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: *(in accordance with UL583*)*		
SW84	800A at 48V §	
SW84B	600A at 80V §	
Maximum Recommended Contact Voltages (U_e):		
SW84	48V D.C.	
SW84B	96V D.C.	
Typical Voltage Drop per pole across New Contacts at 100A:		
Normally Open	40mV	
Normally Closed	50mV	
Mechanical Durability	>5 x 10^6 Cycles	
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 (N/O Contacts to Close):	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	
Main Contact Change over time (milliseconds):		
Normally Closed to Normally Open	7ms	
Normally Open to Normally Closed	4ms	
Typical Contact Bounce Period	3ms	
Operating Ambient Temperature	- 40˚C to + 60˚C	
Guideline Contactor Weight:		
SW84	430 gms	
With Auxiliary	+ 20 gms	
With Blowouts	+ 50 gms	

Auxiliary Details	
Auxiliary Thermal Current Rating	5A

Auxiliary Contact Switching Capabilities (Resistive Load):	
SW84C	SW84A
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*

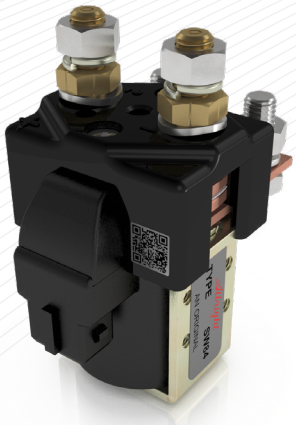
** Please check our web site for product UL status*

§ Normally Open contacts only - Normally Closed should be rated as per Interrupted Current, and are not designed to make and break load

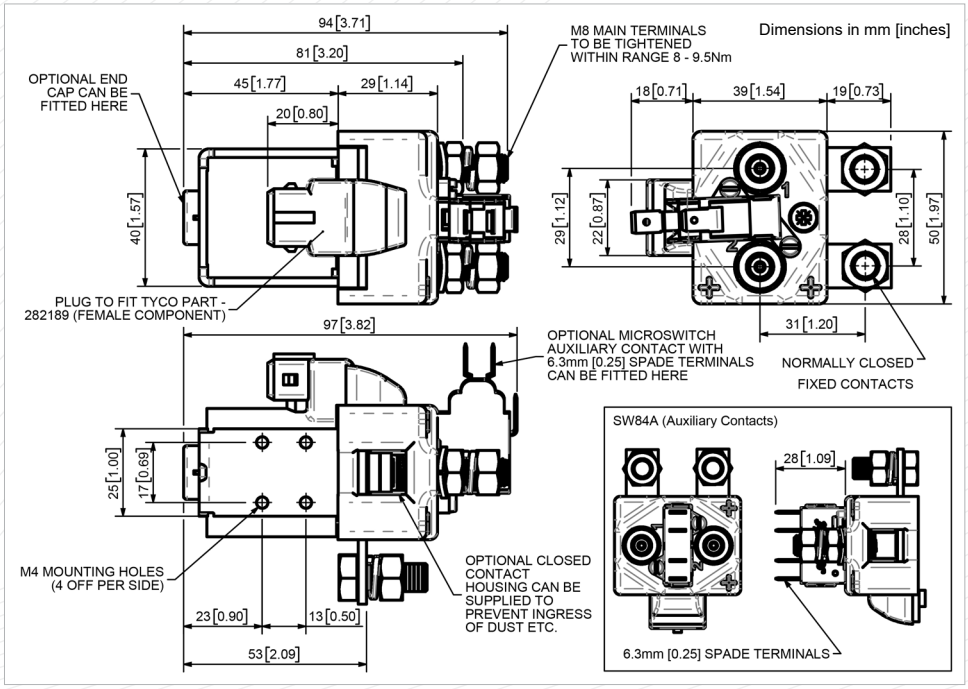
The SW84 with Junior Power Timer (JPT) Connector has been designed for direct current loads, including motors as used on electric vehicles such as industrial trucks. Developed for both interrupted and uninterrupted§ loads, the SW84 is suitable for switching Resistive, Capacitive and Inductive loads.

- 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).

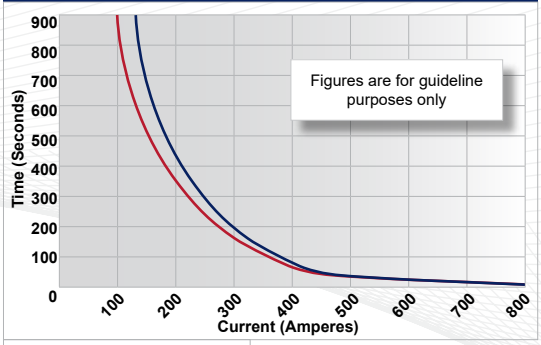
The SW84 features single pole double throw, double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW84 has M8 stud main terminals and 6.3mm spade coil connections. It can be mounted via M4 tapped holes or mounting brackets – either supplied fitted, or as separate items. Mounting can be horizontal or vertical, when vertical the M8 contact studs should point upwards. If the requirement is for downwards orientation we can adjust the contactor to compensate for this. Please note Normally Closed contacts are not suited to make and break load.



SW84 with JPT Connector



SW84 Contactor Performance

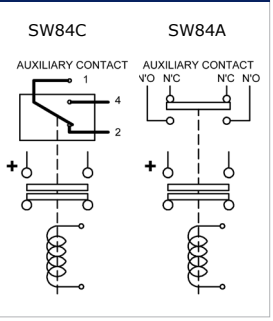


Contact Performance Key:

— **Interrupted Current**

— **Uninterrupted Current§**

Connection Diagram



SW84 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 Series Catalogue)	○	
Magnetic Latching† (Not fail safe)	○	M
Closed Contact Housing‡	○	
Environmentally Protected IP66	X	P
EE Type (Steel Shroud)	X	
Contacts		
Large Tips	○	L
Textured Tips	○	T
Silver Plating	X	
Coil		
AC Rectifier Board (Fitted)	○	
Coil Suppression†	○	
Flying Leads	X	
Junior Power Timer Connector	●	
Manual Override Operation	○	
M4 Stud Terminals	X	
M5 Terminal Board	X	
Vacuum Impregnation	X	

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**

Albright International Ltd, Evingar Trading Estate, Ardglen Road, Whitchurch, Hampshire, RG28 7BB, UK
Tel: +44 (0)1256 893060, Fax: +44 (0)1256 893562, Dedicated Sales Tel: +44 (0)1256 890030, Fax: +44 (0)1256 890043
E-mail: sales@albrightinternational.com or technical@albrightinternational.com Web Site: www.albrightinternational.com