

## Features

- Universal Input 90~264VAC / 127~370 VDC 47/63Hz
- DC Output Adjustable
- Output Voltages: 24-48V DC
- Meets the latest Safety Standards and Approvals
- UL508, BS/EN62368-1
- High Efficiency
- Protection: Overload/Over voltage/Short circuit



Ideal Power's 56YSDN240-xy 240W DIN Rail Mount AC/DC Power Supply Converter Series are certified to UKCA, CE, cULus & UL508/EN62368-1/BS62368-5 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<br>V DC | Output Current<br>A | Output Power<br>W | Efficiency<br>% | Voltage<br>ADJ. Range V |
|--------------------|------------------------|---------------------|-------------------|-----------------|-------------------------|
| 56YSDN240-24010000 | 24                     | 10                  | 240               | 87              | 24-28                   |
| 56YSDN240-48005000 | 48                     | 5                   | 340               | 88              | 48-55                   |

### 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: Protection type: Hiccup mode, 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 - 56YSDN240-24010000<br>56~65V - 56YSDN240-48005000<br>Protection type : Shut down o/p voltage, re-power on to recover |

### Input Specifications

|                        |                           |
|------------------------|---------------------------|
| Input Electrical Phase | Single                    |
| Line Frequency         | 47~63Hz                   |
| Inrush Current         | 37.2A/115VAC / 70A/230VAC |
| AC Current             | 2.5A/115VAC / 1.3A/230VAC |
| Leakage Current        | <1mA/240VAC               |

### Output Specifications

|                          |                                                                      |
|--------------------------|----------------------------------------------------------------------|
| Ripple & Noise           | 150mVp-p                                                             |
| Output Voltage Tolerance | ± 2.0%                                                               |
| Line Regulation          | ± 0.5%                                                               |
| Load Regulation          | ± 1.0%                                                               |
| Setup, Rise Time         | 1500ms, 60ms/230VAC at full load<br>3000ms, 60ms/115VAC at full load |
| Hold Up time             | 16ms/230VAC at full load<br>12ms/115VAC at full load                 |

### 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 / 25oC / 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/EN55035, BS EN/EN61000-6-2 UBS EN/EN50082-2) |

#### 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. 1ncrease the space to 10-15mm when the adjacent device is heat 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).

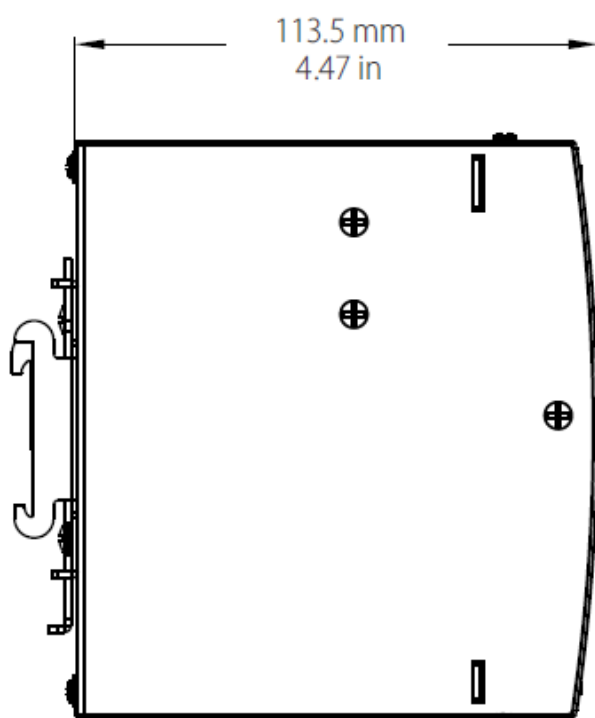
## Mechanical Specifications

|                    |                             |
|--------------------|-----------------------------|
| Housing Material   | Fully Enclosed Plastic Case |
| Overall Dimensions | 63 x 125 x 113 mm (LxWxH)   |
| Overall Length     | 63mm / 2.48in               |
| Overall Width      | 125mm / 4.92in              |
| Overall Height     | 113mm / 4.45in              |
| Weight             | 1kg                         |

## Packaging

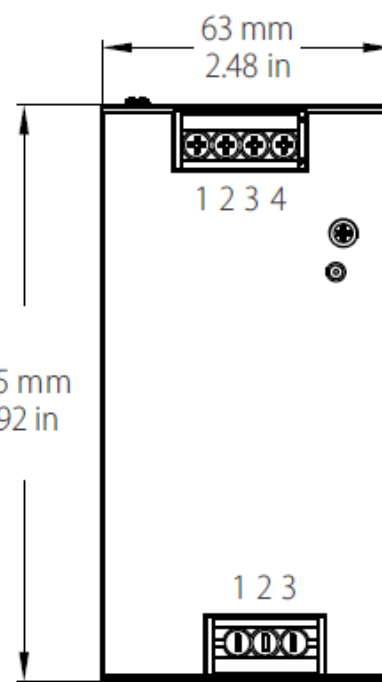
|                          |                                            |
|--------------------------|--------------------------------------------|
| Carton Size              | 52.5 x 33 x 17.5cm / 20.67 x 12.99 x 6.9in |
| Master Carton Quantities | 10pcs / Carton                             |

## Mechanical Drawing



### Input

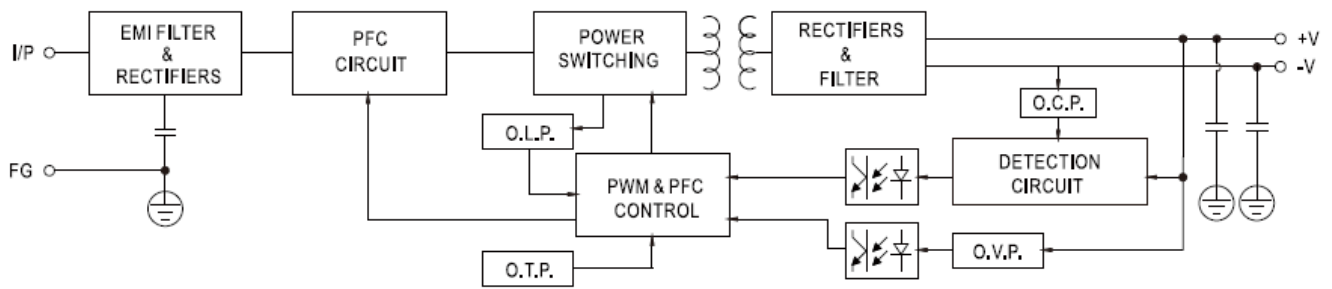
| No. | Description                                                                            |
|-----|----------------------------------------------------------------------------------------|
| 1   | FG  |
| 2   | AC/N or DC -                                                                        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



### Output

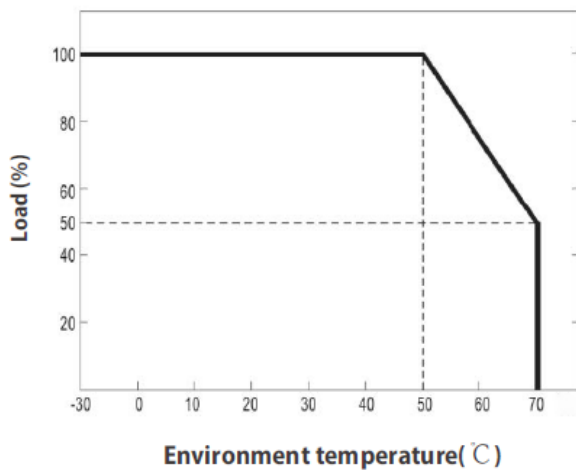
| No. | Description  |
|-----|--------------|
| 1,2 | DC OUTPUT -V |
| 3,4 | DC OUTPUT +V |

## Functional Diagram



## Curves

Deduction Curve and Temperature



Minus Output and Input Voltage Curves

