



25W Constant Current Mode LED Driver

LPF-25D series









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

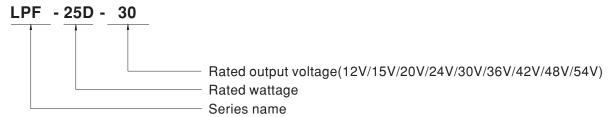
■ GTIN CODE

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° C $\sim +70^{\circ}$ 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

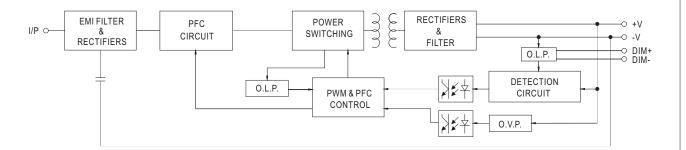
SPECIFICATION

		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			
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V			
OUTPUT	RATED CURRENT	2.1A	1.67A	1.25A	1.05A	0.84A	0.7A	0.6A	0.53A	0.47A			
	RATED POWER Note.5	25.2W	25.05W	25W	25.2W	25.2W	25.2W	25.2W	25.44W	25.38W			
	CONSTANT CURRENT REGION Note.2	6.6 ~12V	8.25 ~ 15V	11 ~ 20V	13.2 ~ 24V	16.5 ~ 30V	19.8 ~ 36V	23.1 ~ 42V	26.4 ~ 48V	29.7 ~ 54V			
	CURRENT RIPPLE	5.0% max. @rated current											
	CURRENT TOLERANCE	±5.0%											
	SETUP, RISE TIME Note.6	1500ms, 80ms / 115VAC 500ms, 80ms / 230VAC											
	HOLD UP TIME (Typ.)	16ms/230VAC 16ms/115VAC											
	TIOLD OF TIME (Typ.)	90 ~ 305VAC 127 ~ 431VDC											
INPUT	VOLTAGE RANGE Note.5	(Please refer to "STATIC CHARACTERISTIC" section)											
	FREQUENCY RANGE	47 ~ 63Hz											
	TREGOLITOT RANGE												
	POWER FACTOR	PF≥0.97/115VAC, PF≥0.95/230VAC, PF≥0.92/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)											
	TOTAL HARMONIC DISTORTION	THD< 20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)											
	EEFICIENOV (T.)	`			`	<u>, , , , , , , , , , , , , , , , , , , </u>	05.50/	05.50/	000/	000/			
	EFFICIENCY (Typ.)	84%	84%	85%	85.5%	85.5%	85.5%	85.5%	86%	86%			
	AC CURRENT	0.4A / 115VA			.2A/277VAC								
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=200µs measured at 50% Ipeak) at 230VAC; Per NEMA 410											
	MAX. No. of PSUs on 16A	12 units (circuit breaker of type B) / 21 units (circuit breaker of type C) at 230VAC											
	CIRCUIT BREAKER	12 diffes (official breaker of type b) / 21 diffes (official breaker of type o) at 250 VAO											
	LEAKAGE CURRENT	<0.75mA / 240VAC											
PROTECTION	OVER CURRENT	95 ~ 108%											
	OVER CORRENT	Constant curr	ent limiting, red	covers automation	cally after fault	condition is rem	noved						
	SHORT CIRCUIT	Hiccup mode	, recovers auto	matically after	fault condition	is removed.							
	0.450.401.51.05	15 ~ 18V	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46 ~ 54V	54 ~ 63V	59 ~ 66V			
	OVER VOLTAGE	Shut down ar	nd latch off o/p	voltage, re-po	ower on to reco	over							
	OVER TEMPERATURE	Shut down o/	o voltage, reco	vers automatic	ally after temp	erature goes do	own						
	WORKING TEMP.	Tcase=-35 ~ +70°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)											
	MAX. CASE TEMP.	Tcase=+70°C											
	WORKING HUMIDITY	20 ~ 95% RH non-condensing											
ENVIRONMENT	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											
		UL8750, CSA C22.2 No. 250.0-08,ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384,											
	SAFETY STANDARDS Note.8								20 2.17 2.11020	,			
SAFETY &	WITHSTAND VOLTAGE	EAC TP TC 004,GB19510.1,GB19510.14,IP67 approved ;Design refer to UL60950-1 I/P-O/P:3.75KVAC											
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH											
EMC	EMC EMISSION Note.8	Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≥ 55%); BS EN/EN61000-3-3,GB17743 and GB17625.1,EAC TP TC 020											
		Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level (surge immunity Line-Line 2KV),EAC TP TC 020											
	FMC IMMUNITY	Compliance to	BS FN/FN610										
	MTBF								,				
OTHERS	MTBF	3574.2K hrs r	nin. Telcord						,,=				
OTHERS	MTBF DIMENSION	3574.2K hrs r 148*40*32mn	nin. Telcord n (L*W*H)	lia SR-332 (Bel									
	MTBF DIMENSION PACKING	3574.2K hrs r 148*40*32mr 0.36Kg; 40pc	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02	ia SR-332 (Bel	lcore); 391.	6Khrs min. N	MIL-HDBK-217	F (25°C)					
	MTBF DIMENSION PACKING 1. All parameters NOT special	3574.2K hrs r 148*40*32mn 0.36Kg; 40pc y mentioned a	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a	ia SR-332 (Bel CUFT at 230VAC inpr	lcore); 391.	6Khrs min. N	MIL-HDBK-217	F (25°C)					
	MTBF DIMENSION PACKING 1. All parameters NOT speciall 2. Please refer to "DRIVING M	3574.2K hrs r 148*40*32mn 0.36Kg; 40pc y mentioned a ETHODS OF	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE	lia SR-332 (Bel CCUFT at 230VAC inpo	lcore); 391.	6Khrs min. Months of the first three Months of three	MIL-HDBK-217	F (25°C) erature.					
	MTBF DIMENSION PACKING 1. All parameters NOT special	3574.2K hrs r 148*40*32mn 0.36Kg; 40pc y mentioned a ETHODS OF at 20MHz of b	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE andwidth by u	ia SR-332 (Bel CCUFT at 230VAC inpo E". sing a 12" twist	lcore); 391.	6Khrs min. Months of the first three Months of three	MIL-HDBK-217	F (25°C) erature.					
	MTBF DIMENSION PACKING 1. All parameters NOT speciall 2. Please refer to "DRIVING M 3. Ripple & noise are measured	3574.2K hrs r 148*40*32mn 0.36Kg; 40pc y mentioned a ETHODS OF at 20MHz of b	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE andwidth by us gulation and lo	ia SR-332 (Bel CCUFT at 230VAC inposes: E". sing a 12" twist pad regulation.	ut, rated currer	6Khrs min. Ment and 25°C of	ambient temp	F (25°C) erature. erature capacito					
	MTBF DIMENSION PACKING 1. All parameters NOT speciall 2. Please refer to "DRIVING M 3. Ripple & noise are measured 4. Tolerance: includes set up to	3574.2K hrs r 148*40*32mm 0.36Kg; 40pc y mentioned a ETHODS OF at 20MHz of b olerance, line re-	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE andwidth by use gulation and lovoltages. Plea	CCUFT at 230VAC inpute. E". sing a 12" twistoad regulation. see refer to "ST	ut, rated curreled pair-wire tel	ot and 25°C of minated with a	ambient temp 0.1uf & 47uf p	F (25°C) erature. eratllel capacito					
	MTBF DIMENSION PACKING 1. All parameters NOT speciall 2. Please refer to "DRIVING M 3. Ripple & noise are measured 4. Tolerance: includes set up to 5. De-rating may be needed ur 6. Length of set up time is mea 7. The driver is considered as	3574.2K hrs r 148*40*32mm 0.36Kg; 40pc y mentioned a ETHODS OF at 20MHz of b olerance, line re- nder low input asured at first of a component t	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE andwidth by u- gulation and lo voltages. Plea xold start. Turr hat will be ope	ccuft at 230VAC inpute: sing a 12" twist pad regulation. se refer to "ST ining ON/OFF the terated in combine in the second in th	ut, rated currer ed pair-wire ter 'ATIC CHARA ne driver may ination with fin	of the and 25°C of the minated with a control of the control of th	ambient temp 0.1uf & 47uf p ections for det ie of the set up Since EMC pe	F (25°C) erature. erature capacito ails. o time. erformance will	or.	the the			
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OTHERS	MTBF DIMENSION PACKING 1. All parameters NOT speciall 2. Please refer to "DRIVING M 3. Ripple & noise are measured 4. Tolerance : includes set up to 5. De-rating may be needed ur 6. Length of set up time is mea 7. The driver is considered as complete installation, the fina 8. To fulfill requirements of the without permanently connec 9. This series meets the typica 10. Please refer to the warrant	3574.2K hrs r 148*40*32mr 0.36Kg; 40pc y mentioned a ETHODS OF at 20MHz of b alerance, line re ader low input asured at first o a component t al equipment n latest ErP regulated to the main I life expectance y statement or lerating of 3.5° dd IP water pro	nin. Telcord n (L*W*H) s/ 15.4Kg/1.02 re measured a LED MODULE andwidth by u gulation and le voltages. Plea bold start. Turr hat will be open nufacturers ulation for light ns. by of >50,000 MEAN WELL C/1000m with of function ins	ia SR-332 (Bel CCUFT at 230VAC inpressing a 12" twist bad regulation. use refer to "ST ming ON/OFF the crated in combinate re-qualify ing fixtures, thing hours of opera 's website at head of the service of t	ut, rated currer ed pair-wire ter ATIC CHARA ne driver may ination with fin EMC Directiv s LED driver c tion when Tca	of the and 25°C of the and 25°	ambient temp 0.1uf & 47uf p ections for det ee of the set up Since EMC pe lete installation ed behind a sw (to point (or 1)	erature. erature. erature. erature. orallel capacito ails. o time. rformance will n again. vitch TMP, per DLC; perating altitude	be affected by	or less.			



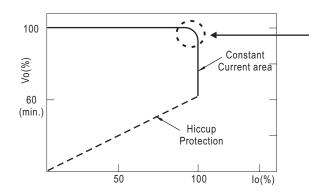
■ BLOCK DIAGRAM

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.

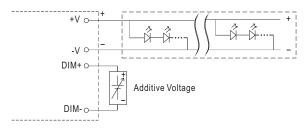


■ DIMMING OPERATION

 \divideontimes 3 in 1 dimming function

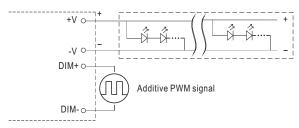


- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
 1 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100µA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



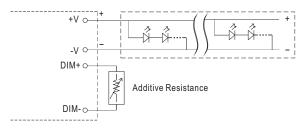
"DO NOT connect "DIM- to -V"

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

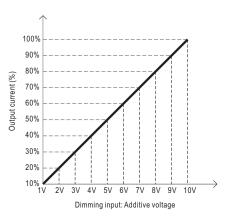


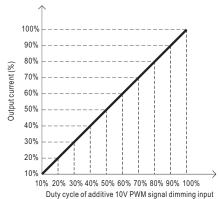
"DO NOT connect "DIM- to -V"

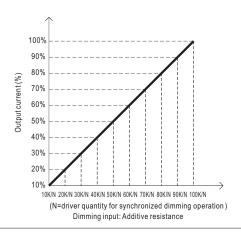
Applying additive resistance:



"DO NOT connect "DIM- to -V"

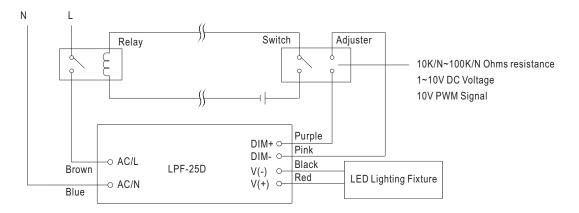






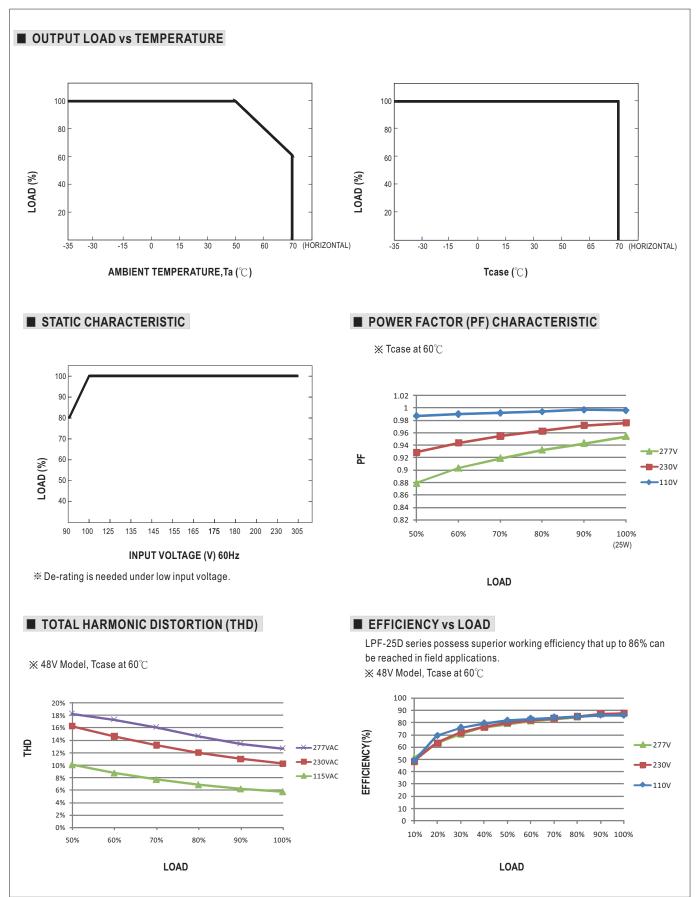


Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.



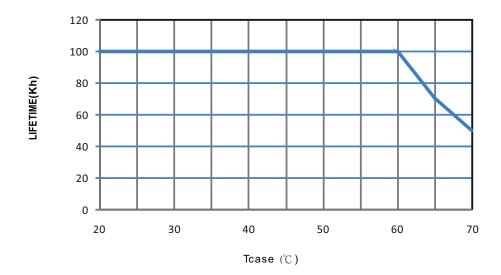
Using a switch and relay can turn ON/OFF the lighting fixture.







■ LIFE TIME





CASE NO.: LPF-16A Unit:mm CASE NO.: LPF-16A Unit:mm AC/N(Blue) AC/L(Brown) SJOW 17AWG×2C & H05RN-F 2×1.0mm' **(©: Max. Case Temperature) **(©: Max. Case Temperature)

■ Recommend Mounting Direction



■ INSTALLATION MANUAL

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