Application	Interrupted	Uninterrupted
Thermal Current Rating (Ith)	150A	200A
Intermittent Current Rating:		
30% Duty	275A	365A
40% Duty	235A	315A
50% Duty	210A	285A
60% Duty	195A	260A
70% Duty	180A	240A

Rated Fault Current Breaking Capacity (Icn) 5ms Time Constant: *(in accordance with UL583*)*	
SW180	1000A at 48V
SW180B	1000A at 96V

Maximum Recommended Contact Voltages (U_e):	
SW180	48V D.C.
SW180B	96V D.C.

Typical Voltage Drop per pole across New Contacts at 150A:	
Normally Open	30mV
Mechanical Durability	>5 x 10⁶
Coil Voltage Available (U_S) *(Rectifier board required for A.C.)*	From 6 to 240V D.C.

Coil Power Dissipation:	
Highly Intermittent Rated Types	40 - 50 Watts
Intermittently Rated types	30 - 40 Watts
Prolonged Rated Types	15 - 30 Watts
Continuously Rated Types	10 - 15 Watts

Maximum Pull-In Voltage (Coil at 20°C) Guideline:	
Highly Intermittent Rated types (Max 25% Duty Cycle)	60% U_S
Intermittently Rated types (Max 70% Duty Cycle)	60% U_S
Prolonged Operation (Max 90% Duty Cycle)	60% U_S
Continuously Rated Types (100% Duty Cycle)	66% U_S
Drop-Out Voltage Range	10 - 25% U_S
Typical Pull-In Time (N/O Contacts to Close):	30ms

Typical Drop-Out Time (N/O Contacts to Open):	
Without Suppression	8ms
With Diode Suppression	60ms
With Diode and Resistor *(Subject to resistance value)*	25ms
Typical Contact Bounce Period	3ms
Operating Ambient Temperature	- 40°C to + 60°C

Guideline Contactor Weight:	
SW180	640 gms
With Auxiliary	+ 20 gms
With Blowouts	+ 50 gms

Auxiliary Details	
Auxiliary Thermal Current Rating	5A

Auxiliary Contact Switching Capabilities (Resistive Load):	
SW180C	**SW180A**
5A at 24V D.C.	
2A at 48V D.C.	
0.5A at 240V D.C.	

Advised Connection Sizes for Maximum Continuous Current	
Copper busbar	130mm² [0.20inch²]
Cable	Rated suitable for Application

Key: ◄ = Interrupted ◄ = Uninterrupted

Note: Where applicable values shown are at 20°C

* Please check our web site for product UL status

The **SW180** has been designed for direct current loads, including motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted loads, the SW180 is suitable for switching Resistive, Capacitive and Inductive loads.

• **Interrupted** current - opening and closing on load with frequent switching (results in increased contact resistance).

• **Uninterrupted** current - no or infrequent load switching requirements (maintains a lower contact resistance).

The SW180 features single pole single throw, double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW180 has M8 stud main terminals and 6.3mm spade coil connections. It can be mounted via M5 tapped holes or mounting brackets – either supplied fitted, or as separate items. Mounting can be horizontal or vertical, when vertical the M8 contact studs should point upwards. If the requirement is for downwards orientation we can adjust the contactor to compensate for this.
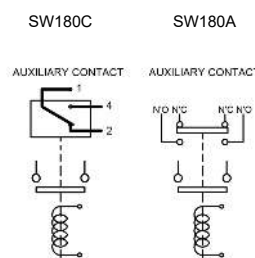

SW180

Dimensions in mm [inches]

SW180 Contactor Performance

Figures are for guideline purposes only
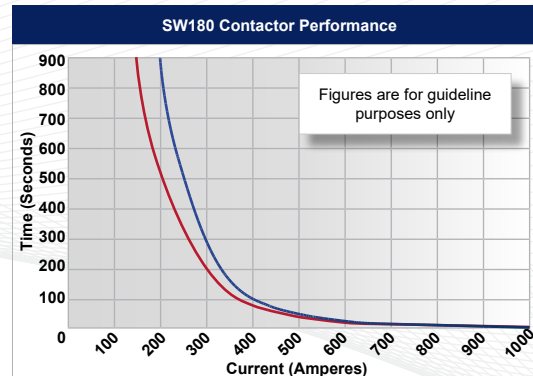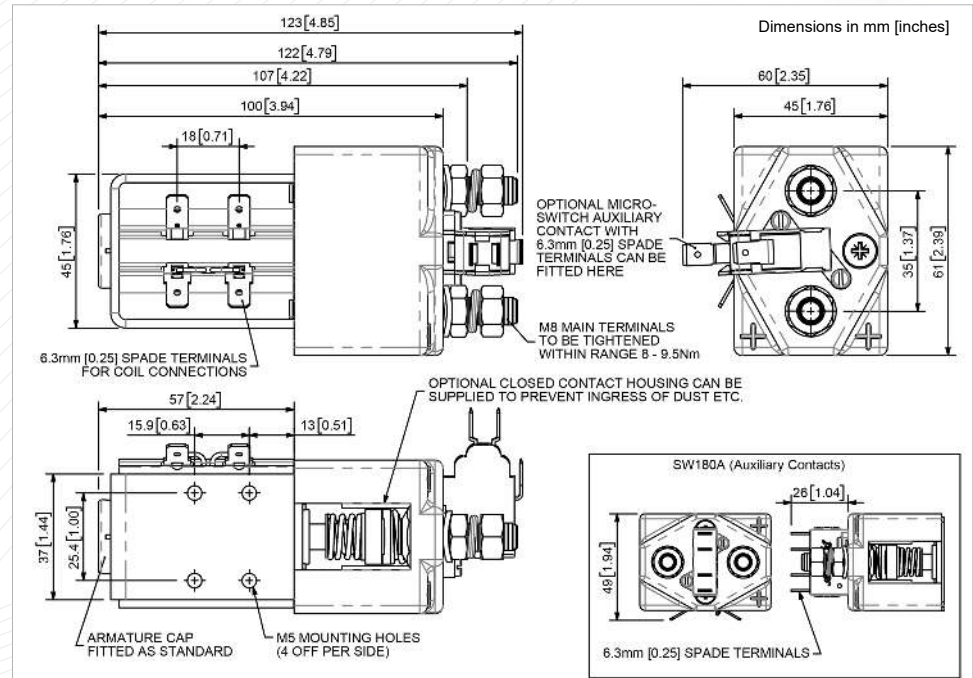
Contact Performance Key:
— **Interrupted Current**
— **Uninterrupted Current**

Connection Diagram

SW180 Available Options		
General		**Suffix**
Auxiliary Contacts	○	A
Auxiliary Contacts - V3	○	C
Magnetic Blowouts†	○	B
Magnetic Blowouts - High Powered†	○	B
Armature Cap	●	
Mounting Brackets (See Stud Contactor Series Catalogue)	○	
Magnetic Latching† (Not fail safe)	○	M
Closed Contact Housing‡	○	
Environmentally Protected IP66	X	
EE Type (Steel Shroud)	○	EE
Contacts		
Large Tips	○	L
Textured Tips	○	T
Silver Plating	X	
Coil		
AC Rectifier Board (Fitted)	○	
Coil Suppression†	○	
Flying Leads	○	F
Manual Override Operation	○	
M4 Stud Terminals	X	
M5 Terminal Board	○	
Vacuum Impregnation	○	

Key: Optional ○ Standard ● Not Available X

† *Connections become polarity sensitive*

‡ *Open Housing Available*