



K
(except for AB, Dx, D2-type)



■ Features

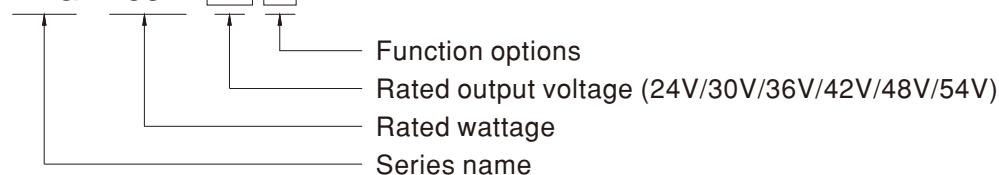
- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Built-in active PFC function
- IP67 / IP65 design for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off, isolated design) ; smart timer dimming; junction box
- Typical lifetime > 62000 hours
- 7 years warranty (Note.9)

■ Description

HLG-480H series is a 480W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-480H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 24V and 54V. Thanks to the high efficiency up to 95.5%, with the fanless design, the entire series is able to operate for -40°C ~ +90°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. HLG-480H is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

■ Model Encoding

HLG - 480H - **24** **A**



Type	IP Level	Function	Note
Blank	IP67	Io and Vo fixed	In Stock
A	IP65	Io and Vo adjustable through built-in potentiometer	In Stock
B	IP67	3 in 1 dimming function (0~10VDC, 10V PWM signal and resistance)	In Stock
AB	IP65	Io and Vo adjustable through built-in potentiometer & 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)	In Stock
Dx	IP67	Built-in Smart timer dimming function by user request.	By request
D2	IP67	Built-in Smart timer dimming and programmable function.	In Stock

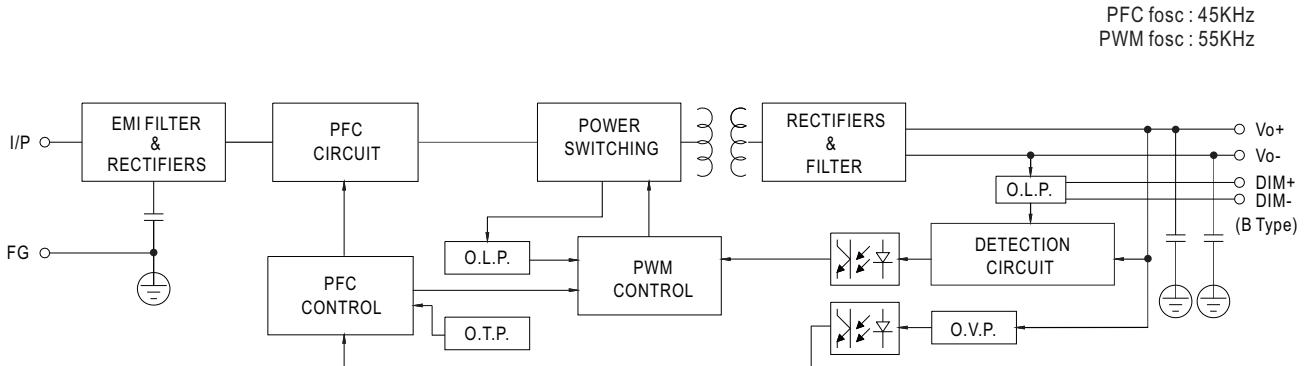
SPECIFICATION



480W Constant Voltage + Constant Current LED Driver

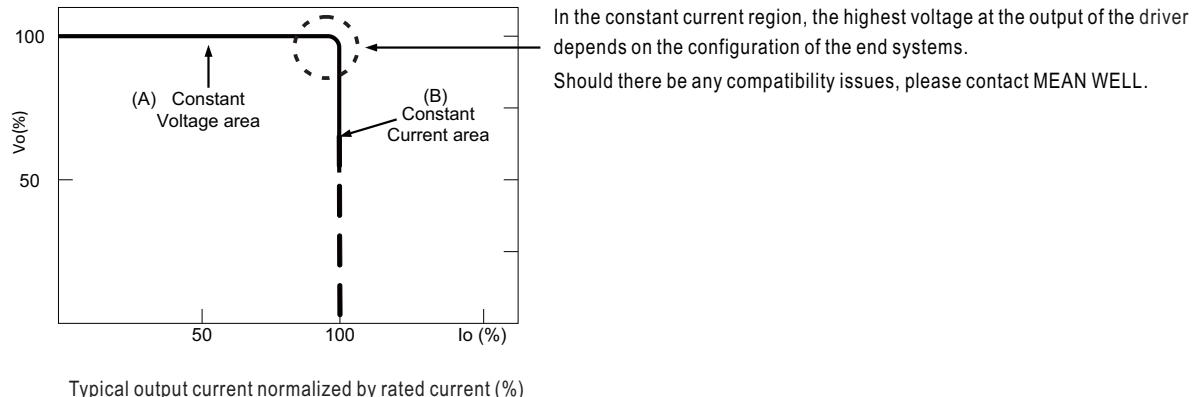
HLG-480H series

■ BLOCK DIAGRAM



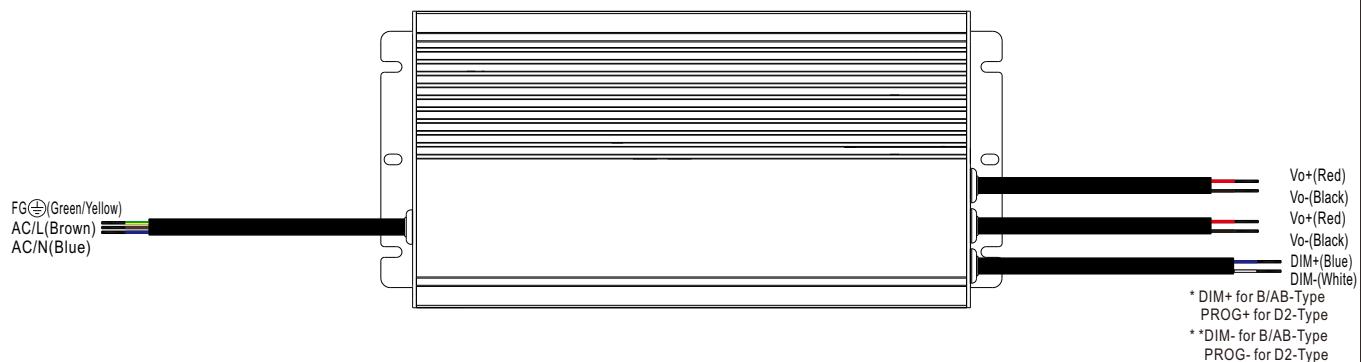
■ DRIVING METHODS OF LED MODULE

※ 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.

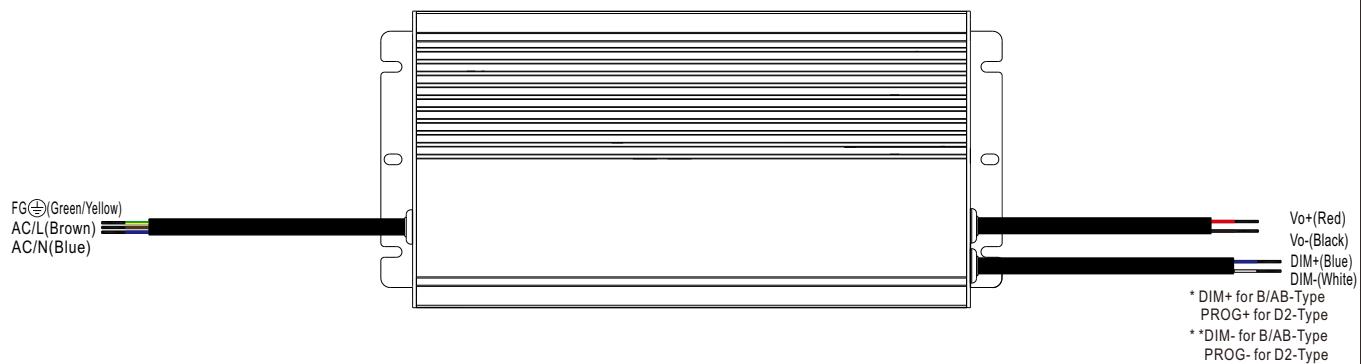


DIMMING OPERATION

For 24V,30V,36V,42V



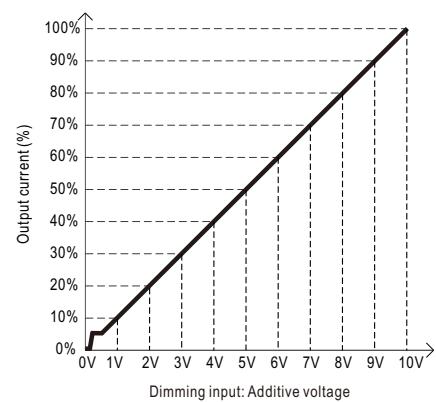
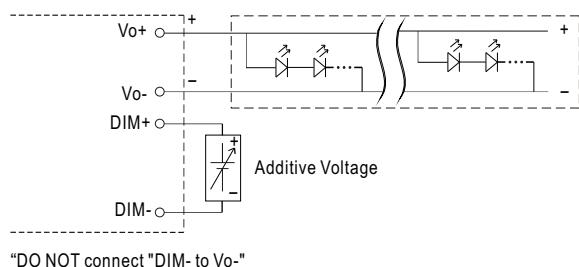
For 48V,54V



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

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
0 ~ 10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested. It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100 μ A (typ.)

◎ Applying additive 0 ~ 10VDC

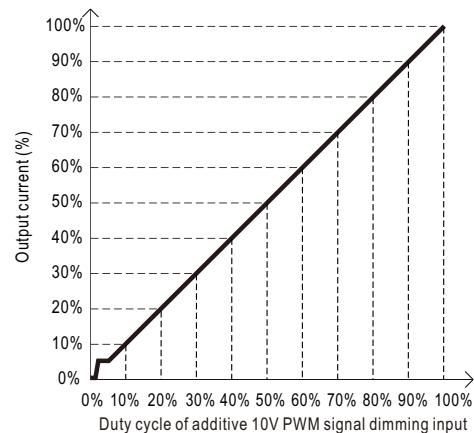
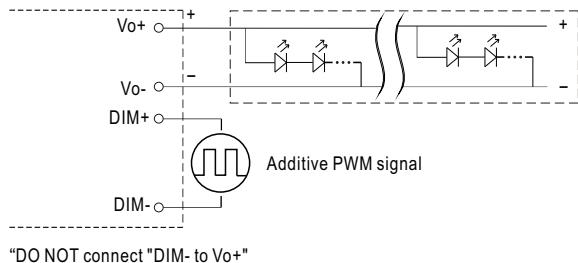




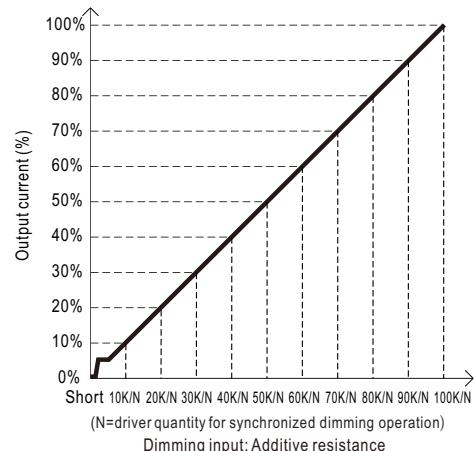
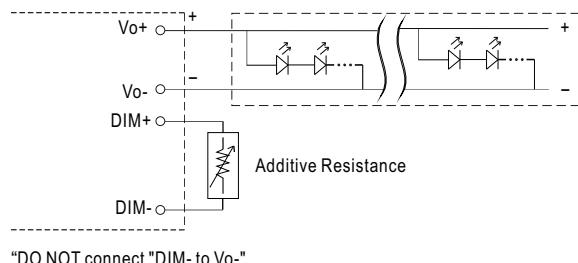
480W Constant Voltage + Constant Current LED Driver

HLG-480H series

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



◎ Applying additive resistance:



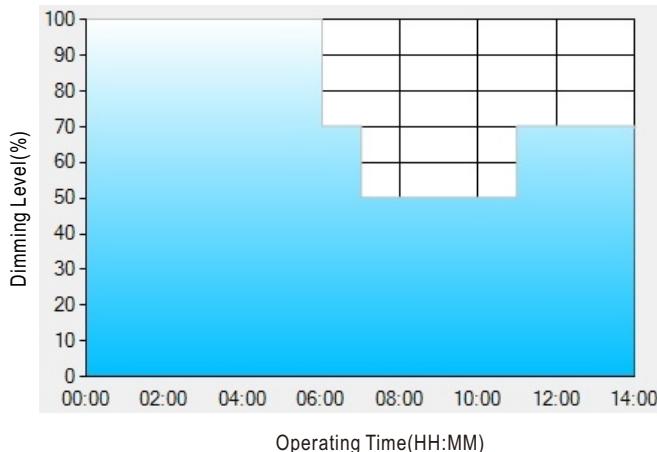
Note : 1. Min. dimming level is about 6% and the output current is not defined when 0% < Iout < 6%.

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

※ Smart timer dimming function (for Dxx-Type by User definition)

MEAN WELL Smart timer dimming primarily provides the adaptive proportion dimming profile for the output constant current level to perform up to 14 consecutive hours. 3 dimming profiles hereunder are defined accounting for the most frequently seen applications. If other options may be needed, please contact MEAN WELL for details.

Ex : ○ D01-Type: the profile recommended for residential lighting



Set up for D01-Type in Smart timer dimming software program:

	T1	T2	T3	T4
TIME**	06:00	07:00	11:00	---
LEVEL**	100%	70%	50%	70%

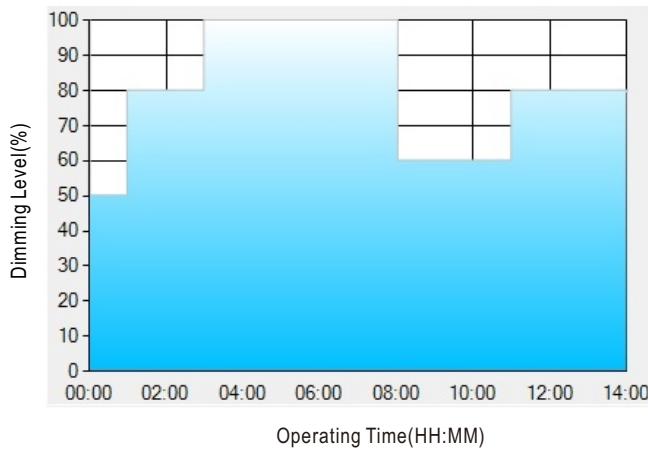
**: TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a residential lighting application adopts D01-Type, when turning on the power supply at 6:00pm, for instance:

- [1] The power supply will switch to the constant current level at 100% starting from 6:00pm.
- [2] The power supply will switch to the constant current level at 70% in turn, starting from 0:00am, which is 06:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 50% in turn, starting from 1:00am, which is 07:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on.

The constant current level remains till 8:00am, which is 14:00 after the power supply turns on.

Ex: ○ D02-Type: the profile recommended for street lighting



Set up for D02-Type in Smart timer dimming software program:

	T1	T2	T3	T4	T5
TIME**	01:00	03:00	8:00	11:00	---
LEVEL**	50%	80%	100%	60%	80%

**: TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a street lighting application adopts D02-Type, when turning on the power supply at 5:00pm, for instance:

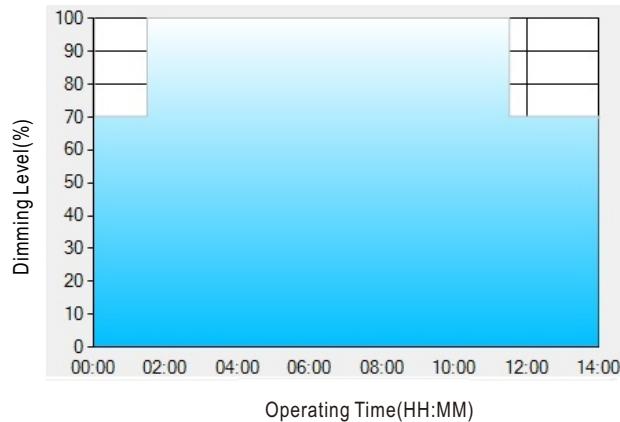
- [1] The power supply will switch to the constant current level at 50% starting from 5:00pm.
- [2] The power supply will switch to the constant current level at 80% in turn, starting from 6:00pm, which is 01:00 after the power supply turns on.
- [3] The power supply will switch to the constant current level at 100% in turn, starting from 8:00pm, which is 03:00 after the power supply turns on.
- [4] The power supply will switch to the constant current level at 60% in turn, starting from 1:00am, which is 08:00 after the power supply turns on.
- [5] The power supply will switch to the constant current level at 80% in turn, starting from 4:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.



480W Constant Voltage + Constant Current LED Driver

HLG-480H series

Ex: ① D03-Type: the profile recommended for tunnel lighting



Set up for D03-Type in Smart timer dimming software program:

	T1	T2	T3
TIME**	01:30	11:00	---
LEVEL**	70%	100%	70%

**: TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

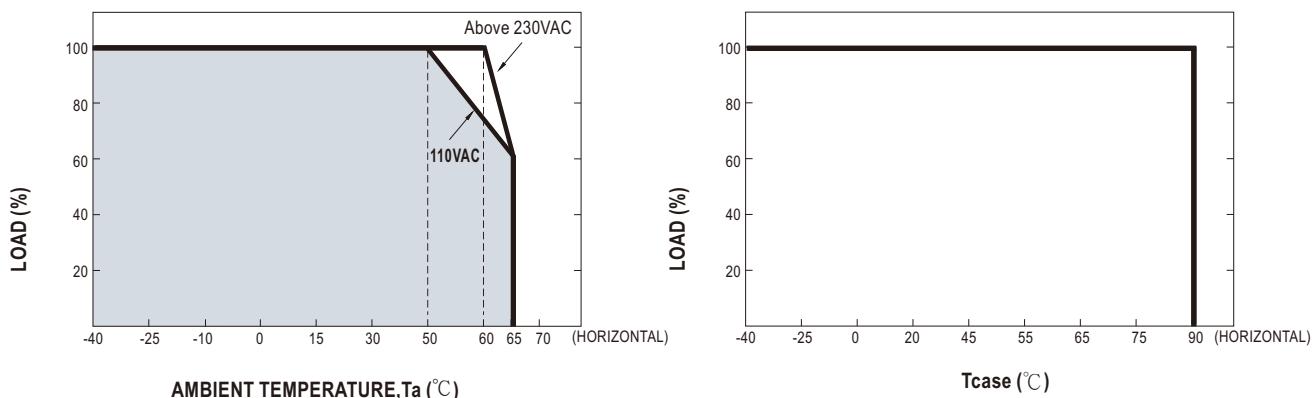
Example: If a tunnel lighting application adopts D03-Type, when turning on the power supply at 4:30pm, for instance:

[1] The power supply will switch to the constant current level at 70% starting from 4:30pm.

[2] The power supply will switch to the constant current level at 100% in turn, starting from 6:00pm, which is 01:30 after the power supply turns on.

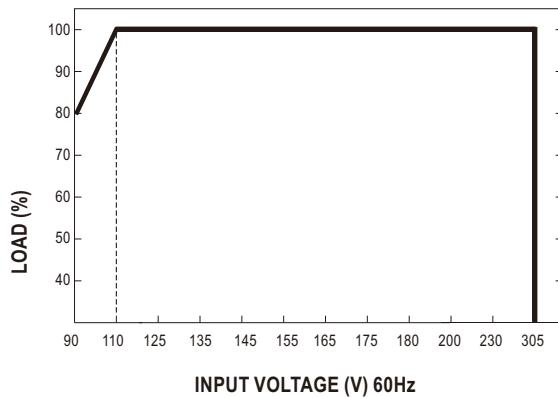
[3] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on. The constant current level remains till 6:30am, which is 14:00 after the power supply turns on.

■ OUTPUT LOAD vs TEMPERATURE (Note.10)

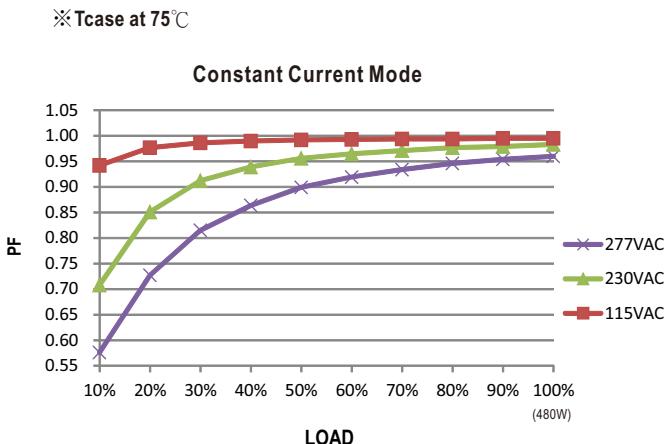


◎ If HLG-480H operates in constant current mode with the rated current, the maximum workable Ta is 60°C. (Typ. 230VAC)

■ STATIC CHARACTERISTICS

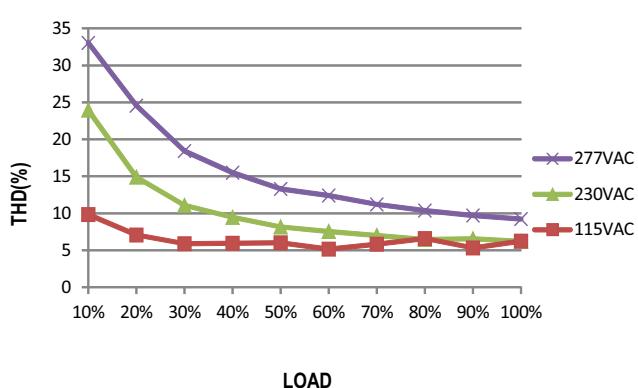


■ POWER FACTOR(PF) CHARACTERISTIC



■ TOTAL HARMONIC DISTORTION (THD)

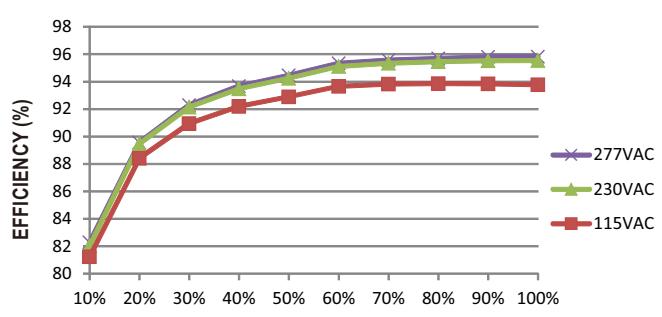
※ 42V Model, Tcase at 75°C



■ EFFICIENCY vs LOAD

HLG-480H series possess superior working efficiency that up to 95.5% can be reached in field applications.

※ 42V Model, Tcase at 75°C

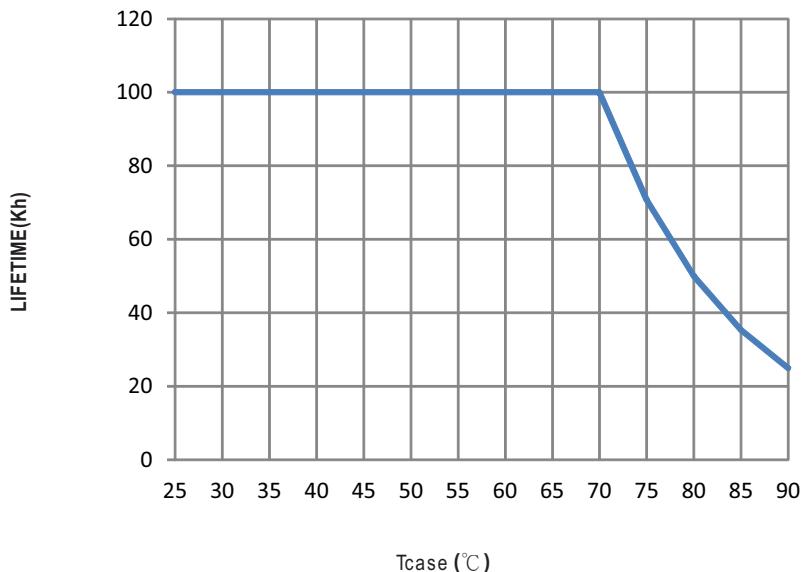




480W Constant Voltage + Constant Current LED Driver

HLG-480H series

■ LIFE TIME

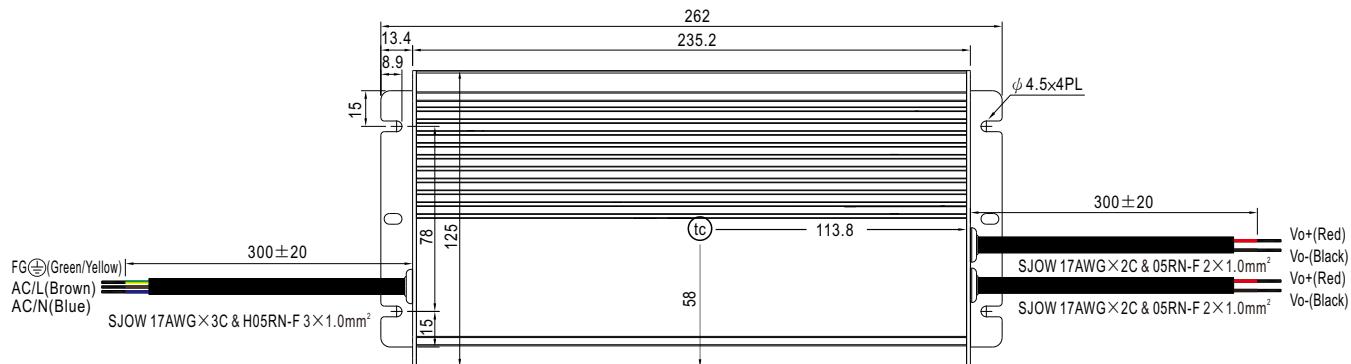


■ MECHANICAL SPECIFICATION

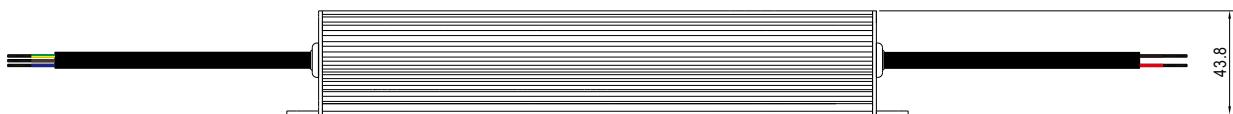
Case No. 251 Unit:mm

※Blank-Type

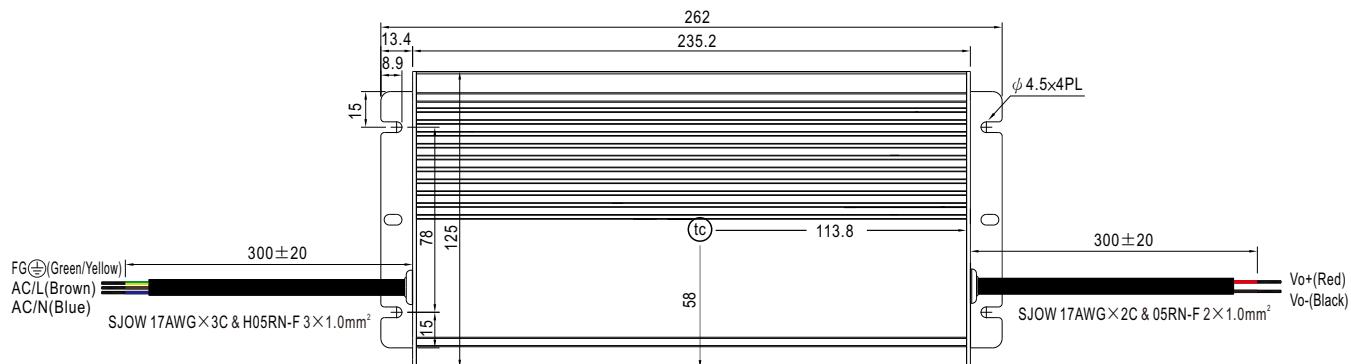
For 24V,30V,36V,42V



• (tc) : Max. Case Temperature



For 48V,54V



• (tc) : Max. Case Temperature



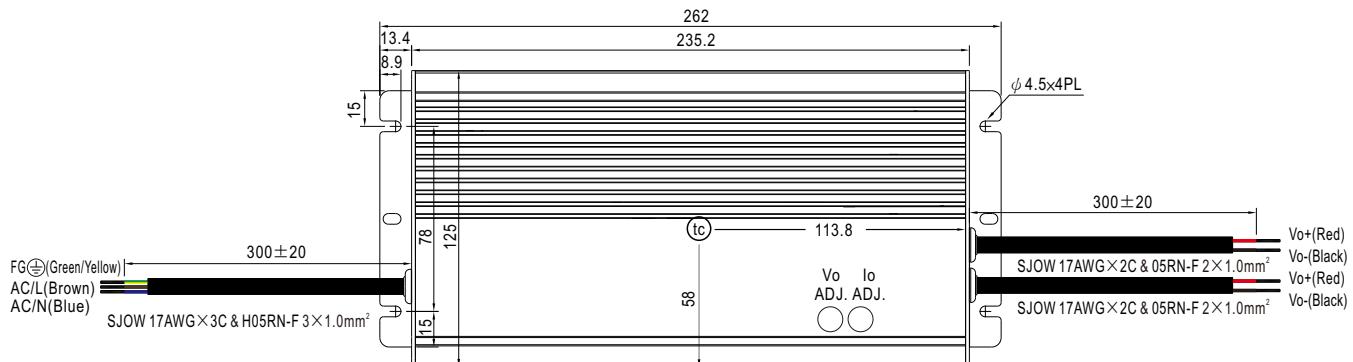


480W Constant Voltage + Constant Current LED Driver

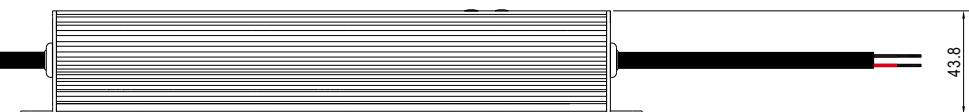
HLG-480H series

※A-Type

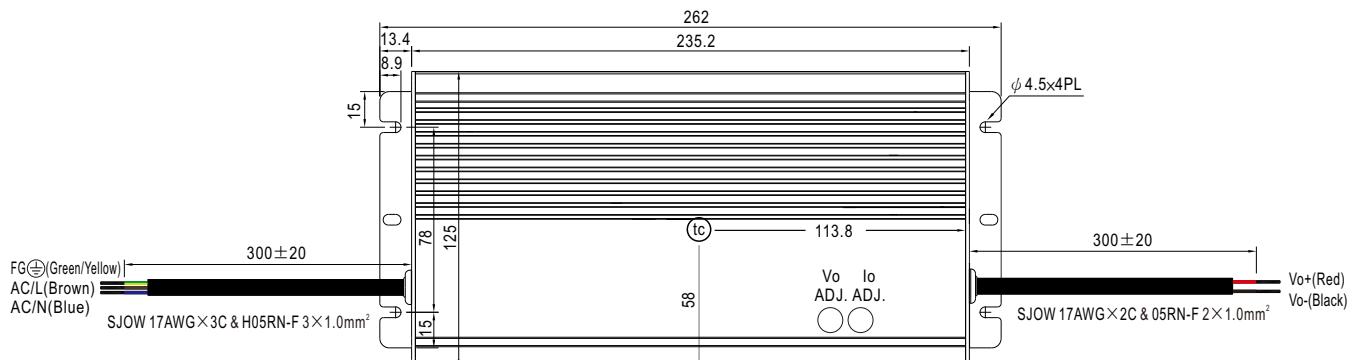
For 24V,30V,36V,42V



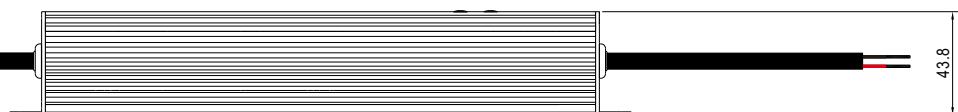
• (tc) : Max. Case Temperature



For 48V,54V

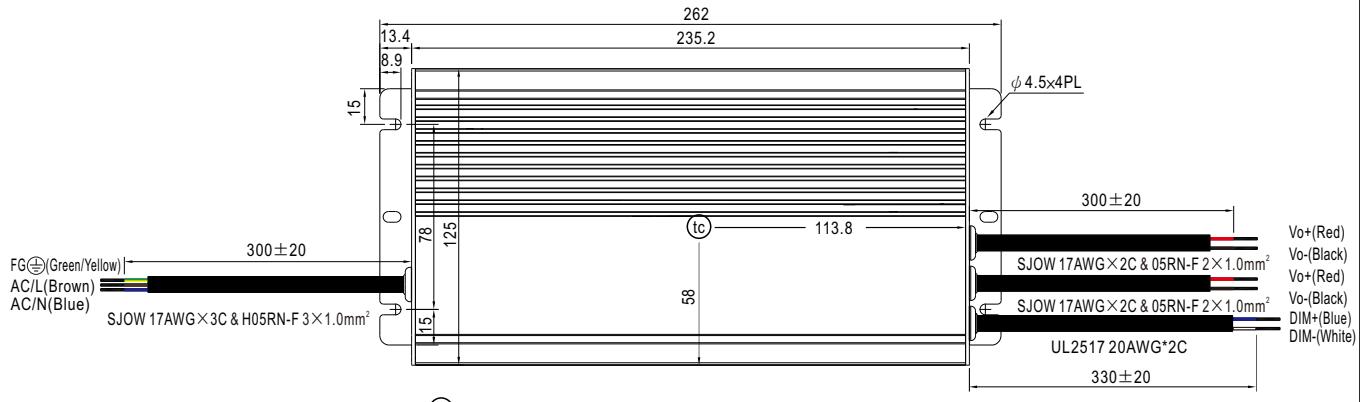


• (tc) : Max. Case Temperature

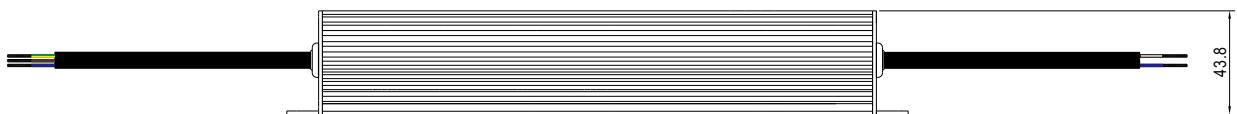


※B/D2-Type

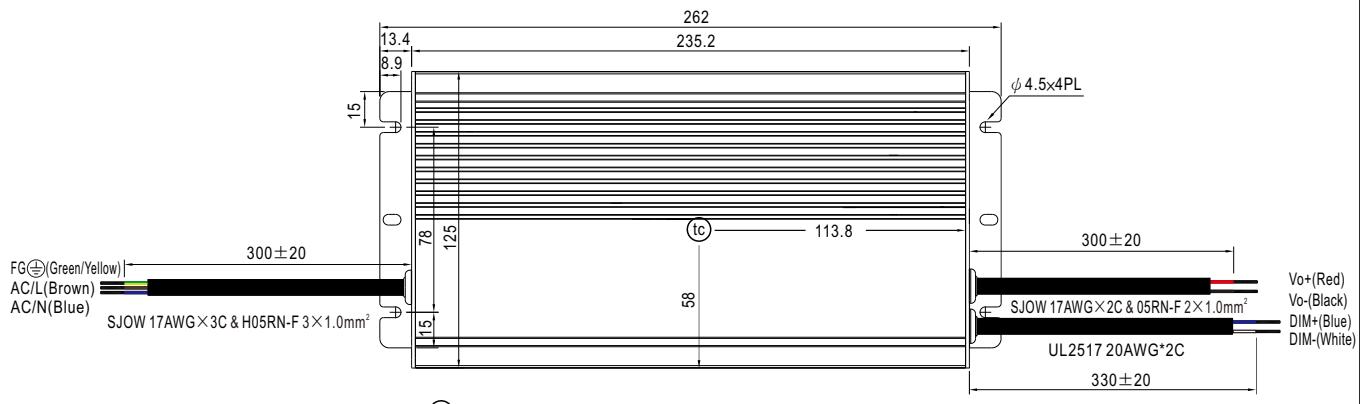
For 24V,30V,36V,42V



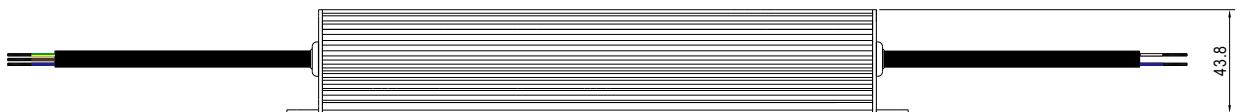
• (tc) : Max. Case Temperature



For 48V,54V



• (tc) : Max. Case Temperature



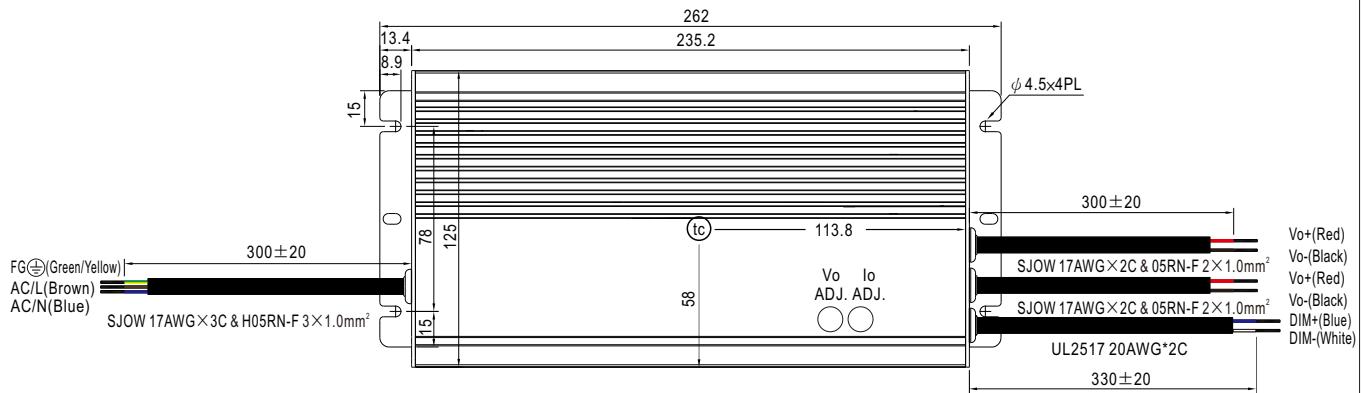


480W Constant Voltage + Constant Current LED Driver

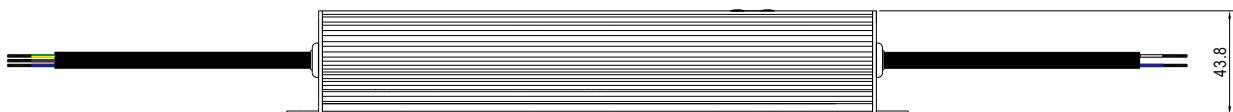
HLG-480H series

※AB-Type

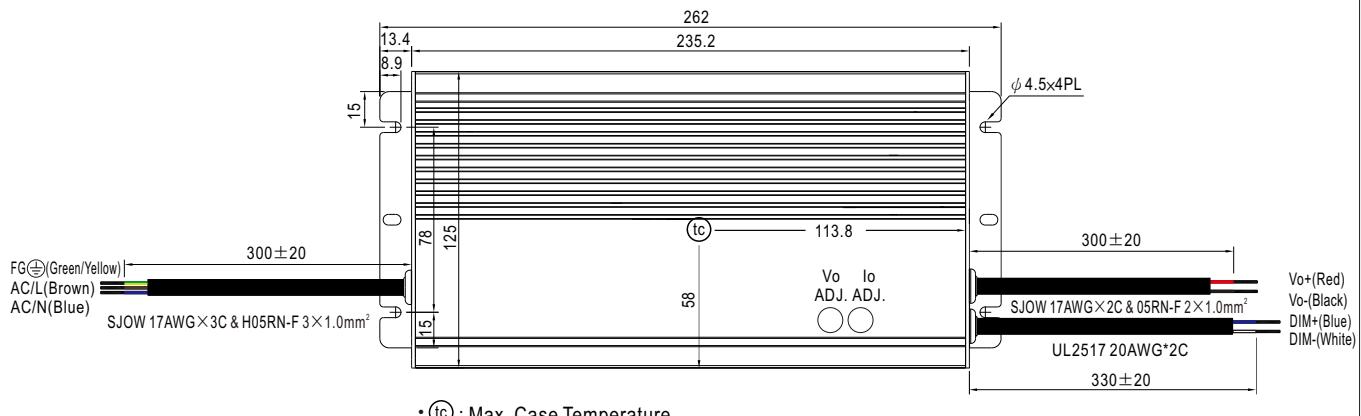
For 24V,30V,36V,42V



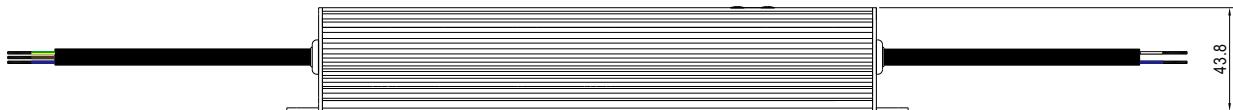
• (tc) : Max. Case Temperature



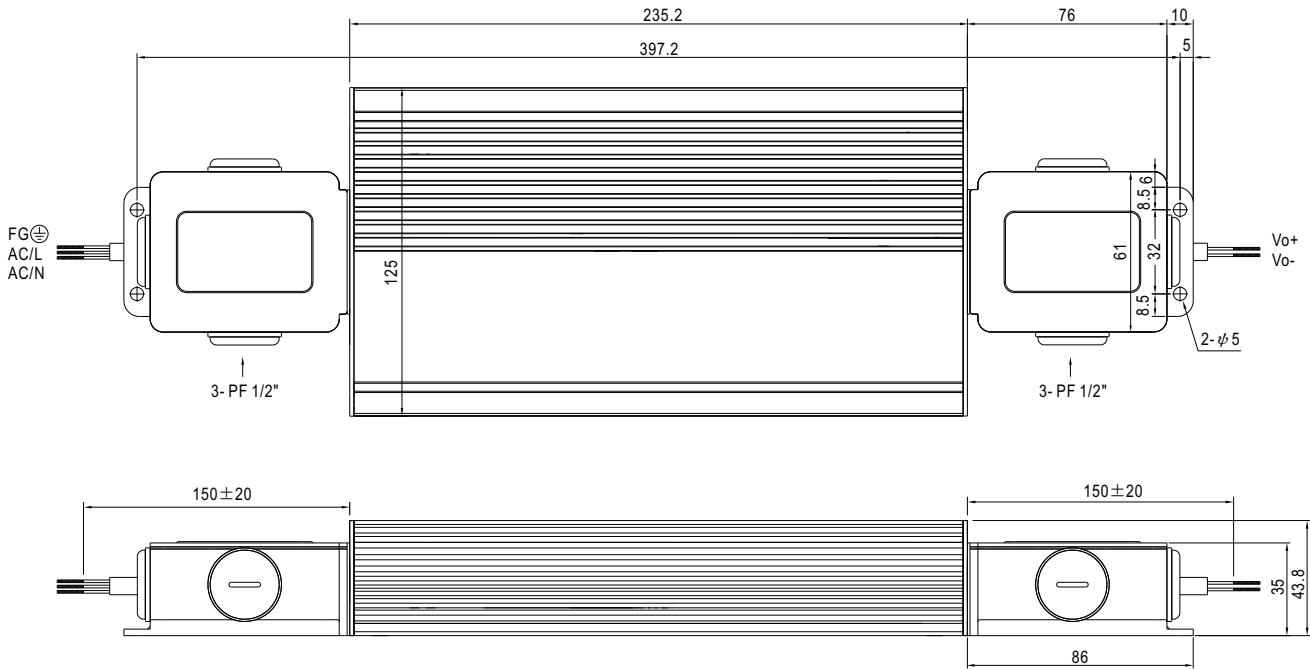
For 48V,54V



• (tc) : Max. Case Temperature



※ Junction Box Option



◎ Junction box option is available for all types. Please contact MEAW WELL for details.

■ INSTALLATION MANUAL

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