

SPECIFICATION



■ Features :

- Universal AC input / Full range
- Low leakage current <300μA
- * Protections: Short circuit / Overload / Over voltage
- Ultra-miniature size, light weight
- Cooling by free air convection
- Medical safety approved (2 x MOPP between primary to secondary)
- No load power consumption<0.75W
- 100% full load burn-in test
- Fixed switching frequency at 90KHz
- High reliability
- Suitable for BF application with appropriate system consideration
- 3 years warranty



| MODEL | | PM-20-3.3 | PM-20-5 | PM-20-12 | PM-20-15 | PM-20-24 |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|----------------|--------------|
| OUTPUT | DC VOLTAGE | 3.3V | 5V | 12V | 15V | 24V |
| | RATED CURRENT | 4.5A | 4.4A | 1.8A | 1.4A | 0.92A |
| | CURRENT RANGE | 0~4.5A | 0 ~ 4.4A | 0 ~ 1.8A | 0 ~ 1.4A | 0 ~ 0.92A |
| | RATED POWER | 14.85W | 22W | 21.6W | 21W | 22.08W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 80mVp-p | 150mVp-p | 150mVp-p | 240mVp-p |
| | VOLTAGE TOLERANCE Note.3 | ±3.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% |
| | LINE REGULATION | ±1.0% | ±1.0% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±1.5% | ±1.5% | ±1.0% | ±1.0% | ±0.5% |
| | SETUP, RISE TIME | 500ms, 20ms/230VAC 500ms, 20ms/115VAC at full load | | | | |
| | HOLD UP TIME (Typ.) | 50ms/230VAC 15ms/115VAC at full load | | | | |
| INPUT | VOLTAGE RANGE | 85 ~ 264VAC 120 ~ 370VDC | | | | |
| | FREQUENCY RANGE | 47 ~ 440Hz | | | | |
| | EFFICIENCY (Typ.) | 71% | 75% | 81% | 83% | 84% |
| | AC CURRENT (Typ.) | 0.6A/115VAC 0.4A/230VAC | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 30A/115VAC 65A/230VAC | | | | |
| | LEAKAGE CURRENT Note.6 | Earth leakage current < 300μA/264VAC , Touch current < 100μA/264VAC | | | | |
| PROTECTION | OVERLOAD | Above 105% rated output power | | | | |
| | | Protection type: Hiccup mode, recovers automatically after fault condition is removed | | | | |
| | OVER VOLTAGE | 3.8 ~ 4.46V | 5.75 ~ 6.75V | 13.8 ~ 16.2V | 17.25 ~ 20.25V | 27.6 ~ 32.4V |
| | | Protection type : Shut off o/p voltage, clamping by zener diode | | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +60 °C (Refer to "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 | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved | | | | |
| | ISOLATION LEVEL | Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP, Secondary-Earth:1xMOPP | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH | | | | |
| | EMC EMISSION | Compliance to EN55011(CISPR11),EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A | | | | |
| OTHERS | MTBF | 487.8Khrs min. MIL-HDBK-217F (25°C) | | | | |
| | DIMENSION | 94*56*22.7mm (L*W*H) | | | | |
| | PACKING | 0.18Kg; 90pcs/17.2Kg/0.97CUFT | | | | |
| NOTE | Ripple & noise are measure Tolerance : includes set up The power supply is conside a 360mm*360mm metal pla perform these EMC tests, p | ly mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. ered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on the with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to lease refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) and from primary input to DC output. | | | | |



