



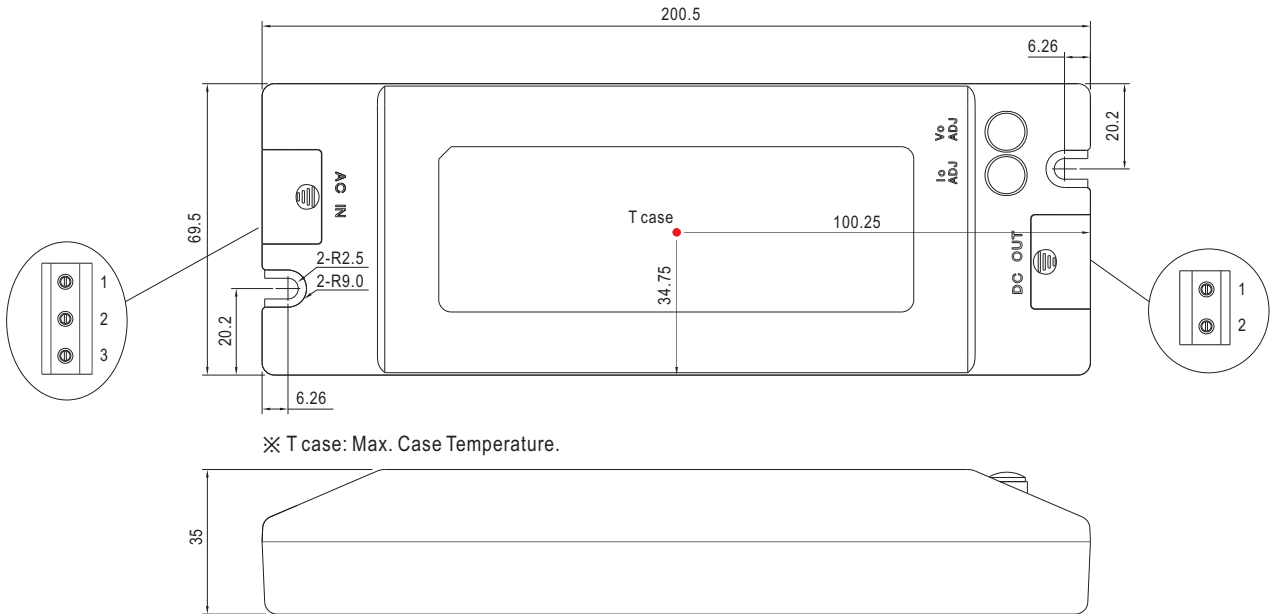
■ Features :

- 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

SPECIFICATION		PLC-100-12	PLC-100-15	PLC-100-20	PLC-100-24	PLC-100-27	PLC-100-36	PLC-100-48
OUTPUT	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
	CONSTANT CURRENT REGION <small>Note.4</small>	9 ~ 12V	11.25 ~ 15V	15 ~ 20V	18 ~ 24V	20.25 ~ 27V	27 ~ 36V	36 ~ 48V
	RATED CURRENT <small>Note.6</small>	5A	5A	4.8A	4A	3.55A	2.65A	2A
	CURRENT RANGE <small>Note.6</small>	0 ~ 5A	0 ~ 5A	0 ~ 4.8A	0 ~ 4A	0 ~ 3.55A	0 ~ 2.65A	0 ~ 2A
	RATED POWER <small>Note.6</small>	60W	75W	96W	96W	95.85W	95.4W	96W
	RIPPLE & NOISE (max.) <small>Note.2</small>	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 <small>Note.3</small>	±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	500ms, 80ms/230VAC 1200ms, 80ms/115VAC at full load						
	HOLD UP TIME (Typ.)	60ms/230VAC 16ms/115VAC at full load						
INPUT	VOLTAGE RANGE <small>Note.5</small>	90 ~ 264VAC	127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF>0.95/115VAC, PF>0.95/230VAC at full load (Please refer to "Power Factor Characteristic" curve)						
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading≥75% at 115VAC/230VAC input						
	EFFICIENCY (Typ.)	83%	85%	88.5%	88.5%	88%	88%	88.5%
	AC CURRENT (Typ.)	12V:0.8A/115VAC	0.4A/230VAC	15V:0.9A/115VAC	0.45A/230VAC	20V ~ 48V:1.1A/115VAC	0.55A/230VAC	
	INRUSH CURRENT (Typ.)	COLD START 40A(twidth=950µs measured at 50% Ipeak) at 230VAC						
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	3 units (circuit breaker of type B) / 5 units (circuit breaker of type C) at 230VAC						
PROTECTION	LEAKAGE CURRENT	<0.75mA / 240VAC						
	OVER CURRENT (Typ.) <small>Note.4</small>	95 ~ 102% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	30 ~ 36V	39 ~ 48V	52 ~ 64V
ENVIRONMENT	OVER TEMPERATURE	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)						
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes						
	SAFETY STANDARDS <small>Note.7</small>	UL1310, TUV EN60950-1, EN61347-1, EN61347-2-13, GB19510.14, GB19510.1, 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:2KVAC O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH						
OTHERS	EMC EMISSION	Compliance to EN55015, GB17743, GB17625.1, EN55022 (CISPR22) Class B, EN61000-3-2,-3, Class C (≥70% load) ; EN61000-3-3						
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level, (surge 4KV), criteria A						
	MTBF	297.9Khrs min. MIL-HDBK-217F (25°C)						
NOTE	DIMENSION	200.5*69.5*35mm (L*W*H)						
	PACKING	0.52Kg; 25pcs/14Kg/0.65CUFT						

Mechanical Specification

Case No.981A Unit:mm



※ T case: Max. Case Temperature.

Terminal Pin No. Assignment (TB1):
SWITCHLAB MB310-75003

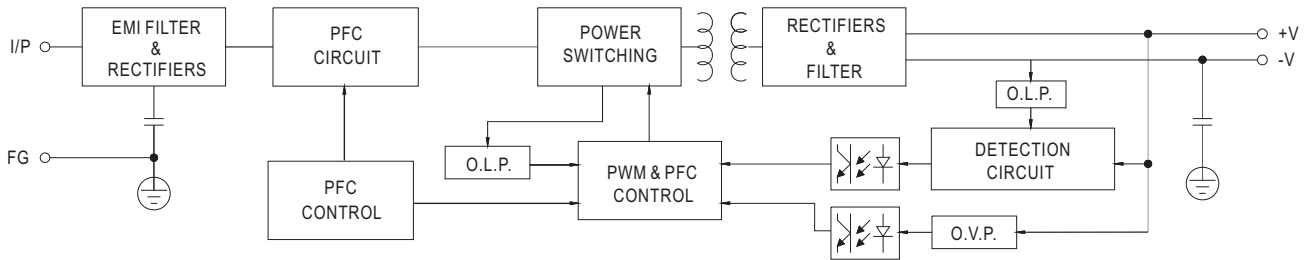
Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

Terminal Pin No. Assignment (TB2):
SWITCHLAB MB310-75002

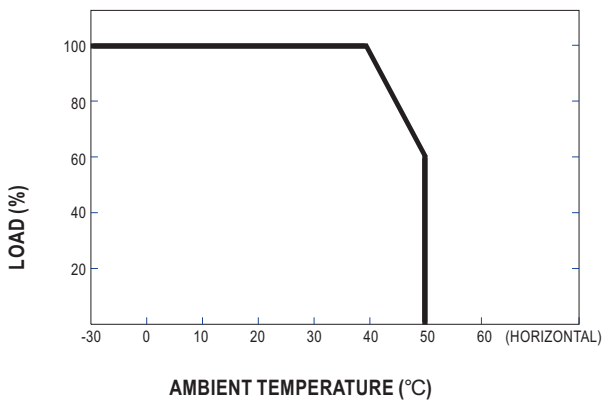
Pin No.	Assignment
1	+V
2	-V

Block Diagram

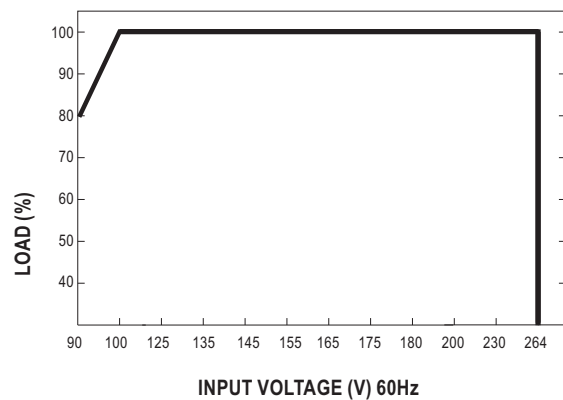
Fosc : 100KHz



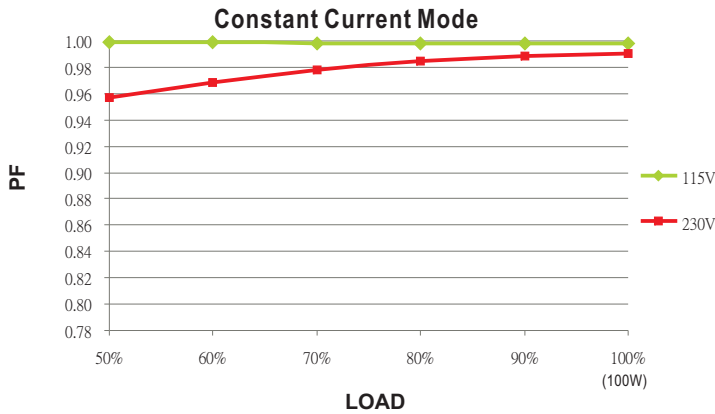
Derating Curve



Static Characteristics

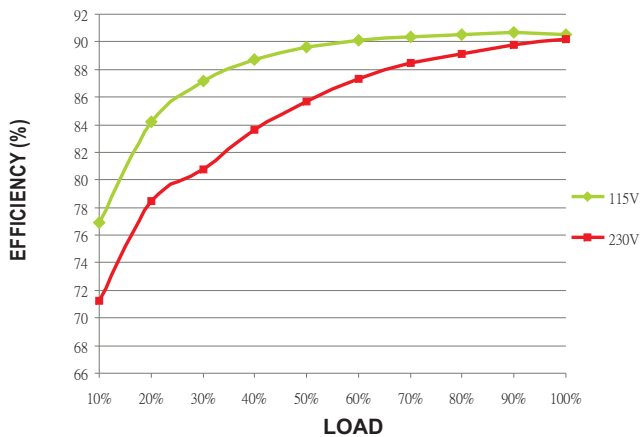


Power Factor Characteristic



EFFICIENCY vs LOAD (48V Model)

PLC-100 series possess superior working efficiency that up to 88.5% can be reached in field applications.

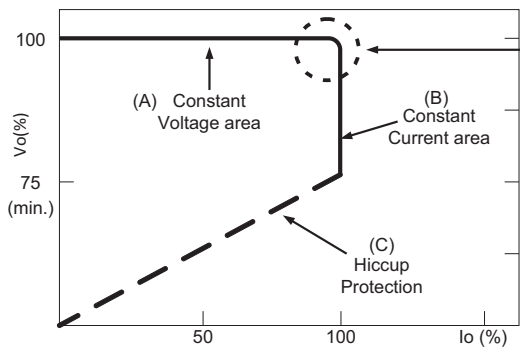


DRIVING METHODS OF LED MODULE

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

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.