



#### Features:

- Universal AC input / Full range (up to 305VAC)
- · Built-in active PFC function
- 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
- "UL8750 listed" safety approved for HLG-80H
  BL
- · Class 2 power unit
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and moving sign applications
- · Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 5 years warranty (Note.10)













HLG-80H-12 A 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.
- BL (option): Contact MEAN WELL for details.
- D (option): IP67 rated. Timer dimming function, contact MEAN WELL for details.

#### **SPECIFICATION**

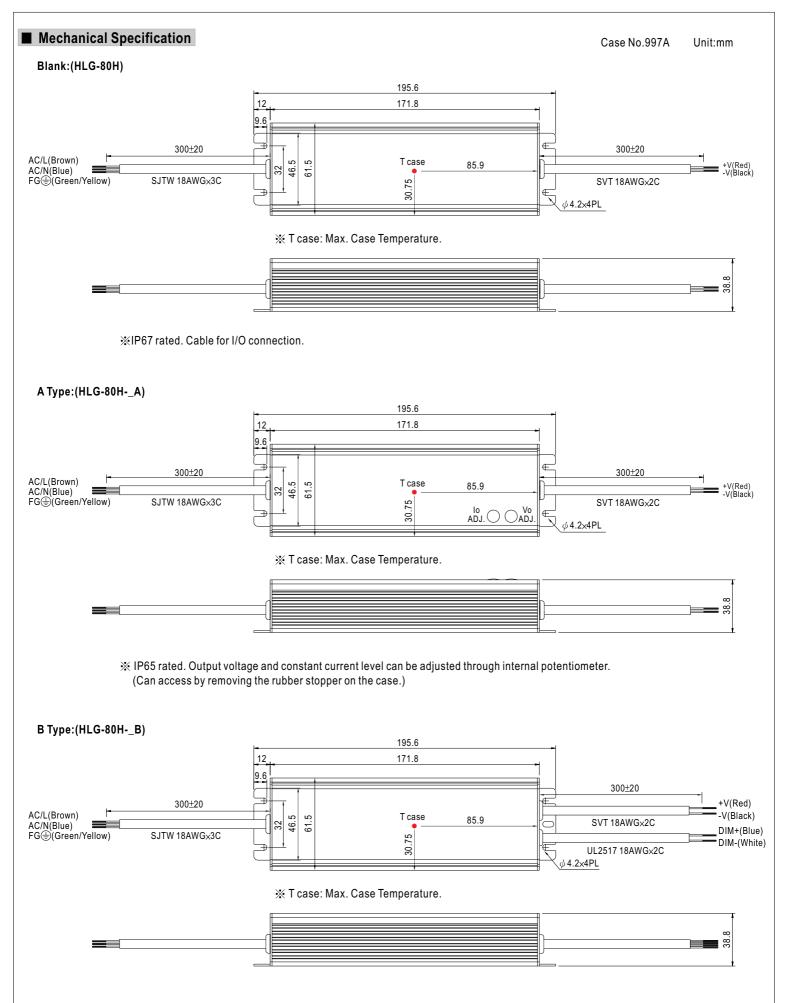
3 ~ 5A  ote.3 ±2.5% ±0.5% ±0.5% ±2.0%  lote.8 2000ms, 80ms 16ms at full lc  ote.5 90 ~ 305VAC 47 ~ 63Hz PF>0.96/115' 88% 0.85A / 115V/	3~5A ±2.0% ±0.5% ±1.5% s/115VAC at fu ad 230VAC 127~43 VAC, PF>0.96/	/115VAC	2.04 ~ 3.4A ±1.0% ±0.5% ±0.5%	1.62 ~ 2.7A ±1.0% ±0.5% ±0.5%	36V 21.6 ~ 36V 2.3A 82.8W 200mVp-p 33 ~ 40V 1.38 ~ 2.3A ±1.0% ±0.5% d ; B type 200	42V 25.2 ~ 42V 1.95A 81.9W 200mVp-p 38 ~ 46V 1.17 ~ 1.95A ±1.0% ±0.5% ±0.5% 0ms, 200ms at 1	48V 28.8 ~ 48V 1.7A 81.6W 200mVp-p 43 ~ 53V 1.02 ~ 1.7A ±1.0% ±0.5%	54V 32.4 ~ 54V 1.5A 81W 200mVp-p 49 ~ 58V 0.9 ~ 1.5A ±1.0% ±0.5% ±0.5%								
5A 60W lote.2 150mVp-p ote.6 10.8 ~ 13.5V Can be adjus 3 ~ 5A ote.3 ±2.5% ±0.5% ±2.0% lote.8 2000ms, 80ms 16ms at full lc ote.5 90 ~ 305VAC 47 ~ 63Hz PF>0.96/115V 88% 0.85A / 115V	5A  75W  150mVp-p  13.5 ~ 17V  ted by internal  3 ~ 5A  ±2.0%  ±0.5%  ±1.5%  s/115VAC at fu  ad 230VAC  127 ~ 43	4A 80W 150mVp-p 17 ~ 22V potentiometer of 2.4 ~ 4A ±1.0% ±0.5% ±1.0% Ilload 100 //115VAC	3.4A 81.6W 150mVp-p 22 ~ 27V or through outs 2.04 ~ 3.4A ±1.0% ±0.5% ±0.5%	2.7A 81W 200mVp-p 27 ~ 33V out cable 1.62 ~ 2.7A ±1.0% ±0.5%	2.3A 82.8W 200mVp-p 33 ~ 40V 1.38 ~ 2.3A ±1.0% ±0.5%	1.95A 81.9W 200mVp-p 38~46V 1.17~1.95A ±1.0% ±0.5% ±0.5%	1.7A 81.6W 200mVp-p 43 ~ 53V 1.02 ~ 1.7A ±1.0% ±0.5%	1.5A 81W 200mVp-p 49 ~ 58V 0.9 ~ 1.5A ±1.0% ±0.5%								
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16ms at full lo ote.5 90 ~ 305VAC 47 ~ 63Hz PF>0.96/115 88% 0.85A / 115VA	230VAC 127 ~ 43 VAC, PF>0.96/	/115VAC	,		7, 7,		95% load 230	OVAC / 115VA								
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88% 0.85A / 115V																
88% 0.85A / 115V		PF>0.96/115VAC, PF>0.96/230VAC, PF>0.94/277VAC at full load (Please refer to "Power Factor Characteristic" curve)														
0.85A / 115V																
	0.85A / 115VAC															
COLD STAR	COLD START 70A/230VAC															
	<0.75mA / 277VAC															
	95~108%															
ote.4	na · Constant c	urrent limiting	recovere autor	natically after fa	ault condition i	e removed										
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· ·					41 ~ 49V	48 ~ 58V	54 ~ 63V	59 ~ 68V								
Protection type	ne : Shut down		-power on to re	ecover												
	85℃±10℃ (RTH2)															
	Protection type : Shut down o/p voltage, re-power on to recover															
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	14 ~ 17V  Protection tyl  85° ±10° C (  Protection tyl  -40 ~ +70° C (  20 ~ 95% RH  ITY -40 ~ +80° C,  ±0.03%/° C (  10 ~ 500Hz, t  UL8750, CS/ EN61347-1, E  NP-O/P, I/P-I  Compliance t  Compliance t  357.8Khrs mi  195.6*61.5*3  0.84Kg; 16pc  Decially mentioned	14 ~ 17V	14 ~ 17V	14 ~ 17V	Protection type: Shut down o/p voltage, re-power on to recover  85°C±10°C (RTH2)  Protection type: Shut down o/p voltage, re-power on to recover  -40 ~ +70°C (Refer to "Derating Curve")  20 ~ 95% RH non-condensing  ITY -40 ~ +80°C, 10 ~ 95% RH  ±0.03%/°C (0 ~ 60°C)  10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axe UL8750, CSA C22.2 No. 250.0-08(except for HLG-80H-48/54V & HLG-8 EN61347-1, EN61347-2-13 independent, J61347-1, J61347-2-13, IP65 or  I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC  : I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  Compliance to EN55015, EN61000-3-2 Class C (≥ 60% load); EN6100  Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light indu 357.8Khrs min. MIL-HDBK-217F (25°C)  195.6*61.5*38.8mm (L*W*H)  0.84Kg; 16pcs/14.4Kg/0.54CUFT  Decially mentioned are measured at 230VAC input, rated load and 25°C of a	14 ~ 17V	14 ~ 17V	14 ~ 17V								

- 4. Constant current operation region is within 60% ~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.

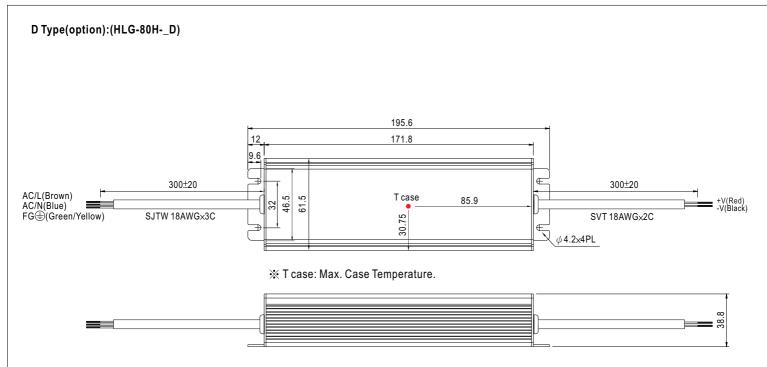
  5. Derating may be needed under low input voltages. Please check the static characteristics for more details.

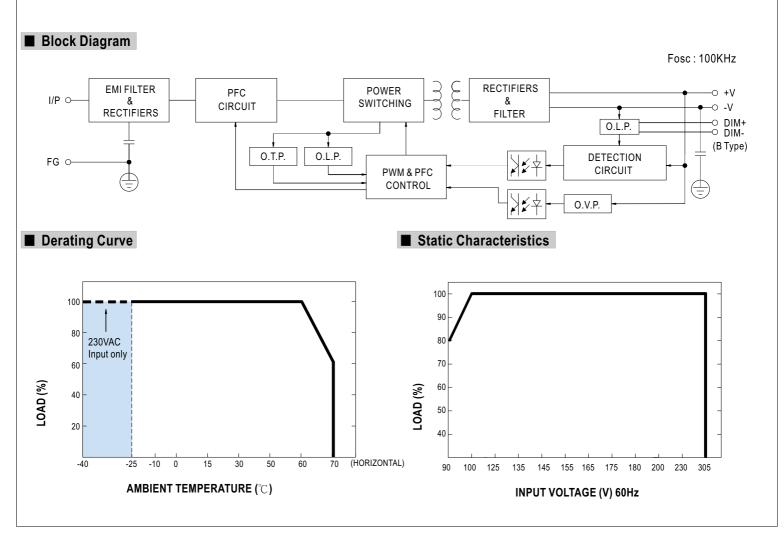
- Type A only.
   Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18.
- 8. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.
- The power supply is considered as a component that will be operated in combination 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.
- 10. Refer to warranty statement.





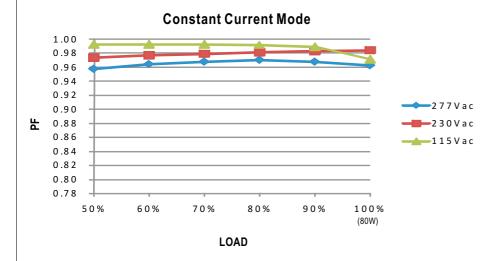






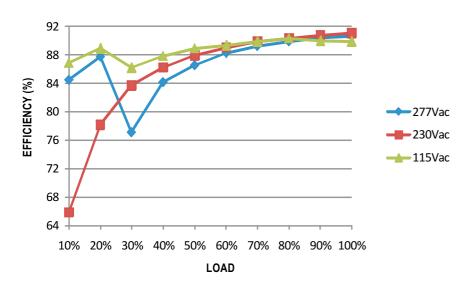


## ■ Power Factor Characteristic



## ■ EFFICIENCY vs LOAD (48V Model)

HLG-80H series possess superior working efficiency that up to 91% can be reached in field applications.

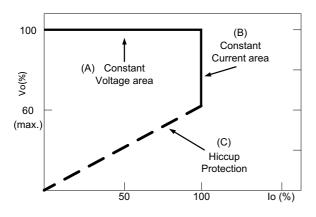


# ■ DRIVING METHODS OF LED MODULE

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**



- $\frak{\ensuremath{\bowtie}}$  Please DO NOT connect "DIM-" to "-V".
- X Reference resistance value for output current adjustment (Typical)

Resistance	Single driver	<b>10K</b> Ω	<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
value	Multiple drivers	10KΩ/N	20K Ω/N	30KΩ/N	40K Ω/N	50KΩ/N	60KΩ/N	70KΩ/N	80KΩ/N	90KΩ/N	100KΩ/N	
Percentag	e of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

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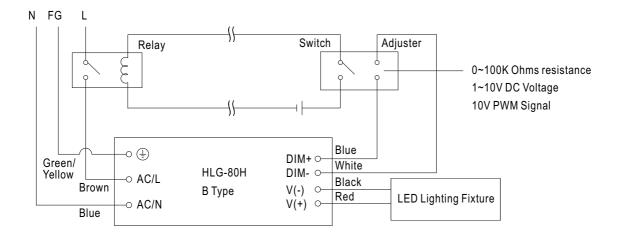
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

### \* 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.
- 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.

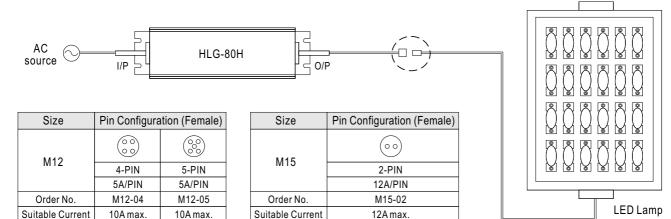


## ■ WATERPROOF CONNECTION

### Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-80H to operate in dry/wet/damp or outdoor environment.

Suitable Current

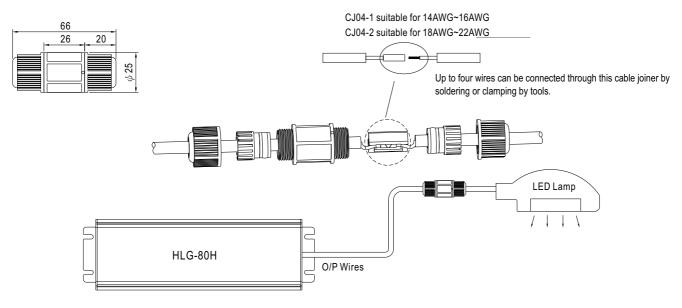


12A max

## O Cable Joiner

10A max

10A max.



XCJ04 cable joiner can be purchased independently for user's own assembly. MEAN WELL order No.: CJ04-1, CJ04-2.

