

DRA Series Contactors

3 Phase AC Contactors & AC Motor Reversing Contactors

DRA Series Solid State Contactors offer the advantages of Crydom's proven state-of-the-art solid state AC switching technology in a ready-to-use contactor which requires no additional heat sinking. DRA Series Contactors include a protective Forward/Reverse interlock for motor reversing and are ideal for applications up to 2 Horse Power. For complete specifications, see DRA Series AC 3 Phase Contactors & DRA AC Motor Reversing Contactors datasheets at www.crydom.com.

FEATURES

- 45 mm wide 3 phase & 62 mm wide motor reversing DIN rail mountable versions available
- 480 VAC Operating Voltage
- 5 VDC, 24 VDC, 48 VAC, 120 VAC & 230 VAC Input Control Voltage options available
- Protective Forward/Reverse interlock built-in function for motor reversing
- UL and IEC general use & Motor ratings available
- LED Status indicator for Input Control Voltage

INSTALLATION INSTRUCTIONS

Please read all installation instructions before using DRA Series 3 Phase / 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 corresponding wiring diagram (fig. 3 or fig. 4). 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 AC Line side (L1, L2 & L3) and to the Load side (T1, T2 & T3). AWG #24 minimum, AWG #10 maximum (0.3-5.3 mm²), choose wire gauge according to load current. Maximum recommended terminal screw torque output 12 in-lbs (1.37 Nm).
- If multiple units are installed be sure to follow derating curve (fig. 2).

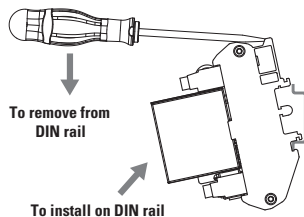


fig. 1 Mounting/Dismounting contactor on DIN rail.

PART NUMBER NOMENCLATURE

Series	Function	Operating Voltage	Rated Load Current	Controlled Legs (Only for 3P)
DRA	3P: 3 Phase 3R: Reversible	40: 48-415 VAC (Only for 3R) 48: 48-510 VAC	2: 2.4 Amp/ 1HP @ 480 VAC 4: 4.2 Amp/ 2HP @ 480 VAC	Blank: 3 Legs 2: 2 Legs
3P				Switching Type (Only for 3P) Blank: Zero Voltage Turn-On R: Instantaneous Turn-On
48				
D		Control Voltage D: 4-6 VDC E: 18-28 VDC A: 200-265 VAC B: 90-140 VAC C: 36-60 VAC		
4				
R				
2				

● Required for valid part number
● For options only and not required for valid part number

DERATING CURVE (A,B)

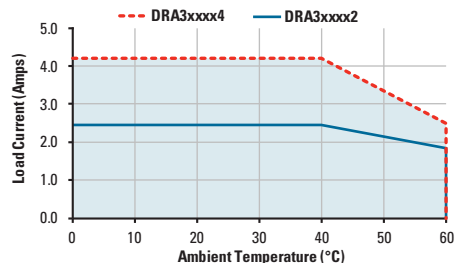


fig. 2 Derating Curve for 3 Phase & Motor Reversing contactor.

- (A) Unless otherwise noted, all ratings are at 0 mm air gap for adjacent similar parts.
- (B) Resistive Load Current rating for AC Control is 3.4 A @ 0 mm air gap. For maximum ratings use 45 mm air gap.
- (C) AC-53a rating for DRA3Pxxx2 (A, B & C suffix) is 0.55 KW @ 480 VAC.
- (D) AC-53a rating for DRA3Pxxx2 (A, B & C suffix) is 0.37 KW @ 480 VAC.

Temp.	DRA3Pxxx2	DRA3Pxxx4	DRA3Rxxx2	DRA3Rxxx4
40°C	1 HP (0.75 KW) (C)	2 HP (0.75 KW)	1 HP (0.75 KW)	2 HP (1.5 KW)
60°C	¾ HP (0.55 KW) (D)	1 HP (0.37 KW)	¾ HP (0.55 KW)	1 HP (0.75 KW)

Rev: 112213

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DRA3P

Wiring Diagram (E, F)

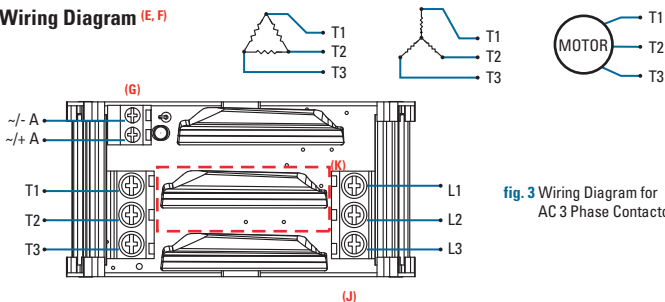


fig. 3 Wiring Diagram for AC 3 Phase Contactor.

- (E) No grounding wire required.
- (F) Minimum wire strip length 0.197 in (5 mm), maximum 0.235 in (6 mm) for input terminals. Minimum wire strip length 0.315 in (8 mm), maximum 0.354 in (9 mm) for output terminals.
- (G) 2 Input control terminal screws M2.5 Combo Drive.
- (H) 3 Input control terminal screws M2.5 Slotted Drive.
- (J) 6 Output terminal screws (L1, L2 & L3 / T1, T2 & T3) M3.5 Combo Drive.
- (K) 3 Controlled legs versions only

⚠ WARNING

RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- 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.

Failure to follow these instructions can result in serious injury, or equipment damage.

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Turn off power supply before working on this equipment.

Failure to follow these instructions will result in death or serious injury.

DRA3R

Wiring Diagram (E, F)

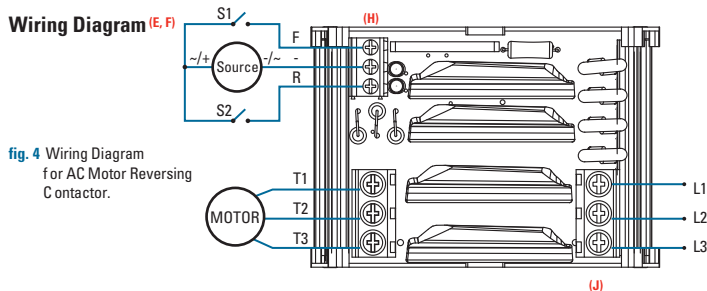
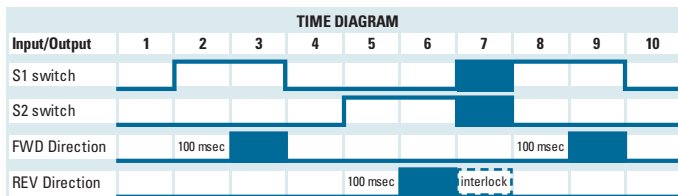


fig. 4 Wiring Diagram for AC Motor Reversing Contactor.

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



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