



Series PF, PowerFin™

Up to 25Amp • 120/240, 380, 480 Vac • AC Output

- Ultra High Steady State Current Rating
- Low Leakage (Off-State)
- SCR Output
- AC or DC Control
- Crydom's Patented Design

Crydom's PowerFin™ series delivers the highest ratings of any single in-line package (SIP). The integral heat sink design can operate at 25 amps RMS in forced air at 85°C case temp. With natural convection in free air, it rates 10 amps RMS at 25°C ambient.

Built-in advantages include Surface Mount Technology and SCR output. Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

| MODEL NUMBERS | AC CONTROL (120Vac) (24Vac) | PF240A25 PFE240A25 | PF380D25 PFE380D25 | PF480D25 PFE480D25 |
|---|-----------------------------|--|---|-----------------------|
| | DC CONTROL (5Vdc) (24Vdc) | PF240D25 PFE240D25 | | |
| OUTPUT SPECIFICATIONS ① | | | | |
| Operating Voltage (47-63 Hz) [Vrms] | | 12-280 | 48-530 | 48-660 |
| Load Current Range [Arms] | | | Forced Air.06-25 ③ Convection Air .06-10 | |
| Transient Overvoltage [Vpk] | | 600 | 1200 | 1200 |
| Max. Surge Current, (16.6ms) [Apk] | | 250 | 250 | 250 |
| Max. 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 |
| Max. Off-State Leakage Current @ Rated Voltage [mArms] | | 0.1 | 0.1 | 0.1 |
| Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ② | | 500 | 500 | 500 |
| Max. Turn-On Time ④ | | 1/2 Cycle (DC Control), 10.0 msec (AC Control) | | |
| Max. Turn-Off Time | | 1/2 Cycle (DC Control), 40.0 msec (AC Control) | | |
| Power Factor (Min.) with Max. Load | | 0.5 | 0.5 | 0.5 |

| MODEL NUMBERS | DC CONTROL | | | AC CONTROL | |
|---|----------------------|----------------------|-------------------------------------|----------------------|---------------------|
| | Nominal Voltage 5Vdc | 5Vdc | 24Vdc | 120Vac | 24Vac |
| | PF240D25 | PF380D25 PF480D25 | PFE240D25 PFE380D25 PFE480D25 | PF240A25 | PFE240A25 |
| Control Voltage Range | 3-15 Vdc | 4-15 Vdc | 15-32 Vdc | 90-140 Vrms | 18-36 Vrms |
| Max. Turn-On Voltage | 3.0 Vdc | 4.0 Vdc | 15.0 Vdc | 90.0 Vrms | 18.0 Vrms |
| Min. Turn-Off Voltage | 1.0 Vdc | 1.0 Vdc | 1.0 Vdc | 10.0 Vrms | 2.0 Vrms |
| Nominal Input Impedance | 300 Ohm | 240 Ohm | 1500 Ohm | 14.1k Ohm | 4.2k Ohm |
| Typical Input Current @ Nominal Voltage | 15 mA _{dc} | 15 mA _{dc} | 15 mA _{dc} | 10 mA _{RMS} | 5 mA _{RMS} |

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.
- ④ Turn-On Time for Random Turn-On versions 0.1msec (DC Control Models).

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For recommended applications and more information contact:

USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280
 Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com
 WEB SITE: http://www.crydom.com **FASTFAX Product Information:** (888) 267-9191
 UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close,
 Woolsbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU
 GERMANY: (49) (0)4974 192500 • fax (49) (0)4974 192585 Crydom GmbH



CRYDOM

Control over power

Series PF, PowerFin™

Up to 25Amp • 120/240, 380, 480 Vac • AC Output

GENERAL SPECIFICATIONS

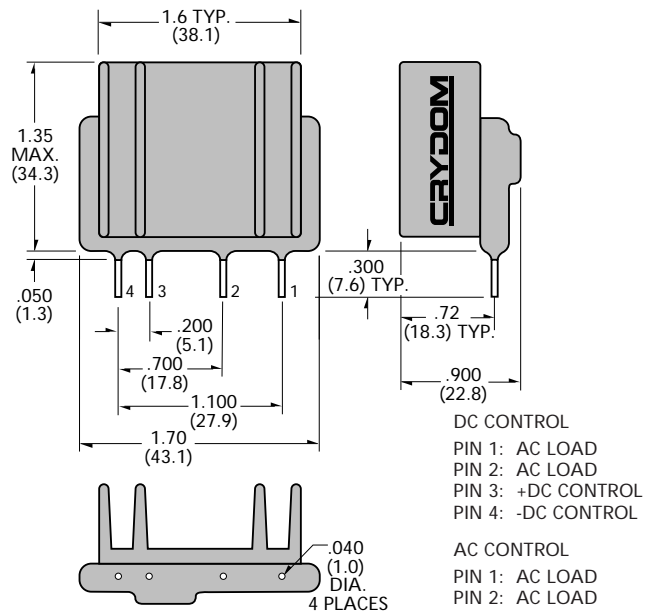
| | |
|--|---------------------|
| Dielectric Strength 50/60Hz Input/Output | 4000 Vrms |
| Insulation Resistance (Min.) @ 500 Vdc | 10 ⁹ Ohm |
| Max. Capacitance Input/Output | 8 pF |
| Ambient Operating Temperature Range | -30 to 80°C |
| Ambient Storage Temperature Range | -30 to 125°C |

MECHANICAL SPECIFICATIONS

| | |
|-------------------|----------------------------|
| Weight: (typical) | .85 oz. (25g) |
| Encapsulation: | Thermally Conductive Epoxy |

AVAILABLE OPTIONS

- R Random Turn-On (AC & DC Control, 240V Only)
- Phase Controllable (DC Control, 240V Only)
- Example: PF240A25R, PFE240D25R



All dimensions are in inches (millimeters)

CURRENT DERATING CURVES

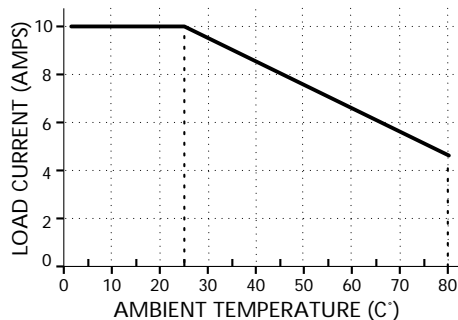


Fig.1 Convection Cooling

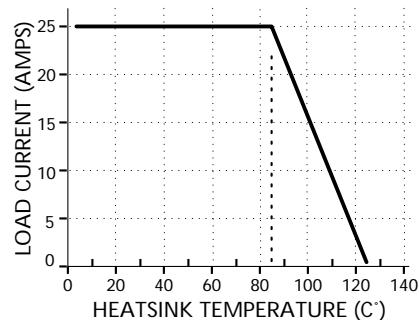


Fig.2 Forced Air Cooling

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APPROVALS

UL E116950
VDE 70938 (DC Control Only)



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