Application	Interrupted	Uninterrupted
Thermal Current Rating (I_{th})	80A	
Intermittent Current Rating:		
30% Duty	145A	
40% Duty	125A	
50% Duty	115A	
60% Duty	105A	
70% Duty	95A	
Rated Fault Current Breaking Capacity (I_{cn}) 5ms Time Constant: *(in accordance with UL583*)*		
SW688	400A at 48V	
Rated Fault Current Breaking Capacity (I_{cn}) Resistive Load: *(in accordance with UL508*)*		
SW688		
Maximum Recommended Contact Voltages (U_e):		
SW688	96V D.C.	
Typical Voltage Drop per pole across New Contacts at 80A	40mV	
Mechanical Durability	>3 x 10^6 Cycles	
Coil Voltage Available (U_s) *(Rectifier board required for A.C.)*	From 6 to130V D.C.	
Coil Power Dissipation:		
Highly Intermittent Rated Types	14 - 21 Watts	
Intermittently Rated types	10 - 14 Watts	
Prolonged Rated Types	7 - 10 Watts	
Continuously Rated Types	5 - 7 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)	15ms	
Typical Drop-Out Time (N/O Contacts to Open) §:		
Without Suppression	6ms	
With Diode Suppression	35ms	
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:		
SW688	460 gms	

Advised Connection Sizes for Maximum Continuous Current	
Copper busbar	52mm² [0.081inch²]
Cable	Rated suitable for Application

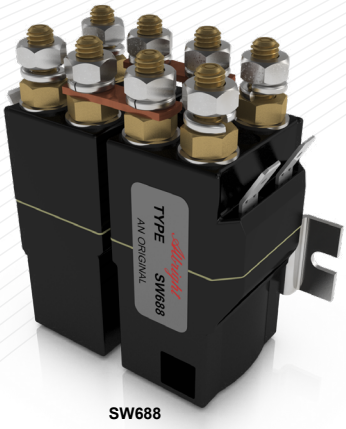
Key: = *Interrupted* = *Uninterrupted*

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

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

§ *The SW688 has fast drop out times and relatively slow pull-in times. Motor direction changes can be undertaken without risk of all contacts being closed at the same time. Note, some coil suppression such as diodes substantially increase drop out times and care must be taken to ensure suitable suppression is used (e.g. diode and resistor in series).*

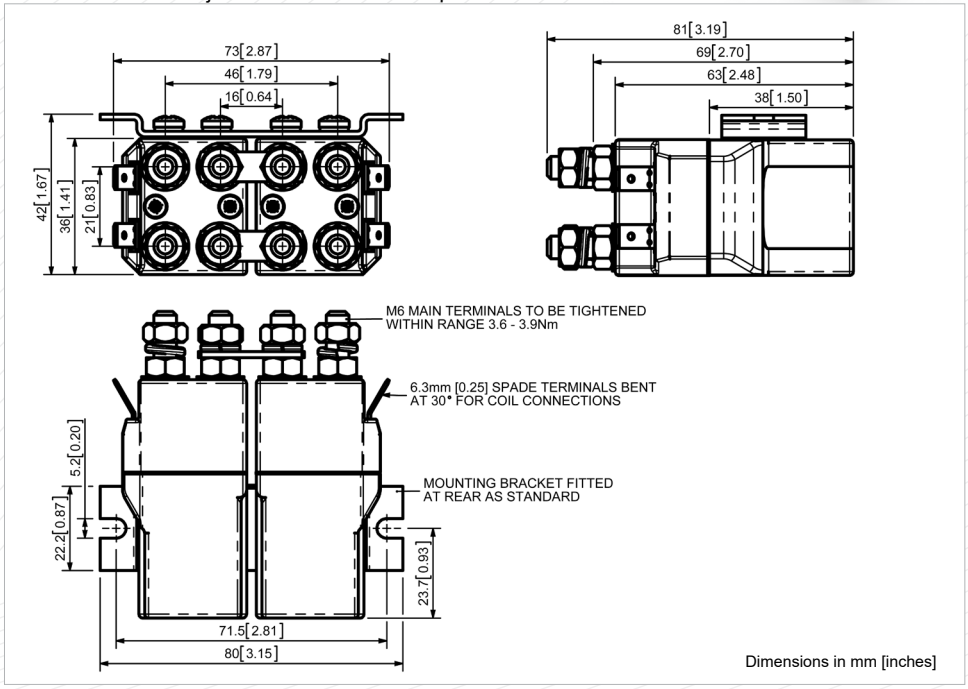
The SW688 is a miniature series double pole, free standing, compact contactor. It is designed for Motor Reversing applications with direct current loads, particularly motors as used on small traction motors, hydraulic power packs and small electric winch motors. Developed for both interrupted and uninterrupted loads, the SW688 is suitable for switching Resistive, Capacitive and Inductive loads.



SW688

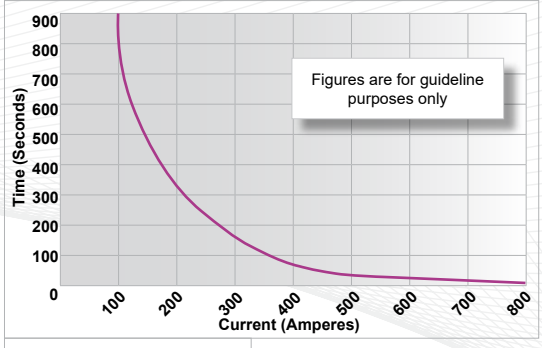
- Interrupted current - opening and closing on load with frequent switching (results in increased contact resistance).
- Uninterrupted current - no or infrequent load switching requirements (maintains a lower contact resistance).

The SW688 features double pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW688 has M6 stud main terminals and 6.3mm spade coil connections. Mounted using supplied brackets, mounting can be horizontal or vertical, when vertical the M6 contact studs should point upwards. If the requirement is for downwards orientation we can adjust the contactor to compensate for this.



Dimensions in mm [inches]

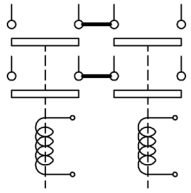
SW688 Contactor Performance



Contact Performance Key:

— **Interrupted and Uninterrupted Current**

Connection Diagram



SW688 Available Options		
General		**Suffix**
Auxiliary Contacts	X	
Auxiliary Contacts - V3	X	
Magnetic Blowouts†	X	
Magnetic Blowouts - High Powered†	X	
Armature Cap	X	
Mounting Brackets (See Stud Contactor Range Catalogue)	●	
Magnetic Latching† (Not fail safe)	○	M
Closed Contact Housing	●	
Environmentally Protected IP66 (see SW688P Catalogue sheet)	○	P
EE Type (Steel Shroud)	X	
Contacts		
Large Tips	X	
Textured Tips	X	
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	X	

Key: Optional ○ Standard ● Not Available X

† *Connections become polarity sensitive*

- **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