



### ■ Features

- Constant current design
- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 94%
- -40°C ~ +70°C wide operating range
- Protections: Short circuit / Over voltage / Over temperature
- Cooling by free air convection
- Output current adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Three in one dimming function (1~10Vdc or 10V PWM signal or resistance)
- Suitable for dry / damp / wet location
- Type "HL" for use in class I , Division 2 hazardous(Classified) location luminaires
- 7 years warranty (Note.7)

### ■ Applications

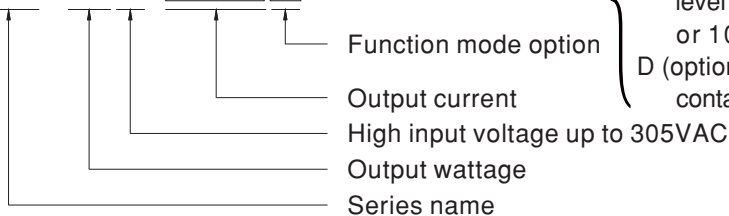
- LED street lighting
- LED fishing lamp
- LED harbor lighting
- LED building architectural lighting
- LED greenhouse lighting
- LED bay lighting
- Class I , Division 2 hazardous(Classified) location luminaires

### ■ Description

HLG-240H-C series is a 250W LED AC/DC power supply featuring the constant current output design with high output voltage. The input accepts the wide range 90~305VAC and is equipped with the active PFC function. This series comprises various models, with the rated current ranging between 700mA and 2100mA that are significantly exploited for the LED lighting applications. Thanks to the high efficiency up to 94% and the fully potted heat conductive silicone, HLG-240H-C can thus operate between -40°C and +70°C under free air convection. In addition, with the aluminum case, IP67/IP65 level and 5G anti-vibration ability, HLG-240H-C series can outstandingly work in various kinds of indoor or outdoor, highly dusty, highly moist, and highly vibrating harsh environment.

### ■ Model Encoding

**HLG - 240H - C1050 A**



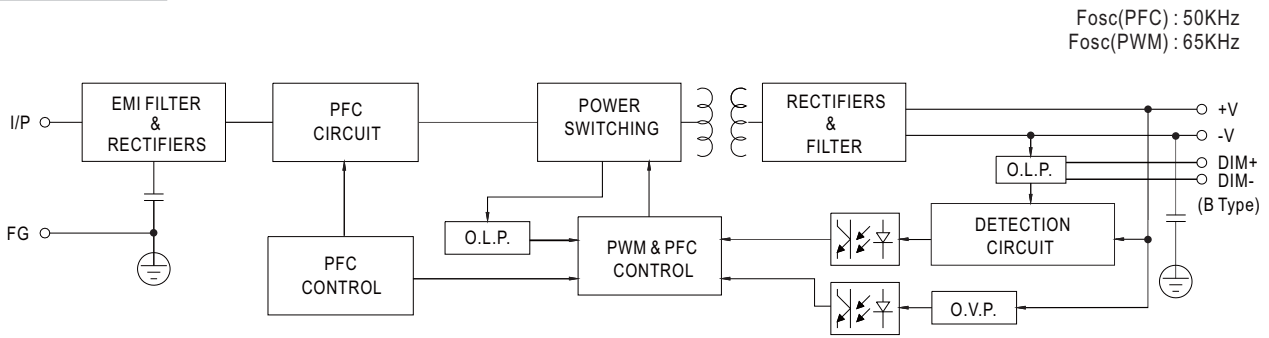
- A : Standard model, IP65 rated. Constant current level can be adjusted through internal potentiometer.
- B : Standard model, IP67 rated. Constant current level adjustable through output cable with 1~10Vdc or 10V PWM signal or resistance.
- D (option) : IP67 rated. Smart timer dimming function, contact MEAN WELL for details.



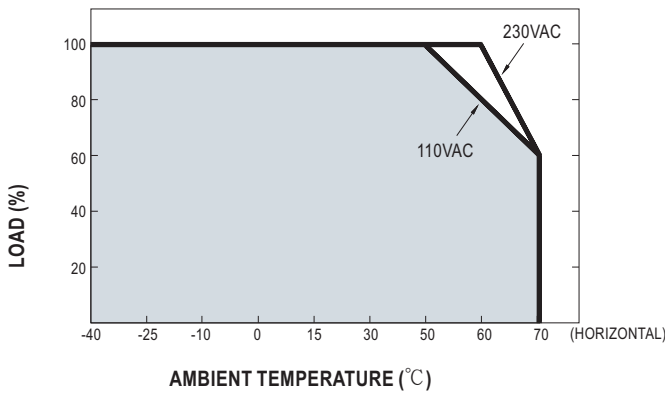
## SPECIFICATION

MODEL		HLG-240H-C700□	HLG-240H-C1050□	HLG-240H-C1400□	HLG-240H-C1750□	HLG-240H-C2100□
OUTPUT	RATED CURRENT	700mA	1050mA	1400mA	1750mA	2100mA
	CURRENT ACCURACY	±5%				
	CONSTANT CURRENT REGION Note.3	178 ~ 357V	119 ~ 238V	89 ~ 179V	71 ~ 143V	59 ~ 119V
	RATED POWER	249.9W	249.9W	250.6W	250.25W	249.9W
	RIPPLE & NOISE (max.) Note.2	2Vp-p	1.5Vp-p	1Vp-p	1Vp-p	1Vp-p
	CURRENT ADJ. RANGE	Can be adjusted by internal potentiometer (A type only)				
		350 ~ 700mA	525 ~ 1050mA	700 ~ 1400mA	875 ~ 1750mA	1050 ~ 2100mA
	LINE REGULATION	±1%	±1%	±1%	±1%	±1%
	SETUP, RISE TIME	1000ms,80ms/115VAC 500ms,80ms/230VAC at full load				
HOLD UP TIME (Typ.)	14ms at full load 230VAC /115VAC					
INPUT	VOLTAGE RANGE Note.4	90 ~ 305VAC 127 ~ 431VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)				
	TOTAL HARMONIC DISTORTION	THD<20% when output loading ≥50% at 115VAC/230VAC input and output loading ≥75% at 277VAC input				
	EFFICIENCY (Typ.)	93.5%	93.5%	94%	94%	93.5%
	AC CURRENT (Typ.)	2.5A / 115VAC 1.3A / 230VAC 1.1A / 277VAC				
	INRUSH CURRENT(Typ.)	COLD START 75A(twidth=700μs measured at 50% Ipeak) at 230VAC				
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC				
	LEAKAGE CURRENT	<0.75mA / 277VAC				
PROTECTION	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed				
	OVER VOLTAGE	375 ~ 410V	250 ~ 275V	188 ~ 206V	150 ~ 165V	125 ~ 137V
		Protection type : Shut down and latch off o/p voltage, re-power on to recover				
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down				
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 ~ 50°C)				
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS Note.5	UL8750(type"HL"), CSA C22.2 No. 250.12-13, ENEC EN61347-1, EN61347-2-13, EN62384 independent, IP65 or IP67 approved				
	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 (≥50% load) ; EN61000-3-3				
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level (surge L,N-FG:4KV), criteria B				
OTHERS	MTBF	180K hrs min. MIL-HDBK-217F (25°C)				
	DIMENSION	244.2*68*38.8mm (L*W*H)				
	PACKING	1.3Kg; 12pcs/16.6Kg/0.84CUFT				
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf parallel capacitor.</li> <li>Please refer to "DRIVING METHODS OF LED MODULE".</li> <li>Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.</li> <li>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.</li> <li>Refer to warranty statement.</li> <li>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.</li> </ol>					

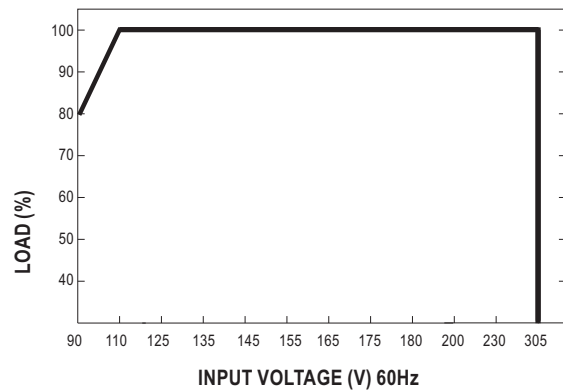
### Block Diagram



### Derating Curve

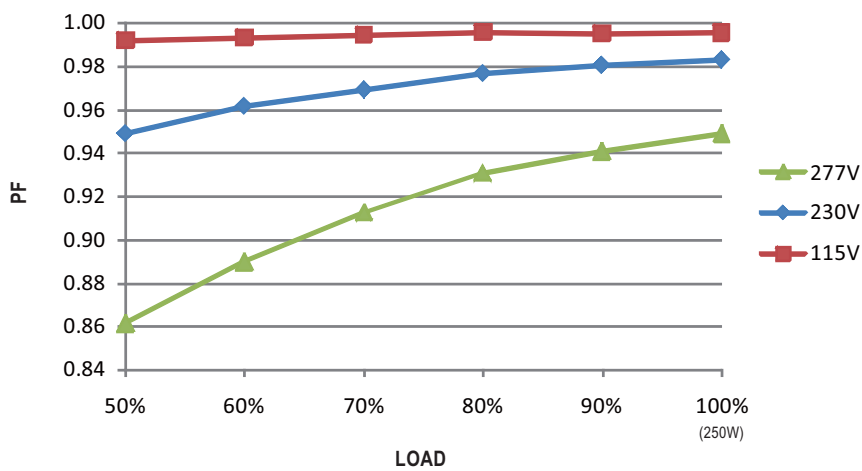


### Static Characteristics



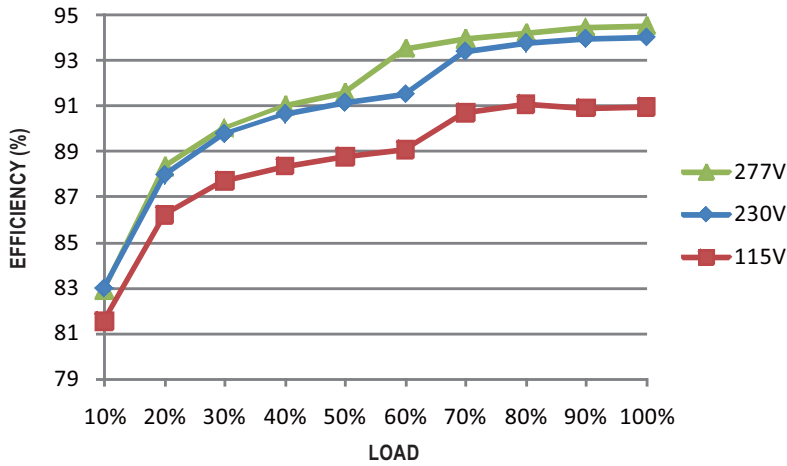
### Power Factor Characteristic

#### Constant Current Mode



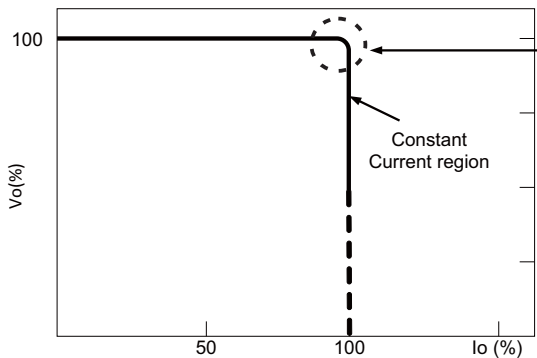
### EFFICIENCY vs LOAD (HLG-240H-C1400 Model)

HLG-240H-C series possess superior working efficiency that up to 94% can be reached in field applications.



### DRIVING METHODS OF LED MODULE

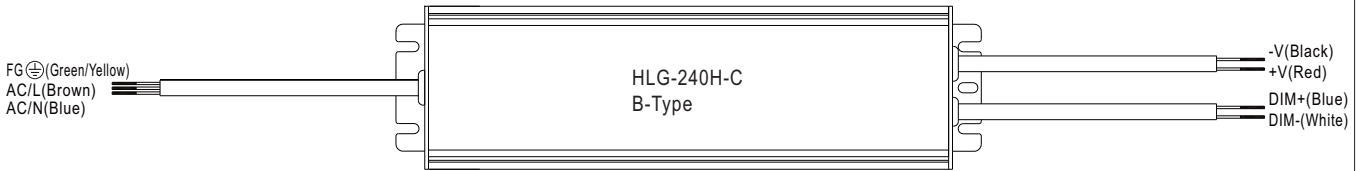
※ This series works in constant current mode to directly drive the LEDs.



Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the power supply depends on the configuration of the end systems.  
Should there be any compatibility issues, please contact MEAN WELL.

## DIMMING OPERATION (for B Type only)



※ 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	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
	Multiple drivers (N=driver quantity for synchronized dimming operation)	10KΩ/N	20KΩ/N	30KΩ/N	40KΩ/N	50KΩ/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%	95%~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%	95%~108%

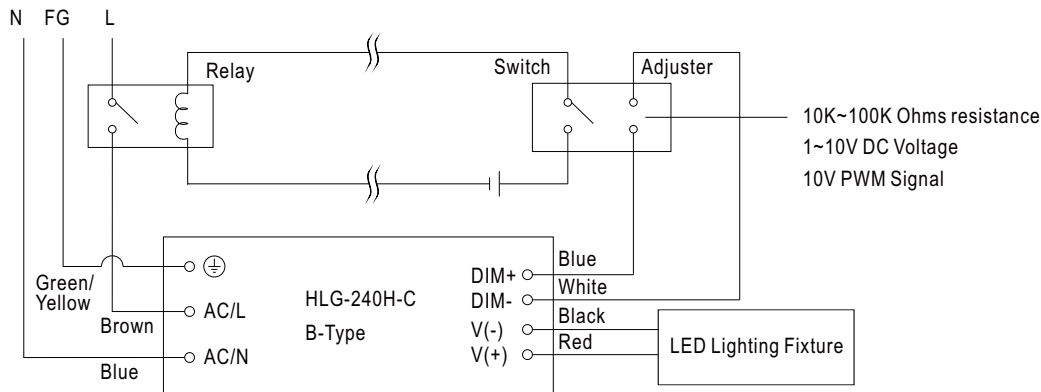
※ 10V PWM signal for output current adjustment (Typical): Frequency range : 100Hz ~ 3KHz

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%	95%~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 :



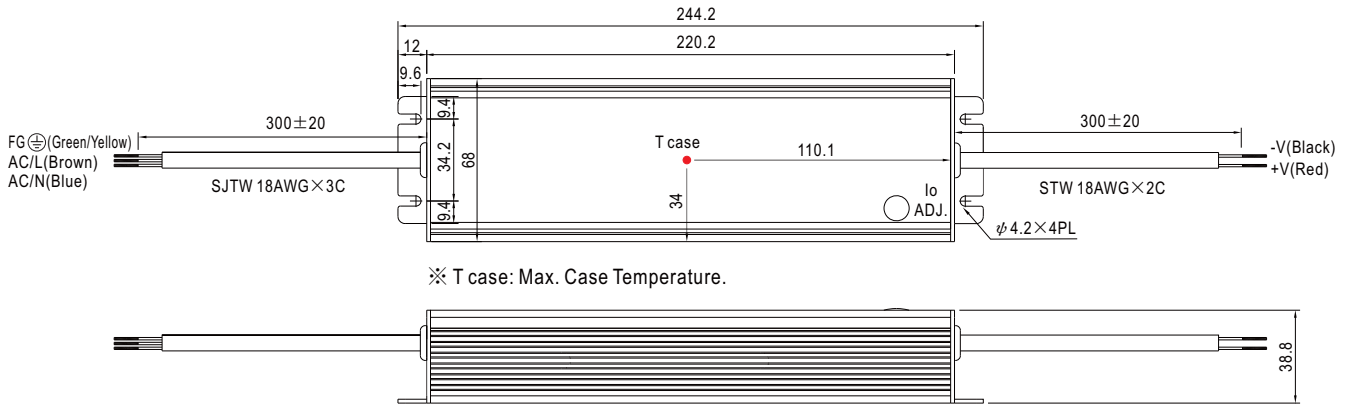
Using a switch and relay can turn ON/OFF the lighting fixture.

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.

**Mechanical Specification**

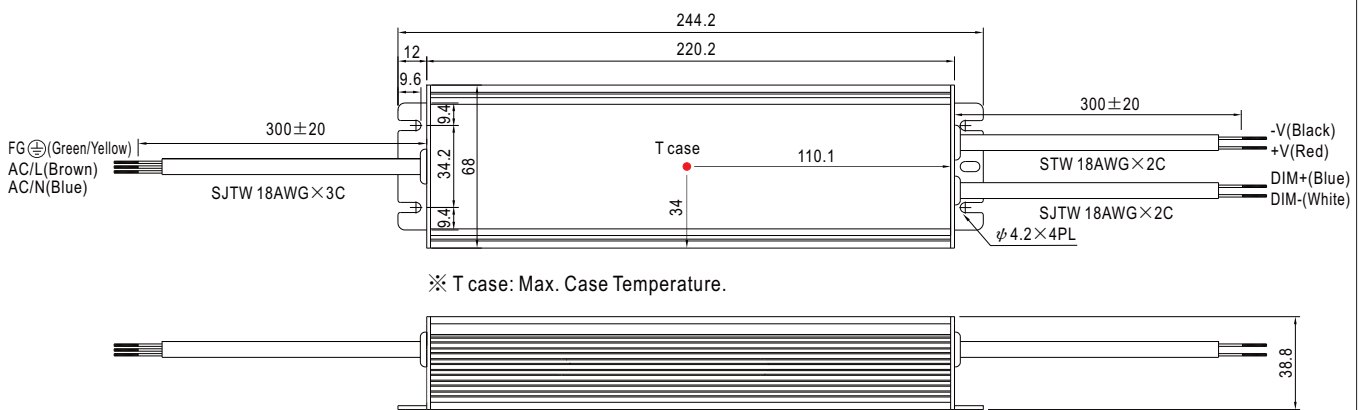
Case No.954F Unit:mm

**A-Type:(HLG-240H-C\_A)**

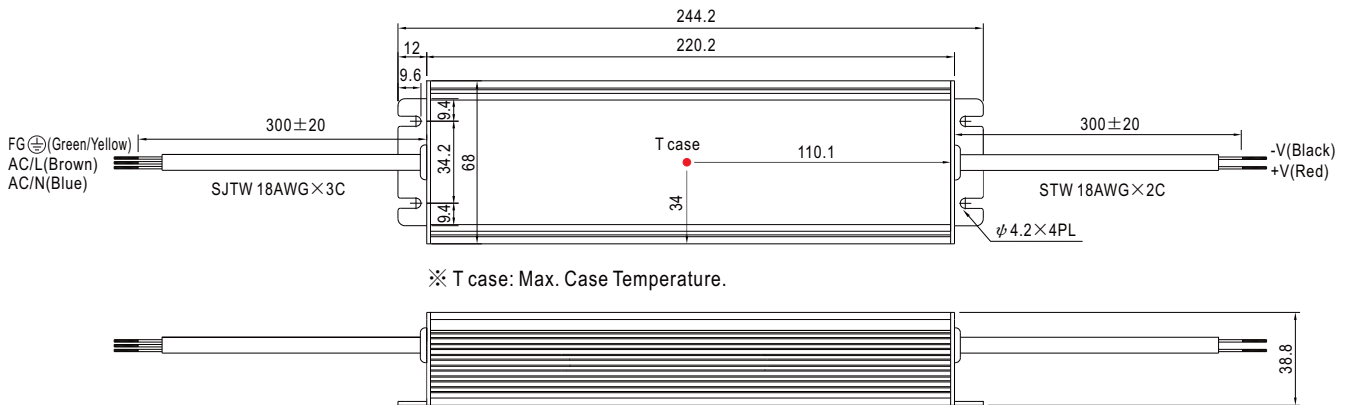


※ IP65 rated. Constant current level can be adjusted through internal potentiometer.  
(Can access by removing the rubber stopper on the case.)

**B-Type:(HLG-240H-C\_B)**



**D-Type(option):(HLG-240H-C\_D)**

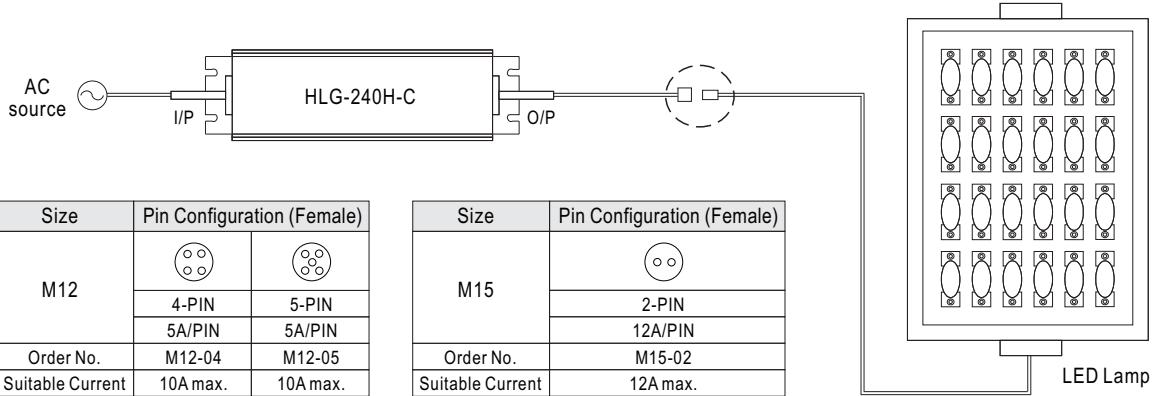


※ IP67 rated. Smart timer dimming function, contact MEAN WELL for details.

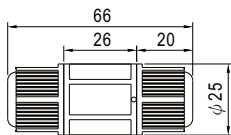
## WATERPROOF CONNECTION

### Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-240H-C to operate in dry/wet/damp or outdoor environment.



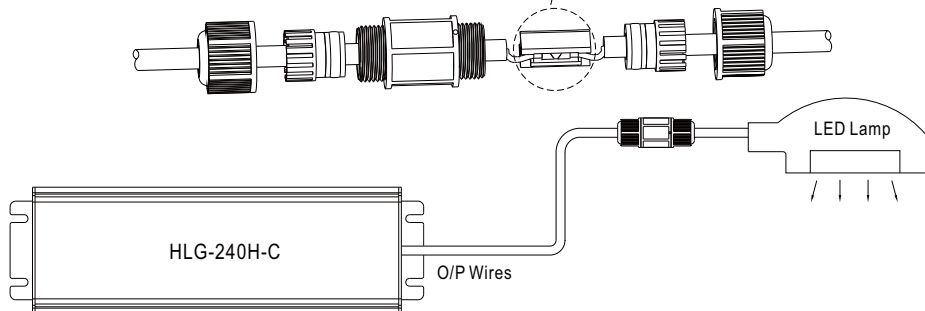
### Cable Joiner



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



Up to four wires can be connected through this cable joiner by soldering or clamping by tools.



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

## Installation Manual

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>