



# 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.

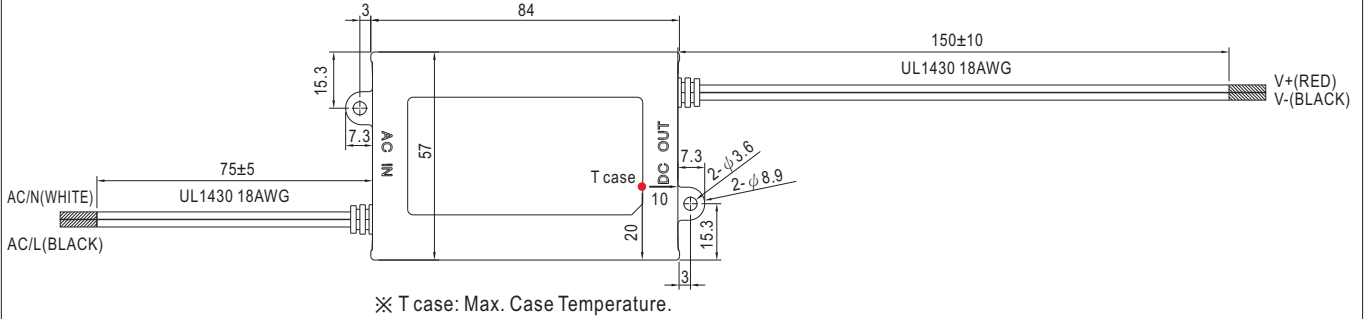
### SPECIFICATION

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	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.)	A series	84.5%	84%	82.5%
		B series	85.5%	86%	83.5%
	AC CURRENT (Typ.)	0.4A/115VAC	0.2A/230VAC	0.15A/277VAC	
	INRUSH CURRENT(Typ.)	COLD START 20A(twidth=25µs measured at 50% Ipeak) at 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 / 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 ~ +50°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	UL 8750, CSA C22.2 No.250.0-08(except for PLD-16-350);ENEC EN 613471-1,EN 61347-2-13 independent, EN62384(for B type only)approved			
	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, 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	<ol style="list-style-type: none"> <li>1. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>2. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.</li> <li>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.</li> </ol>				

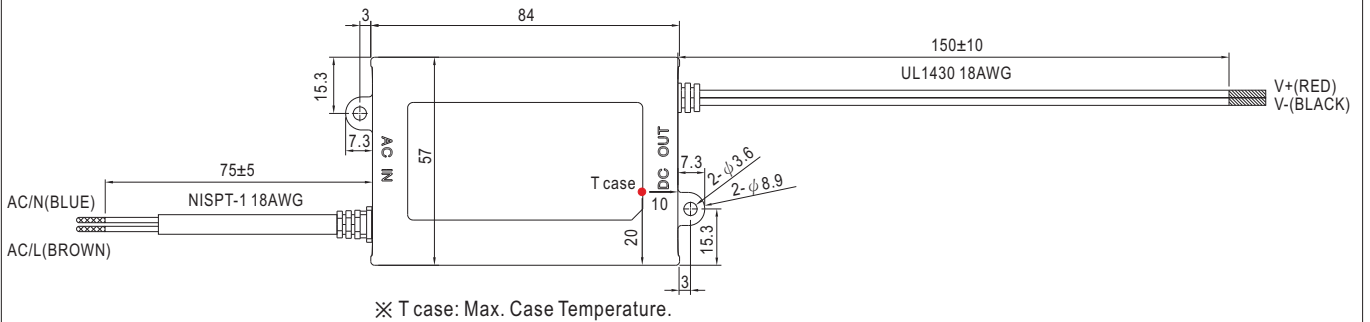
**Mechanical Specification**

Case No. PCD16A Unit: mm

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

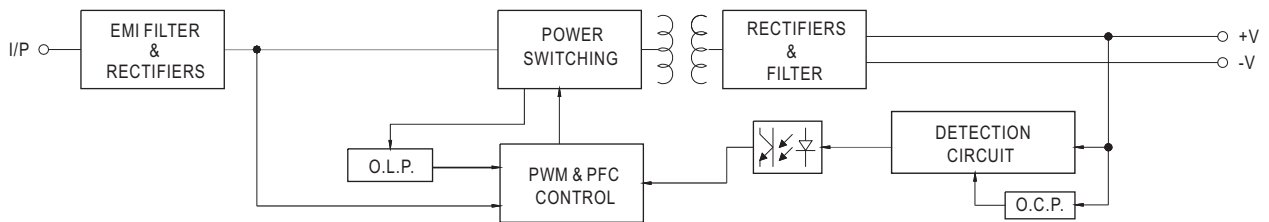


**B Type: (PLD-16\_B)**

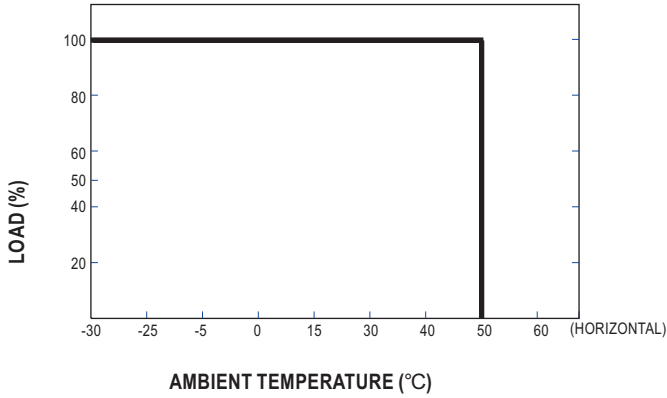


**Block Diagram**

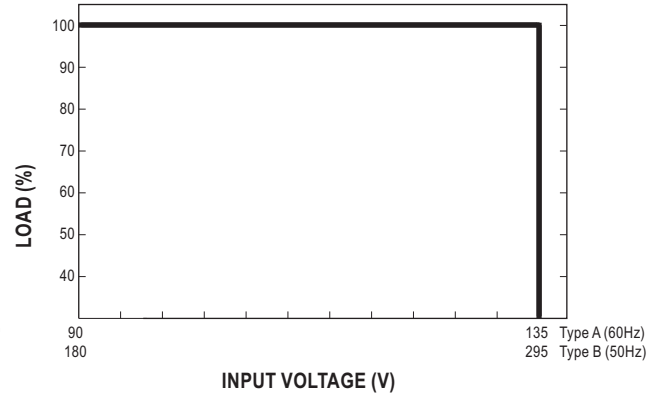
fosc : 90KHz(115VAC)  
120KHz(230VAC)



■ Derating Curve

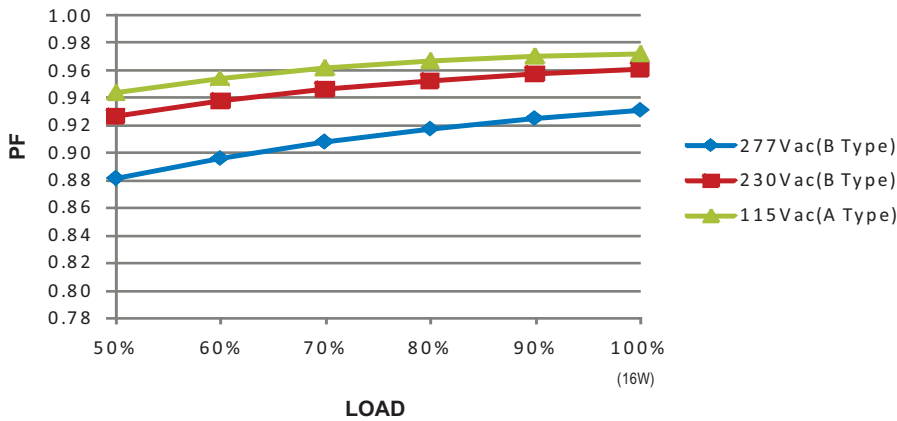


■ Static Characteristics



■ Power Factor Characteristic

Constant Current Mode



■ EFFICIENCY vs LOAD (PLD-16-350)

PLD-16 series possess superior working efficiency that up to 85.5% can be reached in field applications.

