









Features

- · Constant Current mode output
- · Plastic housing with Class II design
- · Built-in active PFC function
- · Class 2 power unit
- IP67 rating for indoor or outdoor installations
- Function: 3 in 1 dimming
- Typical lifetime>50000 hours
- 5 years warranty

Applications

- · LED panel lighting
- · LED downlight
- LED decorative lighting
- · LED tunnel lighting
- · Moving sign

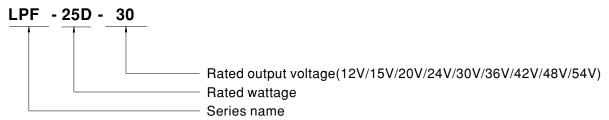
■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

Description

LPF-25D series is a 25W AC/DC LED driver featuring the constant current output. LPF-25D operates from $90\sim305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the efficiency up to 86%, with the fanless design, the entire series is able to operate for $-35^{\circ}\text{C} \sim +70^{\circ}\text{C}$ case temperature under free air convection. The entire series is rated with IP67 ingress protection level and is suitable to work for a variety of applications at dry, damp or wet locations. LPF-25D is equipped with the 3 in 1 dimming function so as to provide the design flexibility for LED lighting system.

■ Model Encoding



25W Constant Current Mode LED Driver

LPF-25D series

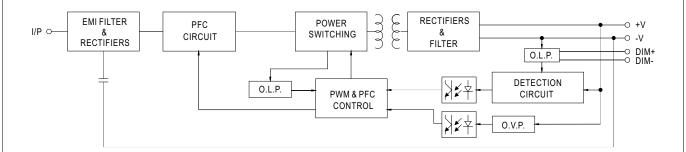
SPECIFICATION

SPECIFIC MODEL	, · • · · ·	LPF-25D-12	LPF-25D-15	LPF-25D-20	LPF-25D-24	LPF-25D-30	LPF-25D-36	LPF-25D-42	LPF-25D-48	LPF-25D-54
MODEL	DC VOLTACE	-					36V	42V		
ОИТРИТ	DC VOLTAGE RATED CURRENT	12V 2.1A	15V	20V	24V	30V 0.84A	0.7A	0.6A	48V	54V
		2.1A 25.2W	1.67A 25.05W	1.25A 25W	1.05A 25.2W	0.84A 25.2W	0.7A 25.2W	0.6A 25.2W	0.53A 25.44W	0.47A 25.38W
	RATED POWER Note.5 CONSTANT CURRENT REGION Note.2			-			19.8 ~ 36V	23.1 ~ 42V		25.38VV 29.7 ~ 54V
	CURRENT RIPPLE CURRENT TOLERANCE	5.0% max. @rated current								
		±5.0%								
	SETUP, RISE TIME Note.6	1500ms, 80ms / 115VAC 500ms, 80ms / 230VAC								
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC								
	VOLTAGE RANGE Note.5	90 ~ 305VAC 127 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR	$\label{eq:pf} \begin{split} PF & \ge 0.97/115 VAC, PF \ge 0.95/230 VAC, PF \ge 0.92/277 VAC @ full load \\ (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section) \end{split}$								
	TOTAL HARMONIC DISTORTION	THD<20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)								
INPUT	EFFICIENCY (Typ.)	84%	84%	85%	85.5%	85.5%	85.5%	85.5%	86%	86%
	AC CURRENT	0.4A / 115VA	0.25A/	230VAC ().2A/277VAC					
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=200µs measured at 50% lpeak) at 230VAC; Per NEMA 410								
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	12 units (circuit breaker of type B) / 21 units (circuit breaker of type C) at 230VAC								
	LEAKAGE CURRENT	<0.75mA / 240VAC								
		95 ~ 108%								
PROTECTION	OVER CURRENT	OVER CURRENT 95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed								
	SHORT CIRCUIT			matically after						
	J	15 ~ 18V	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46 ~ 54V	54 ~ 63V	59 ~ 66V
	OVER VOLTAGE			1			41 430	40	J4 * 05 V	33 00V
	OVER TEMPERATURE	Shut down and latch off o/p voltage, re-power on to recover								
		Shut down o/p voltage, recovers automatically after temperature goes down Tcase=-35 ~ +70°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)								
ENVIRONMENT	WORKING TEMP.									
	MAX. CASE TEMP.	Tcase=+70°C								
	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, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes								
SAFETY & EMC	SAFETY STANDARDS Note.8	UL8750, CSA C22.2 No. 250.0-08,ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384, EAC TP TC 004,GB19510.1,GB19510.14,IP67 approved ;Design refer to UL60950-1								
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC								
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION Note.8	Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≥ 55%) ; BS EN/EN61000-3-3,GB/T 17743 , GB17625.1,EAC TP TC 020								
	EMC IMMUNITY	Compliance to BS EN/EN6100-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level (surge immunity Line-Line 2KV), EAC TP TC 020								
	MTBF	3574.2K hrs min. Telcordia SR-332 (Bellcore); 391.6Khrs min. MIL-HDBK-217F (25°C)								
OTHERS	DIMENSION	148*40*32mm (L*W*H)								
	PACKING	0.36Kg; 40pcs/ 15.4Kg/1.02CUFT								
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. 2. Please refer to "DRIVING METHODS OF LED MODULE".									
	3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.									
	4. Tolerance : includes set up tolerance, line regulation and load regulation.									
	5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.									
	 6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time. 7. 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. 									
	(as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf)									
	To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains.									
	9. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly (tc) point (or TMP, per DLC), is about 70°C or less.									
	10. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com 11. 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(6500f 12. For any application note and IP water proof function installation caution, please refer our user manual before using.									
	https://www.meanwell.com/	om/Upload/PDF/LED_EN.pdf								
		: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx								



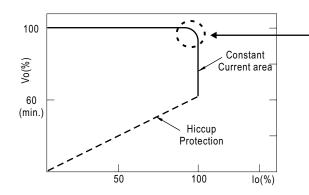
■ BLOCK DIAGRAM

fosc: 100KHz



■ DRIVING METHODS OF LED MODULE

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



Typical output current normalized by rated current (%)

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.

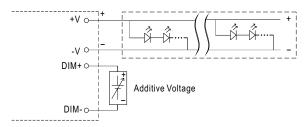


■ DIMMING OPERATION

 \divideontimes 3 in 1 dimming function

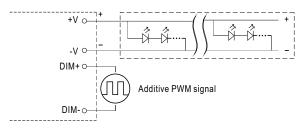


- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
 1 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100µA (typ.)
- O Applying additive 1 ~ 10VDC



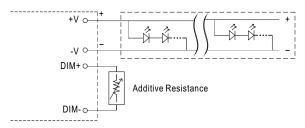
"DO NOT connect "DIM- to -V"

O Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):

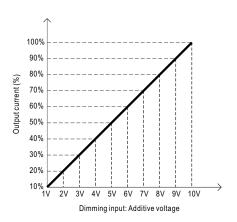


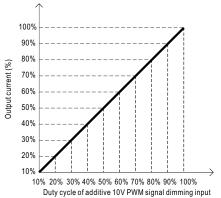
"DO NOT connect "DIM- to -V"

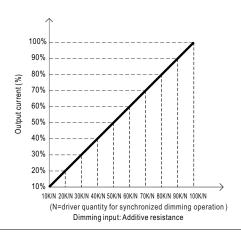
 \bigcirc Applying additive resistance:



"DO NOT connect "DIM- to -V"

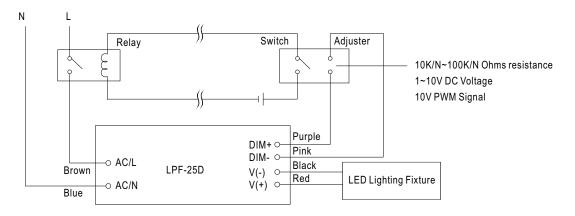






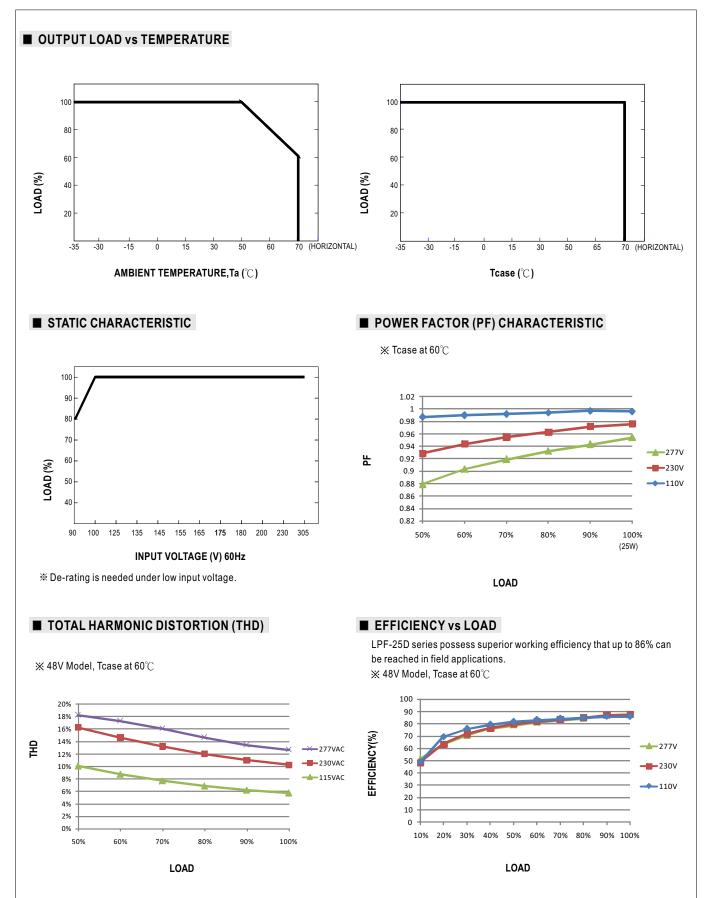


Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.



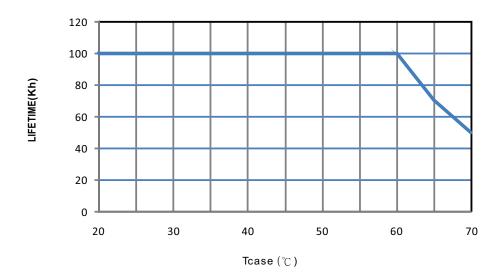
Using a switch and relay can turn $\ensuremath{\mathsf{ON}}\xspace/\ensuremath{\mathsf{OFF}}$ the lighting fixture.







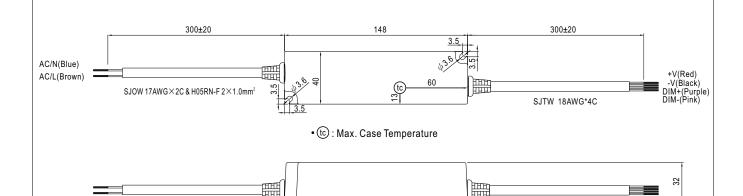
■ LIFE TIME





■ MECHANICAL SPECIFICATION

CASE NO.: LPF-16A Unit:mm Tolerance:±1



■ Recommend Mounting Direction



■ INSTALLATION MANUAL

Please refer to : http://www.meanwell.com/manual.html



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