



# Series HPF

20, 30Amp • 120/240/480 Vac • AC Output

- **DIN Rail Mount**
- **Integral Heat sink**
- **LED Status Indicator**
- **SCR Output**
- **Zero Voltage and Random Turn-On Switching**
- **Low Leakage**

The Series HPF Solid State Relays utilize Crydom's proprietary thermal management technology providing a compact and efficient design. Built-in DIN Rail attachment, easy-to-use cage type terminals and integral heat sinking complete the package. This compact new design offers up to 30Arms in ambient temperatures of 25°C.

Manufactured in Crydom's ISO 9002 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	HPF240D20	HPF240D30	HPF480D20	HPF480D30
<b>OUTPUT SPECIFICATIONS ①</b>				
Operating Voltage (47-63 Hz) [Vrms]	12-280	12-280	48-660 <sup>⑥</sup>	48-660 <sup>⑥</sup>
Max. Load Current [Arms]	20	30	20	30
Min. Load Current, [mArms]	150	150	150	150
Transient Overvoltage [Vpk]	600	600	1200	1200
Max. Surge Current, (16.6ms) [Apk]	250	625	250	625
Max. On-State Voltage Drop @Rated Current [Vpk]	1.6	1.4	1.6	1.4
Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [I <sup>2</sup> sec]	260	1620	260	1620
Max. Off-State Leakage Current @Rated Voltage [mArms] ②	0.1	0.1	0.1	0.1
Min. Off-State dv/dt @Max. Rated Voltage [V/μsec] ③	500	500	500	500
Max. Turn-On Time ④	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn-Off Time	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Power Factor (Min.) with Max. Load	0.5	0.5	0.5	0.5

## INPUT SPECIFICATIONS ①

	(HPF240Dxx)	DC CONTROL	(HPF480Dxx)
Control Voltage Range	4-32 Vdc		4.5-32 Vdc
Max. Turn-On Voltage	5.0 Vdc		5.0 Vdc
Min. Turn-Off Voltage	1.0 Vdc		1.0 Vdc
Nominal Input Impedance	See Note ⑤		See Note ⑤
Typical Input Current @5Vdc	5 mAdc		5 mAdc
Typical Input Current @20Vdc	20 mAdc		20 mAdc

## GENERAL NOTES

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- ① All parameters at 25°C unless otherwise specified.
- ② Off-State leakage for snubbered version (S-suffix) is 10 mArms
- ③ Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- ④ Turn-on time for random turn-on version is 0.02 msec.
- ⑤ Input circuitry incorporates active current limiter.
- ⑥ Operating voltage range for snubbered version (S-suffix) is 48-530 Vrms.

For recommended applications and more information contact:

**USA:** (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280  
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

85, Condor Close, Woolbridge Industrial Estate, Three-Legged Cross, Wimborne, Dorset, England BH21 6SU

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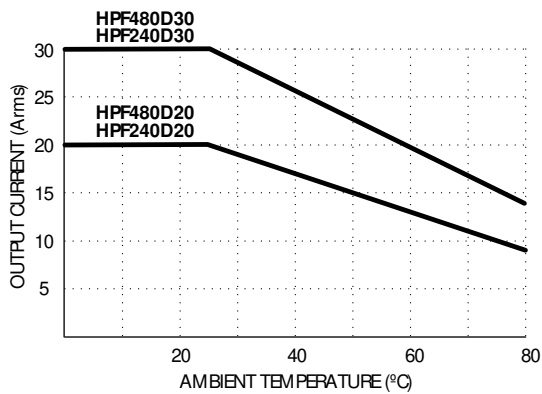
## GENERAL SPECIFICATIONS

Dielectric Strength 50/60Hz Input/Output/Base	4000 Vrms
Insulation Resistance (Min.) @500 Vdc	10 <sup>9</sup> Ohm
Max. Capacitance Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80°C
Ambient Storage Temperature Range	-40 to 125°C

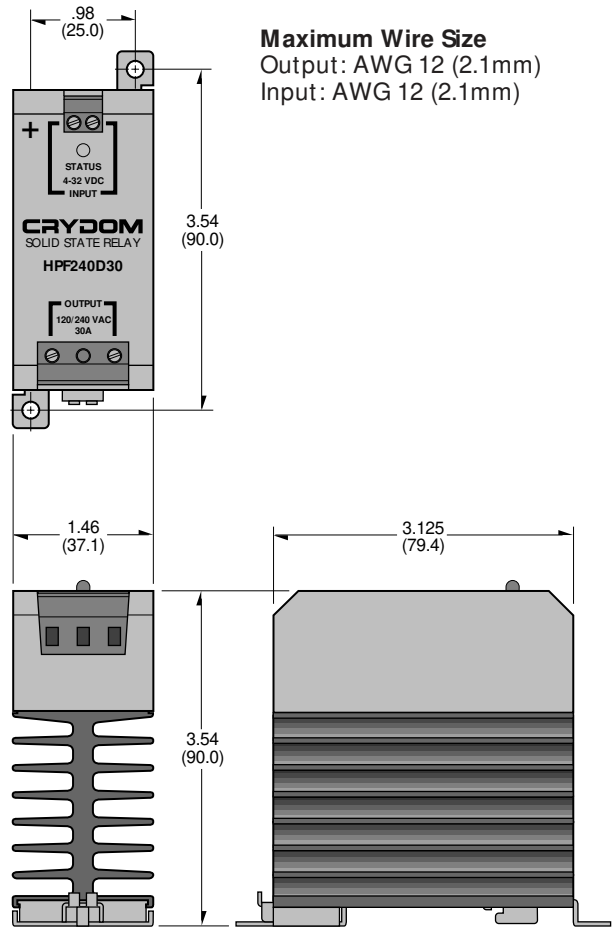
## MECHANICAL SPECIFICATIONS

Weight: (typical)	9.2 oz. (260g)
Encapsulation:	Thermally Conductive Epoxy
Terminals:	Cage Type,
Maximum Wire Size:	AWG 8 (3.3mm)

### CURRENT DERATING CURVES



HPF Max. Output Current vs. Temp.



**Maximum Wire Size**  
 Output: AWG 12 (2.1mm)  
 Input: AWG 12 (2.1mm)

All dimensions are in inches (millimeters)

### AVAILABLE OPTIONS

- R** Random Turn-On  
Example: **HPF480D30R**
- S** Internal Snubber  
Example: **HPF240D20RS**

### APPROVALS

PENDING

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