

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.

series
CCF | CCP | S5F | S5B

series
CEC



The changeover switches in the series **CCF | CCP | S5F | S5B**, 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.

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 **OFF** position (up to three locks Ø 5-8 mm)
- > Door interlock in **ON I - ON II** position
- > Self-centering shaft for door handle



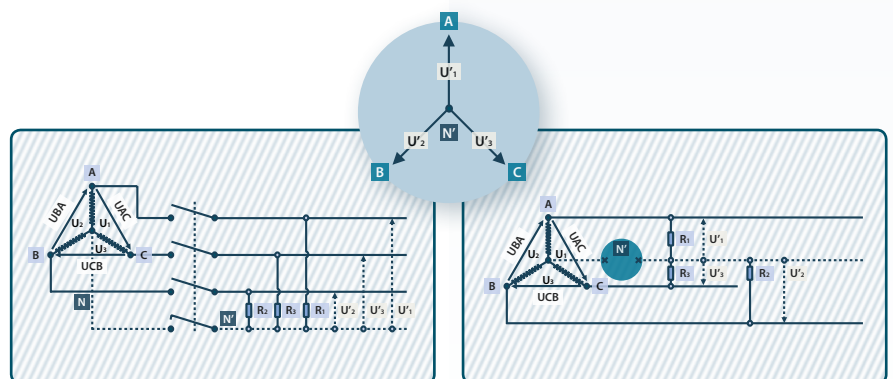
IP65

MOTORIZED KIT AVAILABLE
KIT UM
SEE UMKIT

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.



Series

Connection type

Amperes

Poles

Connection options

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

Code

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

Range codification:

The **CCF | CCP | S5F | S5B** series, are identified by a code that describes their most important characteristics as described below.

According to:

IEC 60947-3

IEC 61439-2

RoHS



Testing and approvals:



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 S 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 S 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.

IP65

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.

IP55

IP66

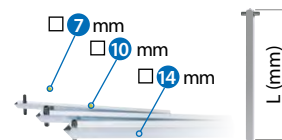
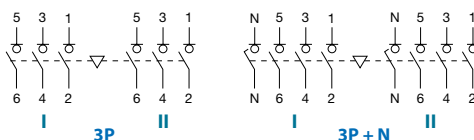
series CTRC



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).

IP66



CEC **S5F** **S5L** **CCF** **CCP**

Changeover switches 3 & 4 poles (40 - 3150A) (I-O-II) ^{*(2)}

Manual handle

Shaft extensions ^{*(4)}



CEC



S5F

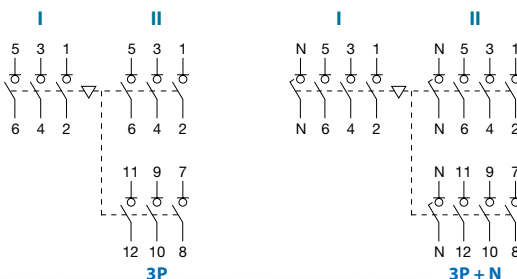


CCF



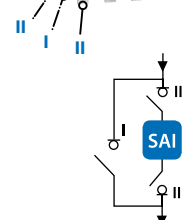
CCP

Amp.	Size	Connection	Series	3 pole (3P)	4 pole (3P + N) ^{*(1)}	External ^{*(3)}	Direct	□	Type 1 & 2	
				Code	Code	Code	Code		L	Code ^{*(e1)}
63	00		CEC	CEC00633PB0	CEC00633NB0	DCELAB1	D5LSI01	7	250	DS-EP04
63			CEC	CEC00633PS0	CEC00633NS0					DS-EP05
80			CEC	CEC00803PB0	CEC00803NB0					DS-EP05
80			CEC	CEC00803PS0	CEC00803NS0					DS-EP05
100			CEC	CEC01003PS0	CEC01003NS0					DS-EP05
125	0		CEC	CEC01253PS0	CEC01253NS0	D5LLA01	D5LSI01	7	250	DS-EP04
125			S5F	S5F01253PS0	S5F01253NS0					DS-EP05
160			S5F	S5F01603PS0	S5F01603NS0					DS-EP05
200			S5F	S5F02003PS0	S5F02003NS0					DS-EP05
200			CCF	CCF02003PS0	CCF02003NS0					DS-EP05
200	1		CCP	CCP02003PS0	CCP02003NS0	DCCLA11	DCCLI11	10	375	DS-EP14
250			CCF	CCF02503PS0	CCF02503NS0					DS-EP15
250			CCP	CCP02503PS0	CCP02503NS0					DS-EP15
315			CCF	CCF03153PS0	CCF03153NS0					DS-EP15
315			CCP	CCP03153PS0	CCP03153NS0					DS-EP15
400	2		CCF	CCF04003PS0	CCF04003NS0	DCCLA21	DCCLI21	14	345	DS-EP23
400			CCP	CCP04003PS0	CCP04003NS0					DS-EP24
500			CCF	CCF05003PS0	CCF05003NS0					DS-EP24
500			CCP	CCP05003PS0	CCP05003NS0					DS-EP24
630			CCF	CCF06303PS0	CCF06303NS0					DS-EP24
630	3		CCP	CCP06303PS0	CCP06303NS0	DCCLA31	DCCLI31	14	345	DS-EP23
800			CCF	CCF08003PS0	CCF08003NS0					DS-EP24
800			CCP	CCP08003PS0	CCP08003NS0					DS-EP24
1000			CCF	CCF10003PS0	CCF10003NS0					DS-EP24
1000			CCP	CCP10003PS0	CCP10003NS0					DS-EP24
1250	4		CCF	CCF12503PS0	CCF12503NS0	D5LLA31	D5LLI32	-	-	-
1250			CCP	CCP12503PS0	CCP12503NS0					-
1600			S5F	S5F16003PS0	S5F16003NS0					-
1800			S5F	S5F18003PS0	S5F18003NS0					-
2000			S5F	S5F20003PD0	S5F20003ND0					-
2000	5		S5F	S5F20003PP0	S5F20003NP0	D5LEN51	DS-EI61	-	-	-
2500			S5F	S5F25003PP0	S5F25003NP0					-
3150			S5F	S5F31503PP0	S5F31503NP0					-



S5B Bypass changeover switches S5 3 & 4 poles (125 - 2000A) (I-O-II) ^{*(5)}

Manual handle



Amp.	Size	Connection	3 pole (3P)	4 pole (3P + N) ^{*(1)}	External ^{*(3)}	Direct
			Code	Code	Code	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			S5B08003PR0	S5B08003NR0		
1000	3		S5B10003PC0	S5B10003NC0	D5LLA31	D5LLI32
1250			S5B12503PS0	S5B12503NS0		
1600			S5B16003PS0	S5B16003NS0		
1800	4		S5B18003PS0	S5B18003NS0	D5LLA31	D5LLI32
2000			S5B20003PD0	S5B20003ND0		

^{*(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":

SSB "overlapped" (I - I + II - II) = **SSS** _____, 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.



Auxiliary contacts ^{*(6)}			Safety ^{*(7)} key lock device		Rear protective plate	Bridging links	Terminal shrouds ^{*(8)}				Terminal shrouds ^{*(8)} (1 unit)			Phase barrier ^{*(8)}		 Full details in page
Size	1NO+1NC	2NO+2NC	Simple	Double	Code	Code (4 units)	3P input	3P common output	4P input position I & II	4P common output	Up	Down	Up or Down	Only changeover switches 		
	Code	Code	Code ^{*(e1)}	Code ^{*(e1)}			Code	Code	Code	Code	Code	Code	Code	Code	Code	
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-CU05	DS-CU06	DS-CU07	DS-PB04	DS-PB03	
1	D5LAU01	D5LAU02	D5LCB11	D5LCF11	3P DCCPP11	-	position I DM2CU12 position II DM2CU11	DCCCU11	DM2CU13	DCCCU12	-	-	-	-	-	156
					4P DCCPP12											
2	D5LAU01	D5LAU02	D5LCB21	D5LCF21	3P DCCPP21	-	position I DM2CU22 position II DM2CU21	DCCCU21	DM2CU23	DCCCU22	-	-	-	-	-	158
					4P DCCPP22											
3	D5LAU01	D5LAU02	D5LCB31	D5LCF31	3P DCCPP31	-	position I DM2CU32 position II DM2CU31	DCCCU31	DM2CU33	DCCCU32	-	-	-	-	-	160
					4P DCCPP32											
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	D5LPC42	-	-	DS-CU41	DS-CU41	-	-	-	-	-	162
5	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	-	-	-	-	-	-	-	-	-	-	164



Auxiliary contacts ^{*(6)}			Safety key lock device ^{*(7)}		Terminal protection ^{*(8)}	Terminal shrouds ^{*(8)} (2 units)	Terminal shrouds ^{*(8)} (1 unit)			 Full details in page
Size	1NO+1NC	2NO+2NC	Simple	Double	Code	Only changeover switches 	Up	Down	Up or Down	
	Code	Code	Code ^{*(e1)}	Code ^{*(e1)}		Code	Code	Code	Code	
0	DS-AU11	DS-AU12	D5LCBB1	D5LCFB1	DS-CU01	-	DS-CU02 DS-CU05	DS-CU03 DS-CU06	DS-CU04 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

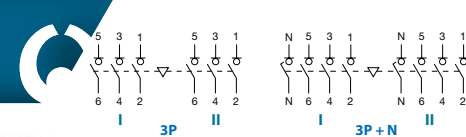
^{*(6)} To be used as signalling or control contacts - I_e = 16A (resistive loads) 4A (inductive loads) at 250 Vac.

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.

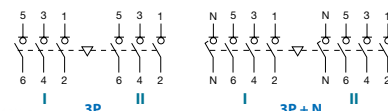


CTR2

Metal enclosed manual changeover switches IP65 3 & 4 poles (63 - 3150A) (I - O - II)^{*(2)}



Amp.	Size	Connection	3 pole (3P)	4 pole (3P + N) ^{*(1)}
			Code	Code
63	00		CTR2EC00633PS	CTR2EC00633NS
80			CTR2EC00803PS	CTR2EC00803NS
100			CTR2EC01003PS	CTR2EC01003NS
125			CTR2EC01253PS	CTR2EC01253NS
125	0		CTR2FC01253PS	CTR2FC01253NS
160			CTR2FC01603PS	CTR2FC01603NS
200			CTR2FC02003PS	CTR2FC02003NS
200			CTR2CC02003PS	CTR2CC02003NS
250	1		CTR2CC02503PS	CTR2CC02503NS
315			CTR2CC03153PS	CTR2CC03153NS
400			CTR2CC04003PS	CTR2CC04003NS
500			CTR2CC05003PS	CTR2CC05003NS
630	2		CTR2CC06303PS	CTR2CC06303NS
800			CTR2CC08003PS	CTR2CC08003NS
1000			CTR2CC10003PS	CTR2CC10003NS
1250	3		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)}

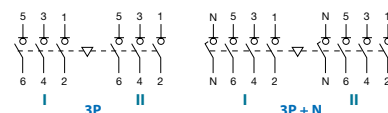


CTRC

Metal enclosed motorized changeover switches IP66 3 & 4 poles (125 - 3150A) (I - O - II)^{*(2)}



Amp.	Size	Connection	3 pole (3P)	4 pole (3P + N) ^{*(1)}
			Code	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)}



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

^{*(1)} Neutral pole early make-late break.

^{*(2)} External padlockable handle in OFF 0 position.

^{*(3)} IP55.

^{*(4)} Consult control module data.



Auxiliary contacts ^{*(5)}			Safety ^{*(6)} key lock device		Bridging links	Phase barrier ^{*(7)}		Terminal shrouds ^{*(7)} (1 unit)			Terminal shrouds ^{*(7)}				 Full details in page
Size	1NO+1NC	2NO+2NC	Simple	Double	Code (4 units)	3P	4P	Up	Down	Up or Down	Inputs		Common outputs		
	Code S5F	Code S5F	Code ^{*(e1)}	Code ^{*(e1)}		Code	Code	Code	Code	Code	3P	4P	3P	4P	
00	DCEAUB1	-	-	-	-	DCECUB1	DCECUB2	-	-	-	-	-	-	-	176
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



Auxiliary contacts ^{*(5)}			Safety ^{*(6)} key lock device		Bridging links	Phase barrier ^{*(7)}		Terminal shrouds ^{*(7)} (1 unit)			Terminal shrouds ^{*(7)}				 Full details in page
Size	1NO+1NC	2NO+2NC	Simple	Double	Code (4 units)	3P	4P	Up	Down	Up or Down	Inputs		Common outputs		
	Code S5F	Code S5F	Code ^{*(e1)}	Code ^{*(e1)}		Code	Code	Code	Code	Code	3P	4P	3P	4P	
0	 DS-AU11	 DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	
	D5LAU01	D5LAU02													
1	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	
2	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	
3	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	
4	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	
5	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	



Auxiliary contacts ^{*(5)}			Safety ^{*(6)} key lock device		Bridging links	Phase barrier ^{*(7)}		Terminal shrouds ^{*(7)} (1 unit)			Terminal shrouds ^{*(7)}				 Full details in page
Size	1NO+1NC	2NO+2NC	Simple	Double	Code (4 units)	3P	4P	Up	Down	Up or Down	Inputs		Common outputs		
	Code S5F	Code S5F	Code ^{*(e1)}	Code ^{*(e1)}		Code	Code	Code	Code	Code	3P	4P	3P	4P	
	Code S5F	Code S5F	Code ^{*(e1)}	Code ^{*(e1)}	Code (4 units)	Code	Code	Code	Code	Code	Code	Code	Code	Code	
0	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	180
	D5LAU01	D5LAU02													
1	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	182
2	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	184
3	D5LAU01	D5LAU02	-	-	-	-	-	-	-	-	-	-	-	-	186
4	DS-AU11	DS-AU12	-	-	-	-	-	-	-	-	-	-	-	-	188

^{*(5)} To be used as signalling or control contacts - I_e = 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.

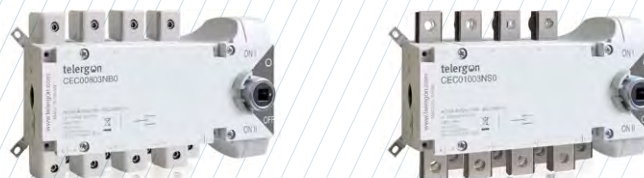
CEC

Changeover switch compact base mounting

3P - 3P+N

Size 00

A 63|80|100|125



CEC

With terminal connection for cable only

3P

3P + N

CODE - 63A

CEC00633PB0

CEC00633NB0

CODE - 80A

CEC00803PB0

CEC00803NB0

CODE - 63A

CEC00633PS0

CEC00633NS0

CODE - 80A

CEC00803PS0

CEC00803NS0

CODE - 100A

CEC01003PS0

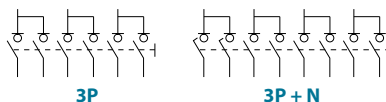
CEC01003NS0

CODE - 125A

CEC01253PS0

CEC01253NS0

CEC

3P
3P + N

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)}	Ie	AC21A	A	63	80	100	125
		Ue 400V AC22A	A	63	80	100	125
		AC23A	A	63	80	100	125
(Rated operational frequency 50/60Hz)							
Rated breaking capacity	63A-100A cos φ=0,45	400 V	A	504	640	800	1000
Rated making capacity	125A cos φ=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



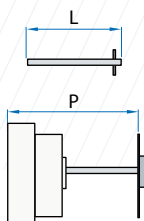
» Direct handle

CODE D5LSI01

» External handle included shaft ^{*(e1)}

IP65

CODE DCELAB1



» 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

» Auxiliary contacts ^{AU}

1NO+1NC CODE DCEAUB1
I_e = 0,1 A (resistive) at 125 Vac.



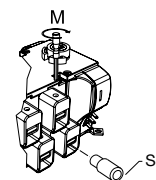
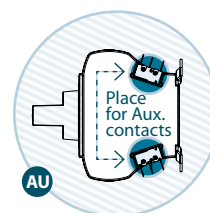
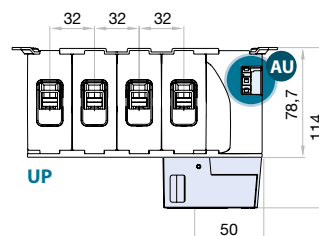
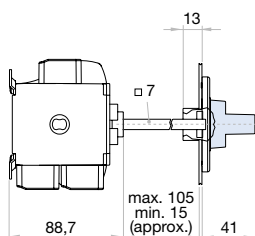
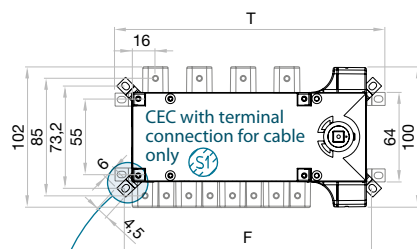
» Phase barrier

3P CODE DCECUB1
4P CODE DCECUB2

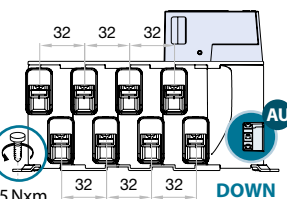
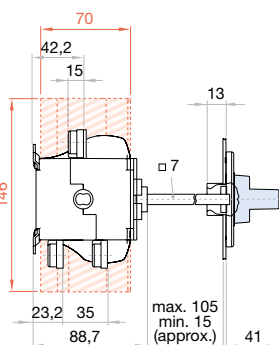
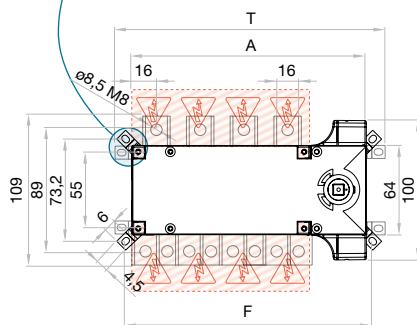
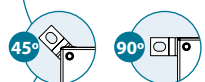
(1 kit for input or output)

Dimensions (mm)

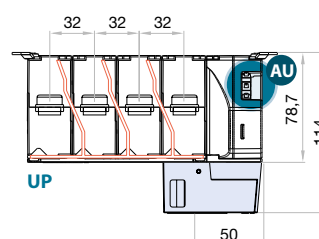
Door drilling for external handle



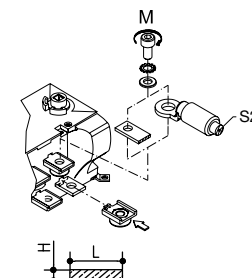
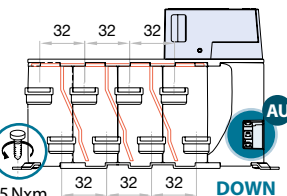
S1 max (Cu)	mm ²	Allen	M	Nxm
63 A	25	M8	3	
80 A				



M4 - 1,5 Nxm



M4 - 1,5 Nxm



S2 max (Cu)	H max (Cu)	L max (Cu)	Allen	M	Nxm
63 A	35	3	16	M8	6
80 A					
100 A					
125 A	50 ^{*(5)}	3	19		

^{*(5)} Use phase barriers in order to keep the clearance in air distances.

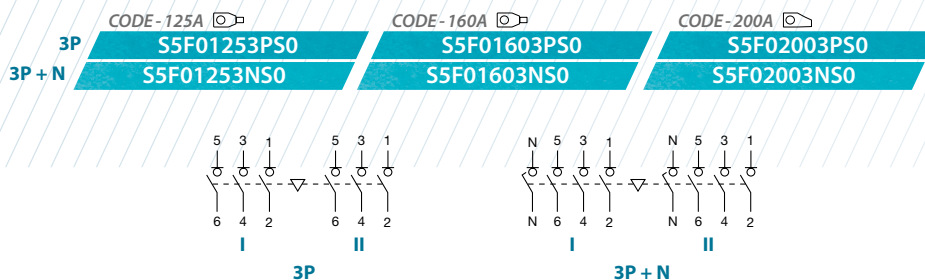
	A		F		T	
	45°	90°	45°	90°	45°	90°
mm	mm	mm	mm	mm	mm	mm
3P	136	151,8	152,7	158	161,7	
4P	168	177,2	184,7	190	193,7	

S5F

Changeover switch base mounting 3P - 3P+N

Size 0

A 125|160|200



Technical information

According to IEC 60947-3



consult



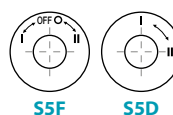
tests:

				125	160	200
Rated thermal current	I _{th} in ambient at 40° C	A		125	160	200
Rated insulation voltage	U _i	V		1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV		8	8	8
AC Rated operational current ^{*(1)} (Rated operational frequency 50/60 Hz)	U _e 400V AC21A	A		125	160	200
	U _e 400V AC22A	A		125	160	200
	U _e 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)}	I _{cm}	kA (peak)		13	13	13
Short - time withstand current (1 sec.)	I _{cw}	kA rms		7	7	7
Number of mechanical operations (according to the standards, for other values please consult)				Cycles	8000	8000
Maximum weight (3/4 poles)				Kg	1,8/2,1	1,8/2,1

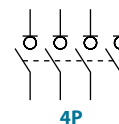


S5F

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



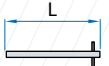
Accessories**» Direct handle**

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		CODE
L (mm)	P (mm)	
250	163... 323,5	DS-EP04

Type 2		CODE
L (mm)	P (mm)	
387	163... 460,5	DS-EP05

**» Auxiliary contacts**

1NO+1NC CODE SSF DS-AU11

2NO+2NC CODE SSF DS-AU12

I_e = 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

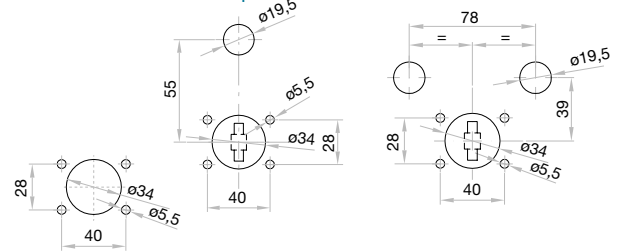
Double CODE D5LCEB1

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

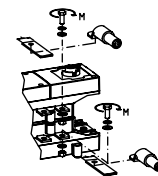
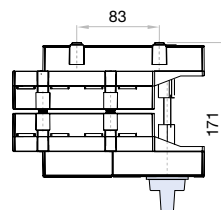
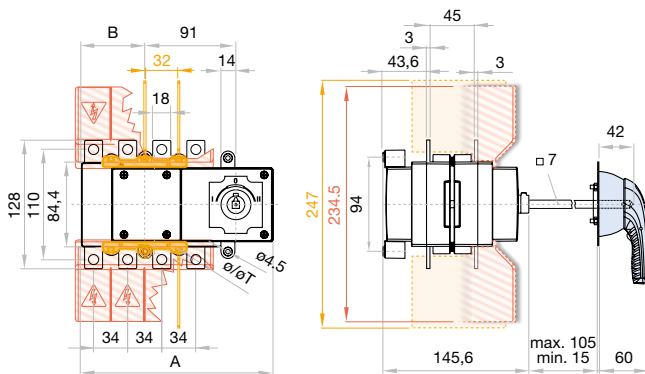
Door drilling for handle and key lock device

Simple

Double

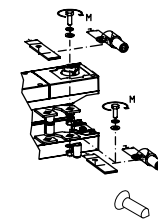
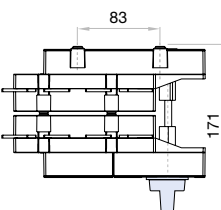
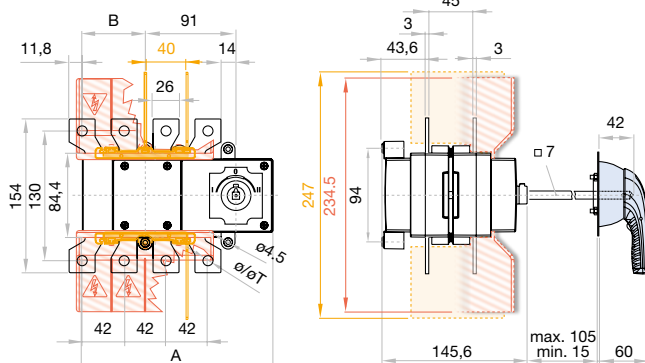
**Dimensions (mm)**

Door drilling for external handle



	A		B		ø	øT
	3P	4P	3P	4P		
125 A	181	192	53	64	10	M8
160 A						

S max (Cu)	H max (Cu)	L max (Cu)	M
mm ²	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
mm ²	mm	mm	Nxm
120	5	30	M10 18

CCF | CCP

Changeover switch

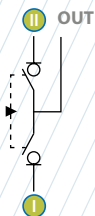
base mounting 3P - 3P+N

Size 1

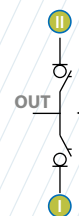
A 200|250|315|400



CCF



CCP



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

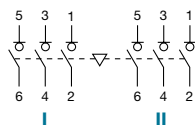
3P + N

CCP02003NS0

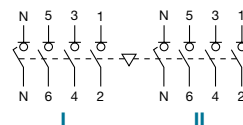
CCP02503NS0

CCP03153NS0

CCP04003NS0



3P



3P + N

Technical information



consult



According to IEC 60947-3

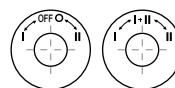
			200	250	315	400
Rated thermal current	I _{th} in ambient at 40° C	A	200	250	315	400
Rated insulation voltage	U _i	V	1000	1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	8	8	8	8
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A	200	250	315	400
(Rated operational frequency 50/60 Hz)	U _e 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

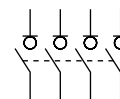
			200	250	315	400
Rated breaking capacity	400V AC22	A	600	750	945	1200
Rated making capacity	400V AC22	A	600	750	945	1200
Short - circuit behaviour						
Short - circuit making capacity ^{*(2)}	I _{cm}	kA (peak)	12	12	12	12
Short - time withstand current (1 sec.)	I _{cw}	kA rms	8	8	8	8
Number of mechanical 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



CCF



CCS



4P

There are versions of changeover switches without OFF 0 position:

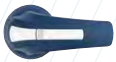
"overlapped contacts":

CCF (I - I+II - II) = CCS _____, please consult

Also available 4P changeover switches under request, please consult



Accessories



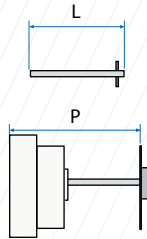
» Direct handle

CODE DCCLI11

» External handle included shaft^{*(e1)}

IP65

CODE DCCLA11



» Shafts

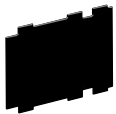
Standard shaft included^{*(e1)}

L (mm)	P (mm)
227	166... 293

Shaft extensions

Type 1		CODE
L (mm)	P (mm)	
375	166... 442	DS-EP14

Type 2		CODE
L (mm)	P (mm)	
536	166... 602	DS-EP15



» Rear protective plate

3P	4P
DCCPP11	DCCPP12



» Terminal shrouds

Inputs		Common output	
POS. I 3P	POS. II 3P	POS. I&II 3P+N	3P
DM2CU12	DM2CU11	DM2CU13	DCCCU11
			DCCCU12



» Auxiliary contacts

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

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

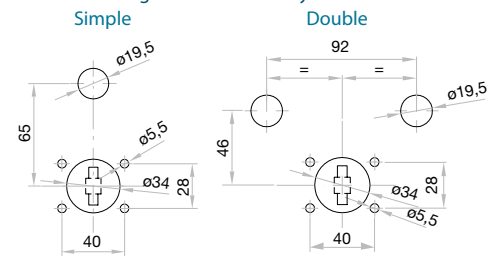


» Safety key lock device

Simple	CODE	D5LCB11
Double	CODE	D5LCF11

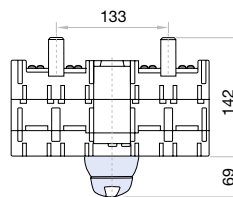
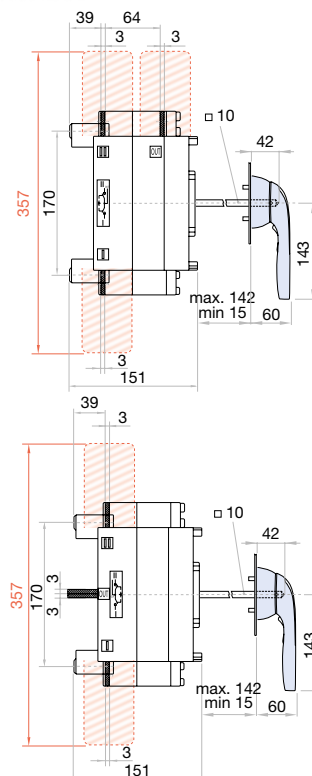
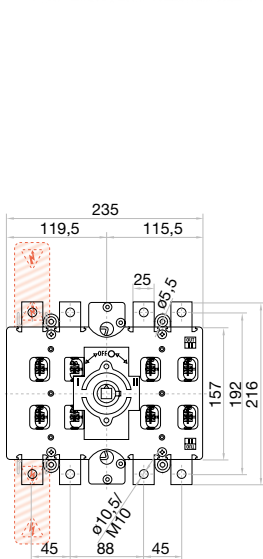
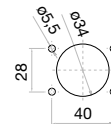
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device

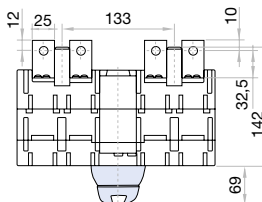


Dimensions (mm)

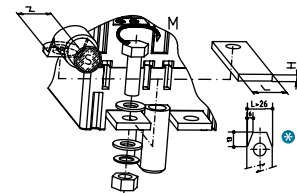
Door drilling for external handle



CCF



CCP



S max (Cu)	Z max	H max (Cu)	L max (Cu)	M
mm ²		mm	mm	Nxm
240	31	2x5	30	M10 24

CCF | CCP

Changeover switch

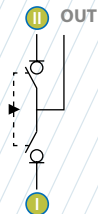
base mounting 3P - 3P+N

Size 2

A 500|630|800



CCF



CCP



CCF

3P

CODE-500A

CCF05003PS0

3P + N

CCF05003NS0

CODE-630A

CCF06303PS0

CCF06303NS0

CODE-800A

CCF08003PS0

CCF08003NS0

CCP

3P

CCP05003PS0

3P + N

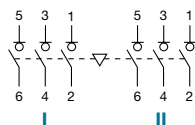
CCP05003NS0

CCP06303PS0

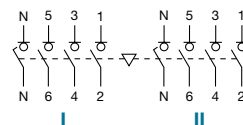
CCP06303NS0

CCP08003PS0

CCP08003NS0



3P



3P + N

Technical information



consult

According to IEC 60947-3

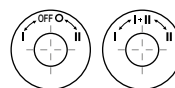
				500	630	800
Rated thermal current	I _{th}	in ambient at 40° C	A	500	630	800
Rated insulation voltage	U _i		V	1000	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	12	12	12
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	500	630	800
(Rated operational frequency 50/60 Hz)		U _e 400V AC22B	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

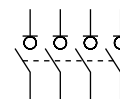
				500	630	800
Rated breaking capacity	400V	AC22	A	1500	1890	2400
Rated making capacity	400V	AC22	A	1500	1890	2400
Short - circuit behaviour						
Short - circuit making capacity ^{*(2)}	I _{cm}	kA (peak)		20	20	20
Short - time withstand current (1 sec.)	I _{cw}	kA rms		13	13	13
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		5000	5000	3000
Maximum weight (3/4 poles)	CCF	Kg		11,5/12,6	11,5/12,6	11,5/12,6
	CCP	Kg		12,8/14,3	12,8/14,3	13/14,6



CCF



CCS



4P

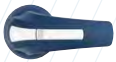
There are versions of changeover switches without OFF 0 position "overlapped contacts":

CCF (I - I+II - II) = CCS _____, please consult

Also available 4P changeover switches under request, please consult



Accessories



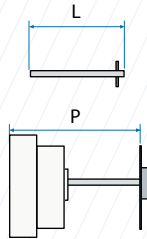
» Direct handle

CODE DCCLI21

» External handle included shaft ^{*(e1)}

IP65

CODE DCCLA21



» Shafts

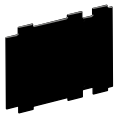
Standard shaft included ^{*(e1)}

L (mm)	P (mm)
195	195... 272

Shaft extensions

Type 1		CODE
L (mm)	P (mm)	
345	195... 422	DS-EP23

Type 2		CODE
L (mm)	P (mm)	
535	195... 612	DS-EP24



» Rear protective plate

3P	4P
DCCPP21	DCCPP22



» Terminal shrouds

Inputs		Common output		
POS. I 3P	POS. II 3P	POS. I&II 3P+N	3P	3P+N
DM2CU22	DM2CU21	DM2CU23	DCCCU21	DCCCU22



» Auxiliary contacts

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

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



» Safety key lock device

Simple CODE D5LCB21

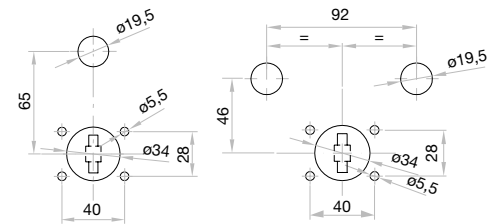
Double CODE D5LCF21

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

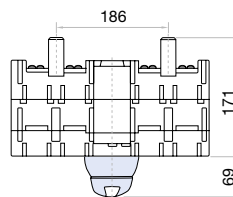
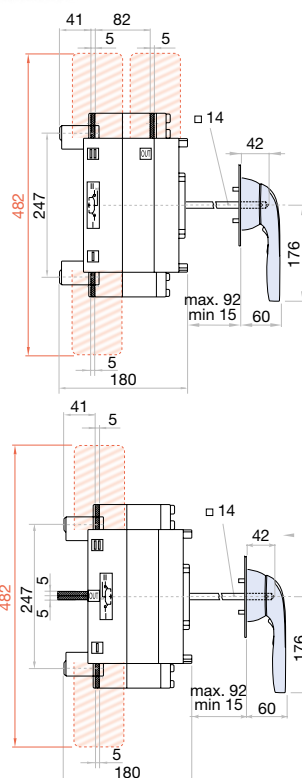
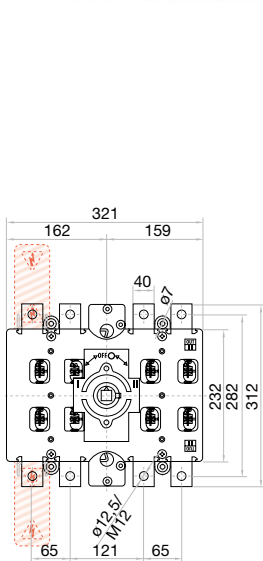
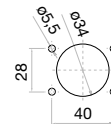
Simple

Double

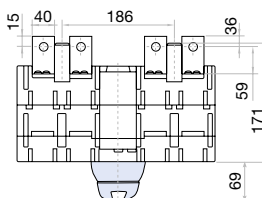


Dimensions (mm)

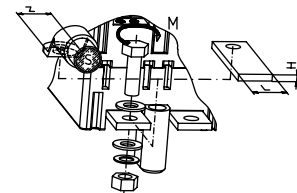
Door drilling for external handle



CCF



CCP



S max (Cu) mm ²	Z max	H max (Cu) mm	L max (Cu) mm	M
2x240	45	2x6	45	M12 45

CCF | CCP

Changeover switch

base mounting 3P - 3P+N

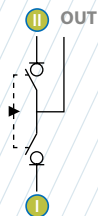
Size 3

A

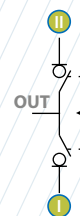
1000|1250



CCF



CCP



CODE - 1000A

CODE - 1200A

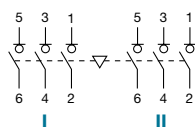
CCF 3P
3P + N

CCF10003PS0
CCF10003NS0

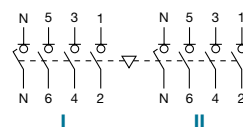
CCF12503PS0
CCF12503NS0

CCP 3P
3P + N

CCP10003PS0
CCP10003NS0

CCP12503PS0
CCP12503NS0


3P



3P + N

Technical information



consult

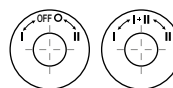
According to IEC 60947-3

				1000	1250
Rated thermal current	I _{th}	in ambient at 40° C	A	1000	1250
Rated insulation voltage	U _i		V	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	12	12
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	1000	1250
(Rated operational frequency 50/60 Hz)		U _e 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.)

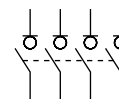
				1000	1250
Rated breaking capacity	400V	AC22	A	3000	3750
Rated making capacity	400V	AC22	A	3000	3750
Short - circuit behaviour					
Short - circuit making capacity ^{*(2)}	I _{cm}	kA (peak)		32	32
Short - time withstand current (1 sec.)	I _{cw}	kA rms		25	25
Number of mechanical operations (according 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



4P

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



Accessories



» Direct handle

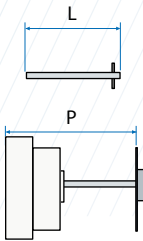
CODE DCCLI31



» External handle included shaft ^{*(e1)}

IP65

CODE DCCLA31



» Shafts

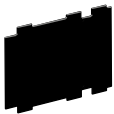
Standard shaft included ^{*(e1)}

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

POS. I 3P	Inputs POS. II 3P	POS. I&II 3P+N	Common output 3P	3P+N
DM2CU32	DM2CU31	DM2CU33	DCCCU31	DCCCU32



» Auxiliary contacts

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

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



» Safety key lock device

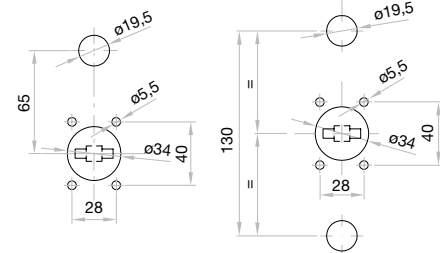
Simple	CODE D5LCB31
Double	CODE D5LCF31

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

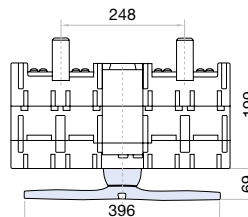
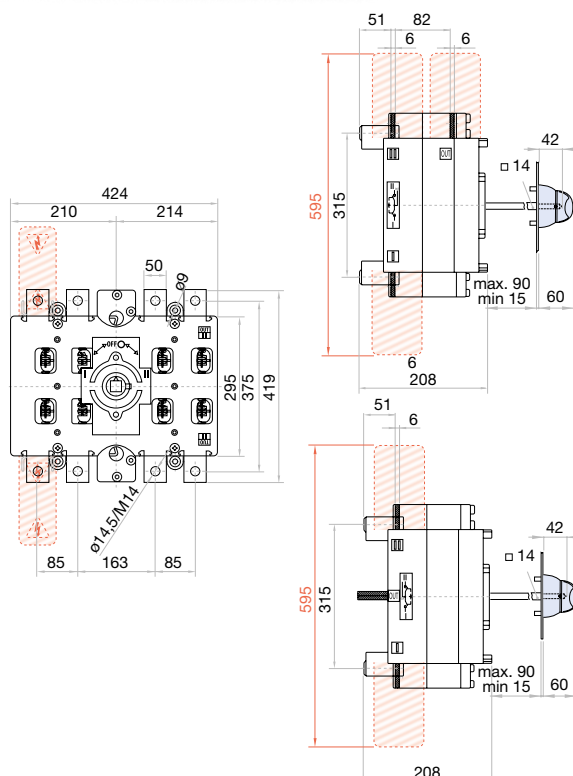
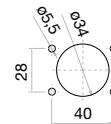
Simple

Double

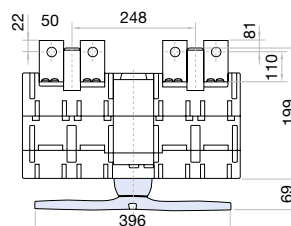


Dimensions (mm)

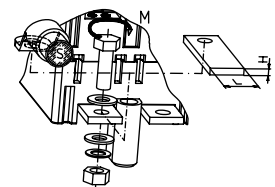
Door drilling for external handle



CCF



CCP



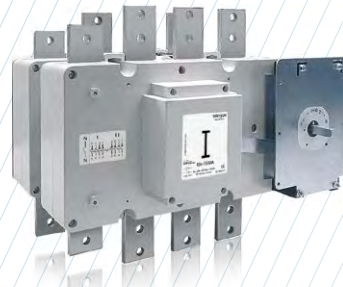
H max (Cu)	L max (Cu)	M	Nxm
2x10	60	M14	55

S5F

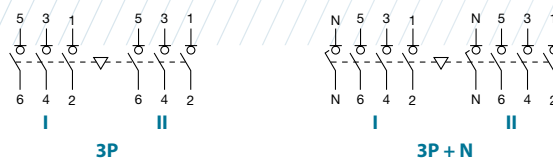
Changeover switch base mounting 3P - 3P+N

Size 4

A 1600|1800|2000



	CODE - 1600A	CODE - 1800A	CODE - 2000A
3P	S5F16003PS0	S5F18003PS0	S5F20003PD0
3P + N	S5F16003NS0	S5F18003NS0	S5F20003ND0



Technical information

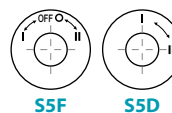


According to IEC 60947-3

				1600	1800	2000
Rated thermal current	I _{th} in ambient at 40° C	A		1600	1800	2000
Rated insulation voltage	U _i	V		1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV		12	12	12
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A		1600	1800	2000
(Rated operational frequency 50/60 Hz)	U _e 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.)

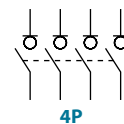
				1600	1800	2000
Rated breaking capacity	400V AC22	A		4800	5400	6000
Rated making capacity	400V AC22	A		4800	5400	6000
Short - circuit behaviour						
Short - circuit making capacity ^{*(2)}	I _{cm}	kA (peak)		75	75	75
Short - time withstand current (1 sec.)	I _{cw}	kA rms		50	50	50
Number of mechanical operations (according to the standards, for other values please consult)		Cycles		3000	3000	3000
Maximum weight (3/4 poles) (without bridging links)		Kg		42,9/47,3	42,9/47,3	42,9/47,3



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



Accessories



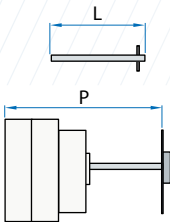
» Direct handle

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

I_e = 16 A (resistive loads)

4 A (inductive loads) at 250 Vac.



» Safety key lock device

Simple CODE D5LCB41

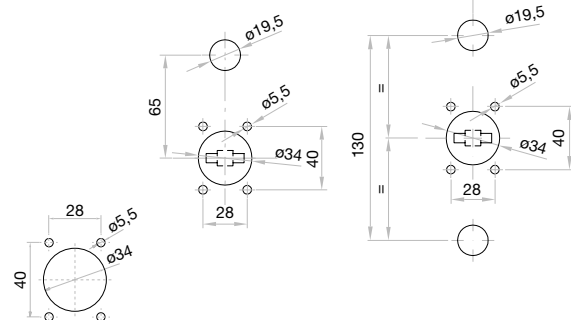
Double CODE D5LCF41

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

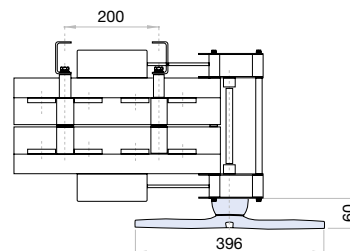
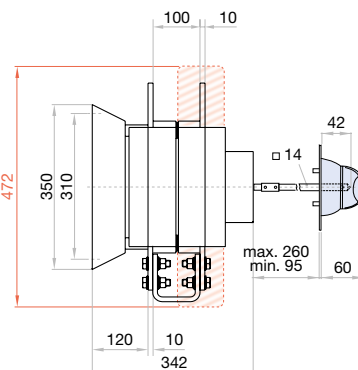
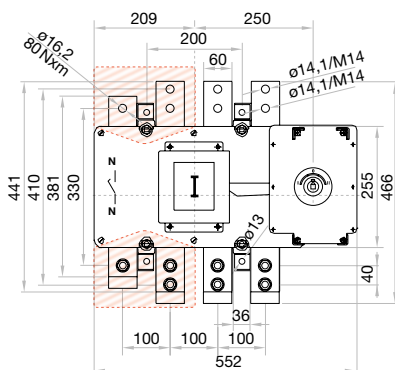
Simple

Double



Dimensions (mm)

Door drilling for external handle



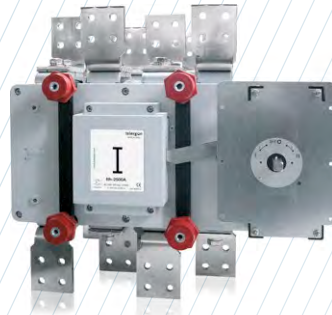
	H max (Cu) mm	L max (Cu) mm	M	M
			Nxm	
1600 A				
1800 A	2x10	80	M14	55
2000 A				

S5F

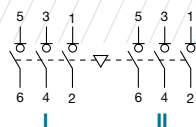
Changeover switch base mounting 3P - 3P+N

Size 5

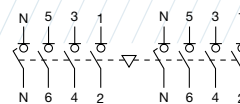
A 2000|2500|3150



	CODE - 2000A	CODE - 2500A	CODE - 3150A
3P	S5F20003PP0	S5F25003PP0	S5F31503PP0
3P + N	S5F20003NP0	S5F25003NP0	S5F31503NP0



3P



3P + N

Technical information

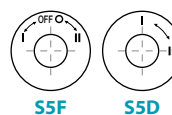


According to IEC 60947-3

				2000	2500	3150
Rated thermal current	I _{th} in ambient at 40° C	A		2000	2500	3150
Rated insulation voltage	U _i	V		1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV		8	8	8
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A		2000	2500	3150
(Rated operational frequency 50/60 Hz)	U _e 400V AC22B	A		2000	2500	2500

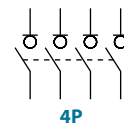
⁽¹⁾ Other voltages and / or utilization categories; please consult⁽²⁾ Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				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)}	I _{cm}	kA (peak)		100	100	100
Short - time withstand current (1 sec.)	I _{cw}	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



4P

There are versions of changeover switches without OFF 0 position:

S5F (I + II) = S5D _____, please consult

Also available 4P changeover switches under request, please consult



Accessories



» Direct handle

(Slide bar)

CODE DS-EI61



» Auxiliary contacts

1NO+1NC CODE DS-AU11

2NO+2NC CODE DS-AU12

 $I_e = 16\text{ A}$ (resistive loads)

4 A (inductive loads) at 250 Vac.

» External handle included shaft ^{*(e1)}

(Slide bar)

CODE D5LEN51



» Safety key lock device

Simple CODE D5LCB41

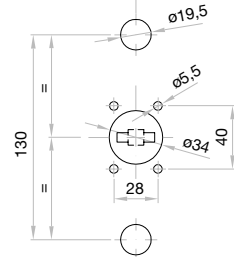
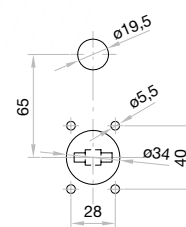
Double CODE D5LCF41

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



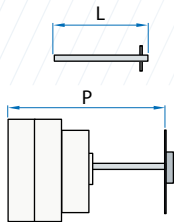
» Shafts

Standard shaft included ^{*(e1)}

L (mm)	P (mm)
333	788... 938

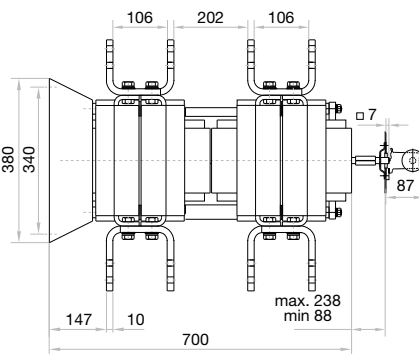
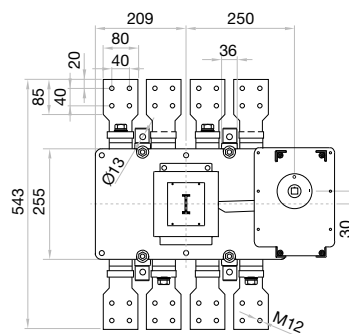
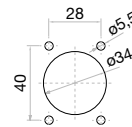
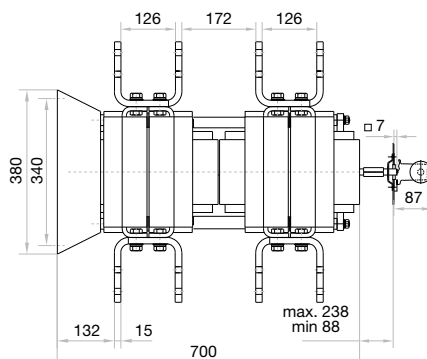
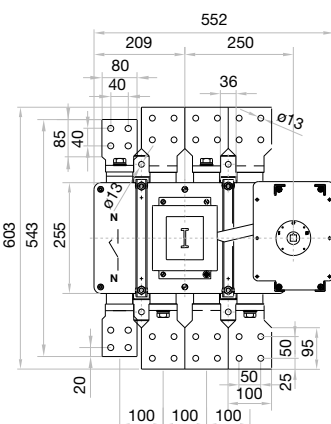
Shaft extensions

Consult

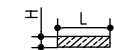
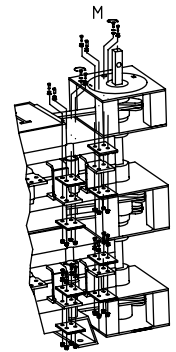


Dimensions (mm)

Door drilling for external handle

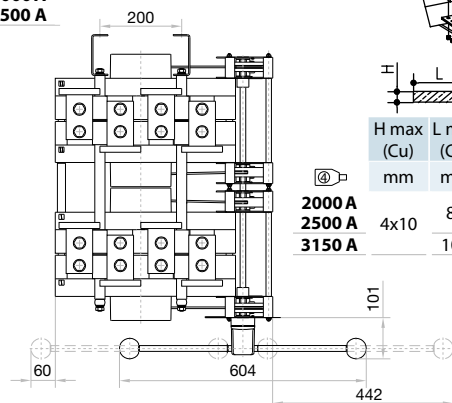
2000 A
2500 A

3150 A



H max (Cu) mm	L max (Cu) mm	M	M
		Nxm	

2000 A	2500 A	3150 A	4x10	80	M12	45
				100		

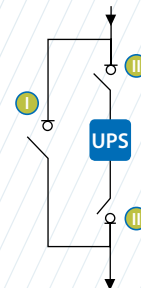


S5B

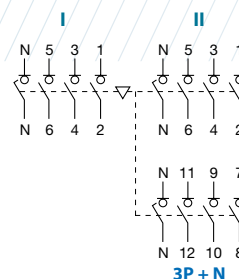
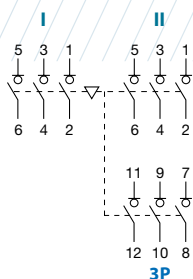
Bypass changeover switch base mounting 3P - 3P+N

Size 0

A 125|160|200



	CODE - 125A	CODE - 160A	CODE - 200A
3P	S5B01253PS0	S5B01603PS0	S5B02003PS0
3P + N	S5B01253NS0	S5B01603NS0	S5B02003NS0



Technical information



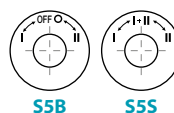
According to IEC 60947-3

				125	160	200
Rated thermal current	I _{th} in ambient at 40° C	A		125	160	200
Rated insulation voltage	U _i	V		1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV		8	8	8
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A		125	160	200
(Rated operational frequency 50/60 Hz)	U _e 400V AC22A	A		125	160	200

^{*(1)} Other voltages and/or utilization categories; please consult

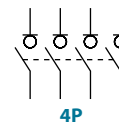
^{*(2)} Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				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)}	I _{cm}	kA (peak)		13	13	13
Short - time withstand current (1 sec.)	I _{cw}	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



SSB

SSS



4P

There are versions of bypass changeover without OFF 0 position "overlapped contacts":

SSB (I - I + II - II) = SSS _____, please consult

Also available 4P changeover switches under request, please consult

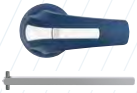


Accessories



Direct handle

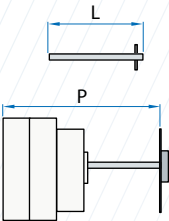
CODE D5LSI02



External handle included shaft^{*(e1)}

IP65

CODE D5LLA01



Shafts

Standard shaft included^{*(e1)}

L (mm) 177 P (mm) 221... 346



Auxiliary contacts

1NO+1NC CODE DS-AU11

2NO+2NC CODE DS-AU12

I_e = 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

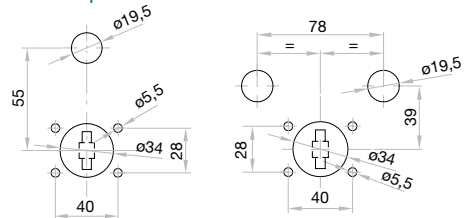
Double CODE D5LCFB1

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

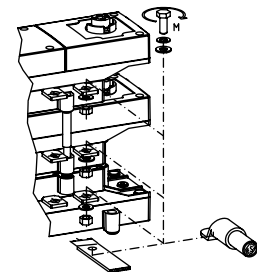
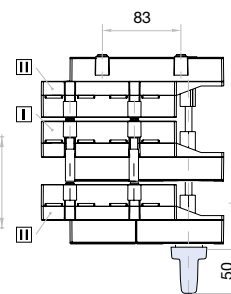
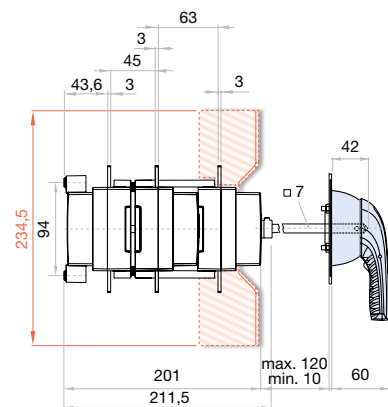
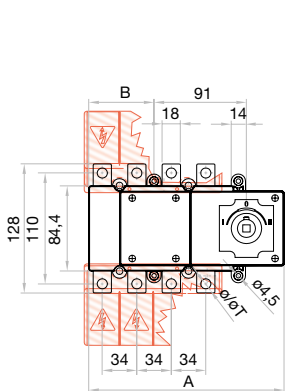
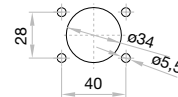
Simple

Double

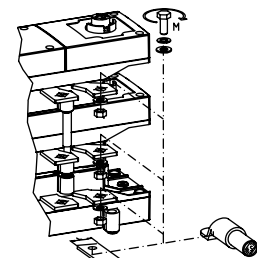
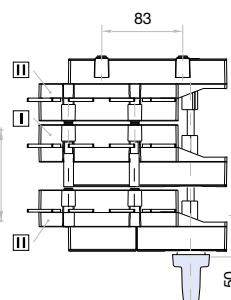
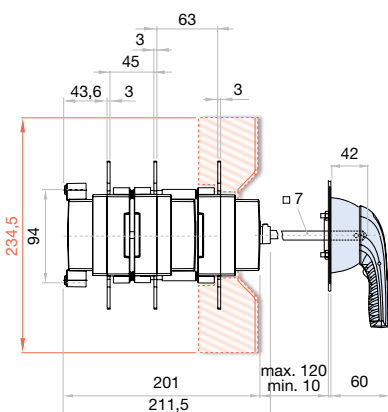
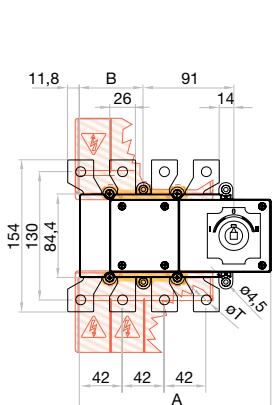


Dimensions (mm)

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



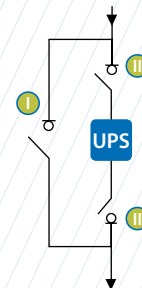
	A		B		Ø		S max (Cu) mm²	Z max	H max (Cu) mm	L max (Cu) mm		M Nxm
	3P	4P	3P	4P								
200 A	181	192	53	64	10		120	30	5	30	M10	18

S5B

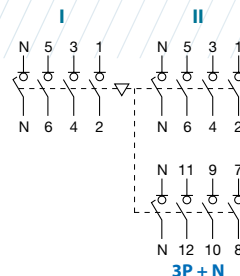
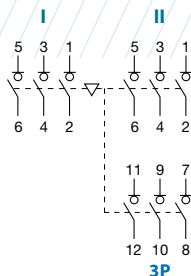
Bypass changeover switch base mounting 3P - 3P+N

Size 1

A 250|315|400



CODE-250A	CODE-315A	CODE-400A
3P S5B02503PR0	3P S5B03153PR0	3P S5B04003PC0
3P + N S5B02503NR0	3P + N S5B03153NR0	3P + N S5B04003NC0



Technical information



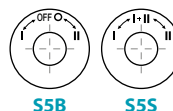
According to IEC 60947-3

				250	315	400
Rated thermal current	I _{th}	in ambient at 40° C	A	250	315	400
Rated insulation voltage	U _i		V	1000	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	8	8	8
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	250	315	400
(Rated operational frequency 50/60 Hz)		U _e 400V AC22A	A	250	315	400

^{*(1)} Other voltages and/or utilization categories; please consult

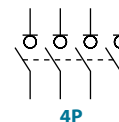
^{*(2)} Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				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)}	I _{cm}	kA (peak)		20	20	20
Short - time withstand current (1 sec.)	I _{cw}	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



There are versions of bypass changeover without OFF 0 position "overlapped contacts":

S5B (I - I + II - II) = S5S _____, please consult



Also available 4P changeover switches under request, please consult

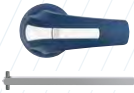


Accessories



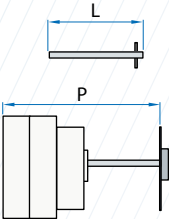
» Direct handle

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

I_e = 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

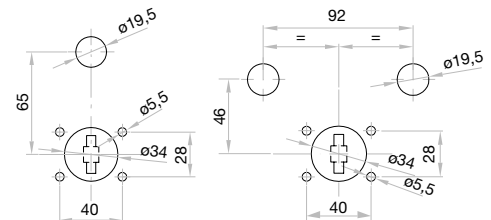
Double CODE D5LCF11

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

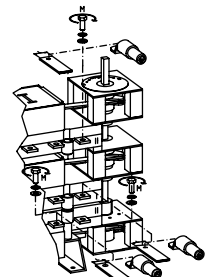
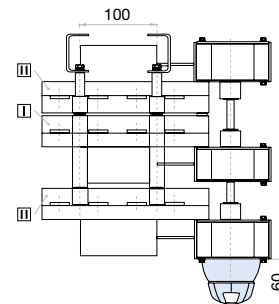
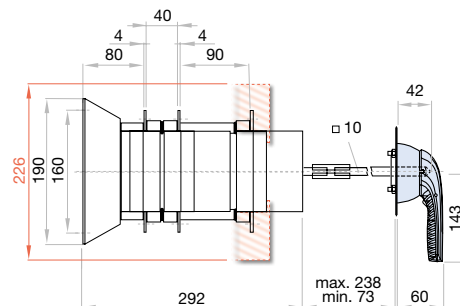
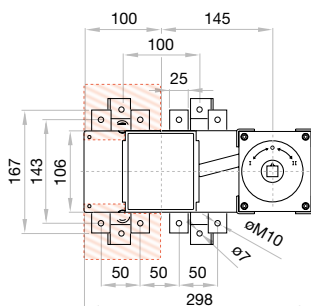
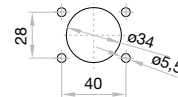
Simple

Double



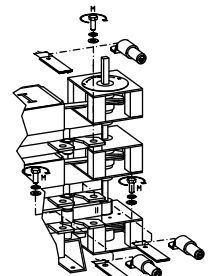
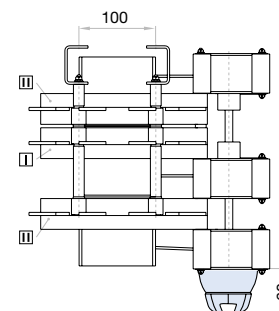
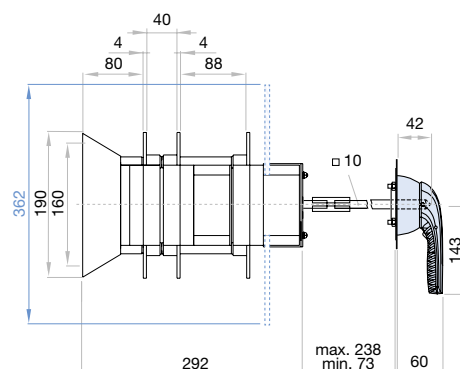
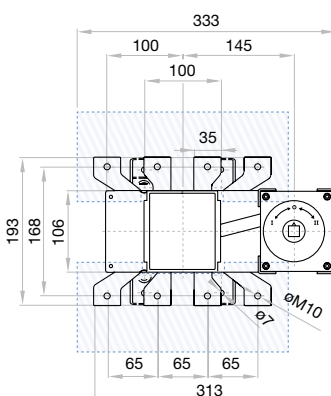
Dimensions (mm)

Door drilling for external handle



S max (Cu) mm ²	H max (Cu) mm	L max (Cu) mm	M	M
185	7	25	M10	18

250 A
315 A



S max (Cu) mm ²	H max (Cu) mm	L max (Cu) mm	M	M
240	7	40	M10	24

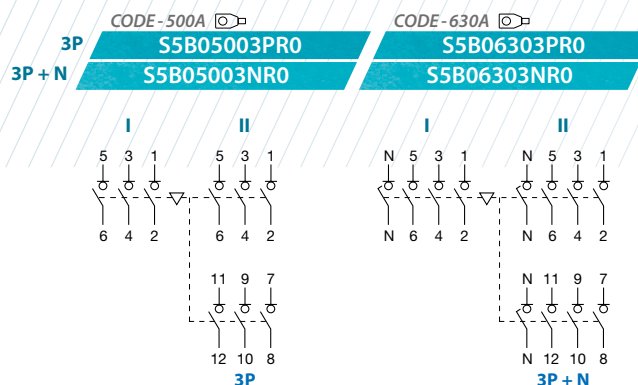
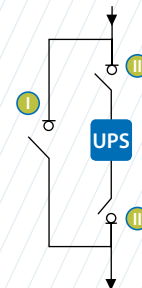
400 A

S5B

Bypass changeover switch base mounting 3P - 3P+N

Size 2

A 500|630



Technical information



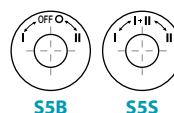
According to IEC 60947-3

				500	630
Rated thermal current	I _{th}	in ambient at 40° C	A	500	630
Rated insulation voltage	U _i		V	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	12	12
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	500	630
(Rated operational frequency 50/60 Hz)		U _e 400V AC22A	A	500	630

^{*(1)} Other voltages and/or utilization categories; please consult

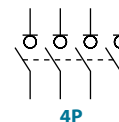
^{*(2)} Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				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)}	I _{cm}	kA (peak)		26	26
Short - time withstand current (1 sec.)	I _{cw}	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



SSB

SSS



4P

There are versions of bypass changeover without OFF 0 position "overlapped contacts":

S5B (I - I + II - II) = S5S _____, please consult

Also available 4P changeover switches under request, please consult

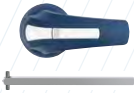


Accessories



» Direct handle

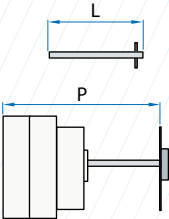
CODE D5LLI22



» External handle included shaft ^{*(e1)}

IP65

CODE D5LLA21



» Shafts

Standard shaft included ^{*(e1)}

L (mm) 239 P (mm) 448... 613



» Auxiliary contacts

1NO+1NC CODE DS-AU11

2NO+2NC CODE DS-AU12

I_e = 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

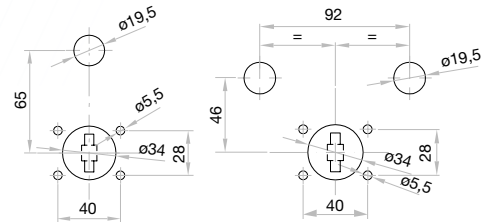
Double CODE D5LCF21

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

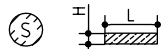
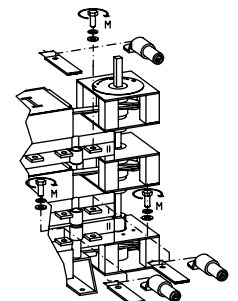
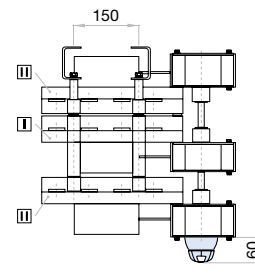
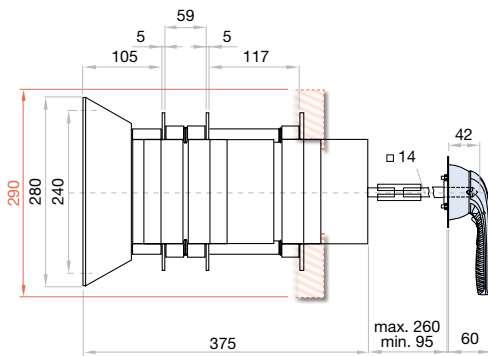
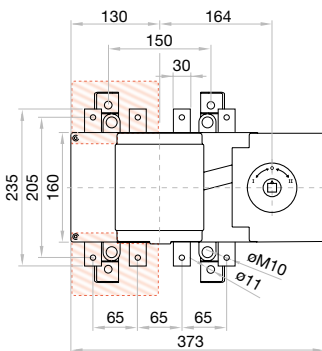
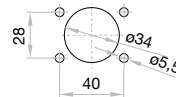
Simple

Double



Dimensions (mm)

Door drilling for external handle



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



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

S5B

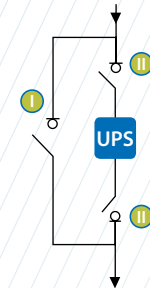
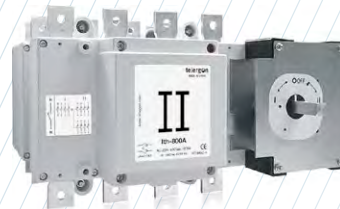
Bypass changeover switch

base mounting 3P - 3P+N

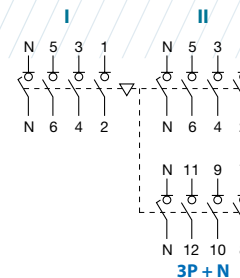
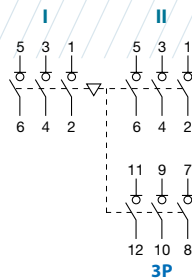
Size 3

A

800|1000



	CODE - 800A	CODE - 1000A
3P	S5B08003PR0	S5B10003PC0
3P + N	S5B08003NR0	S5B10003NC0



Technical information



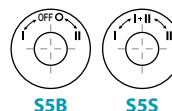
According to IEC 60947-3

				800	1000
Rated thermal current	I _{th}	in ambient at 40° C	A	800	1000
Rated insulation voltage	U _i		V	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	12	12
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	800	1000
(Rated operational frequency 50/60 Hz)		U _e 400V AC22A	A	800	1000

^{*(1)} Other voltages and/or utilization categories; please consult

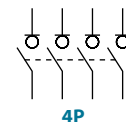
^{*(2)} Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

				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)}	I _{cm}	kA (peak)		60	60
Short - time withstand current (1 sec.)	I _{cw}	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



4P

There are versions of bypass changeover without OFF 0 position "overlapped contacts":

S5B (I - I + II - II) = S5S _____, please consult

Also available 4P changeover switches under request, please consult



Accessories



» Direct handle

CODE D5LLI32



» External handle included shaft ^{*(e1)}

IP65

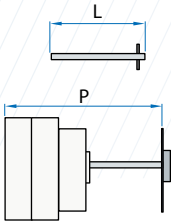
CODE D5LLA31



» Shafts

Standard shaft included ^{*(e1)}

L (mm) 239
P (mm) 480... 645



» Auxiliary contacts

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



I_e = 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)



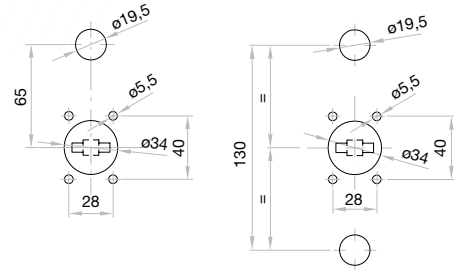
» Safety key lock device

Simple CODE D5LCB31

Double CODE D5LCF31

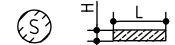
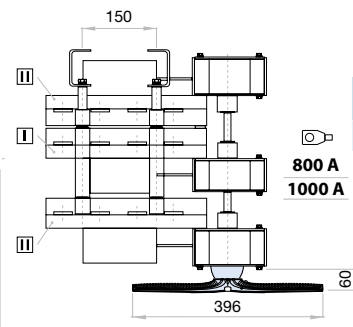
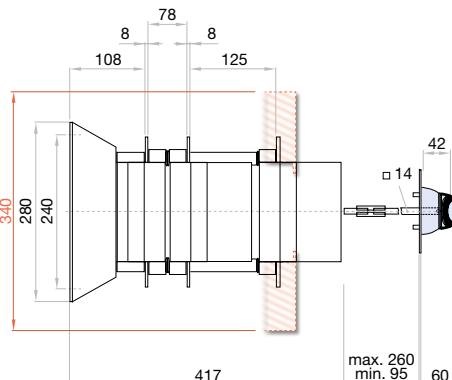
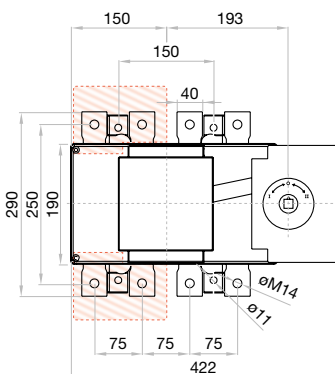
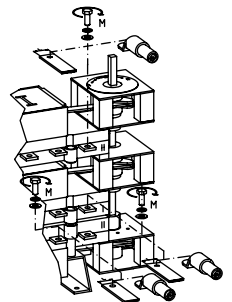
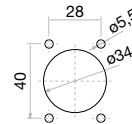
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device
Simple Double



Dimensions (mm)

Door drilling for external handle



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

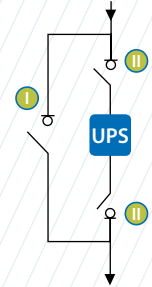
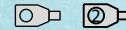
S5B

Bypass changeover switch

base mounting 3P - 3P+N

Size 4

A 1250|1600|1800|2000



CODE - 1250A

3P

S5B12503PS0

3P + N

S5B12503NS0

CODE - 1600A

S5B16003PS0

S5B16003NS0

CODE - 1800A

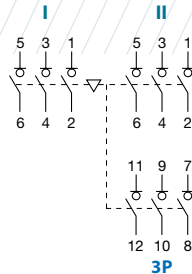
S5B18003PS0

S5B18003NS0

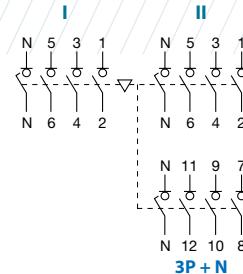
CODE - 2000A

S5B20003PD0

S5B20003ND0



3P



3P + N

Technical information



tests:

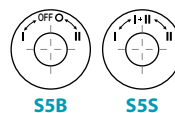
According to IEC 60947-3

			1250	1600	1800	2000
Rated thermal current	I _{th} in ambient at 40° C	A	1250	1600	1800	2000
Rated insulation voltage	U _i	V	1000	1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	12	12	12	12
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A	1250	1600	1800	2000
(Rated operational frequency 50/60 Hz)	U _e 400V AC22A	A	1250	1600	1800	2000

^{*(1)} Other voltages and/or utilization categories; please consult

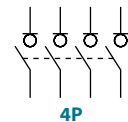
^{*(2)} Without limiting protective device (short - circuit maintained 50 ms. - 100 ms.)

			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)}	I _{cm}	kA (peak)	60	75	75	75
Short - time withstand current (1 sec.)	I _{cw}	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



S5B

S5S



4P

There are versions of bypass changeover without OFF 0 position "overlapped contacts":

S5B (I - I + II - II) = S5S....., please consult

Also available 4P changeover switches under request, please consult



Accessories



» Direct handle

CODE D5LLI32



» External handle included shaft ^{*(e1)}

IP65

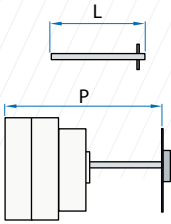
CODE D5LLA31



» Shafts

Standard shaft included ^{*(e1)}

L (mm) 239 P (mm) 572... 645



» Auxiliary contacts

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



I_e = 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)

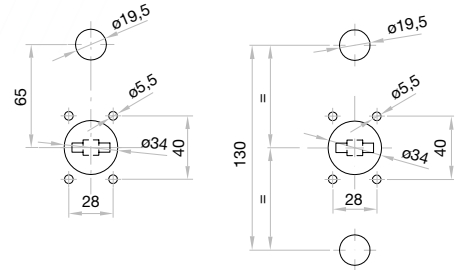
» Safety key lock device

Simple CODE D5LCB41

Double CODE D5LCF41

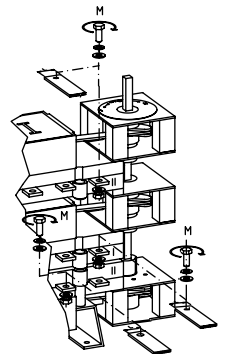
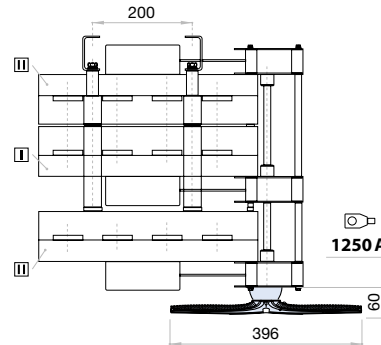
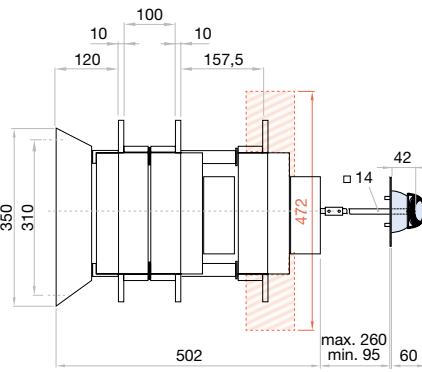
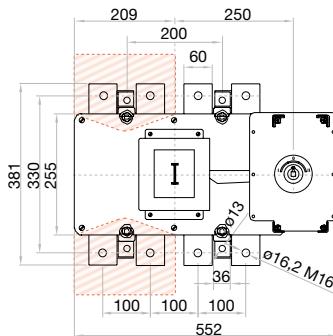
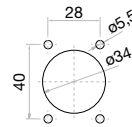
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked

Door drilling for handle and key lock device
Simple Double



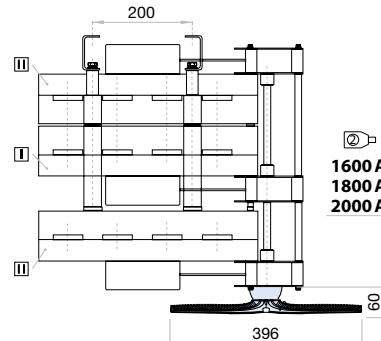
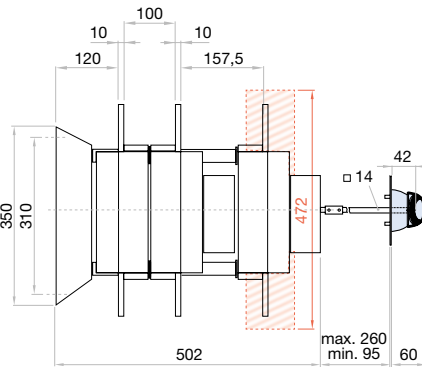
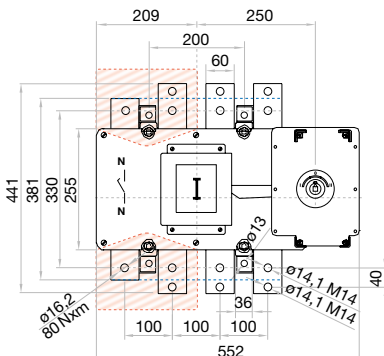
Dimensions (mm)

Door drilling for external handle



H max (Cu) mm	L max (Cu) mm	M	M
2x10	80	M16	80

1250 A



H max (Cu) mm	L max (Cu) mm	M	M
2x10	80	M14	55

1600 A
1800 A
2000 A

CTR₂ Metal enclosed compact changeover switch IP65

3P - 3P+N

Size 00

A 63|80|100|125



CODE-63A

3P

CTR2EC00633PB

3P + N

CTR2EC00633NB

CODE-80A

CTR2EC00803PB

CTR2EC00803NB

CODE-100A

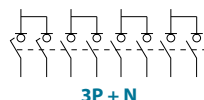
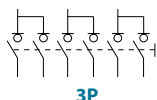
CTR2EC01003PS

CTR2EC01003NS

CODE-125A

CTR2EC01253PS

CTR2EC01253NS



Patent pending
EP18382154

Technical information



According to IEC 60947-3
IEC 61439-2

			63	80	100	125	
Rated thermal current in ambient at	I _{th}	40°C	A	63	80	100	125
		50°C	A	63	80	100	125
		60°C	A	63	80	100	125
Rated insulation voltage	U _i		V	1000	1000	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	8	8	8	8
AC rated operational current ^{*(1)} (Rated operational frequency 50/60Hz)	I _e U _e 400V	AC21A	A	63	80	100	125
		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	

^{*(1)} Please, inquire for other voltages and/or utilization categories

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

			63	80	100	125
Short-circuit behaviour						
Rated short-circuit making capacity ^{*(2)}	I _{cm}	kA (peak)	1,5	1,5	2,9	2,9
Rated short-time withstand current (1s)	I _{cw}	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			

Accessories



» External handle included shaft
CODE DCELAB1



» Auxiliary contacts

1NO+1NC CODE DCEAUB1
I_e = 0,1 A (resistive) at 125 Vac.

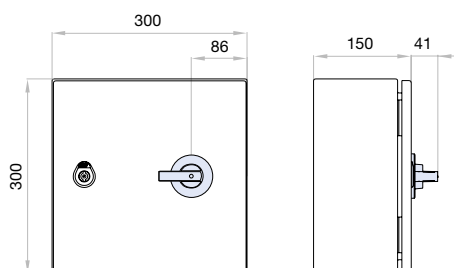


» Phase barrier

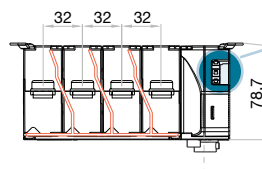
3P CODE DCECUB1
4P CODE DCECUB2

(1 kit for input or output)

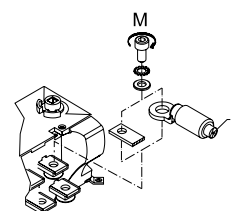
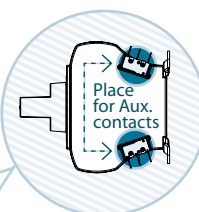
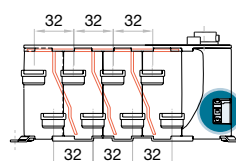
Dimensions (mm)



UP

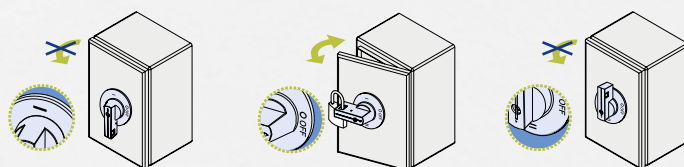


DOWN



	S max (Cu) mm ²	H max (Cu) mm	L max (Cu) mm	Allen	M
63 A					
80 A					
100 A				M8	6
125 A	50 ^{*(6)}	3	19		

^{*(6)} Use phase barriers in order to keep the clearance in air distances.



Standard
supply CTR2

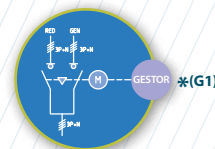
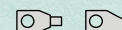
CTR₂ | CTRC Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 0

A

125|160|200



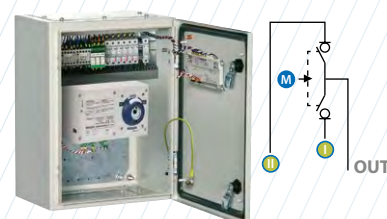
CTR2 (IP65)
manual



CTRC (IP66)
motorized

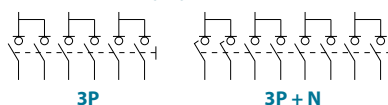


CTRC (IP54)
motorized with control module



			CODE - 125A		CODE - 160A		CODE - 200A		CODE - 200A	
			CTR2 (IP65) manual		CTRC (IP66) motorized		CTRC (IP54) with control module			
	3P		CTR2FC01253PS		CTR2FC01603PS		-		CTR2FC02003PS	
	3P + N		CTR2FC01253NS		CTR2FC01603NS		-		CTR2FC02003NS	
	3P		CTRCFC01253PSAN		CTRCFC01603PSAN		CTRCFC02003PSAN		-	
	3P + N		CTRCFC01253NSAN		CTRCFC01603NSAN		CTRCFC02003NSAN		-	
	3P + N		CTRCFC01253NSBJ		-		CTRCFC02003NSBJ		-	

CTR2 bridging links included



Technical information



According to IEC 60947-3
IEC 61439-2

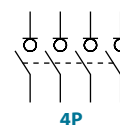
			125	160	200
Rated thermal current	I _{th} in ambient at 40° C	A	125	160	200
Rated insulation voltage	U _i	V	1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	8	8	8
AC Rated operational current ^{*(1)}	I _e				
	U _e 400V AC21A	A	125	160	200
	U _e 400V AC22A	A	125	160	200
	U _e 400V AC23A	A	125	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)}	I _{cm}	kA (peak)	13	13	13
Short - time withstand current (1 sec.)	I _{cw}	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

Accessories



» **External handle** included in CTR2
IP65
CODE D5LAN01



» **Auxiliary contacts**
1NO+1NC CODE DS-AU11
2NO+2NC CODE DS-AU12
I_e = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



» **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)

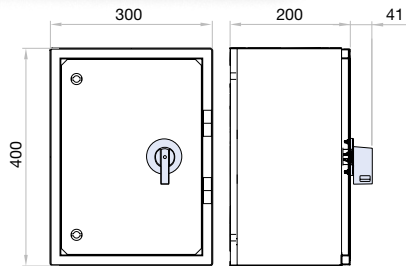
^{*(T)} These accessories aren't compatible with each other



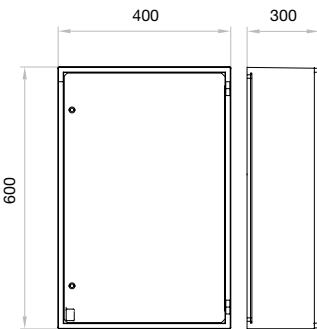
» **Bridging links** included

CODE D5LPC03 (4 units)

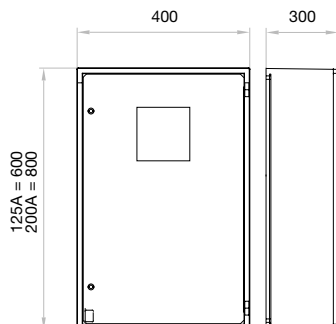
Dimensions (mm)



CTR2
manual



CTRC
motorized



CTRC
motorized with control module



» **Safety key lock device** for CTR2

Simple CODE D5LCBB1

Double CODE D5LCEB1

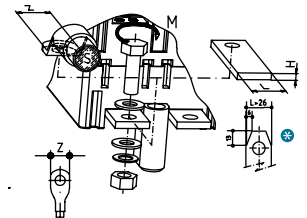
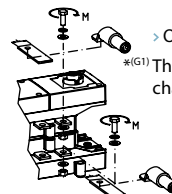
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



» **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



	S max (Cu)	H max (Cu)	L max (Cu)	T	M
	mm ²	mm	mm		Nxm
	95	5	25	M8	13
	120	5	30	M10	18

CTR2

CTRC

125 A

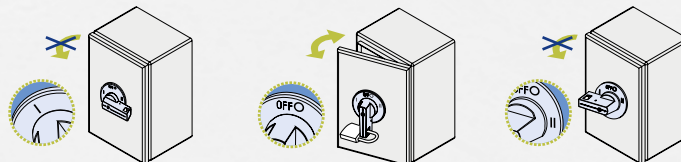
200 A

S max (Cu)	Z max	H max (Cu)	L max (Cu)	T	M
mm ²	mm	mm	mm		Nxm
240	31	2x5	30	M10	24

CTRC

125 A

200 A



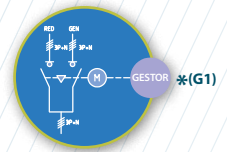
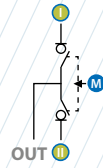
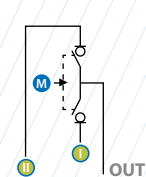
Standard
supply CTR2

CTR₂ | CTRC Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 1

A 200|250|315|400

CTR₂ (IP65)
manualCTRC (IP66)
motorizedCTRC (IP54)
motorized with control module

CODE - 200A

CODE - 250A

CODE - 315A

CODE - 400A

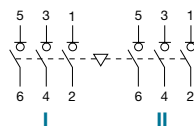
CTR₂ (IP65)
manual3P
3P + NCTR2CC02003PS
CTR2CC02003NSCTR2CC02503PS
CTR2CC02503NSCTR2CC03153PS
CTR2CC03153NSCTR2CC04003PS
CTR2CC04003NSCTRC (IP66)
motorized3P
3P + NCTRCCC02003PSAN
CTRCCC02003NSANCTRCCC02503PSAN
CTRCCC02503NSANCTRCCC03153PSAO
CTRCCC03153NSAOCTRCCC04003PSAO
CTRCCC04003NSAOCTRC (IP54)
motorized with control module

3P + N

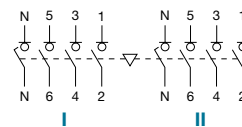
CTRCCC02503NSBJ

-

CTRCCC04003NSBK



3P



3P + N

Technical information



According to IEC 60947-3
IEC 61439-2

			200	250	315	400
Rated thermal current	I _{th} in ambient at 40° C	A	200	250	315	400
Rated insulation voltage	U _i	V	1000	1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	8	8	8	8
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A	200	250	315	400
(Rated operational frequency 50/60 Hz)	U _e 400V AC22A	A	200	250	315	400 ^{*(4)}

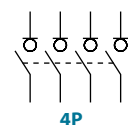
^{*(1)} Other voltages and / or utilization categories. Please consult

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

^{*(3)} Please consult us for CTRC motorized operations

^{*(4)} AC22B

			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)}	I _{cm}	kA (peak)	12	12	12	12
Short - time withstand current (1 sec.)	I _{cw}	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			



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
 $I_e = 16\text{ A}$ (resistive loads)
 4 A (inductive loads) at 250 Vac.



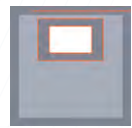
- » **Terminal shrouds** for CTR2

Inputs			Common output	
POS. I 3P	POS. II 3P	POS. I&II 3P+N	3P	3P+N
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

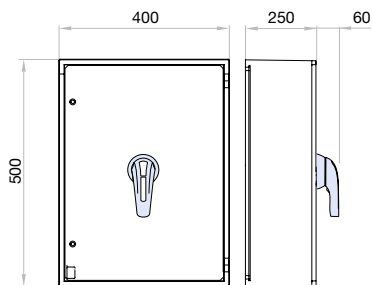


- » **Control module***(G1)

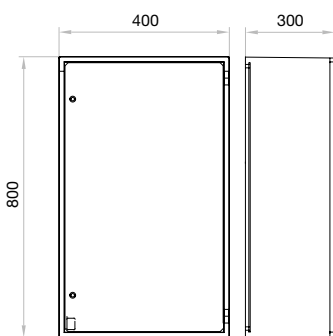
- » LCD graphic screen
- » **3 analog inputs** for resistive sensors:
 - Oil pressure
 - Coolant temperature
 - Fuel level
- » **5 + 3 digital inputs**:
 - 4 programmable, negative
 - 3 programmable, negative, alternative to resistive sensors
 - 1 emergency stop button, positive
- » **6 digital outputs**:
 - 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

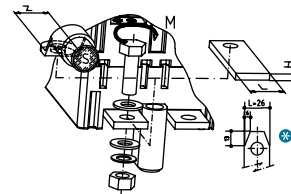
Dimensions (mm)



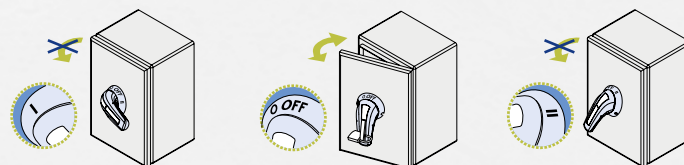
CTR2
manual



CTRC
motorized
motorized with control module



S max (Cu) mm ²	Z max	H max (Cu) mm	L max (Cu) mm	M	M
240	31	2x5	30	M10	24



Standard supply CTR2

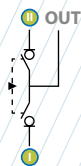
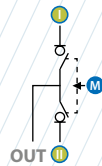
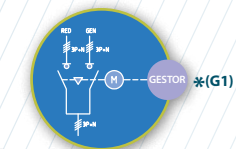
CTR₂ | CTRC Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 2

A

500|630|800

CTR₂ (IP65)
manualCTRC (IP66)
motorizedCTRC (IP54)
motorized with control moduleCTR₂ (IP65)
manual3P
3P + N

CODE-500A

CTR2CC05003PS

CTR2CC05003NS

CODE-630A

CTR2CC06303PS

CTR2CC06303NS

CODE-800A

CTR2CC08003PS

CTR2CC08003NS

CTRC (IP66)
motorized3P
3P + N

CTRCCC05003PSAO

CTRCCC05003NSAO

CTRCCC06303PSAO

CTRCCC06303NSAO

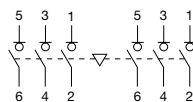
CTRCCC08003PSAO

CTRCCC08003NSAO

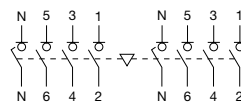
CTRC (IP54)
motorized with control module

3P + N

CTRCCC06303NSBK



3P



3P + N

Technical information



According to IEC 60947-3
IEC 61439-2

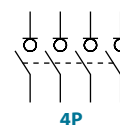
			500	630	800
Rated thermal current	I _{th} in ambient at 40° C	A	500	630	800
Rated insulation voltage	U _i	V	1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	12	12	12
AC Rated operational current ⁽¹⁾	I _e U _e 400V AC21A	A	500	630	800
(Rated operational frequency 50/60 Hz)	U _e 400V AC22B	A	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⁾	I _{cm}	kA (peak)	20	20	20
Short - time withstand current (1 sec.)	I _{cw}	kA rms	13	13	13
Number of mechanical operations (according to the standards, for other values please consult) CTR ₂ ⁽³⁾	Cycles		5000	5000	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 DCCLA21



- » **Auxiliary contacts**
1NO+1NC CODE D5LAU01
2NO+2NC CODE D5LAU02
I_e = 16 A (resistive loads)
4 A (inductive loads) at 250 Vac.



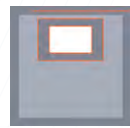
- » **Terminal shrouds** for CTR2

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

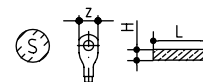
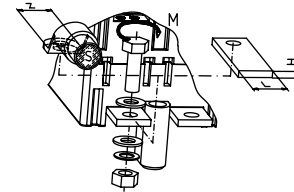
For external handle, lock the handle by means of a key in position "OFF" (under request, in "ON"), the key can only be removed with the handle locked



- » **Control module***(G1)

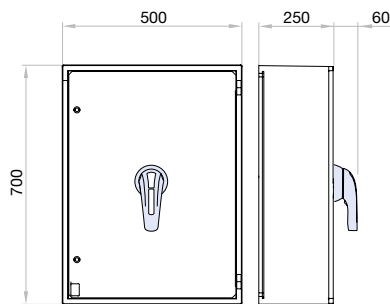
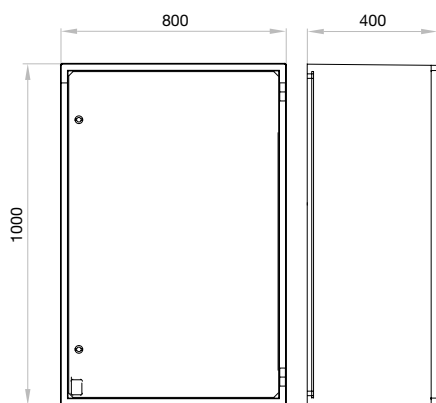
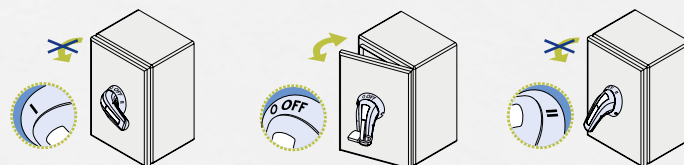
- » LCD graphic screen
- » **3 analog inputs** for resistive sensors:
 - Oil pressure
 - Coolant temperature
 - Fuel level
- » **5 + 3 digital inputs:**
 - 4 programmable, negative
 - 3 programmable, negative, alternative to resistive sensors
 - 1 emergency stop button, positive
- » **6 digital outputs:**
 - 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



S max (Cu) mm ²	Z max	H max (Cu) mm	L max (Cu) mm	M
2x240	45	2x6	45	M12 45

Dimensions (mm)

CTR2
manualCTRC
motorized
motorized with control moduleStandard
supply CTR2

CTR₂ | CTRC Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 3

A

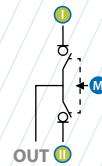
1000|1250



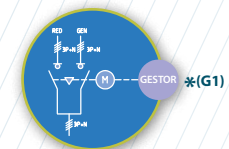
CTR₂ (IP65)
manual



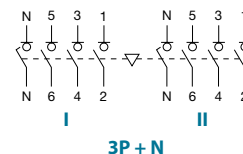
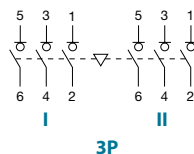
CTRC (IP66)
motorized



CTRC (IP54)
motorized with control module



			CODE - 1000A		CODE - 1250A	
			3P	3P + N	3P	3P + N
CTR₂ (IP65) manual			CTR2CC10003PS		CTR2CC12503PS	
			CTR2CC10003NS		CTR2CC12503NS	
CTRC (IP66) motorized			CTRCCC10003PSAP		CTRCCC12503PSAP	
			CTRCCC10003NSAP		CTRCCC12503NSAP	
CTRC (IP54) motorized with control module			CTRCCC10003NSBK		CTRCCC12503NSBK	



Technical information



According to IEC 60947-3
IEC 61439-2

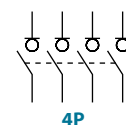
			1000	1250
Rated thermal current	I _{th} in ambient at 40° C	A	1000	1250
Rated insulation voltage	U _i	V	1000	1000
Rated impulse withstand voltage	U _{imp}	kV	12	12
AC Rated operational current ⁽¹⁾	I _e U _e 400V AC21A	A	1000	1250
(Rated operational frequency 50/60 Hz)	U _e 400V AC22B	A	1000	1250

⁽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⁾	I _{cm}	kA (peak)		32	32
Short - time withstand current (1 sec.)	I _{cw}	kA rms		25	25
Number of mechanical operations (according to the standards, for other values please consult) CTR ₂ ⁽³⁾		Cycles		3000	3000
Maximum weight (3/4 poles)		Kg		Consult	



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

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



» **Terminal shrouds** for CTR2

POS. I 3P	Inputs POS. II 3P	POS. I&II 3P+N	Common output	
DM2CU32	DM2CU31	DM2CU33	DCCCU31	DCCCU32

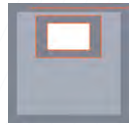


» **Safety key lock device** for CTR2

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

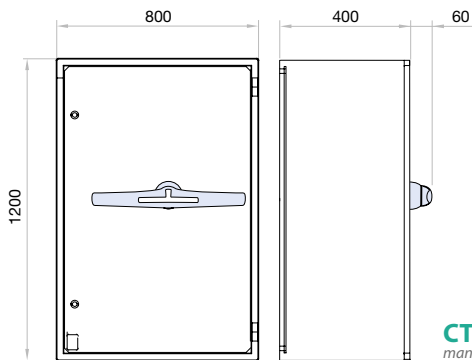


» **Control module***(G1)

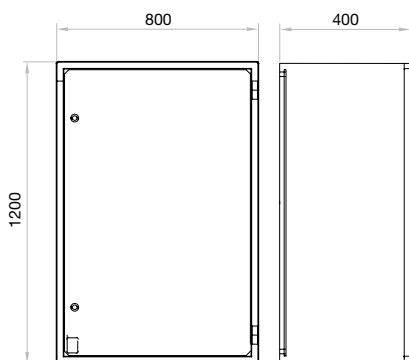
- » LCD graphic screen
- » **3 analog inputs** for resistive sensors:
 - Oil pressure
 - Coolant temperature
 - Fuel level
- » **5 + 3 digital inputs**:
 - 4 programmable, negative
 - 3 programmable, negative, alternative to resistive sensors
 - 1 emergency stop button, positive
- » **6 digital outputs**:
 - 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

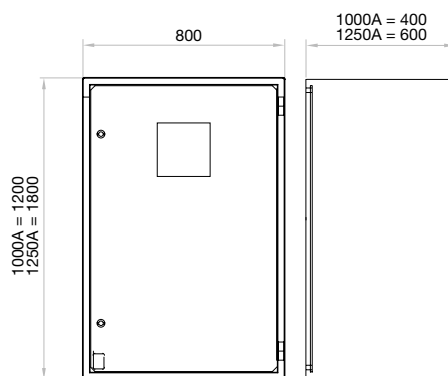
Dimensions (mm)



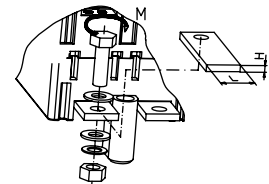
CTR2
manual



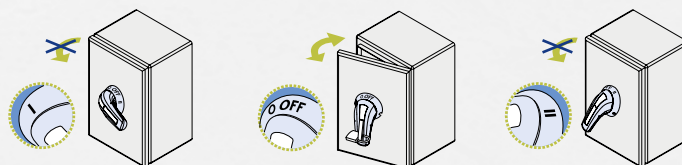
CTRC
motorized



CTRC
motorized with control module



H max (Cu)	L max (Cu)	M	
mm	mm	T	Nxm
2x10	60	M14	55



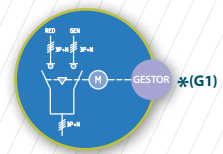
Standard
supply CTR2

CTR₂ | CTRC Metal enclosed transfer switch IP54-IP66

3P - 3P+N

Size 4

A 1600|1800|2000



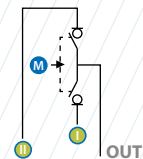
CTR2 (IP65)
manual



CTRC (IP66)
motorized

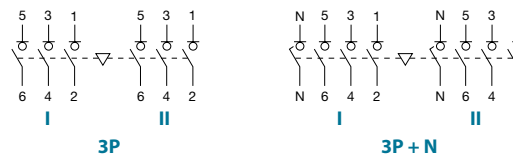


CTRC (IP54)
motorized with control module



		CODE - 1600A			CODE - 1800A			CODE - 2000A		
		3P	3P + N		3P	3P + N		3P	3P + N	
CTR2 (IP65) manual		CTR2FC16003PS			CTR2FC18003PS			CTR2FC20003PD		
		CTR2FC16003NS			CTR2FC18003NS			CTR2FC20003ND		
CTRC (IP66) motorized		CTRCFC16003PSAP			CTRCFC18003PSAP			CTRCFC20003PDAP		
		CTRCFC16003NSAP			CTRCFC18003NSAP			CTRCFC20003NDAP		
CTRC (IP54) motorized with control module		CTRCFC16003NSBK			-			CTRCFC20003NDBK		

Technical information



According to IEC 60947-3
IEC 61439-2

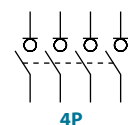
				1600	1800	2000
Rated thermal current	I _{th} in ambient at 40° C	A		1600	1800	2000
Rated insulation voltage	U _i	V		1000	1000	1000
Rated impulse withstand voltage	U _{imp}	kV		12	12	12
AC Rated operational current ^{*(1)}	I _e U _e 400V AC21A	A		1600	1800	2000
(Rated operational frequency 50/60 Hz)	U _e 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.)

^{*(3)} Please consult us for CTRC motorized operations

				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)}	I _{cm}	kA (peak)		75	75	75
Short - time withstand current (1 sec.)	I _{cw}	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		



Also available 4P changeover switches
under request, please consult

Accessories



» External handle included in CTR2

IP65

CODE D5LLA31



» Auxiliary contacts

1NO+1NC CODE DS-AU11

2NO+2NC CODE DS-AU12

I_e = 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

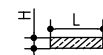
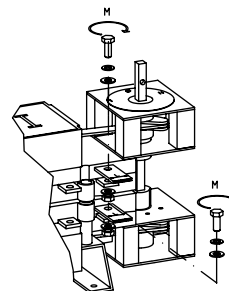
Double CODE D5LCF41

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)}

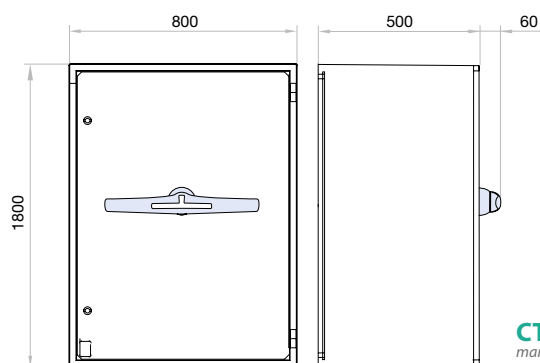
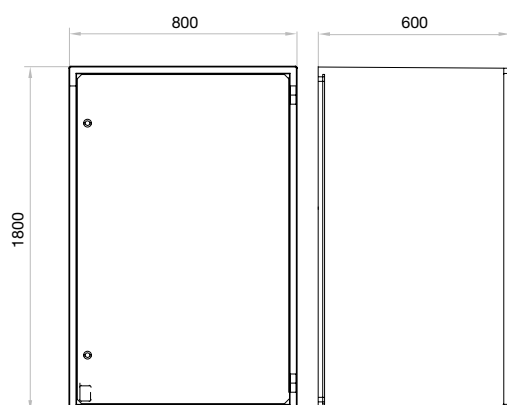
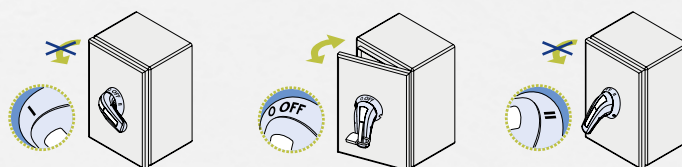
- › LCD graphic screen
- › 3 analog inputs for resistive sensors:
 - Oil pressure
 - Coolant temperature
 - Fuel level
- › 5 + 3 digital inputs:
 - 4 programmable, negative
 - 3 programmable, negative, alternative to resistive sensors
 - 1 emergency stop button, positive
- › 6 digital outputs:
 - 6 positive 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)	M	
mm	mm	T	Nxm
2x10	80	M14	55

Dimensions (mm)

CTR2
manualCTR
motorized
motorized with control moduleStandard
supply CTR2

CTR₂ | CTRC Metal enclosed transfer switch IP55

3P - 3P+N

CTR2 (IP55) manual



CTRC (IP55) motorized

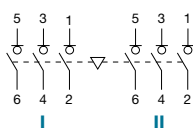


Size 5

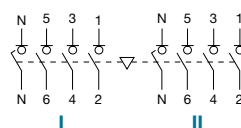
A 2000|2500|3150



	3P	3P + N	CODE-2000A			CODE-2500A			CODE-3150A		
			CTR2 (IP55) manual			CTR2 (IP55) manual			CTRC (IP55) motorized		
			CTR2FC20003PP	CTR2FC20003NP		CTR2FC25003PP	CTR2FC25003NP		CTR2FC31503PP	CTR2FC31503NP	
			CTRCFC20003PPAP	CTRCFC20003NPAP		CTRCFC25003PPAP	CTRCFC25003NPAP		CTRCFC31503PPAP	CTRCFC31503NPAP	



3P



3P + N

Technical information



According to IEC 60947-3
IEC 61439-2

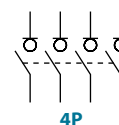
				2000	2500	3150
Rated thermal current	I _{th}	in ambient at 40° C	A	2000	2500	3150
Rated insulation voltage	U _i		V	1000	1000	1000
Rated impulse withstand voltage	U _{imp}		kV	8	8	8
AC Rated operational current ^{*(1)}	I _e	U _e 400V AC21A	A	2000	2500	3150
(Rated operational frequency 50/60 Hz)		U _e 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)}	I _{cm}	kA (peak)		100	100	100
Short - time withstand current (1 sec.)	I _{cw}	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

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

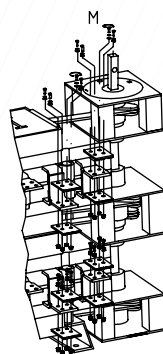


» **Safety key lock device** for CTR2

Simple CODE D5LCB41

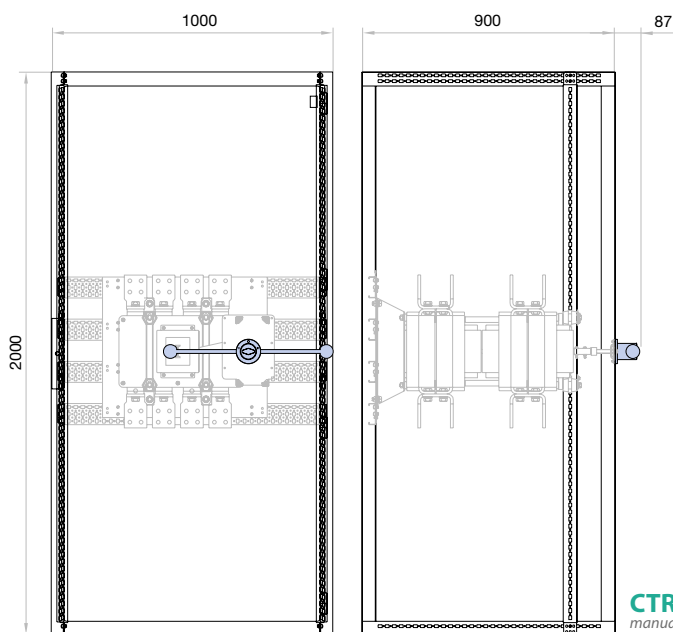
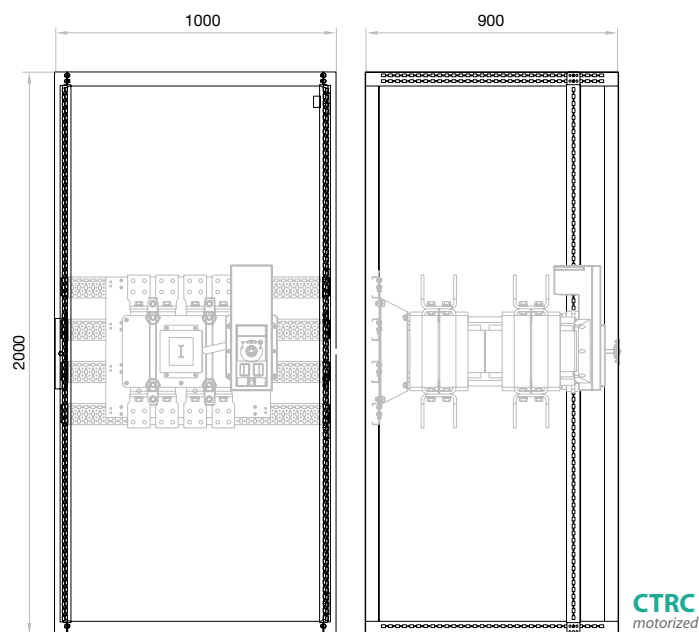
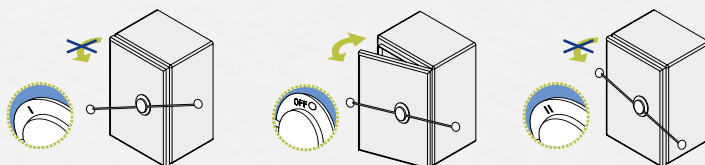
Double CODE D5LCF41

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	M	M
			Nxm	
2000 A		80	M12	45
2500 A	4x10	100		
3150 A				

Dimensions (mm)

CTR2
manualCTRC
motorizedStandard
supply CTR2