



■ Features :

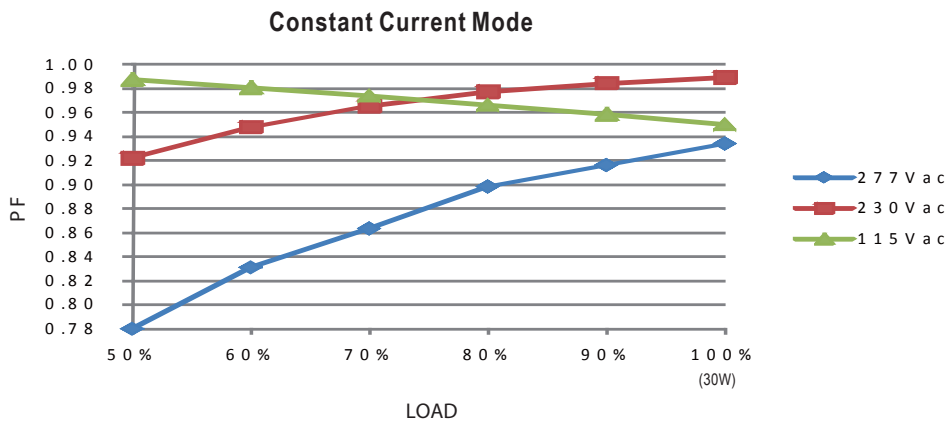
- Universal AC input / Full range (up to 295VAC)
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Built-in constant current limiting circuit with adjustable OCP level
- Fully isolated plastic case with IP64 level
- Built-in active PFC function
- Pass LPS
- Class II power unit, no FG
- Class 2 power unit
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications (Note.2)
- Compliance to worldwide safety regulations for lighting
- 2 years warranty



SPECIFICATION

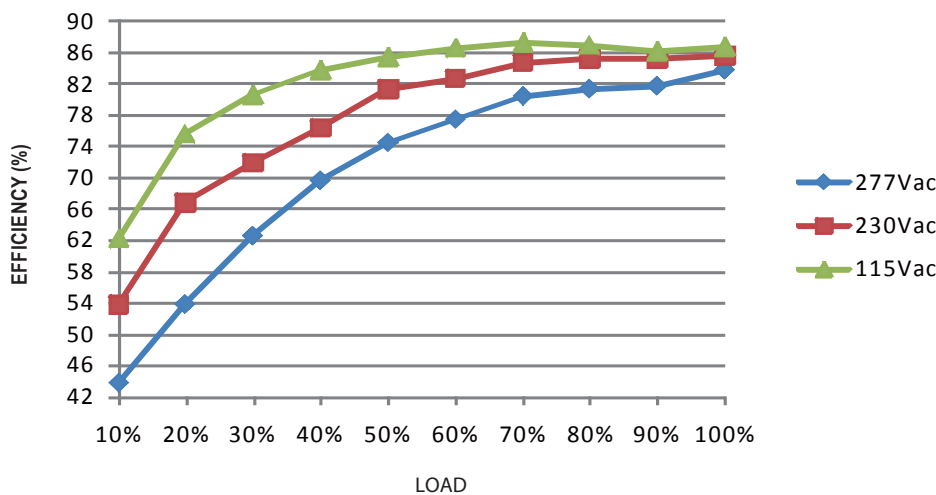
MODEL		PLN-30-27
OUTPUT	DC VOLTAGE	27V
	CONSTANT CURRENT REGION <small>Note.6</small>	18.9 ~ 27V
	RATED CURRENT	1.12A
	CURRENT RANGE	0 ~ 1.12A
	RATED POWER	30.24W
	RIPPLE & NOISE (max.) <small>Note.2</small>	2.3Vp-p
	VOLTAGE ADJ. RANGE <small>Note.5</small>	-5% ~ 10%. Can be adjusted by internal potentiometer SVR1
	CURRENT ADJ. RANGE <small>Note.5</small>	3% ~ -25%. Can be adjusted by internal potentiometer SVR2
	VOLTAGE TOLERANCE <small>Note.3</small>	±10%
	LINE REGULATION	±3.0%
	LOAD REGULATION	±5.0%
SETUP TIME	500ms / 230VAC 3000ms / 115VAC at full load	
INPUT	VOLTAGE RANGE <small>Note.4</small>	90 ~ 295VAC 127 ~ 417VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.95/115VAC, PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)
	EFFICIENCY (Typ.)	84.5%
	AC CURRENT (Typ.)	0.4A/115VAC 0.2A/230VAC 0.15A/277VAC
	INRUSH CURRENT (Typ.)	COLD START 35A(twidth=25µs measured at 50% Ipeak) at 230VAC
LEAKAGE CURRENT	<0.5mA / 240VAC	
PROTECTION	OVER CURRENT	100 ~ 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	31 ~ 35V Protection type : Shut down o/p voltage, re-power on to recover
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover
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	±0.06%/°C (0 ~ 50°C)
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes
SAFETY & EMC	SAFETY STANDARDS	UL879, UL1310, CSA C22.2 No. 207-M89(except for 48V), TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91 (except for 48V), IP64, J61347-1, J61347-2-13 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 EN55015, EN61000-3-2 Class C (pin≥25W), Class D (>70% load) ; EN61000-3-3
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547, light industry level, criteria B
OTHERS	MTBF	621.4Khrs min. MIL-HDBK-217F (25°C)
	DIMENSION	145*47*30mm (L*W*H)
	PACKING	0.22Kg; 60pcs/14.2Kg/1.25CUFT
NOTE	<ol style="list-style-type: none"> 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 0.1µf & 47µf 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 characteristics for more details. 5. Output voltage can be adjusted through the SVR1 on the PCB; limit of output constant current level can be adjusted through the SVR2 on the PCB. 6. Please refer to "DRIVING METHODS OF LED MODULE". 7. 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. 8. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers. 9. 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. 	

Power Factor Characteristic



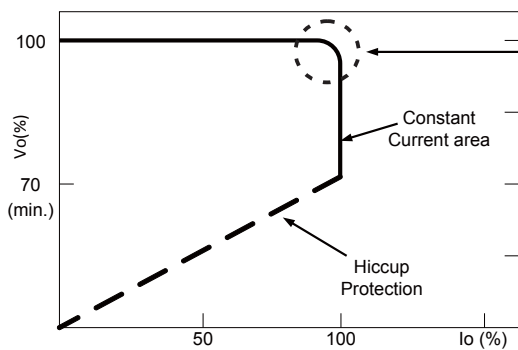
EFFICIENCY vs LOAD (48V Model)

PLN-30 series possess superior working efficiency that up to 85.5% can be reached in field applications.



DRIVING METHODS OF LED MODULE

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



Typical LED power supply I-V curve

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.