

120W Single Output Switching Power Supply

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HLG-120 series



Features :

- Universal AC input / Full range
- Built-in active PFC function
- High efficiency up to 94%
- · Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- · Suitable for LED lighting and street lighting applications
- · Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations

SELV IP65 IP67 🕞 🕄 us 🌢 🖻

5 years warranty (Note.9)



HLG-120-12 A Blank : IP67 rated. Cable for I/O connection.

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A : IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.

B : IP67 rated. Constant current level adjustable through output cable with 1~10Vdc or 10V PWM signal or resistance.

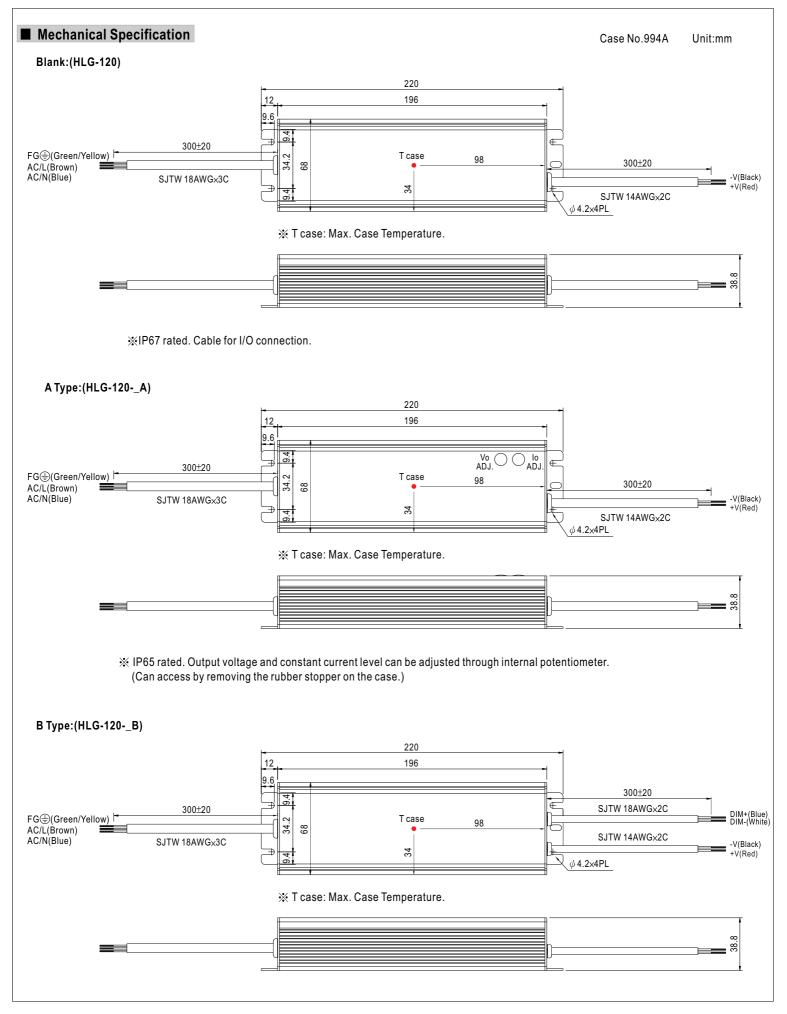
D (option) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

SPECIFICATION

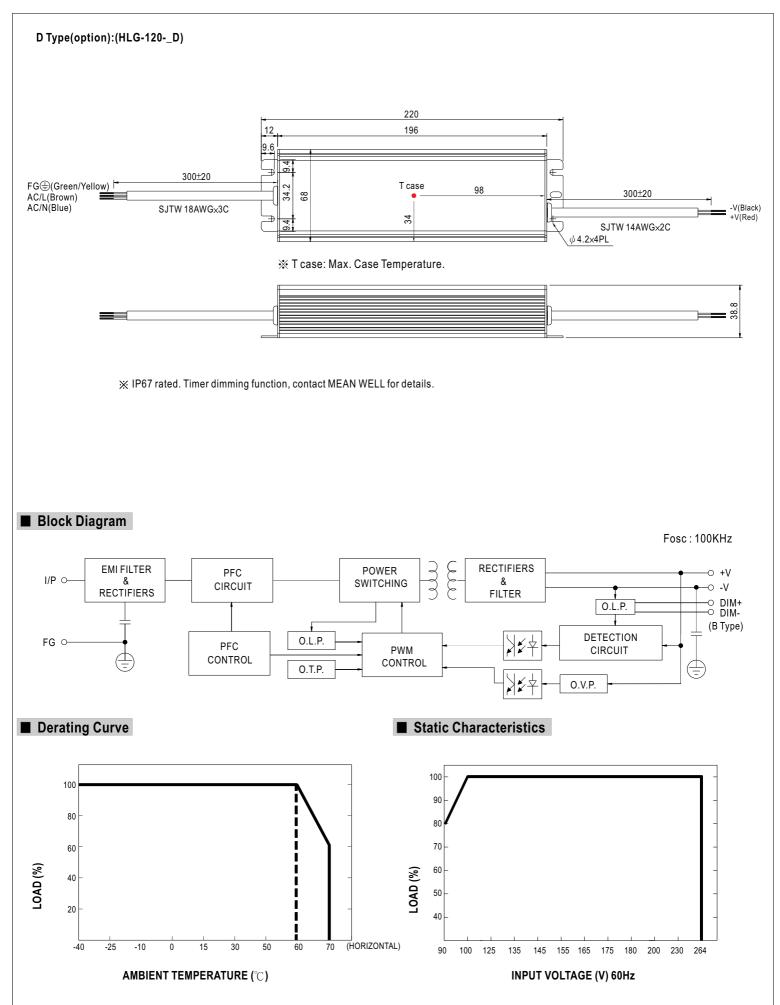
	ATION	1			1									
MODEL		HLG-120-12	HLG-120-15	HLG-120-20	HLG-120-24	HLG-120-30	HLG-120-36	HLG-120-42	HLG-120-48	HLG-120-54				
	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V				
OUTPUT	RATED CURRENT	10A	8A	6A	5A	4A	3.4A	2.9A	2.5A	2.3A				
	RATED POWER	120W	120W	120W	120W	120W	122.4W	121.8W	120W	124.2W				
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p				
	VOLTAGE ADJ. RANGE Note.5			17~22V	22 ~ 27V	27 ~ 33V	33~40V	38~46V	43~53V	49~58V				
				potentiometer (
	CURRENT ADJ. RANGE	5~10A	4~8A	3~6A	2.5 ~ 5A	2~4A	1.7~3.4A	1.4 ~ 2.9A	1.2 ~ 2.5A	1.1~2.3A				
	VOLTAGE TOLERANCE Note.3		±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%				
	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%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
		2500ms, 50ms at full load 230VAC / 115VAC ; B type 2500ms, 200ms at 95% load 230VAC / 115VAC												
	HOLD UP TIME (Typ.)	16ms at full load 230VAC / 115VAC												
		90 ~ 264VAC 127 ~ 370VDC												
	FREQUENCY RANGE	47~63Hz												
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC (Please refer to "Power Factor Characteristic" curve)												
INPUT	EFFICIENCY (Typ.)	92%	92%	93.5%	1	94%	94%	94%	94%	94%				
	AC CURRENT (Typ.)	92% 92% 93.5% 94% 94% 94% 94% 94% 94% 94%												
	INRUSH CURRENT (Typ.)	COLD START 75A/230VAC												
	LEAKAGE CURRENT	<0.75mA/240VAC												
	OVER CURRENT	95 ~ 108%												
		Protection type : Constant current limiting, recovers automatically after fault condition is removed												
PROTECTION	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed 14 ~ 17V 18 ~ 21V 23 ~ 27V 28 ~ 34V 34 ~ 38V 41 ~ 46V 47 ~ 53V 54 ~ 60V 59 ~ 65V												
PROTECTION	OVER VOLTAGE													
		Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery												
	OVER TEMPERATURE	85°C ±10°C (RTH2) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down												
	WORKING TEMP.	-40 ~ +70℃ (Refer to "Derating Curve")												
	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.6	UL8750, CSA C22.2 No. 250.0-08, EN61347-1, EN61347-2-13 independent IP65 or IP67, J61347-1, J61347-2-13 approved												
		design refer to UL60950-1, TUV EN60950-1												
SAFETY &	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC												
EMC	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH												
	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≧50% 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												
	MTBF	192.2Khrs min. MIL-HDBK-217F (25℃)												
OTHERS	DIMENSION	220*68*38.8mm (L*W*H)												
	PACKING	1.12Kg; 12pc	s/14.4Kg/0.740	CUFT										
NOTE	 Ripple & noise are measure Tolerance : includes set up Derating may be needed ur Type A only. Safety and EMC design reference Length of set up time is me The power supply is considered 	DT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. a measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. es set up tolerance, line regulation and load regulation. needed under low input voltages. Please check the static characteristics for more details. design refer to EN60598-1, CNS15233, GB7000.1, FCC part18. ime is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time. is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the on, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.												



HLG-120 series

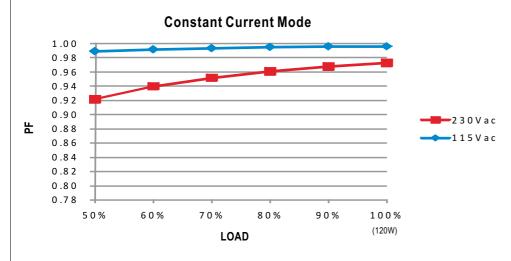






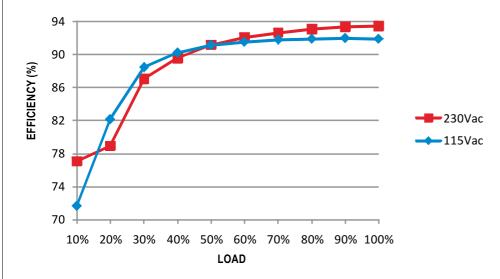


Power Factor Characteristic



EFFICIENCY vs LOAD (48V Model)

HLG-120 series possess superior working efficiency that up to 94% can be reached in field applications.

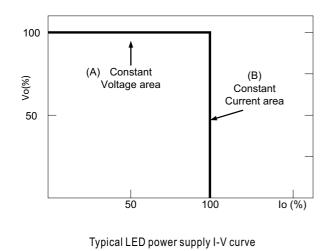


DRIVING METHODS OF LED MODULE

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).



File Name:HLG-120-SPEC 2012-04-17



■ DIMMING OPERATION



※ Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistance or 1 ~ 10Vdc or 10V PWM signal between DIM+ and DIM-.

※ Please DO NOT connect "DIM-" to "-V".

 $\label{eq:Reference} \ensuremath{\mathsf{Reference}}\xspace \ensuremath{\mathsf{resistance}}\xspace \ensuremath{\mathsf{value}}\xspace \ensuremath{\mathsf{resistance}}\xspace \ensuremath{\mathsf{resistanc$

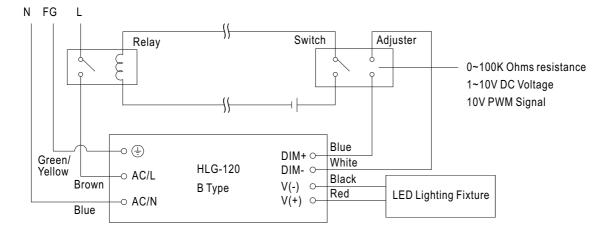
Resistance value	10K Ω	20Κ Ω	30Κ Ω	40K Ω	50Κ Ω	60K Ω	70Κ Ω	80K Ω	90Κ Ω	100K Ω	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%
× 1 ~ 10V dimming function for output current adjustment (Typical)											
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%
× 10V PWM signal for output current adjustment (Typical): Frequency range :100Hz ~ 3KHz											

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Duty value	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

XUsing the built-in dimming function on B-type model can't turn the lighting fixture totally dark. Please refer to the connection method below to achieve 0% brightness of the lighting fixture connecting to the LED power supply unit.

XDirect connecting to LEDs is suggested, but is not suitable for using additional drivers.

Dimming connection diagram for turning the lighting fixture ON/OFF :



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

1. Output constant current level can be adjusted through output cable by connecting a resistance or 1~10Vdc or 10V PWM signal between DIM+ and DIM-. 2. The LED lighting fixture can be turned ON/OFF by the switch.



HLG-120 series

■ WATERPROOF CONNECTION

O Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-120 to operate in dry/wet/damp or outdoor environment.

