

HPS Series 120W Higher Performance 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



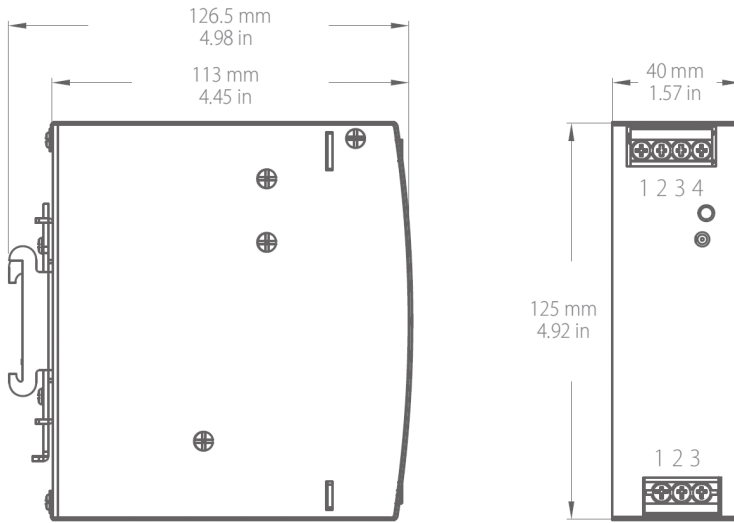
Technical Specification - 120W Output

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 / 120W	24VDC / 120W	48VDC / 120W
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		
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
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		

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Dimensions (mm)



Pin Connections

Input		Output	
Pin No.	Description	Pin No.	Description
1	FG (⊕)	1, 2	Relay Contact
2	AC / N	3	DC OUTPUT V-
3	AC / L	4	DC OUTPUT V+

Installation

Ventilation / Cooling

Normal convection
All sides 25mm free space
For cooling recommended

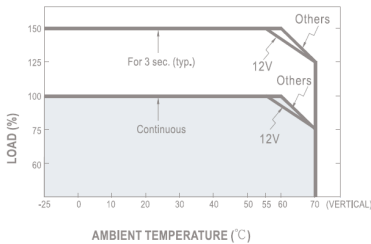
Connector Size Range

AWG24-10 (0.2 ~ 4mm²) flexible / solid cable,
- Input connector can withstand torque at maximum 9 pound-inches
- Output connector can withstand torque at maximum 5.5 pound-inches
8 m/m stripping cable end recommends
Use copper conductors only, 60 / 75°C

Construction

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

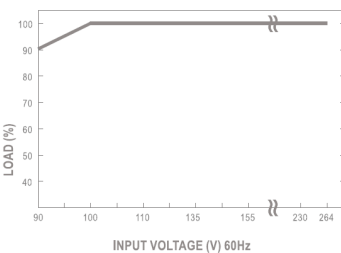
Derating Curve



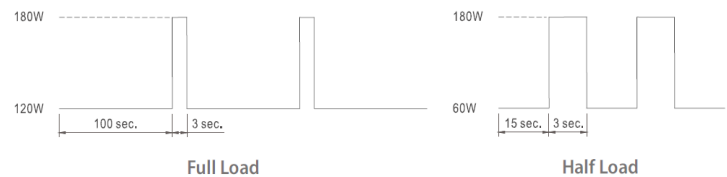
DC OK Relay Contact

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

Minus Output & Input Voltage Curves



Peak Loading



Circuit Schematic

