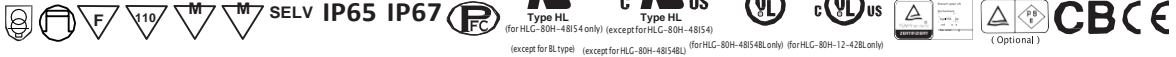




Features :

- Universal AC input I Full range (up to 305VAC)
- Built-in active PFC function
- Protections: Short circuit I Over current I Over voltage I Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP67 I IP65 design for indoor or outdoor installations
- "UL8750 listed" safety approved for HLG-80H □ BL
- Class 2 powerunit
- 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 I damp I wet locations
- Type "HL" for use in class I, Division 2 hazardous(Classified) location luminaires
- 7 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.

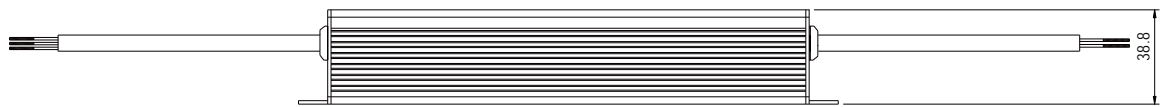
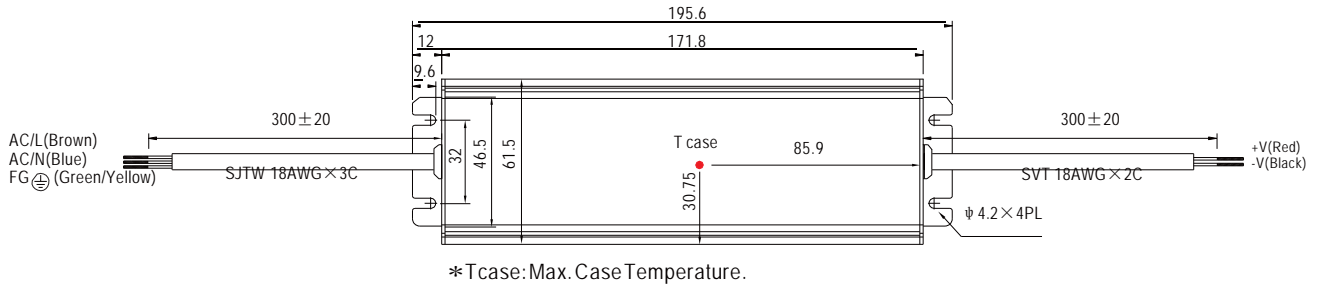
SPECIFICATION

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 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	
	CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer A type only									
	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	1200ms,80ms/115VAC	500ms,80ms/230VAC at full load ; B type 1200ms,200ms/115VAC		500ms,200ms/230VAC at 95% load							
HOLD UP TIME (Typ.)	16ms at full load		230VAC /115VAC								
INPUT	VOLTAGE RANGE Note.5	90 - 305VAC		127 - 431VDC							
	FREQUENCY RANGE	47 - 63Hz									
	POWER FACTOR (Typ.)	PF>0.96/115VAC, PF>0.96/230VAC, PF>0.94/277VAC at full load (Please refer to "Power Factor Characteristic" curve)									
	TOTAL HARMONIC DISTORTION	THD< 20% when output loading ≧ 60% at 115VAC/230VAC input and output loading ≧ 75% at 277VAC input									
	EFFICIENCY (Typ.)	88%	89%	90%	90.5%	91%	91%	91%	91%	91%	
	AC CURRENT (Typ.)	0.85A /115VAC		0.425A /230VAC		0.4A /277VAC					
	INRUSH CURRENT (Typ.)	COLD START 70A(Iwidth=485 μs measured at 50% Ipeak) at 230VAC									
	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										
PROTECTION	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									
	OVER VOLTAGE	14 - 17V	18 - 24V	23 - 30V	28 - 35V	35 - 43V	41 - 49V	48 - 58V	54 - 63V	59 - 68V	
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover									
ENVIRONMENT	WORKING TEMP.	-40 - +70°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 - 95% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 - +80°C, 10 - 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 - 60°C)									
VIBRATION	10 - 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes										
SAFETY & EMC	SAFETY STANDARDS Note.7	UL8750(type"HL"), 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, optional models for J61347-1, J61347-2-13, IP65 or IP67 approved ; Design refer to UL60950-1, TUV EN60950-1									
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		I/P-FG:2KVAC		O/P-FG:1.5KVAC					
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≧ 60% 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 B										
OTHERS	MTBF	357.8K hrs min. MIL-HDBK-217F (25°C)									
	DIMENSION	195.6*61.5*38.8mm (L*W*H)									
	PACKING	0.84Kg; 16pcs/14.4Kg/0.54CUFT									
NOTE	<ol style="list-style-type: none"> 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 47 uF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Please refer to "DRIVING METHODS OF LED MODULE". 5. Derating may be needed under low input voltages. Please check the static characteristics for more details. 6. A type only. 7. 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. 9. 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. 11. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains. 										

Mechanical Specification

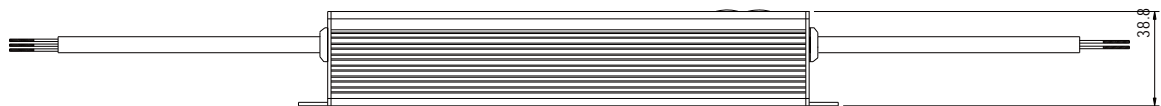
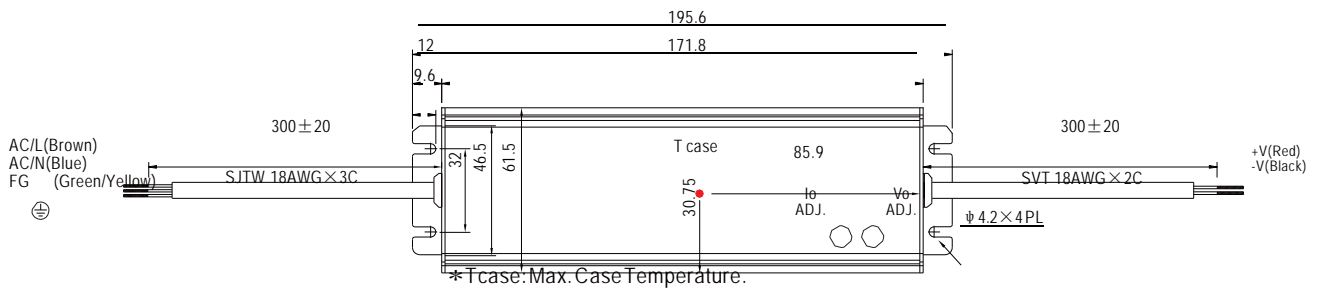
Case No.997A Unit:mm

Blank:(HLG-80H)



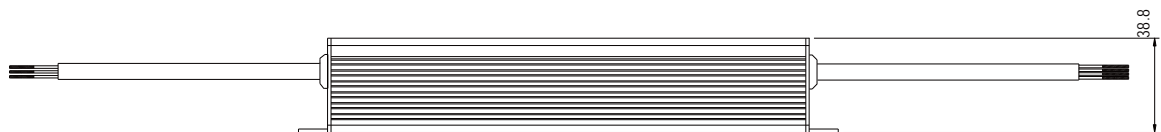
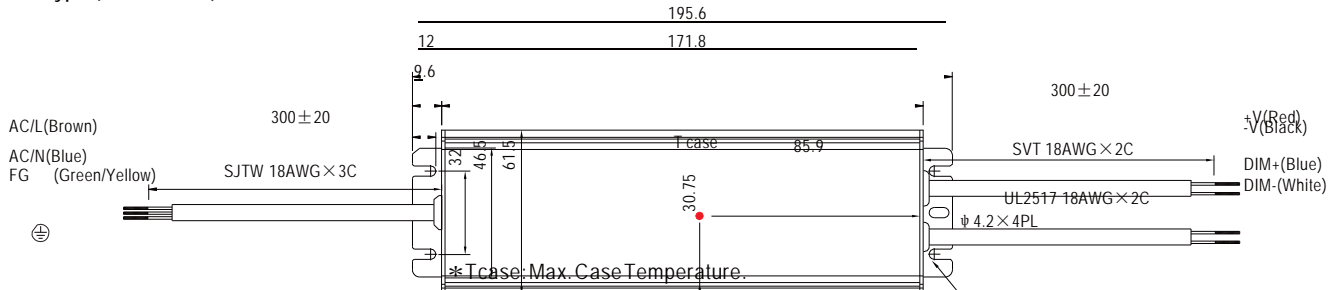
⇒ IP67 rated. Cable for I/O connection.

A Type:(HLG-80H-_A)

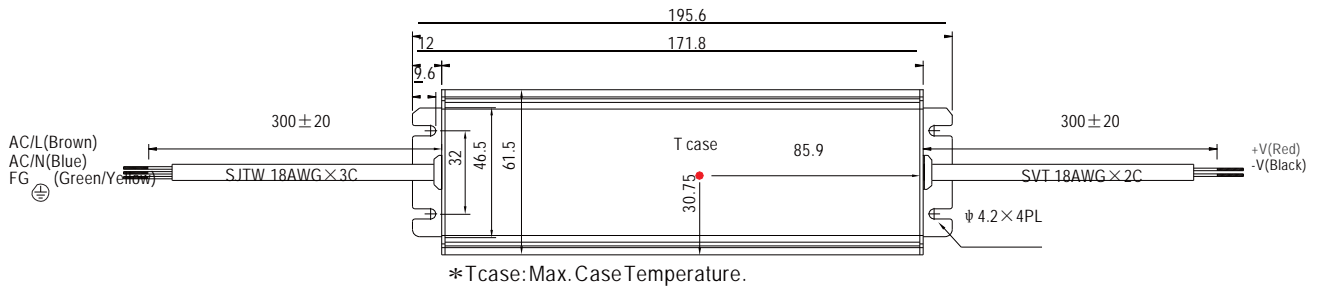


⇒ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer. (Can access by removing the rubber stopper on the case.)

B Type:(HLG-80H-_B)

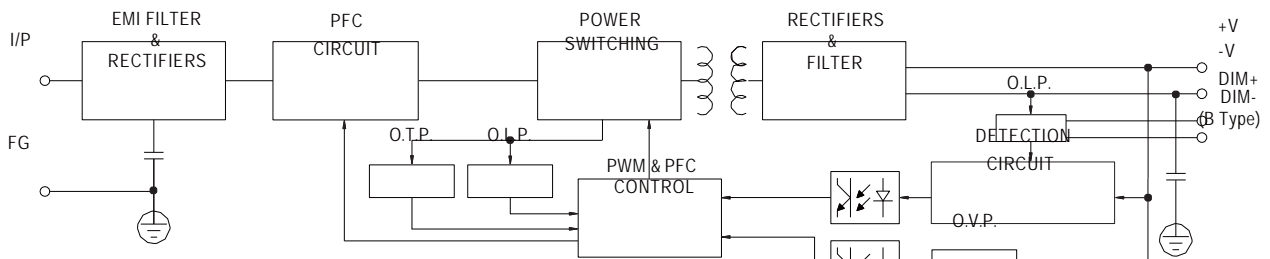


D Type(option):(HLG-80H-_D)

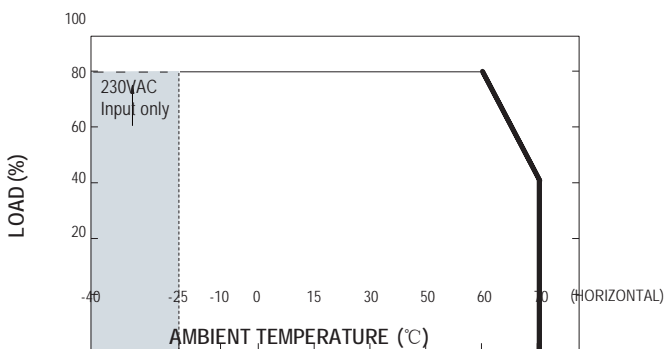


* IP67 rated. Timer dimming function, contact MEAN WELL for details.

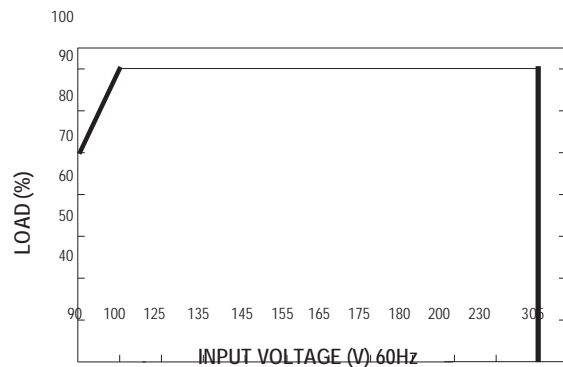
Block Diagram



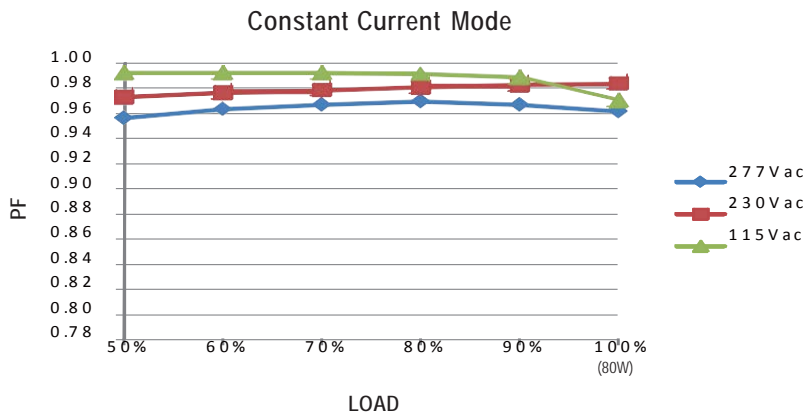
Derating Curve



Static Characteristics

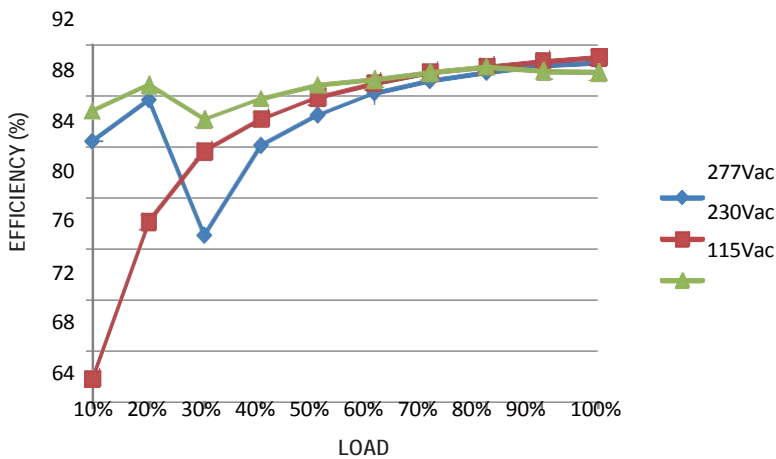


Power Factor Characteristic



EFFICIENCY vs LOAD (48V Model)

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

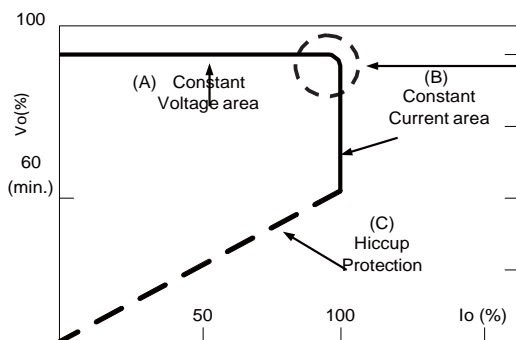


DRIVING METHODS OF LED MODULE

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.

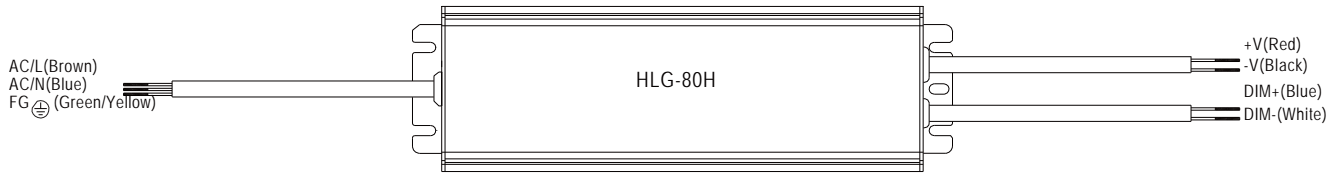
Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



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 MEANWELL.

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".

* Reference resistance value for output current adjustment (Typical)

Resistance value	Single driver	10K Ω	20K Ω	30K Ω	40K Ω	50K Ω	60K Ω	70K Ω	80K Ω	90K Ω	100K Ω	OPEN
	Multiple drivers (N=driver quantity for synchronized dimming operation)	10K Ω /N	20K Ω /N	30K Ω /N	40K Ω /N	50K Ω /N	60K Ω /N	70K Ω /N	80K Ω /N	90K Ω /N	100K Ω /N
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)

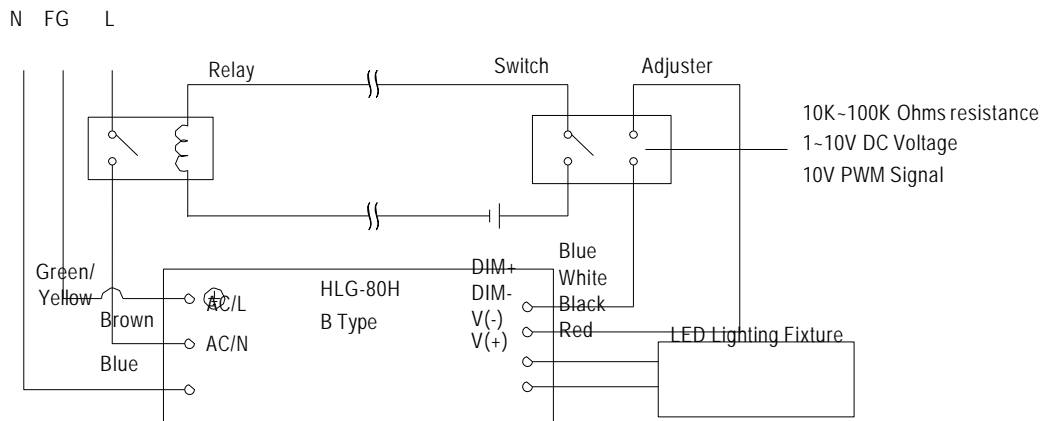
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%-108%

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

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%

※Using 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 :



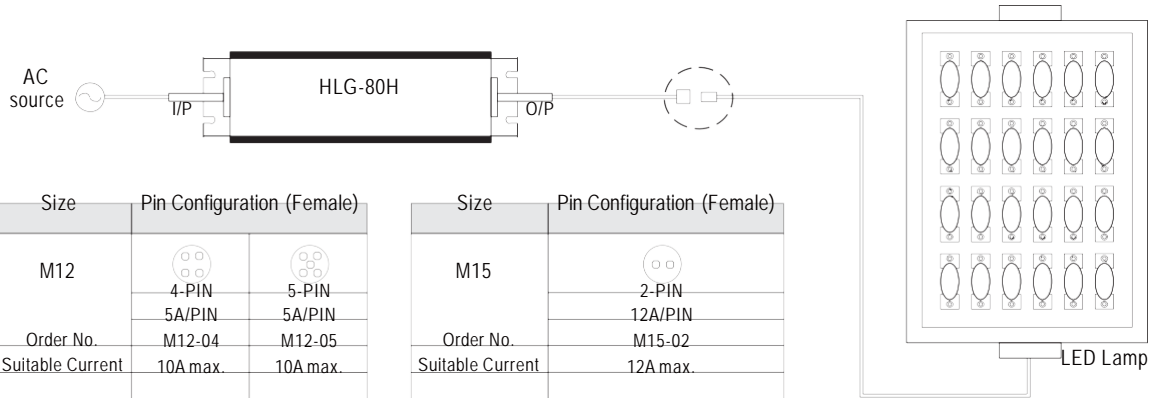
Using a switch and relay can turn ON/OFF the lighting fixture.

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.

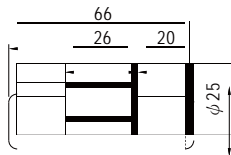
WATERPROOF CONNECTION

Waterproof connector

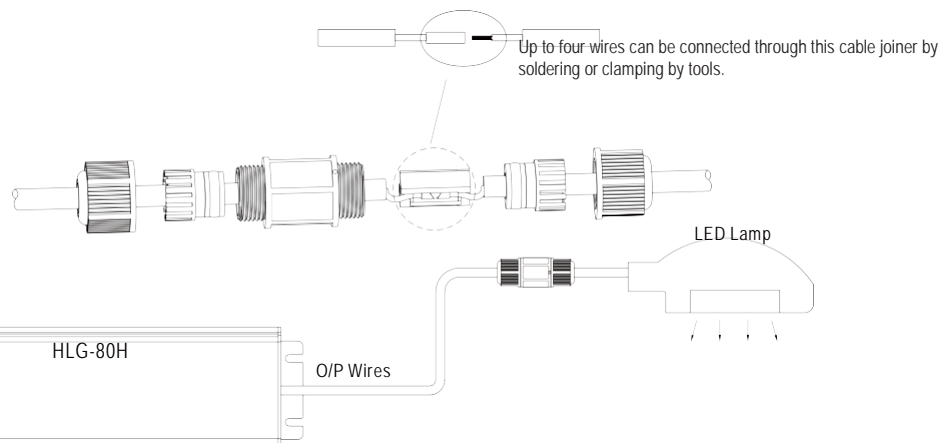
Waterproof connector can be assembled on the output cable of HLG-80H to operate in dry/wet/damp or outdoor environment.



Cable Joiner

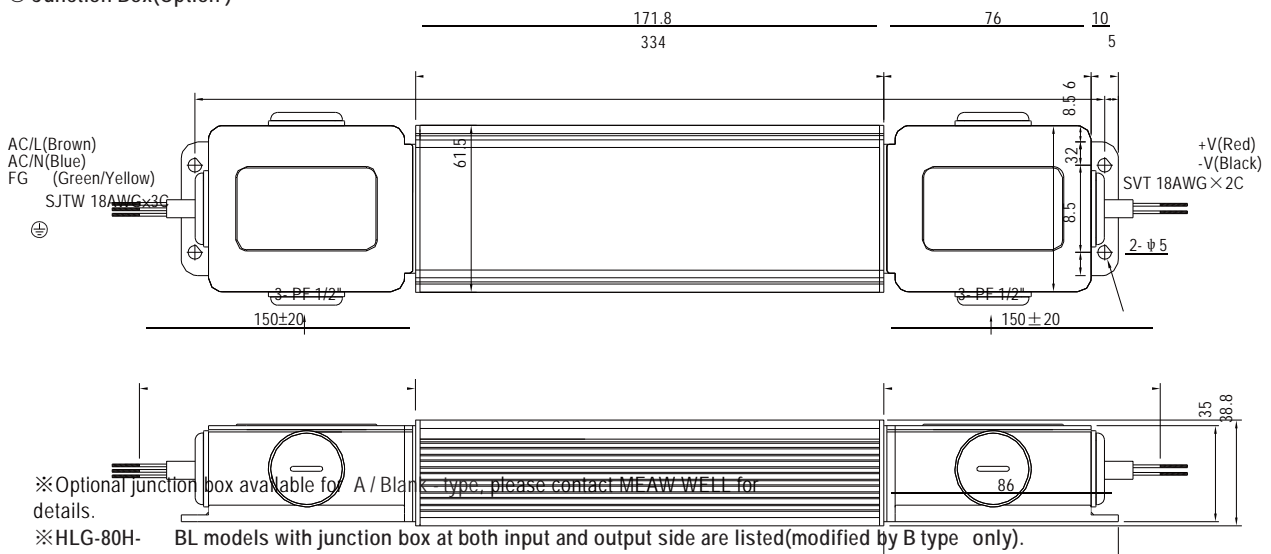


CJ04-1 suitable for 14AWG-16AWG
CJ04-2 suitable for 18AWG-22AWG



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

Junction Box(Optional)





80W Single Output Switching Power Supply

HLG-80H series

RS Part Number	Mean Well Part Number	RS Part Number	Mean Well Part Number
7381870	HLG-80H-12B	7382299	HLG-80H-12A
7381889	HLG-80H-15B	7382309	HLG-80H-15A
7381882	HLG-80H-20B	7382302	HLG-80H-20A
7381886	HLG-80H-24B	7382306	HLG-80H-24A
7381898	HLG-80H-36B	7382312	HLG-80H-42A
7381902	HLG-80H-48B	7382321	HLG-80H-48A
7381905	HLG-80H-54B	7382324	HLG-80H-54A