

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-x AC-DC PSU Series

50W Enclosed AC/DC Power Supply (PSU)



The 56YEL50-x Series is a high-performance 50W Enclosed AC/DC Power Supply. Designed for use in applications such as digital signage, displays and user interfaces. This series is supplied with a Screw Terminal Block input connection and supports input voltages of 90~264V AC 47~63Hz.

Models

Model	Voltage (V) DC	Rated Current	Rated Power	% Efficiency	Voltage range	Ripple and Noise mVp-
56YEL50-05	5	10	50	83	4.5~5.5	80
56YEL50-12	12	4.2	50.4	83.5	11.0~13.8	120
56YEL50-15	15	3.4	51	84	13.5~18	120
56YEL50-24	24	2.2	52.8	86.5	21.6~28.8	150
56YEL50-36	36	1.45	52.2	88	32.4~39.6	200
56YEL50-48	48	1.1	52.8	89	43.2~52.8	200

Input Specifications			
Input Voltage	90-264VAC/127 -370VDC		
Frequency Range	47-63Hz		
AC Current	1.2A/115VAC	0.65A/230VAC	
Inrush Current	Cold Start 60A/500us at 230VAC 50Hz		Cold Start 30A/500us at 115VAC 50Hz
Leakage Current	<1.5mA/240VAC		

Output Specifications			
Voltage Tolerance	±2.0%	5v	
	±1.0%	Others	
Line Regulation	±0.5%		
Load Regulation	±2.0%	5v	
	±1.0%	Others	
Set up Rise Time Hold up	1.0s,30ms,30ms/230VAC(at full load)		2.0s,30ms,12ms/115VAC(at full load)

Protection	
Over Load	110%-160% Rated Output Power Hiccup mode, recovers automatically after fault condition is removed.
Over Voltage	115~140%Rated Output Voltage Shut down o/p voltage, re-power on to recover.
Short Circuit	Hiccup mode, recovers automatically after fault condition is removed

Environmental Characteristics	
Working Temp	-30~+70°C (Refer to "Derating Curve")
Working Humidity	20~95% RH non-condensing
Storage Temp., Humidity	-40~+85°C, 10~95% RH non-condensing
Temp. Coefficient	±0.03%/°C (0~50°C)
Vibration	Component: 10 ~ 500Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes
Over Voltage Category	OVC II / According to BS EN/EN61558, BS EN/EN50178,BS EN/EN60664-1,BS EN/EN62477-1;altitude up to 2000 meters
MTBF	312.4Khrs min. MIL-HDBK-217F(25°C)
Safety Protection	Class I

Safety & EMC	
Safety Standards	UL62368-1, EN62368-1
Withstand Voltage	I/P-O/P:3KVAC/1min I/P-FG:2KVAC/1min O/P-FG:0.5KVAC/1min
Isolation Resistance	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH
EMC Emission	Compliance to BS EN/EN55032 (CISPR32) Class B,BS EN/EN55035 BS EN/EN61000-3-2, BS EN/EN61000-3-3
EMC Immunity	Compliance to BS EN/EN61000-4-11 Criteria B, BS EN/EN61000-4-2,3,4,5,6,8 Criteria A

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

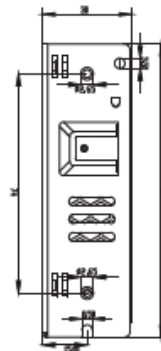
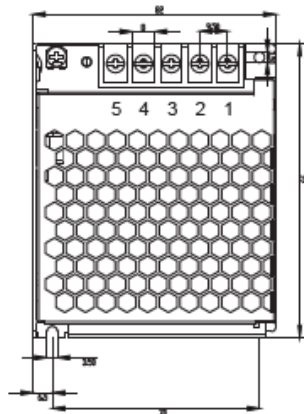
Size	99 x 82 x 30 mm
Weight	207g/pcs

Packaging

Carton Size	38 x 34.5 x 20.5 cm
Master Carton Quantities	60pcs/Carton

Dimensions and Recommended Layout

Drawing & Label

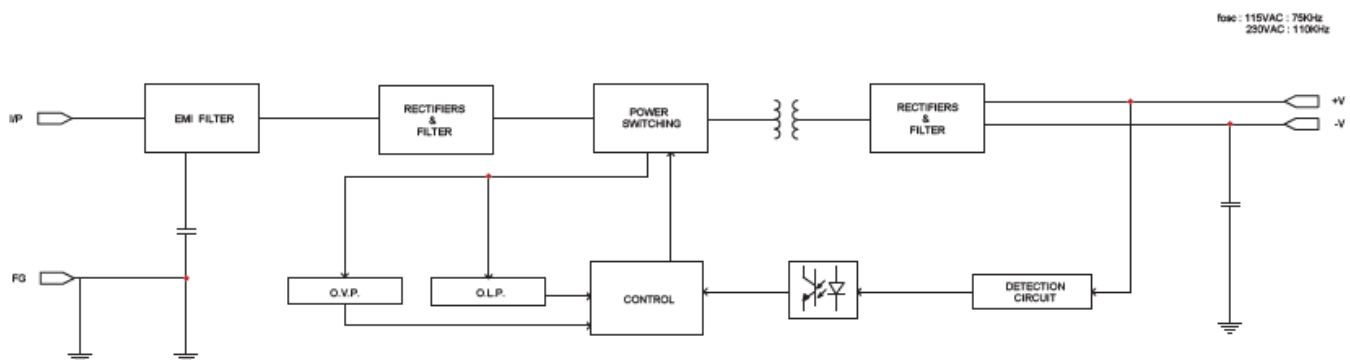
(Unit: mm , tolerance: ± 1 mm)


Terminal Pin No. Assignment

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

Block Diagram

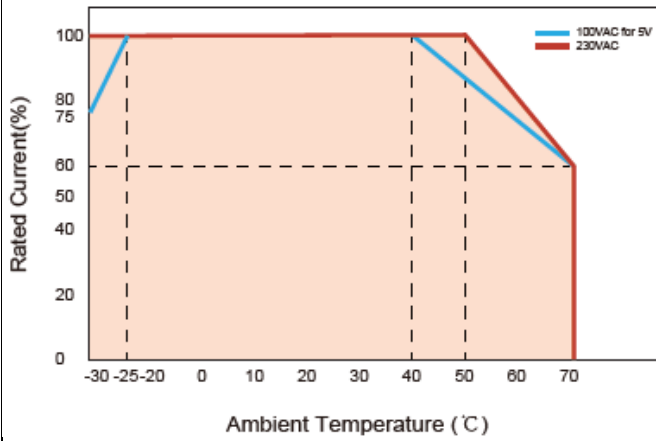
Block Diagram



Derating Curve

Engineering Data

Derating Curve



Static Characteristics

