

Features

- Input Voltage 90~305V AC
- Built in Active PFC Function
- Forced air cooling by build-in DC fan
- Approved to UKCA, CE, CB & cURus
- Efficiency up to 90%
- Safety Approved to UL/IEC 62368-1 BS EN/EN 62368-1
- Protection: OLP, OVP, OTP SCP
- Three Years Warranty



Ideal Power's 56YEP320-xy 320W Enclosed AC/DC Power Supply (PSU) Series are certified to UKCA, CE, CB, cURus & IEC 62368-1/UL 62368-1/BS EN62368-1/EN 62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Part number	DC Voltage	Rated Current (max.)	Rated Power	Average Efficiency	Ripple & Noise	Max Capacitive Load	Voltage ADJ Range
56YEP320-5	5V	60A	300W	83%	150mVp-p	4000uF	4.5~5.5V
56YEP320-7.5	7.5V	40A	300W	85%	150mVp-p	3600uF	6.75~8.25V
56YEP320-12	12V	26.7A	320.4W	88%	150mVp-p	3300uF	10~13.2V
56YEP320-13.5	13.5V	23.8A	321.3W	88%	150mVp-p	2500uF	12.15~14.85V
56YEP320-15	15V	21.4A	321W	88.5%	150mVp-p	1500uF	13.5~18V
56YEP320-24	24V	13.4A	321.6W	89%	150mVp-p	1000uF	20~26.4V
56YEP320-27	27V	11.9A	321.3W	89%	150mVp-p	900uF	26.1~29.7V
56YEP320-36	36V	8.9A	320.4W	89.5%	180mVp-p	700uF	32.4~39.6V
56YEP320-48	48V	6.7A	321.6W	90%	240mVp-p	470uF	43.2~52.8V
56YEP320-60	60V	5.34A	320.4W	90.5%	300mVp-p	230uF	54~66V

Input Specifications

Rated Voltage Range	100-277VAC/127-430VDC	
AC Voltage Range	90-305VAC/127-430VDC	
Frequency Range	50/60Hz	
AC Current	4A/115VAC	2A/230VAC
Inrush Current	Cold Start 40A/200us at 230VAC 50Hz Cold Start 20A/200us at 115VAC 50Hz	
Leakage Current	<1mA/240VAC	
Power Factor(Typ.)	>0.95/230VAC at full load >0.98/115VAC at full load	

Output Specifications

Setup, Rise, Hold up	1.5s,50ms,8ms/230VAC(at full load)	3.0s,50ms,8ms/115VAC(at full load)
Voltage Tolerance	$\pm 2.0\%$	
Line Regulation	$\pm 0.5\%$	
Load Regulation	$\pm 1.0\%$ 5/7.5/12/13.5/15 v	$\pm 0.5\%$ 24/27/36/48/60 v

Protection

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

Environmental Characteristics

Working TEMP.	-30 ~ +70°C(Please refer to "Derating Curve" section)
Working Humidity	20 ~ 95%RH Non-condensing
Storage TEMP.	-40 ~ +85°C, 10 ~ 95%RH Non-condensing
TEMP. Coefficient	$\pm 0.03\%$ /(0 ~ 50°C) on load output
Vibration	Component: 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes
Safety Protection	Class I
Over Voltage Category	OVC III / According to EN62368-1;altitude up to 2000 meters

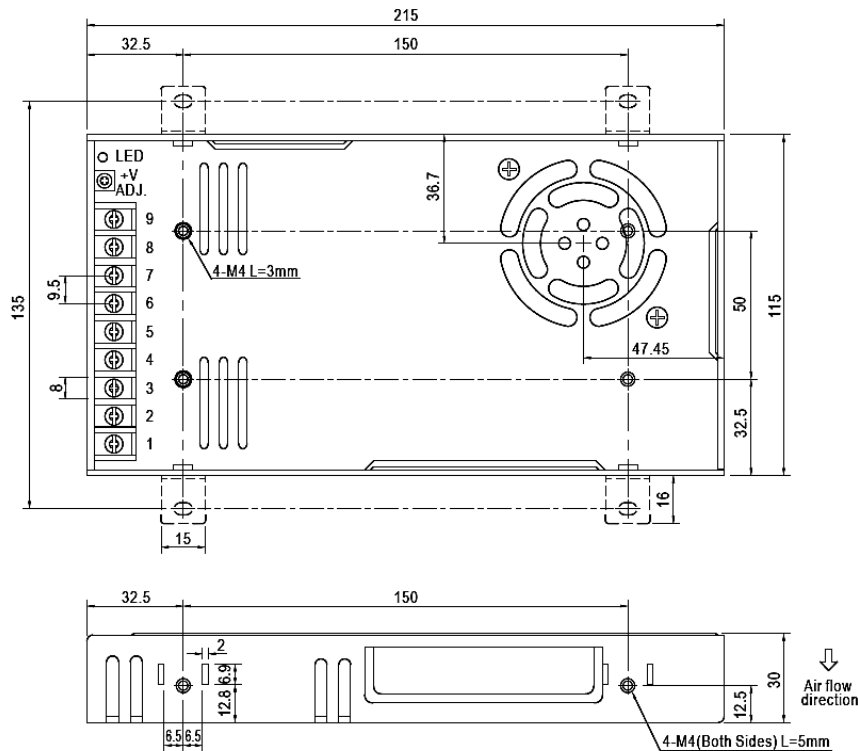
Safety & EMC

Safety Standards	BS EN/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/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

Other

Packing	1kg/pcs; 38 x 19.5 x 26 cm; 15pcs/carton
Dimension (LxWxH)	215 x 115 x 30 mm
MTBF	188.4Khrs min. MIL-HDBK-217F(25°C)
Housing material	Aluminium / steel
Connection Method	Input & Output , Screw connection
Terminal	Input 3 pins / Output 6 pins
Wire	Input 22-12AWG / 0.3246-2.05mm ² Output 22-12AWG / 0.3246-2.05mm ²
Stripping length	Input 5-6mm, output 3-4mm
Tightening torque	Input 1.19Nm, output 1.19Nm

Diagram

 (Unit: mm , tolerance: $\pm 1\text{mm}$)


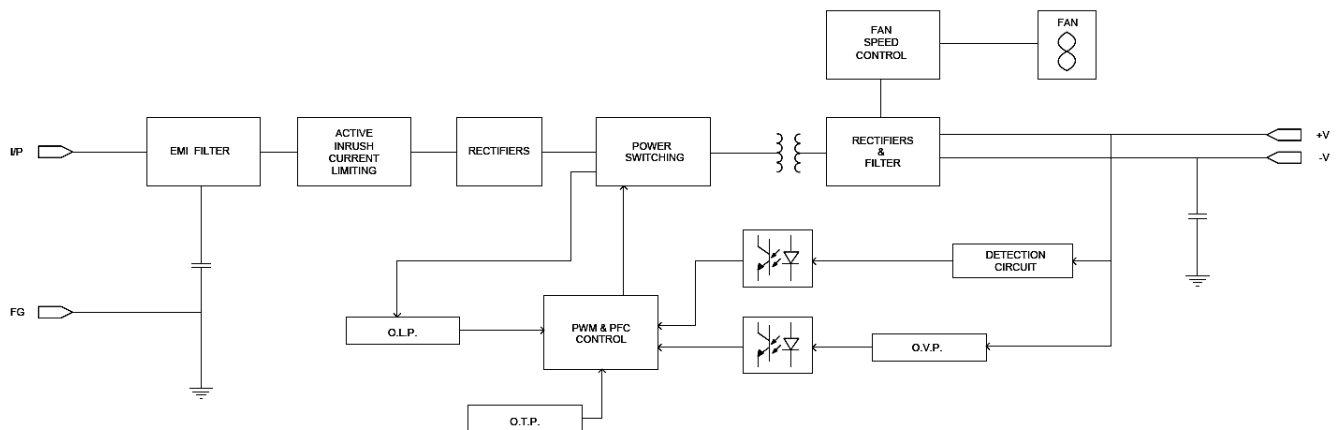
Output

No.	Description
4,5,6	DC OUTPUT -V
7,8,9	DC OUTPUT +V

Input

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

Block Diagram

 PFCfosc: 100KHz
 PWMfosc: 100KHz


Derating Curve

