

FEATURES

- Output voltage of 48 V DC
- Output current of 6.7 A
- Power rating of 300 W
- Input voltage of 90
→ 264 V AC, or 120
→ 370 V DC
- PCB mounting type
- 199 mm (length) x 99 mm (width) x 50 mm (depth)
- Efficiency rating of 87%
- Operating temperature of -30°C to +70°C

RS PRO, 300W Embedded Switch Mode Power Supply SMPS, 48V dc, Enclosed

RS Stock No.: 161-8230



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

This 300 W embedded switch-mode power supply (SMPS) takes both alternating current (AC) and direct current (DC) and converts it into a stepped-down DC output. It's part of our stringently tested RS PRO range. Modern appliances often require a stepped-up or stepped-down voltage from the electrical mains. SMPSs do this more efficiently than traditional power supplies, using a switching mechanism to keep the voltage at the desired level. This continuous on-off function also prevents unnecessary energy waste.

General Specifications

Mounting Type	PCB
Package Type	Enclosed
MTBF	200000 h
Applications	Industrial control system, Mechanical and electrical equipment

Electrical Specifications

Input Specification	
Voltage Range	120Vdc to 370V dc, 90Vac to 264Vac
Frequency	47 to 63Hz
AC Current Rating	< 4.5A
Inrush Current	<50A@230Vac, <30A@115Vac
Leakage Current (max.)	Input-Output:<0.25mA, Input-PG:<1.0mA

Output Specification	
Number of Outputs	1
DC Voltage	48V
Ripple & Noise (max.)	<150mVp-p
Rated Current	6.7A
Rated Power	300W
Voltage Tolerance	±1.0%
Line Regulation	±0.5%
Load Regulation	±1.0%

Voltage Adj. Rang	5%~10% of Rated Output Voltage
Rise Time	<2 Seconds - 230Vac at 100% Load
Hold Up Time	>10mS - 230Vac at 100% Load
Overload Protection	105~150% rated output current
Short Circuit Protection	Yes
Isolation Resistance	> 100M Ohms

Mechanical Specifications

Overall Dimensions	199mm x 99mm x 50mm
Overall Length	199mm
Overall Depth	99mm
Overall Width	50mm
Weight	11.6kg

Operation Environment Specifications

Operating Humidity	20% to 90% RH non-condensing
Cooling	Natural convection
Operating Temperature Range	-20°C to +65°C
Storage Temperature Range	-40°C to 85°C
Altitude During Operation	5000m
Vibration Resistance	10 ~ 500Hz, 2G, 10 minute cycle, X, Y, Z 60 minute in each direction

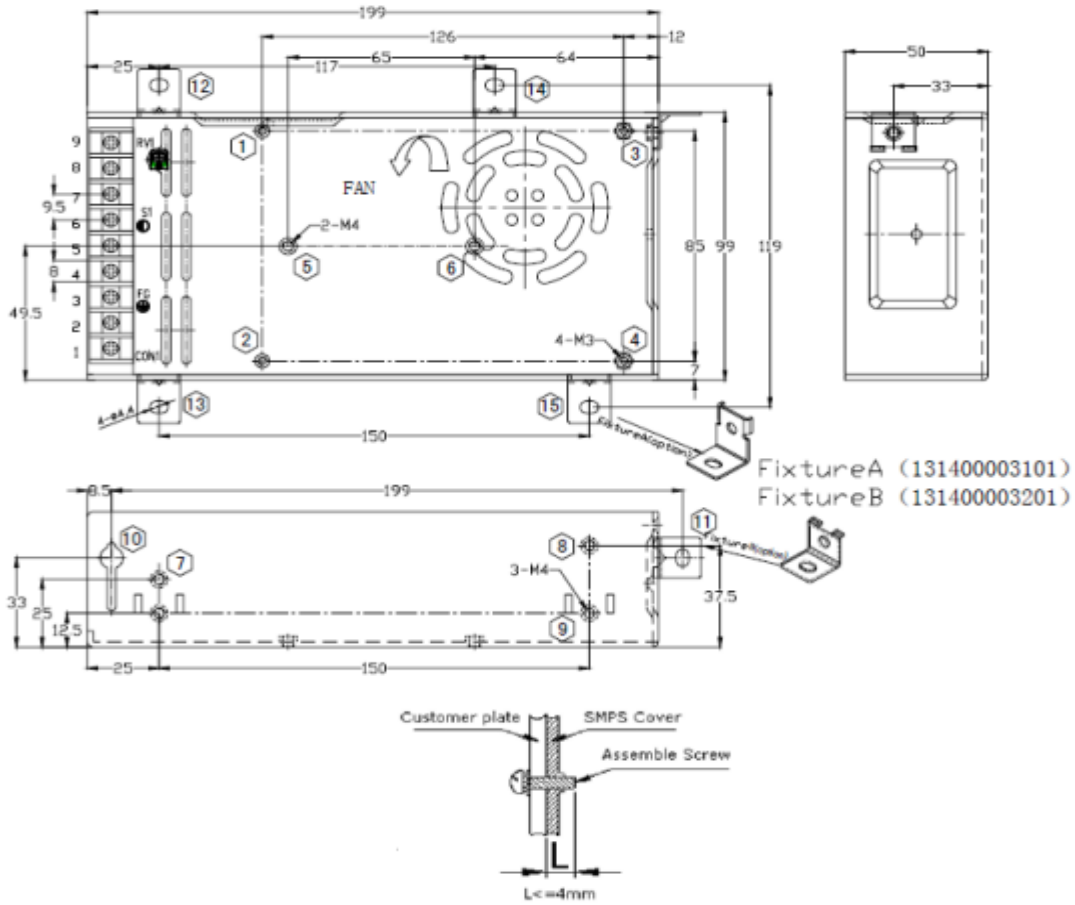
Approvals

Safety Standard	UL60950-1, EN60950-1: 2006 IEC 60950-1:2005
EMC Emission	Compliance to EN55022 Class B

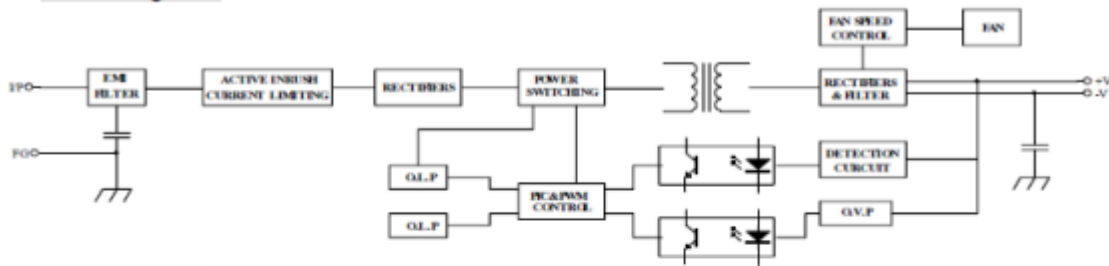


Mechanical Specification

unit:mm



Block Diagram



Derating Curve

