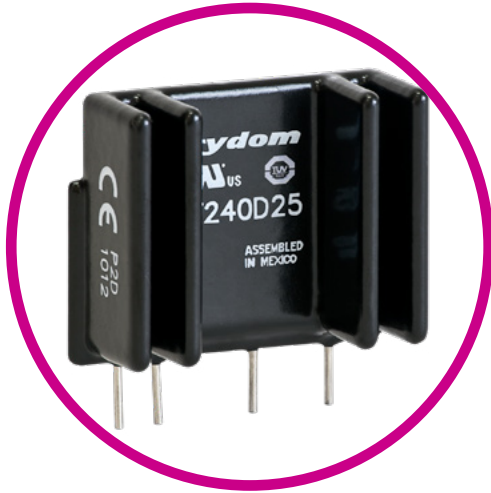




PF SERIES

PCB MOUNT SOLID STATE RELAYS



Features

- SIP style SSR
- Ratings up to 25 A (forced air) @ 660 VAC
- SCR output for heavy industrial loads
- AC or DC control
- Zero voltage (resistive loads) or instantaneous (inductive loads) turn-on output

PRODUCT SELECTION

Control Voltage	25 A	25 A	25 A
3-15 VDC	PF240D25		
4-15 VDC		PF380D25	PF480D25
15-32 VDC	PFE240D25	PFE380D25	PFE480D25
18-36 VAC	PFE240A25		
90-140 VAC	PF240A25		

SPECIFICATIONS

Output¹

Description	PF240	PF380	PF480
Operating Voltage (47-63 Hz) [Vrms]	12-280	48-530	48-660
Transient Overvoltage [Vpk]	600	1200	1200
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rms}]	0.1	0.1	0.1
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ²	500	500	500
Maximum Load Current (Convection Air) [A _{rms}] ³	10	10	10
Maximum Load Current (Forced Air) [A _{rms}] ³	25	25	25
Minimum Load Current [A _{rms}]	0.06	0.06	0.06
Maximum Surge Current (16.6 msec) [A _{pk}]	250	250	250
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6	1.6
Maximum I ² t for fusing (8.3 msec) [A ² sec]	260	260	260
Minimum Power Factor (with Maximum Load)	0.5	0.5	0.5

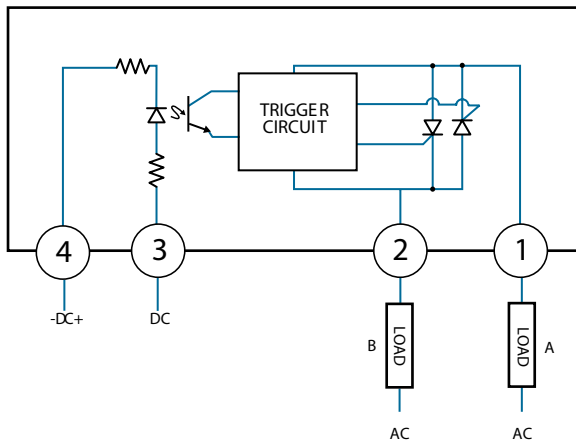
Input¹

Description	PF240D25	PF380D/480D	PFExxxD25	PF240A25	PFE240A25
Control Voltage Range	3-15 VDC	4-15 VDC	15-32 VDC	90-140 Vrms	18-36 Vrms
Maximum Turn-On Voltage	3.0 VDC	4.0 VDC	15.0 VDC	90.0 Vrms	18.0 Vrms
Minimum Turn-On Voltage	1.0 VDC	1.0 VDC	1.0 VDC	10.0 Vrms	2.0 Vrms
Typical Input Current @ Nominal Voltage [mA]	15	15	15	10	10
Nominal Input Impedance [Ohm]	300	240	1.5K	14.1K	2.1K
Maximum Turn-On Time [msec] ⁴	1/2 Cycle	1/2 Cycle	1/2 Cycle	10	10
Maximum Turn-Off Time [msec]	1/2 Cycle	1/2 Cycle	1/2 Cycle	40	40

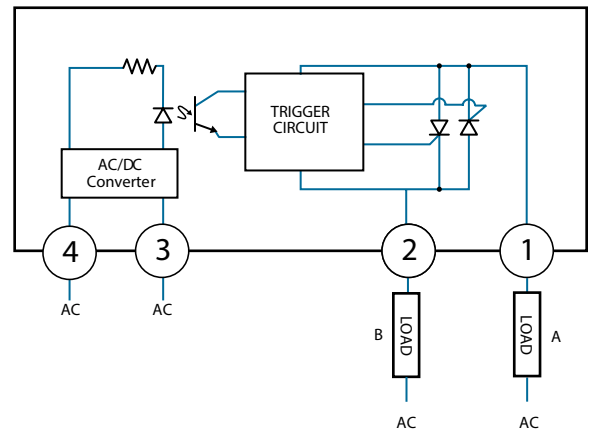
General

Description	Parameters
Dielectric Strength, Input/Output (50/60 Hz)	4000 Vrms
Minimum Insulation Resistance (@ 500 V DC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-30°C to 80°C
Ambient Storage Temperature Range	-30°C to 125°C
Weight (typical)	1.02 oz. (29g)
Encapsulation	Thermally Conductive Epoxy

EQUIVALENT CIRCUIT BLOCK DIAGRAMS/WIRING DIAGRAMS



Load can be wired in location A or B



Load can be wired in location A or B

● THERMAL DERATE INFORMATION

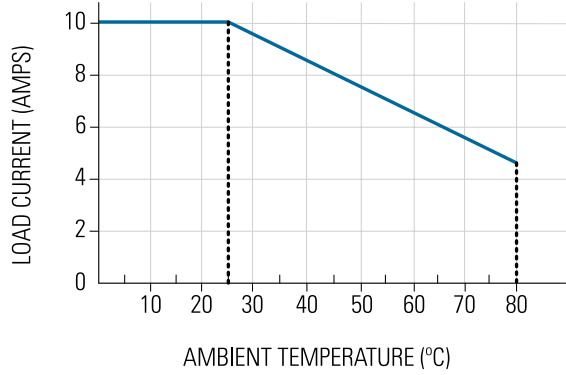


FIG.1 Convection Cooling

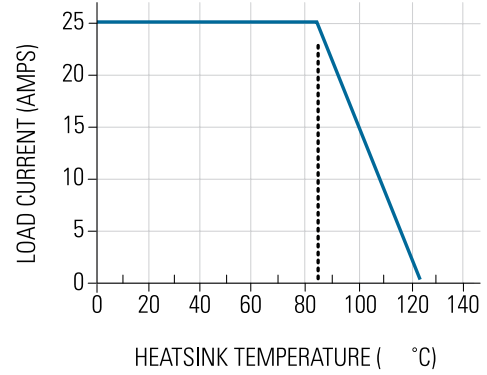
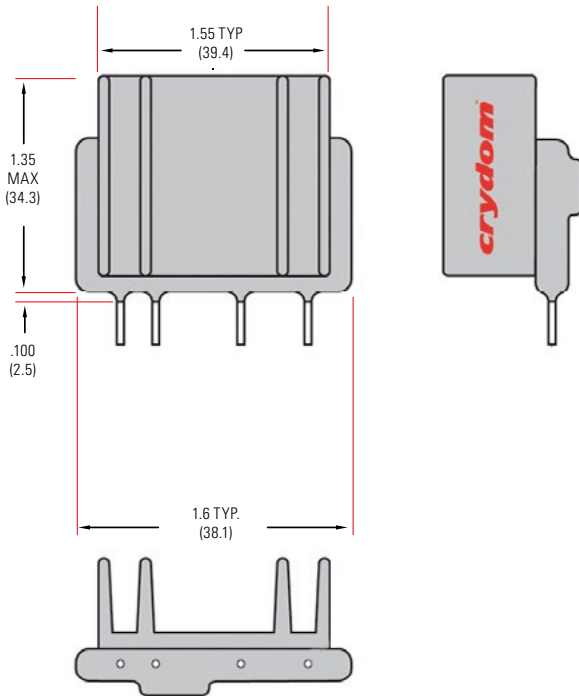
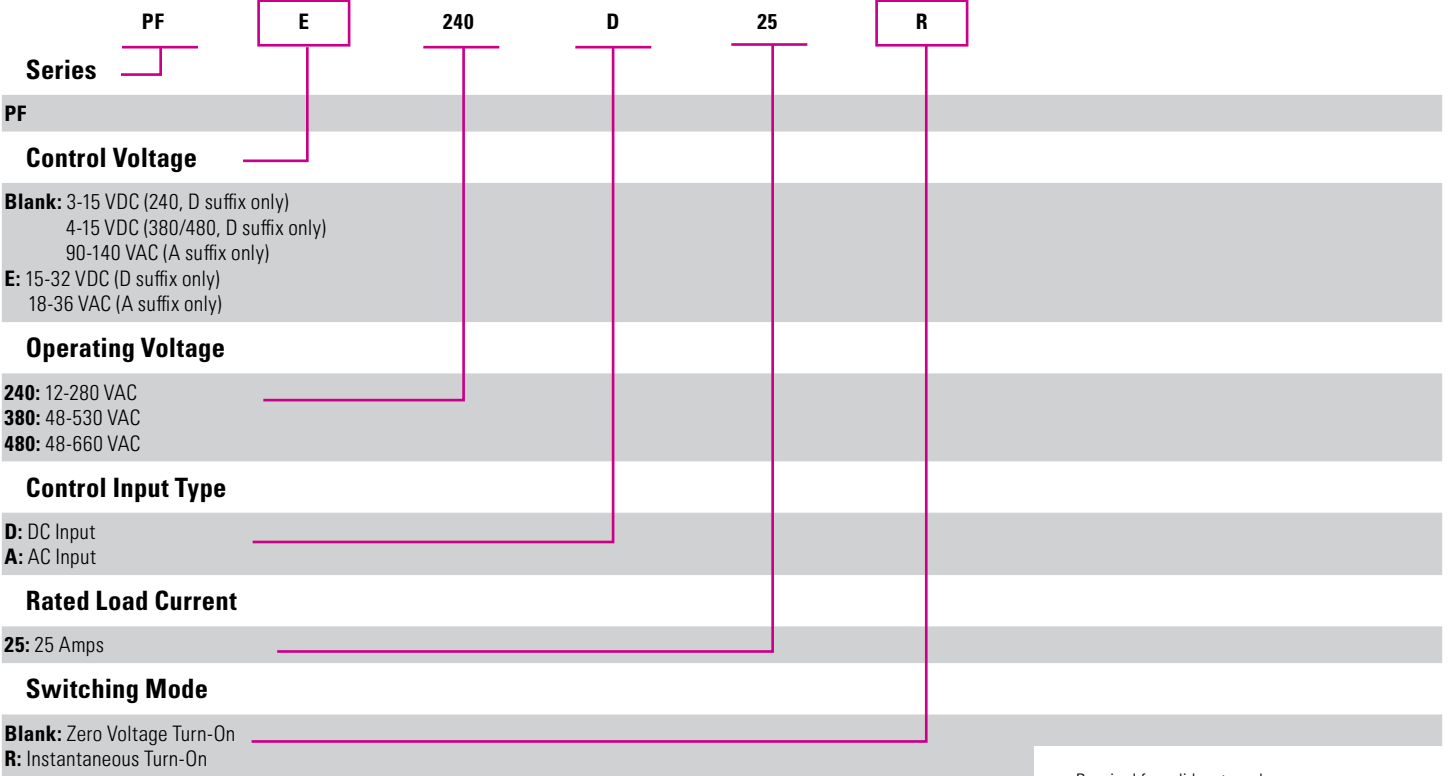


FIG.2 Forced Air Cooling

● MECHANICAL SPECIFICATIONS

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





— Required for valid part number
 □ For options only and not required for valid part number

GENERAL NOTES

- (1) All parameters at 25°C unless otherwise specified.
- (2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (3) Heatsink temperature 85°C Maximum for 25A forced air cooling.
- (4) Turn-On Time for Instantaneous Turn-On versions 0.1 msec (DC Control Models)

AGENCY APPROVALS & CERTIFICATIONS

Designed in accordance with the requirements of IEC 62314



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

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