

SIRCO UL 98

Non-fusible switches standards UL and CSA
100 to 1200 A



SIRCO
3 x 600 A



SIRCO
3 x 200 A

Function

SIRCO non-fusible disconnect switches are heavy duty switches that break and make power circuits on and off load and provide safety isolation.

These switches are extremely durable and are tested and approved for use in the most demanding applications.

General characteristics

- Positive break indication.
- Fully visualized disconnection.
- High thermal and dynamic withstand.
- Severe utilization categories.
- High electrical and mechanical endurance.

UL 508A painted steel NEMA 3R, 12 enclosed SIRCO UL 98



Function

Enclosed SIRCO UL 98 allow safe disconnection of power sources.

General Characteristics

- Painted steel enclosure with red handle.
- Fitted with a heavy duty handle that has a metallic padlock hasp.
- Equipped with a 3 pole SIRCO UL 98 switch.
- Possibility of adding unswitched neutral pole auxiliary contacts, and terminal screens.
- Nema 3R, 12 up to 1200 A.

The solution for

- > OEM/Machine Builders
- > Industrial Control Panels Manufacturers (UL 508A)
- > Switchboard Manufacturers (UL 891)
- > AC Combiner Builders
- > Distributors



Strong points

- > Reliability
- > Safety of property and personnel
- > Simplicity
- > Easy assembling

Conformity to standards⁽¹⁾

- > UL 98, CSA-C22.2 No. 4, Guide WHTY, File E201138
- > CSA-C22.2 No. 4, Class 4651-02, File 112964
- > IEC 60947-3



⁽¹⁾ Product reference on request.

Customized solutions

- > Please consult us

Enclosed Disconnect Standards

- > cULus 508A
- > UL 98, Guide WHTY, File E201138
- > CSA 22.2 No. 4, Class 4652-04, File 112964
- > IEC 60947-3



References

Rating (A)	No. of poles	Switch body	Direct handle	External handle	Shaft for external handle	Auxiliary contacts	Terminal protection screens	Terminal Lugs kits
100 A	3 P	2700 3011	Black 2699 5052	S2 type Black 1, 3R, 12 142F 2111 ⁽¹⁾	7.9 in 200 mm 1400 1020	1 st contact NO/NC 2799 0021 2 nd contact NO/NC 2799 0022	3 P 2798 3021 ⁽²⁾	3 P 3954 3020 ⁽⁴⁾
	4 P	2700 4011					3 P 2798 8021 ⁽³⁾	4 P 3954 4020 ⁽⁴⁾
200 A	3 P	2700 3021		Red/Yellow 1, 3R, 12 142G 2111 ⁽¹⁾	12.6 in 320 mm 1400 1032		4 P 2798 4021 ⁽⁴⁾	
	4 P	2700 4021						
400 A	3 P	2700 3041	Black 3799 6012	Black 4, 4X 142D 2111 ⁽¹⁾	15.7 in 400 mm 1400 1040		3 P 2798 3041 ⁽²⁾	3 P 3954 3040 ⁽⁴⁾
	4 P	2700 4041		Red/Yellow 4, 4X 142E 2111 ⁽¹⁾			3 P 2798 8041 ⁽³⁾	4 P 3954 4040 ⁽⁴⁾
600 A	3 P	2700 3060					4 P 2798 4041 ⁽⁴⁾	
	4 P	2700 4060						
800 A	3 P	2700 3080	Black 3799 6012	S3 type Black 4, 4X 143D 3111 ⁽¹⁾	7.9 in 200 mm 1401 1520		3 P 2798 3060 ⁽⁴⁾	3 P 3954 3060
	4 P	2700 4080					4 P 2798 4060 ⁽⁴⁾	4 P 3954 4060
1000 A	3 P	2700 3100		Red/Yellow 4, 4X 143E 3111 ⁽¹⁾	12.6 in 320 mm 1401 1532			
	4 P	2700 4100					3 P 2798 3120 ⁽⁴⁾	3 P 3954 3120
1200 A	3 P	2700 3120			15.7 in 400 mm 1401 1540		4 P 2798 4120 ⁽⁴⁾	4 P 3954 4120
	4 P	2700 4120						

Common accessories - more available on next pages

(1) Defeatable handle.

(2) Top.

(3) Bottom.

(4) Top or bottom.

(5) Max. 4 ACs.

Accessories

Direct operation handle

Rating (A)	Color	Handle type	Reference
100 ... 400	Black	B	2699 5052
600 ... 1200	Black	H	3799 6012



SIRCO UL 98

Non-fusible disconnect switches

100 to 1200 A

Accessories (continued)

External operation handle

Use

The interlocking function of the front external handle prevents the user from opening the door of the enclosure when the switch is in the "ON" position or when the switch is padlocked in the "OFF" position.

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.

Front handle I - 0

Rating (A)	Handle type	Color	Nema type	Reference
100 ... 400	S2	Black	1, 3R, 12	142F 2111
100 ... 400	S2	Red/Yellow	1, 3R, 12	142G 2111
100 ... 400	S2	Black	4, 4X	142D 2111
100 ... 400	S2	Red/Yellow	4, 4X	142E 2111
600 ... 1200	S3	Black	4, 4X	143D 3111
600 ... 1200	S3	Red/Yellow	4, 4X	143E 3111
600 ... 1200	S4	Black	4, 4X	144D 3111
600 ... 1200	S4	Red/Yellow	4, 4X	144E 3111

Front handle heavy duty I - 0 with metallic lever

Rating (A)	Handle type	Color	Nema type	Reference
100 ... 400	S2	Black	4, 4X	142D 2911
100 ... 400	S2	Red/Yellow	4, 4X	142E 2911
600 ... 1200	S3	Black	4, 4X	143D 3911
600 ... 1200	S3	Red/Yellow	4, 4X	143E 3911
600 ... 1200	S4	Black	4, 4X	144D 3911
600 ... 1200	S4	Red/Yellow	4, 4X	144E 3911



Shaft for external handle

Use

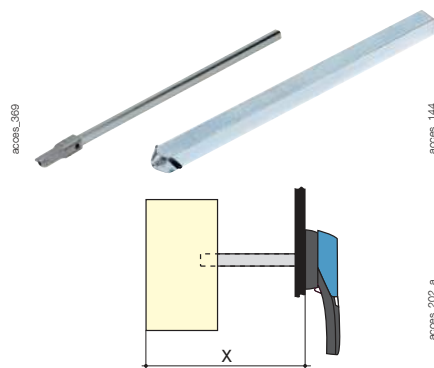
Standard lengths:

- 7.9 in / 200 mm,
- 12.6 in / 320 mm,
- 15.7 in / 400 mm.

Other lengths: please consult us.

Rating (A)	Dimension X (in)	Dimension X (mm)	Handle type	Length (inches)	Length (mm)	Reference
100 ... 400	5.31 ... 10.43	135 ... 265	S2	7.9	200	1400 1020
100 ... 400	5.31 ... 15.16	135 ... 385	S2	12.6	320	1400 1032
100 ... 400	5.31 ... 18.31	135 ... 465	S2	15.7	400	1400 1040
100 ... 400	5.31 ... 22.25	135 ... 565	S2	19.7	500	1400 1050
600 ... 1200	8.70 ... 13.50	221 ... 343	S3, S4	7.9	200	1401 1520
600 ... 1200	8.70 ... 18.23	221 ... 463	S3, S4	12.6	320	1401 1532
600 ... 1200	8.70 ... 21.38	221 ... 543	S3, S4	15.7	400	1401 1540
600 ... 1200	8.70 ... 26.73	221 ... 679	S3, S4	19.7	536	1401 1554⁽¹⁾

(1) UL pending, please consult us.



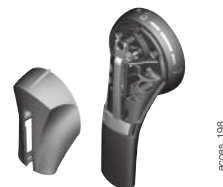
Alternative color S-type handle cover

Use

For single lever handles type S1, S2, S3 and double lever handle, type S4.

Other colors: please consult us.

Handle color	Pack qty	Handle type	Reference
Light grey	50	S1, S2, S3	1401 0001
Dark grey	50	S1, S2, S3	1401 0011
Light grey	50	S4	1401 0031
Dark grey	50	S4	1401 0041



S-type handle raiser

Use

Enables S-type handles to be fitted in place of existing older style Socomec handles. Adapter can also be utilized as a spacer to increase the distance between the panel door and the handle lever.

Dimensions

Adds 0.47 in / 12 mm to the depth.

Handle color	Pack qty	Nema type	Reference
Black	10	1, 3R, 12	1493 0000



Shaft guide for external handle

Use

This accessory makes shaft introduction easier with up to 0.59 in / 15 mm misalignment.

Required for a shaft length over 12.6 in / 320 mm.

Description	Reference
Shaft guide	1429 0000



access_260

Auxiliary contacts

Use

Pre-break and color of positions 0 and I.
To have 2 NO/NC contacts per switch, please order 1st and 2nd auxiliary contacts per switch.
1st contact is mandatory to operate the 2nd one.

Electrical characteristics

A300 for 100 to 400 A.

NO/NC contact for 100 to 1200 A

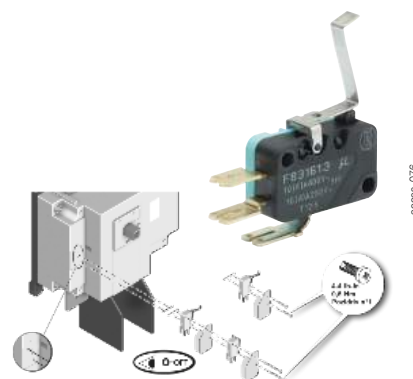
These auxiliary contacts are for an application of 125-250VAC, 60Hz, general use 10A, 1A 1/2 HP.

Rating (A)	No. of AC	Reference
100 ... 1200	1 st	2799 0021
100 ... 1200	2 nd	2799 0022

Low level NO/NC contact for 100 to 1200 A

Low level auxiliary contacts are for an application of 125VAC, 60Hz, general use 1A.

Rating (A)	No. of AC	Reference
100 ... 1200	1 st	2799 0121
100 ... 1200	2 nd	2799 0122



access_076

Terminal screens

Use

Top or bottom protection against direct contact with terminals or connection parts.

Rating (A)	No. of poles	Position	Reference
100 ... 200	3 P	top	2798 3021
100 ... 200	3 P	bottom	2798 8021
100 ... 200	4 P	top / bottom	2798 4021
400	3 P	top	2798 3041
400	3 P	bottom	2798 8041
400	4 P	top / bottom	2798 4041
600	3 P	bottom	2798 3060 ⁽¹⁾
600	4 P	bottom	2798 4060 ⁽¹⁾
800 ... 1200	3 P	bottom	2798 3120 ⁽¹⁾
800 ... 1200	4 P	bottom	2798 4120 ⁽¹⁾

(1) Load side screen, the line side is included with the switch.



access_079

Terminal lugs

Use

Connection of bare copper cables onto the lugs (without lugs).

Rating max (A)	Wires range	No wires per lug	Lugs per kit	Wires	Reference
100 ... 200	#6 - 300MCM	1	2	Cu / Al	3954 2020
100 ... 200	#6 - 300MCM	1	3	Cu / Al	3954 3020
100 ... 200	#6 - 300MCM	1	4	Cu / Al	3954 4020
400	#4 - 600MCM	1	2	Cu / Al	3954 2040
400	#4 - 600MCM	1	3	Cu / Al	3954 3040
400	#4 - 600MCM	1	4	Cu / Al	3954 4040
400	2x (#6 - 350MCM)	2	2	Cu / Al	3954 2041
400	2x (#6 - 350MCM)	2	3	Cu / Al	3954 3041
400	2x (#6 - 350MCM)	2	4	Cu / Al	3954 4041
600	2x (#2 - 600MCM)	2	2	Cu / Al	3954 2060
600	2x (#2 - 600MCM)	2	3	Cu / Al	3954 3060
600	2x (#2 - 600MCM)	2	4	Cu / Al	3954 4060
800 ... 1200 ⁽¹⁾	4x (#2 - 600MCM)	2	6	Cu / Al	3954 3120
800 ... 1200 ⁽¹⁾	4x (#2 - 600MCM)	2	8	Cu / Al	3954 4120

(1) Two lugs per a pole are provided to put side by side per a pole.



ul_032_8

SIRCO UL 98

Non-fusible disconnect switches

100 to 1200 A

Characteristics

Characteristics according to UL 98 and CSA-C22.2 No.4

SIRCO UL 98 - 100 to 1200 A							
General use rating (A)	100 A	200 A	400 A	600 A	800 A	1000 A	1200 A
Short circuit rating at 600 VAC (kA)	200	200	200	200	100	100	100
Type of fuse	J	J	J	J	L	L	L
Max. fuse rating (A)	100	200	400	600	800	1000	1200
Max. motor hp / FLA 3 ph motor max.							
220-240 VAC	30 / 80	75 / 196	125 / 312	200 / 480	200 / 480	200 / 480	200 / 480
440-480 VAC	75 / 96	150 / 180	250 / 302	400 / 477	500 / 590	500 / 590	500 / 590
600 VAC	100 / 99	200 / 192	350 / 336	350 / 336	500 / 472	500 / 472	500 / 472
Max. motor hp / FLA 1 ph motor max.							
220-240 VAC	10/50	10/50					
Max. motor hp / DC FLA motor max.							
125 VDC ⁽¹⁾	10 / 76	15 / 112	20 / 148	20 / 148			
250 VDC ⁽²⁾	15 / 55	15 / 55	50 / 173	50 / 173			
Connection terminals							
Min. connection section / AWG	#6	#6	2x #6 / #4	2x #2	4x #2	4x #2	4x #2
Max. connection section / AWG	300MCM	300MCM	2x 350 / 600MCM	2x 600MCM	4x 600MCM	4x 600MCM	4x 600MCM
Mechanical characteristics							
Endurance (number of operating cycles)	10000	8000	6000	6000	3500	3500	3500
Operating torque (lbs.in/Nm)	88.5/10	88.5/10	128.3/14.5	327.5/37	442.5/50	442.5/50	442.5/50
Auxiliary contacts							
Electrical characteristics	A300	A300	A300	A600	A600	A600	A600

(1) 2 pole in series.

(2) 3 pole in series.

Characteristics according to IEC 60947-3

SIRCO UL 98 - 600 to 1200 A					
Thermal current I_b (40°C)	600 A	800 A	1000 A	1200 A	
Rated insulation voltage U_i (V)	1000	1000	1000	1000	
Rated impulse withstand voltage U_{imp} (kV)	12	12	12	12	
Rated operational currents I_e (A)					
Rated voltage	Utilization category	A ⁽¹⁾	A ⁽¹⁾	A ⁽¹⁾	A ⁽¹⁾
400 VAC	AC-22 A	630	800	1000	1200
400 VAC	AC-23 A	630	800	1000	1000
690 VAC	AC-22 A	500	630	630	630
690 VAC	AC-23 A	200	400	400	400
Connection					
Min. Cu cable cross section (mm ²)	2 x 150	2 x 185	2 x 240		
Min. Cu busbar section (mm ²)	2 x 30 x 5	2 x 40 x 5	2 x 50 x 5	2 x 60 x 5	
Operational power in AC-23 (kW)					
At 400 VAC without prebreaking AC in AC23 (kW) ⁽²⁾⁽³⁾	355	450	560	560	
At 500 VAC without prebreaking AC in AC23 (kW) ⁽²⁾⁽³⁾	450	560	560	560	
At 690 VAC without prebreaking AC in AC23 (kW) ⁽²⁾⁽³⁾	185	400	400	400	
Overload capacity (U_e 415 VAC)					
Rated short-circuit making capacity I_{cm} (kA peak) ⁽⁴⁾	48	75	48	75	

(1) Category with index A = frequent operation.

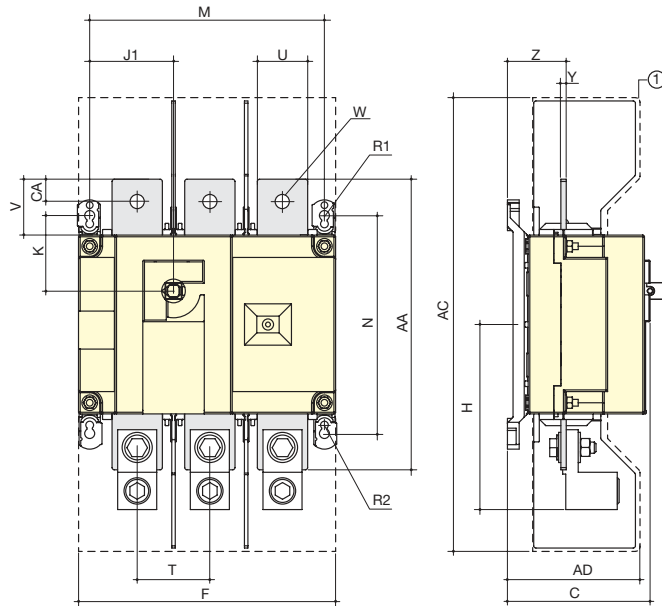
(2) A/B: Category with index A = frequent operation - Category with index B = infrequent operation.

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

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

Dimensions (in/mm)

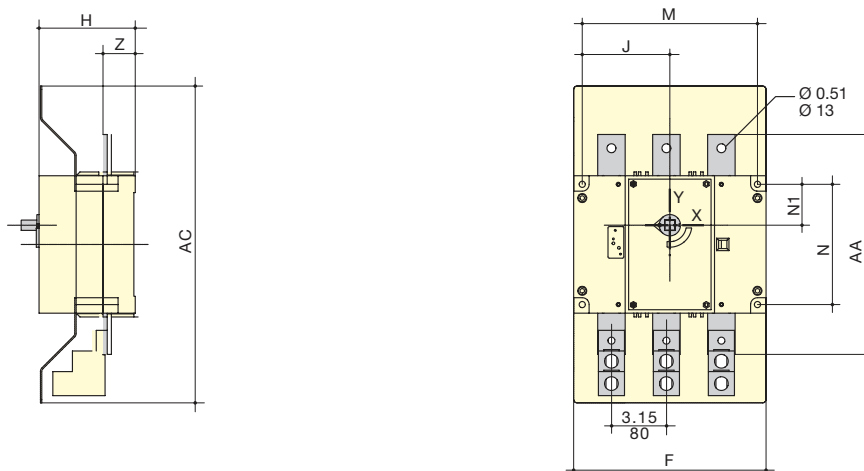
100 and 200 A



sirco-ul011_a_2_x_cat

Rating (A)	Unit	Overall dimensions	Terminal shrouds		Switch body						Switch mounting					Connection							
		C	AC	AD	F 3p.	F 4p.	H	J1 3p.	J1 4p.	K	M 3p.	M 4p.	N	R1	R2	T	U	V	W	Y	Z	AA	CA
100	in	3.72	10.1	3.05	7.09	9.06	4.22	2.17	4.13	1.8	6.3	8.27	5.31	0.35	0.27	1.97	0.98	1.18	0.43	0.14	1.35	6.3	0.6
	mm	94.6	256	77.5	180	230	107	55	105	45.6	160	210	135	9	7	50	25	30	11	3.5	34.4	160	15
200	in	3.72	10.1	3.05	7.09	9.06	4.22	2.17	4.13	1.8	6.3	8.27	5.31	0.35	0.27	1.97	0.98	1.18	0.43	0.14	1.35	6.3	0.6
	mm	94.6	256	77.5	180	230	107	55	105	45.6	160	210	135	9	7	50	25	30	11	3.5	34.4	160	15

400 and 600 A



sirco_107_d1_x_cat

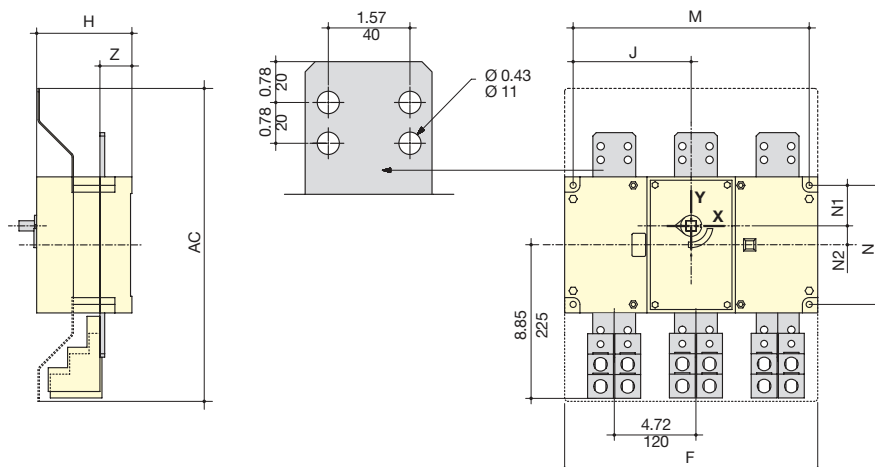
Rating (A)		Terminal shrouds	Switch body					Switch mounting				Connection	
	Unit	AC	F 3p.	F 4p.	H	J 3p.	J 4p.	M 3p.	M 4p.	N	N1	AA	Z
400	in	18.12	11	14.17	5.5	5	6.59	10.04	13.19	6.88	2.34	11.81	1.85
	mm	460	280	360	140	127.5	167.5	255	335	175	59.5	300	47
600	in	18.12	11	14.17	5.5	5	6.59	10.03	13.19	6.88	2.34	12.6	1.85
	mm	460	280	360	140	127.5	167.5	255	335	175	59.5	320	47

SIRCO UL 98

Non-fusible disconnect switches
100 to 1200 A

Dimensions (in/mm) (continued)

800 to 1200 A

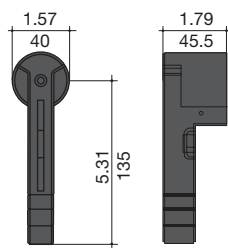


sirco_228_d_1_x_cat

Rating (A)	Unit	Terminal shrouds	Switch body					Switch mounting			
		AC	F 3p.	F 4p.	H	J 3p.	J 4p.	M 3p.	M 4p.	N	N1
800	in	18.12	14.64	19.37	5.5	6.83	9.19	13.66	18.38	6.88	2.34
	mm	460	372	492	140	173.5	233.5	347	467	175	59.5
1 000	in	18.12	14.64	19.37	5.5	6.83	9.19	13.66	18.38	6.88	2.34
	mm	460	372	492	140	173.5	233.5	347	467	175	59.5
1 200	in	18.12	14.64	19.37	5.5	6.83	9.19	13.66	18.38	6.88	2.34
	mm	460	372	492	140	173.5	233.5	347	467	175	59.5

100 to 400 A

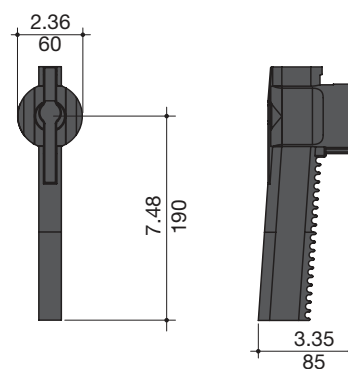
Front direct handle



sirco-ul_027_a_1_x_cat

600 to 1200 A

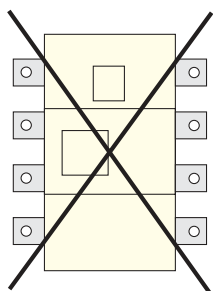
Front direct handle



sirco_287_b_1_x_cat

Mounting orientation

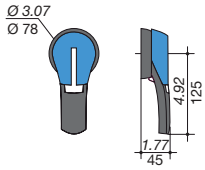
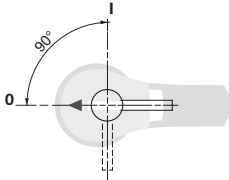
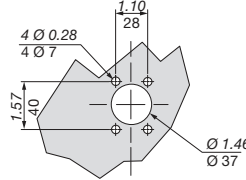
3/4 pole



sirco-ul_028_a_1_x_cat

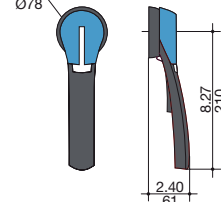
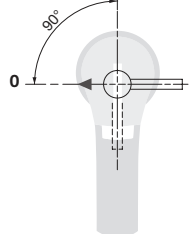
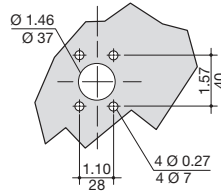
External handle dimensions (in/mm)

100 to 400 A

Handle type	Front operation Direction of operation	Door drilling
S2 type 		

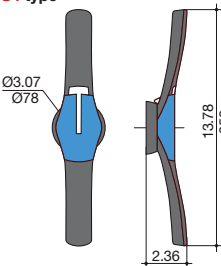
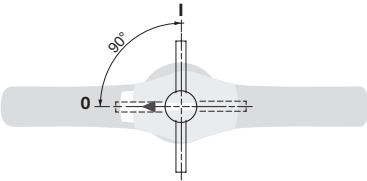
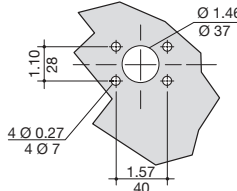
poign_019_a_1_us_cat

600 to 1200 A

Handle type	Front operation Direction of operation	Door drilling
S3 type 		

poign_046_a_1_us_cat

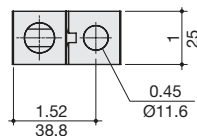
600 to 1200 A

Handle type	Front operation Direction of operation	Door drilling
S4 type 		

poign_096_a_1_us_cat

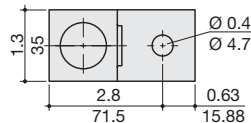
Terminal lugs (in/mm)

100 to 200 A



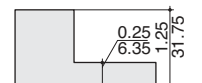
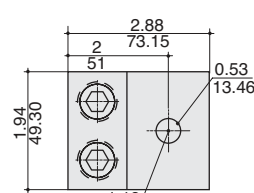
sirco_115_b_1_us_cat

400 A



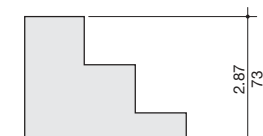
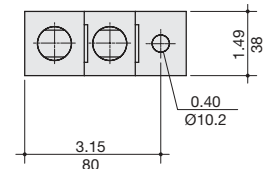
sirco-ul_010_b_1_us_cat

400 A



sirco-ul_026_b_1_us_cat

600 to 1200 A



sirco_115_b_1_us_cat