



■ Features :

- Constant current design
- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 94%
- 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 locations
- 7 years warranty (Note.5)



HLG-120H-C350 **A** : IP65 rated. 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.  
 D (option) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

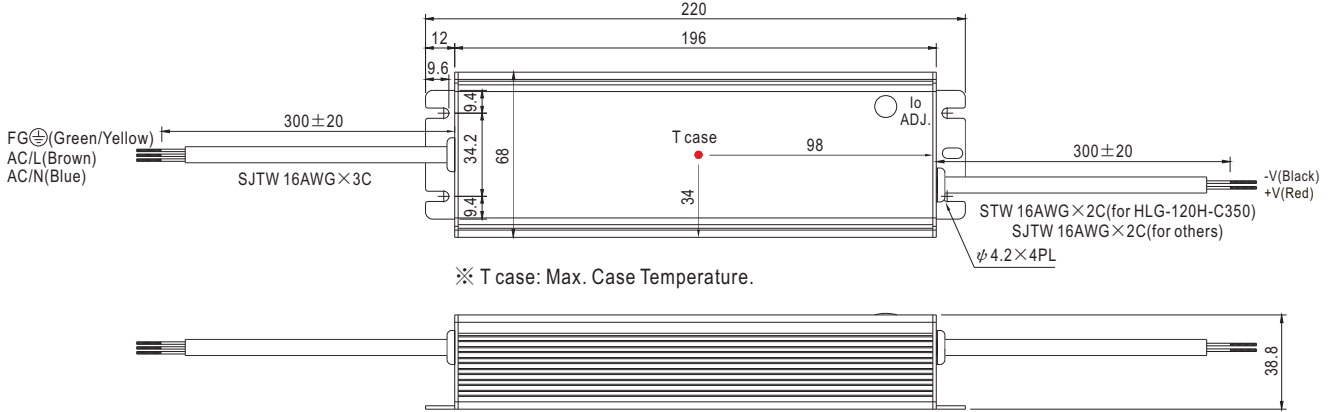
**SPECIFICATION**

MODEL	HLG-120H-C350	HLG-120H-C500	HLG-120H-C700	HLG-120H-C1050	HLG-120H-C1400	
OUTPUT	<b>RATED CURRENT</b>	350mA	500mA	700mA	1050mA	1400mA
	<b>CURRENT ACCURACY</b>	±5.0%				
	<b>CONSTANT CURRENT REGION Note.6</b>	215 ~ 430V	150V ~ 300V	107V ~ 215V	74V ~ 148V	54V ~ 108V
	<b>RATED POWER</b>	150.5W	150W	150.5W	155.4W	151.2W
	<b>RIPPLE CURRENT</b>	±5%				
	<b>RIPPLE &amp; NOISE</b>	2Vp-p	1.5Vp-p	1Vp-p	1Vp-p	1Vp-p
	<b>CURRENT ADJ. RANGE</b>	Can be adjusted by internal potentiometer (A type only)				
		175 ~ 350mA	250 ~ 500mA	350 ~ 700mA	525 ~ 1050mA	700 ~ 1400mA
	<b>LINE REGULATION</b>	±1%				
	<b>SETUP, RISE TIME</b>	1000ms, 80ms / 115VAC at full load 500ms, 80ms / 230VAC at full load				
<b>HOLD UP TIME (Typ.)</b>	16ms at full load 230VAC / 115VAC					
INPUT	<b>VOLTAGE RANGE Note.2</b>	90 ~ 305VAC	127VDC ~ 431VDC			
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz				
	<b>POWER FACTOR (Typ.)</b>	PF>0.98/115VAC, PF>0.96/230VAC, PF>0.93/277VAC at full load (Please refer to "Power Factor Characteristic" curve)				
	<b>TOTAL HARMONIC DISTORTION</b>	THD< 20% when output loading ≥50% at 115VAC/230VAC input and output loading ≥75% at 277VAC input				
	<b>EFFICIENCY (Typ.)</b>	94%	94%	94%	94%	93.5%
	<b>AC CURRENT (Typ.)</b>	1.6A / 115VAC	0.8 A / 230VAC	0.7A / 277VAC		
	<b>INRUSH CURRENT (Typ.)</b>	COLD START 50A(twidth=600μs measured at 50% I <sub>peak</sub> ) at 230VAC				
	<b>MAX. No. of PSUs on 16A CIRCUIT BREAKER</b>	4 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 230VAC				
	<b>LEAKAGE CURRENT</b>	<0.75mA / 277VAC				
PROTECTION	<b>SHORT CIRCUIT</b>	Constant current limiting, recovers automatically after fault condition is removed				
	<b>OVER VOLTAGE</b>	475 ~ 495V	335 ~ 355V	240 ~ 260V	165 ~ 175V	120 ~ 130V
	<b>OVER TEMPERATURE</b>	Shut down o/p voltage, recovers automatically after temperature goes down				
ENVIRONMENT	<b>WORKING TEMP.</b>	-40 ~ +70°C (Refer to "Derating Curve")				
	<b>WORKING HUMIDITY</b>	10 ~ 95% RH non-condensing				
	<b>STORAGE TEMP., HUMIDITY</b>	-40 ~ +80°C, 10 ~ 95% RH				
	<b>TEMP. COEFFICIENT</b>	±0.03%/°C (0 ~ 50°C)				
	<b>VIBRATION</b>	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes				
SAFETY & EMC	<b>SAFETY STANDARDS Note.3</b>	UL8750, CSA C22.2 No. 250.12-13, ENEC EN61347-1, EN61347-2-13, EN62384 independent, IP65 or IP67, J61347-1, J61347-2-13 approved				
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC				
	<b>ISOLATION RESISTANCE</b>	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
	<b>EMC EMISSION</b>	Compliance to EN55015, EN61000-3-2 Class C (≥50% load) ; EN61000-3-3				
	<b>EMC IMMUNITY</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level (surge L,N-FG: 4KV), criteria A				
OTHERS	<b>MTBF</b>	191.1K hrs min. MIL-HDBK-217F (25°C)				
	<b>DIMENSION</b>	220*68*38.8mm (L*W*H)				
	<b>PACKING</b>	1.04Kg; 12pcs/13.5Kg/0.8CUFT				
NOTE	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>3. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1.</li> <li>4. 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>5. Refer to warranty statement.</li> <li>6. Please refer to "DRIVING METHODS OF LED MODULE".</li> <li>7. 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>					

**Mechanical Specification**

Case No.994 Unit:mm

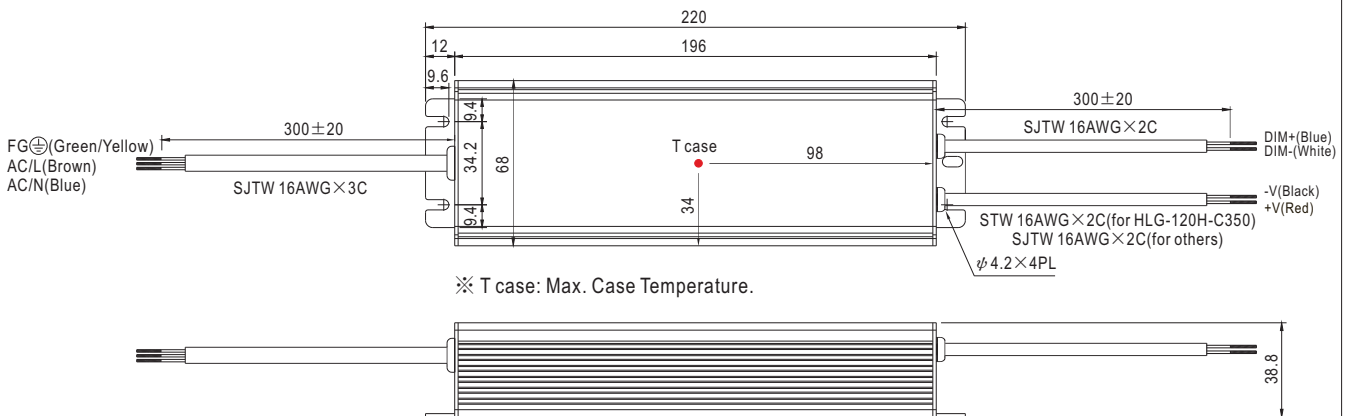
**A Type:(HLG-120H-C\_A)**



※ T case: Max. Case Temperature.

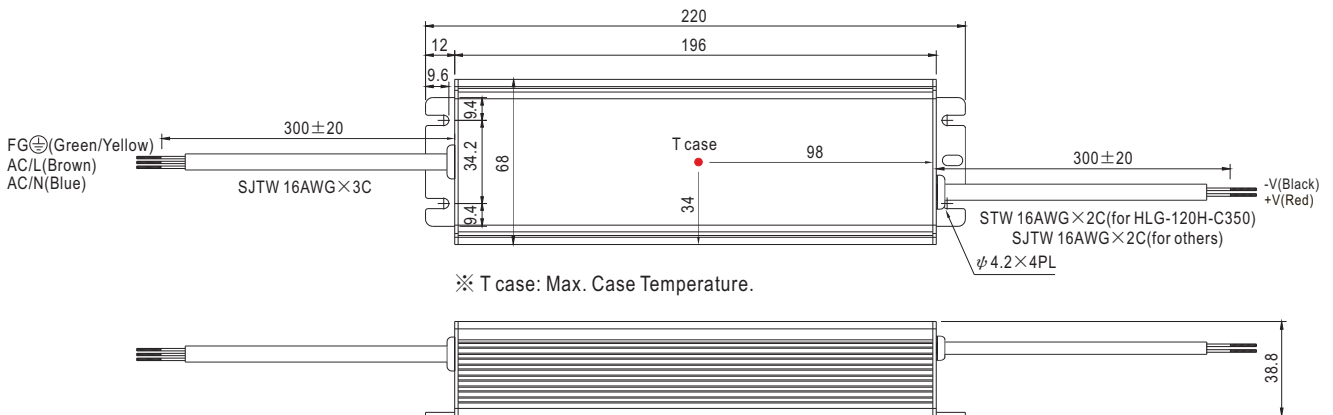
※ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer. (Can access by removing the rubber stopper on the case.)

**B Type:(HLG-120H-C\_B)**



※ T case: Max. Case Temperature.

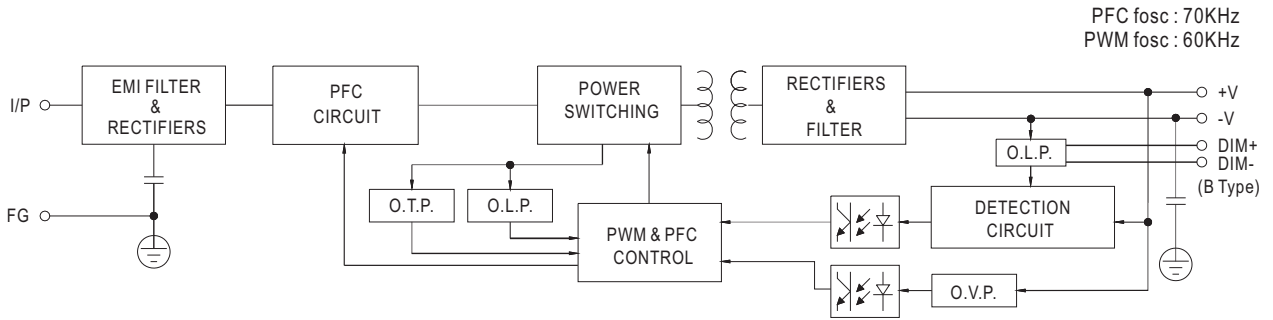
**D Type(option):(HLG-120H-C\_D)**



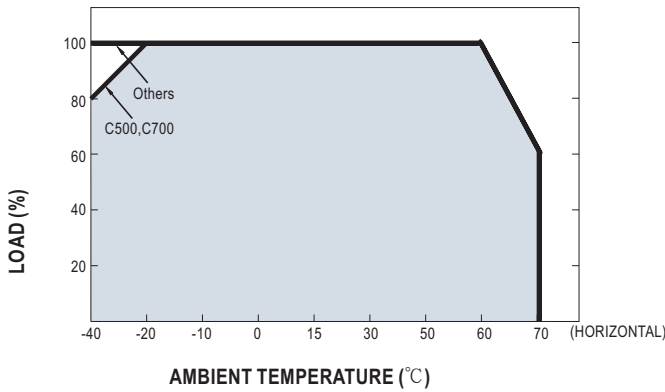
※ T case: Max. Case Temperature.

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

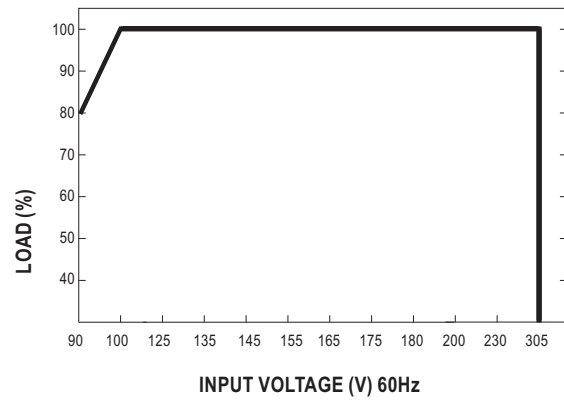
### Block Diagram



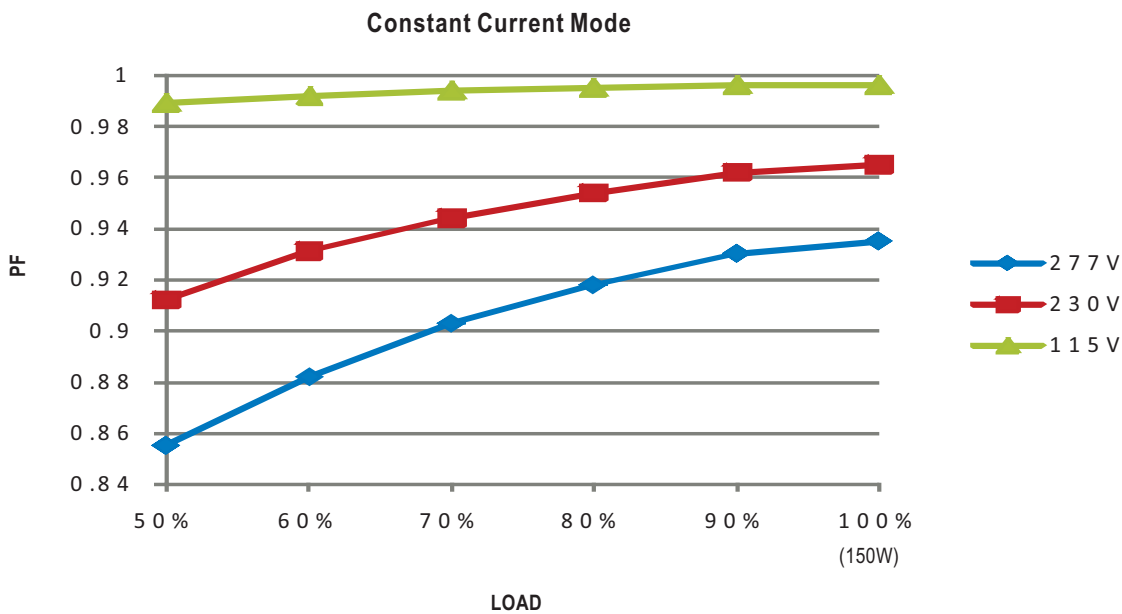
### Derating Curve



### Static Characteristics

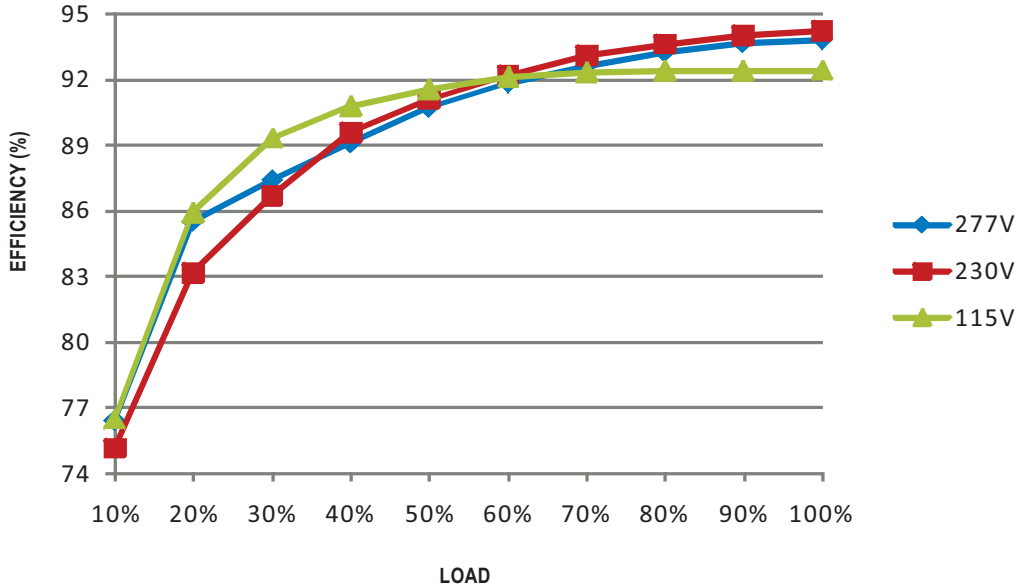


### Power Factor Characteristic



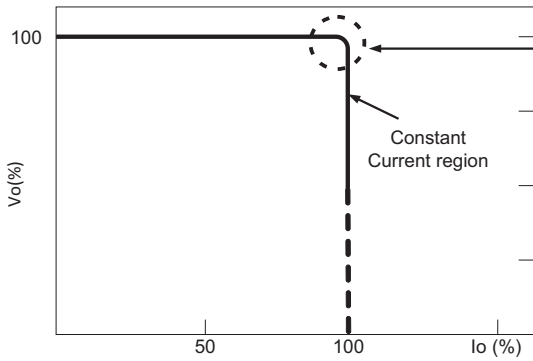
### EFFICIENCY vs LOAD (HLG-120H-C700A Model)

HLG-120H-C series possess superior working efficiency that up to 94% can be reached in field applications.



### DRIVING METHODS OF LED MODULE

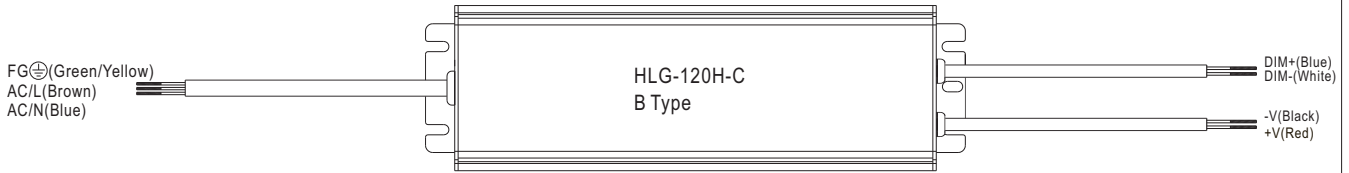
A typical LED power supply may work in "constant current mode (CC)" to drive the LEDs. Mean Well's LED power supply with CC characteristic can be operated at CC mode (direct drive).



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 LED power supply I-V curve

## 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	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%	102%~108%

※ 1 ~ 10V dimming function for output current adjustment (Typical)

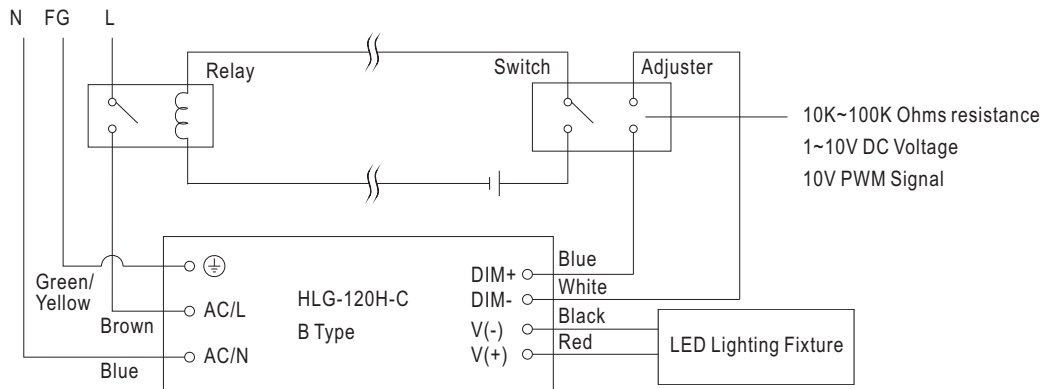
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	102%~108%

※ 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 :



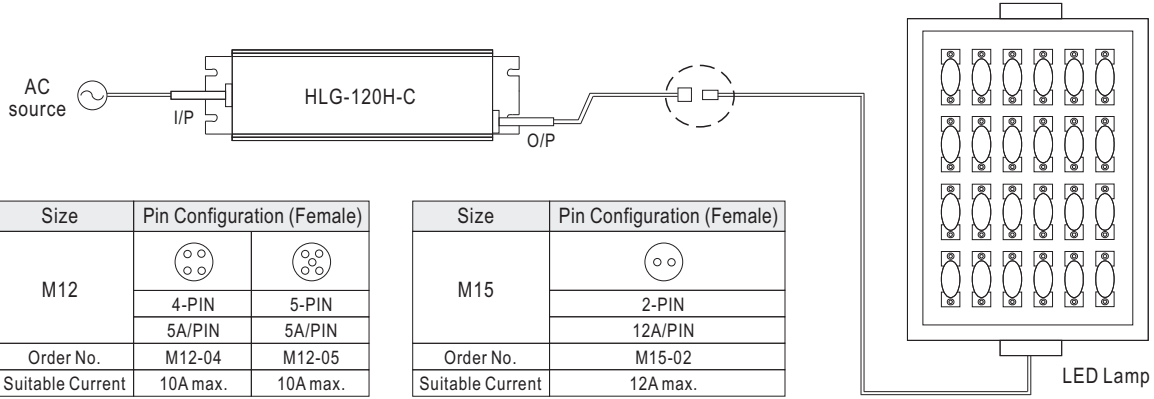
Using a switch and relay can turn ON/OFF the lighting fixture.

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.

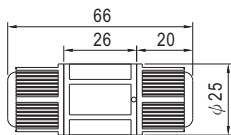
## WATERPROOF CONNECTION

### Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-120H-C to operate in dry/wet/damp or outdoor environment.



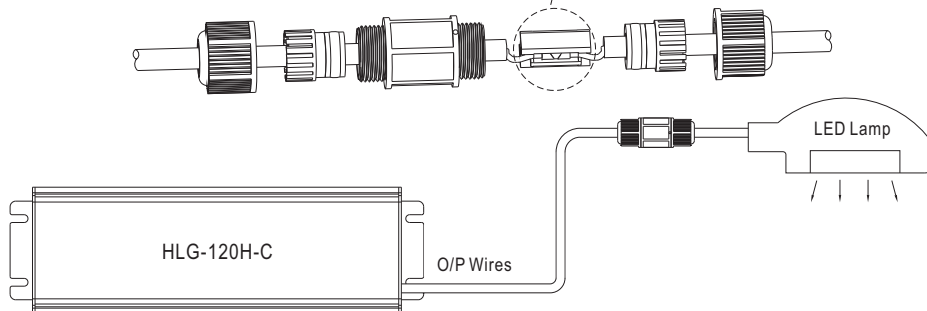
### Cable Joiner



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.