



SIRCO M

Manual changeover switches from 25 to 125 A

Changeover
switches



sircm_192_a_1_cat

SIRCO M
I-0-II 3 P 63 A



sircm_191_a_1_cat

SIRCO M
I-0-II 4 P 25 A

The solution for

- > Healthcare buildings.
- > Manufacturing industry.



Strong points

- > Secured breaking.
- > Modular device.
- > On load switching.

Conformity to standards

- > IEC 60947-3



Function

SIRCO M are manually operated three or four pole modular switches with positive break indication. They provide changeover, source inversion or switching under load between two low voltage power circuits, as well as their safety isolation.

Advantages

Secured breaking.

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

Modular device

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

On load switching

The SIRCO M changeover switch comprises two mechanically interlocked load break switches which are tested in accordance with 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 handle available for the SIRCO M changeover:
 - **direct front** operation
 - **door interlocked external front** operation
- 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).



sircm_173_a_1_cat

References

| Rating (A) | No. of poles | Switch body | Direct handle | External handle with position 0 padlocking | External handle with 3 position padlocking | Shaft extension for external front handle | Auxiliary contact | Terminal shrouds | Bridging kit | | | | | | | | | | | | | | | | | | | | |
|------------|--------------|------------------|---|--|--|--|---|--|---|--|--|---|--|---|--|--|---|--|---|--|--|---|--|---|--|--|---|--|--|
| 25 A | 3 P | 2230 3002 | Blue 2239 5012 Red 2239 5013 | S000 type I - 0 - II Black IP65 1463 5113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S00, S000 type 150 mm 1407 0515 200 mm 1407 0520 320 mm 1407 0532 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | 1 P 2294 1005 ⁽²⁾ 3 P 2294 3005 ⁽²⁾ | 3 P 2299 3005 4 P 2299 4005 | | | | | | | | | | | | | | | | | | | | |
| | 4 P | 2230 4002 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 A | 3 P | 2230 3004 | | | | | | Blue 2239 5012 Red 2239 5013 | S00 type I - 0 - II Black IP65 1473 1113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S01 type 200 mm 1404 0520 320 mm 1404 0532 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | 1 P 2294 1009 ⁽²⁾ 3 P 2294 3009 ⁽²⁾ | 3 P 2299 3009 4 P 2299 4009 | | | | | | | | | | | | | | | |
| | 4 P | 2230 4004 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 A | 3 P | 2230 3006 | | | | | | | | | | | Blue 2239 5012 Red 2239 5013 | S01 type I - 0 - II Black IP65 1403 2113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S01 type 200 mm 1404 0520 320 mm 1404 0532 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | 1 P 2294 1009 ⁽²⁾ 3 P 2294 3009 ⁽²⁾ | 3 P 2299 3009 4 P 2299 4009 | | | | | | | | | | |
| | 4 P | 2230 4006 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 A | 3 P | 2230 3008 | | | | | | | | | | | | | | | | Blue 2239 5012 Red 2239 5013 | S00 type I - 0 - II Black IP65 1473 1113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S00 type 150 mm 1409 0615 200 mm 1409 0620 320 mm 1409 0632 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | 1 P 2294 1011 ⁽²⁾ 3 P 2294 3016 ⁽²⁾ | | | | | | |
| | 4 P | 2230 4008 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 A | 3 P | 2230 3010 | | | | | | | | | | | | | | | | | | | | | Blue 2239 5012 Red 2239 5013 | S00 type I - 0 - II Black IP65 1473 1113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S00 type 150 mm 1409 0615 200 mm 1409 0620 320 mm 1409 0632 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | 1 P 2294 1011 ⁽²⁾ 3 P 2294 3016 ⁽²⁾ | |
| | 4 P | 2230 4010 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 125 A | 3 P | 2230 3011 | Blue 2239 5012 Red 2239 5013 | S00 type I - 0 - II Black IP65 1473 1113 ⁽¹⁾ | S01 type I - 0 - II Black IP65 1403 2813 | S00 type 150 mm 1409 0615 200 mm 1409 0620 320 mm 1409 0632 | M type contact NO + NC 2299 0001 M type contact 2 NO 2299 0011 | | | | | | | | | | | | | | | | | | | | | 1 P 2294 1011 ⁽²⁾ 3 P 2294 3016 ⁽²⁾ | |
| | 4 P | 2230 4011 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

(1) Defeatable handle.

(2) 2 pieces: For upstream or downstream protection on one side of the changeover switch.

Accessories

See "SIRCO M switches", page 31.

Characteristics according to IEC 60947-3

| Thermal current I_{th} (40 °C) | 25 A | 40 A | 63 A | 80 A | 100 A | 125 A |
|---|-----------------------------|---------|---------------------------|---------------------------|---------------------------|---------------------------|
| 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⁾ |
| 415 VAC | AC-20 A / AC-20 B | | 25/25 | 40/40 | 63/63 | 80/80 |
| 415 VAC | AC-21 A / AC-21 B | | 25/25 | 40/40 | 63/63 | 80/80 |
| 415 VAC | AC-22 A / AC-22 B | | 25/25 | 40/40 | 63/63 | 80/80 |
| 415 VAC | AC-23 A / AC-23 B | | 25/25 | 40/40 | 63/63 | 80/80 |
| 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 |
| 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_{cw} (kA rms) | 2.3 | 2.3 | 2.74 | 2.74 | 5 | 5 |
| Short-circuit capacity (without protection) | | | | | | |
| Rated short-time withstand current 1s. I_{cw} (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 mini / maxi (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 a-breaker references, higher short-circuit current values are available. Please consult us.

SIRCO M

Manual changeover switches

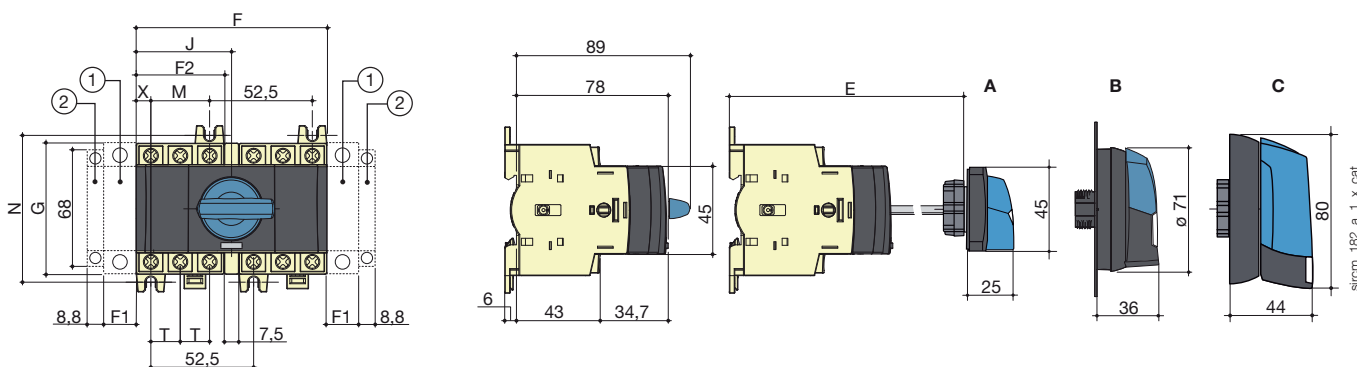
from 25 to 125 A

Dimensions

25 to 80 A

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 only (for 3 pole changeover the 2nd auxiliary contact is for signalisation only).

Note: Maximum 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

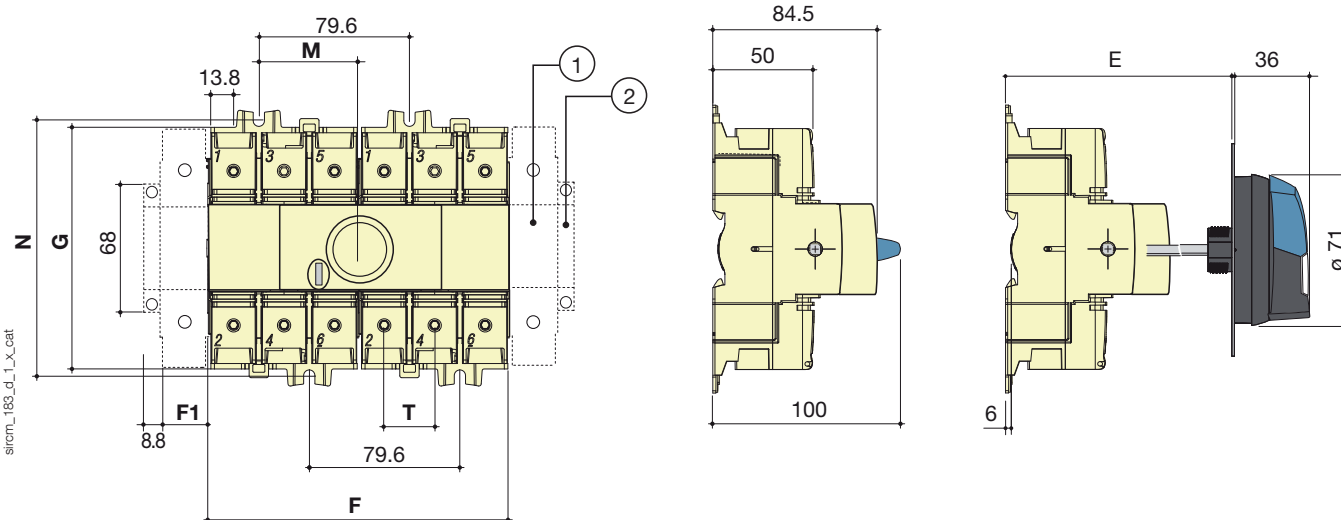
C. S01 handle.

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

100 to 125 A

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).

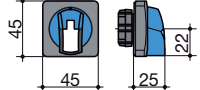
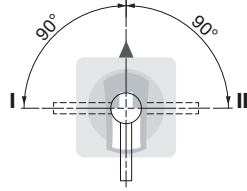
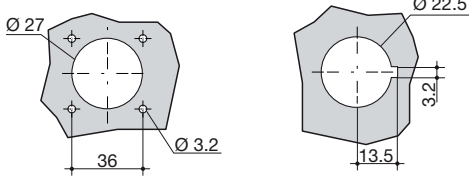
2. Position for 1 auxiliary contact only (this contact is for signalisation only).

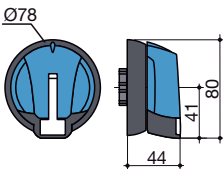
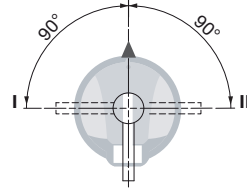
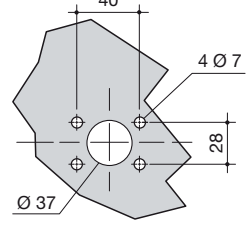
Note: Maximum 4 additional blocks (3 pole changeover can be fitted with either one main pole and one A/C block, or two A/C blocks per side; 4 pole changeover can be fitted with only one A/C block per side).

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

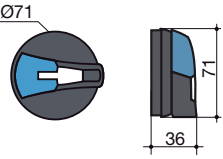
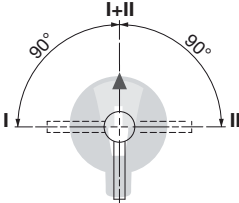
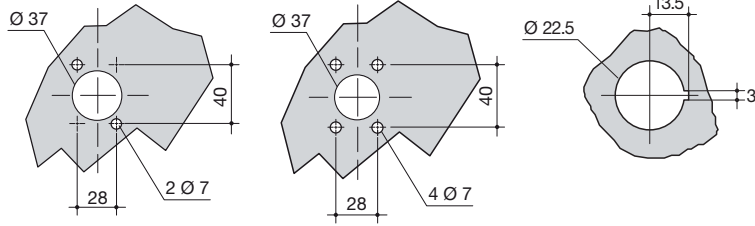
Dimensions for external handles

25 to 80 A

| Handle type | Front operation Direction of operation | Door drilling |
|--|--|---|
| <p>S000 type Changeover switches I-0-II and I - I+II - II</p>  | <p>0 or I+II</p>  | <p>With 4 fixing screws With fixing nut</p>  |

| Handle type | Front operation Direction of operation | Door drilling |
|---|--|---|
| <p>S01 type Changeover switches I-0-II and I - I+II - II</p>  | <p>0 or I+II</p>  | <p>IP65 with 4 fixing screws</p>  |

25 to 125 A

| Handle type | Front operation Direction of operation | Door drilling |
|---|--|--|
| <p>S00 type Changeover switches I-0-II and I - I+II - II</p>  | <p>0 or I+II</p>  | <p>IP55 with 2 fixing clips IP65 with 4 fixing screws With fixing nut</p>  |