



18W Single Output Switching Power Supply

LPH-18 series



■ Features :

- 180-264VAC input only
- Fully encapsulated with IP67 level (Note.5)
- Protections:Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- Class II power unit, no FG
- Pass LPS
- 100% full load burn-in test
- Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)
- High reliability / Low cost
- 2 years warranty

User's Manual



■ GTIN CODE

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

IS 15885



(NOTE 8)



SPECIFICATION

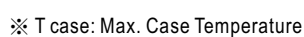


(NOTE 8)

MODEL		LPH-18-12		LPH-18-24		LPH-18-36	
OUTPUT	DC VOLTAGE	12V		24V		36V	
	RATED CURRENT	1.5A		0.75A		0.5A	
	CURRENT RANGE	0 ~ 1.5A		0 ~ 0.75A		0 ~ 0.5A	
	RATED POWER	18W		18W		18W	
	RIPPLE & NOISE (max.) Note.2	120mVp-p		150mVp-p		200mVp-p	
	VOLTAGE TOLERANCE Note.3	±3.0%					
	LINE REGULATION	±1.0%					
	LOAD REGULATION	±2.0%					
	SETUP, RISE TIME	1500ms, 30ms / 230VAC					
	HOLD UP TIME (Typ.)	50ms/230VAC at full load					
INPUT	VOLTAGE RANGE	180 ~ 264VAC 254 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	EFFICIENCY(Typ.)	77%		82%		83%	
	AC CURRENT	0.3A/230VAC					
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=155µs measured at 50% Ipeak) at 230VAC					
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	17 units (circuit breaker of type B) / 28 units (circuit breaker of type C) at 230VAC					
	LEAKAGE CURRENT	0.25mA / 240VAC					
PROTECTION	OVERLOAD	Above 105% rated output power					
		Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	13.8~ 16.2V		27.6~ 32.4V		41.4 ~ 48.6V	
		Protection type : Shut off o/p voltage, clamping by zener diode					
	OVER TEMPERATURE	Hiccup mode, recovers automatically after temperature goes down					
ENVIRONMENT	WORKING TEMP.	-30~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 4)	SAFETY STANDARDS	IEC/BS EN/EN 62368-1, BIS IS15885(NOTE 8), EAC TP TC 004, IP67 approved; design refer to UL1310 Class 2, CAN/CSA No. 223-M91					
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC					
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION	Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2 Class A, BS EN/EN61000-3-3, EAC TP TC 020					
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, light industry level, EAC TP TC 020					
OTHERS	MTBF	7827.3K hrs min. Telcordia SR-332 (Bellcore) ; 1311.1Khrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	140*30*22(L*W*H)					
	PACKING	0.175Kg; 70pcs/13.3Kgs/0.71CUFT					
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. 5. Suitable for indoor use or outdoor use without direct sunlight exposure. 6. This product is not intended for LED applications in the EU.(In the EU NPF/LPF/XLG series are recommended.) 7. To fulfill requirements of latest ErP regulation for lighting luminaires, this LED Driver can only be used behind a switch without permanently connected to mains. 8. Products sourced from the China regions may not have the BIS logo, please contact your MEAN WELL sales for more information. ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx						

LPH-18 series

Unit:mm



Mounting Direction

Block Diagram

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graph LR; I/P((I/P)) --> EMI_FILTER[EMI FILTER]; EMI_FILTER --> RECTIFIERS[RECTIFIERS]; RECTIFIERS --> subgraph DashedBox [ ]; POWER_SWITCHING[POWER SWITCHING]; PWM_CONTROL[PWM CONTROL]; end; PWM_CONTROL --> POWER_SWITCHING; POWER_SWITCHING --> TRANSFORMER[Transformer]; TRANSFORMER --> RECTIFIERS_FILTER[RECTIFIERS & FILTER]; RECTIFIERS_FILTER --> Vplus[+V]; RECTIFIERS_FILTER --> Vminus[-V]; Vplus --> DETECTION_CIRCUIT[DETECTION CIRCUIT]; DETECTION_CIRCUIT --> DIODE[Diode]; DIODE --> PWM_CONTROL;
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fosc : 60KHz

Graph of Load (%) vs Ambient Temperature (°C) for a 100% duty cycle. The load is constant at 100% from -30°C to 50°C, then decreases linearly to 60% at 70°C, and drops vertically to 0% at 70°C.

Ambient Temperature (°C)	Load (%)
-30	100
50	100
70	60
70	0

INPUT VOLTAGE (VAC) 60Hz	LOAD (%)
180	80
190	100
200	100
210	100
220	100
230	100
240	100
250	100
264	100