



# Enclosed switches

## Load break switches

20 to 1600 A

Integrated products  
& solutions



como-enc\_030-front.eps

**COMO enclosure** 20 to 125 A  
Polycarbonate - IP65



coff\_584\_front.psd

**SIRCO enclosure** 160 to 630 A  
Polyester - IP65



coff\_581\_front.psd

**SIRCO M enclosure** 32 to 100 A  
Stainless steel - IP65



coff\_587\_front.psd

**SIRCO M enclosure** 20 to 100 A  
Painted steel - IP65



coff\_566\_front.psd

**SIRCO enclosure** 160 to 1600 A  
Painted steel - IP65

### The solution for

- > OEM
- > Industries
- > Commercial buildings
- > Electrical distribution



### Strong points

- > Safe operation
- > Suitable for all kinds of environment
- > Easy setup
- > Extensive range

### Compliance with standards

- > IEC 60947-3
- > IEC 60364
- > EN 60947-3
- > EN 61439
- > EN 60204-1



### Other products

- > Customised solutions available on request.

## Function

**Enclosed load break switches** ensure the on-load breaking and making of circuits and safely isolate all low-voltage electrical circuits by providing 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

- Reliable lockout for safe maintenance procedures.
- On-load breaking.
- Ergonomic operating handle, available in red/yellow or black.
- Triple lock in OFF position.

### Suitable for all kinds of environment

- Insulated enclosure for chemical and food processing applications, indoor or outdoor installation.
- Painted steel enclosure for areas at risk of mechanical impact.
- Stainless enclosure for food processing and pharmaceutical applications.

### Easy setup

- Cable access top and/or bottom.
- Cable gland knockouts ( $\leq 125$  A).
- Removable gland plates at top and bottom for steel enclosures  $\geq 160$  A.
- Plenty of room for cabling.

### Extensive range

- Standard range
- Customised on request.



coff\_605.eps

## Load break switch in insulated enclosure

### ■ **COMO** in polycarbonate enclosure



#### General characteristics

- From 20 to 125 A.
- 3, 4, 6, 8 poles.
- Yellow/red or grey/blue version.
- Triple lock in OFF position.
- Polycarbonate enclosure.
- Screw-on front.
- Degree of protection: IP65.
- Cable gland knock-outs at top, bottom and sides.
- Door interlocking when switch is ON.

#### Accessories

- Solid neutral pole (max. 1).
  - NO+NC or 2 NO auxiliary contact module for pre-break and signalling of positions 0 and I.
- Up to 2 auxiliary contact modules can be fitted to each product, one on each side of the switch.

## References

Rating (A)	N° of poles	With blue handle	With red handle	Solid neutral pole <sup>(1)</sup>	Auxiliary contacts <sup>(1)</sup>	Enclosure		
						Size	H x W x D (mm)	Cable-in top and bottom (mm)
20	3 P	2115 3301	2115 3401	-	-	CPC 0	92 x 64 x 83	2 x Ø 25
	4 P	2115 4301	2115 4401					
25	3 P	2115 3302	2115 3402	2115 5005		CPC 1	163 x 100 x 115	2 x Ø 25 <sup>(2)</sup>
	4 P	2115 4302	2115 4402					
32	3 P	2115 3303	2115 3403	2115 5005		CPC 2	200 x 146 x 150	2 x Ø 32 / 40 <sup>(2)</sup>
	4 P	2115 4303	2115 4403					
	6 P	2115 6303	2115 6403					
40	3 P	2115 3304	2115 3404	2115 5007	1 AC NO+NC 2113 4001	CPC 1	163 x 100 x 115	2 x Ø 25 <sup>(2)</sup>
	4 P	2115 4304	2115 4404					
63	3 P	2115 3306	2115 3406	2115 5007	1 AC 2 NO 2113 4002	CPC 2	200 x 146 x 150	2 x Ø 32 / 40 <sup>(2)</sup>
	4 P	2115 4306	2115 4406					
	6 P	2115 6306	2115 6406					
80	3 P	2115 3308	2115 3408	2115 5009		CPC 3	304 x 214 x 182	2 x Ø 50 / 63 <sup>(2)</sup>
	4 P	2115 4308	2115 4408					
100	3 P	2115 3309	2115 3409	2115 5011		CPC 2	200 x 146 x 150	2 x Ø 32 / 40 <sup>(2)</sup>
	4 P	2115 4309	2115 4409					
125	3 P	2115 3312	2115 3412	2115 5011		CPC 3	304 x 214 x 182	2 x Ø 50 / 63 <sup>(2)</sup>
	4 P	2115 4312	2115 4412					

(1) Max. configuration capacity: 1 solid neutral pole + 1 aux contact, or 2 aux contacts.

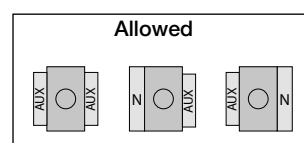
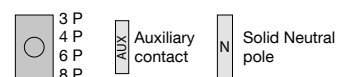
(2) In addition to top and bottom gland knock-outs, 2 x M20 knock-outs are included on each side of the enclosure for CPC 1 thru CPC 3.

## Configurations

### Possible configurations

Solid neutral pole and auxiliary contact accessories can be fitted to the left and/or right side of the COMO switch. Note that only one neutral pole can be fitted. See the below table for details.

Accessory 1 (left)	COMO switch	Accessory 2 (right)
Aux. contact	3/4/6/8P	Aux. contact
Solid neutral	3/4/6/8P	Aux. contact
Aux. contact	3/4/6/8P	Solid neutral



# Enclosed switches

## Load break switches

20 to 1600 A

### Load break switch in metallic enclosure

#### ■ SIRCO M in painted steel enclosure



#### General characteristics

- From 20 to 100 A.
- 3 poles + solid neutral.
- Red/yellow or black handle.
- Triple lock in OFF position.
- Painted steel enclosure.
- Hinged door or screw-on cover.
- Colour: RAL 7035.
- Pre-punched cable gland knockouts at top

and bottom.

- Degree of protection: IP65.

#### Accessories

- Switched 4<sup>th</sup> pole (max. 1).
- NO+NC or 2 NO auxiliary contact (max. 2).
- Terminal shrouds.
- Wall mounting brackets.

### References

Rating (A)	N° of poles	With black handle	With red/yellow handle	Switched 4 <sup>th</sup> pole	Auxiliary contacts	Terminal shroud	Wall brackets	Enclosure		
								Size	H x W x D (mm)	Cable-in top and bottom (mm)
20	3 P + N	3032 5002 <sup>(1)</sup>	3032 5102 <sup>(1)</sup>	2200 1001				CT 21	200 x 150 x 120	2 x Ø 25 + 2 x Ø 32 + Ø 16
	3 P + N	3032 5202 <sup>(2)</sup>	3032 5302 <sup>(2)</sup>					CT 21a		
32	3 P + N	3032 5003 <sup>(1)</sup>	3032 5103 <sup>(1)</sup>	2200 1003	1 AC NO + NC 2299 0001	2294 3005 (3 P) 2294 1005 (1 P)	3031 0011	CT 21		
	3 P + N	3032 5203 <sup>(2)</sup>	3032 5303 <sup>(2)</sup>					CT 21a		
63	3 P + N	3032 5006 <sup>(1)</sup>	3032 5106 <sup>(1)</sup>	2200 1006	1 AC 2 NO 2299 0011	2294 3009 (3 P) 2294 1009 (1 P)	3031 0011	CT 21		
	3 P + N	3032 5206 <sup>(2)</sup>	3032 5306 <sup>(2)</sup>					CT 21a		
100	3 P + N	3032 5010 <sup>(1)</sup>	3032 5110 <sup>(1)</sup>	2200 1010		2294 3016 (3 P) 2294 1011 (1 P)		CT 32	300 x 200 x 120	Ø 32 + 2 x Ø 50 + Ø 16
	3 P + N	3032 5210 <sup>(2)</sup>	3032 5310 <sup>(2)</sup>					CT 32a		

(1) Hinged door closed with double bar locks.

(2) Front panel screw-on.

#### ■ SIRCO M in stainless steel enclosure



#### General characteristics

- 32 to 100A.
- 3 poles + solid neutral.
- Black or red/yellow handle.
- Triple lock in OFF position.
- Brushed stainless steel enclosure 304 (please ask for other options).
- Degree of protection: IP65.
- Pre-punched cable gland knockouts at bottom.
- Hinged door with double bar locking.

#### Accessories

- Switched 4<sup>th</sup> pole (max. 1).
- NO+NC or 2 NO auxiliary contact (max. 2).
- Wall mounting brackets.

### References

Rating (A)	N° of poles	With black handle	With red/yellow handle	Switched 4 <sup>th</sup> pole	Auxiliary contacts	Terminal shroud	Set of stainless steel brackets	Enclosure		
								Size	H x W x D (mm)	Cable-in bottom (mm)
32	3 P + N	3032 8003	3032 8103	2200 1003	1 AC NO + NC 2299 0001	2294 3005 (3 P) 2294 1005 (1 P)	3031 0012	CI 21	200 x 150 x 120	2 x Ø 25 + 2 x Ø 32 + Ø 16
63	3 P + N	3032 8006	3032 8106	2200 1006		2294 3009 (3 P) 2294 1009 (1 P)				
100	3 P + N	3032 8010	3032 8110	2200 1010	1 AC 2 NO 2299 0011	2294 3016 (3 P) 2294 1011 (1 P)		CI 32	300 x 200 x 120	Ø 32 + 2 x Ø 50 + Ø 16

## Characteristics

### Electrical features according to IEC 60947-3

		COMO							
Thermal current $I_{th}$ (40°C)		20 A	25 A	32 A	40 A	63 A	80 A	100 A	125 A
Enclosed thermal current $I_{th}$ (35°C) (A)		20	25	32	40	63	80	100	125
Enclosed thermal current $I_{th}$ (50°C) (A)		17	22	28	35	54	69	86	108
Rated insulation voltage $U_i$ (V)		690	690	690	690	690	690	690	690
Rated impulse withstand voltage $U_{imp}$ (kV)		4	6	6	6	6	6	6	6
Rated operational currents $I_e$ (A)									
Rated voltage	Utilisation category								
400 VAC	AC-22 A / AC-22 B	20	25	32	40	63	80	100	125
400 VAC	AC-23 A / AC-23 B	15	20	22	40	44	53	70	84
690 VAC	AC-22 A / AC-22 B		12	13	18	22	23.5	34	41
690 VAC	AC-23 A / AC-23 B		9.5	11.5	13	17.5	22	25.5	35
Operational power in AC-23 (kW) without pre-break auxiliary contact									
400 VAC without pre-break AC (kW) <sup>(1)</sup>		7.5	9.5	11.5	20	22	30	37	45
690 VAC without pre-break AC (kW) <sup>(1)</sup>			12	13	18	22	25.5	34	41
gG DIN <sup>(2)</sup> fuse protected short-circuit withstand									
Prospective short-circuit current (kA rms)		1	8	8	8	8	10	20	20
Associated fuse rating (A)		20	25	32	40	63	80	100	125
Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s									
Current rated as short-time withstand $I_{cw}$ 0.3s (kA rms)		0.68	0.68	1.28	1.28	2.52	2.52	4	4
Short-circuit operation (switch only)									
Current rated as short-time withstand $I_{cw}$ 1s (kA rms)		0.34	0.34	0.64	0.64	1.26	1.26	2	2
Connection									
Minimum Cu cable cross-section (mm <sup>2</sup> )		1.5	2.5	2.5	2.5	2.5	2.5	4	4
Maximum Cu cable cross-section (mm <sup>2</sup> )		4	10	10	10	16	25	35	50

(1) The power value is given for information only, the current values vary from one manufacturer to another. (2) For a rated operational voltage  $U_e = 415$  VAC.

		SIRCO M / SIRCO										
Thermal current $I_{th}$ (40°C)		20 A	32 A	63 A	100 A	160 A	250 A	400 A	630 A	800 A	1250 A	1600 A
Frame size		M1	M1	M2	M3	B3	B4	B5	B5	B6	B7	B7
Enclosed thermal current $I_{th}$ (35°C) (A)		20	32	63	100	160	250	400	630	770	1000	1450
Enclosed thermal current $I_{th}$ (50°C) (A)		17	28	54	86	138	216	345	544	665	863	1252
Rated insulation voltage $U_i$ (V)		800	800	800	800	800	800	1000	1000	1000	1000	1000
Rated impulse withstand voltage $U_{imp}$ (kV)		8	8	8	8	8	8	12	12	12	12	12
Rated operational currents $I_e$ (A)												
Rated voltage	Utilisation category											
415 VAC	AC-22 A / AC-22 B	20	32	63	100	160	250	400	630	800	1250	1600
415 VAC	AC-23 A / AC-23 B	20	32	63	100	160	250	400	500	800	1250	1250
500 VAC	AC-22 A / AC-22 B	20	32	63	100							
500 VAC	AC-23 A / AC-23 B	20	25	63	80							
690 VAC	AC-22 A / AC-22 B	20	32	40/63	80/100							
690 VAC	AC-23 A / AC-23 B	20	25	40	63							
Operational power in AC-23 (kW)												
400 VAC without pre-break AC (kW) <sup>(1)</sup>		9	15	30	45	80	132	220	280	450	710	710
500 VAC without pre-break AC (kW) <sup>(1)</sup>		9	15	30	45							
690 VAC without pre-break AC (kW) <sup>(1)</sup>		11	15	30	45							
gG DIN <sup>(2)</sup> fuse protected short-circuit withstand												
Prospective short-circuit current (kA rms)		50	50	50	25	100	50	100	70	50	100	100
Associated fuse rating (A)		20	32	63	100	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												
Current rated as short-time withstand $I_{cw}$ 0.3s (kA rms)		2.5	2.5	3	5	15	17	25	25	50	100	100
Short-circuit operation (switch only)												
Current rated as short-time withstand $I_{cw}$ 1s (kA rms)		1.26	1.26	1.5	2.75	7	9	13	13	35	50	50
Dynamic withstand current in $I_{cc}$ (kA peak) (6)		6	6	9	12	20	30	45	45	55	110	110
Connection												
Minimum Cu cable cross-section (mm <sup>2</sup> )		1.5	1.5	2.5	10	50	95	185	2x150	2x185		
Maximum Cu cable cross-section (mm <sup>2</sup> )		16	16	35	70	95	150	240	2x300	2x300	4x185	6x185

(1) The power value is given for information only, the current values vary from one manufacturer to another. (2) For a rated operational voltage  $U_e = 415$  VAC.

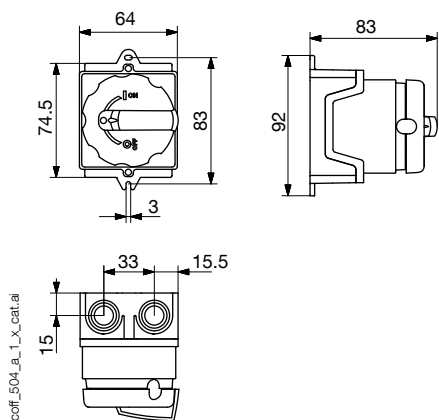
# Enclosed switches

## Load break switches

20 to 1600 A

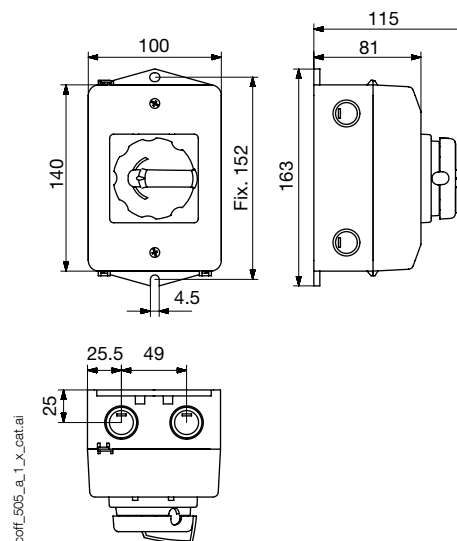
### COMO dimensions

#### Size CPC 0



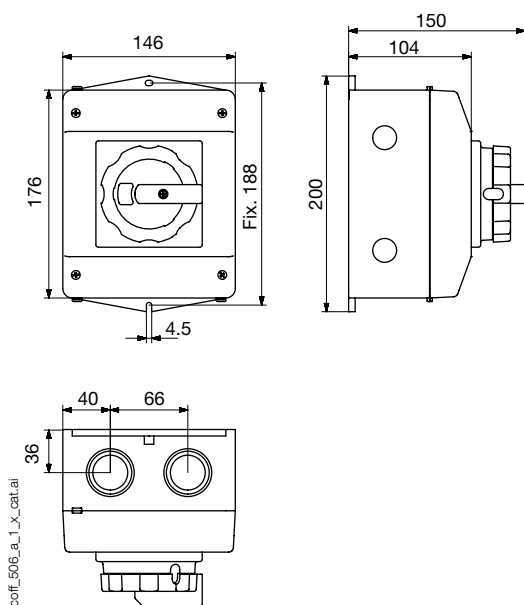
- 2x M25 cable knockouts (top and bottom)

#### Size CPC 1



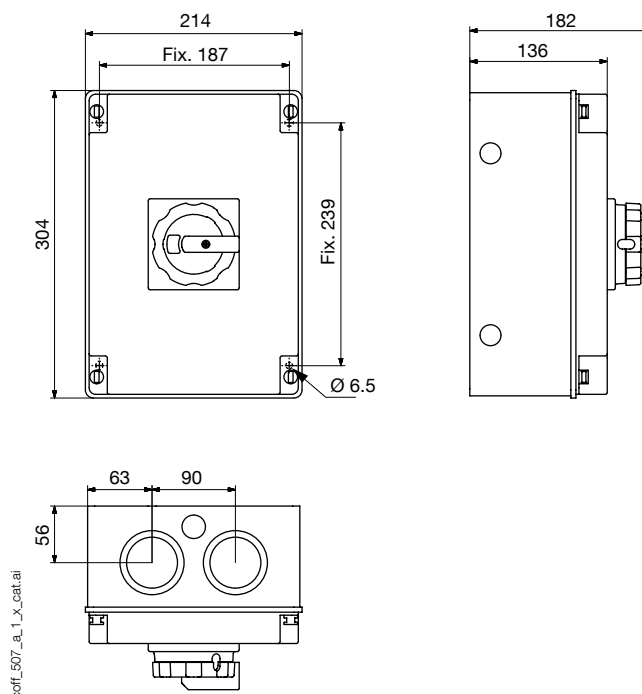
- 2x M20 cable knockouts (on each side)
- 2x M25 cable knockouts (top and bottom)
- 2 pre-drilled holes to expel water

#### Size CPC 2



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

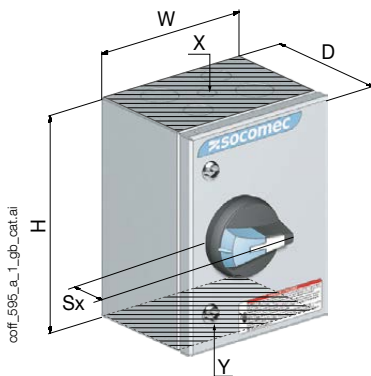
#### Size CPC 3



- 2x M20 cable knockouts (on each side)
- 2x M50/M63 cable knockouts (top and bottom)
- 2 pre-drilled holes to expel water

## SIRCO M and SIRCO dimensions

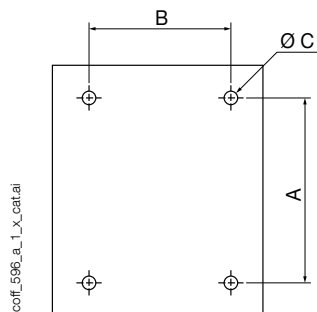
### Enclosures



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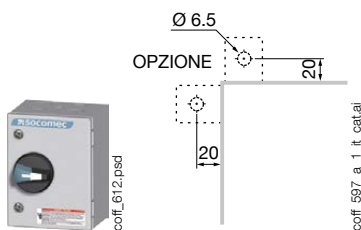
Size	Type	H x W x D (mm)	Sx (mm)	A (mm)	B (mm)	Diameter C (mm)	X - Y Cable-in top and bottom <sup>(1)</sup>
CT 21, CI21, CT 21a	1	200 x 150 x 120	36	135	85	6.5	2 x Ø 25 + 2 x Ø 32 + Ø 16
CT 32, CI32, CT 32a		300 x 200 x 120		235	135		1 x Ø 32 + 2 x Ø 50 + Ø 16
CP 32	3	360 x 270 x 171	45	337	247		-
CP 53		540 x 360 x 171		516	337		
CP 75		720 x 540 x 201		696	516		
CT 43	2	400 x 300 x 210	60	362	262	12.5	
CT 66		600 x 600 x 300		562	562		380 x 100
CT 86		800 x 600 x 350		762	562		660 x 100
CT 128		1200 x 800 x 300		1162	762		

(1) For stainless steel enclosure, cable-in at bottom only



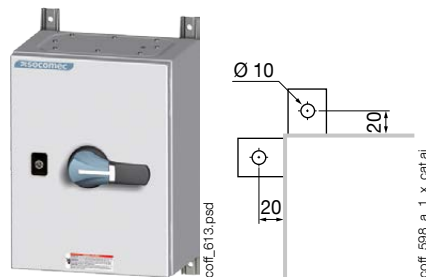
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### Type 1



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### Type 2



### Type 3

