



120W Constant Voltage + Constant Current LED Driver

**HLG-120H** series

User's Manual



## Features

- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Built-in active PFC function
- 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

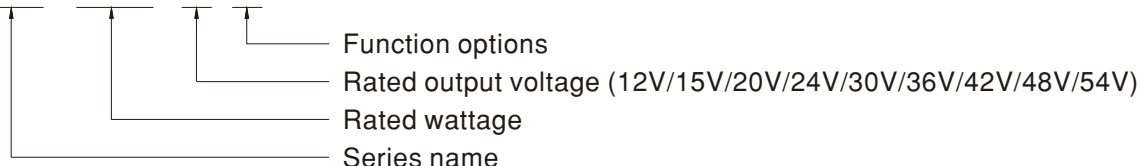
- LED street lighting
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- LED greenhouse lighting
- Type "HL" for use in Class I , Division 2 hazardous (Classified) location.

## Description

HLG-120H series is a 120W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-120H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 93.5%, 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-120H is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

## Model Encoding

**HLG - 120H - 48 A**

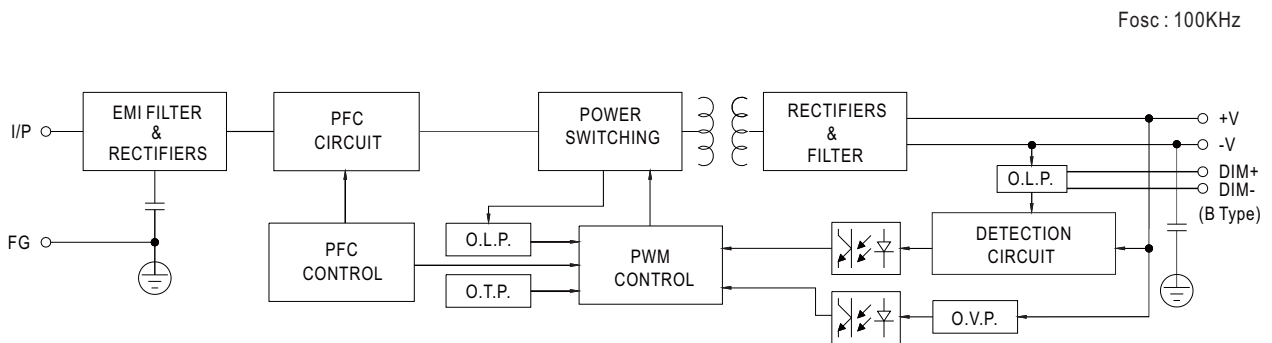


| Type  | IP Level | Function                                                                                                               | Note       |
|-------|----------|------------------------------------------------------------------------------------------------------------------------|------------|
| 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 and Vo adjustable through built-in potentiometer & 3 in 1 dimming function (1~10Vdc, 10V PWM signal and resistance) | In Stock   |
| D     | IP67     | Timer dimming function, contact MEAN WELL for details(safety pending).                                                 | By request |

**SPECIFICATION**

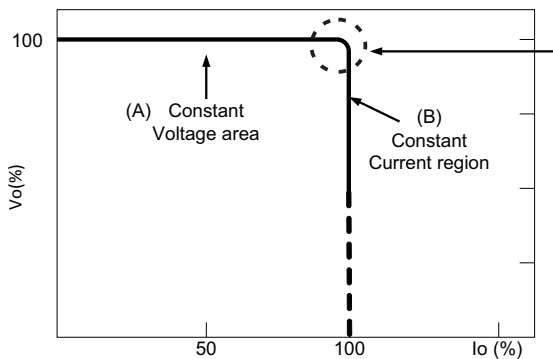
| MODEL        |                                         | HLG-120H-12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HLG-120H-15 | HLG-120H-20 | HLG-120H-24 | HLG-120H-30 | HLG-120H-36 | HLG-120H-42 | HLG-120H-48 | HLG-120H-54 |
|--------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| OUTPUT       | DC VOLTAGE                              | 12V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 15V         | 20V         | 24V         | 30V         | 36V         | 42V         | 48V         | 54V         |
|              | CONSTANT CURRENT REGION Note.4          | 6 ~ 12V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7.5 ~ 15V   | 10 ~ 20V    | 12 ~ 24V    | 15 ~ 30V    | 18 ~ 36V    | 21 ~ 42V    | 24 ~ 48V    | 27 ~ 54V    |
|              | RATED CURRENT                           | 10A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8A          | 6A          | 5A          | 4A          | 3.4A        | 2.9A        | 2.5A        | 2.3A        |
|              | RATED POWER                             | 120W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 120W        | 120W        | 120W        | 120W        | 122.4W      | 121.8W      | 120W        | 124.2W      |
|              | 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                      | Adjustable for A/AB-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)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |             |             |             |             |             |             |             |
|              |                                         | 5 ~ 10A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4 ~ 8A      | 3 ~ 6A      | 2.5 ~ 5A    | 2 ~ 4A      | 1.7 ~ 3.4A  | 1.4 ~ 2.9A  | 1.2 ~ 2.5A  | 1.1 ~ 2.3A  |
|              | VOLTAGE TOLERANCE Note.3                | ±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%       | ±0.5%       | ±0.5%       | ±0.5%       | ±0.5%       | ±0.5%       | ±0.5%       | ±0.5%       |
|              | SETUP, RISE TIME Note.6                 | 1200ms,50ms/115VAC 500ms,50ms/230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |             |             |             |             |             |
|              | HOLD UP TIME (Typ.)                     | 12ms / 115VAC, 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |             |             |             |             |             |
|              | VOLTAGE RANGE Note.5                    | 90 ~ 305VAC 127 ~ 431VDC<br>(Please refer to "STATIC CHARACTERISTIC" section)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |             |             |             |             |             |             |             |
|              | FREQUENCY RANGE                         | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |             |             |             |             |             |             |             |
|              | POWER FACTOR (Typ.)                     | PF≥0.98/115VAC, PF≥0.95/230VAC, PF≥0.93/277VAC @ full load<br>(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |             |             |             |             |             |             |             |
|              | TOTAL HARMONIC DISTORTION               | THD< 20% (@ load≥50% / 115VAC,230VAC; @ load≥75% / 277VAC)<br>(Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |             |             |             |             |             |             |             |
|              | EFFICIENCY (Typ.)                       | 92%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 92%         | 93%         | 93%         | 93%         | 93%         | 93%         | 93.5%       | 93.5%       |
|              | AC CURRENT (Typ.)                       | 1.4A / 115VAC 0.6A / 230VAC 0.55A / 277VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |             |             |             |             |             |             |             |
| PROTECTION   | INRUSH CURRENT (Typ.)                   | COLD START 60A(t <sub>width</sub> =375μs measured at 50% I <sub>peak</sub> ) at 230VAC; Per NEMA 410                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |             |             |             |             |             |
|              | MAX. No. of PSUs on 16A CIRCUIT BREAKER | 5 units (circuit breaker of type B) / 9 units (circuit breaker of type C) at 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |             |             |             |             |             |             |             |
|              | LEAKAGE CURRENT                         | <0.75mA / 277VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |             |             |             |             |             |             |             |
|              | OVER CURRENT                            | 95 ~ 108%<br>Constant current limiting, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |             |             |             |             |             |             |             |
| ENVIRONMENT  | SHORT CIRCUIT                           | Constant current limiting, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |             |             |             |             |             |             |             |
|              | OVER VOLTAGE                            | 14 ~ 17V 18 ~ 21V 23 ~ 27V 28 ~ 34V 34 ~ 38V 41 ~ 46V 47 ~ 53V 54 ~ 63V 59 ~ 65V<br>Shut down o/p voltage with auto-recovery or re-power on to recovery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |             |             |             |             |             |             |             |
|              | OVER TEMPERATURE                        | Shut down o/p voltage, recovers automatically after temperature goes down                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |             |             |             |             |             |             |             |
|              | WORKING TEMP.                           | T <sub>case</sub> = -40 ~ +80°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |             |             |             |             |             |             |             |
| SAFETY & EMC | MAX. CASE TEMP.                         | T <sub>case</sub> = +80°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |             |             |             |             |             |             |             |
|              | WORKING HUMIDITY                        | 20 ~ 95% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |             |             |             |             |             |             |             |
|              | STORAGE TEMP., HUMIDITY                 | -40 ~ +80°C, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |             |             |             |             |             |             |             |
|              | TEMP. COEFFICIENT                       | ±0.03%/°C (0 ~ 60°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |             |             |             |             |             |
| OTHERS       | VIBRATION                               | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |             |             |             |             |             |             |             |
|              | SAFETY STANDARDS Note.8                 | UL8750(type"HL"), CSA C22.2 No. 250.0-08, BS EN/EN 61347-1, BS EN/EN 61347-2-13,AS/NZS 61347-1(except for AB-type), AS/NZS 61347-2-13(except for AB-type) independent;GB19510.1,GB19510.14,IP65 or IP67, J61347-1, J61347-2-13(except for B, AB and D-type),BIS IS15885( for 12B,24B,36A,54A only), EAC TP TC 004,KC61347-1,KC61347-2-13(except for D-type) 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |             |             |             |             |             |             |             |
| NOTE         | EMC EMISSION Note.8                     | Compliance to BS EN/EN55015, BS EN/EN55032 Class B, BS EN/EN61000-3-2 Class C (@ load≥50%) ; BS EN/EN61000-3-3, GB17743 and GB17625.1, EAC TP TC 020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |             |             |             |             |             |             |             |
|              | EMC IMMUNITY                            | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, BS EN/EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV),EAC TP TC 020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |             |             |             |             |             |             |             |
|              | MTBF                                    | 559.5K hrs min. Telcordia SR-332 (Bellcore); 167.1Khrs min. MIL-HDBK-217F (25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |             |             |             |             |             |             |             |
|              | DIMENSION                               | 220*68*38.8mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |             |             |             |             |             |             |             |
| NOTE         | PACKING                                 | 1.12Kg; 12pcs/14.4Kg/0.8CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |             |             |             |             |             |             |             |
|              |                                         | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Please refer to "DRIVING METHODS OF LED MODULE".<br>5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.<br>6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.<br>7. The driver 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.<br>8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains.<br>9. This series meets the typical life expectancy of >62,000 hours of operation when T <sub>case</sub> , particularly (T <sub>c</sub> ) point (or TMP, per DLC), is about 75°C or less.<br>10. Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a><br>11. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>12. For any application note and IP water proof function installation caution, please refer our user manual before using.<br><a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a><br>× Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |             |             |             |             |             |             |             |             |

## ■ 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.

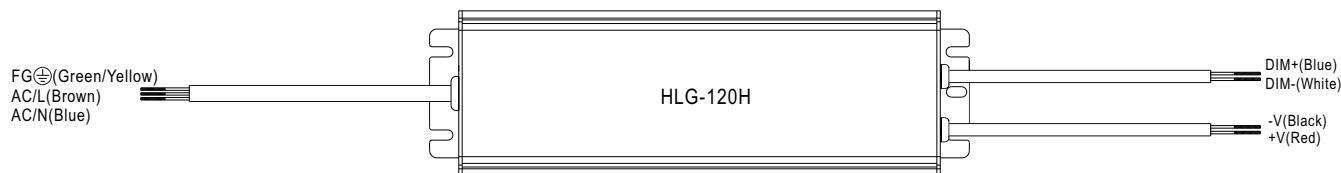


Typical output current normalized by rated current (%)

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.

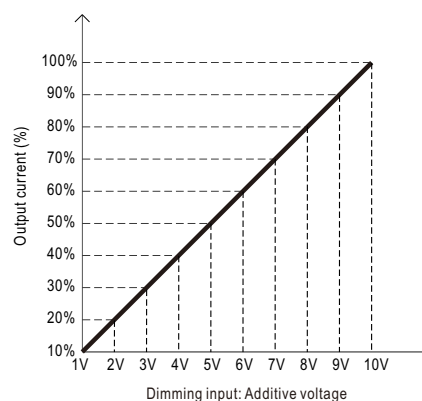
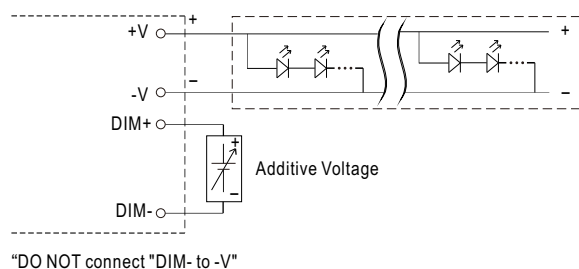
## DIMMING OPERATION



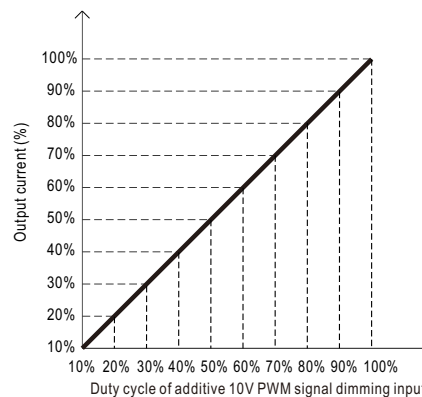
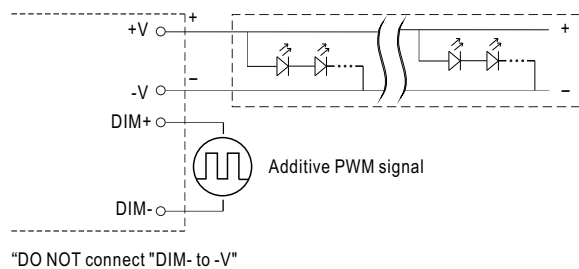
### ※ 3 in 1 dimming function (for B/AB-Type)

- 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 $\mu$ A (typ.)

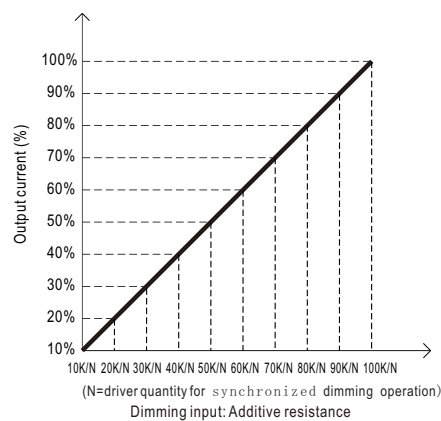
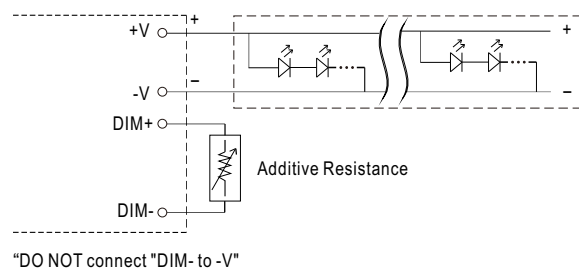
#### ◎ Applying additive 1 ~ 10VDC



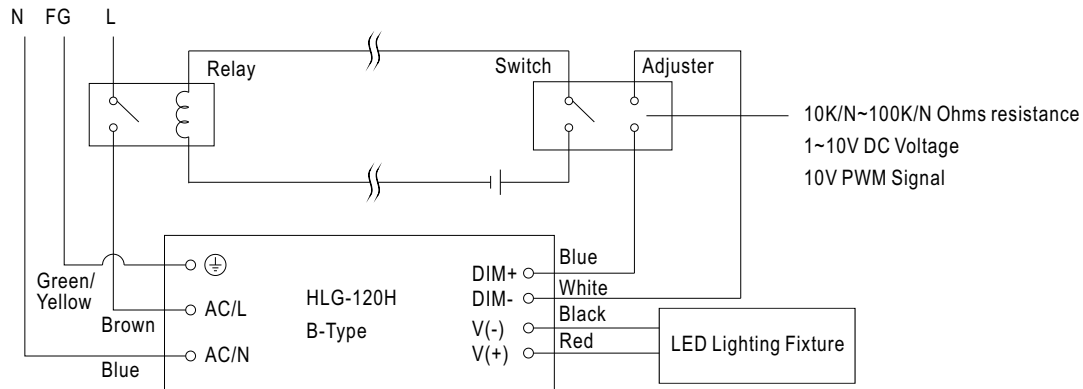
#### ◎ Applying additive 10V PWM signal (frequency range 100Hz ~ 3KHz):



#### ◎ Applying additive resistance:

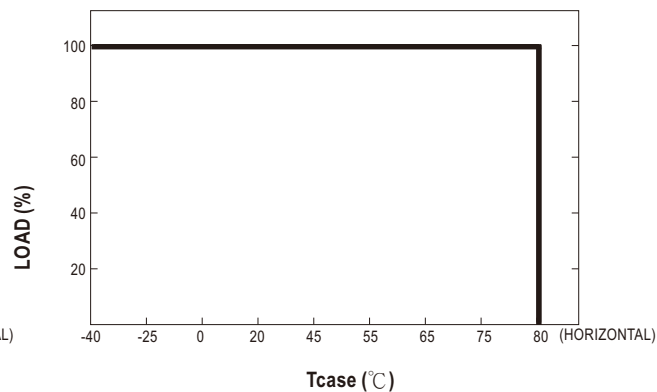
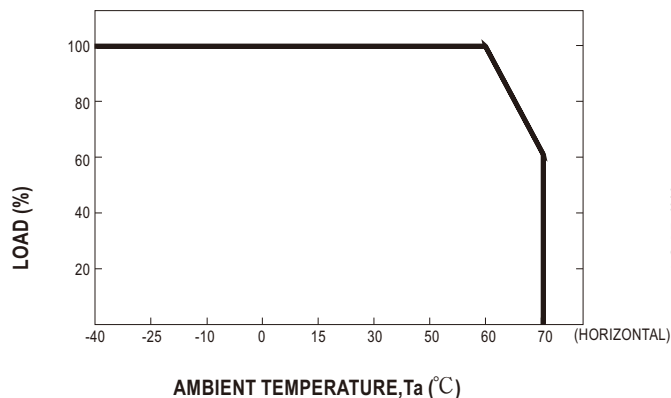


Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.

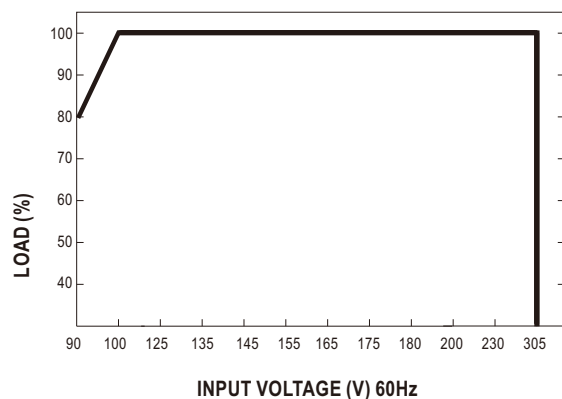


Using a switch and relay can turn ON/OFF the lighting fixture.

### ■ OUTPUT LOAD vs TEMPERATURE(Note.10)



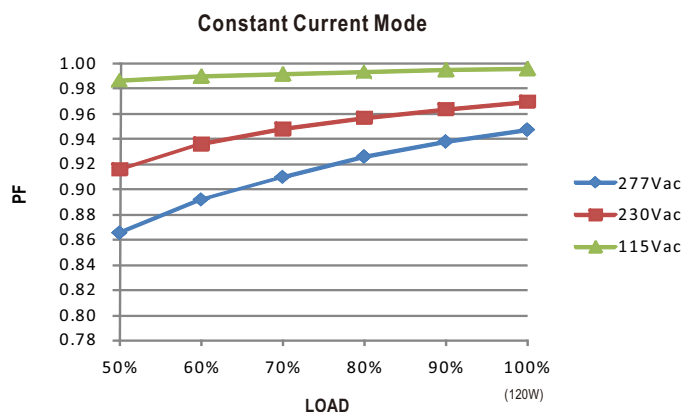
### ■ STATIC CHARACTERISTICS



※ De-rating is needed under low input voltage.

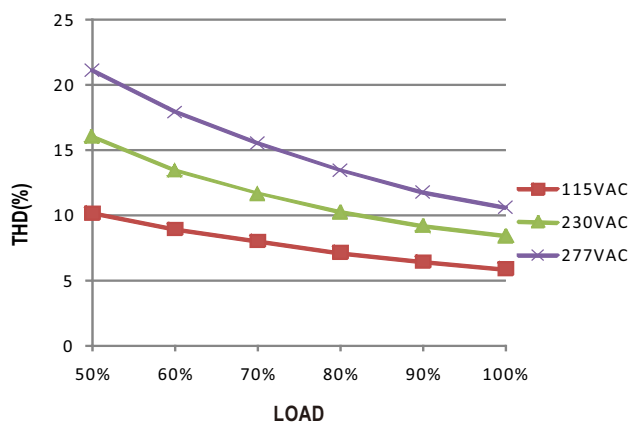
### ■ POWER FACTOR(PF) CHARACTERISTIC

※  $T_{case}$  at 70°C



### ■ TOTAL HARMONIC DISTORTION (THD)

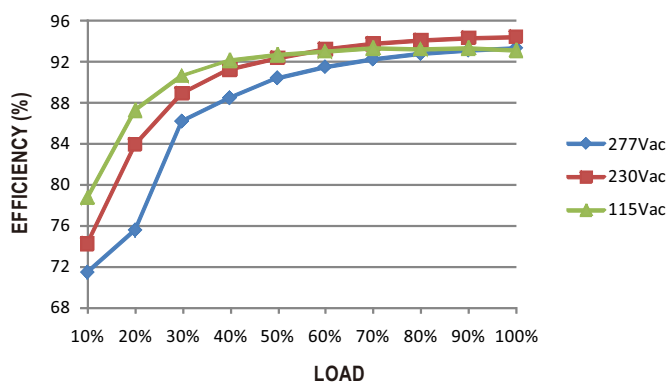
※ 48V Model,  $T_{case}$  at 70°C



### ■ EFFICIENCY vs LOAD

HLG-120H series possess superior working efficiency that up to 93.5% can be reached in field applications.

※ 48V Model,  $T_{case}$  at 70°C

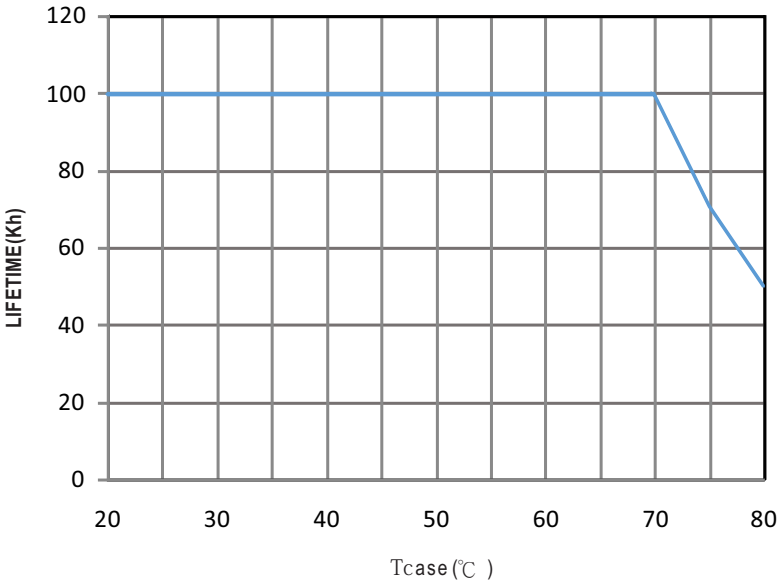




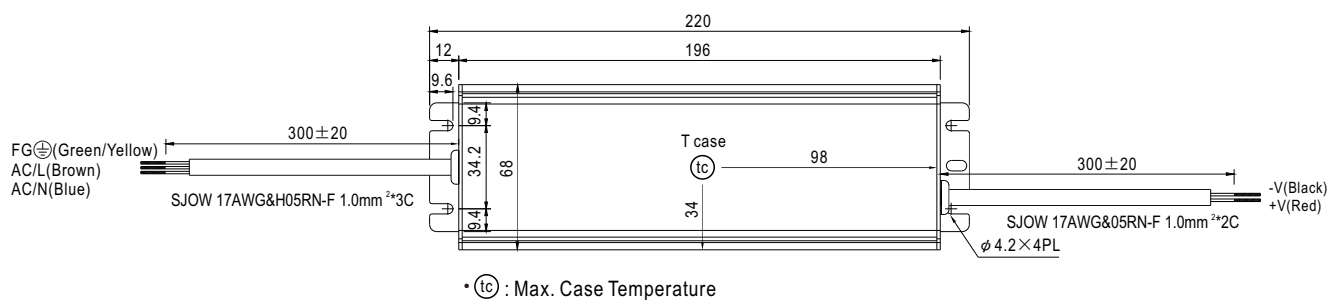
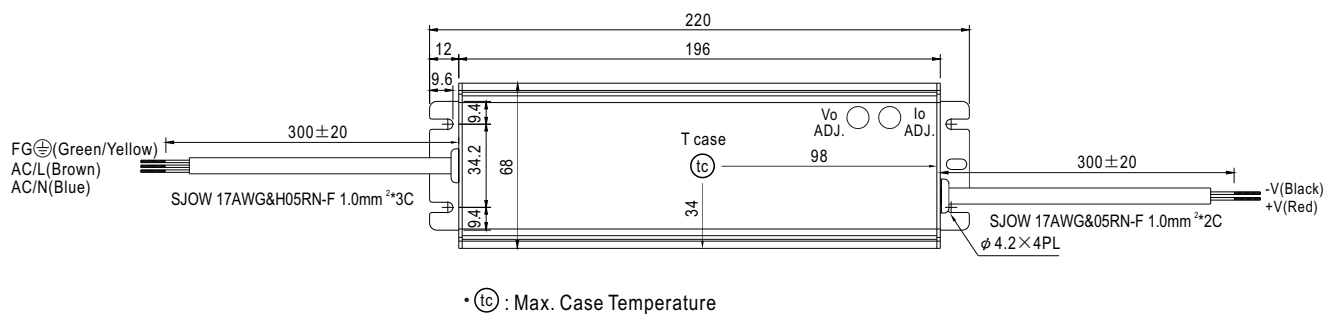
120W Constant Voltage + Constant Current LED Driver

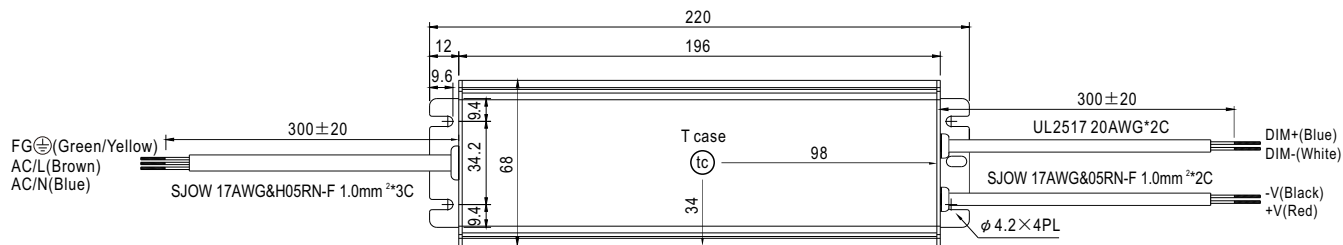
# HLG-120H series

■ LIFE TIME

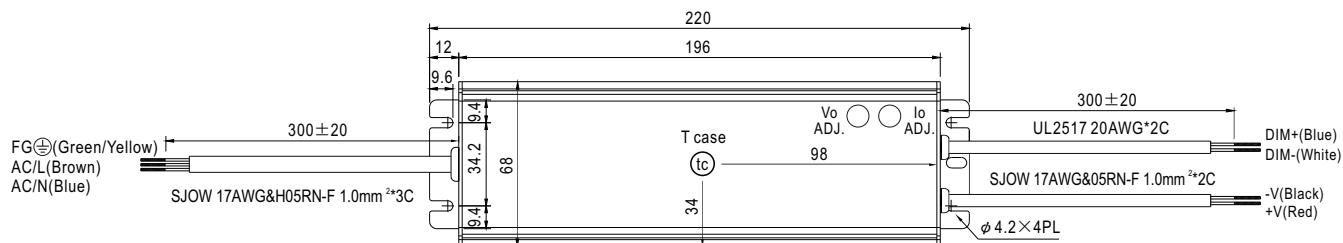


Case No.994A Unit:mm

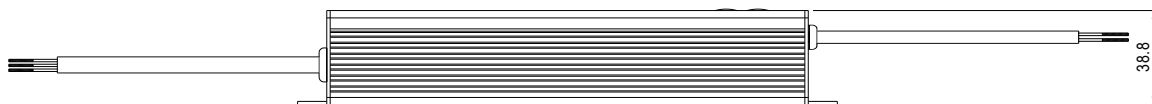
**MECHANICAL SPECIFICATION**
**※Blank/D-Type**

**※A-Type**


**※B-Type**


• (tc) : Max. Case Temperature


**※AB-Type**


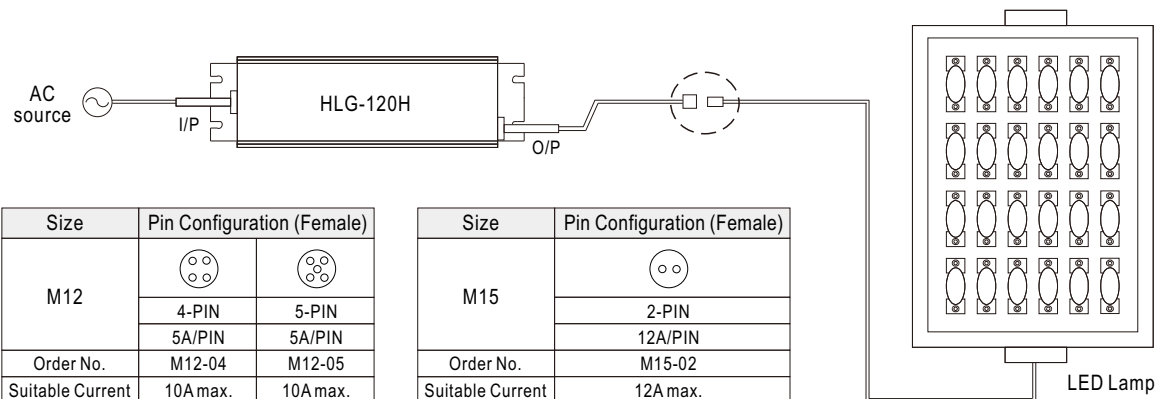
• (tc) : Max. Case Temperature



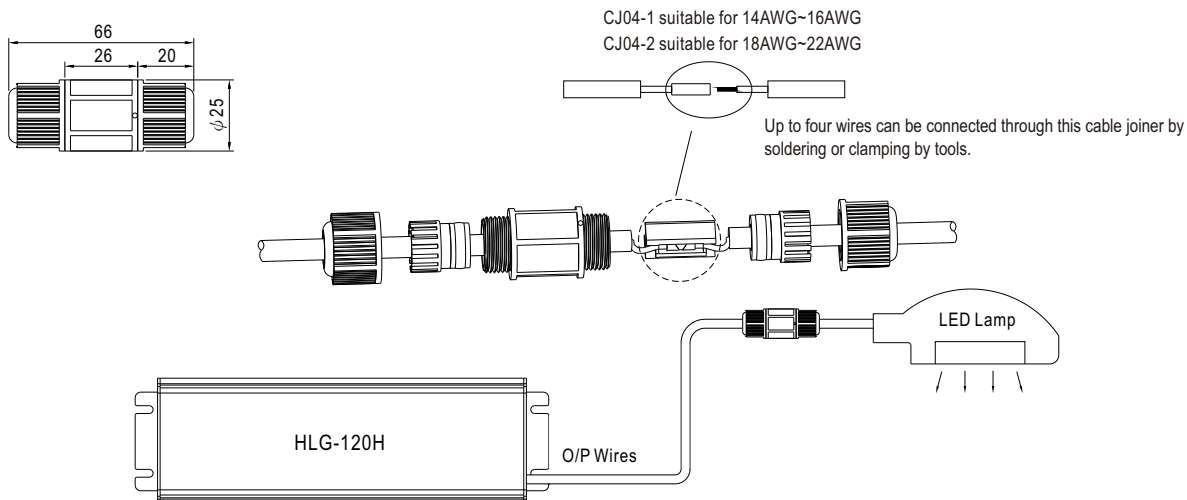
## ■ WATERPROOF CONNECTION

### ※ Waterproof connector

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

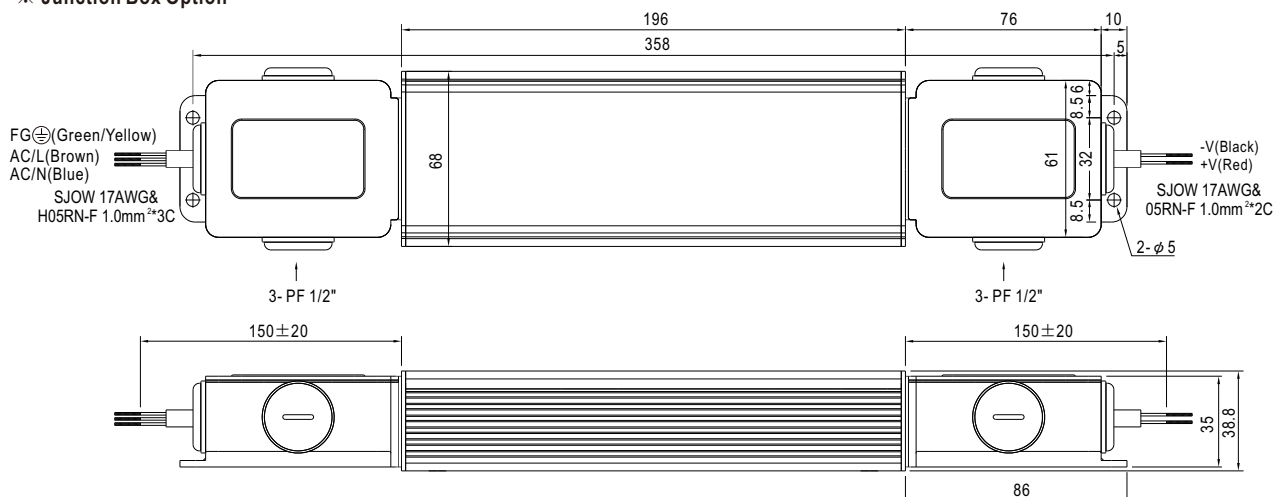


### ※ Cable Joiner



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

### ※ Junction Box Option



◎ Junction box option is available for A / Blank - Type. Please contact MEAN WELL for details.

## ■ INSTALLATION MANUAL

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