

Архангельск (8182)63-90-72 Астана (7172)727-132 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Волгоград (844)278-03-48 Вологда (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Курск (4712)77-13-04 Липецк (4742)52-20-81 Магнитогорск (3519)55-03-13 Москва (495)268-04-70 Мурманск (8152)59-64-93 Набережные Челны (8552)20-53-41 Нижний Новгород (831)429-08-12 Новокузнецк (3843)20-46-81 Новосибирск (383)227-86-73 Омск (3812)21-46-40 Орел (4862)44-53-42 Оренбург (3532)37-68-04 Пенза (8412)22-31-16 Пермь (342)205-81-47 Ростов-на-Дону (863)308-18-15 Рязань (4912)46-61-64 Самара (846)206-03-16 Санкт-Петербург (812)309-46-40 Саратов (845)249-38-78 Севастополь (8692)22-31-93 Симферополь (3652)67-13-56 Смоленск (4812)29-41-54 Сочи (862)225-72-31 Ставрополь (8652)20-65-13 Сургут (3462)77-98-35 Тверь (4822)63-31-35 Томск (3822)98-41-53 Тула (4872)74-02-29 Тюмень (3452)66-21-18 Ульяновск (8422)24-23-59 Уфа (347)229-48-12 Хабаровск (4212)92-98-04 Челябинск (351)202-03-61 Череповец (8202)49-02-64 Ярославль (4852)69-52-93

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The SW688P is a miniature series single pole, free standing, compact contactor which is sealed to IP66. The SW688P has been 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 SW688P is suitable for switching Resistive, Capacitive and Inductive loads.

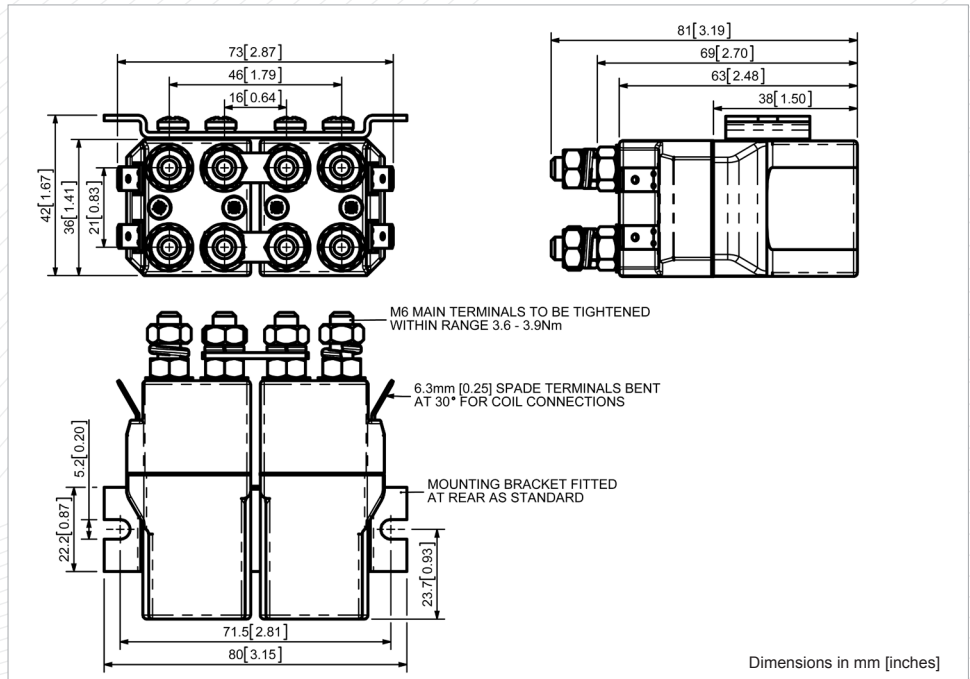


SW688P

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*)		
SW688P		400A at 48V
Rated Fault Current Breaking Capacity ( $I_{cn}$ ) Resistive Load: (in accordance with UL508*)		
SW688P		120A at 60V D.C.
Maximum Recommended Contact Voltages ( $U_G$ ):		
SW688P		96V D.C.
Typical Voltage Drop per pole across New Contacts at 100A		<40mV
Mechanical M.T.B.F.		>3 x 10 <sup>6</sup>
Coil Voltage Available ( $U_c$ ) (Rectifier board required for A.C.)		From 6 to 130V 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:		
SW688P		465 gms

- 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).

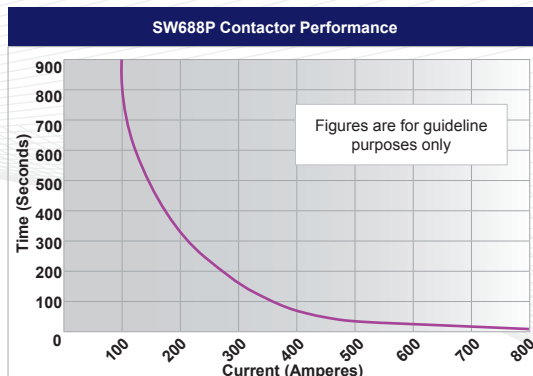
The SW688P features paired double pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The SW688P incorporates an enclosed top cover and offers environmental protection to IP66. The SW688P has M6 stud main terminals and 6.3mm spade coil connections. Mounted using supplied brackets, or as separate items. Mounting can be on the side or base of the contactor.



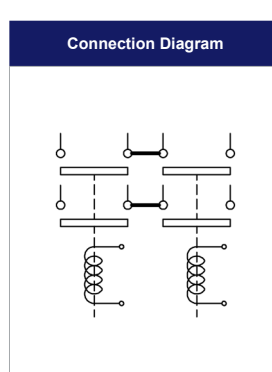
Advised Connection Sizes for Maximum Continuous Current	
Copper busbar	52mm <sup>2</sup> [0.081inch <sup>2</sup> ]
Cable	Rated suitable for Application

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).



Contact Performance Key:  
— Interrupted and Uninterrupted Current



SW688P 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	• 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