



■ Features

- Constant Current mode output
- Flicker free design
- Plastic housing with class II design
- Built-in active PFC function
- No load power consumption <math><0.5\text{W}</math>
- IP67 rating for indoor or outdoor installations
- Made in PRC

■ Applications

- LED panel lighting
- LED flood lighting
- Indoor LED lighting

SPECIFICATION

MODEL		DE50045
OUTPUT	RATED CURRENT	500mA
	RATED POWER	45W
	CONSTANT CURRENT REGION ^{Note.2}	54 ~ 90V
	OPEN CIRCUIT VOLTAGE ^(max.)	115V
	CURRENT RIPPLE	5% max. @rated current
	CURRENT TOLERANCE	±7.0%
	SETUP TIME ^{Note.4}	500ms / 230VAC 1200ms/115VAC
INPUT	VOLTAGE RANGE ^{Note.3}	90 ~ 295VAC (Please refer to "STATIC CHARACTERISTIC" section)
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR (Typ.)	PF>0.95/115VAC, PF>0.92/230VAC, PF>0.9/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)
	TOTAL HARMONIC DISTORTION	THD< 20% (@load≥60%/230VAC; @load≥75%/277VAC)
	EFFICIENCY (Typ.)	85%
	AC CURRENT	0.6A/115VAC 0.4A/230VAC 0.3A/277VAC
	INRUSH CURRENT (Typ.)	COLD START 30A(twidth=100μs measured at 50% Ipeak) at 230VAC; Per NEMA 410
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	32 units (circuit breaker of type B) / 32 units (circuit breaker of type C) at 230VAC
	LEAKAGE CURRENT	<0.75mA / 277VAC
	NO LOAD/STANDBY POWER CONSUMPTION	No load power consumption<0.5W
PROTECTION	SHORT CIRCUIT	Hiccup mode, re-power on to recovery
ENVIRONMENT	WORKING TEMP.	Tcase=-20 ~ +85°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)
	MAX. CASE TEMP.	Tcase=+85°C
	WORKING HUMIDITY	20 ~ 90% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 40°C)
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes
SAFETY & EMC	SAFETY STANDARDS	UL8750(type"HL"), CSA C22.2 NO.250.13-12;ENEC EN61347-1 & EN61347-2-13 independent, EN62384,GB19510.1,GB19510.14; AC TP TC 004,IP67 approved
	DALI STANDARDS	Compliance to IEC62386-101
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (@load≥ 60%) ; EN61000-3-3,GB17743,GB17625.1,EAC TP TC 020
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, light industry level(surge immunity:Line-Line:1KV),EAC TP TC 020
OTHERS	MTBF	408.8Khrs min. MIL-HDBK-217F (25°C)
	DIMENSION	111*77*28.5mm(L*W*H)
	PACKING	0.42Kg
NOTE	<ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. Please refer to "DRIVING METHODS OF LED MODULE". De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. Length of set up time is measured at cold first start. Turning ON/OFF the driver may lead to increase of the set up time. The driver 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. The ambient temperature derating of 3.5 /1000m with fanless models and of 5 /1000m with fan models for operating altitude higher than 2000m(6500ft). 	

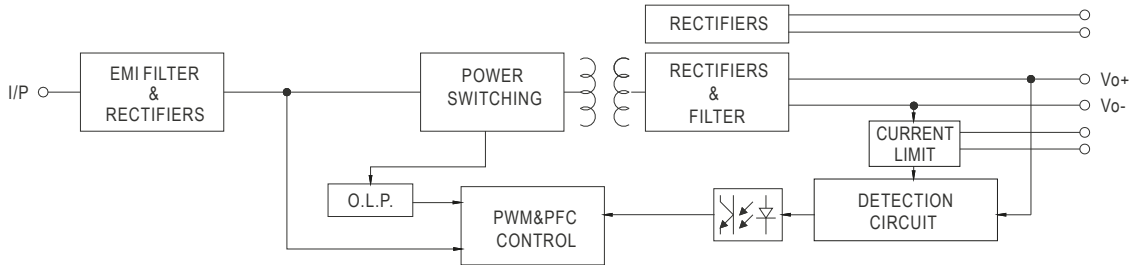


DE50045

Series 500mA C.C. Power Supply
Alimentatori C.C. serie 500mA

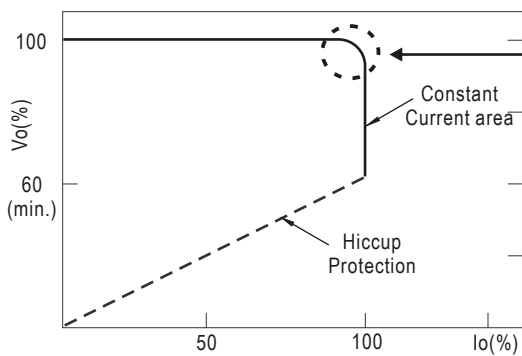
Block Diagram

fosc : 70KHz



DRIVING METHODS OF LED MODULE

※ This series works in constant current mode to directly drive the LEDs.



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

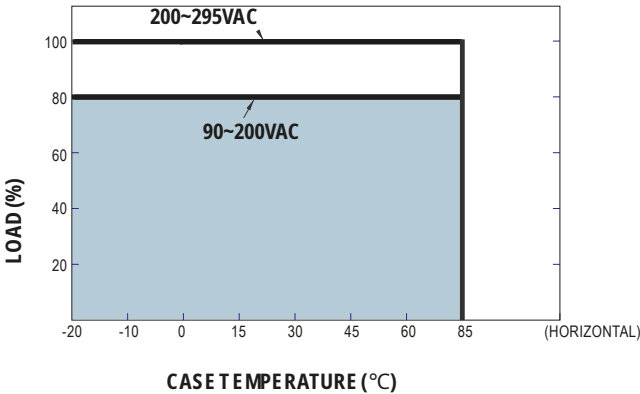
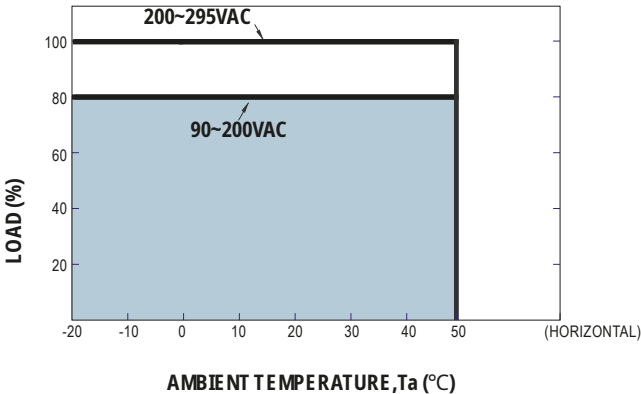
Typical output current normalized by rated current (%)



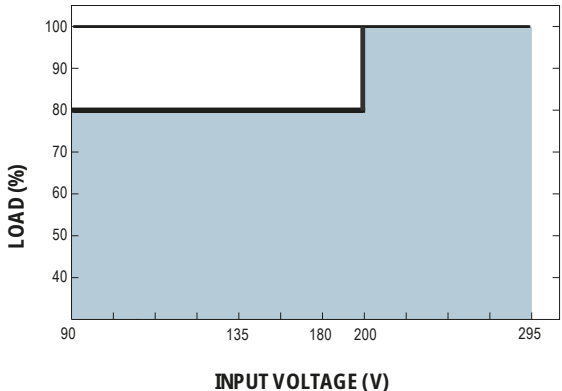
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OUTPUT LOAD vs TEMPERATURE



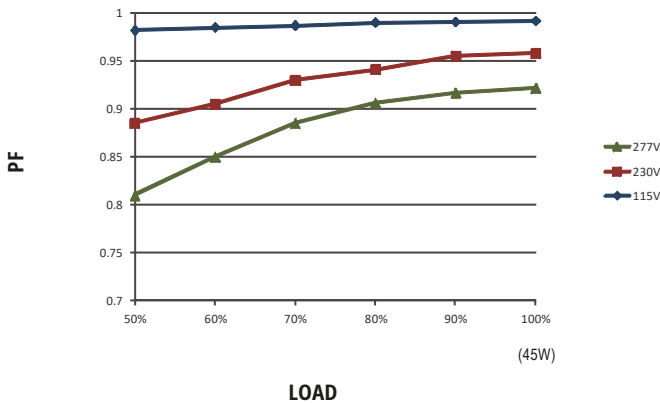
STATIC CHARACTERISTIC



※ De-rating is needed under low input voltage.

POWER FACTOR (PF) CHARACTERISTIC

※ Tcase at 75°C



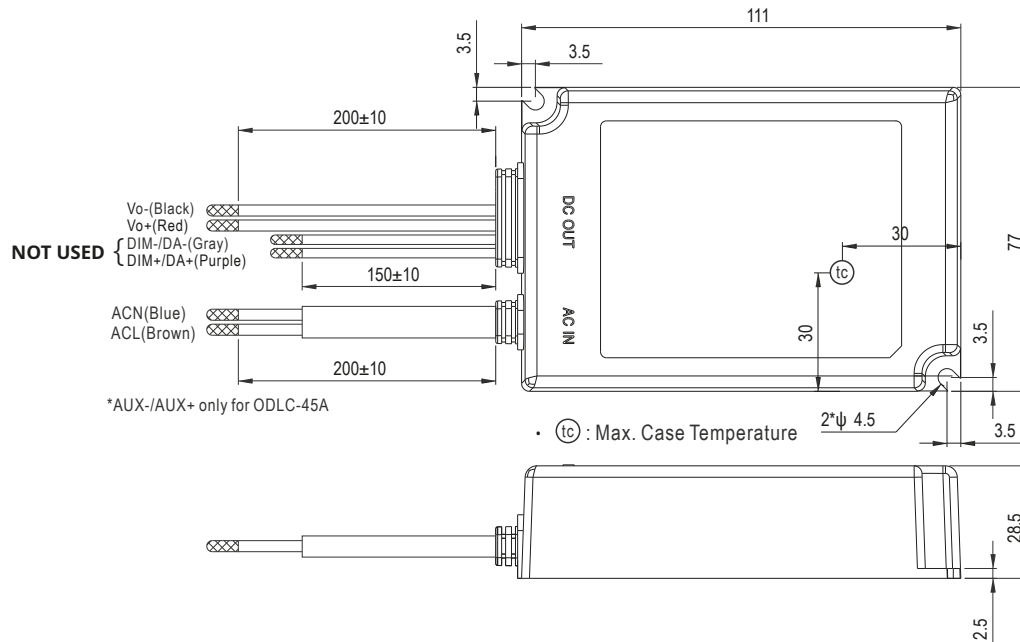


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MECHANICAL SPECIFICATION

Case No. ODLC-45 Unit:mm



AC wire No. Assignment(AC IN)

ACN(Blue)	SVT 18AWG
ACL(Brown)	SVT 18AWG

DC wire No. Assignment(DC OUT)

Vo-(Black)	UL1007 18AWG
Vo+(Red)	UL1007 18AWG
DIM-/DA-(Gray)	UL1007 22AWG
DIM+/DA+(Purple)	UL1007 22AWG

NOT USED {