



## Features:

- · Universal AC input / Full range
- High efficiency up to 88.5%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Built-in active PFC function
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lighting
- 2 years warranty

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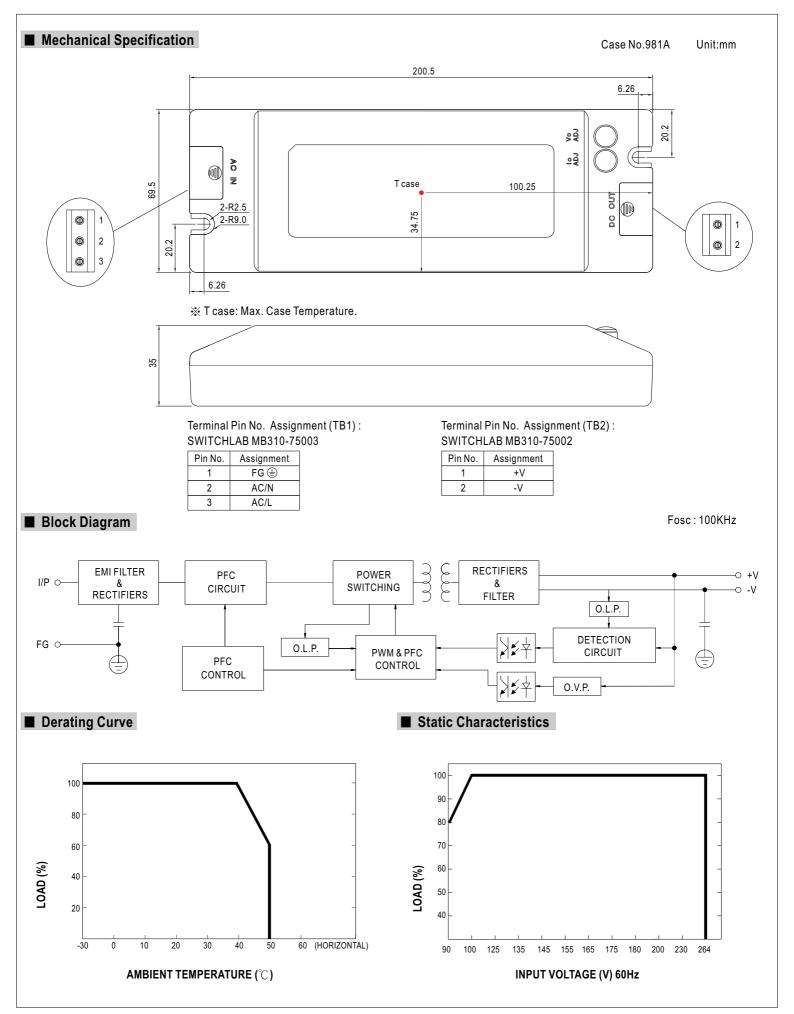


MODEL		PLC-100-12	PLC-100-15	PLC-100-20	PLC-100-24	PLC-100-27	PLC-100-36	PLC-100-48		
	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V		
ОИТРИТ	CONSTANT CURRENT REGION Note.4	9 ~ 12V	11.25 ~ 15V	15 ~ 20V	18 ~ 24V	20.25 ~ 27V	27 ~ 36V	36 ~ 48V		
	RATED CURRENT Note.6	5A	5A	4.8A	4A	3.55A	2.65A	2A		
	CURRENT RANGE Note.6	0 ~ 5A	0 ~ 5A	0 ~ 4.8A	0 ~ 4A	0 ~ 3.55A	0 ~ 2.65A	0 ~ 2A		
	RATED POWER Note.6	60W	75W	96W	96W	95.85W	95.4W	96W		
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p		
	VOLTAGE ADJ. RANGE(Vo ADJ)	10.2 ~ 12V	12.8 ~ 15V	17 ~ 20V	20.4 ~ 24V	23 ~ 27V	30.6 ~ 36V	40.8 ~ 48V		
	CURRENT ADJ. RANGE(Io ADJ)	3.75 ~ 5A	3.75 ~ 5A	3.6 ~ 4.8A	3 ~ 4A	2.6 ~ 3.55A	2 ~ 2.65A	1.5 ~ 2A		
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.0%	±2.0%		
	LINE REGULATION	±1.0%						•		
	LOAD REGULATION	±2.0%								
	SETUP, RISE TIME	1200ms, 80ms/230VAC 1200ms, 80ms/115VAC at full load								
	HOLD UP TIME (Typ.)	60ms/230VAC 30ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.5	90 ~ 264VAC	127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	PF>0.95/115VAC	, PF>0.95/230VAC	C at full load (Pleas	se refer to "Power F	actor Characteristi	c" curve)			
	EFFICIENCY (Typ.)	83%	85%	88.5%	88.5%	88%	88%	88.5%		
	AC CURRENT (Typ.)	12V:0.8A/115VA(	0.4A/230VAC	15V:0.9A/11	5VAC 0.45A/230	VAC 20V ~ 48	3V:1.1A/115VAC	0.55A/230VAC		
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC								
	LEAKAGE CURRENT	<0.75mA/240VAC								
PROTECTION C  V V ENVIRONMENT S 1	OVER CURRENT (Typ.) Note.4	95 ~ 102%								
		Protection type :	Constant current li	miting, recovers a	utomatically after fa	ault condition is rer	noved			
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	30 ~ 36V	39 ~ 48V	52 ~ 64V		
		Protection type : 5	Shut down and late	ch off o/p voltage,	re-power on to reco	over	<u> </u>	•		
	OVER TEMPERATURE	90°C ±10°C (RTH2)								
		Protection type : Shut down o/p voltage, re-power on to recover								
	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	±0.03%/°C (0~50°C)								
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes								
:	SAFETY STANDARDS Note.7									
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC								
	ISOLATION RESISTANCE									
SAFETY &		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH   Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2,-3, Class C (≥70% load); EN61000-3-3								
		I Compliance to EN	Compliance to EN50015, EN50022 (CISPR22) Class B, EN61000-3-2,-3, Class C (≥ 70% load), EN61000-3-3  Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level, (surge 4KV), criteria A							
	EMC EMISSION	· ·	-	,	EN55024 light indu	istry laval (suras A	K\/\ criteria A			
SAFETY & EMC	EMC EMISSION EMC IMMUNITY	Compliance to EN	N61000-4-2,3,4,5,	6,8,11, EN61547, I	EN55024, light indu	ıstry level, (surge 4	KV), criteria A			
EMC	EMC EMISSION EMC IMMUNITY MTBF	Compliance to EN 297.9Khrs min.	N61000-4-2,3,4,5, MIL-HDBK-217F	6,8,11, EN61547, I	EN55024, light indu	ustry level, (surge 4	KV), criteria A			
	EMC EMISSION EMC IMMUNITY	Compliance to EN	M61000-4-2,3,4,5, MIL-HDBK-217F n (L*W*H)	6,8,11, EN61547, I	EN55024, light indu	ıstry level, (surge 4	KV), criteria A			

NOTE

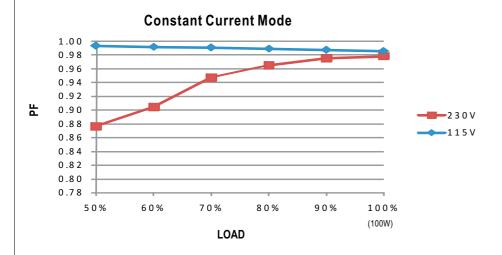
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Constant current operation region is within 75% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.
- 5. Derating may be needed under low input voltage. Please check the static characteristics for more details.
- 6. This is the maximum possible output current and power. Over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.
- 7. Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.
- 8. 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.





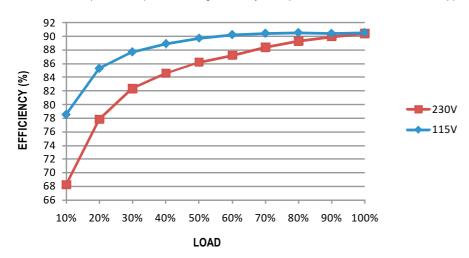


## ■ Power Factor Characteristic



## **■** EFFICIENCY vs LOAD (48V Model)

PLC-100 series possess superior working efficiency that up to 89% can be reached in field applications.

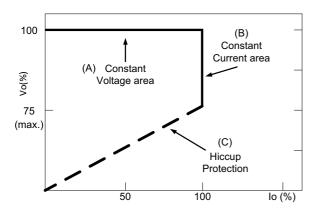


## ■ DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



Typical LED power supply I-V curve