



MEAN WELL HLG-80H Series 80W Constant Voltage Plus Constant Current LED Driver



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Owner's Manual 

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MEAN WELL HLG-80H Series 80W Constant Voltage Plus Constant Current LED Driver



Features

- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Built-in active PFC function
- Class 2 power unit
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming; Timer dimming
- Typical lifetime > 62000 hours
- 7 years warranty

Applications

- LED street lighting
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- LED greenhouse lighting
- Type "HL" for use in Class I , Division 2 hazardous (Classified) location.



GTIN CODE

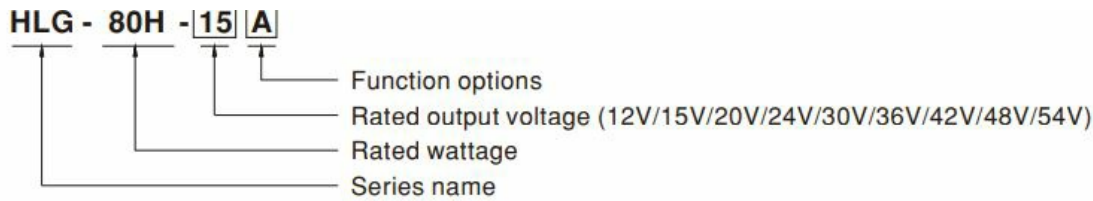
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

Description

HLG-80H series is a 80W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-80H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 91%, with the fanless design, the entire series is able to operate for -40°C ~ +80°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress

protection level allows this series to fit both indoor and outdoor applications. HLG-80H is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

Model Encoding

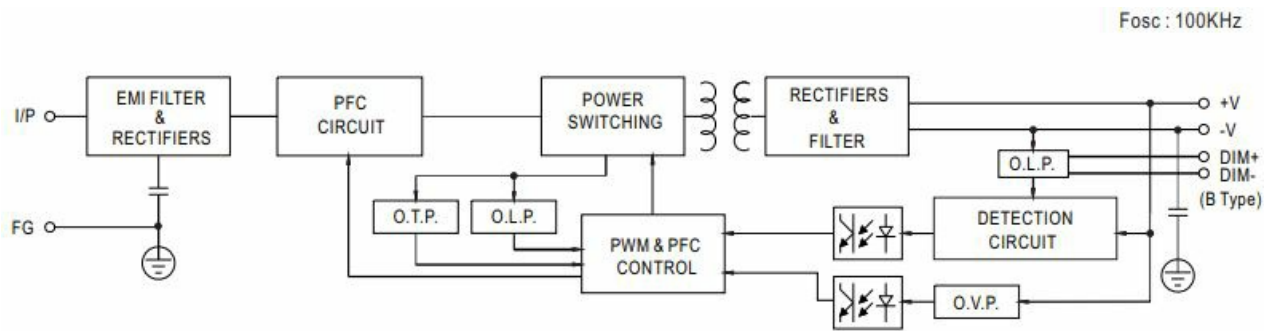


Type	IP Level	Function	Note
Blank	IP67	Io and Vo fixed	In Stock
A	IP65	Io and Vo adjustable through built-in potentiometer	In Stock
B	IP67	3 in 1 dimming function (1~10VDC, 10V PWM signal and resistance)	In Stock
AB	IP65	Io adjustable through built-in potentiometer & 3 in 1 dimming function (1~10Vdc, 10V PWM signal and resistance)	In Stock
BL	IP66	B-Type with junction box. UL8750 LISTED. Contact MEAN WELL for details	By request
D	IP67	Timer dimming function, contact MEAN WELL for details(safety pending).	By request

SPECIFICATION

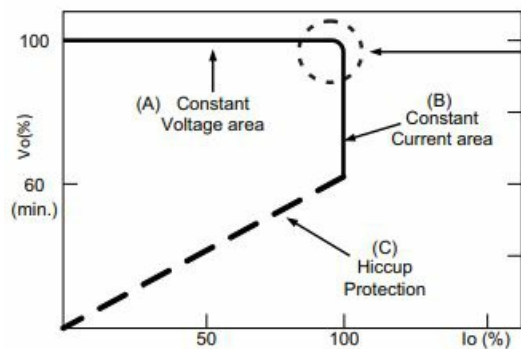
MODEL		HLG-80H-12	HLG-80H-15	HLG-80H-20	HLG-80H-24	HLG-80H-30	HLG-80H-36	HLG-80H-42	HLG-80H-48	HLG-80H-54
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT REGION <small>Note.4</small>	7.2 ~ 12V	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V
	RATED 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.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A-Type only (via built-in potentiometer)								
		10.8 ~ 13.5V	13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via built-in potentiometer)								
		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 <small>Note.3</small>	± 2.5%	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
INPUT	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 <small>Note.6</small>	1200ms, 200ms/115VAC 500ms, 200ms/230VAC								
	HOLD UP TIME (Typ.)	16ms at full load 230VAC /115VAC								
	VOLTAGE RANGE <small>Note.5</small>	90 ~ 305VAC 127 ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" section)								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR (Typ.)	PF ≥ 0.96/115VAC, PF ≥ 0.96/230VAC, PF ≥ 0.94/277VAC @ full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)								
	TOTAL HARMONIC DISTORTION	THD < 20% (@ load ≥ 60% / 115VAC, 230VAC; @ load ≥ 75% / 277VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)								
	EFFICIENCY (Typ.)	88%	89%	90%	90.5%	91%	91%	91%	91%	91%
	AC CURRENT (Typ.)	0.85A / 115VAC 0.425A / 230VAC 0.4A / 277VAC								
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 70A (width=485μs measured at 50% Ipeak) at 230VAC; Per NEMA 410								
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	3 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC								
	LEAKAGE CURRENT	< 0.75mA / 277VAC								
	OVER CURRENT	95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed								
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	14 ~ 17V 18 ~ 24V 23 ~ 30V 28 ~ 35V 35 ~ 43V 41 ~ 49V 48 ~ 58V 54 ~ 63V 59 ~ 68V Shut down o/p voltage, re-power on to recover								
PROTECTION	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover								

BLOCK DIAGRAM



DRIVING METHODS OF LED MODULE

This series is able to work in either Constant Current mode (a direct drive way) or Constant Voltage mode (usually through additional DC/DC driver) to drive the LEDs.



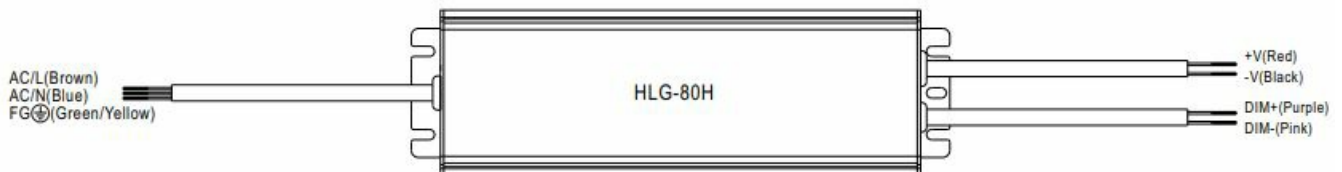
Typical output current normalized by rated current (%)

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact MEAN WELL.

Typical output current normalized by rated current (%)

DIMMING OPERATION

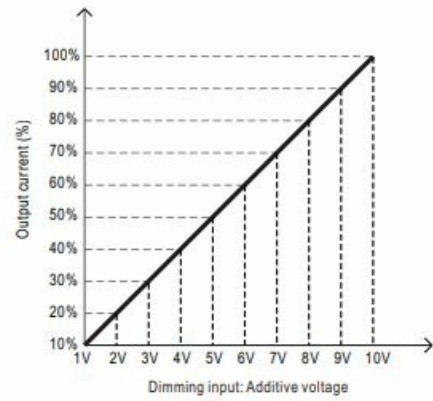
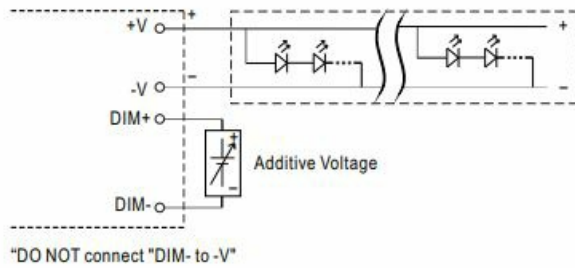


3 in 1 dimming function (for B/AB-Type)

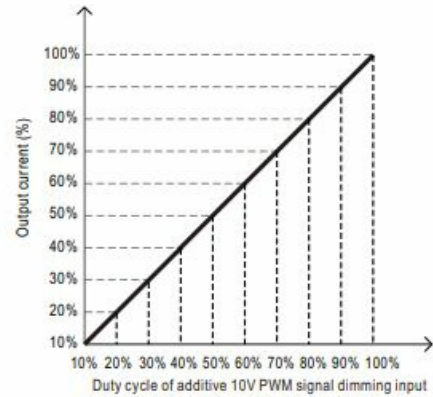
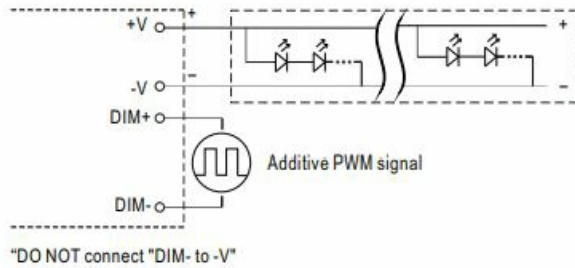
- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 1 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100 μ A (typ.)

Applying additive 1 ~ 10VDC

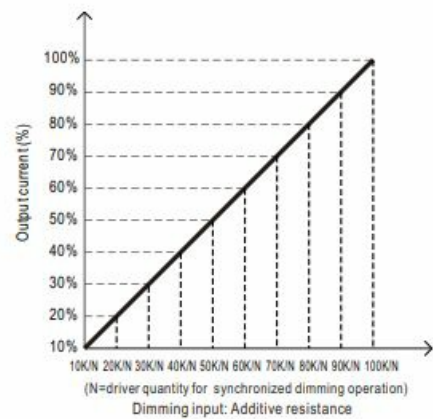
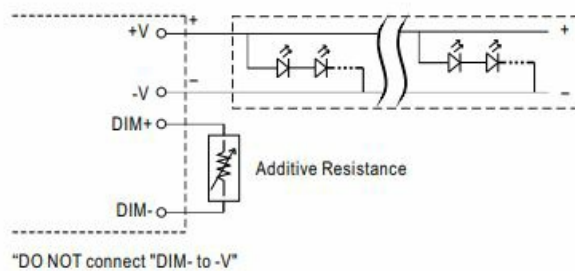
◎ Applying additive 1 ~ 10VDC



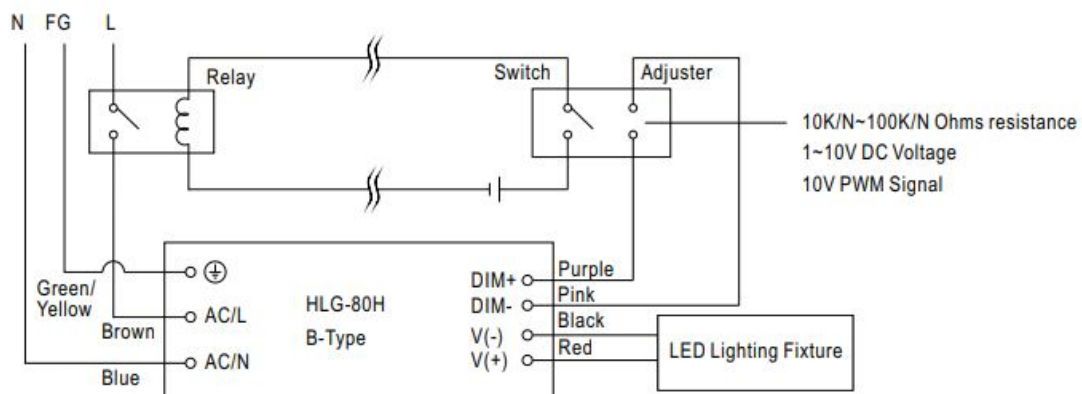
◎ Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):



◎ Applying additive resistance:



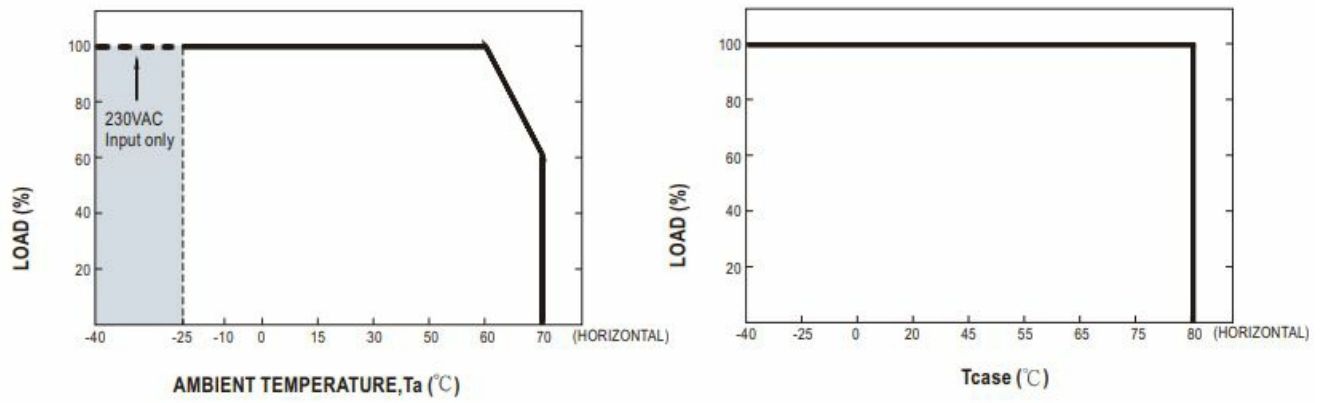
Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.



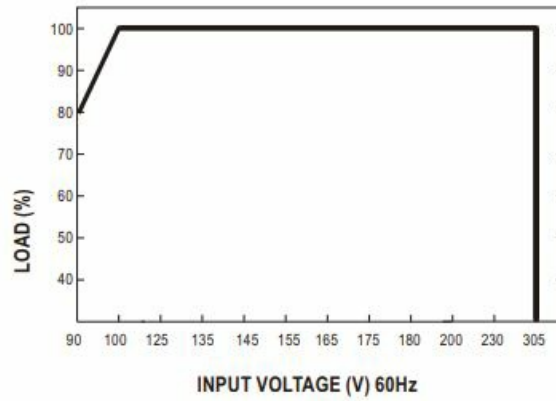
Using a switch and relay can turn ON/OFF the lighting fixture.

OUTPUT LOAD vs TEMPERATURE

(Note.10)



STATIC CHARACTERISTICS

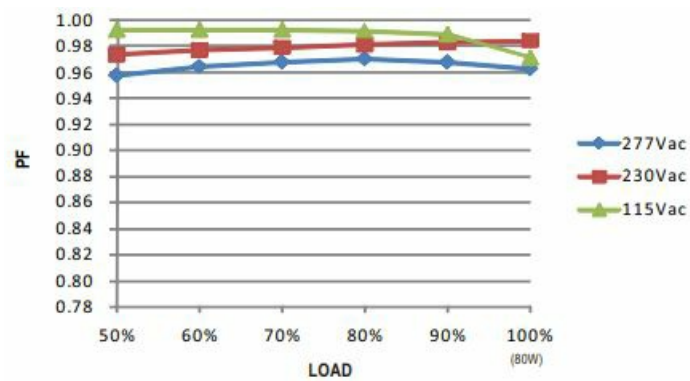


De-rating is needed under low input voltage.

TOTAL HARMONIC DISTORTION

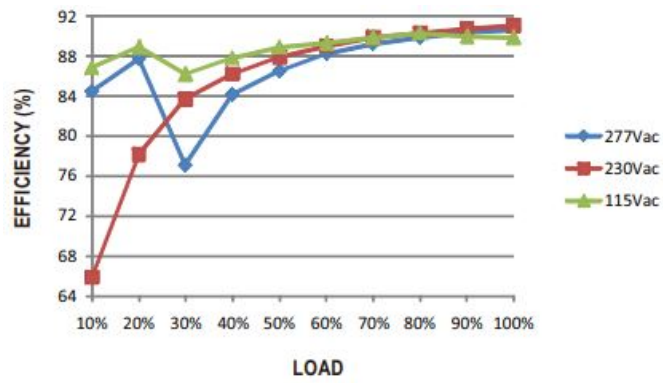
(THD)

48V Model, T_{case} at 70°C



POWER FACTOR(PF) CHARACTERISTIC

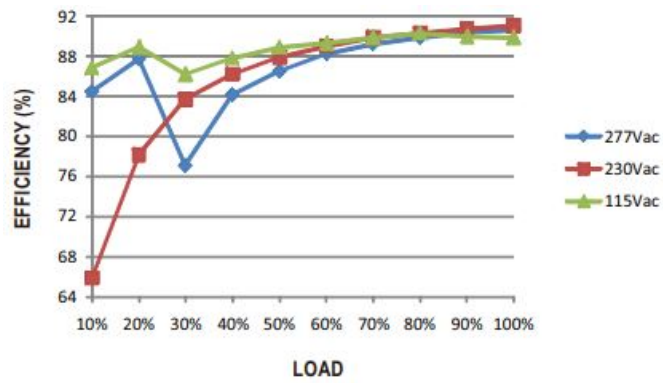
T_{case} at 70°C



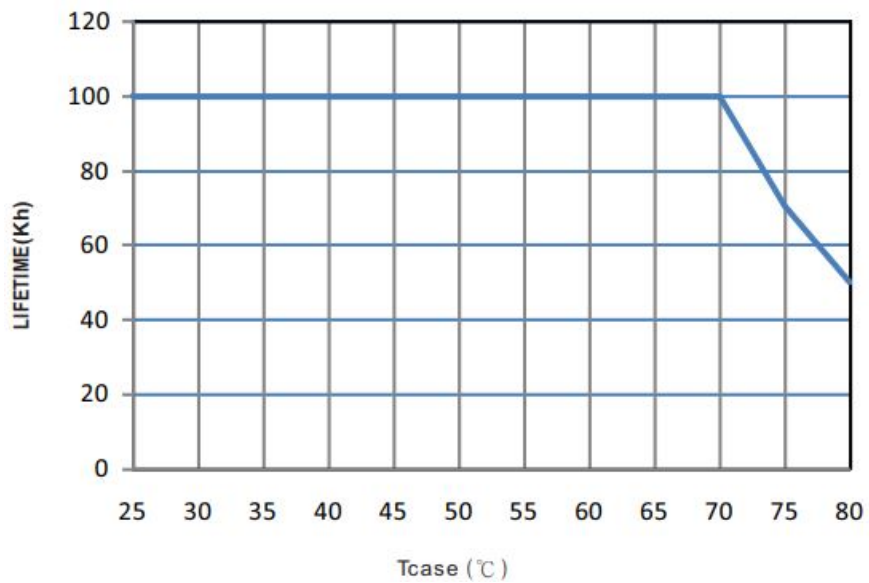
EFFICIENCY vs LOAD

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

48V Model, Tcase at 70°C



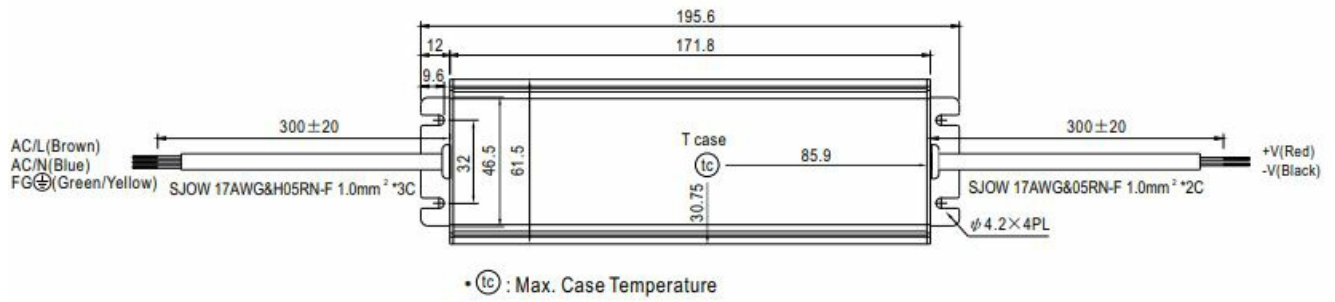
LIFE TIME



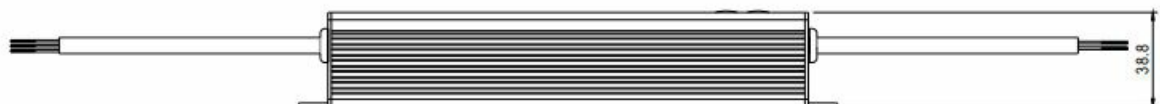
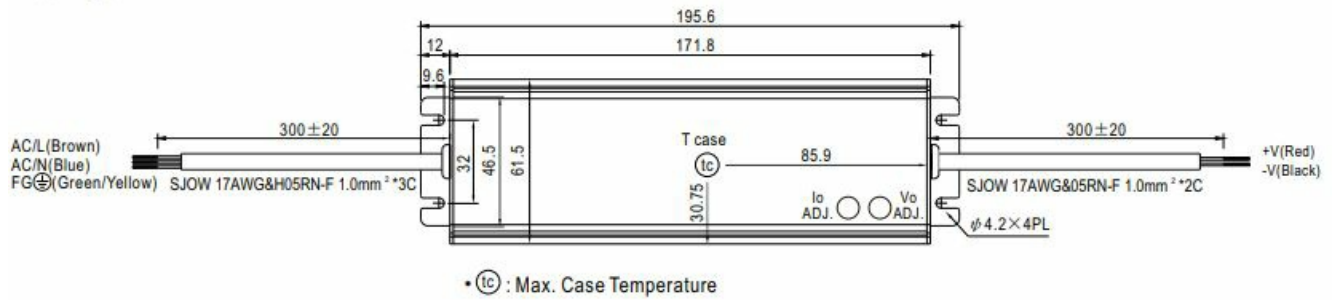
MECHANICAL SPECIFICATION

Blank/D-Type

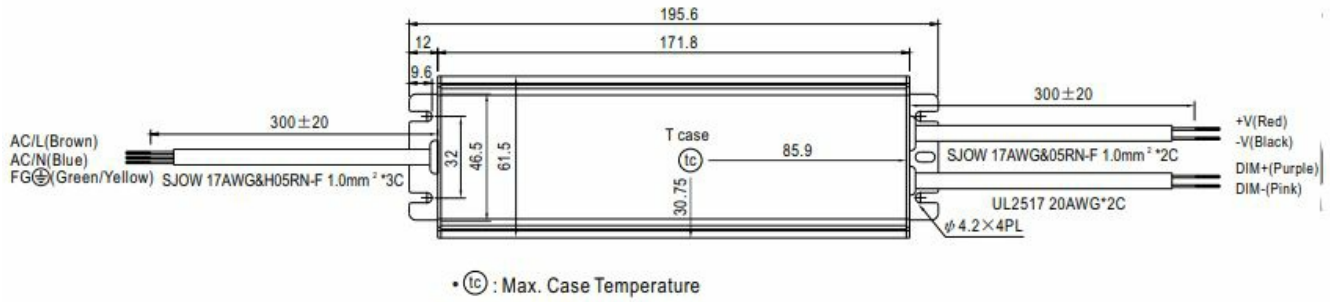
※Blank/D-Type



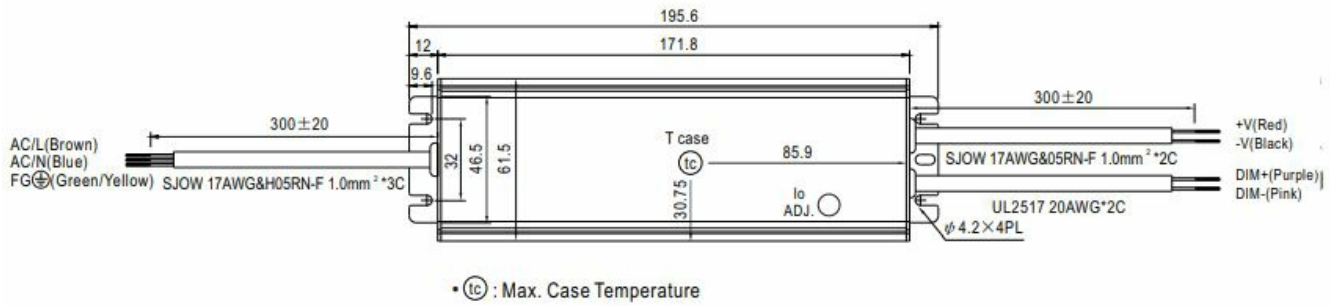
※A-Type



※B-Type



※AB-Type

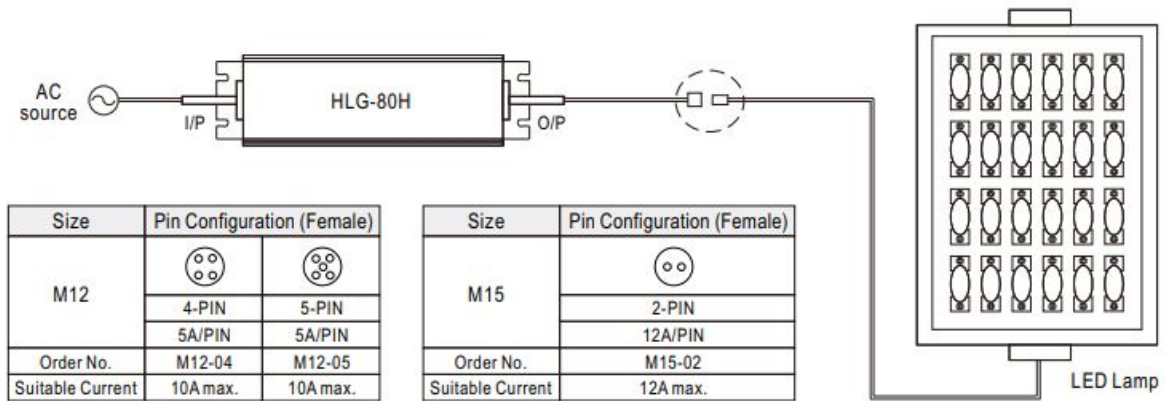


WATERPROOF CONNECTION

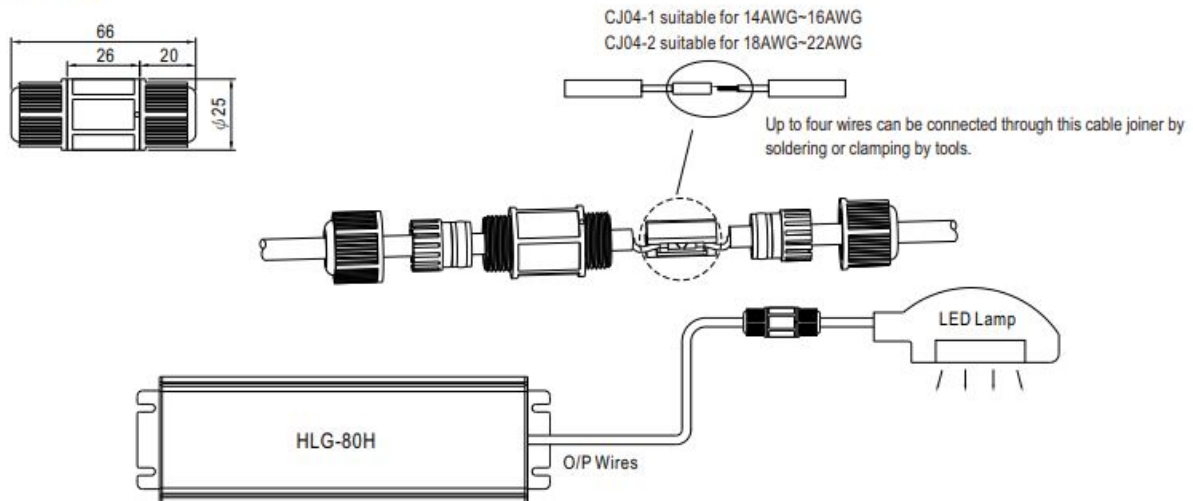
Waterproof connector can be assembled on the output cable of HLG-80H to operate in dry/wet/damp or outdoor environment.

※ Waterproof connector

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



※ Cable Joiner

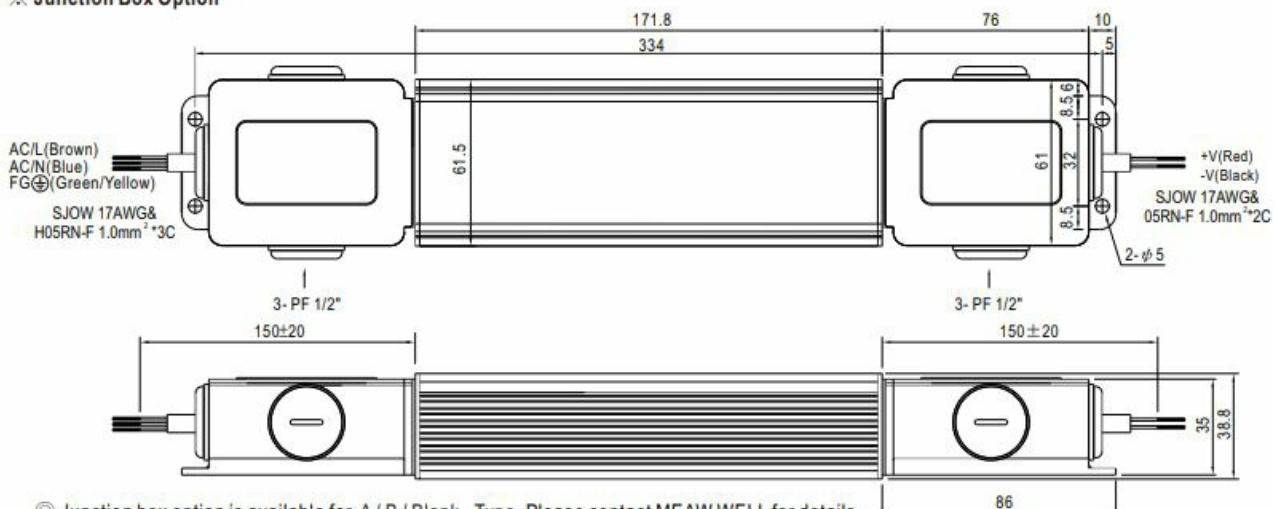


- CJ04 cable joiner can be purchased independently for user's own assembly.
MEAN WELL order No. : CJ04-1, CJ04-2.

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

Junction Box Option

※ Junction Box Option



- Junction box option is available for A / B / Blank - Type. Please contact MEAN WELL for details.
- HLG-80H-□BL models with junction box on both input and output sides are UL LISTED approved(modified by B type only).

Junction box option is available for A / B / Blank – Type. Please contact MEAN WELL for details.
HLG-80H- BL models with junction box on both input and output sides are UL LISTED approved(modified by B

type only).

INSTALLATION MANUAL


Please refer to : <http://www.meanwell.com/manual.html>



Frequently Asked Questions

- **Q: What is the input voltage range for the HLG-80H series?**
 - A: The input voltage range is 90-305VAC or 127-431VDC.
- **Q: Can the output voltage be adjusted?**
 - A: The voltage adjustment range is adjustable for A-Type only via a built-in potentiometer.

Documents / Resources

	<p>MEAN WELL HLG-80H Series 80W Constant Voltage Plus Constant Current LED Driver [pdf] Owner's Manual</p> <p>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, HLG-80H Series 80W Constant Voltage Plus Constant Current LED Driver, HLG-80H Series, 80W Constant Voltage Plus Constant Current LED Driver, Voltage Plus Constant Current LED Driver, Constant Current LED Driver, Current LED Driver, LED Driver, Driver</p>
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References

- [User Manual](#)

[Manuals+](#). [Privacy Policy](#)

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