

HPS Series 480W Higher Performance AC-DC DIN Rail Power Supplies



Key Features

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



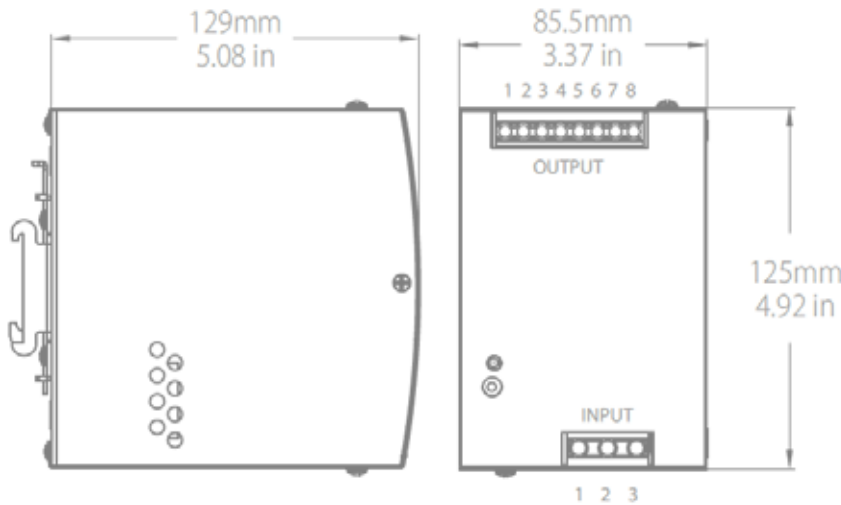
Technical Specification - 480W Output

Model	HPS-1-480-24DC
Input Voltage	90-264VAC / 120-375VDC
Output Wattage	480W
Peak Output Wattage	720W (for 3 secs)
Output Voltage / Power Dissipation	24VDC / 480W
Output Current	20A
Efficiency	94%
General Specification	
Approval	cURus
Isolation Voltage	3000VAC/4242VDC
Isolation Resistance	100MΩ @ 500VDC
Ambient Temperature	-20 to +70°C
Derating	(55 to 70°C) 2.5%/°C
Storage Temperature	-40 to +85°C
Relative Humidity	10 to 95% RH
Cooling	Free air convection
Dimensions	L125 x W85.5 x D129 (142 inc. DIN rail mount) mm
Weight	1500g
Case Material	Metal
Input Specifications	
Rated Input Voltage	115 ~ 230VAC
Input Voltage Range	90 to 264VAC, 127 to 375VDC
Line Frequency	50/60Hz
Power Factor @ 115VAC	0.99 Typical (0.99 Measured)
Power Factor @ 230VAC	0.94 Typical (0.94 Measured)
Inrush Current (115 / 230VAC)	40 / 80A
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)	25 / 30ms
Temperature Coefficient	±0.03%/°C
Ripple & Noise	150mVp-p
Voltage Trim Range	22.5-28.5VDC
Control & Protection	
Rated Overload Protection	110-150%
Over Voltage Protection	29-33VDC
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	DC OUTPUT V+
2	AC / N or DC-	3, 4	DC OUTPUT V-
3	AC / L or DC+	5, 6	Relay Contact
		7	P+ (current share)
		8	P- (current share)

Installation

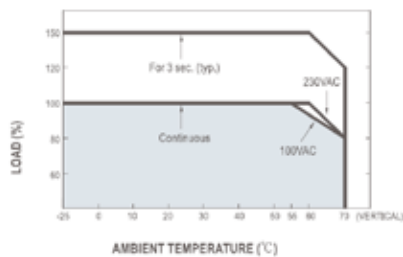
Ventilation / Cooling

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

Derating Curve



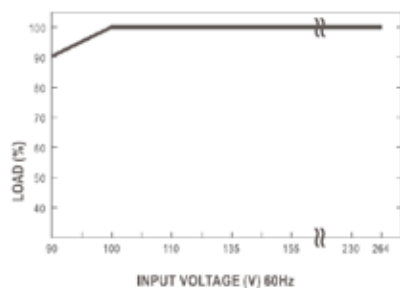
Construction

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

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

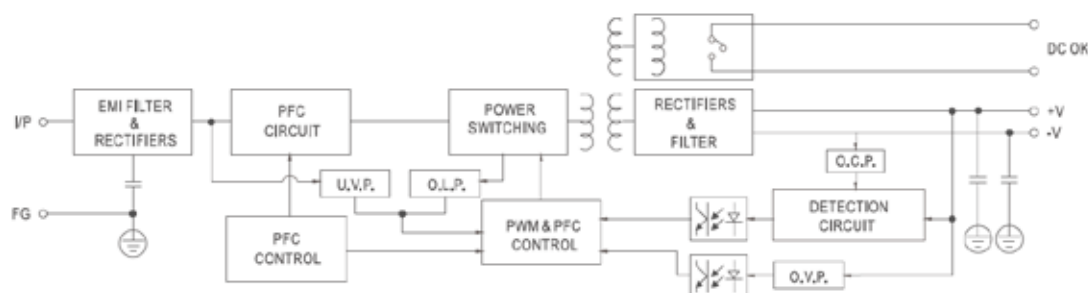
Minus Output & Input Voltage Curves



Peak Loading



Circuit Schematic



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Wire Gauge Template Selector

A Cross-Section of a Copper Conductor (Electric Wire)	Current-Carrying Capability	Voltage 230V	Rated Current	Current Limiting
1.5	19	4.1	10	16
2.5	27	5.9	16	25
4.0	38	8.9	25	32
6.0	46	10.1	32	40
10.0	70	15.4	50	63