

Features

- Universal Input 90~264VAC / 127~370 VDC 50/60Hz
- DC Output Adjustable
- Output Voltages: 12-48V DC
- Meets the latest Safety Standards and Approvals
- UL508, BS/EN62368-1
- High Efficiency
- Protection: Overload/Over voltage/Short circuit



Ideal Power's 56YSDN150-xy-RS 120W DIN Rail Mount AC/DC Power Supply Converter Series are certified to UKCA, CE, cULus & UL 508/EN 62368-1/BS EN 62368-1 Standards and comply with (EU) 2019/1782, Level VI Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Model Number	Output Voltage (V dc)	Output Current (A)	Output Power (W)	Efficiency (%)	Ripple & Noise (mVp-p)
56YSDN150-12010000-RS	12	10	120	85.5	100
56YSDN150-24005000-RS	24	5	120	88	120
56YSDN150-48002500-RS	48	2.5	120	89	150

General Specification

Type	DIN Rail Power Supply
Number of Outputs	1
Mounting Style	Din Rail Mount
Connection Type	Screw Terminal Type
Overload Protection	>105%-130% rated output power: Constant current limiting, recovers automatically after fault condition is re-moved
Over Current Protection	110% - 180%
Over Voltage Protection	14 ~17V - 56YSDN150-12010000 29 ~ 33V - 56YSDN150-24005000 56 ~ 65V - 56YSDN150-48002500 Protection type : Shut down o/p voltage, re-power on to recover

Input Specifications

Input Electrical Phase	Single
Line Frequency	50~60Hz
Inrush Current	47.8A/115VAC / 92.5A/230VAC
AC Current	2.25A/115VAC / 1.3A/230VAC
Leakage Current	<0.25mA/240VAC

Output Specifications

Output Voltage Tolerance	± 2.0%
Line Regulation	± 0.5%
Load Regulation	± 1.0%
Setup, Rise Time	1200ms, 60ms/230VAC at full load 2500ms, 60ms/115VAC at full load
Hold Up time	16ms/230VAC at full load 10ms/115VAC at full load

Operational Environment

Operating Humidity	20% ~ 95% RH non-condensing
Operating Temperature Range	-20°C to 70°C, Refer to Derating Curve
Storage Temperature Range	-40°C to 85°C
Storage Humidity	10% ~ 95% RH
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500V DC / 25oC / 70% RH
MTBF	200000 h

Approvals

Safety Regulations	UL508/EN62368-1/BS62368-1
Withstand Voltage	1/P-O/P:3KVAC 1/P-FG:2KVAC O/P-FG:0.5KVAC
EMC Emissions	Compliance to BS EN/EN55032, BS EN/EN61000-3-2,-3
EMC Immunity	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, BS EN/EN61000-6-2 UBS EN/EN50082-2)

Note:

- 1.All parameters NOT specially mentioned at 230VAC input, rated load and 25°C of ambient temperature.
- 2.Ripple&noise are measured from peak to peak with band width limit of 20MHzU0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25°C ambient temperature).
- 3.Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. 1increase the space to 10-15mm when the adjacent device is heat source.
- 4.Derating may be needed under low input voltage. Please check the derating curve for more details.
- 5.Efficiency test after 30 minutes of burn-in.
- 6.The ambient temperature derating of 3.5 °C/1000m for operating altitude higher than 2000mU6500ft).

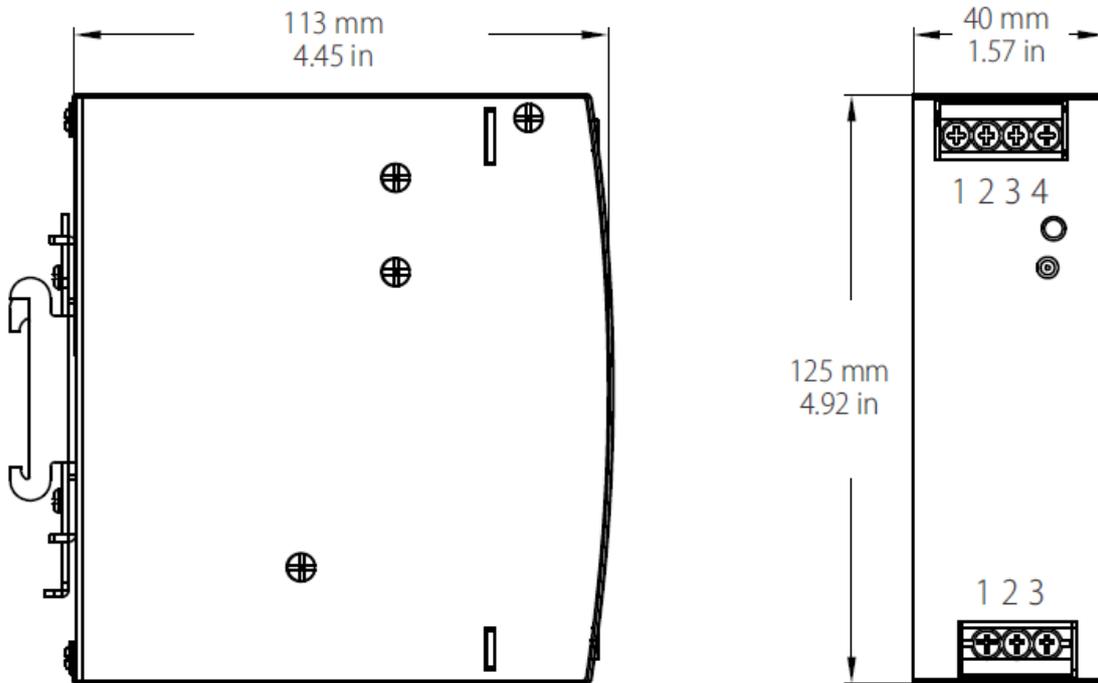
Mechanical Specifications

Housing Material	Fully Enclosed Plastic Case
Overall Dimensions	40 x 125 x 113 mm (LxWxH)
Overall Length	40mm / 1.57in
Overall Width	125mm / 4.92in
Overall Height	113mm / 4.45in
Weight	0.6kg

Packaging

Carton Size	31.5 x 30 x 30cm / 12.4 x 11.8 x 11.81in
Master Carton Quantities	40pcs / Carton

Mechanical Drawing



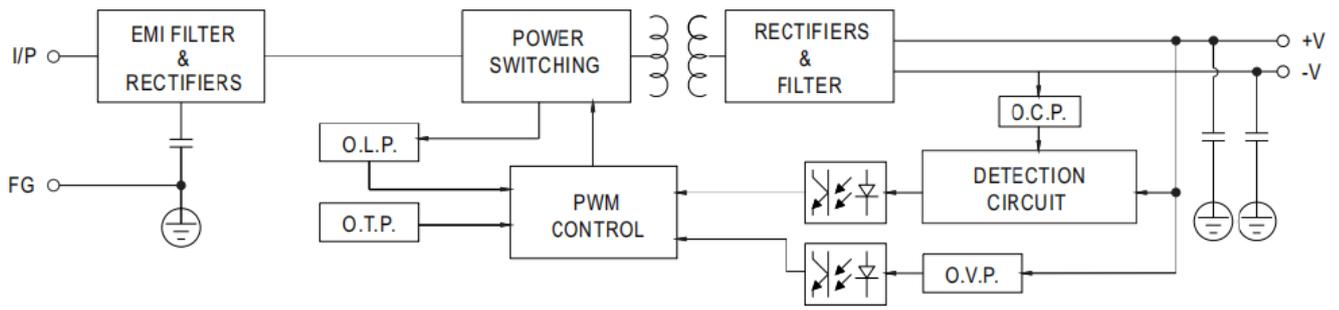
Input

No.	Description
1	FG Ⓢ
2	AC/N
3	AC/L

Output

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

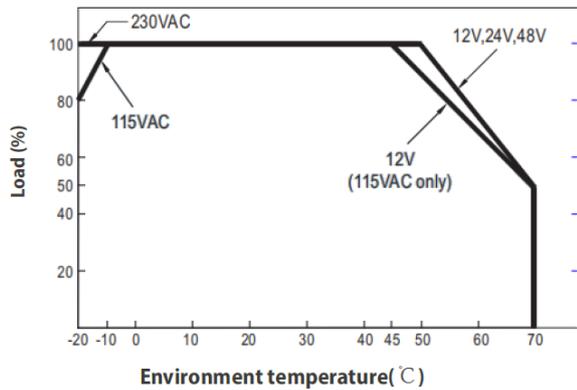
Functional Diagram



Curves

Deduction Curve and Temperature

Curves



Minus Output and Input Voltage

