

Features

- Universal Input 90~264VAC / 127~370 VDC 50/60Hz
- DC Output Adjustable
- Output Voltages: 24-48V DC
- Meets the latest Safety Standards and Approvals
- UL508, BS/EN62368-1
- High Efficiency
- Protection: OVP, OLP, SCP



Ideal Power's 56YSDN480-xy-RS 480W DIN Rail Mount AC/DC Power Supply Converter Series are certified to UKCA, CE, cULus & UL508/EN62368-1/BS62368-6 Standards and comply with (EU) 2019/1782, Level VI Efficiency Regulations. These are primarily used in ITE, Audio & Video Industries and customised solutions are available upon request.

Models

| Model Number | Output Voltage (V DC) | Output Current (A) | Output Power (W) | Efficiency (%) | Ripple & Noise (mVp-p) |
|-----------------------|--------------------------|-----------------------|---------------------|-------------------|---------------------------|
| 56YSDN480-24020000-RS | 24 | 20 | 480 | 92 | 150 |
| 56YSDN480-48010000-RS | 48 | 10 | 480 | 92 | 160 |

Input Specifications

| | |
|------------------------|---------------------------|
| Input Electrical Phase | Single |
| Line Frequency | 50~60Hz |
| Inrush Current | 20A/115VAC / 35A/230VAC |
| AC Current | 4.8A/115VAC / 2.4A/230VAC |
| Leakage Current | <2mA/240VAC |

Output Specifications

| | |
|--------------------------|--|
| Output Voltage Tolerance | ± 2.0% |
| Line Regulation | ± 0.5% |
| Load Regulation | ± 1.0% |
| Setup, Rise Time | 1500ms, 60ms/230VAC at full load 3000ms, 60ms/115VAC at full load |
| Hold Up time | 16ms/230VAC at full load 16ms/115VAC at full load |

General Specification

| | |
|-------------------------|---|
| Type | DIN Rail Power Supply |
| Number of Outputs | 1 |
| Mounting Style | Din Rail Mount |
| Connection Type | Screw Terminal Type |
| Overload Protection | >105%-130% rated output power: Recovers automatically after fault condition is re-moved |
| Over Temperature | Shut down o/p voltage, recovers automatically after temperature goes down |
| Over Voltage Protection | 29~33V - 56YSDN480-24020000 56~65V - 56YSDN480-48010000 Protection type : Shut down o/p voltage, re-power on to recover |

Operational Environment

| | |
|-----------------------------|---|
| Operating Humidity | 20% ~ 95% RH non-condensing |
| Operating Temperature Range | -20°C to 70°C, Refer to Derating Curve |
| Storage Temperature Range | -40°C to 85°C |
| Storage Humidity | 10% ~ 95% RH |
| Isolation Resistance | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500V DC / 25°C / 70% RH |
| MTBF | 200000 h |

Approvals

| | |
|--------------------|---|
| Safety Regulations | UL508/EN62368-1/BS62368-1 |
| Withstand Voltage | 1/P-O/P:3KVAC 1/P-FG:2KVAC O/P-FG:0.5KVAC |
| EMC Emissions | Compliance to BS EN/EN55032 , BS EN/EN61000-3-2,-3 |
| EMC Immunity | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, BS EN/EN61000-6-2 UBS EN/EN50082-2), BS EN/EN61204-3, heavy industry level |

Note:

- 1.All parameters NOT specially mentioned 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 20MHzU0.1uF and 47uF/50V parallel capacitor under DC output full load, AC nominal input 25°C ambient temperature).
- 3.Installation clearances: top with 40mm, bottom with 20mm, left and right with 5mm. 1increase the space to 10-15mm when the adjacent device is heating source.
- 4.Derating may be needed under low input voltage. Please check the derating curve for more details.
- 5.Efficiency test after 30 minutes of burn-in.
- 6.The ambient temperature derating of 3.5 °C/1000m for operating altitude higher than 2000mU6500ft).

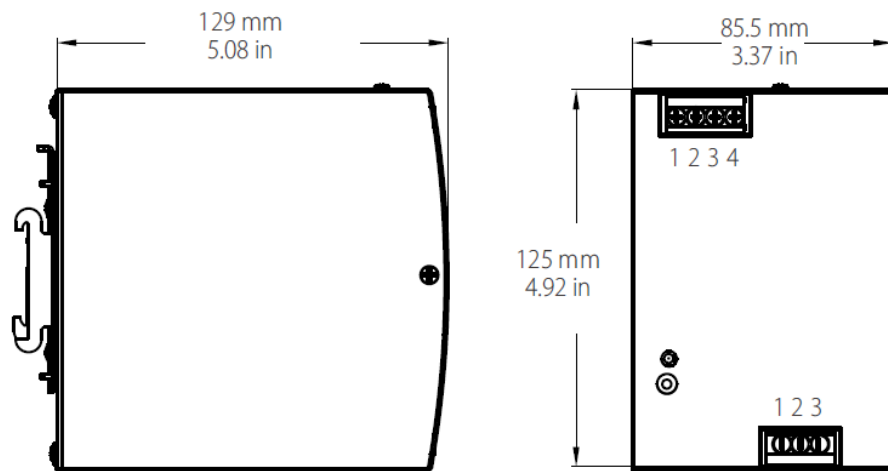
Mechanical Specifications

| | |
|--------------------|-----------------------------|
| Housing Material | Fully Enclosed Metal Case |
| Overall Dimensions | 85.5 x 125 x 129 mm (LxWxH) |
| Overall Length | 85.5mm / 3.37in |
| Overall Width | 125mm / 4.92in |
| Overall Height | 129mm / 5.08in |
| Weight | 1.5kg |

Packaging

| | |
|--------------------------|--|
| Carton Size | 49 x 34.5 x 16.5cm / 19.29 x 13.58 x 6.5in |
| Master Carton Quantities | 8pcs / Carton |

Mechanical Drawing



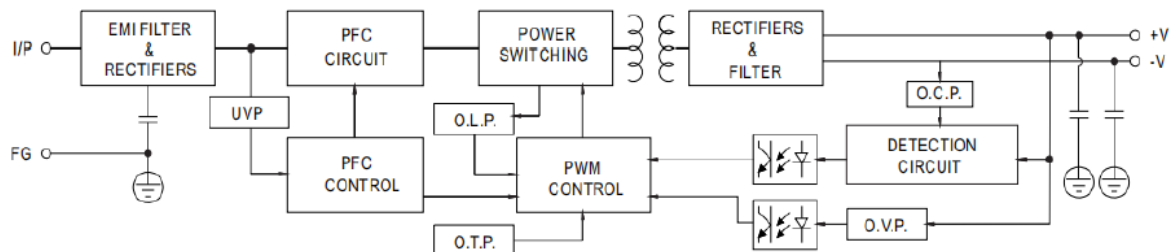
Input

| Pin No. | Description |
|---------|--------------|
| 1 | FG ⚡ |
| 2 | AC/N or DC - |
| 3 | AC/L or DC + |

Output

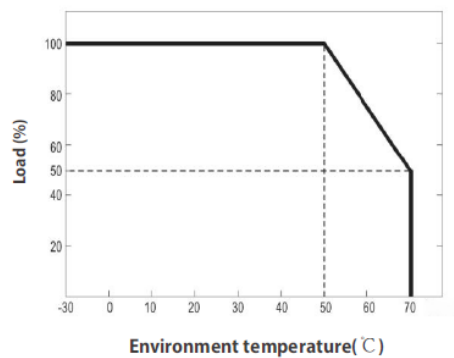
| Pin No. | Description |
|---------|--------------|
| 1,2 | DC OUTPUT -V |
| 3,4 | DC OUTPUT +V |

Functional Diagram



Curves

Deduction Curve and Temperature



Minus Output and Input Voltage Curves

