

Heavy Duty DC Contactors for Power Distribution Centres

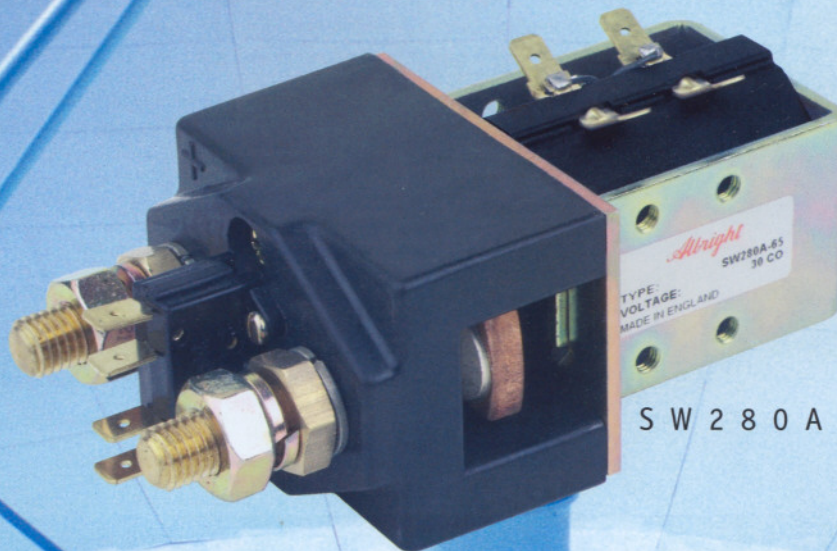
SW 80, SW 82,
SW 180, SW 190, SW 200
& SW 280 TYPES



SW 80 A



SW 180 A



SW 280 A

Albright

INTERNATIONAL

Heavy Duty DC Contactors for Power Distribution Centres

A Unique Range...

These contactors have been designed for direct current loads, but can also be used for alternating currents.

The contact tips are silver alloy – which is weld resistant, hard wearing and has very good conductivity.



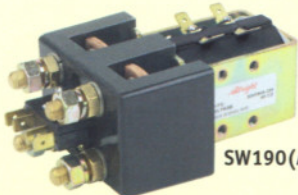
SW80(A)



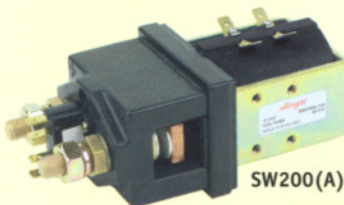
SW82



SW180(A)



SW190(A)



SW200(A)



SW280(A)

THE CONTACTORS ARE COMPACT IN SIZE... They are fully serviceable with a complete range of spare parts available.

OPERATING COILS... Coil voltages ranging from 6 to 240 are available, and these are wound for DC operation; however, coils can be fitted with a bridge rectifier for use with AC supplies. Coils are wound for continuous duty. Pull-in voltage (coils at 20°C) is approximately 66% of the rated voltage. Drop-out voltage is nominally greater than 10% of the rated voltage. Variations from these pull-in and drop-out figures can be engineered to suit particular applications. Coil connections are by means of 6mm spades.

MAGNETIC BLOWOUTS... Contactors can be fitted with magnetic blowouts (except for SW82). These are to allow the contactors to switch DC voltages up to 250. The fitting of blowouts makes the contacts polarity sensitive; thus the positive markings on the top cover of the contactor must be observed. The double pole type, SW190, is not polarity sensitive when blowouts are fitted. The suffix "B" denotes the fitting of magnetic blowouts, for example SW180B. The SW200 range of contactors is fitted with blowouts as standard – should blowouts not be required then a suffix "N" is added, for example SW200N.

Auxiliary Contacts... A double circuit normally open, normally closed microswitch can be fitted to the contactors. This has a DC resistive rating of 5 amperes at 24 volts. The suffix "A" should be added to the type number when auxiliary contacts are needed – for example, an SW600 with auxiliary contacts is an SW600A.

EASY INSTALLATION... Mounting is by means of tapped holes in the switch frame, together with a range of mounting brackets complete with screws and washers.

MAGNETIC LATCHING... All contactors are available with magnetic latching which enables them to remain closed whilst consuming no coil power.

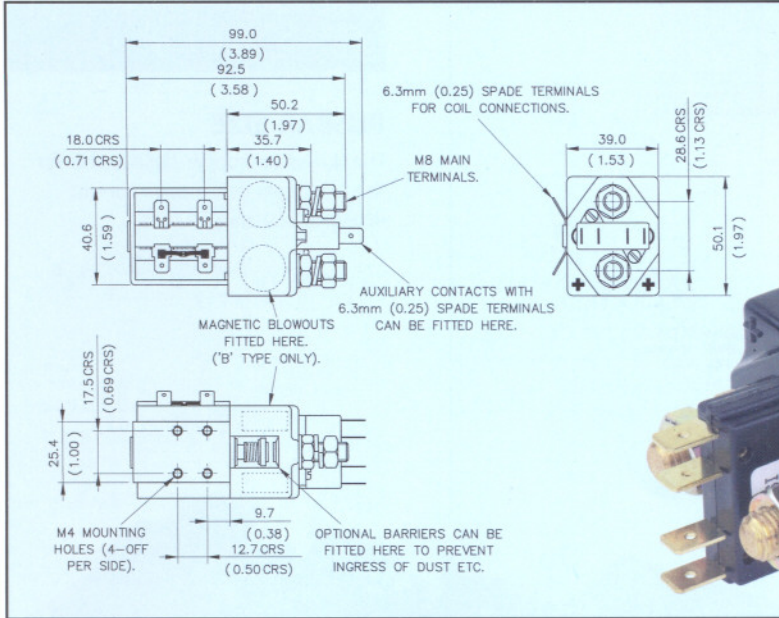
(See separate brochure – "Power Consumption Reduction for Albright Contactors").

Type No.	Description	Max. Continuous Thermal Current Rating	U.L. File No.
SW80	Single Pole on/off	125 Amperes	E165921
SW80A	with auxiliary contacts		
SW82	Double Pole on/off	100 Amperes	E165921
SW180	Single Pole on/off	200 Amperes	E165921
SW180A	with auxiliary contacts		
SW190	Double Pole on/off	200 Amperes	-
SW190A	with auxiliary contacts		
SW200	Single Pole on/off	400 Amperes	E165921
SW200A	with auxiliary contacts		
SW280	Single Pole on/off	350 Amperes	E165921
SW280A	with auxiliary contacts		

Explanation of Contactor Part Numbers

SW80 - A - B - N - 57 - M — denotes magnetically latched
 — denotes precise identity suffix
 — denotes no magnetic blowouts (SW200 only)
 — denotes magnetic blowouts (SW80, SW180, SW190 & SW280 only)
 — denotes auxiliary contacts
 — main type number

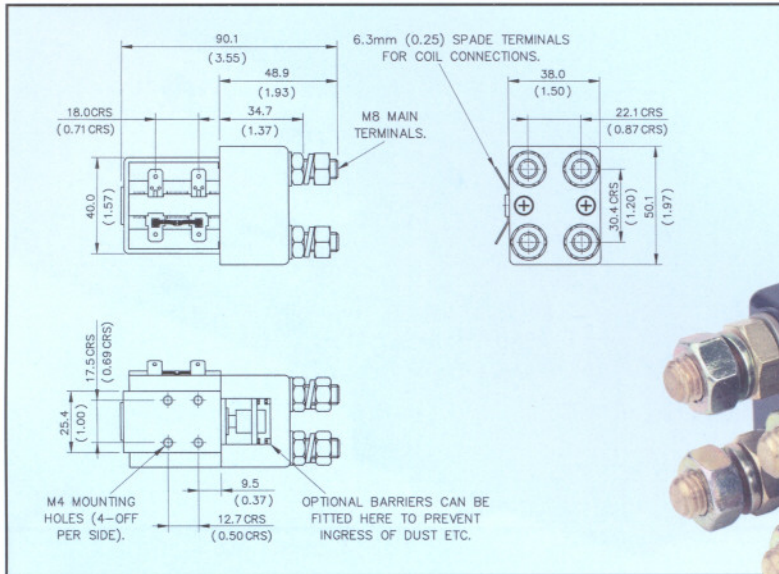
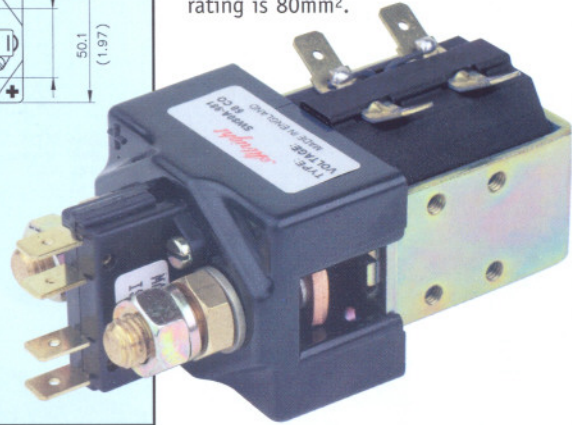
SW80 & SW82 HEAVY DUTY DC CONTACTORS



SW80

BUSBAR SIZE

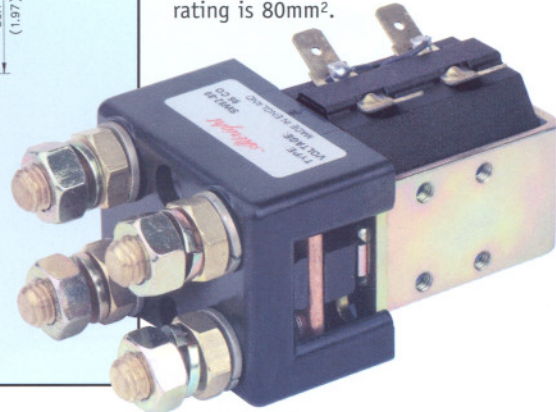
The minimum copper busbar size for the maximum continuous current rating is 80mm².



SW82

BUSBAR SIZE

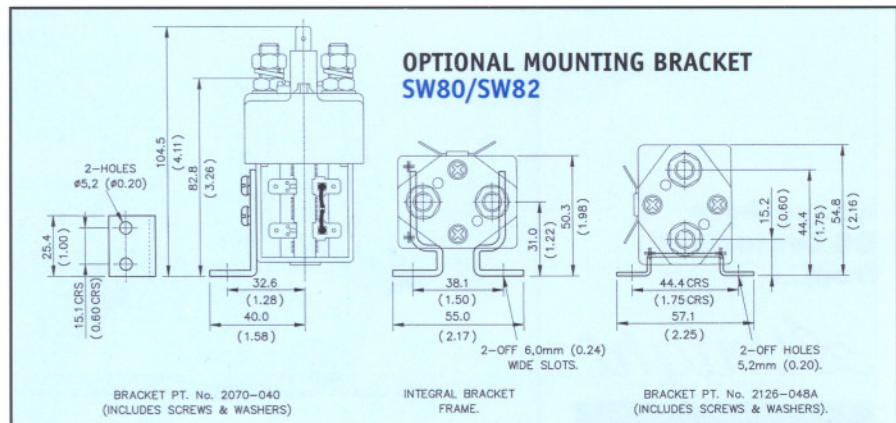
The minimum copper busbar size for the maximum continuous current rating is 80mm².



Dimensions in mm (inches)

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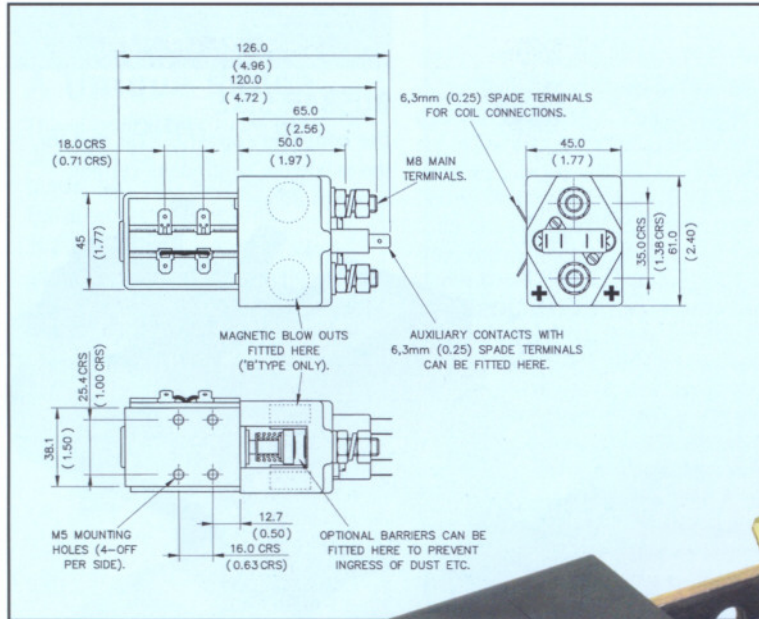
SW 180

HEAVY DUTY DC CONTACTORS

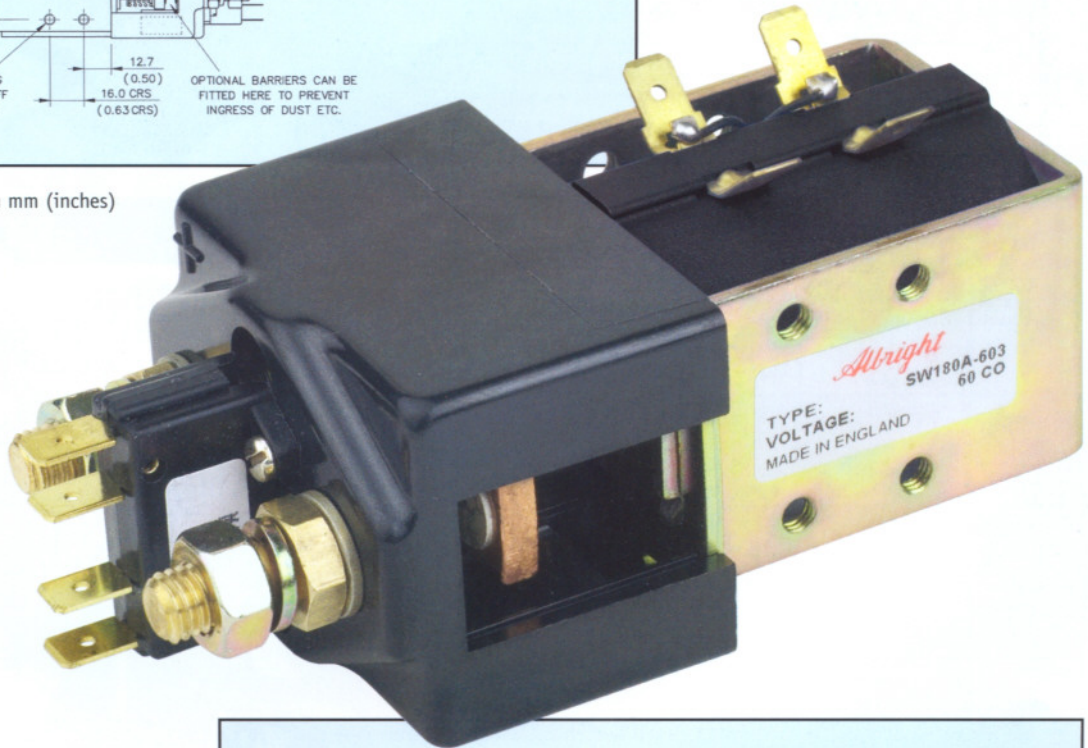
SW 180

BUSBAR SIZE

The minimum copper busbar size for the maximum continuous current rating is 130mm².

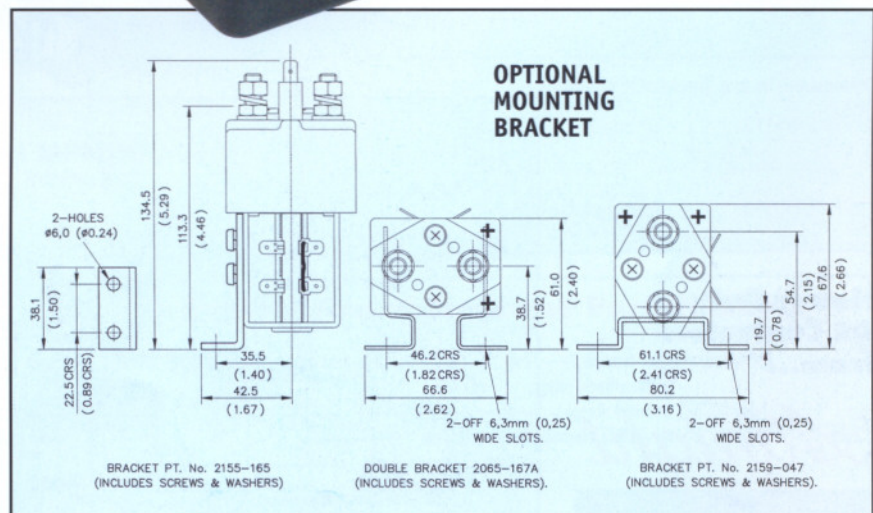


Dimensions in mm (inches)



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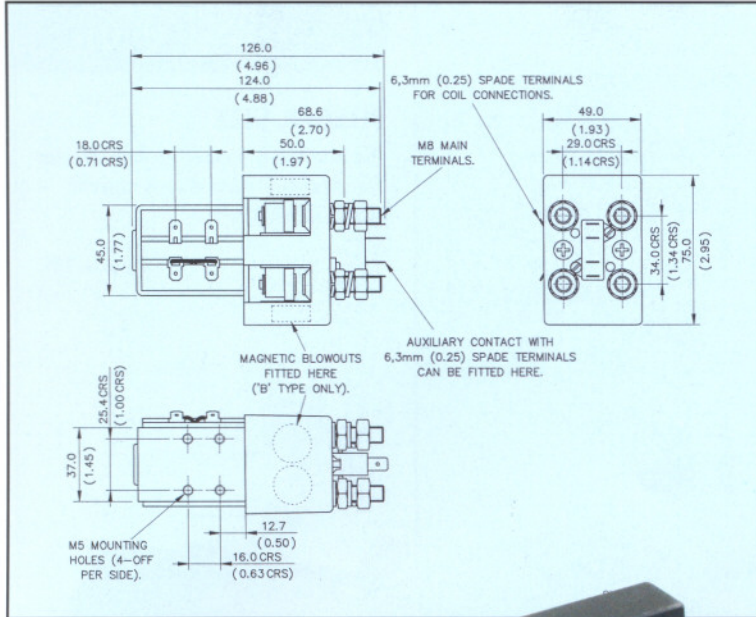


SW 190 HEAVY DUTY DC CONTACTORS

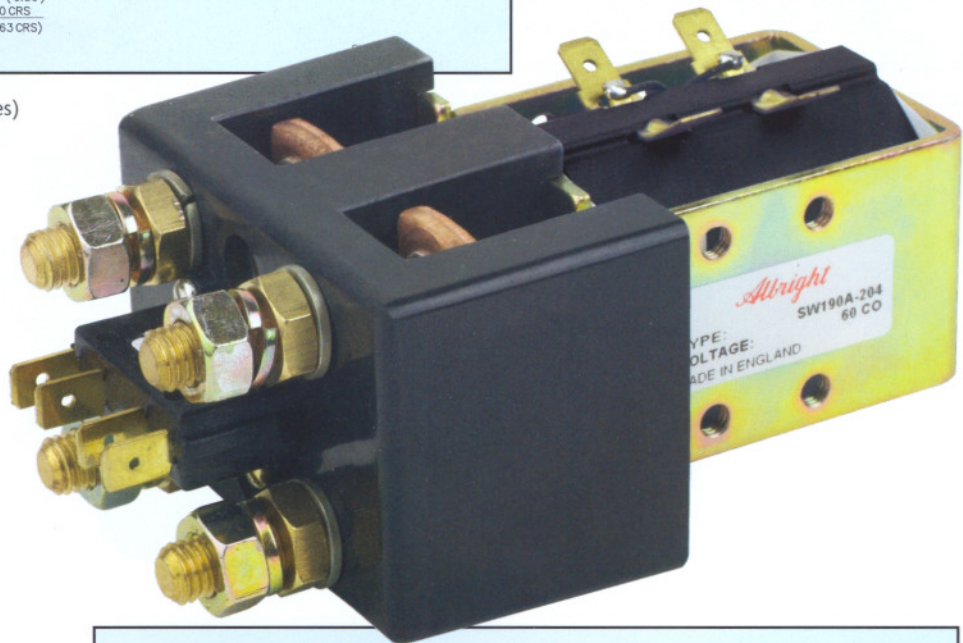
SW 190

BUSBAR SIZE

The minimum copper busbar size for the maximum continuous current rating is 130mm².



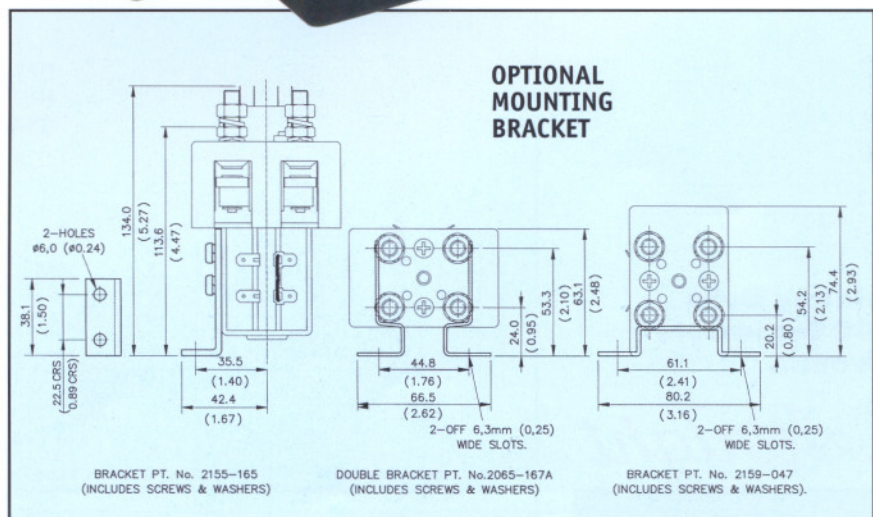
All dimensions in mm (inches)



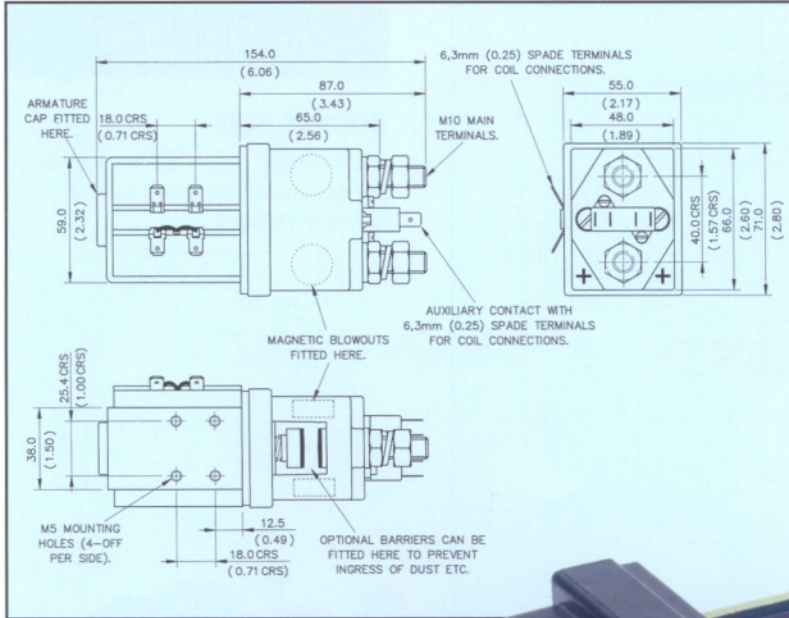
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OPTIONAL MOUNTING BRACKET



SW200 HEAVY DUTY DC CONTACTORS

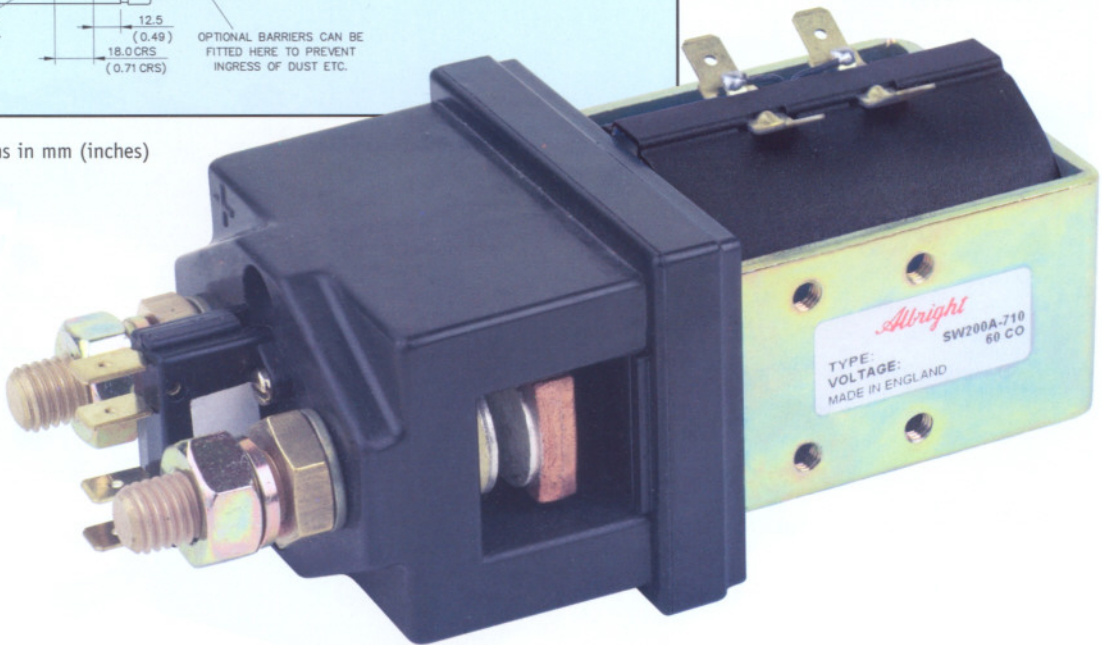


SW200

BUSBAR SIZE

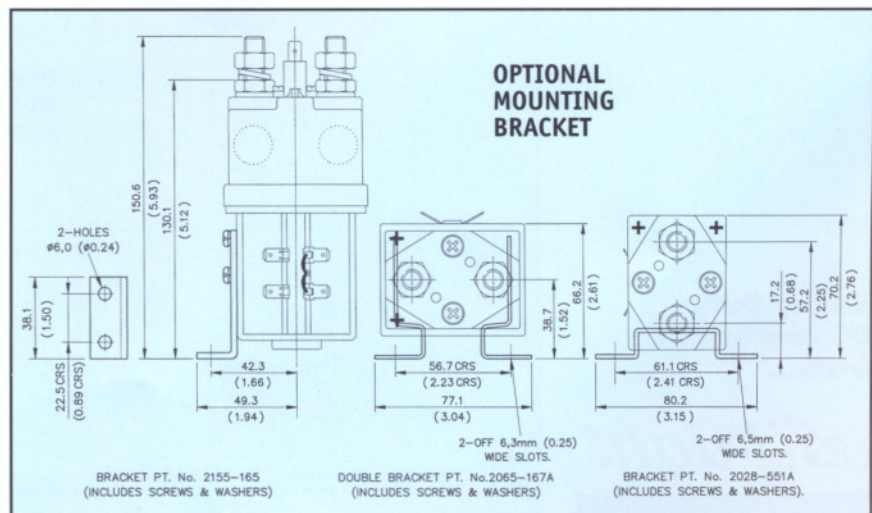
The minimum copper busbar size for the maximum continuous current rating is 260mm².

All dimensions in mm (inches)

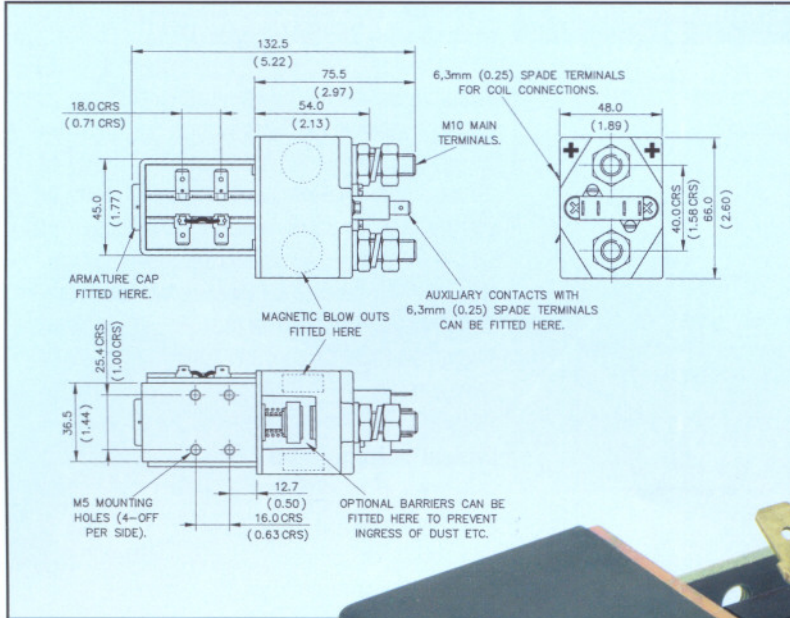


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SW 280 HEAVY DUTY DC CONTACTORS

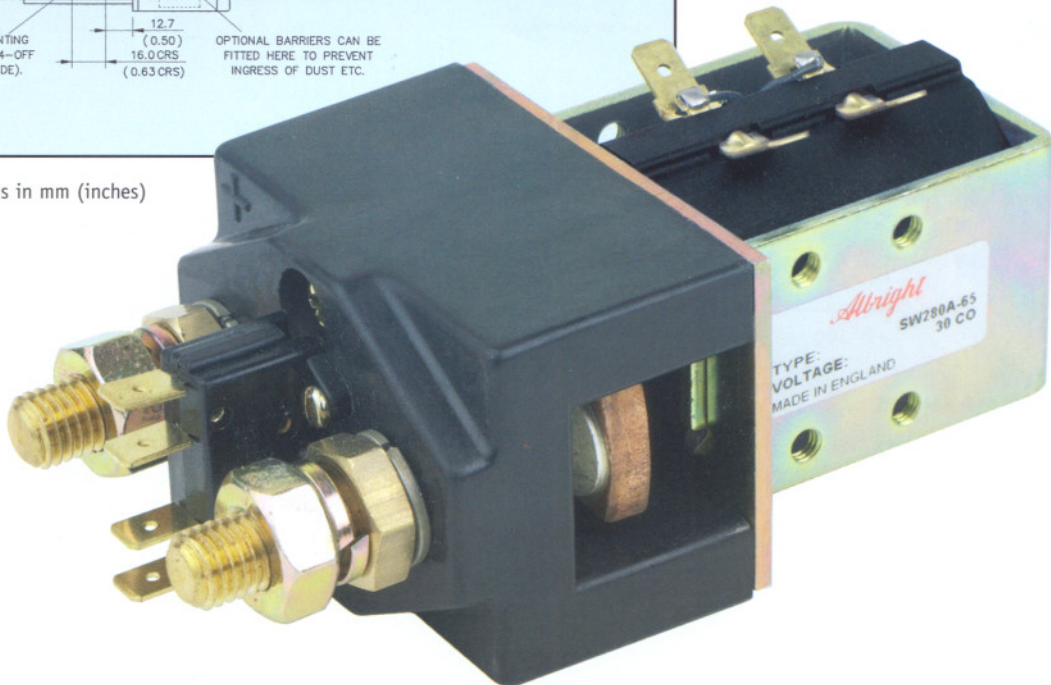


SW 280

BUSBAR SIZE

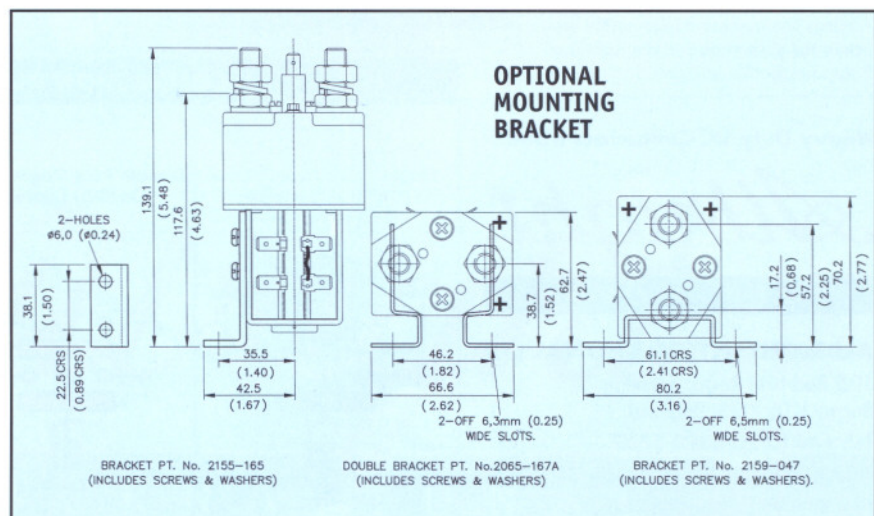
The minimum copper busbar size for the maximum continuous current rating is 230mm².

All dimensions in mm (inches)



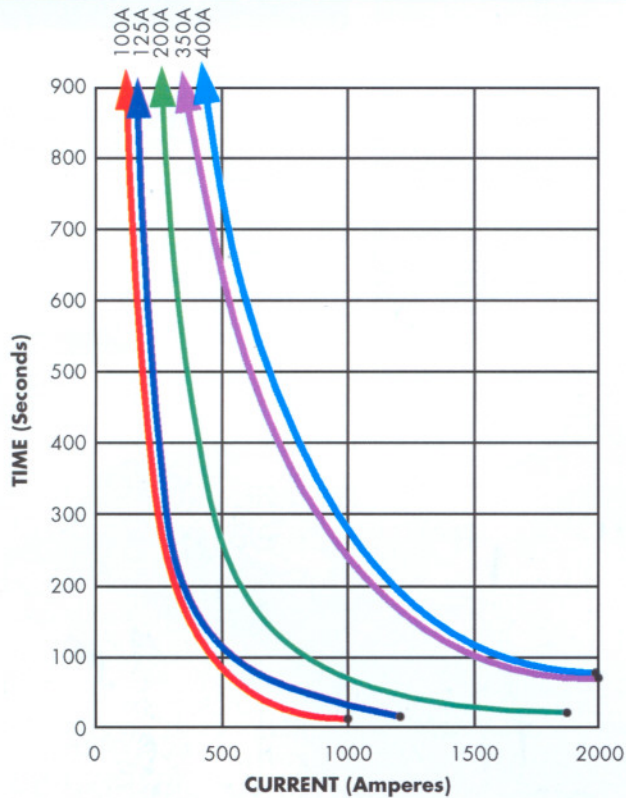
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PERFORMANCE DATA FOR ALL CONTACTORS

CONTACT PERFORMANCE (Intermittent Ratings)



SW80 — SW82 — SW180 & SW190 —
SW200 — SW280 — — — — — INDICATES MAXIMUM

NOTE: All of the performance data given here should be used as a guide only. Alternative ratings may need to be considered according to applications.

The thermal current ratings stated for the contactors are dependent upon the size of busbar being used for the required duty. For maximum continuous ratings the busbars should not be less than the sizes shown in the individual diagrams in this brochure.

ALBRIGHT is registered under BS EN ISO 14001 – Environmental Management System.

Should you require information on the disposal of our products, please contact our Health, Safety & Environmental Manager or your Local Supplier for our Disposal Guidance Note.

Typical Resistive Overload Currents that can be ruptured (per UL):

	Without Blowouts	With Blowouts
SW80	190 Amperes at 60V DC	...96V DC
SW82	150 Amperes at 96V DC	-----
SW180	300 Amperes at 60V DC	...96V DC
SW190	300 Amperes at 60V DC	...120V DC
SW200	600 Amperes at 60V DC	...96V DC
SW280	525 Amperes at 60V DC	...96V DC

Max. Recommended Contact Voltages:

SW80/SW180/SW200N/SW280	60V DC
SW80B/SW180B/SW200/SW280B	250V DC
SW82/SW190	96V DC
SW190B	250V DC

Typical Voltage Drop across contacts:

When new at maximum rated load 30-100mV

Mechanical Life:

All contactors: >1,000,000

Coil Power Dissipation

Continuously Rated Types:

SW80/SW82	7 - 13 Watts
SW180/SW190/SW280	10 - 15 Watts
SW200	13 - 21 Watts

Maximum Pull-in Voltage (Coil at 20°C)

Continuously Rated Types: 66%V DC

Typical Drop-out Voltage:

All contactors: 10-30%

Typical Contact Bounce Time:

<5ms

Auxiliary Contact Switching Capacities (Resistive Load):

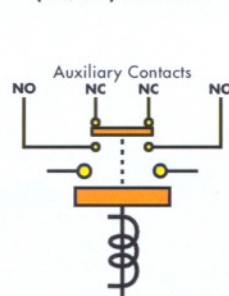
5 Amperes at 24V DC
2 Amperes at 48V DC
0.5 Amperes at 240V DC

Contactor Weights:

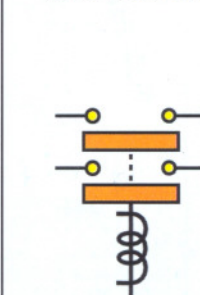
SW80	0.350 Kg
For auxiliary contacts add 20g	SW82 0.430 Kg
For Magnetic Blowouts add 50g	SW180 0.640 Kg
	SW190 0.760 Kg
	SW200 1.350 Kg
	SW280 0.790 Kg

CONNECTION DIAGRAMS

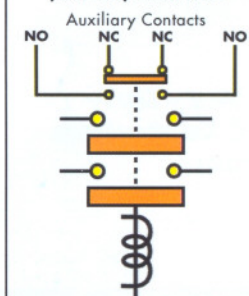
SW80A • SW180A
SW200A • SW280A
Single Pole Single Throw (On/Off) Contactor



SW82
Double Pole Single Throw (On/Off) Contactor



SW190A
Double Pole Single Throw (On/Off) Contactor



Heavy Duty DC Contactors from...

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INTERNATIONAL

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