

Features

- Input Voltage 90~264V AC or 127~370V DC
- Cooling by free air convection
- Efficiency up to 89%
- Protection: OLP, OVP, SCP
- 3 Years Warranty



56YEL50-xy AC-DC PSU Series

50W Enclosed AC/DC Power Supply (PSU)



Ideal Power's 56YEL50-xy 50W Enclosed AC/DC Power Supply (PSU) Series complies with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Model	Voltage (V) DC	Rated Current	Rated Power	% Efficiency	Voltage range	Ripple and Noise mVp-
56YEL50-05	5	7	50	83	4.5~5.5	80
56YEL50-12	12	3	50.4	86	10.2~13.8	120
56YEL50-15	15	2.4	51	86	13.5~18	120
56YEL50-24	24	1.5	52.8	88	21.6~28.8	150
56YEL50-36	36	1	52.2	88	32.4~39.6	200
56YEL50-48	48	0.8	52.8	89	43.2~52.8	200

Input Specifications	
Input Voltage	90-264VAC/127-370VDC
Frequency Range	47-63Hz
AC Current	0.95A/115V – 0.56A/230V
Inrush Current	Cold Start 45A at 230V AC
Leakage Current	< 0.75mA/240V AC
Connection	I/P: 3 poles terminal Block

Output Specifications	
Voltage Tolerance	±2.0% 5v
	±1.0% Others
Line Regulation	±0.5%
Load Regulation	±1.0% 5v
	±0.5% Others
Set up	1000ms, 30ms/230VAC at full load
Rise Time	2000ms, 30ms/115VAC at full load
Hold up Time	30ms/230VAC at full load - 12ms/115VAC at full load
Connection	O/P: 2 poles terminal Block

Protection	
Over Load	110%-150% Rated Output Power
	Protection type: Hiccup mode, recovers automatically after fault condition is removed.
Over Voltage	5.75~ 6.75V 5v
	13.8 ~ 16.2V 12v
	18.75~21.75V 15v
	28.8~33.6V 24v
	41.4~48.6V 36v
	55.2~64.8V 48v
	Protection type: Shut down o/p voltage, re-power on to recover.

Environmental Characteristics	
Working Temp	-30~+70°C (Refer to "Derating Curve")
Working Humidity	20~90% RH non-condensing
Storage Temp., Humidity	-40~+85°C, 10~95% RH non-condensing
Temp. Coefficient	±0.03%/°C (0~50°C)
Vibration	10 ~ 500Hz, 5G 10min. /1cycle, period for 60min. each along X, Y,Z axes
Over Voltage Category	III; According to BS EN/EN61558, BS EN/EN50178, BS EN/EN60664 BS EN/EN62477-1; altitude up to 2000 meters
MTBF	3201.5K hrs min. Telcordia SR-332 (Bellcore) 35W models
	3149.8K hrs min. Telcordia SR-332 (Bellcore) 50W models

Safety & EMC

Safety Standards

Withstand Voltage	I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.25KVAC
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/ 500VDC/25 °C/70% RH
EMC Emission	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3,
EMC Immunity	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035

Notes:

1. All parameters NOT specially mentioned are measured 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 20MHz (0.1uf and 47uf /50V parallel capacitor under DC output full load, AC nominal input 25 °C ambient temperature).
3. Derating may be needed under low input voltages. Please check the derating curve for more details.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."
5. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m(6500ft).

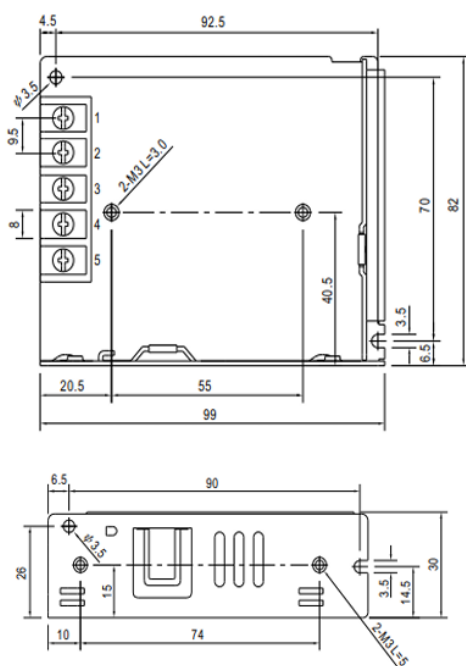
Dimensions & Weight

Size	99x82x30mm / 3.89x3.22x1.18in
Weight	230g

Packaging

Carton Size	36x32.5x18.5cm / 14.17x12.80x7.28in
Master Carton Quantities	60pcs/Carton

Dimensions and Recommended Layout



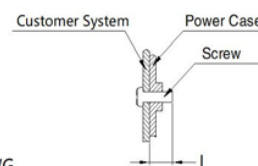
Input

No.	Description
1	AC/L
2	AC/N
3	FG \perp

Output

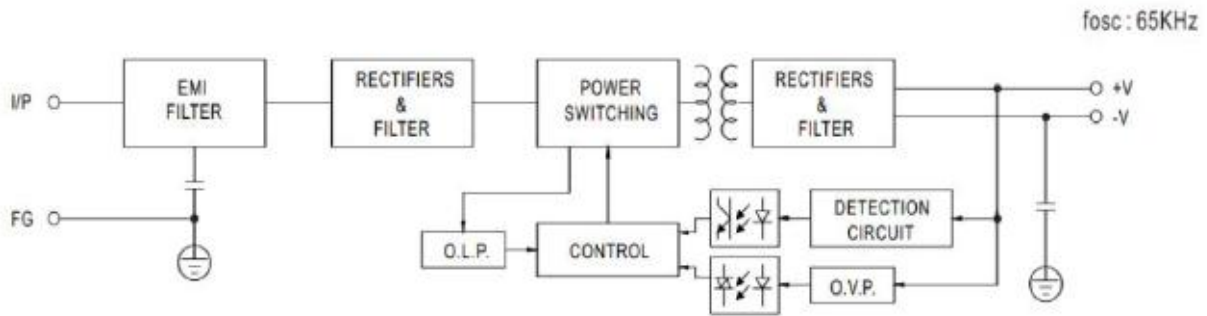
No.	Description
4	DC OUTPUT -V
5	DC OUTPUT +V

Screw Spec.	L(max)	Torque(max)
M3	5mm	0.4N-m
M3	3mm	0.4N-m



Note:
Unit: mm[inch]
Wire range: 22-12AWG
Connector tightening torque: M3.5, 0.8N-m
General tolerances: $\pm 1.00[\pm 0.039]$

Block Diagram



Derating Curve

