Changeover switches

series CCF|CCP|S5F|S5B

series CEC

Changeover switches with high operating load capacity and a high level disconnection insulation; high reliability and safety in abnormal situations, available in different construction models, with a wide range of currents, motorized units and various accessories.

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

Testing and approvals:

The changeover switches in the series **CCF|CCP|S5F|S5B**, are manufactu-red with high safety self-extinguishing materials, providing an excellent level of electrical insulation, low smoke emission and high resistance to electromechani-cal stress.

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

They consist of a sandwich-type body con-taining 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 com-mon output without the need for exter-nal connections.

Functional and ergonomic handle

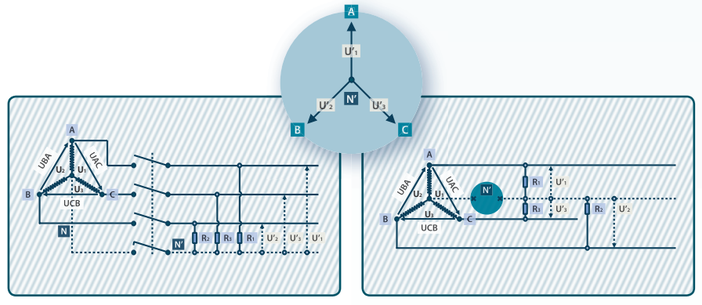
- Good grip and excellent torque/ resistance
- Padlockable handle in **O OFF** position (up to three locks Ø 5-8 mm)
- Door interlock in **ON I - ON II** position
- Self-centering shaft for door handle

MOTORIZED KIT AVAILABLE · SEE UM KIT · KIT UM

Neutral pole early make & late break

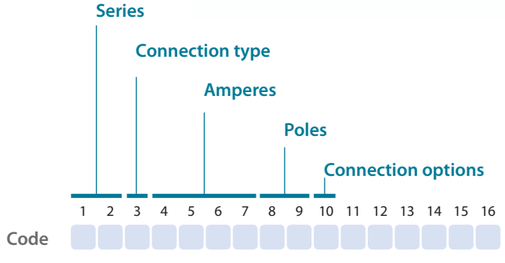
This safety feature prevents accidental overvoltage when making/breaking of loads connected between phase and neutral.

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



Range codification:

The **CCF|CCP|S5F|S5B** series, are identifi ed by a code that describes their most important characteristics as des-cribed below.



series CCF

1 2 3 4 5
C C F

Compact model.
Visible cut-off.
Common output from the front.
Wide range of currents.
Base mounting by screws.
External or direct handle.

series CCP

1 2 3 4 5
C C P

Compact model.
Visible cut-off.
Common output from the rear.
Wide range of currents.
Base mounting by screws.
External or direct handle.

series S5F

1 2 3 4 5
S 5 F

1 2 3 4 5
S 5 L

Back to back or line arrangement.
Base mounting by screws.
External or direct handle.

series S5B

By-pass

1 2 3 4 5
S 5 B

Back to back arrangement.
Base mounting by screws.
External or direct handle.

series CEC

1 2 3 4 5
C E C

Compact efficient chan-geover switches.
Reduced size.
Common output from the up.
Flexible mounting.
Innovative single mechanism for COS function.
Lower energy losses.
External or direct handle.

series CTR2

1 2 3 4 5
C T R 2

Manual changeover switch in metallic enclosure.
External padlockable handle with locking door in ON I - ON II positions.

series CTRC

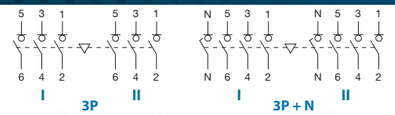
1 2 3 4 5
C T R C

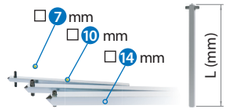
Motorized changeover switch in meta-llic enclosure.
Outdoor lights position indicators (mains - 0 - generator).
Power connections on the bottom for direct access.
Power part protected against acciden-tal contact.
Physical separation between power and control parts.
Including manual handle (for emer-gency operation or maintenance).
Other special combinations under request.

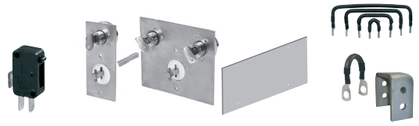
series CTRC

1 2 3 4 5
C T R C

Motorized changeover switch in metallic enclosure with automatic transfer switch for the generator control with automated switching Main - Gen management.
Configurable through software programming.
Power part protected against accidental contact.
Including manual handle (for emergency operation or maintenance).







CEC | S5F | CCF | CCP — Changeover switches
3 & 4 poles (40 - 3150A) (I - O - II) *(2)

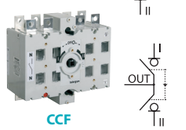
Manual handle — **Shaft extensions** *(4)

Amp.	Size	Connection	Series	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(3) Code	Direct Code	□	Type 1 & 2 L	Type 1 & 2 Code *(e1)
63	00		CEC	CEC00633PB0	CEC00633NB0	DCELAB1	D5LSI01	7	250	DS-EP04
63			CEC	CEC00633PS0	CEC00633NS0				387	DS-EP05
80			CEC	CEC00803PB0	CEC00803NB0					
80			CEC	CEC00803PS0	CEC00803NS0					
100			CEC	CEC01003PS0	CEC01003NS0					
125			CEC	CEC01253PS0	CEC01253NS0					
125	0		S5F	S5F01253PS0	S5F01253NS0	D5LLA01	D5LSI01	7	250	DS-EP04
160			S5F	S5F01603PS0	S5F01603NS0				387	DS-EP05
200			S5F	S5F02003PS0	S5F02003NS0					
200	1		CCF	CCF02003PS0	CCF02003NS0	DCCLA11	DCCLI11	10	375	DS-EP14
200			CCP	CCP02003PS0	CCP02003NS0				536	DS-EP15
250			CCF	CCF02503PS0	CCF02503NS0					
250			CCP	CCP02503PS0	CCP02503NS0					
315			CCF	CCF03153PS0	CCF03153NS0					
315			CCP	CCP03153PS0	CCP03153NS0					
400			CCF	CCF04003PS0	CCF04003NS0					
400			CCP	CCP04003PS0	CCP04003NS0					
500	2		CCF	CCF05003PS0	CCF05003NS0	DCCLA21	DCCLI21	14	345	DS-EP23
500			CCP	CCP05003PS0	CCP05003NS0				535	DS-EP24
630			CCF	CCF06303PS0	CCF06303NS0					
630			CCP	CCP06303PS0	CCP06303NS0					
800			CCF	CCF08003PS0	CCF08003NS0					
800			CCP	CCP08003PS0	CCP08003NS0					
1000	3		CCF	CCF10003PS0	CCF10003NS0	DCCLA31	DCCLI31	14	345	DS-EP23
1000			CCP	CCP10003PS0	CCP10003NS0				535	DS-EP24
1250			CCF	CCF12503PS0	CCF12503NS0					
1250			CCP	CCP12503PS0	CCP12503NS0					
1600	4	②	S5F	S5F16003PS0	S5F16003NS0	D5LLA31	D5LLI32	-	-	-
1800		②	S5F	S5F18003PS0	S5F18003NS0					
2000		②	S5F	S5F20003PD0	S5F20003ND0					
2000	5	④	S5F	S5F20003PP0	S5F20003NP0	D5LEN51	DS-EI61	-	-	-
2500		④	S5F	S5F25003PP0	S5F25003NP0					
3150		④	S5F	S5F31503PP0	S5F31503NP0					

Size	1NO+1NC Code	2NO+2NC Code	Safety *(7) key lock device: Simple Code *(e1)	Safety *(7) key lock device: Double Code *(e1)	Rear protective plate Code	Bridging links Code (4 units)	Terminal shrouds *(8): 3P input Code	3P common output Code	4P input position I & II Code	4P common output Code	Terminal shrouds *(8) (1 unit): Up 3P Code	Down 3P Code	Up or Down 4P Code	Phase barrier *(8): Only changeover switches 3P Code	4P Code
00	D5EAUB1	-	-	-	-	-	-	-	-	-	-	-	-	DCECUB1	DCECUB2
0	DS-AU11	DS-AU12	D5LCBB1	D5LCEB1	-	D5LPC03	-	-	-	-	DS-CU02	DS-CU03	DS-CU04	DS-PB01	DS-PB02
											DS-CU02	DS-CU03	DS-CU04	DS-PB01	DS-PB02
											DS-CU05	DS-CU06	DS-CU07	DS-PB04	DS-PB03
1	D5LAU01	D5LAU02	D5LCB11	D5LCF11	3P DCCPP11 / 4P DCCPP12	-	position I DM2CU12 / position II DM2CU11	DCCCU11	DM2CU13	DCCCU12	-	-	-	-	-
2	D5LAU01	D5LAU02	D5LCB21	D5LCF21	3P DCCPP21 / 4P DCCPP22	-	position I DM2CU22 / position II DM2CU21	DCCCU21	DM2CU23	DCCCU22	-	-	-	-	-
3	D5LAU01	D5LAU02	D5LCB31	D5LCF31	3P DCCPP31 / 4P DCCPP32	-	position I DM2CU32 / position II DM2CU31	DCCCU31	DM2CU33	DCCCU32	-	-	-	-	-
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	D5LPC42	-	-	DS-CU41	DS-CU41	-	-	-	-	-
5	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	-	-	-	-	-	-	-	-	-	-

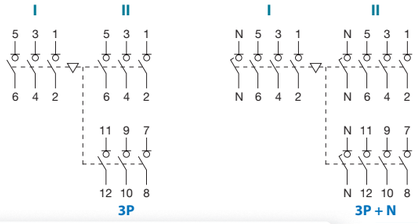
CEC

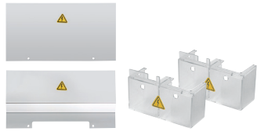
S5F



CCF

CCP



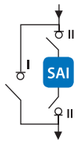


S5B — Bypass changeover switches S5
3 & 4 poles (125 - 2000A) (I - O - II) *(5)

Manual handle

Amp.	Size	Connection	3 pole (3P) Code	4 pole (3P + N) *(1) Code	External *(3) Code	Direct Code
125	0		S5B01253PS0	S5B01253NS0	D5LLA01	D5LSI02
160			S5B01603PS0	S5B01603NS0		
200			S5B02003PS0	S5B02003NS0		
250	1		S5B02503PR0	S5B02503NR0	D5LLA11	D5LLI12
315			S5B03153PR0	S5B03153NR0		
400			S5B04003PC0	S5B04003NC0		
500	2		S5B05003PR0	S5B05003NR0	D5LLA21	D5LLI22
630			S5B06303PR0	S5B06303NR0		
800	3		S5B08003PR0	S5B08003NR0		
1000			S5B10003PC0	S5B10003NC0		
1250	4		S5B12503PS0	S5B12503NS0	D5LLA31	D5LLI32
1600		②	S5B16003PS0	S5B16003NS0		
1800		②	S5B18003PS0	S5B18003NS0		
2000		②	S5B20003PD0	S5B20003ND0		

Size	1NO+1NC Code	2NO+2NC Code	Safety key lock device *(7): Simple Code *(e1)	Safety key lock device *(7): Double Code *(e1)	Terminal *(8) protection Code	Terminal shrouds *(8) (2 units) Only changeover switches Code	Terminal shrouds *(8) (1 unit): Up 3P Code	Down 3P Code	Up or Down 4P Code
0	DS-AU11	DS-AU12	D5LCBB1	D5LCFB1	DS-CU01	-	DS-CU02	DS-CU03	DS-CU04
							DS-CU05	DS-CU06	DS-CU07
1	DS-AU11	DS-AU12	D5LCB11	D5LCF11	DS-CU12	DS-CU11	-	-	-
2	DS-AU11	DS-AU12	D5LCB21	D5LCF21	-	DS-CU21	-	-	-
3	DS-AU11	DS-AU12	D5LCB31	D5LCF31	-	DS-CU31	-	-	-
4	DS-AU11	DS-AU12	D5LCB41	D5LCF41	-	DS-CU41	-	-	-



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

*(2) There are versions of changeover switch without 0 - OFF position:
S5F (I - II) = **S5D** _ _ _ _ _, please consult.
CCF "overlapped" (I - I+II - II) = **CCS** _ _ _ _ _, please consult.

*(3) Padlockable handle only in OFF 0 position.

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

*(5) There are versions of bypass changeover switch without 0 - OFF position "overlapped":
S5B "overlapped" (I - I + II - II) = **S5S** _ _ _ _ _, please consult.

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

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

*(7) Handle interlock in OFF 0 position by means of a key, that only can be removed when the handle is unlocked.

*(8) One set or one unit for input or output. Terminals shrouds for **S5B** and **S5F** only for frontal switch. These accessories aren't compatible with each other.

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