

HLG-100H-A Series

100W IP65 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
- IP65 level
- Built in active PFC function
- OCP point adjustable through internal potentiometer
- Short circuit, over current, over voltage, over temperature protections
- Cooling by free air convection
- Compliance to worldwide safety regulations for lighting
- Suitable for dry, damp, wet locations



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-20A	HLG-100H-24A	HLG-100H-30A	HLG-100H-36A	HLG-100H-42A	HLG-100H-48A	HLG-100H-54A
	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
	Rated Current	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	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
	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%
	Over Voltage	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V
PROTECTION		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℃ ±10℃ (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						
	Rise Time	50mS@230Vac & 115VAC, full load						
ELEC. CHAR.	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						
	Temperature	Operating: -40~+70℃ ; De-rating: 60~70℃@60% load ; Storage: -40~ +80℃						
ENVIRONMENT	Humidity	Operating: 20%~95% RH; Storage: 10%~95% RH (non condensing)						
	Temp. Coefficient	±0.03%/℃ (0~50℃)						
	Vibration	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes						
	Withstand Voltage	I/P-O/P:3.75KVAC	I/P-FG:1.88KVAC	O/P-FG:0.5KVAC				
SAFETY	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG:>100M Ohms / 500VDC / 25℃ / 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℃)						
	Packing	N.W.:1.12Kq / 1pc ; 12pcs / 14.4Kqs 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

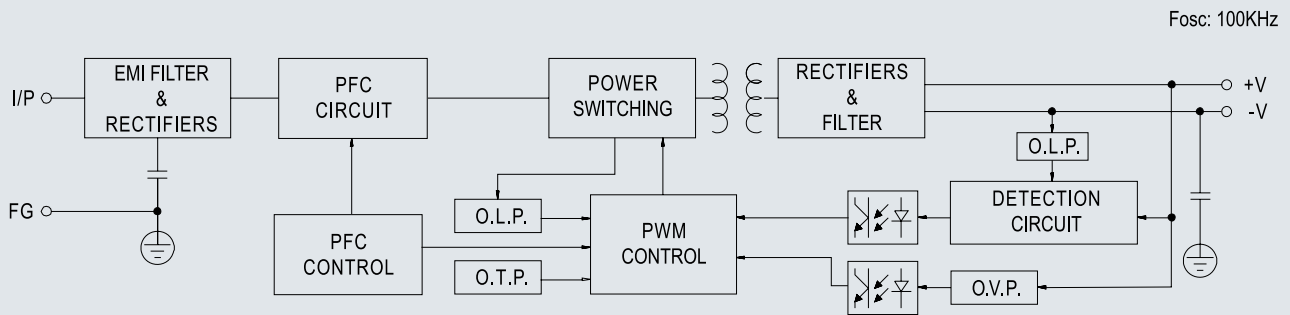
7 Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time

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-qualify EMC directive on the complete installation again

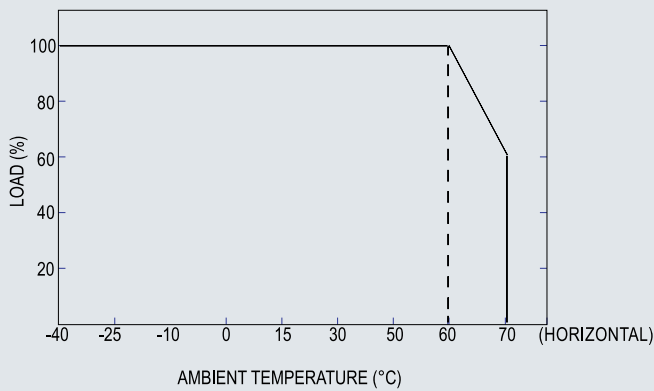
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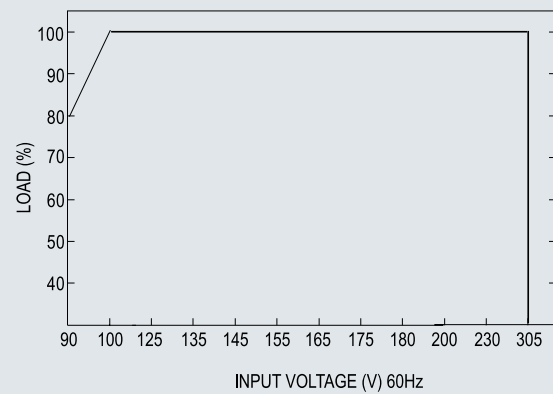
Block Diagram



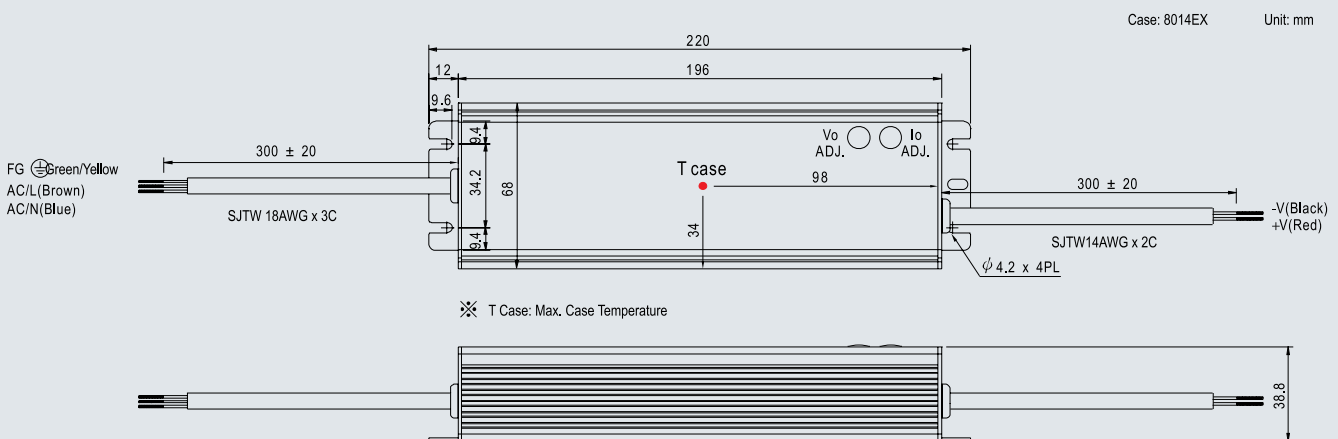
De-Rating Curve



Static Characteristics



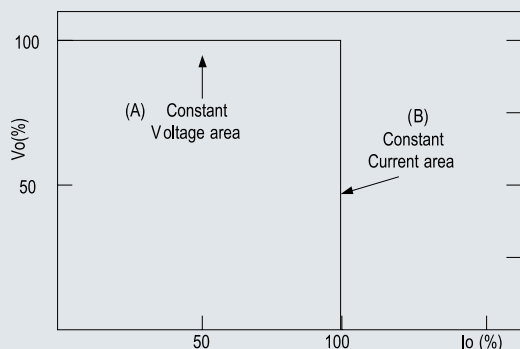
Dimensions



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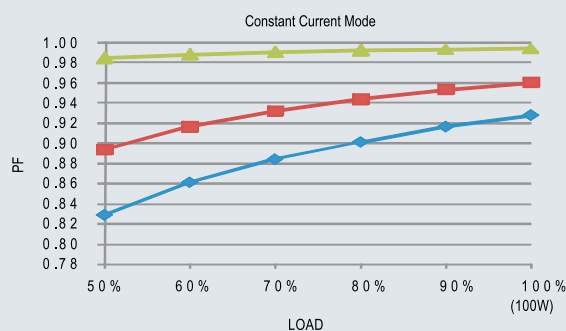
Driving Methods of LED Module



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)

