60W Single Output LED Power Supply

PLD-60 series



User's Manual

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■ Features :

- 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

■ GTIN CODE

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

SPECIFICATION

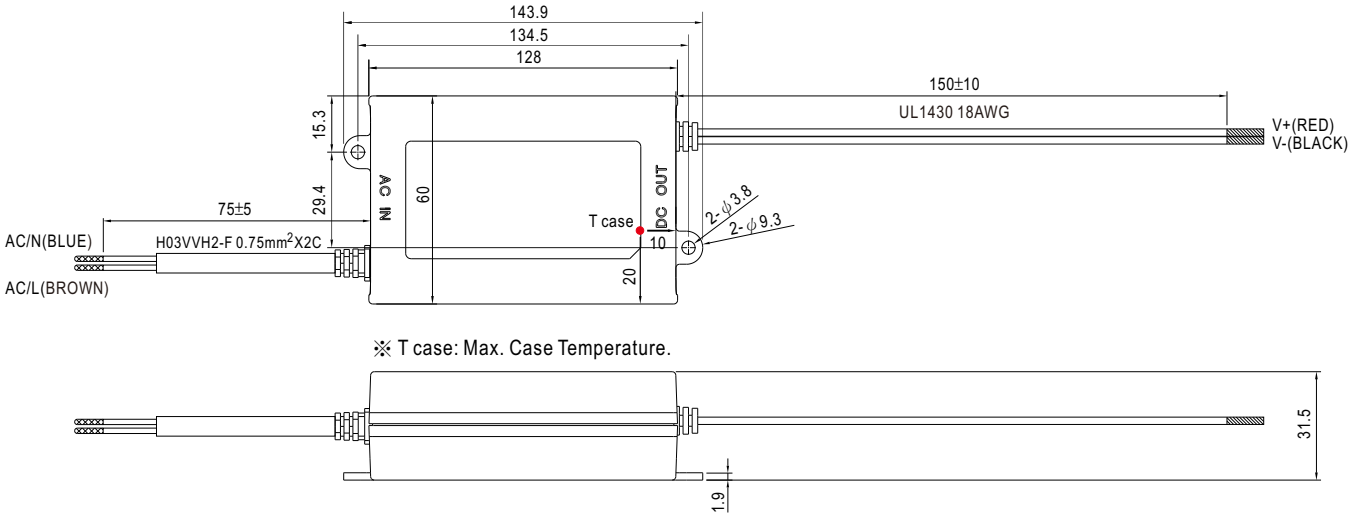
IS 15885(Part 2/Sec13) R-41027766 (for 700B,1050B,1400B only) (optional)

MODEL		PLD-60-500B	PLD-60-700B	PLD-60-1050B	PLD-60-1400B	PLD-60-1750B	PLD-60-2000B	PLD-60-2400B
OUTPUT	RATED CURRENT	500mA	700mA	1050mA	1400mA	1750mA	2000mA	2400mA
	OPERATING VOLTAGE RANGE	70 ~ 108V	50 ~ 86V	34 ~ 57V	25 ~ 43V	20 ~ 34V	18 ~ 30V	15 ~ 25V
	CURRENT ACCURACY	±5.0%						
	RATED POWER	54W	60.2W	59.85W	60.2W	59.5W	60W	60W
	RIPPLE & NOISE (max.) Note.1	10.2Vp-p	5.6Vp-p	3.8Vp-p	3.4Vp-p	3.3Vp-p	2.4Vp-p	2.4Vp-p
	NO LOAD OUTPUT VOLTAGE (max.)	118V	100V	63V	50V	50V	35V	35V
	SETUP TIME	500ms / 230VAC at full load						
INPUT	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%(PLD-60-500B loading≧65%)at 230VAC input and output loading≧75% at 277VAC input						
	EFFICIENCY (Typ.)	88%	87%	87%	86%	86%	86%	86%
	AC CURRENT (Typ.)	0.6A/230VAC 0.5A/277VAC						
	INRUSH CURRENT(Typ.)	COLD START 25A (twidth=60μs measured at 50% Ipeak) at 230VAC						
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	32 units (circuit breaker of type B) / 32 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, auto-recovery						
ENVIRONMENT	WORKING TEMP.	-30 ~ +45℃ (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	ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384, BIS IS15885(for 700B,1050B,1400B only), EAC TP TC 004, IP42 approved						
	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, 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	4642.1K hrs min. Telcordia SR-332 (Bellcore) ; 458.9Khrs min. MIL-HDBK-217F (25℃)						
	DIMENSION	128*60*31.5mm (L*W*H)						
	PACKING	0.34Kg;30pcs/11.2Kg/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℃/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							

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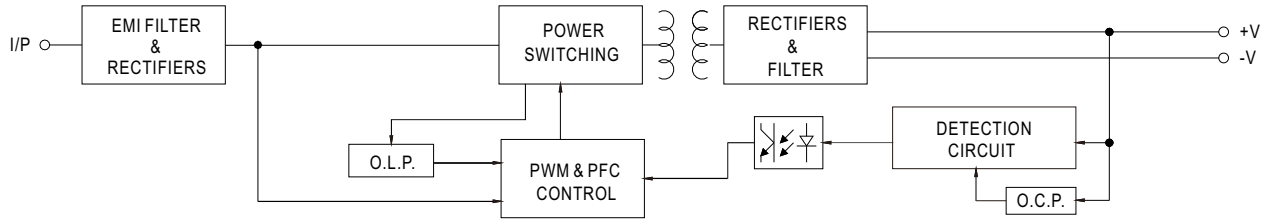
■ Mechanical Specification

Case No.:PCD40A Unit:mm Tolerance:±1

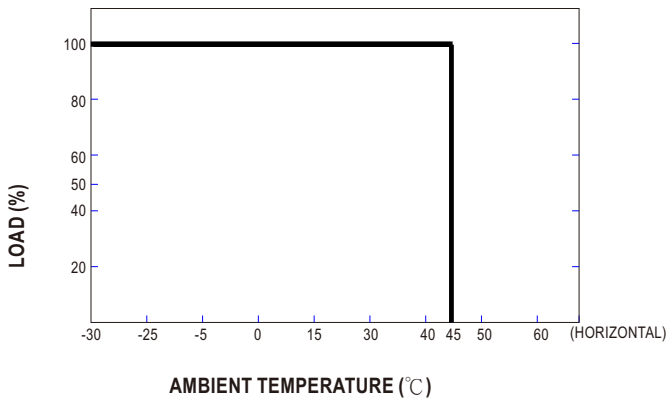


■ Block Diagram

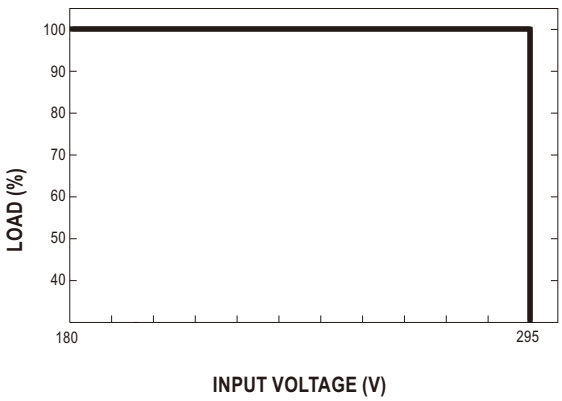
fosc :60KHz(230VAC)



■ Derating Curve

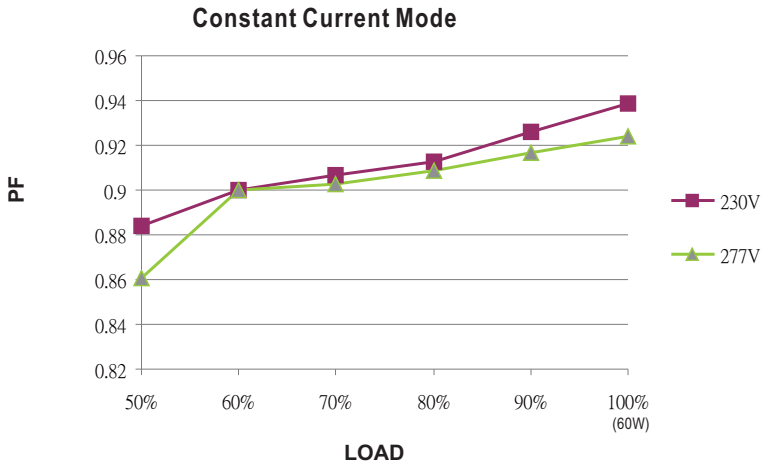


■ Static Characteristics



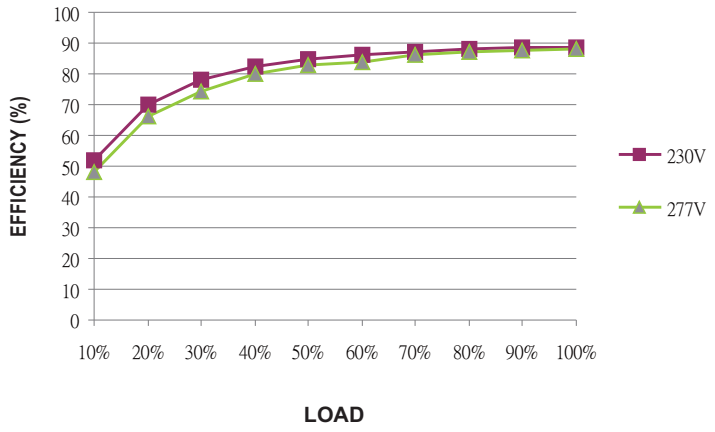
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Power Factor Characteristic



EFFICIENCY vs LOAD (PLD-60-500B)

PLD-60 series possess superior working efficiency that up to 88% can be reached in field applications.



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