40W Single Output LED Power Supply

PLD-40 series

■ Features :

- Built-in active PFC function
- Constant current design
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- Fully isolated plastic case
- IP30 design
- Class Ⅱ power unit, no FG
- Suitable for indoor LED lighting applications
- 100% full load burn-in test
- Low cost
- High reliability
- 3 years warranty

SPECIFICATION

MODEL		PLD-40-350B	PLD-40-500B	PLD-40-700B	PLD-40-1050B	PLD-40-1400B	PLD-40-1750B
OUTPUT	RATED CURRENT	350mA	500mA	700mA	1050mA	1400mA	1750mA
	OPERATING VOLTAGE RANGE	70 ~ 108V	45 ~ 80V	34 ~ 57V	22 ~ 38V	17 ~ 29V	13 ~ 23V
	CURRENT ACCURACY	±5.0%					
	RATED POWER	37.8W	40W	39.9W	39.9W	40.6W	40.25W
	RIPPLE & NOISE (max.) Note.1	9.5Vp-p	5.0Vp-p	3.1Vp-p	2.6Vp-p	2.5Vp-p	2.4Vp-p
	NO LOAD OUTPUT VOLTAGE (max.)	118V	100V	63V	50V	35V	35V
	SETUP TIME	1200ms / 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-40-350B loading≧65%)at 230VAC input and output loading≧75% at 277VAC input					
	EFFICIENCY (Typ.)	88%	88%	87%	87%	86%	86%
	AC CURRENT (Typ.)	0.35A/230VAC 0.3A/277VAC					
	INRUSH CURRENT(Typ.)	COLD START 25A (twidth=60μs measured at 50% Ipeak) at 230VAC					
	LEAKAGE CURRENT	<0.5mA / 240VAC					
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.					
	OVER TEMPERATURE	105℃ ±5℃ (TSW1)					
		Protection type : Shut down o/p voltage, auto-recovery					
ENVIRONMENT	WORKING TEMP.	-30 ~ +50℃ (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 EN61347-1, EN61347-2-13 independent, EN62384 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 EN55015, EN61000-3-2 Class C ; EN61000-3-3					
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level(Surge 2KV), criteria B					
OTHERS	MTBF	865.176Khrs min. MIL-HDBK-217F (25℃)					
	DIMENSION	128*60*31.5mm (L*W*H)					
	PACKING	0.22Kg;30pcs/7.6Kg/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.						

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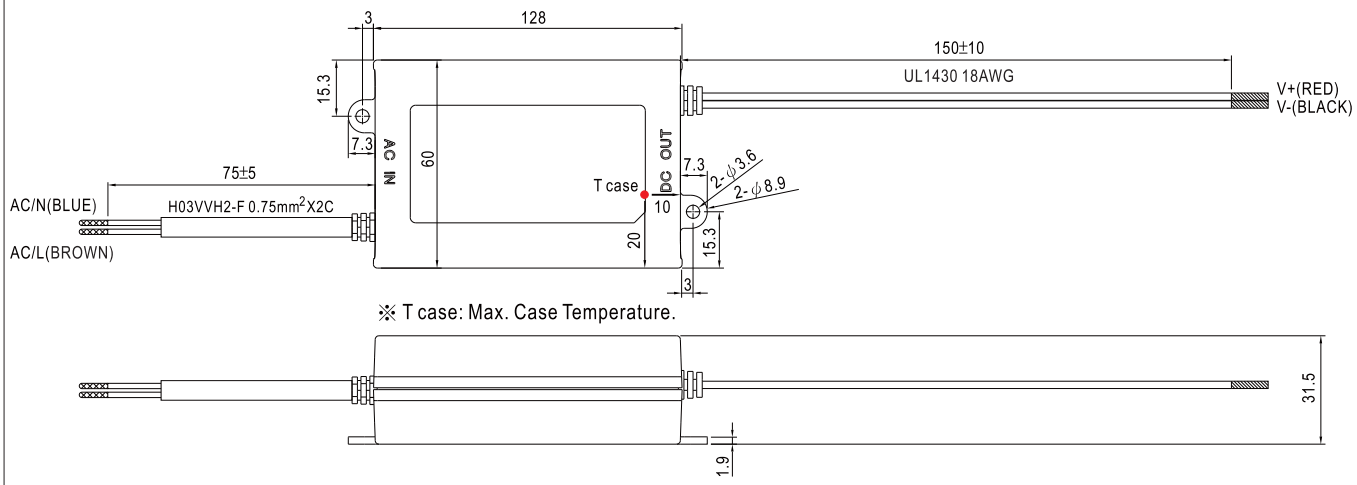
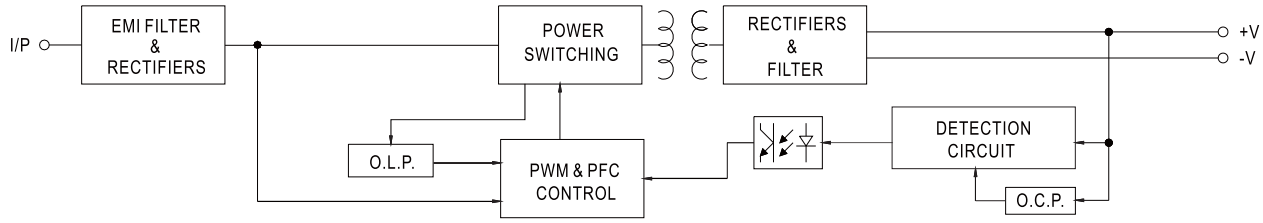
■ Mechanical Specification

Case No.:PCD40A Unit:mm

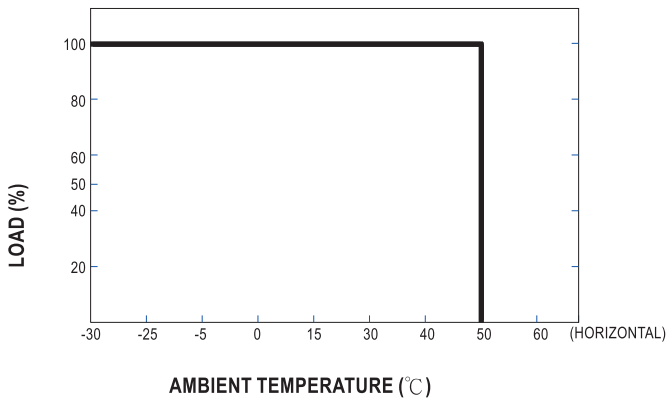


■ Block Diagram

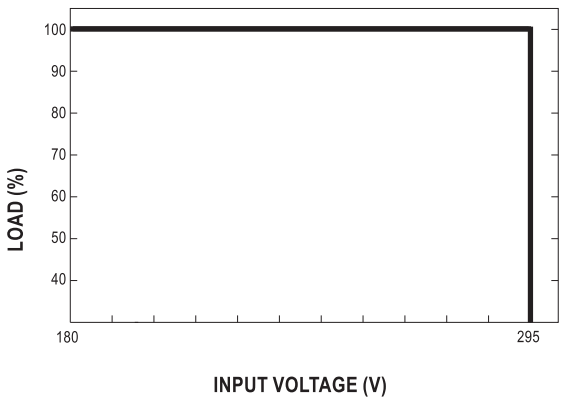
fosc :60KHz(230VAC)



■ Derating Curve



■ Static Characteristics



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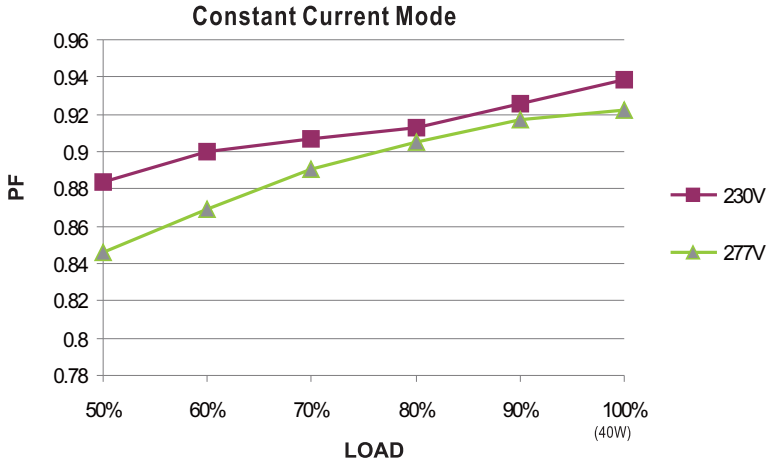
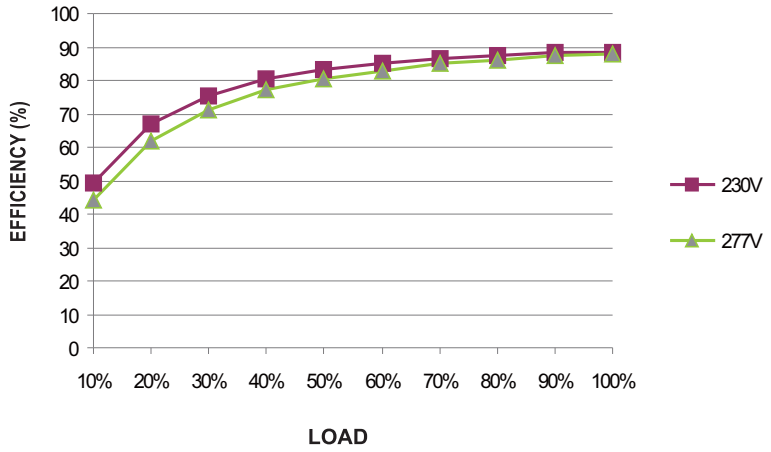
Power Factor Characteristic



EFFICIENCY vs LOAD (PLD-40-500B)

PLD-40 series possess superior working efficiency that up to 88% can be reached in field applications.



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