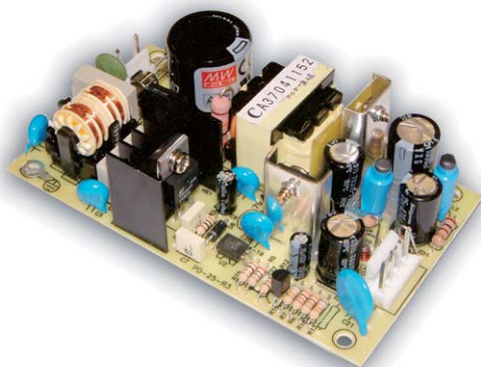




#### ■ Features :

- Universal AC input / Full range
- Low leakage current<0.5mA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 100KHz
- Low cost
- High reliability
- 2 years warranty

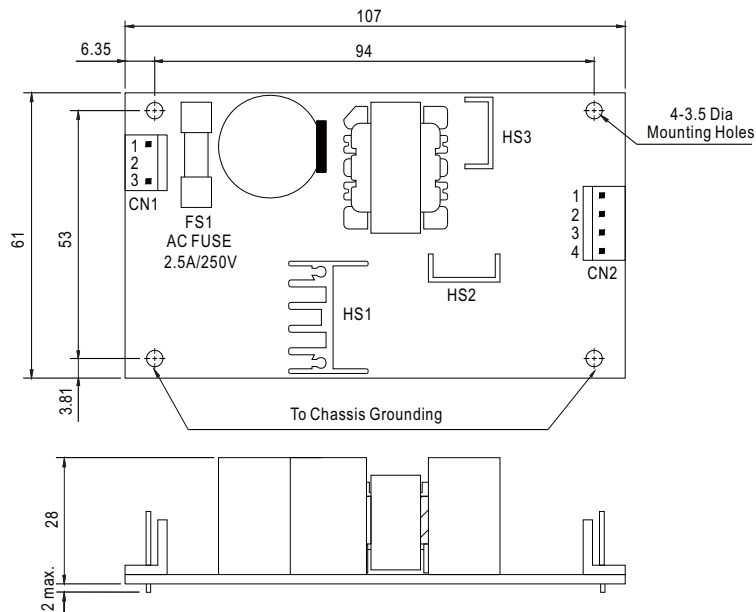


#### SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PD-25A                                                                                                                  |                          | PD-25B                          |              | PD-2505      |                | PD-2512      |                | PD-2515      |                |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------|--------------|--------------|----------------|--------------|----------------|--------------|----------------|
| OUTPUT                   | OUTPUT NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | CH1                                                                                                                     | CH2                      | CH1                             | CH2          | CH1          | CH2            | CH1          | CH2            | CH1          | CH2            |
|                          | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5V                                                                                                                      | 12V                      | 5V                              | 24V          | 5V           | -5V            | 12V          | -12V           | 15V          | -15V           |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.1A                                                                                                                    | 1.2A                     | 1.2A                            | 0.8A         | 2.5A         | 2.5A           | 1A           | 1A             | 0.8A         | 0.8A           |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.2 ~ 2.5A                                                                                                              | 0.1 ~ 1.5A               | 0.2 ~ 2A                        | 0.1 ~ 1A     | 0.1 ~ 3A     | 0.1 ~ 2.5A     | 0.1 ~ 1.2A   | 0.1 ~ 1.2A     | 0.1 ~ 1A     | 0.1 ~ 1A       |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24.9W                                                                                                                   |                          | 25.2W                           |              | 25W          |                | 24W          |                | 24W          |                |
|                          | RIPPLE & NOISE (max.) Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 50mVp-p                                                                                                                 | 150mVp-p                 | 50mVp-p                         | 200mVp-p     | 50mVp-p      | 50mVp-p        | 50mVp-p      | 50mVp-p        | 50mVp-p      | 50mVp-p        |
|                          | VOLTAGE TOLERANCE Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±2.0%                                                                                                                   | ±6.0%                    | ±2.0%                           | ±6.0%        | ±6.0%        | ±6.0%          | ±4.0%        | ±4.0%          | ±4.0%        | ±4.0%          |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±0.5%                                                                                                                   | ±2.0%                    | ±0.5%                           | ±2.0%        | ±1.0%        | ±1.0%          | ±0.5%        | ±0.5%          | ±0.5%        | ±0.5%          |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±1.0%                                                                                                                   | ±4.0%                    | ±1.0%                           | ±4.0%        | ±4.0%        | ±4.0%          | ±3.0%        | ±3.0%          | ±3.0%        | ±3.0%          |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 250ms, 50ms/230VAC                                                                                                      |                          | 250ms, 30ms/115VAC at full load |              |              |                |              |                |              |                |
| HOLD UP TIME (Typ.)      | 100ms/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                         | 16ms/115VAC at full load |                                 |              |              |                |              |                |              |                |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 85 ~ 264VAC                                                                                                             |                          | 120 ~ 370VDC                    |              |              |                |              |                |              |                |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 47 ~ 63Hz                                                                                                               |                          |                                 |              |              |                |              |                |              |                |
|                          | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 71%                                                                                                                     |                          | 77%                             |              | 73%          |                | 74%          |                | 75%          |                |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.65A/115VAC                                                                                                            |                          | 0.4A/230VAC                     |              |              |                |              |                |              |                |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | COLD START 32A                                                                                                          |                          |                                 |              |              |                |              |                |              |                |
|                          | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <0.5mA/ 240VAC                                                                                                          |                          |                                 |              |              |                |              |                |              |                |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Above 105% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                          |                                 |              |              |                |              |                |              |                |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.75 ~ 6.75V                                                                                                            | 13.8 ~ 16.2V             | 5.75 ~ 6.75V                    | 27.6 ~ 32.4V | 5.75 ~ 6.75V | -5.75 ~ -6.75V | 13.8 ~ 16.2V | -13.8 ~ -16.2V | 17.3 ~ 20.3V | -17.3 ~ -20.3V |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Protection type : Shut off o/p voltage, clamping by zener diode                                                         |                          |                                 |              |              |                |              |                |              |                |
|                          | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Shut down o/p voltage, re-power on to recover                                                                           |                          |                                 |              |              |                |              |                |              |                |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -10 ~ +60℃ (Refer to "Derating Curve")                                                                                  |                          |                                 |              |              |                |              |                |              |                |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20 ~ 90% RH non-condensing                                                                                              |                          |                                 |              |              |                |              |                |              |                |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -20 ~ +85℃, 10 ~ 95% RH                                                                                                 |                          |                                 |              |              |                |              |                |              |                |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ±0.03%/℃ (0 ~ 50℃) ON CH1 output                                                                                        |                          |                                 |              |              |                |              |                |              |                |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                 |                          |                                 |              |              |                |              |                |              |                |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UL60950-1, TUV EN60950-1 approved                                                                                       |                          |                                 |              |              |                |              |                |              |                |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC                                                                               |                          |                                 |              |              |                |              |                |              |                |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                               |                          |                                 |              |              |                |              |                |              |                |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3                                                                 |                          |                                 |              |              |                |              |                |              |                |
|                          | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN61000-4-2,3,4,5, light industry level, criteria A                                                       |                          |                                 |              |              |                |              |                |              |                |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 507.9Khrs min. MIL-HDBK-217F (25℃)                                                                                      |                          |                                 |              |              |                |              |                |              |                |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 107*61*28mm (L*W*H)                                                                                                     |                          |                                 |              |              |                |              |                |              |                |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.15Kg; 96pcs/15.9Kg/1.3CUFT                                                                                            |                          |                                 |              |              |                |              |                |              |                |
| NOTE                     | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> )<br>5. Heat Sink HS1,HS2,HS3 can not be shorted. |                                                                                                                         |                          |                                 |              |              |                |              |                |              |                |

## Mechanical Specification

Unit:mm



AC Input Connector (CN1) : Molex 41791-03 or equivalent

| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | AC/L       | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 2       | No Pin     |                          |                          |
| 3       | AC/N       |                          |                          |

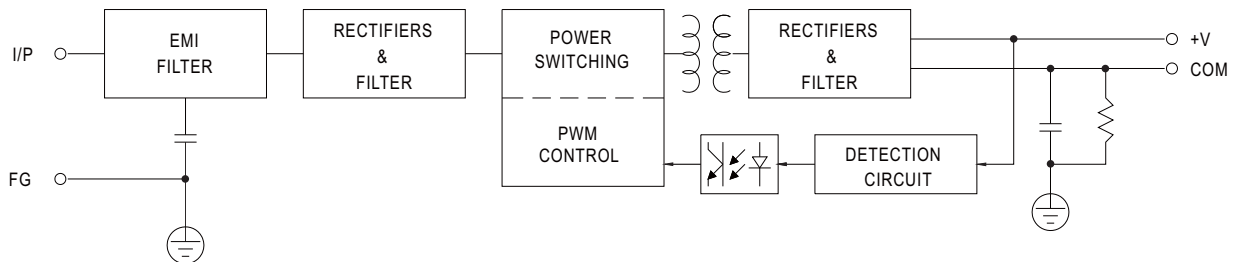
DC Output Connector (CN2) : Molex 41791-04 or equivalent

| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | V1         | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 2,3     | COM        |                          |                          |
| 4       | V2         |                          |                          |

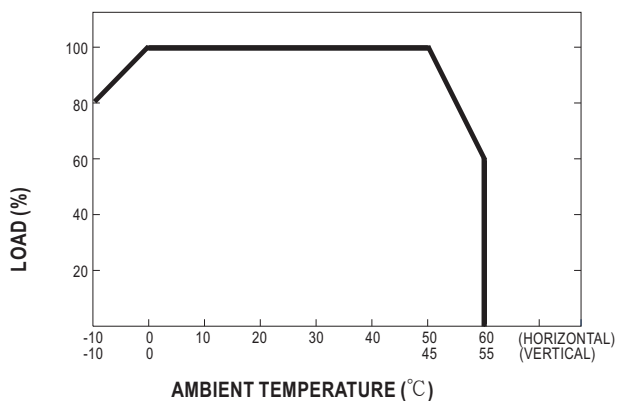
⚠ HS1,HS2,HS3 can not be shorted

## Block Diagram

fosc : 100KHz



## Derating Curve



## Static Characteristics (A)

