

Features

- Input Voltage 85~305V AC
- Cooling by free air convection
- Efficiency up to 88%
- Protection: OLP, OVP, SCP
- 3 Years Warranty



56YEP75-xx-RS AC-DC PSU Series

75W Enclosed AC/DC Power Supply (PSU)



The 56YEP75-xx-RS Series is a durable and consistent 75W Enclosed AC/DC Power Supply. Designed for use in applications such as computing platforms and communications equipment. This series is supplied with a Screw Terminal Block input connection and supports input voltages of 85~305V AC 47~63Hz.

Models

Model	Voltage (V) DC	Rated Current	Rated Power	% Efficiency	Voltage range	Ripple and Noise mVp-
56YEP75-05-RS	5	15	75	82	4.75~5.5	80
56YEP75-12-RS	12	6.3	75.6	85	11.4~13.2	120
56YEP75-15-RS	15	5	75	85.5	14.3~16.5	120
56YEP75-24-RS	24	3.2	76.8	85	22.8~26.4	120
56YEP75-48-RS	48	1.6	75.8	87	45.6~52.8	200

Input Specifications			
Input Voltage	85-305VAC		
Frequency Range	47-63Hz		
AC Current	1.0A/115VAC	0.5A/230VAC	
Inrush Current	Cold Start 35A/600us at 230VAC 50Hz		Cold Start 20A/600us at 115VAC 50Hz
Leakage Current	<2mA/240VAC		

Output Specifications			
Voltage Tolerance	+2.0% 5v	+1.0%	Others
Line Regulation	±0.5%		
Load Regulation	+1.0% 5v	+0.5%	Others
Set up Rise Time Hold up	0.6s,30ms,16ms/230VAC(at full load)		0.6s,30ms,16ms/115VAC(at full load)

Protection	
Over Load	105~135%Rated Output Power Constant current limiting, recovers automatically after fault condition is removed.
Over Voltage	115~135%Rated Output Voltage Shut down o/p voltage, re-power on to recover
Short Circuit	Hiccup mode, recovers automatically after fault condition is removed.
Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down

Environmental Characteristics	
Working Temp	-25 ~ +70 °C(Please refer to "Derating Curve"section)
Working Humidity	20 ~ 90% RH Non-condensing
Storage Temp., Humidity	-40~+85°C, 10~95% RH non-condensing
Temp. Coefficient	±0.05%/ (0 ~ 50 °C) on load output
Vibration	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
Over Voltage Category	OVC II / According to EN62368-1:altitude up to 2000 meters
MTBF	296.1Khrs min. MIL-HDBK-217F(25°C)
Safety Protection	Class I
Function	Remote control: CN1:<0~0.8VDC POWER ON , 4~10VDC POWER OFF

Safety & EMC	
Safety Standards	BS/EN62368-1, IEC 62368-1
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/EN61000-3-2 Class A-D,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:

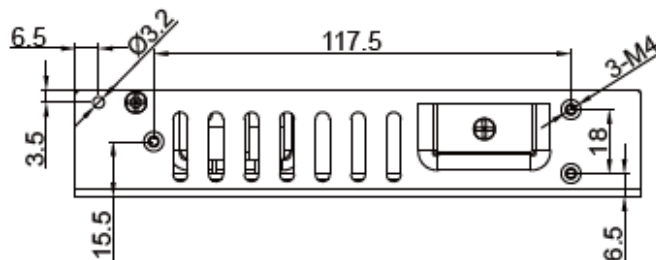
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured from peak to peak with band width limit of 20MHz (0.1uf and 47uf /50V parallel capacitor under DC output full load, AC nominal input 25 °C ambient temperature).
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	159 x 97 x 30 mm
Weight	440g/pcs

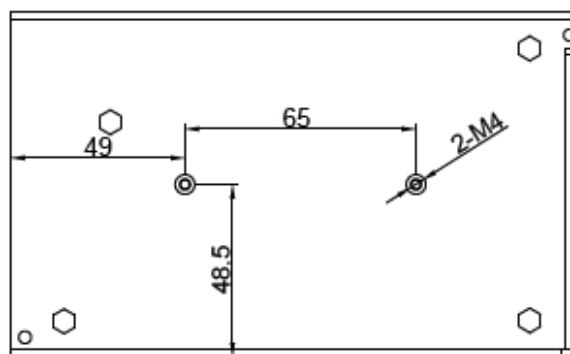
Packaging	
Carton Size	36 x 31.5 x 17.5 cm
Master Carton Quantities	30pcs/carton

Technical drawing of the front view of a rectangular panel. The overall dimensions are 159 (width) and 97 (height). The panel features a grid of circular holes. On the left side, there is a vertical strip with five circular holes, numbered 1 to 5 from bottom to top. Above this strip is a rectangular cutout labeled 'R.C.' and 'CN1'. The distance from the top edge to the center of the first hole in the strip is 5.5. The distance between the centers of the holes in the strip is 8. The distance from the bottom edge to the center of the first hole is 9.5. The distance from the right edge of the strip to the start of the main grid of holes is 4. The main grid of holes is 159 wide and 97 high. The distance from the right edge of the panel to the right edge of the main grid of holes is 6.5. A dimension of 3.3 is shown at the bottom right corner. A hole with a diameter of $\varnothing 3.5$ is indicated at the top left corner.

Input	
No.	Description
1	AC/L
2	AC/N
3	PE



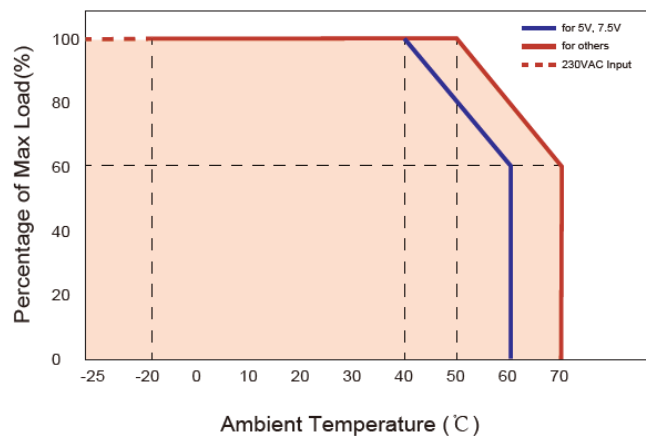
Remote ON/OFF (CN1)	
No.	Description
1	RC+
2	RC-



The block diagram illustrates the proposed power converter system. It starts with an input (I/P) and a ground (FG) connection. The I/P signal passes through an EMI Filter & Rectifiers block, which is connected to a PFC Circuit. The FG signal is connected to an Active Start Circuit. The PFC Circuit is connected to a Power Switching block, which is connected to a Transformer. The Transformer is connected to a Rectifiers & Filter block. The output of the Rectifiers & Filter block is connected to a Constant Current Limiting & Detection Circuit, which is connected to the output (+V, -V). The Active Start Circuit is connected to a PWM & PFC Control block. The PWM & PFC Control block is connected to the Power Switching block and the Constant Current Limiting & Detection Circuit. The Constant Current Limiting & Detection Circuit is connected to an O.V.P. (Over Voltage Protection) block, which is connected to a Remote Control block. The Remote Control block is connected to the output (+V, -V) and a CN1 (Control Network 1) input.

Derating Curve

Derating Curve



Static Characteristics

