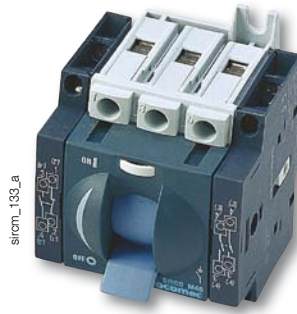


SIRCO M UL508

Non-fusible switches standards UL and CSA
16 to 80 A



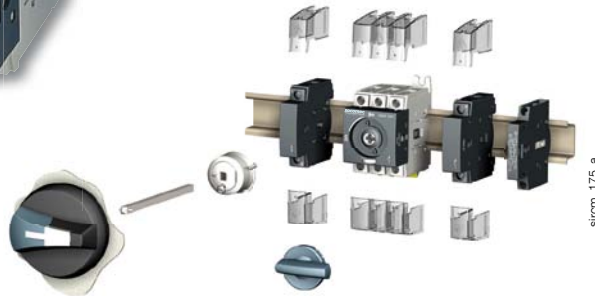
Rotary switch
SIRCO M 3 x 80 A



Toggle switch
SIRCO M 3 x 80 A + 2 auxiliary contacts



Rotary switch
SIRCO M 3 x 80 A



The solution for

- > Industrial control systems



Strong points

- > Total integration
- > Wide range of accessories
- > Upgradeability
- > Compliance to major certifications and approvals
- > Specific characteristics

Conformity to standards⁽¹⁾

- > IEC 60947-3
- > UL 508 listed, Guide NLRV, File E173959
- > CSA C22.2§14, class 3211-05, File 112964



(1) Product reference on request.

UL508 non-metallic polycarbonate 4.4x enclosed SIRCO M

- > Enclosed SIRCO M switches allow safe control and disconnection of any motor application.

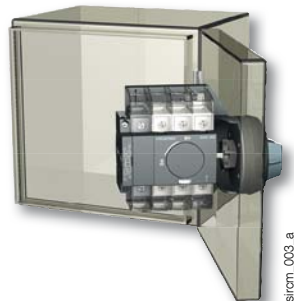


Function

SIRCO M UL/CSA non-fusible disconnect switches are compact modifiable and modular switches. They make and break under load conditions and provide safety isolation for any low voltage circuit, particularly for machine and control circuits.

General characteristics

- Positive break indication.
- Direct or external operation.
- Compact footprint.
- DIN-rail or base mount.
- Wide range of accessories.
- Up to 8 pole or 4 pole MTS.



UL508 manual motor controller "Suitable as motor disconnect"

References

Rating (A)	No. of poles	Toggle switch (direct handle included)	Rotary switch	Direct handle	External front and right side handles ⁽⁴⁾	Shaft for external handles	Switched fourth pole module	Auxiliary contacts	Terminal shrouds	Door mounting kit
16 A	3 P	2205 3000	2200 3000	Blue 2299 5012	S00 type I - 0 Black 3R, 12 ⁽¹⁾ 1473 1111	S00 and S0 type 150 mm 5.9 in 1407 0515 200 mm 7.9 in 1407 0520 320 mm 12.6 in 1407 0532 ⁽²⁾	1 P 2200 1000	M type 1 AC NO + NC 2299 0001 1 AC 2 NC 2299 0011	1 P 2294 1005 ⁽³⁾ 3 P 2294 3005 ⁽³⁾	2299 3409
20 A	3 P	2205 3001	2200 3001		Red/Yellow 3R, 12 ⁽¹⁾ 1474 1111		1 P 2200 1001			
25 A	3 P	2205 3002	2200 3002		Black 4, 4X ⁽¹⁾ 147D 1111		1 P 2200 1002			
32 A	3 P	2205 3003	2200 3003		Red/Yellow 4, 4X ⁽¹⁾ 147E 1111		1 P 2200 1003			
40 A	3 P	2205 3004	2200 3004		S0 type I - 0 Black 1, 3R, 12 ⁽¹⁾ 1483 1111		1 P 2200 1004			
63 A	3 P	2205 3006	2200 3006		Red/Yellow 1, 3R, 12 ⁽¹⁾ 1484 1111		1 P 2200 1006			
80 A	3 P	2205 3008	2200 3008		Black 4, 4X ⁽¹⁾ 148D 1111		1 P 2200 1008			
					Red/Yellow 4, 4X ⁽¹⁾ 148E 1111					

(1) Nema/UL type.

(2) Please order the shaft guide: 1419 0000 with the shaft.

(3) Top and bottom.

(4) There is no door interlocking when the switch is fitted on the side of the enclosure.

SIRCO M UL508

Non-fusible disconnect switches

16 to 80 A

UL508 non-metallic polycarbonate 4, 4X enclosed SIRCO M

References



Function

Enclosed **SIRCO M** switches allow safe control and disconnection of any motor application.

General characteristics

- Grey enclosure with red handle.
- Equipped with a 3 pole SIRCO M.
- 1 removable ground terminal.
- Possibility of adding 1 power pole and 1 auxiliary contact.
- Nema/UL type 1, 3R, 12, 4, 4X.

Conformity to standards⁽¹⁾

- > IEC 60947-3
- > UL508, Guide NLRV, file E173959
- > CSA C22.2#14, Class 3211-05, file 702154



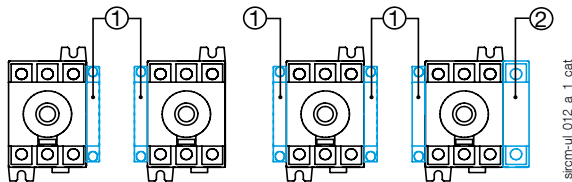
(1) Product reference on request.

Rating (A)	No. of poles	Enclosed switches	Enclosure size	Switched fourth pole module	Unswitched neutral pole	Unswitched protective ground module	Auxiliary contacts	Terminal shrouds
32 A	3 P	2214 3503	Size 1	1 P 2200 1003	1 P 2200 5005 ⁽¹⁾	1 P 2200 9005 ⁽¹⁾	M type 1 AC NO + NC 2299 0001	1 P 2294 1005 ⁽²⁾
	3 P	2224 3503	Size 2					3 P 2294 3005 ⁽²⁾
63 A	3 P	2224 3506	Size 2	1 P 2200 1006 ⁽¹⁾	1 P 2200 5009 ⁽¹⁾	1 P 2200 9009 ⁽¹⁾	1 AC 2 NC 2299 0011	1 P 2294 1009 ⁽²⁾
								3 P 2294 3009 ⁽²⁾

(1) Not UL.

(2) Top and bottom.

Configuration

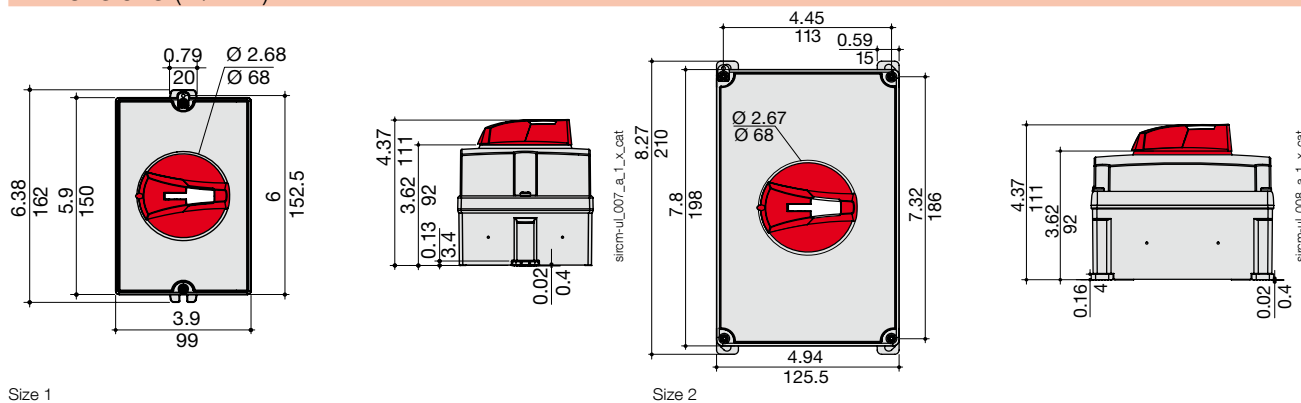


Configuration of the auxiliary contacts for enclosed SIRCO M.

1. M type auxiliary contacts.

2. Additional pole.

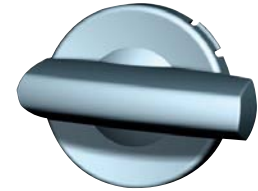
Dimensions (in/mm)



Accessories

Direct operation handle

Rating (A)	Handle color	Handle type	Reference
16 ... 80	Blue	M00	2299 5012



M00 handle

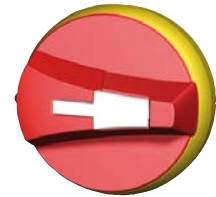
access_277_a_2_cat

External operation handle

Use

The handle locking function prevents the user from opening the door of the enclosure when the switch is in the "ON" position (only if the handle is fitted on the door).

Opening the door when the switch is in the "ON" position is possible by defeating the interlocking function with the use of a tool (authorized persons only). The interlocking function is restored when the door is closed. The handle is padlockable with 3 padlocks.



S00 handle

access_264_a_2_cat

Front and right side handles I - 0

Rating (A)	Handle color	Handle type	Nema/UL type	Standard Reference	Heavy duty Reference
16 ... 80	Black	S00	3R, 12	1473 1111	
16 ... 80	Red/Yellow	S00	3R, 12	1474 1111	
16 ... 80	Black	S00	4, 4X	147D 1111	
16 ... 80	Red/Yellow	S00	4, 4X	147E 1111	
16 ... 80	Black	S0	1, 3R, 12	1483 1111	
16 ... 80	Red/Yellow	S0	1, 3R, 12	1484 1111	
16 ... 80	Black	S0	4, 4X	148D 1111	
16 ... 80	Red/Yellow	S0	4, 4X	148E 1111	
16 ... 80	Black	S01	3R, 12	140F 2111	
16 ... 80	Red/Yellow	S01	3R, 12	140G 2111	
16 ... 80	Black	S01	4, 4X	140D 2111	140D 2911
16 ... 80	Red/Yellow	S01	4, 4X	140E 2111	140E 2911

(1) Not UL.



S0 handle

access_279_a_2_cat



S01 handle

access_304_a_2_cat

Front handle for changeover switches I - 0 - II

Rating (A)	Handle color	Handle type	Nema/UL type	Reference
16 ... 80	Black	S00	IP65	1473 1113 ⁽¹⁾

Front handle for changeover switches I - I+II - II

Rating (A)	Handle color	Handle type	Nema/UL type	Reference
16 ... 80	Black	S00	IP65	1473 1114 ⁽¹⁾

Shafts for external handle

Use

Standard lengths:

- 150 mm,
- 200 mm,
- 320 mm.

Other lengths: please consult us.

For 3/4 pole switches, shaft extensions for external front and side handle.

For 6/8 pole switches and SIRCOVER M changeover switches.



access_280_a_2_cat

For 3/4 pole

Rating (A)	Handle type	Length (inches)	Length (mm)	Reference
16 ... 80	S00	5.9 in	150 mm	1407 0515
16 ... 80	S00	7.9 in	200 mm	1407 0520
16 ... 80	S00	12.6 in	320 mm	1407 0532
16 ... 80	S01	7.9 in	200 mm	1404 0520
16 ... 80	S01	12.6 in	320 mm	1404 0532
16 ... 80	S01	15.7 in	400 mm	1404 0540

For 6/8 pole

Rating (A)	Handle type	Length (inches)	Length (mm)	Reference
16 ... 80	S00	5.9 in	150 mm	1407 0515
16 ... 80	S00	7.9 in	200 mm	1407 0520
16 ... 80	S00	12.6 in	320 mm	1407 0532

Accessories (continued)

Shaft guide for external handle

Use

This accessory enables handle to engage extension shaft with a misalignment of up to 15 mm.
 Required for a shaft length from 320 mm.



access_260_a_2_cat

Handle type	Reference
S00 and S0	1419 0000

Additional pole for SIRCO M

4th pole

Rating (A)	No. of poles	Type	Reference
16	1 P	switched	2200 1000
20	1 P	switched	2200 1001
25	1 P	switched	2200 1002
32	1 P	switched	2200 1003
40	1 P	switched	2200 1004
63	1 P	switched	2200 1006 ⁽¹⁾
80	1 P	switched	2200 1008 ⁽¹⁾

(1) Not UL.

Use

Transforms:
 - 3 pole SIRCO M non-fusible switches into a 4 pole,
 - 3 pole SIRCOVER M changeover switches into a 4 pole.



sircm_072_b_1_cat

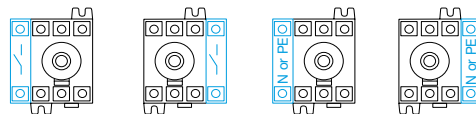
Solid neutral pole

Rating (A)	No. of poles	Type	Reference
16 ... 40	1 P	unswitched	2200 5005 ⁽¹⁾
63 ... 80	1 P	unswitched	2200 5009 ⁽¹⁾

(1) Not UL.

Use

Transforms the 3-pole switch into a 3-pole + solid neutral.



sircm_076_a_1_gh_cat

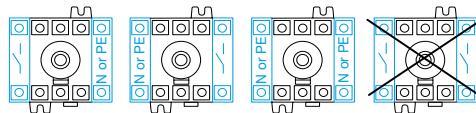
Ground module

Rating (A)	No. of poles	Type	Reference
16 ... 40	1 P	unswitched	2200 9005 ⁽¹⁾
63 ... 80	1 P	unswitched	2200 9009 ⁽¹⁾

(1) Not UL.

Use

Adds 1 protective ground module pole to the switch-disconnector.



Terminal shrouds

Use

Top and bottom additional protection against direct contact with the terminals or connection parts.
 1 or 3 pole are available.

Perforation on each terminal cover enables remote thermographic inspection without dismantling.



sircm_049_a_1_cat

Rating (A)	No. of poles	Position	Reference
16 ... 40	1 P	top and bottom	2294 1005
16 ... 40	3 P	top and bottom	2294 3005
63 ... 80	1 P	top and bottom	2294 1009
63 ... 80	3 P	top and bottom	2294 3009

M type Auxiliary Contacts

Use

Pre-break and signaling of positions 0 and I by NO+NC or 2 NO Auxiliary Contacts.

They can be mounted on the left or on the right side of the device.

Max 4 Auxiliary Contacts per product (2 modules).

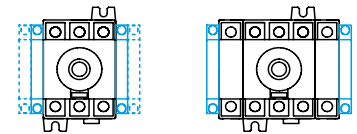
Characteristics

A300.

Rating (A)	Nb de CA	AC type	Reference
16 ... 80	1 AC	NO + NC	2299 0001
16 ... 80	1 AC	2 NO	2299 0011



sircm_075_b_2_cat



sircm_081_la_1_x_cat

Auxiliary contacts configurations for SIRCO M

Conversion kit

Use

These accessories enable the assembly of 2 switches in order to achieve:

- 6 or 8 pole switches
- 3 or 4 pole open or close transition changeover switches.

Rating (A)	Type ⁽¹⁾	Reference
16 ... 80	Non-fusible switches 6/8 P	2269 6009
16 ... 80	Transfer switch 3/4 pole (I - 0 - II)	2209 6009
16 ... 80	Transfer switch 3/4 pole (I - I+II - II)	2299 6009

(1) Non UL.



sircm_050_c_2_cat

sircm_097_b_2_x_cat

Conversion kit for 6 or 8 pole non-fusible switches

Conversion kit for 3 and 4-pole changeover switches (I - 0 - II) or (I - I+II - II)



sircm_086_b_1_cat

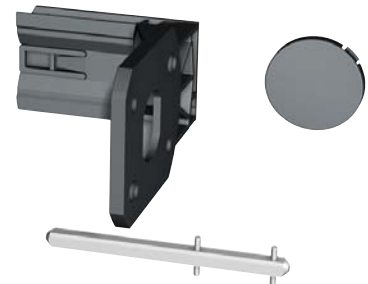
Door mounting kit

Use

This kit enables direct mounting of the switch on the panel door or on the right or left side of the panel.

The external handle is quick and easy to install due to an internal locking nut mounted on the inside of the panel.

Rating (A)	No. of poles	Reference
16 ... 80	3/4 P	2299 3409



sircm_051_b_2_cat

Characteristics

Characteristics according to UL508/CSA22.2#14 suitable as motor disconnect

	SIRCO M UL508 - 16 to 80 A						
General use rating	16 A	20 A	25 A	32 A	40 A	63 A	80 A
Short circuit rating at 600 VAC (kA)	65	65	65	65	10/65	50/65	50/65
Type of fuse	J	J	J	J	J	J	J
Max fuse rating (A)	30	30	30	30	60/30	100/60	100/60
Max. motor hp / FLA 3 ph motor max.							
208 VAC	3 / 10.6	5 / 16.7	7.5 / 24.2	7.5 / 24.2	7.5 / 24.2	15 / 46.2	15 / 46.2
220-240 VAC	5 / 15.2	5 / 15.2	7.5 / 22	7.5 / 22	7.5 / 22	20 / 54	20 / 54
440-480 VAC	10 / 14	10 / 14	15 / 21	20 / 27	20 / 27	40 / 52	40 / 52
600 VAC	10 / 11	15 / 17	20 / 22	25 / 27	25 / 27	40 / 41	40 / 41
Connection terminals							
Solid - 1 wire	#14 - #10	#14 - #10	#14 - #10	#14 - #10	#14 - #10	#14 - #10	#14 - #10
Solid - 2 wires	2x #12	2x #12	2x #12	2x #12	2x #12	2x #12	2x #12
Stranded - 1 wire	#14 - #4	#14 - #4	#14 - #4	#14 - #4	#14 - #4	#14 - #1	#14 - #1
Stranded - 2 wires	2x (#14 - #12)	2x (#14 - #12)	2x (#14 - #12)	2x (#14 - #12)	2x (#14 - #12)	2x (#10 - #6)	2x (#10 - #6)
Auxiliary contacts							
Electrical characteristics	A300	A300	A300	A300	A300	A300	A300
Mechanical characteristics							
Endurance (number of operating cycles)	10 000	10 000	10 000	10 000	10 000	10 000	10 000
Operating torque (lbs.in/Nm)	7/0.8	7/0.8	7/0.8	7/0.8	7/0.8	8.9/1	8.9/1

Characteristics according to IEC 60947-3

		SIRCO M UL508 - 16 to 80 A						
General use rating		16 A	20 A	25 A	32 A	40 A	63 A	80 A
Thermal current I_{th} (40°C)		16	20	25	32	40	63	80
Rated insulation voltage U_i (V)		800	800	800	800	800	800	800
Rated impulse withstand voltage U_{imp} (kV)		8	8	8	8	8	8	8
Rated operational currents I_e (A)								
Rated voltage	Utilization	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾	A/B ⁽¹⁾
415 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80
500 VAC	AC-22 A / AC-22 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80
500 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	25/25	25/25	63/63	63/63
690 VAC	AC-21 A / AC-21 B	16/16	20/20	25/25	32/32	40/40	63/63	80/80
690 VAC	AC-22 A / AC-22 B	16/16	20/20	25/25	32/32	32/40	40/63	63/80
690 VAC	AC-23 A / AC-23 B	16/16	20/20	25/25	25/25	25/25	40/40	40/40
Operational power in AC-23 (kW)								
At 400 VAC without prebreaking AC in AC-23 (kW) ⁽¹⁾⁽²⁾		7.5	9	11	15	18.5	30	37
At 500 VAC without prebreaking AC in AC-23 (kW) ⁽¹⁾⁽²⁾		7.5	9	11	15	15	30	37
At 690 VAC without prebreaking AC in AC-23 (kW) ⁽¹⁾⁽²⁾		7.5	11	15	18.5	18.5	30	37
Fuse protected short-circuit withstand (kA rms prospective)								
Prospective short-circuit current (kA rms) ⁽³⁾		50	50	50	50	50	50	50
Associated fuse rating (A) ⁽³⁾		16	20	25	32	40	63	80
Overload capacity (U_e 415 VAC)								
Rated short-time withstand current 0.3 s. I_{cw} (kA rms) ⁽³⁾		2.5	2.5	2.5	2.5	2.5	3	3
Rated short-circuit making capacity I_{cm} (kA peak) ⁽³⁾		6	6	6	6	6	9	9
Connection								
Minimum Cu cable cross section (mm ²)		1.5	1.5	1.5	1.5	1.5	2.5	2.5
Maximum Cu cable section (mm ²)		16	16	16	16	16	35	35
Tightening torque min / max (Nm)		2 / 2.2	2 / 2.2	2 / 2.2	2 / 2.2	2 / 2.2	3.5 / 3.85	3.5 / 3.85

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

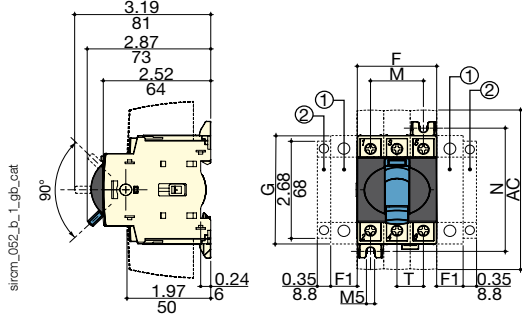
(2) The power value is given for information only, the current values vary from one manufacturer to another.

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

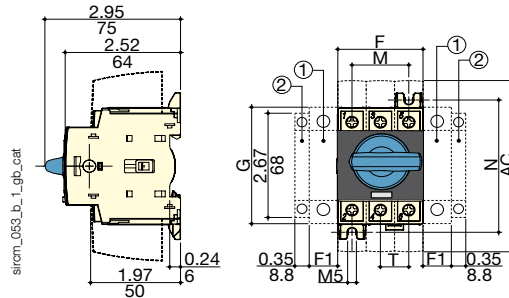
Dimensions (in/mm)

16 to 80 A

Toggle operation



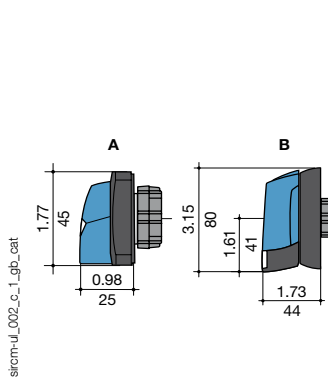
Direct operation with handle



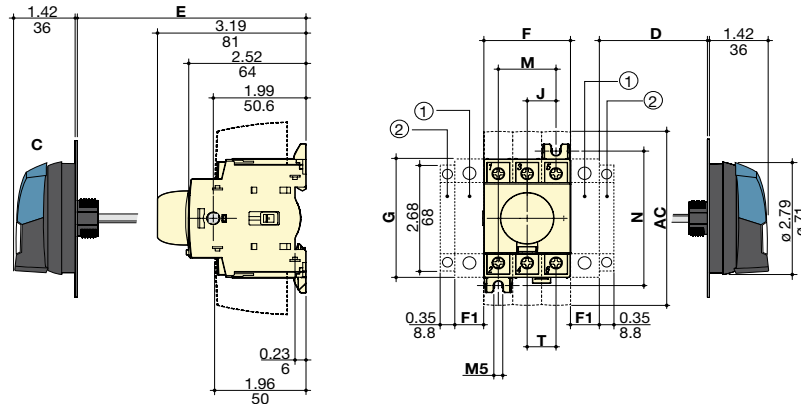
1. Position for 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 protective ground module or 1 auxiliary contact.
2. Position for 1 auxiliary contact only.

Note: Maximum of 4 additional blocks.

External front handle



External side handle

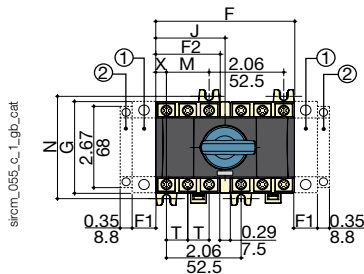


1. Position for 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 ground module or 1 auxiliary contact.
2. Position for 1 auxiliary contact only.

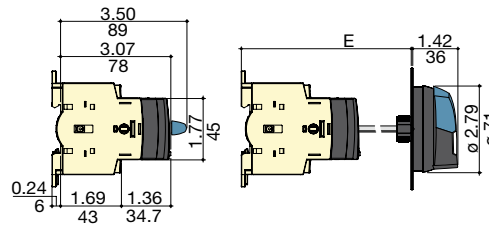
Note: Maximum of 4 additional blocks.

Rating (A)	Units	Overall dimensions				Terminal shrouds		Switch body			Switch mounting		Connection
		D min	D max	E min	E max	AC	F	F1	G	J	M	N	T
16 to 40	in	1.18	9.25	3.94	14.64	4.33	1.77	0.59	2.67	0.59	1.18	2.95	0.59
	mm	30	235	100	372	110	45	15	68	15	30	75	15
63 to 80	in	1.18	9.25	3.93	14.64	4.33	2.06	0.69	2.99	0.69	1.38	3.35	0.69
	mm	30	235	100	372	110	52.5	17.5	76	17.5	35	85	17.5

Direct front handle for 6/8-pole non-fusible switches
 or 3/4-pole changeover switches



External front handle for 6/8-pole non-fusible switches
 or 3/4-pole changeover switches



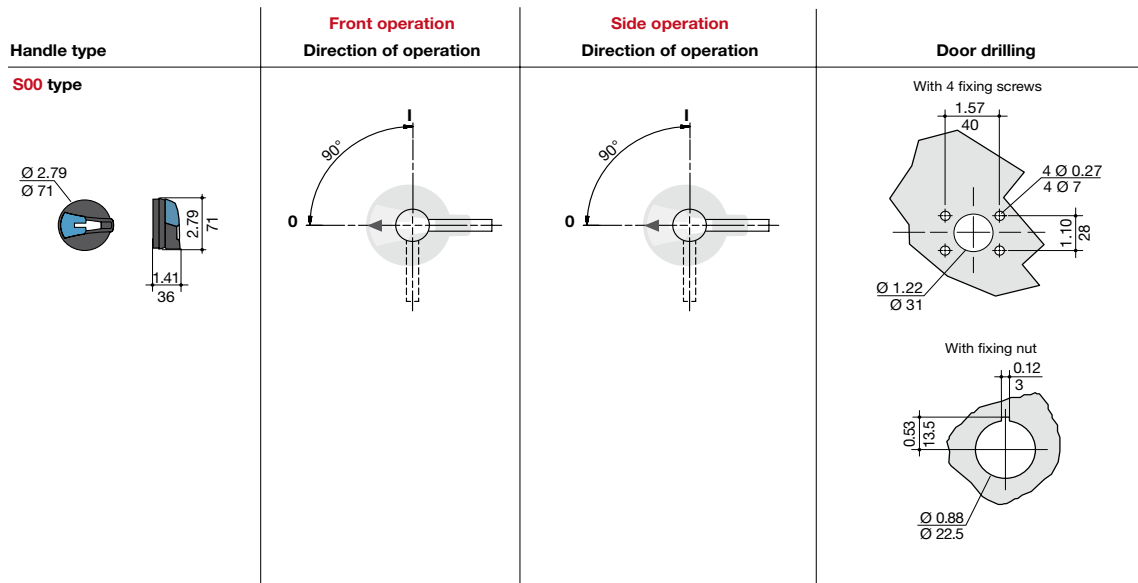
1. Position for 1 switched fourth pole module (1 per device max.) or 1 unswitched neutral pole or 1 ground module or 1 auxiliary contact.
2. Position for 1 auxiliary contact only.

Note: Maximum of 4 additional blocks.

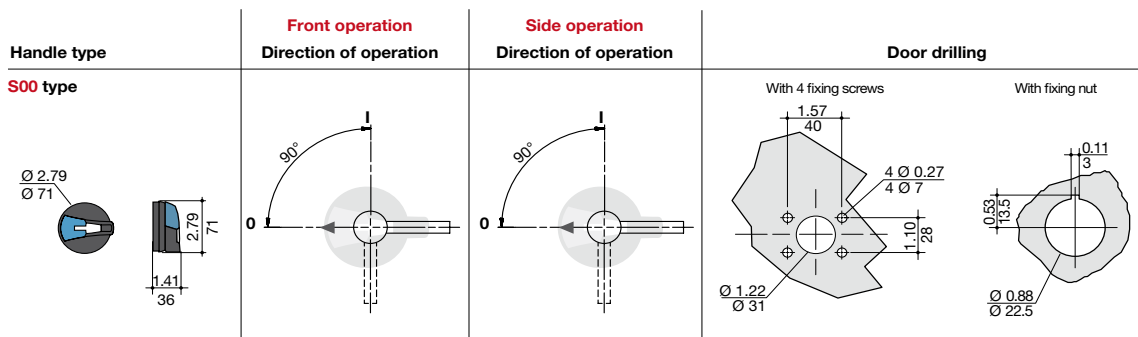
Rating (A)	Units	Overall dimensions		Switch body					Switch mounting		Connection	
		E min	E max	F	F1	F2	G	J	M	N	T	X
16 to 40	in	4.13	14.64	3.83	0.59	1.77	2.67	1.92	1.18	2.95	0.59	0.29
	mm	105	372	97.5	15	45	68	48.75	30	75	15	7.5
63 to 80	in	4.13	14.65	4.13	0.69	2.06	2.99	2.06	1.38	3.35	0.69	0.34
	mm	105	372	105	17.5	52.5	76	52.5	35	85	17.5	8.75

External handles dimensions (in/mm)

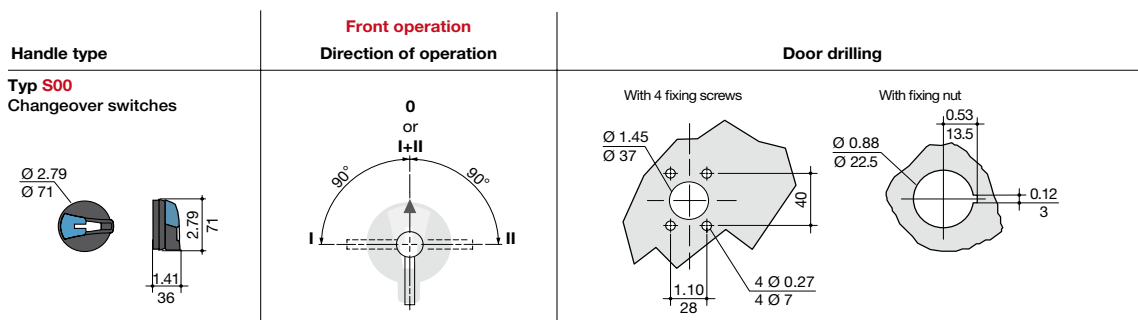
16 to 80 A



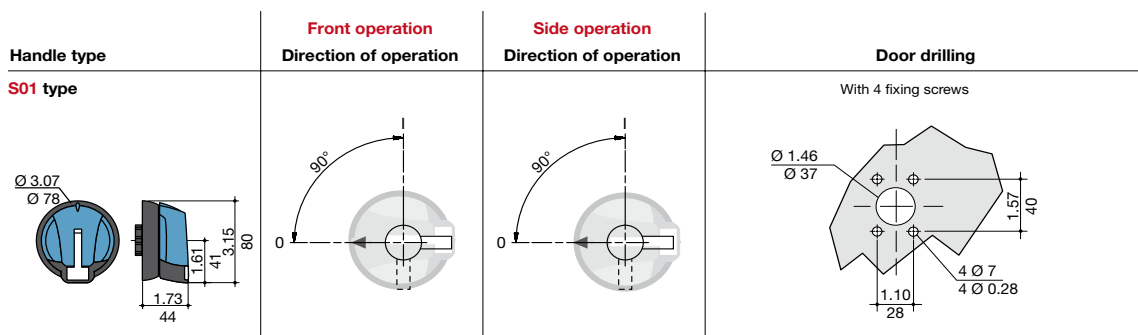
poign_059_a_1_us_cat



poign_048_c_1_gb_cat



sircm_013_b_1_gb_cat



poign_018_a_1_gb_cat