



# 25W Single Output AC Dimmable LED Power Supply

# PCD-25 series



### ■ 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 LED related fixture or appliance (such as LED Decoration or Advertisement devices)
- 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.

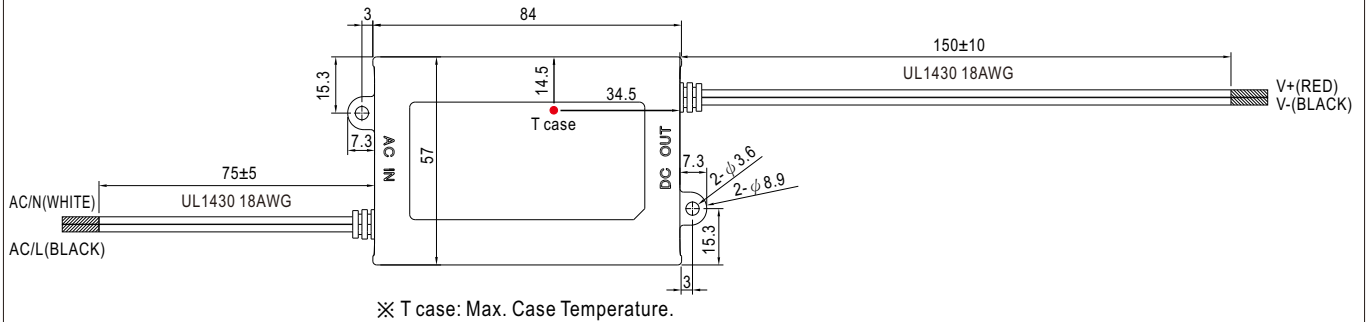
### SPECIFICATION

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 ACCURACY	±5.0%			
	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.)	60V	50V	35V	25V
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.)	0.6A/115VAC	0.3A/230VAC	0.2A/277VAC	
	INRUSH CURRENT(max.)	COLD START 10A(twidth=20μs measured at 50% I <sub>peak</sub> ) at 115VAC / 230VAC			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	A series	37 units (circuit breaker of type B) / 37 units (circuit breaker of type C) at 115VAC		
	B series	80 units (circuit breaker of type B) / 80 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, ENEC EN613471, EN61347-2-13, EN62384(for B type only), BIS IS15885(for 350B,700B only), EAC TP TC 004,IP42 approved ; design refer to UL60950-1, 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), EAC TP TC 020			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024,EN61547, light industry level, criteria A, EAC TP TC 020			
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	<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> <li>4. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> <li>5. For any application note and IP water proof function installation caution, please refer our user manual before using.  <a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a>            ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> </li> </ol>				

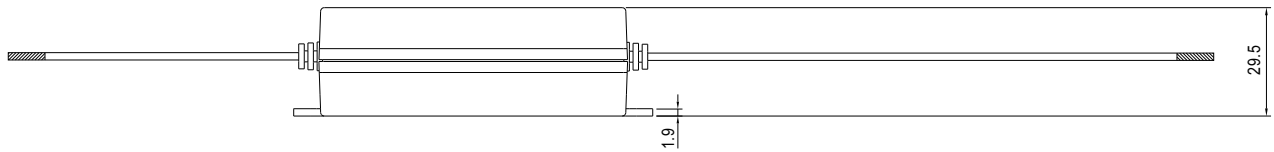
**Mechanical Specification**

Case No. PCD16A Unit: mm

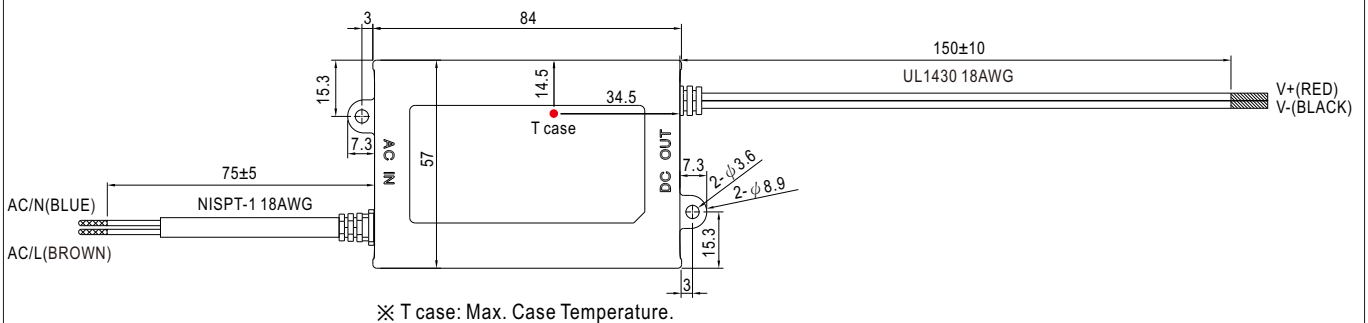
**A Type: (PCD-25\_A)**



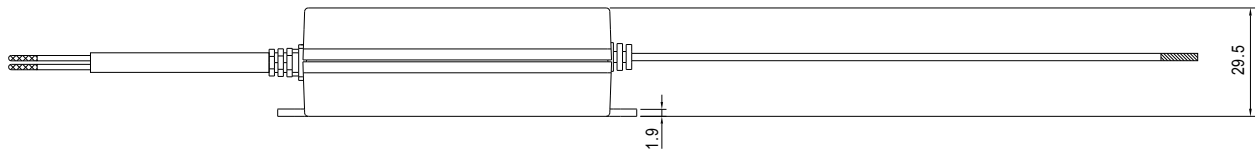
※ T case: Max. Case Temperature.



**B Type: (PCD-25\_B)**

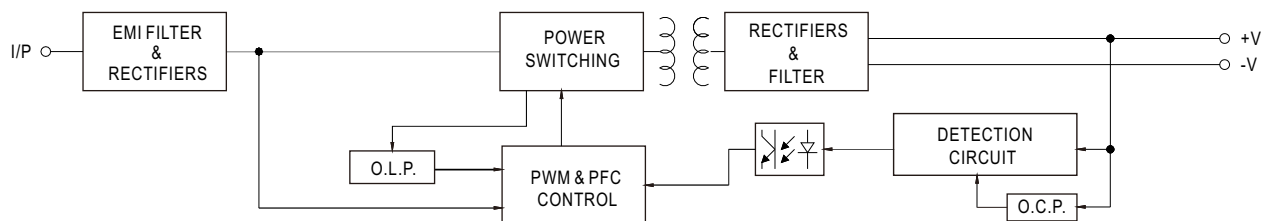


※ T case: Max. Case Temperature.

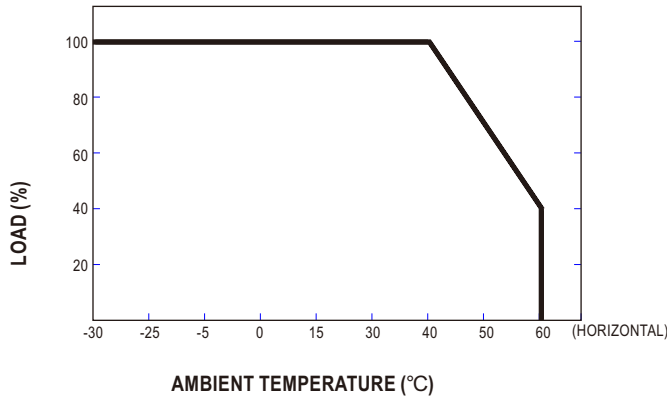


**Block Diagram**

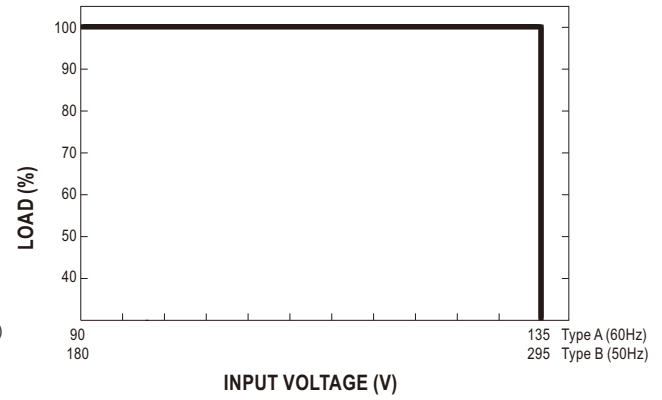
fosc : 90KHz(115VAC)  
120KHz(230VAC)



■ Derating Curve

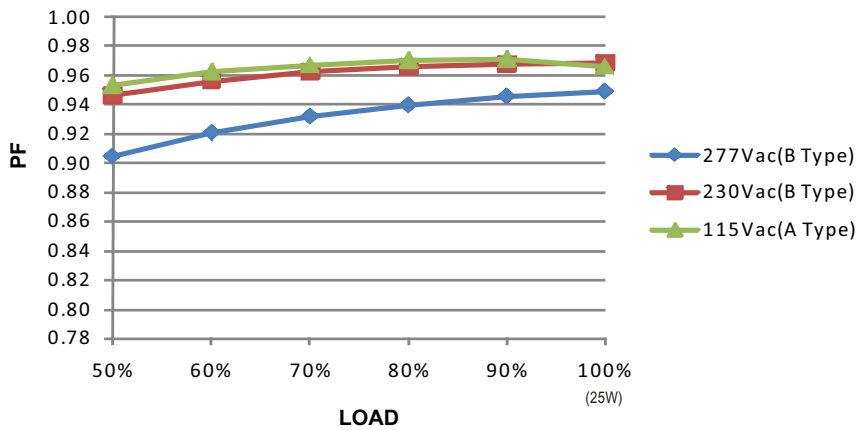


■ Static Characteristics



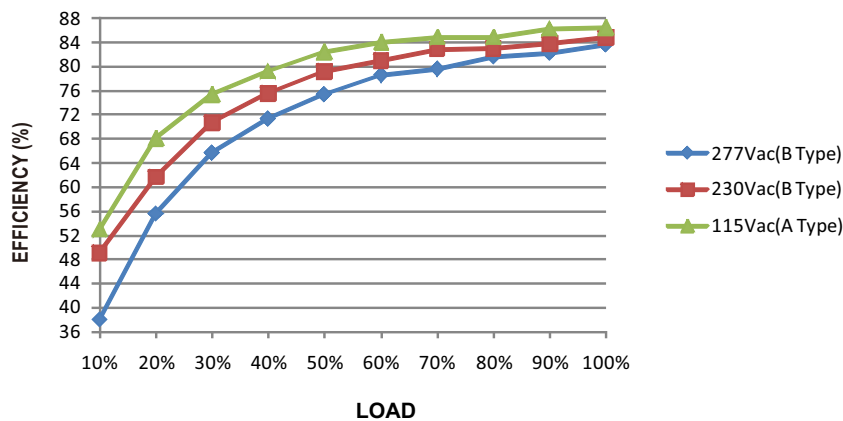
■ Power Factor Characteristic

Constant Current Mode



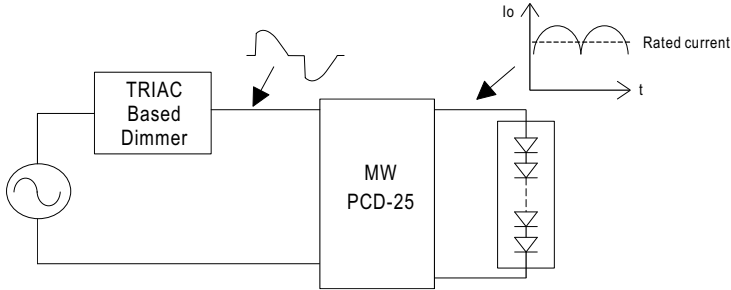
■ EFFICIENCY vs LOAD (PCD-25-350)

PCD-25 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-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<sub>F</sub>) 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.)