



## Features

- Constant Voltage + Constant Current mode output
- Protection Functions: OCP,SCP,OVP,OTP
- IP67 rating for indoor or outdoor installations
- Output adjustable via potentiometer
- Typical lifetime>50000 hours
- 5 years warranty

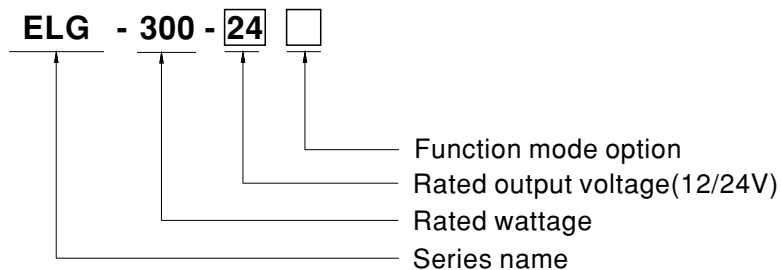
## Applications

- LED bay lighting
- LED stage lighting
- LED flood lighting
- LED strip lighting
- DMX control system

## Description

ELG-300 series is a 300W LED driver featuring with constant current and Constant voltage mode design. ELG-300 operates from 100~305VAC and offers CV mode or CC mode applications. Thanks to the high efficiency up to 94%, with the fanless design, the ambient temperature can be operated for -40℃~+85℃ case temperature under free air convection. The design of metal housing and IP67 ingress protection level allows this series to fit both indoor and outdoor applications. Moreover the innovative environment-adaptive capability allows this series to reliably light on the LEDs for all kinds of application environments in almost any spots that may install LED luminaires in the world ,as to provide the optimal design flexibility for LED lighting system.

## Model Encoding



| Type | IP Level | Function                                            | Note     |
|------|----------|-----------------------------------------------------|----------|
| A    | IP67     | Io and Vo adjustable through built-in potentiometer | In Stock |



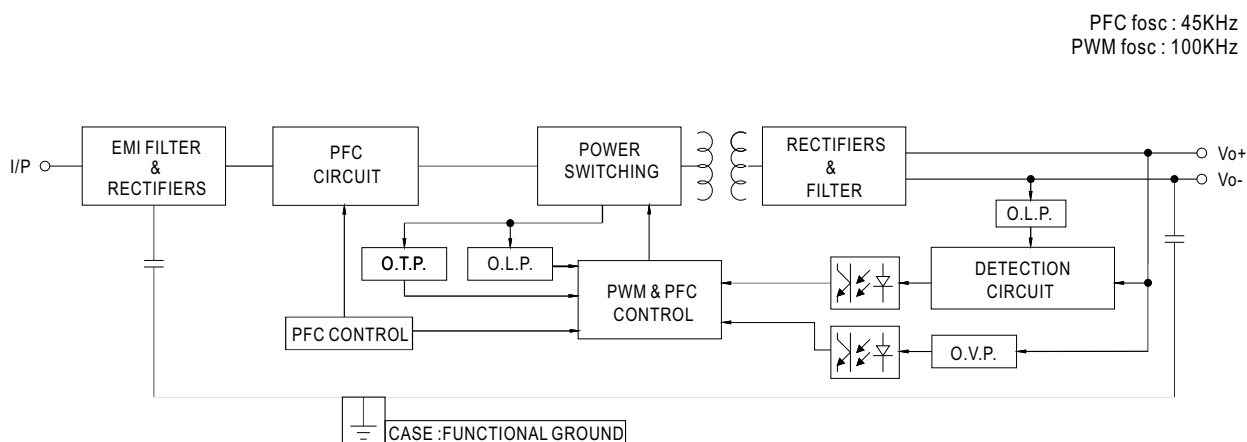
# 300W Constant Voltage + Constant Current LED Driver

# ELG-300

## SPECIFICATION

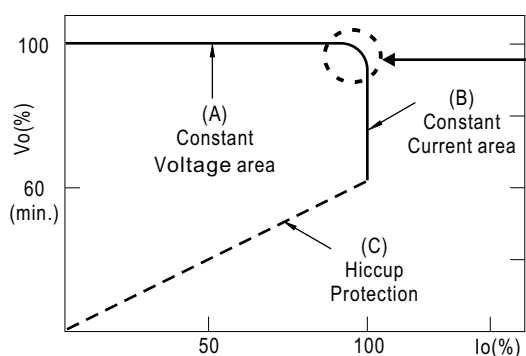
| MODEL                                  |                                               | ELG-300-12A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                | ELG-300-24A |              |  |
|----------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------|--|
| OUTPUT                                 | DC VOLTAGE                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 12V                                                                                                                                                                                                            |             | 24V          |  |
|                                        | CONSTANT CURRENT REGION <small>Note.2</small> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10~ 12V                                                                                                                                                                                                        |             | 14.4~ 24V    |  |
|                                        | RATED CURRENT                                 | 200VAC ~ 305VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22A                                                                                                                                                                                                            |             | 12.5A        |  |
|                                        |                                               | 100VAC ~ 180VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 18.7A                                                                                                                                                                                                          |             | 10.63A       |  |
|                                        | RATED POWER                                   | 200VAC ~ 305VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 264W                                                                                                                                                                                                           |             | 300W         |  |
|                                        |                                               | 100VAC ~ 180VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 224.4W                                                                                                                                                                                                         |             | 255W         |  |
|                                        | RIPPLE & NOISE (max.) <small>Note.3</small>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 150mVp-p                                                                                                                                                                                                       |             | 240mVp-p     |  |
|                                        | VOLTAGE ADJ. RANGE                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 11.2 ~12.8V                                                                                                                                                                                                    |             | 22.4 ~25.6V  |  |
|                                        | CURRENT ADJ. RANGE                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 11 ~ 22A                                                                                                                                                                                                       |             | 6.25 ~ 12.5A |  |
|                                        | VOLTAGE TOLERANCE <small>Note.4</small>       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±3.0%                                                                                                                                                                                                          |             | ±2.0%        |  |
|                                        | LINE REGULATION                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±0.5%                                                                                                                                                                                                          |             | ±0.5%        |  |
|                                        | LOAD REGULATION                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±2.0%                                                                                                                                                                                                          |             | ±1.0%        |  |
| SETUP, RISE TIME <small>Note.6</small> |                                               | 500ms, 100ms/230VAC, 500ms, 100ms/115VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                |             |              |  |
| HOLD UP TIME (Typ.)                    |                                               | 10ms/ 230VAC 10ms/ 115VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                |             |              |  |
| INPUT                                  | VOLTAGE RANGE <small>Note.5</small>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 100 ~ 305VAC 142 ~ 431VDC<br>(Please refer to "STATIC CHARACTERISTIC" section)                                                                                                                                 |             |              |  |
|                                        | FREQUENCY RANGE                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 47 ~ 63Hz                                                                                                                                                                                                      |             |              |  |
|                                        | POWER FACTOR                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PF ≥ 0.95/115VAC, PF ≥ 0.93/230VAC, PF ≥ 0.90/277VAC@full load                                                                                                                                                 |             |              |  |
|                                        | TOTAL HARMONIC DISTORTION                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | THD< 10%(@load≥50%/115VC,230VAC; @load≥75%/277VAC)                                                                                                                                                             |             |              |  |
|                                        | EFFICIENCY (Typ.)                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 91%                                                                                                                                                                                                            |             | 94%          |  |
|                                        | AC CURRENT                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3A / 115VAC 1.6A / 230VAC 1.3A/277VAC                                                                                                                                                                          |             |              |  |
|                                        | INRUSH CURRENT(Typ.)                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | COLD START 45A(twidth=1200μs measured at 50% Ipeak) at 230VAC; Per NEMA 410                                                                                                                                    |             |              |  |
|                                        | MAX. No. of PSUs on 16A CIRCUIT BREAKER       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2 units (circuit breaker of type B) / 4 units (circuit breaker of type C) at 230VAC                                                                                                                            |             |              |  |
|                                        | LEAKAGE CURRENT                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <0.75mA / 277VAC                                                                                                                                                                                               |             |              |  |
| PROTECTION                             | OVER CURRENT                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 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                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 13.5 ~ 17V                                                                                                                                                                                                     |             | 27 ~ 34V     |  |
|                                        | OVER TEMPERATURE                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Shut down output voltage, re-power on to recover                                                                                                                                                               |             |              |  |
|                                        |                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Shut down output voltage, re-power on to recover                                                                                                                                                               |             |              |  |
| ENVIRONMENT                            | WORKING TEMP.                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Tcase=-40 ~ +85℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)                                                                                                                                       |             |              |  |
|                                        | MAX. CASE TEMP.                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Tcase=+85℃                                                                                                                                                                                                     |             |              |  |
|                                        | WORKING HUMIDITY                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20 ~ 95% RH non-condensing                                                                                                                                                                                     |             |              |  |
|                                        | STORAGE TEMP., HUMIDITY                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -40 ~ +80℃, 10 ~ 95% RH                                                                                                                                                                                        |             |              |  |
|                                        | TEMP. COEFFICIENT                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±0.03%/℃ (0 ~ 60℃)                                                                                                                                                                                             |             |              |  |
|                                        | VIBRATION                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes                                                                                                                                        |             |              |  |
| SAFETY & EMC                           | SAFETY STANDARDS                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | UL8750(type"HL")(Except for 12V), CSA C22.2 No. 250.13-12; ENEC EN61347-1, EN61347-2-13 independent, EN62384; EAC TP TC 004; GB19510.1, GB19510.14; KC61347-1,KC61347-2-13; IS15885(Part2/Sec13),IP67 approved |             |              |  |
|                                        | WITHSTAND VOLTAGE                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I/P-O/P:3.75KVAC I/P-FG:2.0KVAC O/P-FG:1.5KVAC                                                                                                                                                                 |             |              |  |
|                                        | ISOLATION RESISTANCE                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                      |             |              |  |
|                                        | EMC EMISSION                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compliance to EN55015,EN61000-3-2 Class C (@load ≥ 50%) ; EN61000-3-3;KN15                                                                                                                                     |             |              |  |
|                                        | EMC IMMUNITY                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, light industry level (surge immunity Line-Earth 6KV, Line-Line 4KV),KN61547                                                                                   |             |              |  |
| OTHERS                                 | MTBF                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 609K hrs min. Telcordia SR-332 (Bellcore) ; 191Khrs min. MIL-HDBK-217F (25℃)                                                                                                                                   |             |              |  |
|                                        | DIMENSION                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 246*77*39.5mm (L*W*H)                                                                                                                                                                                          |             |              |  |
|                                        | PACKING                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.45 Kg; 9pcs /13.5Kg / 0.76CUFT                                                                                                                                                                               |             |              |  |
| NOTE                                   |                                               | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature.<br>2. Please refer to "DRIVING METHODS OF LED MODULE".<br>3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>4. Tolerance : includes set up tolerance, line regulation and load regulation.<br>5. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.<br>6. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.<br>7. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.<br>8. This series meets the typical life expectancy >50,000 hours of operation when Tcase, particularly (Tc) point (or TMP, per DLC), is 70℃ 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 ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>11. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED driver can only be used behind a switch without permanently connected to the mains.<br>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> |                                                                                                                                                                                                                |             |              |  |

## Block Diagram



## DRIVING METHODS OF LED MODULE

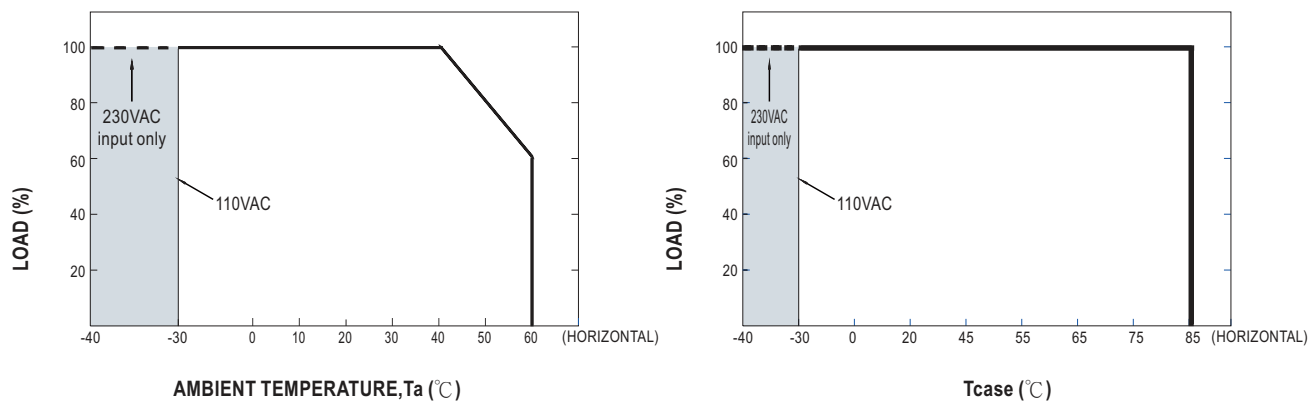
※ This series is able to work in either Constant Current mode (a direct drive way) or Constant Voltage mode (usually through additional DC/DC driver) to drive the LEDs.



Typical output current normalized by rated current (%)

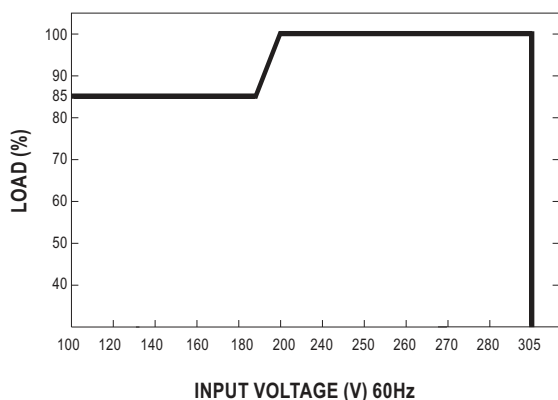
In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.  
Should there be any compatibility issues, please contact MEAN WELL.

## OUTPUT LOAD vs TEMPERATURE



☉ If ELG-300 operates in Constant Current mode with the rated current, the maximum workable Ta is 40°C.

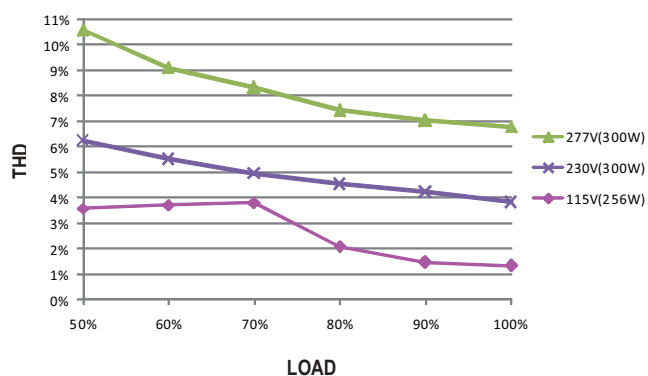
## STATIC CHARACTERISTIC



※ De-rating is needed under low input voltage.

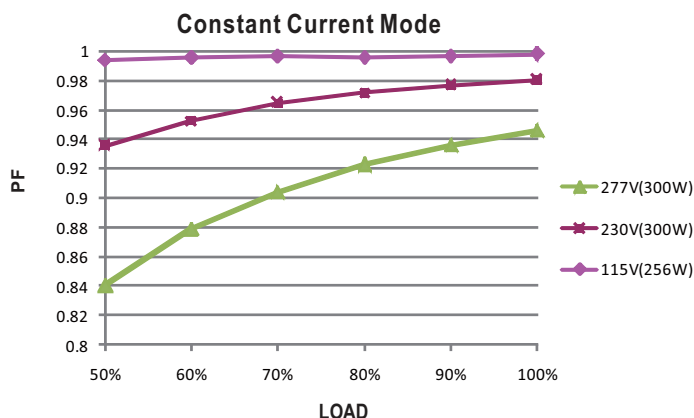
## TOTAL HARMONIC DISTORTION (THD)

※ ELG-300-24A Model, Tcase at 75°C



## POWER FACTOR (PF) CHARACTERISTIC

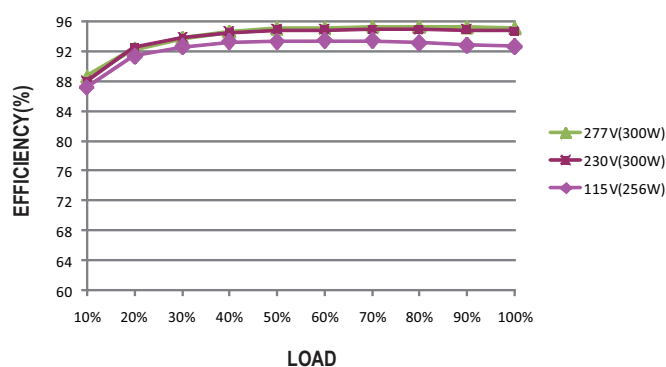
※ Tcase at 75°C



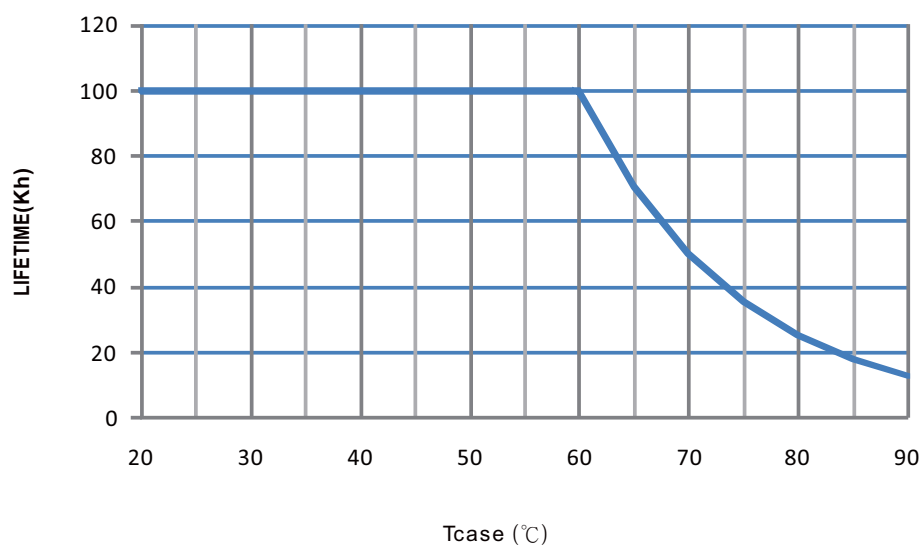
## EFFICIENCY vs LOAD

ELG-300 series possess superior working efficiency that up to 94% can be reached in field applications.

※ ELG-300-24A Model, Tcase at 75°C

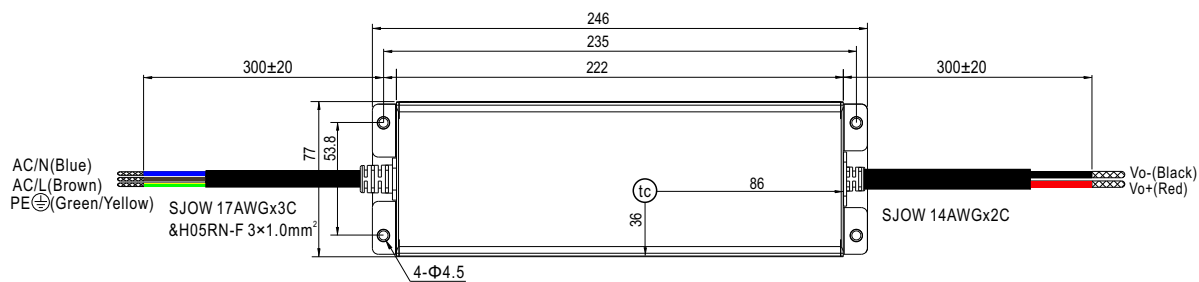


■ LIFE TIME

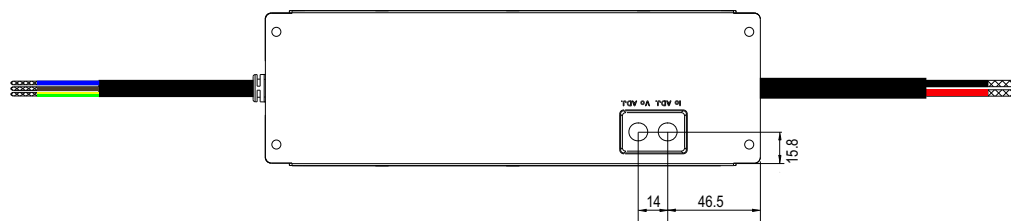


## MECHANICAL SPECIFICATION

CASE NO.: 266A Unit:mm



•  $t_c$  : Max. Case Temperature



## INSTALLATION MANUAL

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