16W Single Output LED Power Supply

PLD-16 series

Features :

- 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
- Class 2 Power Unit
- Class Ⅱ power unit, no FG
- IP30 design
- Suitable for indoor LED lighting applications
- 100% full load burn-in test
- Low cost
- High reliability

(for B type only) (for B type only) (for 350mA) (except for 350mA) SELV (for A type only) (for B type only)

PLD-16-350 [A] A : With AC input 90~ 135VAC.
B : With AC input 180~ 295VAC.

SPECIFICATION

MODEL			PLD-16-350 ☐	PLD-16-700 ☐	PLD-16-1050 ☐	PLD-16-1400 ☐
OUTPUT	RATED CURRENT		350mA	700mA	1050mA	1400mA
	OPERATING VOLTAGE RANGE		24 ~ 48V	16 ~ 24V	12 ~ 16V	8 ~ 12V
	CURRENT RANGE		0 ~ 350mA	0 ~ 700mA	0 ~ 1050mA	0 ~ 1400mA
	CURRENT ACCURACY		±5.0%			
	RATED POWER		16.8W	16.8W	16.8W	16.8W
	RIPPLE & NOISE (max.) Note.1		4.6Vp-p	2.7Vp-p	2.2Vp-p	2Vp-p
	NO LOAD OUTPUT VOLTAGE (max.)		63V	35V	25V	16V
	SETUP TIME		1000ms / 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)			
	EFFICIENCY (Typ.)	A series	84.5%	84.5%	84%	82.5%
		B series	85.5%	86%	85%	83.5%
	AC CURRENT (Typ.)		0.4A/115VAC 0.2A/230VAC 0.15A/277VAC			
	INRUSH CURRENT(max.)		40A/230VAC			
	LEAKAGE CURRENT		<0.5mA / 240VAC			
PROTECTION	SHORT CIRCUIT		Hiccup mode, recovers automatically after fault condition is removed.			
	OVER TEMPERATURE		95℃±10℃ (RTH1)			
			Protection type : Shut down o/p voltage, re-power on to recover			
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		UL 8750,CSA C22.2 No.250.0-08(except for PLD-16-350);ENEC EN 613471-1,EN 61347-2-13 independent, EN62384(for B type only)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 (B type only), EN61000-3-2 Class C ; EN61000-3-3, FCC part 18 non-consumer equipment(A type only)			
	EMC IMMUNITY		Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level, criteria A			
OTHERS	MTBF		906.5Khrs 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.					

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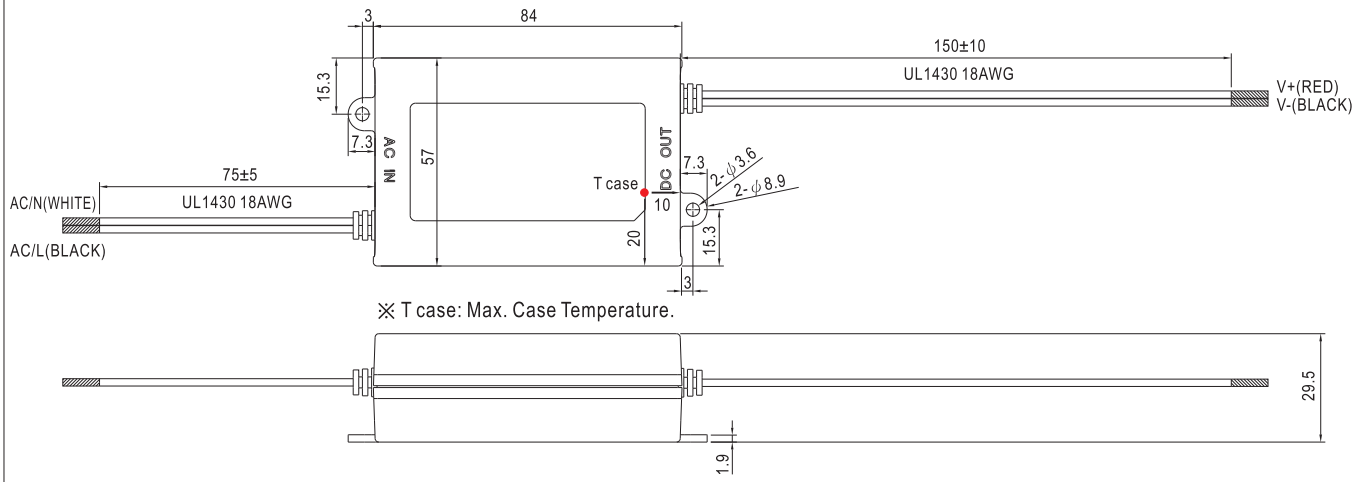
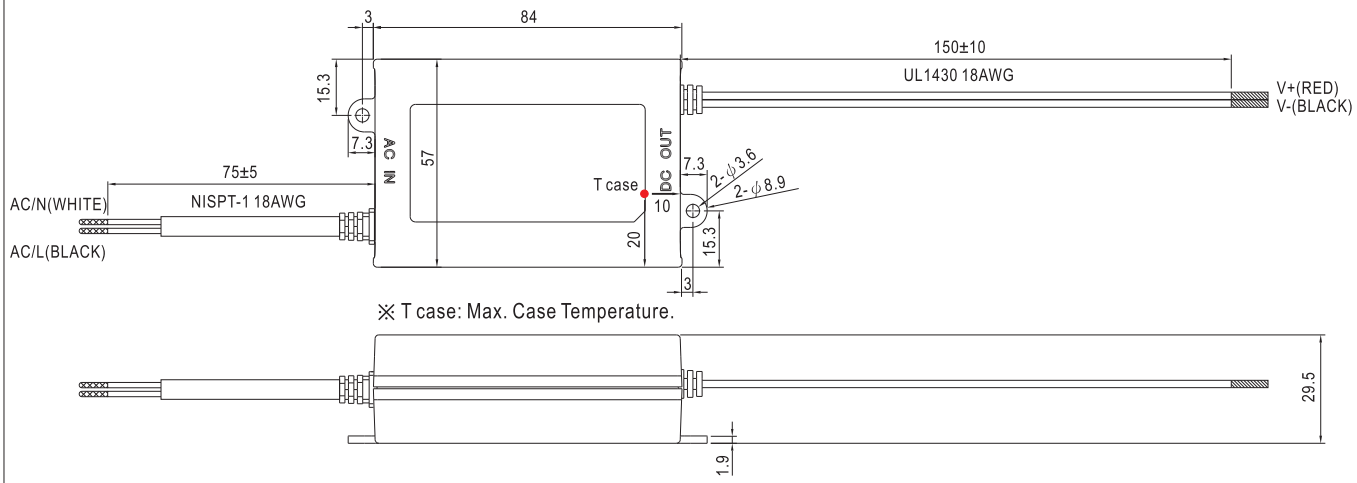
■ Mechanical Specification

Case No.PCD16A Unit:mm

A Type:(PLD-16-_A)

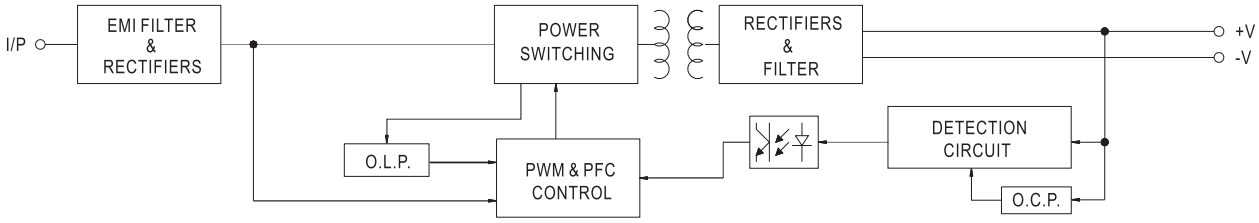


B Type:(PLD-16-_B)



■ Block Diagram

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



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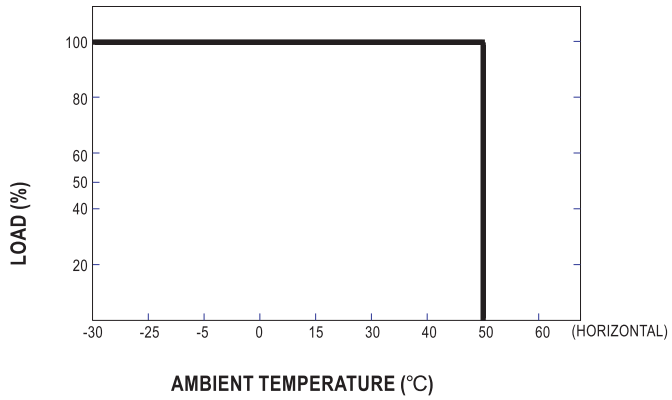
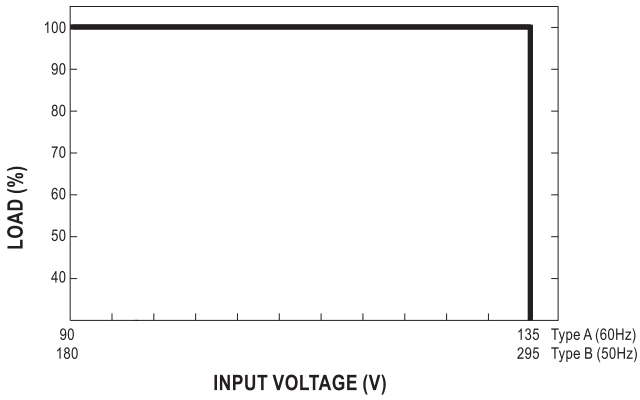
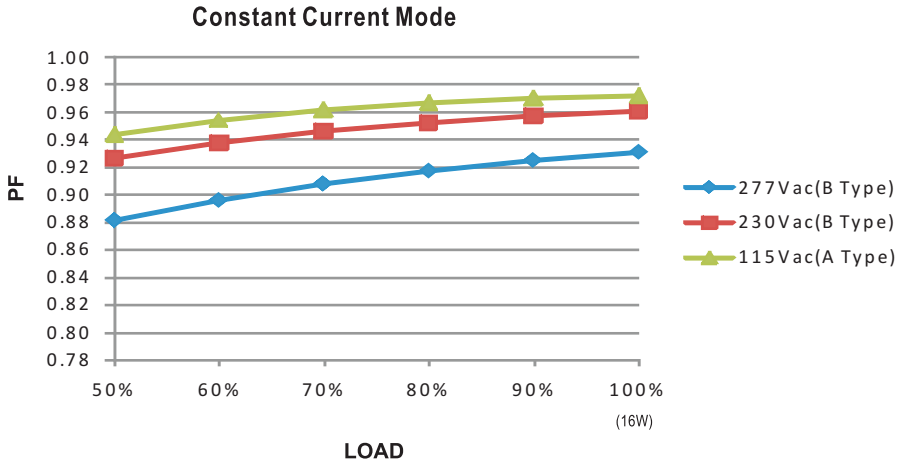
Derating Curve



Static Characteristics

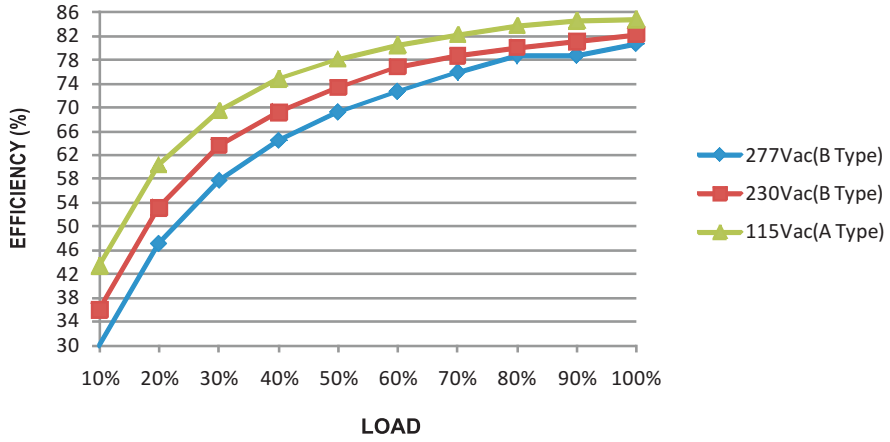


Power Factor Characteristic



EFFICIENCY vs LOAD (PLD-16-350)

PLD-16 series possess superior working efficiency that up to 85.5% can be reached in field applications.



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