



## Features

- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Standby power consumption <0.5W at remote off
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off)
- Typical lifetime > 62000 hours
- 7 years warranty

## Applications

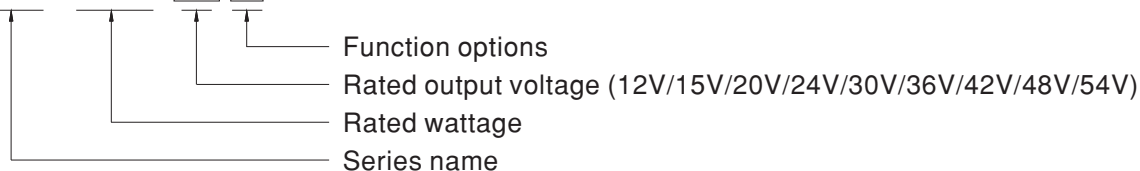
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- LED greenhouse lighting
- Type "HL" for use in Class I , Division 2 hazardous (Classified) location.

## Description

HLG-600H series is a 600W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-600H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 96%, with the fanless design, the entire series is able to operate for -40°C ~ +90°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-600H 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 - 600H - 15 A**

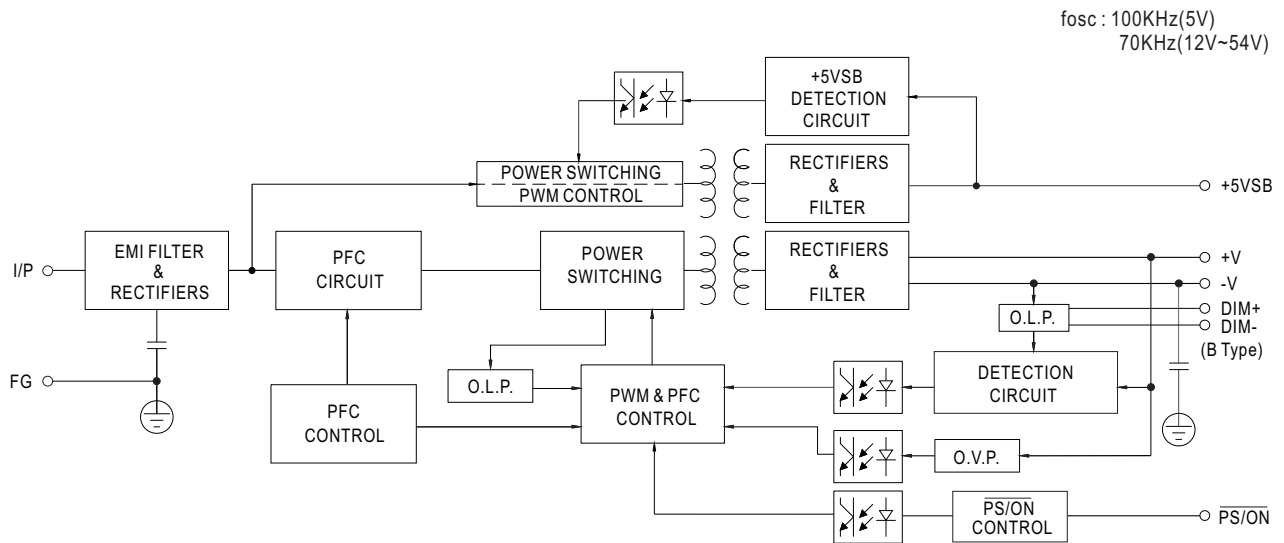


| Type  | IP Level | Function                                                                                                               | Note     |
|-------|----------|------------------------------------------------------------------------------------------------------------------------|----------|
| A     | IP65     | Io and Vo adjustable through built-in potentiometer                                                                    | In Stock |
| B     | IP67     | 3 in 1 dimming function (0~10VDC, 10V PWM signal and resistance)                                                       | In Stock |
| AB    | IP65     | Io and Vo adjustable through built-in potentiometer & 3 in 1 dimming function (0~10VDC, 10V PWM signal and resistance) | In Stock |
| Blank | IP67     | Io and Vo fixed                                                                                                        | In Stock |

**SPECIFICATION**

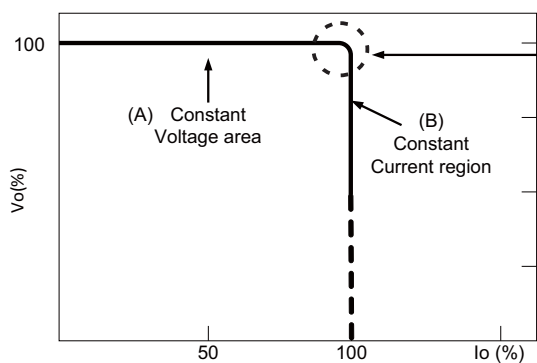
| MODEL                  |                                               | HLG-600H-12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HLG-600H-15  | HLG-600H-20 | HLG-600H-24  | HLG-600H-30  | HLG-600H-36  | HLG-600H-42  | HLG-600H-48  | HLG-600H-54  |
|------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| OUTPUT                 | DC VOLTAGE                                    | 12V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 15V          | 20V         | 24V          | 30V          | 36V          | 42V          | 48V          | 54V          |
|                        | CONSTANT CURRENT REGION <small>Note.4</small> | 6 ~ 12V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7.5 ~ 15V    | 10 ~ 20V    | 12 ~ 24V     | 15 ~ 30V     | 18 ~ 36V     | 21 ~ 42V     | 24 ~ 48V     | 27 ~ 54V     |
|                        | RATED CURRENT                                 | 40A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 36A          | 28A         | 25A          | 20A          | 16.7A        | 14.3A        | 12.5A        | 11.2A        |
|                        | RATED POWER                                   | 480W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 540W         | 560W        | 600W         | 600W         | 601.2W       | 600.6W       | 600W         | 604.8W       |
|                        | RIPPLE & NOISE (max.) <small>Note.2</small>   | 150mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 150mVp-p     | 150mVp-p    | 150mVp-p     | 200mVp-p     | 250mVp-p     | 250mVp-p     | 250mVp-p     | 350mVp-p     |
|                        | VOLTAGE ADJ. RANGE                            | Adjustable for A-Type only (via built-in potentiometer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |             |              |              |              |              |              |              |
|                        |                                               | 10.2 ~ 12.6V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 12.7 ~ 15.8V | 17 ~ 21V    | 20.4 ~ 25.2V | 25.5 ~ 31.5V | 30.6 ~ 37.8V | 35.7 ~ 44.1V | 40.8 ~ 50.4V | 45.9 ~ 56.7V |
|                        | CURRENT ADJ. RANGE                            | Adjustable for A-Type only (via built-in potentiometer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |             |              |              |              |              |              |              |
|                        |                                               | 20 ~ 40A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 18 ~ 36A     | 14 ~ 28A    | 12.5 ~ 25A   | 10 ~ 20A     | 8.3 ~ 16.7A  | 7.1 ~ 14.3A  | 6.2 ~ 12.5A  | 5.6 ~ 11.2A  |
|                        | VOLTAGE TOLERANCE <small>Note.3</small>       | ±3.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ±2.0%        | ±1.5%       | ±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%        | ±1.0%       | ±0.5%        | ±0.5%        | ±0.5%        | ±0.5%        | ±0.5%        | ±0.5%        |
|                        | SETUP, RISE TIME <small>Note.6</small>        | 500ms, 80ms/ 115VAC, 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |             |              |              |              |              |              |              |
|                        | HOLD UP TIME (Typ.)                           | 15ms / 115VAC, 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |             |              |              |              |              |              |              |
|                        | VOLTAGE RANGE <small>Note.5</small>           | 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.)                             | 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 92%          | 93.5%       | 94.5%        | 95%          | 95%          | 95.5%        | 96%          | 96%          |
|                        |                                               | 277VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 92.5%        | 93.5%       | 94.5%        | 95%          | 95%          | 95.5%        | 96%          | 96%          |
| PROTECTION             | AC CURRENT (Typ.)                             | 7A / 115VAC 3.3A / 230VAC 2.9A / 277VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |             |              |              |              |              |              |              |
|                        | INRUSH CURRENT(Typ.)                          | COLD START 70A(twidth=1000μs measured at 50% Ipeak) at 230VAC; Per NEMA 410                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |             |              |              |              |              |              |              |
|                        | MAX. No. of PSUs on 16A CIRCUIT BREAKER       | 1 unit (circuit breaker of type B) / 2 units (circuit breaker of type C) at 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |             |              |              |              |              |              |              |
|                        | LEAKAGE CURRENT                               | <0.75mA / 277VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |             |              |              |              |              |              |              |
|                        | STANDBY POWER CONSUMPTION                     | <0.5W at remote off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |             |              |              |              |              |              |              |
|                        | OVER CURRENT <small>Note.4</small>            | 95 ~ 108%<br>Constant current limiting, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |             |              |              |              |              |              |              |
|                        | SHORT CIRCUIT                                 | Constant current limiting, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |             |              |              |              |              |              |              |
|                        | OVER VOLTAGE                                  | 13 ~ 16V 16.5 ~ 20.5V 22 ~ 26V 26 ~ 30V 32.5 ~ 36.5V 39.5 ~ 43.5V 46 ~ 50V 52.5 ~ 56.5V 59 ~ 63V<br>Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |             |              |              |              |              |              |              |
|                        | OVER TEMPERATURE                              | Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |             |              |              |              |              |              |              |
|                        | REMOTE ON/OFF CONTROL                         | Power on : "High" >2 ~ 5V or Open circuit Power off : "Low" <0 ~ 0.5V or Short circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |             |              |              |              |              |              |              |
| FUNCTION               | 5V STANDBY                                    | 5V <sub>SB</sub> : 5V@0.5A; tolerance ±5%, ripple : 100mVp-p(max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |             |              |              |              |              |              |              |
|                        | WORKING TEMP.                                 | Tcase= -40 ~ +90°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |             |              |              |              |              |              |              |
|                        | MAX. CASE TEMP.                               | Tcase= +90°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |             |              |              |              |              |              |              |
|                        | WORKING HUMIDITY                              | 20 ~ 95% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |             |              |              |              |              |              |              |
|                        | STORAGE TEMP., HUMIDITY                       | -40 ~ +85°C, 10 ~ 95% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |             |              |              |              |              |              |              |
|                        | TEMP. COEFFICIENT                             | ±0.03%/°C (0 ~ 55°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |             |              |              |              |              |              |              |
|                        | VIBRATION                                     | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |              |             |              |              |              |              |              |              |
|                        | SAFETY STANDARDS <small>Note.7</small>        | UL60950-1, UL8750(type"HL"), CSA C22.2 No. 250.13-12, ENEC EN61347-1, EN61347-2-13 independent, EN62384, IP65 or IP67, J61347-1, J61347-2-13, CCC GB4943.1, EAC TP TC 004, AS/NZS 60950.1(by CB), KC61347-1, KC61347-2-13(for 24A,36A,48A,54A only) 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |             |              |              |              |              |              |              |
| SAFETY & EMC (Note 10) | EMC EMISSION <small>Note.7</small>            | Compliance to EN55032 (CISPR32) Class B, EN55015, EN61000-3-2 Class C (@ load ≥ 50%) ; EN61000-3-3, EAC TP TC 020; KC KN15, KN61547(for 24A,36A,48A,54A only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |             |              |              |              |              |              |              |
|                        | EMC IMMUNITY                                  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV), EAC TP TC 020; KC KN15, KN61547(for 24A,36A,48A,54A only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |             |              |              |              |              |              |              |
|                        | MTBF                                          | 76.9K hrs min. MIL-HDBK-217F (25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |             |              |              |              |              |              |              |
|                        | DIMENSION                                     | 280*144*48.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |             |              |              |              |              |              |              |
|                        | PACKING                                       | 3.9Kg; 4pcs/16.6Kg/0.9CUFT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |             |              |              |              |              |              |              |
|                        | NOTE                                          | 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 model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.<br>8. This series meets the typical life expectancy of >62,000 hours of operation when Tcase, particularly (Tc point (or TMP, per DLC), is about 75°C or less.<br>9. Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a><br>10. The driver is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <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> |              |             |              |              |              |              |              |              |
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|                        |                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |             |              |              |              |              |              |              |
|                        |                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |             |              |              |              |              |              |              |

## ■ 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.

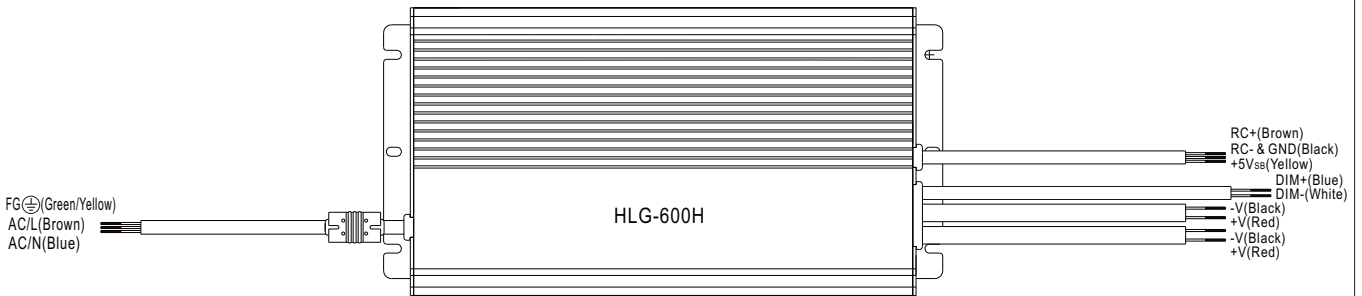


Typical output current normalized by rated current (%)

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.

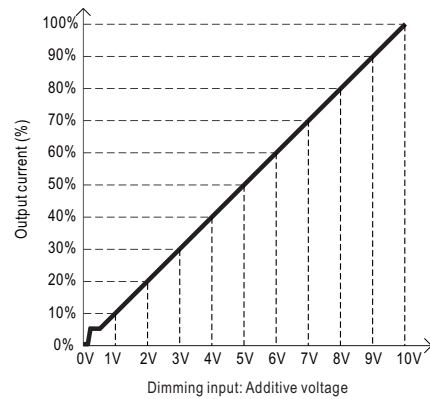
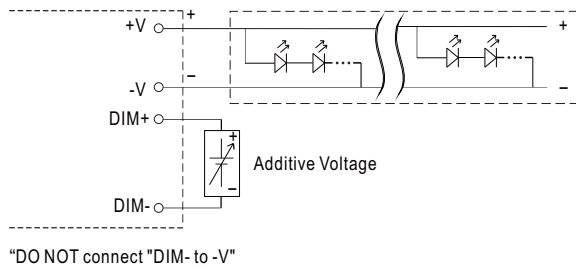
## DIMMING OPERATION



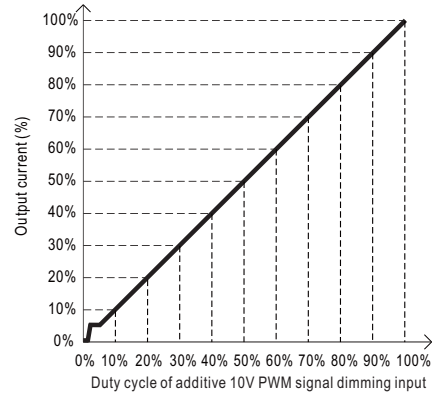
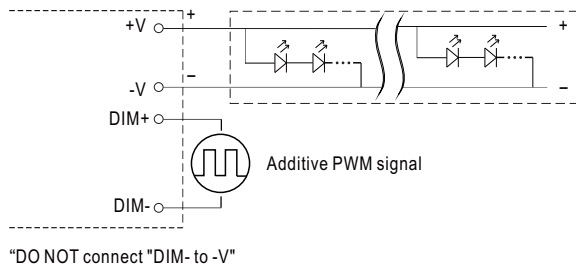
### ※ 3 in 1 dimming function (for B-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:  
0 ~ 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.)

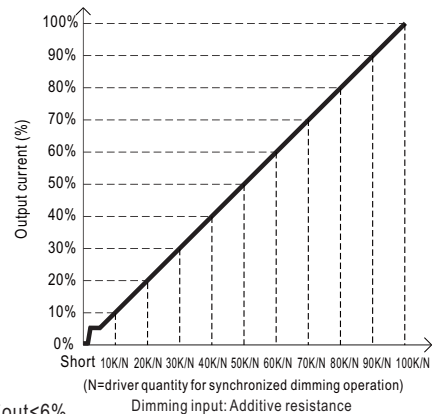
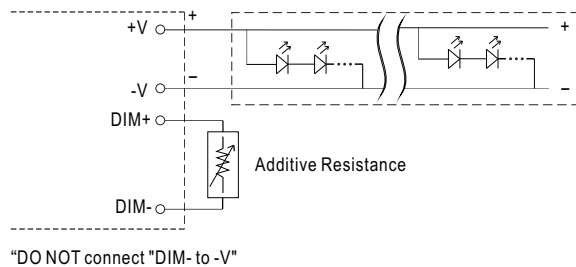
#### ◎ Applying additive 0 ~ 10VDC



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



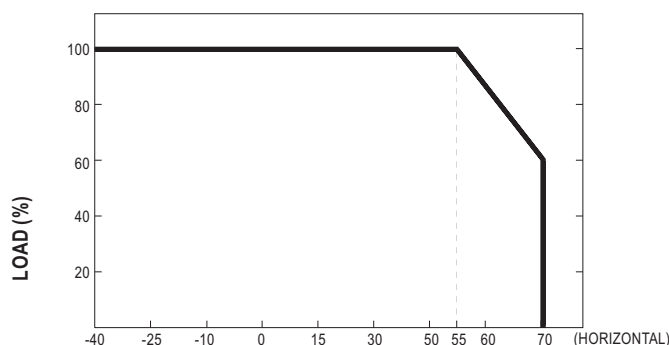
#### ◎ Applying additive resistance:



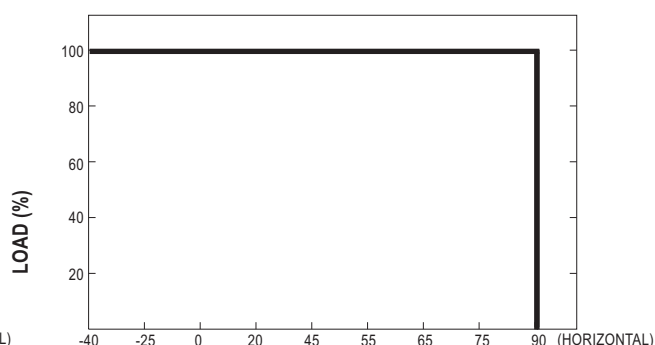
Note : 1. Min. dimming level is about 6% and the output current is not defined when  $0\% < I_{out} < 6\%$ .

2. The output current could drop down to 0% when dimming input is about 0k $\Omega$  or 0Vdc, or 10V PWM signal with 0% duty cycle.

### OUTPUT LOAD vs TEMPERATURE



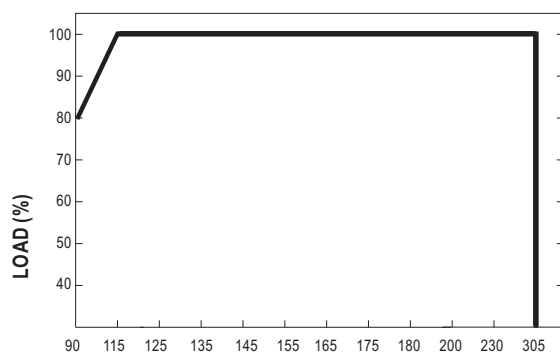
AMBIENT TEMPERATURE,  $T_a$  (°C)



$T_{case}$  (°C)

© If HLG-600H operates in constant current mode with the rated current, the maximum workable  $T_a$  is 55°C.

### STATIC CHARACTERISTICS

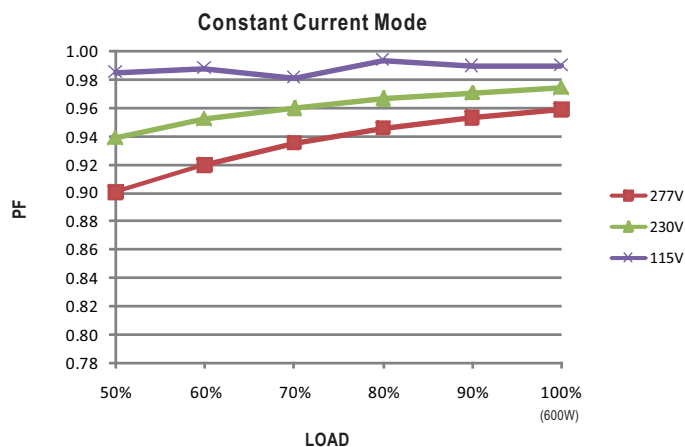


INPUT VOLTAGE (V) 60Hz

※ De-rating is needed under low input voltage.

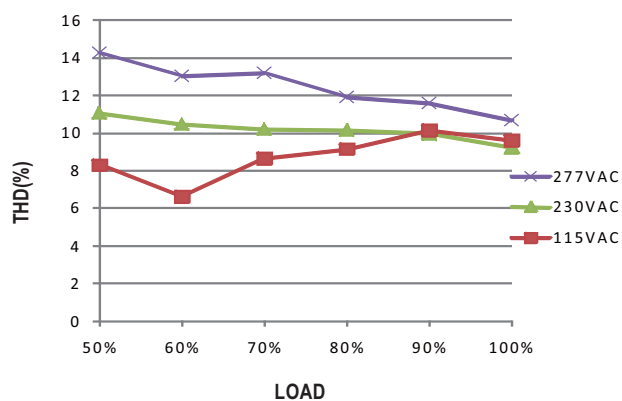
### POWER FACTOR(PF) CHARACTERISTIC

※  $T_{case}$  at 80°C



### TOTAL HARMONIC DISTORTION (THD)

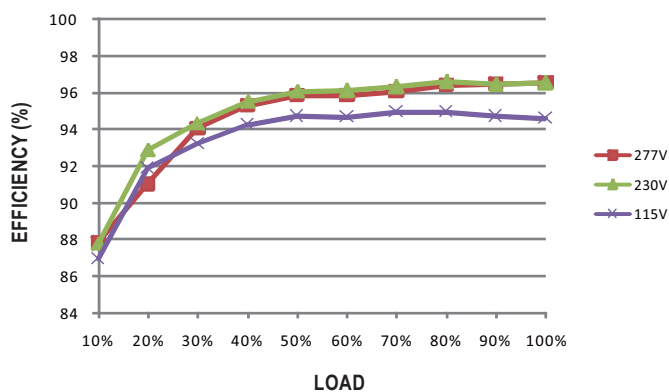
※ 48V Model,  $T_{case}$  at 80°C



### EFFICIENCY vs LOAD

HLG-600H series possess superior working efficiency that up to 96% can be reached in field applications.

※ 48V Model,  $T_{case}$  at 80°C

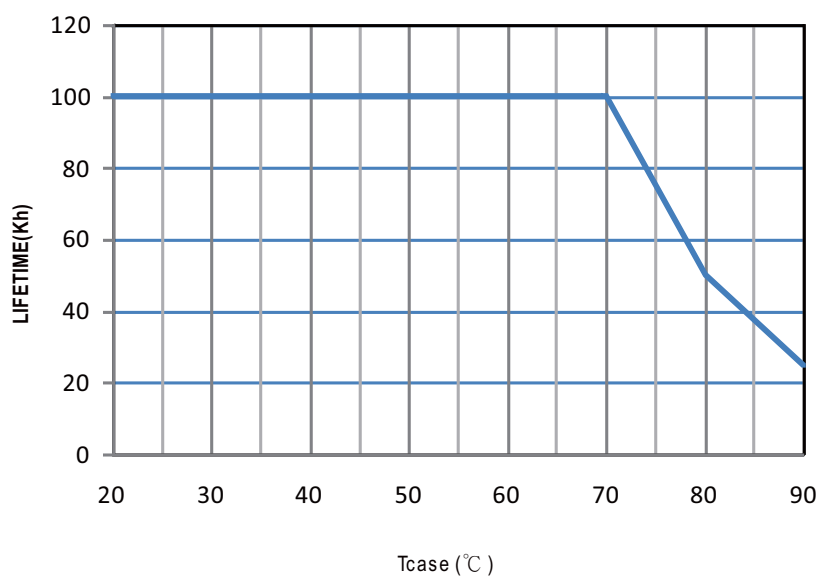




600W Constant Voltage + Constant Current LED Driver

**HLG-600H** series

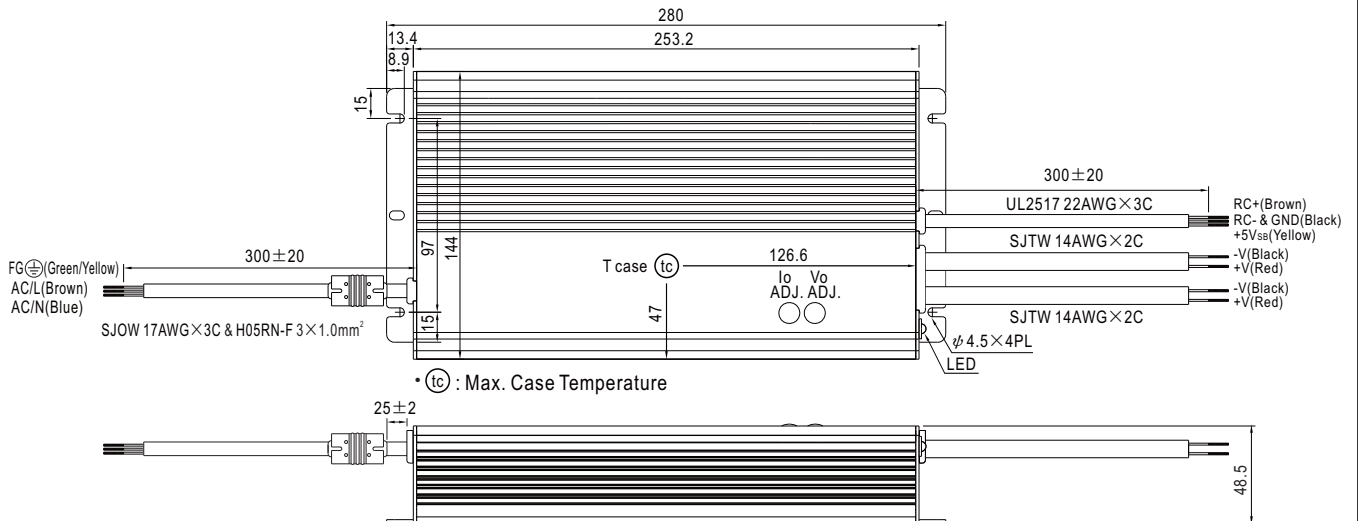
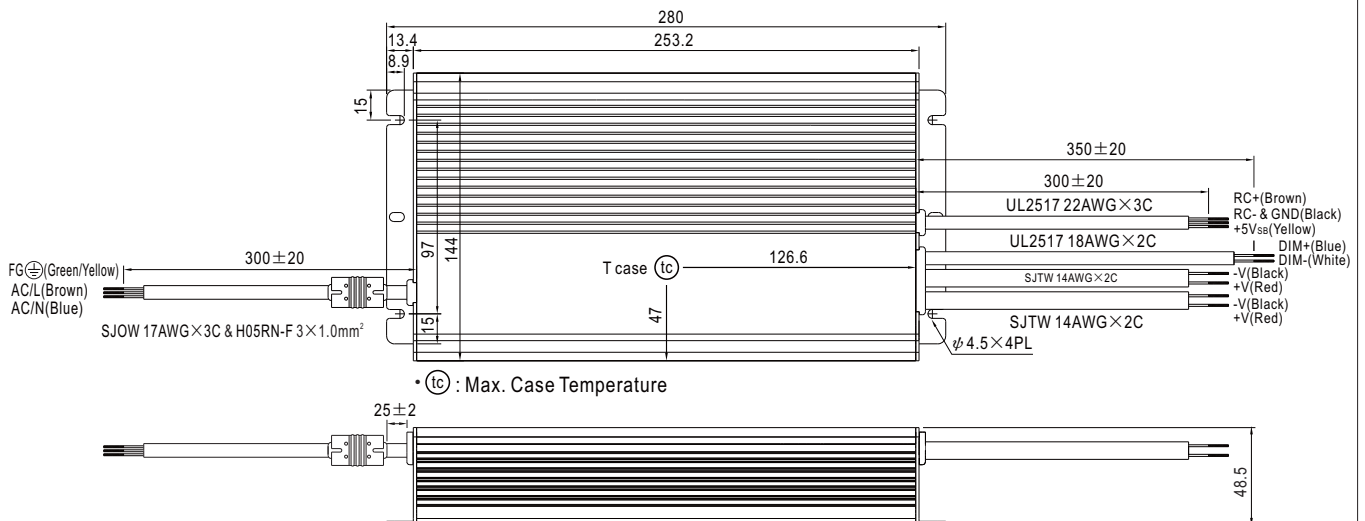
■ LIFETIME



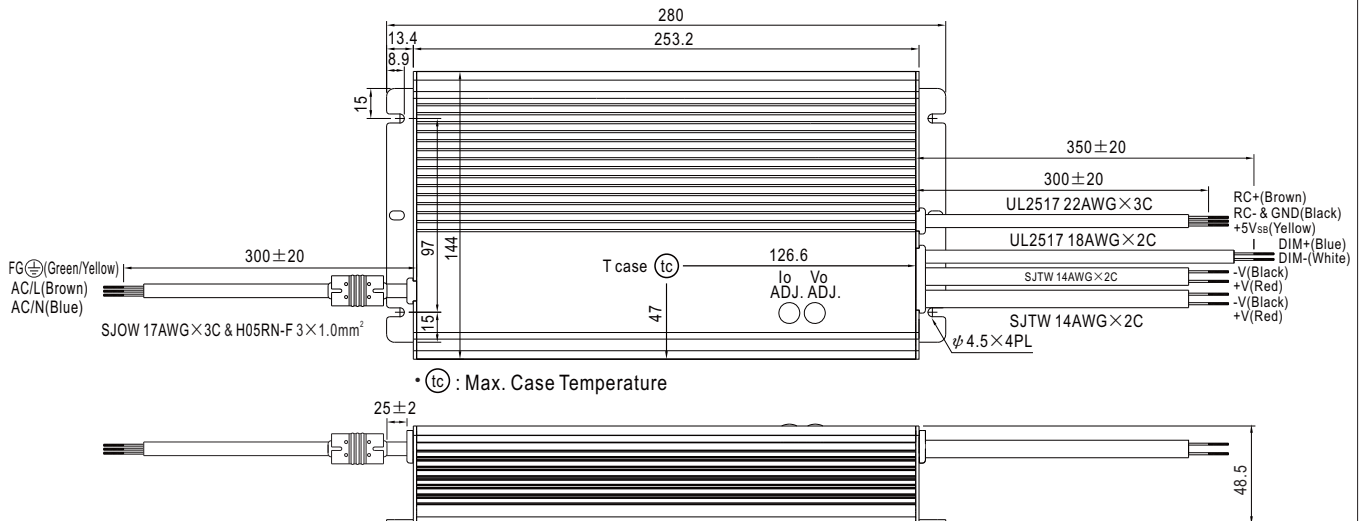
**MECHANICAL SPECIFICATION**

Case No. 228

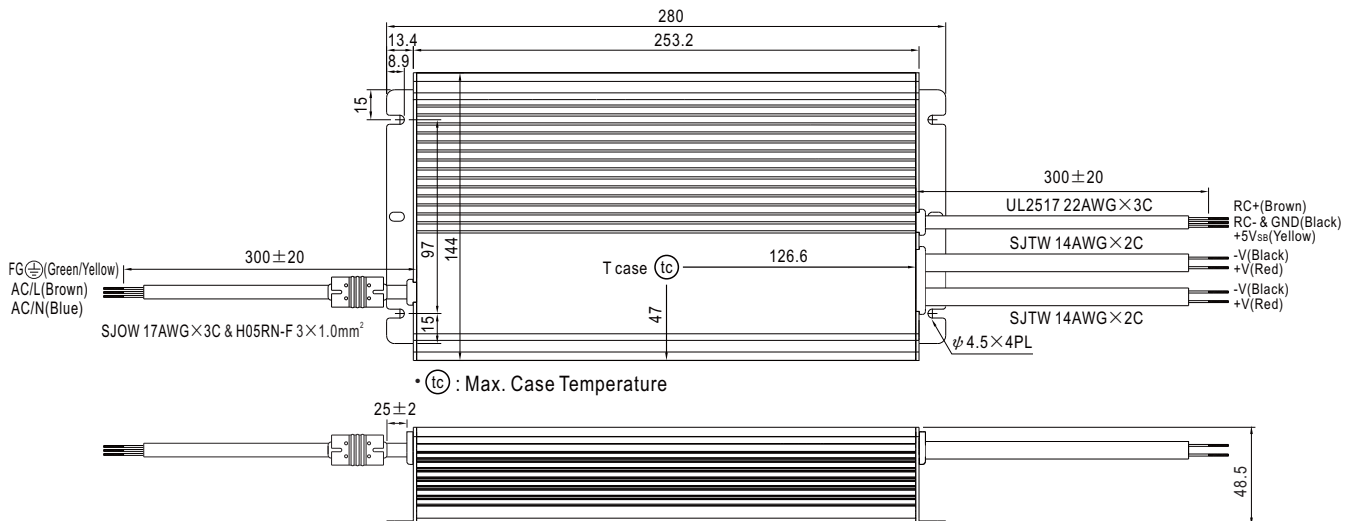
Unit:mm

**※A-Type**

**※B-Type**


## ※AB-Type



## ※Blank-Type



## ■ INSTALLATION MANUAL

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