



## ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Ultra-miniature size, light weight
- Cooling by free air convection
- Isolation class II
- UL60601-1/IEC60601-1/EN60601-1 medical safety approved
- No load power consumption<0.5W
- 100% full load burn-in test
- Fixed switching frequency at 67KHz
- High reliability
- 3 years warranty

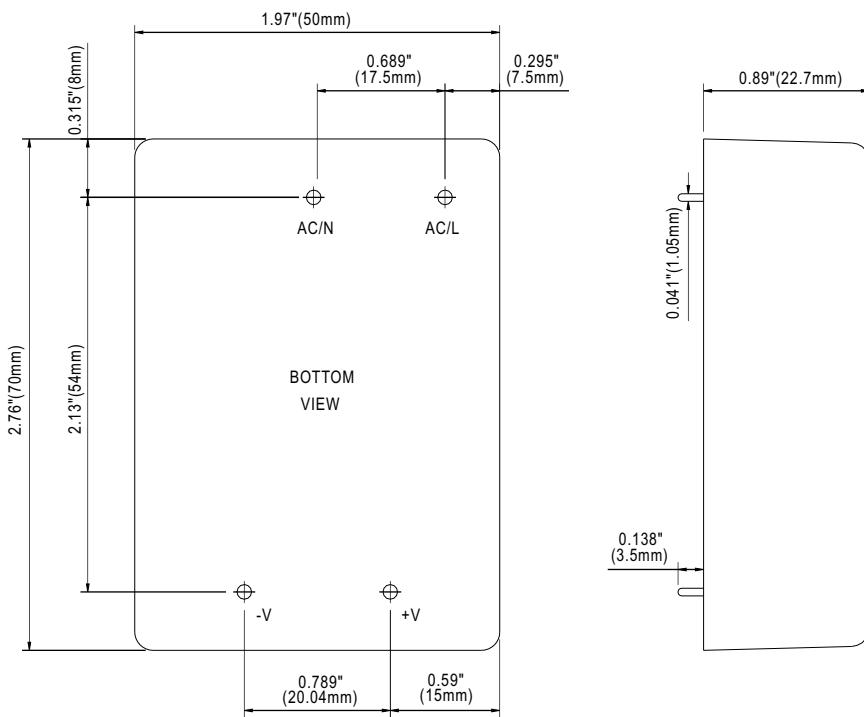


## SPECIFICATION

| MODEL                 | PM-10-3.3                                                                                                                                                                  | PM-10-5                                                                                                      | PM-10-12                                                                               | PM-10-15     | PM-10-24       |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------|----------------|
| OUTPUT                | DC VOLTAGE                                                                                                                                                                 | 3.3V                                                                                                         | 5V                                                                                     | 12V          | 15V            |
|                       | RATED CURRENT                                                                                                                                                              | 2.5A                                                                                                         | 2A                                                                                     | 0.85A        | 0.67A          |
|                       | CURRENT RANGE                                                                                                                                                              | 0 ~ 2.5A                                                                                                     | 0 ~ 2A                                                                                 | 0 ~ 0.85A    | 0 ~ 0.67A      |
|                       | RATED POWER                                                                                                                                                                | 8.25W                                                                                                        | 10W                                                                                    | 10.2W        | 10.05W         |
|                       | RIPLPE & NOISE (max.) Note.2                                                                                                                                               | 80mVp-p                                                                                                      | 80mVp-p                                                                                | 150mVp-p     | 150mVp-p       |
|                       | VOLTAGE TOLERANCE Note.3                                                                                                                                                   | ±3.0%                                                                                                        | ±2.0%                                                                                  | ±2.0%        | ±2.0%          |
|                       | LINE REGULATION                                                                                                                                                            | ±1.0%                                                                                                        | ±1.0%                                                                                  | ±0.5%        | ±0.5%          |
|                       | LOAD REGULATION                                                                                                                                                            | ±1.0%                                                                                                        | ±1.0%                                                                                  | ±1.0%        | ±1.0%          |
|                       | SETUP, RISE TIME                                                                                                                                                           | 1000ms, 20ms/230VAC                                                                                          | 1000ms, 20ms/115VAC at full load                                                       |              |                |
| INPUT                 | HOLD UP TIME (Typ.)                                                                                                                                                        | 100ms/230VAC                                                                                                 | 24ms/115VAC at full load                                                               |              |                |
|                       | VOLTAGE RANGE                                                                                                                                                              | 85 ~ 264VAC                                                                                                  | 120 ~ 370VDC                                                                           |              |                |
|                       | FREQUENCY RANGE                                                                                                                                                            | 47 ~ 440Hz                                                                                                   |                                                                                        |              |                |
|                       | EFFICIENCY (Typ.)                                                                                                                                                          | 66%                                                                                                          | 74%                                                                                    | 78%          | 79%            |
|                       | AC CURRENT (Typ.)                                                                                                                                                          | 0.25A/115VAC                                                                                                 | 0.15A/230VAC                                                                           |              |                |
| PROTECTION            | INRUSH CURRENT (Typ.)                                                                                                                                                      | COLD START 25A/115VAC                                                                                        | 45A/230VAC                                                                             |              |                |
|                       | OVERLOAD                                                                                                                                                                   | Above 105% rated output power                                                                                | Protection type : Hiccup mode, recovers automatically after fault condition is removed |              |                |
|                       | OVER VOLTAGE                                                                                                                                                               | 3.8 ~ 4.95V                                                                                                  | 5.75 ~ 6.75V                                                                           | 13.8 ~ 16.2V | 17.25 ~ 20.25V |
| ENVIRONMENT           | Protection type : Shut off o/p voltage, clamping by zener diode                                                                                                            |                                                                                                              |                                                                                        |              |                |
|                       | 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)                                                                                         |                                                                                        |              |                |
| SAFETY & EMC (Note 4) | VIBRATION                                                                                                                                                                  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                      |                                                                                        |              |                |
|                       | SAFETY STANDARDS                                                                                                                                                           | UL60601-1, TUV EN60601-1, IEC60601-1 approved                                                                |                                                                                        |              |                |
|                       | WITHSTAND VOLTAGE                                                                                                                                                          | I/P-O/P:4KVAC                                                                                                |                                                                                        |              |                |
|                       | ISOLATION RESISTANCE                                                                                                                                                       | I/P-O/P:100M Ohms/500VDC                                                                                     |                                                                                        |              |                |
|                       | EMI CONDUCTION & RADIATION                                                                                                                                                 | Compliance to EN55011(CISPR11),EN55022 (CISPR22) Class B                                                     |                                                                                        |              |                |
|                       | HARMONIC CURRENT                                                                                                                                                           | Compliance to EN61000-3-2,-3                                                                                 |                                                                                        |              |                |
| OTHERS                | EMS IMMUNITY                                                                                                                                                               | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2, EN61204-3, medical level, criteria A |                                                                                        |              |                |
|                       | MTBF                                                                                                                                                                       | 723.2Khrs min. MIL-HDBK-217F (25°C)                                                                          |                                                                                        |              |                |
|                       | DIMENSION                                                                                                                                                                  | 70*50*22.7mm (L*W*H)                                                                                         |                                                                                        |              |                |
| NOTE                  | PACKING                                                                                                                                                                    | 0.105Kg; 120pcs/13.6Kg/0.97CUFT                                                                              |                                                                                        |              |                |
|                       | 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 a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. |                                                                                                              |                                                                                        |              |                |

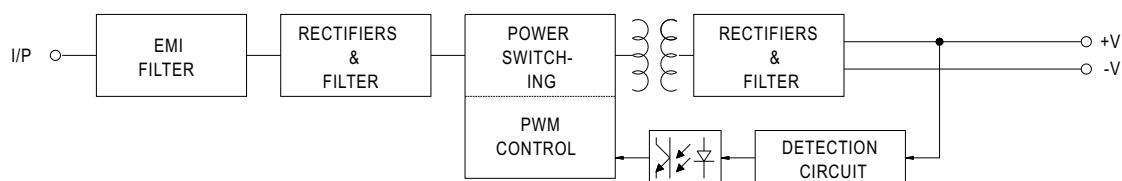
## ■ Mechanical Specification

Case No. 949A Unit:inch(mm)

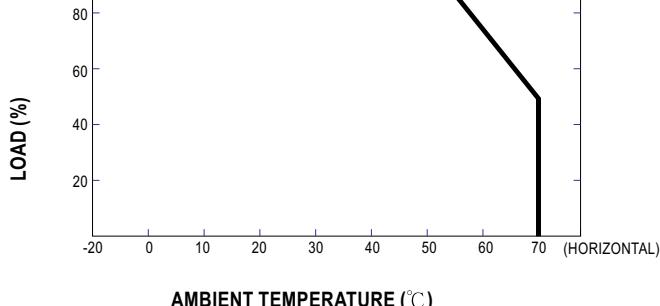


## ■ Block Diagram

fosc : 67KHz



## ■ Derating Curve



## ■ Output Derating VS Input Voltage

