



25W Single Output AC Dimmable LED Power Supply

PCD-25 series



■ Features :

- AC phase-cut dimming
- Work with leading edge and trailing edge dimmers
- 115VAC or 230VAC models available
- Fully isolated plastic case
- Constant current design
- Protections: Short circuit / Overload / Over temperature
- Built-in active PFC function
- Cooling by free air convection
- Suitable for indoor LED lighting applications
- 100% full load burn-in test
- Low cost
- High reliability
- 3 years warranty



PCD-25-350 A : With AC input 90~ 135VAC.
 B : With AC input 180~ 295VAC.

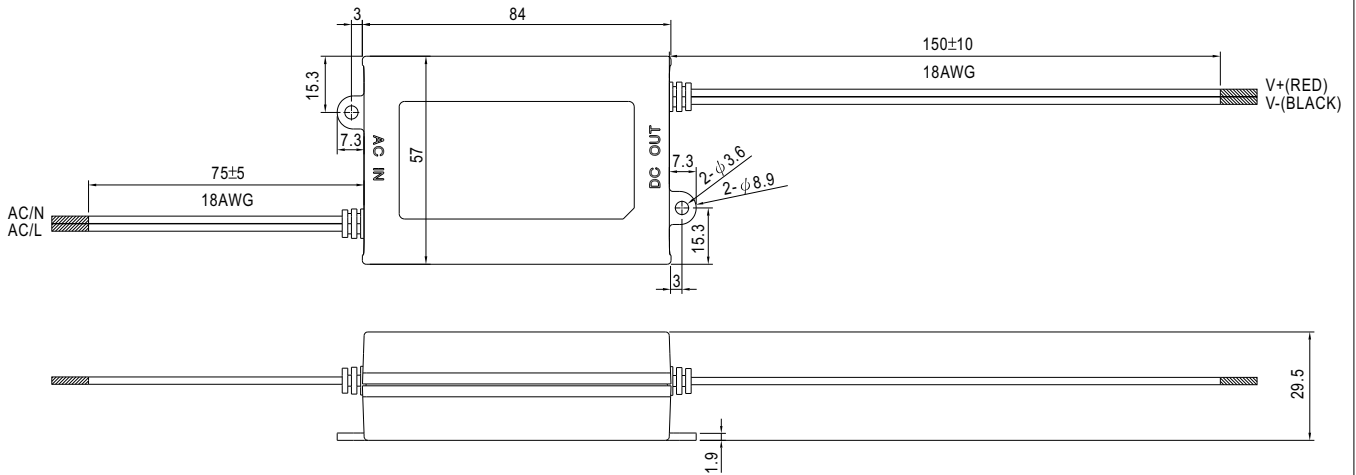
SPECIFICATION

| MODEL | PCD-25-350 <input type="checkbox"/> | PCD-25-700 <input type="checkbox"/> | PCD-25-1050 <input type="checkbox"/> | PCD-25-1400 <input type="checkbox"/> | |
|-----------------|---|---|--------------------------------------|--------------------------------------|------------|
| OUTPUT | RATED CURRENT | 350mA | 700mA | 1050mA | 1400mA |
| | OPERATING VOLTAGE RANGE | 40 ~ 58V | 24 ~ 36V | 16 ~ 24V | 12 ~ 18V |
| | CURRENT RANGE | 0 ~ 350mA | 0 ~ 700mA | 0 ~ 1050mA | 0 ~ 1400mA |
| | OUTPUT CURRENT ACCURACY | ±5% | | | |
| | RATED POWER | 20.3W | 25.2W | 25.2W | 25.2W |
| | RIPPLE & NOISE (max.) Note.1 | 4.6Vp-p | 2.7Vp-p | 2.2Vp-p | 2Vp-p |
| | NO LOAD OUTPUT VOLTAGE (max.) | 63V | 50V | 35V | 25V |
| SETUP TIME | 1000ms / 230VAC 2000ms / 115VAC at full load | | | | |
| INPUT | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | POWER FACTOR | PF ≥ 0.9 at full load and rated output voltage | | | |
| | EFFICIENCY (Typ.) | 82% | 81% | 80.5% | 80% |
| | AC CURRENT | 0.6A/115VAC 0.3A/230VAC | | | |
| | INRUSH CURRENT(max.) | 40A/230VAC | | | |
| LEAKAGE CURRENT | <0.5mA / 240VAC | | | | |
| PROTECTION | OVER CURRENT | 95 ~ 110% Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | |
| | SHORT CIRCUIT | Hiccup mode, recovers automatically after fault condition is removed. | | | |
| | OVER TEMPERATURE | 95°C ± 10°C (Rth1) Protection type : Shut down o/p voltage | | | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +60°C (Refer to output load 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 | Design refer to UL1310 Class 2, 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 | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55015 Class B (B type only), FCC part18 Class A (A type only) | | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2 Class C ; EN61000-3-3 | | | |
| EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level, criteria A | | | | |
| OTHERS | MTBF | 906.5Khrs 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. 2. Direct connecting to LEDs is not using additional drivers is highly recommended. | | | | |



Mechanical Specification

Case No.PCD16A Unit:mm



Type A: With AC input 90-135VAC

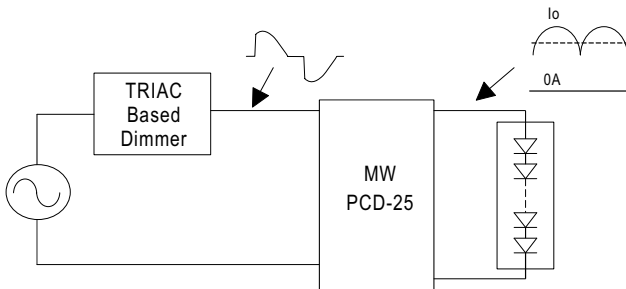
| | |
|------|-------|
| AC/N | White |
| AC/L | Black |

Type B: With AC input 180-295VAC

| | |
|------|-------|
| AC/N | Blue |
| AC/L | Brown |

AC Dimming Operation

◎ The following diagram depicts a typical installation utilizing the PCD-25 :



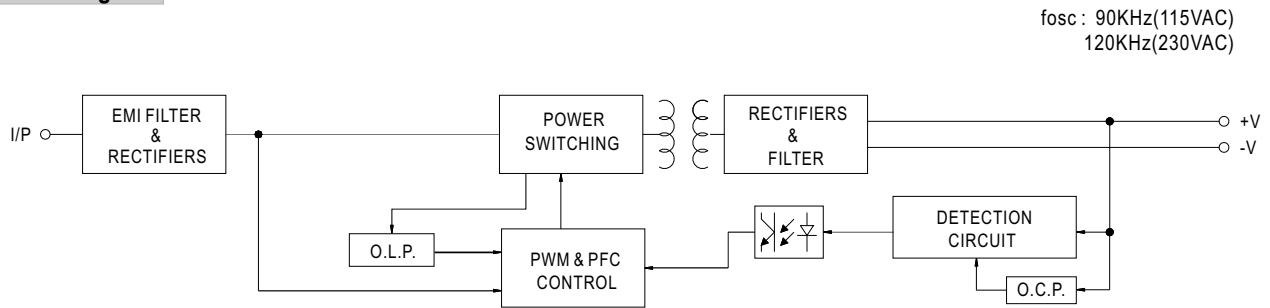
Under direct driving, the power supply will work in "constant current mode (CC)" and output voltage of the power supply will be clamped by sum of forward voltage (V_F) of the LED strip.

◎ Dimmer Compatibility Chart

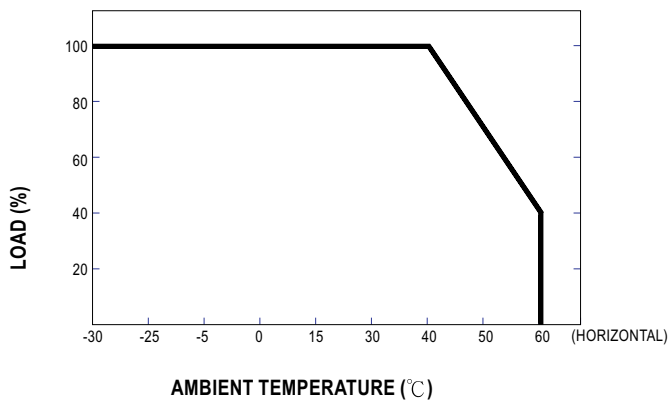
| Manufacturer | Dimmer Model |
|-------------------------|--|
| LUTRON | SKYLARK SF-12P-277 (277VAC / 60Hz) |
| LUTRON | DVF-103P-277 (277VAC / 60Hz) |
| LUTRON | SKYLARK SF-10P (120VAC / 60Hz) |
| LUTRON | SKYLARK S-600P (120VAC / 60Hz) |
| LUTRON | SKYLARK DVF-103P (120VAC / 60Hz) |
| LEVITON | ILLUMATECH 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.)

■ Block Diagram



■ Derating Curve



■ Static Characteristics

