

ELECTRIC VEHICLE DC CONTACTORS

MODEL SW80P

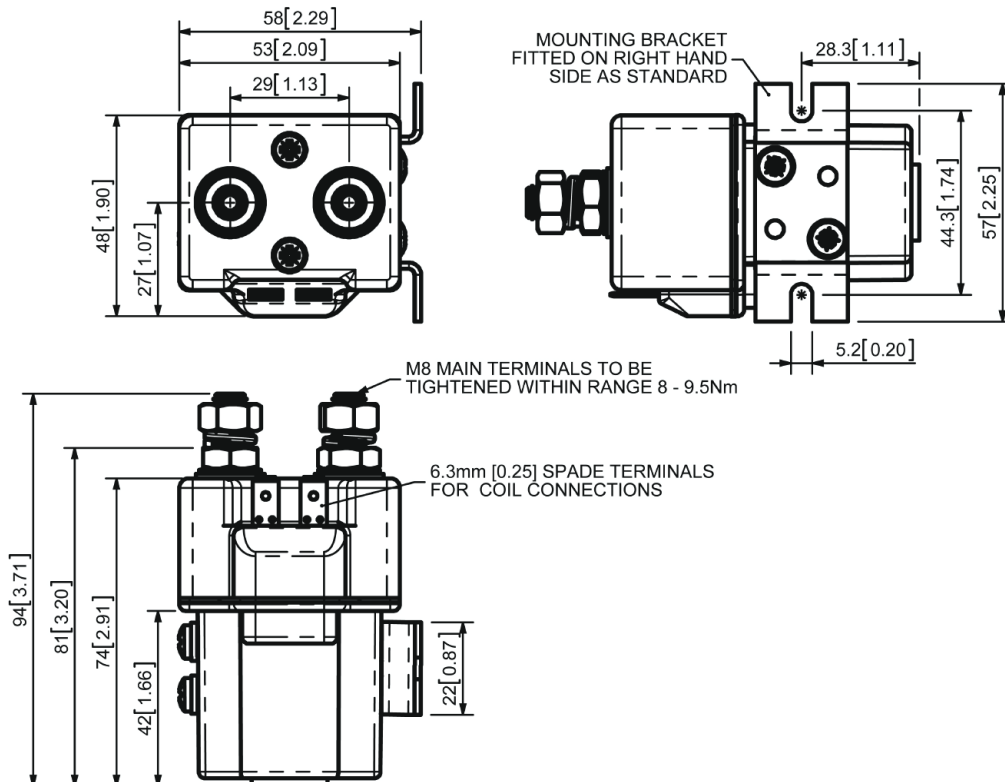


The SW80P is sealed to IP66 and has been designed for direct current loads in more arduous environments. Applications include winches and motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted loads, the SW80P is suitable for switching Resistive, 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 SW80P features single pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW80P features an enclosed top cover and offers environmental protection to IP66. The SW80P has M8 stud main terminals and 6.3mm spade coil connections. Mounted using supplied brackets, 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.

DIMENSIONS mm [in]



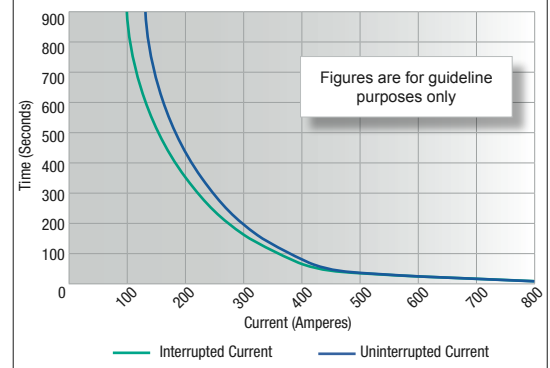
MODEL SW80P

SPECIFICATIONS

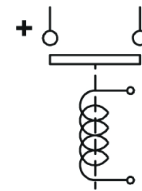
Application	Interrupted	Uninterrupted
Thermal Current Rating (I_{th})	100A	125A
Intermittent Current Rating:		
30% Duty	185A	230A
40% Duty	160A	200A
50% Duty	140A	175A
60% Duty	130A	160A
70% Duty	120A	150A
Rated Fault Current Breaking Capacity (I_{cn}) 5ms Time Constant: <i>(in accordance with UL583)</i>		
SW80P	800A at 48V	
Rated Fault Current Breaking Capacity (I_{cn}) Resistive Load: <i>(in accordance with UL508)</i>		
SW80P	190A at 60V D.C.	
Maximum Recommended Contact Voltages (U_{θ}):		
SW80P	48V D.C.	60V D.C.
Typical Voltage Drop per pole across New Contacts at 100A	40mV	
Mechanical M.T.B.F	$>5 \times 10^6$	
Coil Voltage Available (U_S) <i>(Rectifier board required for A.C.)</i>	From 6 to 240V D.C.	
Coil Power Dissipation:		
Highly Intermittent Rated Types	20 – 30 Watts	
Intermittently Rated types	15 – 20 Watts	
Prolonged Rated Types	13 – 15 Watts	
Continuously Rated Types	7 – 13 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	20ms	
Typical Drop-Out Time (N/O Contacts to Open):		
Without Suppression	5ms	
With Diode Suppression	50ms	
With Diode and Resistor <i>(Subject to resistance value)</i>	8 – 20ms	
Typical Contact Bounce Period		
	3ms	
Operating Ambient Temperature		
	-40°C to +60°C	
Guideline Contactor Weight:		
SW80P	390 gms	
Advised Connection Sizes for Maximum Continuous Current:		
Copper busbar	80mm ² [0.124inch ²]	
Cable	Rated suitable for Application	

NOTE: Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application. Thermal current ratings stated are dependant upon the size of conductor being used.

SW80P Contactor Performance



Connection Diagram



SW80P Available Options

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

Key: Optional ○ Standard ● Not Available X

† Connections become polarity sensitive

‡ Open Housing Available

