



# PS-30 Series Specifications



## Features:

- Universal AC input/ full range
- Protections: Short Circuit / Overload / Over Voltage
- Cooling by free air convection
- DIN rail mountable
- Isolation class II
- LED indicator for power on
- 100% full load burn-in test
- 3 years warranty

### OUTPUT

| Cat. No. | PS-3005 | PS-3012 | PS-3015 | PS-3024 |
|----------|---------|---------|---------|---------|
|----------|---------|---------|---------|---------|

|                      |         |          |          |          |
|----------------------|---------|----------|----------|----------|
| DC VOLTAGE           | 5V      | 12V      | 15V      | 24V      |
| RATED CURRENT        | 3A      | 2A       | 2A       | 1.5A     |
| CURRENT RANGE        | 0 ~ 3A  | 0 ~ 2A   | 0 ~ 2A   | 0 ~ 1.5A |
| RATED POWER          | 15W     | 24W      | 30W      | 36W      |
| RIPPLE & NOISE (max) | 80mVp-p | 120mVp-p | 120mVp-p | 150mVp-p |

Ripple & noise are measured at 20MHz of bandwidth by using a 12 twisted pair-wire terminated with a 0.1µF & 47µF parallel capacitor

|                    |             |              |              |              |
|--------------------|-------------|--------------|--------------|--------------|
| VOLTAGE ADJ. RANGE | 4.75 ~ 5.5V | 10.8 ~ 13.2V | 13.5 ~ 16.5V | 21.6 ~ 26.4V |
| VOLTAGE TOLERANCE  | ±2.0%       | ±1.0%        | ±1.0%        | ±1.0%        |

Tolerance: includes set up tolerance, line regulation and load regulation.

|                     |                      |                                   |       |       |
|---------------------|----------------------|-----------------------------------|-------|-------|
| LINE REGULATION     | ±1.0%                | ±1.0%                             | ±1.0% | ±1.0% |
| LOAD REGULATION     | ±1.0%                | ±1.0%                             | ±1.0% | ±1.0% |
| SETUP, RISE TIME    | 100ms, 30ms / 230VAC | 100ms, 30ms / 115VAC at full load |       |       |
| HOLD UP TIME (Typ.) | 100ms / 230VAC       | 21ms / 115VAC at full load        |       |       |

|                       |                                       |                |     |     |
|-----------------------|---------------------------------------|----------------|-----|-----|
| VOLTAGE RANGE         | 85 ~ 264VAC                           | 120 ~ 370VDC   |     |     |
| FREQUENCY RANGE       | 47 ~ 63Hz                             |                |     |     |
| EFFICIENCY (Typ.)     | 74%                                   | 81%            | 82% | 83% |
| AC CURRENT (Typ.)     | 0.88A / 115VAC                        | 0.48A / 230VAC |     |     |
| INRUSH CURRENT (Typ.) | COLD START 15A / 115VAC; 30A / 230VAC |                |     |     |

|              |   |              |                |              |
|--------------|---|--------------|----------------|--------------|
| OVERLOAD     | 105 ~ 160% rated output power<br>Protection type: Constant current limiting recovers automatically after fault condition is removed |              |                |              |
| OVER VOLTAGE | 5.75 ~ 6.75V  | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V |

Protection type: Shut down o/p voltage, clamping by zener diode

|                         |  |
|-------------------------|--|
| WORKING TEMP.           | -20 ~ +60°C (Refer to output load derating curve)                        |
| WORKING HUMIDITY        | 20 ~ 90% RH non-condensing   |
| STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH   |
| TEMP. COEFFICIENT       | ±0.03% / °C (0 ~ 50°C)   |
| VIBRATION               | Component: 10 ~ 500Hz, 2G 10min. / 1cycle, 60 min. each long X,Y, Z axes |
| MOUNTING                | Compliance to IEC60068-2-6   |

|                            |   |
|----------------------------|---|
| SAFETY STANDARDS           | UL60950-1<br>EN60950-1 approved<br>Design refer to EN50178  |
| WITHSTAND VOLTAGE          | I/P-O/P: 3KVAC  |
| ISOLATION RESISTANCE       | I/P-O/P: 100M Ohms / 500VDC   |
| EMI CONDUCTION & RADIATION | Compliance to EN55011<br>EN55022 (CISPR22) Class B  |
| HARMONIC CURRENT           | Compliance to EN61000-3-2,-3  |
| EMS IMMUNITY               | Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024; ENV50204; EN61000-6-2; EN61204-3; heavy industry level; criteria A |

The power supply is considered a component which will installed into a final equipment. The final equipment must be re-confirmed that is still meets EMC directives.

|           |                                      |
|-----------|--------------------------------------|
| MTBF      | 441.5K hrs min. MIL-HDBK-217K (25°C) |
| DIMENSION | 78x93x56mm (WxHxD)                   |
| PACKING   | 0.27Kg; 48pcs / 14Kg / 1.02CUFT      |

All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C of ambient temperature

### INPUT

### PROTECTION

### ENVIRONMENT

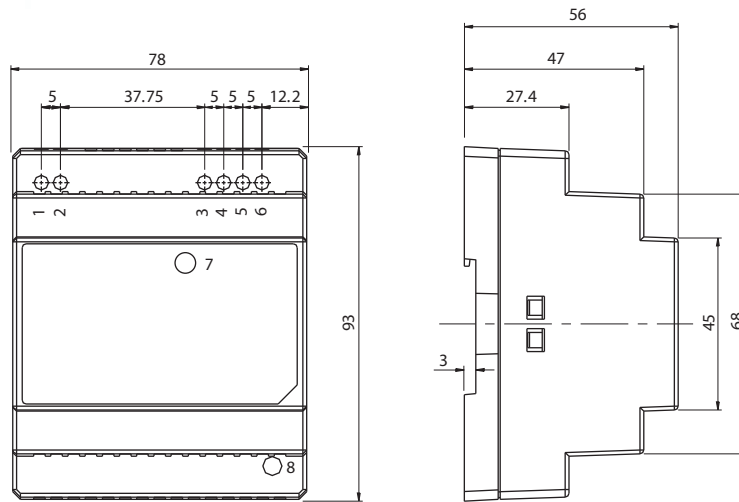
### SAFETY & EMC

### OTHERS

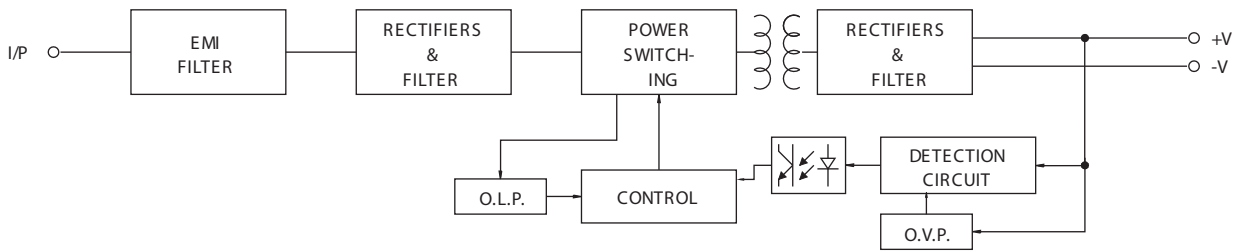
**Mechanical Specification**

Terminal Pin. No Assignment

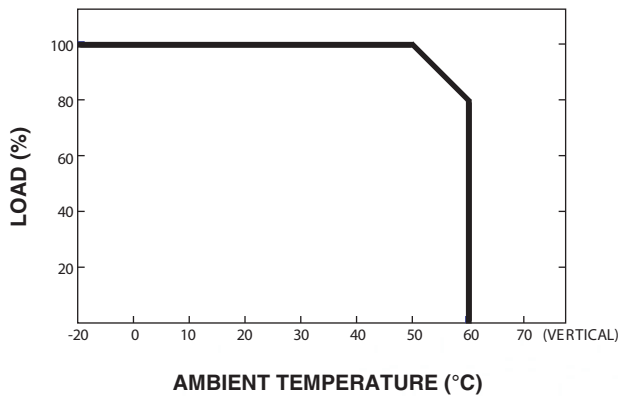
| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|------------|
| 1       | AC/L       | 5,6     | -V         |
| 2       | AC/N       | 7       | LED        |
| 3,4     | +V         | 8       | +V ADJ.    |



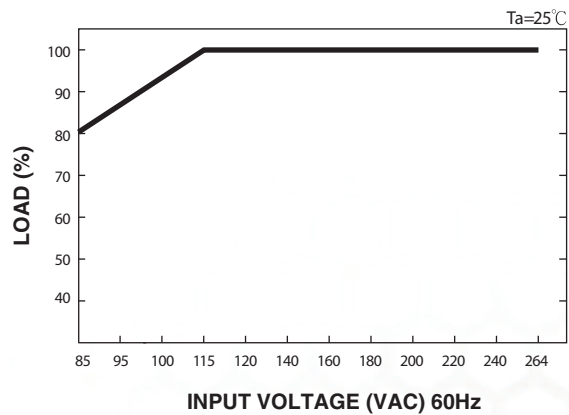
**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**



Note: All dimensions are in millimeters, to convert to inches multiply by 0.03937.