SW85 Single Pole Single Throw Normally Closed
(Part of the SW80 Series)

Application	Interrupted	Uninterrupted
Thermal Current Rating (I_{th})	100A	
Intermittent Current Rating:		
30% Duty	185A	
40% Duty	160A	
50% Duty	140A	
60% Duty	130A	
70% Duty	120A	
Rated Fault Current Breaking Capacity (I_{cn}) 5ms Time Constant: *(in accordance with UL583*)*		
SW85	800A at 48V	
SW85B	800A at 80V	
Rated Fault Current Breaking Capacity (I_{cn}) Resistive Load: *(in accordance with UL508*)*		
SW85	150A at 48V D.C.	
SW85B	150A at 96V D.C.	
Maximum Recommended Contact Voltages (U_e):		
SW85	48V D.C.	
SW85B	96V D.C.	
Typical Voltage Drop per pole across New Contacts at 100A	50mV	
Mechanical M.T.B.F	>5 x 10^6	
Coil Voltage Available (U_s) *(Rectifier board required for A.C.)*	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 *(Subject to resistance value)*	8 - 20ms	
Typical Contact Bounce Period	3ms	
Operating Ambient Temperature	- 40˚C to + 60˚C	
Guideline Contactor Weight:		
SW85	360 gms	
With Auxiliary	+ 20 gms	
With Blowouts	+ 50 gms	

Auxiliary Details	
Auxiliary Thermal Current Rating	5A

Auxiliary Contact Switching Capabilities (Resistive Load):	
SW85A	SW85C
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	80mm² [0.124inch²]
Cable	Rated suitable for Application

Key: = *Interrupted* = *Uninterrupted*

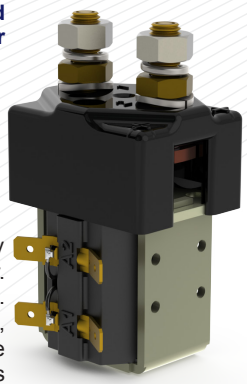
Note: *Where applicable values shown are at 20˚C*

** Please check our web site for product UL status*

The SW85 has been designed for direct current loads, particularly motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted loads, the SW85 is suitable for switching Resistive, Capacitive and Inductive loads.

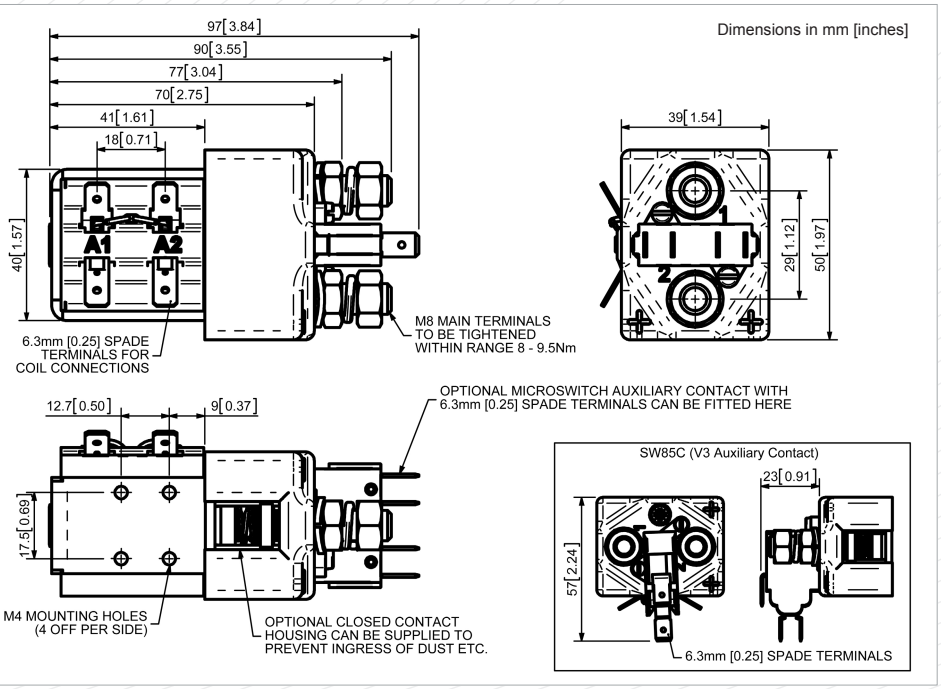
- Interrupted current - opening and closing on load with frequent switching (results in increased contact resistance).
- Uninterrupted current - no or infrequent load switching requirements (maintains a lower contact resistance).

The SW85 features single pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW85 has M8 stud main terminals and 6.3mm spade coil connections. Mounting is via M4 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 downwards. If the requirement is for upwards orientation we can adjust the contactor to compensate for this. Please note normally closed contacts are not designed to make and break load.

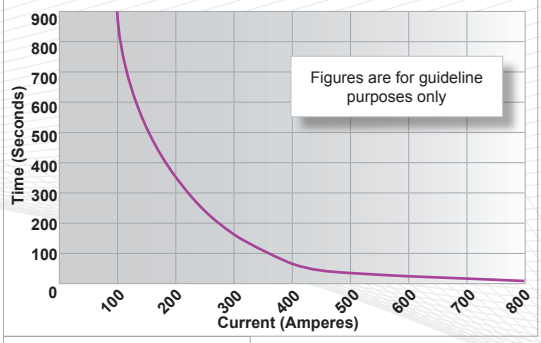


SW85

Dimensions in mm [inches]



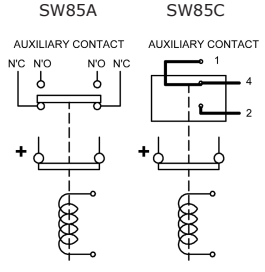
SW85 Contactor Performance



Contact Performance Key:

— **Interrupted and Uninterrupted Current**

Connection Diagram



SW85 Available Options

General		Suffix
Auxiliary Contacts	○	A
Auxiliary Contacts - V3	○	C
Magnetic Blowouts†	○	B
Magnetic Blowouts - High Powered†	○	B
Armature Cap	X	
Mounting Brackets (See Stud Series Catalogue)	○	
Magnetic Latching† (Not fail safe)	○	M
Closed Contact Housing‡	○	
Environmentally Protected IP66 (see SW85P Catalogue sheet)	○	P
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	X	
M4 Stud Terminals	X	
M5 Terminal Board	○	
Vacuum Impregnation	○	

Key: Optional ○ Standard ● Not Available X

† *Connections become polarity sensitive*

‡ *Open Housing Available*

- **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**
- **For further technical advice email: technical@albrightinternational.com**
- **Albright reserve the right to change data without prior notice**

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