

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



Ideal Power's 56YEL50-xy 35W & 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.

35W Models

| Model Number | DC Voltage (V) | Rated Current (A) | Rated Power (W) | Efficiency (%) | Voltage Adj. Range (V) | Ripple & Noise (mVp-p) |
|--------------|----------------|-------------------|-----------------|----------------|------------------------|------------------------|
| 56YEL35-5 | 5 | 7 | 35 | 83 | 4.5~5.5 | 80 |
| 56YEL35-12 | 12 | 3 | 36 | 86 | 10.2~13.8 | 120 |
| 56YEL35-15 | 15 | 2.4 | 36 | 88 | 13.5~18 | 120 |
| 56YEL35-24 | 24 | 1.5 | 36 | 88 | 21.6~28.8 | 150 |
| 56YEL35-36 | 36 | 1 | 36 | 89 | 32.4~39.6 | 200 |
| 56YEL35-48 | 48 | 0.8 | 38.4 | 90 | 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 | 600K hrs min. MIL-HDBK-217F (25°C) |

Safety & EMC

| | |
|----------------------|--|
| Safety Standards | BS EN/EN62368-1, BS EN/EN60335-1, BS EN/EN61558-1 |
| 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:

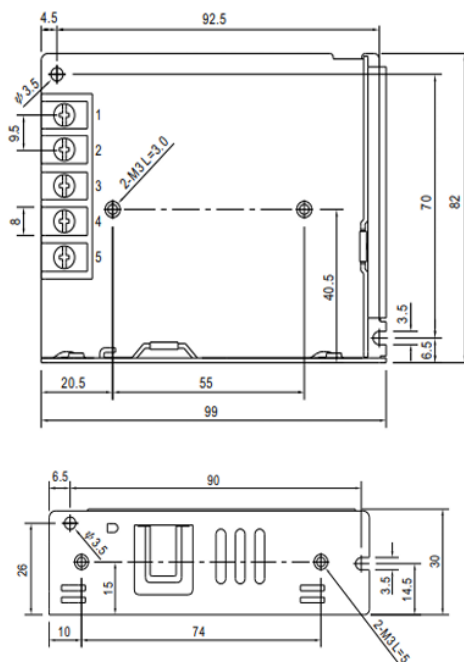
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured from peak to peak with band width limit of 20MHz (0.1uf and 47uf /50V parallel capacitor under DC output full load, AC nominal input 25 °C ambient temperature).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

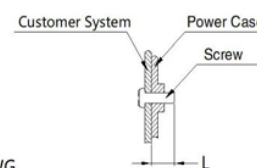
Dimensions and Recommended Layout

Input

| No. | Description |
|-----|-------------|
| 1 | AC/L |
| 2 | AC/N |
| 3 | FG \oplus |

Output

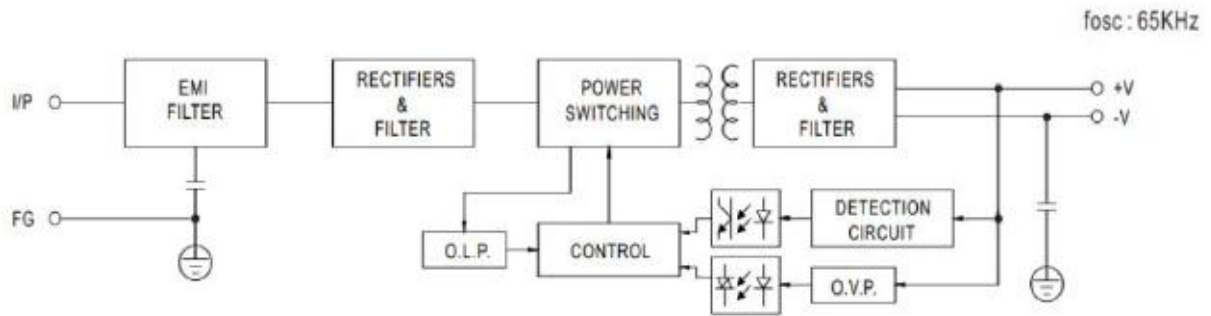
| No. | Description |
|-----|--------------|
| 4 | DC OUTPUT -V |
| 5 | DC OUTPUT +V |

| 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

