

- **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 9001 Certified facility for optimum product performance and reliability.

MODEL NUMBERS	HPF240D20	HPF240D30	HPF480D20	HPF480D30
<b>OUTPUT SPECIFICATIONS</b> ①				
Operating Voltage (47-63 Hz) [Vrms]	12-280	12-280	48-660 ⑥	48-660 ⑥
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

- ① All parameters at 25°C unless otherwise specified.
- ② Off-State leakage for snubbed 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 snubbed version (S-suffix) is 48-530 Vrms.

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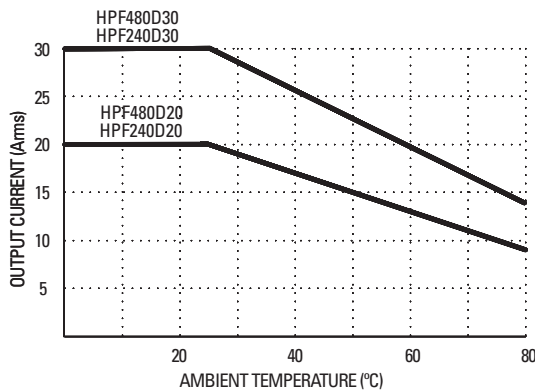
### GENERAL SPECIFICATIONS

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

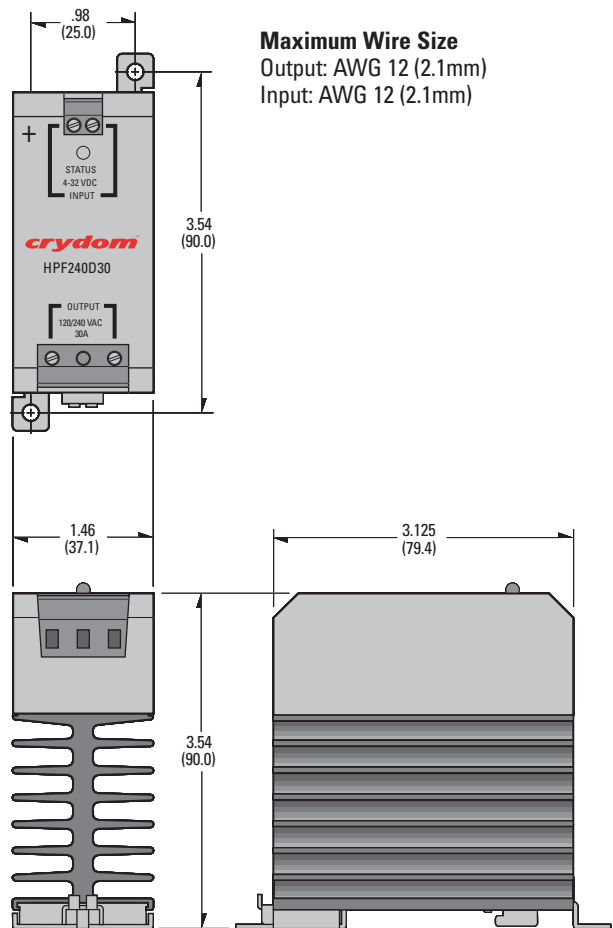
### MECHANICAL SPECIFICATIONS

Weight: (typical)		9.2 oz. (260g)
Encapsulation:		Thermally Conductive Epoxy
Terminals:		Cage Type,
Maximum Wire Size:		AWG 8 (3.3mm)
Max. Terminal Screw Torque		5.3 in lb (0.6 Nm)

### 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

## ANNEX – ENVIRONMENTAL INFORMATION:

The environmental information disclosed in this annex including the EIP Pollution logo are in compliance with People's Republic of China Electronic Industry Standard SJ/T11364 – 2006, Marking for Control of Pollution Caused by Electronic Information Products.

Part Name	Toxic or hazardous Substance and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Semiconductor die	X	O	O	O	O	O
Solder	X	O	O	O	O	O

### 附件 - 环保信息:

此附件所标示的包括电子信息产品污染图标的环保信息符合中华人民共和国电子行业标准 **SJ/T11364 - 2006**, 电子信息产品污染控制标识要求

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
半导体芯片	X	O	O	O	O	O
焊接点	X	O	O	O	O	O

