



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

TAIWAN

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.

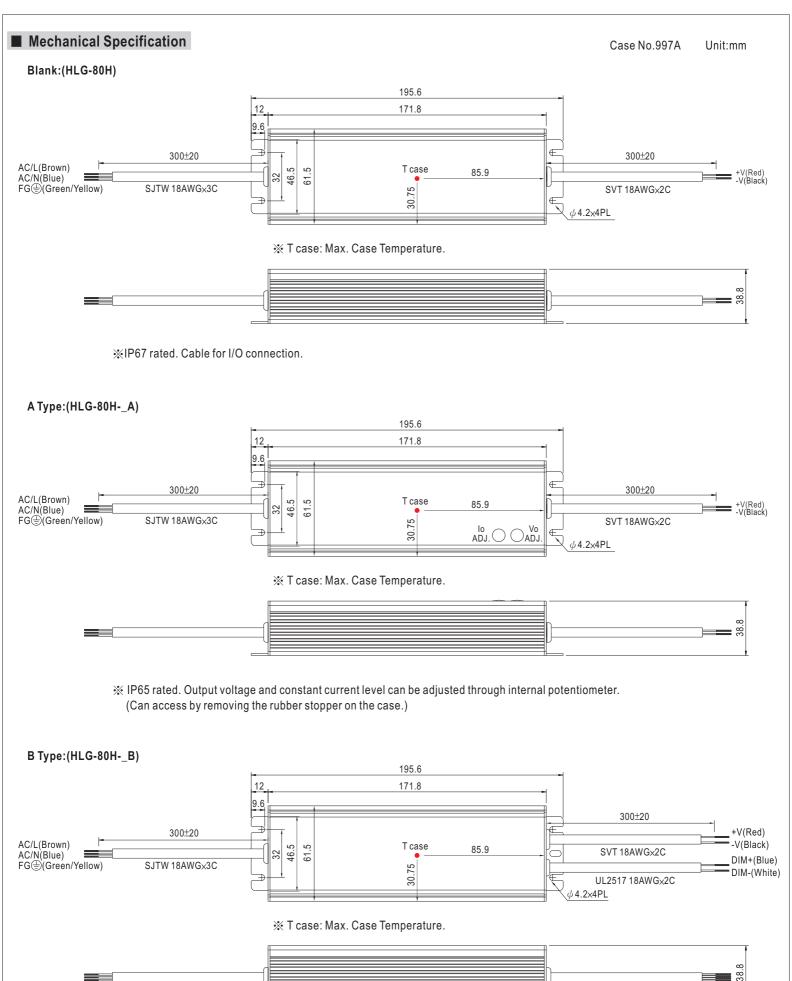
D (option): IP67 rated. Timer dimming function, contact MEAN WELL for details.

SPECIFICATION

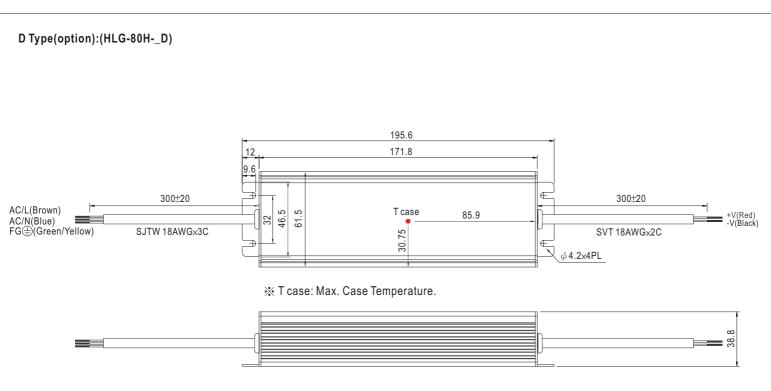
MODEL		HLG-80H-12	HLG-80H-15	HLG-80H-20	HLG-80H-24	HLG-80H-30	HLG-80H-36	HLG-80H-42	HLG-80H-48	HLG-80H-54				
DC VOLTAGE		12V	15V	20V	24V	30V	36V	42V	48V	54V				
	CONSTANT CURRENT REGION Note.4	7.2 ~12V	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V				
	RATED CURRENT	5A	5A	4A	3.4A	2.7A	2.3A	1.95A	1.7A	1.5A				
	RATED POWER	60W	75W	80W	81.6W	81W	82.8W	81.9W	81.6W	81W				
	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.6	10.8 ~ 13.5V	13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V				
OUTPUT	CURRENT AR L RANGE	Can be adjust	ed by internal p	potentiometer /	A type only									
	CURRENT ADJ. RANGE	3 ~ 5A	3 ~ 5A	2.4 ~ 4A	2.04 ~ 3.4A	1.62 ~ 2.7A	1.38 ~ 2.3A	1.17 ~ 1.95A	1.02 ~ 1.7A	0.9 ~ 1.5A				
	VOLTAGE TOLERANCE Note.3	±2.5%	±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%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%				
	SETUP, RISE TIME Note.8	2000ms, 80ms	/ 115VAC at fu	II load 100	0ms, 80ms / 23	0VAC at full load	d ; B type 200	0ms, 200ms at	95% load 230	VAC / 115VAC				
	HOLD UP TIME (Typ.)	16ms at full lo	ad 230VAC		·									
		90 ~ 305VAC	127 ~ 43	1VDC										
	FREQUENCY RANGE	47 ~ 63Hz												
	POWER FACTOR (Typ.)	PF>0.96/115\	acteristic" curv	re)										
INPUT	EFFICIENCY (Typ.)	88%	89%	90%	90.5%	91%	91%	91%	91%	91%				
	AC CURRENT (Typ.)	0.85A/115VAC												
	INRUSH CURRENT (Typ.)	COLD START 70A(twidth=485µs measured at 50% Ipeak) at 230VAC												
	LEAKAGE CURRENT	<0.75mA/277VAC												
	OVER CURRENT Note.4	95 ~ 108%												
		Protection type : Constant current limiting, recovers automatically after fault condition is removed												
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed												
PROTECTION		14 ~ 17V	18 ~ 24V	23 ~ 30V	28 ~ 35V	35 ~ 43V	41 ~ 49V	48 ~ 58V	54 ~ 63V	59 ~ 68V				
	OVER VOLTAGE	Protection typ	e : Shut down	o/p voltage, re-	-power on to re	cover								
		85°C ±10°C (RTH2)												
	OVER TEMPERATURE	Protection type: Shut down o/p voltage, re-power on to recover												
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")												
	WORKING HUMIDITY	`	non-condensir											
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH												
	TEMP. COEFFICIENT	±0.03%/°C (0~60°C)												
	VIBRATION	10 ~ 500Hz. 5	G 12min./1cvd	cle, period for 7	72min, each ald	ong X. Y. Z axes	 S							
								JL8750 listed fo	or HLG-80H-	BL				
	SAFETY STANDARDS Note.7	UL8750, CSA C22.2 No. 250.0-08(except for HLG-80H-48/54V & HLG-80H-48/54BL), UL8750 listed for HLG-80H-□BL EN61347-1, EN61347-2-13 independent, J61347-1, J61347-2-13, IP65 or IP67 approved; Design refer to UL60950-1, TUV EN60950-1												
SAFETY &	WITHSTAND VOLTAGE			G:2KVAC O				, 0	,					
EMC	ISOLATION RESISTANCE	I/P-O/P. I/P-F	G. O/P-FG:10	00M Ohms / 50	0VDC / 25°C/	70% RH								
	EMC EMISSION	,	•	N61000-3-2 Cla			0-3-3							
	EMC IMMUNITY	-			-			ge 4KV), criter	ia A					
	MTBF	357.8K hrs m		3K-217F (25°C		, 0	, , ,	,,						
OTHERS	DIMENSION		8.8mm (L*W*H		•									
	PACKING		s/14.4Kg/0.540	,										
NOTE					out, rated load	and 25°C of a	ımbient tempe	rature.						
NOTE		 All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 												

- 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. 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.
- A type 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.

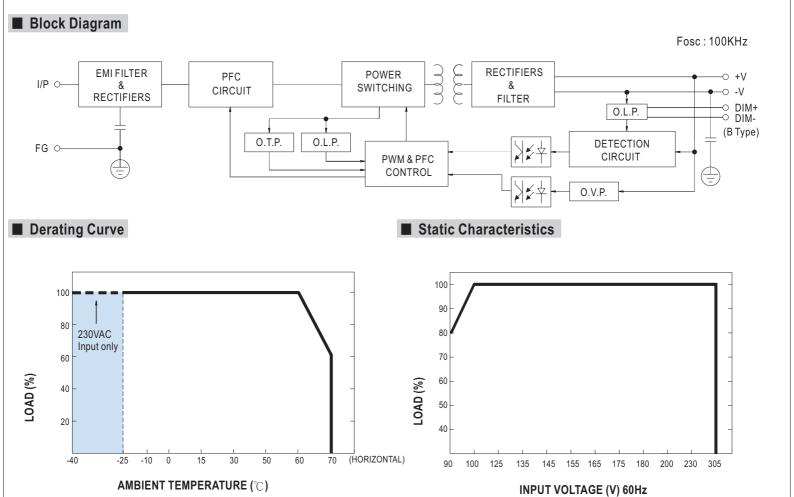






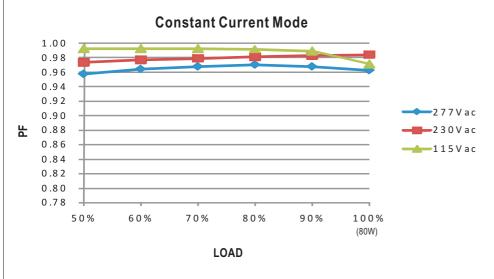


※ IP67 rated. Timer dimming function, contact MEAN WELL for details.



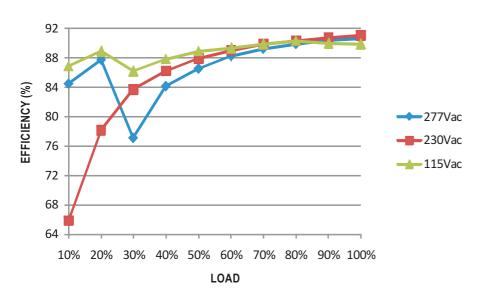


■ Power Factor Characteristic



■ EFFICIENCY vs LOAD (48V Model)

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

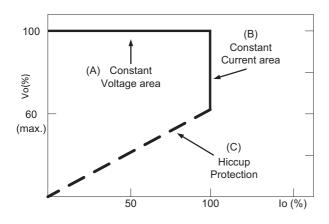


■ DRIVING METHODS OF LED MODULE

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.

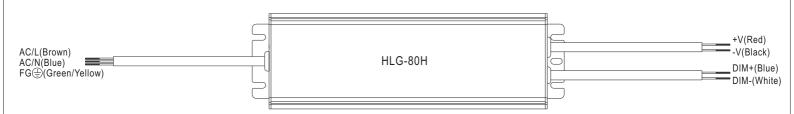
Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



Typical LED power supply I-V curve



■ DIMMING OPERATION



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

Resistance value	Single driver	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60Κ Ω	70K Ω	80K Ω	90K Ω	100K Ω	OPEN
	Multiple drivers (N=driver quantity for synchronized dimming operation)	10KΩ/N	20K Ω /N	30KΩ/N	40KΩ/N	50K Ω /N	60KΩ/N	70KΩ/N	80KΩ/N	90KΩ/N	100KΩ/N	
Percentage of rated current		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

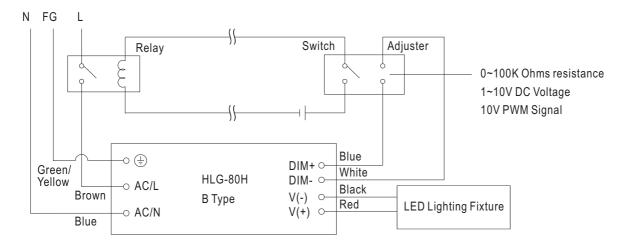
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

* 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.

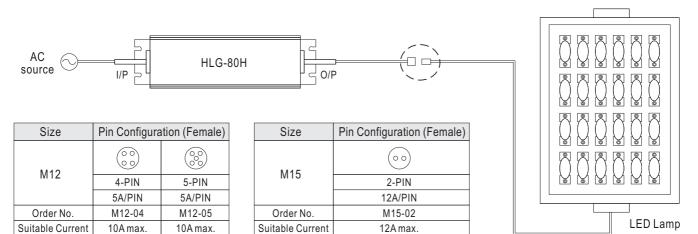
- 1.Output constant current level can be adjusted through output cable by connecting a resistance or 1~10Vdc or 10V PWM signal between DIM+ and DIM-.
- 2. The LED lighting fixture can be turned ON/OFF by the switch.



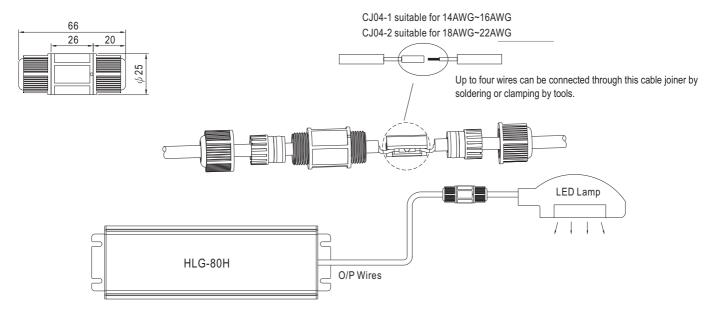
■ WATERPROOF CONNECTION

Waterproof connector

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



O Cable Joiner



**CJ04 cable joiner can be purchased independently for user's own assembly.

