

Features

- Input Voltage 90~305V AC
- Built in Active PFC Function
- Approved to UKCA, CE
- Safety Approved to IEC 62368-1 BS EN/EN 62368-1
- Efficiency up to 90.5%
- Protection: OLP, OVP, OTP SCP
- 3 Years Warranty



Ideal Power's 56YEP500-xy 500W Enclosed AC/DC Power Supply (PSU) Series is certified to UKCA, CE & IEC 62368-1/BS EN62368-1/EN 62368-1 Standards and complies with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

Model Number	DC Voltage (V)	Rated Current (A)	Rated Power (W)	Efficiency (%)	Voltage Adj. Range (V)	Ripple & Noise (mVp-p)
56YEP500-05	5	90	450	84	4.5~5.5	150
56YEP500-12	12	41.66	499.9	88	10~13.2	150
56YEP500-15	15	33.33	500	88	13.5~18	150
56YEP500-24	24	20.83	499.9	89	20~26.4	150
56YEP500-27	27	18.6	502.2	88	22.4~32.4	150
56YEP500-36	36	13.9	500.4	88	29.9~43.2	150
56YEP500-48	48	10.41	499.7	90.5	41~56	150
56YEP500-60	60	8.34	500.4	88	50~72	150

Input Specifications

Input Voltage	90-305VAC/127-430VDC
Frequency Range	47-63Hz
Power Factor	PF>0.95/230V AC at full load - PF>0.98/115V AC at full load
AC Current	5.3A/115V AC – 2.65A/230V
Inrush Current	20A/115VAC, 40A/230VAC
Leakage Current	< 2mA/240V AC
Connection	I/P: 3 poles terminal Block

Output Specifications

Voltage Tolerance	±2.0%	All
Line Regulation	±0.5%	5V
	±0.3%	12V
	±0.3%	15V
	±0.2%	24V
	±0.2%	48V
Load Regulation	±1.0%	5v
	±0.5%	Others
Set up	1500ms, 80ms/230VAC at full load	
Rise Time	3000ms, 80ms/115VAC at full load	
Hold up Time	18ms/230VAC at full load - 14ms/115VAC at full load	
Connection	O/P: 8 poles terminal Block	

Protection

Over Load	105%-130% Rated Output Power	
	Protection type: Constant current limiting recovers automatically after fault condition is removed.	
Over Voltage	5.75 ~ 6.75V	5v
	13.8 ~ 16.2V	12v
	18.8 ~ 21.8V	15v
	27.6 ~ 32.4V	24v
	31~36.5V	27v
	41~48.5V	36v
	58.4 ~ 68V	48v
	69~81V	60v
Protection type: 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 (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, 2G 10min. /1cycle, period for 60min. each along X, Y,Z axes
MTBF	1372.4K hrs min. Telcordia SR-332 (Bellcore)

Function

Remote Control	Power on: open or 0~0.8V DC between RC+ (Pin 4) & RC- (Pin 3) on CN100
	Power off: 4~0.8V DC between RC+ (Pin 4) & RC- (Pin 3) on CN100
Remote Sense	Compensate voltage drop on the load wiring up to 0.3v
Fan Control (Typ)	RTH ≥ 50°C ± 10 °C Fan on: RTH2 ≥ 40°C ± 10 °C Fan off (Fan always on for 3.3~5v, Fan ON/OFF control for 12v~48v)

Safety & EMC

Safety Standards	TUV BS EN/EN62368-1 approved
Withstand Voltage	I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC
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 (C1SPR32) 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 3.5°C /100m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).

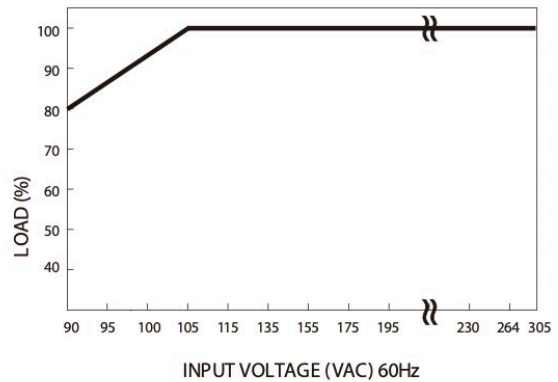
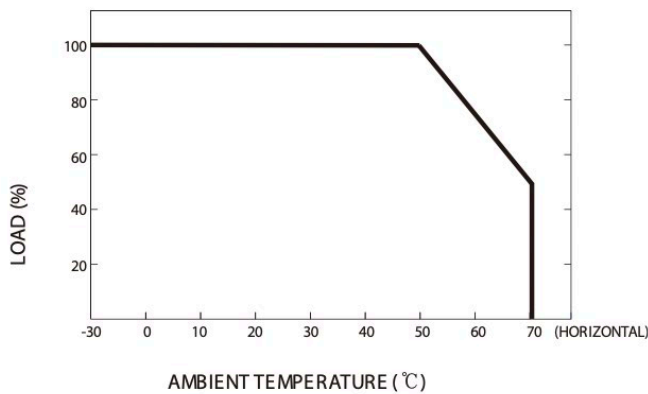
Dimensions & Weight

Size	230x127x40.5mm / 9.06x5x1.59in
Weight	1.3kg

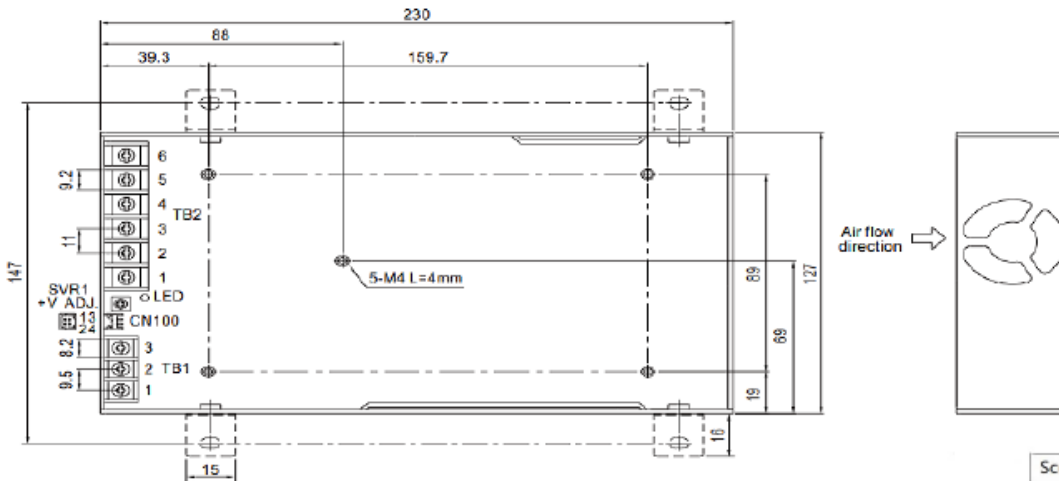
Packaging

Carton Size	54x30x24cm / 21.26x11.81x9.45in
Master Carton Quantities	9pcs/Carton

Derating Curve



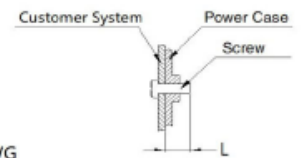
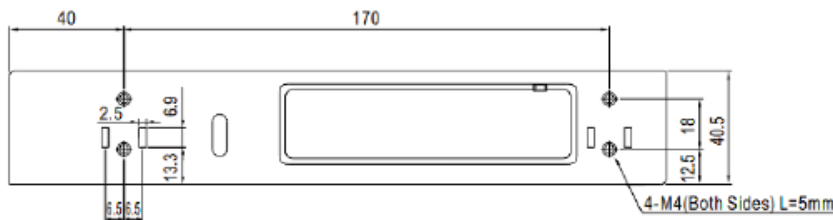
Dimensions and Recommended Layout



Air flow direction →



Screw Spec.	L(max)	Torque(max)
M3	4mm	0.4N-m



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

Input

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

Output

No.	Description
1~3	-V
4~6	+V

CN100

No.	Description	Mating Housing	Terminal
1	-S	HRS DF11-4DS or equivalent	HRS DF11-**SC or equivalent
2	+S		
3	RC-		
4	RC+		

Block Diagram

