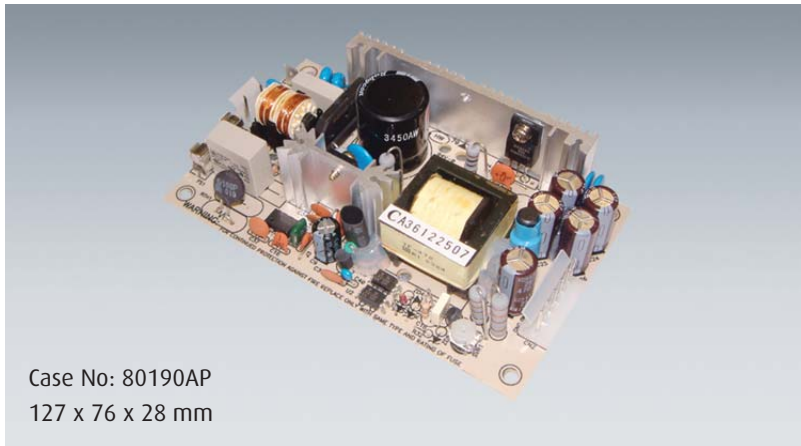


PS-45 Series

45W Single Output Switching Power Supply



Case No: 80190AP
127 x 76 x 28 mm

Features

- Universal AC input/ Full range
- Protections: Short circuit, Overload and Over voltage
- Cooling by free convection
- 100% full load burn-in test
- Fixed switching frequency at 65KHz



Specification

| | | | | | | | | | | |
|--------------------|-----------------------------|--|----------------|------------------|-----------------|-------------------|-----------------|-----------------|-----------------|-----------------|
| INPUT | Voltage | 90V ~ 264VAC universal full range or 127V ~ 370VDC. | | | | | | | | |
| | Frequency | 47 ----- 440 Hz | | | | | | | | |
| | Current | <0.8A@115VAC; 0.56A@230VAC full load | | | | | | | | |
| | Inrush Current | 15A@115VAC; 30A@230VAC cold start | | | | | | | | |
| | Leakage Current | <0.75mA@240VAC | | | | | | | | |
| OUTPUT | MODEL No. | PS-45-3.3 | PS-45-5 | PS-45-7.5 | PS-45-12 | PS-45-13.5 | PS-45-15 | PS-45-24 | PS-45-27 | PS-45-48 |
| | Voltage | 3.3V | 5V | 7.5V | 12V | 13.5V | 15V | 24V | 27V | 48V |
| | Rated Current | 8A | 8A | 5.4A | 3.7A | 3.3A | 3A | 1.9A | 1.7A | 1A |
| | Current Range | 0~10.7A | 0~10.5A | 0~7A | 0~4.4A | 0~3.9A | 0~3.5A | 0~2.2A | 0~1.95A | 0~1.1A |
| | Output Tolerance | ± 3% | ± 3% | ± 3% | ± 2% | ± 2% | ± 2% | ± 2% | ± 2% | ± 2% |
| | Line Regulation | ± 1% | ± 1% | ± 1% | ± 1% | ± 1% | ± 1% | ± 1% | ± 1% | ± 1% |
| | Load Regulation | ± 3% | ± 3% | ± 3% | ± 2% | ± 2% | ± 2% | ± 2% | ± 2% | ± 2% |
| | Ripple Noise MAX. | 80mV | 100mV | 100mV | 100mV | 100mV | 100mV | 100mV | 100mV | 100mV |
| | Efficiency (TYP.) | 69% | 74% | 75% | 76% | 77% | 77% | 78% | 78% | 78% |
| | Rated Power | 26.4W | 40W | 40.5W | 44.4W | 44.55W | 45W | 45.6W | 45.9W | 48W |
| PROTECTION | Over Voltage | 3.8~4.46V | 5.75~6.75V | 8.63~10.1V | 13.8~16.2V | 15.5~18.2V | 17.25~20.25V | 27.6~32.4V | 31~36.45V | 55.2~64.8V |
| | Over Load | Hiccup mode, recovers automatically after fault condition is removed 105~150% rated output power (3.3V:105~160% rated output power) Hiccup mode, recovers automatically after fault condition is removed | | | | | | | | |
| ELEC. CHAR. | Rise Time | 30mS at full load | | | | | | | | |
| | Hold up Time | 60mS at full load | | | | | | | | |
| | Setup Time | 0.8 Sec at full load | | | | | | | | |
| ENVIRONMENT | Temperature | Operating: -10 ~ +60°C ; Storage: -20~ +85°C | | | | | | | | |
| | Humidity | Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH | | | | | | | | |
| SAFETY | Withstand Voltage | I/P-O/P3KVAC; I/P-FG:1.5KVAC; O/P-FG:0.5KVAC | | | | | | | | |
| | Isolation Resistance | I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC | | | | | | | | |
| | Safety Standard | UL60950, TUV EN60950-1 Approved | | | | | | | | |
| EMC | EMI | EN55022 (CISPR22) class B, EN61000-3-2,3 | | | | | | | | |
| | EMS | EN61000-4-2,3,4,5,6,8,11; EN55024, light industry level, criteria A | | | | | | | | |
| OTHERS | Cooling | Cooling by free air convection | | | | | | | | |
| | M.T.B.F. | 300.7K hrs min. MIL-HDBK-217F (°C) | | | | | | | | |
| | Packing | 0.19Kg; 72pcs/15.6Kg/1.35 CUFT | | | | | | | | |

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

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

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

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

5 Mounting holes M1 and M2 should be grounded for EMI purposes

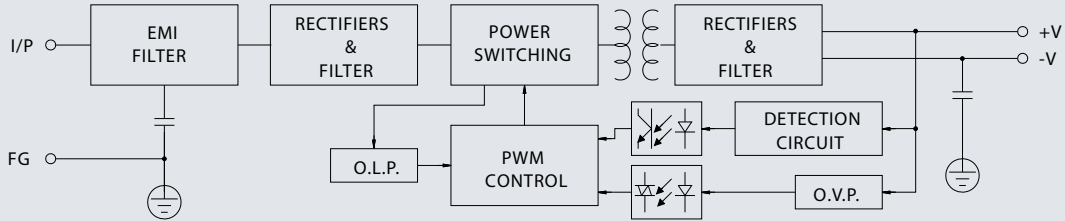
6 Heat sink HS1, HS2 can not be shorted

PS-45 Series

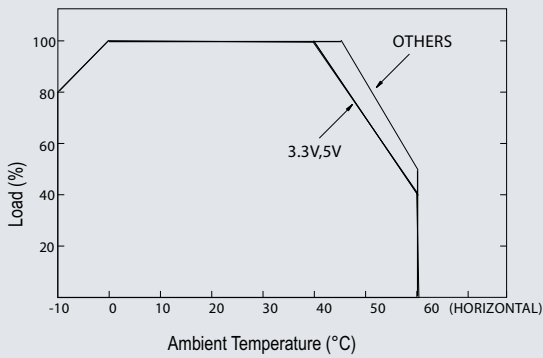
45W Single Output Switching Power Supply



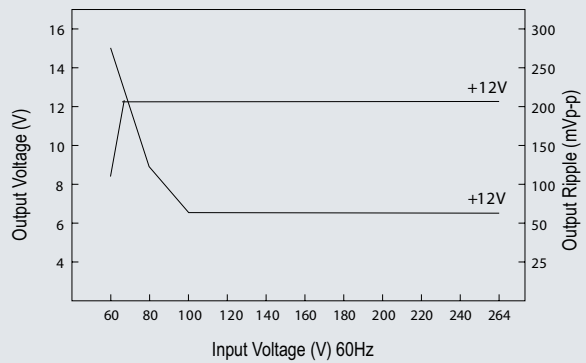
Block Diagram



De-Rating Curve



Static Characteristic (12V)



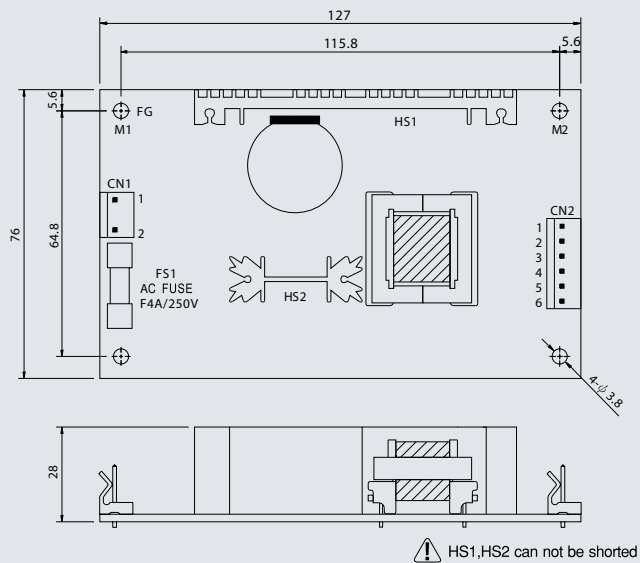
Dimensions

AC Input Connector (CN1): Molex 5277-02 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1 | AC/N | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 2 | AC/L | Molex 5195 or equivalent | Molex 5194 or equivalent |

DC Output Connector (CN2): Molex 5273-06 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1,2,3 | +V | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 4,5,6 | -V | Molex 5195 or equivalent | Molex 5194 or equivalent |



⚠ HS1, HS2 can not be shorted