

DPS Series 120W 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



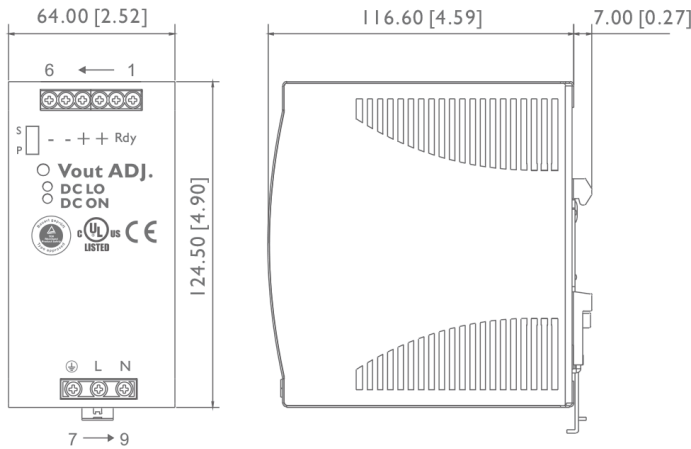
Technical Specification - 120W Output

Model	DPS-1-120-12DC	DPS-1-120-24DC	DPS-1-120-48DC
Input Voltage	90-264VAC / 120-375VDC		
Output Wattage	120W		
Output Voltage / Power Dissipation	12VDC / 24W	24VDC / 20W	48VDC / 19W
Output Current	10A	5A	2.5A
Efficiency (min/typ)	82/84%	84/86%	85/87%
General Specification			
Approval	cURus		
Isolation Voltage	3000VAC/4242VDC		
Isolation Resistance	100MΩ @ 500VDC		
Ambient Temperature	-35 to +71°C		
Derating	(61 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 W64 x D123.6 mm		
Weight	920g		
Case Material	Metal		
Input Specifications			
Rated Input Voltage	115 ~ 230VAC (auto select)		
Input Voltage Range	90 to 264VAC, 210 to 375VDC		
Line Frequency	47 ~ 63Hz		
Power Factor @ 115VAC	0.55 Typical (0.58 Measured)		
Power Factor @ 230VAC	0.70 Typical (0.75 Measured)		
Inrush Current (115 / 230VAC)	24 / 48A		
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	50mV		
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 ~ 145%		
Over Voltage Protection	15 ~ 16.8VDC	30 ~ 33VDC	60 ~ 66VDC
Output Short Circuit	Fold Forward		

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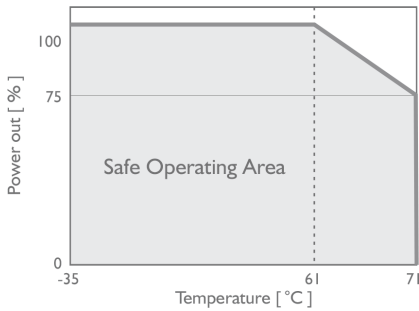
Dimensions (mm)



Pin Connections

Key		Description
1, 2	RDY	DC OK output for relay (24V model only)
3,4	V+	Positive output terminal
5,6	V-	Negative output terminal
7		Ground this terminal to minimise high-frequency emissions
8	L	Input terminals (phase conductor, no polarity at DC input)
9	N	Input terminals (neutral conductor, no polarity at DC input)
	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

Derating



Installation

Ventilation / Cooling

Normal convection
All sides 25mm free space
For cooling recommended

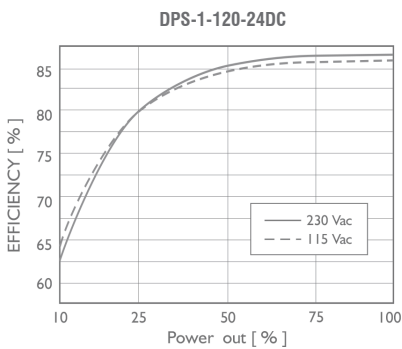
Connector Size Range

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.

Typ. Efficiency Curve



Circuit Schematic

