

Features

- Voltage Input Range 85~277V AC
- No-load power consumption < 0.1 W
- Operating Temperature Range: -30°C~+70°C
- Efficiency up to 91%
- Safety Standards to IEC/UL 62368-1
- Output SCP, OLP, OVP
- Three Years Warranty



Ideal Power's 56YSM60T-xy 60W Enclosed AC/DC Power Supply (PSU) Series are certified to UKCA, CE, CB, cULus & BS EN62368-1, UL62368-1 Standards and comply with the relevant Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

45W Models

| Model Number | DC Voltage (V) | Rated Current (A) | Rated Power (W) | Efficiency (%) | Ripple & Noise (mVp-p) |
|-------------------|----------------|-------------------|-----------------|----------------|------------------------|
| 56YSM60T-05008000 | 5 | 8 | 40 | 83.5 | 80 |
| 56YSM60T-12003800 | 12 | 3.8 | 45.6 | 87.5 | 150 |
| 56YSM60T-15003000 | 15 | 3 | 45 | 88.5 | 180 |
| 56YSM60T-24001900 | 24 | 1.9 | 45.6 | 89.5 | 200 |
| 56YSM60T-48000940 | 48 | 0.94 | 45.12 | 90.5 | 300 |

60W Models

| Model Number | DC Voltage (V) | Rated Current (A) | Rated Power (W) | Efficiency (%) | Ripple & Noise (mVp-p) |
|-------------------|----------------|-------------------|-----------------|----------------|------------------------|
| 56YSM60T-05010000 | 5 | 10 | 50 | 83 | 80 |
| 56YSM60T-12005000 | 12 | 5 | 60 | 87.5 | 120 |
| 56YSM60T-15004000 | 15 | 4 | 60 | 89 | 150 |
| 56YSM60T-24002500 | 24 | 2.5 | 60 | 90 | 200 |
| 56YSM60T-48001250 | 48 | 1.25 | 60 | 91 | 240 |

Input Specifications

| | | |
|-----------------|----------------------------------|--------------------------------------|
| Input Voltage | 85-277VAC 50/60Hz | |
| AC Current | 45W range | 1.5A/115VAC 0.9A/230VAC 0.75A/277VAC |
| | 60W range | 1.8A/115VAC 1.0A/230VAC 0.9A/277VAC |
| Inrush Current | COLD START 20A/115VAC 40A/230VAC | |
| Leakage Current | < 0.25mA/277VAC | |

Output Specifications

| | |
|-------------------|--|
| Voltage Tolerance | ±2.0% |
| Line Regulation | ±0.5% |
| Load Regulation | 12V ±1%, Others ±0.5% |
| Set up, Rise Time | 1000ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load |
| Hold up Time | 50ms/230VAC 12ms/115VAC at full load |

Protection

| | |
|-------------------------|--|
| Over Load Protection | 115% ~ 160% rated output power, Protection type: Hiccup Mode recovers automatically after fault condition is removed |
| Over Voltage Protection | 115% ~ 135%, Protection Type: Clamp by Zener Diode |

Environmental Characteristics

| | |
|-------------------------|---|
| Working Temp | -30~+70°C (Refer to "Derating Curve") |
| Working Humidity | 20~90% RH non-condensing |
| Storage Temp., Humidity | -30~+85°C, 10~95% RH non-condensing |
| Temp. Coefficient | ±0.03%/°C (0~60°C) |
| Vibration | 10 ~ 500Hz, 5G 10min. /1cycle, period for 60min. each along X, Y,Z axes |

Safety & EMC

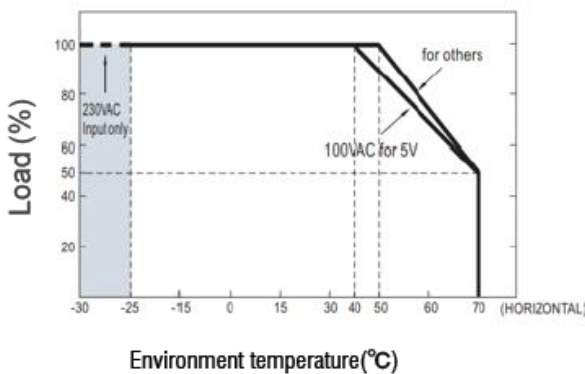
| | |
|---------------------|--|
| Safety Regulations: | IEC62368-1, UL62368-1, TUV EN62368-1, EAC TP TC 004, -1 approved |
| Withstand Voltage: | I/P-O/P:3KVAC |
| EMC Emission: | EN55032(CISPR32), CNS13438, EN61000-3-2 Class A, EN61000-3-3 |

Other Specifications

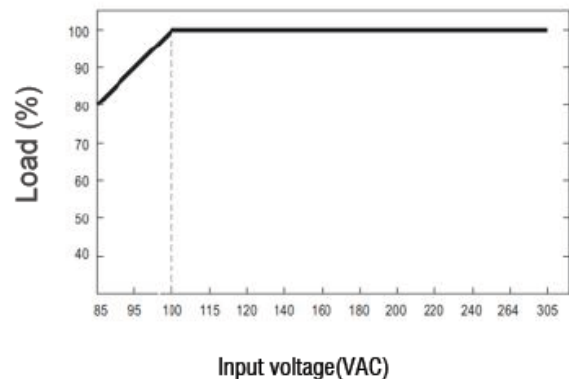
| | |
|------|----------------------|
| MTBF | >4500K hrs min. |
| Size | 109 X 52.5 X 33.9 mm |

Derating Curve

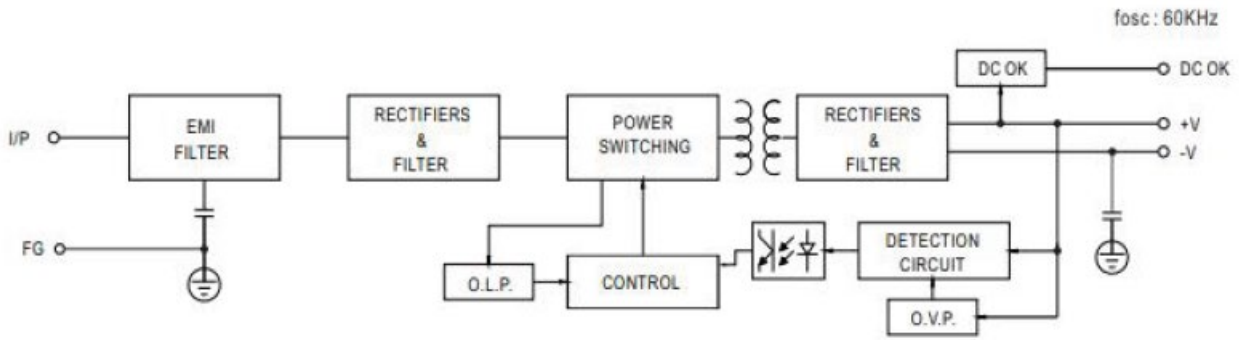
Deduction curve and temperature



Minus output and input voltage curves

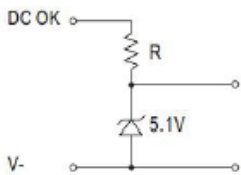


Functional Diagram



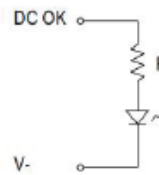
Application of DC OK Active Signal

(a) 5V signal



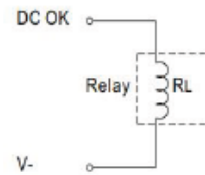
| Model | R |
|-------|--------------------|
| 5V | $\geq 200 \Omega$ |
| 12V | $\geq 1.5K \Omega$ |
| 15V | $\geq 2K \Omega$ |
| 24V | $\geq 3.9K \Omega$ |

(b) LED



| Model | R |
|-------|--------------------|
| 5V | $\geq 1K \Omega$ |
| 12V | $\geq 2.4K \Omega$ |
| 15V | $\geq 3K \Omega$ |
| 24V | $\geq 4.7K \Omega$ |

(c) Relay



| Model | RL |
|-------|--------------------|
| 5V | $\geq 120 \Omega$ |
| 12V | $\geq 700 \Omega$ |
| 15V | $\geq 700 \Omega$ |
| 24V | $\geq 1.2K \Omega$ |

Dimensions and Recommended Layout

