# LPS Series 240W 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 - 240W & 300W Output

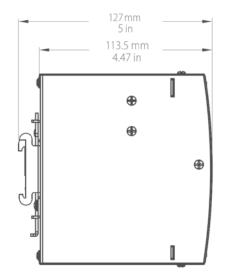




Model	LPS-1-240-24DC	LPS-1-240-48DC			
Input Voltage	90-264VAC / 120-375VDC				
Output Wattage	240W 240W				
Output Voltage / Power Dissipation	24VDC / 35W 48VDC / 32W				
Output Current	10A 5A				
Efficiency	85.5% 90%				
General Specification					
Approval	cURus				
Isolation Voltage	3000VAC/4242VDC				
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 W63 x D113.5 (127 inc. DIN rail mount) mm				
Weight	1000g				
Case Material	Metal				
Input Specifications					
Rated Input Voltage		115-230VAC			
Input Voltage Range	90-264VAC, 127-375VDC				
Line Frequency	50/60Hz				
Power Factor @ 115VAC	0.6 Typical (0.61 Measured)				
Power Factor @ 230VAC	0.75 Typical (0.77 Measured)				
Inrush Current (115 / 230VAC)		20 / 35A			
Output Specifications					
Output Voltage Accuracy	±1%				
Minimum Load	0%				
Line Regulation	$\pm 0.5\%$				
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	150mVp-p				
Voltage Trim Range	22.5-28.5VDC 47-56VDC				
Control & Protection					
Rated Overload Protection	105-130%				
Over Voltage Protection	29-33VDC 56-65VDC				
Output Short Circuit	Shutdown Output Voltage with Auto Recovery				

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# **Dimensions** (mm)





# **Pin Connections**

Input				
Pin No.	Description			
1	FG (1)			
2	AC / N or DC-			
3	AC / L or DC+			

Output				
Pin No.	Description			
1, 2	DC OUTPUT V-			
3, 4	DC OUTPUT V+			

**Technical Datasheet** 

### Installation

Ventilation / Cooling Normal convection All sides 25mm free space For cooling recommended

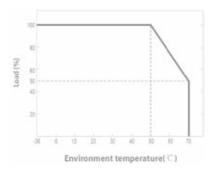
#### **Connector Size Range**

- AWG24-10 (0.2  $\sim$  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 striping cable end recommends
- Use copper conductors only, 60 / 75°C

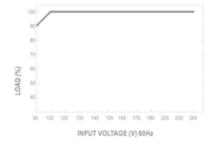
#### Construction

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

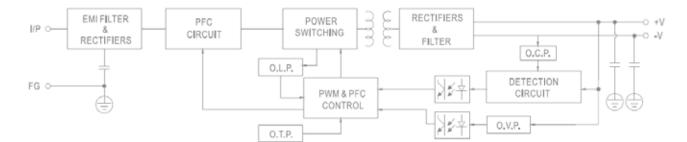
# **Derating Curve**



# Minus Output & Input Voltage Curves



# **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