



■ Features :

- Universal AC input / Full range
- 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 BS EN/EN61000-3-2 class C ($\geq 75\%$ load)
- 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

User's Manual



SPECIFICATION



SELV

LPS

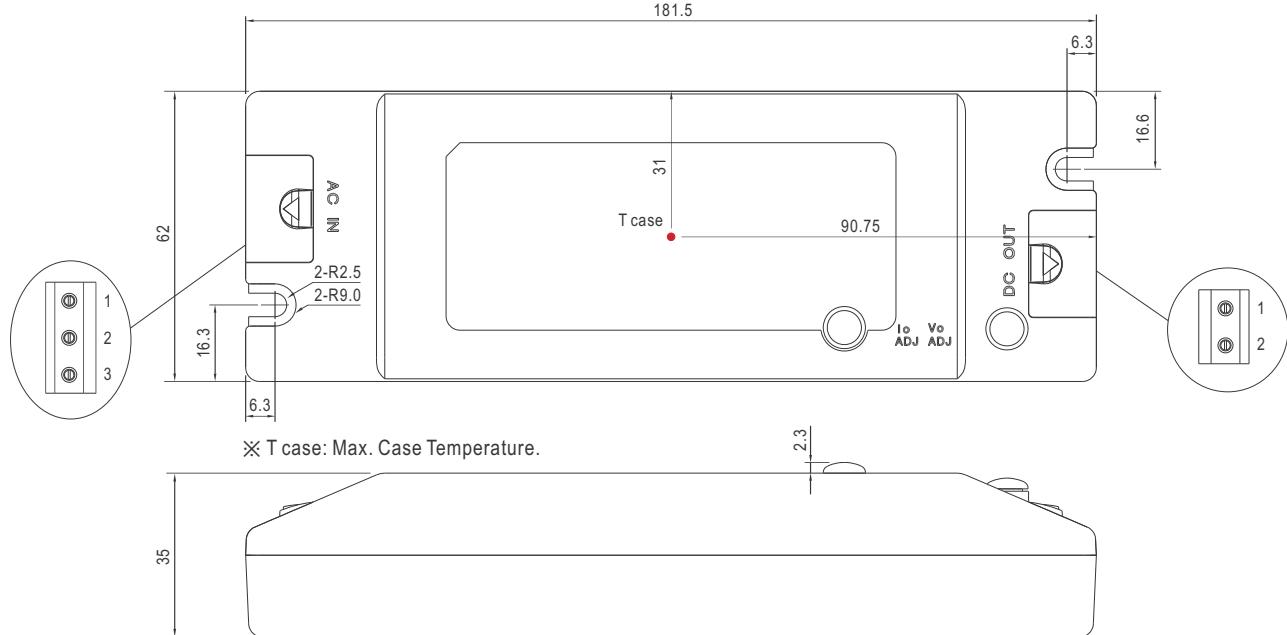


EAC CB CE UK CA

MODEL	PLC-45-12	PLC-45-15	PLC-45-20	PLC-45-24	PLC-45-27	PLC-45-36	PLC-45-48
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V
	CONSTANT CURRENT REGION Note.6	9 ~ 12V	11.25 ~ 15V	15 ~ 20V	18 ~ 24V	20.25 ~ 27V	27 ~ 36V
	RATED CURRENT	3.8A	3A	2.3A	1.9A	1.7A	1.25A
	CURRENT RANGE	0 ~ 3.8A	0 ~ 3A	0 ~ 2.3A	0 ~ 1.9A	0 ~ 1.7A	0 ~ 1.25A
	RATED POWER	45.6W	45W	46W	45.6W	45.9W	45W
	RIPPLE & NOISE (max.) Note.2	2Vp-p	2.4Vp-p	1.8Vp-p	2.7Vp-p	2.7Vp-p	3.6Vp-p
	VOLTAGE ADJ. RANGE Note.5	11.5 ~ 13V	14.5 ~ 16.2V	19.5 ~ 22V	24 ~ 26V	25 ~ 30V	32.5 ~ 39V
	CURRENT ADJ. RANGE Note.5	2.85 ~ 3.914A	2.25 ~ 3.1A	1.725 ~ 2.37A	1.425 ~ 1.957A	1.275 ~ 1.75A	0.938 ~ 1.288A
	VOLTAGE TOLERANCE Note.3	$\pm 10\%$					
	LINE REGULATION	$\pm 3.0\%$					
INPUT	LOAD REGULATION	$\pm 5.0\%$					
	SETUP TIME	500ms / 230VAC 1200ms / 115VAC at full load					
	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR (Typ.)	PF>0.9/115VAC, PF>0.9/230VAC at full load (Please refer to "Power Factor Characteristic" curve)					
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading $\geq 75\%$ at 115VAC/230VAC input					
	EFFICIENCY (Typ.)	84.5%	85%	86.5%	86.5%	86.5%	87.5%
	AC CURRENT (Typ.)	0.55A/115VAC	0.25A/230VAC				
	INRUSH CURRENT (Typ.)	COLD START 35A(twidth=50 μ s measured at 50% Ipeak) at 230VAC					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	42 units (circuit breaker of type B) / 42 units (circuit breaker of type C) at 230VAC					
PROTECTION	LEAKAGE CURRENT	<0.75mA / 240VAC					
	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	22.8 ~ 25V	28 ~ 32V	31 ~ 35V	41 ~ 46V
ENVIRONMENT	OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover					
	WORKING TEMP.	Shut down o/p voltage, recovers automatically after temperature goes down					
	WORKING HUMIDITY	-30 ~ +50°C (Refer to "Derating Curve")					
	STORAGE TEMP., HUMIDITY	20 ~ 95% RH non-condensing					
	TEMP. COEFFICIENT	$\pm 0.03\%/\text{°C}$ (0 ~ 50°C)					
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes					
	SAFETY STANDARDS	UL1310, TUV BS EN/EN61347-1, BS EN/EN61347-2-13, GB19510.14, GB19510.1, CAN/CSA C22.2 No. 223-M91(except for 48V), J61347-1, J61347-2-13,EAC TP TC 004 approved					
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to BS EN/EN55015, GB17743, GB17625.1, BS EN/EN61000-3-2 Class C ($\geq 75\%$ load) ; BS EN/EN61000-3-3, EAC TP TC 020					
OTHERS	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024,BS EN/EN61547, light industry level, criteria A,EAC TP TC 020					
	MTBF	515Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	181.5*62*35mm (L*W*H)					
NOTE	PACKING	0.41Kg; 30pcs/13.3Kg/0.67CUFT					
	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 0.1uf & 47uf 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.						
	10. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).						
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						

■ Mechanical Specification

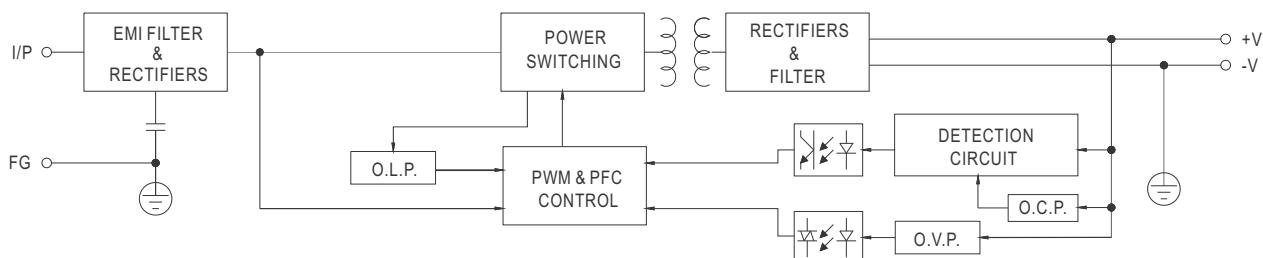
Case No.991A Unit:mm


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

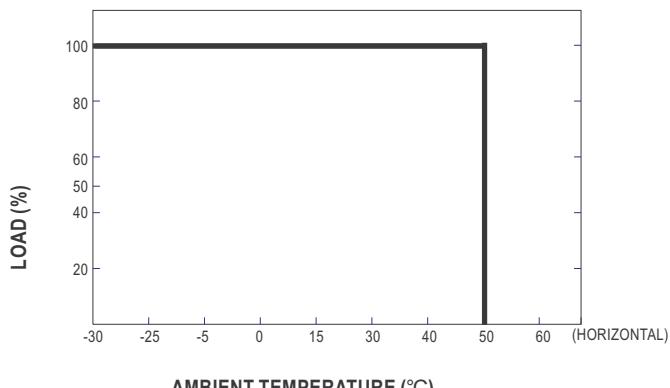
Pin No.	Assignment
1	AC/L
2	AC/N
3	FG (±)

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

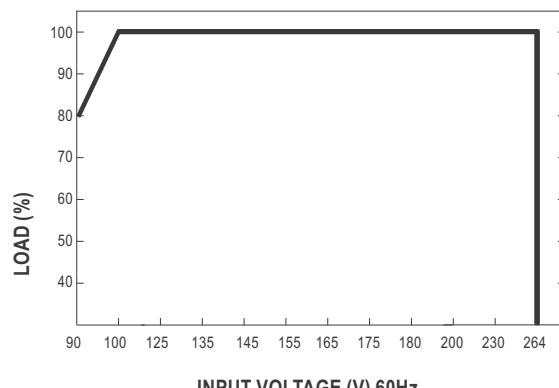
Pin No.	Assignment
1	+V
2	-V

 fosc : 90KHz(115VAC)
 120KHz(230VAC)


■ Derating Curve



■ Static Characteristics





45W Single Output LED Power Supply

PLC-45 series

