



■ Features :

- Universal AC input / Full range
- High efficiency 90%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Built-in active PFC function
- UL1310 Class 2 power unit
- Cooling by free air convection
- 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

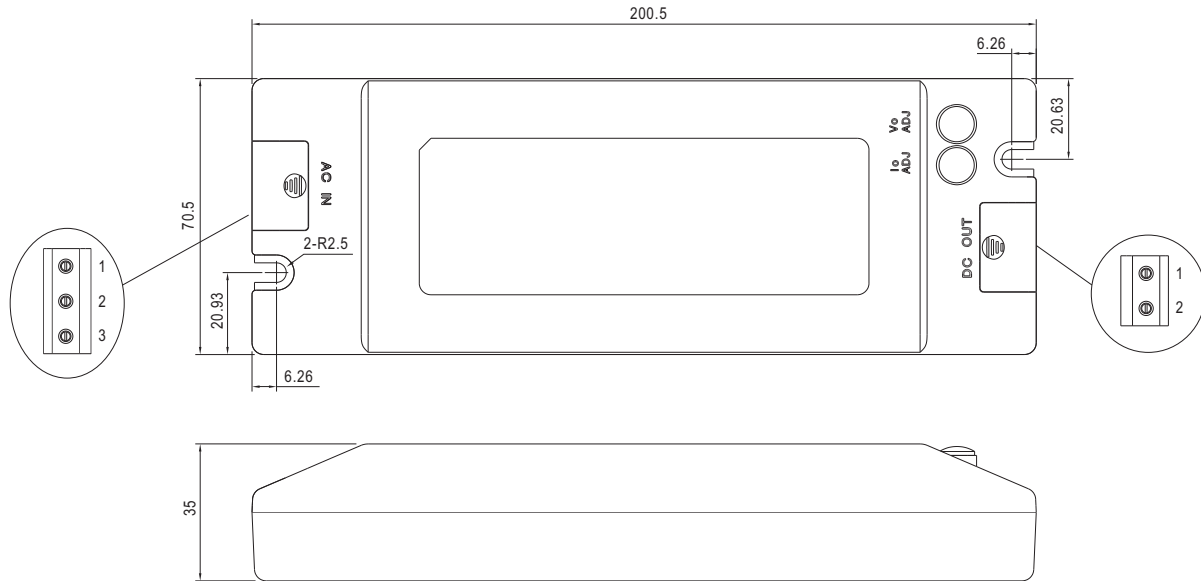


**SPECIFICATION**

MODEL	PLC-100-12	PLC-100-15	PLC-100-20	PLC-100-24	PLC-100-27	PLC-100-36	PLC-100-48	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V	48V
	CONSTANT CURRENT REGION Note.4	8.4 ~ 12V	10.5 ~ 15V	14 ~ 20V	16.8 ~ 24V	18.9 ~ 27V	25.2 ~ 36V	33.6 ~ 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>0.95/230VAC		PF>0.95/115VAC at full load		PF≥0.9 at 75 ~ 100% load		
	EFFICIENCY (Typ.)	84.5%	86.5%	90%	90%	90%	90%	89%
	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/230VAC						
LEAKAGE CURRENT	<0.75mA / 240VAC							
PROTECTION	OVER CURRENT (Typ.) Note.4	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
	Protection type : Shut down and latch off o/p voltage, re-power on to recover							
OVER TEMPERATURE	90°C ±10°C (RTH2)							
	Protection type : Shut down o/p voltage, re-power on to recover							
ENVIRONMENT	WORKING TEMP.	-30 ~ +50°C (Refer to output load 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 & EMC	SAFETY STANDARDS Note.7	UL1310 Class 2, EN61347-1, EN61347-2-13 independent, UL60950-1, TUV EN60950-1 ( listed in UL Sign Components Manual (SAM) ) CAN/CSA C22.2 No. 223-M91(except for 48V) 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, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH						
	EMI CONDUCTION & RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B						
	HARMONIC CURRENT	Compliance to EN61000-3-2, -3, Class C (≥70% load) ; EN61000-3-3						
EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61547, EN55024, light industry level, (surge 4KV), criteria A							
OTHERS	MTBF	297.9Khrs min. MIL-HDBK-217F (25°C)						
	DIMENSION	200.5*70.5*35mm (L*W*H)						
	PACKING	0.52Kg; 25pcs/14Kg/0.65CUFT						
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. 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.</li> <li>5. Derating may be needed under low input voltage. Please check the derating curve for more details.</li> <li>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.</li> <li>7. Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.</li> <li>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.</li> </ol>							

**Mechanical Specification**

Case No.981A Unit:mm



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

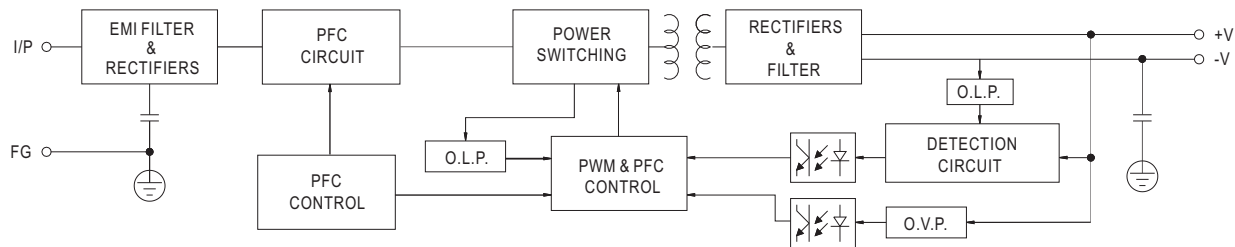
Pin No.	Assignment
1	FG ⊕
2	AC/N
3	AC/L

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

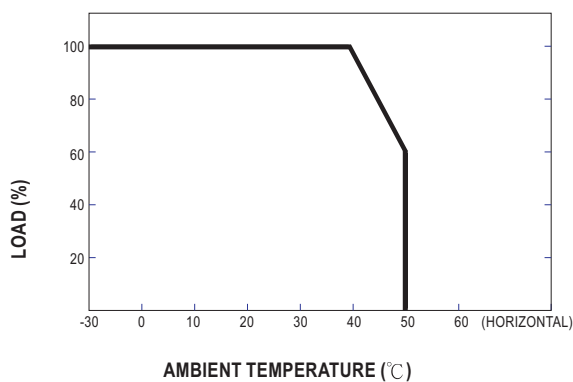
Pin No.	Assignment
1	+V
2	-V

**Block Diagram**

Fosc: 100KHz



**Derating Curve**



**Static Characteristics**

