

DPS Series 480W

AC-DC DIN Rail Power Supplies



Key Features

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



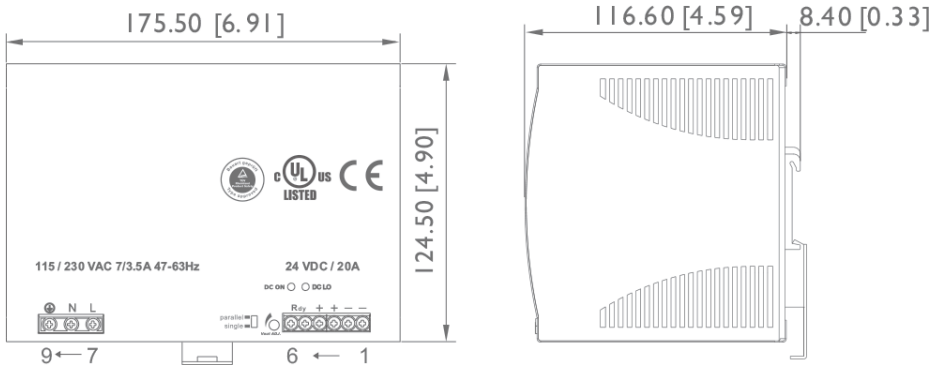
Technical Specification - 480W Output

Model	DPS-1-480-24DC	DPS-1-480-48DC
Input Voltage	90-264VAC / 120-375VDC	
Output Wattage	480W	
Output Voltage / Power Dissipation	24VDC / 63W	48VDC / 60W
Output Current	20A	10A
Efficiency (min/typ)	86/89%	87/90%
General Specification		
Approval	cURus	
Isolation Voltage	3000VAC/4242VDC	
Isolation Resistance	100MΩ @ 500VDC	
Ambient Temperature	-40 to +71°C	
Derating	(56 to 71°C) 2.5%/°C	
Storage Temperature	-40 to +85°C	
Relative Humidity	20 to 95% RH	
Cooling	Free air convection	
Dimensions	L124.5 x W175.5 x D123.6 mm	
Weight	1920g	
Case Material	Metal	
Input Specifications		
Rated Input Voltage	115 ~ 230VAC	
Input Voltage Range	90 to 264VAC, 120 to 375VDC	
Line Frequency	47 ~ 63Hz	
Power Factor @ 115VAC	0.99 Typical (0.99 Measured)	
Power Factor @ 230VAC	0.97 Typical (0.97 Measured)	
Inrush Current (115 / 230VAC)	25 / 50A	
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	100mV	
Voltage Trim Range	22.5 ~ 28.5VDC	47 ~ 56VDC
DC ON & LOW Indicator (Green & Red LED)	17.6 ~ 19.4VDC	37 ~ 43VDC
Control & Protection		
Rated Overload Protection	110 ~ 140%	
Over Voltage Protection	30 ~ 33VDC	60 ~ 66VDC
Output Short Circuit	Fold Forward	

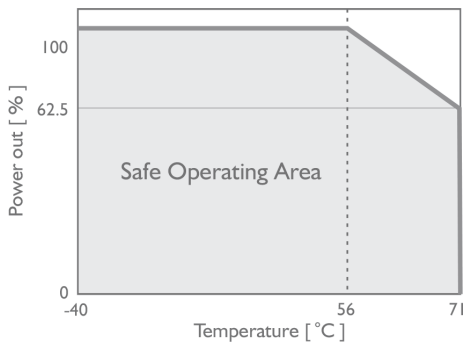
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Dimensions (mm)



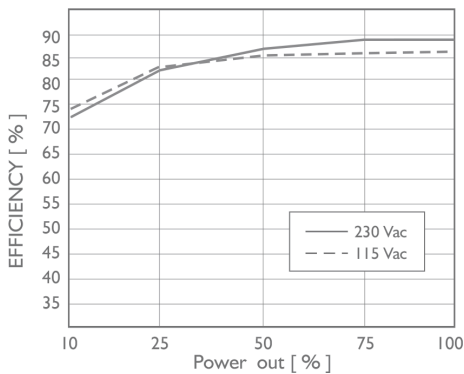
Derating



Pin Connections

Key		Description
1, 2	V -	Negative output terminal
3, 4	V +	Positive output terminal
5, 6	RDY	DC OK output for relay (24V model only)
7	L	Input terminals (phase conductor, no polarity at DC input)
8	N	Input terminals (neutral conductor, no polarity at DC input)
9		Ground this terminal to minimise high-frequency emissions
	DC ON	Operation indicator LED
	DC LO	DC LOW voltage indicator LED
	Vout ADJ.	Trimmer potentiometer for Vout adjustment
	S / P	Single / Parallel select switch

Typ. Efficiency Curve



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.

Circuit Schematic

