



LPF-16 series

16W Single Output Switching Power Supply



■ Features :

- Universal AC input / Full range (up to 305VAC)
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC function
- Cooling by free air convection
- Fully isolated plastic case with IP30 level (Note.8)
- Class II power unit, no FG
- Class 2 power unit
- IP67(optional , model NO. : LPF-16-IP P)
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp locations(wet location for LPF-16-IP P)
- 3 years warranty

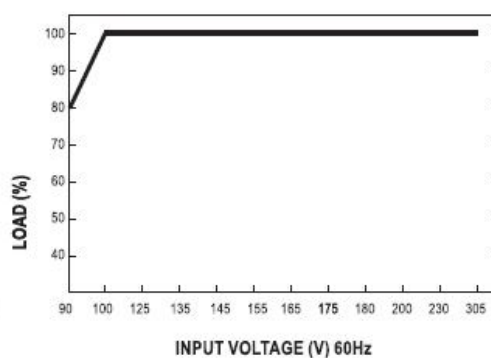


SPECIFICATION

MODEL		764-7170	764-7189	764-7182	764-7186	764-7195	764-7198	764-7192	764-7202	764-7205	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V	
	CONSTANT CURRENT REGION <small>Note.4</small>	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	16.08W	16.05W	16W	16.08W	16.2W	16.2W	16.38W	16.32W	16.2W	
	RIPPLE & NOISE (max.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p	
	VOLTAGE TOLERANCE <small>Note.3</small>	±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 <small>Note.6</small>	1500ms, 80ms / 115VAC at full load 1500ms, 80ms / 230VAC									
HOLD UP TIME (Typ.)	16ms at full load 230VAC / 115VAC										
INPUT	VOLTAGE RANGE <small>Note.5</small>	90 ~ 305VAC		127 ~ 431VDC							
	FREQUENCY RANGE	47 ~ 63Hz									
	POWER FACTOR (Typ.)	PF>0.97/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)									
	EFFICIENCY (Typ.)	84%	84%	86%	86%	86%	86%	86%	86%	86%	
	AC CURRENT	0.4A / 115VAC		0.25A / 230VAC		0.2A/277VAC					
	INRUSH CURRENT (Typ.)	COLD START 50A/230VAC									
PROTECTION	LEAKAGE CURRENT	<0.75mA / 240VAC									
	OVER CURRENT <small>Note.4</small>	95 ~ 108% Protection type : Constant current limiting, recovers automatically after fault condition is removed									
	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	
	OVER TEMPERATURE	100°C±5°C (TSW1) Detect on U2 Protection type : Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-35 ~ +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes									
SAFETY & EMC	SAFETY STANDARDS	UL8750, CSA C22.2 No. 250.0-08 (except for 42V, 48V, 54V), EN61347-1, EN61347-2-13 independent, EN62384 approved, IP67 (optional); Design refer to UL60950-1, TUV EN60950-1									
	WITHSTAND VOLTAGE	I/P-O/P: 3.75KVAC									
	ISOLATION RESISTANCE	I/P-O/P: 100M Ohms / 500VDC / 25°C/ 70% RH									
	EMC EMISSION	Compliance to EN55015; EN61000-3-2 Class C (≥50% load); EN61000-3-3									
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, light industry level(surge 2KV), criteria A									
	MTBF	473.3Khrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	148*40*32mm (L*W*H)									
	PACKING	0.21Kg, 40pcs/9.4Kg/1.02CUFT									
NOTE	<div>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</div> <div>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.</div> <div>3. Tolerance : includes set up tolerance, line regulation and load regulation.</div> <div>4. Constant current operation region is within 50% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</div> <div>5. Derating may be needed under low input voltages. Please check the static characteristics for more details.</div> <div>6. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.</div> <div>7. 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.</div> <div>8. Suitable for indoor use.</div>										



Case No. : LPF-16A Unit:mm

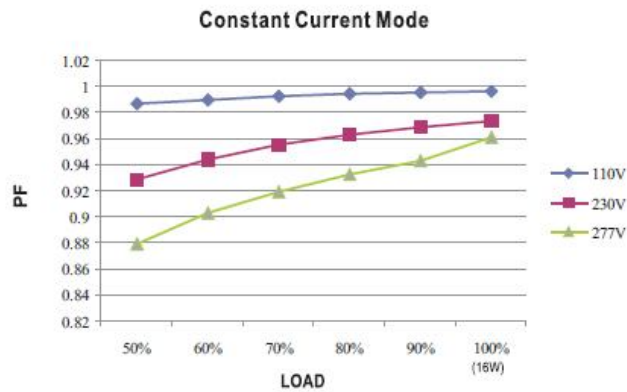




LPF-16 series

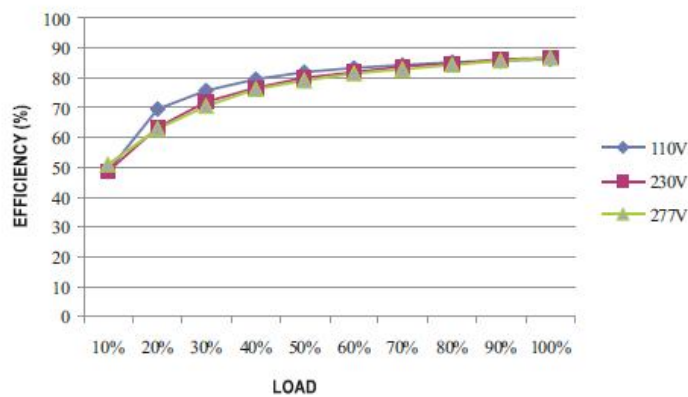
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Power Factor Characteristic



EFFICIENCY vs LOAD (48V Model)

LPF-16 series possess superior working efficiency that up to 86% can be reached in field applications.

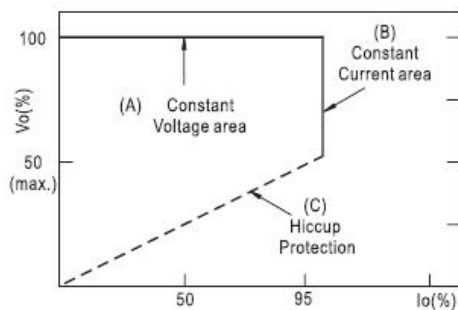


DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV)" or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A)) and CC mode (direct drive, at area (B)).



Typical LED power supply I-V curve