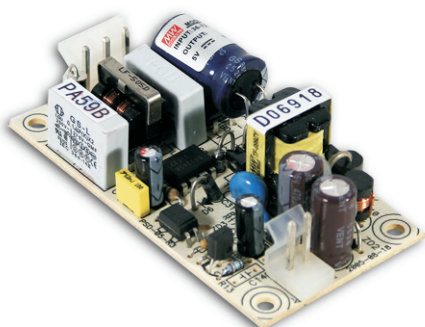




## ■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- Fix switching frequency at 67KHz
- Low cost
- High reliability
- 2 years warranty

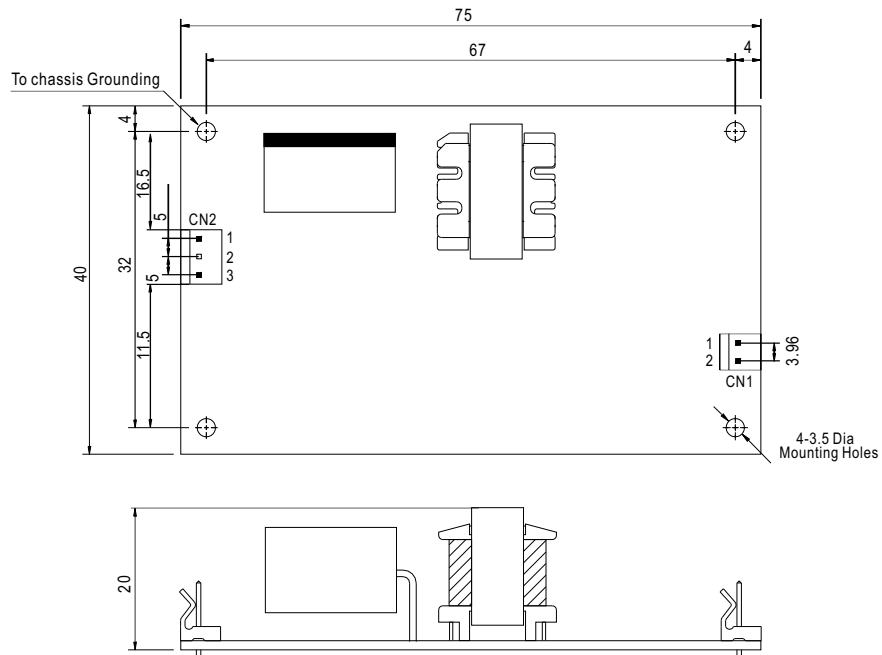
## SPECIFICATION



| MODEL                     |                              | PSD-05-05                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PSD-05-12  | PSD-05-24   |
|---------------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|
| OUTPUT                    | DC VOLTAGE                   | 5V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12V        | 24V         |
|                           | RATED CURRENT                | 1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.45A      | 0.22A       |
|                           | CURRENT RANGE                | 0 ~ 1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0 ~ 0.5A   | 0 ~ 0.25A   |
|                           | RATED POWER                  | 5W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5.4W       | 5.28W       |
|                           | RIPPLE & NOISE (max.) Note.2 | 50mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 100mVp-p   | 150mVp-p    |
|                           | VOLTAGE TOLERANCE Note.3     | ±2.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±2.0%      | ±2.0%       |
|                           | LINE REGULATION              | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±1.0%      | ±0.5%       |
|                           | LOAD REGULATION              | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ±1.0%      | ±0.5%       |
| SETUP, RISE, HOLD UP TIME |                              | 1.2s, 20ms, --- at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |             |
| INPUT                     | VOLTAGE RANGE                | 36 ~ 72VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |             |
|                           | EFFICIENCY(Typ.)             | 75%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 78%        | 78%         |
|                           | DC CURRENT(Typ.)             | 0.15A/48V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |             |
| PROTECTION                | OVERLOAD                     | Above 105% rated output power<br>Protection type : Fold back current limiting, recovery automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                        |            |             |
|                           | OVER VOLTAGE                 | 5.75~ 6.75V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 13.8~16.2V | 27.6~ 32.4V |
|                           |                              | Protection type : Hiccup mode, recovery automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |             |
|                           | OVER TEMPERATURE             | U1 Tj140 typically(U1)detect on main control IC<br>Protection type : Hiccup mode, recovery automatically after temperature goes down                                                                                                                                                                                                                                                                                                                                                                                          |            |             |
| ENVIRONMENT               | WORKING TEMP.                | -10 ~ +60℃ (Refer to output load derating curve)                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |             |
|                           | WORKING HUMIDITY             | 20 ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |             |
|                           | STORAGE TEMP., HUMIDITY      | -20 ~ +85℃, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |             |
|                           | TEMP. COEFFICIENT            | ±0.05%/℃ (0 ~ 50℃)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |             |
|                           | VIBRATION                    | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |             |
| SAFETY & EMC              | WITHSTAND VOLTAGE            | I/P-O/P:2KVAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |             |
|                           | ISOLATION RESISTANCE         | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |             |
|                           | EMI CONDUCTION & RADIATION   | Compliance to EN55022 (CISPR22) Class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |             |
|                           | EMS IMMUNITY                 | Compliance to EN61000-4-2, 3, 4, 6, 8 ENV50204, EN55024, EN61000-6-1, light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                        |            |             |
| OTHERS                    | DIMENSION                    | 75*40*20mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |             |
|                           | PACKING                      | 50mg;120pcs/6.25Kg/1CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |             |
| NOTE                      |                              | 1. All parameters NOT specially mentioned are measured at 48VDC 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. The final equipment must be re-confirmed that it still meets EMC directives. |            |             |

## Mechanical Specification

Unit:mm



DC Input Connector (CN2) : MOLEX5285-03 or equivalent

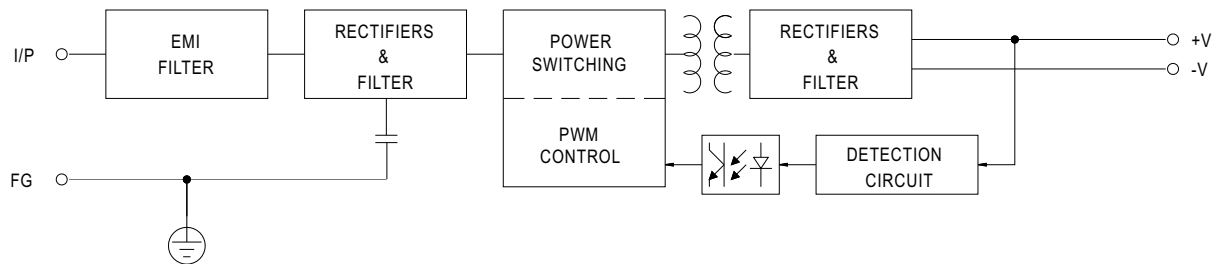
| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | FG         | MOLEX 5058 or equivalent | MOLEX 2478 or equivalent |
| 2       | (-V)       |                          |                          |
| 3       | (+V)       |                          |                          |

DC Output Connector (CN1) : MOLEX5273-02 or equivalent

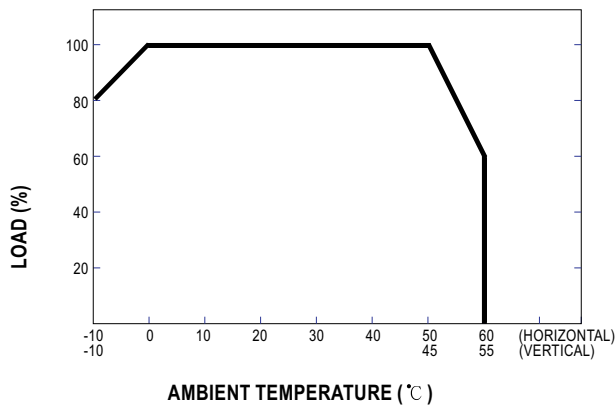
| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | +V         | MOLEX 5195 or equivalent | MOLEX 5194 or equivalent |
| 2       | -V         |                          |                          |

## Block Diagram

fosc : 67KHz



## Derating Curve



## Static Characteristics

