

# PCD-16 series

## 16W single output AC dimmable LED power supply



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

### SPECIFICATION

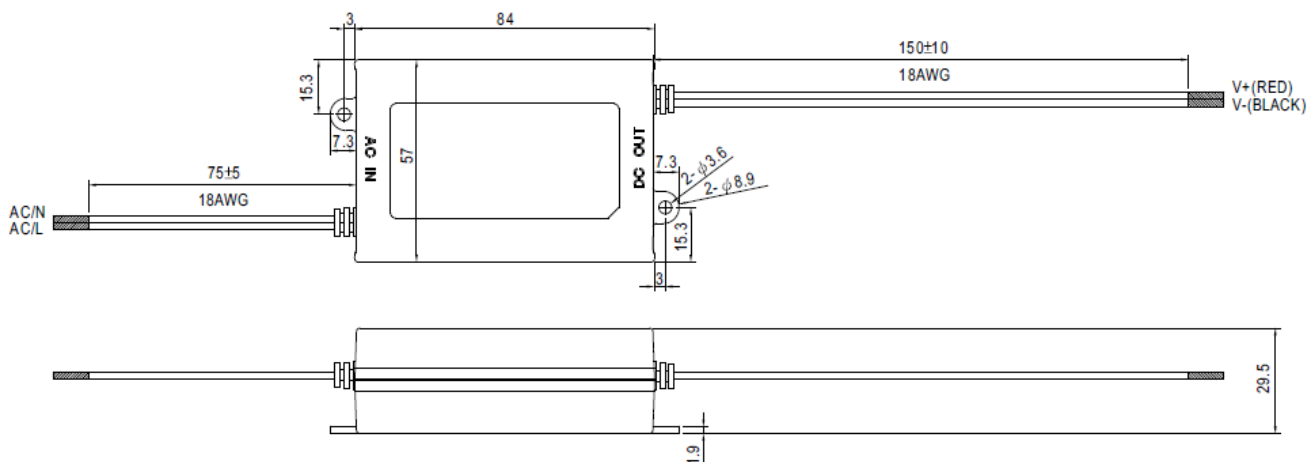
MODEL	PCD-16-350 <input type="checkbox"/>	PCD-16-700 <input type="checkbox"/>	PCD-16-1050 <input type="checkbox"/>	PCD-16-1400 <input type="checkbox"/>	
OUTPUT	RATED CURRENT	350mA	700mA	1050mA	1400mA
	OPERATING VOLTAGE RANGE	24 ~ 48V	16 ~ 24V	12 ~ 16V	8 ~ 12V
	CURRENT RANGE	0 ~ 350mA	0 ~ 700mA	0 ~ 1050mA	0 ~ 1400mA
	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.)	63V	35V	25V	16V
	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	0.4A/115VAC 0.2A/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 (TSW1) detect on heatsink of power transistor 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	TUV EN61347-1, EN61347-2-13 approved ; Design refer to UL1310 Class 2			
	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			
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level, criteria A			
	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.				

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## Mechanical Specification

Case No.PCD16A Unit:mm



Type A: With AC input 90-135VAC

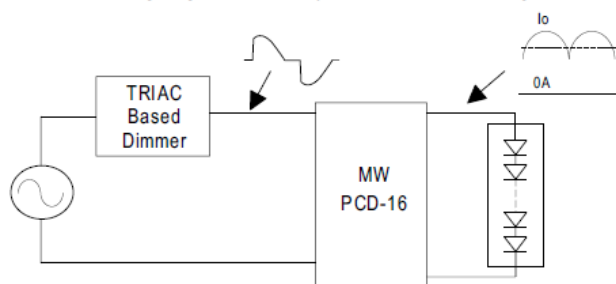
AC/N	White
AC/L	Black

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-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

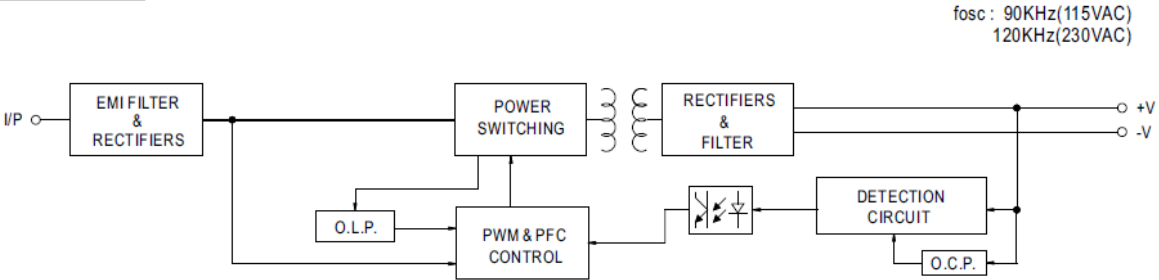
Manufacturer	Dimmer Model
LUTRON	SKYLARK SF-12P-277 (277VAC / 60Hz)
LUTRON	DVF-103P-277 (277VAC / 60Hz)
LUTRON	SKYLARK SF-10P (120VAC / 60Hz)
LUTRON	SKYLARK S-600P (120VAC / 60Hz)
LUTRON	SKYLARK DVF-103P (120VAC / 60Hz)
LEVITON	ILLUMATECH TM Cat.No.IP106 (120VAC / 60Hz)
LEVITON	SURESLIDE TM Cat.No.6633-P (120VAC / 60Hz)
LEVITON	SURESLIDE TM Cat. NO.6615-P (120VAC / 60Hz)
JUNG	Licht-Management 225 TMD (230VAC / 50Hz)
JUNG	Licht-Management 225 NV DE (230VAC / 50Hz)
BERKER	Tronic-Drehdimmer 286710 (230-240VAC / 50Hz)
BELICHTREGLER	T39.01 (230VAC / 50Hz)
BELICHTREGLER	T46 (230VAC / 50Hz)
CLIPSAL	32E450UDM (220-240VAC / 50Hz)
CLIPSAL	NO 32E450TM (220-240VAC / 50Hz)

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

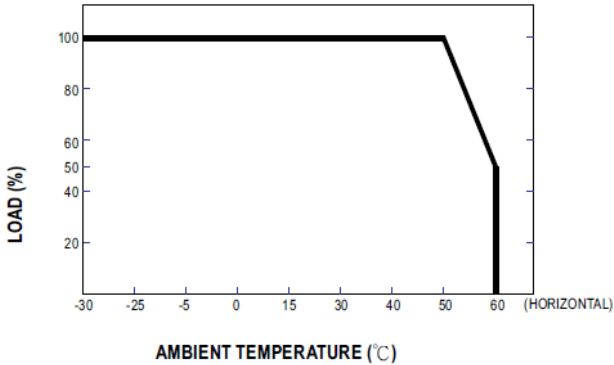
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### Block Diagram



### Derating Curve



### Static Characteristics

