25W Single Output LED Power Supply

PLM-25 series

■ Features :

- Universal AC input / Full range(up to 295VAC)
- Protections:Short circuit
- Cooling by free air convection
- Fully isolated plastic case
- Built-in active PFC function
- Small and compact size
- Class Ⅱ power unit, no FG
- Class 2 power unit(Except for PLM-25-350)
- 100% full load burn-in test
- No load power consumption <0.5W
- High reliability,low cost
- Suitable for LED lighting and moving sign applications
- 2 years warranty

SPECIFICATION

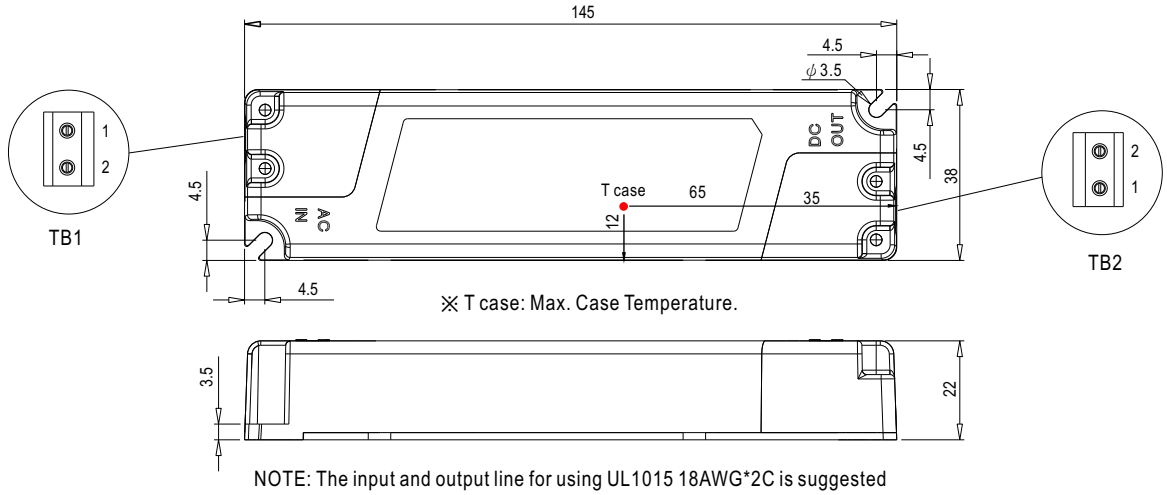
MODEL		PLM-25-350	PLM-25-500	PLM-25-700	PLM-25-1050
OUTPUT	LED OPERATION VOLTAGE Note.5	42 ~ 72V	30 ~ 50V	21 ~ 36V	14 ~ 24V
	RATED CURRENT	0.35A	0.5A	0.7A	1.05A
	NO-LOAD OUTPUT VOLTAGE(max.)	80V	56V	42V	28V
	RATED POWER	25.2W	25W	25.2W	25.2W
	RIPPLE & NOISE (max.) Note.2	7.2Vp-p	5.0Vp-p	3.6Vp-p	2.4Vp-p
	CURRENT ACCURACY Note.3	±5.0%			
	SETUP TIME	500ms / 115VAC, 230VAC at full load			
INPUT	VOLTAGE RANGE Note.4	110 ~ 295VAC 156 ~ 416VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	POWER FACTOR	PF ⩾ 0.97/115VAC,PF ⩾ 0.95/230VAC,PF>0.9/277VAC(at full load)(Please refer to "Power Factor Characteristic" curve)			
	EFFICIENCY(Typ.)	87%	86%	86%	85%
	AC CURRENT	0.3A/115VAC 0.15A/230VAC 0.12A/277VAC			
	INRUSH CURRENT(Typ.)	COLD START 15A(twidth=50μs measured at 50% Ipeak) at 230VAC			
	LEAKAGE CURRENT	0.25mA / 240VAC			
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.			
ENVIRONMENT	WORKING TEMP.	-30 ~ +45℃			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.06%/℃ (0 ~ 50℃)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	UL8750, CSA C22.2 No. 250.13-12, ENEC EN61347-1, EN61347-2-13, EN62384, IP30 approved			
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC			
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms/500VDC / 25℃/ 70%RH			
	EMC EMISSION	Compliance to EN55015,EN61000-3-2 Class C(⩾60% load);EN61000-3-3			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11;EN61547, light industry level, criteria A(surge 2KV)			
OTHERS	MTBF	808.162Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	145*38*22mm (L*W*H)			
	PACKING	0.126Kg; 60 pcs / 8.6Kg / 0.48CUFT			

NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. Please see "AC input voltage drop vs. output current characteristics" table.
4. Derating may be needed under low input voltage, please check the static characteristic for more details.
5. Constant current operation region is within 60% ~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.
6. 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.
7. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.

■ Mechanical Specification

Case No.PLM-25 Unit:mm



※ T case: Max. Case Temperature.

NOTE: The input and output line for using UL1015 18AWG*2C is suggested

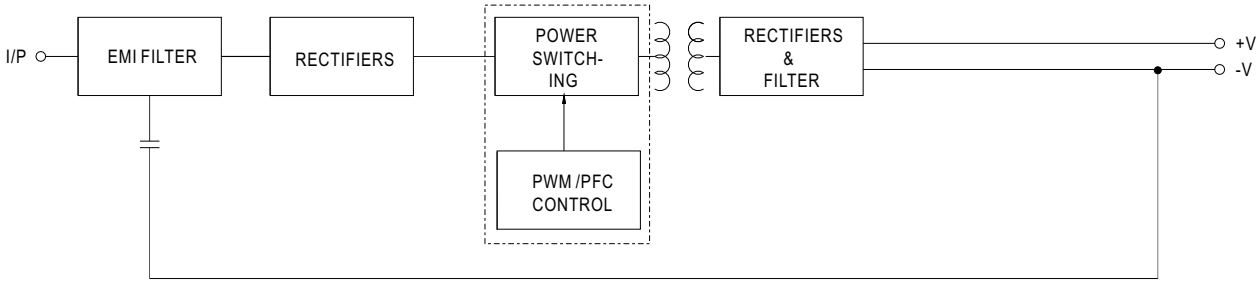
Terminal Pin No. Assignment (TB1) :
SWITCHLAB MWX201-75002EB(GRAY)

Pin No.	Assignment
1	AC/L
2	AC/N

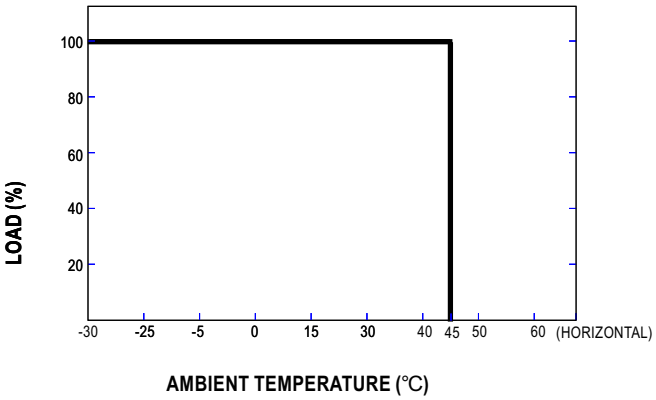
Terminal Pin No. Assignment (TB2) :
SWITCHLAB MWX201-75002B(BLUE)

Pin No.	Assignment
1	+V
2	-V

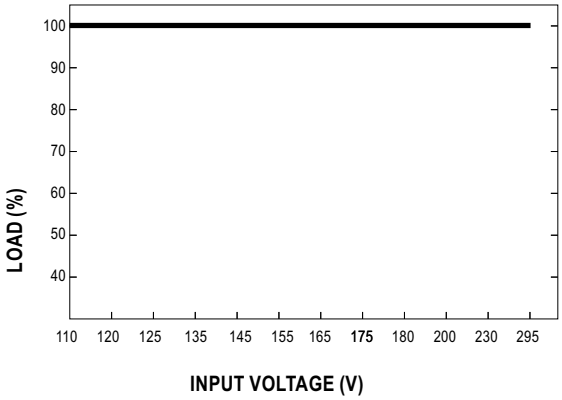
■ Block Diagram



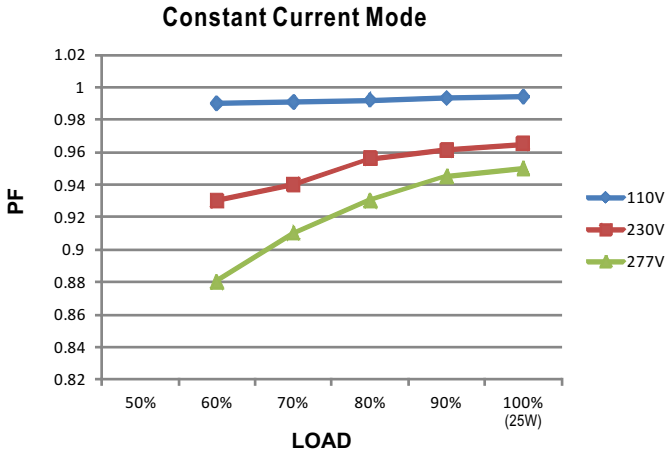
■ Derating Curve



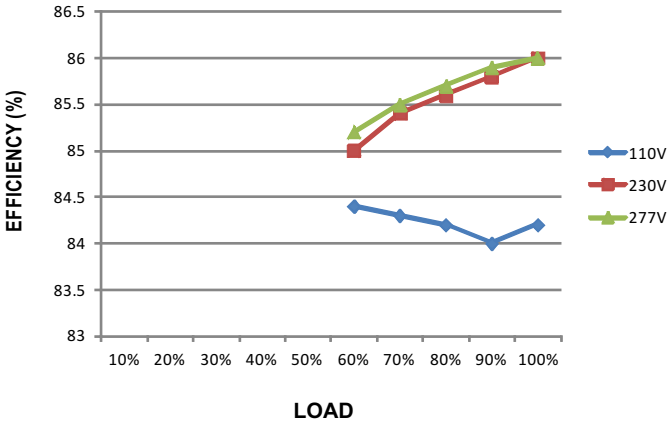
■ Static Characteristics



■ Power Factor Characteristic



■ EFFICIENCY vs LOAD (500mA Model)



■ AC input voltage drop vs. output current characteristics

AC input drop	10%	8%	5%	3%
Io drop	<16%	<12%	<8%	<7%

NOTE: Output current will return to the rated value within 50ms