



## RPC SERIES

PROPORTIONAL CONTROL SOLID STATE RELAYS



### Features

- Proportional controller
- Ratings from 15A to 40A @ 480 VAC
- 500k or 1M Ohm potentiometer control
- KS100 Protective Cover Included
- For use with resistive loads only

### PRODUCT SELECTION

| Description | 15 A    | 25 A    | 40 A    |
|-------------|---------|---------|---------|
| 120 Vrms    | RPC1215 | RPC1225 | RPC1240 |
| 240 Vrms    | RPC2415 | RPC2425 | RPC2440 |
| 480 Vrms    | RPC4815 | RPC4825 | RPC4840 |

### OUTPUT SPECIFICATIONS (VOLTAGE) <sup>1</sup>

| Description   | 120 VAC | 240 VAC | 480 VAC |
|---|---------|---------|---------|
| Operating Voltage (47-63 Hz) [Vrms]                                   | 90-130  | 200-240 | 400-480 |
| Transient Overvoltage [Vpk]   | 400     | 600     | 1200    |
| Maximum Off-State Leakage Current @ Rated Voltage [mArms]             | 10      | 7       | 3       |
| Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] <sup>2</sup> | 5000    | 500     | 500     |
| Snubber (Internal)  | yes     | yes     | no      |

### OUTPUT SPECIFICATIONS (CURRENT) <sup>1</sup>

| Description   | 15 A | 25 A | 40 A |
|---|------|------|------|
| Maximum Load Current [Arms] <sup>3</sup>                            | 15   | 25   | 40   |
| Minimum Load Current [mArms]  | 70   | 80   | 90   |
| Maximum Surge Current (16.6ms) [Apk]                                | 150  | 250  | 625  |
| Maximum On-State Voltage Drop @ Rated Current [Vpk]                 | 1.6  | 1.6  | 1.6  |
| Thermal Resistance Junction to Case (Rjc) [°C/W]                    | 1.48 | 1.02 | 0.63 |
| Maximum I <sup>2</sup> t for Fusing (8.3 msec) [A <sup>2</sup> sec] | 94   | 260  | 1620 |

## INPUT SPECIFICATIONS <sup>1</sup>

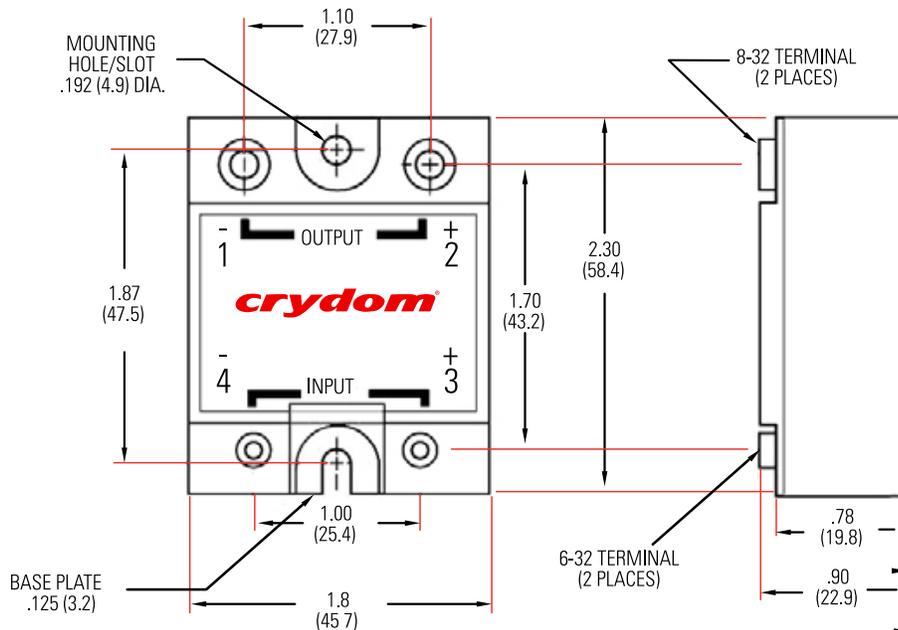
| Description                         | RPC12XX     | RPC24XX   | RPC48XX   |
|-------------------------------------|-------------|-----------|-----------|
| Variable Resistor Size <sup>4</sup> | 150K (1/2W) | 1M (1/2W) | 1M (1/2W) |

## GENERAL SPECIFICATIONS

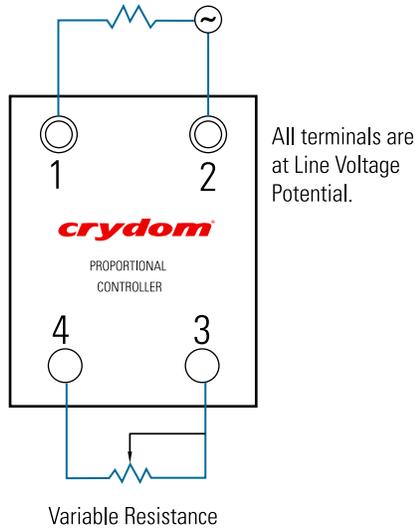
| Description                                       |   |
|---|---|
| Minimum Power Factor (with Maximum Load)          | 0.6   |
| Dielectric Strength, Input/Output/Base (50/60 Hz) | 2500 Vrms   |
| Ambient Operating Temperature Range               | -30 to 80 °C  |
| Ambient Storage Temperature Range                 | -40 to 125 °C   |
| Weight (typical)                                  | 3.2 oz (90g)  |
| Encapsulation                                     | Thermally conductive Epoxy  |
| Terminals   | Screws and saddle Clamps Furnished, Unmounted   |
| Recommended Terminal Screw Torque Range:          | 6-32 Screws -10 lb-in.<br>8-32 and 10-32 Screws -20 lb-in.<br>(Screws dry without grease) |

## MECHANICAL SPECIFICATIONS

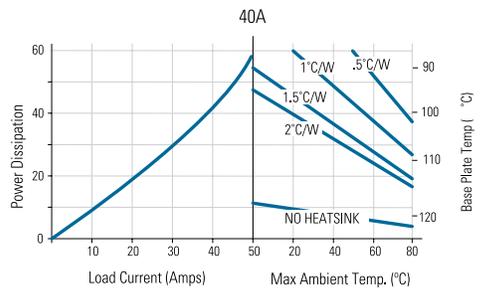
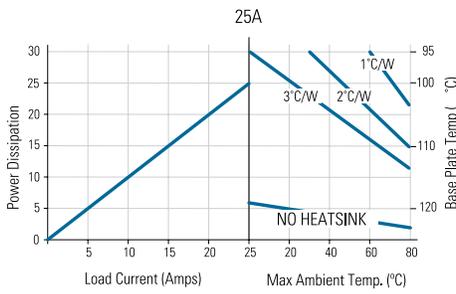
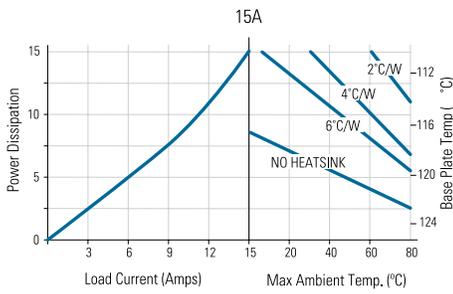
\*Tolerances: ±0.02 in / 0.5 mm  
All dimensions are in: inches [millimeters]



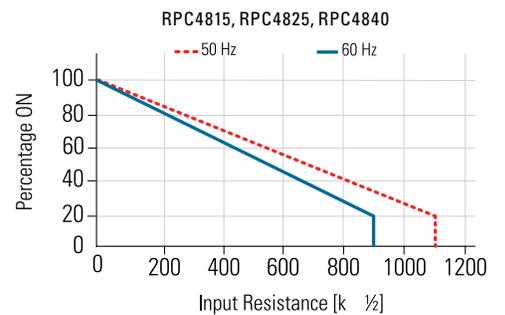
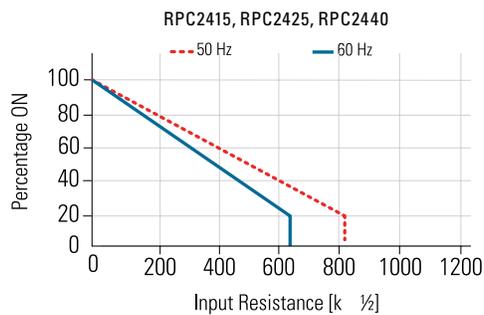
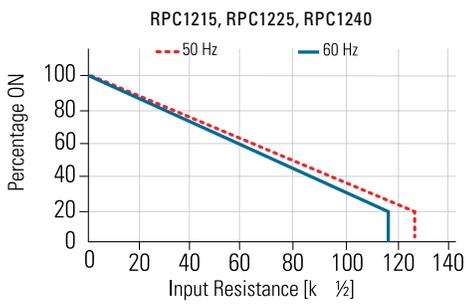
## WIRING DIAGRAM



## THERMAL DERATE INFORMATION



## PERCENTAGE ON VS INPUT RESISTANCE



## GENERAL NOTES

- (1) All parameters at 25°C unless otherwise specified.
- (2) Off-State dv/dt test method per EIA/NARM standard RS-443
- (3) Heat sinking required, see derating curves.
- (4) Potentiometer should be line voltage rated.

## AGENCY APPROVALS & CERTIFICATIONS



## WARNINGS



### 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.**



### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

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

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