

Non-Fused Load Break Switches FSSC, SX, SXDC, SC

UL 98 Non-Fused Load Break Switches

Mersen disconnect switches are extremely durable, manually operated, non-fused disconnect switches. These heavy-duty switches are designed with the most up-to-date disconnect switch technology available. Designed to suit the UL98 or UL489 standard, the switch gives you a product that “makes and breaks” power circuits on load. The switches are tested and approved for use in demanding applications, such as “Service Entrance”. Up to 400A, the switches are available with visible blade contacts. A wide array of handles are available to meet OSHA padlocking requirements, NEMA configurations, defeater options and NFPA 79 requirements.

Features/Benefits

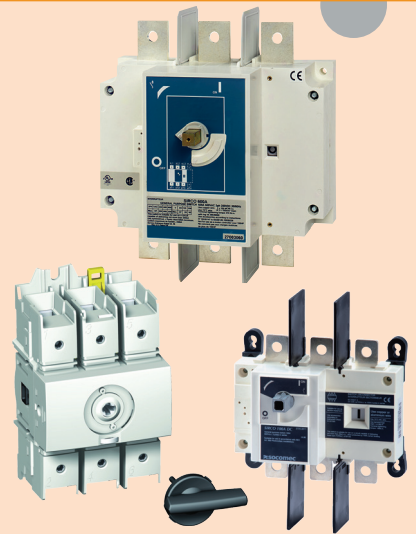
- UL 98 Service entrance rated
- Front or side operated switches
- Padlockable
- Compact
- Robust
- DIN-rail, panel or door mounting
- Lockable, defeatable external handles
- Side-mounted auxiliary contacts and additional poles available
- The SXDC switches are rated 600VDC UL and 1000VDC IEC

Highlights:

- Visible blade contacts up to 400 A
- Line side shrouding supplied with switch
- Defeatable pistol handles automatically re-latch when panel door is closed - no tool necessary to reset latch
- External or direct operation handles
- Flange operation (for use with side operated switches)
- Double-break, silver-plated contacts
- SX series has flexible terminal shields that allow for tighter wire bending

Applications:

- Service entrance or main panel disconnects up to 600VAC, 1200A
- “Make and break” power circuit applications on load
- NFPA 79 solutions
- Photovoltaic



Ratings:

- Volts** : 600VAC / DC
: UL and 1000VDC IEC
- Amps** : 30A, 60A, 100A, 200A,
400A, 600A, 800A,
1000A and 1200A
- SCCR** : Up to 200kA with fuses
Suitable as motor disconnect up to 200hp

Approvals:

- All switches meet the requirements of UL and CSA
- UL listed guide WHTY, File E191605 for UL 98 (ratings from 30 A to 1200 A)
- CSA 22.2 # 4, class 4652-04, File 703166 (ratings from 30 A to 1200 A)
- IEC 947-3 CE mark (other IEC ratings up to 5,000A available on request, please consult us)



Non-Fused Load Break Switches sc

Front Operated Range from 600 to 1200A - SC



Select a switch

Ampere Rating	Catalog Numbers			
	600	800	1000	1200
3-pole	SC600	SC800	SC1000	SC1200
4-pole	SC6004	SC8004	SC10004	SC12004

S type pistol handle for front external operation



Select a handle

Recommended for easier switching

NEMA Type	IEC	Color	Catalog Numbers			
1, 3R, 12, 4, 4X	IP65	Black	HSTB4	HSTB4	HSTB4	HSTB4
1, 3R, 12, 4, 4X	IP65	Red / Yellow	HSTR4	HSTR4	HSTR4	HSTR4

Note: Handle is defeatable and is padlockable in the "OFF" position



Select a handle

Recommended for tighter spacing

NEMA Type	IEC	Color	Catalog Numbers			
1, 3R, 12	IP54	Black	HSPBEL	HSPBEL	HSPBEL	HSPBEL
1, 3R, 12	IP54	Red / Yellow	HSPREL	HSPREL	HSPREL	HSPREL
1, 3R, 12, 4, 4X	IP65	Black	HSPB4EL	HSPB4EL	HSPB4EL	HSPB4EL
1, 3R, 12, 4, 4X	IP65	Red / Yellow	HSPR4EL	HSPR4EL	HSPR4EL	HSPR4EL

Note: Handle is defeatable and is padlockable in the "OFF" position



Select a shaft

Shaft Length (in/mm)	Catalog Numbers			
7.9 / 200	SS200-15	SS200-15	SS200-15	SS200-15
12.6 / 320	SS320-15	SS320-15	SS320-15	SS320-15
15.7 / 400	SS400-15	SS400-15	SS400-15	SS400-15

Note: The small shaft protruding from the switch is 15mm x 15mm. The shaft for the handle is 12 x 12mm. A coupler is included and adapts from 12mm to 15mm.

Pistol handle for direct front operation



Select a handle

Color	Catalog Numbers			
Black	HADB5	HADB5	HADB5	HADB5

Note: Handle is defeatable and is padlockable in the "OFF" position

Options for front & side operation



Select a handle

Terminal Lugs Kit	Catalog Numbers			
Six lugs per kit - for 3-pole switches	TL600	TL800 ⁽⁴⁾	TL1200	TL1200
Eight lugs per kit - for 4-pole switches	TL6004	TL8004 ⁽⁴⁾	TL12004	TL12004
Terminal Screen ⁽¹⁾				
3-pole (for line or load side)	TS600SC	TS1200SC	TS1200SC	TS1200SC
4-pole (for line or load side)	TS6004SC	TS12004S	TS12004SC	TS12004SC
Auxiliary Contacts				
Auxiliary Contacts Holder ⁽²⁾	ACHSC	ACHSC	ACHSC	ACHSC
1 N / O, 10A, 600VAC snap-on contact block, A600-Q600, pre-break, late make	AC3	AC3	AC3	AC3
1 N / C, 10A, 600VAC snap-on contact block, A600-Q600, pre-break, late make	AC4	AC4	AC4	AC4
Padlocking facility for external operation ⁽³⁾	SWL01	SWL01	SWL01	SWL01

(1) Line side Terminal Screen supplied as standard with switch.

(2) ACHSC accommodates up to 4 auxiliary contacts.

(3) Allows to padlock the switch when door of the enclosure is open.

(4) TL1200 or TL12004 also fit if 4 holes are required.

Non-Fused Load Break Switches sc

Technical Characteristics for Front and Side Operation - SC

Catalog Numbers - UL, cUL and CSA

Catalog Numbers	SC600 / SC6004	SC800 / SC8004	SC1000 / SC10004	SC1200 / SC12004
Ampere Rating (A)	600	800	1000	1200
Operating voltage (V)	600	600	600	600
Max Horsepower Rating / Max Motor FLA Current Three-Phase				
208 V	150 / 415	200 / 554	200 / 554	200 / 554
240 V	200 / 480	200 / 602	200 / 602	200 / 602
480 V	400 / 447	500 / 590	500 / 590	500 / 590
600 V	350 / 336	500 / 472	500 / 472	500 / 472
DC 125 V	20 / 148 ⁽¹⁾	-	-	-
DC 250 V	50 / 173 ⁽²⁾	-	-	-
Short circuit rating with fuses (SCCR) (kA)	200	100	100	100
Branch circuit fuse type	J	J	J	J
Max fuse rating (A)	600	800	1000	1200
Dimension 3-Pole (front operated switches)				
H (in)	12.60	13	13	13
W (in)	11.02	14.64	14.64	14.64
D (in)	5.51	5.51	5.51	5.51
Shaft Size Square (front operated switches)				
in.	0.59 x 0.59	0.59 x 0.59	0.59 x 0.59	0.59 x 0.59
mm	15 x 15	15 x 15	15 x 15	15 x 15
3-pole switch operating torque (front operation) (lb in)	320	320	320	320
Terminal lugs kit (# lugs per kit)	optional (6)	optional (6)	optional (12)	optional (12)
Wire range AWG (# wire holes per lug)	600 kcmil-#2 (2)	600 kcmil-#2 (3)	600 kcmil-#2 (4)	600 kcmil-#2 (4)
Wire tightening torque (lb in)	375	375	375	375

(1) 2-pole in series. (2) 3-pole in series.

Catalog Numbers - IEC 947-3

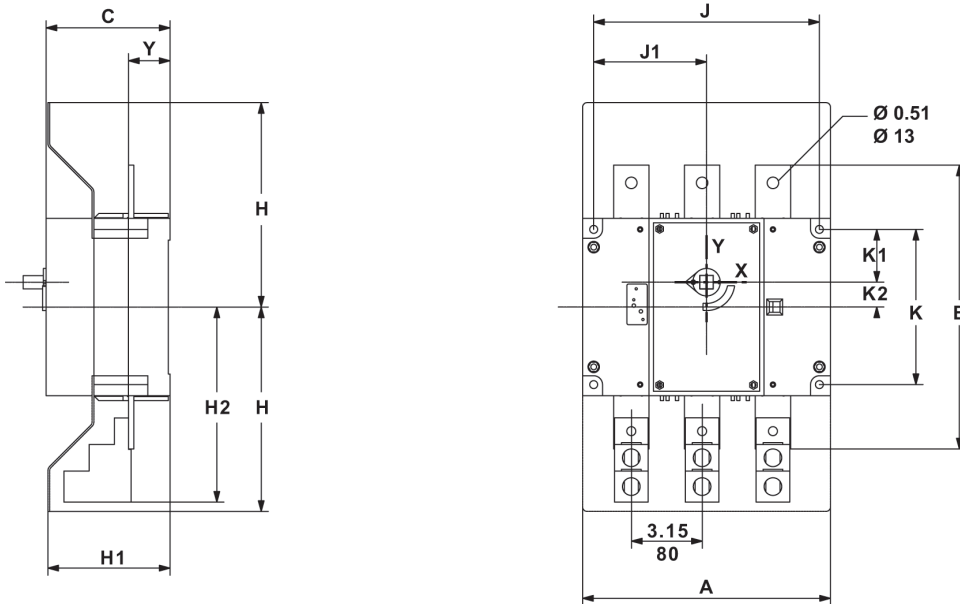
Catalog Numbers		SC600 / SC6004	SC800 / SC8004	SC1000 / SC10004	SC1200 / SC12004
Ampere Rating	A	600	800	1000	1200
Rated Insulation voltage Ui	V	1000	1000	1000	1000
Rated impulse voltage (Uimp)	kV	12	12	12	12
Operation current Ie (A)					
400 V AC	AC-22A	630	800	1000	1200
	AC-23A	630	800	1000	1000
690 V AC	AC-22A	500	630	630	630
	AC-23A	200	400	400	400
Motor Power (kW)					
400 V AC	AC-23A	355	450	560	560
500 V AC	AC-23A	450	560	560	560
690 V AC	AC-23A	185	400	400	400
Max. peak let through current (gG)	kA peak	48	75	75	75
Connection					
Minimum Cu cable section	mm ²	2 x 150	2 x 185	2 x 240	-
Minimum 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

Non-Fused Load Break Switches sc

Dimensions (in/mm) for Front Operation - SC

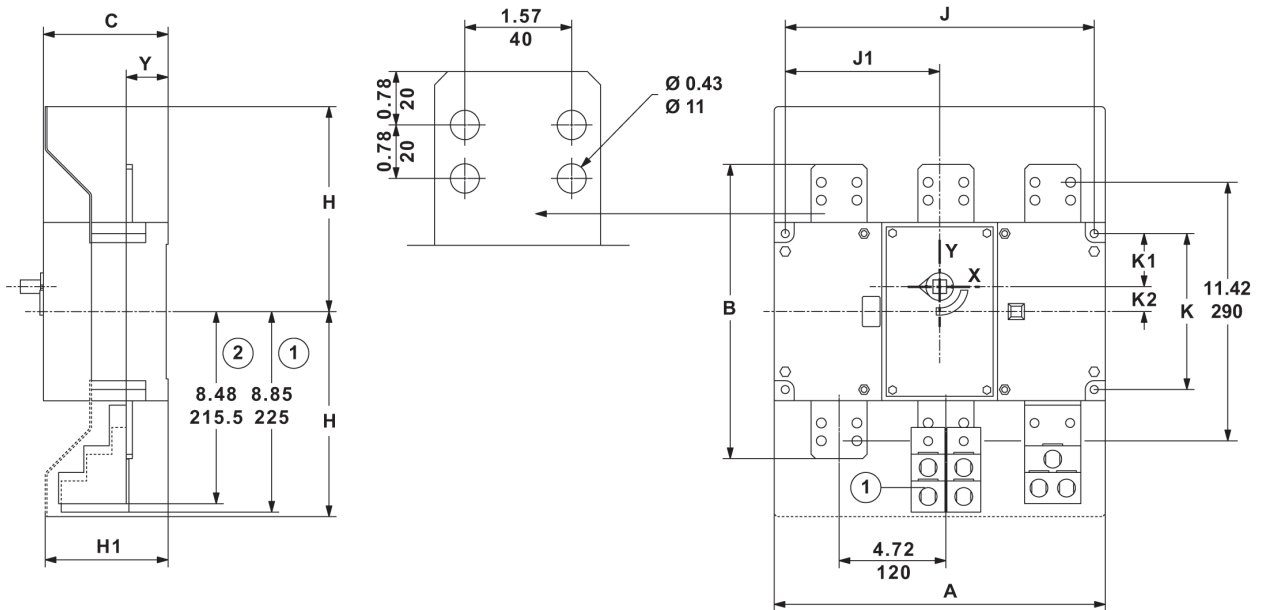
600 A

SC600
SC6004



800-1000-1200 A

SC800
SC8004
SC1000
SC10004
SC1200
SC12004



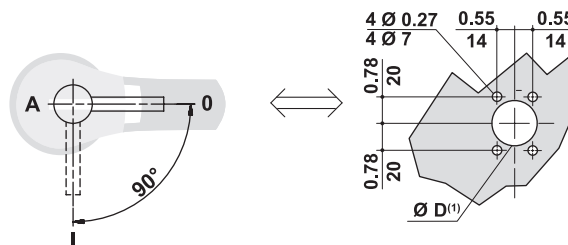
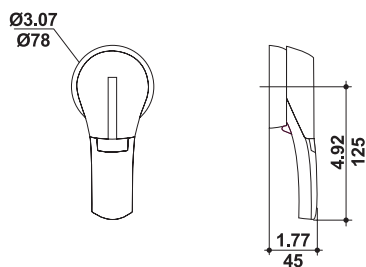
Ampere Rating	No. of Poles	A		B		C		H		H1		H2		J		J1		K		K1		K2		Y	
		In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm	In	mm
400 A	3 P	11.02	280	12.60	320	5.51	140	9.05	230	5.43	138	8.66	220	10.04	255	5	127.5	6.88	175	2.34	59.5	1.10	28	1.85	47
600 A	4 P	14.17	360	12.60	320	5.51	140	9.05	230	5.43	138	8.66	220	13.19	335	6.59	167.5	6.88	175	2.34	59.5	1.10	28	1.85	47
800 A - 1000 A	3 P	14.64	372	13	330	5.51	140	9.05	230	5.43	138	-	-	13.66	347	6.83	173.5	6.88	175	2.34	59.5	1.10	28	1.85	47
1200 A	4 P	19.37	492	13	330	5.51	140	9.05	230	5.43	138	-	-	18.38	467	9.19	233.5	6.88	175	2.34	59.5	1.10	28	1.85	47

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Dimensions (in/mm) for External Front Operation Handles

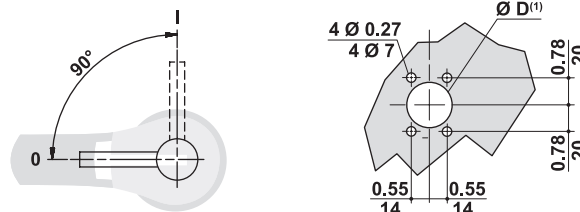
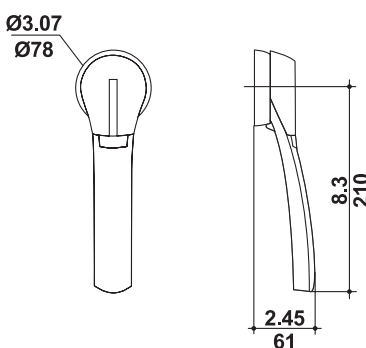
S type pistol handle

HSPBL
HSPRL
HSPB4L
HSPR4L



Side operation

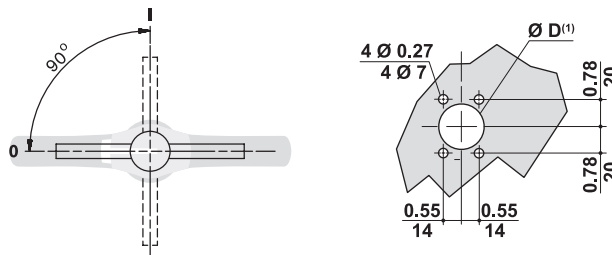
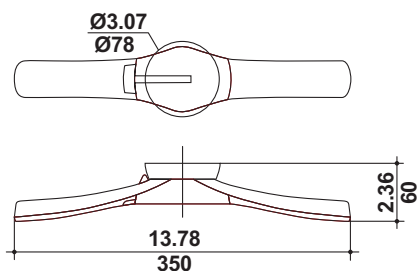
HSPBEL
HSPREL
HSPB4EL
HSPR4EL



Front operation

S type pistol double handle

HSTB4
HSTR4

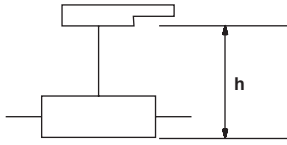


- (1) Conventional fixing (from rear): $D = 1.22$ to 1.45 in / 31 to 37 mm.
Fast fixing (external, door closed): $D = 1.45$ in / 37 mm, fast fixing is achieved with special clips that avoid drilling for fixation of the handle on the door. Clips are included.

Non-Fused Load Break Switches FSSC, SX, SXDC, SC

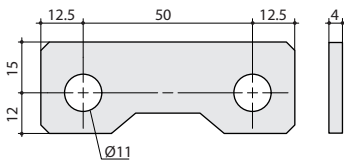
Dimensions (in/mm) from Backplate to Door Distance with Shaft Extension - FSSC, SX, SC

Minimum distance (in / mm)

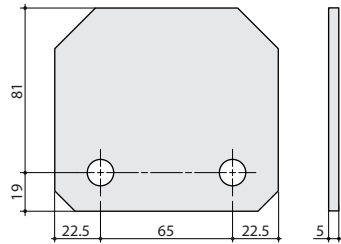


H & C Minimum Dimension	All HSP Handles	
	In	mm
FSSC	6	153
SX 100-200A	6	152
SX 400A	8	203
SC 600-1200 A	8.70	221

Jumper Bars - SXDC



100A and 200A #SX2J



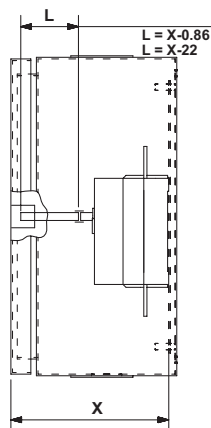
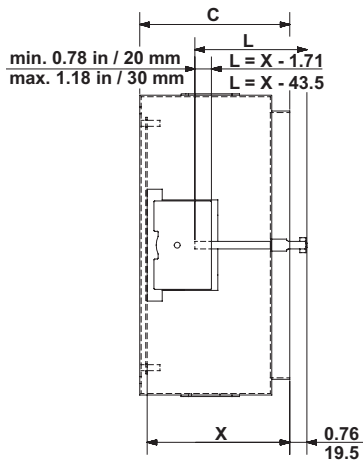
400A and 200A #SX4J

Note: Large size is for heat dissipation.

SX4003
SX4004
SXDC4003
SXDC4004

SC600
SC6004
SC800
SC8004

SC1000
SC10004
SC1200
SC12004

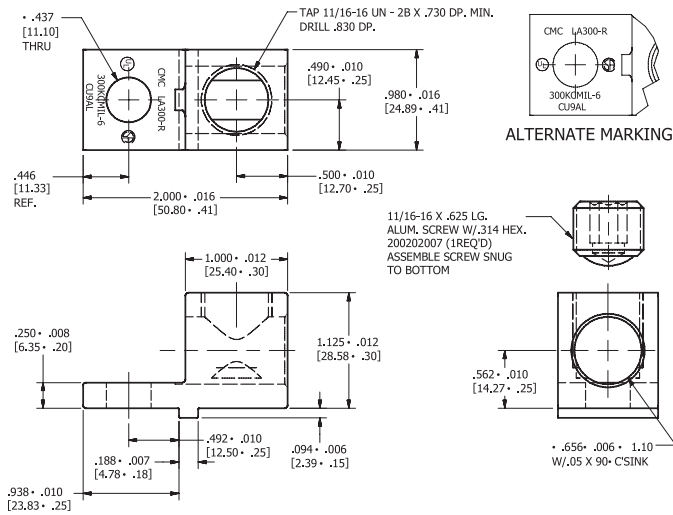


Non-Fused Load Break Switches SX, SXDC, SC

Dimensions (in/mm) for Terminal Lugs

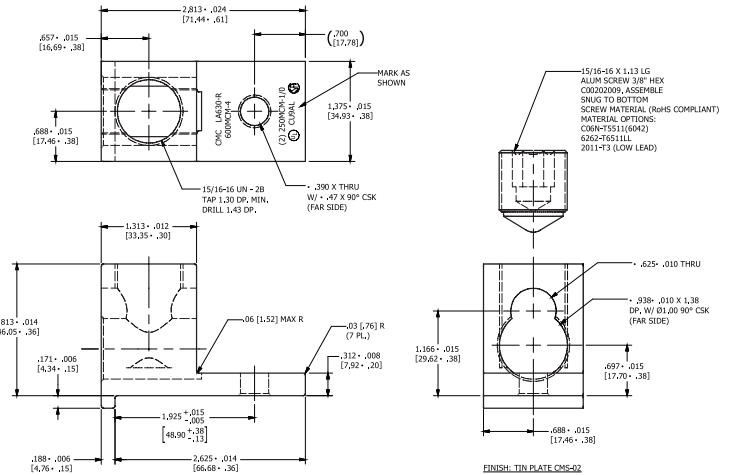
For use with SX series switches

TL200X



1 wire 300kcmil / 0 - #6

TL400X

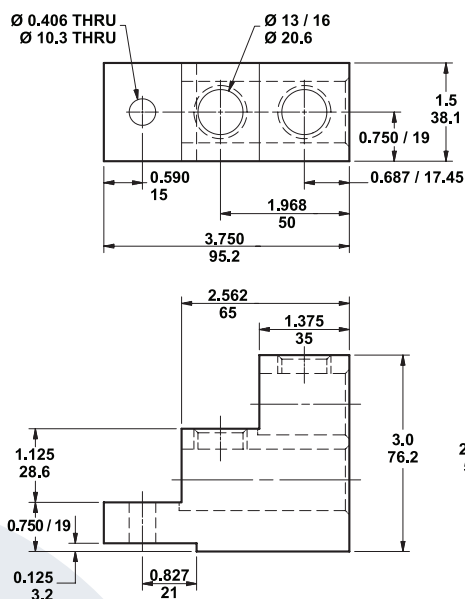


2 wire 250kcmil - 1/0

TL600 and TL1200

TL600: For use with SC 600 (1 lug per terminal)

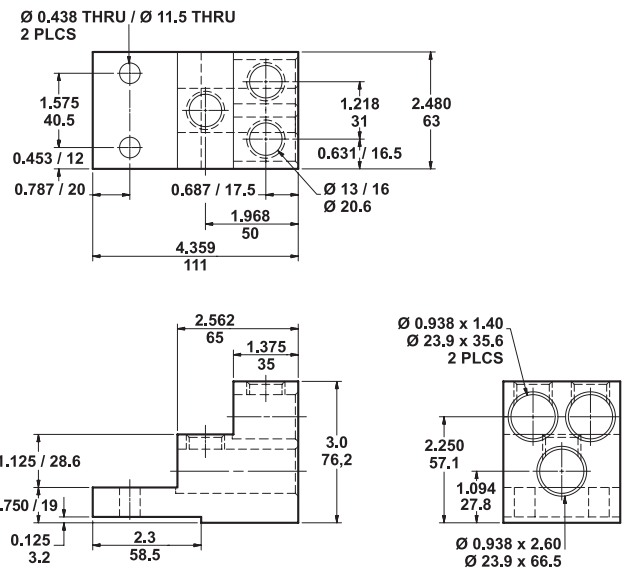
TL1200: For use with SC 800, 1000 & 1200 (2 lugs per terminal)



2 wires 600 MCM-2

TL 800

For use with SC 800



3 wires 600 MCM-2