



PS-S20 Series Specifications



Features:

- Universal AC input / full range
- Protections: Short Circuit / Overload / Overvoltage
- Cooling by free air convection
- DIN rail mountable
- Built in DC OK active signal
- LED indicator for power on
- No load power consumption < 0.75W
- 100% full load burn-in test
- 3 year warranty

OUTPUT

| Cat. No. | PS-S2005 | PS-S2012 | PS-S2015 | PS-S2024 |
|----------|----------|----------|----------|----------|
|----------|----------|----------|----------|----------|

| | | | | |
|--|--|--------------|--------------|--------------|
| DC VOLTAGE | 5V | 12V | 15V | 24V |
| RATED CURRENT | 3A | 1.67A | 1.34A | 1A |
| CURRENT RANGE | 0~3A | 0~1.67A | 0~1.34A | 0~1A |
| RATED POWER | 15W | 20W | 20W | 24W |
| 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 | 500ms, 30ms/230VAC; 1000ms, 30ms/115VAC at full load | | | |
| Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. | | | | |
| HOLD UP TIME (Typ.) | 50ms/230VAC; 20ms/115VAC at full load | | | |

INPUT

| | | | | |
|-----------------------|------------------------------------|------------|-----|-----|
| VOLTAGE RANGE | 85~264VAC | 120~370VDC | | |
| FREQUENCY RANGE | 47~63Hz | | | |
| EFFICIENCY (Typ.) | 76% | 80% | 81% | 84% |
| AC CURRENT (max.) | 0.55A/115VAC; 0.35A/230VAC | | | |
| INRUSH CURRENT (Typ.) | COLD START: 20A/115VAC; 40A/230VAC | | | |
| LEAKAGE CURRENT | ≤1mA/ 240VAC | | | |

PROTECTION

| | | | | |
|--|---|----------------|-------------------|---------------|
| OVERLOAD PROTECTION | 105% ~ 160% rated output power Protection type: Constant current limiting, recovers automatically after fault condition is removed | | | |
| OVERVOLTAGE PROTECTION | 5.75~6.75V | 13.8~16.2V | 17.25~20.25V | 27.6~32.4V |
| Protection type: Shut down overvoltage, re-power on to recover | | | | |
| OVER TEMPERATURE PROTECTION | Power supply shut down at 70°C constant current limiting / output voltage goes to 0; re-power on to recover | | | |
| DC OK AKTIV SIGNAL (max.) | 3.75~6V (50mA) | 9~13.5V (40mA) | 11.5~16.5V (40mA) | 18~27V (20mA) |

ENVIRONMENT

| | |
|-------------------------|--|
| WORKING TEMP. | -20 ~ +70°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 & EMC

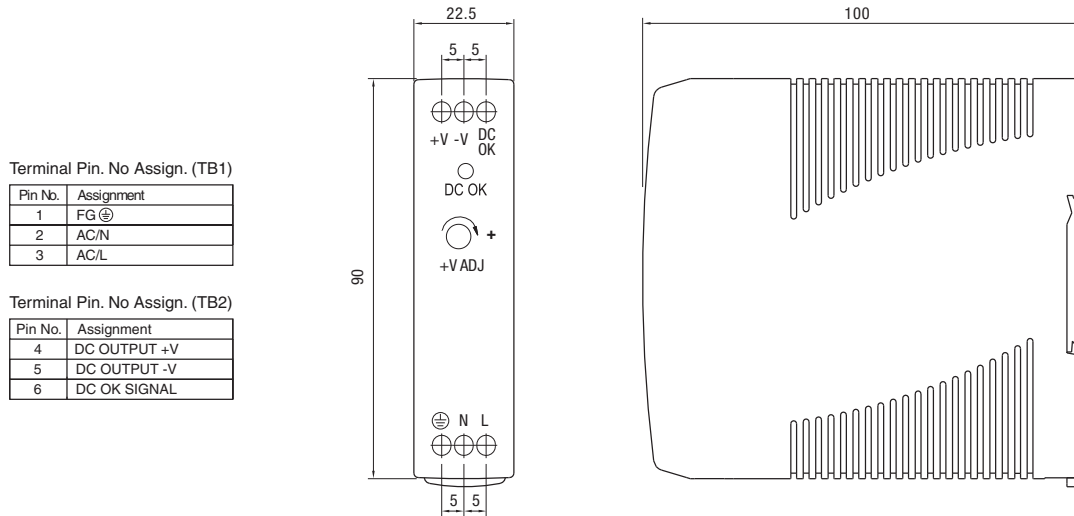
| | |
|--|---|
| SAFETY STANDARDS | UL508 EN60950-1 compliant |
| WITHSTAND VOLTAGE | I/P-O/P: 3KVAC I/P-FG: 1.5KVAC O/P-FG: 0.5KVAC |
| ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG: 100M Ohms/500VDC |
| EMI CONDUCTION & RADIATION | Compliance to EN55011 EN55022 (CISPR22) EN61204-3 Class B |
| HARMONIC CURRENT | Compliance to EN61000-3-2,-3 |
| EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; EN55024; ENV50204; EN61000-6-1;EN61204-3; light 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 it still meets EMC directives. | |

OTHERS

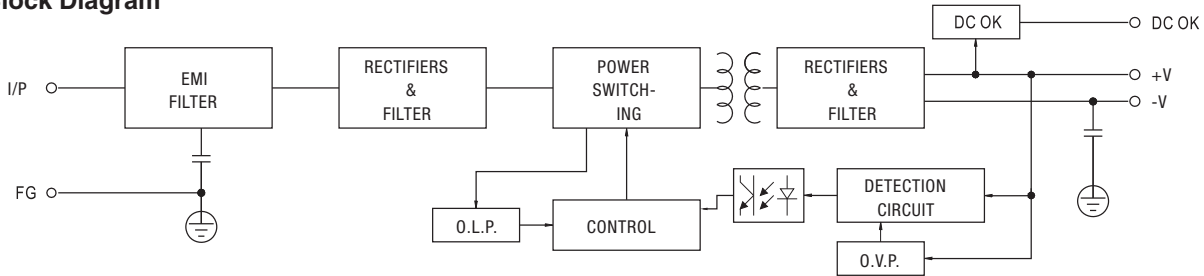
| | |
|-----------|--------------------------------------|
| MTBF | 236.9K hrs min. MIL-HDBK-217K (25°C) |
| DIMENSION | 22.5x90x100mm (WxHxD) |
| PACKING | 0.19Kg; 72pcs / 14.7Kg / 0.91CUFT |

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

Mechanical Specification

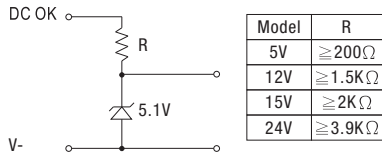


Block Diagram

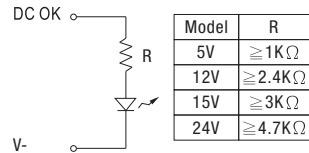


Application of DC OK Signal

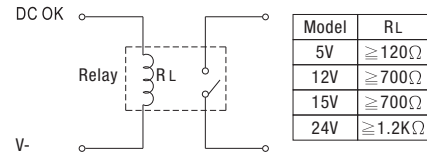
(a) 5V signal



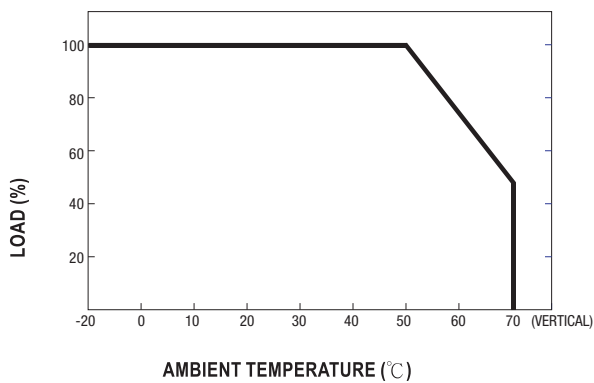
(b) LED



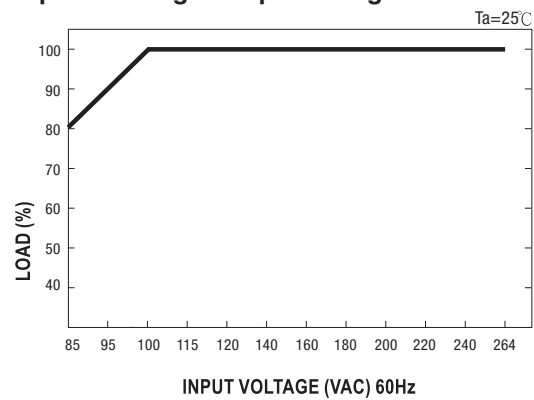
(c) Relay



Derating Curve



Output Derating VS Input Voltage



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