



# 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 9001 Certified facility for optimum product performance and reliability.

| MODEL NUMBERS                                                         | AC CONTROL (120Vac)<br>(24Vac) | PF240A25<br>PFE240A25                          |                       |                       |
|-----------------------------------------------------------------------|--------------------------------|------------------------------------------------|-----------------------|-----------------------|
|                                                                       | DC CONTROL (5Vdc)<br>(24Vdc)   | PF240D25<br>PFE240D25                          | PF380D25<br>PFE380D25 | PF480D25<br>PFE480D25 |
| <b>OUTPUT SPECIFICATIONS</b> ①                                        |                                |                                                |                       |                       |
| Operating Voltage (47-63 Hz) [Vrms]                                   |                                | 12-280                                         | 48-530                | 48-660                |
| Load Current Range [Arms]                                             |                                | Forced Air.06-25 ③<br>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 <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> 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      |
|                                         |                      | PF380D25<br>PF480D25 | PFE240D25<br>PFE380D25<br>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 mAdc              | 15 mAdc              | 15 mAdc                             | 10 mArms    | 5 mArms    |

## 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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