



40W Single Output AC Dimmable LED Power Supply

PCD-40 series



■ Features :

- AC phase-cut dimming
- Work with leading edge and trailing edge TRIAC dimmers
- 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
- 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



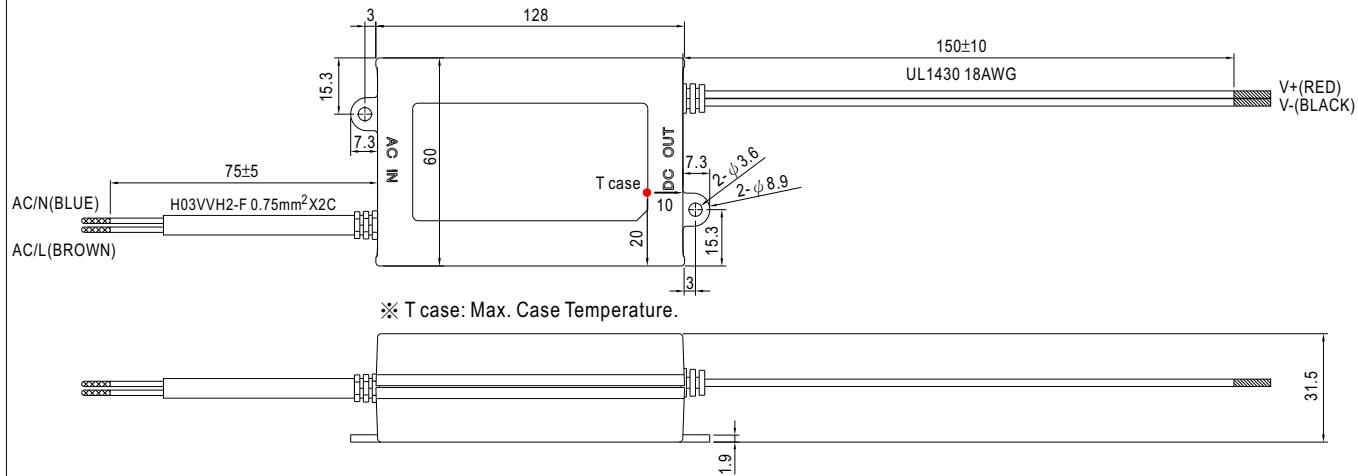
SPECIFICATION



MODEL	PCD-40-350B	PCD-40-500B	PCD-40-700B	PCD-40-1050B	PCD-40-1400B	PCD-40-1750B
OUTPUT	RATED CURRENT	350mA	500mA	700mA	1050mA	1400mA
	OPERATING VOLTAGE RANGE	70 ~ 108V	45 ~ 80V	34 ~ 57V	22 ~ 38V	17 ~ 29V
	CURRENT ACCURACY	±5.0%				
	RATED POWER	37.8W	40W	39.9W	39.9W	40.6W
	RISSLE & NOISE (max.) Note.1	9.5Vp-p	5.0Vp-p	3.1Vp-p	2.6Vp-p	2.5Vp-p
	NO LOAD OUTPUT VOLTAGE (max.)	118V	100V	63V	50V	35V
INPUT	SETUP TIME	500ms / 230VAC at full load				
	VOLTAGE RANGE	180~295VAC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)				
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading≥60%(PCD-40-350B loading≥65%)at 230VAC input and output loading≥75% at 277VAC input				
	EFFICIENCY (Typ.)	87%	87%	86%	86%	85%
	AC CURRENT (Typ.)	0.35A/230VAC	0.3A/277VAC			
	INRUSH CURRENT(Typ.)	COLD START 11A (width=50μs measured at 50% Ipeak) at 230VAC				
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	47 units (circuit breaker of type B) / 47 units (circuit breaker of type C) at 230VAC				
PROTECTION	LEAKAGE CURRENT	<0.5mA / 240VAC				
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.				
	OVER TEMPERATURE	Shut down o/p voltage, auto-recovery				
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	ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384, EAC TP TC 004, IP42 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 BS EN/EN55015, BS EN/EN61000-3-2 Class C ; BS EN/EN61000-3-3, EAC TP TC 020				
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level(Surge 2KV), criteria B, EAC TP TC 020				
OTHERS	MTBF	362.331Khrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	128*60*31.5mm (L*W*H)				
	PACKING	0.23Kg;30pcs/7.9Kg/0.58CUFT				
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°C/1000m with fanless models and of 5°C/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					

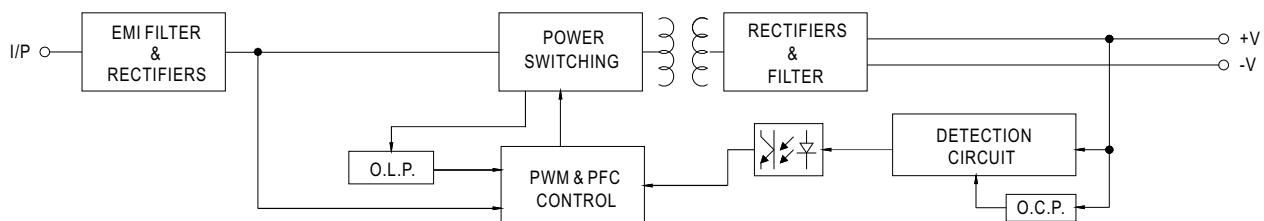
■ Mechanical Specification

Case No.:PCD40A Unit:mm

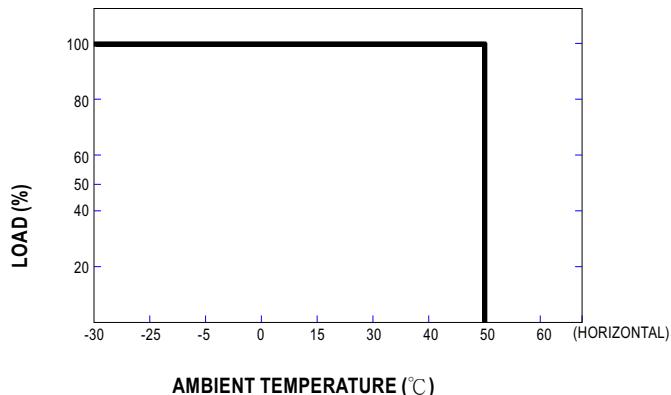


■ Block Diagram

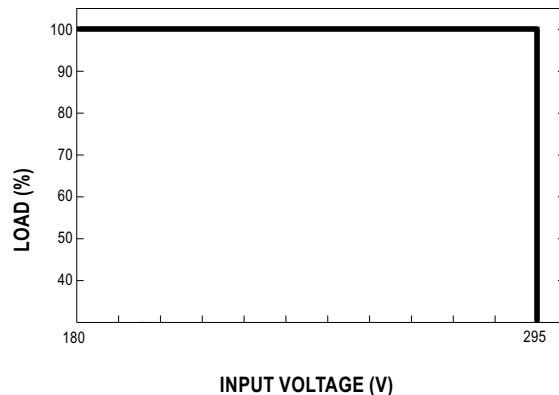
fosc : 60KHz(230VAC)



■ Derating Curve



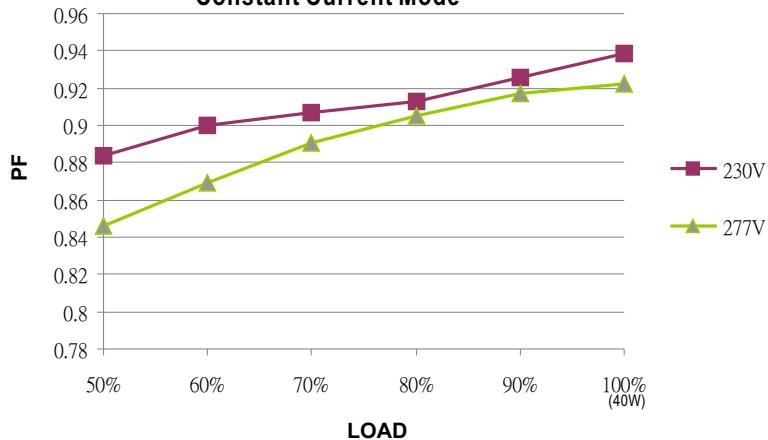
■ Static Characteristics



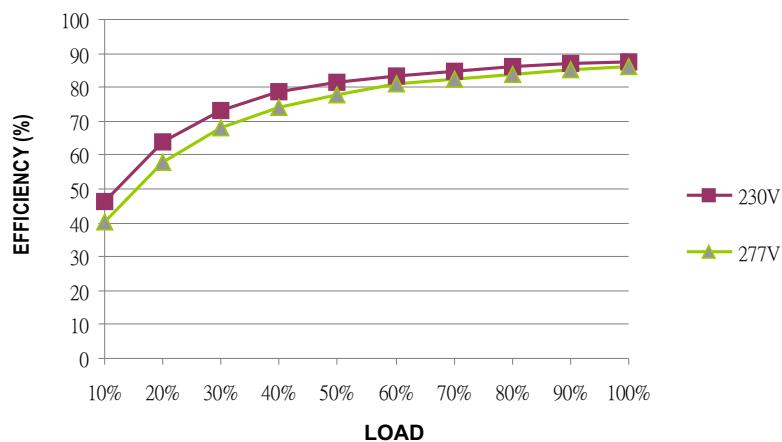


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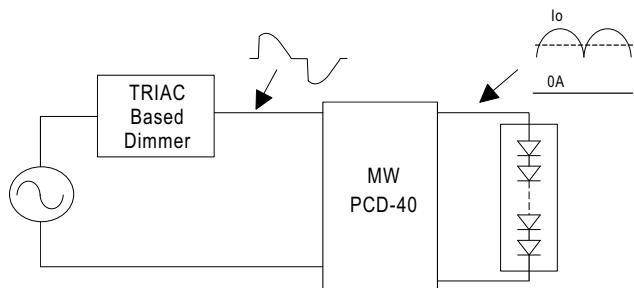
■ Power Factor Characteristic**Constant Current Mode****■ EFFICIENCY vs LOAD (PCD-40-500B)**

PCD-40 series possess superior working efficiency that up to 87% can be reached in field applications.



■ AC Dimming Operation

◎ The following diagram depicts a typical installation utilizing the PCD-40 :



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)
JUNG	Licht-Management 225 TDE (230VAC / 50Hz)
JUNG	Licht-Management 225 NV DE (230VAC / 50Hz)
BERKER	Tronic-Drehdimmer 286710 (230-240VAC / 50Hz)
CLIPSAL	32E450UDM (220-240VAC / 50Hz)
CLIPSAL	NO 32E450TM (220-240VAC / 50Hz)
CLIPSAL	NO 32E450LM (220-240VAC / 50Hz)
CLIPSAL	Cat 400T (230-240VAC / 50Hz)

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