



■ Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 93%
- 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
- Class 2 power unit
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and street lighting applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 5 years warranty (Note.9)



HLG-100H-20 **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.  
**D** (option, safety pending) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

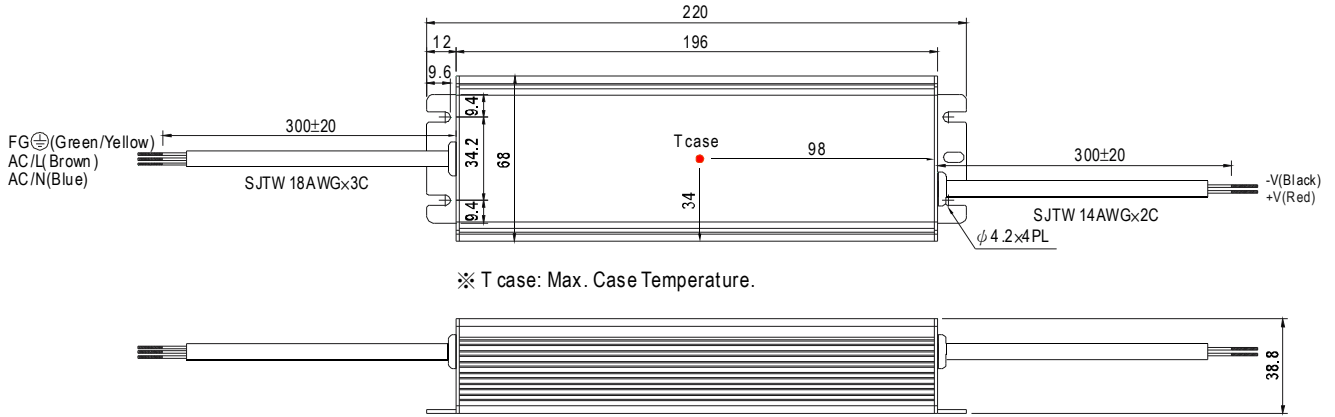
**SPECIFICATION**

MODEL	HLG-100H-20	HLG-100H-24	HLG-100H-30	HLG-100H-36	HLG-100H-42	HLG-100H-48	HLG-100H-54	
<b>OUTPUT</b>	<b>DC VOLTAGE</b>	20V	24V	30V	36V	42V	48V	54V
	<b>RATED CURRENT</b>	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	<b>RATED POWER</b>	96W	96W	96W	95.4W	95.76W	96W	95.58W
	<b>RIPPLE &amp; NOISE (max.)</b> Note.2	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	<b>VOLTAGE ADJ. RANGE</b> Note.5	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V
	<b>CURRENT ADJ. RANGE</b>	Can be adjusted by internal potentiometer A type only						
		3 ~ 4.8A	2.5 ~ 4A	2 ~ 3.2A	1.65 ~ 2.65A	1.4 ~ 2.28A	1.25 ~ 2A	1.1 ~ 1.77A
	<b>VOLTAGE TOLERANCE</b> Note.3	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	<b>LINE REGULATION</b>	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	<b>LOAD REGULATION</b>	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
<b>SETUP, RISE TIME</b> Note.7	2500ms, 50ms at full load 230VAC / 115VAC ; B type 2500ms, 200ms at 95% load 230VAC / 115VAC							
<b>HOLD UP TIME (Typ.)</b>	16ms at full load 230VAC / 115VAC							
<b>INPUT</b>	<b>VOLTAGE RANGE</b> Note.4	90 ~ 305VAC	127 ~ 431VDC					
	<b>FREQUENCY RANGE</b>	47 ~ 63Hz						
	<b>POWER FACTOR (Typ.)</b>	PF>0.98/115VAC, PF>0.95/230VAC, PF>0.93/277VAC at full load (Please refer to "Power Factor Characteristic" curve)						
	<b>TOTAL HARMONIC DISTORTION</b>	THD< 20% when output loading ≥ 60% at 115VAC/230VAC input and output loading ≥ 75% at 277VAC input						
	<b>EFFICIENCY (Typ.)</b>	93%	93%	93%	93%	93%	93%	93%
	<b>AC CURRENT (Typ.)</b>	1.2A / 115VAC	0.55A / 230VAC	0.5A / 277VAC				
	<b>INRUSH CURRENT (Typ.)</b>	COLD START 60A(twidth=415μs measured at 50% Ipeak) at 230VAC						
<b>LEAKAGE CURRENT</b>	<0.75mA / 277VAC							
<b>PROTECTION</b>	<b>OVER CURRENT</b>	95 ~ 106% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	<b>SHORT CIRCUIT</b>	Constant current limiting, recovers automatically after fault condition is removed						
	<b>OVER VOLTAGE</b>	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 63V	59 ~ 65V
		Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery						
<b>OVER TEMPERATURE</b>	100°C ±10°C (RTH2) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down							
<b>ENVIRONMENT</b>	<b>WORKING TEMP.</b>	-40 ~ +70°C (Refer to "Derating Curve")						
	<b>WORKING HUMIDITY</b>	20 ~ 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						
<b>SAFETY &amp; EMC</b>	<b>SAFETY STANDARDS</b> Note.6	UL8750, CSA C22.2 No. 250.0-08, EN61347-1, EN61347-2-13 independent IP65 or IP67, J61347-1, J61347-2-13 approved ; design refer to UL60950-1, TUV EN60950-1						
	<b>WITHSTAND VOLTAGE</b>	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC						
	<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, EN55022 (CISPR22) Class B, EN61000-3-2 Class C (≥ 60% load) ; EN61000-3-3						
<b>EMC IMMUNITY</b>	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A							
<b>OTHERS</b>	<b>MTBF</b>	192.2K hrs min. MIL-HDBK-217F (25°C)						
	<b>DIMENSION</b>	220*68*38.8mm (L*W*H)						
	<b>PACKING</b>	1.12Kg; 12pcs/14.4Kg/0.8CUFT						
<b>NOTE</b>	<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. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>5. A type only.</li> <li>6. Safety and EMC design refer to EN60598-1, CNS15233, GB7000.1, FCC part18.</li> <li>7. 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.</li> <li>8. 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>9. Refer to warranty statement.</li> </ol>							

**Mechanical Specification**

Case No.994A Unit:mm

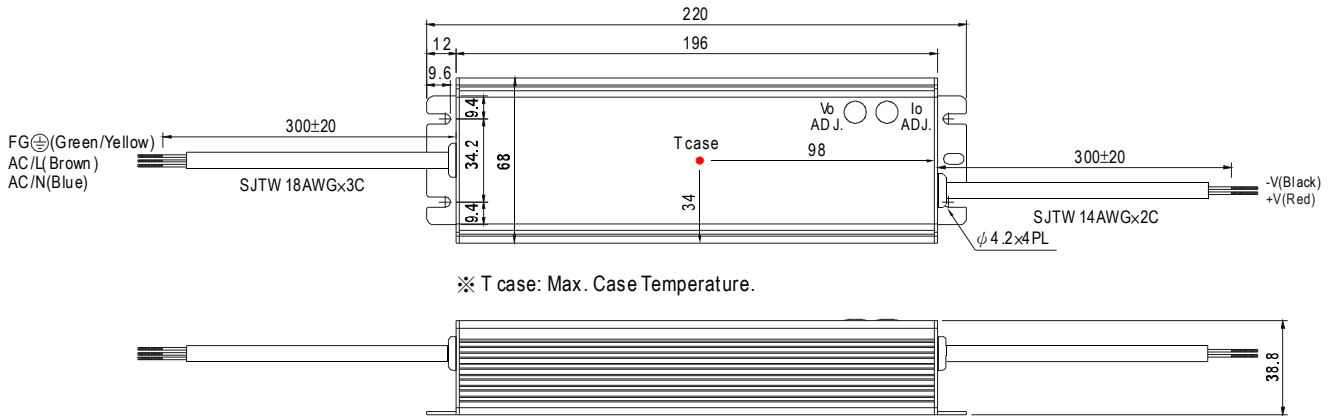
**Blank:(HLG-100H)**



※ T case: Max. Case Temperature.

※IP67 rated. Cable for I/O connection.

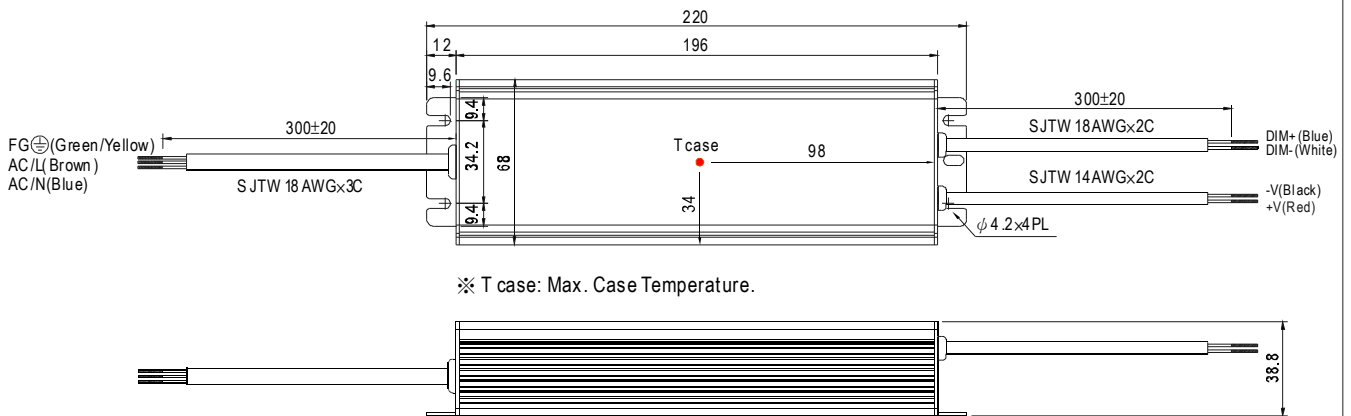
**A Type:(HLG-100H- \_A)**



※ T case: Max. Case Temperature.

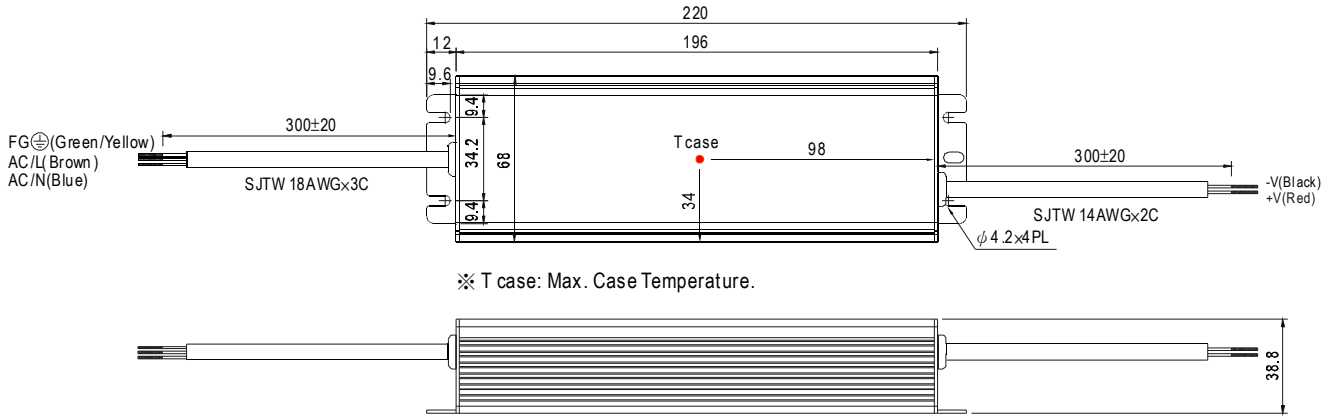
※ IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.  
(Can access by removing the rubber stopper on the case.)

**B Type:(HLG-100H- \_B)**



※ T case: Max. Case Temperature.

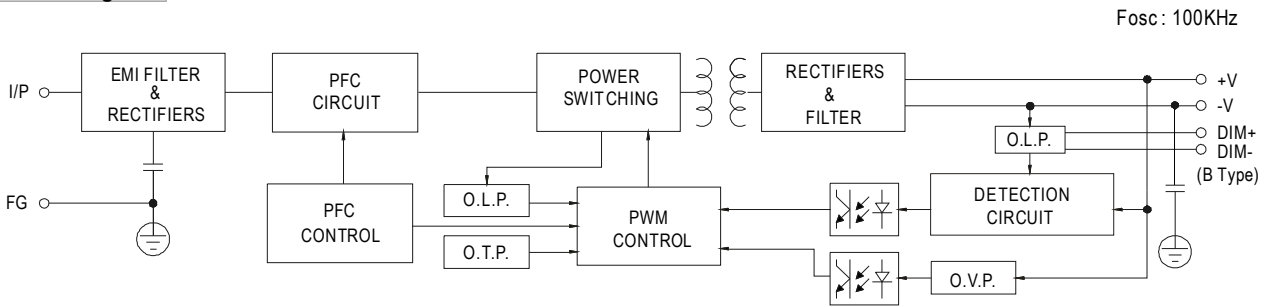
**D Type(option):(HLG-100H\_D)**



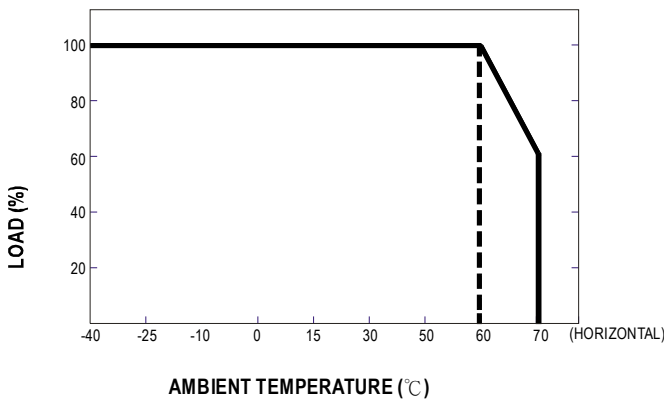
※ T case: Max. Case Temperature.

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

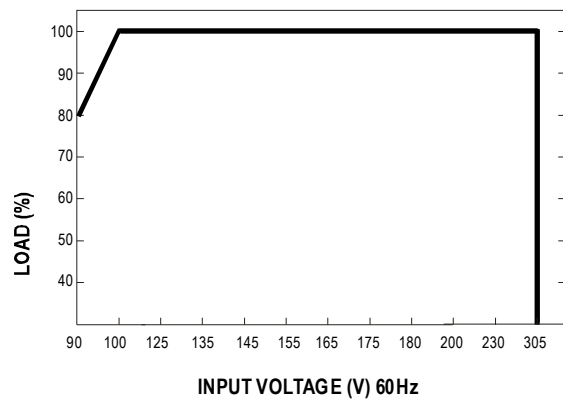
**Block Diagram**



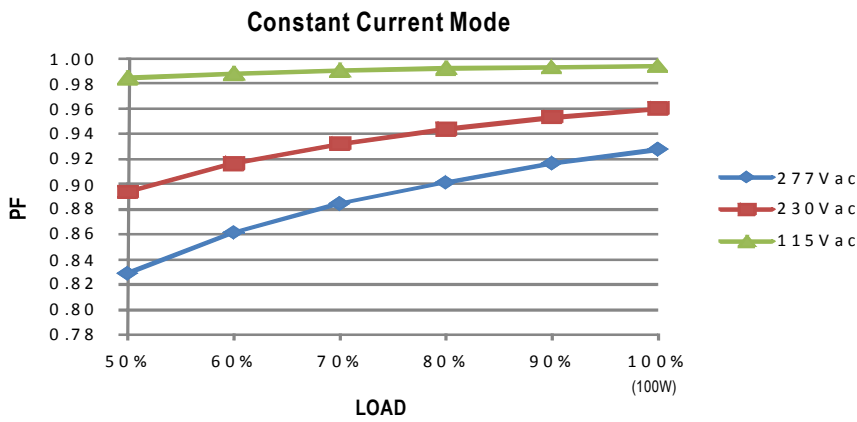
**Derating Curve**



**Static Characteristics**

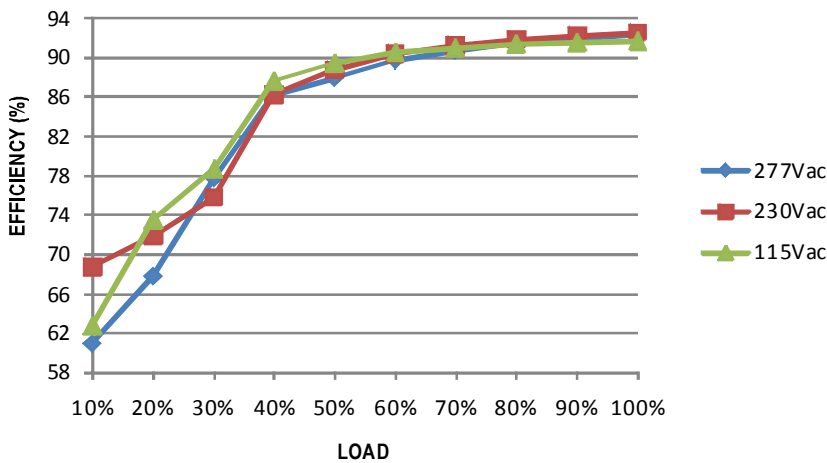


### Power Factor Characteristic



### EFFICIENCY vs LOAD (48V Model)

HLG-100H series possess superior working efficiency that up to 93% can be reached in field applications.

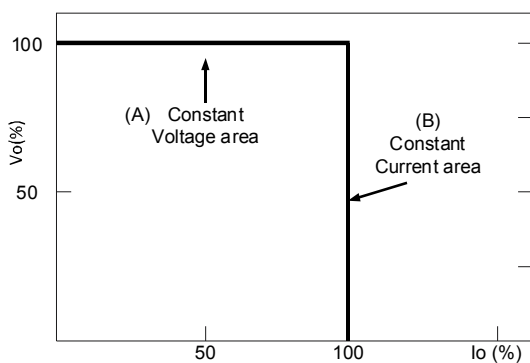


### DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

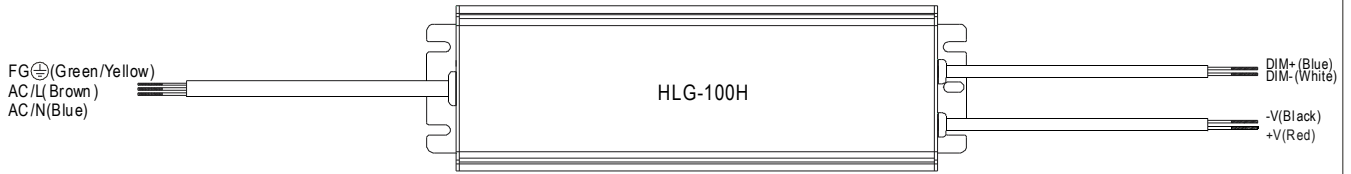
A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

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 (for B-type only)**



- ※ Built-in 3 in 1 dimming function, IP67 rated. Output constant current level can be adjusted through out put 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	10KΩ	20KΩ	30KΩ	40KΩ	50KΩ	60KΩ	70KΩ	80KΩ	90KΩ	100KΩ	OPEN
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)

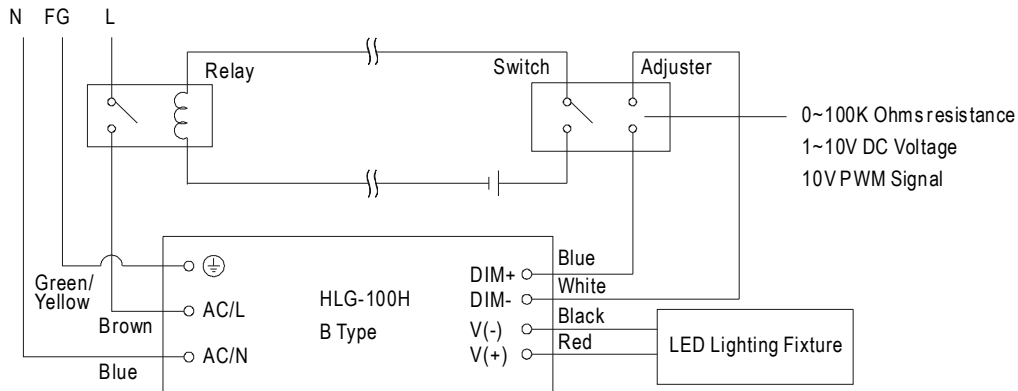
Dimming value	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Percentage of rated current	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95%~108%

※ 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 :



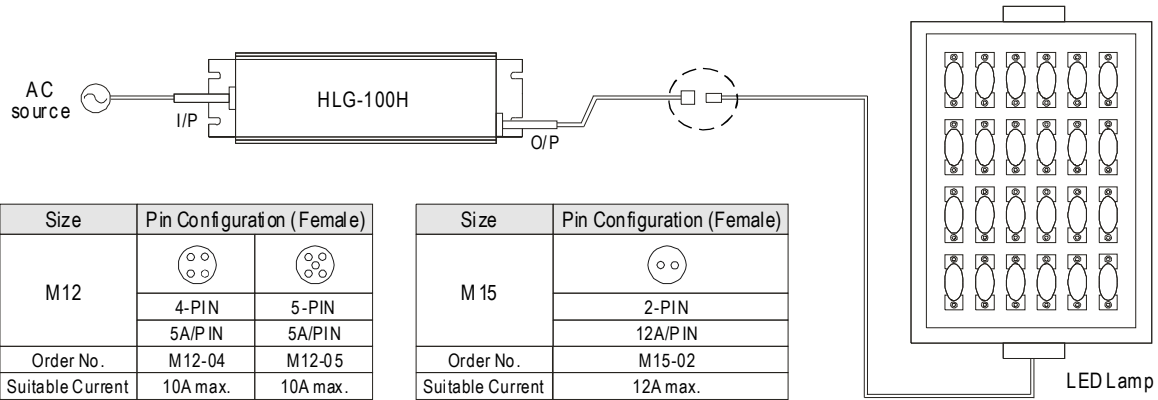
Using a switch and relay can turn ON/OFF the lighting fixture.

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

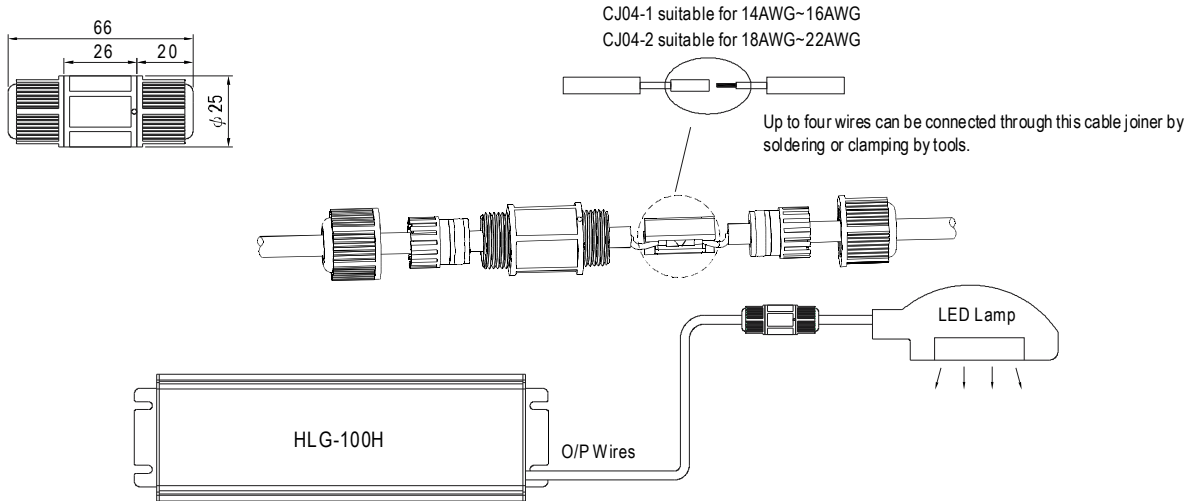
### ■ WATERPROOF CONNECTION

◎ Waterproof connector

Waterproof connector can be assembled on the output cable of HLG-100H to operate in dry/wet/damp or outdoor environment.

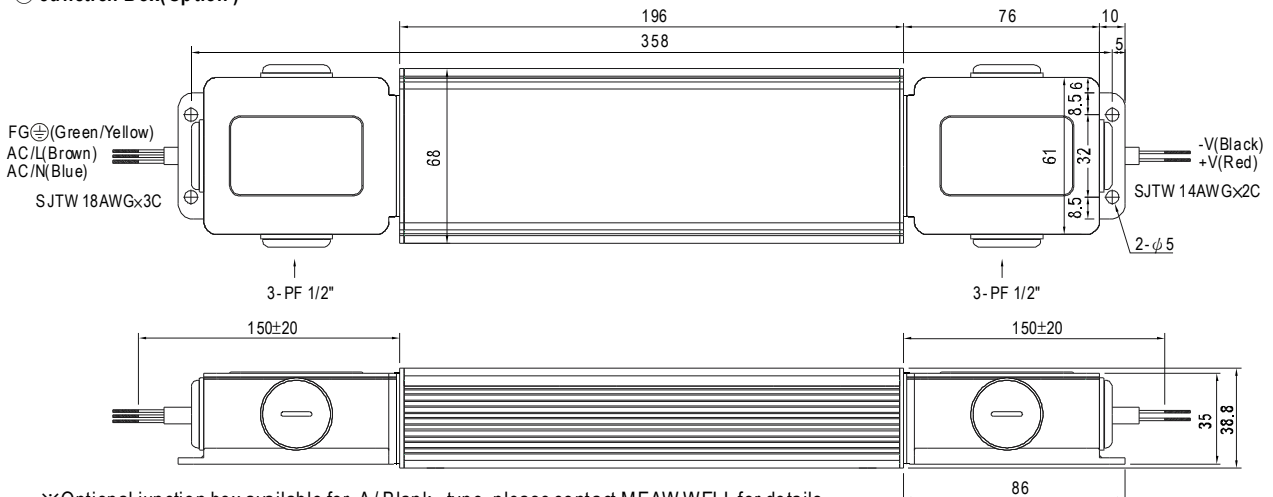


◎ Cable Joiner



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

◎ Junction Box (Option)



※Optional junction box available for A/ Blank - type, please contact MEAN WELL for details.



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### Наши контакты:

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331