



#### Features:

- Universal AC input / Full range (up to 305VAC)
- · Built-in active PFC function
- High efficiency up to 93.5%
- 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

• 5 years warranty (Note.9)

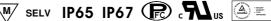




















Blank: IP67 rated. Cable for I/O connection.

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**

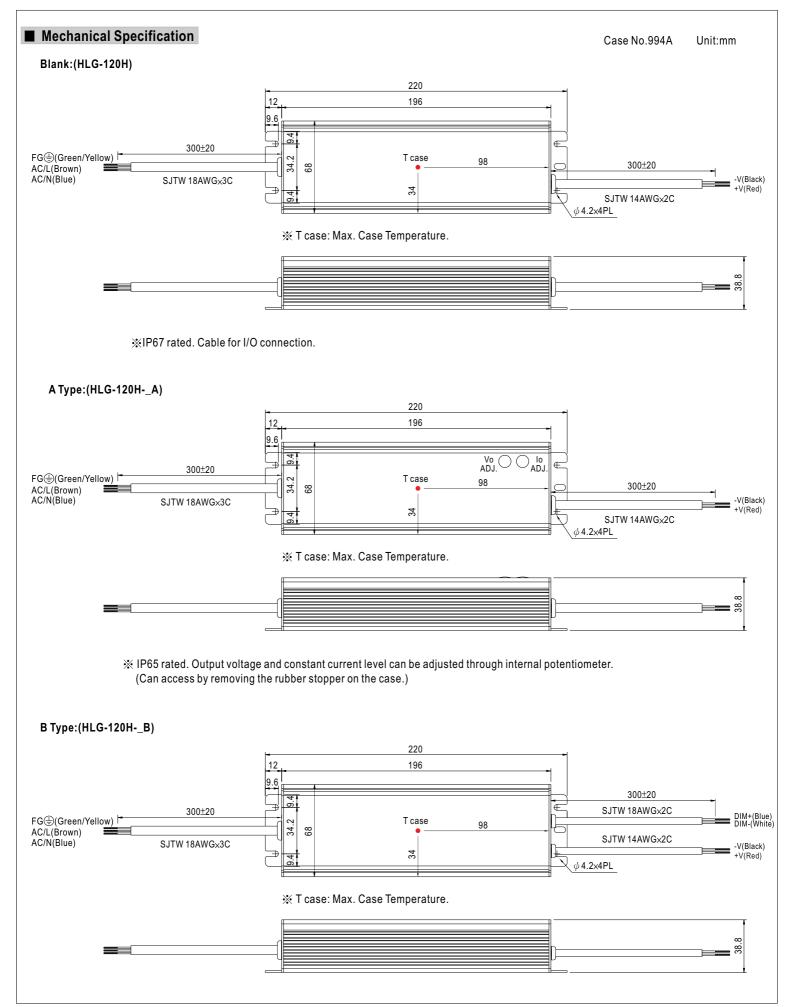
MODEL		HLG-120H-12	HLG-120H-15	HLG-120H-20	HLG-120H-24	HLG-120H-30	HLG-120H-36	HLG-120H-42	HLG-120H-48	HLG-120H-54			
MODEL	DOVOLTACE		_	_	24V		36V	42V	48V	54V			
	DC VOLTAGE	12V	15V	20V		30V	3.4A	2.9A	-				
	RATED CURRENT	10A	8A	6A	5A	4A			2.5A	2.3A			
	RATED POWER	120W	120W	120W	120W	120W	122.4W	121.8W	120W	124.2W			
	RIPPLE & NOISE (max.) Note.2		150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p			
	VOLTAGE ADJ. RANGE Note.5		13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V			
OUTPUT	CURRENT ADJ. RANGE			potentiometer			T			1			
		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%			
	SETUP, RISE TIME Note.7	2500ms, 50m	2500ms, 50ms at full load 230VAC / 115VAC ; B type 2500ms, 200ms at 95% load 230VAC / 115VAC										
	HOLD UP TIME (Typ.)	12ms at full lo	ad 230VAC	/ 115VAC									
	VOLTAGE RANGE Note.4	90 ~ 305VAC	127 ~ 43	1VDC									
	FREQUENCY RANGE	47 ~ 63Hz											
	POWER FACTOR (Typ.)	PF>0.98/115\	/AC, PF>0.95/2	230VAC, PF>0	.93/277VAC at	full load (Pleas	se refer to "Pow	er Factor Cha	racteristic" cur	ve)			
INPUT	EFFICIENCY (Typ.)	92%	92%	93%	93%	93%	93%	93%	93.5%	93.5%			
	AC CURRENT (Typ.)	1.4A / 115VAC											
	INRUSH CURRENT (Typ.)	COLD START 75A/230VAC											
	LEAKAGE CURRENT	<0.75mA/27	7VAC										
	OVED CURRENT	95~108%											
	OVER CURRENT	Protection type: Constant current limiting, recovers automatically after fault condition is removed											
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed											
PROTECTION		14 ~ 17V	18 ~ 21V	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V			
	OVER VOLTAGE	Protection typ	e : Shut down	o/p voltage wit	h auto-recover	y or re-power o	n to recovery			<u>'</u>			
		85°C ±10°C (RTH2)											
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, recovers automatically after temperature goes down											
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")											
	WORKING HUMIDITY	20 ~ 95% RH non-condensing											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH											
LITTINONIILIT	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)											
	VIBRATION	- (	/	olo pariod for	72min oach ald	ong Y V 7 ayo	•						
	VIDICATION	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	-				\\\\ C							
EMC				G:1.88KVAC									
EIVIC	ISOLATION RESISTANCE	,		00M Ohms / 50			O /> F00/	1I) FN040	00.0.0				
	EMC EMISSION			,		:N61000-3-2 C	,						
	EMC IMMUNITY	· ·				5024, light indu	ıstry level (surç	ge 4KV), criter	Ia A				
	MTBF	192.2Khrs mi		K-217F (25°€)									
OTHERS	DIMENSION	220*68*38.8r		NIET.									
	PACKING	0	s/14.4Kg/0.740										
NOTE	<ol> <li>1. All parameters NOT specia</li> </ol>	ally mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.											

#### NOTE

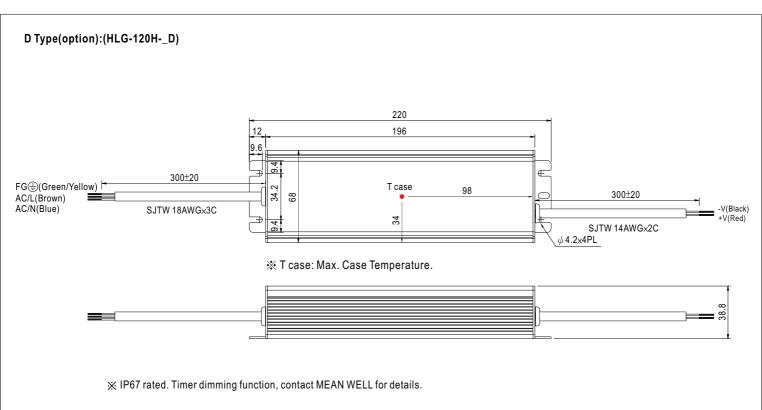
- 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. Derating may be needed under low input voltages. Please check the static characteristics for more details.
- 5. Type A only.
- 6. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18.
- 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.
- 9. Refer to warranty statement

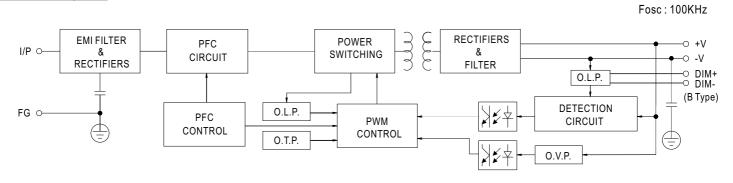


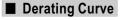




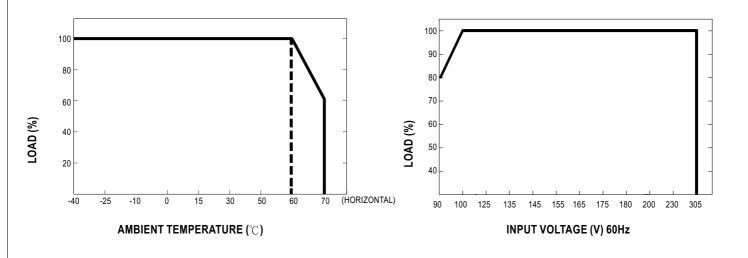






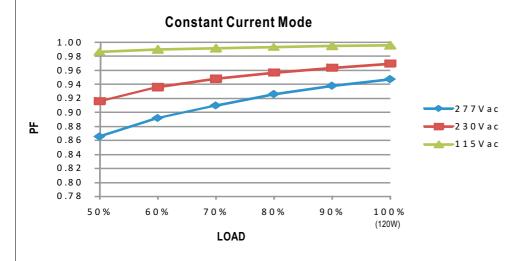


# **■** Static Characteristics



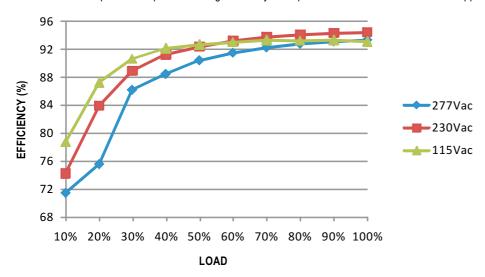


## **■** Power Factor Characteristic



## **■** EFFICIENCY vs LOAD (48V Model)

HLG-120H series possess superior working efficiency that up to 93.5% can be reached in field applications.

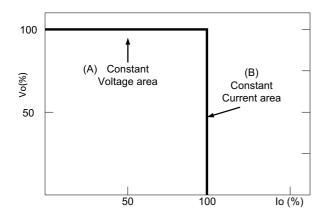


## ■ DRIVING METHODS OF LED MODULE

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.

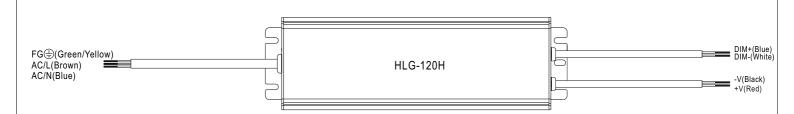
Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode (with LED driver, at area (A) and CC mode (direct drive, at area (B).



Typical LED power supply I-V curve



### **■** DIMMING OPERATION



- ※ Please DO NOT connect "DIM-" to "-V".
- X Reference resistance value for output current adjustment (Typical)

Resistance value	10ΚΩ	<b>20K</b> Ω	<b>30K</b> Ω	<b>40K</b> Ω	<b>50K</b> Ω	<b>60K</b> Ω	<b>70K</b> Ω	<b>80K</b> Ω	90ΚΩ	<b>100K</b> Ω	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

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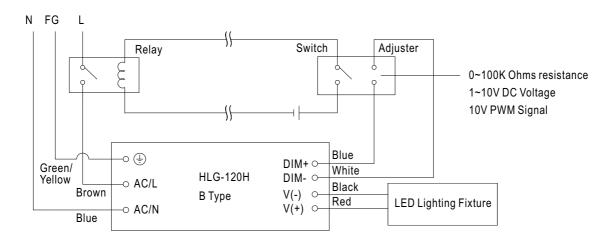
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

#### \* 10V PWM signal for output current adjustment (Typical): Frequency range: 100Hz ~ 3KHz

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.
- \*Direct 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.

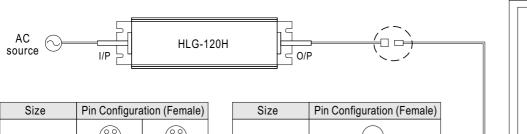
- 1.Output constant current level can be adjusted through output cable by connecting a resistance or 1~10Vdc or 10V PWM signal between DIM+ and DIM-.
- 2. The LED lighting fixture can be turned ON/OFF by the switch.



## **■** WATERPROOF CONNECTION

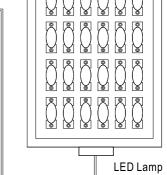
### Waterproof connector

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

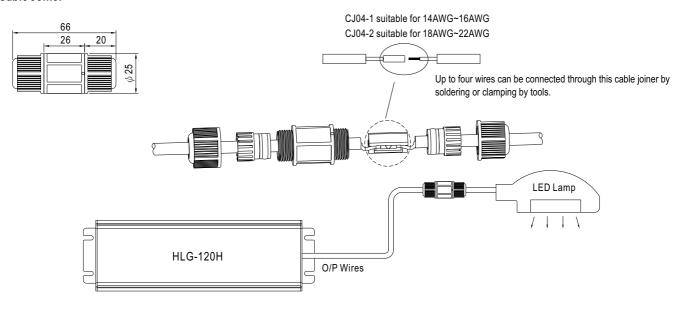


Size	Pin Configuration (Female)						
M12	000	000					
IVITZ	4-PIN	5-PIN					
	5A/PIN	5A/PIN					
Order No.	M12-04	M12-05					
Suitable Current	10A max.	10A max.					

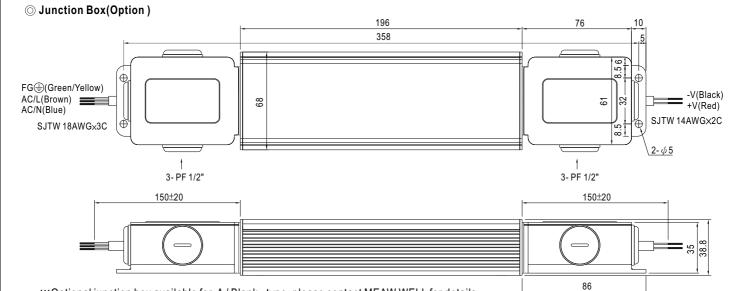
Size	Pin Configuration (Female)					
M45	$\odot$					
M15	2-PIN					
	12A/PIN					
Order No.	M15-02					
Suitable Current	12A max.					



### O Cable Joiner



%CJ04 cable joiner can be purchased independently for user's own assembly. MEAN WELL order No. : CJ04-1, CJ04-2.



\*\*Optional junction box available for A/Blank-type, please contact MEAW WELL for details.