



■ Features :

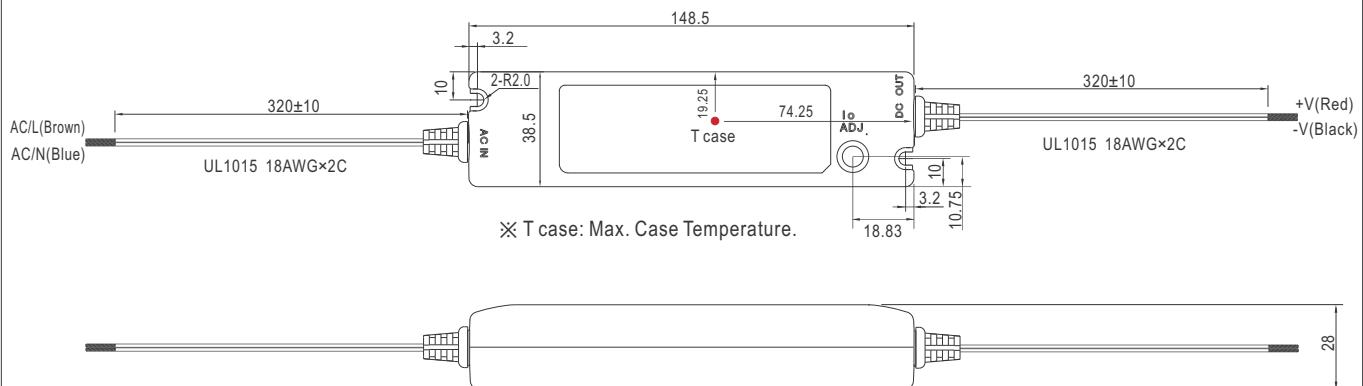
- Universal AC input / Full range(up to 277VAC)
- Protections:Short circuit/Over current/Over voltage /Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit with adjustable OCP level
- Fully isolated plastic case
- Built-in active PFC function
- IP64 design for indoor or outdoor installations
- Small and compact size
- Class II power unit, no FG
- 100% full load burn-in test
- High reliability,low cost
- Suitable for Dry / Damp locations
- Suitable for LED lighting and moving sign applications
- 2 years warranty

 SPECIFICATION       SELV **IP64** (CCC optional)       

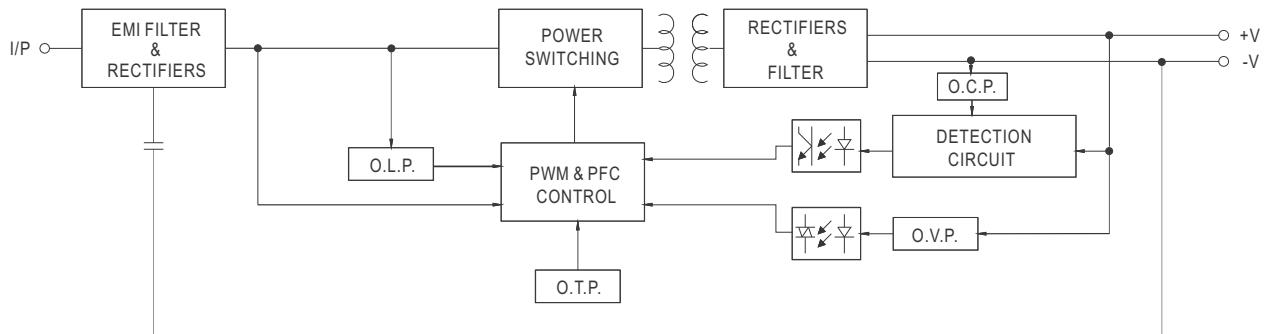
MODEL	PLN-20-12	PLN-20-18	PLN-20-24	PLN-20-36	PLN-20-48
OUTPUT	DC VOLTAGE	12V	18V	24V	36V
	CONSTANT CURRENT REGION Note.5	9 ~ 12V	13.5 ~ 18V	18 ~ 24V	27 ~ 36V
	RATED CURRENT	1.6A	1.1A	0.8A	0.55A
	CURRENT RANGE	0 ~ 1.6A	0 ~ 1.1A	0 ~ 0.8A	0 ~ 0.55A
	CURRENT ADJ. RANGE	75% ~ 100%			
	RATED POWER	19.2W	19.8W	19.2W	19.8W
	RIPPLE & NOISE (max.) Note.2	2.5Vp-p	3.0Vp-p	3.0Vp-p	3.8Vp-p
	VOLTAGE TOLERANCE Note.3	±10%			
	LINE REGULATION	±3.0%			
	LOAD REGULATION	±10%			
INPUT	SETUP TIME	500ms / 230VAC 2000ms / 115VAC at full load			
	VOLTAGE RANGE Note.4	90 ~ 277VAC 127-392VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR	PF > 0.95/115VAC,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≥75% at 115VAC/230VAC input and output loading≥75% at 277VAC input			
	EFFICIENCY(Typ.)	80%	81%	82%	83%
	AC CURRENT	0.4A/115VAC 0.2A/230VAC 0.15A/277VAC			
	INRUSH CURRENT(Typ.)	COLD START 35A(twidth=40μs measured at 50% Ipeak) at 230VAC			
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	98 units (circuit breaker of type B) / 98 units (circuit breaker of type C) at 230VAC			
	LEAKAGE CURRENT	0.5mA / 240VAC			
PROTECTION	OVER CURRENT Note.5	95 ~ 110% Protection type : Constant current limiting, recovers automatically after fault condition is removed			
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.			
	OVER VOLTAGE	14 ~ 16V	19 ~ 22V	27 ~ 34V	41 ~ 46V
	OVER TEMPERATURE	Protection type : Shut off o/p voltage, clamping by zener diode			
ENVIRONMENT	WORKING TEMP.	-30 ~ +60°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.06%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	IEC61347-1, IEC61347-2-13, TUV BS EN/EN61347-1, BS EN/EN61347-2-13, UL8750, CSA C22.2 No. 250.0-08, J61347-1, J61347-2-13, EAC TP TC 004, GB19510.1, GB19510.14, IP64 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 (≥75% load); BS EN/EN61000-3-3, GB17743 and GB17625.1, EAC TP TC 020			
OTHERS	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level, criteria A, EAC TP TC 020			
	MTBF	643.6Khrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	148.5*38.5*28mm (L*W*H)			
NOTE	PACKING	0.18Kg; 60pcs/12.8Kg/0.9CUFT			
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage, please check the static characteristic for more details. 5. Please refer to "DRIVING METHODS OF LED MODULE". 6. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. 7. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 8. 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. 9. 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). 10. 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					

■ Mechanical Specification

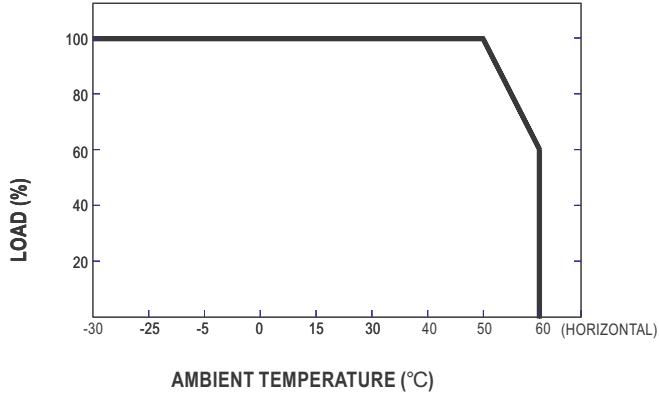
Case No.989B Unit:mm



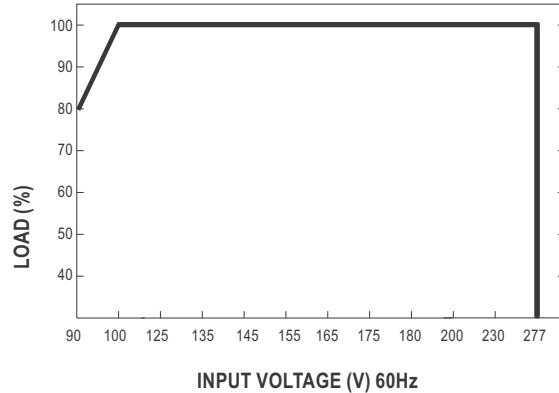
■ Block Diagram



■ Derating Curve



■ Static Characteristics





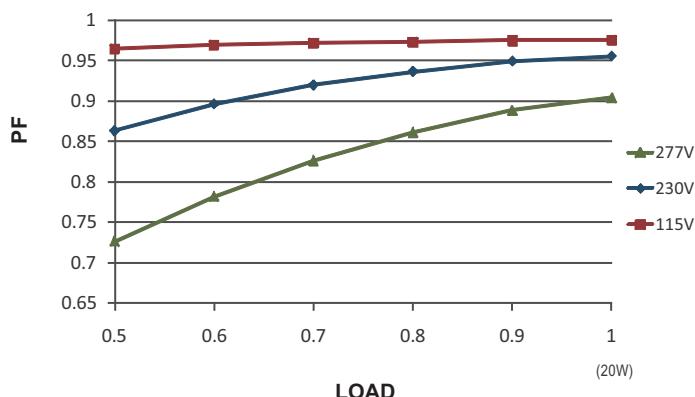
20W Single Output LED Power Supply

PLN-20 series

■ Power Factor Characteristic

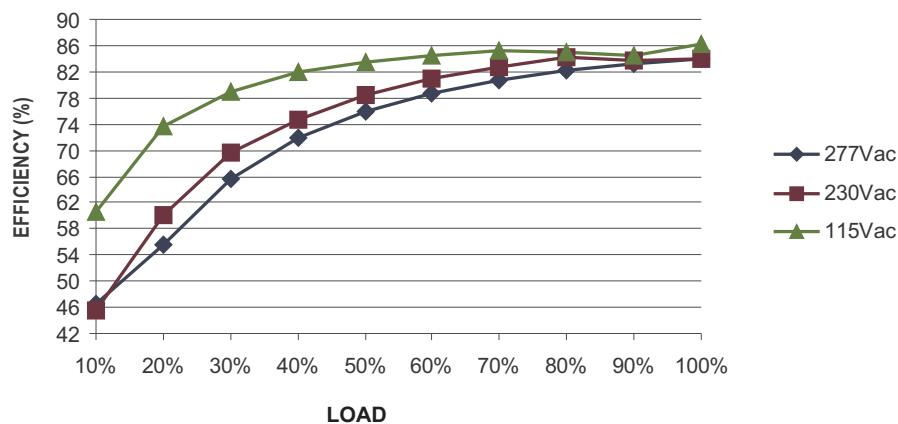
Power factor will be higher than 0.9 when output loading is 75% or higher.

Constant Current Mode



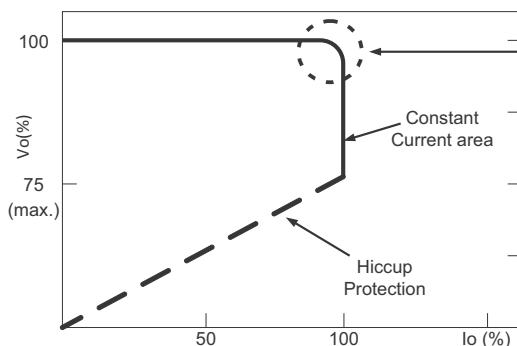
■ EFFICIENCY vs LOAD (48V Model)

PLN-20 series possess superior working efficiency that up to 83.5% can be reached in field applications.



■ DRIVING METHODS OF LED MODULE

This LED power supply is suggested to work in constant current mode (CC) to drive the LEDs.



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.
Should there be any compatibility issues, please contact MEAN WELL.

Typical LED power supply I-V curve