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

User's Manual Click Me

GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

SELV IP42 (for B type only) (for A type only) (for B type only) IS 15885(Part 2/Sec13) R-41027766 (for 350B,700B only) (optional) (for B type only) (for B type only) (for B type only)

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

SPECIFICATION

MODEL			PCD-25-350 ☐	PCD-25-700 ☐	PCD-25-1050 ☐	PCD-25-1400 ☐
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%	81%
	AC CURRENT (Typ.)		0.6A/115VAC 0.3A/230VAC 0.2A/277VAC			
	INRUSH CURRENT(max.)		COLD START 10A(t_{width}=20μs measured at 50% I_{peak}) 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℃ (Refer to "Derating Curve")			
	WORKING HUMIDITY		20 ~ 95% RH non-condensing			
	STORAGE TEMP., HUMIDITY		-40 ~ +80℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT		±0.03%/℃ (0 ~ 50℃)			
	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 BS EN/EN613471, BS EN/EN61347-2-13, BS EN/EN62384(for B type only), BIS IS15885(for 350B,700B only), EAC TP TC 004,IP42 approved ; design refer to UL60950-1, BS EN/EN61347-1, BS EN/EN61347-2-13			
	WITHSTAND VOLTAGE		I/P-O/P:3.75KVAC			
	ISOLATION RESISTANCE		I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH			
	EMC EMISSION		Compliance to BS EN/EN55015 (B type only), BS EN/EN61000-3-2 Class C ; BS EN/EN61000-3-3, FCC part 18 non-consumer equipment (A type only), EAC TP TC 020			
	EMC IMMUNITY		Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024,BS EN/EN61547, light industry level, EAC TP TC 020			
OTHERS	MTBF		6612.9K hrs min. Telcordia SR-332 (Bellcore) 806.1Khrs min. MIL-HDBK-217F (25℃)			
	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 suggested, but is not suitable for using additional drivers.
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.
4. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).
5. For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf

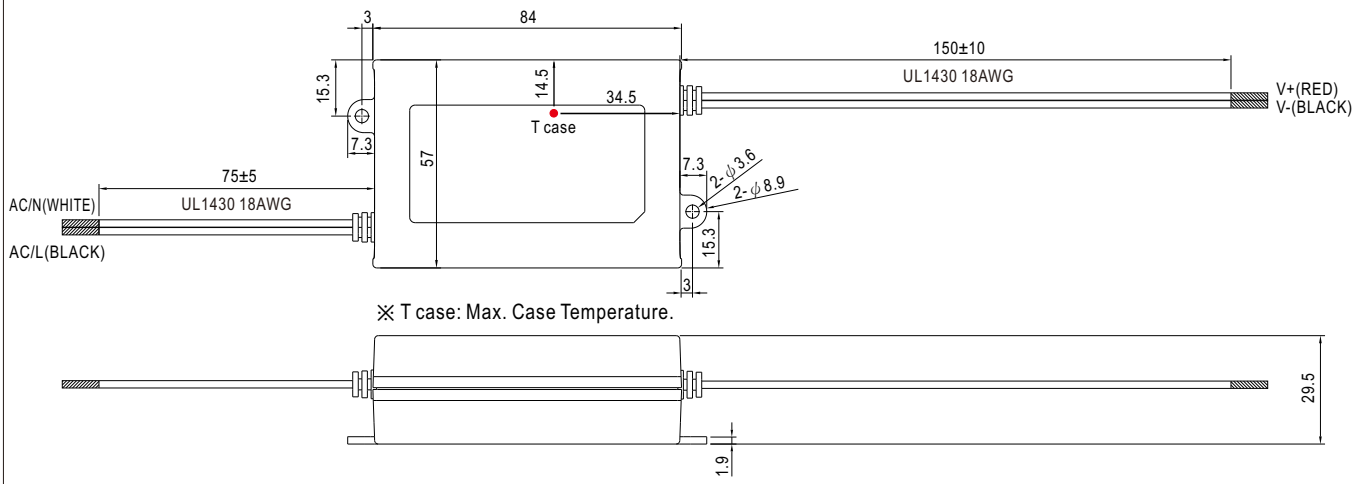
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

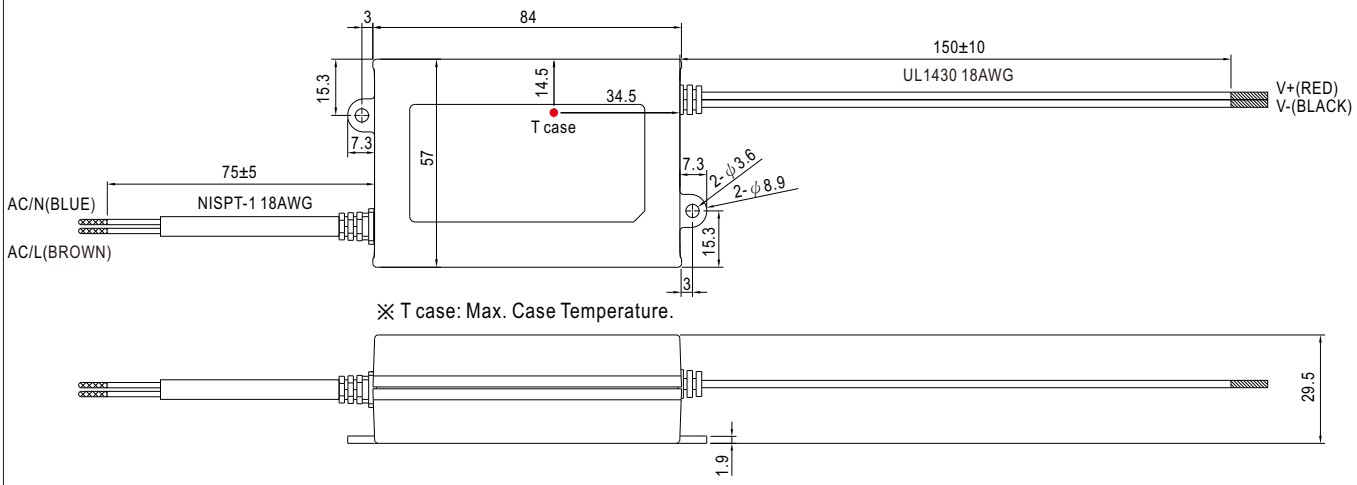
■ Mechanical Specification

Case No.PCD16A Unit:mm Tolerance:±1

A Type:(PCD-25-_A)

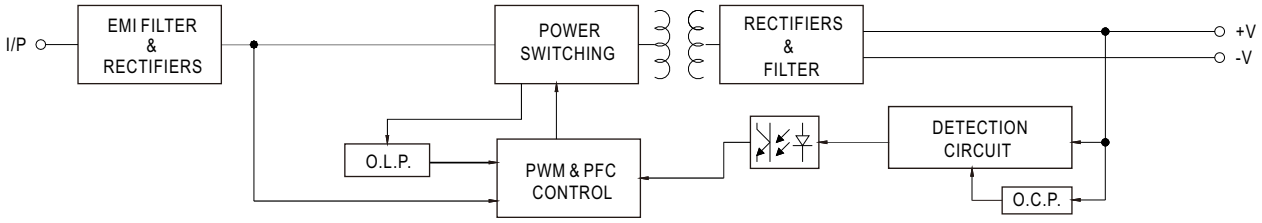


B Type:(PCD-25-_B)



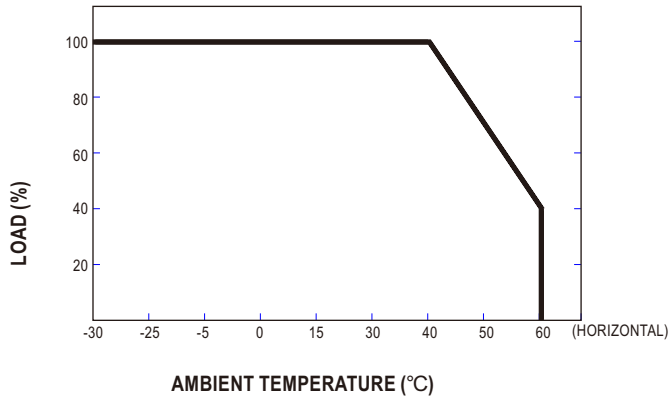
■ Block Diagram

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

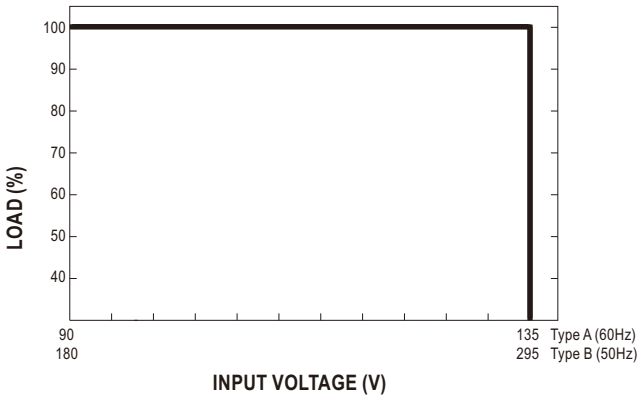


LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

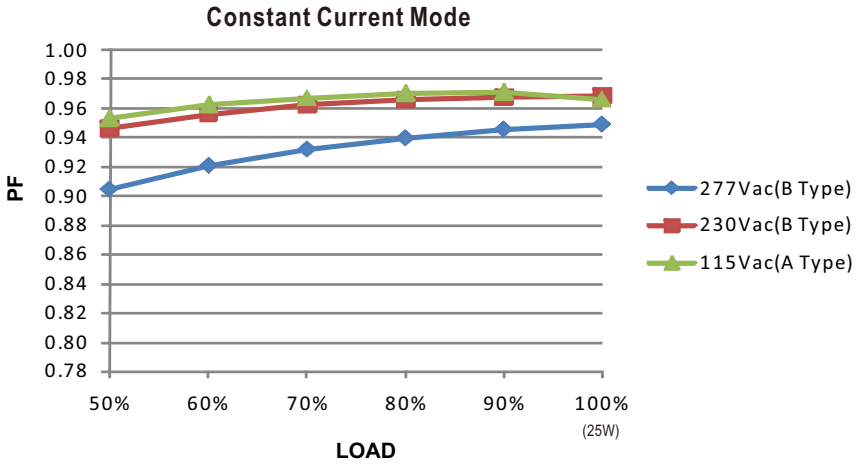
Derating Curve



Static Characteristics

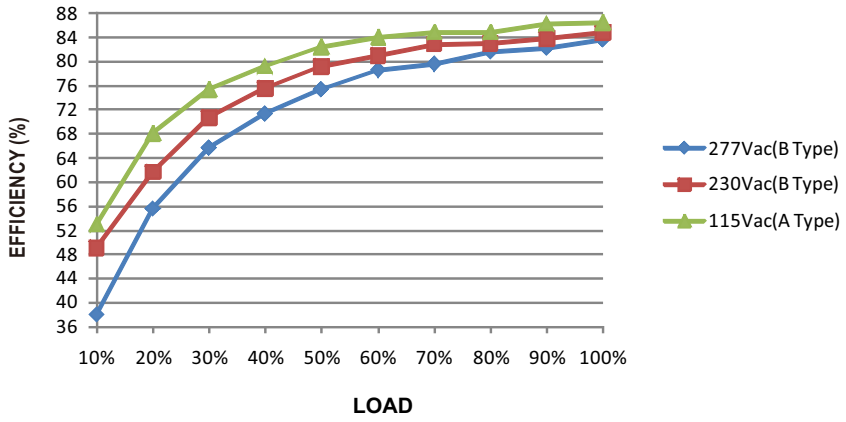


Power Factor Characteristic



EFFICIENCY vs LOAD (PCD-25-350)

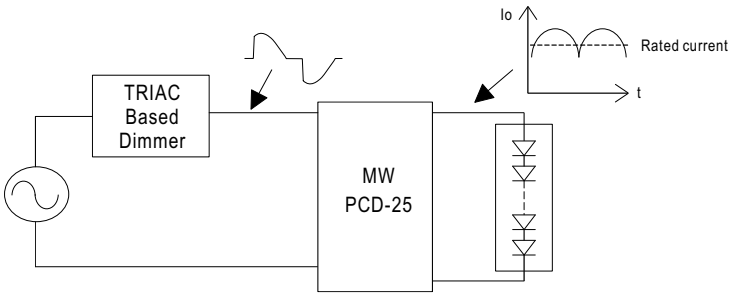
PCD-25 series possess superior working efficiency that up to 86% can be reached in field applications.



LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

■ 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.)

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000