

DRA3P & DRA3R SERIES

3 PHASE AC CONTACTORS & AC MOTOR REVERSING CONTACTORS

DRA3 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. DRA3 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 DRA3P Series AC 3 Phase Contactors & DRA3R AC Motor Reversing Contactors datasheets at www.sensata.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 DRA3 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 lb-in (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 lb-in (1.37 Nm).
- If multiple units are installed be sure to follow derating curve (fig. 2)

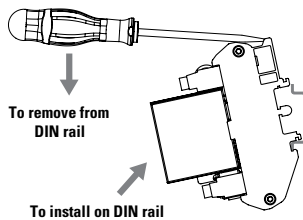


fig. 1 Mounting/Dismounting contactor on DIN rail

DERATING CURVES (A, B)

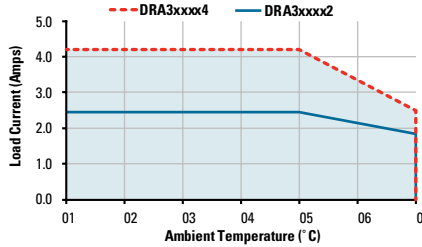


fig. 2 Derating Curve for 3 Phase & Motor Reversing contactor.

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

ORDERING OPTIONS

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

Blank: Zero Voltage Turn-On
R: Instantaneous Turn-On

Blank: 3 Legs
2: 2 Legs



Required for valid part number

For options only and not required for valid part number

DRA3P & DRA3R (E, R)

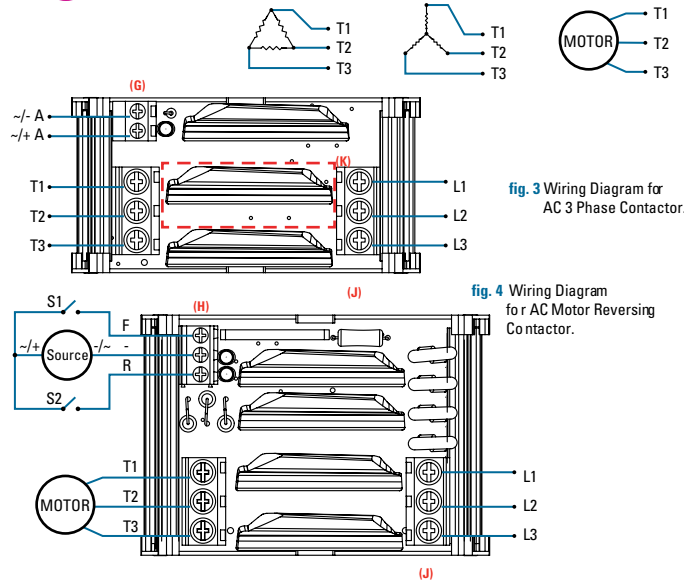
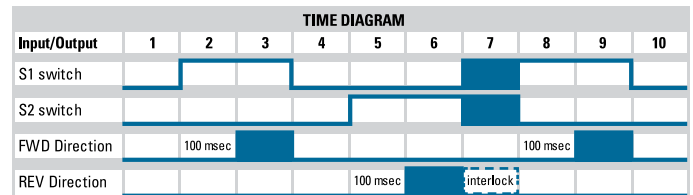


fig. 3 Wiring Diagram for AC 3 Phase Contactor.

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





GENERAL NOTES

- ^(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.
- ^(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.
- ^(I) 6 Output terminal screws (L1, L2 & L3 / T1, T2 & T3) M3.5 Combo Drive.
- ^(K) 3 Controlled legs versions only

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