



- Features :
- AC phase-cut dimming
  - Work with leading edge and trailing edge TRIAC dimmers
  - 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
  - IP42 design
  - Class II power unit, no FG
  - Class 2 power unit
  - Suitable for indoor LED lighting applications
  - 100% full load burn-in test
  - Low cost
  - High reliability
  - 3 years warranty



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

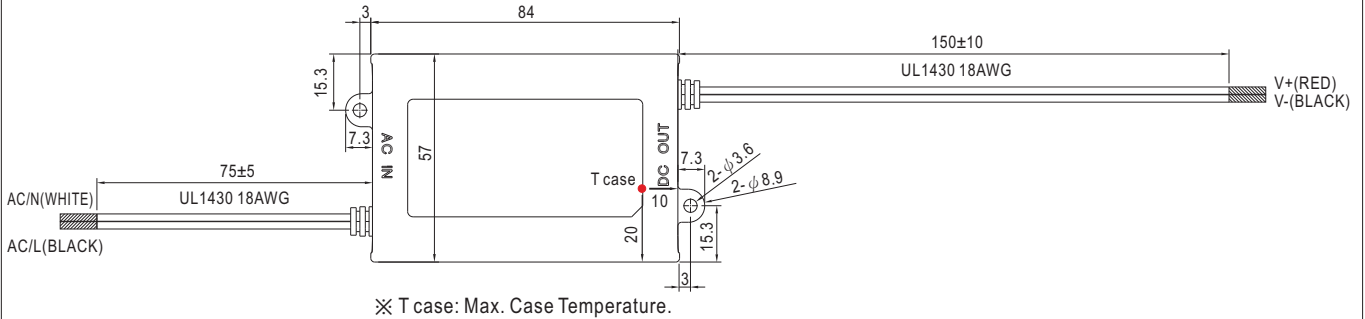
**SPECIFICATION**

| MODEL           | PCD-16-350 □  | PCD-16-700 □  | PCD-16-1050 □   | PCD-16-1400 □ |         |
|-----------------|---|---|---|---------------|---------|
| OUTPUT          | RATED CURRENT   | 350mA   | 700mA   | 1050mA        | 1400mA  |
|                 | OPERATING VOLTAGE RANGE   | 24 ~ 48V  | 16 ~ 24V  | 12 ~ 16V      | 8 ~ 12V |
|                 | CURRENT ACCURACY  | ±5.0%   |   |               |         |
|                 | RATED POWER   | 16.8W   | 16.8W   | 16.8W         | 16.8W   |
|                 | RIPPLE & NOISE (max.) Note.1  | 4.6Vp-p   | 2.7Vp-p   | 2.2Vp-p       | 2Vp-p   |
|                 | NO LOAD OUTPUT VOLTAGE (max.)   | 60V   | 35V   | 25V           | 16V     |
| SETUP TIME      | 500ms / 230VAC 2000ms / 115VAC at full load   |   |   |               |         |
| INPUT           | FREQUENCY RANGE   | 47 ~ 63Hz   |   |               |         |
|                 | POWER FACTOR (Typ.)   | PF>0.9/115VAC, PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)  |   |               |         |
|                 | TOTAL HARMONIC DISTORTION   | A series  | THD< 20% when output loading≥70% at 115VAC  |               |         |
|                 |   | B series  | THD< 20% when output loading≥70% at 230VAC input and output loading≥80% at 277VAC input |               |         |
|                 | EFFICIENCY (Typ.)   | 82%   | 81%   | 80.5%         | 80%     |
|                 | AC CURRENT (Typ.)   | 0.4A/115VAC   | 0.2A/230VAC   | 0.15A/277VAC  |         |
|                 | INRUSH CURRENT(max.)  | COLD START 10A(twidth=90µs measured at 50% Ipeak) at 115VAC / 230VAC  |   |               |         |
|                 | MAX. No. of PSUs on 16A CIRCUIT BREAKER   | A series  | 58 units (circuit breaker of type B) / 58 units (circuit breaker of type C) at 115VAC   |               |         |
|                 | B series  | 128 units (circuit breaker of type B) / 128 units (circuit breaker of type C) at 230VAC   |   |               |         |
| LEAKAGE CURRENT | <0.5mA / 120VAC / 240VAC  |   |   |               |         |
| PROTECTION      | SHORT CIRCUIT   | Hiccup mode, recovers automatically after fault condition is removed.   |   |               |         |
|                 | OVER TEMPERATURE  | Shut down o/p voltage, re-power on to recover   |   |               |         |
| ENVIRONMENT     | WORKING TEMP.   | -30 ~ +60°C (Refer to "Derating Curve")   |   |               |         |
|                 | WORKING HUMIDITY  | 20 ~ 95% RH non-condensing  |   |               |         |
|                 | STORAGE TEMP., HUMIDITY   | -40 ~ +80°C, 10 ~ 95% RH  |   |               |         |
|                 | TEMP. COEFFICIENT   | ±0.03%/°C (0 ~ 50°C)  |   |               |         |
|                 | VIBRATION   | 10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes   |   |               |         |
| SAFETY & EMC    | SAFETY STANDARDS  | UL8750, CSA C22.2 No. 250.0-08(except for PCD-16-350), ENEC EN613471, EN61347-2-13, EN62384(for B type only), IP42 approved ; design refer to UL60950-1, TUV EN60950-1, EN61347-1, EN61347-2-13 |   |               |         |
|                 | WITHSTAND VOLTAGE   | I/P-O/P:3.75KVAC  |   |               |         |
|                 | ISOLATION RESISTANCE  | I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH   |   |               |         |
|                 | EMC EMISSION  | Compliance to EN55015 (B type only), EN61000-3-2 Class C ; EN61000-3-3, FCC part 18 non-consumer equipment (A type only)  |   |               |         |
|                 | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024,EN61547, light industry level, criteria A   |   |               |         |
| OTHERS          | MTBF  | 906.5K hrs min. MIL-HDBK-217F (25°C)  |   |               |         |
|                 | DIMENSION   | 84*57*29.5mm (L*W*H)  |   |               |         |
|                 | PACKING   | 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.<br>3. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains. |   |   |               |         |

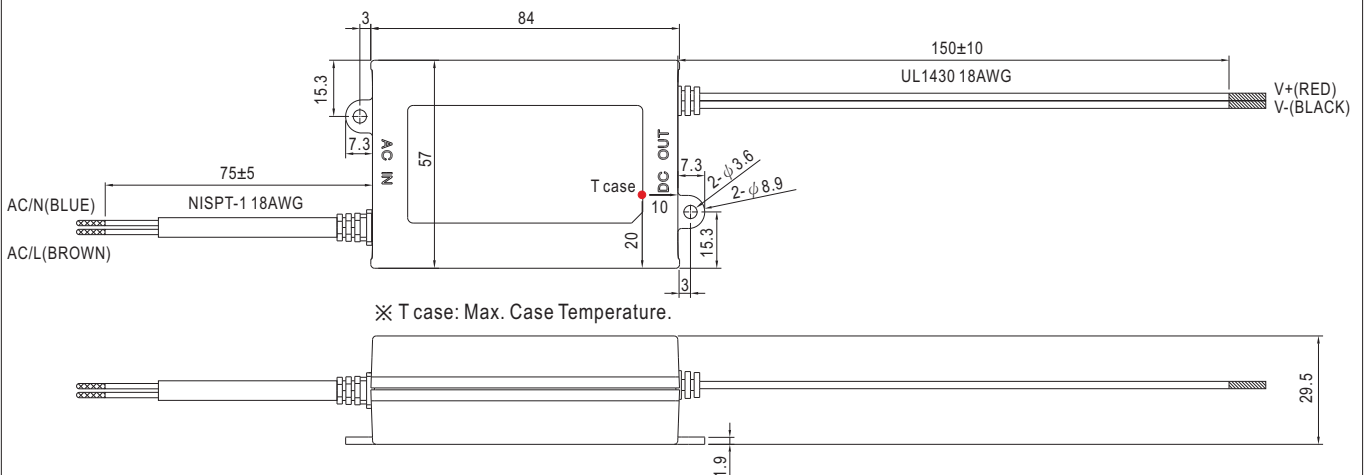
**Mechanical Specification**

Case No. PCD16A Unit: mm

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

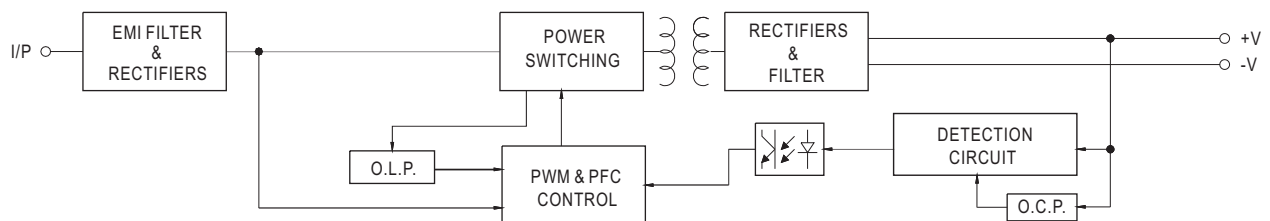


**B Type: (PCD-16\_B)**

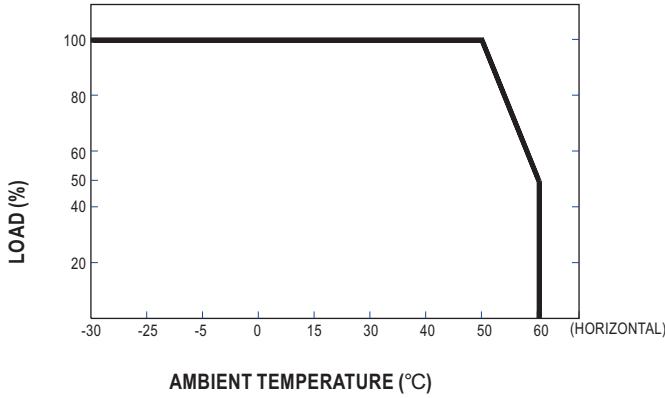


**Block Diagram**

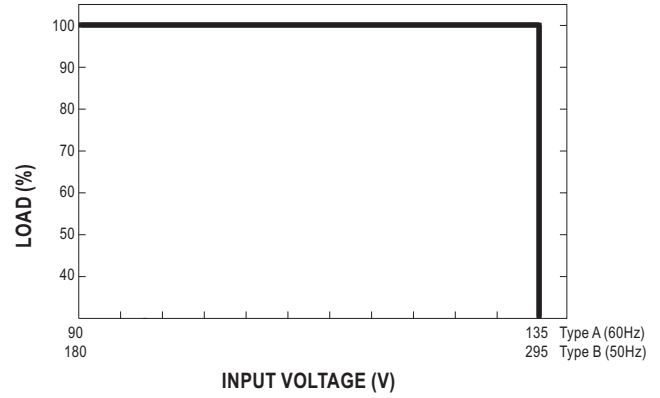
fosc : 90KHz(115VAC)  
120KHz(230VAC)



■ Derating Curve

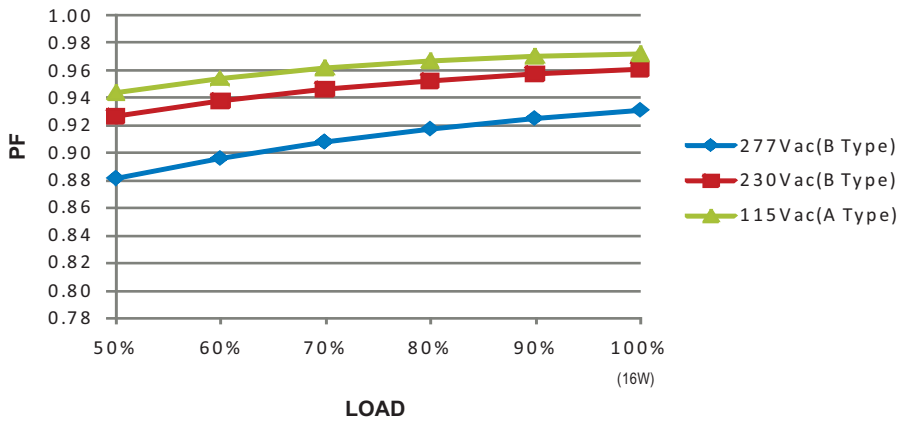


■ Static Characteristics



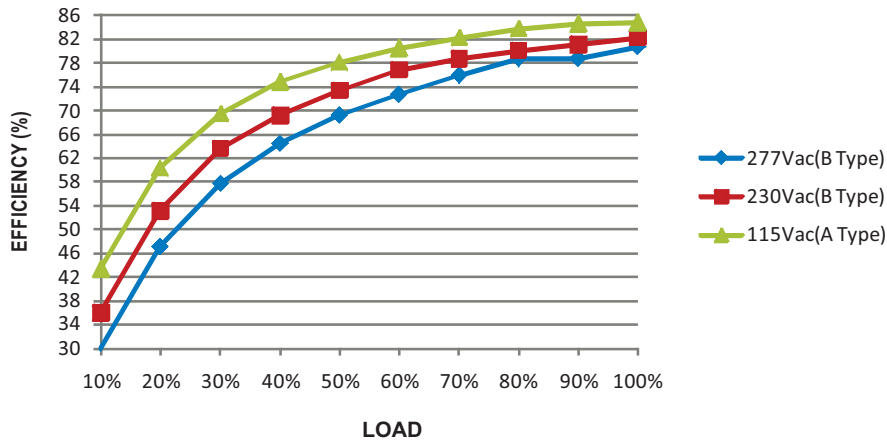
■ Power Factor Characteristic

Constant Current Mode



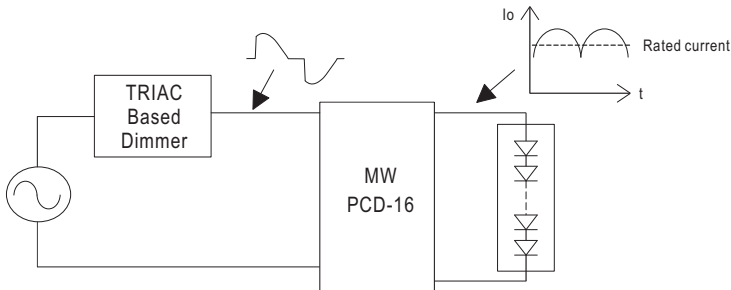
■ EFFICIENCY vs LOAD (PCD-16-350)

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



**AC Dimming Operation**

⊙ The following diagram depicts a typical installation utilizing the PCD-16 :



Under direct driving, the power supply will work in "constant current mode (CC)" and output voltage of the power supply will be clamped by sum of forward voltage (VF) of the LED strip.

⊙ Dimmer Compatibility Chart

| Manufacturer            | Dimmer Model                |                     |
|-------------------------|-----------------------------|---------------------|
| LUTRON                  | SKYLARK SF-12P-277          | (277VAC / 60Hz)     |
| LUTRON                  | DVF-103P-277                | (277VAC / 60Hz)     |
| LUTRON                  | SKYLARK SF-10P              | (120VAC / 60Hz)     |
| LUTRON                  | SKYLARK S-600P              | (120VAC / 60Hz)     |
| LUTRON                  | SKYLARK DVF-103P            | (120VAC / 60Hz)     |
| LEVITON                 | ILLUMATECH TM Cat.No.IP106  | (120VAC / 60Hz)     |
| LEVITON                 | SURESLIDE TM Cat.No.6633-P  | (120VAC / 60Hz)     |
| LEVITON                 | SURESLIDE TM Cat. NO.6615-P | (120VAC / 60Hz)     |
| JUNG                    | Licht-Management 225 TDE    | (230VAC / 50Hz)     |
| JUNG                    | Licht-Management 225 NV DE  | (230VAC / 50Hz)     |
| BERKER                  | Tronic-Drehdimmer 286710    | (230-240VAC / 50Hz) |
| Bodo Ehmann LICHTREGLER | T39.01                      | (230VAC / 50Hz)     |
| CLIPSAL                 | 32E450UDM                   | (220-240VAC / 50Hz) |
| CLIPSAL                 | NO 32E450TM                 | (220-240VAC / 50Hz) |

Conduction angle: 30 degrees(min.) / 180 degrees(max.)