

DRA Series Contactors

DC Motor Reversing Contactors

DRA Series DC Motor Reversing Contactors utilize Crydom's advanced solid state DC switching technology to provide an integrated "H-Bridge" type DC switching contactor for DC motor reversing applications. These ready-to-use contactors feature logic compatible DC input control with status indicator and interlock and provide a simple and easy to use control solution for DC motor reversing. For complete specifications, see DRA Series DC Motor Reversing Contactors datasheet at www.crydom.com.

FEATURES

- 54 mm motor reversing DIN rail mountable contactor package
- 90 VDC & 180 VDC Operating Voltage
- 5 to 15 VDC & 15 to 32 VDC Input Control Voltage options available
- Convenient FET switches in H-Bridge configuration for Motor Reversing applications
- Protective Forward/Reverse interlock built-in function
- UL ratings for general use & Motor loads
- LED Status indicator for Input Control Voltage
- No heat sink required & cage style screw terminals for easy installation & reliable wire connection

INSTALLATION INSTRUCTIONS

Please read all installation instructions before using DRA Series DC Motor Reversing Contactors.

- Install the contactor on the DIN rail as shown in fig. 1. Vertical mounting operation is recommended.
- Wire the contactor to the input control side following the wiring diagram (fig. 3). AWG #24 minimum, AWG #12 maximum (0.2-3.3 mm²), choose wire gauge according to load current. Maximum recommended terminal screw torque input 4.3 in-lbs (0.5 Nm).
- Wire the contactor to the DC Line side (+ & -) and to the Load side (M1 & M2). AWG #24 minimum, AWG #12 maximum (0.2-3.3 mm²), choose wire gauge according to load current. Maximum recommended terminal screw torque output 4.3 in-lbs (0.5 Nm).
- If multiple units are installed be sure to follow derating curve (fig. 2).

PART NUMBER NOMENCLATURE

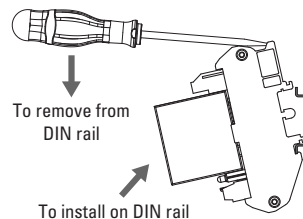
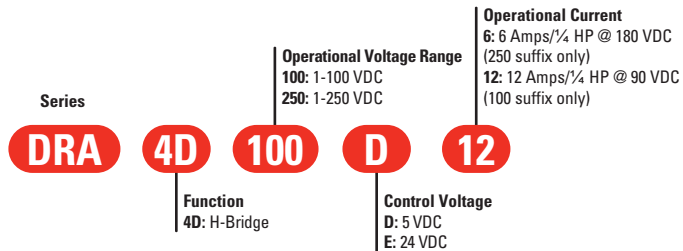
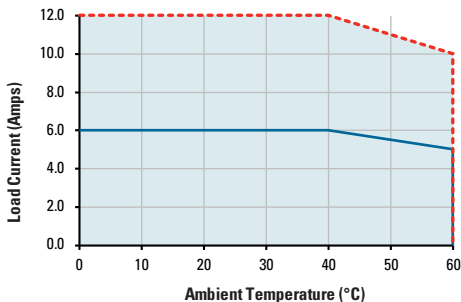


fig. 1 Mounting/Dismounting contactor on DIN rail.

DERATING CURVE (A,B)



--- DRA4D100x12
— DRA4D250x6

fig. 2 Derating Curve for DC Motor Reversing Contactor.

Temp.	DRA4D100x12	DRA4D250x6
40°C	¼ HP 4 FLA @ 90 VDC	¼ HP 2 FLA @ 180 VDC
60°C	¼ HP 3 FLA @ 90 VDC	¼ HP 1 FLA @ 180 VDC

- (A) Unless otherwise noted, all ratings are at 0 mm air gap for adjacent similar parts.
- (B) Resistive Load Current rating for DRA4D250x6 is 5.5 A @ 0 mm air gap. For maximum ratings use 45 mm air gap.
- (C) No grounding wire required. DC inductive loads must be diode suppressed.
- (D) 3 Input control terminal screws M2.5 Slotted Drive.
- (E) 4 Output terminal screws (+ & -/M1 & M2) M2.5 Combo Drive.
- (F) Minimum wire strip length 0.197 in (5 mm), maximum 0.235 in (6 mm) for input and output terminals.

WIRING DIAGRAM (C, F)

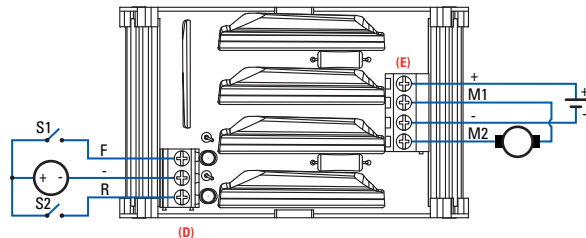
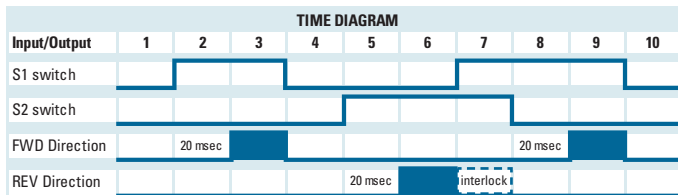


fig. 3 Wiring Diagram for DC Motor Reversing Contactor.

S1	S2	Forward	Reverse
Open	Open	Off	Off
Closed	Open	On	Off
Open	Closed	Off	On
Closed	Closed	Off	Off



WARNING	DANGER
<p>RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE</p> <ul style="list-style-type: none"> • The product's side panels may be hot, allow the product to cool before touching. • Follow proper mounting instructions including torque values. • Do not allow liquids or foreign objects to enter this product. <p>Failure to follow these instructions can result in serious injury, or equipment damage.</p>	<p>HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH</p> <ul style="list-style-type: none"> • Turn off power supply before working on this equipment. <p>Failure to follow these instructions will result in death or serious injury.</p>