



# 16W Single Output LED Power Supply

# PLD-16 series



### ■ Features :

- 115VAC or 230VAC models available
- Built-in active PFC function
- Constant current design
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully isolated plastic case
- Class 2 Power Unit
- Class II power unit, no FG
- IP30 design
- Suitable for indoor LED lighting applications
- 100% full load burn-in test
- Low cost
- High reliability
- 3 years warranty



PLD-16-350  A : With AC input 90~ 135VAC.  
 B : With AC input 180~ 295VAC.

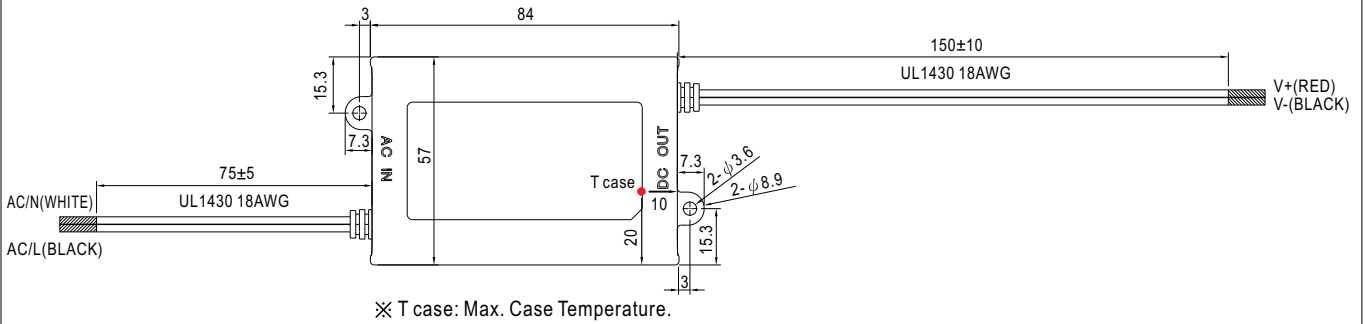
### SPECIFICATION

| MODEL                  | PLD-16-350 <input type="checkbox"/>  | PLD-16-700 <input type="checkbox"/>   | PLD-16-1050 <input type="checkbox"/> | PLD-16-1400 <input type="checkbox"/> |            |       |
|------------------------|--|---|--------------------------------------|--------------------------------------|------------|-------|
| OUTPUT                 | <b>RATED CURRENT</b>   | 350mA   | 700mA                                | 1050mA                               | 1400mA     |       |
|                        | <b>OPERATING VOLTAGE RANGE</b>   | 24 ~ 48V  | 16 ~ 24V                             | 12 ~ 16V                             | 8 ~ 12V    |       |
|                        | <b>CURRENT RANGE</b>   | 0 ~ 350mA   | 0 ~ 700mA                            | 0 ~ 1050mA                           | 0 ~ 1400mA |       |
|                        | <b>CURRENT ACCURACY</b>  | ±5.0%   |                                      |                                      |            |       |
|                        | <b>RATED POWER</b>   | 16.8W   | 16.8W                                | 16.8W                                | 16.8W      |       |
|                        | <b>RIPPLE &amp; NOISE (max.) Note.1</b>  | 4.6Vp-p   | 2.7Vp-p                              | 2.2Vp-p                              | 2Vp-p      |       |
|                        | <b>NO LOAD OUTPUT VOLTAGE (max.)</b>   | 63V   | 35V                                  | 25V                                  | 16V        |       |
|                        | <b>SETUP TIME</b>  | 1000ms / 230VAC 2000ms / 115VAC at full load  |                                      |                                      |            |       |
| INPUT                  | <b>FREQUENCY RANGE</b>   | 47 ~ 63Hz   |                                      |                                      |            |       |
|                        | <b>POWER FACTOR (Typ.)</b>   | PF>0.9/115VAC, PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)            |                                      |                                      |            |       |
|                        | <b>EFFICIENCY (Typ.)</b>   | A series  | 84.5%                                | 84.5%                                | 84%        | 82.5% |
|                        |  | B series  | 86%                                  | 86%                                  | 85%        | 83.5% |
|                        | <b>AC CURRENT (Typ.)</b>   | 0.4A/115VAC   | 0.2A/230VAC                          | 0.15A/277VAC                         |            |       |
|                        | <b>INRUSH CURRENT(max.)</b>  | 40A/230VAC  |                                      |                                      |            |       |
| <b>LEAKAGE CURRENT</b> | <0.5mA / 240VAC  |   |                                      |                                      |            |       |
| PROTECTION             | <b>SHORT CIRCUIT</b>   | Hiccup mode, recovers automatically after fault condition is removed.   |                                      |                                      |            |       |
|                        | <b>OVER TEMPERATURE</b>  | 95°C±10°C (RTH1)<br>Protection type : Shut down o/p voltage, re-power on to recover                                       |                                      |                                      |            |       |
| ENVIRONMENT            | <b>WORKING TEMP.</b>   | -30 ~ +50°C (Refer to "Derating Curve")   |                                      |                                      |            |       |
|                        | <b>WORKING HUMIDITY</b>  | 20 ~ 95% RH non-condensing  |                                      |                                      |            |       |
|                        | <b>STORAGE TEMP., HUMIDITY</b>   | -40 ~ +80°C, 10 ~ 95% RH  |                                      |                                      |            |       |
|                        | <b>TEMP. COEFFICIENT</b>   | ±0.03%/°C (0 ~ 50°C)  |                                      |                                      |            |       |
|                        | <b>VIBRATION</b>   | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes   |                                      |                                      |            |       |
| SAFETY & EMC           | <b>SAFETY STANDARDS</b>  | UL 8750, CSA C22.2 No.250.0-08(except for PLD-16-350);ENEC EN 613471-1,EN 61347-2-13 independent(for B type only)approved |                                      |                                      |            |       |
|                        | <b>WITHSTAND VOLTAGE</b>   | I/P-O/P:3.75KVAC  |                                      |                                      |            |       |
|                        | <b>ISOLATION RESISTANCE</b>  | I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH   |                                      |                                      |            |       |
|                        | <b>EMC EMISSION</b>  | Compliance to EN55015 (B type only), EN61000-3-2 Class C ; EN61000-3-3, FCC part 18 non-consumer equipment(A type only)   |                                      |                                      |            |       |
|                        | <b>EMC IMMUNITY</b>  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level, criteria A   |                                      |                                      |            |       |
| OTHERS                 | <b>MTBF</b>  | 906.5Khrs min. MIL-HDBK-217F (25°C)   |                                      |                                      |            |       |
|                        | <b>DIMENSION</b>   | 84*57*29.5mm (L*W*H)  |                                      |                                      |            |       |
|                        | <b>PACKING</b>   | 0.19Kg; 72pcs/14.7Kg/0.92CUFT   |                                      |                                      |            |       |
| NOTE                   | 1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>2. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. |   |                                      |                                      |            |       |

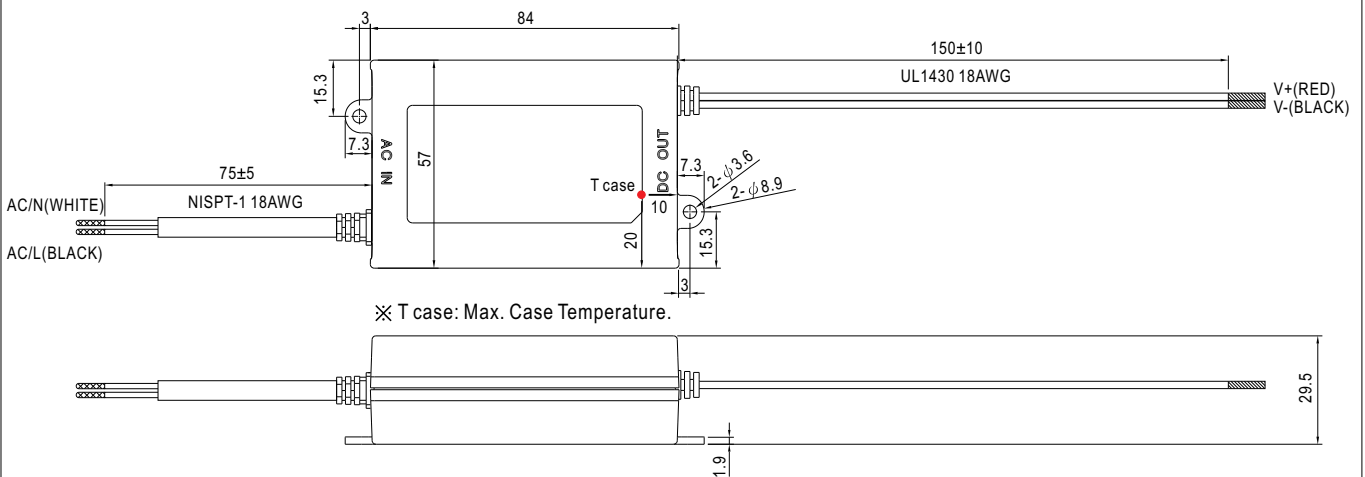
**Mechanical Specification**

Case No. PCD16A Unit: mm

**A Type: (PLD-16\_A)**

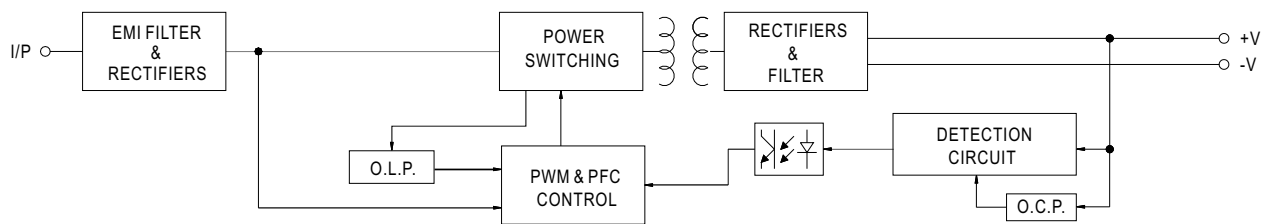


**B Type: (PLD-16\_B)**

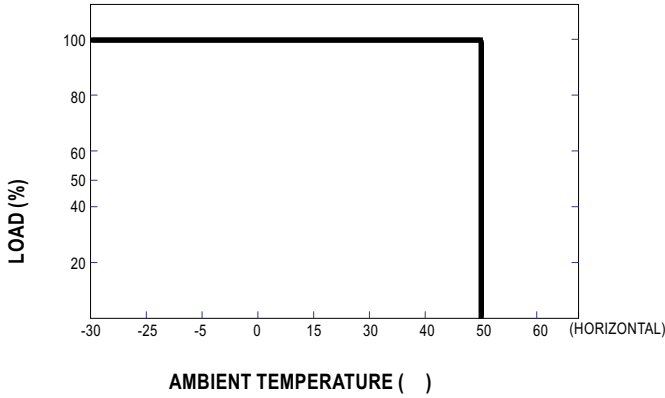


**Block Diagram**

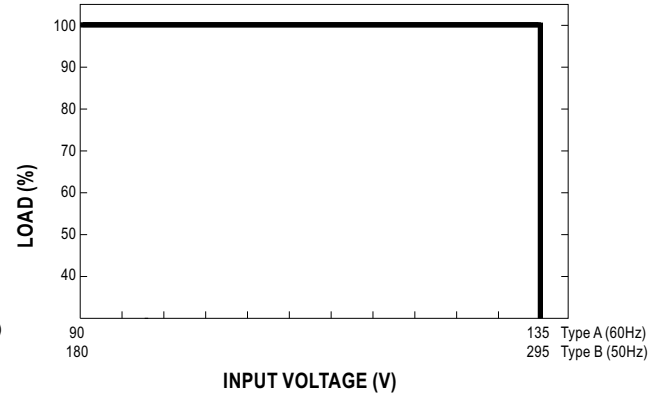
fosc : 90KHz(115VAC)  
120KHz(230VAC)



Derating Curve

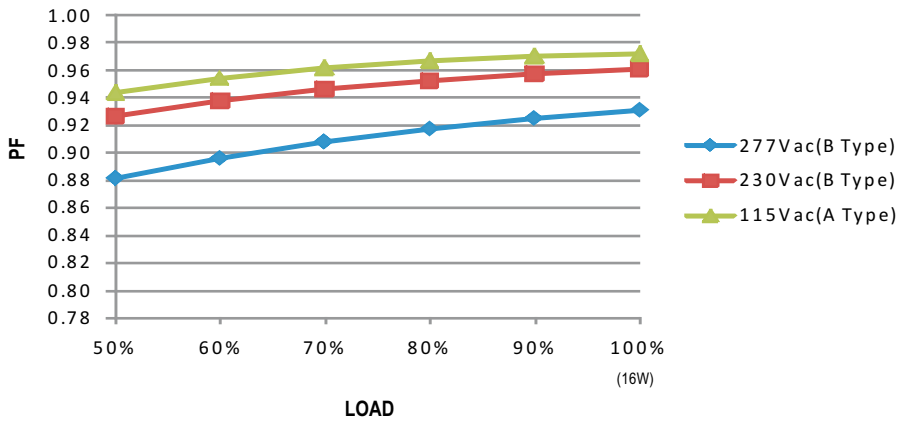


Static Characteristics



Power Factor Characteristic

Constant Current Mode



EFFICIENCY vs LOAD (PLD-16-350)

PLD-16 series possess superior working efficiency that up to 86% can be reached in field applications.

