

Enclosed manual transfer switches

Enclosed **COMO CS**, **SIRCOVER**, **SIRCO M**

25 to 1600 A



COMO CS enclosure
25 to 100 A
Polycarbonate - IP65

como-enc_017.eps



SIRCOVER enclosure
160 to 630 A
Polyester - IP65

coff_563_front.psd



SIRCO M enclosure
32 to 100 A
Painted steel - IP65

coff_602_front.psd



SIRCOVER enclosure
160 to 1600 A
Painted steel - IP65

coff_606_front.psd

The solution for

- > Securing the electrical supply for moderately sensitive applications



Strong points

- > Safe operation
- > Suitable for all kinds of environments
- > Easy installation
- > Extensive range

Conformity to standards

- > IEC 60947-6-1
- > IEC 60364
- > IEC 61439
- > EN 60204-1



Functions

Enclosed changeover switches ensure the on-load transfer between two sources or loads, as well as providing safety isolation, for all low-voltage electrical circuits. In addition, they provide protection against contact with live parts and environmental elements such as dust, water and other hazards.

They enable the shutdown and isolation of the power supply as close to the equipment as possible.

Advantages

Safe operation

- Local disconnection.
- Ergonomic operating handle.
- Triple lock in OFF position.

Suitable for all kinds of environments

- Insulated enclosures for chemical environments and outdoor areas.
- Painted steel enclosures for impact protection.
- Stainless steel enclosures for food processing and pharmaceutical applications.

Easy installation

- Room for cabling.
- Cable gland knockouts or removable gland plates.

Extensive range

- A wide range of enclosed manual transfer switches in insulated (25 to 630A) and steel (32 to 1600A) enclosures.
- Products suitable for any use.

Enclosed manual transfer switches

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COMO CS in polycarbonate enclosure



General characteristics

- 25 to 100 A
- 3 poles, 4 poles
- Red handle.
- Triple lock in OFF position.
- Polyester enclosure.
- Cable gland knockouts (≤ 40 A).
- Screw-on cover.
- Colour: RAL 7035.
- Ingress Protection rating: IP65.
- Wall-mounted.
- Integrated bridging bars.

References

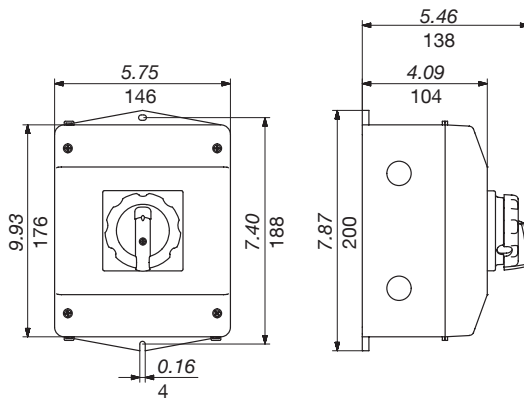
Rating (A)	No. of poles	I-O-II Reference	I-II Reference
25	3 P	4331 3C02	4321 3C02
25	4 P	4331 4C02	4321 4C02
40	3 P	4331 3C04	4321 3C04
40	4 P	4331 4C04	4321 4C04
63	3 P	4331 3C06	4321 3C06
63	4 P	4331 4C06	4321 4C06
100	3 P	4331 3C10	4321 3C10
100	4 P	4331 4C10	4321 4C10

Mounting accessories

Description	Reference
Set of 4 stainless steel mounting brackets for 63-100A enclosure	U000 CB18

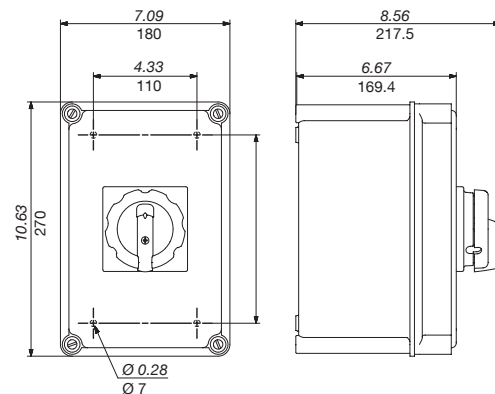
Dimensions

25 to 40 A



- 2 x M20 cable knock-outs (on each side)
- 2X M32/M40 cable knockouts (top and bottom)
- 2 pre-drilled holes to expel water

63 to 100 A



Rating (A)	No. of poles	H x W x D (mm)	Cable-in (top and bottom)
25 ... 40	3/4 P	200 x 146 x 104	2 x $\varnothing$ 32 / 40
63 ... 100	3/4 P	270 x 180 x 170	-

Enclosed manual transfer switches

Enclosed COMO CS, SIRCOVER, SIRCO M

25 to 1600 A

COMO CS in polycarbonate enclosure (continued)

Characteristics according to IEC 60947-3

Conventional free air thermal current I_{th} at 40 °C (A)	25 A	40 A	63 A	100 A
Conventional free air thermal current I_{th} at 50 °C (A)	25	34	63	100
Conventional free air thermal current I_{th} at 60 °C (A)	19	24	53	90
Rated insulation voltage U_i (V)	690	690	690	690
Rated impulse withstand voltage U_{imp} (kV)	4	6	6	6
Rated operational currents I_e (A)				
Utilisation category at 400 VAC				
AC-21A	25	40	63	100
AC-22A	20.5	40	63	100
AC-23A	15	29	63	63
AC-3	12	22	/	/
Utilisation category at 690 VAC				
AC-21A	25	40	63	100
AC-22A	20.5	40	63	100
AC-23A	8.5	17	63	63
AC-3	7	12.8	/	/
Operational power in AC-23 (kW) ⁽¹⁾				
At 400 VAC without pre-break AC	7.5	15	37	37
At 690 VAC without pre-break AC	4.8	15	/	/
Rated conditional short-circuit current with gG DIN fuse				
Prospective short-circuit current (kA rms)	7	10	5	5
Associated fuse rating (A)	25	40	63	100
Rated operational voltage (VAC)	690	690	690	690
Connection				
Minimum copper cable cross-section (mm ²)	0.5	1	1.5	4
Maximum copper cable cross-section (mm ²)	4	10	16	35
Tightening torque min. - max. (Nm)	0.8-1.2	1.2-1.5	2.5	1.5
Mechanical characteristics				
Durability (number of operating cycles)	100,000	100,000	100,000	100,000
Weight of a 3-pole device (g)	109	184	440	440
Weight of a 4-pole device (g)	130	221	535	535

(1) The power value is given for information only; the current values vary from one manufacturer to another.

Enclosed manual transfer switches

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25 to 1600 A

SIRCOVER in polyester enclosure



General characteristics

- From 160 to 630 A.
- 3 poles, 4 poles
- Switching with break-before-make operation (I-O-II), other options on request.
- Black handle.
- Triple lock in OFF position.
- Polyester enclosure.
- Screw-on cover, door interlocked when ON.
- Colour: RAL 7035.
- Ingress Protection rating: IP55.
- Wall-mounted, 4 brackets included.

Accessories

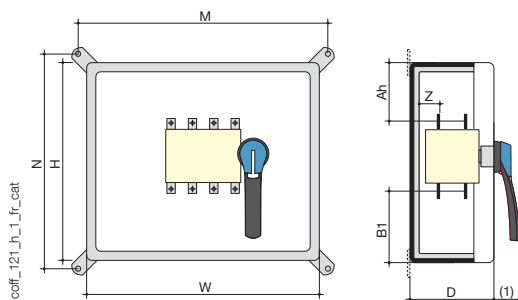
- Bridging bars.
- NO/NC auxiliary contact.
- Terminal screen.

References

Rating (A)	No. of poles	Reference	Bridging bars ⁽¹⁾	Auxiliary contacts	Protective screen
160	3 P	4215 3016	4109 0019 ⁽¹⁾	1 contact NO/NC 4109 0021	1509 3012
	4 P	4215 4016			1509 4012
250	3 P	4215 3025	4109 0025 ⁽¹⁾		1509 3025
	4 P	4215 4025			1509 4025
400	3 P	4215 3040	4109 0040 ⁽¹⁾		1509 3025
	4 P	4215 4040			1509 4025
630	3 P	4215 3063	4109 0063 ⁽¹⁾		1509 3063
	4 P	4215 4063			1509 4063

(1) For a 3-pole device order quantity 3 bridging bars, for a 4-pole device order quantity 4.

Dimensions



Rating (A)	No. of poles	H x W x D (mm)	M (mm)	N (mm)	Z (mm)	Ah (mm)	B1 (mm)	Weight (kg)
160	3 P	540 x 270 x 233	272	542	28	210	210	9
	4 P	540 x 360 x 233	362	542	28	210	210	10
250	3 P	540 x 360 x 233	362	542	29	205	205	11
	4 P	540 x 360 x 233	362	542	29	205	205	12
400	3 P	800 x 600 x 300	620	796	29	330	330	30
	4 P	800 x 600 x 300	620	796	29	330	330	31
630	3 P	800 x 600 x 300	620	796	45	297	297	38
	4 P	800 x 600 x 300	620	796	45	297	297	40

Characteristics according to IEC 60947-3, IEC 60947-6-1 and IEC 61439-2

Thermal current I_{th} (40 °C)	160 A	250 A	400 A	630 A	
Enclosed thermal current I_{th} (35 °C) (A)	160	250	400	630	
Enclosed thermal current I_{th} (50 °C) (A)	138	216	345	544	
Rated insulation voltage U_i (V)	800	1000	1000	1000	
Rated impulse withstand voltage U_{imp} (kV)	8	12	12	12	
Rated operational currents I_e (A)					
Rated voltage	Utilisation category				
415 VAC	AC-23 A / AC-23 B	160	250	400	500/630
690 VAC	AC-23 A / AC-23 B	63/80	125	125	400
Operational power in AC-23 (kW)					
400 VAC without pre-break AC (kW)	80	132	280	450	
690 VAC without pre-break AC (kW)	55/75	90/110	150/185	185/220	
Rated conditional short-circuit current with gG DIN fuse					
Prospective short-circuit current (kA rms)	100	50	50	50	
Associated fuse rating (A)	160	250	400	630	
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s					
Rated short-time withstand current 0.3s. I_{cw} (kA rms)	12	15	15	17	
Short-circuit operation (switch only)					
Rated short-time withstand current I_{cw} 1s (kA rms)	7	8	8	10	
Connection					
Minimum Cu cable cross-section	35	95	185	2x120	
Maximum copper cable cross-section (mm²)	95	150	240	2x300	

Enclosed manual transfer switches

Enclosed COMO CS, SIRCOVER, SIRCO M

25 to 1600 A

SIRCO M *changeover switch* in steel enclosure



General characteristics

- 32 to 100 A.
- 3 poles + solid neutral, 4 poles.
- Black handle.
- Triple lock in OFF position.
- Painted steel enclosure.
- Hinged door with double bar locking.
- Fixed via 4 holes at the base of the enclosure.
- Colour: RAL 7035.
- Cable gland knockouts ($\leq 63A$) or removable gland plates (100A) top and bottom.
- Ingress Protection rating: IP65.

Accessories

- Aux contact NO+NC or 2 NO (max. 1 per position).
- Terminal shroud.
- Bridging bars ($\leq 63 A$).

References

Rating (A)	No. of poles	I-O-II Reference	Bridging bars	Auxiliary contacts	Terminal shroud and screen
32	3 P + N	4214 5003	2299 3005	1 contact NO + NC 2299 0001	(3 P) 2294 3005
	4 P	4214 4003	2299 4005		(1 P) 2294 1005
63	3 P + N	4214 5006	2299 3009	1 contact 2 NO 2299 0011	(3 P) 2294 3009
	4 P	4214 4006	2299 4009		(1 P) 2294 1009
100	3 P + N	4214 5010			(3 P) 2294 3016
	4 P	4214 4010			(1 P) 2294 1011

Dimensions

Rating (A)	No. of poles	H x W x D (mm)	Cable-in (mm) (top and bottom)
32 ... 63	3 P + N 4 P	300 x 250 x 150	2 x 16.5 + 2 x 25.5 + 2 x 32.5
100	3 P + N 4 P	400 x 300 x 210	180 x 100

Characteristics according to IEC 60947-3, IEC 60947-6-1 and IEC 61439-2

Thermal current I _{th} (40 °C)		32 A	63 A	100 A
Frame size		M1	M2	M3
Enclosed thermal current I _{th} (35 °C) (A)		32	63	100
Enclosed thermal current I _{th} (50 °C) (A)		28	54	86
Rated insulation voltage U _i (V)		800	800	800
Rated impulse withstand voltage U _{imp} (kV)		8	8	8
Rated operational currents I _e (A)				
Rated voltage	Utilisation category			
415 VAC	AC-23 A / AC-23 B	32	63	100
690 VAC	AC-23 A / AC-23 B	25	40	63
Operational power in AC-23 (kW)				
400 VAC without pre-break AC (kW)		15	30	45
690 VAC without pre-break AC (kW)		15	30	45
Rated conditional short-circuit current with gG DIN fuse				
Prospective short-circuit current (kA rms)		50	50	25
Associated fuse rating (A)		32	63	100
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s				
Rated short-time withstand current 0.3s. I _{cw} (kA rms)		2.5	3	5
Short-circuit operation (switch only)				
Rated short-time withstand current I _{cw} 1s (kA rms)		1.26	1.5	2.75
Rated peak withstand current (kA peak)		6	9	12
Connection				
Minimum Cu cable cross-section		1.5	2.5	10
Maximum copper cable cross-section (mm²)		16	35	70

Enclosed manual transfer switches

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25 to 1600 A

SIRCOVER in steel enclosure



General characteristics

- From 160 to 1600 A.
- 3 poles + solid neutral, 4 poles.
- Black handle.
- Triple lock in OFF position.
- Painted steel enclosure.
- Hinged door with double bar locking.
- Colour: RAL 7035.
- Removable gland plates at top and bottom
- Ingress Protection rating: IP65.
- Wall-mounted, 4 brackets included.

Accessories

- Bridging bars.
- NO/NC auxiliary contact.
- Terminal screen.

References

Rating (A)	No. of poles	I-O-II Reference	Bridging bars ⁽¹⁾	Auxiliary contacts	Protective screen
160	3 P + N	4214 5016	4109 0019	1 NO/NC contact 4109 0021	1509 3012
	4 P	4214 4016			1509 4012
250	3 P + N	4214 5025	4109 0025		1509 3025
	4 P	4214 4025			1509 4025
400	3 P + N	4214 5040	4109 0039		1509 3025
	4 P	4214 4040			1509 4025
630	3 P + N	4214 5063	4109 0063		1509 3063
	4 P	4214 4063			1509 4063
800	3 P + N	4214 5080	4109 0080		1509 3080
	4 P	4214 4080			1509 4080
1250	3 P + N	4214 5084	4109 0120		1509 3080
	4 P	4214 4084			1509 4080
1600	3 P + N	4214 5088	4109 0160		1509 3160
	4 P	4214 4088			1509 4160

(1) For a 3-pole device order quantity 3 bridging bars, for a 4-pole device order quantity 4.

Dimensions

Rating (A)	No. of poles	H x W x D (mm)	Cable-in (mm) (top and bottom)
160 ... 250	3 P + N 4 P	600 x 400 x 250	280 x 100
400 ... 630	3 P + N 4 P	800 x 600 x 350	560 x 100
800 ... 1600	3 P + N 4 P	1200 x 800 x 500	660 x 100

Characteristics according to IEC 60947-3, IEC 60947-6-1 and IEC 61439-2

Thermal current I _{th} (40 °C)	160 A	250 A	400 A	630 A	800 A	1250 A	1600 A	
Enclosed thermal current I _{th} (35 °C) (A)	160	250	400	630	770	1000	1450	
Enclosed thermal current I _{th} (50 °C) (A)	138	216	345	544	665	863	1252	
Rated insulation voltage U _i (V)	800	1000	1000	1000	1000	1000	1000	
Rated impulse withstand voltage U _{imp} (kV)	8	12	12	12	12	12	12	
Rated operational currents I _e (A)								
Rated voltage	Utilisation category							
415 VAC	AC-23 A / AC-23 B	160	250	400	500/630	800	1250	1250
690 VAC	AC-23 A / AC-23 B	63/80	125	125	400	630	800	800
Operational power in AC-23 (kW)								
400 VAC without pre-break AC (kW)	80	132	280	450	710	710	710	
500 VAC without pre-break AC (kW)								
690 VAC without pre-break AC (kW)	55/75	90/110	150/185	185/220	185/220	475	750	
Rated conditional short-circuit current with gG DIN fuse								
Prospective short-circuit current (kA rms)	100	50	50	50	50	100	100	
Associated fuse rating (A)	160	250	400	630	800	1250	2x800	
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s								
Rated short-time withstand current 0.3s. I _{cw} (kA rms)	12	15	15	17	64	64	78	
Short-circuit operation (switch only)								
Rated short-time withstand current I _{cw} 1s (kA rms)	7	8	8	10	35	35	50	
Connection								
Minimum Cu cable cross-section	35	95	185	2 x 120	2 x 185			
Maximum copper cable cross-section (mm²)	95	150	240	2 x 300	2 x 300	4 x 185	6 x 185	