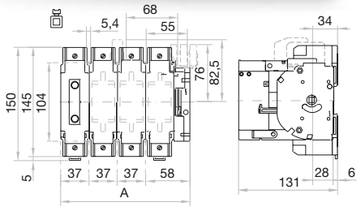
Double



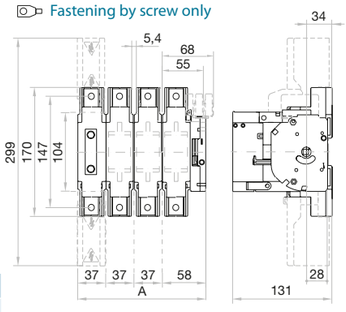
Fuses

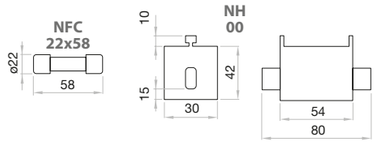
Maximum dimensions

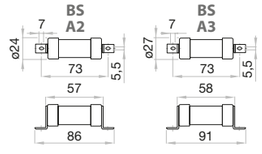
Dimensions (mm)



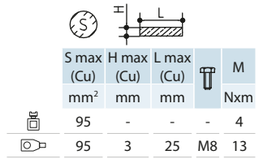
Fastening by screw only

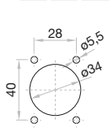


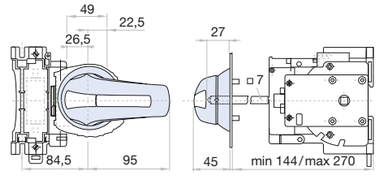




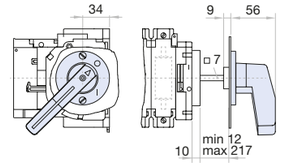
	A		
	2P	3P	4P
	95	132	169



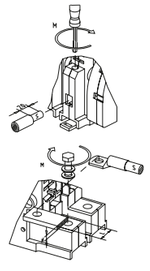


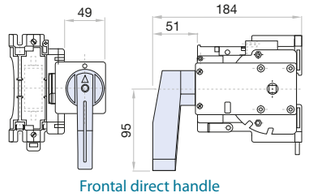


Frontal external handle

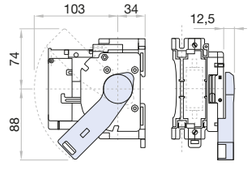


Side handle

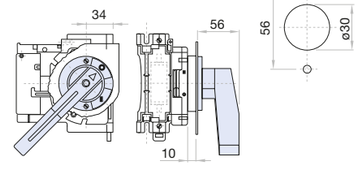




Frontal direct handle



Side direct handle



Side mounting

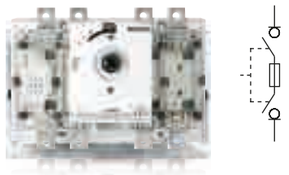
series M21

M21
Switch fuses base mounting 3P - 3P+N

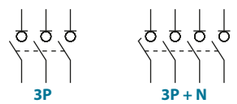
Size 1

A 160|200|250

NH 0 BS A4
BS B1 BS B2



	CODE - 160A	CODE - 160A	CODE - 200A	CODE - 250A
3P	M2101603PSD00	M2101603PSB10	M2102003PSB20	M2102503PSB20
3P + N	M2101603NSD00	M2101603NSB10	M2102003NSB20	M2102503NSB20
Fuses	NH 0	BS A4	BS B1-BS B2	BS B1-BS B2



Technical information

According to IEC 60947-3

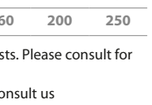
			160	200	250
Fuses	NH/DIN		0	-	0S
	BS		A4	B1-B2	B1-B2
Rated thermal current in ambient at 40 °C	Ith	A	160	200	250
Rated thermal current in enclosure	Ithe	A	160	-	250
Rated insulation voltage	Ui	V	800	800	800
Rated impulse withstand voltage	Uimp	kV	8	8	8
Power dissipation in fuse links *(1)	NH/DIN	W	13,5	-	17,8
	BS		11	13	16
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ue 400 V AC21A	A	160	200	250
	Ue 400 V AC22A	A	160	200	250
	Ue 400 V AC23A	A	160	200	250

			160	200	250
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	1280	1600	2000
Rated making capacity	400 V; cos φ = 0,45	A	1600	2000	2500
Short - circuit behaviour					
Rated conditional short-circuit current *(3)	Iq	kA rms	100	100	100
Rated conditional short-circuit making *(3)		kA rms	100	100	100
Maximum cut - off current		kA (peak)	26,3	26,3	26,3
Maximum power dissipation		A^2s (x 10^3)	478	478	478
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000
Maximum weight 3P		kg	3,1	3,1	3,1
Maximum weight 3P+N		kg	4	4	4

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories; please consult us

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values



Also available 4P switches under request, please consult

series M21

Accessories



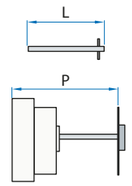
External handle included shaft *(e1)
IP65
CODE DS-SA11



Emergency external handle included shaft *(e1)
IP65
CODE DS-SR11



Direct handle
CODE DM2SI11



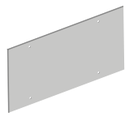
Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	180... 292

Shaft extensions
Type 1

L (mm)	P (mm)	CODE
375	180... 441	DS-EP14

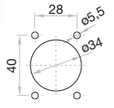


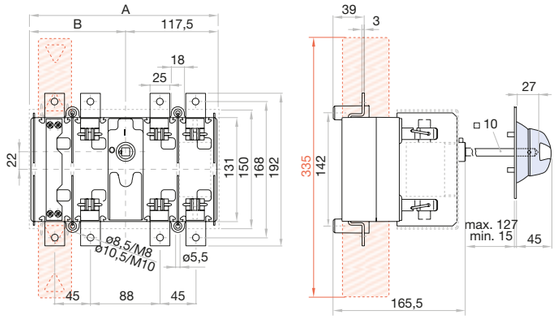
Rear protective plate

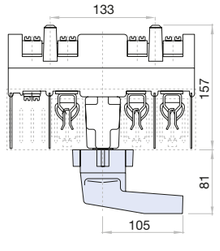
160-200 A		250 A	
3P	4P	3P	4P
DM2PP11	DM2PP12	DM2PP21	DM2PP22

Dimensions (mm)

Door drilling for external handle







A		B	
3P	4P	3P	4P
200	239	82,5	121,5



External handle top view



Terminal shrouds

3P INPUT	3P OUTPUT	4P INPUT / OUTPUT
DM2CU11	DM2CU12	DM2CU13

(1 kit for input or output)



Auxiliary contacts

1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



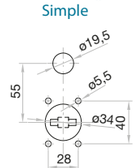
Safety key lock device

Simple CODE DS-CA11
Double CODE DS-CEB1

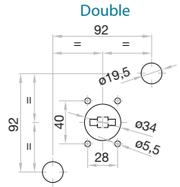
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

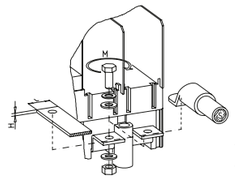
Door drilling for handle and key lock device

Simple



Double

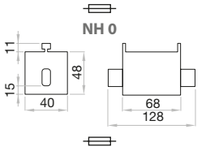


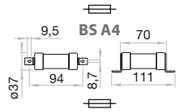


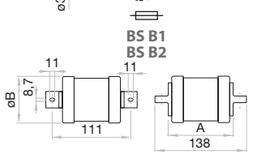
	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
160 A	120	5	25	M8	13
200 A					
250 A	120	5	25	M10	24

Fuses

Maximum dimensions







	A	øB
	max	max
B1	70	37
B2	77	42

series M21

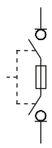
M21
Switch fuses base mounting 3P - 3P+N

Size 2

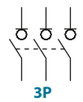
A 250|315|400

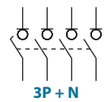
NH 1 NH 2 BS B1
BS B2 BS B3 BS B4



		CODE-250A	CODE-400A	CODE-315A	CODE-400A
3P		M2102503PSD10	M2104003PSD20	M2103153PSB40	M2104003PSB50
3P + N		M2102503NSD10	M2104003NSD20	M2103153NSB40	M2104003NSB50
Fuses		NH 1	NH 2	BS B1...BS B3	BS B1...BS B4


3P


3P + N

Technical information

CE IEC EAC IEL

According to IEC 60947-3

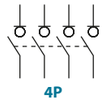
				250	315	400
Fuses	NH/DIN			1	-	2
	BS			-	B1-B3	B1-B4
Rated thermal current in ambient at 40 °C	Ith		A	250	315	400
Rated thermal current in enclosure	Ithe		A	250	-	400
Rated insulation voltage	Ui		V	1000	1000	1000
Rated impulse withstand voltage	Uimp		kV	12	12	12
Power dissipation in fuse links *(1)	NH/DIN		W	18,7	-	30
	BS			-	24	29
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie	Ue 400 V AC21A	A	250	315	400
		Ue 400 V AC22A	A	250	315	400
		Ue 400 V AC23A	A	250	315	400

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories; please consult us

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

				250	315	400
Rated breaking capacity	400 V; cos φ = 0,35÷0,45		A	2000	2520	3200
Rated making capacity	400 V; cos φ = 0,45		A	2500	3150	4000
Short - circuit behaviour						
Rated conditional short-circuit current *(3)		Iq	kA rms	100	100	100
Rated conditional short-circuit making *(3)			kA rms	100	100	100
Maximum cut - off current			kA (peak)	43,3	43,3	43,3
Maximum power dissipation			A^2s (x 10^3)	1600	1600	1600
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	8000	8000	5000
Maximum weight 3P			kg	6,6	6,6	6,6
Maximum weight 3P+N			kg	8	8	8


4P

Also available 4P switches under request, please consult

series M21

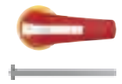
Accessories



External handle included shaft *(e1)

IP65

CODE DS-LA22



Emergency external handle included shaft *(e1)

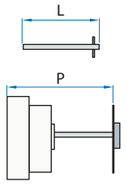
IP65

CODE DS-LR22



Direct handle

CODE DM2SI21



Shafts

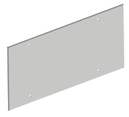
Standard shaft included *(e1)

L (mm)	P (mm)
239	216... 286

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	216... 392	DS-EP23

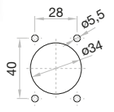


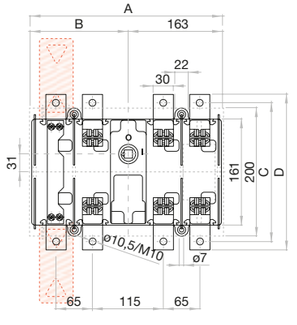
Rear protective plate

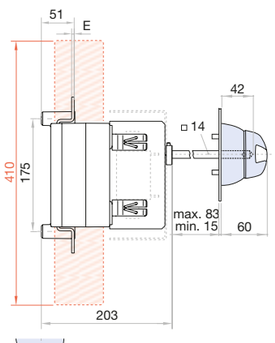
3P	4P
DM2PP21	DM2PP22

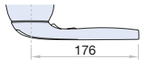
Dimensions (mm)

Door drilling for external handle

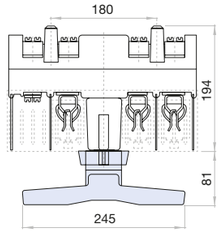








External handle top view



	A		B		C	D	E
	3P	4P	3P	4P			
250 A 315 A	274	329	111	166	212	242	4
400 A					216	246	5



Terminal shrouds

3P INPUT	3P OUTPUT	4P INPUT / OUTPUT
DM2CU21	DM2CU22	DM2CU23

(1 kit for input or output)



Auxiliary contacts

1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



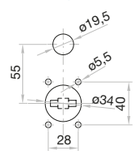
Safety key lock device

Simple *CODE* DS-CB21
Double *CODE* DS-CF21

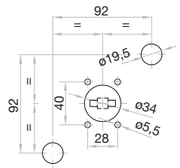
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

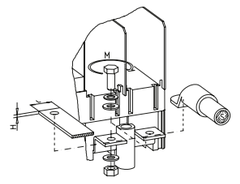
Door drilling for handle and key lock device

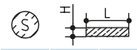
Simple



Double



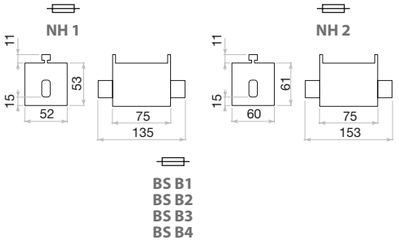


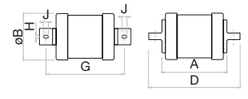


S max (Cu)	H max (Cu)	L max (Cu)		M
mm^2	mm	mm		Nxm
240	6	40	M10	24

Fuses

Maximum dimensions





	A	øB	D	G	H	J
	max	max	max	nom	nom	min
B1	70	37				
B2 B3	77	42	138	111	8,7	11
B4	83	66				

series M21

M21
Switch fuses base mounting 3P - 3P+N

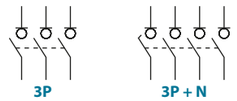
Size 3

A 630|800

NH 3 BS C1 BS C2 BS C3



	CODE-630A	CODE-800A	CODE-630A	CODE-800A
3P	M2106303PSD30	M2108003PSD30	M2106303PSB70	M2108003PSB80
3P + N	M2106303NSD30	M2108003NSD30	M2106303NSB70	M2108003NSB80
Fuses	NH 3	NH 3	BS C1...BS C2	BS C1...BS C3



Technical information

According to IEC 60947-3

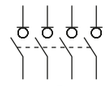
			630	800
Fuses	NH/DIN		3	3
	BS		C1-C2	C1-C3
Rated thermal current in ambient at 40 °C	Ith	A	630	800
Rated thermal current in enclosure	Ithe	A	630	725
Rated insulation voltage	Ui	V	1000	1000
Rated impulse withstand voltage	Uimp	kV	12	12
Power dissipation in fuse links *(1)	NH/DIN	W	48	57
	BS		44	63
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie Ue 400 V AC21A	A	630	800
	Ue 400 V AC22A	A	630	800
	Ue 400 V AC23B	A	630	630

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories; please consult us

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

			630	800
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	5040	5040
Rated making capacity	400 V; cos φ = 0,45	A	6300	6300
Short - circuit behaviour				
Rated conditional short-circuit current *(3)	Iq	kA rms	100	100
Rated conditional short-circuit making *(3)		kA rms	100	100
Maximum cut - off current		kA (peak)	60,8	60,8
Maximum power dissipation		A^2s (x 10^3)	4600	4600
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	3000
Maximum weight 3P		kg	13	13
Maximum weight 3P+N		kg	15	15



Also available 4P switches under request, please consult

series M21

Accessories



External handle included shaft *(e1)

IP65

CODE DS-LA31



Emergency external handle included shaft *(e1)

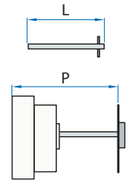
IP65

CODE DS-LR31



Direct handle

CODE DM2SI31



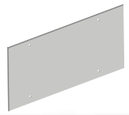
Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
186	235... 286

Shaft extensions Type 1

L (mm)	P (mm)	CODE
345	235... 445	DS-EP23



Rear protective plate

3P	4P
DM2PP31	DM2PP32

Dimensions (mm)

Door drilling for external handle



A		B	
3P	4P	3P	4P
381	426	166	211



Terminal shrouds

3P INPUT	3P OUTPUT	4P INPUT / OUTPUT
DM2CU31	DM2CU32	DM2CU33

(1 kit for input or output)

Auxiliary contacts

1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



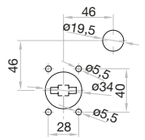
Safety key lock device

Simple *CODE* DS-CB31
Double *CODE* DS-CF31

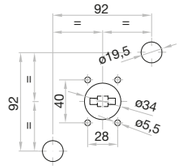
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

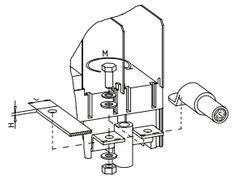
Door drilling for handle and key lock device

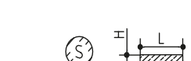
Simple



Double



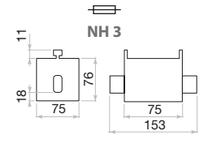


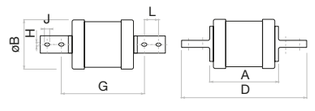


	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
630 A	2x185	2x7	50	M12	45
800 A	2x240	2x7	50	M8	13

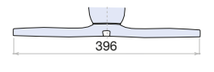
Fuses

Maximum dimensions





	A	øB	D	G	H	J	L
	max	max	max	nom	nom	min	min
C1	83	66				11	
C2	85	77	212	133	10,3		25,4
C3	89	84				12,5	



External handle top view

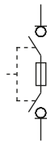
SWITCH - DISCONNECTORS O-I

series CIF21

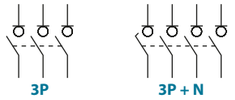
CIF21
Metal enclosed switch fuses IP65 3P - 3P+N

Size 00
A 63|100





	CODE - 63A	CODE - 100A
3P	CIF21C00633PBDB	CIF21C01003PBDB
3P + N	CIF21C00633NBDB	CIF21C01003NBDB



Accessories



» External handle included
IP65



» Emergency external handle under request
IP65



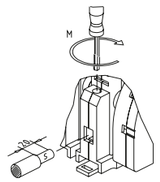
» Auxiliary contacts
1NO+1NC *CODE* DM1AUB1
2NO+2NC *CODE* DM1AUB2

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



» Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



S max (Cu)	M
mm²	Nxm
35	3

Technical information

CE IEC

According to IEC 60947-3
IEC 61439-2

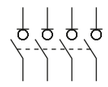
			63	100
Fuses	NH/DIN		00C	00C
Rated thermal current in enclosure 40°C	Ithe	A	63	100
Rated insulation voltage	Ui	V	800	800
Rated impulse withstand voltage	Uimp	kV	8	8
Power dissipation in fuse links *(1)	NH/DIN	W	5,1	6,9
AC rated operational current *(2) (Rated frequency 50 / 60 Hz) Ie	Ue 400 V AC21A	A	63	100
	Ue 400 V AC22A	A	63	100
	Ue 400 V AC23A	A	63	100

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

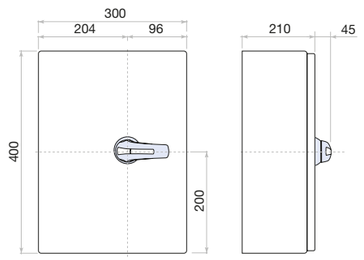
*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

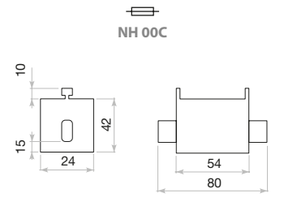
				63	100
Rated breaking capacity	400 V; cos φ = 0,35÷0,45		A	504	800
Rated making capacity	400 V; cos φ = 0,45		A	630	1000
Short - circuit behaviour					
Rated conditional short-circuit current *(3)		Iq	kA rms	50	50
Rated conditional short-circuit making *(3)			kA rms	50	50
Maximum cut - off current			kA (peak)	13	13
Maximum power dissipation			A^2s (x 10^3)	76	76
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	10000	10000
Maximum weight 3P			kg	Consult	
Maximum weight 3P+N			kg	Consult	



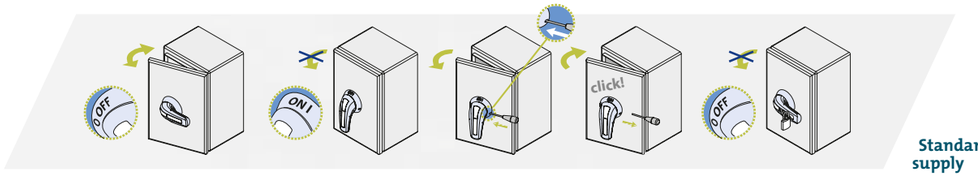
Also available 4P switch - disconnectors under request, please consult

Dimensions (mm)





Fuse max dimensions



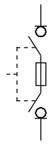
Standard supply

CIF21
Metal enclosed switch fuses IP65 3P - 3P+N

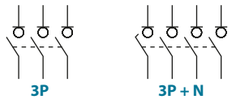
Size 0

A 125 | 160





	CODE - 125A	CODE - 160A	CODE - 125A	CODE - 160A
3P	CIF21C01253PBDB	CIF21C01603PBDB	CIF21C01253PTDB	CIF21C01603PTDB
3P + N	CIF21C01253NBDB	CIF21C01603NBDB	CIF21C01253NTDB	CIF21C01603NTDB



Technical information

According to IEC 60947-3
IEC 61439-2

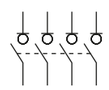
				125	160
Fuses		NH/DIN		00	00
Rated thermal current in enclosure 40ºC		Ithe	A	125	160
Rated insulation voltage		Ui	V	800	800
Rated impulse withstand voltage		Uimp	kV	8	8
Power dissipation in fuse links *(1)		NH/DIN	W	9,5	11,8
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie	Ue 400 V AC21A	A	125	160
		Ue 400 V AC22A	A	125	160
		Ue 400 V AC23A	A	125	160

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

				125	160
Rated breaking capacity	400 V; cos φ = 0,35÷0,45		A	1000	1280
Rated making capacity	400 V; cos φ = 0,45		A	1250	1600
Short - circuit behaviour					
Rated conditional short-circuit current *(3)		Iq	kA rms	50	50
Rated conditional short-circuit making *(3)			kA rms	50	50
Maximum cut - off current			kA (peak)	17	17
Maximum power dissipation			A^2s (x 10^3)	190	190
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	8000	8000
Maximum weight 3P			kg	Consult	
Maximum weight 3P+N			kg	Consult	



Also available 4P switch - disconnectors under request, please consult

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* DM1AUB1
2NO+2NC *CODE* DM1AUB2

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



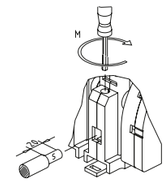
Terminal shrouds
2 UNITS	3 UNITS
DM1CU01	DM1CU02

(1 kit for input or output)

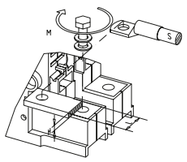


Safety key lock device
Simple *CODE* DS-CAB1
Double *CODE* DS-CEB1

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

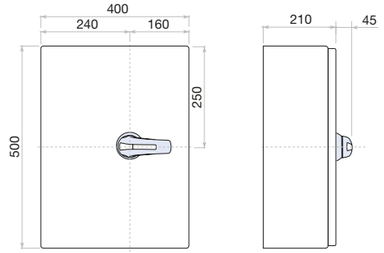


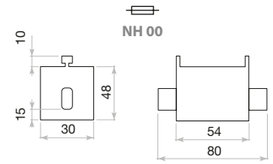
	S max (Cu) mm²	M Nxm
125 A 160 A	95	4



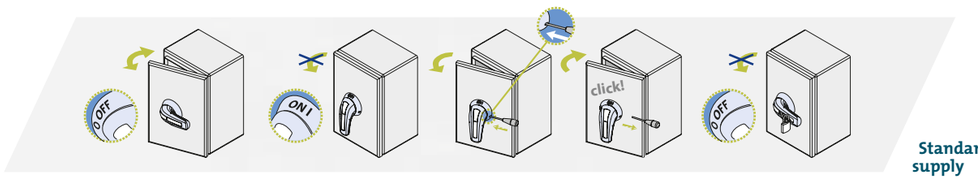
	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
125 A 160 A	95	3	25	M8	13

Dimensions (mm)





Fuse max dimensions



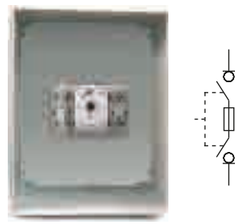
Standard supply

SWITCH - DISCONNECTORS O-I

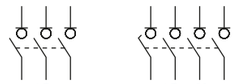
series CIF22

CIF22
Metal enclosed switch fuses IP65 3P - 3P+N

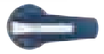
Size 1
A 160



CODE - 160A
3P CIF22C01603PSD0
3P + N CIF22C01603NSD0



Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds

INPUT 3P	OUTPUT 3P	INPUT/OUTPUT 4P
DM2CU11	DM2CU12	DM2CU13

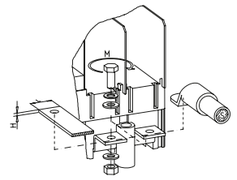
(1 kit for input or output)

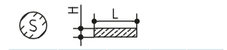


Safety key lock device
Simple CODE DS-CA11
Double CODE DS-CEB1

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Dimensions (mm)





S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
120	5	25	M8	13

Technical information

CE IEC

According to IEC 60947-3
IEC 61439-2

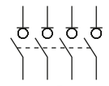
				160
Fuses		NH/DIN		0
Rated thermal current in enclosure 40ºC		Ithe	A	160
Rated insulation voltage		Ui	V	800
Rated impulse withstand voltage		Uimp	kV	8
Power dissipation in fuse links *(1)		NH/DIN	W	13,5
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie	Ue 400 V AC21A	A	160
		Ue 400 V AC22A	A	160
		Ue 400 V AC23A	A	160

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

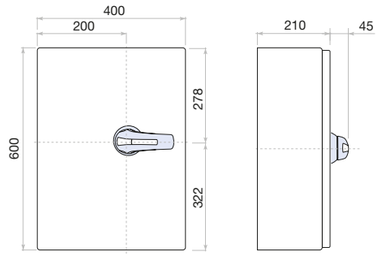
*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

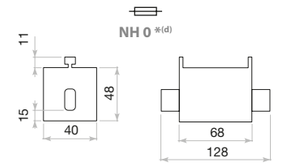
				160
Rated breaking capacity	400 V; cos φ = 0,35÷0,45		A	1280
Rated making capacity	400 V; cos φ = 0,45		A	1600
Conditional short - circuit current				
Rated conditional short-circuit current *(3)		Iq	kA rms	100
Rated conditional short-circuit making *(3)			kA rms	100
Maximum cut - off current			kA (peak)	26,3
Maximum power dissipation			A^2s (x 10^3)	478
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	8000
Maximum weight 3P			kg	Consult
Maximum weight 3P+N			kg	Consult



4P

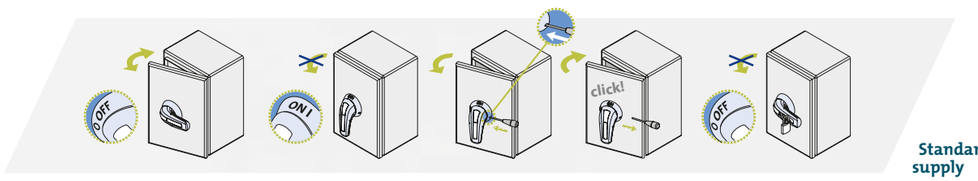
Also available 4P switch - disconnectors under request, please consult





Fuse max dimensions

*(d) Other fuses type, may be required changing the dimensions, please consult

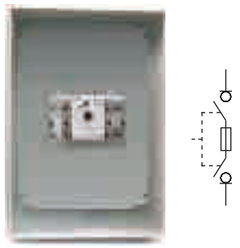


Standard supply

CIF22
Metal enclosed switch fuses IP65 3P - 3P+N

Size 2

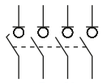
A 250|400



	CODE - 250A	CODE - 400A
3P	CIF22C02503PSD1	CIF22C04003PSD2
3P + N	CIF22C02503NSD1	CIF22C04003NSD2



3P



3P + N

Technical information

According to IEC 60947-3
IEC 61439-2

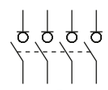
			250	400
Fuses	NH/DIN		1	2
Rated thermal current in enclosure 40ºC	Ithe	A	250	400
Rated insulation voltage	Ui	V	1000	1000
Rated impulse withstand voltage	Uimp	kV	12	12
Power dissipation in fuse links *(1)	NH/DIN	W	18,7	30
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie Ue 400 V AC21A	A	250	400
	Ue 400 V AC22A	A	250	400
	Ue 400 V AC23A	A	250	400

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

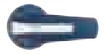
			250	400
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	2000	3200
Rated making capacity	400 V; cos φ = 0,45	A	2500	4000
Conditional short - circuit current				
Rated conditional short-circuit current *(3)	Iq	kA rms	100	100
Rated conditional short-circuit making *(3)		kA rms	100	100
Maximum cut - off current		kA (peak)	43,3	43,3
Maximum power dissipation		A^2s (x 10^3)	1600	1600
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	5000
Maximum weight 3P		kg	Consult	
Maximum weight 3P+N		kg	Consult	



4P

Also available 4P switch - disconnectors under request, please consult

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds

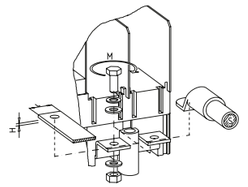
INPUT 3P	*OUTPUT* 3P	*INPUT/OUTPUT* 4P
DM2CU21	DM2CU22	DM2CU23

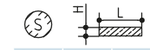
(1 kit for input or output)



Safety key lock device
Simple *CODE* DS-CB21
Double *CODE* DS-CF21

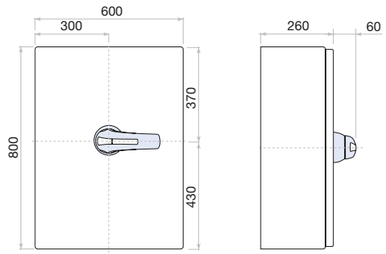
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

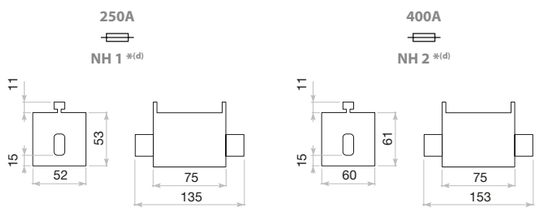




S max (Cu)	H max (Cu)	L max (Cu)		M
mm^2	mm	mm		Nxm
240	6	40	M10	24

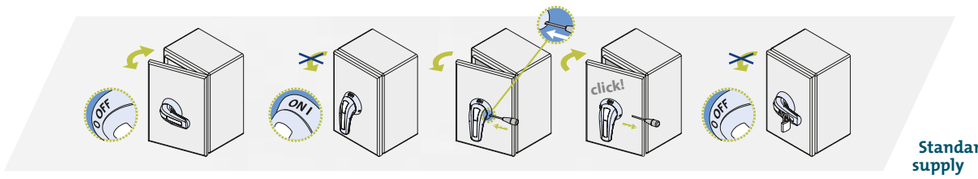
Dimensions (mm)





Fuse max dimensions

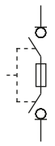
*(d) Other fuses type, may be required changing the dimensions, please consult



Standard supply

CIF22
Metal enclosed switch fuses IP65 3P - 3P+N

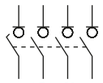




	CODE - 630A	CODE - 800A
3P	CIF22C06303PSD3	CIF22C08003PSD3
3P + N	CIF22C06303NSD3	CIF22C08003NSD3



3P



3P + N

Size 3

A 630 | 800

Technical information

According to IEC 60947-3
IEC 61439-2

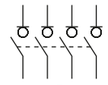
			630	800
Fuses	NH/DIN		3	3
Rated thermal current in enclosure 40ºC	Ithe	A	630	725
Rated insulation voltage	Ui	V	1000	1000
Rated impulse withstand voltage	Uimp	kV	12	12
Power dissipation in fuse links *(1)	NH/DIN	W	48	57
AC rated operational current *(2) (Rated frequency 50 / 60 Hz)	Ie Ue 400 V AC21A	A	630	800
	Ue 400 V AC22A	A	630	800
	Ue 400 V AC23B	A	630	630

*(1) Power dissipation values of fuse - links used in type tests. Please consult for fuse - links with higher power dissipation

*(2) Other voltages and / or utilization categories. Please consult

*(3) With a protective device limiting the cut - off current and the joule integral to the indicated values

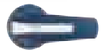
			630	800
Rated breaking capacity	400 V; cos φ = 0,35÷0,45	A	5040	5040
Rated making capacity	400 V; cos φ = 0,45	A	6300	6300
Conditional short - circuit current				
Rated conditional short-circuit current *(3)	Iq	kA rms	100	100
Rated conditional short-circuit making *(3)		kA rms	100	100
Maximum cut - off current		kA (peak)	60,8	60,8
Maximum power dissipation		A^2s (x 10^3)	4600	4600
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	3000
Maximum weight 3P		kg	Consult	
Maximum weight 3P+N		kg	Consult	



4P

Also available 4P switch - disconnectors under request, please consult

Accessories



External handle included
IP65



Emergency external handle under request
IP65



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds

INPUT 3P	OUTPUT 3P	INPUT/OUTPUT 4P
DM2CU31	DM2CU32	DM2CU33

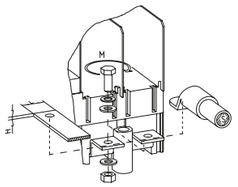
(1 kit for input or output)



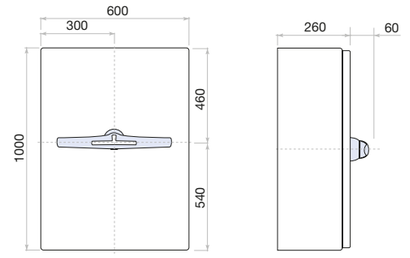
Safety key lock device
Simple *CODE* DS-CB31
Double *CODE* DS-CF31

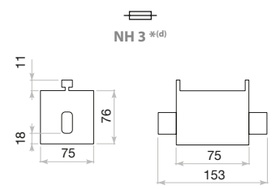
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Dimensions (mm)



	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
630 A	2x185	2x7	50	M12	45
800 A	2x240	2x7	50	M8	13

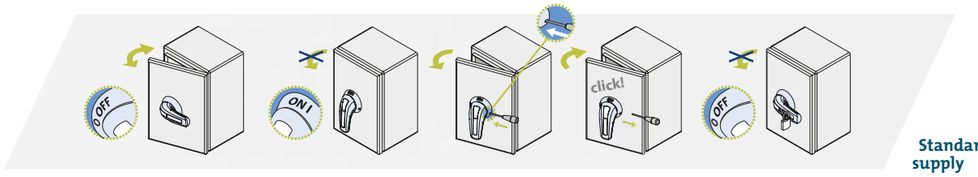




NH 3 *(d)

Fuse max dimensions

*(d) Other fuses type, may be required changing the dimensions, please consult



Standard supply

series
CCF | CCP | S5F | S5B

series
CEC

Changeover switches

Changeover switches with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in different construction models, with a wide range of currents, motorized units and various accessories.

According to:
IEC 60947-3
IEC 61439-2
RoHS

Testing and approvals:



The changeover switches in the series **CCF** | **CCP** | **S5F** | **S5B**, are manufactu-red with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechani-cal stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a sandwich-type body containing self-cleaning blade type contacts, with pre-arc zones to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life. The detent mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

The compact models are with visible cut-off and performed internally the common output without the need for external connections.

Functional and ergonomic handle

- Good grip and excellent torque/ resistance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I - ON II** position
- Self-centering shaft for door handle



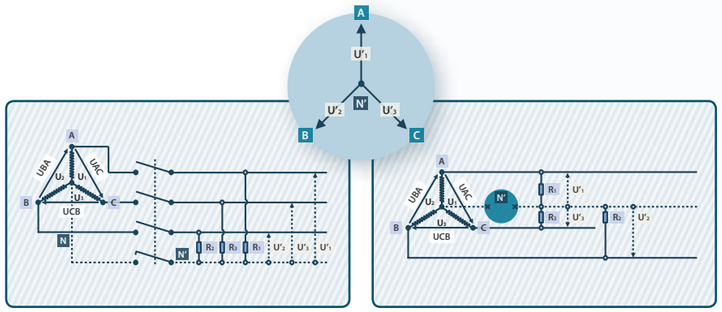
MOTORIZED KIT AVAILABLE · SEE UMKIT · KIT UM

Neutral pole early make & late break



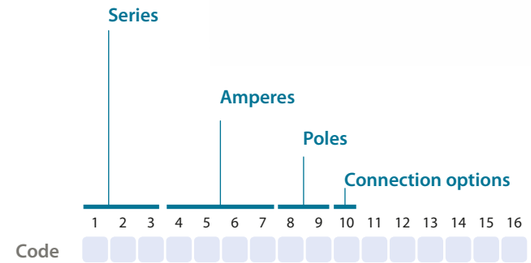
This safety feature prevents accidental overvoltage when making/breaking of loads connected between phase and neutral.

Due to the design in our 3P+N switch - disconnectors and changeover switches, the neutral contact closes before the main phases and opens later, thus ensuring this operation mode.



Range codification:

The **CCF** | **CCP** | **S5F** | **S5B** series, are identified by a code that describes their most important characteristics as described below.



series CCF



1 2 3 4 5
C C F

Compact model.
Visible cut-off.
Common output from the front.
Wide range of currents.
Base mounting by screws.
External or direct handle.

series CCP



1 2 3 4 5
C C P

Compact model.
Visible cut-off.
Common output from the rear.
Wide range of currents.
Base mounting by screws.
External or direct handle.

series S5F



1 2 3 4 5
S 5 F

Back to back or line arrangement.
Base mounting by screws.
External or direct handle.

series S5B



By-pass

1 2 3 4 5
S 5 B

Back to back arrangement.
Base mounting by screws.
External or direct handle.

series CEC



1 2 3 4 5
C E C

Compact efficient changeover switches.
Reduced size.
Common output from the up.
Flexible mounting.
Innovative single mechanism for COS function.
Lower energy losses.
External or direct handle.

series CTR2



1 2 3 4 5
C T R 2

Manual changeover switch in metallic enclosure.
External padlockable handle with locking door in ON I - ON II positions.

series CTRC



1 2 3 4 5
C T R C

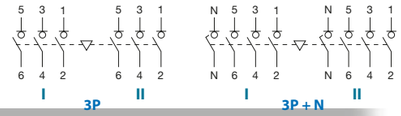
Motorized changeover switch in metallic enclosure.
Outdoor lights position indicators (mains - 0 - generator).
Power connections on the bottom for direct access.
Power part protected against accidental contact.
Physical separation between power and control parts.
Including manual handle (for emergency operation or maintenance).
Other special combinations under request.

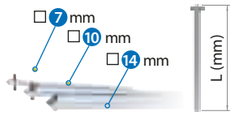
series CTRC



1 2 3 4 5
C T R C

Motorized changeover switch in metallic enclosure with automatic transfer switch for the generator control with automated switching Main - Gen management.
Configurable through software programming.
Power part protected against accidental contact.
Including manual handle (for emergency operation or maintenance).





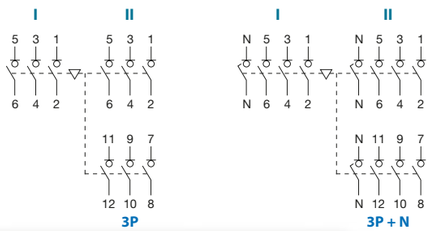


CEC | S5F | CCF CCP — Changeover switches
3 & 4 poles (40 - 3150A) (I - O - II) *(2)

Manual handle | Shaft extensions *(4)

Amp.	Size	Connection	Series	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(3) Code	Direct Code	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)
63	00		CEC	CEC00633PB0	CEC00633NB0	DCELAB1	D5LSI01	7	250	DS-EP04
63			CEC	CEC00633PS0	CEC00633NS0				387	DS-EP05
80			CEC	CEC00803PB0	CEC00803NB0					
80			CEC	CEC00803PS0	CEC00803NS0					
100			CEC	CEC01003PS0	CEC01003NS0					
125			CEC	CEC01253PS0	CEC01253NS0					
125	0		S5F	S5F01253PS0	S5F01253NS0	D5LLA01	D5LSI01	7	250	DS-EP04
160			S5F	S5F01603PS0	S5F01603NS0				387	DS-EP05
200			S5F	S5F02003PS0	S5F02003NS0					
200	1		CCF	CCF02003PS0	CCF02003NS0	DCCLA11	DCCLI11	10	375	DS-EP14
200			CCP	CCP02003PS0	CCP02003NS0				536	DS-EP15
250			CCF	CCF02503PS0	CCF02503NS0					
250			CCP	CCP02503PS0	CCP02503NS0					
315			CCF	CCF03153PS0	CCF03153NS0					
315			CCP	CCP03153PS0	CCP03153NS0					
400			CCF	CCF04003PS0	CCF04003NS0					
400			CCP	CCP04003PS0	CCP04003NS0					
500	2		CCF	CCF05003PS0	CCF05003NS0	DCCLA21	DCCLI21	14	345	DS-EP23
500			CCP	CCP05003PS0	CCP05003NS0				535	DS-EP24
630			CCF	CCF06303PS0	CCF06303NS0					
630			CCP	CCP06303PS0	CCP06303NS0					
800			CCF	CCF08003PS0	CCF08003NS0					
800			CCP	CCP08003PS0	CCP08003NS0					
1000	3		CCF	CCF10003PS0	CCF10003NS0	DCCLA31	DCCLI31	14	345	DS-EP23
1000			CCP	CCP10003PS0	CCP10003NS0				535	DS-EP24
1250			CCF	CCF12503PS0	CCF12503NS0					
1250			CCP	CCP12503PS0	CCP12503NS0					
1600	4		S5F	S5F16003PS0	S5F16003NS0	D5LLA31	D5LLI32	-	-	-
1800			S5F	S5F18003PS0	S5F18003NS0					
2000			S5F	S5F20003PD0	S5F20003ND0					
2000	5		S5F	S5F20003PP0	S5F20003NP0	D5LEN51	DS-EI61	-	-	-
2500			S5F	S5F25003PP0	S5F25003NP0					
3150			S5F	S5F31503PP0	S5F31503NP0					

Size	Auxiliary contacts *(6) 1NO+1NC Code	2NO+2NC Code	Safety *(7) key lock device Simple Code *(e1)	Double Code *(e1)	Rear protective plate Code	Bridging links Code (4 units)	Terminal shrouds *(8) 3P input Code	3P common output Code	4P input position I & II Code	4P common output Code	Terminal shrouds *(8) (1 unit) Up 3P Code	Down 3P Code	Up or Down 4P Code	Phase barrier *(8) Only changeover switches 3P Code	4P Code	Full details in page
00	DCEAUB1	-	-	-	-	-	-	-	-	-	-	-	-	DCECUB1	DCECUB2	150
0	DS-AU11	DS-AU12	D5LCBB1	D5LCEB1	-	D5LPC03	-	-	-	-	DS-CU02	DS-CU03	DS-CU04	DS-PB01	DS-PB02	154
											DS-CU02	DS-CU03	DS-CU04	DS-PB01	DS-PB02	
											DS-CU05	DS-CU06	DS-CU07	DS-PB04	DS-PB03	
1	D5LAU01	D5LAU02	D5LCB11	D5LCF11	3P DCCPP11 / 4P DCCPP12	-	position I DM2CU12 / position II DM2CU11	DCCCU11	DM2CU13	DCCCU12	-	-	-	-	-	156
2	D5LAU01	D5LAU02	D5LCB21	D5LCF21	3P DCCPP21 / 4P DCCPP22	-	position I DM2CU22 / position II DM2CU21	DCCCU21	DM2CU23	DCCCU22	-	-	-	-	-	158
3	D5LAU01	D5LAU02	D5LCB31	D5LCF31	3P DCCPP31 / 4P DCCPP32	-	position I DM2CU32 / position II DM2CU31	DCCCU31	DM2CU33	DCCCU32	-	-	-	-	-	160
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	D5LPC42	-	-	DS-CU41	DS-CU41	-	-	-	-	-	162
5	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	-	-	-	-	-	-	-	-	-	-	164





S5B — Bypass changeover switches S5
3 & 4 poles (125 - 2000A) (I - O - II) *(5)

Manual handle

Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(3) Code	Direct Code
125	0		S5B01253PS0	S5B01253NS0	D5LLA01	D5LSI02
160			S5B01603PS0	S5B01603NS0		
200			S5B02003PS0	S5B02003NS0		
250	1		S5B02503PR0	S5B02503NR0	D5LLA11	D5LLI12
315			S5B03153PR0	S5B03153NR0		
400			S5B04003PC0	S5B04003NC0		
500	2		S5B05003PR0	S5B05003NR0	D5LLA21	D5LLI22
630			S5B06303PR0	S5B06303NR0		
800	3		S5B08003PR0	S5B08003NR0		
1000			S5B10003PC0	S5B10003NC0		
1250	4		S5B12503PS0	S5B12503NS0	D5LLA31	D5LLI32
1600			S5B16003PS0	S5B16003NS0		
1800			S5B18003PS0	S5B18003NS0		
2000			S5B20003PD0	S5B20003ND0		

Size	Auxiliary contacts *(6) 1NO+1NC Code	2NO+2NC Code	Safety key lock device *(7) Simple Code *(e1)	Double Code *(e1)	Terminal *(8) protection Code	Terminal shrouds *(8) (2 units) Only changeover switches Code	Terminal shrouds *(8) (1 unit) Up 3P Code	Down 3P Code	Up or Down 4P Code	Full details in page
0	DS-AU11	DS-AU12	D5LCBB1	D5LCFB1	DS-CU01	-	DS-CU02	DS-CU03	DS-CU04	166
							DS-CU05	DS-CU06	DS-CU07	
1	DS-AU11	DS-AU12	D5LCB11	D5LCF11	DS-CU12	DS-CU11	-	-	-	168
2	DS-AU11	DS-AU12	D5LCB21	D5LCF21	-	DS-CU21	-	-	-	170
3	DS-AU11	DS-AU12	D5LCB31	D5LCF31	-	DS-CU31	-	-	-	172
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	DS-CU41	-	-	-	174

*(1) Neutral pole early make-late break - Versions 4P with "simultaneous contacts" are also available, please consult.

*(2) There are versions of changeover switch without 0 - OFF position:
S5F (I - II) = **S5D** _ _ _ _ _, please consult.
CCF "overlapped" (I - I+II - II) = **CCS** _ _ _ _ _, please consult.

*(3) Padlockable handle only in OFF 0 position.

*(4) A standard shaft is included with the external handle.

*(5) There are versions of bypass changeover switch without 0 - OFF position "overlapped":
S5B "overlapped" (I - I + II - II) = **S5S** _ _ _ _ _, please consult.

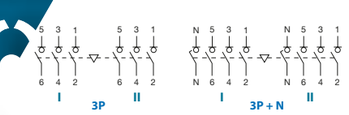
Please indicate in your order the switch code and the handle code, as these both products are managed separately. A standard shaft is included with the handle.

*(6) To be used as signalling or control contacts - Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac.
Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.

*(7) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.

*(8) One set or one unit for input or output. Terminals shrouds for **S5B** and **S5F** only for frontal switch. These accessories aren't compatible with each other.

*(e1) All these codes are related to the new handle, in case of replacements for old design handles, please consult.









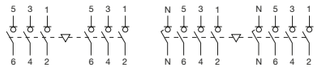
CTR2 | Metal enclosed manual changeover switches IP65
3 & 4 poles (63 - 3150A) (I - O - II)*(2)





Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(1) Code
63	00		CTR2EC00633PB	CTR2EC00633NB
80			CTR2EC00803PB	CTR2EC00803NB
100			CTR2EC01003PS	CTR2EC01003NS
125			CTR2EC01253PS	CTR2EC01253NS
63	00		CTR2LC00633PB	CTR2LC00633NB
80			CTR2LC00803PB	CTR2LC00803NB
125	0		CTR2FC01253PS	CTR2FC01253NS
160			CTR2FC01603PS	CTR2FC01603NS
200			CTR2FC02003PS	CTR2FC02003NS
200	1		CTR2CC02003PS	CTR2CC02003NS
250			CTR2CC02503PS	CTR2CC02503NS
315			CTR2CC03153PS	CTR2CC03153NS
400			CTR2CC04003PS	CTR2CC04003NS
500	2		CTR2CC05003PS	CTR2CC05003NS
630			CTR2CC06303PS	CTR2CC06303NS
800			CTR2CC08003PS	CTR2CC08003NS
1000	3		CTR2CC10003PS	CTR2CC10003NS
1250			CTR2CC12503PS	CTR2CC12503NS
1600	4		CTR2FC16003PS	CTR2FC16003NS
1800			CTR2FC18003PS	CTR2FC18003NS
2000			CTR2FC20003PD	CTR2FC20003ND
2000	5		CTR2FC20003PP*(3)	CTR2FC20003NP*(3)
2500			CTR2FC25003PP*(3)	CTR2FC25003NP*(3)
3150			CTR2FC31503PP*(3)	CTR2FC31503NP*(3)

Size	Auxiliary contacts *(5) 1NO+1NC Code S5F	2NO+2NC Code S5F	Safety *(6) key lock device Simple Code *(e1)	Double Code *(e1)	Bridging links Code (4 units)	Phase barrier *(7) 3P Code	4P Code	Terminal shrouds *(7) (1 unit) Up Code	Down Code	Up or Down Code	Terminal shrouds *(7) Inputs 3P Code	Inputs 4P Code	Common outputs 3P Code	Common outputs 4P Code	Full details in page
00	DCEAUB1	-	-	-	-	DCECUB1	DCECUB2	-	-	-	-	-	-	-	176
00	D5LAU01	D5LAU02	D5LCBB1	D5LCEB1	D5LPCB1	-	-	-	-	-	-	-	-	-	178
0	DS-AU11	DS-AU12	D5LCBB1	D5LCEB1	D5LPC03	DS-PB01 DS-PB04	DS-PB02 DS-PB03	DS-CU02 DS-CU05	DS-CU03 DS-CU06	DS-CU04 DS-CU07	-	-	-	-	180
1	D5LAU01	D5LAU02	D5LCBB1	D5LCEB1	-	-	-	-	-	-	Position I DM2CU12 Position II DM2CU11	Position I&II DM2CU13	DCCCU11	DCCCU12	182
2	D5LAU01	D5LAU02	D5LCB21	D5LCF21	-	-	-	-	-	-	Position I DM2CU22 Position II DM2CU21	Position I&II DM2CU23	DCCCU21	DCCCU22	184
3	D5LAU01	D5LAU02	D5LCB31	D5LCF31	-	-	-	-	-	-	Position I DM2CU32 Position II DM2CU31	Position I&II DM2CU33	DCCCU31	DCCCU32	186
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	D5LPC42	-	-	-	-	-	-	-	-	-	188
5	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	-	-	-	-	-	-	-	-	-	190







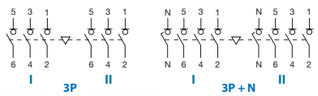


CTRC | Metal enclosed motorized changeover switches IP66
3 & 4 poles (125 - 3150A) (I - O - II)*(2)



Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(1) Code
125	0		CTRCFC01253PSAN	CTRCFC01253NSAN
160			CTRCFC01603PSAN	CTRCFC01603NSAN
200			CTRCFC02003PSAN	CTRCFC02003NSAN
200	1		CTRCCC02003PSAN	CTRCCC02003NSAN
250			CTRCCC02503PSAN	CTRCCC02503NSAN
315			CTRCCC03153PSAO	CTRCCC03153NSAO
400			CTRCCC04003PSAO	CTRCCC04003NSAO
500	2		CTRCCC05003PSAO	CTRCCC05003NSAO
630			CTRCCC06303PSAO	CTRCCC06303NSAO
800			CTRCCC08003PSAO	CTRCCC08003NSAO
1000	3		CTRCCC10003PSAP	CTRCCC10003NSAP
1250			CTRCCC12503PSAP	CTRCCC12503NSAP
1600	4		CTRCFC16003PSAP	CTRCFC16003NSAP
1800			CTRCFC18003PSAP	CTRCFC18003NSAP
2000			CTRCFC20003PDAP	CTRCFC20003NDAP
2000	5		CTRCFC20003PPAP*(3)	CTRCFC20003NPAP*(3)
2500			CTRCFC25003PPAP*(3)	CTRCFC25003NPAP*(3)
3150			CTRCFC31503PPAP*(3)	CTRCFC31503NPAP*(3)

Size	Auxiliary contacts *(5) 1NO+1NC Code S5F	2NO+2NC Code S5F	Safety *(6) key lock device Simple Code *(e1)	Double Code *(e1)	Bridging links Code (4 units)	Phase barrier *(7) 3P Code	4P Code	Terminal shrouds *(7) (1 unit) Up Code	Down Code	Up or Down Code	Terminal shrouds *(7) Inputs 3P Code	Inputs 4P Code	Common outputs 3P Code	Common outputs 4P Code	Full details in page
0	S5F DS-AU11 D5LAU01	S5F DS-AU12 D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	180
1	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	182
2	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	184
3	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	186
4	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	188
5	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	190









CTRC+ CONTROL MODULE | Metal enclosed changeover switches with motorized unit & control module IP54 4 poles (125 - 2000A) (I - O - II)



Amp.	Size	Connection	4 pole (3P + N) *(1) Code
125	0		CTRCFC01253NSBJ
200			CTRCFC02003NSBJ
250	1		CTRCCC02503NSBJ
400			CTRCCC04003NSBK
630	2		CTRCCC06303NSBK
1000	3		CTRCCC10003NSBK
1250			CTRCCC12503NSBK
1600	4		CTRCFC16003NSBK
2000			CTRCFC20003NDBK

Size	Auxiliary contacts *(5) 1NO+1NC Code S5F	2NO+2NC Code S5F	Safety *(6) key lock device Simple Code *(e1)	Double Code *(e1)	Bridging links Code (4 units)	Phase barrier *(7) 3P Code	4P Code	Terminal shrouds *(7) (1 unit) Up Code	Down Code	Up or Down Code	Terminal shrouds *(7) Inputs 3P Code	Inputs 4P Code	Common outputs 3P Code	Common outputs 4P Code	Full details in page
0	S5F DS-AU11 D5LAU01	S5F DS-AU12 D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	180
1	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	182
2	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	184
3	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	186
4	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	188

*(1) Neutral pole early make-late break.
*(2) External padlockable handle in OFF 0 position.
*(3) IP55.
*(4) Consult control module data.

*(5) To be used as signalling or control contacts - Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac.
Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.
*(6) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.
*(7) One set or one unit for input or output. These accessories aren't compatible with each other.
*(e1) All these codes are related to the new handle , in case of replacements for old design handles, please consult.

CEC
Changeover switch compact base mounting

3P - 3P+N

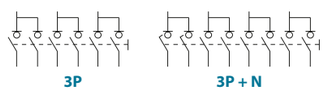
Size 00
A 63|80|100|125





		CODE-63A	CODE-80A
CEC With terminal connection for cable only	3P	CEC00633PB0	CEC00803PB0
	3P + N	CEC00633NB0	CEC00803NB0

		CODE-63A	CODE-80A	CODE-100A	CODE-125A
CEC	3P	CEC00633PS0	CEC00803PS0	CEC01003PS0	CEC01253PS0
	3P + N	CEC00633NS0	CEC00803NS0	CEC01003NS0	CEC01253NS0



Patent pending
EP18382154

Technical information

According to IEC 60947-3

				63	80	100	125
Rated thermal current in ambient at	Ith	40°C	A	63	80	100	125
		50°C	A	63	80	100	125
		60°C	A	63	80	100	125
Rated insulation voltage	Ui		V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp		kV	8	8	8	8
AC rated operational current *(1) (Rated operational frequency 50/60Hz)	Ie	AC21A	A	63	80	100	125
	Ue 400V	AC22A	A	63	80	100	125
		AC23A	A	63	80	100	125
Rated breaking capacity	63A-100A cosφ=0,45	400 V	A	504	640	800	1000
Rated making capacity	125A cosφ=0,35		A	630	800	1000	1250

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)
*(3) Please consult us for more operations

			63	80	100	125
Short-circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	1,5	1,5	2,9	2,9
Rated short-time withstand current (1s)	Icw	kA rms	1	1	2	2
Connecting capacity						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	10000	10000	8000
Maximum weight	3P	Kg	1,0	1,0	1,1	1,1
	3P+N	Kg	1,2	1,2	1,3	1,3

Accessories



Direct handle
CODE D5LSI01



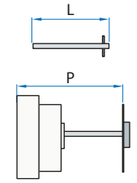
External handle included shaft *(e1)
IP65
CODE DCELAB1



Auxiliary contacts AU
1NO+1NC *CODE* DCEAUB1
Ie = 0,1 A (resistive) at 125 Vac.



Phase barrier
3P *CODE* DCECUB1
4P *CODE* DCECUB2
(1 kit for input or output)



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
137	15... 105

Shaft extensions

Type 1

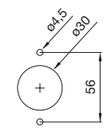
L (mm)	P (mm)	CODE
250	85... 278	DS-EP04

Type 2

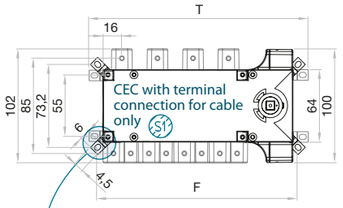
L (mm)	P (mm)	CODE
387	85... 415	DS-EP05

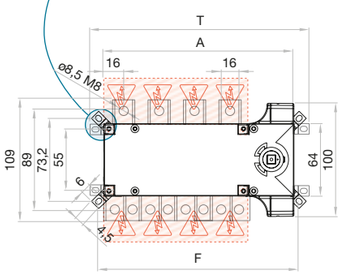
Dimensions (mm)

Door drilling for external handle

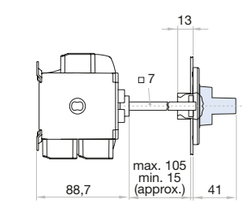


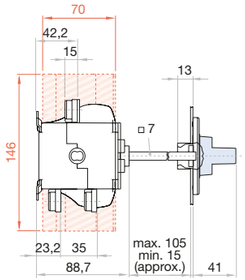


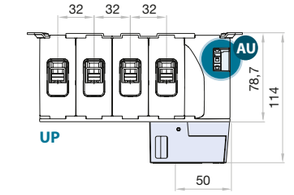


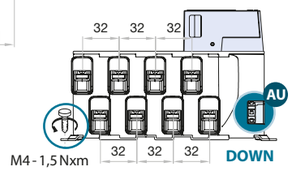


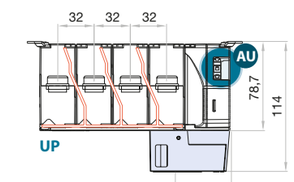
A	F		T	
	45°	90°	45°	90°
mm	mm	mm	mm	mm
3P 136	151,8	152,7	158	161,7
4P 168	177,2	184,7	190	193,7

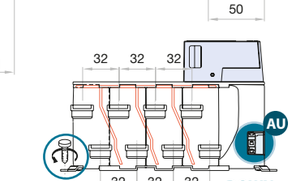


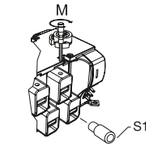




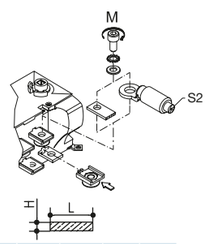








	S1 max (Cu)		M
	mm²	Allen	Nxm
63 A **80 A**	25	M8	3



	S2 max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm	Allen	Nxm
63 A **80 A** **100 A**	35	3	16	M8	6
125 A	50*(5)	3	19		

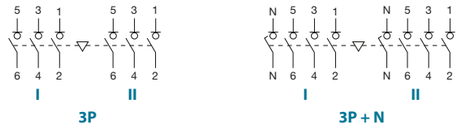
*(5) Use phase barriers in order to keep the clearance in air distances.

S5F
Changeover switch base mounting 3P - 3P+N

Size 0
A 125|160|200



	CODE - 125A	CODE - 160A	CODE - 200A
3P	S5F01253PS0	S5F01603PS0	S5F02003PS0
3P + N	S5F01253NS0	S5F01603NS0	S5F02003NS0



Technical information

tests:

consult

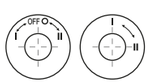
According to IEC 60947-3

					125	160	200
Rated thermal current	Ith	in ambient at 40° C		A	125	160	200
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	125	160	200
		Ue 400V	AC22A	A	125	160	200
		Ue 400V	AC23A	A	125	160	160

*(1) Other voltages and / or utilization categories. Please consult

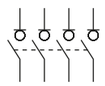
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)

				125	160	200
Rated breaking capacity	400V	AC22	A	375	480	600
Rated making capacity	400V	AC22	A	375	480	600
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		13	13	13
Short - time withstand current (1 sec.)	Icw	kA rms		7	7	7
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		8000	8000	8000
Maximum weight (3/4 poles)		Kg		1,8/2,1	1,8/2,1	1,9/2,2



S5F S5D

There are versions of changeover switches without OFF 0 position:
S5F (I - II) = S5D_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · SEE UM KIT

Accessories

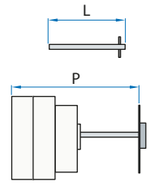


Direct handle
CODE D5LSI01



External handle included shaft *(e1)
IP65
CODE D5LLA01

Shafts



Standard shaft included *(e1)

L (mm)	P (mm)
177	163... 250,5

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
250	163... 323,5	DS-EP04

Type 2

L (mm)	P (mm)	CODE
387	163... 460,5	DS-EP05



Auxiliary contacts
1NO+1NC *CODE S5F* DS-AU11
2NO+2NC *CODE S5F* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds*(T)

	UP 3P (1 unit)	DOWN 3P (1 unit)	UP OR DOWN 4P (1 unit)
	DS-CU02	DS-CU03	DS-CU04
	DS-CU05	DS-CU06	DS-CU07

(Only frontal side)



Phase barrier*(T)

	3P	4P
	DS-PB01	DS-PB02
	DS-PB04	DS-PB03

(1 kit for input or output)

*(T) These accessories aren't compatible with each other



Bridging links
CODE D5LPC03 (4 units)

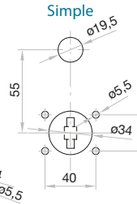


Safety key lock devices
Simple *CODE* D5LCBB1
Double *CODE* D5LCEB1

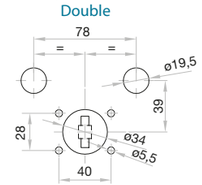
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

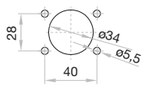
Simple



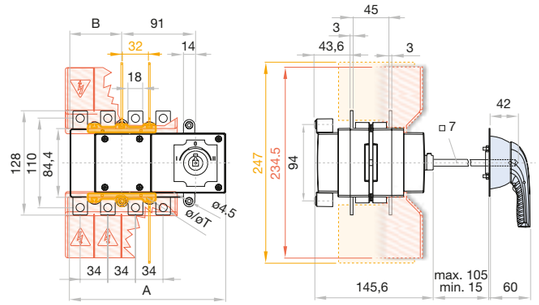
Double

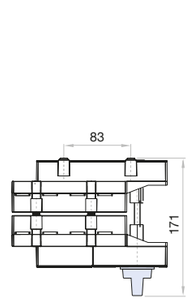


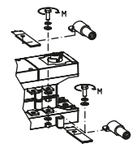
Door drilling for external handle



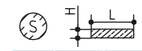
Dimensions (mm)



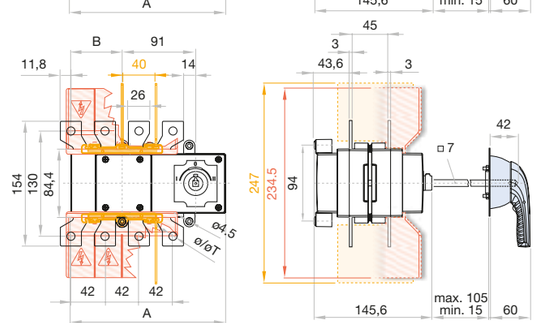


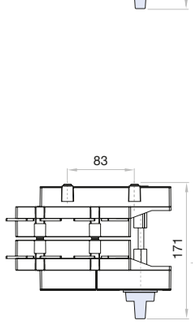


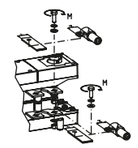
	A		B		ø	øT
	3P	4P	3P	4P		
125 A 160 A	181	192	53	64	10	M8



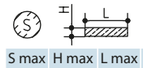
S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
95	5	25	M8	13







	A		B		ø	øT
	3P	4P	3P	4P		
200 A	181	192	53	64	10	M10



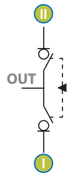
S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
120	5	30	M10	18

CCF | CCP
Changeover switch base mounting 3P - 3P+N

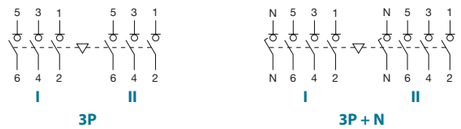
Size 1
A 200|250|315|400







		CODE-200A	CODE-250A	CODE-315A	CODE-400A
CCF	3P	CCF02003PS0	CCF02503PS0	CCF03153PS0	CCF04003PS0
	3P + N	CCF02003NS0	CCF02503NS0	CCF03153NS0	CCF04003NS0
CCP	3P	CCP02003PS0	CCP02503PS0	CCP03153PS0	CCP04003PS0
	3P + N	CCP02003NS0	CCP02503NS0	CCP03153NS0	CCP04003NS0



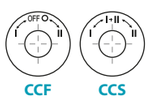
Technical information

According to IEC 60947-3

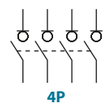
					200	250	315	400
Rated thermal current	Ith	in ambient at 40° C		A	200	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8	8
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	200	250	315	400
		Ue 400V	AC22A	A	200	250	315	400*(3)

*(1) Other voltages and / or utilization categories; please consult
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)
*(3) AC22B

				200	250	315	400
Rated breaking capacity	400V	AC22	A	600	750	945	1200
Rated making capacity	400V	AC22	A	600	750	945	1200
Short - circuit behaviour							
Short - circuit making capacity *(2)	Icm	kA (peak)		12	12	12	12
Short - time withstand current (1 sec.)	Icw	kA rms		8	8	8	8
Number of mechanical operations (according to the standards, for other values please consult) *(3)		Cycles		8000	8000	8000	5000
Maximum weight (3/4 poles)	CCF	Kg		4,8/5,3	4,8/5,3	5/5,5	5/5,5
	CCP	Kg		5,3/5,9	5,3/5,9	5,5/6	5,5/6



There are versions of changeover switches without OFF 0 position: "overlapped contacts": **CCF** (I - I+II - II) = **CCS**_____, please consult



Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

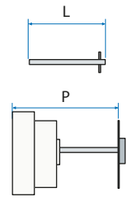
Accessories



Direct handle
CODE DCCLI11



External handle included shaft *(e1)
IP65
CODE DCCLA11



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
227	166... 293

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	166... 442	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	166... 602	DS-EP15



Rear protective plate

3P	4P
DCCPP11	DCCPP12



Terminal shrouds

Inputs			Common output	
POS. I	POS. II	POS. I&II		
3P	3P	3P+N	3P	3P+N
DM2CU12	DM2CU11	DM2CU13	DCCCU11	DCCCU12



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

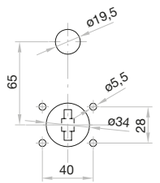


Safety key lock device
Simple *CODE* D5LCB11
Double *CODE* D5LCF11

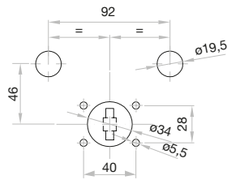
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

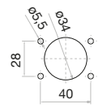


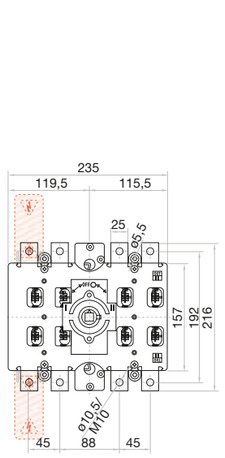
Double

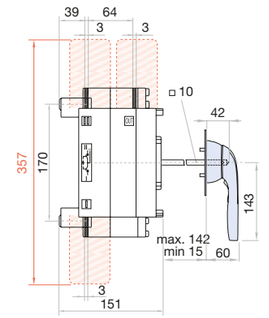


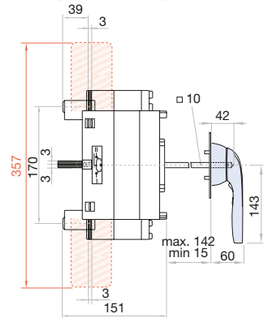
Dimensions (mm)

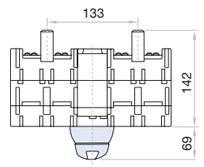
Door drilling for external handle



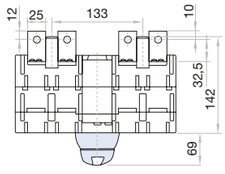




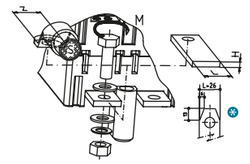


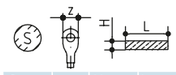


CCF



CCP

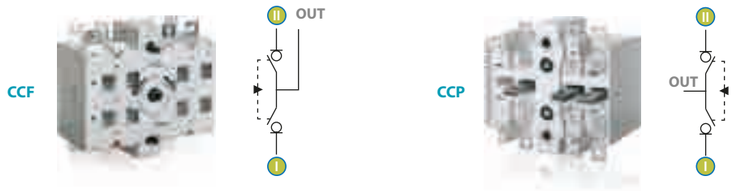




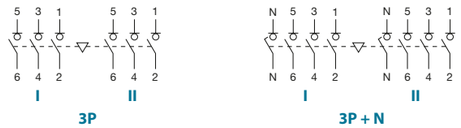
S max (Cu)	Z max	H max (Cu)	L max (Cu)		M
mm²		mm	mm		Nxm
240	31	2x5	30 ⊗	M10	24

CCF | CCP
Changeover switch base mounting 3P - 3P+N

Size 2
A 500|630|800



		CODE-500A	CODE-630A	CODE-800A
CCF	3P	CCF05003PS0	CCF06303PS0	CCF08003PS0
	3P + N	CCF05003NS0	CCF06303NS0	CCF08003NS0
CCP	3P	CCP05003PS0	CCP06303PS0	CCP08003PS0
	3P + N	CCP05003NS0	CCP06303NS0	CCP08003NS0



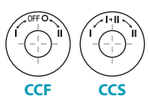
Technical information

According to IEC 60947-3

					500	630	800
Rated thermal current	Ith	in ambient at 40° C		A	500	630	800
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	500	630	800
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22B	A	500	630	800

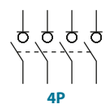
*(1) Other voltages and / or utilization categories; please consult
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)
*(3) AC22B

				500	630	800
Rated breaking capacity	400V	AC22	A	1500	1890	2400
Rated making capacity	400V	AC22	A	1500	1890	2400
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		20	20	20
Short - time withstand current (1 sec.)	Icw	kA rms		13	13	13
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		5000	5000	3000
Maximum weight (3/4 poles)	CCF	Kg		11,5/12,611,5/12,611,9/13,2		
	CCP	Kg		12,8/14,312,8/14,3 13/14,6		



CCF CCS

There are versions of changeover switches without OFF 0 position "overlapped contacts":
CCF (I - I+II - II) = **CCS**_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · SEE UM KIT

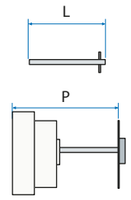
Accessories



Direct handle
CODE DCCLI21



External handle included shaft *(e1)
IP65
CODE DCCLA21



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
195	195... 272

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	195... 422	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	195... 612	DS-EP24



Rear protective plate

3P	4P
DCCPP21	DCCPP22



Terminal shrouds

Inputs			Common output	
POS. I	POS. II	POS. I&II		
3P	3P	3P+N	3P	3P+N
DM2CU22	DM2CU21	DM2CU23	DCCCU21	DCCCU22



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

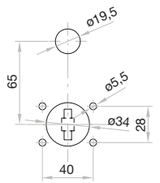


Safety key lock device
Simple *CODE* D5LCB21
Double *CODE* D5LCF21

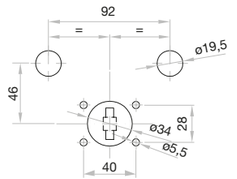
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

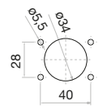


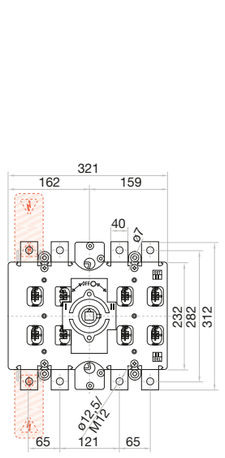
Double

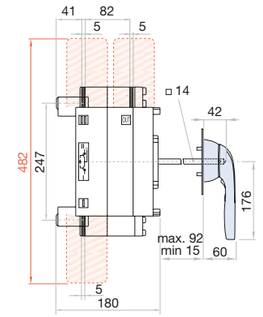


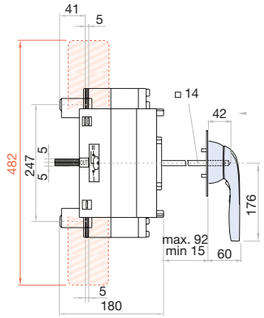
Dimensions (mm)

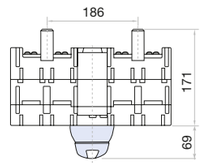
Door drilling for external handle



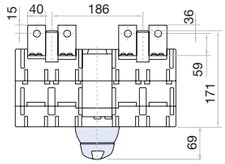




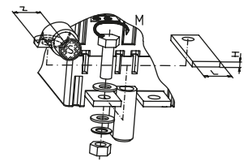


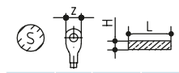


CCF



CCP

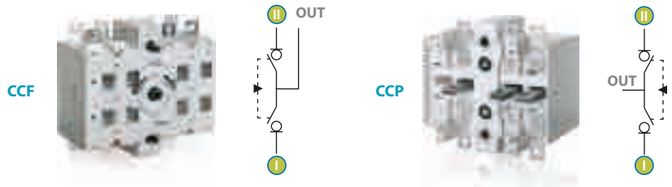




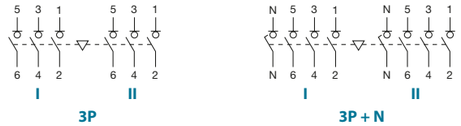
S max (Cu)	Z max	H max (Cu)	L max (Cu)		M
mm²		mm	mm		Nxm
2x240	45	2x6	45	M12	45

CCF | CCP
Changeover switch base mounting 3P - 3P+N

Size 3
A 1000|1250



		CODE - 1000A	CODE - 1200A
CCF	3P	CCF10003PS0	CCF12503PS0
	3P + N	CCF10003NS0	CCF12503NS0
CCP	3P	CCP10003PS0	CCP12503PS0
	3P + N	CCP10003NS0	CCP12503NS0



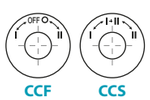
Technical information

According to IEC 60947-3

					1000	1250
Rated thermal current	Ith	in ambient at 40° C		A	1000	1250
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1000	1250
		Ue 400V	AC22B	A	1000	1250

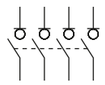
*(1) Other voltages and / or utilization categories; please consult
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				1000	1250
Rated breaking capacity	400V	AC22	A	3000	3750
Rated making capacity	400V	AC22	A	3000	3750
Short - circuit behaviour					
Short - circuit making capacity *(2)	Icm	kA (peak)		32	32
Short - time withstand current (1 sec.)	Icw	kA rms		25	25
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		3000	3000
Maximum weight (3/4 poles)		CCF	Kg	22,5 / 25	24,3 / 27,3
		CCP	Kg	25 / 28,3	26 / 29,7



CCF CCS

There are versions of changeover switches without OFF 0 position: "overlapped contacts":
CCF (I - I+II - II) = **CCS**_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · SEE UM KIT · KIT UM

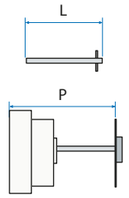
Accessories



Direct handle
CODE DCCLI31



External handle included shaft *(e1)
IP65
CODE DCCLA31



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
186	223... 298

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	223... 457	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	223... 645	DS-EP24



Rear protective plate

3P	4P
DCCPP31	DCCPP32



Terminal shrouds

Inputs			Common output	
POS. I	POS. II	POS. I&II		
3P	3P	3P+N	3P	3P+N
DM2CU32	DM2CU31	DM2CU33	DCCCU31	DCCCU32



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

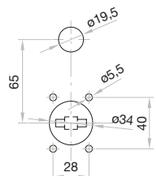


Safety key lock device
Simple *CODE* D5LCB31
Double *CODE* D5LCF31

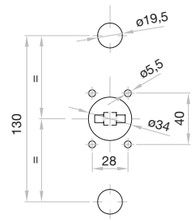
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

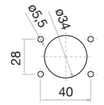


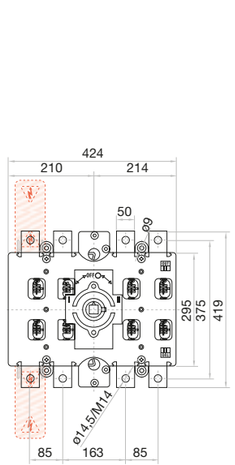
Double

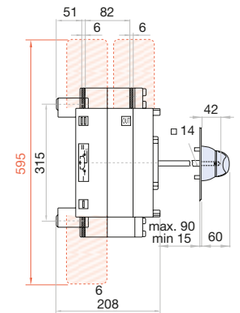


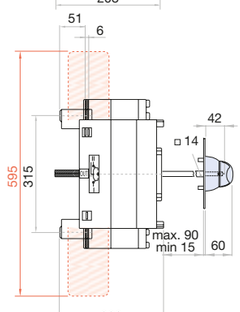
Dimensions (mm)

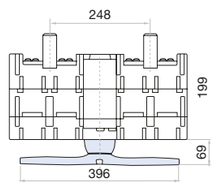
Door drilling for external handle



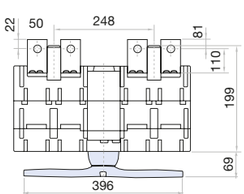




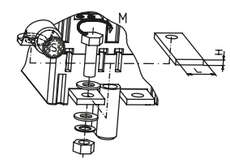




CCF



CCP



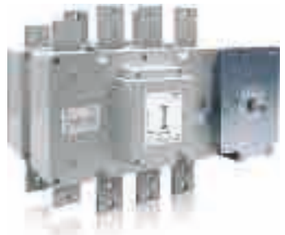


H max (Cu)	L max (Cu)		M
mm	mm		Nxm
2x10	60	M14	55

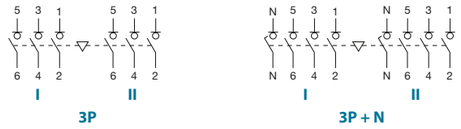
S5F
Changeover switch base mounting 3P - 3P+N

Size 4

A 1600|1800|2000



	CODE - 1600A	CODE - 1800A	CODE - 2000A
3P	S5F16003PS0	S5F18003PS0	S5F20003PD0
3P + N	S5F16003NS0	S5F18003NS0	S5F20003ND0



Technical information

CE IEC LLOYD'S REGISTER EAC

consult

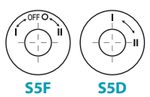
According to IEC 60947-3

					1600	1800	2000
Rated thermal current	Ith	in ambient at 40° C		A	1600	1800	2000
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1600	1800	2000
		Ue 400V	AC22A	A	1600	1800	2000

*(1) Other voltages and / or utilization categories; please consult

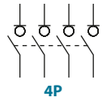
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				1600	1800	2000
Rated breaking capacity	400V	AC22	A	4800	5400	6000
Rated making capacity	400V	AC22	A	4800	5400	6000
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		75	75	75
Short - time withstand current (1 sec.)	Icw	kA rms		50	50	50
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		3000	3000	3000
Maximum weight (3/4 poles) (without bridging links)		Kg		42,9/47,342,9/47,342,9/47,3		



S5F S5D

There are versions of changeover switches without OFF 0 position:
S5F (I +II) = **S5D**_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

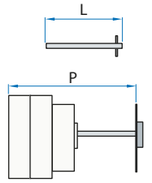
Accessories



Direct handle
CODE D5LLI32



External handle included shaft *(e1)
IP65
CODE D5LLA31



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	418... 573

Shaft extensions
Consult



Terminal shrouds
CODE DS-CU41
(1 kit for input or output, only front side)



Bridging links*(P2)
CODE D5LPC42 (4 units)



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

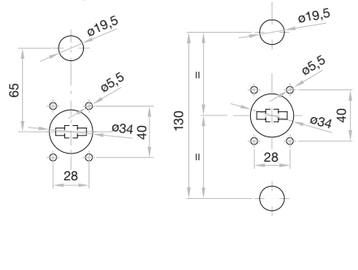
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Safety key lock device
Simple *CODE* D5LCB41
Double *CODE* D5LCF41

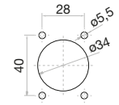
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

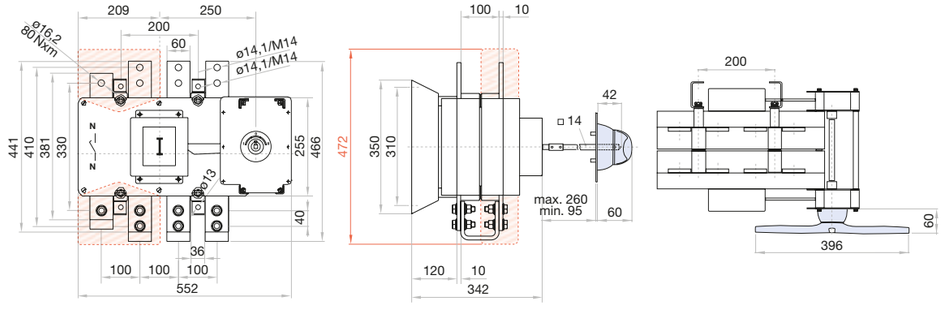
Door drilling for handle and key lock device
Simple Double

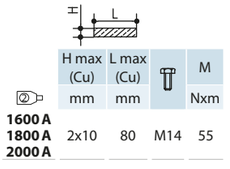


Dimensions (mm)

Door drilling for external handle





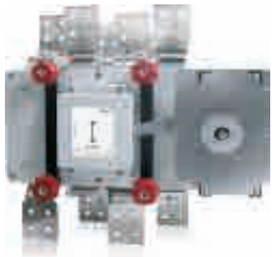


	H max (Cu)	L max (Cu)		M
	mm	mm		Nxm
1600 A 1800 A 2000 A	2x10	80	M14	55

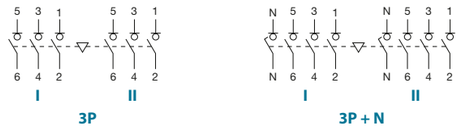
S5F
Changeover switch base mounting 3P - 3P+N

Size 5

A 2000|2500|3150



	CODE - 2000A	CODE - 2500A	CODE - 3150A
3P	S5F20003PP0	S5F25003PP0	S5F31503PP0
3P + N	S5F20003NP0	S5F25003NP0	S5F31503NP0



Technical information

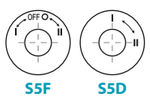
According to IEC 60947-3

					2000	2500	3150
Rated thermal current	Ith	in ambient at 40° C		A	2000	2500	3150
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	2000	2500	3150
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22B	A	2000	2500	2500

*(1) Other voltages and / or utilization categories; please consult

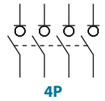
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				2000	2500	3150
Rated breaking capacity	400V	AC22	A	6000	7500	9450
Rated making capacity	400V	AC22	A	6000	7500	9450
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		100	100	100
Short - time withstand current (1 sec.)	Icw	kA rms		50	50	50
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		600	600	600
Maximum weight (3/4 poles)		Kg		Consult		



S5F S5D

There are versions of changeover switches without OFF 0 position:
S5F (I +II) = S5D_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

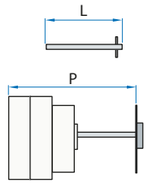
Accessories



Direct handle
(Slide bar)
CODE DS-EI61



External handle included shaft *(e1)
(Slide bar)
CODE D5LEN51



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
333	788... 938

Shaft extensions
Consult



Auxiliary contacts
1NO+1NC CODE DS-AU11
2NO+2NC CODE DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

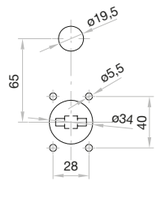


Safety key lock device
Simple CODE D5LCB41
Double CODE D5LCF41

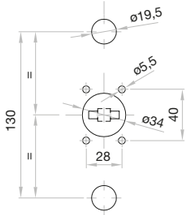
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



Double



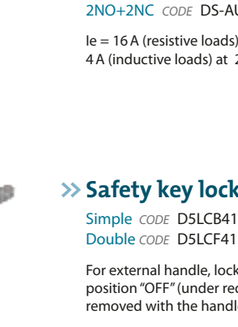
Dimensions (mm)



Door drilling for external handle



2000 A
2500 A



3150 A



	H max (Cu) mm	L max (Cu) mm	T	M Nxm
2000 A 2500 A	4x10	80	M12	45
3150 A		100		

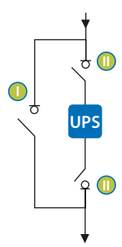
S5B
Bypass changeover switch base mounting 3P - 3P+N

Size 0

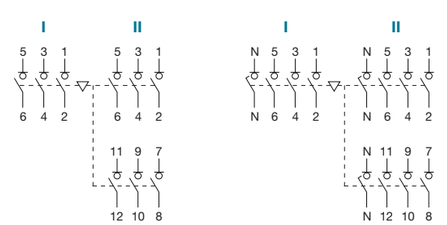
A 125|160|200







	CODE - 125A	CODE - 160A	CODE - 200A
3P	S5B01253PS0	S5B01603PS0	S5B02003PS0
3P + N	S5B01253NS0	S5B01603NS0	S5B02003NS0



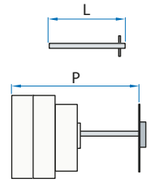
Accessories



Direct handle
CODE D5LSI02



External handle included shaft *(e1)
IP65
CODE D5LLA01



Shafts
Standard shaft included *(e1)

L (mm)	*P (mm)*
177	221... 346



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds

	UP 3P (1 unit)	*DOWN 3P (1 unit)*	*UP OR DOWN 4P (1 unit)*
	DS-CU02	DS-CU03	DS-CU04
	DS-CU05	DS-CU06	DS-CU07

(Only frontal side)

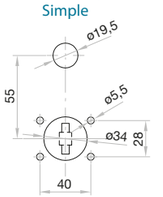


Safety key lock device
Simple *CODE* D5LCBB1
Double *CODE* D5LCFB1

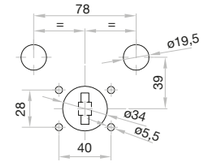
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



Double



Technical information

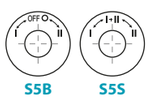
According to IEC 60947-3

					125	160	200
Rated thermal current	Ith	in ambient at 40° C		A	125	160	200
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	125	160	200
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22A	A	125	160	200

*(1) Other voltages and / or utilization categories; please consult

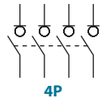
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				125	160	200
Rated breaking capacity	400V	AC22	A	375	480	600
Rated making capacity	400V	AC22	A	375	480	600
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm		kA (peak)	13	13	13
Short - time withstand current (1 sec.)	Icw		kA rms	7	7	7
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	8000	8000	8000
Maximum weight (3/4 poles)			Kg	2,4/2,8	2,4/2,8	2,5/2,9



S5B S5S

There are versions of bypass changeover without OFF 0 position "overlapped contacts":
S5B (I - I + II - II) = **S5S**_____, please consult



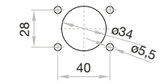
4P

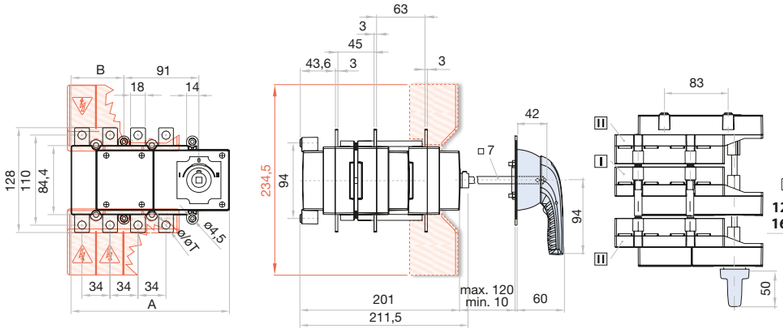
Also available 4P changeover switches under request, please consult

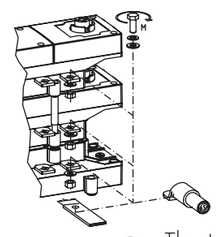
MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

Dimensions (mm)

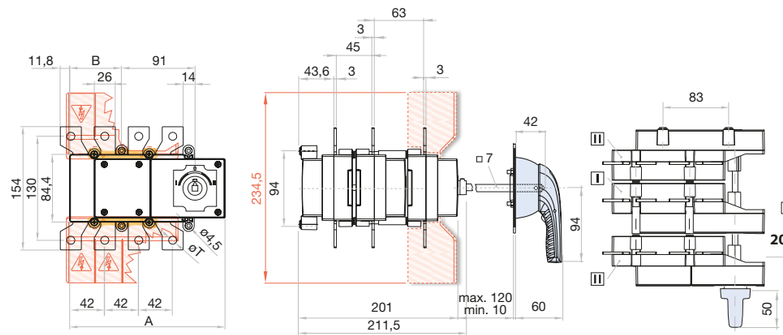
Door drilling for external handle

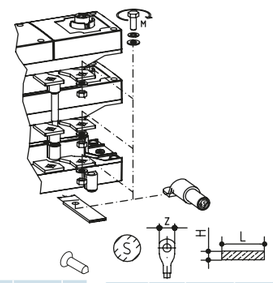






	A		B		ø	S max (Cu)	H max (Cu)	L max (Cu)		M
	3P	4P	3P	4P		mm²	mm	mm		Nxm
125 A 160 A	181	192	53	64	10	95	5	25	M8	13



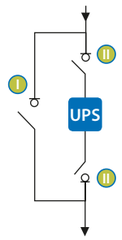


	A		B		ø	S max (Cu)	Z max	H max (Cu)	L max (Cu)		M
	3P	4P	3P	4P		mm²		mm	mm		Nxm
200 A	181	192	53	64	10	120	30	5	30	M10	18

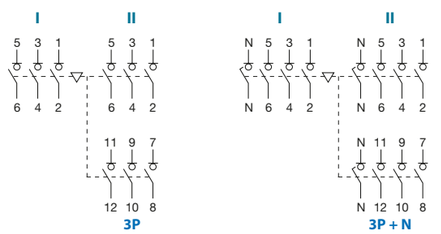
S5B
Bypass changeover switch base mounting 3P - 3P+N

Size 1
A 250|315|400





	CODE - 250A	CODE - 315A	CODE - 400A
3P	S5B02503PR0	S5B03153PR0	S5B04003PC0
3P + N	S5B02503NR0	S5B03153NR0	S5B04003NC0



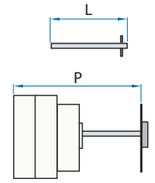
Accessories



Direct handle
CODE D5LLI12



External handle included shaft *(e1)
IP65
CODE D5LLA11



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
227	382... 516



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal protection
CODE DS-CU12
(1 unit for input or output only front side)



Terminal shrouds
CODE DS-CU11
(1 kit for input or output only front side)

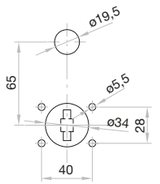


Safety key lock device
Simple *CODE* D5LCB11
Double *CODE* D5LCF11

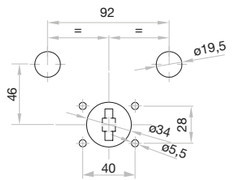
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



Double



Technical information

According to IEC 60947-3

					250	315	400
Rated thermal current	Ith	in ambient at 40° C		A	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	250	315	400
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22A	A	250	315	400

*(1) Other voltages and / or utilization categories; please consult

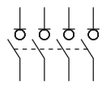
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				250	315	400
Rated breaking capacity	400V	AC22	A	750	945	1200
Rated making capacity	400V	AC22	A	750	945	1200
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		20	20	20
Short - time withstand current (1 sec.)	Icw	kA rms		12	12	12
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	8000	8000	5000
Maximum weight (3/4 poles)			Kg	7,2/7,7	7,2/7,7	7,4/7,9



S5B S5S

There are versions of bypass changeover without OFF 0 position "overlapped contacts":
S5B (I - I + II - II) = **S5S**_____, please consult



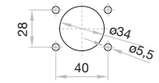
4P

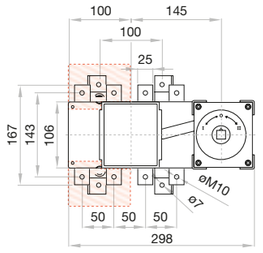
Also available 4P changeover switches under request, please consult

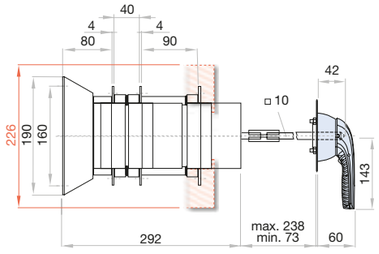
MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

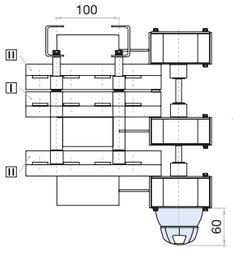
Dimensions (mm)

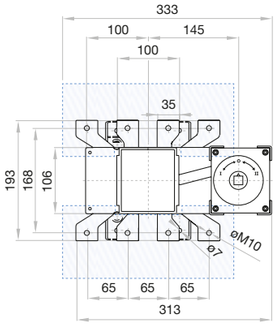
Door drilling for external handle

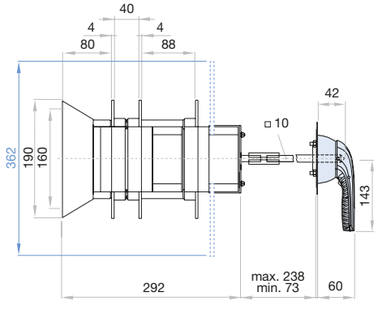


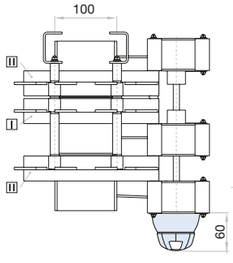


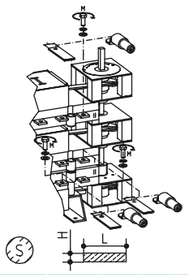




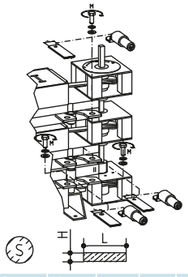








	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm	M	Nxm
250 A 315 A	185	7	25	M10	18

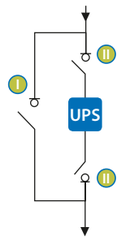


	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm	M	Nxm
400 A	240	7	40	M10	24

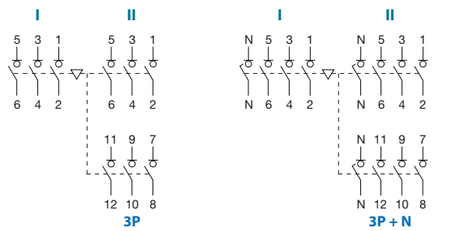
S5B
Bypass changeover switch base mounting 3P - 3P+N

Size 2
A 500|630





	CODE - 500A	CODE - 630A
3P	S5B05003PR0	S5B06303PR0
3P + N	S5B05003NR0	S5B06303NR0



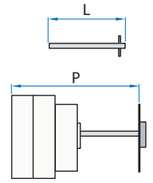
Accessories



» Direct handle
CODE D5LLI22



» External handle included shaft *(e1)
IP65
CODE D5LLA21



» Shafts
Standard shaft included *(e1)

L (mm)	*P (mm)*
239	448... 613



» Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



» Terminal shrouds
CODE DS-CU21
(1 kit for input or output only front side)

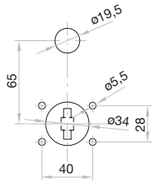


» Safety key lock device
Simple *CODE* D5LCB21
Double *CODE* D5LCF21

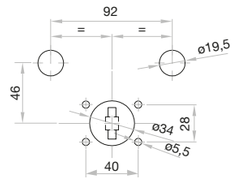
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple



Double



Technical information

CE IEC EAC

According to IEC 60947-3

					500	630
Rated thermal current	Ith	in ambient at 40° C		A	500	630
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	500	630
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22A	A	500	630

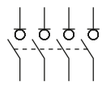
*(1) Other voltages and / or utilization categories; please consult
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				500	630
Rated breaking capacity	400V	AC22	A	1500	1890
Rated making capacity	400V	AC22	A	1500	1890
Short - circuit behaviour					
Short - circuit making capacity *(2)	Icm		kA (peak)	26	26
Short - time withstand current (1 sec.)	Icw		kA rms	16	16
Number of mechanical operations (according to the standards, for other values please consult)			Cycles	5000	5000
Number of electrical operations	400V	AC22A	Cycles	1000	1000
Maximum weight (3/4 poles)			Kg	16,5/17,5	16,5/17,5



S5B **S5S**

There are versions of bypass changeover without OFF 0 position "overlapped contacts":
S5B (I - I + II - II) = **S5S**_____, please consult



4P

Also available 4P changeover switches under request, please consult

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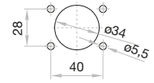
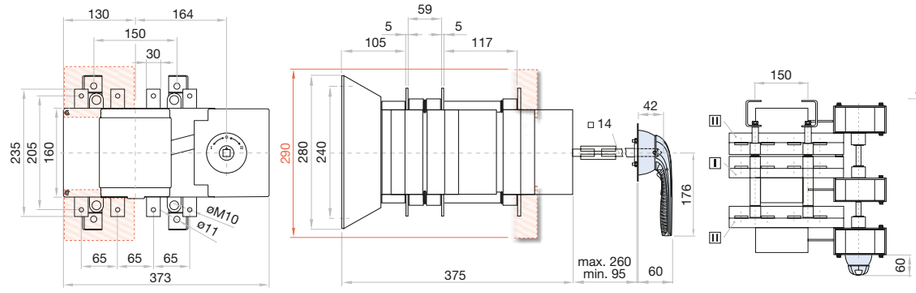
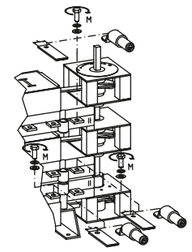
Dimensions (mm)

Door drilling for external handle







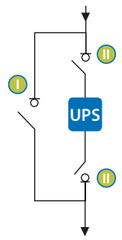
	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
500 A	2x185	6	40	M10	24

	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
630 A	2x240	2x5	40	M10	24

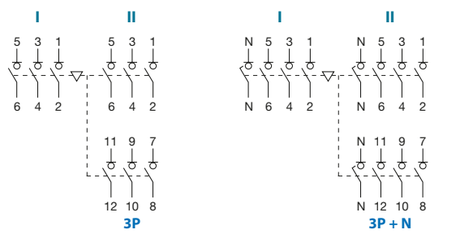
S5B
Bypass changeover switch base mounting 3P - 3P+N

Size 3
A 800|1000





	CODE - 800A	CODE - 1000A
3P	S5B08003PR0	S5B10003PC0
3P + N	S5B08003NR0	S5B10003NC0



Technical information

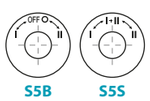
According to IEC 60947-3

					800	1000
Rated thermal current	Ith	in ambient at 40° C		A	800	1000
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	800	1000
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22A	A	800	1000

*(1) Other voltages and / or utilization categories; please consult

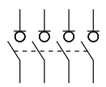
*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				800	1000
Rated breaking capacity	400V	AC22	A	2400	3000
Rated making capacity	400V	AC22	A	2400	3000
Short - circuit behaviour					
Short - circuit making capacity *(2)	Icm	kA (peak)		60	60
Short - time withstand current (1 sec.)	Icw	kA rms		25	25
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		3000	3000
Maximum weight (3/4 poles)		Kg		26,5/28,6	26,5/28,6



S5B S5S

There are versions of bypass changeover without OFF 0 position "overlapped contacts":
S5B (I - I + II - II) = **S5S**_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

Accessories

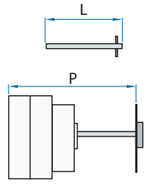


Direct handle
CODE D5LLI32





External handle included shaft *(e1)
IP65
CODE D5LLA31



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	480... 645



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



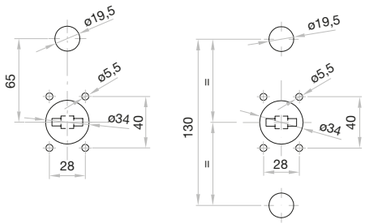
Terminal shrouds
CODE DS-CU31
(1 kit for input or output only front side)



Safety key lock device
Simple *CODE* D5LCB31
Double *CODE* D5LCF31

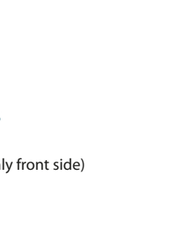
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

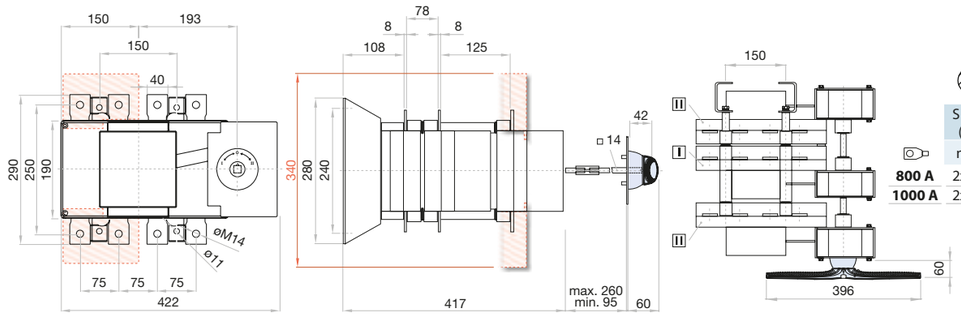
Door drilling for handle and key lock device
Simple Double



Dimensions (mm)

Door drilling for external handle





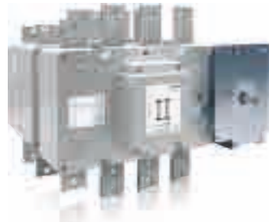
	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
800 A	2x240	2x10	50	M14	45
1000 A	2x300	2x10			

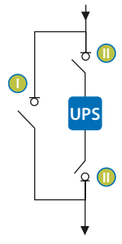
S5B
Bypass changeover switch base mounting 3P - 3P+N

Size 4

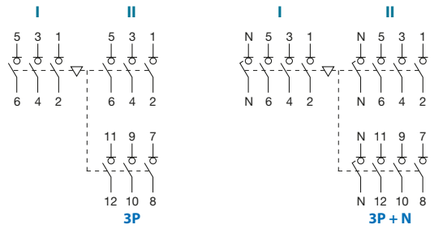
A 1250|1600|1800|2000







	CODE - 1250A	CODE - 1600A	CODE - 1800A	CODE - 2000A
3P	S5B12503PS0	S5B16003PS0	S5B18003PS0	S5B20003PD0
3P + N	S5B12503NS0	S5B16003NS0	S5B18003NS0	S5B20003ND0



Technical information

According to IEC 60947-3

					1250	1600	1800	2000
Rated thermal current	Ith	in ambient at 40° C		A	1250	1600	1800	2000
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12	12
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1250	1600	1800	2000
		Ue 400V	AC22A	A	1250	1600	1800	2000

*(1) Other voltages and / or utilization categories; please consult

*(2) Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				1250	1600	1800	2000
Rated breaking capacity	400V	AC22	A	3750	4800	5400	6000
Rated making capacity	400V	AC22	A	3750	4800	5400	6000
Short - circuit behaviour							
Short - circuit making capacity *(2)	Icm	kA (peak)		60	75	75	75
Short - time withstand current (1 sec.)	Icw	kA rms		25	50	50	50
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		3000	3000	3000	3000
Maximum weight (3/4 poles)		Kg		65,2/ 72,1	65,2/ 72,1	65,2/ 72,1	65,2/ 72,1

tests:

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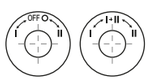
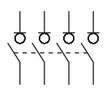


S5B S5S

There are versions of bypass changeover without OFF 0 position "overlapped contacts":
S5B (I - I + II - II) = **S5S**_____, please consult



4P

Also available 4P changeover switches under request, please consult

MOTORIZED KIT AVAILABLE · KIT UM · SEE UM KIT

Accessories

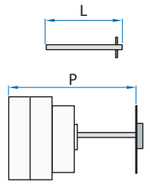


Direct handle
CODE D5LLI32





External handle included shaft *(e1)
IP65
CODE D5LLA31



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	572... 645



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



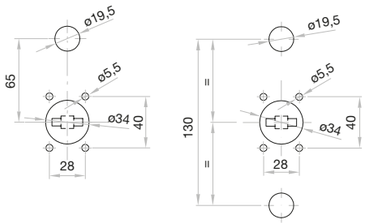
Terminal shrouds
CODE DS-CU41
(1 kit for input or output only front side)



Safety key lock device
Simple *CODE* D5LCB41
Double *CODE* D5LCF41

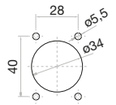
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

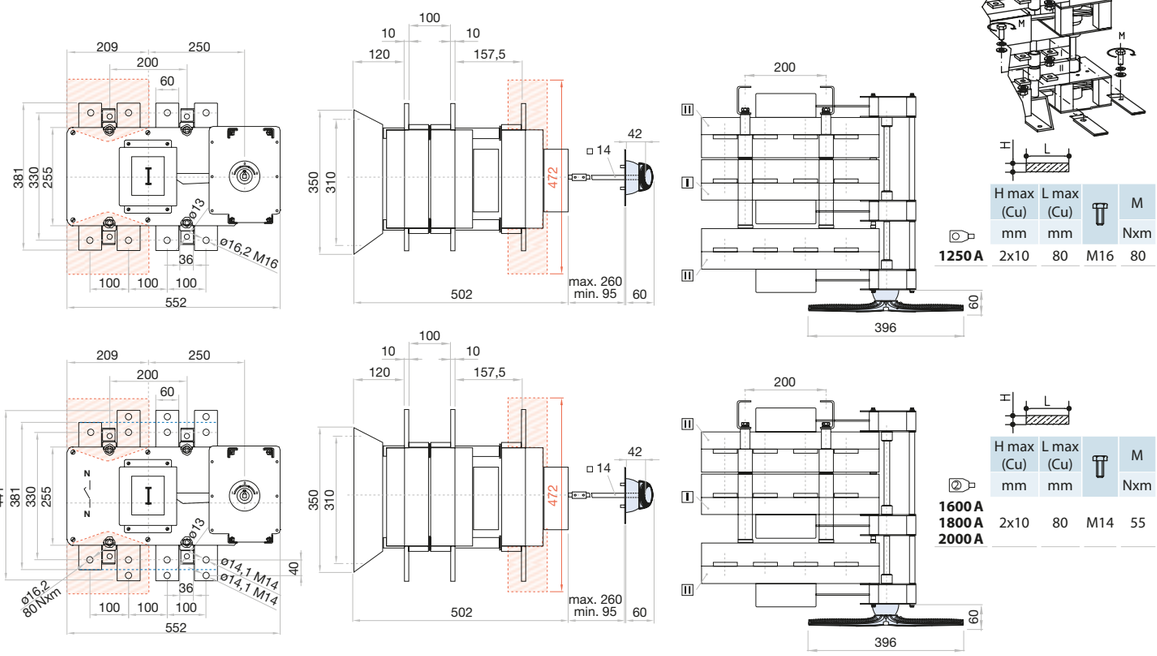
Door drilling for handle and key lock device
Simple Double



Dimensions (mm)

Door drilling for external handle





	H max (Cu)	L max (Cu)		M
	mm	mm		Nxm
1250 A	2x10	80	M16	80
1600 A **1800 A** **2000 A**	2x10	80	M14	55

CTR2
Metal enclosed compact changeover switch IP65

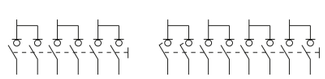
3P - 3P+N

Size 00

A 63|80|100|125



	CODE-63A	CODE-80A	CODE-100A	CODE-125A
3P	CTR2EC00633PB	CTR2EC00803PB	CTR2EC01003PS	CTR2EC01253PS
3P + N	CTR2EC00633NB	CTR2EC00803NB	CTR2EC01003NS	CTR2EC01253NS



Patent pending
EP18382154

Technical information

According to IEC 60947-3
IEC 61439-2

				63	80	100	125
Rated thermal current in ambient at	Ith	40ºC	A	63	80	100	125
		50ºC	A	63	80	100	125
		60ºC	A	63	80	100	125
Rated insulation voltage	Ui		V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp		kV	8	8	8	8
AC rated operational current *(1) (Rated operational frequency 50/60Hz)	Ie	AC21A	A	63	80	100	125
	Ue 400V	AC22A	A	63	80	100	125
		AC23A	A	63	80	100	125
Rated breaking capacity	400V, cos φ = 0,35-0,45		A	320	640	800	800
	400V, cos φ = 0,45			400	800	1000	1000

			63	80	100	125
Short-circuit behaviour						
Rated short-circuit making capacity *(2)	Icm	kA (peak)	1,5	1,5	2,9	2,9
Rated short-time withstand current (1s)	Icw	kA rms	1	1	2	2
Connecting capacity						
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	10000	10000	8000
Maximum weight (3/4 poles)		Kg	Consult			

*(1) Please, inquire for other voltages and/or utilization categories
*(2) Without limiting protective device (short-circuit maintained 50… 100ms)

Accessories



» External handle included shaft
CODE DCELAB1



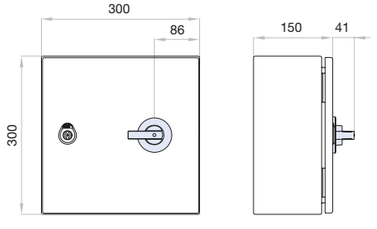
» Auxiliary contacts
1NO+1NC *CODE* DCEAUB1
Ie = 0,1 A (resistive) at 125 Vac.

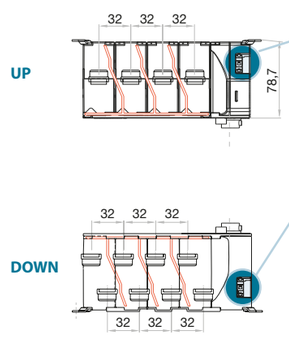


» Phase barrier
3P *CODE* DCECUB1
4P *CODE* DCECUB2

(1 kit for input or output)

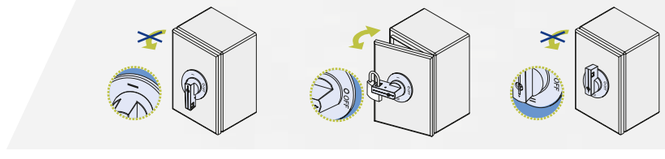
Dimensions (mm)





	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm	Allen	Nxm
63 A **80 A** **100 A**	35	3	16	M8	6
125 A	50*(6)	3	19		

*(6) Use phase barriers in order to keep the clearance in air distances.



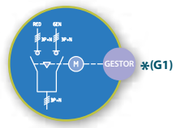
Standard supply CTR2

series CTR

CTR2 | CTRC
Metal enclosed transfer switch IP54-IP66

3P - 3P+N

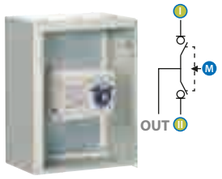
Size 0
A 125|160|200



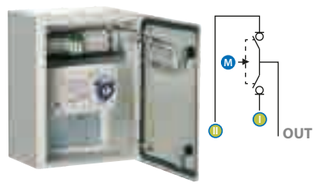
CTR2 (IP65)
manual



CTRC (IP66)
motorized



CTRC (IP54)
motorized with control module



		CODE - 125A	CODE - 160A	CODE - 200A	CODE - 200A
CTR2 (IP65) manual	3P	CTR2FC01253PS	CTR2FC01603PS	-	CTR2FC02003PS
	3P + N	CTR2FC01253NS	CTR2FC01603NS	-	CTR2FC02003NS
CTRC (IP66) motorized	3P	CTRCFC01253PSAN	CTRCFC01603PSAN	CTRCFC02003PSAN	-
	3P + N	CTRCFC01253NSAN	CTRCFC01603NSAN	CTRCFC02003NSAN	-
CTRC (IP54) with control module	3P + N	CTRCFC01253NSBJ	-	CTRCFC02003NSBJ	-

CTR2 bridging links included



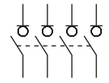
Technical information

According to IEC 60947-3
IEC 61439-2

					125	160	200
Rated thermal current	Ith	in ambient at 40° C		A	125	160	200
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	125	160	200
		Ue 400V	AC22A	A	125	160	200
		Ue 400V	AC23A	A	125	160	160

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for **CTRC** motorized operations

				125	160	200
Rated breaking capacity	400V	AC22	A	375	480	600
Rated making capacity	400V	AC22	A	375	480	600
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm		kA (peak)	13	13	13
Short - time withstand current (1 sec.)	Icw		kA rms	7	7	7
Number of mechanical operations (according to the standards, for other values please consult) **CTR2** *(3)			Cycles	8000	8000	8000
Maximum weight (3/4 poles)			Kg		Consult	



Also available 4P changeover switches under request, please consult

series CTR

Accessories

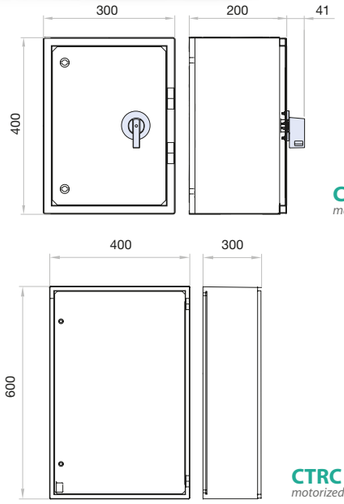


» External handle included in CTR2
IP65
CODE D5LAN01

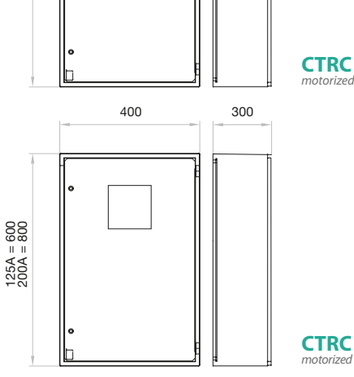


» Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Dimensions (mm)



CTR2
manual



CTRC
motorized

CTRC
motorized with control module



» Terminal shrouds*(T) for CTR2

	UP 3P (1 unit)	DOWN 3P (1 unit)	UP OR DOWN 4P (1 unit)
	DS-CU02	DS-CU03	DS-CU04
	DS-CU05	DS-CU06	DS-CU07

(Only frontal side)



» Phase barrier*(T) for CTR2

3P	4P
DS-PB01	DS-PB02
DS-PB04	DS-PB03

(1 kit for input or output)
*(T) These accessories aren't compatible with each other



» Bridging links included
CODE D5LPC03 (4 units)



» Safety key lock device for CTR2
Simple *CODE* D5LCBB1
Double *CODE* D5LCEB1

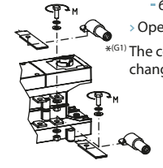
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

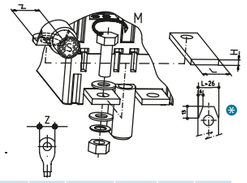


» Control module*(G1)

- LCD graphic screen
- **3 analog input**s for resistive sensors:
  - Oil pressure
  - Coolant temperature
  - Fuel level
- **5 + 3 digital inputs:**
  - 4 programmable, negative
  - 3 programmable, negative, alternative to resistive sensors
  - 1 emergency stop button, positive
- **6 digital outputs:**
  - 6 positive static outputs protected
- Operation with universal battery 12-24 Vdc

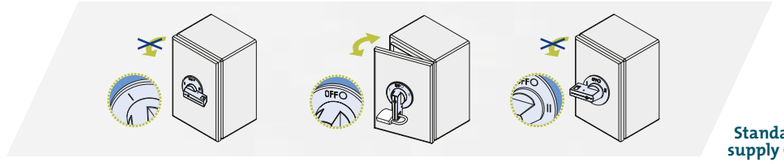
*(G1) The control module and its features are subject to change, please consult





CTR2	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm	M	Nxm
125 A 160 A	95	5	25	M8	13
200 A	120	5	30	M10	18

CTRC	S max (Cu) mm²	Z max	H max (Cu) mm	L max (Cu) mm	M	Nxm
125 A 200 A	240	31	2x5	30 *	M10	24

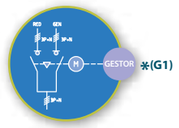


Standard supply CTR2

CTR2 | CTRC
Metal enclosed transfer switch IP54-IP66

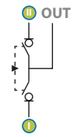
3P - 3P+N

Size 1
A 200|250|315|400



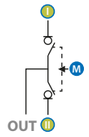
CTR2 (IP65)
manual





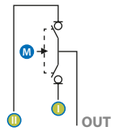
CTRC (IP66)
motorized



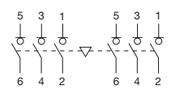


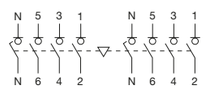
CTRC (IP54)
motorized with control module





		CODE-200A	CODE-250A	CODE-315A	CODE-400A
CTR2 (IP65) manual	3P	CTR2CC02003PS	CTR2CC02503PS	CTR2CC03153PS	CTR2CC04003PS
	3P + N	CTR2CC02003NS	CTR2CC02503NS	CTR2CC03153NS	CTR2CC04003NS
CTRC (IP66) motorized	3P	CTRCCC02003PSAN	CTRCCC02503PSAN	CTRCCC03153PSAO	CTRCCC04003PSAO
	3P + N	CTRCCC02003NSAN	CTRCCC02503NSAN	CTRCCC03153NSAO	CTRCCC04003NSAO
CTRC (IP54) motorized with control module	3P + N	-	CTRCCC02503NSBJ	-	CTRCCC04003NSBK





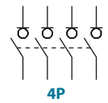
Technical information

According to IEC 60947-3
IEC 61439-2

					200	250	315	400
Rated thermal current	Ith	in ambient at 40° C		A	200	250	315	400
Rated insulation voltage	Ui			V	1000	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8	8
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	200	250	315	400
		Ue 400V	AC22A	A	200	250	315	400*(4)

				200	250	315	400
Rated breaking capacity	400V	AC22	A	600	750	945	1200
Rated making capacity	400V	AC22	A	600	750	945	1200
Short - circuit behaviour							
Short - circuit making capacity *(2)	Icm		kA (peak)	12	12	12	12
Short - time withstand current (1 sec.)	Icw		kA rms	8	8	8	8
Number of mechanical operations (according to the standards, for other values please consult) CTR2*(3)			Cycles	8000	8000	8000	5000
Maximum weight (3/4 poles)			Kg	Consult			

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for CTRC motorized operations
*(4) AC22B



4P

Also available 4P changeover switches under request, please consult

Accessories



External handle included in CTR2
IP65
CODE DCCLA11



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds for CTR2

Inputs			Common output	
POS. I	POS. II	POS. I&II		
3P	3P	3P+N	3P	3P+N
DM2CU12	DM2CU11	DM2CU13	DCCCU11	DCCCU12



Safety key lock device for CTR2
Simple *CODE* D5LCBB1
Double *CODE* D5LCEB1

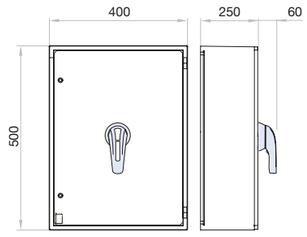
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



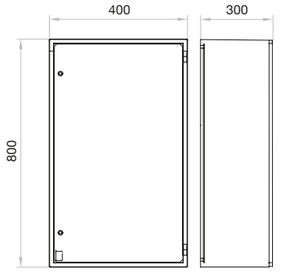
Control module*(G1)
- LCD graphic screen
- **3 analog inputs** for resistive sensors:
  - Oil pressure
  - Coolant temperature
  - Fuel level
- **5 + 3 digital inputs:**
  - 4 programmable, negative
  - 3 programmable, negative, alternative to resistive sensors
  - 1 emergency stop button, positive
- **6 digital outputs:**
  - 6 positive static outputs protected
- Operation with universal battery 12-24 Vdc

*(G1) The control module and its features are subject to change, please consult

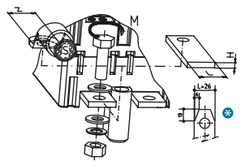
Dimensions (mm)



CTR2
manual

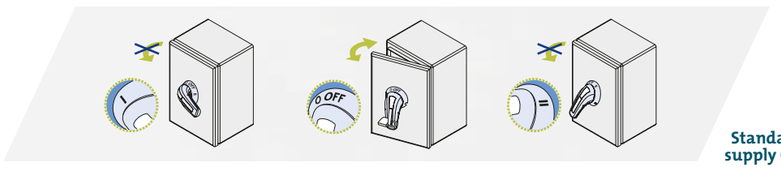


CTRC
motorized
motorized with control module





S max (Cu) mm²	Z max	H max (Cu) mm	L max (Cu) mm		M Nxm
240	31	2x5	30	M10	24



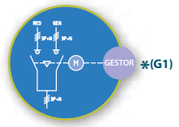
Standard supply CTR2

series CTR

CTR2 | CTRC
Metal enclosed transfer switch IP54-IP66

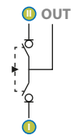
3P - 3P+N

Size 2
A 500|630|800



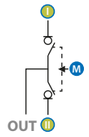
CTR2 (IP65)
manual





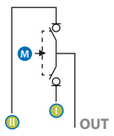
CTRC (IP66)
motorized



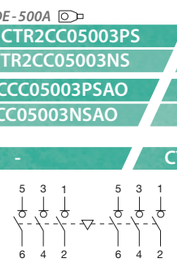


CTRC (IP54)
motorized with control module

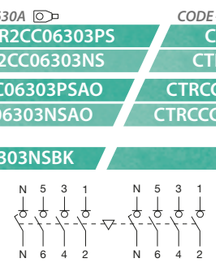




		CODE - 500A	CODE - 630A	CODE - 800A
CTR2 (IP65) manual	3P	CTR2CC05003PS	CTR2CC06303PS	CTR2CC08003PS
	3P + N	CTR2CC05003NS	CTR2CC06303NS	CTR2CC08003NS
CTRC (IP66) motorized	3P	CTRCCC05003PSAO	CTRCCC06303PSAO	CTRCCC08003PSAO
	3P + N	CTRCCC05003NSAO	CTRCCC06303NSAO	CTRCCC08003NSAO
CTRC (IP54) motorized with control module	3P + N	-	CTRCCC06303NSBK	-



3P



3P + N

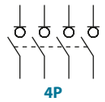
Technical information

According to IEC 60947-3
IEC 61439-2

					500	630	800
Rated thermal current	Ith	in ambient at 40° C		A	500	630	800
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	500	630	800
		Ue 400V	AC22B	A	500	630	800

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for **CTRC** motorized operations

				500	630	800
Rated breaking capacity	400V	AC22	A	1500	1890	2400
Rated making capacity	400V	AC22	A	1500	1890	2400
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm		kA (peak)	20	20	20
Short - time withstand current (1 sec.)	Icw		kA rms	13	13	13
Number of mechanical operations (according to the standards, for other values please consult) **CTR2** *(3)			Cycles	5000	5000	3000
Maximum weight (3/4 poles)			Kg		Consult	



4P

Also available 4P changeover switches under request, please consult

series CTR

Accessories



External handle included in CTR2
IP65
CODE DCCLA21



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds for CTR2

Inputs			Common output	
POS. I 3P	*POS. II* 3P	*POS. I&II* 3P+N	3P	3P+N
DM2CU22	DM2CU21	DM2CU23	DCCCU21	DCCCU22



Safety key lock device for CTR2
Simple *CODE* D5LCB21
Double *CODE* D5LCF21

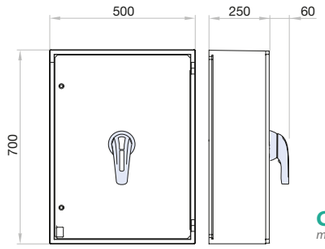
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



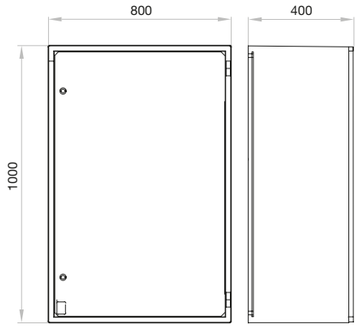
Control module*(G1)
- LCD graphic screen
- **3 analog inputs** for resistive sensors:
  - Oil pressure
  - Coolant temperature
  - Fuel level
- **5 + 3 digital inputs:**
  - 4 programmable, negative
  - 3 programmable, negative, alternative to resistive sensors
  - 1 emergency stop button, positive
- **6 digital outputs:**
  - 6 positive static outputs protected
- Operation with universal battery 12-24 Vdc

*(G1) The control module and its features are subject to change, please consult

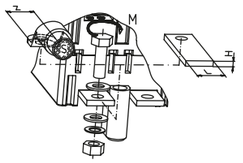
Dimensions (mm)

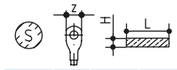


CTR2
manual

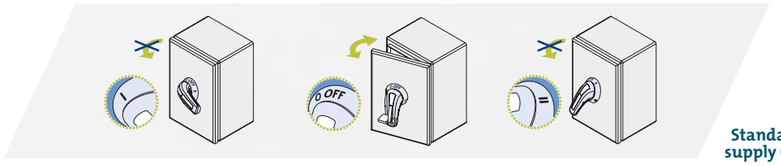


CTRC
motorized
motorized with control module





S max (Cu)	Z max	H max (Cu)	L max (Cu)	T	M
mm^2		mm	mm		Nxm
2x240	45	2x6	45	M12	45



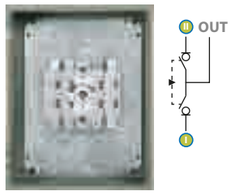
Standard supply CTR2

CTR2 | CTRC
Metal enclosed transfer switch IP54-IP66

3P - 3P+N

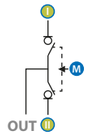
Size 3
A 1000|1250

CTR2 (IP65)
manual



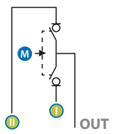
CTRC (IP66)
motorized

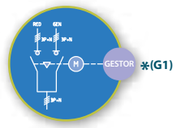




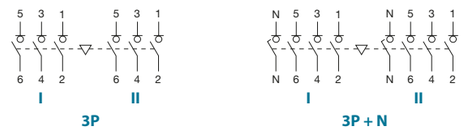
CTRC (IP54)
motorized with control module







		CODE - 1000A	CODE - 1250A
CTR2 (IP65) manual	3P	CTR2CC10003PS	CTR2CC12503PS
	3P + N	CTR2CC10003NS	CTR2CC12503NS
CTRC (IP66) motorized	3P	CTRCCC10003PSAP	CTRCCC12503PSAP
	3P + N	CTRCCC10003NSAP	CTRCCC12503NSAP
CTRC (IP54) motorized with control module	3P + N	CTRCCC10003NSBK	CTRCCC12503NSBK



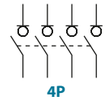
Technical information

According to IEC 60947-3
IEC 61439-2

					1000	1250
Rated thermal current	Ith	in ambient at 40° C		A	1000	1250
Rated insulation voltage	Ui			V	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12
AC Rated operational current *(1)	Ie	Ue 400V	AC21A	A	1000	1250
(Rated operational frequency 50 / 60 Hz)		Ue 400V	AC22B	A	1000	1250

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for **CTRC** motorized operations

				1000	1250
Rated breaking capacity	400V	AC22	A	3000	3750
Rated making capacity	400V	AC22	A	3000	3750
Short - circuit behaviour					
Short - circuit making capacity *(2)	Icm		kA (peak)	32	32
Short - time withstand current (1 sec.)	Icw		kA rms	25	25
Number of mechanical operations (according to the standards, for other values please consult) **CTR2** *(3)			Cycles	3000	3000
Maximum weight (3/4 poles)			Kg	Consult	



4P

Also available 4P changeover switches under request, please consult

Accessories



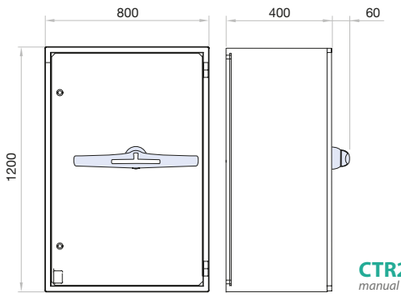
External handle included in CTR2
IP65
CODE DCCLA31



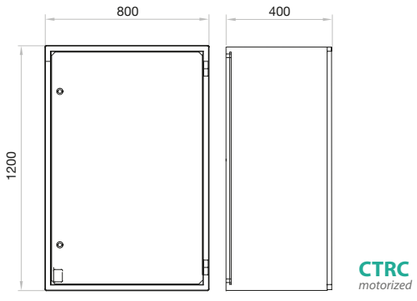
Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

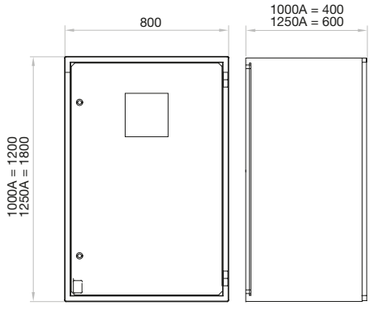
Dimensions (mm)



CTR2
manual



CTRC
motorized



CTRC
motorized with control module



Terminal shrouds for CTR2

Inputs			Common output	
POS. I 3P	*POS. II* 3P	*POS. I&II* 3P+N	3P	3P+N
DM2CU32	DM2CU31	DM2CU33	DCCCU31	DCCCU32



Safety key lock device for CTR2
Simple *CODE* D5LCB31
Double *CODE* D5LCF31

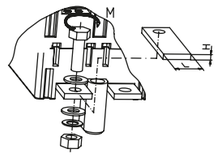
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



Control module*(G1)

- LCD graphic screen
- **3 analog inputs** for resistive sensors:
  - Oil pressure
  - Coolant temperature
  - Fuel level
- **5 + 3 digital inputs:**
  - 4 programmable, negative
  - 3 programmable, negative, alternative to resistive sensors
  - 1 emergency stop button, positive
- **6 digital outputs:**
  - 6 positive static outputs protected
- Operation with universal battery 12-24 Vdc

*(G1) The control module and its features are subject to change, please consult





H max (Cu)	L max (Cu)	T	M
mm	mm		Nxm
2x10	60	M14	55



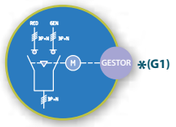
Standard supply CTR2

series CTR

CTR2 | CTRC
Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 4
A 1600|1800|2000



CTR2 (IP65)
manual

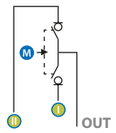


CTRC (IP66)
motorized

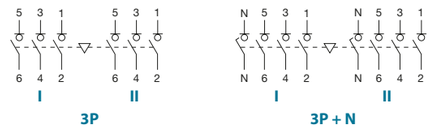


CTRC (IP54)
motorized with control module





		CODE - 1600A	CODE - 1800A	CODE - 2000A
CTR2 (IP65) manual	3P	CTR2FC16003PS	CTR2FC18003PS	CTR2FC20003PD
	3P + N	CTR2FC16003NS	CTR2FC18003NS	CTR2FC20003ND
CTRC (IP66) motorized	3P	CTRCFC16003PSAP	CTRCFC18003PSAP	CTRCFC20003PDAP
	3P + N	CTRCFC16003NSAP	CTRCFC18003NSAP	CTRCFC20003NDAP
CTRC (IP54) motorized with control module	3P + N	CTRCFC16003NSBK	-	CTRCFC20003NDBK



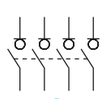
Technical information

According to IEC 60947-3
IEC 61439-2

					1600	1800	2000
Rated thermal current	Ith	in ambient at 40° C		A	1600	1800	2000
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	12	12	12
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	1600	1800	2000
		Ue 400V	AC22A	A	1600	1800	2000

				1600	1800	2000
Rated breaking capacity	400V	AC22	A	4800	5400	6000
Rated making capacity	400V	AC22	A	4800	5400	6000
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm		kA (peak)	75	75	75
Short - time withstand current (1 sec.)	Icw		kA rms	50	50	50
Number of mechanical operations (according to the standards, for other values please consult) CTR2 *(3)			Cycles	3000	3000	3000
Maximum weight (3/4 poles)			Kg	Consultar		

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for CTRC motorized operations



4P

Also available 4P changeover switches under request, please consult

series CTR

Accessories



External handle included in CTR2
IP65
CODE D5LLA31



Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds for CTR2
CODE DS-CU41
(1 kit for input or output only frontal side)



Bridging links for CTR2
CODE D5LPC42 (4 units)



Safety key lock device for CTR2
Simple *CODE* D5LCB41
Double *CODE* D5LCF41

For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

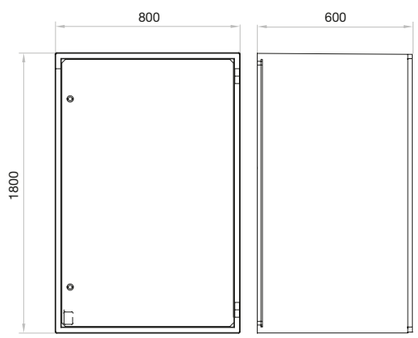


Control module*(G1)
- LCD graphic screen
- **3 analog input**s for resistive sensors:
  - Oil pressure
  - Coolant temperature
  - Fuel level
- **5 + 3 digital inputs:**
  - 4 programmable, negative
  - 3 programmable, negative, alternative to resistive sensors
  - 1 emergency stop button, positive
- **6 digital outputs:**
  - 6 positive static outputs protected
- Operation with universal battery 12-24 Vdc

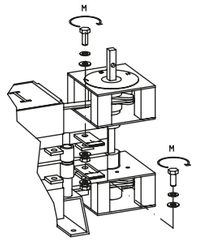
*(G1) The control module and its features are subject to change, please consult

Dimensions (mm)

CTR2
manual



CTRC
motorized
motorized with control module



H max (Cu)	L max (Cu)		M
mm	mm		Nxm
2x10	80	M14	55



Standard supply CTR2

CTR2 | CTRC
Metal enclosed transfer switch IP55

Size 5
A 2000|2500|3150

3P - 3P+N

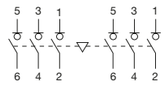
CTR2 (IP55) manual



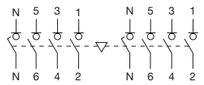
CTRC (IP55) motorized



		CODE-2000A	CODE-2500A	CODE-3150A
CTR2 (IP55) manual	3P	CTR2FC20003PP	CTR2FC25003PP	CTR2FC31503PP
	3P + N	CTR2FC20003NP	CTR2FC25003NP	CTR2FC31503NP
CTRC (IP55) motorized	3P	CTRCFC20003PPAP	CTRCFC25003PPAP	CTRCFC31503PPAP
	3P + N	CTRCFC20003NPAP	CTRCFC25003NPAP	CTRCFC31503NPAP



3P



3P + N

Technical information

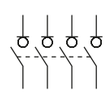
CE IEC

According to IEC 60947-3
IEC 61439-2

					2000	2500	3150
Rated thermal current	Ith	in ambient at 40° C		A	2000	2500	3150
Rated insulation voltage	Ui			V	1000	1000	1000
Rated impulse withstand voltage	Uimp			kV	8	8	8
AC Rated operational current *(1) (Rated operational frequency 50 / 60 Hz)	Ie	Ue 400V	AC21A	A	2000	2500	3150
		Ue 400V	AC22B	A	2000	2500	2500

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50 ms. - 100 ms.)
*(3) Please consult us for **CTRC** motorized operations

				2000	2500	3150
Rated breaking capacity	400V	AC22	A	6000	7500	9450
Rated making capacity	400V	AC22	A	6000	7500	9450
Short - circuit behaviour						
Short - circuit making capacity *(2)	Icm	kA (peak)		100	100	100
Short - time withstand current (1 sec.)	Icw	kA rms		50	50	50
Number of mechanical operations (according to the standards, for other values please consult) **CTR2** *(3)		Cycles		600	600	600
Maximum weight (3/4 poles)		Kg		Consult		



4P

Also available 4P changeover switches under request, please consult

Accessories



External handle included in CTR2
(Slider bar)
CODE D5LEN51



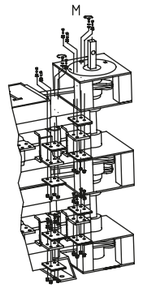
Auxiliary contacts
1NO+1NC *CODE* DS-AU11
2NO+2NC *CODE* DS-AU12

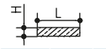
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Safety key lock device for CTR2
Simple *CODE* D5LCB41
Double *CODE* D5LCF41

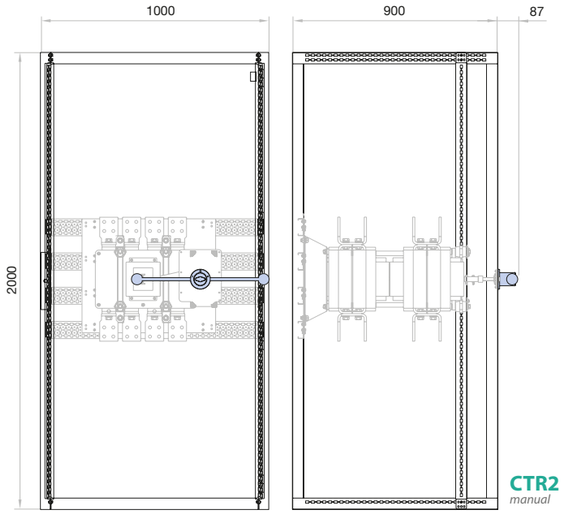
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



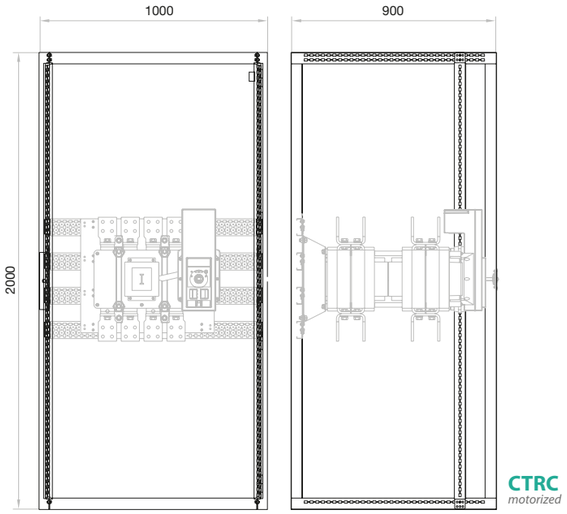


	H max (Cu) mm	L max (Cu) mm	T	M Nxm
2000 A 2500 A 3150 A	4x10	80 100	M12	45

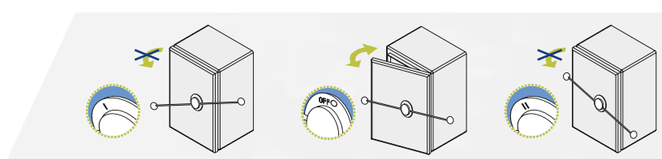
Dimensions (mm)



CTR2 *manual*



CTRC *motorized*



Standard supply CTR2

series
UM

Kit motorized unit for switch or changeover switch

Motorized units to automate the drive system of the switch-disconnectors, changeover switches and by-pass changeover switches, with a high level of reliability, safety and ease of operation even in extreme situations.

According to:
IEC 60947-1 & 3
RoHS

Testing and approvals:



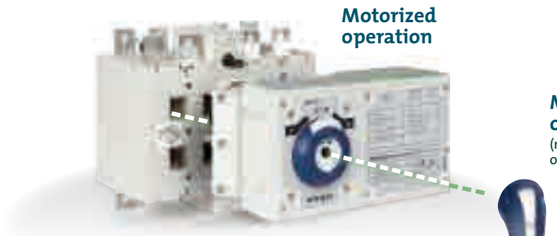
KIT UM

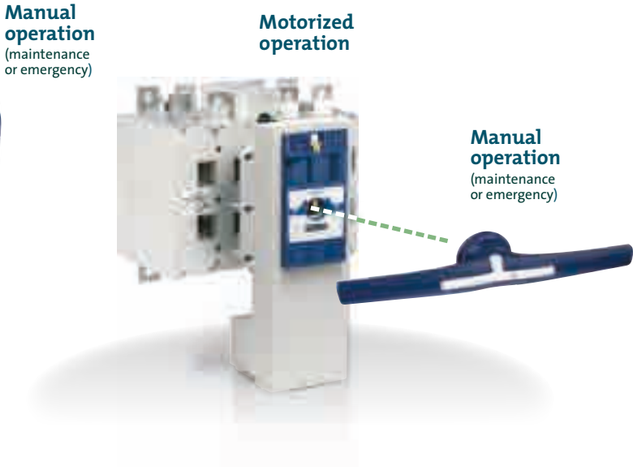
The motorized unit kits are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a body housing the motor, gears, electronics to command and control. They are equipped with a selector for automatic-manual-lock operating modes.

The kit concept simplifies both logistics and maintenance, for easy and simple assembly on the changeover switch or switch - disconnector as required.





› IEC60947-1 & 3. Low voltage devices. General part and switch - disconnectors.

› According to European Standard 2014/35/UE.

› According to European standard 2014/30/UE of EMC.

series
UM-S



1 2 3 4 5 6
U M - S

Supply voltage
230 Vac *(1)

For switch - disconnectors:

S5 Sizes 1-2 | 3P - 3P+N ready to motorize (250A... 800A)
S6 Sizes 1-2 | 2P - 3P - 3P+N ready to motorize (200A... 800A)
S6N Size 1 | 6P - 8P ready to motorize (125A... 400A)

*(1) For DC values, consult please

series
UM-S



1 2 3 4 5 6
U M - S

Supply voltage
120 - 230 Vac *(1)
with MODBUS MB

For switch - disconnectors:

S5 Sizes 3-4 | 3P - 3P+N ready to motorize (800A... 2000A)
S5N Size 5 | 3P - 3P+N ready to motorize (2000A... 3150A)
S6N Size 2 | 6P - 8P ready to motorize (500A... 630A)
S5M Size 3 | 6P - 8P ready to motorize (800A... 1000A)
S5N Size 4 | 6P - 8P ready to motorize (1250A... 2000A)

*(1) For DC values, consult please

series
UM-C



1 2 3 4 5 6
U M - C

Supply voltage
230 Vac *(1)

For changeover switches:

S5F Size 0 | 3P - 3P+N standard (125A... 200A)
CCF Sizes 1-2 | 3P - 3P + N standard (200A... 800A)
S5B Size 0 | 3P - 3P +N standard (125A... 200A)
S5B Size 1 | 3P - 3P +N ready to motorize (250A... 400A)

*(1) For DC values, consult please

series
UM-C



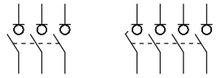
1 2 3 4 5 6
U M - C

Supply voltage
120 - 230 Vac *(1)
with MODBUS MB

For changeover switches:

CCF Sizes 2-3 | 3P - 3P+N standard (500A... 1250A)
S5F Sizes 4-5 | 3P - 3P+N standard (1600A... 3150A)
S5B Sizes 2-3 | 3P - 3P+N ready to motorize (500A... 1000A)
S5B Size 4 | 3P - 3P+N standard (1250A... 2000A)

*(1) For DC values, consult please



S5 / S5N | S5 switches 3 & 4 poles (O - I) ready to motorize

UM-S Motorized unit kit (O - I) *(2)

Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(1) Code	120Vac *(3) Code	230Vac *(3) Code	Full details in page
250	1		S5-02503PRC	S5-02503NRC	-	UM-S1A230Z	196
315			S5-03153PRC	S5-03153NRC			
400			S5-04003PCC	S5-04003NCC			
500	2		S5-05003PRC	S5-05003NRC	-	UM-S2A230Z	196
630			S5-06303PRC	S5-06303NRC			
800			S5-08003PCC	S5-08003NCC			
800	3		S5-08003PRC	S5-08003NRC	MB UM-S31120M	MB UM-S31230M	198
1000			S5-10003PCC	S5-10003NCC			
1250			S5-12503PCC	S5-12503NCC			
1000	4		S5-10003PSC	S5-10003NSC	MB UM-S41120M	MB UM-S41230M	198
1250			S5-12503PSC	S5-12503NSC			
1600			S5-16003PSC	S5-16003NSC			
1800			S5-18003PSC	S5-18003NSC			
2000			S5-20003PDC	S5-20003NDC			
2000	5 (S5N)		S5N20003PPC	S5N20003NPC	-	MB UM-S56230M	198
2500			S5N25003PPC	S5N25003NPC			
3150			S5N31503PPC	S5N31503NPC			

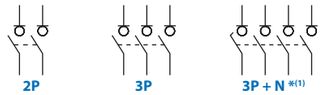
S5

S5N

UM

UM (MODBUS) MB

UM + S5 sizes 1 - 2 normal mounting
UM + S5 size 3 normal mounting
UM + S5 size 4 normal mounting
UM + S5N size 5 normal mounting



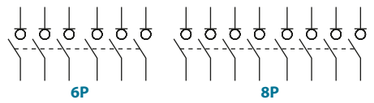
S6 | S6 switches 2, 3 & 4 poles (O - I) ready to motorize

UM-S Motorized unit kit (O - I) *(2)

Amp.	Size	Connection	Bipolar (2P) Code	3 pole (3P) Code	4 pole (3P + N) *(1) Code	230Vac *(3) Code	Full details in page
200	1		S6-02002PSC	S6-02003PSC	S6-02003NSC	UM-S1A230Z	196
250			S6-02502PSC	S6-02503PSC	S6-02503NSC		
315			S6-03152PSC	S6-03153PSC	S6-03153NSC		
400			S6-04002PDC	S6-04003PDC	S6-04003NDC		
500	2		S6-05002PSC	S6-05003PSC	S6-05003NSC	UM-S2A230Z	196
630			S6-06302PSC	S6-06303PSC	S6-06303NSC		
800			S6-08002PDC	S6-08003PDC	S6-08003NDC		

S6

UM



S5M / S5N | S6N | S5 switches 6 & 8 poles (O - I) ready to motorize

UM-S Motorized unit kit (O - I) *(2)

Amp.	Size	Connection	6 pole (6P) Code	8 pole (8P) Code	120Vac *(3) Code	230Vac *(3) Code	Full details in page
125	1 (S6N)		S6N01256PSC	S6N01258PSC	-	UM-S2A230Z	196
160			S6N01606PSC	S6N01608PSC			
200			S6N02006PSC	S6N02008PSC			
250			S6N02506PSC	S6N02508PSC			
315			S6N03156PSC	S6N03158PSC			
400			S6N04006PDC	S6N04008PDC			
500	2 (S6N)		S6N05006PRC	S6N05008PRC	MB UM-S26120M	MB UM-S26230M	200
630			S6N06306PRC	S6N06308PRC			
800	3 (S5M)		S5M08006PRC	S5M08008PRC	MB UM-S35120M	MB UM-S35230M	200
1000			S5M10006PCC	S5M10008PCC			
1250	4 (S5N)		S5N12506PSC	S5N12508PSC	-	MB UM-S56230M	200
1600			S5N16006PSC	S5N16008PSC			
1800			S5N18006PSC	S5N18008PSC			
2000			S5N20006PDC	S5N20008PDC			

S6N

S5M

S5N

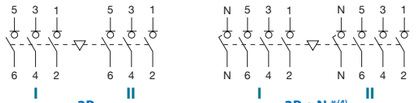
UM

UM (MODBUS) MB

UM + S6N normal mounting
UM + S5M size 3 normal mounting
UM + S5N size 4 normal mounting
UM + S5M size 3 inverted mounting (please consult UM codes)

*(1) Neutral pole early make-late break - Versions 4P with "simultaneous contacts" are also available, please consult.
*(2) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting.
For different type of mounting or different code of switch or UM kit, please consult.
*(3) For DC values, please consult.

For all solutions, please indicate in your order the switch code and the UM Kit code, as these both products are managed separately.



S5F / CC | S5 changeover switches 3 & 4 poles (I - O - II) ready to motorize *(5)

UM-C Motorized unit kit (I - O - II) *(6)

Amp.	Size	Connection	Series	3 pole (3P) Code	4 pole (3P + N) *(4) Code	120Vac *(8) Code	230Vac *(8) Code	Full details in page
125	0		S5F	S5F01253PS0	S5F01253NS0	-	UM-C0A230Z	202
160			S5F	S5F01603PS0	S5F01603NS0			
200			S5F	S5F02003PS0	S5F02003NS0			
200	1		CCF	CCF02003PS0	CCF02003NS0	-	UM-C1A230Z	202
250			CCF	CCF02503PS0	CCF02503NS0			
315			CCF	CCF03153PS0	CCF03153NS0			
400			CCF	CCF04003PS0	CCF04003NS0			
500	2		CCF	CCF05003PS0	CCF05003NS0	MB UM-C21120M	UM-C2A230Z	202
630			CCF	CCF06303PS0	CCF06303NS0		MB UM-C21230M	204
800			CCF	CCF08003PS0	CCF08003NS0			
1000	3		CCF	CCF10003PS0	CCF10003NS0	MB UM-C31120M	MB UM-C31230M	204
1250			CCF	CCF12503PS0	CCF12503NS0			
1600	4		S5F	S5F16003PS0	S5F16003NS0	MB UM-C45120M	MB UM-C45230M	204
1800			S5F	S5F18003PS0	S5F18003NS0			
2000			S5F	S5F20003PD0	S5F20003ND0			
2000	5		S5F	S5F20003PP0	S5F20003NP0	-	MB UM-C55230M	204
2500			S5F	S5F25003PP0	S5F25003NP0			
3150			S5F	S5F31503PP0	S5F31503NP0			

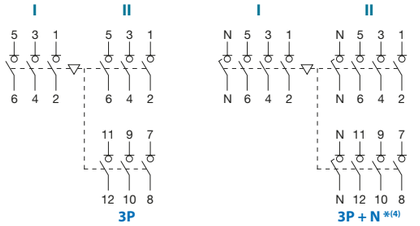
S5F

CCF

UM

UM (MODBUS) MB

UM + S5F size 0 normal mounting
UM + CCF sizes 1 - 2 normal mounting
UM + CCF size 3 normal mounting
UM + S5F sizes 4 - 5 normal mounting
UM + CCF size 3 inverted mounting (please consult UM codes)
UM + S5F sizes 4 - 5 inverted mounting (please consult UM codes)



S5B | S5 bypass changeover switches 3 & 4 poles (I - O - II) ready to motorize *(7)

UM-C Motorized unit kit (I - O - II) *(6)

Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(4) Code	120Vac *(8) Code	230Vac *(8) Code	Full details in page
125	0		S5B01253PS0	S5B01253NS0	-	UM-C0A230Z	202
160			S5B01603PS0	S5B01603NS0			
200			S5B02003PS0	S5B02003NS0			
250	1		S5B02503PRC	S5B02503NRC	-	MB UMC14230Z	202
315			S5B03153PRC	S5B03153NRC			
400			S5B04003PCC	S5B04003NCC			
500	2		S5B05003PRC	S5B05003NRC	MB UM-C24120M	MB UM-C24230M	206
630			S5B06303PRC	S5B06303NRC			
800	3		S5B08003PRC	S5B08003NRC	MB UM-C34120M	MB UM-C34230M	206
1000			S5B10003PCC	S5B10003NCC			
1250	4		S5B12503PS0	S5B12503NS0	-	MB UM-C44230M	206
1600			S5B16003PS0	S5B16003NS0			
1800			S5B18003PS0	S5B18003NS0			
2000			S5B20003PD0	S5B20003ND0			

S5B

UM

UM (MODBUS) MB

UM + S5B sizes 0 - 1 normal mounting
UM + S5B sizes 2 - 3 - 4 normal mounting
UM + S5B sizes 2 - 3 - 4 inverted mounting (please consult UM codes)

*(4) Neutral pole early make-late break - Versions 4P with "simultaneous contacts" are also available, please consult.
*(5) There are versions of changeover switch without 0 - OFF position:
S5F (I - II) = S5D _ _ _ _ _.
CCF "overlapped" (I - I+II - II) = CCS _ _ _ _ _.
Please consult.
*(6) UM Kit code is related to the code of changeover from its section depending on size and it is for normal mounting.
For different type of mounting or different code of changeover or UM kit, please consult.
*(7) There are versions of bypass changeover switch without 0 - OFF position "overlapped":
S5B "overlapped" (I - I + II - II) = S5S _ _ _ _ _.
Please consult.
*(8) For DC values, please consult.

Please indicate in your order the changeover switch code and the UM Kit code, as these both products are managed separately.

MOTORIZED UNIT | SWITCH - DISCONNECTORS O-I

series UM-S

UM-S
Motorized unit kit for base mounting switches 2P - 3P - 3P+N | 6P - 8P

S5 Sizes 1-2 ready to motorize (250A... 800A)
S6 Sizes 1-2 ready to motorize (200A... 800A)
S6N Size 1 ready to motorize (125A... 400A)







		CODE - 2P *(1)	CODE - 3P *(1)	CODE - 3P+N *(1)		CODE - 230 Vac *(1)
Size 1 | S5	250A	-	S5-02503PRC	S5-02503NRC	UM	UM-S1A230Z
	315A	-	S5-03153PRC	S5-03153NRC		
	400A	-	S5-04003PCC	S5-04003NCC		
Size 2 | S5	500A	-	S5-05003PRC	S5-05003NRC	UM	UM-S2A230Z
	630A	-	S5-06303PRC	S5-06303NRC		
	800A	-	S5-08003PCC	S5-08003NCC		
Size 1 | S6	200A	S6-02002PSC	S6-02003PSC	S6-02003NSC	UM	UM-S1A230Z
	250A	S6-02502PSC	S6-02503PSC	S6-02503NSC		
	315A	S6-03152PSC	S6-03153PSC	S6-03153NSC		
	400A	S6-04002PDC	S6-04003PDC	S6-04003NDC		
Size 2 | S6	500A	S6-05002PSC	S6-05003PSC	S6-05003NSC	UM	UM-S2A230Z
	630A	S6-06302PSC	S6-06303PSC	S6-06303NSC		
	800A	S6-08002PDC	S6-08003PDC	S6-08003NDC		

		CODE - 6P *(1)	CODE - 8P *(1)		
Size 1 | S6N	125A	-	S6N01256PSC	S6N01258PSC	UM	UM-S2A230Z
	160A	-	S6N01606PSC	S6N01608PSC		
	200A	-	S6N02006PSC	S6N02008PSC		
	250A	-	S6N02506PSC	S6N02508PSC		
	315A	-	S6N03156PSC	S6N03158PSC		
	400A	-	S6N04006PDC	S6N04008PDC		

UM + S5|S6|S6N normal mounting

* Auxiliary manual handle supplied with the UM

Technical information

According to IEC 60947-3

UM

		UM for S5|S6 size 1	UM for S5|S6 size 2	UM for S6N size 1
Operational torque	Nm	20	30	30
Voltage supply	V	230 Vac *(2)	230 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)	ΔV	0,95*V a 1,10*V	0,95*V a 1,10*V	0,95*V a 1,10*V
Operating voltage range according to IEC 60947-6	ΔV	0,95*V a 1,10*V	0,95*V a 1,10*V	0,95*V a 1,10*V
Cable section of voltage supply	mm^2	1,5 - 2,5	1,5 - 2,5	1,5 - 2,5
Cable section area Input Signals	mm^2	0,5 - 1,5	0,5 - 1,5	0,5 - 1,5
Cable section area Auto-Lock mode Outputs	mm^2	0,5 - 1,5	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	1,1	1,5	1,5
Use current (Irms)	mA	45	45	45
Use current (Imax)	mA	137	137	137
Protective Fuse | Reference F1AL250 V (Littelfuse)	A	1	1	1
Operating angle		0-90° (0 - I)	0-90° (0 - I)	0-90° (0 - I)
Number of UM operations	Cycles	8000	5000	8000
Operation rate (0 - I)	Cycles/hour	120	60/120	120
Working temperature range		- 25°C ... + 55°C	- 25°C ... + 55°C	- 25°C ... + 55°C
Transportation and storage temperature		- 40°C ... + 70°C	- 40°C ... + 70°C	- 40°C ... + 70°C
UM weight	Kg	1,8	1,8	1,8

Pos.	Direction	Pos.	Operating time *(3)
0	→	I	750 ms
I	→	0	750 ms

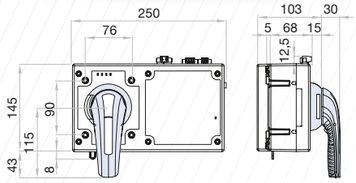
*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting. For different type of mounting or different code of switch or UM kit please consult.

*(2) For DC values, consult please.

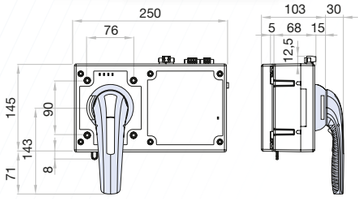
*(3) Based in our own tests.

Dimensions (mm)

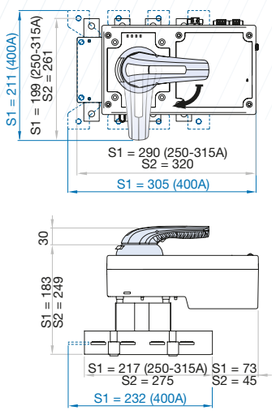
UM for size 1



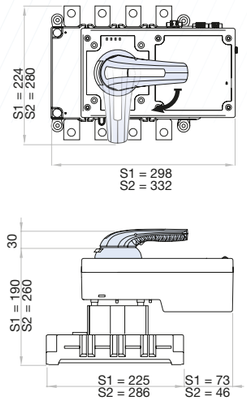
UM for size 2



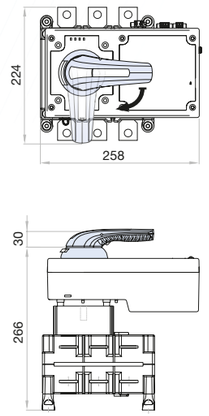
S5 size 1-2 + UM



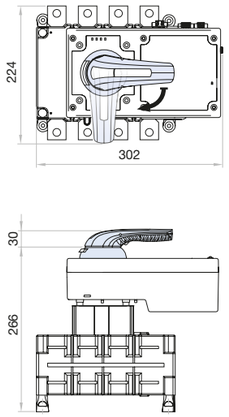
S6 size 1-2 + UM



S6N 6P size 1 + UM



S6N 8P size 1 + UM



EMC table (Electromagnetic compatibility)

Inmunity

Test	Standard	According to standard UNE/EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Electrostatic discharges	EN 61000-4-2	Special, B	Special, A	Special, A	±8KV air discharge ±4KV equipment discharge
Electromagnetic H.F. field	EN 61000-4-3	Level 3, A	Level 3, A	Level 3, A	10V/m. from 80MHz to 1 GHz
Fast transients (Burst)	EN 61000-4-4	Level 3, B	Level 3, A	Level 4, A	±4KV power supply, freq. Rep. 2,5kHz ±2KV signal supply, freq. Rep 5kHz
Fast transient (surge discharge)	EN 61000-4-5	Level 3, B	Level 3, A	Special, A	±4KV power supply L1-L2 Generator impedance 2Ω (wave 1,2/50 ms)
Conducted disturbances	EN 61000-4-6	Level 3, A	Level 3, A	Level 3, A	10V supply and signal
Electromagnetic field, industrial frequency	EN 61000-4-8	Level 4, A	-	Level 4, A	Field intensity 30A/m
Voltage dips, interruptions and voltage variations	EN 61000-4-11	Criterion B	-	Criterion A	30% Un - 1000 ms
		Criterion C	-	Criterion A	60% Un - 1000 ms
		Criterion C	-	Criterion B	95% Un - 5000 ms

Emission

Test	Standard	According to standard UNE/EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Emission of harmonic current	EN 61000-3-2	Level 3	Level 3	Level 3	0,02A total current (manual mode)
		Level 3	Level 3	Level 3	0,04A total current (automatic mode)
Unwanted voltage	EN 55011	Level 3	Level 3	Level 3	Qualified
Radiated emission	EN 55011	Level 3	Level 3	Level 3	Qualified

NOTE: The installation of this device in a domestic environment can cause radiofrequency interference
EN 61000 is equivalent to IEC 61000 - EN 55011 is equivalent to CISPR11
CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

UM-S (MODBUS)

Motorized unit kit for base mounting switches 3P - 3P+N

S5 Sizes 3-4 ready to motorize (800A... 2000A)
S5N Size 5 ready to motorize (2000A... 3150A)







		CODE - 3P *(1)	CODE - 3P+N *(1)		CODE - 120 Vac *(1)	CODE - 230 Vac *(1)
Size 3 | S5	800A	S5-08003PRC	S5-08003NRC	UM	UM-S31120M	UM-S31230M
	1000A	S5-10003PCC	S5-10003NCC			
	1250A	S5-12503PCC	S5-12503NCC			
Size 4 | S5	1000A	S5-10003PSC	S5-10003NSC	UM	UM-S41120M	UM-S41230M
	1250A	S5-12503PSC	S5-12503NSC			
	1600A	S5-16003PSC	S5-16003NSC			
	1800A	S5-18003PSC	S5-18003NSC			
	2000A	S5-20003PDC	S5-20003NDC			
Size 5 | S5N	2000A	S5N20003PPC	S5N20003NPC	UM	-	UM-S56230M
	2500A	S5N25003PPC	S5N25003NPC			
	3150A	S5N31503PPC	S5N31503NPC			

UM + S5 size 3 normal mounting
UM + S5 size 4 normal mounting
UM + S5N size 5 normal mounting

* Auxiliary manual handle supplied with the UM

Technical information

According to IEC 60947-3

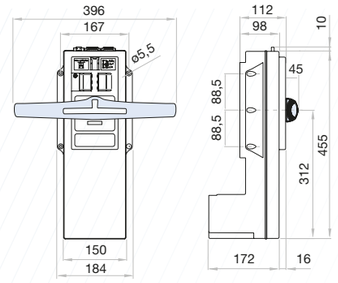
UM

Voltage supply		120 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)	ΔV	0,95*V to 1,10*V	
Cable of voltage supply	mm²	1,5 - 2,5	1,5 - 2,5
Cable section area Input & MODBUS Signals	mm²	0,5 - 1,5	0,5 - 1,5
Cable section area Outputs	mm²	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	11	11
Nominal Current during operation	A	-	3,9
Use current (Irms)	A	0,041	0,041
Use current (Imax)	A	0,275	0,275
Protection Fuse | Reference F4AL250V (Littelfuse)	A	4	4
Operating time	s	0,275	0,275
Number of UM operations S5/3 - S5/4	Cycles	3000	3000
Operation rate (0-I-0) *(4)	Cycles/hour	20	20
Number of UM operations S5N/5	Cycles	600	600
Operation rate (0-I-0) *(4)	Cycles/hour	20	20
Working temperature range	Tª 85%Un	- 25°C ... + 55°C	
	Tª Un	- 25°C ... + 55°C	
	Tª 115%Un	- 25°C ... + 55°C	
Transportation and storage temperature		- 40°C ... + 70°C	
UM weight	Kg	4,4	

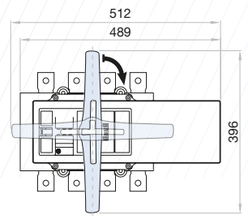
*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting.
For different type of mounting or different code of switch or UM Kit please consult.
*(2) For DC values, consult please.
*(3) Operating voltage range for the reference UM-S56230M is 0,9*Vn to 1,1*Vn
*(4) According to IEC 60947-3.

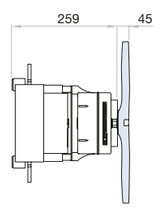
Dimensions (mm)

UM

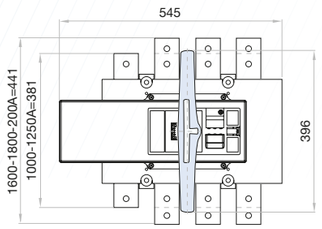


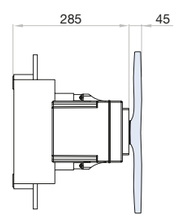
S5 size 3 + UM



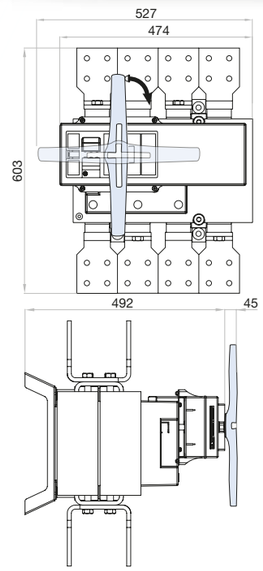


S5 size 4 + UM





S5N size 5 + UM



EMC table (Electromagnetic compatibility)

Emission

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Unwanted voltage	EN 55011	150kHz-30MHz	N.A.	N.A.	N.A.	C
Radiated emission	EN 55011	30MHz-1GHz	N.A.	N.A.	N.A.	C
Emission of harmonic current	EN 61000-3-2	0,02A 0-2kHz	N.A.	N.A.	N.A.	C
Flicker	EN 61000-3-3	0-2kHz	N.A.	N.A.	N.A.	C

Inmunity

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Electrostatic discharges	EN 61000-4-2	Special, A +/- 8KV air discharge	SPECIAL	B	A	C
Electromagnetic H.F. field	EN 61000-4-3	10V/m De 80MHz a 2,7 Ghz	SPECIAL	A	A	C
Fast transients (Burst)	EN 61000-4-4	+/-2KV power supply +/- 1KV signal supply Rep 5kHz - 2min	3	B	A	C
Fast transient (surge discharge)	EN 61000-4-5	+/-4KV power supply Generator impedance 2Ω Wave 1,2/50µs	5	B	A	C
Conducted disturbances	EN 61000-4-6	10V supply and signal 0,15-80MHz	3	A	A	C
Electromagnetic field, industrial frequency	EN 61000-4-8	Field intensity 30A/m	4	A	A	C
Voltage dips, interruptions and voltage variations	EN 61000-4-11	N.A.	100% Un - 10ms	B	A	C
		N.A.	100% Un - 20ms	B	A	C
		N.A.	60% Un - 200ms	C	A	C
		N.A.	30% Un - 500ms	C	A	C
		N.A.	20% Un - 5000ms	C	A	C
		N.A.	100% Un - 5000ms	C	C	C

CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

MOTORIZED UNIT | SWITCH - DISCONNECTORS O-I

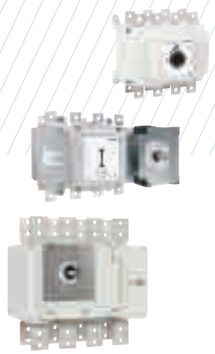
series UM-S

UM-S (MODBUS)
Motorized unit kit for base mounting switches 6P - 8P

S6N Size 2 ready to motorize (500A... 630A)
S5M Size 3 ready to motorize (800A... 1000A)
S5N Size 4 ready to motorize (1250A... 2000A)



*



			CODE - 6P *(1)	CODE - 8P *(1)		CODE - 120 Vac *(1)	CODE - 230 Vac *(1)
Size 2 | S6N	500A	S6N05006PRC	S6N05008PRC	UM	UM-S26120M	UM-S26230M
	630A	S6N06306PRC	S6N06308PRC			
Size 3 | S5M	800A	S5M08006PRC	S5M08008PRC	UM	UM-S35120M	UM-S35230M
	1000A	S5M10006PCC	S5M10008PCC			
Size 4 | S5N	1250A	S5N12506PSC	S5N12508PSC	UM	-	UM-S56230M
	1600A	S5N16006PSC	S5N16008PSC			
	1800A	S5N18006PSC	S5N18008PSC			
	2000A	S5N20006PDC	S5N20008PDC			

UM + S6N normal mounting
UM + S5M normal mounting
UM + S5N normal mounting

UM + S5M inverted mounting *(5)
(please consult UM codes)

* Auxiliary manual handle supplied with the UM

Technical information

CE IEC

According to IEC 60947-3

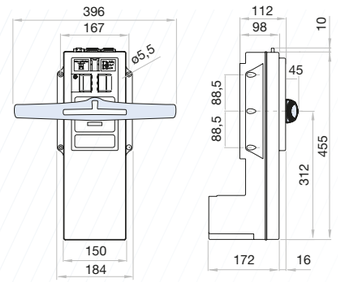
UM

Voltage supply			120 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)		ΔV	0,95*V to 1,10*V	
Cable of voltage supply		mm²	1,5 - 2,5	1,5 - 2,5
Cable section area Input & MODBUS Signals		mm²	0,5 - 1,5	0,5 - 1,5
Cable section area Outputs		mm²	0,5 - 1,5	0,5 - 1,5
Inrush Current	S6N	A	6,3	5,5
	S5M|S5N	A	11	11
Nominal Current during operation	S6N	A	3	3
	S5M|S5N	A	-	3,9
Use current (Irms)		A	0,041	0,041
Use current (Imax)		A	0,275	0,275
Protection Fuse | Reference F4AL250V (Littelfuse)		A	4	4
Operating time	S6N	s	0,25	0,25
	S5M|S5N	s	0,275	0,275
Number of UM operations S6N/2		Cycles (category B)	1000	1000
Operation rate (0-I-0) *(4)		Cycles/hour	60	60
Number of UM operations S5M/3		Cycles	3000	3000
Operation rate (0-I-0) *(4)		Cycles/hour	20	20
Number of UM operations S5N/4		Cycles	600	600
Operation rate (0-I-0) *(4)		Cycles/hour	20	20
Working temperature range		Tª 85%Un	- 25°C ... + 55°C	
		Tª Un	- 25°C ... + 55°C	
		Tª 115%Un	- 25°C ... + 55°C	
Transportation and storage temperature			- 40°C ... + 70°C	
UM weight		Kg	4,4	

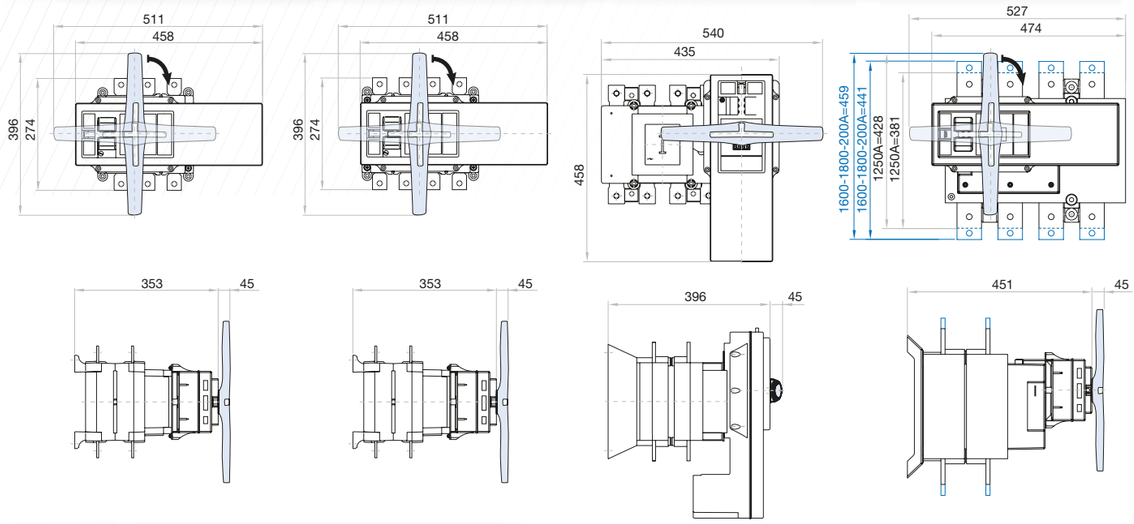
*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting.
For different type of mounting or different code of switch or UM Kit please consult.
*(2) For DC values, consult please.
*(3) Operating voltage range for the reference UM-S56230M is 0,9*Vn to 1,1*Vn
*(4) According to IEC 60947-3.
*(5) For inverted mounting there are references for UM with inverted frontal plates. Supply under request.

Dimensions (mm)

UM



S6N 6P size 2 + UM | S6N 8P size 2 + UM | S5M size 3 + UM | S5N size 4 + UM



EMC table (Electromagnetic compatibility)

Emission

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Unwanted voltage	EN 55011	150kHz-30MHz	N.A.	N.A.	N.A.	C
Radiated emission	EN 55011	30MHz-1GHz	N.A.	N.A.	N.A.	C
Emission of harmonic current	EN 61000-3-2	0,02A 0-2kHz	N.A.	N.A.	N.A.	C
Flicker	EN 61000-3-3	0-2kHz	N.A.	N.A.	N.A.	C

Inmunity

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Electrostatic discharges	EN 61000-4-2	Special, A +/- 8KV air discharge	SPECIAL	B	A	C
Electromagnetic H.F. field	EN 61000-4-3	10V/m De 80MHz a 2,7 Ghz	SPECIAL	A	A	C
Fast transients (Burst)	EN 61000-4-4	+/-2KV power supply +/- 1KV signal supply Rep 5kHz - 2min	3	B	A	C
Fast transient (surge discharge)	EN 61000-4-5	+/-4KV power supply Generator impedance 2Ω Wave 1,2/50µs	5	B	A	C
Conducted disturbances	EN 61000-4-6	10V supply and signal 0,15-80MHz	3	A	A	C
Electromagnetic field, industrial frequency	EN 61000-4-8	Field intensity 30A/m	4	A	A	C
Voltage dips, interruptions and voltage variations	EN 61000-4-11	N.A.	100% Un - 10ms	B	A	C
		N.A.	100% Un - 20ms	B	A	C
		N.A.	60% Un - 200ms	C	A	C
		N.A.	30% Un - 500ms	C	A	C
		N.A.	20% Un - 5000ms	C	A	C
		N.A.	100% Un - 5000ms	C	C	C

CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

UM-C
Motorized unit kit for base mounting changeover switches 3P - 3P+N

S5F Size 0 standard (125A... 200A)
CCF Sizes 1-2 standard (200A... 800A)
S5B Size 0 by-pass standard (125A... 200A)
S5B Size 1 by-pass ready to motorize (250A... 400A)









			CODE - 3P *(1)	CODE - 3P+N *(1)		CODE - 230 Vac *(1)
Size 0 | S5F	125A		S5F01253PS0	S5F01253NS0	UM	UM-C0A230Z
	160A		S5F01603PS0	S5F01603NS0		
	200A		S5F02003PS0	S5F02003NS0		
Size 1 | CCF	200A		CCF02003PS0	CCF02003NS0	UM	UM-C1A230Z
	250A		CCF02503PS0	CCF02503NS0		
	315A		CCF03153PS0	CCF03153NS0		
	400A		CCF04003PS0	CCF04003NS0		
Size 2 | CCF	500A		CCF05003PS0	CCF05003NS0	UM	UM-C2A230Z
	630A		CCF06303PS0	CCF06303NS0		
	800A		CCF08003PS0	CCF08003NS0		
Size 0 | S5B	125A		S5B01253PS0	S5B01253NS0	UM	UM-C0A230Z
	160A		S5B01603PS0	S5B01603NS0		
	200A		S5B02003PS0	S5B02003NS0		
Size 1 | S5B	250A		S5B02503PRC	S5B02503NRC	UM	UM-C14230Z
	315A		S5B03153PRC	S5B03153NRC		
	400A		S5B04003PCC	S5B04003NCC		

UM + S5F & UM + S5B normal mounting

UM + CCF normal mounting

* Auxiliary manual handle supplied with the UM

Technical information

According to IEC 60947-3

UM

		UM for sizes 0-1	UM for size 2
Operational torque	Nm	20	30
Voltage supply	V	230 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)	ΔV	0,95*V to 1,10*V	0,95*V to 1,10*V
Operating voltage range according to IEC 60947-6	ΔV	0,95*V to 1,10*V	0,95*V to 1,10*V
Cable section of voltage supply	mm^2	1,5 - 2,5	1,5 - 2,5
Cable section area Input Signals	mm^2	0,5 - 1,5	0,5 - 1,5
Cable section area Auto-Lock mode Outputs	mm^2	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	1,1	1,1
Use current (Irms)	mA	45	45
Use current (Imax)	mA	137	137
Protective Fuse | Reference F1AL250 V (Littelfuse)	A	1	1
Operating angle		- 70° / 0° / +70° (I - 0 - II)	- 70° / 0° / +70° (I - 0 - II)
Number of UM operations	Cycles	8000	5000
Operation rate (0 - I - II - 0)	Cycles/hour	120	60
Working temperature range		- 25°C ... + 55°C	- 25°C ... + 55°C
Transportation and storage temperature		- 40°C ... + 70°C	- 40°C ... + 70°C
UM weight	Kg	1,8	1,8

Pos.	Direction	Pos.	Operating time *(3)
0	→	I	750 ms
I	→	0	750 ms
0	→	II	750 ms
II	→	0	750 ms
I	→	II	1,5 sec
II	→	I	1,5 sec

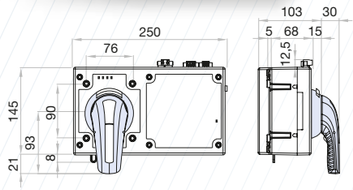
*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting. For different type of mounting or different code of switch or UM Kit please consult.

*(2) For DC values, consult please.

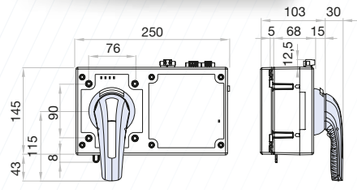
*(3) Based in our own tests.
There are changeover switch versions without 0 - OFF position:
S5F (I - II) = S5D_ _ _ _ _.
CCF "overlapped" (I - I+II - II) = CCS_ _ _ _ _.
CCP "overlapped" (I - I+II - II) = CCT_ _ _ _ _.
S5B "overlapped" (I - I + II - II) = S5S_ _ _ _ _. Consult.

Dimensions (mm)

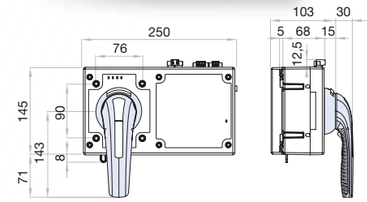
UM for size 0



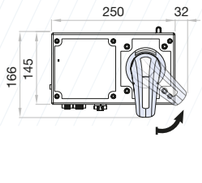
UM for size 1

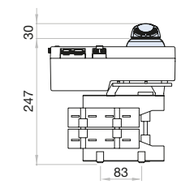


UM for size 2

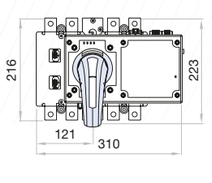


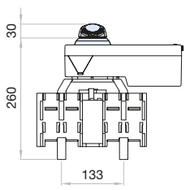
S5F size 0 + UM



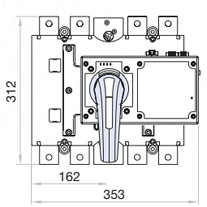


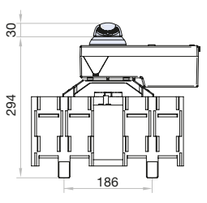
CCF size 1 + UM



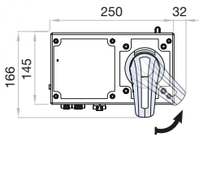


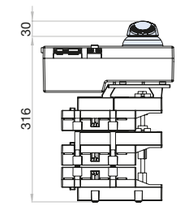
CCF size 2 + UM



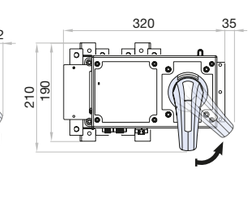


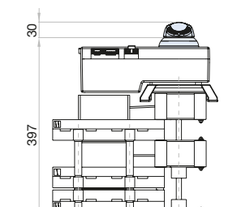
S5B size 0 + UM





S5B size 1 + UM





EMC table (Electromagnetic compatibility)

Inmunity

Test	Standard	According to standard UNE/EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Electrostatic discharges	EN 61000-4-2	Special, B	Special, A	Special, A	±8KV air discharge ±4KV equipment discharge
Electromagnetic H.F. field	EN 61000-4-3	Level 3, A	Level 3, A	Level 3, A	10V/m. from 80MHz to 1 GHz
Fast transients (Burst)	EN 61000-4-4	Level 3, B	Level 3, A	Level 4, A	±4KV power supply, freq. Rep. 2,5kHz ±2KV signal supply, freq. Rep 5kHz
Fast transient (surge discharge)	EN 61000-4-5	Level 3, B	Level 3, A	Special, A	±4KV power supply L1-L2 Generator impedance 2Ω (wave 1,2/50 ms)
Conducted disturbances	EN 61000-4-6	Level 3, A	Level 3, A	Level 3, A	10V supply and signal
Electromagnetic field, industrial frequency	EN 61000-4-8	Level 4, A	-	Level 4, A	Field intensity 30A/m
Voltage dips, interruptions and voltage variations	EN 61000-4-11	Criterion B	-	Criterion A	30% Un - 1000 ms
		Criterion C	-	Criterion A	60% Un - 1000 ms
		Criterion C	-	Criterion B	95% Un - 5000 ms

Emission

Test	Standard	According to standard UNE/EN 61000	According to standard IEC 60947-6	Results achieved	Values achieved in tests
Emission of harmonic current	EN 61000-3-2	Level 3	Level 3	Level 3	0,02A total current (manual mode)
		Level 3	Level 3	Level 3	0,04A total current (automatic mode)
Unwanted voltage	EN 55011	Level 3	Level 3	Level 3	Qualified
Radiated emission	EN 55011	Level 3	Level 3	Level 3	Qualified

NOTE: The installation of this device in a domestic environment can cause radiofrequency interference
EN 61000 is equivalent to IEC 61000 - EN 55011 is equivalent to CISPR11
CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

MOTORIZED UNIT | CHANGEOVER SWITCHES I-O-II

series UM-C

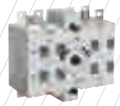
UM-C (MODBUS)

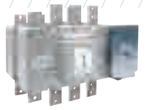
Motorized unit kit for base mounting changeover switches 3P - 3P+N

CCF Sizes 2-3 standard (500A... 1250A)
S5F Sizes 4-5 standard (1600A... 3150A)



*





		CODE - 3P *(1)	CODE - 3P+N *(1)		CODE - 120 Vac *(1)	CODE - 230 Vac *(1)
Size 2 | CCF	500A	CCF05003PS0	CCF05003NS0	UM	UM-C21120M	UM-C21230M
	630A	CCF06303PS0	CCF06303NS0			
	800A	CCF08003PS0	CCF08003NS0			
Size 3 | CCF	1000A	CCF10003PS0	CCF10003NS0	UM	UM-C31120M	UM-C31230M
	1250A	CCF12503PS0	CCF12503NS0			
Size 4 | S5F	1600A	S5F16003PS0	S5F16003NS0	UM	UM-C45120M	UM-C45230M
	1800A	S5F18003PS0	S5F18003NS0			
	2000A	S5F20003PD0	S5F20003ND0			
Size 5 | S5F	2000A	S5F20003PP0	S5F20003NP0	UM	-	UM-C55230M
	2500A	S5F25003PP0	S5F25003NP0			
	3150A	S5F31503PP0	S5F31503NP0			

UM + CCF size 3 normal mounting

UM + S5F sizes 4 - 5 normal mounting

UM + CCF size 3 inverted mounting *(5)

UM + S5F sizes 4 - 5 inverted mounting *(5)

(please consult UM codes)

* Auxiliary manual handle supplied with the UM

Technical information

According to IEC 60947-3

UM

Voltage supply		120 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)	ΔV	0,95*V to 1,10*V	
Cable of voltage supply	mm²	1,5 - 2,5	1,5 - 2,5
Cable section area Input & MODBUS Signals	mm²	0,5 - 1,5	0,5 - 1,5
Cable section area Outputs	mm²	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	11	11
Nominal Current during operation	A	7,5	3,9
Use current (Irms)	A	0,041	0,041
Use current (Imax)	A	0,275	0,275
Protection Fuse | Reference F4AL250V (Littelfuse)	A	4	4
Operating time	s	0,166	0,15
Number of MU operations + CCF Size 2	Cycles	5000	5000
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	60	60
Number of UM operations + CCF size 3	Cycles	3000	3000
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	20	20
Number of UM operations + S5F size 4	Cycles	3000	3000
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	20	20
Number of UM operations + S5F size 5	Cycles	-	600
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	-	20
Working temperature range	Tª 85%Un	- 25ºC ... + 55ºC	
	Tª 115%Un	- 25ºC ... + 55ºC	
Transportation and storage temperature		- 40ºC ... + 70ºC	
UM weight	Kg	4,4	

*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting.
For different type of mounting or different code of switch or UM Kit please consult.

*(2) For DC values, consult please.

*(3) Operating voltage range for the reference UM-C55230M is 0,9*V to 1,10*V.

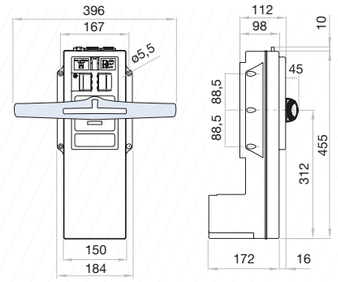
*(4) According to IEC 60947-3.

*(5) For inverted mounting there are references for UM with inverted frontal plates.
Supply under request. There are changeover switchs versions without 0 - OFF position:
S5F (I - II) = S5D_ _ _ _ _.
CCF "overlapped" (I - I+II - II) = CCS_ _ _ _ _.
CCP "overlapped" (I - I+II - II) = CCT_ _ _ _ _. Consult.

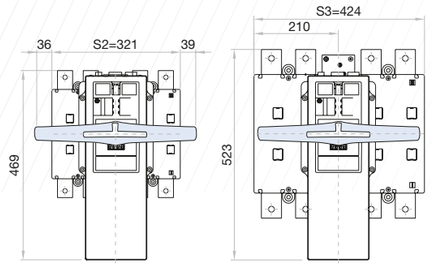
series UM-C

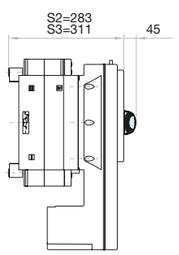
Dimensions (mm)

UM

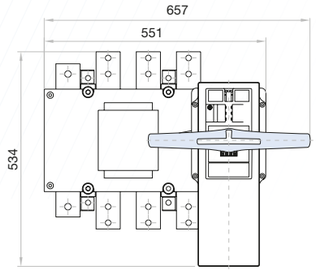


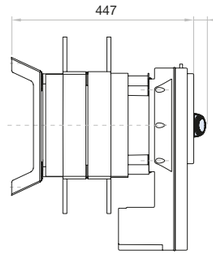
CCF sizes 2-3 + UM



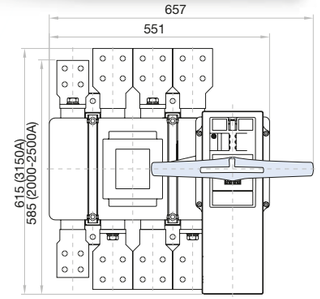


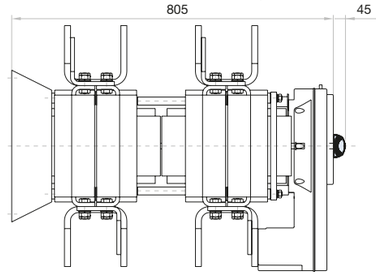
S5F size 4 + UM





S5F size 5 + UM





EMC table (Electromagnetic compatibility)

Emission

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Unwanted voltage	EN 55011	150kHz-30MHz	N.A.	N.A.	N.A.	C
Radiated emission	EN 55011	30MHz-1GHz	N.A.	N.A.	N.A.	C
Emission of harmonic current	EN 61000-3-2	0,02A 0-2kHz	N.A.	N.A.	N.A.	C
Flicker	EN 61000-3-3	0-2kHz	N.A.	N.A.	N.A.	C

Inmunity

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Electrostatic discharges	EN 61000-4-2	Special, A +/- 8KV air discharge	SPECIAL	B	A	C
Electromagnetic H.F. field	EN 61000-4-3	10V/m De 80MHz a 2,7 Ghz	SPECIAL	A	A	C
Fast transients (Burst)	EN 61000-4-4	+/-2KV power supply +/- 1KV signal supply Rep 5kHz - 2min	3	B	A	C
Fast transient (surge discharge)	EN 61000-4-5	+/-4KV power supply Generator impedance 2Ω Wave 1,2/50µs	5	B	A	C
Conducted disturbances	EN 61000-4-6	10V supply and signal 0,15-80MHz	3	A	A	C
Electromagnetic field, industrial frequency	EN 61000-4-8	Field intensity 30A/m	4	A	A	C
Voltage dips, interruptions and voltage variations	EN 61000-4-11	N.A.	100% Un - 10ms	B	A	C
		N.A.	100% Un - 20ms	B	A	C
		N.A.	60% Un - 200ms	C	A	C
		N.A.	30% Un - 500ms	C	A	C
		N.A.	20% Un - 5000ms	C	A	C
		N.A.	100% Un - 5000ms	C	C	C

CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

MOTORIZED UNIT | CHANGEOVER SWITCHES I-O-II

series UM-C

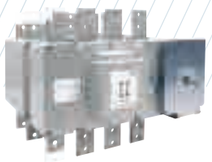
UM-C (MODBUS)

Motorized unit kit for base mounting by-pass changeover switches 3P - 3P+N

S5B Sizes 2-3 ready to motorize (500A... 1000A)
S5B Size 4 standard (1250A... 2000A)



* Auxiliary manual handle supplied with the UM



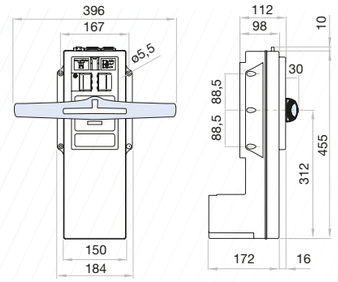
		CODE - 3P *(1)	CODE - 3P+N *(1)		CODE - 120 Vac *(1)	CODE - 230 Vac *(1)
Size 2 S5B	500A	S5B05003PRC	S5B05003NRC	UM	UM-C24120M	UM-C24230M
	630A	S5B06303PRC	S5B06303NRC			
Size 3 S5B	800A	S5B08003PRC	S5B08003NRC	UM	UM-C34120M	UM-C34230M
	1000A	S5B10003PCC	S5B10003NCC			
Size 4 S5B	1250A	S5B12503PS0	S5B12503NS0	UM	-	UM-C44230M
	1600A	S5B16003PS0	S5B16003NS0			
	1800A	S5B18003PS0	S5B18003NS0			
	2000A	S5B20003PD0	S5B20003ND0			

UM + S5B normal mounting

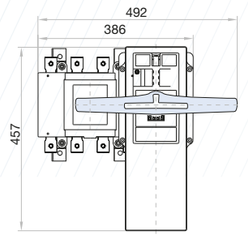
UM + S5B inverted mounting *(5)
(please consult UM codes)

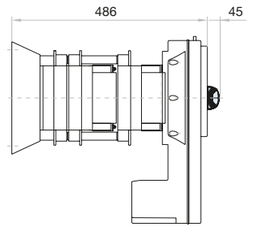
Dimensions (mm)

UM

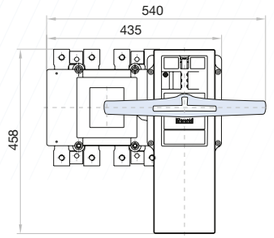


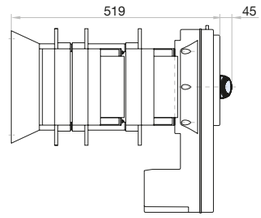
S5B size 2 + UM



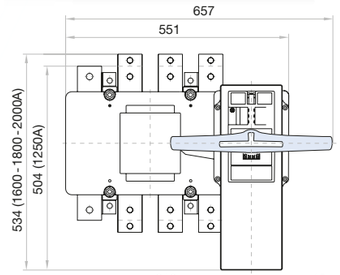


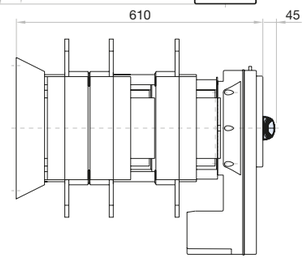
S5B size 3 + UM





S5B size 4 + UM





Technical information

According to IEC 60947-3

UM

Voltage supply		120 Vac *(2)	230 Vac *(2)
Operating voltage range *(3)	ΔV	0,95*V to 1,10*V	
Cable of voltage supply	mm²	1,5 - 2,5	1,5 - 2,5
Cable section area Input & MODBUS Signals	mm²	0,5 - 1,5	0,5 - 1,5
Cable section area Outputs	mm²	0,5 - 1,5	0,5 - 1,5
Inrush Current	A	11	11
Nominal Current during operation	A	7,5	3,9
Use current (Irms)	A	0,041	0,041
Use current (Imax)	A	0,275	0,275
Protection Fuse | Reference F4AL250V (Littelfuse)	A	4	4
Operating time	s	0,166	0,15
Number of UM operations S5B size 2	Cycles	Consult	Consult
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	Consult	Consult
Number of UM operations S5B size 3	Cycles	Consult	Consult
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	Consult	Consult
Number of UM operations S5B size 4	Cycles	-	600
Operations frecuency (0-I-0-II-0) *(4)	Cycles/hour	-	20
Working temperature range	Tª 85%Un	- 25ºC ... + 55ºC	
	Tª 115%Un	- 25ºC ... + 55ºC	
Transportation and storage temperature		- 40ºC ... + 70ºC	
UM weight	Kg	4,4	

*(1) UM Kit code is related to the code of switch from its section depending on size and it is for normal mounting.
For different type of mounting or different code of switch or UM Kit please consult.

*(2) For DC values, consult please.

*(3) Operating voltage range for the reference UM-C44230M is 0,9*V to 1,10*V.

*(4) According to IEC 60947-3.

*(5) For inverted mounting there are references for UM with inverted frontal plates. Supply under request.
There are by-pass S5B versions without 0 - OFF "overlapped":
S5B "overlapped" (I - I + II - II) = S5S_ _ _ _. Consult.

EMC table (Electromagnetic compatibility)

Emission

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Unwanted voltage	EN 55011	150kHz-30MHz	N.A.	N.A.	N.A.	C
Radiated emission	EN 55011	30MHz-1GHz	N.A.	N.A.	N.A.	C
Emission of harmonic current	EN 61000-3-2	0,02A 0-2kHz	N.A.	N.A.	N.A.	C
Flicker	EN 61000-3-3	0-2kHz	N.A.	N.A.	N.A.	C

Inmunity

Test	Standard	Frequency range	Level	According to criterion	Criterion (test)	Result
Electrostatic discharges	EN 61000-4-2	Special, A +/- 8KV air discharge	SPECIAL	B	A	C
Electromagnetic H.F. field	EN 61000-4-3	10V/m De 80MHz a 2,7 Ghz	SPECIAL	A	A	C
Fast transients (Burst)	EN 61000-4-4	+/-2KV power supply +/- 1KV signal supply Rep 5kHz - 2min	3	B	A	C
Fast transient (surge discharge)	EN 61000-4-5	+/-4KV power supply Generator impedance 2Ω Wave 1,2/50µs	5	B	A	C
Conducted disturbances	EN 61000-4-6	10V supply and signal 0,15-80MHz	3	A	A	C
Electromagnetic field, industrial frequency	EN 61000-4-8	Field intensity 30A/m	4	A	A	C
Voltage dips, interruptions and voltage variations	EN 61000-4-11	N.A.	100% Un - 10ms	B	A	C
		N.A.	100% Un - 20ms	B	A	C
		N.A.	60% Un - 200ms	C	A	C
		N.A.	30% Un - 500ms	C	A	C
		N.A.	20% Un - 5000ms	C	A	C
		N.A.	100% Un - 5000ms	C	C	C

CRITERION A: Normal service behaviour in determined limits
CRITERION B: Transient alteration of the service. The appliance gets back to the normal performing without the intervention of the operator
Test level 3: Typical industrial environment, without special installation measures
Test level 4: Severe industrial environment
Special level: Level of higher electromagnetic severe environment

series ZFC|ZFV

series S5 DC|S5M DC|S5N DC

series S6 DC|S6N DC|S6R DC

DC Switch - disconnectors

DC switch – disconnectors with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in different construction models, with a wide range of currents in different DC voltages and a variety of accessories.

According to:
IEC 60947-1 y 3
UL508i
UL98B
RoHS

Testing and approvals:



The DC switch – disconnectors in its different series, are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a sandwich-type body containing self-cleaning blade type contacts, with pre-arc zones to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life. The jump mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

The switch - disconnectors S6 DC do not require external bridging links; thus reducing installation time and simplifying subsequent maintenance operations.

Functional and ergonomic handle

- Good grip and excellent torque/ resistance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I** position
- When lock in **O OFF** position, door is interlocked
- Defeteable feature in **ON I** position (with the use of a tool for maintenance operations). Handle interlock is restored when closing
- Self-centering shaft for door handle

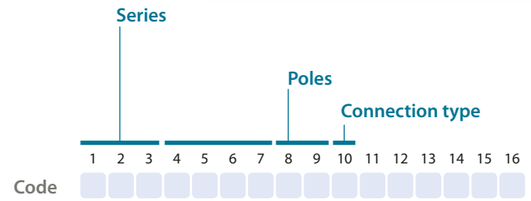


Relevant characteristics for photovoltaic installations

- Ui (V) Rated insulation voltage 1000 Vdc.
- Uoc (V) Open circuit voltage of the photovoltaic system.
- Uef (V) Photovoltaic installation functioning voltage on load.
- Ief (A) Installation working current under load.
- Isc (A) Short-circuit current of the photovoltaic installation.
- In certain places of Pv Systems, inductive component must be considered (cables, inverter, etc.).
- The sizing of the switch must be done considering open circuit voltage as maximum operation voltage.
- It is necessary to comply with:
  Ui ≥ Uoc
  We recommend to set Ui between 10 and 15% over Uoc.
  Ue ≥ Uef
  Ie ≥ Ief
  Ie ≥ Isc

Range codification:

The DC **ZFC|ZFV|S5|S5M|S5N|S6|S6N|S6R** series, are identified by a code that describes their most important characteristics as described below.



series ZFC|ZFV



IP66

1 2 3 4 5 6
Z F C

1 2 3 4 5 6
Z F V

Small design.
Base mounting by screws or DIN rail.
Non polarized.
Up to 1500Vdc.

series S5 DC



1 2 3 4 5 6
S 5 -

Wide range of currents.
Base mounting by screws.
Non polarized.
Up to 1000Vdc.

series S5M DC



1 2 3 4 5 6
S 5 M

Back to back with operating mechanism in side, arrangement to increase the number of available contacts.
Base mounting by screws.
Non polarized.
4P+4P 1000Vdc.
4P+4P 1500Vdc.

series S5N DC



1 2 3 4 5 6
S 5 N

Back to back with operating mechanism in front, arrangement to increase the number of available contacts.
Base mounting with screws. External or direct handles.
Non polarized.
4P+4P 1000Vdc.
4P+4P 1500Vdc.

series ZFC|ZFV



IP67

1 2 3 4 5 6
Z F C

1 2 3 4 5 6
Z F V

ZFV plastic enclosed switch.
Non polarized.
Up to 1500Vdc.

series S6 DC



1 2 3 4 5 6
S 6 -

Wide range of currents.
Different configurations to choose.
Base mounting by screws.
Non polarized.
Up to 1000Vdc.

series S6N DC



1 2 3 4 5 6
S 6 N

Back to back arrangement.
Different configurations to choose.
Base mounting by screws.
Non polarized.
Up to 1500Vdc.

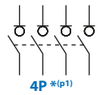
series S6R DC

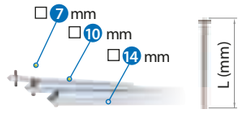


1 2 3 4 5 6
S 6 R

Back to back arrangement.
Different configurations to choose.
Base mounting by screws.
Non polarized.
1500Vdc.

SERPA TEC
PATENTED TECHNOLOGY











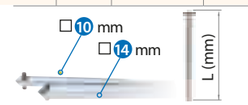
S5 DC / S5N DC — S5 switches 4 poles (40 - 3150A) (O - I)

KIT UM MOTORIZED HANDLE AVAILABLE SEE PAGE 192


S5 DC


S5N DC

Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	4 pole (4P) *(p1) Code	External*(1) Code	Direct Code	Size	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)	Bridging links *(p1)	Code	Auxiliary contacts *(5) 1NO+1NC Code	Auxiliary contacts *(5) 2NO+2NC Code	Terminal protection Connection	Terminal protection Code	Terminal shrouds (2 units) *(4) Code	Full details in page
4P *(p1)																		
900V DC21B	40	0		S5-01604PB0	DS-SA01	DS-SI01	0	7	250	DS-EP04		DS-PI05	D5LAU01	D5LAU02		DS-CU01	-	216
	40			S5-01604PS0					387	DS-EP05		DS-PI01						
1000V DC21B	100	1		S5-01254PR0	DS-SA11	DS-SI11	1	10	375	DS-EP14		DS-PI11	D5LAU01	D5LAU02		DS-CU12	DS-CU10	218
	160			S5-02004PR0								DS-PI11					DS-CU11	
	250			S5-03154PR0					536	DS-EP15		DS-PI11					DS-CU18	
	400			S5-04004PC0								DS-PI14					DS-CU19	
	500	2		S5-06304PR0	DS-LA21	DS-LI21	2	14	345	DS-EP23		DS-PI21	D5LAU01	D5LAU02	-	DS-CU22	DS-CU20	220
	630			S5-06302ER0					535	DS-EP24		DS-PI2D				-	DS-CU21 DS-CU28 DS-CU29	
	850	3		S5-12504PC0	DS-LA31	DS-LI31	3	14	345	DS-EP23		DS-PI31	D5LAU01	D5LAU02	-	-	DS-CU30	222
	1250			S5-12502EC0					535	DS-EP24		DS-PI3D					DS-CU31 DS-CU38 DS-CU39	
	1250	4		S5-18004PS0	DS-LA41	DS-LI41	4	14	485	DS-EP44		DS-PI41 (S5-18004PS0)	D5LAU01	D5LAU02	-	-	DS-CU40	224
	1800			S5-18002ES0													DS-CU41	
	2000			S5-20002ED0					635	DS-EP45		DS-PI4D (S5-18002ES0 - S5-20002ED0)					DS-CU48 DS-CU49	
4P + 4P *(p1)																		
	2000	5 (S5N)		S5N20002ES0	DS-LA41	DS-LI41	5 (S5N)	-	-	-		DS-PI51 + D5LPC45	D5LAU01	D5LAU02	-	-	-	232
	2500			S5N25002ES0	DS-LA41	DS-LI41			-	-		DS-PI51 + D5LPC45						
	3150			S5N31502ES0	DS-LA41	DS-LI41						DS-PI4D + D5LPC45 (x2)						





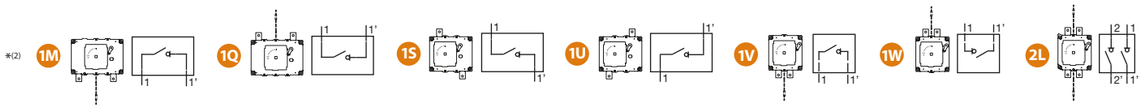


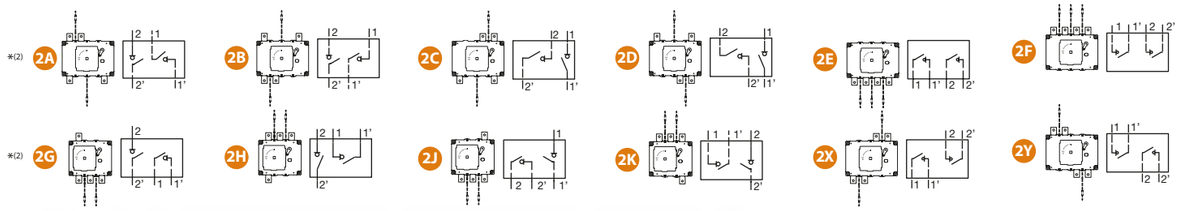


S6 DC — S6 switches 1 or 2 poles (125 - 630A) (O - I)


S6 DC

Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Diagram *(2) Code	External*(1) Code	Direct Code	Size	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)	Auxiliary contacts *(5) 1NO+1NC Code	Auxiliary contacts *(5) 2NO+2NC Code	Safety key lock device *(6) Simple Code *(e1)	Safety key lock device *(6) Double Code *(e1)	Spacers (4 units) Code	Terminal lug (2 units) Code	Terminal shrouds (1 unit) *(4) Code	Phase barriers 1 unit Code	Phase barriers 2 units Code	Phase barriers 3 units Code	Full details in page
1P 2P *(2)																					
500 Vdc 750Vdc DC21B 1000Vdc	125	1		S6-0125__S0	DS-SA11	DS-SI11	1	10	375	DS-EP14	D5LAU01	D5LAU02	DS-CA11	DS-CE11	DR-EL11	-	DR-CU11	DR-CU12	DR-CU13	DR-SF11	DR-SF12	DR-SF13	234
	160			S6-0160__S0																	
	200			S6-0200__S0					536	DS-EP15											
	250			S6-0250__S0																	
	315			S6-0315__S0																	
	400			S6-0400__D0																	
	500	2		S6-0500__S0	DS-LA21	DS-LI21	2	14	345	DS-EP23	D5LAU01	D5LAU02	DS-CB21	DS-CF21	DR-EL21	-	DR-CU21	DR-CU22	DR-CU23	DR-SF21	DR-SF22	DR-SF23	238
	630			S6-0630__S0					535	DS-EP24											
500 Vdc 750Vdc UL98B 1000Vdc	250	1		S6-0250__S00L	DS-SA11	-	1	10	375	DS-EP14	D5LAU01	D5LAU02	-	-	DR-EL11	DR-TL11	DR-CU11	DR-CU12	DR-CU13	DR-SF11	DR-SF12	DR-SF13	236
									536	DS-EP15											
	400	2		S6-0400__S00L	DS-LA21	-	2	14	345	DS-EP23	D5LAU01	D5LAU02	-	-	DR-EL21	DR-TL22	DR-CU21	DR-CU22	DR-CU23	DR-SF21	DR-SF22	DR-SF23	240
									535	DS-EP24											

*(2) 

*(2) 

ZFC DC — DIN rail base mounting switches with direct handle - compact model 2 poles (16 - 25 A) (O - I)



Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Code	Full details in page
2P					
1500 V DC21B	16	00		ZFC16SMAH1NA4O	214
	25			ZFC25SMAH1NA4O	



ZFC DC ZFV DC — DIN rail base mounting switches with direct handle - compact model 2 poles (16 - 55 A) (O - I)



Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Code	Full details in page
2P					
1500 V DC21B	16	00		ZFC16VZVH4A4O	214
	25			ZFC25VZVH4A4O	
	32			ZFV32VZVH4A4O	
	40			ZFV40VZVH4A4O	
	55			ZFV55VZVH4A4O	

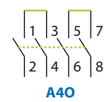
*(1) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool).
Door interlock by a padlock in OFF 0 position.
*(2) To complete the code according the specific diagram for IEC or UL versions and the possibility or not of grounding, see the full details pages of this catalogue. If you have any doubt about this, please do not hesitate to consult us.
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. See the full details pages of this catalogue, to choose the configuration needed and the possibility or not of grounding. If you have any doubt about this, please do not hesitate to consult us.

Please indicate in your order the switch code and the handle code, as these both products are managed separately.
A standard shaft is included with the handle.

ZFV DC — DIN rail base mounting switches with direct handle 2 poles (32 - 55 A) (O - I)



Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Code	Full details in page
2P					
1500 V DC21B / DC-PV1	32	00		ZFV32SMAH1A4O	214
	40			ZFV40SMAH1A4O	
	55			ZFV55SMAH1A4O	



ZFC DC ZFV DC — Plastic enclosed switches IP67 2 poles (16 - 55 A) (O - I)



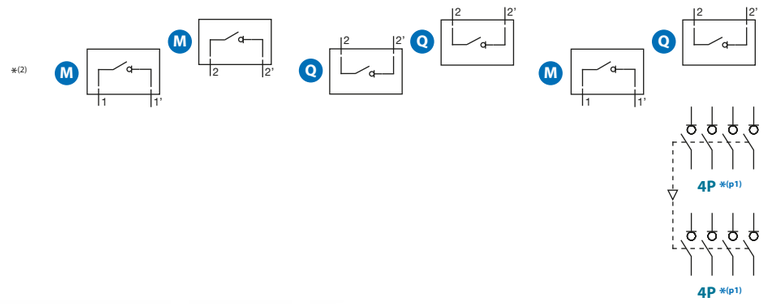
Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Code	Full details in page
2P					
1000 Vdc DC21B	16	00		ZFC16PFLH4A4O	214
	32			ZFV32PFLH4A4O	
	55			ZFV55PFLH4A4O	

*(3) A standard shaft is included with the external handle.
*(4) One set for input or output. Only for switches . See catalogue to choose the combination required.
*(5) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac.
Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.
*(6) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.
Interlocking in other positions available upon request.
*(e1) All these codes are related to the new handle , in case of replacements for old design handles, please consult.

S6N DC | S6 switches 2 poles (125 - 400A) (O - I)

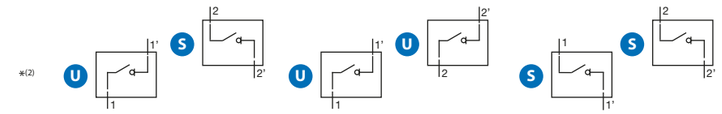

S6N DC

	Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	2P *(2) Code MM	Code QQ	Code MQ	Code US	Code UU	Code SS
2P *(2)	1500V DC21B	125	1		S6N0125MMS0	S6N0125QQS0	S6N0125MQS0	S6N0125USS0	S6N0125UUS0	S6N0125SSS0
		160			S6N0160MMS0	S6N0160QQS0	S6N0160MQS0	S6N0160USS0	S6N0160UUS0	S6N0160SSS0
		200			S6N0200MMS0	S6N0200QQS0	S6N0200MQS0	S6N0200USS0	S6N0200UUS0	S6N0200SSS0
		250			S6N0250MMS0	S6N0250QQS0	S6N0250MQS0	S6N0250USS0	S6N0250UUS0	S6N0250SSS0
		315			S6N0315MMS0	S6N0315QQS0	S6N0315MQS0	S6N0315USS0	S6N0315UUS0	S6N0315SSS0
		400			S6N0400MMD0	S6N0400QQD0	S6N0400MQD0	S6N0400USD0	S6N0400UUD0	S6N0400SSD0



Manual handle

Size	External *(1) Code	Direct Code
1	DS-SA11	DS-SI11



Auxiliary contacts *(2)

1NO+1NC Code	2NO+2NC Code	Full details in page
D5LAU01	D5LAU02	242
		244


3 units, 2 units, 2 units, 4 units, 2 units



S5M DC | S5N DC | S5 switches 4+4 poles (500 - 1800 A) (O - I)

KIT UM — MOTORIZED HANDLE AVAILABLE, PLEASE CONSULT


S5M DC


S5N DC

	Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	4P + 4P *(p1) Code	External *(1) Code	Direct Code
4P + 4P *(p1)	1500V DC21B	500	2		S5M063044R0	DS-LA22	DS-LI22
		630	2		S5M080044C0	DS-LA22	DS-LI22
		800	3		S5M080044R0	DS-LA41	DS-LI41
		1000	3		S5M125044C0	DS-LA41	DS-LI41
		1250	4 (S5N)		S5N160044S0	DS-LA41	DS-LI41
		1800	4 (S5N)		S5N180044S0	DS-LA41	DS-LI41
	1000V DC21B	2000	5 (S5N)		S5N20002ES0	DS-LA41	DS-LI41
		2500	5 (S5N)		S5N25002ES0	DS-LA41	DS-LI41
		3150	5 (S5N)		S5N31502ES0	DS-LA41	DS-LI41

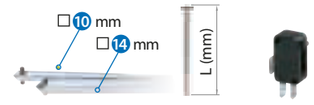
Manual handle

Bridging links *(p1)

Size		Code
2		DS-PI230L
2		DS-PI2D
3		DS-PI3D
4 (S5N)		DS-PI430U
4 (S5N)		DS-PI4D
5 (S5N)		DS-PI51 + D5LPC45
5 (S5N)		DS-PI51 + D5LPC45
5 (S5N)		DS-PI4D + D5LPC45 (x2)

Auxiliary contacts *(2)

1NO+1NC Code	2NO+2NC Code	Full details in page
DS-AU11	DS-AU12	226
DS-AU11	DS-AU12	228
D5LAU01	D5LAU02	230
D5LAU01	D5LAU02	232



S6R DC | S6 switches 1 or 2 poles (160 - 400A) (O - I)


S6R DC

	Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	2P *(2) Code BC	Code CB
1P 2P *(2)	1500Vdc IEC	160	1		S6R0160BCS0	S6R0160CBS0
		200	1		S6R0200BCS0	S6R0200CBS0
		250	1		S6R0250BCS0	S6R0250CBS0
		315	1		S6R0315BCS0	S6R0315CBS0
		400	1		S6R0400BCS0	S6R0400CBD0
	1500Vdc UL98B	250	1		S6R0250BCS00L	S6R0250CBS00L
		320	1		S6R0320BCS00L	S6R0320CBS00L
		400	1		S6R0400BCD00L	S6R0400CBD00L

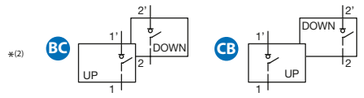
Manual handle

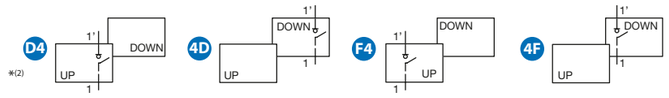
Shaft extensions *(4)

Auxiliary contacts *(2)

Size	1P *(2) Code D4	Code 4D	Code F4	Code 4F	Panel *(3) Code	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)	1NO+1NC Code	2NO+2NC Code	Full details in page
1	S6R0160D4S0	S6R01604DS0	S6R0160F4S0	S6R01604FS0	DS-SA11	10	375	DS-EP14	D5LAU01	D5LAU02	246
1	S6R0200D4S0	S6R02004DS0	S6R0200F4S0	S6R02004FS0							
1	S6R0250D4S0	S6R02504DS0	S6R0250F4S0	S6R02504FS0							
1	S6R0315D4S0	S6R03154DS0	S6R0315F4S0	S6R03154FS0							
1	S6R0400D4D0	S6R04004DD0	S6R0400F4D0	S6R04004FS0			536	DS-EP15			
1	S6R0250D4S00L	S6R02504DS00L	S6R0250F4S00L	S6R02504FS00L							
1	S6R0320D4S00L	S6R03204DS00L	S6R0320F4S00L	S6R03204FS00L							248
1	S6R0400D4D00L	S6R04004DD00L	S6R0400F4D00L	S6R04004FD00L							

SERPA TEC — PATENTED TECHNOLOGY





*(1) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.

*(2) See the full details pages in this catalogue to see the possibility or not of grounding the switch selected. If you have any doubt about this, please do not hesitate to consult us.

*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. See the full details pages of this catalogue, to choose the configuration needed and the possibility or not of grounding. If you have any doubt about this, please do not hesitate to consult us.

Please indicate in your order the switchh code and the handle code, as these both products are managed separately. A standard shaft is included with the handle.

*(2) To be used as signalling or control contacts – Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac. Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.

*(3) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.

*(4) A standard shaft is included with the external handle.

*(e1) All these codes are related to the new handle, in case of replacements for old design handles, please consult.

series ZFC|ZFV

ZFC | ZFV
Switch - disconnector for DC current 2P

Size 00

A 16|25|32|40|55

600 - 1000 - 1500 Vdc



CODE 2P	
16A	ZFC16SMAH1NA4O
25A	ZFC25SMAH1NA4O
32A	ZFV32SMAH1A4O
40A	ZFV40SMAH1A4O
55A	ZFV55SMAH1A4O

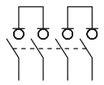


CODE 2P	
16A	ZFC16VZVH4A4O
25A	ZFC25VZVH4A4O
32A	ZFV32VZVH4A4O
40A	ZFV40VZVH4A4O
55A	ZFV55VZVH4A4O



IP67

CODE 2P	
16A	ZFC16PFLH4A4O
25A	-
32A	ZFV32PFLH4A4O
40A	-
55A	ZFV55PFLH4A4O



2P

CONSULT FOR GROUNDED INSTALLATIONS

Technical information

According to IEC 60947-3
DC-PV1
UL508i

IEC 60947-3

						ZFC16	ZFC25	ZFV32	ZFV40	ZFV55
Rated operational current	Ie 2 Poles in series	IEC	1000 Vdc	A		9 DC21A	11 DC21A	13 DC21B	29 DC21B	36 DC21B
			1500 Vdc	A		3 DC21A	4 DC21A	6 DC21B	7,5 DC21B	10 DC21B
	Ie 4 Poles in series	IEC	1000 Vdc	A		16 DC21A	25 DC21A	32 DC21B	40 DC21B	55 DC21B
			1500 Vdc	A		16 DC21A	20 DC21A	32 DC21B	40 DC21B	55 DC21B
	Ie 2 Poles in series	IEC	1000 Vdc	A		10 DCPV1	11,5 DCPV1	13 DCPV1	29 DCPV1	36 DCPV1
			1500 Vdc	A		3 DCPV1	5 DCPV1	6 DCPV1	7,5 DCPV1	10 DCPV1
	Ie 4 Poles in series	IEC	1000 Vdc	A		16 DCPV1	25 DCPV1	32 DCPV1	40 DCPV1	55 DCPV1
			1500 Vdc	A		16 DCPV1	25 DCPV1	32 DCPV1	40 DCPV1	55 DCPV1
Rated conditional short-circuit current				kAeff		5	5	5	10	10
Max. fuse size			gL (gG)	A		40	63	80	125	160
Maximum cable cross sections (included jumper)										
Solid or stranded				mm^2		1,5 - 10	1,5 - 10	4 - 16	2,5 - 25	2,5 - 25
Flexible				mm^2		1,5 - 6	1,5 - 6	4 - 10	2,5 - 16	2,5 - 16
Flexible (+ multicore cable end)				mm^2		1,5 - 6	1,5 - 6	4 - 10	1,5 - 16	1,5 - 16
Size of terminal screw						M3,5 Pz1	M3,5 Pz1	M4 Pz2	M5Pz2	M5Pz2
Tightening torque				Nxm		1,4	1,4	1,7 - 1,8	2,5 - 2,8	2,5 - 2,8

UL508i LISTED E362647

						ZFC16	ZFC25	ZFV32	ZFV40	ZFV55
Ampere-Rating "General use"	2 Poles in series	UL	600 Vdc	A		16	25	32	40	55
			1000 Vdc	A		-	-	-	16	20
	4 Poles in series	UL	600 Vdc	A		16	25	32	40	55
			1000 Vdc	A		-	-	-	40	55
Fuse size (RK5) Industrial Control Switch	5 kA / 600 V			A		40	60	80	-	-
Fuse size (RK5) Industrial Control Switch	5 kA / 1000 V			A		-	-	-	160	160
Maximum cable cross sections (included jumper)										
Solid or stranded				AWG		16 - 10	16 - 10	12 - 10	16 - 10	16 - 10
Flexible				AWG		20 - 6	20 - 6	12 - 6	14 - 4	14 - 4
Flexible (+ multicore cable end)				AWG		20 - 6	20 - 6	12 - 6	- -	- -
Size of terminal screw						M3,5 Pz1	M3,5 Pz1	M4 Pz2	M5Pz2	M5Pz2
Tightening torque				Nxm		1,7 - 1,8	1,7 - 1,8	1,7 - 1,8	2,5 - 2,8	2,5 - 2,8

series ZFC|ZFV

Accessories

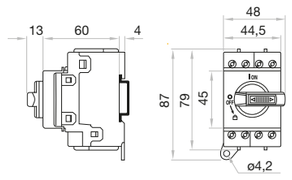


» **Insulated bridging links** included

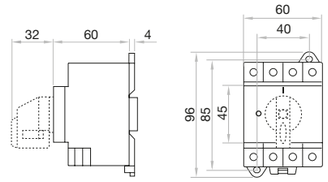
CODE ZTC-B1 16-25 A
ZFV-B1 32 A
ZFV-B2 40-55 A

Dimensions (mm)

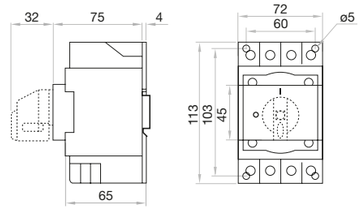
ZFC16-25



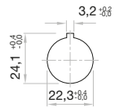
ZFV32

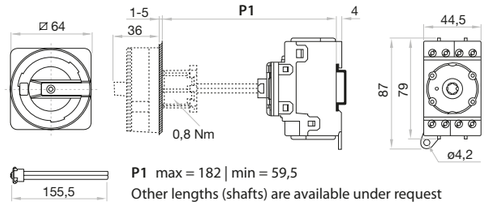


ZFV-40-55



ZFC16-25 Door drilling for external handle

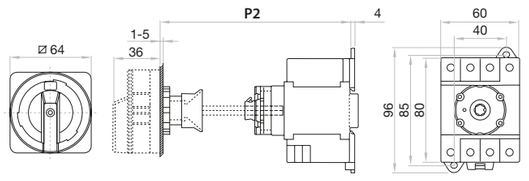




P1 max = 182 | min = 59,5
Other lengths (shafts) are available under request

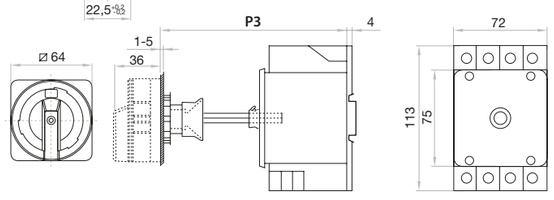
ZFV32 Door drilling for external handle





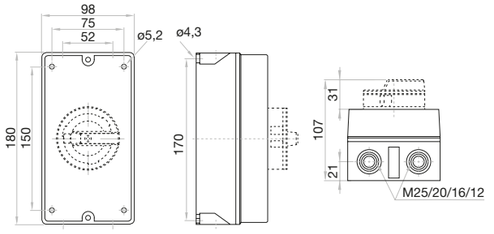
P2 max = 150 | min = 89
Other lengths (shafts) are available under request

ZFV40-55

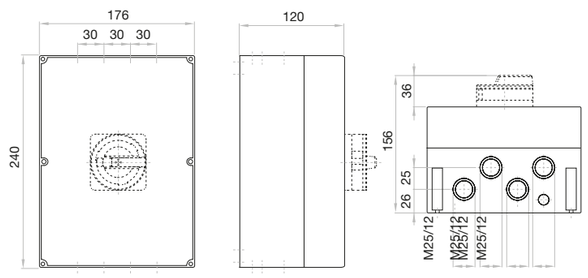


P3 max = 194 | min = 103
Other lengths (shafts) are available under request

ZFC16 - ZFV32



ZFV55



series S5 DC

S5 DC
Switch - disconnector for DC current 4P

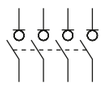
Size 0
A 40
900 Vdc



CODE - 40A
S5-01604PB0



CODE - 40A
S5-01604PS0



Technical information

According to IEC 60947-1
IEC 60947-3

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

				40
Rated thermal current in ambient at	Ith 40° C		A	40
	50° C		A	40
	60° C		A	40
Rated insulation voltage DC20	Ui		V	1000
Rated impulse withstand voltage	Uimp		kV	8
Rated operational current *(1) DC21B	Ie	Ue		
		900 Vdc	A	40

*(1) Other voltages and / or utilization categories. Please consult

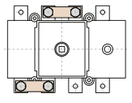
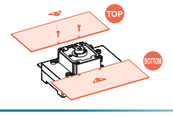
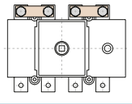
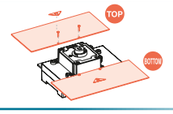
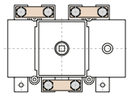
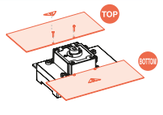
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Short - circuit behaviour

Short - circuit making capacity *(2)	Icm	kA (peak)	13
Rated short-time withstand current (1sec.)	Icw	kA rms	7
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000
Maximum weight (without bridging links)		Kg	1

CONSULT FOR GROUNDED INSTALLATIONS

Connection diagram

	Connection diagram	Bridging links*(p1)	Terminal protection
A			
B			
C			

series S5 DC

Accessories



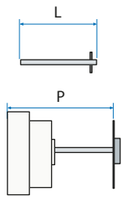
Direct handle
CODE DS-SI01



External handle included shaft *(e1)
IP65
CODE DS-SA01



External handle without shaft
IP65
CODE DS-SA03



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
177	87... 197,5

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
250	87... 278	DS-EP04

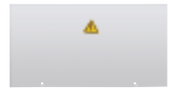
Type 2

L (mm)	P (mm)	CODE
387	87... 415	DS-EP05



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal protection
CODE DS-CU01
(1 unit for input or output)



Bridging links*(p1)
A B CODE DS-PI05 (2 units)
A B CODE DS-PI01 (2 units)
C CONSULT

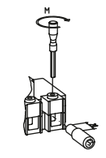
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.



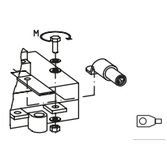
DIN rail mounting
CODE DS-DN01
(1 kit)

Dimensions (mm)

Door drilling for external handle



S max (Cu) mm²	M Nxm
95	4



S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
95	5	25	M8	13

series S5 DC

S5 DC
Switch - disconnector for DC current 4P

Size 1

A 100|160|250|400

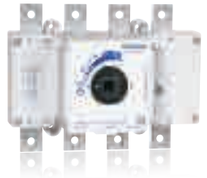
1000 Vdc



CODE - 100A S5-01254PR0



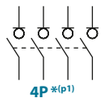
CODE - 160A S5-02004PR0



CODE - 250A S5-03154PR0



CODE - 400A S5-04004PC0



4P *(p1)

Technical information

CE IEC IECEE consult EAC UL consult CCC consult

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC 60947-1
IEC 60947-3

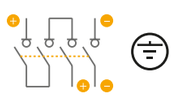
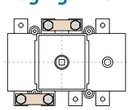
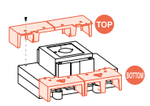
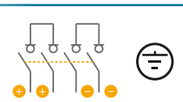
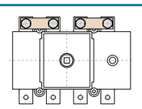
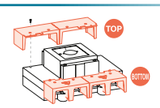
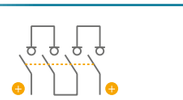
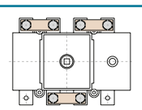
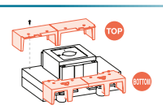
				100	160	250	400
Rated thermal current in ambient at	Ith	40° C	A	125	200	315	400
		50° C	A	125	200	315	400
		60° C	A	125	200	280	320
Rated insulation voltage DC20	Ui		V	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp		kV	8	8	8	8
Rated operational current *(1) DC21B	Ie	Ue					
		1000 Vdc	A	100	160	250	400

Short - circuit behaviour			100	160	250	400
Short - circuit making capacity *(2)	Icm	kA (peak)	20	20	20	20
Rated short-time withstand current (1sec.)	Icw	kA rms	12	12	12	12
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	10000	8000	8000	5000
Maximum weight (without bridging links)		Kg	1,9	1,9	1,9	2,1

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

CONSULT FOR GROUNDED INSTALLATIONS

Connection diagram

	Connection diagram	Bridging links*(p1)	Terminal shrouds
A			
B			
C			

series S5 DC

Accessories



Direct handle
CODE DS-SI11



External handle included shaft *(e1)
IP65
CODE DS-SA11



External handle without shaft
IP65
CODE DS-SA14



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal protection
CODE DS-CU12
(1 unit for input or output)



Terminal shrouds (2 units)

	A	B	C
TOP	DS-CU18	DS-CU10	DS-CU10
BOTTOM	DS-CU19	DS-CU11	DS-CU18



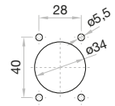
Bridging links*(p1)
A B CODE DS-PI11 (2 units)
A B CODE DS-PI14 (2 units)

C CODE CONSULT

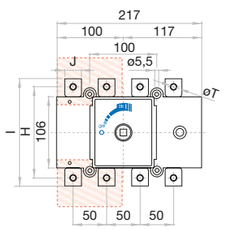
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

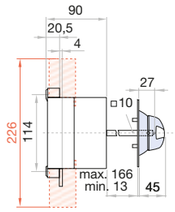
Dimensions (mm)

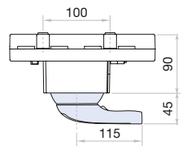
Door drilling for external handle

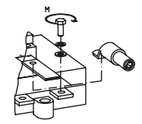


	H	I	J	øT
100 A 160 A	130	150	20	M8
250 A	143	167	25	M10

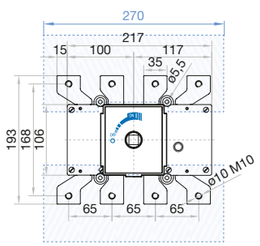


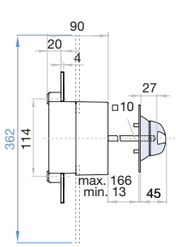


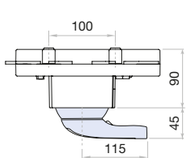


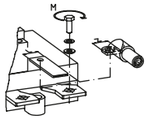


	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm	M	Nxm
100 A				M8	13
160 A	185	7	25		13
250 A				M10	18









	S max (Cu) mm²	Z max	H max (Cu) mm	L max (Cu) mm		M	Nxm
400 A	240	44	7	40		M10	24

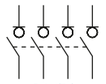
series S5 DC

S5 DC
Switch - disconnector for DC current 4P

Size 2
A 500|630
1000 Vdc



CODE - 500A S5-06304PR0
CODE - 630A S5-06302ER0



4P *(p1)

Technical information

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC 60947-1
IEC 60947-3

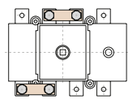
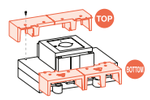
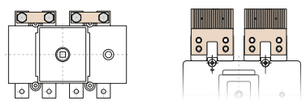
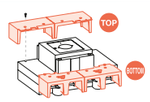
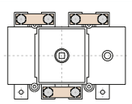
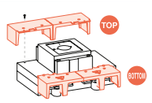
				500	630
Rated thermal current in ambient at	Ith	40° C	A	500	630
		50° C	A	500	630
		60° C	A	400	500
Rated insulation voltage DC20	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current *(1) DC21B	Ie	Ue 1000 Vdc	A	500	630

Short - circuit behaviour			500	630
Short - circuit making capacity *(2)	Icm	kA (peak)	26	26
Rated short-time withstand current (1sec.)	Icw	kA rms	16	16
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000
Maximum weight (without bridging links)		Kg	4,5	4,5

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

CONSULT FOR GROUNDED INSTALLATIONS

Connection diagram

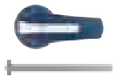
	Connection diagram	Bridging links*(p1)	Terminal shrouds
A			
B			
C			

series S5 DC

Accessories



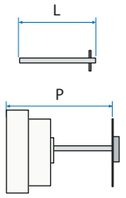
Direct handle
CODE DS-LI21



External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal protection
CODE DS-CU22
(1 unit for input or output)



Terminal shrouds (2 units - only for 500A))

	A	B	C
TOP	DS-CU28	DS-CU20	DS-CU20
BOTTOM	DS-CU29	DS-CU21	DS-CU28



Bridging links*(p1)

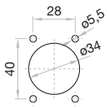
A B 500A CODE DS-PI21 (2 units)
C CODE CONSULT

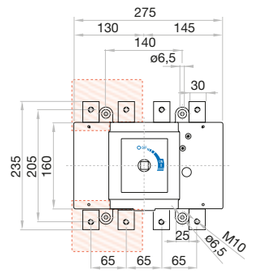
B 630A CODE DS-PI2D (2 units)

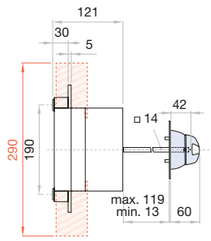
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

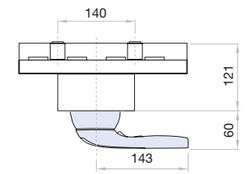
Dimensions (mm)

Door drilling for external handle

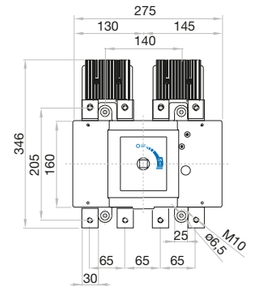


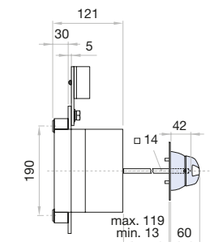


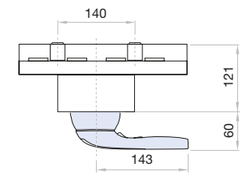




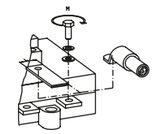
500 A







630 A



	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
500 A	2x240	2x5	40	M10	24
630 A			50		

series S5 DC

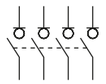
S5 DC
Switch - disconnector for DC current 4P

Size 3
A 850|1250
1000 Vdc



CODE - 850A
S5-12504PC0

CODE - 1250A
S5-12502EC0



4P*(p1)

Technical information

tests:

AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC 60947-1
IEC 60947-3

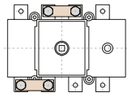
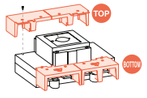
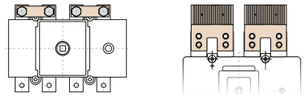
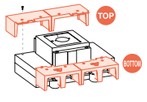
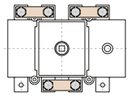
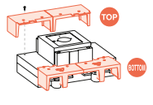
				850	1250
Rated thermal current in ambient at	Ith	40° C	A	850	1250
		50° C	A	850	1250
		60° C	A	700	1000
Rated insulation voltage DC20	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current *(1) DC21B	Ie	Ue 1000 Vdc	A	850	1250

Short - circuit behaviour			850	1250
Short - circuit making capacity *(2)	Icm	kA (peak)	60	60
Rated short-time withstand current (1sec.)	Icw	kA rms	25	25
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000	3000
Maximum weight (without bridging links)		Kg	7,6	7,6

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

CONSULT FOR GROUNDED INSTALLATIONS

Connection diagram

	Connection diagram	Bridging links*(p1)	Terminal shrouds
A			
B			
C			

series S5 DC

Accessories



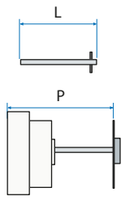
Direct handle
CODE DS-LI31



External handle included shaft*(e1)
IP65
CODE DS-LA31



External handle without shaft
IP65
CODE DS-LA33



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
186	145... 242

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	145... 411	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	145... 600	DS-EP24



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds (2 units - only for 850A)

	A	B	C
TOP	DS-CU38	DS-CU30	DS-CU30
BOTTOM	DS-CU39	DS-CU31	DS-CU38



Bridging links*(p1)

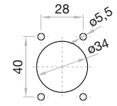
A B 850A CODE DS-PI31 (2 units)
C CODE CONSULT

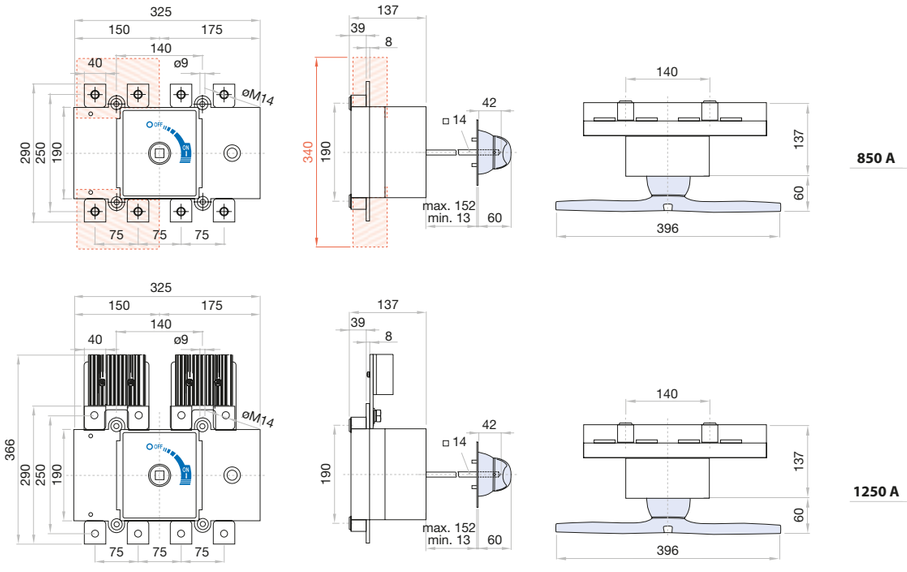
B 1250A CODE DS-PI3D (2 units)

*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

Dimensions (mm)

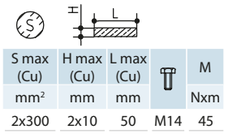
Door drilling for external handle





850 A

1250 A

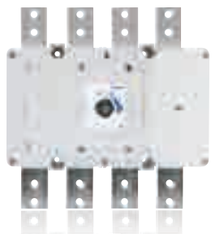


S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
2x300	2x10	50	M14	45

series S5 DC

S5 DC
Switch - disconnector for DC current 4P

Size 4
A 1250|1800|2000
1000 Vdc

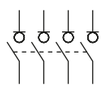


CODE - 1250A
S5-18004PS0



CODE - 1800A
S5-18002ES0

CODE - 2000A
S5-20002ED0



4P*(p1)

Technical information

According to IEC 60947-1
IEC 60947-3

consult | consult | consult

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

				1250	1800	2000
Rated thermal current in ambient at	Ith 40º C	A		1250	1800	2000
	50º C	A		1250	1620	1800
	60º C	A		1250	1400	1600
Rated insulation voltage DC20	Ui	V		1500	1500	1500
Rated impulse withstand voltage	Uimp	kV		12	12	12
Rated operational current *(1) DC21B	Ie	Ue				
		1000 Vdc	A	1250	1800	2000

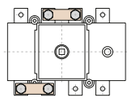
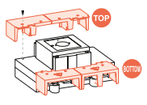
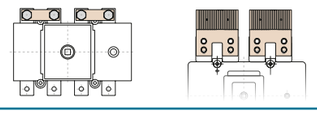
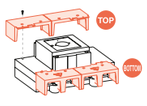
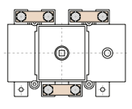
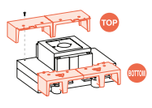
*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

			1250	1800	2000
Short - circuit behaviour					
Short - circuit making capacity *(2)	Icm	kA (peak)	60	60	60
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000	3000	3000
Maximum weight (without jumpers)		Kg	20,8	20,8	20,8

DO NOT USE IN GROUNDED INSTALLATIONS

Connection diagram

	Connection diagram	Bridging links*(p1)	Terminal shrouds
A S5-18004PS0			
B S5-18004PS0 S5-18002ES0 S5-20002ED0			
C S5-18004PS0			

series S5 DC

Accessories



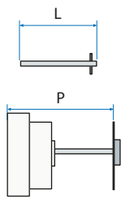
Direct handle
CODE DS-LI41



External handle included shaft*(e1)
IP65|UL50E/NEMA 250
Types: 1, 3R, 4, 4X y 12
CODE DS-LA41



External handle without shaft
IP65|UL50E/NEMA 250
Types: 1, 3R, 4, 4X y 12
CODE DS-LA43



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	235... 400

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
485	235... 686	DS-EP44

Type 2

L (mm)	P (mm)	CODE
635	235... 836	DS-EP45



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal shrouds (2 units)

	A	B	C
TOP	DS-CU48	DS-CU40	DS-CU40
BOTTOM	DS-CU49	DS-CU41	DS-CU48



Bridging links*(p1)
For S5-18004PS0 A B CODE DS-PI41 (2 units)
C CONSULT

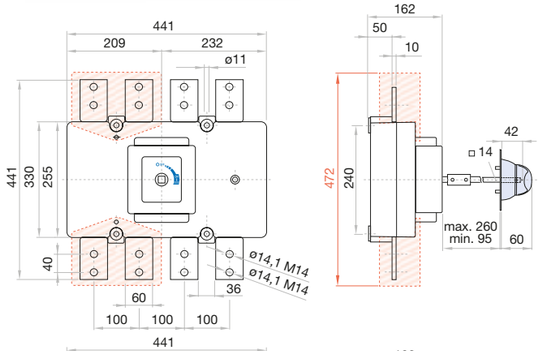


For S5-18002ES0 S5-20002ED0 B CODE DS-PI4D (2 units)
C CONSULT

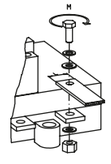
*(p1) To meet the operation and electrical features, the product installed must be incorporate these bridging links. Please consult.

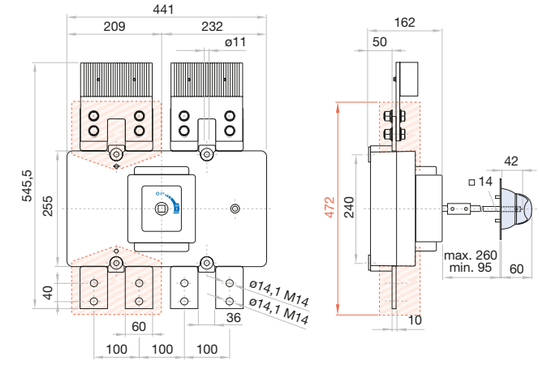
Dimensions (mm)

Door drilling for external handle

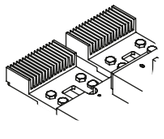


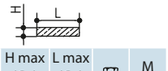
1250 A





1800 A
2000 A





H max (Cu)	L max (Cu)		M
mm	mm		Nxm
2x7	80	M14	55

series S5M DC

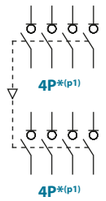
S5M DC
Switch - disconnector for DC current 4P + 4P

Size 2
A 500|630
1500 Vdc



CODE - 500A S5M063044R0

CODE - 630A S5M080044C0



Technical information

According to IEC60947-1
IEC60947-3

				500	630
Rated thermal current in ambient at	Ith	40° C	A	500	630
		50° C	A	500	630
		60° C	A	500	630
Rated insulation voltage DC20	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC21B	Ie	Ue 1500 Vdc	A	500	630

*(1) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Short - circuit behaviour			
Maximum cut - off current *(1)	Icm	kA (peak)	26
Short - time withstand current (1 sec.)	Icw	kA rms	16
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000
Maximum weight (without jumpers)		Kg	13

tests:

AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

CONSULT FOR GROUNDED INSTALLATIONS

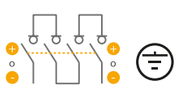
Connection diagram

Connection diagram

A S5M063044R0

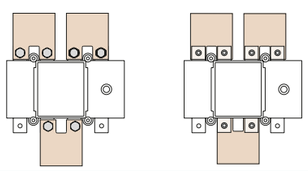


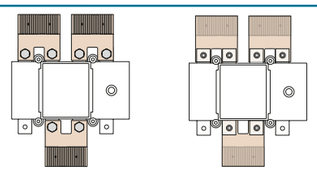
B S5M080044C0



Bridging links*(p1)

Front switch / Rear switch





series S5M DC

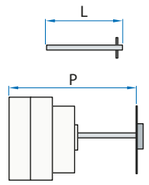
Accessories



Direct handle
CODE DS-LI22



External handle included shaft*(e1)
IP65
CODE DS-LA22



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	325... 490



Auxiliary contacts
1NO+1NC CODE DS-AU11
2NO+2NC CODE DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Bridging links*(p1)



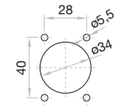
A 500A CODE DS-PI230L (2 units)

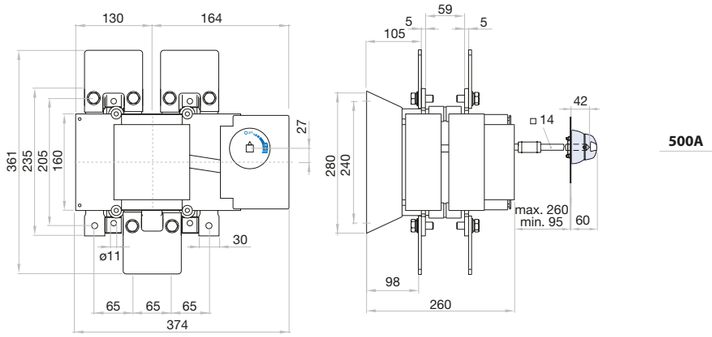
B 630A CODE DS-PI2D (2 units)

*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

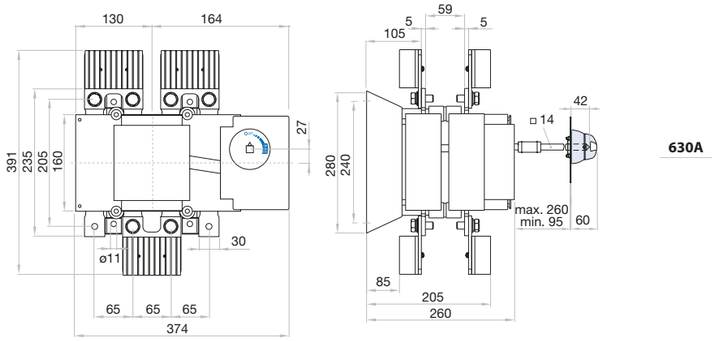
Dimensions (mm)

Door drilling for external handle

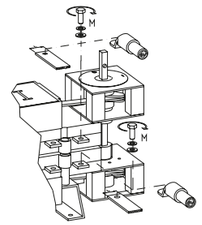


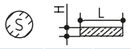


500A



630A





S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
2x240	2x5	40	M10	24

series S5M DC

S5M DC
Switch - disconnector for DC current 4P + 4P

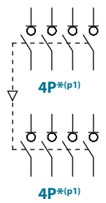
Size 3
A 800|1000
1500 Vdc



CODE - 800A
S5M080044R0



CODE - 1000A
S5M125044C0



Technical information

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC60947-1
IEC60947-3

				800	1000
Rated thermal current in ambient at	Ith	40° C	A	800	1000
		50° C	A	800	1000
		60° C	A	800	1000
Rated insulation voltage DC20	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC21B	Ie	Ue 1500 Vdc	A	800	1000

*(1) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Short - circuit behaviour			
Maximum cut - off current *(1)	Icm	kA (peak)	60
Short - time withstand current (1 sec.)	Icw	kA rms	25
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	3000
Maximum weight (without jumpers)		Kg	28,6

CONSULT FOR GROUNDED INSTALLATIONS

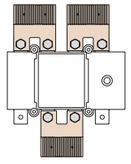
Connection diagram

Connection diagram

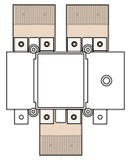


Bridging links*(p1)

Front switch



Rear switch



series S5M DC

Accessories



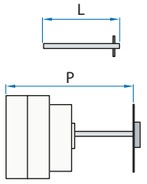
Direct handle
CODE DS-LI41



External handle included shaft *(e1)
IP65
CODE DS-LA41



External handle without shaft
IP65
CODE DS-LA43



Shafts
Standard shaft included *(e1)

L (mm)	P (mm)
239	408... 573



Auxiliary contacts
1NO+1NC CODE DS-AU11
2NO+2NC CODE DS-AU12

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



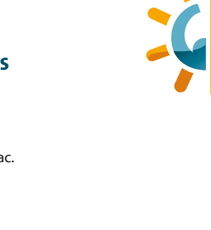
Bridging links*(p1)
CODE DS-PI3D (2 units)

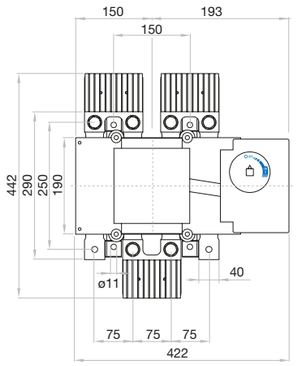
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

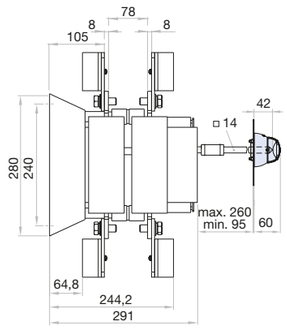
Dimensions (mm)

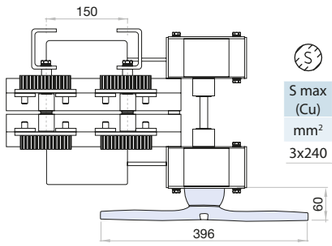
Door drilling for external handle

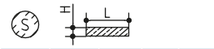












S max (Cu)	H max (Cu)	L max (Cu)		M
mm²	mm	mm		Nxm
3x240	2x10	50	M14	45

series S5N DC

S5N DC
Switch - disconnector for DC current 4P + 4P

Size 4

A 1250|1800

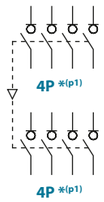
1500 Vdc



CODE - 1250A
S5N160044S0



CODE - 1800A
S5N180044S0



Technical information

According to IEC 60947-1
IEC 60947-3

				1250	1800
Rated thermal current in ambient at	Ith	40° C	A	1250	1800
		50° C	A	1250	1800
		60° C	A	1250	1800
Rated insulation voltage DC20	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC21B *(1)	Ie	Ue 1500 Vdc	A	1250	1800

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Short - circuit behaviour			
Short - circuit making capacity *(2)	Icm	kA (peak)	60
Short - time withstand current (1 sec.)	Icw	kA rms	50
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	600
Maximum weight (without bridging links)		Kg	44,3

CONSULT FOR GROUNDED INSTALLATIONS

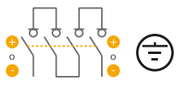
Connection diagram

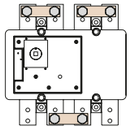
Connection diagram

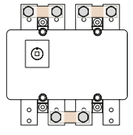
Bridging links *(p1)

Front switch | Rear switch

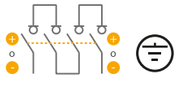
A S5N160044S0

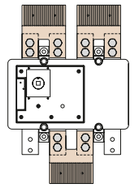


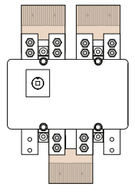




B S5N180044S0







MOTORIZED KIT AVAILABLE · PLEASE CONSULT · KIT UM

series S5N DC

Accessories



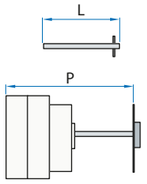
» Direct handle
CODE DS-LI41



» External handle included shaft *(e1)
IP65
CODE DS-LA41



» External handle without shaft
IP65
CODE DS-LA43



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	420 ... 580



» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac



» Bridging links*(p1)



A 1250A CODE DS-PI430U (3 units)

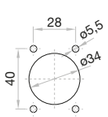


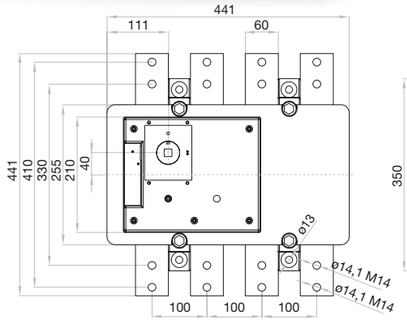
B 1800A CODE DS-PI4D (2 units)

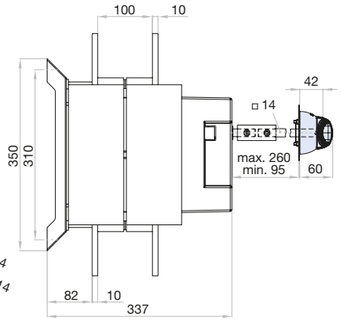
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult

Dimensions (mm)

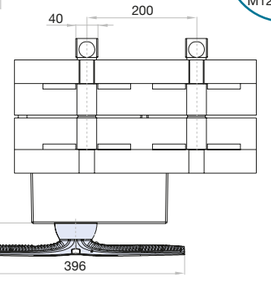
Door drilling for external handle

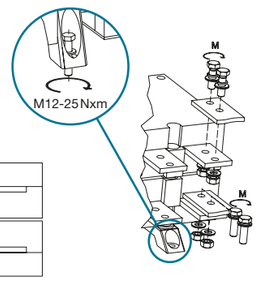






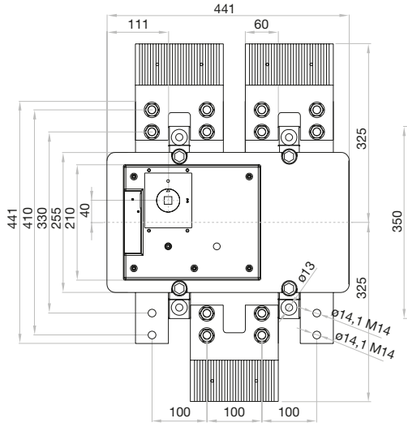
1250 A

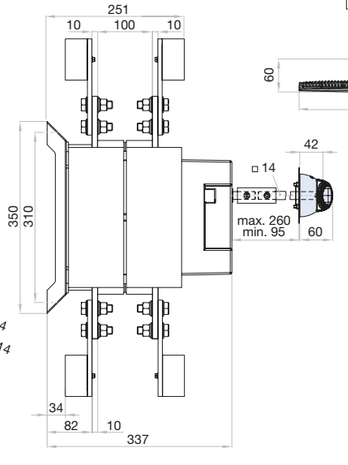






H max (Cu)	L max (Cu)		M
mm	mm		Nxm
2x10	80	M14	55





1800 A

series S5N DC

S5N DC
Switch - disconnector for DC current 4P+4P

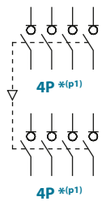
Size 5

A 2000|2500|3150

1000 Vdc







CODE - 2000A S5N20002ES0

CODE - 2500A S5N25002ES0

CODE - 3150A S5N31502ES0

Technical information

According to IEC 60947-1
IEC 60947-3

				2000	2500	3150
Rated thermal current in ambient at	Ith	40° C	A	2000	2500	3150
		50° C	A	2000	2500	2850
		60° C	A	2000	2500	2500
Rated insulation voltage DC20	Ui		V	1500	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12	12
Rated operational current DC21B *(1)	Ie	Ue 1000 Vdc	A	2000	2500	3150

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Short - circuit behaviour			
Short - circuit making capacity *(2)	Icm	kA (peak)	60
Rated short-time withstand current (1sec.)	Icw	kA rms	50
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	600
Maximum weight (without bridging links)		Kg	55

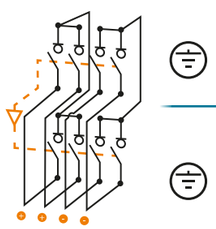
CONSULT FOR GROUNDED INSTALLATIONS

Connection diagram

Connection diagram

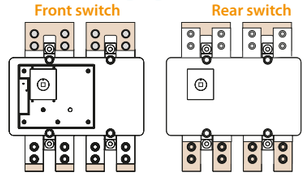
A S5N20002ES0
S5N25002ES0

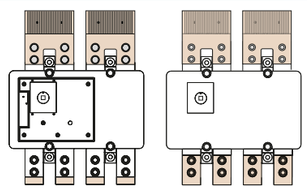
B S5N31502ES0



Bridging links *(p1)

Front switch / Rear switch





MOTORIZED KIT AVAILABLE · PLEASE CONSULT · KIT UM

series S5N DC

Accessories



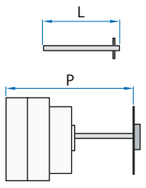
Direct handle
CODE DS-LI41



External handle included shaft *(e1)
IP65
CODE DS-LA41



External handle without shaft
IP65
CODE DS-LA43



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	420 ... 580



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac



Bridging links*(p1)
A 2000A CODE DS-PI51 (2 units) + D5LPC45 (4 units)
2500A CODE DS-PI51 (2 units) + D5LPC45 (4 units)
B 3150A CODE x2 DS-PI4D (2 units) + x2 D5LPC45 (4 units)


DS-PI4D


DS-PI51


D5LPC45

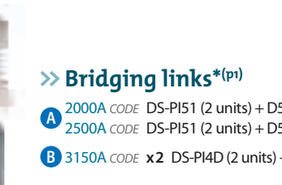
*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult

Dimensions (mm)

Door drilling for external handle

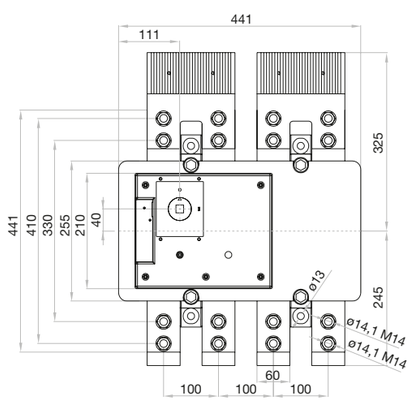


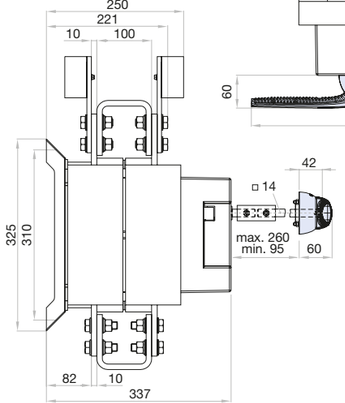
2000 A
2500 A



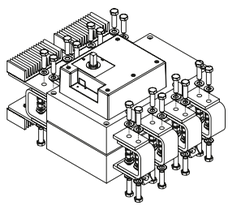


	H max (Cu)	L max (Cu)		M
	mm	mm		Nxm
2000 A	2x10	80	M14	55
2500 A 3150 A	4x10	80	M14	55





3150 A



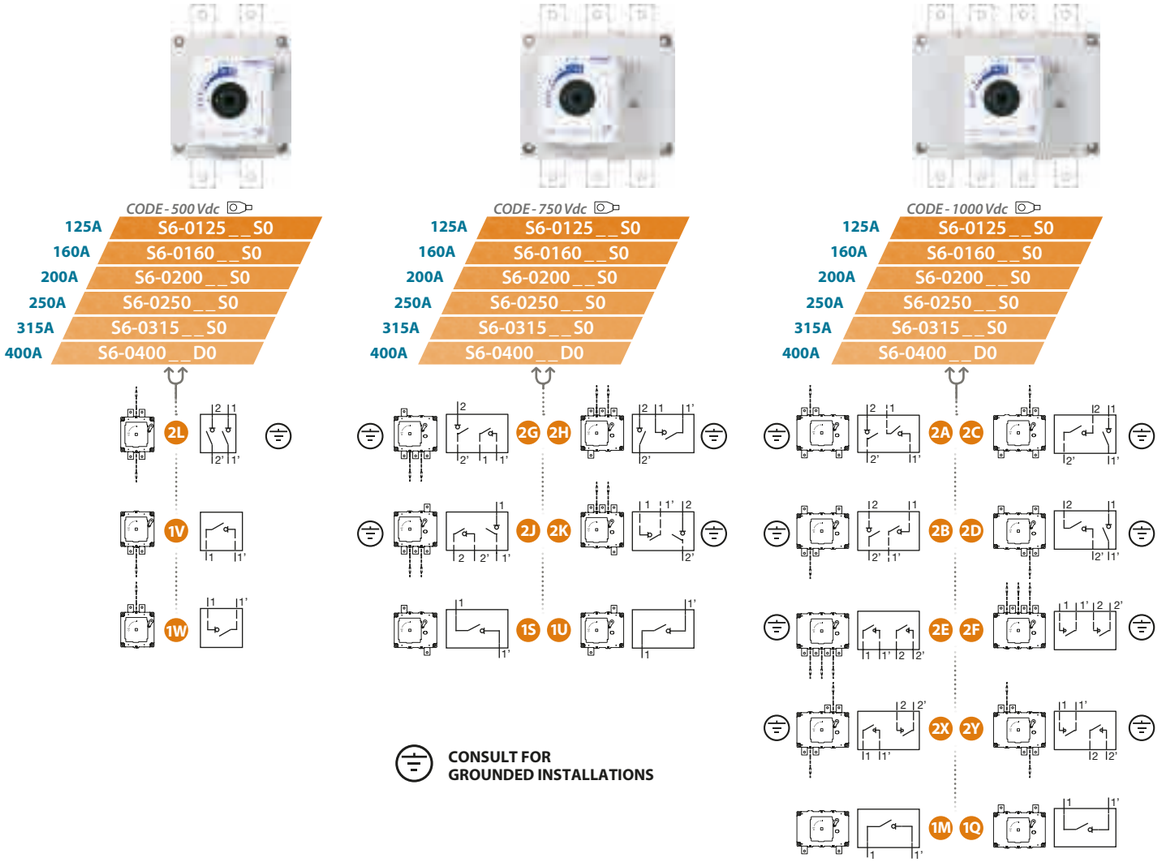
series S6 DC

S6 DC
Switch - disconnector for DC current 1P - 2P

Size 1

A 125|160|200|250|315|400

500 - 750 - 1000 Vdc



CONSULT FOR GROUNDED INSTALLATIONS

Technical information

According to IEC 60947-1
IEC 60947-3

consult

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

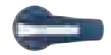
					125	160	200	250	315	400
Rated thermal current in ambient at	Ith	40° C		A	125	160	200	250	315	400
		50° C		A	125	160	200	250	315	400
		60° C		A	125	160	200	250	315	400
Rated insulation voltage (DC)	Ui			V	1500	1500	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp			kV	12	12	12	12	12	12
Rated operational current *(1)	Ie	Code 500 Vdc	DC21B	A	125	160	200	250	315	400
		Code 750 Vdc	DC21B	A	125	160	200	250	315	400
		Code 1000 Vdc	DC21B	A	125	160	200	250	315	400

			125	160	200	250	315	400
Short - circuit behaviour								
Rated short-circuit making capacity *(2)	Icm	kA (peak)	10	10	10	10	10	10
Rated short-time withstand current (1sec)	Icw	kA rms	10	10	10	10	10	10
Mechanical features								
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000	8000	8000	8000	8000	5000
Maximum weight			Consult according to code					

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

series S6 DC

Accessories



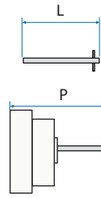
Direct handle
CODE DS-SI11



External handle included shaft *(e1)
IP65
CODE DS-SA11



External handle without shaft
IP65
CODE DS-SA14



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Terminal shrouds
CODE DR-CU11 (1 unit)
CODE DR-CU12 (1 unit)
CODE DR-CU13 (1 unit)



Phase barriers
CODE DR-SF11 (1 unit)
CODE DR-SF12 (2 units)
CODE DR-SF13 (3 units)



Spacers
CODE DR-EL11 (4 units)

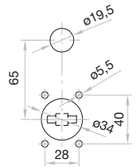


Safety key lock device
Simple CODE DS-CA11
Double CODE DS-CE11

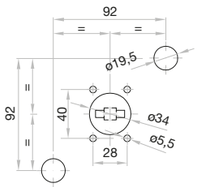
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

Simple

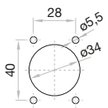


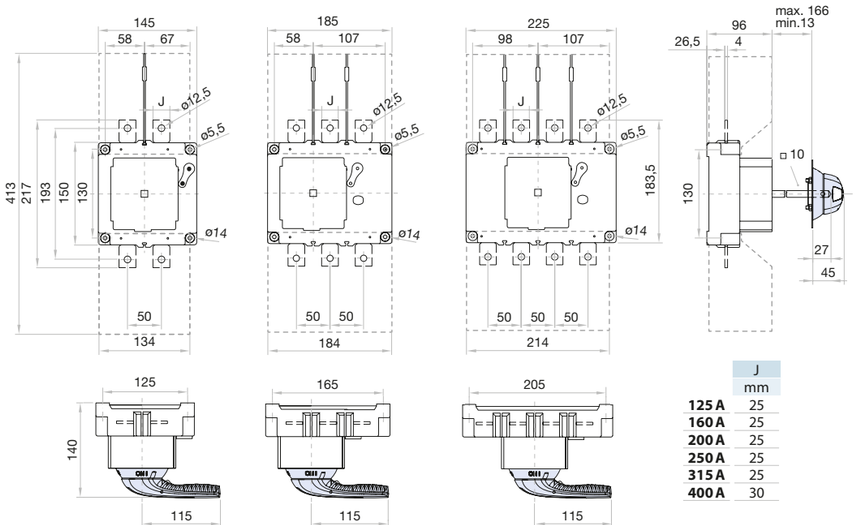
Double



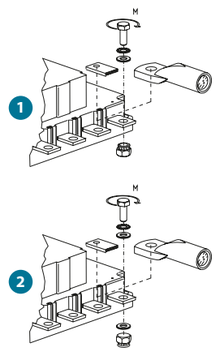
Dimensions (mm)

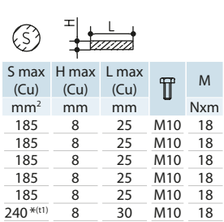
Door drilling for external handle





	J mm
125 A	25
160 A	25
200 A	25
250 A	25
315 A	25
400 A	30





	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
125 A	185	8	25	M10	18
160 A	185	8	25	M10	18
200 A	185	8	25	M10	18
250 A	185	8	25	M10	18
315 A	185	8	25	M10	18
400 A	240 *(t1)	8	30	M10	18

*(t1) Using phase barriers DR-SF__ to maintain the required clearance.

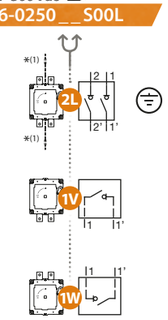
series S6 DC UL

S6 DC UL
Switch - disconnector for DC current 1P - 2P

Size 1
A 250
500 - 750 - 1000 Vdc

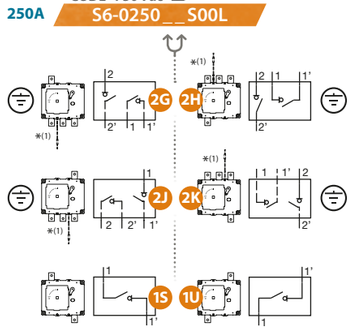


250A CODE - 500 Vdc S6-0250__S00L



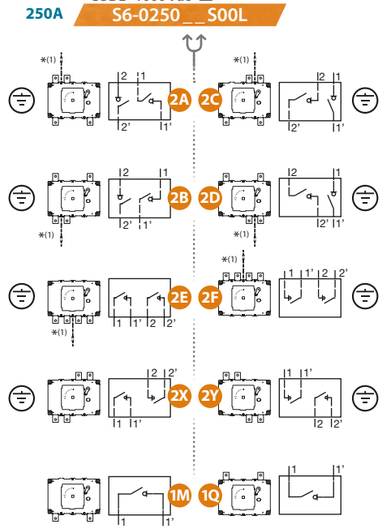


250A CODE - 750 Vdc S6-0250__S00L





250A CODE - 1000 Vdc S6-0250__S00L



CONSULT FOR GROUNDED INSTALLATIONS

Technical information

According to UL98B

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

LISTED E333311				250
Rated thermal current	Ith	-20ºC to +50ºC	A	250
Rated operational current	Ie	Code 500 Vdc	A	250
		Code 750 Vdc	A	250
		Code 1000 Vdc	A	250
Rated short-circuit current	Icc		kA	10
Maximum weight				Consult according to code
Wiring capacity				
Minimum connection wire range/AWG			MCM	400
Maximum connection wire range/AWG			MCM	500

250 A

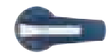
Conforms to UL98B. Minus 20 to +50ºC. PV disconnects switch. Location Category B
1000 Vdc 250 A Torque: 159 lbf·in. Short circuit rating: 10 kA
Suitable for Use in PV Systems in accordance with Article 690 of the NEC
IEC-60947-3 Uimp 12 kV DC21B - 1000 Vdc - 250 A Ui 1500 Vdc Ith 250 A

series S6 DC UL

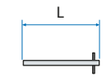
Accessories



External handle included shaft *(e1)
IP65
CODE DS-SA11



External handle without shaft
IP65
CODE DS-SA14



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



Auxiliary contacts

1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

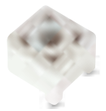
Terminal shrouds

CODE DR-CU11 (1 unit)
CODE DR-CU12 (1 unit)
CODE DR-CU13 (1 unit)



Phase barriers

CODE DR-SF11 (1 unit)
CODE DR-SF12 (2 units)
CODE DR-SF13 (3 units)



Spacers

CODE DR-EL11 (4 units)



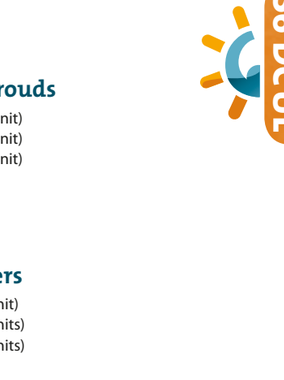
Terminal lug

CODE DR-TL11 (2 units)

* (1) With Terminal lug use phase barriers DR-SF_ _ to maintain the required clearance. Mandatory in these models

Dimensions (mm)

Door drilling for external handle



3/0 85 mm² min - 400 kcmil 240 mm² max	Temperature rating		Copper wire only M +5% -10%	
			Nxm	lb.inch
	75 ºC	M10	18	159

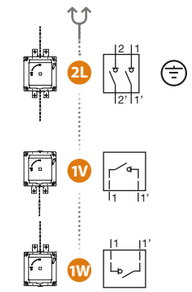
series S6 DC

S6 DC
Switch - disconnector for DC current 1P - 2P

Size 2
A 500|630
500 - 750 - 1000 Vdc

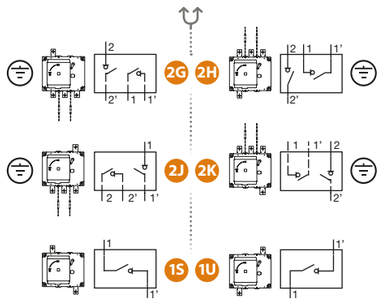


CODE - 500 Vdc
500A S6-0500 _ _ S0
630A S6-0630 _ _ S0



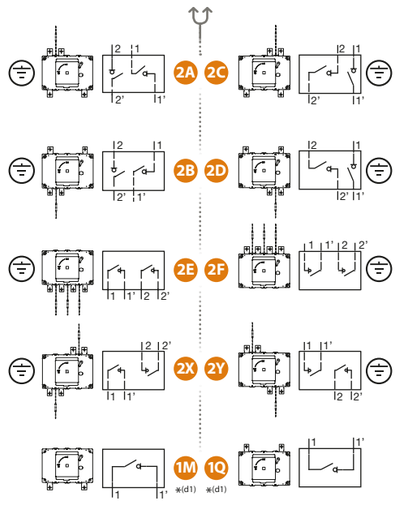


CODE - 750 Vdc
500A S6-0500 _ _ S0
630A S6-0630 _ _ S0





CODE - 1000 Vdc
500A S6-0500 _ _ S0
630A S6-0630 _ _ S0



CONSULT FOR GROUNDED INSTALLATIONS

*(d1) Only for 500 A.

Technical information

CE IEC IECEE CB SCHEME EAC

consult

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

According to IEC 60947-1
IEC 60947-3

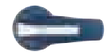
					500	630
Rated thermal current in ambient at	Ith	40° C		A	500	630
		50° C		A	500	630
		60° C		A	500	630
Rated insulation voltage (DC)	Ui			V	1500	1500
Rated impulse withstand voltage	Uimp			kV	12	12
Rated operational current *(1)	Ie	Code 500 Vdc	DC21B	A	500	630
		Code 750 Vdc		A	500	630
		Code 1000 Vdc		A	500	630

			500	630
Short - circuit behaviour				
Rated short-circuit making capacity *(2)	Icm	kA (peak)	10	10
Rated short-time withstand current (1sec)	Icw	kA rms	10	10
Mechanical features				
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	5000	5000
Maximum weight			Consult according to code	

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

series S6 DC

Accessories



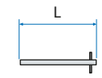
Direct handle
CODE DS-LI21



External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24

Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Terminal shrouds
CODE DR-CU21 (1 unit)
CODE DR-CU22 (1 unit)
CODE DR-CU23 (1 unit)



Phase barriers
CODE DR-SF21 (1 unit)
CODE DR-SF22 (2 units)
CODE DR-SF23 (3 units)



Spacers
CODE DR-EL21 (4 units)

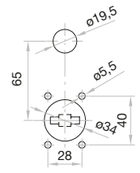


Safety key lock device
Simple CODE DS-CB21
Double CODE DS-CF21

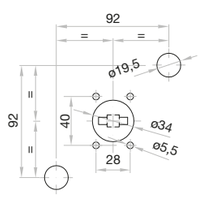
(Using phase barriers DR-SF_ _
to maintain the required clearance)

Door drilling for handle and key lock device

Simple

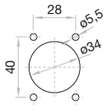


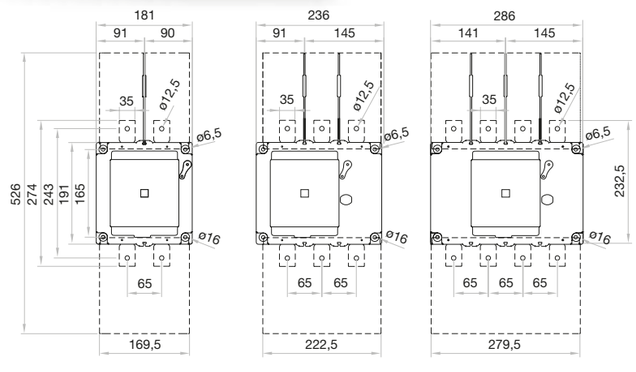
Double

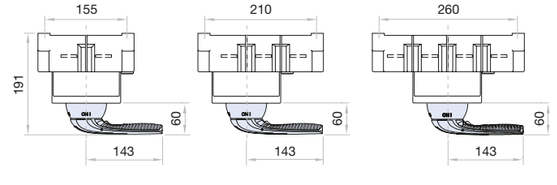


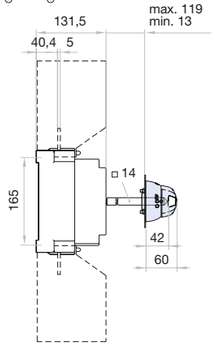
Dimensions (mm)

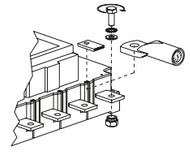
Door drilling for external handle

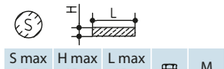












	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
500 A	2x150	2x5	35	M10	24
630 A	2x185	2x6	35	M10	24

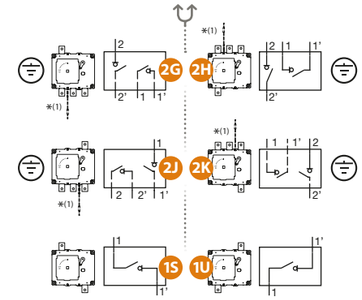
series S6 DC UL

S6 DC UL
Switch - disconnector for DC current 1P - 2P

Size 2
A 400
500 - 750 - 1000 Vdc



400A CODE - 500 Vdc S6-0400 _ _ S00L

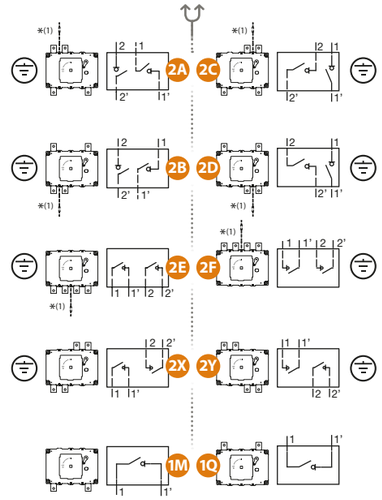




400A CODE - 750 Vdc S6-0400 _ _ S00L



400A CODE - 1000 Vdc S6-0400 _ _ S00L



CONSULT FOR GROUNDED INSTALLATIONS

Technical information

According to UL98 B

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

LISTED E333311				400
Rated thermal current	Ith	-20ºC to +50ºC	A	400
Rated operational current	Ie	Code 500 Vdc	A	400
		Code 750 Vdc	A	400
		Code 1000 Vdc	A	400
Rated short-circuit current	Icc		kA	10
Maximum weight				Consult according to code
Wiring capacity				
Minimum connection wire range/AWG			MCM	2x300
Maximum connection wire range/AWG			MCM	2x350

400 A
Conforms to UL98B. Minus 20 to +50ºC. PV disconnects switch. Location Category B
1000 Vdc 400 A Torque: 212 lbf·in. Short circuit rating: 10 kA
Suitable for Use in PV Systems in accordance with Article 690 of the NEC
IEC-60947-3 Uimp 12 kV DC21B - 1000 Vdc - 400 A Ui 1500 Vdc Ith 400 A

series S6 DC UL

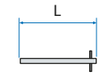
Accessories



External handle included shaft *(e1)
IP65
CODE DS-LA21



External handle without shaft
IP65
CODE DS-LA24



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Terminal shrouds
CODE DR-CU21 (1 unit)
CODE DR-CU22 (1 unit)
CODE DR-CU23 (1 unit)



Phase barriers
CODE DR-SF21 (1 unit)
CODE DR-SF22 (2 units)
CODE DR-SF23 (3 units)



Spacers
CODE DR-EL21 (4 units)



Terminal lug
CODE DR-TL22 (2 units)

*(1) With Terminal lug use phase barriers DR-SF_ _ to maintain the required clearance. Mandatory in these models

Dimensions (mm)

Door drilling for external handle

DR-TL22

Temperature rating		Copper wire only M +5% -10%	
		Nxm	lb.inch
75 ºC	M10	24	212

series S6N DC

S6N DC
Switch - disconnector for DC current 2P

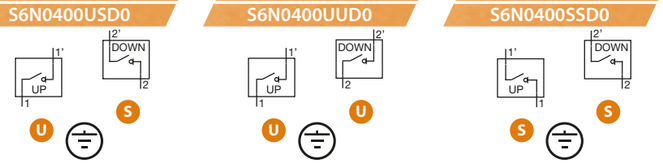
Size 1

A 125|160|200|250|315|400

1500 Vdc



	CODE - 1500 Vdc	CODE - 1500 Vdc	CODE - 1500 Vdc
125A	S6N0125USS0	S6N0125UUS0	S6N0125SSS0
160A	S6N0160USS0	S6N0160UUS0	S6N0160SSS0
200A	S6N0200USS0	S6N0200UUS0	S6N0200SSS0
250A	S6N0250USS0	S6N0250UUS0	S6N0250SSS0
315A	S6N0315USS0	S6N0315UUS0	S6N0315SSS0
400A	S6N0400USD0	S6N0400UUD0	S6N0400SSD0



Technical information

CE IEC EAC

CONSULT FOR GROUNDED INSTALLATIONS

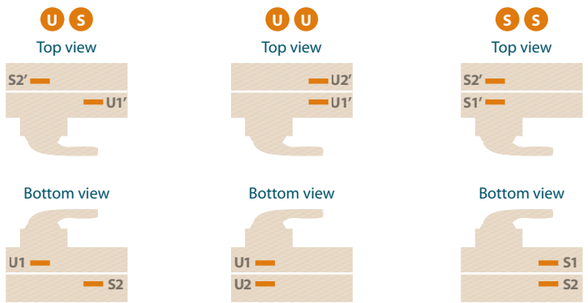
According to IEC 60947-1
IEC 60947-3

				125	160	200	250	315	400
Rated thermal current in ambient at	Ith	40ºC	A	125	160	200	250	315	400
		50ºC		125	160	200	250	315	400
		60ºC		125	160	200	250	315	360
		70ºC		125	160	200	250	315	315
Rated insulation voltage (DC)	Ui		V	1500	1500	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12	12	12	12	12
Rated operational current *(1) DC21B	Ie	Ue 1500 Vdc	A	125	160	200	250	315	400

Short - circuit behaviour			
Rated short-circuit making capacity *(2)	Icm	kA (peak)	10
Rated short-time withstand current (1sec)	Icw	kA rms	10
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000
Maximum weight		kg	4,25

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

Terminals location



series S6N DC

Accessories



Direct handle
CODE DS-SI11



External handle included shaft *(e1)
IP65
CODE DS-SA11

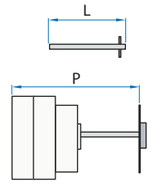


External handle without shaft
IP65
CODE DS-SA14



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	185... 336

Shaft extensions

Type 1

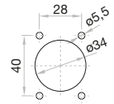
L (mm)	P (mm)	CODE
375	185... 497,5	DS-EP14

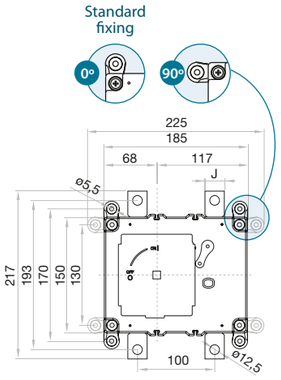
Type 2

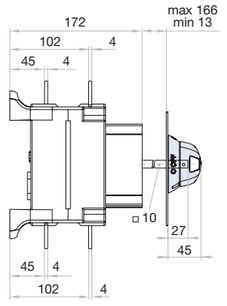
L (mm)	P (mm)	CODE
536	185... 647	DS-EP15

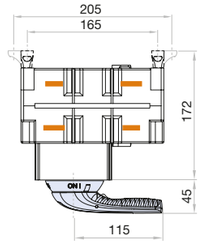
Dimensions (mm)

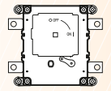
Door drilling for external handle



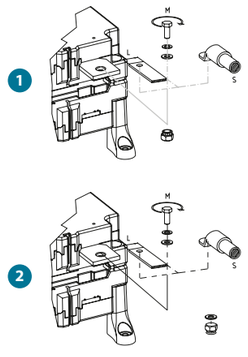


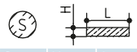






For rotated mounting there are **S6N** references with front plate rotated (supply under request).





	J
125 A	25
315 A	
400 A	30

	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
125 A	185	8	25	M10	18
160 A	185	8	25	M10	18
200 A	185	8	25	M10	18
250 A	185	8	25	M10	18
315 A	185	8	25	M10	18
400 A	240	8	30	M10	18

series S6N DC

S6N DC
Switch - disconnector for DC current 2P

Size 1

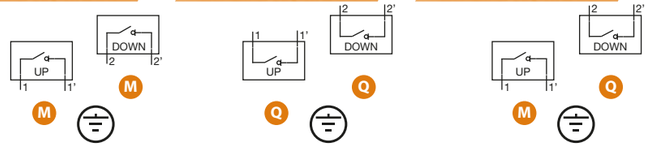
A 125|160|200|250|315|400

1500 Vdc





	CODE - 1500 Vdc	CODE - 1500 Vdc	CODE - 1500 Vdc
125A	S6N0125MMS0	S6N0125QQS0	S6N0125MQS0
160A	S6N0160MMS0	S6N0160QQS0	S6N0160MQS0
200A	S6N0200MMS0	S6N0200QQS0	S6N0200MQS0
250A	S6N0250MMS0	S6N0250QQS0	S6N0250MQS0
315A	S6N0315MMS0	S6N0315QQS0	S6N0315MQS0
400A	S6N0400MMD0	S6N0400QQD0	S6N0400MQD0



Technical information

According to IEC 60947-1
IEC 60947-3

				125	160	200	250	315	400
Rated thermal current in ambient at	Ith	40°C	A	125	160	200	250	315	400
		50°C		125	160	200	250	315	400
		60°C		125	160	200	250	315	360
		70°C		125	160	200	250	315	315
Rated insulation voltage (DC)	Ui		V	1500	1500	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12	12	12	12	12
Rated operational current *(1) DC21B	Ie	Ue 1500 Vdc	A	125	160	200	250	315	400

Short - circuit behaviour			
Rated short-circuit making capacity *(2)	Icm	kA (peak)	10
Rated short-time withstand current (1sec)	Icw	kA rms	10
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000
Maximum weight		kg	4,29

*(1) Other voltages and / or utilization categories. Please consult
*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

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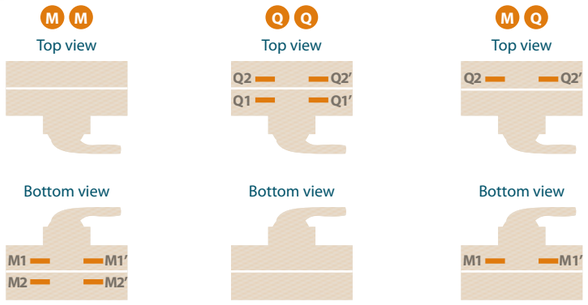
CONSULT FOR GROUNDED INSTALLATIONS

Terminals location



series S6N DC

Accessories



Direct handle
CODE DS-SI11



External handle included shaft *(e1)
IP65
CODE DS-SA11

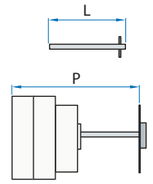


External handle without shaft
IP65
CODE DS-SA14



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	185... 336

Shaft extensions

Type 1

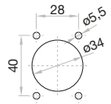
L (mm)	P (mm)	CODE
375	185... 497,5	DS-EP14

Type 2

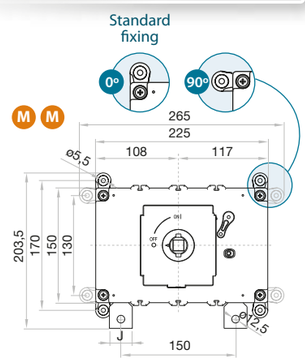
L (mm)	P (mm)	CODE
536	185... 647	DS-EP15

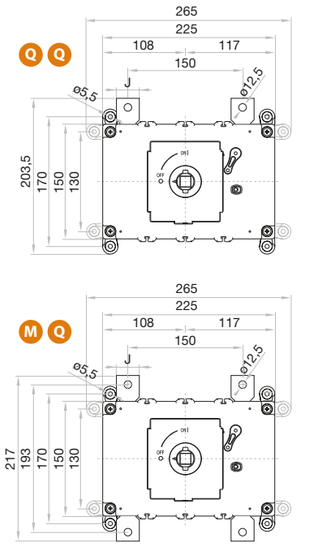
Dimensions (mm)

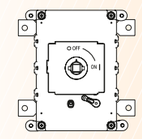
Door drilling for external handle



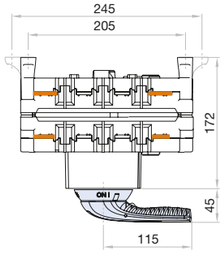
Standard fixing

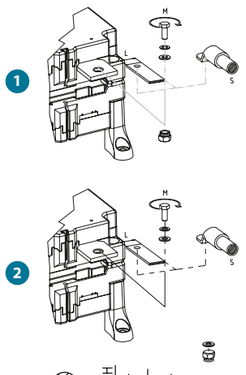






For rotated mounting there are **S6N** references with front plate rotated (supply under request).





	J
125 A	25
315 A	
400 A	30

	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
125 A	185	8	25	M10	18
160 A	185	8	25	M10	18
200 A	185	8	25	M10	18
250 A	185	8	25	M10	18
315 A	185	8	25	M10	18
400 A	240	8	30	M10	18

series S6R DC

S6R DC
Switch - disconnector base mounting 1P - 2P

Size 1

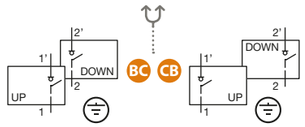
A 160|200|250|315|400

1500 Vdc



CODE - 2P

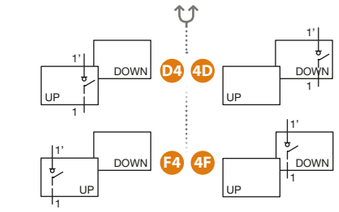
160 A	S6R0160__S0
200 A	S6R0200__S0
250 A	S6R0250__S0
315 A	S6R0315__S0
400 A	S6R0400__D0





CODE - 1P

160 A	S6R0160__S0
200 A	S6R0200__S0
250 A	S6R0250__S0
315 A	S6R0315__S0
400 A	S6R0400__D0



Technical information

According to IEC 60947-1
IEC 60947-3

			160	200	250	315	400
Rated thermal current in ambient at 40 °C up to 80 °C	Ith	A	160	200	250	315	400
Rated insulation voltage (DC)	Ui	V	1500	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp	kV	12	12	12	12	12
Rated operational current *(1) DC21B	Ie — Ue		160	200	250	315	400
	1500 Vdc	A					

*(1) Other voltages and / or utilization categories. Please consult

*(2) Without limiting protective device (short-circuit maintained 50... 100 ms.)

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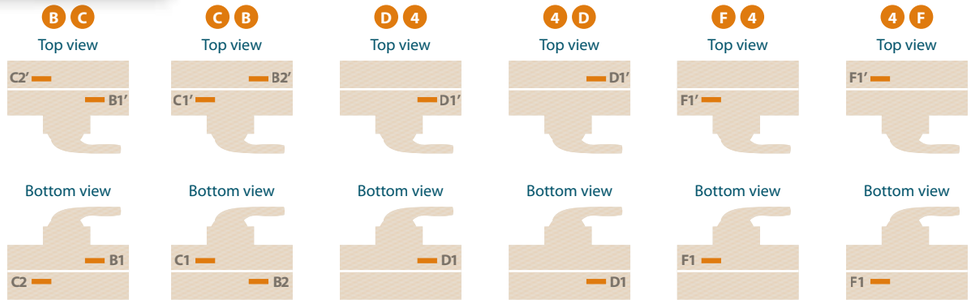
Short - circuit behaviour			
Rated short-circuit making capacity *(2)	Icm	kA (peak)	10
Rated short-time withstand current (1sec)	Icw	kA rms	10
Mechanical features			
Number of mechanical operations (according to the standards, for other values please consult)		Cycles	8000

Terminals location



series S6R DC

Accessories



Direct handle

CODE DS-SI11



External handle included shaft *(e1)

IP65

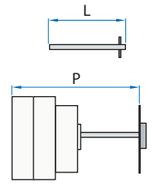
CODE DS-SA11



Auxiliary contacts

1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	179... 398,5

Shaft extensions

Type 1

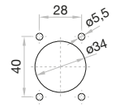
L (mm)	P (mm)	CODE
375	179... 546,5	DS-EP14

Type 2

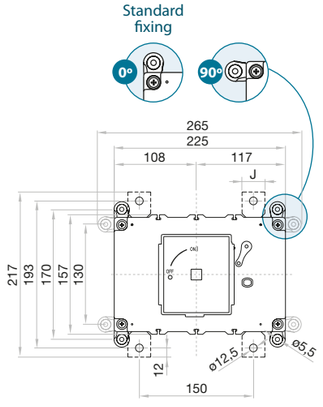
L (mm)	P (mm)	CODE
536	179... 707,5	DS-EP15

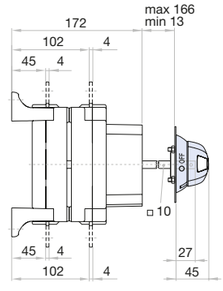
Dimensions (mm)

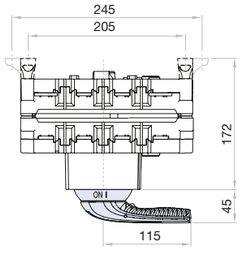
Door drilling for external handle

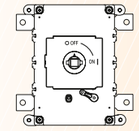


Standard fixing

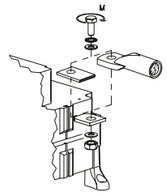


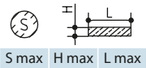






For rotated mounting there are **S6R** references with front plate rotated (supply under request).





	J
160 A	25
200 A	25
250 A	25
315 A	25
400 A	30

	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M ±5% -10% Nxm
160 A	185	8	25	M12	24
200 A	185	8	25	M12	24
250 A	185	8	25	M12	24
315 A	185	8	25	M12	24
400 A	240	8	30	M12	24

series S6R DC

S6R DC UL
Switch - disconnector for DC current 1P - 2P

Size 1

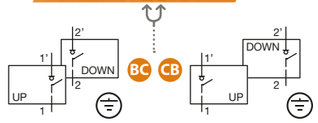
A 250|320|400

1500 Vdc



CODE - 2P

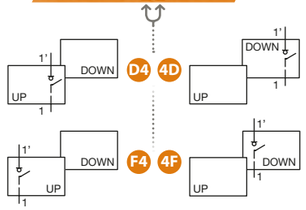
250 A	S6R0250 _ _ S00L
320 A	S6R0320 _ _ S00L
400 A	S6R0400 _ _ D00L





CODE - 1P

250 A	S6R0250 _ _ S00L
320 A	S6R0320 _ _ S00L
400 A	S6R0400 _ _ D00L



Technical information

According to UL98 B

LISTED
E333311

				250	320	400
Rated thermal current	Ith	-20ºC to 50ºC	A	250	320	400
Rated operational current	Ie	1500 Vdc	A	250	320	400
Rated short-time withstand current (0,05 sec)	Icw		kA	10	10	10
Maximum weight				Consult according to code		
Wiring capacity						
Minimum busbar connection range			mm^2	2x 4x30	2x 4x32	2x 4x32

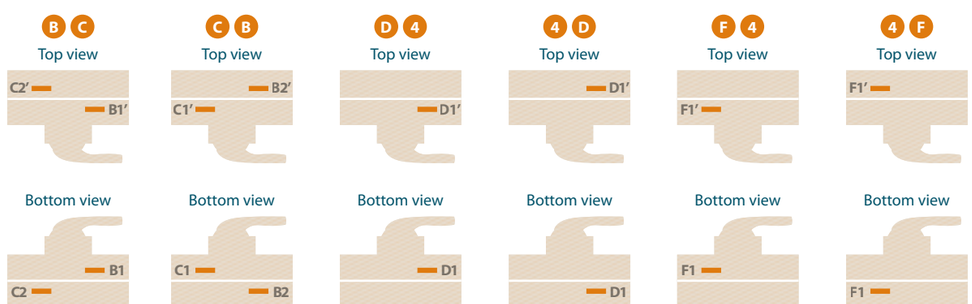
CONSULT FOR GROUNDED INSTALLATIONS

Conforms to UL98B. Minus -20 to 50ºC. PV disconnect switch. Location Category B
Suitable for use in PV Systems in accordance with Article 690 of the NEC

Patent USA
N.º 9,899,159 B2

tests: AIT AUSTRIAN INSTITUTE OF TECHNOLOGY TOMORROW TODAY

Terminals location



series S6R DC

Accessories

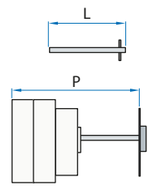


External handle included shaft *(e1)
IP65
CODE DS-SA11



Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	185... 336

Shaft extensions

Type 1

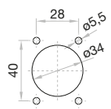
L (mm)	P (mm)	CODE
375	185... 486	DS-EP14

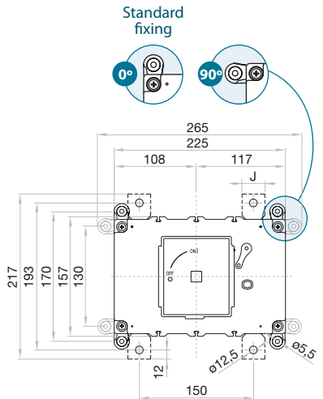
Type 2

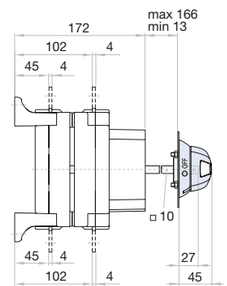
L (mm)	P (mm)	CODE
536	185... 647	DS-EP15

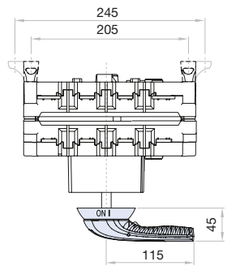
Dimensions (mm)

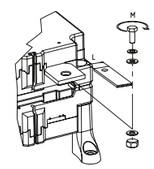
Door drilling for external handle











	J
250 A	25
320 A 400 A	30

	H max (Cu)		L max (Cu)			M	
	mm	lb.inch	mm	lb.inch		Nxm	lb.inch
250 A	4	5/32	30	1-3/16	M12	24	212
320 A 400 A	4	5/32	32	1-1/4	M12	24	212

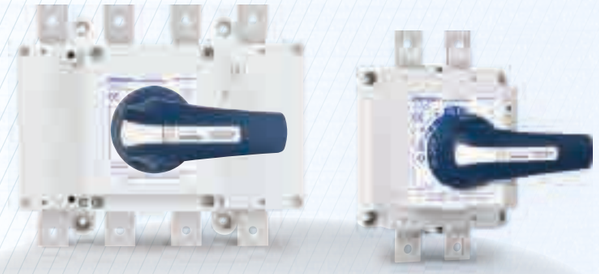
series
S5-S6

DC Disconnectors - ISOLATION ONLY 1500 Vdc

DC disconnectors with high level of insulation and safety, available in different construction models, with a wide range of currents and variety of accessories

According to:
IEC 60947- 1 & 3
UL98
RoHS

Testing and approvals:



The DC Disconnectors in their different series are manufactured with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechanical stress.

They comply with environmental requirements and undergo strict quality controls for a reliable product that meets the most demanding requirements.

They consist of a sandwich-type body containing self-cleaning blade type contacts, to ensure long term, fault-free energy transmission and coated with silver alloy for long electromechanical life. The jump mechanism provides quick and independent switching due to the accumulation of elastic potential energy, which is transmitted at high speed to the contacts for arc extinction.

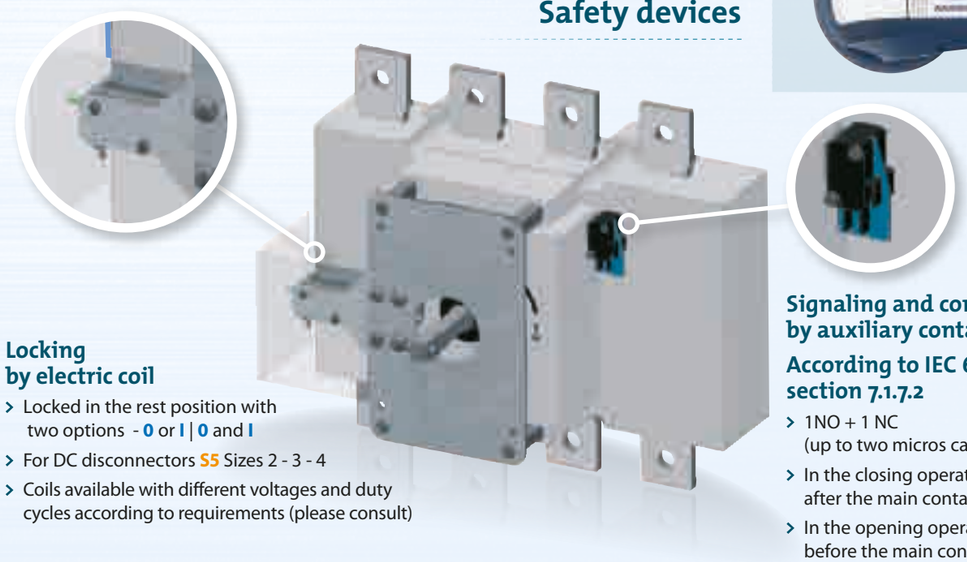
The DC Disconnectors S6 DC do not require external bridging links.

Functional and ergonomic handle

- Good grip and excellent torque/ resistance balance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I** position
- When lock in **O OFF** position, door is interlocked
- Possibility of unlocking the door in **ON I** position (with the use of a tool for maintenance operations). Handle interlock is restored when closing
- Self-centering shaft for door handle



Safety devices



Locking by electric coil

- Locked in the rest position with two options - **0** or **I** | **0** and **I**
- For DC disconnectors **S5** Sizes 2 - 3 - 4
- Coils available with different voltages and duty cycles according to requirements (please consult)

Signaling and control by auxiliary contacts

According to IEC 60947-1 section 7.1.7.2

- 1NO + 1 NC (up to two micros can be installed)
- In the closing operation, switching after the main contacts
- In the opening operation, switching before the main contacts
- Ie= 16 (4) A (250 V)

Main advantages

Modular and flexible solution

Multi-circuit switching (from 1 up to 8 circuits can be isolated with only one handle), a great solution for recombiner and inverter applications

Single or dual polarity switching, for grounded or floating networks

Wide range of accessories,
including additional safety devices like:

Auxiliary contacts (late close, early break)

Padlockable handle

Lock device by electric coil

Optimized dimensions and weight
To reduce the cost and the environmental impact

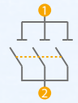
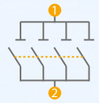
Easy to install
Time saving

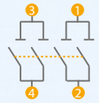
Customised solutions
For specific OEM applications

Motorised control
For remote or automatic operation

Suitable for isolation (disconnector)
As per IEC 60947-3

The range

		Amp.	Size	Code	Diagram	Direct handle	External handle	Bridging links *(p2)
	1 Pole	160	1	**S6-01601VS0P38**	1V	DS-SI11T	DS-SA14T	*
	1 Pole	200	1	**S6-02001VS0P38**	1V	DS-SI11T	DS-SA14T	*
	1 Pole	250	1	**S6-02501VS0P38**	1V	DS-SI11T	DS-SA14T	*
	1 Pole	400	1	**S6-04001VD0P38**	1V	DS-SI11T	DS-SA14T	*
	1 Pole	630	2	**S6-06301VS0P38**	1V	DS-LI21T	DS-LA24T	*
	1 Pole	800	1	**S5-04003ZC0P38**	3Z	DS-SI11T	DS-SA14T	DS-PI1G
	1 Pole	1000	1	**S5-04004ZC0P38**	4Z	DS-SI11T	DS-SA14T	DS-PI1H
	1 Pole	1600	2	**S5-08004ZC0P38**	4Z	DS-LI21T	DS-LA24T	DS-PI2H
	1 Pole	2000	3	**S5-12504ZC0P38**	4Z	DS-LI31T	DS-LA33T	DS-PI3H

		Amp.	Size	Code	Diagram	Direct handle	External handle	Bridging links *(p2)
	2 Poles	160	1	**S6-01602LS0P38**	2L	DS-SI11T	DS-SA14T	*
	2 Poles	200	1	**S6-02002LS0P38**	2L	DS-SI11T	DS-SA14T	*
	2 Poles	250	1	**S6-02502LS0P38**	2L	DS-SI11T	DS-SA14T	*
	2 Poles	400	1	**S6-04002LD0P38**	2L	DS-SI11T	DS-SA14T	*
	2 Poles	630	2	**S6-06302LS0P38**	2L	DS-LI21T	DS-LA24T	*
	2 Poles	800	2	**S6-08002LD0P38**	2L	DS-LI21T	DS-LA24T	*
	2 Poles	1600	3	**S5-12504ZC0P38**	2Z	DS-LI31T	DS-LA33T	DS-PI3L x 2
	2 Poles	2500	4	**S5-16004ZS0P38**	2Z	DS-LI41T	DS-LA43T	DS-PI4K x 2
	2 Poles	3150	4	**S5-18004ZS0P38**	2Z	DS-LI41T	DS-LA43T	DS-PI4K x 2

*(p2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

S5 DC / S6 DC — Disconnectors 1 pole (160 - 2000A) (O-I) ISOLATION ONLY

Manual handle — ISOLATION ONLY



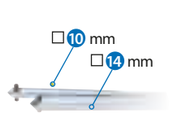
S5 DC
ISOLATION ONLY



S6 DC
ISOLATION ONLY



1P













1P *(p1)	Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Unipolar (1P) *(p1) Code	Unipolar (1P) *(p1) Diagram	External*(1) Code	Direct Code
	1500V DC20A	160	1		S6-01601VS0P38	1V	DS-SA11T	DS-SI11T
		200	1		S6-02001VS0P38	1V		
		250	1		S6-02501VS0P38	1V		
		400	1		S6-04001VD0P38	1V		
		800	1		S5-04003ZC0P38	3Z	DS-SA11T	DS-SI11T
		1000	1		S5-04004ZC0P38	4Z		
		630	2		S6-06301VS0P38	1V	DS-LA21T	DS-LI21T
		1600	2		S5-08004ZC0P38	4Z		
		2000	3		S5-12504ZC0P38	4Z	DS-LA31T	DS-LI31T

Size	□	Type 1 & 2 L	Type 1 & 2 Code	Bridging links *(p1) Code	Auxiliary contacts *(4) 1NO+1NC Code	Auxiliary contacts *(4) 2NO+2NC Code	Phase barriers 1 unit Code	Phase barriers 2 units Code	Spacers (4 units) Code	Terminal protection *(5) Code	Terminal shrouds *(5) Code	Full details in page
1	10	375	DS-EP14	-	D5LAU01	D5LAU02	DR-SF11	DR-SF12	DR-EL11	-	DR-CU11	254
		536	DS-EP15									
1	10	375	DS-EP14	DS-PI1G	D5LAU01	D5LAU02	-	-	-	DS-CU12	-	258
		536	DS-EP15	DS-PI1H								
2	14	345	DS-EP23	-	D5LAU01	D5LAU02	DR-SF21	DR-SF22	DR-EL21	-	DR-CU21	256
		535	DS-EP24	DS-PI2H	D5LAU01	D5LAU02	-	-	-	DS-CU22	-	260
3	14	345	DS-EP23	DS-PI3H	D5LAU01	D5LAU02	-	-	-	-	-	262
		535	DS-EP24									

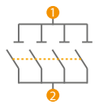
*(2) 1V



3Z

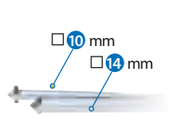


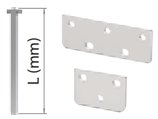
4Z





2P









S5 DC / S6 DC — Disconnectors 2 poles (160 - 3150A) (O-I) ISOLATION ONLY

Manual handle — ISOLATION ONLY



S5 DC
ISOLATION ONLY

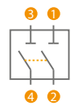


S6 DC
ISOLATION ONLY

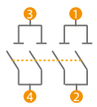
2P *(p1)	Rated operational voltage Ue	Rated operational current Ie (A)	Size	Connection	Bipolar (2P) *(p1) Code	Bipolar (2P) *(p1) Diagram	External*(1) Code	Direct Code
	1500V DC20A	160	1		S6-01602LS0P38	2L	DS-SA11T	DS-SI11T
		200	1		S6-02002LS0P38	2L		
		250	1		S6-02502LS0P38	2L		
		400	1		S6-04002LD0P38	2L		
		630	2		S6-06302LS0P38	2L	DS-LA21T	DS-LI21T
		800	2		S6-08002LD0P38	2L		
		1600	3		S5-12504ZC0P38	2Z	DS-LA31T	DS-LI31T
		2500	4		S5-16004ZS0P38	2Z	DS-LA41T	DS-LI41T
		3150	4		S5-18004ZS0P38	2Z		

Size	□	Type 1 & 2 L	Type 1 & 2 Code	Bridging links *(p1) Code	Auxiliary contacts *(4) 1NO+1NC Code	Auxiliary contacts *(4) 2NO+2NC Code	Phase barriers 1 unit Code	Phase barriers 2 units Code	Spacers (4 units) Code	Terminal shrouds *(5) Code	Full details in page
1	10	375	DS-EP14	-	D5LAU01	D5LAU02	DR-SF11	DR-SF12	DR-EL11	DR-CU11	254
		536	DS-EP15								
2	14	345	DS-EP23	-	D5LAU01	D5LAU02	DR-SF21	DR-SF22	DR-EL21	DR-CU21	256
		535	DS-EP24								
3	14	345	DS-EP23	DS-PI3Lx2	D5LAU01	D5LAU02	-	-	-	-	262
		535	DS-EP24								
4	14	485	DS-EP44	DS-PI4Kx2	D5LAU01	D5LAU02	-	-	-	-	264
		635	DS-EP45								

*(2) 2L



2Z





*(1) Padlockable handle in OFF 0 position. Possibility of unlocking the door in ON I position (with the use of a tool). Door interlock by a padlock in OFF 0 position.

*(2) Other configurations are available, please consult.

*(p1) To comply with the operation and electrical features, the bridging links must be assembled to the switch. See the full details pages of this catalogue, to choose the configuration needed and the possibility or not of grounding. If you have any doubt about this, please do not hesitate to consult us.

Please indicate in your order the switch code and the handle code, as these both products are managed separately. A standard shaft is included with the handle.

*(3) A standard shaft is included with the external handle.

*(4) To be used as signalling or control contacts - Ie = 16A (resistive loads) 4A (inductive loads) at 250 Vac. Whilst closing, it switches after the main contacts. Whilst opening, it switches before the main contacts.

*(5) One unit for input or output.

S6 DC ISOLATION ONLY
DC Disconnectors
1P - 2P

Size 1
A 160|200|250|400
1500 Vdc



CODE-1P

160A	S6-01601VS0P38
200A	S6-02001VS0P38
250A	S6-02501VS0P38
400A	S6-04001VD0P38

1V



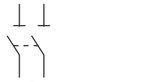
CODE-2P

160A	S6-01602LS0P38
200A	S6-02002LS0P38
250A	S6-02502LS0P38
400A	S6-04002LD0P38

2L



1P



2P

Technical information

CE IEC UL — *consult for UL codes*

DO NOT OPERATE UNDER LOAD

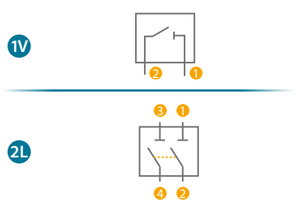
According to IEC 60947-1
IEC 60947-3

				160	200	250	400
Rated insulation voltage DC	Ui		V	1500	1500	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12	12	12
Rated operational current DC20A	Ie	Ue					
		1500 Vdc	A	160	200	250	400

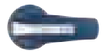
		160	200	250	400
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	8000	8000	8000	5000
Maximum weight 1P	Kg	1,22	1,22	1,22	1,22
Maximum weight 2P	Kg	1,35	1,35	1,35	1,35

Connection diagram

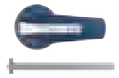
Connection diagram



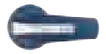
Accessories



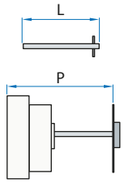
» Direct handle
CODE DS-SI11T



» External handle included shaft *(e1)
IP65
CODE DS-SA11T



» External handle without shaft
IP65
CODE DS-SA14T



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15

» Terminal shrouds
CODE DR-CU11 (1 unit)

» Phase barriers
CODE DR-SF11 (1 unit)
CODE DR-SF12 (2 units)



» Spacers
CODE DR-EL11 (4 units)

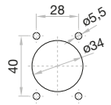


» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

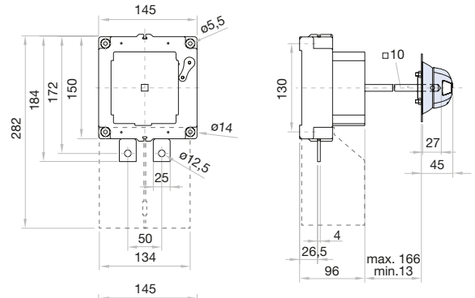
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Dimensions (mm)

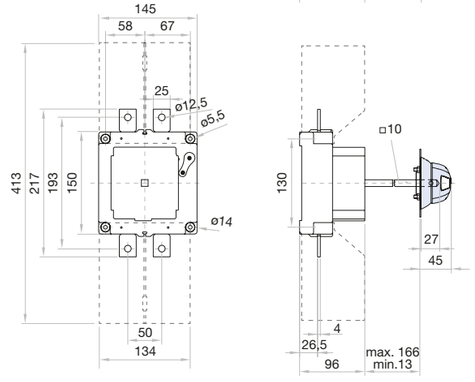
Door drilling for external handle

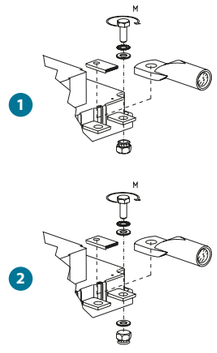


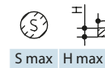
1V



2L







	S max (Cu) mm²	H max (Cu) mm	L max (Cu) mm		M Nxm
160 A	185	8	25	M10	18
200 A	185	8	25	M10	18
250 A	185	8	25	M10	18
400 A	240 *(t1)	8	30	M10	18

*(t1) Using phase barriers DR-SF_ _ to maintain the required clearance.

S6 DC ISOLATION ONLY
DC Disconnectors
1P - 2P

Size 2
A 630|800
1500 Vdc



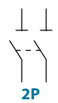
1V 630A CODE-1P S6-06301VS0P38



1P



2L 630A CODE-2P S6-06302LS0P38
800A S6-08002LD0P38



2P

Technical information

CE IEC cULus *consult for UL codes*

According to IEC 60947-1
IEC 60947-3

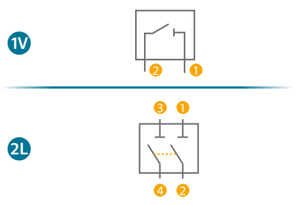
				630	800
Rated insulation voltage DC	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC20A	Ie	Ue			
		1500 Vdc	A	630	800

		630	800
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	5000	3000
Maximum weight 1P	Kg	3,40	3,40
Maximum weight 2P	Kg	3,80	3,80

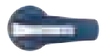
DO NOT OPERATE UNDER LOAD

Connection diagram

Connection diagram



Accessories



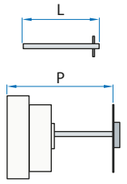
» Direct handle
CODE DS-LI21T



» External handle included shaft *(e1)
IP65
CODE DS-LA21T



» External handle without shaft
IP65
CODE DS-LA24T



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24

» Terminal shrouds
CODE DR-CU21 (1 unit)

» Phase barriers
CODE DR-SF21 (1 unit)
CODE DR-SF22 (2 units)



» Spacers
CODE DR-EL21 (4 units)

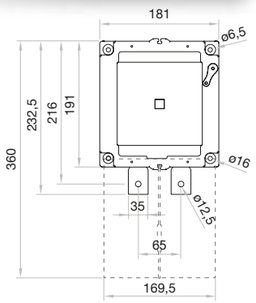


» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

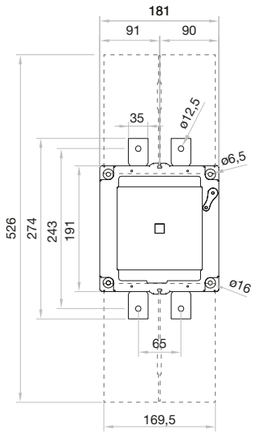
Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

Dimensions (mm)

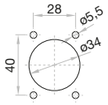
1V

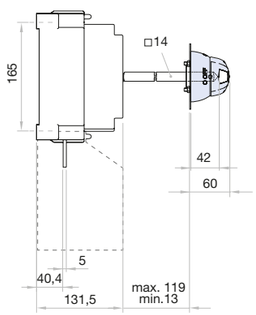


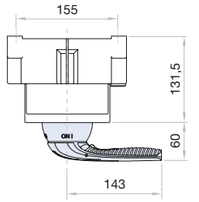
2L

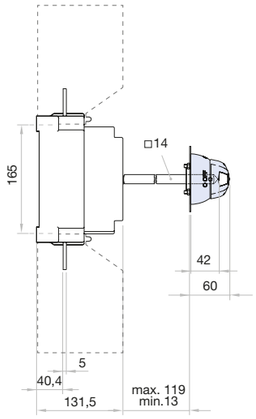


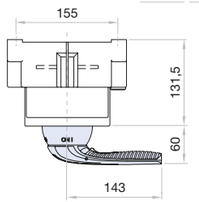
Door drilling for external handle

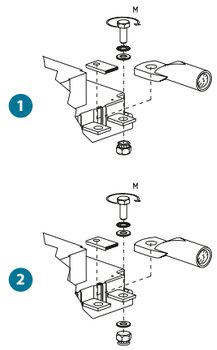


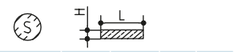












	S max (Cu)	H max (Cu)	L max (Cu)		M
	mm²	mm	mm		Nxm
630 A	2x185	2x6	35	M10	24
800 A	2x240	2x7	35		

S5 DC ISOLATION ONLY
DC Disconnectors
1P

Size 1
A 800|1000
1500 Vdc



3Z CODE - 800A S5-04003ZC0P38

4Z CODE - 1000A S5-04004ZC0P38

1P *(P2)

Technical information

CE IEC

According to IEC 60947-1
IEC 60947-3

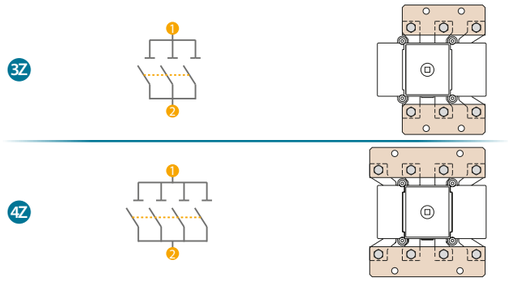
				800	1000
Rated insulation voltage DC	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	8	8
Rated operational current DC20A	Ie	Ue			
		1500 Vdc	A	800	1000

		800	1000
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	3000	3000
Maximum weight 3Z (without bridging links)	Kg	1,9	1,9
Maximum weight 4Z (without bridging links)	Kg	2,1	2,1

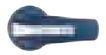
DO NOT OPERATE UNDER LOAD

Connection diagram

Connection diagram | **Bridging links *(P2)**



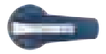
Accessories



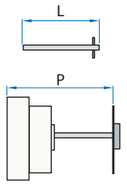
» Direct handle
CODE DS-SI11T



» External handle included shaft *(e1)
IP65
CODE DS-SA11T



» External handle without shaft
IP65
CODE DS-SA14T



» Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
227	103... 256

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
375	103... 415	DS-EP14

Type 2

L (mm)	P (mm)	CODE
536	103... 576	DS-EP15



» Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



» Terminal protection
CODE DS-CU12
(1 unit for input or output)

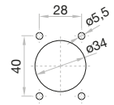


» Bridging links*(P2)
3Z 800A CODE DS-PI1G (2 units)
4Z 1000A CODE DS-PI1H (2 units)

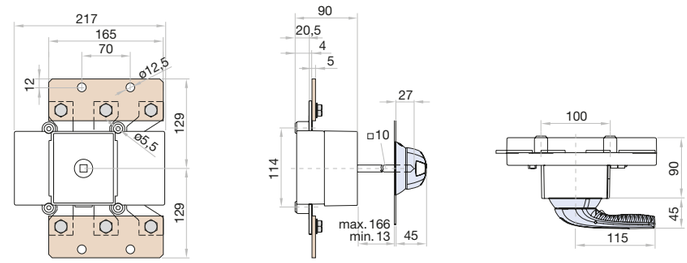
*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

Dimensions (mm)

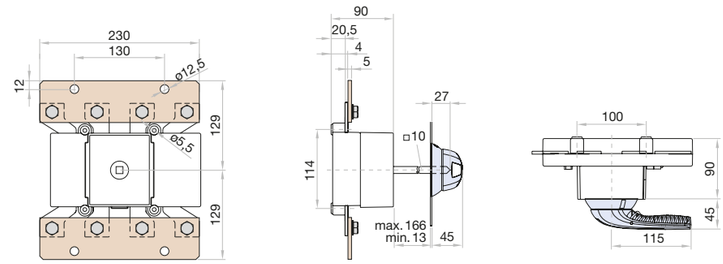
Door drilling for external handle

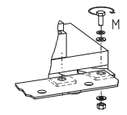


3Z

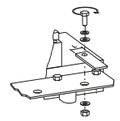


4Z

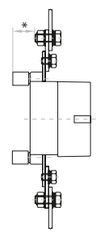




M	Nxm
M10	24



	H max (Cu) mm	L max (Cu) mm
800A	2x5	50
1000A	2x5	60



* Please keep 14 mm of clearance if assemble plate is metallic

S5 DC ISOLATION ONLY
DC Disconnectors
1P



CODE - 1600A
S5-08004ZC0P38



1P *(P2)

Size 2
A 1600
1500 Vdc

DO NOT OPERATE UNDER LOAD

Technical information

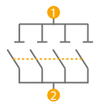
According to IEC 60947-1
IEC 60947-3

				1600
Rated insulation voltage DC	Ui		V	1500
Rated impulse withstand voltage	Uimp		kV	12
Rated operational current DC20A	Ie	Ue		
		1500 Vdc	A	1600

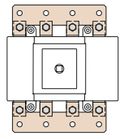
		1600
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	3000
Maximum weight (without bridging links)	Kg	4,5

Connection diagram

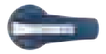
Connection diagram



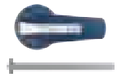
Bridging links *(P2)



Accessories



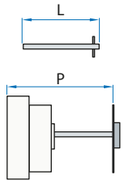
Direct handle
CODE DS-LI21T



External handle included shaft *(e1)
IP65
CODE DS-LA21T



External handle without shaft
IP65
CODE DS-LA24T



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
195	134... 240

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	134... 400	DS-EP23

Type 2

L (mm)	P (mm)	CODE
535	134... 560	DS-EP24

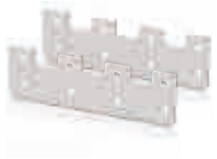


Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Terminal protection
CODE DS-CU22
(1 unit for input or output)

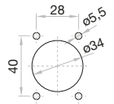


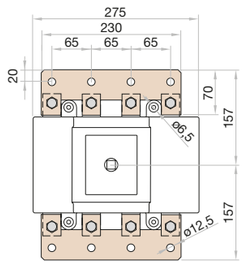
Bridging links *(P2)
CODE DS-PI2H (2 units)

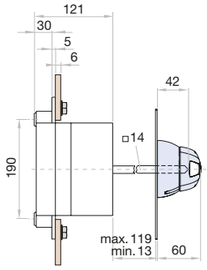
*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

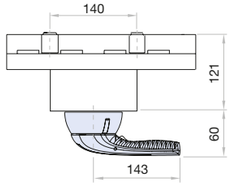
Dimensions (mm)

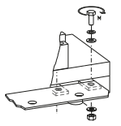
Door drilling for external handle



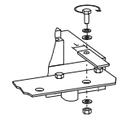


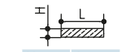






	M Nxm
M10	24





H max (Cu) mm	L max (Cu) mm
2x5	50

S5 DC ISOLATION ONLY
DC Disconnectors
1P - 2P

Size 3
A 1600|2000
1500 Vdc



DO NOT OPERATE UNDER LOAD

Technical information

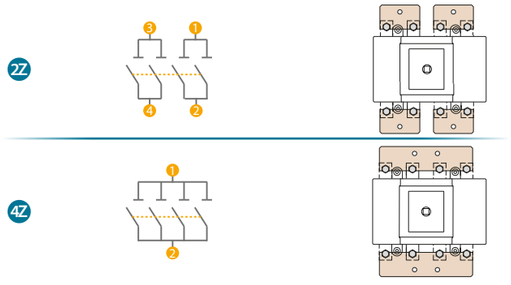
According to IEC 60947-1
IEC 60947-3

				1600	2000
Rated insulation voltage DC	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC20A	Ie	Ue			
		1500 Vdc	A	1600	2000

		1600	2000
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	3000	3000
Maximum weight (without bridging links)	Kg	7,6	7,6

Connection diagram

Connection diagram | **Bridging links *(P2)**



Accessories



Direct handle
CODE DS-LI31T



External handle included shaft *(e1)
IP65
CODE DS-LA31T



External handle without shaft
IP65
CODE DS-LA33T



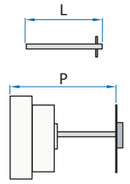
Auxiliary contacts
1NO+1NC *CODE* D5LAU01
2NO+2NC *CODE* D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



Bridging links *(P2)
2Z 1600A *CODE* **x2** DS-PI3L (2 units)
4Z 2000A *CODE* DS-PI3H (2 units)

*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
186	145... 242

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
345	145... 411	DS-EP23

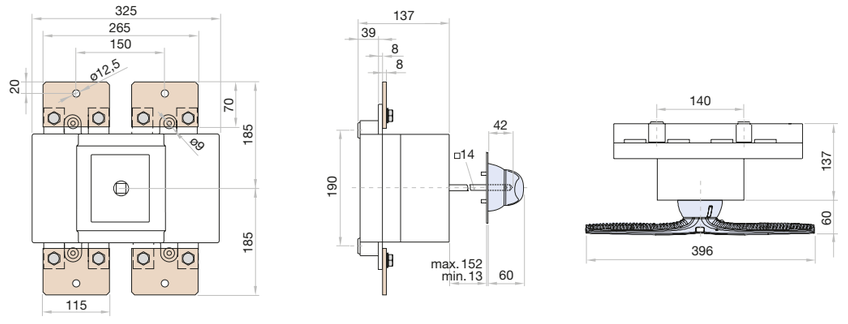
Type 2

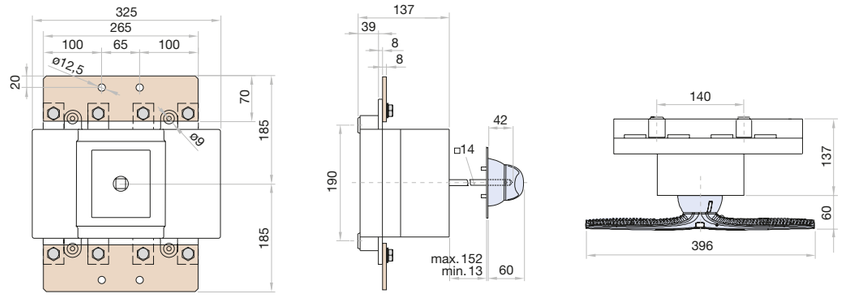
L (mm)	P (mm)	CODE
535	145... 600	DS-EP24

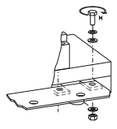
Dimensions (mm)

Door drilling for external handle

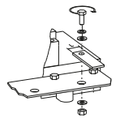


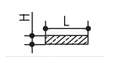






M	Nxm
M14	45

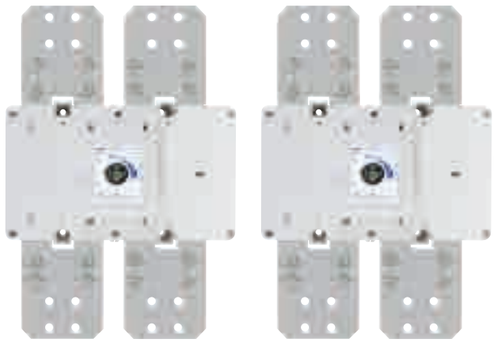




	H max (Cu)	L max (Cu)
	mm	mm
1600A	2x5	80
2000A	3x5	100

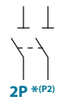
S5 DC ISOLATION ONLY
DC Disconnectors
2P

Size 4
A 2500|3150
1500 Vdc



CODE - 2500A ④ S5-16004ZS0P38

CODE - 3150A ④ S5-18004ZS0P38



2P *(P2)

Technical information

CE IEC

According to IEC 60947-1
IEC 60947-3

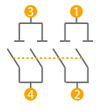
				2500	3150
Rated insulation voltage DC	Ui		V	1500	1500
Rated impulse withstand voltage	Uimp		kV	12	12
Rated operational current DC20A	Ie	Ue			
		1500 Vdc	A	2500	3150

		2500	3150
Number of mechanical operations (according to the standards, for other values please consult)	Cycles	3000	2000
Maximum weight (without bridging links)	Kg	20,8	20,8

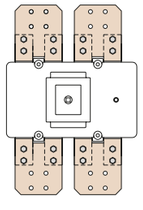
DO NOT OPERATE UNDER LOAD

Connection diagram

Connection diagram



Bridging links *(P2)



Accessories



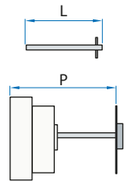
Direct handle
CODE DS-LI41T



External handle included shaft *(e1)
IP65
CODE DS-LA41T



External handle without shaft
IP65
CODE DS-LA43T



Shafts

Standard shaft included *(e1)

L (mm)	P (mm)
239	235... 400

Shaft extensions

Type 1

L (mm)	P (mm)	CODE
485	235... 686	DS-EP44

Type 2

L (mm)	P (mm)	CODE
635	235... 836	DS-EP45



Auxiliary contacts
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02

Ie = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.

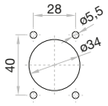


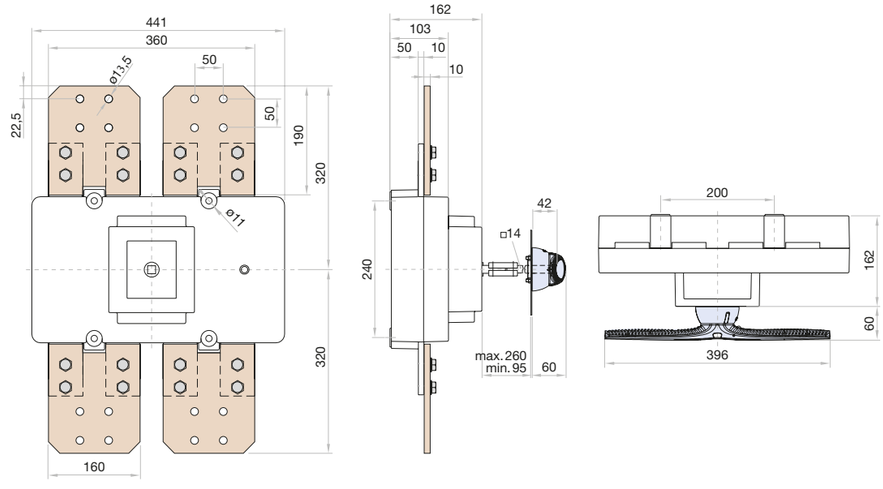
Bridging links *(P2)
CODE **x2** DS-PI4K (2 units)

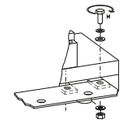
*(P2) To comply with the operation and electrical features, the bridging links must be assembled to the switch. Please consult.

Dimensions (mm)

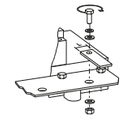
Door drilling for external handle

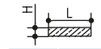






	M Nxm
M14	55





	H max (Cu) mm	L max (Cu) mm
2500A	2x5	100
3150A	3x5	100

Code	Page
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40110029	31
40110030	30
40110031	30
40111002	30
40111003	30
40111032	31
40111033	31
40111034	30
40111035	30
40112026	31
40112028	30
40112029	30
40113001	30
40113002	30
40113007	30
40113008	30
40113023	30
40113024	30
40140045	31
40140061	31
40140203	31
40141039	31
40141053	31
40141188	31
40142020	31
40142025	31
40142028	31
40142095	31
40143020	31
40143028	31
40143084	31
40143086	31
40143088	31
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9-KN100146	30
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CCF02003PS0	146/156/195 202
CCF02503NS0	146/156/195 202
CCF02503PS0	146/156/195 202
CCF03153NS0	146/156/195 202
CCF03153PS0	146/156/195 202
CCF04003NS0	146/156/195 202
CCF04003PS0	146/156/195 202
CCF05003NS0	146/158/195 202/204
CCF05003PS0	146/158/195 202/204
CCF06303NS0	146/158/195 202/204
CCF06303PS0	146/158/195 202/204
CCF08003NS0	146/158/195 202/204
CCF08003PS0	146/158/195 202/204
CCF10003NS0	146/160/195 204
CCF10003PS0	146/160/195 204
CCF12503NS0	146/160/195 204
CCF12503PS0	146/160/195 204
CCP02003NS0	146/156
CCP02003PS0	146/156
CCP02503NS0	146/156
CCP02503PS0	146/156
CCP03153NS0	146/156
CCP03153PS0	146/156
CCP04003NS0	146/156
CCP04003PS0	146/156
CCP05003NS0	146/158
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CCP06303NS0	146/158
CCP06303PS0	146/158
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CCP12503PS0	146/160
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CEC00633PS0	146/150
CEC00803NB0	146/150
CEC00803NS0	146/150
CEC00803PB0	146/150
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CEC01003PS0	146/150
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CEC01253PS0	146/150
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CIF21C01253PBDB	122/136
CIF21C01253PTDB	122/136
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CIF21C01603PBDB	122/136
CIF21C01603PTDB	122/136
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CIF22C01603PSD0	122/138
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CIF22C02503PSD1	122
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CIF22C04003PSD2	122
CIF22C06303NSD3	122/142
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D5LCB21	147/149/159 171/185
D5LCB31	147/149/161 173/187
D5LCB41	147/149/163 165/175/189 191
D5LCBB1	147/149/153 155/167/179 181/183
D5LCEB1	147/149/153 155/179/181 183
D5LCF11	147/149/157
D5LCF21	147/149/159 171/185
D5LCF31	147/149/161 173/187
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D5LEN51	146/191
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D5LLA21	146/171
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D5LLI22	146/171
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DCCPP22	147/159
DCCPP31	147/161
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DCECUB2	147/149/151 177
DCELAB1	146/151/177
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DM1AUB2	123/125/127 137
DM1CU01	123/125/127 137
DM1CU02	123/125/127 137
DM1RLB1	123/125/127
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DM2PP32	123/133
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DR-CU12	65/89/211 235/237/253 255
DR-CU13	65/89/211 235/237/253
DR-CU21	65/91/211 239/241/253 257
DR-CU22	65/91/211 239/241/253 257
DR-CU23	65/91/211 239/241
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DR-SF22	65/91/211 239/241/253 257
DR-SF23	65/91/211 239/241
DR-TL11	211/237
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You will find references of accessories that being common, they may appear on several pages of this catalogue.

Utilization categories

Utilization categories according to IEC 60947-3			
Nature of current	Utilization category		Typical applications
	Category A *(2)	Category B *(3)	
AC	AC-20A *(1)	AC-20B *(1)	Connecting and disconnecting under no-load conditions
	AC-21A	AC-21B	Switching of resistive loads including moderate overloads
	AC-22A	AC-22B	Switching of mixed resistive and inductive loads, including moderate overloads
	AC-23A	AC-23B	Switching of motor loads or other highly inductive loads
DC	DC-20A *(1)	DC-20B *(1)	Connecting and disconnecting under no-load conditions
	DC-21A	DC-21B	Switching of resistive loads including moderate overloads
	DC-22A	DC-22B	Switching of mixed resistive and inductive loads, including moderate overloads (e.g.: motores shunt)
	DC-23A	DC-23B	Switching of highly inductive loads (e.g. series motors)
*(1) The use of these utilization categories is not permitted in the EE.UU.			
*(2) **A** Repeatedly operation			
*(3) **B** Not very repeatedly operation			

Category AC-23 includes occasional switching of individual motors. The switching of capacitos or of tungsten filament lamps shall be subject to agreement between manufacturer and user.

The utilization categories referred do not apply to an equipment normally used to start, accelerate and / or stop individual motors. The utilization categories for such equipment are explained next:

Utilization category		Typical applications
AC	AC-2	Slip-ring motors: starting, plugging [a], switching off
	AC-3	Squirrel-cage motors: starting, switching off of motors during running
	AC-4	Squirrel-cage motors: starting, plugging [a], inching [b]
DC	DC-3	Shunt motors: starting, plugging [a], inching [b], dynamic breaking of d.c. motors
	DC-5	Serie-motors: starting, plugging [a] inching [b], dynamic breaking of d.c. motors
NOTE - The switching of motor circuits, capacitors or tungsten filament lamps shall be subject to special agreement between manufacturer and user.		
[a] Plugging means stopping or reversing the motor rapidly by reversing motor primary connections while the motor is running.		
[b] Inching (jogging) means energizing a motor once or repeatedly for short periods to obtain small movements of the driven mechanism.		

The previous information is only advisory, it does not replace the specifications of the standard which will be consulted for its exact knowledge.

MAINTENANCE RECOMMENDATIONS:

Electrical installations and their components should be periodically inspected to check they are in good condition. Operability of switches should be checked after an incident, during maintenance or due to ageing.

Tightening torque of electrical connections should be revised as vibrations in the environment and electrical conductivity may loose them affecting to the performance and durability of all components as well.

Not performing preventive maintenance may damage and spoil parts, systems and machines. Moreover it can also cause accidents and to injure people.

Before working on equipment or components which may be electrically live, the appropriate safety cautions must be taken by operators, end-users or other staff. Right personal protective equipment (e.g. safety clothes, gloves, goggles, helmet, insulating footwear) should be used, and the appropriate tools for the operation. At the same time, caution measures should be taken to prevent damages to third parties such as warning signs, barriers, mechanical locks, etc.

Prior to use any protective equipment or tools, they must be checked to be in good condition.

Maintenance or repair works should be performed in areas not electrically live by qualified and authorized staff following the applicable regulations and good practices.

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April 2019

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