

HLG-100H Series

100W IP67 Constant Voltage LED Lighting Power Supplies



Case: 8014EX
220 x 68 x 38.8 mm

Features

- Constant voltage mode power supply
- Universal AC input up to 305VAC
- IP67 level
- Built in active PFC function
- Constant current level adjustable through output cable
- Short circuit, over current, over voltage, over temperature protections
- Compliance to worldwide safety regulations for lighting



Specification

INPUT	Voltage	90V~305VAC or 127V~431VDC.						
	Frequency	47 ----- 63 Hz						
	Power Factor	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC at full load (Please refer to Power Factor Characteristic curve)						
	Current	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC						
	Inrush Current	75A@230VAC, Cold start						
	Leakage Current	<0.75mA@277VAC input						
OUTPUT	MODEL No.	HLG-100H-20	HLG-100H-24	HLG-100H-30	HLG-100H-36	HLG-100H-42	HLG-100H-48	HLG-100H-54
	Voltage	20V	24V	30V	36V	42V	48V	54V
	Voltage Adj. Range	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V
	Current Adj. Range	3~4.8A	2.5~4A	2~3.2A	1.65~2.65A	1.4~2.28A	1.25~2A	1.1~1.77A
	Rated Current	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	Power	96W	96W	96W	95.4W	95.76W	96W	95.58W
	Ripple & Noise	150mV	150mV	200mV	200mV	200mV	200mV	200mV
	Efficiency (TYP.)	93%	93%	93%	93%	93%	93%	93%
PROTECTION	Over Voltage	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V
		Shutdown and latch off output voltage, re-power on to recover						
	Short Circuit	Constant current limiting, recovers automatically after fault condition is removed						
	Over Temperature	100°C ±10°C (RTH2); shutdown output voltage, recovers automatically after temperature goes down						
	Over Current	95~106% rated output current; constant current limiting, recovers automatically after fault condition is removed						
	ELEC. CHAR.	Rise Time	50ms@230Vac & 115VAC, full load					
Hold Up Time		16ms@230VAC & 115VAC, full load condition						
Voltage Tolerance		±1.0%						
Line Regulation		±0.5%						
Load Regulation		±0.5%						
Setup Time		2500ms@230VAC & 115VAC						
ENVIRONMENT	Temperature	Operating: -40~+70°C ; De-rating: 60~70°C@60% load ; Storage: -40~ +80°C						
	Humidity	Operating: 20%~95% RH; Storage: 10%~95% RH (non condensing)						
	Temp. Coefficient	±0.03%/°C (0~50°C)						
	Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes						
SAFETY	Withstand Voltage	I/P-O/P:3.75KVAC	I/P-FG:1.88KVAC	O/P-FG:0.5KVAC				
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25°C/ 70% RH						
	Safety Standard	Compliance to EN61347-1, EN61347-2-13 independent; TUV EN60950-1						
EMC	EMC Emission	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (>60% load) ; EN61000-3-3						
	EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A						
OTHERS	M.T.B.F.	192.2K hrs min. MIL-HDBK-217F (25°C)						
	Packing	N.W.:1.12Kg / 1pc ; 12pcs / 14.4Kgs 0.74CUFT / 1 CTN						

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 Derating may be needed under low input voltages. Please check static characteristics for more details

5 Voltage Adjustment Range is only applicable for type A

6 Safety and EMC design refer to EN60598-1, CNS263, GB7000.2, FCC part 18

7 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

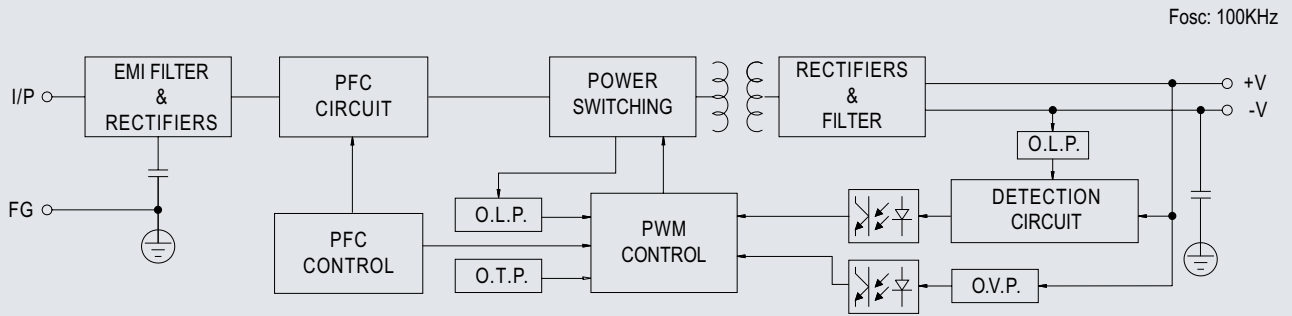
8 The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-quality EMC directive on the complete installation again

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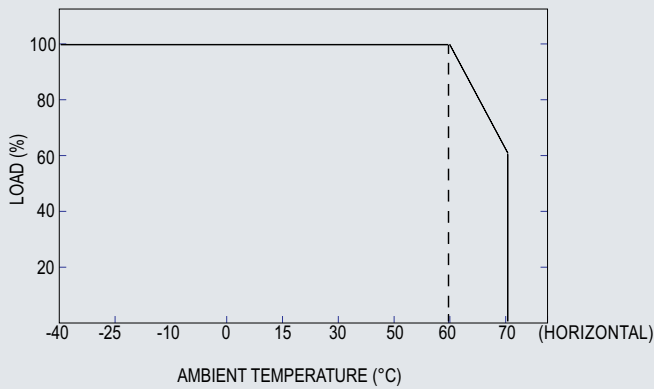
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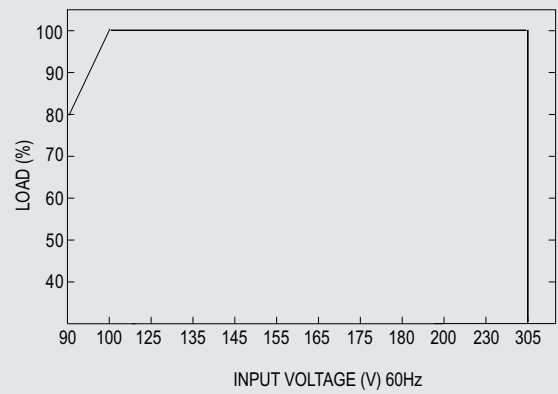
Block Diagram



De-Rating Curve

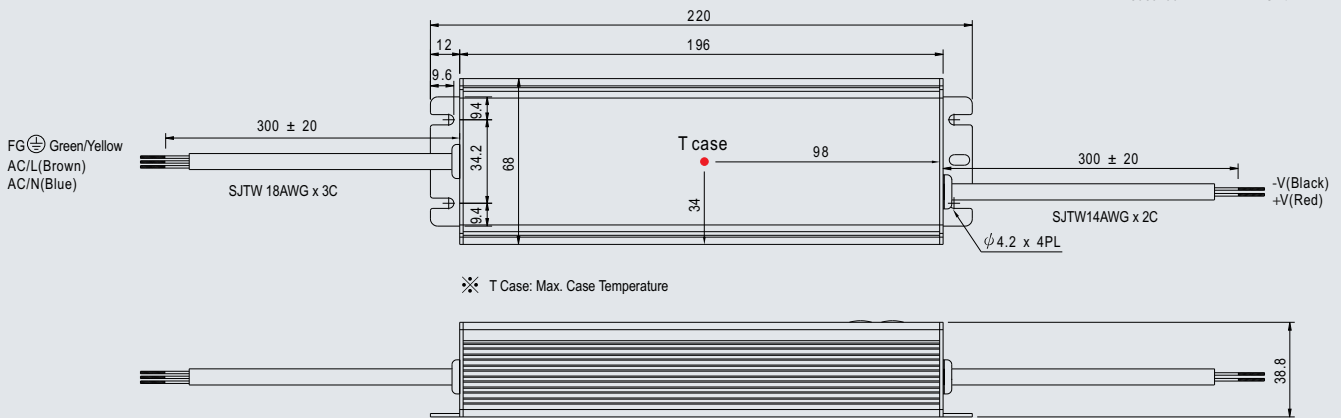


Static Characteristics



Dimensions

Case: 8014EX Unit: mm

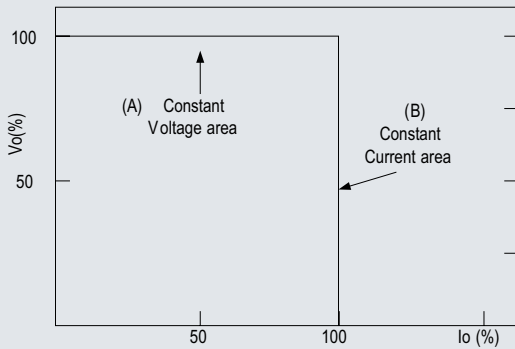


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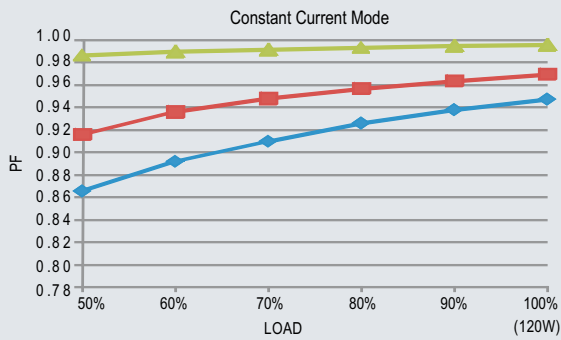
Driving Methods of LED Module



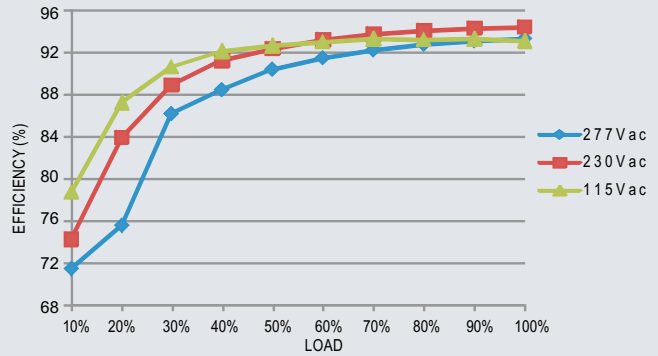
There are two main kinds of LED driver method "direct drive" and "with LED driver". A typical LED power supply may either work in constant voltage mode (CV) or constant current mode (CC) to drive the LEDs.

Our LED power supply with CV+CC characteristics can be operated at both CV mode and CC mode as this diagram shows.

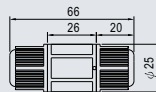
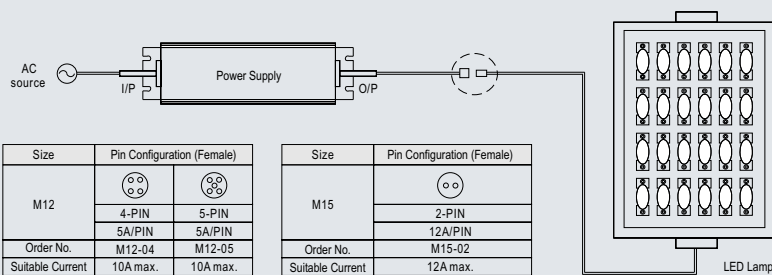
Power Factor Characteristics



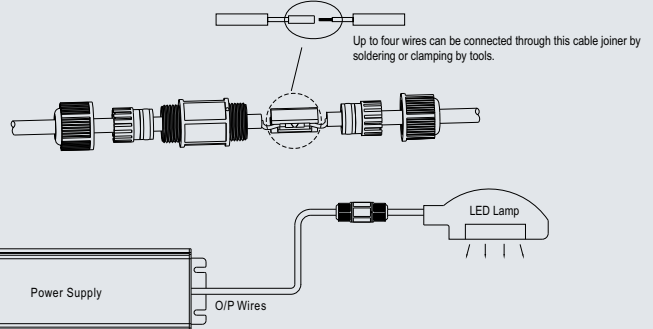
Efficiency vs Load (48V Model)



Waterproof Connection



CJ04-1 Suitable for 14AWG-16AWG
CJ04-2 Suitable for 18AWG-22AWG



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Optional Junction Box

