



SIRCO M

Manually operated Transfer Switching Equipment
from 25 to 125 A

Transfer switches



The solution for

- > Healthcare buildings
- > Manufacturing industry



Strong points

- > Secured breaking
- > Modular device
- > Improved on-load switching

Conformity to standards

- > IEC 60947-3



Function

SIRCO M are manually operated 3 or 4 pole modular transfer switches with positive break indication. They provide on-load transfer between two sources for any low voltage power circuit, as well as safety isolation. Other applications include source inversion (e.g. to change the direction of a motor) or grounding/earthing.

Advantages

Secured breaking

SIRCO M transfer switches include contact point technology and double break per pole as standard, enabling safe, optimal operation of LV electrical circuits.

Modular device

Thanks to their modular format, SIRCO M transfer switches can be fixed to a DIN rail, a backplate or a modular panel.

Improved on-load switching

The SIRCO M switch comprises two mechanically interlocked load break switches which are tested in accordance to standard IEC 60947-3. Its AC23 characteristics enable it to perform on-load changeover switching.

What you need to know

- There are two types of operating handles available for the SIRCO M transfer switches:
 - **direct front** handle
 - **external front** handle
- The SIRCO M changeover switch is available in **3 and 4 pole, from 25 to 125 A**, with pre-break or signalisation auxiliary contacts (accessories).



References

Rating (A) / Frame size	No. of poles	Switch body	Direct handle	External handle with 1 position padlocking	External handle with 3 position padlocking	Shaft extension for external front handle	Auxiliary contact	Terminal shrouds	Bridging kit											
25 A/M1	3 P	2230 3002	Blue 2239 5012 Red 2239 5013	S000 type I - O - II Black IP65 1463 5113⁽¹⁾	S01 type I - O - II Black IP65 1403 2813	S00, S000 type 150 mm 1407 0515	M type 1 contact NO + NC 2299 0001 1 contact 2 NC 2299 0011	1 P 2294 1005⁽²⁾ 3 P 2294 3005⁽²⁾	3 P 2299 3005 4 P 2299 4005											
	4 P	2230 4002				200 mm 1407 0520														
40 A/M1	3 P	2230 3004				320 mm 1407 0532				1 P 2294 1009⁽²⁾ 3 P 2294 3009⁽²⁾	3 P 2299 3009 4 P 2299 4009									
	4 P	2230 4004				S01 type 200 mm 1404 0520														
63 A/M2	3 P	2230 3006		S00 type I - O - II Black IP65 1403 2113⁽¹⁾	S01 type I - O - II Black IP65 1403 2113⁽¹⁾	S01 type 200 mm 1404 0520		1 P 2294 1011⁽²⁾ 3 P 2294 3016⁽²⁾												
	4 P	2230 4006				320 mm 1404 0532														
80 A/M2	3 P	2230 3008				S00 type 150 mm 1409 0615						1 P 2294 1011⁽²⁾ 3 P 2294 3016⁽²⁾								
	4 P	2230 4008				200 mm 1409 0620														
100 A/M3	3 P	2230 3010	Blue 2239 5022 Red 2239 5023			S00 type I - O - II Black IP65 1473 0113														
	4 P	2230 4010															320 mm 1409 0632			
125 A/M3	3 P	2230 3011								S00 type 150 mm 1409 0615										
	4 P	2230 4011								200 mm 1409 0620										

(1) Defeatable handle.

(2) 3 pole: for upstream and downstream protection, order quantity 2 x 3 pole shrouds. For a 4 pole device, order quantity 2 x 3 pole + 2 x 1 pole shrouds.

Accessories

See "SIRCO M switches" page 26.

Characteristics according to IEC 60947-3

Thermal current I_{th} (40 °C)	25 A	40 A	63 A	80 A	100 A	125 A
Frame size	M1	M1	M2	M2	M3	M3
Rated insulation voltage U_i (V)	800	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV)	8	8	8	8	8	8

Rated operational currents I_e (A)

Rated voltage	Utilisation category	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-20 A / AC-20 B	25/25	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-21 A / AC-21 B	25/25	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-22 A / AC-22 B	25/25	40/40	63/63	80/80	100/100	125/125
415 VAC	AC-23 A / AC-23 B	25/25	40/40	63/63	80/80	100/100	125/125

Operational power in AC-23 (kW)

At 400 VAC without pre-break in AC-23 (kW) ⁽²⁾	11.3	18	28.4	35.5	45	56.3
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Fuse protected short-circuit withstand (kA rms prospective)

Prospective short-circuit (kA rms) ⁽³⁾	50	50	50	50	50	25
Associated fuse rating (A) ⁽³⁾	25	40	63	80	100	125

Circuit breaker protected short-circuit withstand with any circuit breaker that ensures tripping in less than 0.3s⁽⁴⁾

Rated short-time withstand current 0.3s I_{sc} (kA rms)	2.3	2.3	2.74	2.74	5	5
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Short-circuit capacity (without protection)

Rated short-time withstand current 1s I_{sc} (kA rms)	1.26	1.26	1.5	1.5	2.75	2.75
Rated short-circuit making capacity I_{cm} (kA peak)	1.8	1.8	2.1	2.1	3.9	3.9

Connection

Minimum Cu cable cross-section (mm ²)	1.5	1.5	2.5	2.5	10	10
Maximum Cu cable cross-section (mm ²)	16	16	35	35	70	70
Tightening torque min / max (Nm)	2 / 2.2	2 / 2.2	3.5 / 3.85	3.5 / 3.85	4 / 4.4	4 / 4.4

Mechanical characteristics

Durability (number of operating cycles)	10000	10000	10000	10000	10000	8000
Weight of a 3 pole device (kg)	0.41	0.41	0.58	0.58	1.1	1.1
Weight of a 4 pole device (kg)	0.51	0.51	0.75	0.75	1.46	1.46

(1) Category with index A = frequent operation - Category with index B = infrequent operation.

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

(3) For a rated operational voltage $U_e = 400$ VAC.

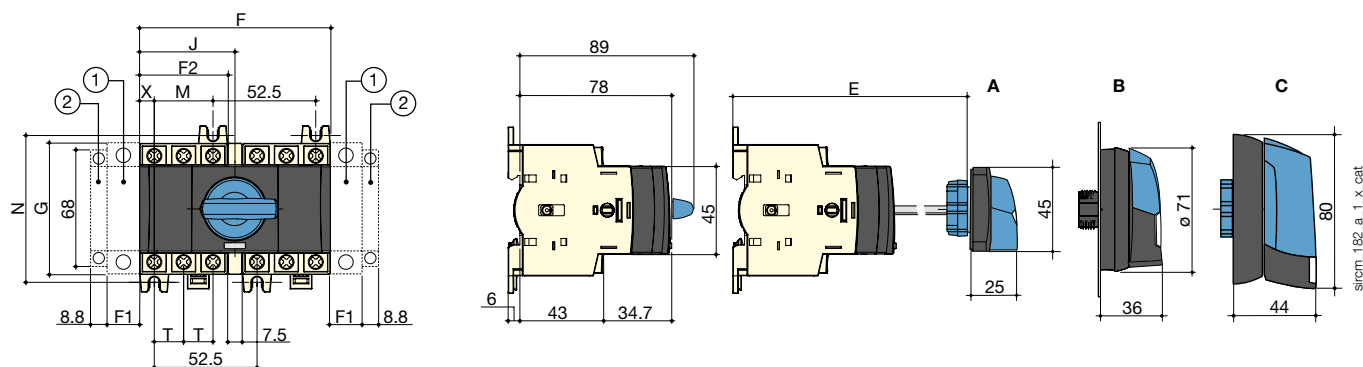
(4) Value for coordination with any circuit breaker that ensures tripping in less than 0.3s. For coordination with specific circuit-breaker references, higher short-circuit current values are available. Please consult us.

Dimensions

25 to 80 A / M1 to M2

Direct front operation for 3/4 pole changeover switches

External front operation for 3/4 pole changeover switches



1. Location for: 1 main pole or 1 auxiliary contact (See accessories page 34).

2. Position for 1 auxiliary contact module only.

Note: Maximum of 4 additional blocks (3 pole changeover can be fitted with either one main pole and one A/C block, or two A/C blocks per side; 4 pole changeover can be fitted with only one A/C block per side).

A. S000 handle

B. S00 handle

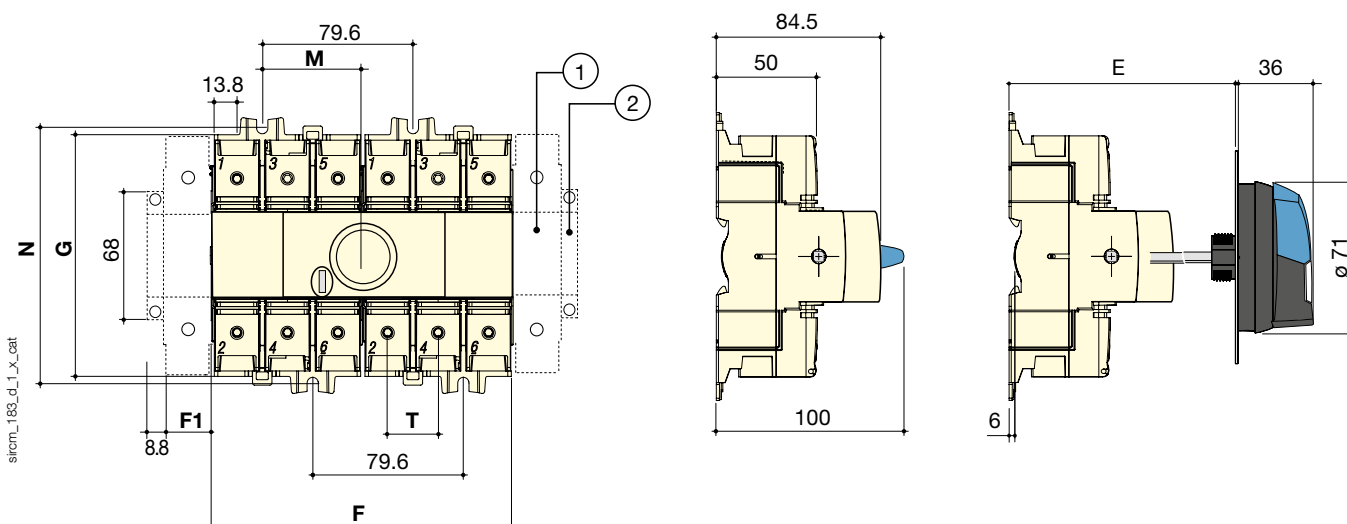
C. S01 handle

Rating (A)	Frame size	Overall dimensions		Switch body					Switch mounting		Connection	
		E min	E max	F	F1	F2	G	J	M	N	T	X
25 ... 40	M1	105	372	97.5	15	45	68	48.75	30	75	15	7.5
63 ... 80	M2	105	372	105	17.5	52.5	76	52.5	35	85	17.5	8.75

100 to 125 A / M3

Direct front operation for 3/4 pole changeover switches

External front operation for 3/4 pole changeover switches



1. Location for: 1 main pole or 1 auxiliary contact (See accessories page 34).

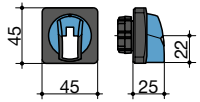
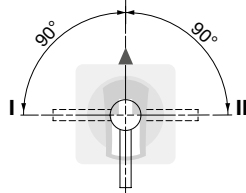
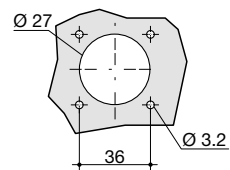
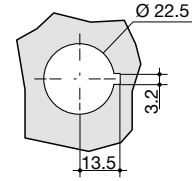
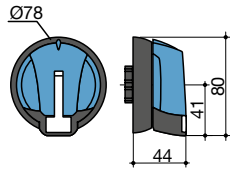
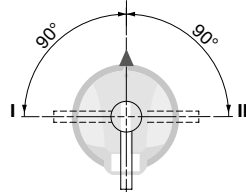
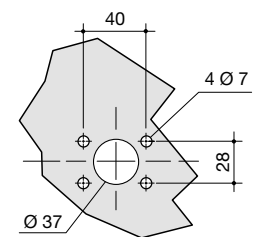
2. Position for 1 auxiliary contact module only.

Note: Maximum of 4 additional blocks (3 pole changeover can be fitted with either one main pole and one A/C block, or two A/C blocks per side; 4 pole changeover can be fitted with only one A/C block per side).

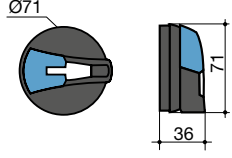
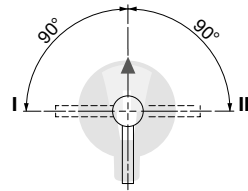
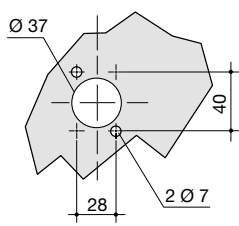
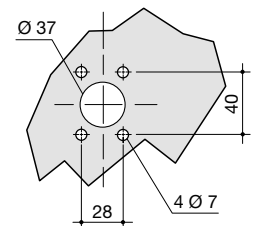
Rating (A)	Frame size	Overall dimensions		Switch body			Switch mounting		Connection
		E min	E max	F	F1	G	M	N	T
100 ... 125	M3	105	372	159	26	124.5	52.8	131.5	26

Dimensions for external handles

25 to 80 A / M1 to M2

Handle type	Front operation Direction of operation	Door drilling
S000 type Transfer switches I-0-II and I - I+II - II 		With 4 fixing screws  With fixing nut 
S01 type Transfer switches I-0-II and I - I+II - II 		IP65 with 4 fixing screws 

25 to 125 A / M1 to M3

Handle type	Front operation Direction of operation	Door drilling
S00 type Transfer switches I-0-II and I - I+II - II 		IP55 with 2 fixing clips  IP65 with 4 fixing screws  With fixing nut 