

HPS Series **Peak Performance** 120W-480W AC-DC DIN Rail Power Supplies

Key Features

- 12, 24 & 48 VDC
- Universal Input: 90-264VAC / 120-375VDC
- High Efficiency
- Short Circuit Protection
- Internal Input Filter
- IP20 Protection Rated



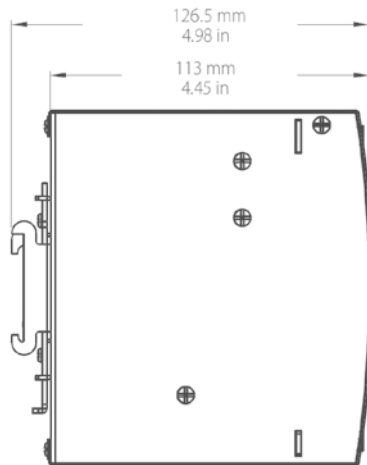
Technical Specification

Model	HPS-1-120-12DC	HPS-1-120-24DC	HPS-1-120-48DC
Input Voltage	90-264VAC / 127-375VDC		
Output Wattage	120W		
Peak Output Wattage	180W (for 3 secs)		
Output Voltage / Power Dissipation	12VDC / 24W	24VDC / 20W	48VDC / 19W
Output Current	10A	5A	2.5A
Efficiency	89%	91%	91%
General Specification			
Approval	cURus		
Isolation Voltage	3000VAC/4242VDC		
Isolation Resistance	100MΩ @ 500VDC		
Ambient Temperature	-25 to +70°C		
Derating	(61 to 71°C) 2.5%/°C		
Storage Temperature	-40 to +85°C		
Relative Humidity	10 to 95% RH		
Cooling	Free air convection (Fanless)		
Tightening Torque	0.8Nm		
Dimensions	L125 x W40 x D113 (126.5 inc. DIN rail mount) mm		
Weight	600g		
Case Material	Metal		
Input Specifications			
Rated Input Voltage	115 - 230VAC (auto select)		
Input Voltage Range	90-264VAC, 127-375VDC		
Line Frequency	50/60Hz		
Power Factor @ 115VAC	0.96 Typical (0.58 Measured)		
Power Factor @ 230VAC	0.93 Typical (0.75 Measured)		
Inrush Current (115 / 230VAC)	35 / 70A		
Output Specifications			
Output Voltage Accuracy	±1%		
Minimum Load	0%		
Line Regulation	±0.5%		
Load Regulation	±1%		
Turn On Time	1000ms after AC applied to input at full resistive load		
Voltage Fall Time	150ms		
Voltage Rise Time	150ms		
Hold Up Time (115 / 230VAC)	10 / 16ms		
Temperature Coefficient	±0.03%/°C		
Ripple & Noise	120mVp-p		
Voltage Trim Range	11.4 ~ 14.5VDC	22.5 ~ 28.5VDC	45 ~ 55VDC
DC ON & LOW Indicator (Green & Red LED)	10 ~ 11.2VDC	17.6 ~ 19.4VDC	37 ~ 43VDC
DC OK Relay	30V / 1A Resistive Load		
Control & Protection			
Rated Overload Protection	110-150%		
Over Voltage Protection	14-17VDC	29-33VDC	50-65VDC
Output Short Circuit	Shutdown Output Voltage with Auto Recovery		

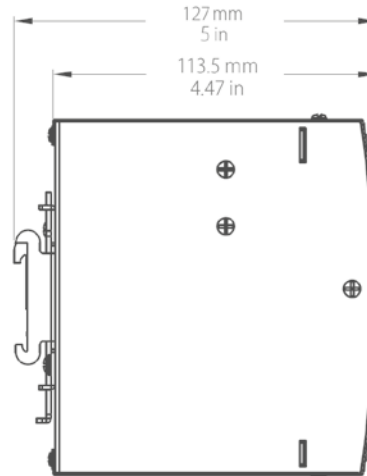
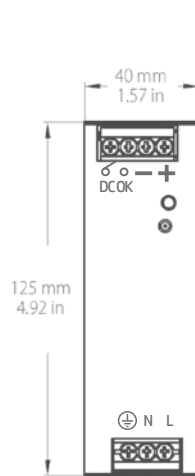


	HPS-1-240-24DC	HPS-1-240-48DC	HPS-1-480-24DC
		90-264VAC / 120-375VDC	
	240W	240W	480W
	360W (for 3 secs)		720W (for 3 secs)
	24VDC / 35W	48VDC / 32W	24VDC / 63W
	10A	5A	20A
	85.5%	90%	92%
		cURus	
		3000VAC/4242VDC	
		100MΩ @ 500VDC	
		-20 to +70°C	
		(55 to 70°C) 2.5%/°C	
		-40 to +85°C	
		10 to 95% RH	
		Free air convection	
	0.8Nm		1.0Nm
	L125 x W63 x D113.5 (127 inc. DIN rail mount) mm		L125 x W85.5 x D129 (142 inc. DIN rail mount) mm
	1000g		1500g
		Metal	
		115-230VAC	
		90-264VAC, 127-375VDC	
		50/60Hz	
	0.6 Typical (0.61 Measured)		0.99 Typical (0.99 Measured)
	0.75 Typical (0.77 Measured)		0.97 Typical (0.97 Measured)
		20 / 35A	
		±1%	
		0%	
		±0.5%	
		±1%	
		1000ms after AC applied to input at full resistive load	
		150ms	
		150ms	
	10 / 16ms		25 / 30ms
		±0.03%/°C	
		150mVp-p	
	22.5-28.5VDC	47-56VDC	22.5-28.5VDC
	n/a	n/a	n/a
		30V / 1A Resistive Load	
		105-130%	
	29-33VDC	56-65VDC	29-33VDC
		Shutdown Output Voltage with Auto Recovery	

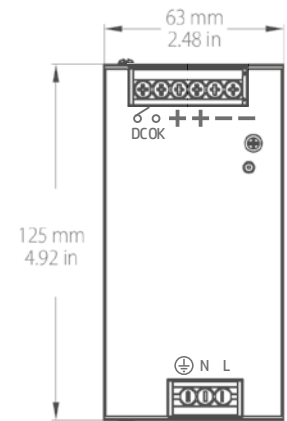
Dimensions (mm)



HPS-1-120-xxDC



HPS-1-240-xxDC



Pin Connections

Input		Output	
Pin No.	Description	Pin No.	Description
⊕	Earth	DC OK	Relay Contact
N	AC Neutral	-	DC OUTPUT V-
L	AC Live	+	DC OUTPUT V+

Output (HPS-1-480-24DC)	
Pin No.	Description
DC OK	Relay Contact
-	DC OUTPUT V-
+	DC OUTPUT V+
P+	Current Share*
P-	Current Share*

* Current Share up to 3840W (7+1) built-in paralleling.

Installation

Ventilation / Cooling

Normal convection
All sides 25mm free space
For cooling recommended

Connector Size Range

AWG24-10 (0.2 ~ 4mm²) flexible / solid cable,
8 m/m stripping cable end recommends
Use copper conductors only, 60 / 75°C

DC OK Relay Contact

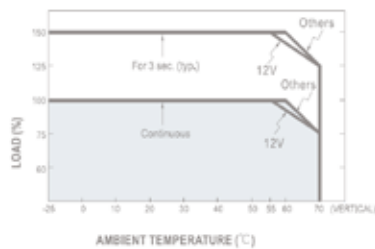
Contact Close	PSU turns on / DC OK
Contact Open	PSU turns off / DC Fail
Contact Ratings (max.)	30V / 1A resistive load

Construction

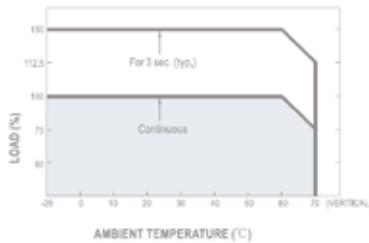
Easy snap-on mounting onto the DIN-Rail (TS35/7.5 or TS35/15), unit sits safely and firmly on the rail.

Derating Graphs

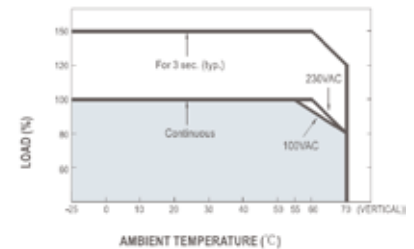
Temperature Derating



HPS-1-120-xxDC

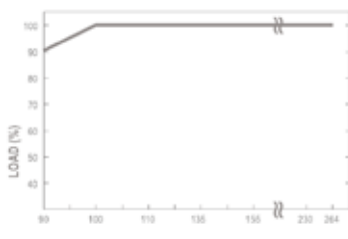


HPS-1-240-xxDC

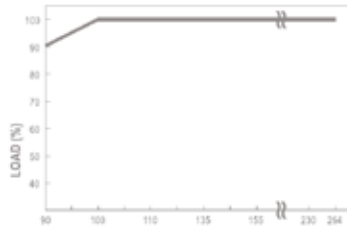


HPS-1-480-xxDC

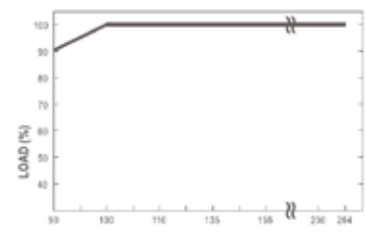
Output Derating



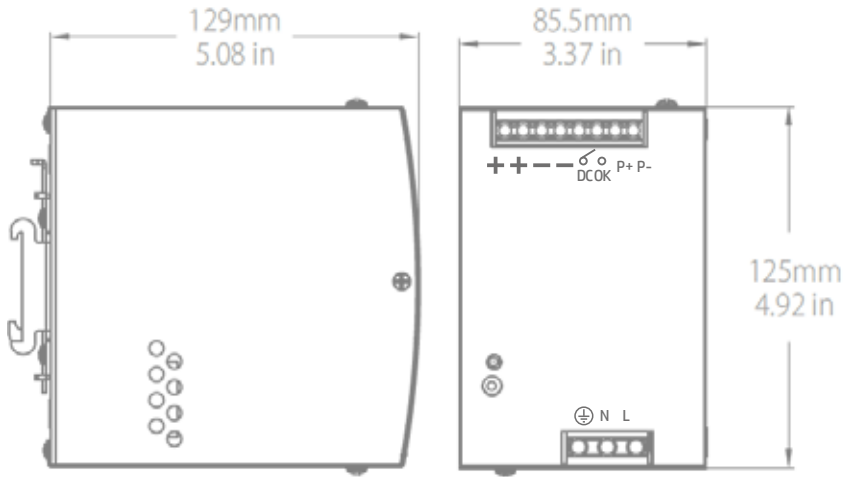
HPS-1-120-xxDC



HPS-1-240-xxDC



HPS-1-480-xxDC



HPS-1-480-24DC

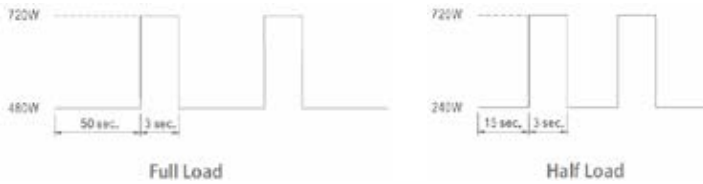
Peak Loading



HPS-1-120-xxDC



HPS-1-240-xxDC



HPS-1-480-xxDC