PCV SERIES
CONTROL RELAYS



Features

- Proportional controller
- Ratings from 15 A to 90 A @ 280 VAC
- 2-7 VDC or 2-10 VDC analog input range
- For use with resistive loads only

PRODUCT SELECTION

Description	15 A	25 A	50 A	75 A	90 A
2-7 VDC Control	7PCV2415	7PCV2425			
2-10 VDC Control	10PCV2415	10PCV2425	10PCV2450	10PCV2475	10PCV2490

SPECIFICATIONS [1]

Output

Description	15 A	25 A	50A	75 A	90 A
Operating Voltage (47-63Hz) [Vdc]	100-280	100-280	100-280	100-280	100-280
Transient Overvoltage [Vpk]	600	600	600	600	600
Maximum Off-State Leakage Current @ Rated Voltage [mArms]	10	10	10	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/µsec]	200	200	200	200	200
Maximum Load Current [Arms]	15	25	50	75	90
Minimum Load Current [Arms]	0.15	0.15	0.15	0.15	0.15
Maximum Surge Current (16.6ms) [Apk]	150	250	625	1000	1200
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6	1.6	1.6
Maximum I^2t for Fusing (8.3 msec) [A^2 sec]	94	260	1620	4150	6000
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5	0.5	0.5

Input

Description	7PCV24xx	10PCV24xx
Control Voltage Range	2-7 VDC	2-10 VDC
Typical Input Current @ 5 VDC	4 mA	4 mA

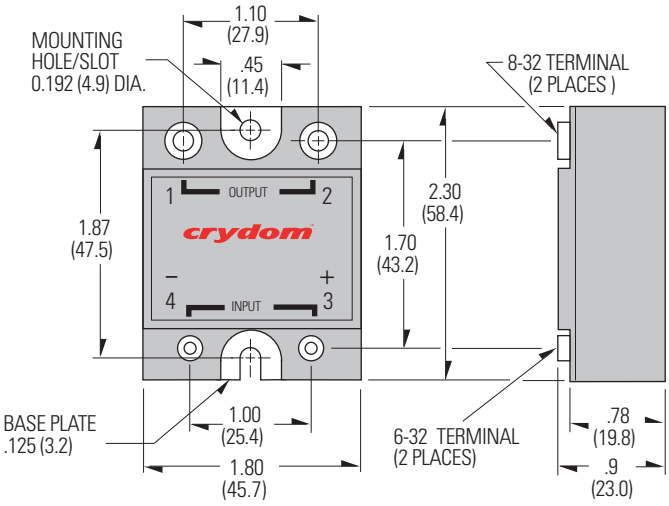
Copyright © 2025 Sensata Technologies, Inc.

General

Description	Parameters
Dielectric Strength, Signal to Load (50/60Hz)	2500 Vrms
Dielectric Strength, Signal to Base	2500 Vrms
Ambient Operating Temperature Range	-30 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.5 oz. (100g)
Encapsulation	Themaly Conductive Epoxy
Terminals	Terminals Screws and Saddle clamps Furnished, Unmounted

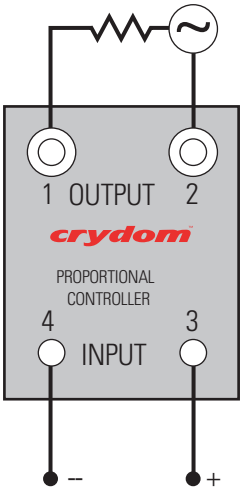
MECHANICAL SPECIFICATIONS [2]

*All dimensions are in: inches [millimeters]

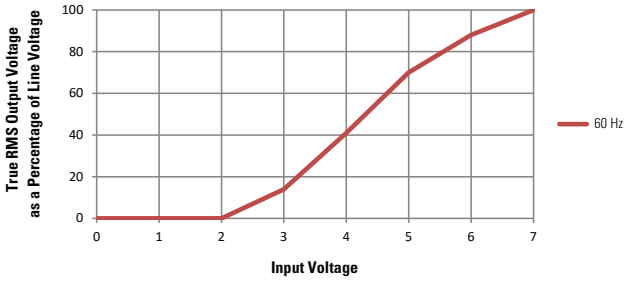


Screw Torque Requirements:
6-32 Screws - 10 in. lbs.,
8-32 and 10-32 Screws - 20in. lbs.
(Screws dry without grease.)

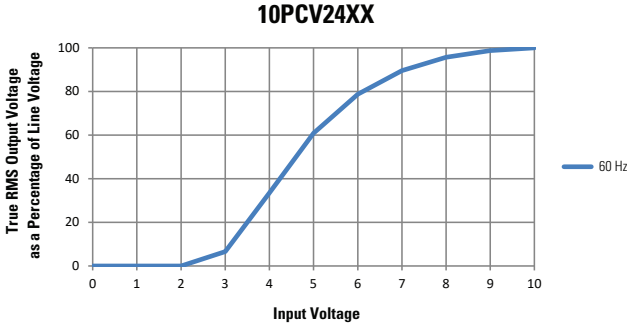
WIRING DIAGRAM



7PCV24XX

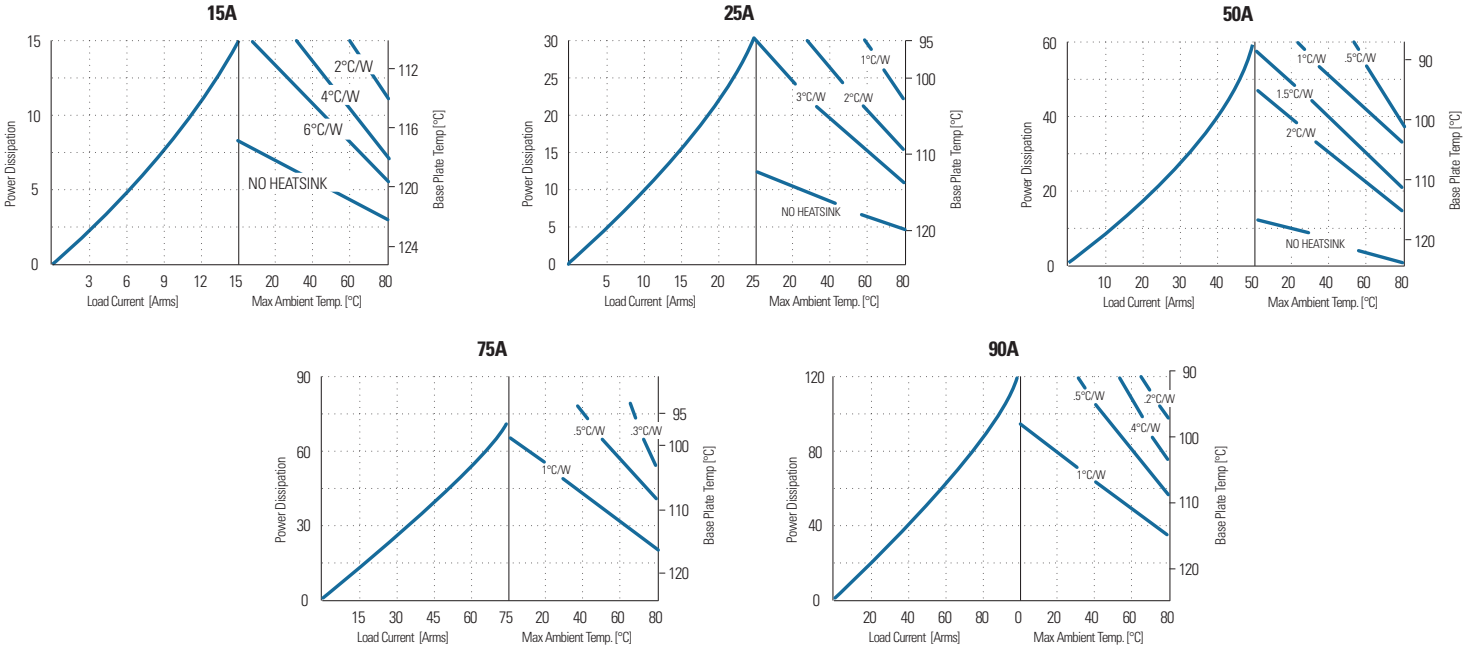


10PCV24XX



Copyright © 2025 Sensata Technologies, Inc.

THERMAL DERATE INFORMATION



TYPICAL APPLICATIONS

- Industrial temperature controllers
- Light dimming
- Vibratory feeders
- Resistive heating elements
- Rectified DC motors
- Conveyor speed control

UNSUITABLE APPLICATIONS

The PCV is not suitable for some load applications
Including, but not limited to the following:

- AC motor control
- Three Phase motors
- Transformers requiring pure sine wave input
- Zero crossing applications

Please contact Crydom's application
Engineering department for additional
Information and specific application questions.

GENERAL NOTES

(1) **All parameters at 25°C unless otherwise specified.**

Copyright © 2025 Sensata Technologies, Inc.

AGENCY APPROVALS & CERTIFICATIONS

c UL us E116950 L CSA R81689-73 CE RoHS 50

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.

Datasheets provided by Sensata Technologies, Inc., its subsidiaries and/or affiliates ("Sensata") are solely intended to assist third parties ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, valuation, and judgment in designing Buyer's systems and products. Sensata datasheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular datasheet. Sensata may make corrections, enhancements, improvements, and other changes to its datasheets or components without notice.
Buyers are authorized to use Sensata datasheets with the Sensata component(s) identified in each particular datasheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATASHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATASHEETS OR USE OF THE DATASHEETS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATASHEETS OR USE THEREOF.
All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY, AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.
Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

Copyright © 2025 Sensata Technologies, Inc.

Rev.06/03/2025 ECN 20395 FDE-07-01 Rev. B

CONTACT US

Americas
+1 (800) 350 2727
sales.crydom@sensata.com
Europe, Middle East & Africa
+44 (1202) 416170
ssr-info.eu@sensata.com
Asia Pacific
sales.isasia@list.sensata.com
China +86 (21) 2306 1500
Japan +81 (45) 277 7117
Korea +82 (31) 601 2004
India +91 (80) 67920890
Rest of Asia +886 (2) 27602006 ext 2808