



Features:

- Universal AC input / Full range
- High efficiency up to 89%
- Adjustable output voltage and current level
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- · Built-in constant current limiting circuit
- Fully isolated plastic case with terminal block style of I/O
- Built-in active PFC function, comply with EN61000-3-2 class C (≥75% load)
- · Class 2 power unit
- Pass LPS
- 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 F 110 M M SELV LPS 110 (for 48V only) c US (except for 48V) F A 100 C E									
MODEL		PLC-60-12	PLC-60-15	PLC-60-20	PLC-60-24	PLC-60-27	PLC-60-36	PLC-60-48	
	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V	

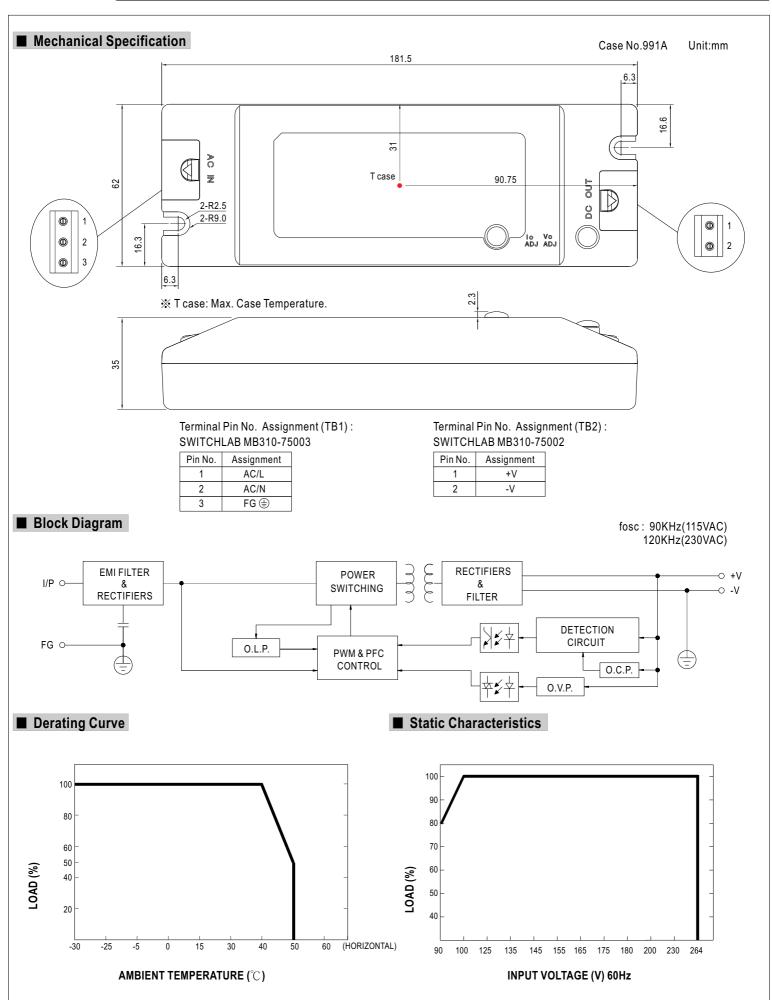
IODEL		PLC-60-12	PLC-60-15	PLC-60-20	PLC-60-24	PLC-60-27	PLC-60-36	PLC-60-48		
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V		
	CONSTANT CURRENT REGION Note.6	8.4 ~ 12V	10.5 ~15V	14 ~ 20V	16.8 ~24V	18.9 ~27V	25.2 ~ 36V	33.6 ~ 48V		
	RATED CURRENT	5A	4A	3A	2.5A	2.3A	1.7A	1.3A		
	CURRENT RANGE	0 ~ 5A	0 ~ 4A	0 ~ 3A	0 ~ 2.5A	0 ~ 2.3A	0 ~ 1.7A	0 ~ 1.3A		
	RATED POWER	60W	60W	60W	60W	62.1W	61.2W	62.4W		
	RIPPLE & NOISE (max.) Note.2	2Vp-p	2.4Vp-p	1.8Vp-p	2.4Vp-p	2.7Vp-p	3.6Vp-p	4.6Vp-p		
	VOLTAGE ADJ. RANGE Note.5	11.5 ~ 13V	14.5 ~ 16.2V	19.5 ~ 22V	24 ~ 26V	25 ~ 30V	32.5 ~ 39V	43.6 ~ 51.8V		
	CURRENT ADJ. RANGE Note.5	3.75 ~ 5.15A	3 ~ 4.12A	2.25 ~ 3.09A	1.875 ~ 2.575A	1.725 ~ 2.369A	1.275 ~ 1.751A	0.975 ~ 1.3394		
	VOLTAGE TOLERANCE Note.3	±10%								
	LINE REGULATION	±3.0%								
	LOAD REGULATION	±5.0%								
	SETUP TIME	1500ms / 230VAC 3000ms / 115VAC at full load								
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.9/230VAC at full load (Please refer to "Power Factor Characteristic" curve)								
	EFFICIENCY (Typ.)	85%	86%	87.5%	87%	88%	89%	89%		
	AC CURRENT (Typ.)	0.8A/115VAC	0.4A/230VAC							
	INRUSH CURRENT (max.)	40A/230VAC								
	LEAKAGE CURRENT	<0.75mA / 240VAC								
PROTECTION	OVER CURRENT	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	13.8 ~ 16V	17.5 ~ 21V	23 ~ 26V	28 ~ 32V	31 ~ 35V	41 ~ 46V	54 ~ 60V		
KUIECIION		Protection type : Shut down o/p voltage, re-power on to recover								
	OVER TEMPERATURE	95°C ±10°C (TSW1) detect on heatsink of power transistor								
		Protection type: Shut down o/p voltage, recovers automatically after temperature goes down								
	WORKING TEMP.	-30 ~ +50°C (Refer to "Derating Curve")								
	WORKING HUMIDITY	20 ~ 95% RH non-condensing								
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)								
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes								
SAFETY & EMC	SAFETY STANDARDS	UL1310, TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91(except for 48V), J61347-1, J61347-2-13 approved								
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P:100M O	hms / 500VDC / 25	°C / 70% RH						
	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥75% load); EN61000-3-3								
	EMC IMMUNITY	Compliance to E	N61000-4-2,3,4,5,	6,8,11, EN55024	EN61547, light indu	ıstry level, criteria	A			
OTHERS	MTBF	515Khrs min.	MIL-HDBK-217F (25℃)						
	DIMENSION	181.5*62*35mm	(L*W*H)							
	PACKING	0.41Kg; 30pcs/13.3Kg/0.67CUFT								

- 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.

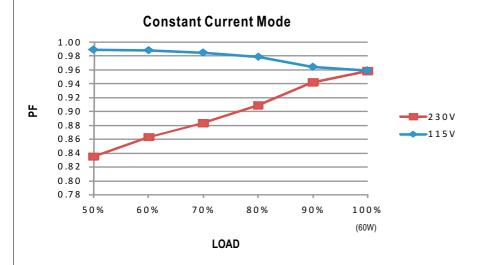
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- 6. Constant current operation region is within 70% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.
- 7. The power 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.





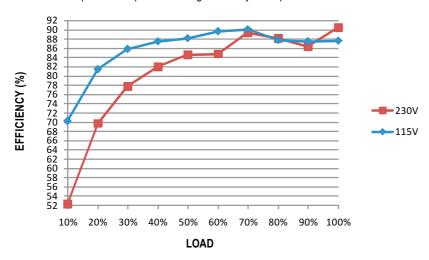


■ Power Factor Characteristic



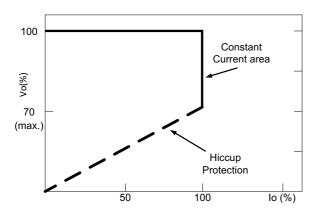
■ EFFICIENCY vs LOAD (48V Model)

PLC-60 series possess superior working efficiency that up to 89% 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