









Features

- Constant Voltage + Constant Current mode output
- Plastic housing with Class II design
- Built-in active PFC function
- Class 2 power unit
- Standard type with IP30 level, optional IP67 with fully encapsulated
- Typical lifetime>50000 hours
- 5 years warranty

Applications

- LED downlight
- LED spotlight
- LED decorative lighting
- LED tunnel lighting

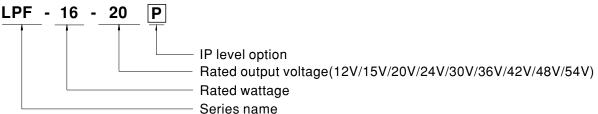
GTIN CODE

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

Description

LPF-16 series is a 16W AC/DC LED driver featuring the dual modes constant voltage and constant current output. LPF-16 operates from 90 \sim 305VAC 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°C case temperature under free air convection. The entire series is suitable to work for a variety of applications at dry or damp locations and the optional models with IP67 rating is able to further work at wet locations.

Model Encoding



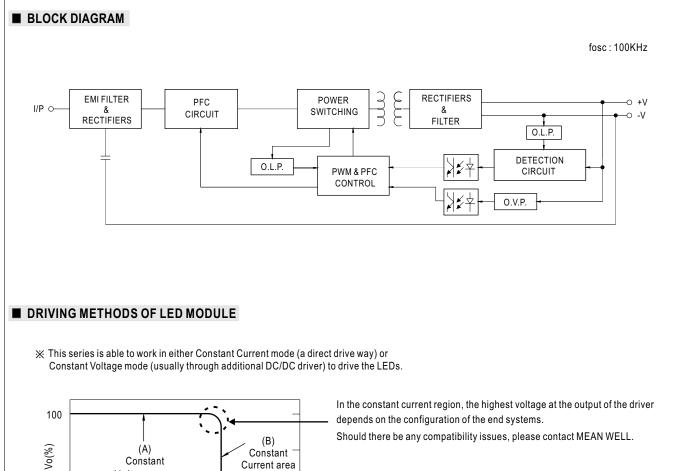
Туре	IP Level	Note
Blank	IP30	In Stock
P	IP67	By request

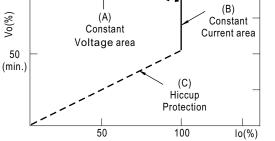


SPECIFICATION

	CATION													
MODEL		LPF-16-12	LPF-16-15	LPF-16-20	LPF-16-24	LPF-16-30	LPF-16-36	LPF-16-42	LPF-16-48	LPF-16-54				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
	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				
	RATED CURRENT	1.34A	1.07A	0.8A	0.67A	0.54A	0.45A	0.39A	0.34A	0.3A				
	RATED POWER Note.5	16.08W	16.05W	16W	16.08W	16.2W	16.2W	16.38W	16.32W	16.2W				
ουτρυτ	RIPPLE & NOISE (max.) Note.3	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p				
UUIPUI	VOLTAGE TOLERANCE Note.4		±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%				
		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
		±2.0%				-			-					
	SETUP, RISE TIME Note.6	1500ms, 80ms / 115VAC 500ms, 80ms / 230VAC												
	HOLD UP TIME (Typ.)	16ms/230VA												
	VOLTAGE RANGE Note.5	90 ~ 305VAC (Please refer	127 ~ 43 to "STATIC CH		IC" section)									
	FREQUENCY RANGE	47 ~ 63Hz												
	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)											
INPUT	EFFICIENCY (Typ.)	84%	84%	86%	86%	86%	86%	86%	86%	86%				
	ACCURRENT	0.4A / 115VA	C 0.25A/	230VAC 0.2	A/277VAC									
	INRUSH CURRENT(Typ.)	0.4A / 115VAC 0.25A / 230VAC 0.2A/277VAC COLD START 45A(twidth=200μs measured at 50% Ipeak) at 230VAC; Per NEMA 410												
	MAX. No. of PSUs on 16A	14 units (circuit breaker of type B) / 24 units (circuit breaker of type C) at 230VAC												
	CIRCUIT BREAKER	<0.75mA / 240VAC												
		95 ~ 108%												
	OVER CURRENT	Constant current limiting, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed												
PROTECTION		15~18V	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46~54V	54 ~ 63V	59~66V				
	OVER VOLTAGE													
	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)												
	WORKING TEMP.													
	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° ℃)											
	VIBRATION	10 ~ 500Hz, 2	2G 12min./1cyc	cle, period for	72min. each al	ong X, Y, Z axe	S							
	SAFETY STANDARDS Note.8	1 '		,		347-1, BS EN/ approved,IP6			,	384,J61347				
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC											
	ISOLATION RESISTANCE		M Ohms / 500\	/DC/25°C/70	% RH									
EMC	EMC EMISSION Note.8		o BS EN/EN550	-		ss C (@load≧5	50%) ; BS EN/E	N61000-3-3,GE	3/T 17743 , GB	17625.1,				
	EMC IMMUNITY			00-4-23456	8 11 BS EN/E	N61547, light in	idustry level (er	irae immunity l	ine-l ine 2K\/\ I					
	MTBF	3572.8K hrs				27.3K hrs min.		K-217F (25°C						
OTHERS		148*40*32mi		- aia 013-00Z				12111 (20C	1					
UTTERS	DIMENSION		、 ,											
	PACKING	Image: CKING 0.21Kg; 40pcs/9.4Kg/1.02CUFT All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.												
NOTE	 Air parameters Nor special Please refer to "DRIVING M Ripple & noise are measured Tolerance : includes set up to De-rating may be needed ur Length of set up time is mea The driver is considered as a complete installation, the fina (as available on https://www To fulfill requirements of the without permanently connect This series meets the typica 	ETHODS OF I at 20MHz of the laterance, line re- nder low input asured at first of a component fi al equipment r meanwell.com latest ErP reg ted to the mai	LED MODULE bandwidth by us egulation and lo voltages. Plea cold start. Turm that will be ope nanufacturers n//Upload/PDF, ulation for light ns.	" sing a 12" twist ad regulation. se refer to "ST ing ON/OFF ti arated in comb must re-qualify /EMI_statemen ing fixtures, thi	ted pair-wire te ATIC CHARA he driver may ination with fin y EMC Directiv nt_en.pdf) is LED driver of	rminated with a CTERISTIC" se lead to increas al equipment. ve on the comp can only be use	0.1uf & 47uf p ections for det e of the set up Since EMC pe lete installation ed behind a sv	varallel capacito ails.) time. rformance will n again. vitch	be affected by					

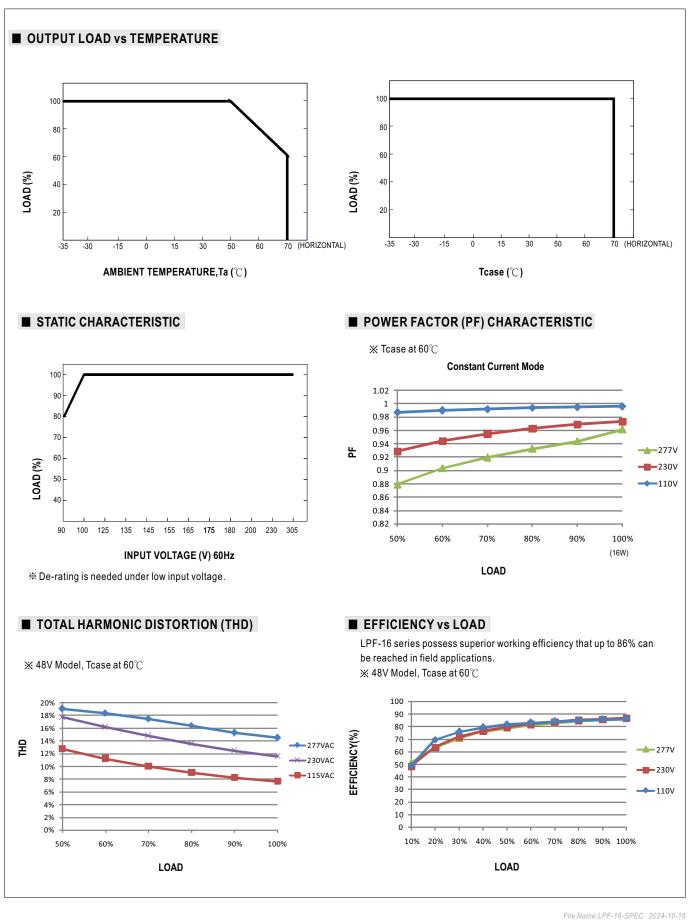






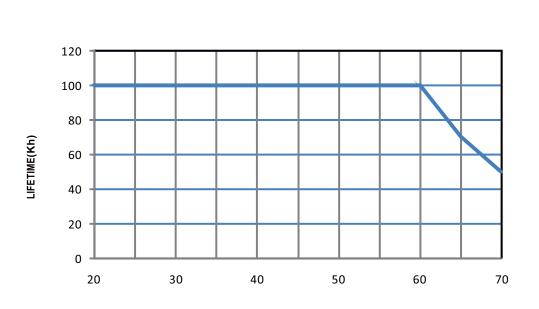
Typical output current normalized by rated current (%)





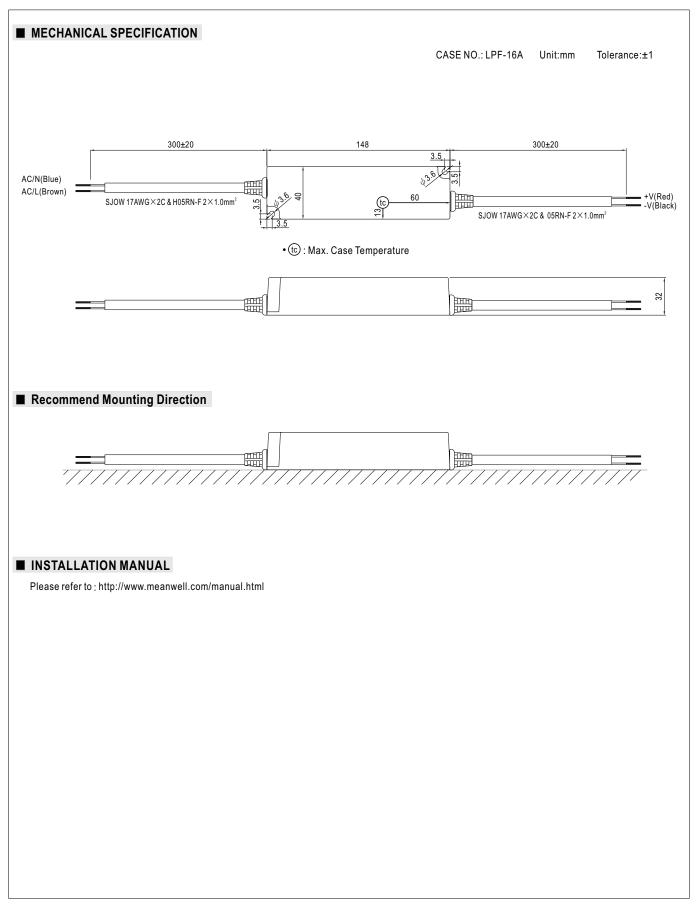


■ LIFE TIME



Tcase (°℃)















Features

- Constant Current mode output
- Plastic housing with Class II design
- Built-in active PFC function
- Class 2 power unit
- Standard type with IP30 level, optional IP67 with fully encapsulated
- Function: 3 in 1 dimming
- Typical lifetime>50000 hours
- 5 years warranty

Applications LED downlight

- LED spotlight
- LED decorative lighting
- LED tunnel lighting

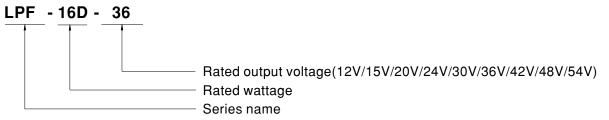
GTIN CODE

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

Description

LPF-16D series is a 16W AC/DC LED driver featuring the constant current output. LPF-16D operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the efficiency up to 85%, with the fanless design, the entire series is able to operate for -35° C $-+70^{\circ}$ C case temperature under free air convection. The entire series is suitable to work for a variety of applications at dry or damp and the optional models with IP67 rating is able to further work at wet locations. LPF-16D is equipped with the 3 in 1 dimming function so as to provide the design flexibility for LED lighting system.

Model Encoding

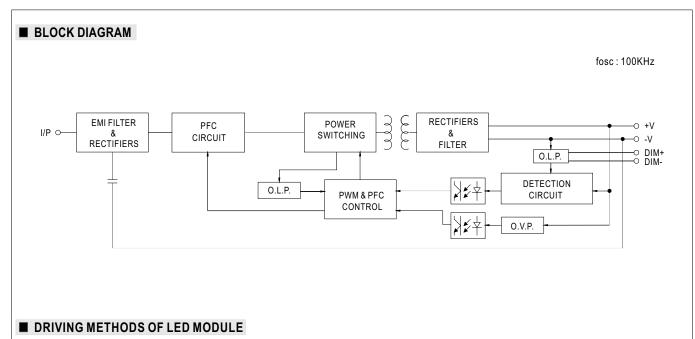




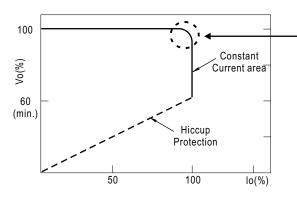
SPECIFICATION

MODEL		LPF-16D-12	LPF-16D-15	LPF-16D-20	LPF-16D-24	LPF-16D-30	LPF-16D-36	LPF-16D-42	LPF-16D-48	LPF-16D-54						
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V						
	RATED CURRENT	1.34A	1.07A	0.8A	0.67A	0.54A	0.45A	0.39A	0.34A	0.3A						
	RATED POWER Note.5	16.08W	16.05W	16W	16.08W	16.2W	16.2W	16.38W	16.32W	16.2W						
OUTPUT	CONSTANT CURRENT REGION Note.2		8.25 ~ 15V	11 ~ 20V	13.2 ~ 24V	16.5 ~ 30V	19.8 ~ 36V	23.1 ~ 42V	26.4 ~ 48V	29.7 ~ 54V						
UUIPUI	CURRENT RIPPLE			11 - 200	13.2 241	10.5 - 50 V	15.0 500	20.1 42 0	20.4 40 40 0	25.1 540						
	CURRENT TOLERANCE	5.0% max. @rated current ±5.0%														
		±5.0% 1500ms, 80ms / 115VAC 500ms, 80ms / 230VAC														
	SETUP, RISE TIME Note.6	,			/ 230VAC											
	HOLD UP TIME (Typ.)	16ms/230VA		115VAC												
	VOLTAGE RANGE Note.5	90 ~ 305VAC (Please refer	Please refer to "STATIC CHARACTERISTIC" section)													
	FREQUENCY RANGE	47 ~ 63Hz														
	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			5VC,230VAC; RMONIC DIS												
INPUT	EFFICIENCY (Typ.)	83%	83%	84.5%	84.5%	84.5%	85%	85%	85%	84.5%						
	AC CURRENT	0.4A / 115VA			0.2A/277VAC											
	INRUSH CURRENT(Typ.)															
	MAX. No. of PSUs on 16A CIRCUIT BREAKER		COLD START 45A(twidth=200µs measured at 50% lpeak) at 230VAC; Per NEMA 410 14 units (circuit breaker of type B) / 24 units (circuit breaker of type C) at 230VAC													
	LEAKAGE CURRENT	<0.75mA/04	<0.75mA / 240VAC													
			<0.75mA / 240VAC													
	OVER CURRENT		15~108%													
		Constant current limiting, recovers automatically after fault condition is removed														
PROTECTION	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.														
	OVER VOLTAGE	15~18V 17.5~21V 23~27V 28~35V 34~40V 41~49V 46~54V 54~63V 59~66V Shut down and latch off o/p voltage, re-power on to recover														
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down														
	WORKING TEMP.	Tcase=-35 ~ +70°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)														
	MAX. CASE TEMP.	Tcase=+70°C														
		20 ~ 95% RH non-condensing														
ENVIRONMENT	STORAGE TEMP., HUMIDITY															
	TEMP. COEFFICIENT	-40 ~ +80°C , 10 ~ 95% RH														
		±0.03%/°C (0	,		70	X X 7										
	VIBRATION	,	,	cle, period for		0 / /		<u></u>								
	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 approved, IP67(optional); Design refer to UL60950-1														
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC													
EMC	ISOLATION RESISTANCE	I/P-O/P:100N	1 Ohms / 500V	/DC/25°C/70	% RH											
	EMC EMISSION Note.8	Compliance to EAC TP TC 02		015,BS EN/EN6	1000-3-2 Clas	s C (@load \geq 5	5%) ; BS EN/E	N61000-3-3,GE	8/T 17743 , GB1	17625.1,						
	EMC IMMUNITY	Compliance to	BS EN/EN610	000-4-2,3,4,5,6,	8,11; BS EN/EI	V61547, light in	dustry level (su	rge immunity Li	ne-Line 2KV),E	AC TP TC 02						
	MTBF	3572.8K hrs r		ia SR-332 (Bel		-	AIL-HDBK-217									
OTHERS	DIMENSION	148*40*32mn														
	PACKING		/9.4Kg/ 1.02Cl	UFT												
NOTE	1. All parameters NOT specially 2. Please refer to "DRIVING M	y mentioned a	e measured a	at 230VAC inpu	it, rated curren	t and 25℃ of a	ambient tempe	erature.								
	3. Ripple & noise are measured	d at 20MHz of	bandwidth by	using a 12" tw	visted pair-wire	terminated with	th a 0.1uf & 47	uf parallel cap	acitor.							
	4. Tolerance : includes set up to		•	•												
	5. De-rating may be needed ur		•													
	6. Length of set up time is mea			•					ha offected by	the						
	 The driver is considered as a complete installation, the fina (as available on https://www. 	al equipment n	nanufacturers i	must re-qualify	EMC Directive				be allected by	uie						
	 8. To fulfill requirements of the without permanently connect 	latest ErP regu	lation for lighti	_	,	an only be use	ed behind a sw	vitch								
	9. This series meets the typical			hours of operat	tion when Tcas	e, particularly	(tc) point (or T	MP. per DI C)	is about 70℃	or less						
	10. Please refer to the warrant	-	-	-				, por beo),								
	11. The ambient temperature d						models for op	erating altitude	higher than 2	000m(6500f						
				tallation cautio	n, please refer	our user man	ual before usir	ng.								
	https://www.meanwell.com/	Upload/PDF/L	ED_EN.pui			d IP water proof function installation caution, please refer our user manual before using. Jpload/PDF/LED_EN.pdf										





 $\%\,$ This series works in constant current mode to directly drive the LEDs.

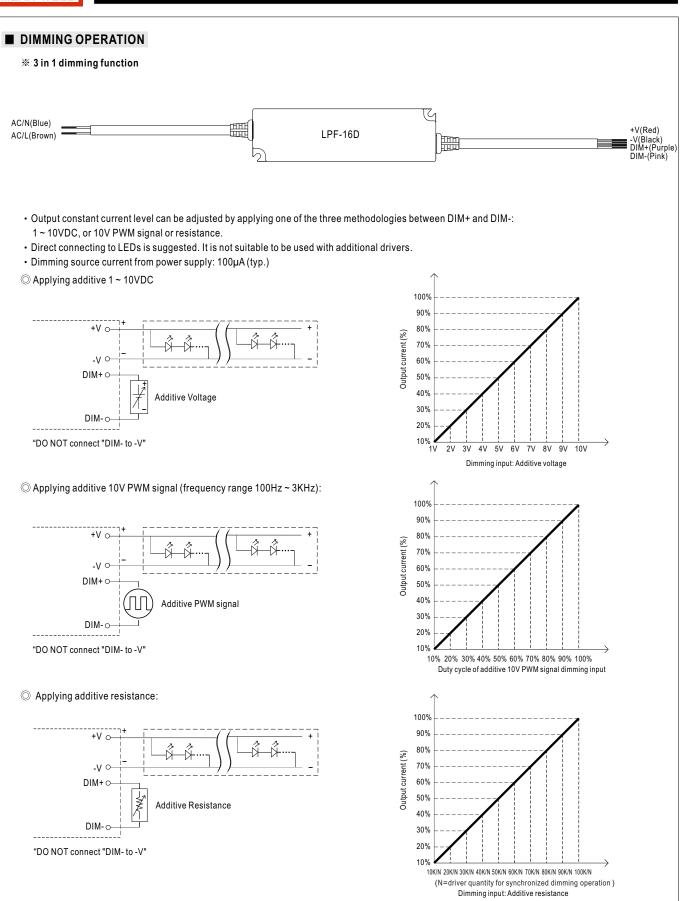


Typical output current normalized by rated current (%)

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.





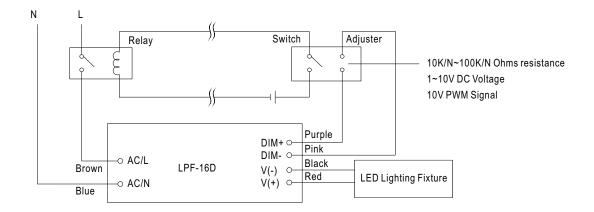
File Name:LPF-16D-SPEC 2024-10-16



16W Constant Current Mode LED Driver

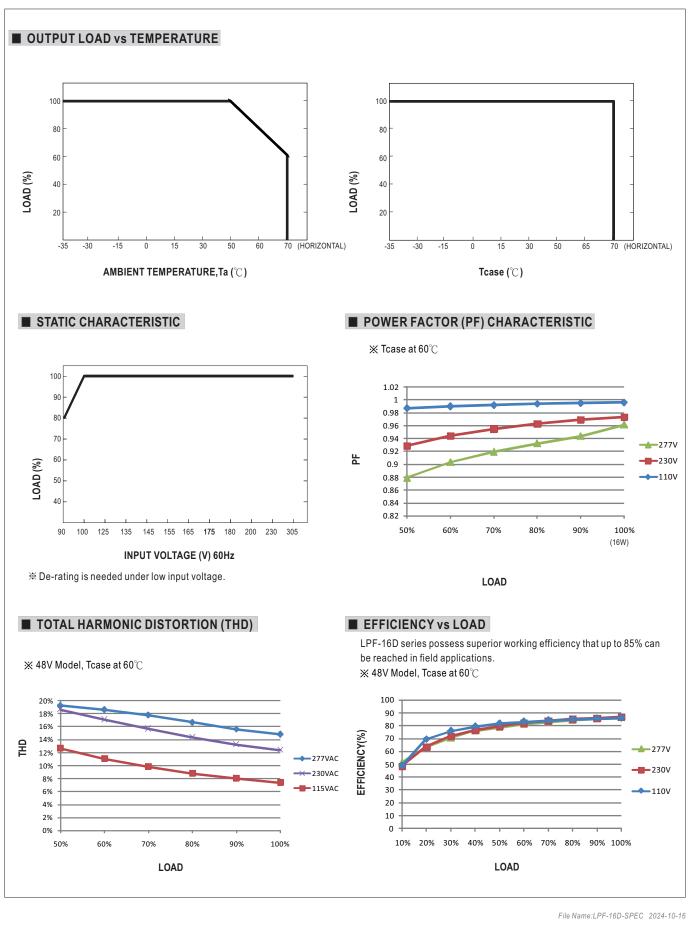
LPF-16D series

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.



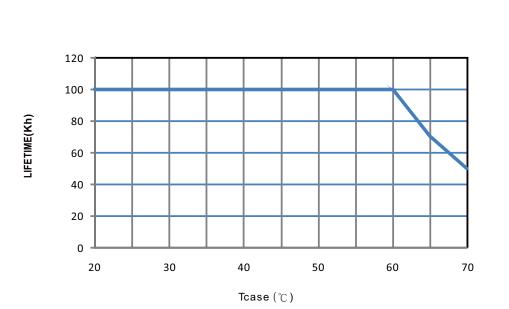
Using a switch and relay can turn ON/OFF the lighting fixture.



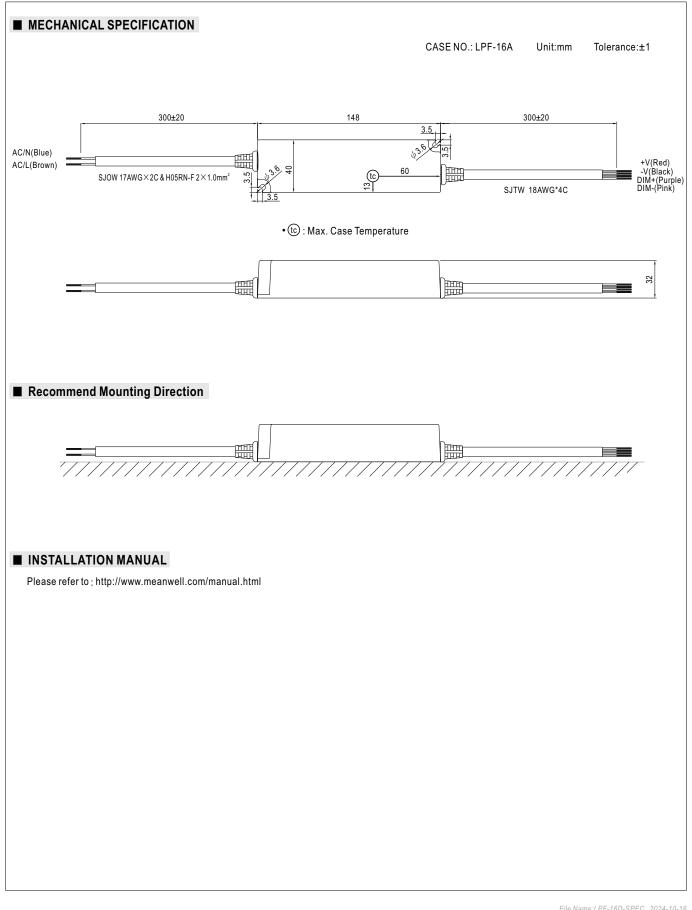




■ LIFE TIME

















Features

- Constant Voltage + Constant Current mode output
- · Plastic housing with Class II design
- Built-in active PFC function
- Class 2 power unit
- · Fully encapsulated with IP67 level
- Typical lifetime>50000 hours
- 5 years warranty

Applications

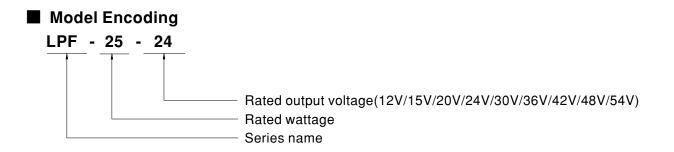
- LED panel lighting
- · LED downlight
- LED decorative lighting
- LED tunnel lighting
- Moving sign

GTIN CODE

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

Description

LPF-25 series is a 25W AC/DC LED driver featuring the dual modes constant voltage and constant current output. LPF-25 operates from 90~305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the efficiency up to 87%, with the fanless design, the entire series is able to operate for $-35^{\circ}C \sim +70^{\circ}C$ 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.





25W Constant Voltage + Constant Current LED Driver

LPF-25 series

SPECIFICATION

MODEL		LPF-25-12	LPF-25-15	LPF-25-20	LPF-25-24	LPF-25-30	LPF-25-36	LPF-25-42	LPF-25-48	LPF-25-54				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
									-	-				
OUTPUT	CONSTANT CURRENT REGION Note.2		8.25 ~ 15V	11~20V	13.2 ~ 24V	16.5 ~ 30V	19.8 ~ 36V	23.1 ~ 42V	26.4 ~ 48V	29.7 ~ 54V				
	RATED CURRENT	2.1A	1.67A	1.25A	1.05A	0.84A	0.7A	0.6A	0.53A	0.47A				
		25.2W	25.05W	25W	25.2W	25.2W	25.2W	25.2W	25.44W	25.38W				
OUTPUT	RIPPLE & NOISE (max.) Note.3		150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p				
	VOLTAGE TOLERANCE Note.4		±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%				
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
	LOAD REGULATION	±2.0%												
	SETUP, RISE TIME Note.6	1500ms, 80ms / 115VAC 500ms, 80ms / 230VAC												
	HOLD UP TIME (Typ.)	16ms/115VAC 16ms/230VAC												
	VOLTAGE RANGE Note.5	90 ~ 305VAC 127 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)												
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR	47 ~ 63HZ 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			15VC,230VAC ARMONIC DIS										
INPUT	EFFICIENCY (Typ.)	84%	85%	86%	86%	86%	86%	86%	87%	86.5%				
	AC CURRENT	0.4A / 115VA			2A/277VAC									
	INRUSH CURRENT(Typ.)	0.4A / 115VAC 0.25A / 230VAC 0.2A/277VAC COLD START 50A(twidth=200μs measured at 50% lpeak) at 230VAC; Per NEMA 410												
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	COLD START 50A(twidth=200µs measured at 50% Ipeak) at 230VAC; Per NEMA 410 12 units (circuit breaker of type B) / 21 units (circuit breaker of type C) at 230VAC												
	LEAKAGE CURRENT	<0.75mA / 240VAC												
		95~108%	J5 ~ 108%											
	OVER CURRENT	Constant current limiting, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	15 ~ 18V	17.5 ~ 21V		28 ~ 35V	34 ~ 40V	41~49V	46~54V	54 ~ 63V	59~66V				
PROTECTION	OVER VOLTAGE			23 ~ 27V			41~490	40~04V	54~63V	59~66V				
			Shut down and latch off o/p voltage, re-power on to recover											
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down												
	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												
	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, J61347-1, J61347-2-13, EAC TP TC 004, GB19510.1, GB19510.14, IP67 approved ; Design refer to UL60950-1												
SVEETA 8	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC											
	ISOLATION RESISTANCE			VDC / 25℃/ 70	% RH									
	EMC EMISSION Note.8					C (@load≥50%)	; BS EN/EN610	00-3-3,GB/T 177	43, GB17625.1	EAC TP TC 0				
	EMC IMMUNITY					· - ·	ndustry level (s							
	MTBF	3574.2K hrs		lia SR-332 (Be			MIL-HDBK-217		_ ,					
	DIMENSION	148*40*32mi		a o (-002 (De				. (200)						
UTHERS			, ,	OUET										
NOTE	PACKING 1. All parameters NOT specially 2. Please refer to "DRIVING M	y mentioned a		at 230VAC inp	ut, rated curre	nt and 25℃ of	f ambient temp	erature.						
	 Ripple & noise are measured Tolerance : includes set up to De-rating may be needed ur Length of set up time is mea The driver is considered as a complete installation, the fina (as available on https://www To fulfill requirements of the without permanently connect This series meets the typical Please refer to the warrant The ambient temperature d For any application note ar https://www.meanwell.com/ 	at 20MHz of the lerance, line re- nder low input ssured at first of a component if al equipment ri- meanwell.com latest ErP reg ted to the mail life expectancy y statement or erating of 3.5° d IP water proc	pandwidth by u regulation and lo voltages. Plea cold start. Turr that will be ope manufacturers n//Upload/PDF ulation for light ns. cy of >50,000 n MEAN WELI C/1000m with poof function ins	sing a 12" twis bad regulation. se refer to "ST ning ON/OFF t erated in comb must re-qualifi, /EMI_stateme ting fixtures, th hours of opera L's website at I fanless mode	FATIC CHARA he driver may ination with fir y EMC Directiv nt_en.pdf) is LED driver atton when Tca http://www.me Is and of 5°C/*	CTERISTIC" s lead to increa nal equipment. ye on the com can only be us ase, particularly anwell.com 1000m with fai	sections for det se of the set up Since EMC pe plete installatio sed behind a su ((tc) point (or 1 n models for op	ails. o time. erformance will n again. witch TMP, per DLC) perating altitud	be affected by , is about 70℃	or less.				

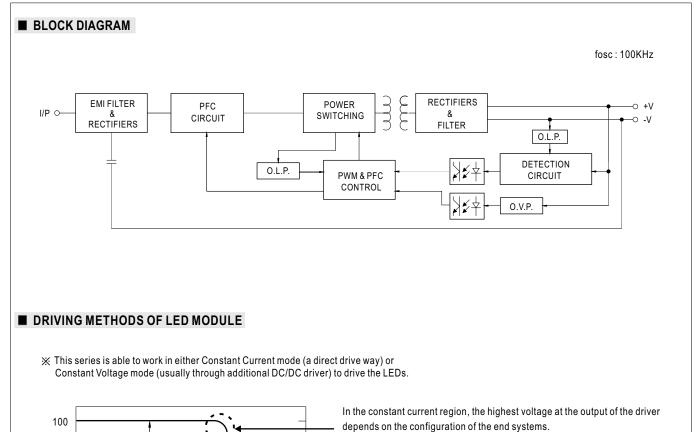


Vo(%)

50 (min.) (B)

Constant – Current area

lo(%)



Should there be any compatibility issues, please contact MEAN WELL.

Typical output current normalized by rated current (%)

(C)
 Hiccup
 Protection

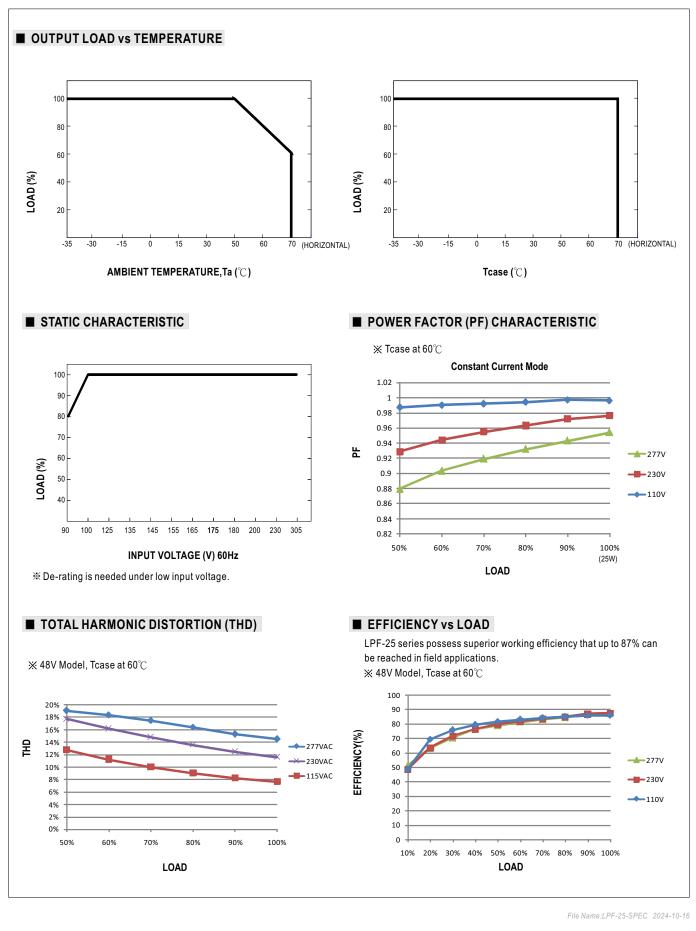
100

(A) Constant

Voltage area

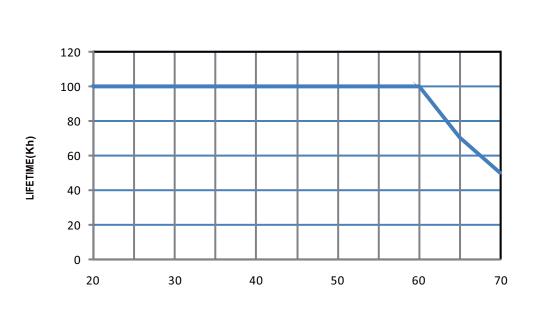
50





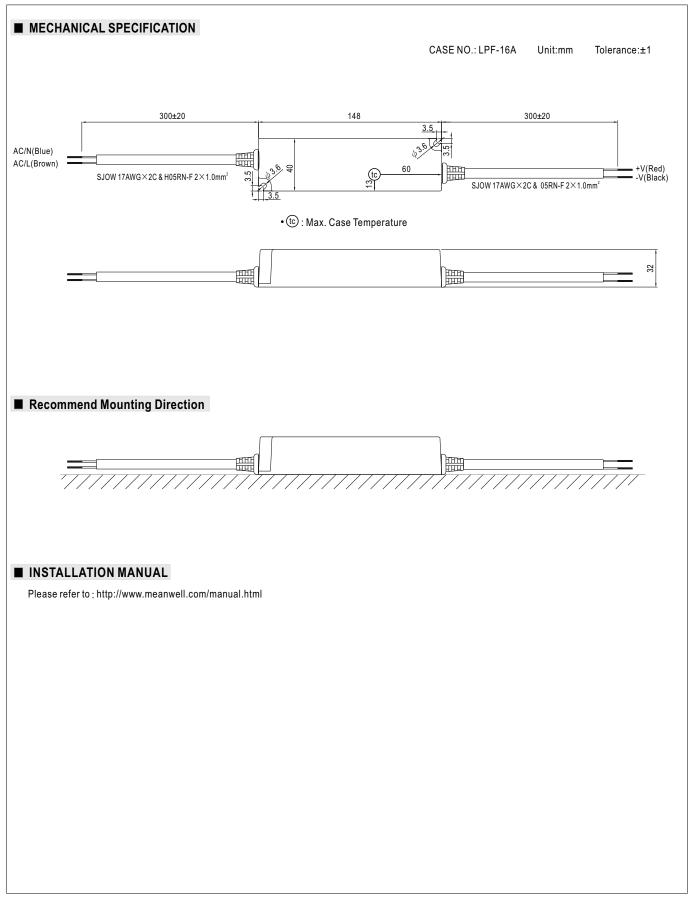


■ LIFE TIME



Tcase (°C)















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

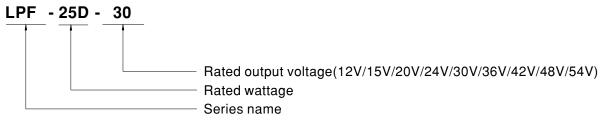
GTIN CODE

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 $90 \sim 305$ 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

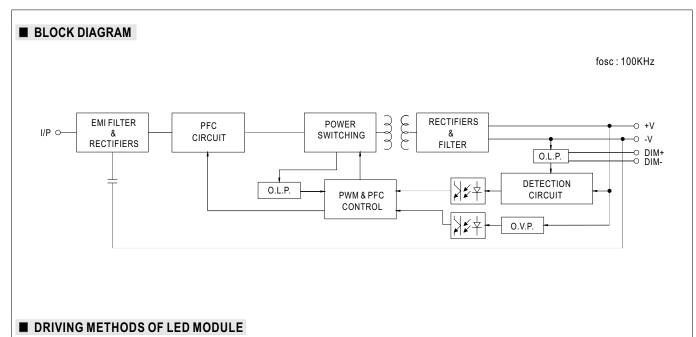




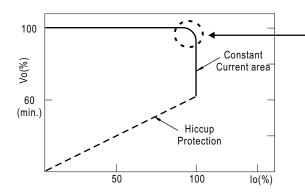
SPECIFICATION

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-5				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
	RATED CURRENT	2.1A	1.67A	1.25A	1.05A	0.84A	0.7A	0.6A	0.53A	0.47A				
	C VOLTAGE 12V 15V 20V 24V 30V 36V 42V 48V 5 ATED CURRENT 2.1A 1.57A 1.25A 1.05A 0.84A 0.7A 0.6A 0.53A 0. ATED POWER Nets.5 25.2W 25.2W 25.2W 25.2W 25.44W 2 ONSTATU CURRENT 5.0% max. @prated current 13.2 - 24V 16.5 - 30V 19.8 - 36V 23.1 - 42V 26.4 - 48V 2 URRENT TRIPPLE 5.0% max. @prated current 10ms/15/VAC 500ms, 80ms / 230VAC 10.5 - 30V 19.8 - 36V 23.1 - 42V 26.4 - 48V 21 URRENT TOLERANCE 15.0% 10ms/15/VAC 500ms, 80ms / 230VAC 200VAC 19.8 - 36V 23.1 - 42V 26.4 - 48V 21 URRENT TOLERANCE 10ms/15/VAC 500ms, 80ms / 230VAC 200VAC 19.8 - 36V 21.1 - 42V 26.4 - 48V 21 VILRENT Mexico 0.47 + 115/VAC 505/320VAC 32.2/277VAC 10.1 - 50/2 10.4 - 50/2 20.5/230VAC 23.9/277VAC 10.4 - 50/4 1	25.38W												
ουτρυτ	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													
	CURRENT TOLERANCE													
				,	12000.00									
	VOLTAGE RANGE Note.5				IC" section)									
	FREQUENCY RANGE	`	.7 ~ 63Hz											
	POWER FACTOR													
	TOTAL HARMONIC DISTORTION				•	,								
INPUT	FEFICIENCY (Typ.)	`		1	`````	, ,	85.5%	85.5%	86%	86%				
						00.070	00.070	00.070	0070	0070				
	(), ,													
		12 units (circuit breaker of type B) / 21 units (circuit breaker of type C) at 230VAC												
	LEARAGE CURRENT													
	OVER CURRENT													
							noved							
PROTECTION	SHORT CIRCUIT							10 5 11 /		50 001/				
	OVER VOLTAGE			-			41 ~ 49V	46 ~ 54V	54 ~ 63V	59~66V				
	WORKING TEMP.													
	MAX. CASE TEMP.	-												
	WORKING HUMIDITY													
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												
	SAFETY STANDARDS Note 8							•	BS EN/EN623	384,				
		EAC TP TC 0	04,GB19510.	1,GB19510.14	1,IP67 approve	ed ;Design refe	er to UL60950-	.1						
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC											
EMC	ISOLATION RESISTANCE	I/P-O/P:100N	1 Ohms / 500 V	/DC/25°C/70	% RH									
	EMC EMISSION Note.8	Compliance to	BS EN/EN5501	5,BS EN/EN610	00-3-2 Class C	(@load≧55%)	; BS EN/EN6100	0-3-3,GB/T 1774	43 , GB17625.1,	EAC TP TC 02				
	EMC IMMUNITY	Compliance to	BS EN/EN610	00-4-2,3,4,5,6,	8,11; BS EN/EN	N61547, light inc	dustry level (su	rge immunity Lir	ne-Line 2KV),E	AC TP TC 02				
	MTBF	3574.2K hrs r	nin. Telcord	ia SR-332 (Bel	lcore); 391.	6Khrs min. I	VIL-HDBK-217	F (25℃)						
OTHERS	DIMENSION	148*40*32mn	n (L*W*H)											
	PACKING	0.36Kg; 40pc	s/ 15.4Kg/1.02	CUFT										
NOTE	1. All parameters NOT specially	y mentioned a	re measured a	at 230VAC inpu	ut, rated currer	nt and 25℃ of	ambient temp	erature.						
				•	ed pair-wire te	rminated with a	0.1uf & 47uf p	arallel capacito	or.					
	-		-	-			actions for dat	aile						
			•											
				•					be affected by	the				
	complete installation, the fina	-					-							
	(as available on https://www.			_										
	8. To fulfill requirements of the	-	-	ing fixtures, thi	s LED driver o	an only be use	ed behind a sv	vitch						
	without permanently connect			hours of	tion where T-	no norther last	to naint (T		in about 70°C	orless				
	9. This series meets the typical		-				(tc) point (or T	IVIP, per DLC),	is about 70°C	or less.				
	10. Please refer to the warrant11. The ambient temperature d						models for or	erating altitude	higher than ?	000m/6500				
	12. For any application note an	•						•						
								-						
	https://www.meanwell.com/	Opiouu/i DI/L												





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

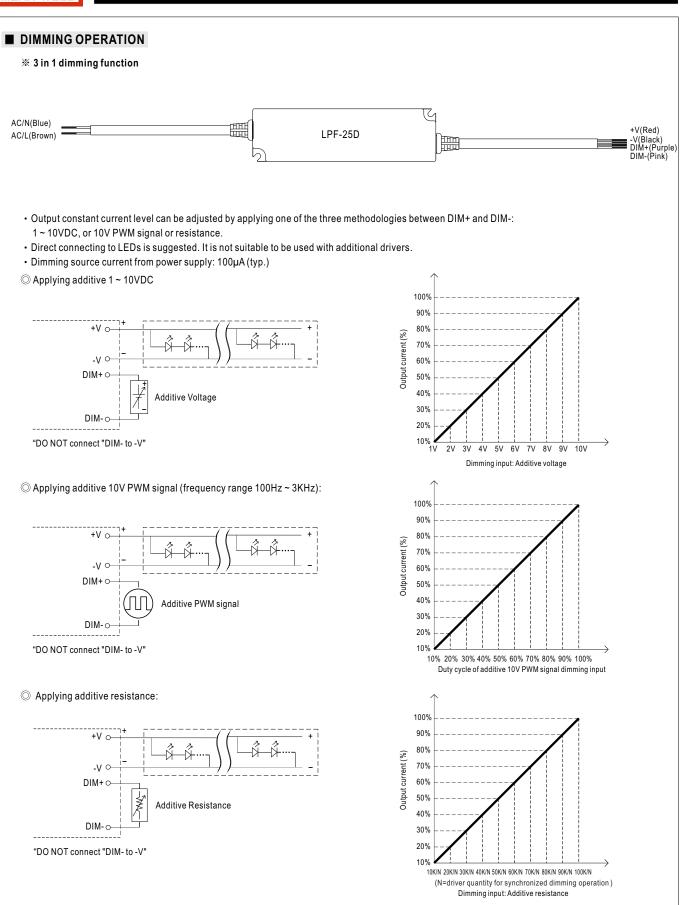


Typical output current normalized by rated current (%)

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.



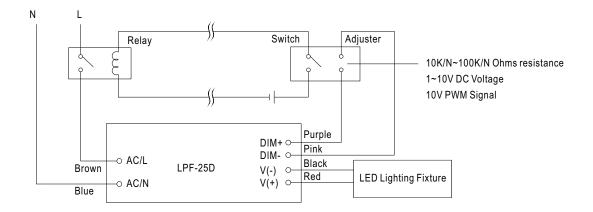




25W Constant Current Mode LED Driver

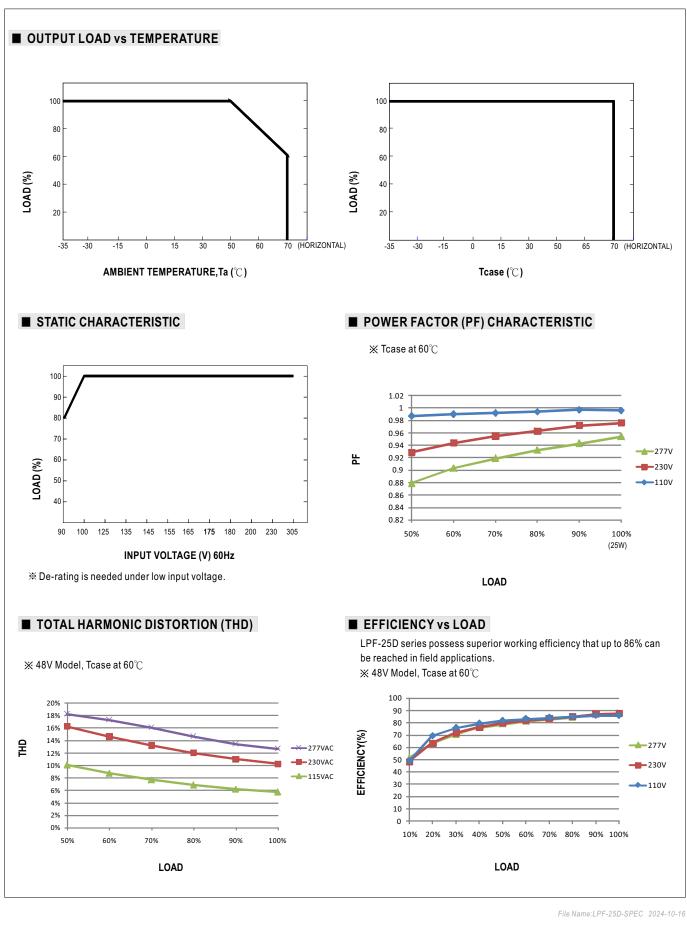
LPF-25D series

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.



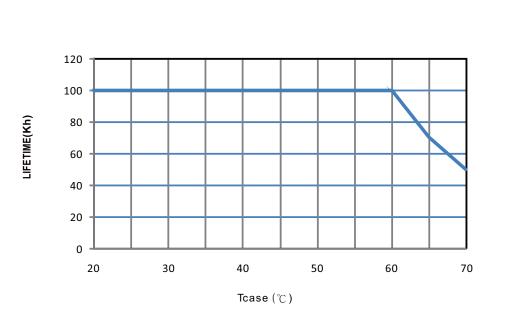
Using a switch and relay can turn ON/OFF the lighting fixture.



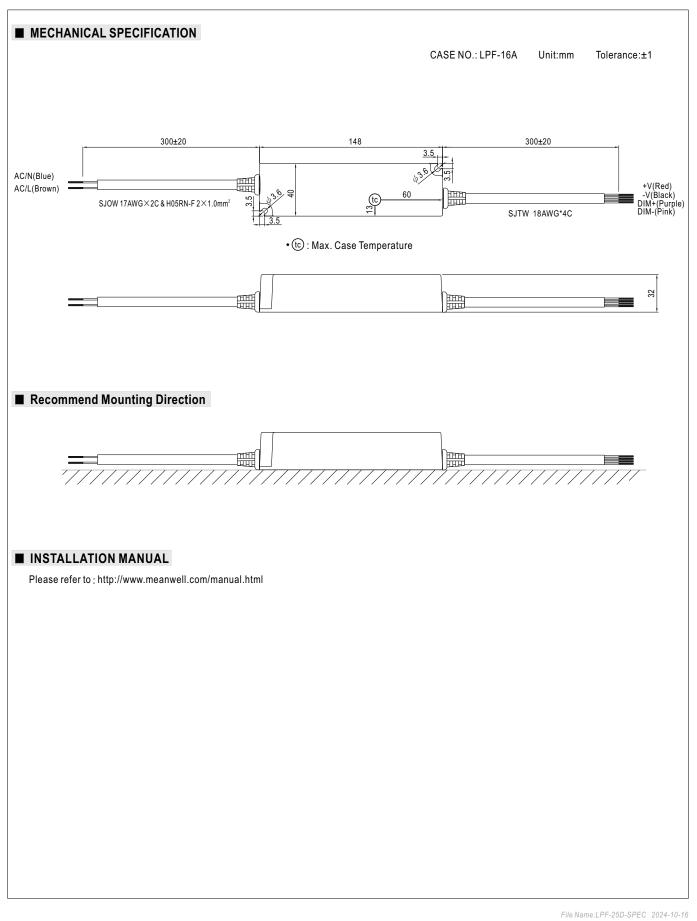




■ LIFE TIME

















Features

- Constant Voltage + Constant Current mode output
- Plastic housing with Class II design
- Built-in active PFC function
- Class 2 power unit
- Fully encapsulated with IP67 level
- Typical lifetime>50000 hours
- 5 years warranty

Applications

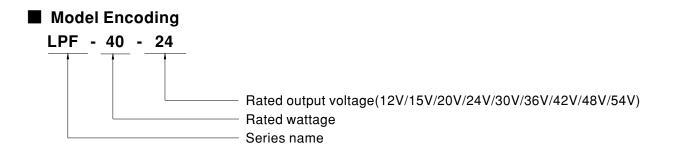
- LED panel lighting
- LED downlight
- LED decorative lighting
- LED tunnel lighting
- Moving sign

GTIN CODE

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

Description

LPF-40 series is a 40W AC/DC LED driver featuring the dual modes constant voltage and constant current output. LPF-40 operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the hign efficiency up to 90%, with the fanless design, the entire series is able to operate for -40° C $\sim +80^{\circ}$ 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.





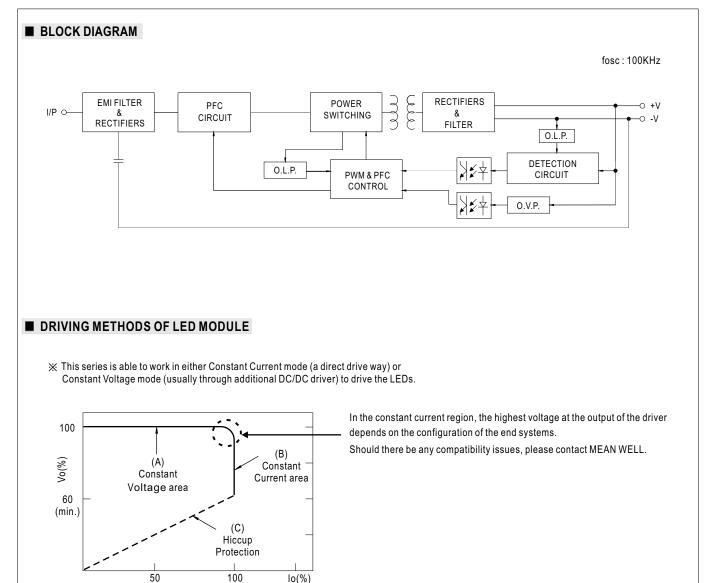
40W Constant Voltage + Constant Current LED Driver

LPF-40 series

SPECIFICATION

MODEL		LPF-40-12	LPF-40-15	LPF-40-20	LPF-40-24	LPF-40-30	LPF-40-36	LPF-40-42	LPF-40-48	LPF-40-54				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
	CONSTANT CURRENT REGION Note.2	7.2 ~12V	9~15V	12 ~ 20V	14.4 ~ 24V	18~30V	21.6 ~ 36V	25.2 ~ 42V	28.8~48V	32.4 ~ 54V				
	RATED CURRENT	3.34A	2.67A	2A	1.67A	1.34A	1.12A	0.96A	0.84A	0.76A				
SPECIFIC MODEL OUTPUT INPUT PROTECTION ENVIRONMENT	RATED POWER Note.5	40.08W	40.08W	40W	40.08W	40.2W	40.32W	40.32W	40.32W	41.04W				
	RIPPLE & NOISE (max.) Note.3	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p				
001901	VOLTAGE TOLERANCE Note.4		±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%				
		±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
	LOAD REGULATION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
		1000ms, 80ms / 115VAC 500ms, 80ms / 230VAC												
	SETUP, RISE TIME Note.6	1000ms, 80ms / 115VAC 500ms, 80ms / 230VAC 16ms/115VAC 16ms/115VAC												
	HOLD UP TIME (Typ.)													
	VOLTAGE RANGE Note.5	90 ~ 305VAC	127 ~ 43 to "STATIC CH		FIC" contian)									
		`	U STATIC CI	TARACTERIST										
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR	$\label{eq:pressure} \begin{split} PF &\geq 0.97/115 VAC, PF &\geq 0.95/230 VAC, PF &\geq 0.92/277 VAC @ full load \\ (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section) split$												
	TOTAL HARMONIC DISTORTION		THD< 20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)											
NPUT	EFFICIENCY (Typ.)	84%	85%	86%	87%	88%	88%	88.5%	90%	90%				
	AC CURRENT	0.6A / 115VA	C 0.3A/2	230VAC 0	.25A/277VAC									
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=210µs measured at 50% Ipeak) at 230VAC; Per NEMA 410												
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	12 units (circuit breaker of type B) / 20 units (circuit breaker of type C) at 230VAC												
	LEAKAGE CURRENT	<0.75mA / 240VAC												
		95 ~ 108%												
	OVER CURRENT	Constant current limiting, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed												
PROTECTION		15~17V	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46~54V	54 ~ 63V	59~66V				
	OVER VOLTAGE	-							1					
	OVER TEMPERATURE	Shut down and latch off o/p voltage, re-power on to recover Shut down o/p voltage, re-power on to recover												
	WORKING TEMP.	Tcase=-40 ~ +80°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)												
	MAX. CASE TEMP.				FUILOAD VS	TENTERATOR	CE Section)							
		Tcase=+80°C 20 ~ 95% RH non-condensing												
	WORKING HUMIDITY													
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												
	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, IP6 J61347-1, J61347-2-13, GB19510.1, GB19510.14 approved ; design refer to UL60950-1												
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC												
SAFETY &	ISOLATION RESISTANCE		M Ohms / 500\	/DC/25°C/70)% RH									
EMC				-		ass C (@load)	≧60%) ; BS EN	I/EN61000-3-3	_					
	EMC EMISSION Note.8	GB/T 17743	, GB17625.1,E	AC TP TC 020										
	EMC IMMUNITY	Compliance t EAC TP TC 0		1000-4-2,3,4,5,	,6,8,11; BS EN	/EN61547, ligh	t industry level	(surge immuni	ty Line-Line 2k	(V),				
	MTBF	3597.9K hrs	min. Telcord	lia SR-332 (Be	llcore); 438	.9Khrs min.	MIL-HDBK-217	7F (25℃)						
OTHERS	DIMENSION	162.5*43*32	mm (L*W*H)											
	PACKING	0.44Kg; 32pc	s/15.08Kg/0.9	3CUFT										
NOTE	 All parameters NOT specially Please refer to "DRIVING M Ripple & noise are measured Tolerance : includes set up to De-rating may be needed ur Length of set up time is meas The driver is considered as a complete installation, the fina (as available on https://www To fulfill requirements of the without permanently connection This series meets the typical Please refer to the warranty 	ETHODS OF at 20MHz of the lerance, line re- nder low input asured at first if a component if al equipment r .meanwell.com latest ErP reg ted to the mai life expectant	LED MODULf bandwidth by u egulation and lo voltages. Plea cold start. Turr that will be ope manufacturers n//Upload/PDF ulation for light ns. cy of >50,000	E". sing a 12" twis bad regulation. use refer to "ST ning ON/OFF t erated in comb must re-qualifi /EMI_stateme ting fixtures, th hours of opera	ted pair-wire te IATIC CHARA he driver may pination with fir y EMC Directin nt_en.pdf) is LED driver ation when Tca	rminated with a CTERISTIC" s lead to increas al equipment. ye on the comp can only be us se, particularly	a 0.1uf & 47uf p sections for det se of the set up Since EMC pe olete installation red behind a sy	parallel capacito ails. p time. erformance will n again. witch	be affected by					

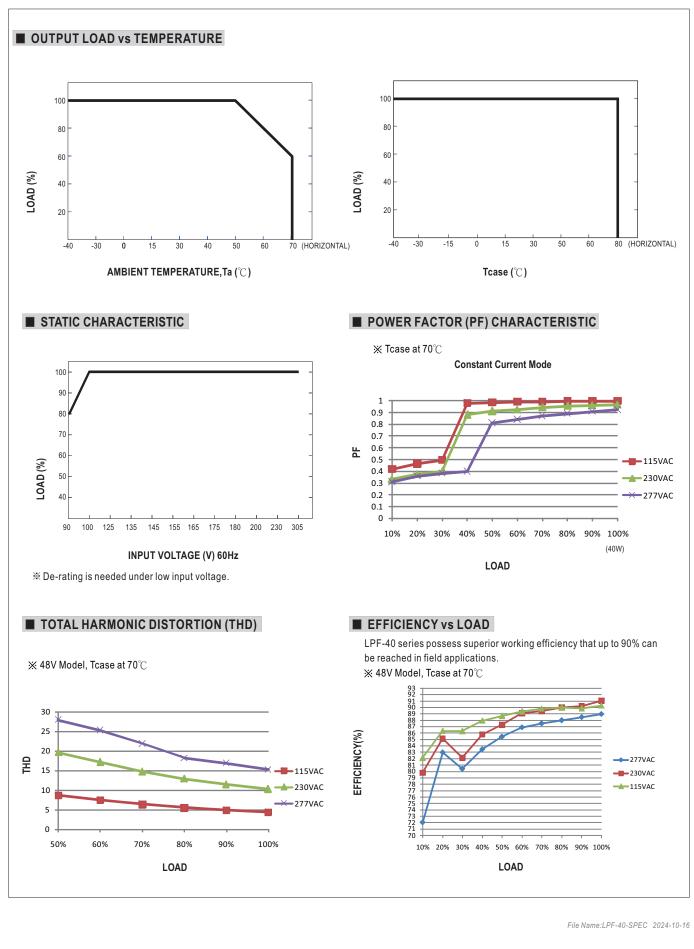




Typical output current normalized by rated current (%)

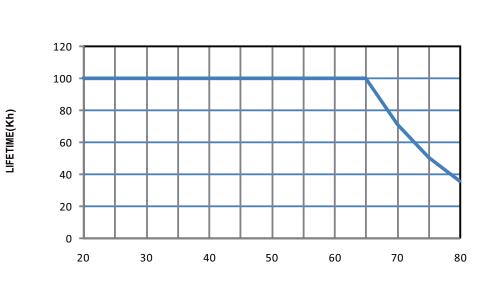
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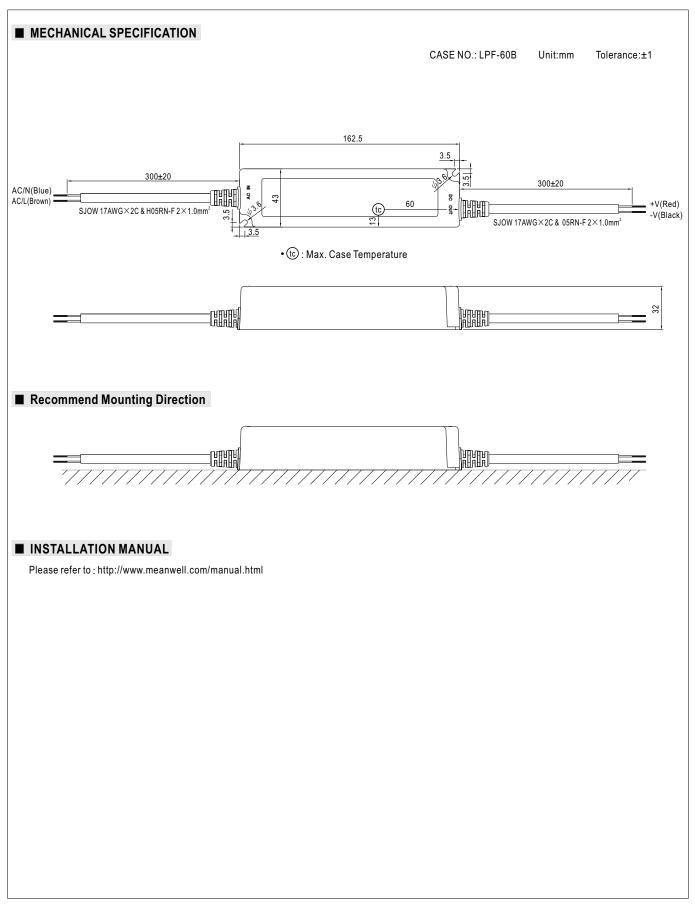


LIFE TIME



Tcase (°C)











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

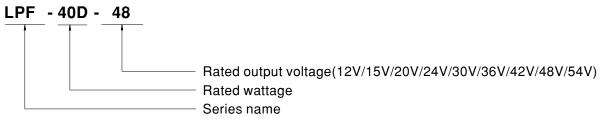
GTIN CODE

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

Description

LPF-40D series is a 40W AC/DC LED driver featuring the constant current output. LPF-40D operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the efficiency up to 89%, with the fanless design, the entire series is able to operate for -40° C $\sim +80^{\circ}$ 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-40D is equipped with the 3 in 1 dimming function so as to provide the design flexibility for LED lighting system.

Model Encoding

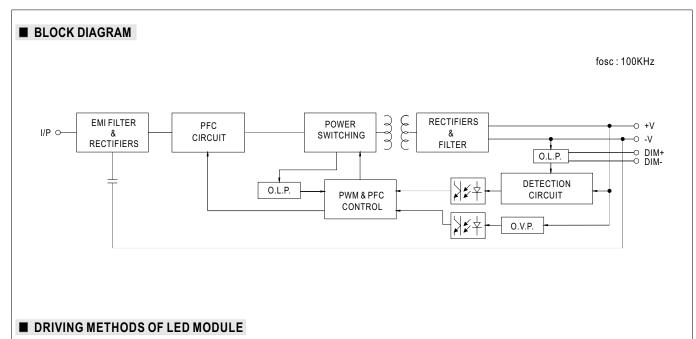




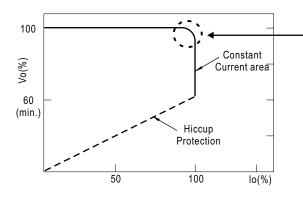
SPECIFICATION

MODEL		LPF-40D-12	LPF-40D-15	LPF-40D-20	LPF-40D-24	LPF-40D-30	LPF-40D-36	LPF-40D-42	LPF-40D-48	LPF-40D-5				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
	RATED CURRENT	3.34A	2.67A	20V 2A	1.67A	1.34A	1.12A	42V 0.96A	40V 0.84A	0.76A				
OUTPUT		40.08W		40W	40.08W	40.2W	40.32W	40.32W	40.32W	41.04W				
	RATED POWER Note.5		40.08W											
OUTPUT	CONSTANT CURRENT REGION Note.2		9~15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V				
	CURRENT RIPPLE	5.0% max. @rated current												
	CURRENT TOLERANCE	±5.0%	±5.0%											
	SETUP, RISE TIME Note.6	1000ms, 80m	000ms, 80ms / 115VAC 500ms, 80ms / 230VAC											
	HOLD UP TIME (Typ.)	16ms/230VA	16ms/230VAC 16ms/115VAC											
	VOLTAGE RANGE Note.5	90 ~ 305VAC (Please refer	~ 305VAC 127 ~ 431VDC lease refer to "STATIC CHARACTERISTIC" section)											
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR		F≧0.97/115VAC, PF≧0.95/230VAC, PF≧0.92/277VAC@full load Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)											
	TOTAL HARMONIC DISTORTION			5VC,230VAC; ARMONIC DIS										
INPUT	EFFICIENCY (Typ.)	84%	85%	86%	87%	88%	88%	88.5%	89%	89%				
	AC CURRENT	0.6A / 115VA			25A/277VAC									
	INRUSH CURRENT(Typ.)													
	MAX. No. of PSUs on 16A CIRCUIT BREAKER		COLD START 50A(twidth=210µs measured at 50% Ipeak) at 230VAC; Per NEMA 410 12 units (circuit breaker of type B) / 20 units (circuit breaker of type C) at 230VAC											
	LEAKAGE CURRENT	<0.75mA/24	:0.75mA / 240VAC											
	OVER CURRENT		95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed											
PROTECTION	SHORT CIRCUIT	Hiccup mode 15 ~ 17V	, recovers auto 17.5 ~ 21V	omatically after 23 ~ 27V	fault condition 28 ~ 35V	is removed. 34 ~ 40V	41~49V	46~54V	54 ~ 63V	59~66V				
	OVER VOLTAGE	Shut down o/p voltage, re-power on to recover												
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover												
	WORKING TEMP.	Tcase=-40 ~ +80 $^{\circ}$ C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)												
	MAX. CASE TEMP.	Tcase=+80°C												
	WORKING HUMIDITY	20 ~ 95% RH non-condensing												
		-40 ~ +80°C, 10 ~ 95% RH												
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)												
	VIBRATION		,	ala maniad fan ⁻	70min eeskel									
	VIBRATION			cle, period for		• • •								
	SAFETY STANDARDS Note.8	GB19510.1,G	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, IP67 GB19510.1, GB19510.14 approved ; design refer to UL60950-1											
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC											
EMC	ISOLATION RESISTANCE	I/P-O/P:100N	/I Ohms / 500V	/DC / 25°C / 70	% RH									
2	EMC EMISSION Note.8	· ·	o BS EN/EN55 GB17625.1,E/	015,BS EN/EN AC TP TC 020	61000-3-2 Cla	ass C (@load≧	≦60%) ; BS EN	/EN61000-3-3,						
	EMC IMMUNITY	Compliance to	BS EN/EN610	000-4-2,3,4,5,6,	8,11; BS EN/EI	N61547, light in	dustry level (su	ırge immunitv L	ine-Line 2KV).	EAC TP TC 02				
	MTBF	3439.0K hrs r		lia SR-332 (Bel			MIL-HDBK-217		7,-					
OTHERS	DIMENSION	162.5*43*32n						. (10 0)						
			()	CUET										
NOTE	2. Please refer to "DRIVING M	y mentioned a ETHODS OF	LED MODULE	at 230VAC inpu E".					۶r					
	 Tolerance : includes set up to De-rating may be needed ur Length of set up time is mea The driver is considered as a complete installation, the fina (as available on https://www. To fulfill requirements of the without permanently connection This series meets the typical 	specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature. IVING METHODS OF LED MODULE". reasured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. set up tolerance, line regulation and load regulation. eeded under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. the is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time. ered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the n, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. bs://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) is of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch / connected to the mains. the typical life expectancy of >50,000 hours of operation when Tcase, particularly (tc) point (or TMP, per DLC), is about 75°C or less. warranty statement on MEAN WELL's website at http://www.meanwell.com erature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft) n note and IP water proof function installation caution, please refer our user manual before using.												





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

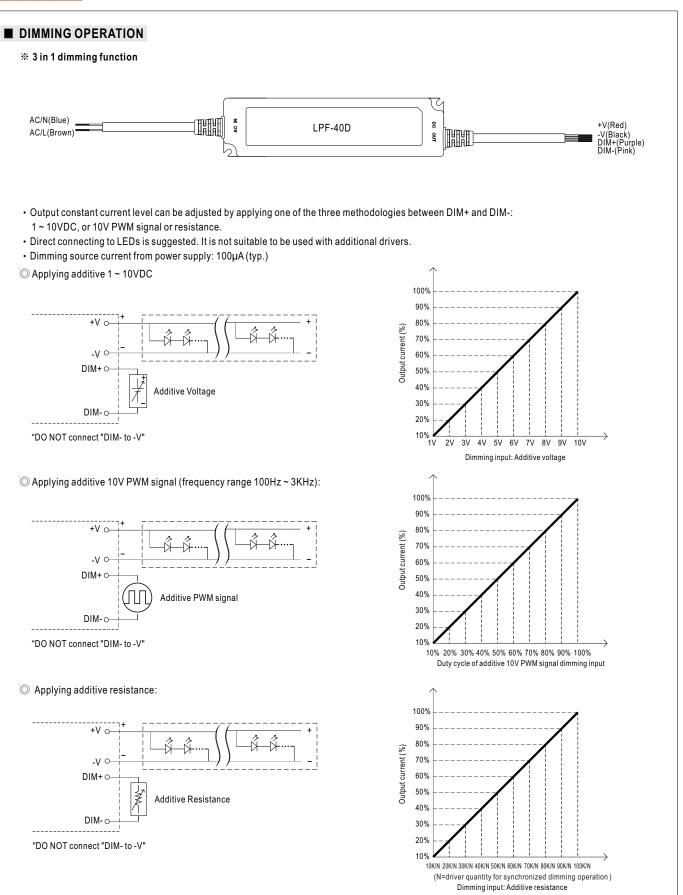


Typical output current normalized by rated current (%)

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.



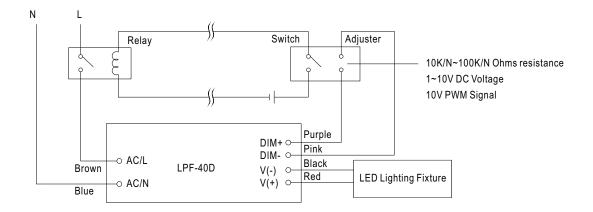




40W Constant Current Mode LED Driver

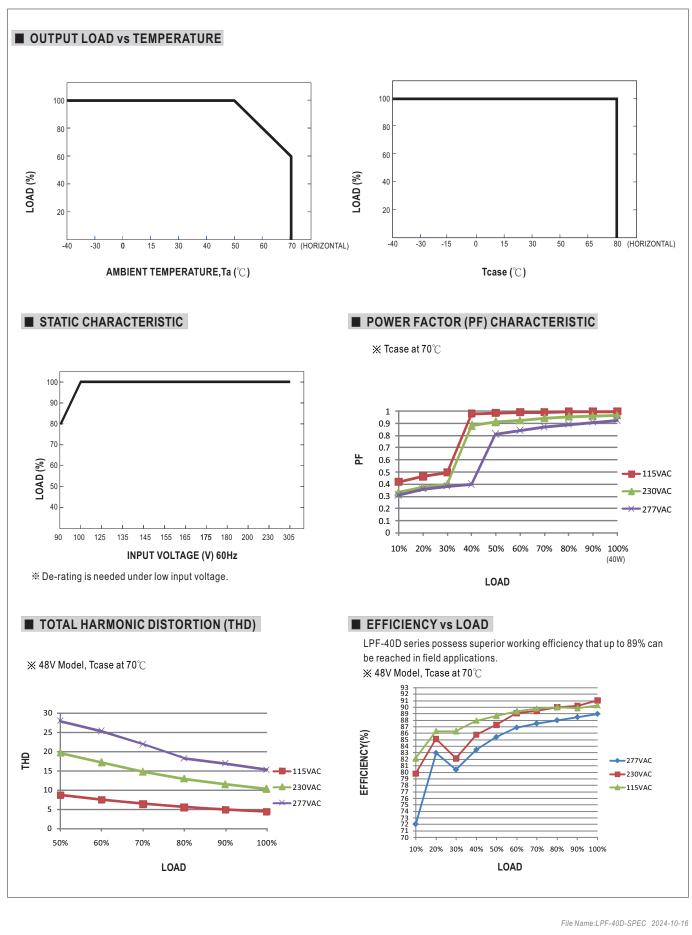
LPF-40D series

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.



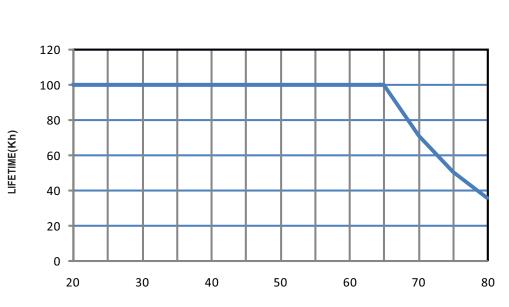
Using a switch and relay can turn ON/OFF the lighting fixture.





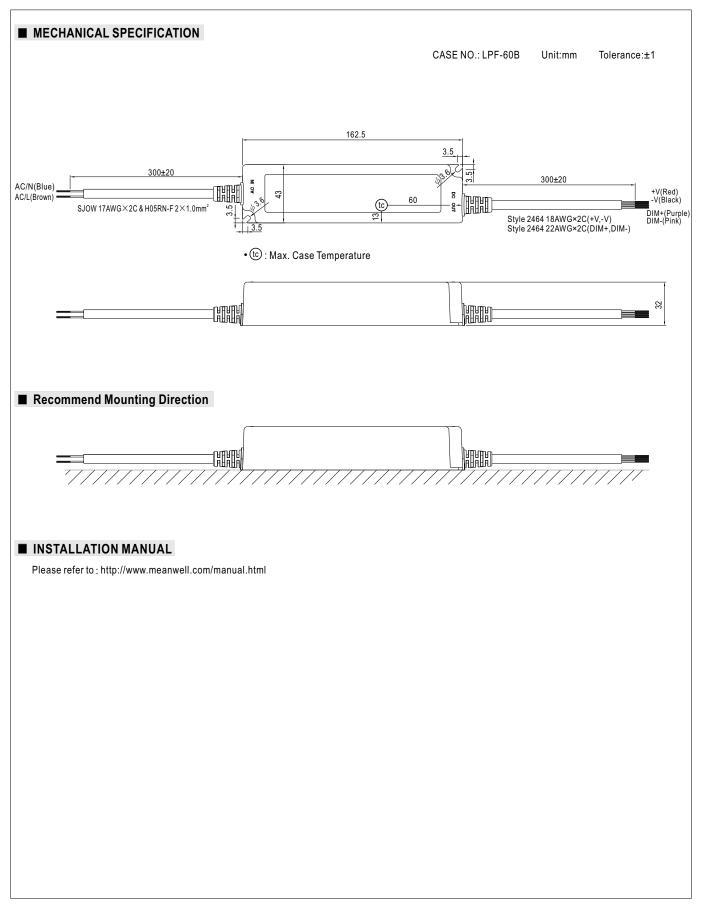


LIFE TIME

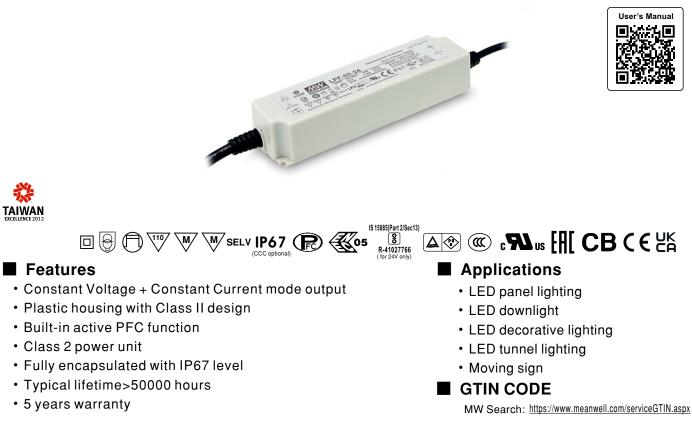


Tcase (° \mathbb{C})



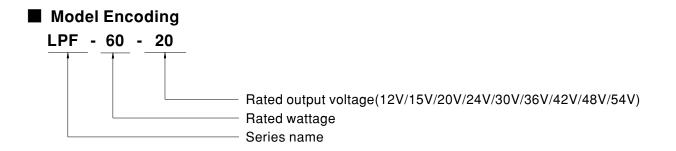






Description

LPF-60 series is a 60W AC/DC LED driver featuring the dual modes constant voltage and constant current output. LPF-60 operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the hign efficiency up to 90%, with the fanless design, the entire series is able to operate for -40 °C $\sim +80$ °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.





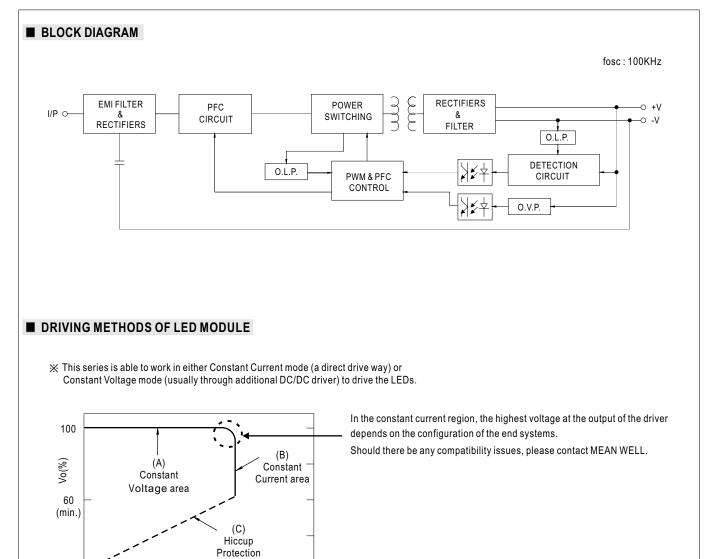
60W Constant Voltage + Constant Current LED Driver

LPF-60 series

SPECIFICATION

	CATION												
MODEL		LPF-60-12	LPF-60-15	LPF-60-20	LPF-60-24	LPF-60-30	LPF-60-36	LPF-60-42	LPF-60-48	LPF-60-54			
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V			
	CONSTANT CURRENT REGION Note.2	7.2 ~12V	9~15V	12~20V	14.4 ~ 24V	18~30V	21.6 ~ 36V	25.2 ~ 42V	28.8~48V	32.4 ~ 54V			
	RATED CURRENT	5A	4A	3A	2.5A	2A	1.67A	1.43A	1.25A	1.12A			
	RATED POWER Note.5	60W	60W	60W	60W	60W	60.12W	60.06W	60W	60.48W			
OUTPUT	RIPPLE & NOISE (max.) Note.3	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p			
	VOLTAGE TOLERANCE Note.4	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%			
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	LOAD REGULATION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	SETUP, RISE TIME Note.6	1000ms, 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	$PF \ge 0.97/115$ VAC, $PF \ge 0.95/230$ VAC, $PF \ge 0.92/277$ VAC @full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)											
	TOTAL HARMONIC DISTORTION	THD<20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)											
INPUT	EFFICIENCY (Typ.)	86%	87%	88%	89%	90%	90%	90%	90%	90%			
	AC CURRENT	0.8A / 115VA			.32A/277VAC		0070			00,0			
	INRUSH CURRENT(Typ.)					k) at 230\/AC	Per NFMA 410						
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	COLD START 55A(twidth=270µs measured at 50% Ipeak) at 230VAC; Per NEMA 410 8 units (circuit breaker of type B) / 14 units (circuit breaker of type C) at 230VAC											
	LEAKAGE CURRENT	<0.75mA / 240VAC											
	OVER CURRENT	95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed											
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed											
PROTECTION	OVER VOLTAGE	15 ~ 17V Shut down ar	17.5 ~ 21V	23 ~ 27V	28 ~ 35V	34 ~ 40V	41 ~ 49V	46 ~ 54V	54 ~ 63V	59~66V			
	OVER TEMPERATURE	Shut down and latch off o/p voltage, re-power on to recover Shut down o/p voltage, re-power on to recover											
	WORKING TEMP.	Tcase=-40 ~ +80°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)											
	MAX. CASE TEMP.	Tcase=+80°C											
ENVIRONMENT	WORKING HUMIDITY	20 ~ 95% RH non-condensing											
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C , 10 ~ 95% RH											
	TEMP. COEFFICIENT	±0.03%/°C (0	,										
	VIBRATION SAFETY STANDARDS Note.8	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, IP67, J61347- J61347-2-13, BIS IS15885(for 24V only), EAC TP TC 004, GB19510.1, GB19510.14 approved ; design refer to UL60950-1											
	WITHSTAND VOLTAGE	I/P-O/P:3.75		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,,-		1					
SAFETY &	ISOLATION RESISTANCE			VDC / 25°C / 70	1% RH								
EMC	EMC EMISSION Note.8	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≧ 60%) ; BS EN/EN61000-3-3, GB/T 17743 , GB17625.1, EAC TP TC 020											
	EMC IMMUNITY	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 02											
	MTBF	3786.9K hrs min. Telcordia SR-332 (Bellcore); 440.6Khrs min. MIL-HDBK-217F (25°C)											
OTHERS	DIMENSION				,,, 110.			(0)					
- IIIENO		162.5*43*32mm (L*W*H) 0.45Kg: 32pcs/15.4Kg/0.93CLIET											
NOTE	PACKING 0.45Kg; 32pcs/15.4Kg/0.93CUFT 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) 8. 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 (c) 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(650)									or less.			





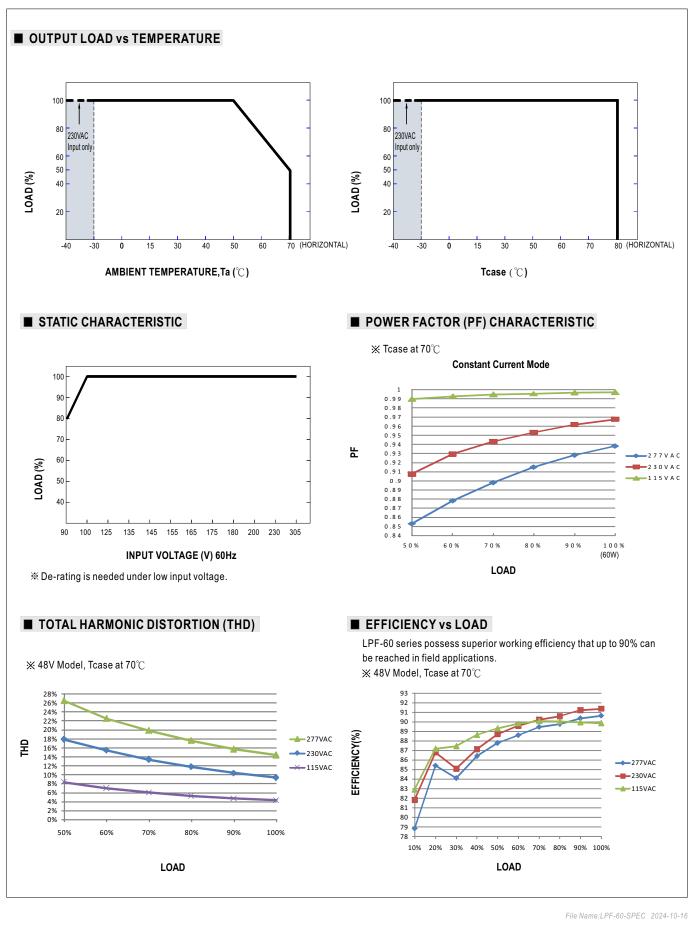
Typical output current normalized by rated current (%)

50

100

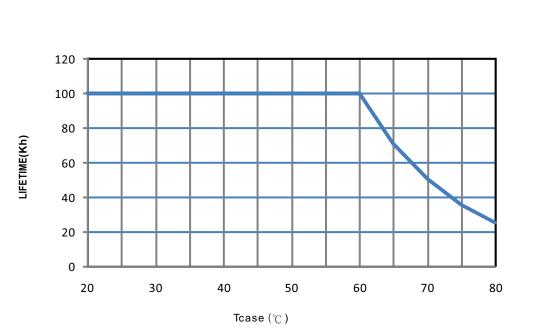
lo(%)



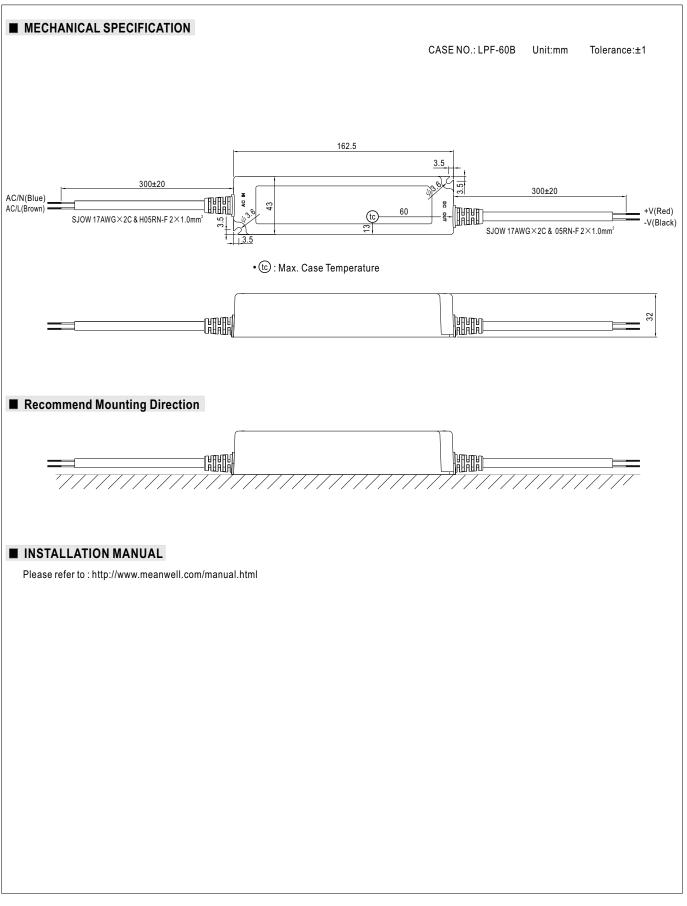




















Features

- 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

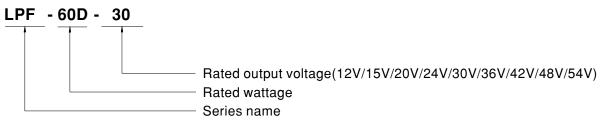
GTIN CODE

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

Description

LPF-60D series is a 60W AC/DC LED driver featuring the constant current output. LPF-60D operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 90%, with the fanless design, the entire series is able to operate for -40° C $\sim +80^{\circ}$ 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-60D is equipped with the 3 in 1 dimming function so as to provide the design flexibility for LED lighting system.

Model Encoding

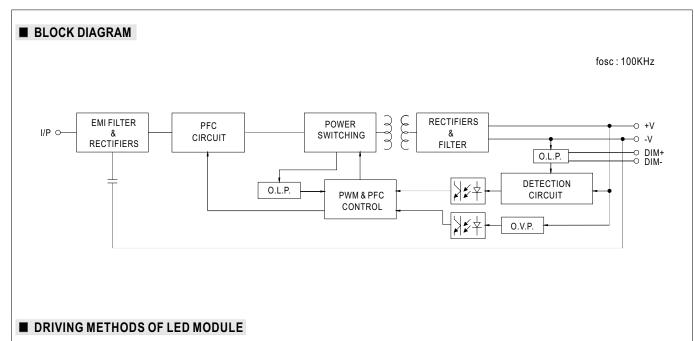




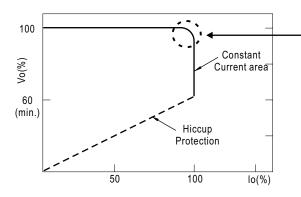
SPECIFICATION

MODEL		LPF-60D-12	LPF-60D-15	LPF-60D-20	LPF-60D-24	LPF-60D-30	LPF-60D-36	LPF-60D-42	LPF-60D-48	LPF-60D-54		
-	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V				
	RATED CURRENT	5A	4A	3A	2.5A	2A	1.67A	1.43A	48V 1.25A 60W 28.8 ~ 48V 28.8 ~ 48V 90% 90% 54 ~ 63V 54 ~ 63V 54 ~ 63V 54 ~ 63V 55 ~ 63V 55 ~ 63V 55 ~ 63V 55 ~ 63V	1.12A		
	RATED POWER Note.5	60W	60W	60W	60W	60W	60.12W	60.06W		60.48W		
	CONSTANT CURRENT REGION Note.2		9~15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V		32.4 ~ 54V		
OUTPUT				12~200	14.4 ~ 24V	10~300	21.0~300	25.2~420	20.0~40V	32.4~ 34V		
	CURRENT RIPPLE	5.0% max. @rated current										
	CURRENT TOLERANCE	±5.0% 1000ms. 80ms / 115VAC 500ms. 80ms / 230VAC										
	SETUP, RISE TIME Note.6	1000ms, 80ms / 115VAC 500ms, 80ms / 230VAC 16ms/230VAC 16ms/115VAC										
	HOLD UP TIME (Typ.)	16ms/230VA										
	VOLTAGE RANGE Note.5	90 ~ 305VAC	127 ~ 43 ⁻		(Cll as at is m)							
		`	U STATIC CH	IARACTERIST	ic section)							
	FREQUENCY RANGE	47 ~ 63Hz										
	POWER FACTOR	$PF \ge 0.97/115VAC, PF \ge 0.95/230VAC, PF \ge 0.92/277VAC@full load$ (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)										
		THD<20%(@load≥60%/115VC,230VAC; @load≥75%/277VAC)										
	TOTAL HARMONIC DISTORTION			RMONIC DIS					48V 54V 1.25A 1.12 60W 60.4 42V 28.8 ~ 48V 32.4 90% 90% 90% 54 ~ 63V 59 90% 90% 90% 90% 54 ~ 63V 59 90% 90% 90% 90% 90% 90% 90% 54 ~ 63V 59 </td <td></td>			
INPUT	EFFICIENCY (Typ.)	86%	87%	88%	89%	90%	90%	90%		90%		
-	AC CURRENT	0.8A / 115VA			.32A/277VAC							
	INRUSH CURRENT(Typ.)) at 230VAC· P	er NEMA 410					
	MAX. No. of PSUs on 16A	COLD START 55A(twidth=270µs measured at 50% Ipeak) at 230VAC; Per NEMA 410										
	CIRCUIT BREAKER	8 units (circuit breaker of type B) / 14 units (circuit breaker of type C) at 230VAC										
	LEAKAGE CURRENT	<0.75mA/24	0VAC									
		95~108%	-						54 ~ 63V			
	OVER CURRENT	95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed										
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed Hiccup mode, recovers automatically after fault condition is removed.										
PROTECTION		15 ~ 17V	17.5~21V	23~27V	28 ~ 35V	34 ~ 40V	41~49V	46~54V	54 ~ 63V	59~66V		
	OVER VOLTAGE	Shut down o/p voltage, re-power on to recover										
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover Shut down o/p voltage, re-power on to recover										
	WORKING TEMP.											
	MAX. CASE TEMP.	Tcase=-40 ~ +80°C (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)										
		Tcase=+80°C										
		20 ~ 95% RH non-condensing										
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80℃,										
	TEMP. COEFFICIENT	±0.03%/°C (0	,									
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes										
	SAFETY STANDARDS Note.8							endent, BS EN/E	EN62384,			
				9510.1,GB1951	10.14 approve	d ; design refer	to UL60950-1					
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75	KVAC									
EMC	ISOLATION RESISTANCE	I/P-O/P:100N	/I Ohms / 500V	′DC / 25℃/ 70	% RH							
	EMC EMISSION Note.8	Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≥ 60%) ; BS EN/EN61000-3-3,										
		GB/T 17743, 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										
	EMC IMMUNITY MTBF	-				-						
		3614.1K hrs r		ia SR-332 (Bel	icole), 396.	7Khrs min. N	AIL-HDBK-217	F (25 C)				
OTHERS	DIMENSION	162.5*43*32mm (L*W*H)										
	PACKING	0.45Kg; 32pcs/15.4Kg/0.93CUFT										
NOTE	1. All parameters NOT specially				it, rated curren	t and 25℃ of	ambient tempe	erature.				
	2. Please refer to "DRIVING M				ed nair-wire to:	minated with a	∩ 1uf & /7uf ∽	arallel canocito	r			
		& noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.										
		. Tolerance : includes set up tolerance, line regulation and load regulation. . De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.										
		ngth of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.										
		as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the										
		, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.										
		ble on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) equirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch										
	without permanently connected to the mains.											
		es 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	-	-					,,				
	11. The ambient temperature d	•						•	higher than 2	000m(6500ft		
	12. For any application note an			tallation cautio	n, please refer	our user man	ual before usir	ng.				
	https://www.meanwell.com/	-			the au //	/	vice Dir - L					
	× Product Liability Disclaimer	ility Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx										





 $\,$ $\! \times \,$ This series works in constant current mode to directly drive the LEDs.

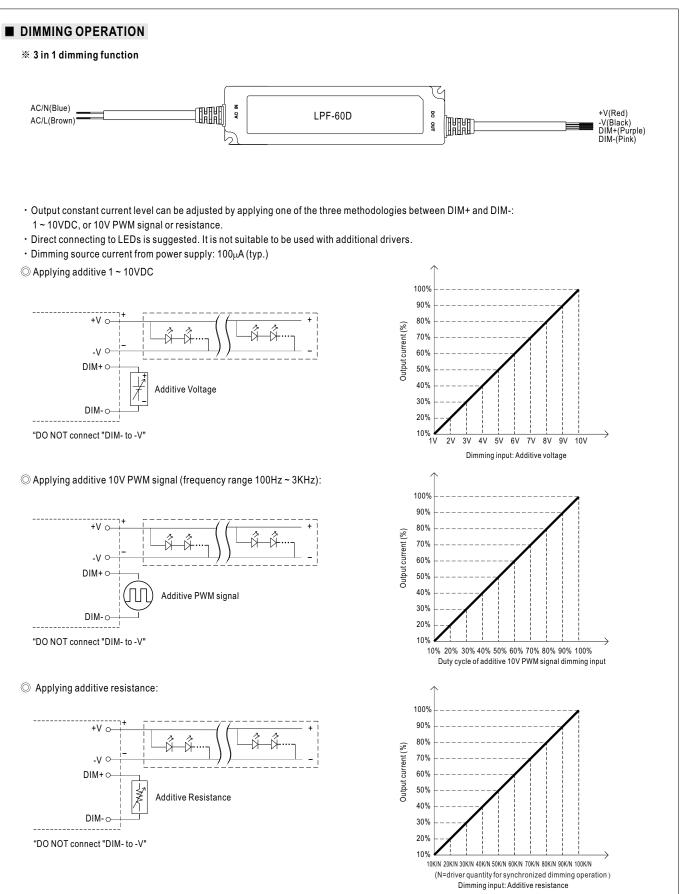


Typical output current normalized by rated current (%)

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.



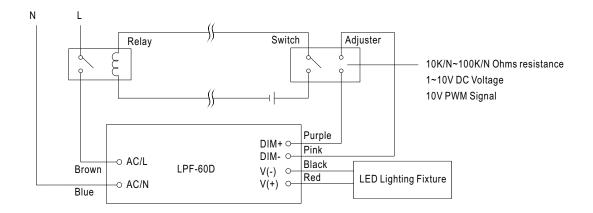




60W Constant Current Mode LED Driver

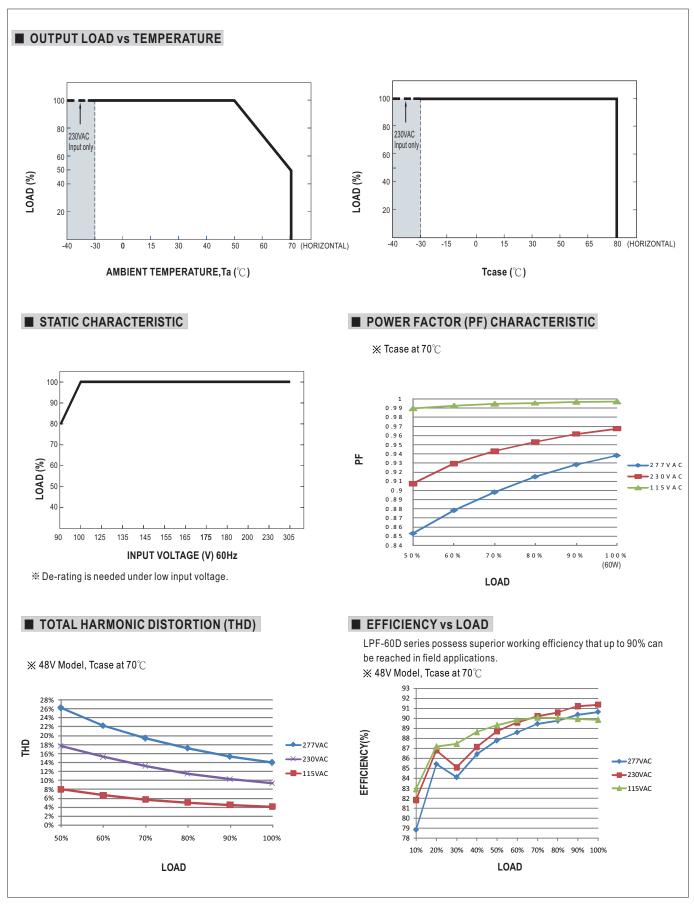
LPF-60D series

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.



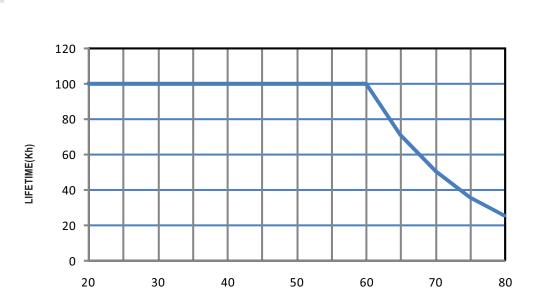




60W Constant Current Mode LED Driver

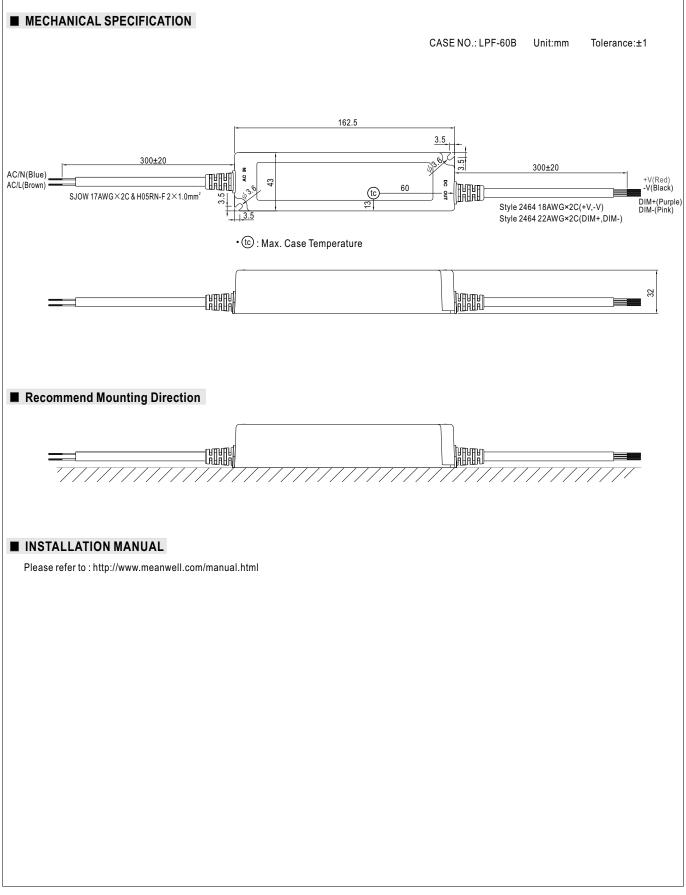
LPF-60D series

LIFE TIME



Tcase ($^\circ\! C$)













Features

- Constant Voltage + Constant Current mode output
- Plastic housing with Class II design
- Built-in active PFC function
- · Class 2 power unit
- Fully encapsulated with IP67 level
- Typical lifetime>50000 hours
- 5 years warranty

Applications

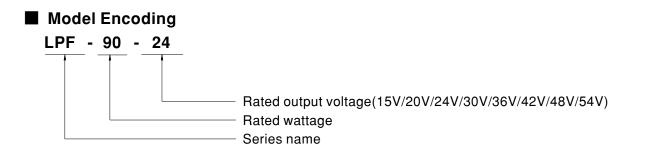
- LED panel lighting
- LED downlight
- LED decorative lighting
- LED tunnel lighting
- Moving sign
- Type "HL" for use in Class I, Division 2 hazardous (Classified) location.

GTIN CODE

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

Description

LPF-90 series is a 90W AC/DC LED driver featuring the dual modes constant voltage and constant current output. LPF-90 operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 15V and 54V. Thanks to the hign efficiency up to 91%, with the fanless design, the entire series is able to operate for -40° 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.





SPECIFICATION

MODEL		LPF-90-15	LPF-90-20	LPF-90-24	LPF-90-30	LPF-90-36	LPF-90-42	I PF-00-48	LPF-90-54			
WODEL												
	DC VOLTAGE	15V	20V	24V	30V	36V	42V	-	54V			
	CONSTANT CURRENT REGION Note.2		12~20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V		32.4 ~ 54V			
	RATED CURRENT	5A	4.5A	3.75A	3A	2.5A	2.15A	48V 28.8 ~ 48V 1.88A 90.24W 200mVp-p ±4.0% ±0.5% ±0.5% 1.88A 91% 54 ~ 60V 54 ~ 60V 1.000-3-3, nmunity Line-Line 2KV °C) e. I capacitor.	1.67A			
	RATED POWER Note.5		90W	90W	90W	90W	90.3W		90.18W			
OUTPUT	RIPPLE & NOISE (max.) Note.3	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p			
	VOLTAGE TOLERANCE Note.4	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%	±4.0%			
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	LOAD REGULATION	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%			
	SETUP, RISE TIME Note.6	1200ms, 200ms / 115VAC 500ms, 200ms / 230VAC										
	HOLD UP TIME (Typ.)	16ms/230VAC	16ms/115	VAC								
	VOLTAGE RANGE Note.5	90 ~ 305VAC (Please refer to	127 ~ 431VI STATIC CHAF	DC RACTERISTIC" :	section)							
	FREQUENCY RANGE	47 ~ 63Hz			,							
	POWER FACTOR	$\label{eq:PF} \begin{split} PF &\geq 0.97/115 VAC, PF \geq 0.96/230 VAC, PF \geq 0.92/277 VAC @ full \ load \\ (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section) split$										
	TOTAL HARMONIC DISTORTION	THD<20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)										
INPUT	EFFICIENCY (Typ.)	89%	90%	90.5%	91%	91%	91%	91%	91%			
-	AC CURRENT	0.95A / 115VA			/ 277VAC							
	INRUSH CURRENT(Typ.)	COLD START 70A(twidth=435µs measured at 50% lpeak) at 230VAC; Per NEMA 410										
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	4 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC										
	LEAKAGE CURRENT	<0.75mA / 240VAC										
		95~108%										
	OVER CURRENT	S5~ 105% Constant current limiting, recovers automatically after fault condition is removed										
PROTECTION												
	OVER VOLTAGE											
		Shut down o/p voltage, re-power on to recover										
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover										
	WORKING TEMP.	Tcase=-40 ~ +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, 50	3 12min./1cycle,	period for 72m	in. each along X	, Y, Z axes						
	SAFETY STANDARDS Note.8	UL8750(type"HL"), CSA C22.2 No.250.13-12, ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384, J61347-1, J61347-2-13, EAC TP TC 004, GB19510.1, GB19510.14, IP67 approved ; Design refer to UL60950-1										
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75K	VAC									
	ISOLATION RESISTANCE	I/P-O/P:100M	Ohms / 500VD0	C/25℃/70% R	Н							
EMC	EMC EMISSION Note.8	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≥ 60%) ; BS EN/EN61000-3-3, GB/T 17743 , GB17625.1,EAC TP TC 020										
	EMC IMMUNITY	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 0										
	MTBF	3292.9K hrs min. Telcordia SR-332 (Bellcore) ; 301.7K hrs min. MIL-HDBK-217F (25°C)										
OTHERS	DIMENSION	161*61*36mm	(L*W*H)									
	PACKING	0.7Kg;20pcs/15Kg/0.73CUFT										
NOTE	 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". Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. 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 first cold 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. (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. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly (c) point (or TMP, per DLC), is about 70°C or less. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com 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(65) For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf 											

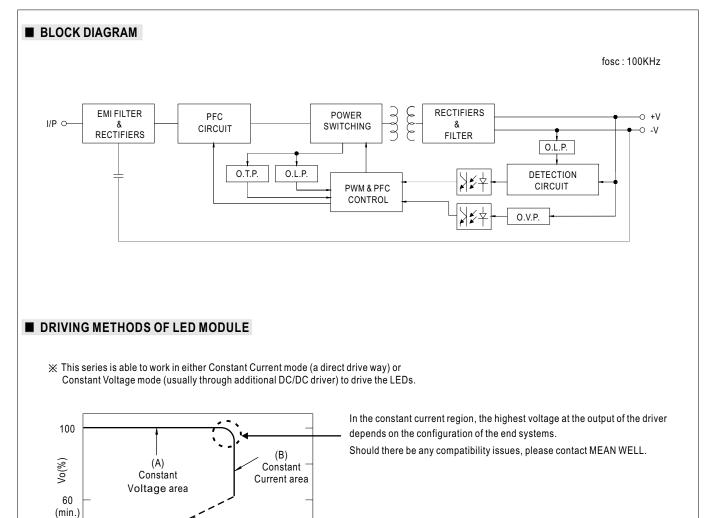


C) Hiccup Protection

lo(%)

50

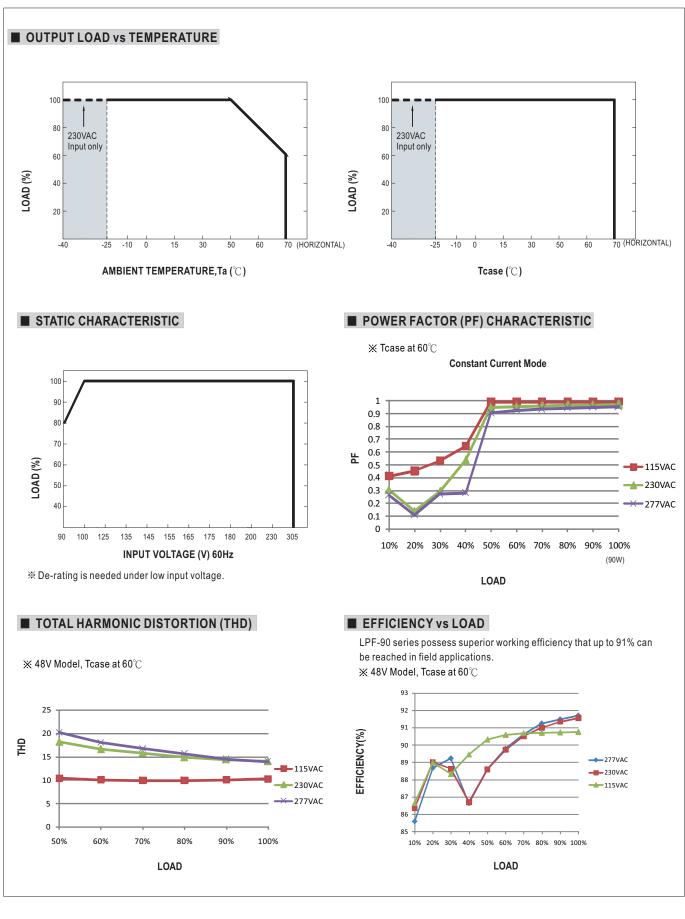
Typical output current normalized by rated current (%)





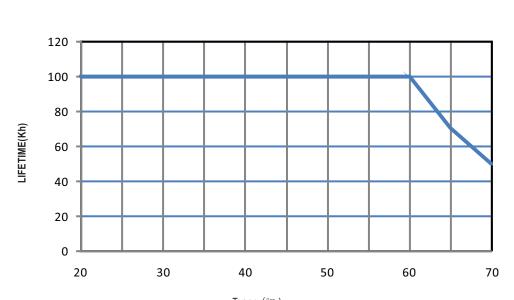
90W Constant Voltage + Constant Current LED Driver

LPF-90 series



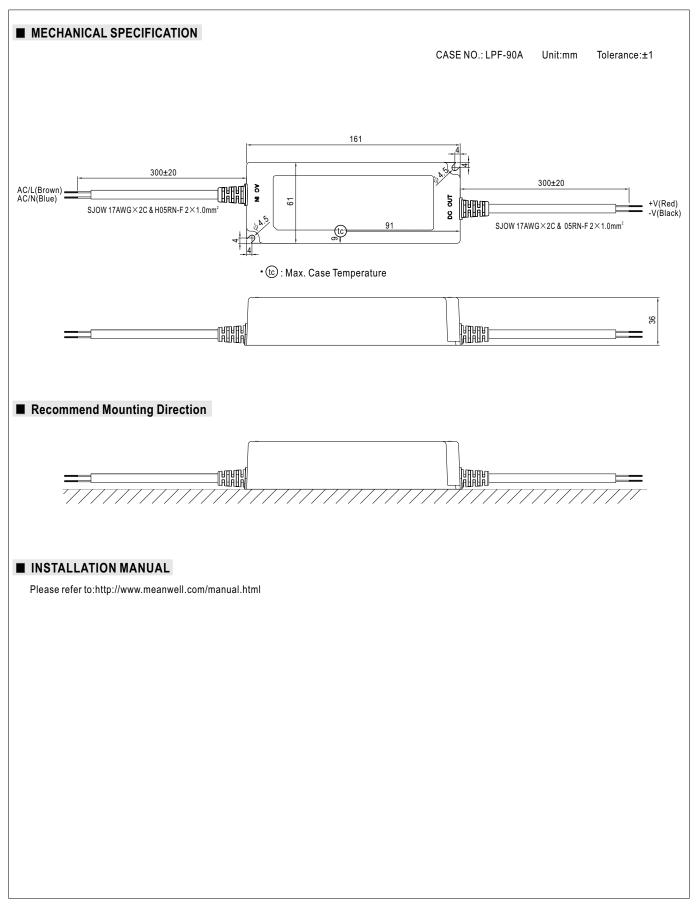


LIFE TIME

















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
- Type "HL" for use in Class I, Division 2 hazardous (Classified) location.

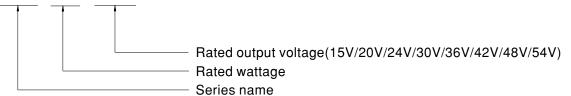
GTIN CODE

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

Description

LPF-90D series is a 90W AC/DC LED driver featuring the constant current output. LPF-90D operates from $90 \sim 305$ VAC and offers models with different rated voltage ranging between 15V and 54V. Thanks to the high efficiency up to 90.5%, with the fanless design, the entire series is able to operate for -40° 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-90D is equipped with the 3 in 1 dimming function so as to provide the design flexibility for LED lighting system.

Model Encoding LPF - 90D - 24

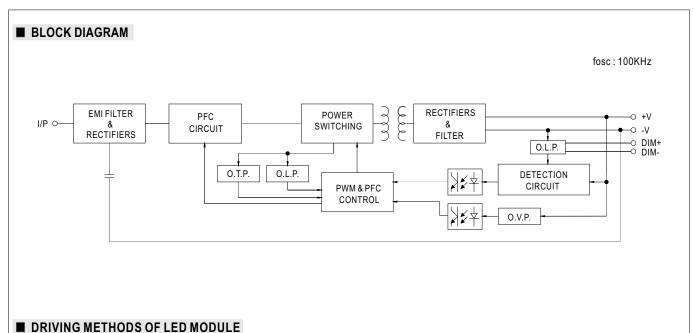




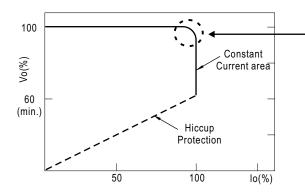
SPECIFICATION

MODEL		LPF-90D-15	LPF-90D-20	LPF-90D-24	LPF-90D-30	LPF-90D-36	LPF-90D-42	LPF-90D-48	LPF-90D-54				
	DC VOLTAGE	15V	20V	24V	30V	36V	42V	48V	54V				
	RATED CURRENT	5A	4.5A	3.75A	3A	2.5A	2.15A	1.88A	1.67A				
	RATED POWER Note.5	75W	90W	90W	90W	90W	90.3W	90.24W	90.18W				
ουτρυτ	CONSTANT CURRENT REGION Note.2		12~20V	14.4 ~ 24V	18~30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V				
	CURRENT RIPPLE	5.0% max. @rated current											
	CURRENT TOLERANCE	±5.0%											
	SETUP, RISE TIME Note.6	1200ms, 200ms / 115VAC 500ms, 200ms / 230VAC 500ms, 200ms / 230VAC											
	HOLD UP TIME (Typ.)		16ms/230VAC 16ms/115VAC										
_		90 ~ 305VAC	127 ~ 431VI										
	VOLTAGE RANGE Note.5			RACTERISTIC" s	section)								
	FREQUENCY RANGE	47 ~ 63Hz											
					5/277\/AC@full.l	aad							
	POWER FACTOR	PF≧0.97/115VAC, PF≧0.96/230VAC, PF≧0.95/277VAC@full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)											
		THD<20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC)											
	TOTAL HARMONIC DISTORTION	(Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)											
INPUT	EFFICIENCY (Typ.)	89%	89.5%	90%	90.5%	90.5%	90.5%	90.5%	90.5%				
	AC CURRENT	0.95A / 115VA			/ 277VAC	00.070	50.070	50.070	00.070				
	INRUSH CURRENT(Typ.)						410						
		COLD START 70A(twidth=435µs measured at 50% Ipeak) at 230VAC; Per NEMA 410											
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	4 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC											
	LEAKAGE CURRENT	<0.75mA / 240VAC											
	OVER CURRENT	Constant current limiting, recovers automatically after fault condition is removed											
PROTECTION	OVER VOLTAGE	18~21V 23~27V 28~34V 34~38V 41~46V 47~53V 54~60V 59~65V											
		Shut down o/p voltage, re-power on to recover											
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover											
	WORKING TEMP.	Tcase=-40 ~ +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											
	SAFETY STANDARDS Note.8	UI 8750(type"HI *) CSA C22 2 No 250 13-12 TUV RS EN/EN61347-1 RS EN/EN61347-2-13 EAC TPTC 004											
	WITHSTAND VOLTAGE	U/P-O/P:3.75KVAC											
SAFETY &	ISOLATION RESISTANCE			C/25°C/70% R	н								
EMC						@load>60%).	BS EN/EN61000	-3-3					
	EMC EMISSION Note.8	Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load ≥ 60%) ; BS EN/EN61000-3-3, GB/T 17743 , GB17625.1,EAC TP TC 020											
	EMC IMMUNITY	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 02											
	MTBF	3110.7K hrs mi		SR-332 (Bellcore	e); 267.3Khrs	min. MIL-HDB	K-217F (25℃)						
OTHERS	DIMENSION	161*61*36mm (L*W*H)											
	PACKING	0.7Kg;20pcs/15Kg/0.73CUFT											
NOTE	1. All parameters NOT specially			30VAC input, ra	ted current and	25℃ of ambient	temperature.						
	2. Please refer to "DRIVING METHODS OF LED MODULE".												
		ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.											
		set up tolerance, line regulation and load regulation. eeded under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.											
	 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 first cold start. Turning ON/OFF the driver may lead to increase of the set up time. 												
		as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the											
	complete installation, the fina	al equipment manufacturers must re-qualify EMC Directive on the complete installation again.											
		w.meanwell.com//Upload/PDF/EMI_statement_en.pdf)											
		e latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch											
		nanently connected to the mains.											
		al 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 11. The ambient temperature d				-		for operating alt	itude higher that	1 2000m/650				
								adde nigher uidi	- 200011(000				
		nd IP water proof function installation caution, please refer our user manual before using. // lpload/PDF/I ED_EN.pdf											
	https://www.meanwell.com/	Upidau/FDF/LE	D_EIN.pat										





 $\,$ $\! \times \,$ This series works in constant current mode to directly drive the LEDs.

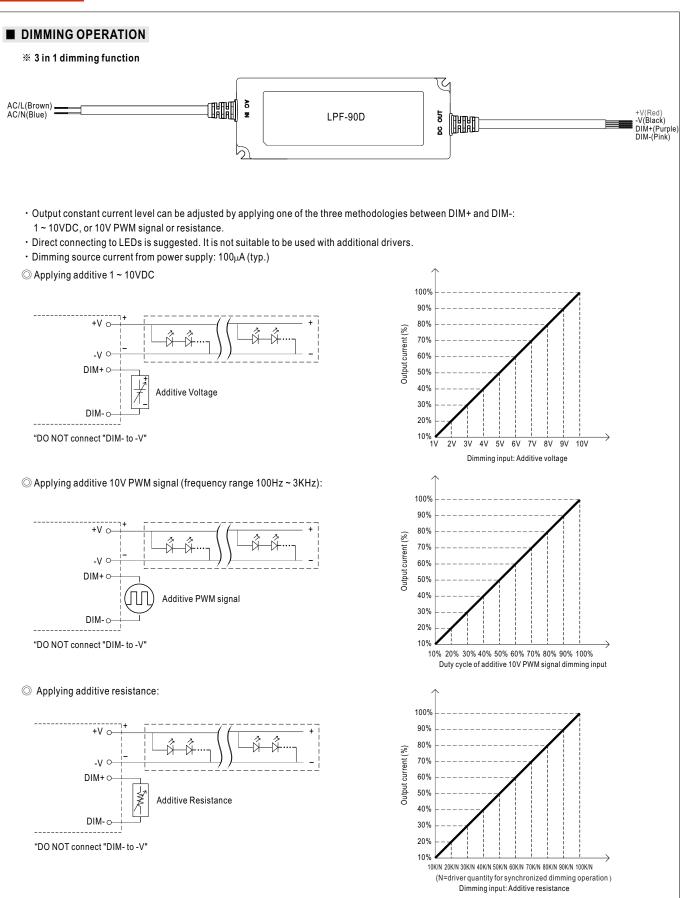


Typical output current normalized by rated current (%)

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.



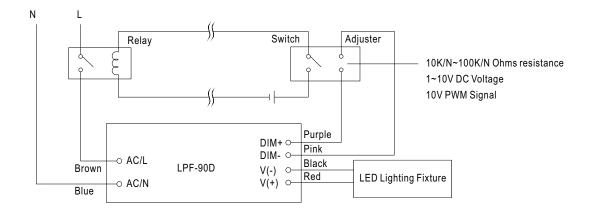




90W Constant Current Mode LED Driver

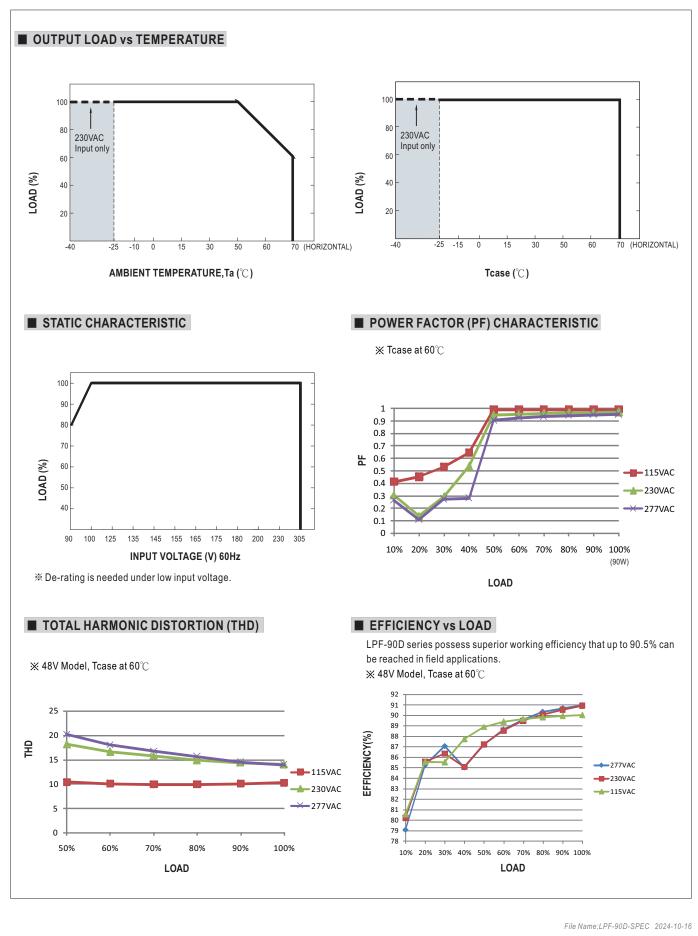
LPF-90D series

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.



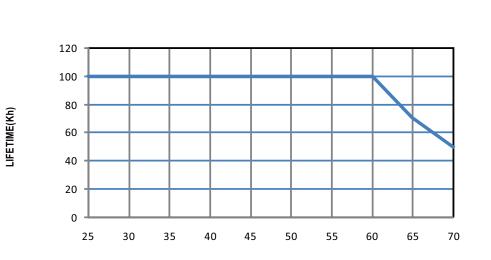
Using a switch and relay can turn ON/OFF the lighting fixture.







LIFE TIME



Tcase (C) $\,$



