



DIN Rail Mount Contactor



DRA3P Series

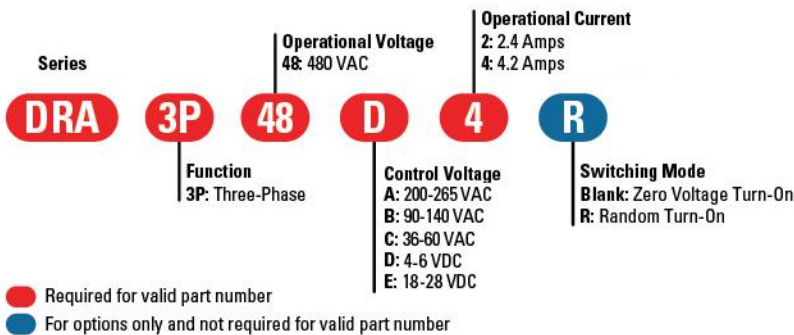


- 2.4 & 4.2 Amp rated Solid State Contactor
- Load voltage range of 48-510VAC, 3-Phase
- Fits standard 35mm DIN-RAIL
- LED input status indicator
- AC or DC control
- Zero-crossing (resistive loads) or random turn-on (inductive loads) output
- cUL Recognized, IEC Rated, CE & RoHS Compliant, Horsepower Rated
- Built in Overvoltage Protection

PRODUCT SELECTION

Description	2.4A	4.2A
4-6 VDC Control	DRA3P48D2	DRA3P48D4
18-28 VDC Control	DRA3P48E2	DRA3P48E4
36-60 VAC Control	DRA3P48C2	DRA3P48C4
90-140 VAC Control	DRA3P48B2	DRA3P48B4
200-265 VAC Control	DRA3P48A2	DRA3P48A4

AVAILABLE OPTIONS



OUTPUT SPECIFICATIONS AC Output (1)

Description	2.4 A	4.2 A
Operating Voltage (47-63Hz) [Vrms]	48-510	48-510
Transient Overvoltage [Vpk] (2)	1200	1200
Maximum Resistive Load Current UL/AC51 [Arms] (3)	2.4/2.4	4.2/2.4
Maximum Motor Load Current UL/AC53 [Arms] (3)	2.1/2.1 (4)	3.4/2.1
Minimum Load Current [Arms]	0.15	0.15
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	1.0	1.0
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (5)	500	500
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.3 per Channel	1.3 per Channel
Maximum Surge Current (50/60 Hz, 1 cycle) [Apk]	285/300	285/300
Maximum I ² t for Fusing (50/60 HZ, 1/2 cycle) [A ² sec]	410/375	410/375
HP/IEC 60947 Rating @ 240V, 40°C [HP/KW]	0.5/0.37 (6)	0.75/0.37
HP/IEC 60947 Rating @ 380V, 40°C [HP/KW]	1.0/0.75 (7)	1.5/0.75
HP/IEC 60947 Rating @ 480V, 40°C [HP/KW]	1.0/0.75 (8)	2.0/0.75
Minimum Power Factor (with Maximum Load)	0.5	0.5
Min/Max stranded/solid wire [AWG]	24/10	24/10
Min/Max stranded/solid wire [IEC mm ²]	0.5-4.0	0.5-4.0
Load Terminal Screw Torque Range:	12.0 in lb (1.36 Nm)	12.0 in lb (1.36 Nm)

INPUT SPECIFICATIONS (1)

Description	DRA3P48Dx	DRA3P48Ex	DRA3P48Cx	DRA3P48Bx	DRA3P48Ax
Control Voltage Range	4-6 VDC	18-28 VDC	36-60 VAC	90-140 VAC	200-265 VAC
Minimum Turn-On Voltage	4 VDC	18 VDC	36 VAC	90 VAC	200 VAC
Minimum Turn-Off Voltage	2 VDC	4 VDC	10 VAC	20 VAC	100 VAC
Minimum Input Current [mA]	17	15	7.5	5	4.5
Maximum Input Current [mA]	35	25	13.5	8	5.7
Nominal Input Impedance [Ohms]	120	1.2K	4.2K	16K	46K
Maximum Turn-On Time (9)	1/2 Cycle	1/2 Cycle	20 ms	20 ms	20 ms
Maximum Turn-Off Time	1/2 Cycle	1/2 Cycle	30 ms	30 ms	30 ms
Min/Max stranded/solid wire [AWG]	24/12	24/12	24/12	24/12	24/12
Min/Max stranded/solid wire [IEC mm ²]	0.5-2.5	0.5-2.5	0.5-2.5	0.5-2.5	0.5-2.5
Control Terminal Screw Torque Range:	4.3 in lb (0.485 Nm)	4.3 in lb (0.485 Nm)	4.3 in lb (0.485 Nm)	4.3 in lb (0.485 Nm)	4.3 in lb (0.485 Nm)

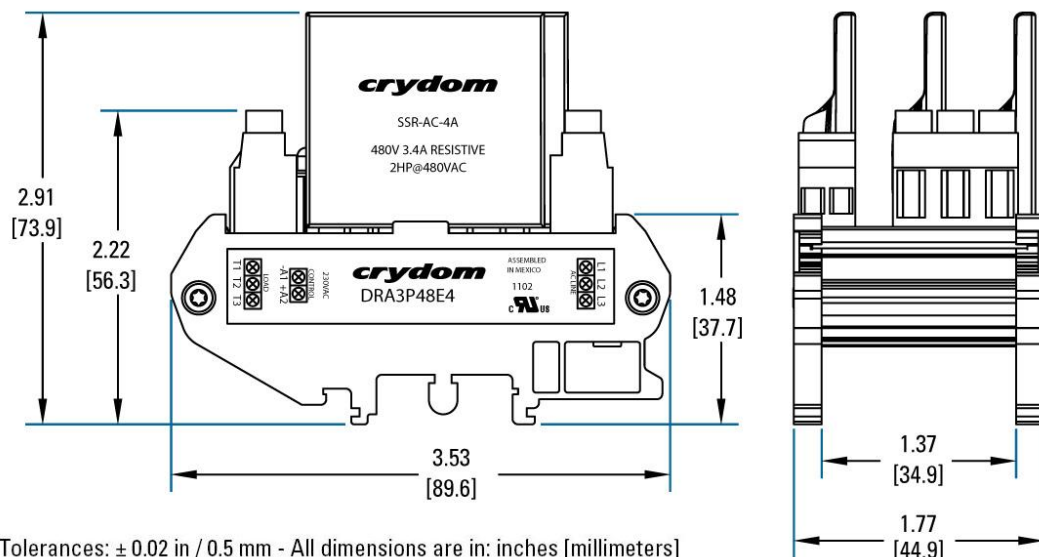
GENERAL SPECIFICATIONS (1)

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	3750Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	20 pF
Ambient Operating Temperature Range	-20°C to 60°C
Ambient Storage Temperature Range	-40°C to 85°C
Weight (typical)	4.75 oz. (135g)
Housing Material (bottom cover)	PVC Class V0 (UL94)
Housing Material (end pieces)	Polyamide Class V0 (UL94)

GENERAL NOTES

- 1) Relay will self trigger between 900-1200V. Not Suitable for capacitive loads.
- 2) All parameters at 25°C unless otherwise specified.
- 3) Mounted in the Vertical position
- 4) For AC control AC53 maximum current is 1.6A
- 5) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- 6) For AC control, rating is ½HP/0.25KW
- 7) For AC control, rating is 1HP/0.37KW
- 8) For AC control, rating is 1HP/0.55KW
- 9) Turn-on time for DC control random turn-on versions is 0.1 msec.

MECHANICAL SPECIFICATIONS



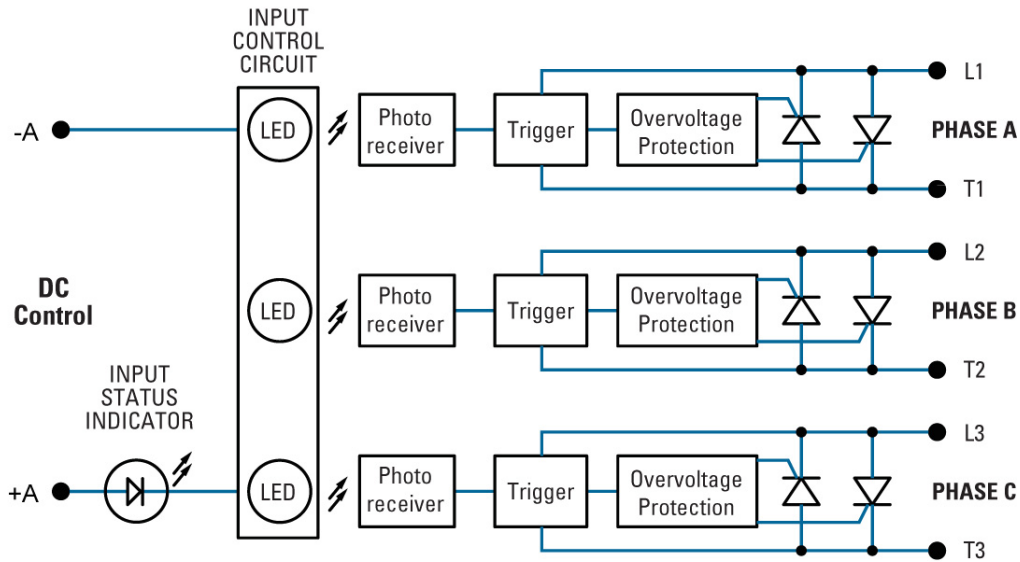
Tolerances: ± 0.02 in / 0.5 mm - All dimensions are in: inches [millimeters]



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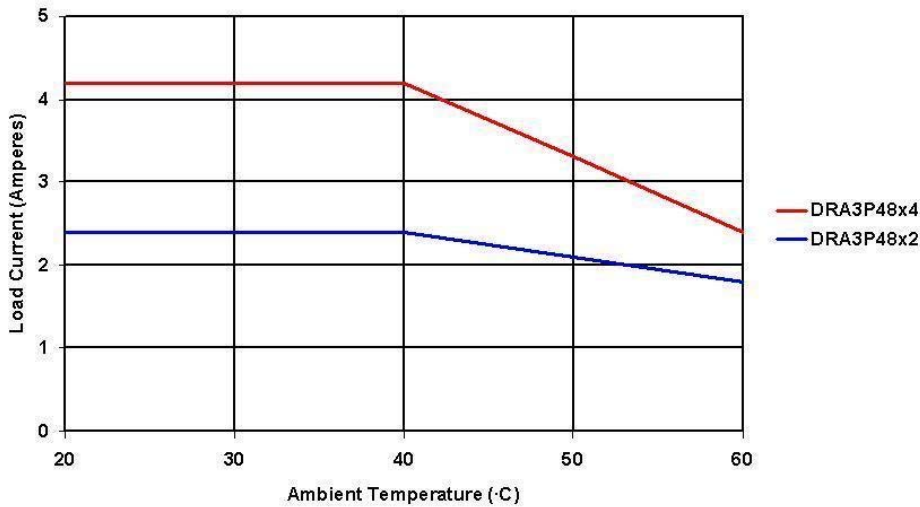


WIRING DIAGRAM



THERMAL DERATE INFORMATION

DRA3P48 Derating Curve



Ratings based on single or multiple relays and no spacing between units except AC control which is 3.4A. For 4.2A rating 45mm spacing must be used.

AGENCY APPROVALS



Rev 111011