

PS-RS5012 12V 4.2A SWITCHING POWER SUPPLY



The PS-RS5012 is a compact 50W switching power supply delivering stable 12V DC output at 4.2A. It features a slim low-profile design (30mm height) and supports universal AC input, making it suitable for industrial and commercial applications.

Designed with a durable metal enclosure and efficient heat dissipation, the unit operates with fanless cooling for silent and reliable performance. The compact housing (99 x 82 x 30 mm) and weight 0.21kg, allows easy installation in space-limited environments.

The power supply uses screw-type terminals for secure wiring, with clearly defined input and output connections (AC/L, AC/N, FG, +V, -V), ensuring safe and straightforward installation.

Output:

DC Voltage:	12V
Rated Current:	4.2A
Current Range:	0 ~ 4.2A
Rated Power:	50.4W
Ripple & Noise (max.):	120mVp-p
Voltage Tolerance:	±1.0%
Line Regulation:	±0.5%
Load Regulation:	±0.5%
Output Voltage Adj. Range:	10.2V ~ 13.8V
Setup, Rise Time:	1000ms, 30ms (230VAC)
Hold Up Time (Typ.):	30ms (230VAC)

Input:

Voltage Range:	85 ~ 264VAC / 120 ~ 373VDC
Frequency Range:	47 ~ 63Hz
Efficiency (Typ.):	86%
AC Current (Typ.):	0.95A / 115VAC, 0.56A / 230VAC
Inrush Current (Typ.):	45A / 230VAC (cold start)
Leakage Current:	<0.75mA / 240VAC

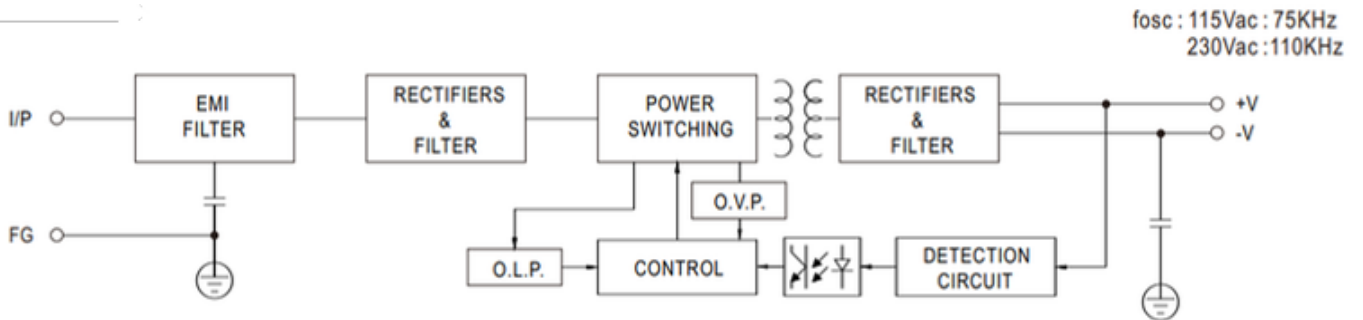
Protection:

Overload:	110% ~ 150% rated output power, hiccup mode, auto recovery
Over Voltage:	13.8 ~ 17.2V, shutdown, re-power on to recover
Short Circuit:	Hiccup mode, auto recovery

Environment:

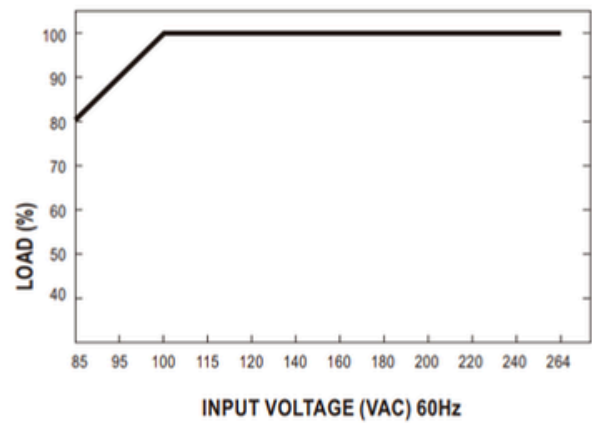
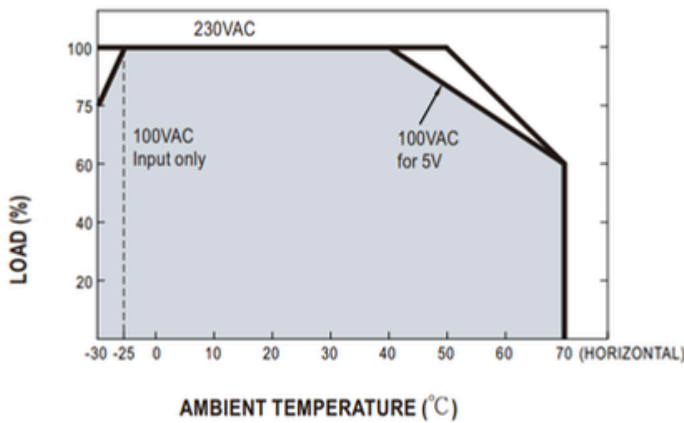
Operating Temperature:	-30 ~ +70°C
Working Humidity:	20 ~ 90% RH non-condensing
Storage Temperature:	-40 ~ +85°C
Storage Humidity:	10 ~ 95% RH
Temp. Coefficient:	±0.03%/°C (0 ~ 50°C)
Vibration:	10 ~ 500Hz, 5G

Block Diagram:



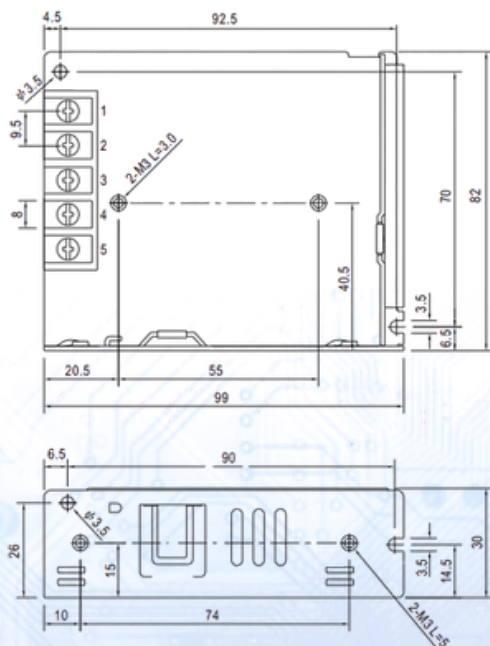
Derating Curve:

Static Characteristics:



Mechanical Specification:

Unit: mm | Tolerance: ±1mm



Terminal Pin No. Assignment			
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V
2	AC/N	5	DC OUTPUT +V
3	FG		