



■ Features

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

■ Applications

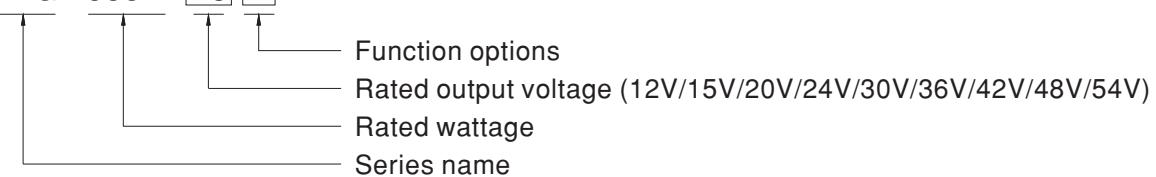
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- LED greenhouse lighting
- Type "HL" for use in Class I , Division 2 hazardous (Classified) location.

■ Description

HLG-600H series is a 600W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HLG-600H operates from 90 ~ 305VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 96%, with the fanless design, the entire series is able to operate for -40°C ~ +90°C case temperature under free air convection. The design of metal housing and IP67/IP65 ingress protection level allows this series to fit both indoor and outdoor applications. HLG-600H is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

■ Model Encoding

HLG - 600H - 15 A

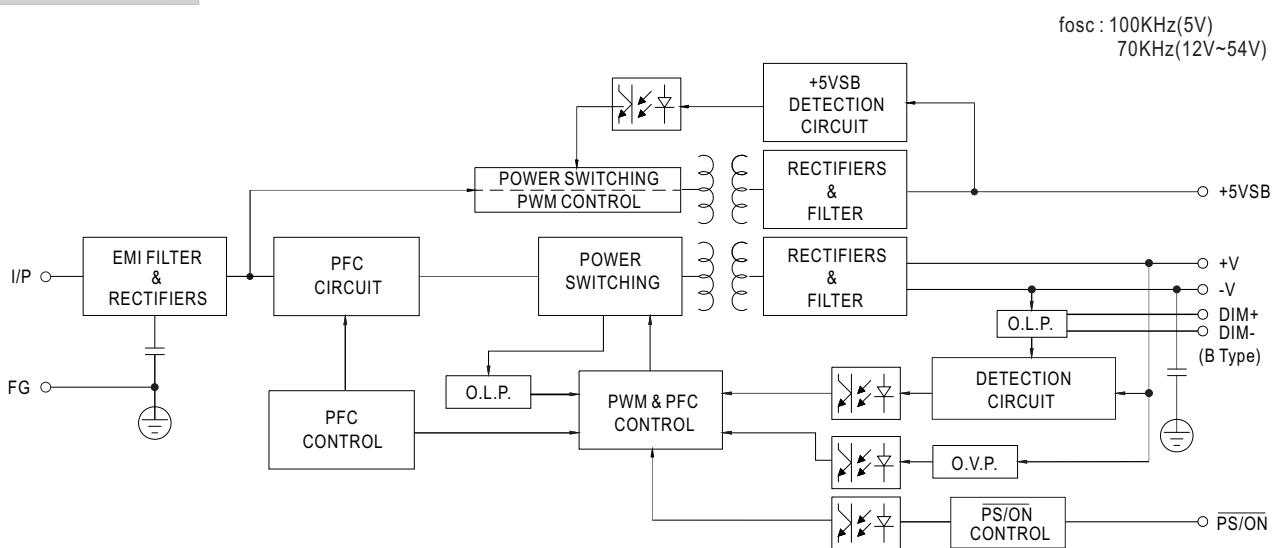


Type	IP Level	Function	Note
A	IP65	Io and Vo adjustable through built-in potentiometer	In Stock
B	IP67	3 in 1 dimming function (0~10VDC, 10V PWM signal and resistance)	In Stock
Blank	IP67	Io and Vo fixed	By request

SPECIFICATION

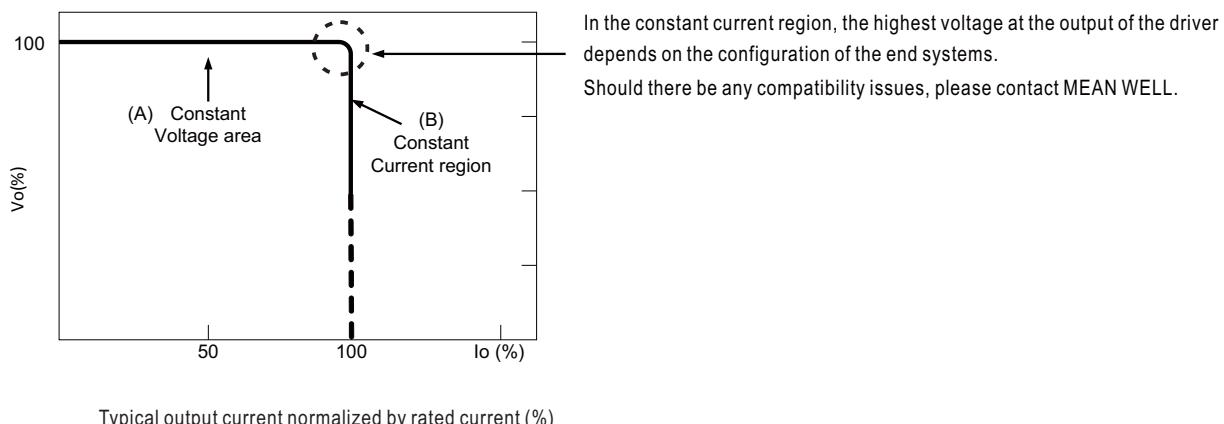
MODEL	HLG-600H-12	HLG-600H-15	HLG-600H-20	HLG-600H-24	HLG-600H-30	HLG-600H-36	HLG-600H-42	HLG-600H-48	HLG-600H-54	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT REGION Note.4	6~12V	7.5~15V	10~20V	12~24V	15~30V	18~36V	21~42V	24~48V	27~54V
	RATED CURRENT	40A	36A	28A	25A	20A	16.7A	14.3A	12.5A	11.2A
	RATED POWER	480W	540W	560W	600W	600W	601.2W	600.6W	600W	604.8W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A-Type only (via built-in potentiometer)								
		10.2~12.6V	12.7~15.8V	17~21V	20.4~25.2V	25.5~31.5V	30.6~37.8V	35.7~44.1V	40.8~50.4V	45.9~56.7V
	CURRENT ADJ. RANGE	Adjustable for A-Type only (via built-in potentiometer)								
		20~40A	18~36A	14~28A	12.5~25A	10~20A	8.3~16.7A	7.1~14.3A	6.2~12.5A	5.6~11.2A
	VOLTAGE TOLERANCE Note.3	±3.0%	±2.0%	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
INPUT	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME Note.6	500ms, 80ms/ 115VAC, 230VAC								
	HOLD UP TIME (Typ.)	15ms / 115VAC, 230VAC								
	VOLTAGE RANGE Note.5	90~305VAC 127~431VDC (Please refer to "STATIC CHARACTERISTIC" section)								
	FREQUENCY RANGE	47~63Hz								
	POWER FACTOR (Typ.)	PF≥0.98/115VAC, PF≥0.95/230VAC, PF≥0.93/277VAC @ full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)								
	TOTAL HARMONIC DISTORTION	THD<20% (@ load≥50% /115VAC, 230VAC; @ load≥75%/277VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)								
	EFFICIENCY (Typ.)	230VAC	92%	93.5%	94.5%	95%	95%	95.5%	96%	96%
		277VAC	92.5%	93.5%	94.5%	95%	95%	95.5%	96%	96%
PROTECTION	AC CURRENT (Typ.)	7A / 115VAC 3.3A / 230VAC 2.9A / 277VAC								
	INRUSH CURRENT(Typ.)	COLD START 70A(twidth=1000μs measured at 50% Ipeak) at 230VAC; Per NEMA 410								
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	1 unit (circuit breaker of type B) / 2 units (circuit breaker of type C) at 230VAC								
	LEAKAGE CURRENT	<0.75mA / 277VAC								
	STANDBY POWER CONSUMPTION	<0.5W at remote off								
	OVER CURRENT Note.4	95~108%								
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed								
	OVER VOLTAGE	13~16V 16.5~20.5V 22~26V 26~30V 32.5~36.5V 39.5~43.5V 46~50V 52.5~56.5V 59~63V								
	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover								
FUNCTION	REMOTE ON/OFF CONTROL	Power on : "High" >2~5V or Open circuit Power off : "Low" <0~0.5V or Short circuit								
	5V STANDBY	5VSB : 5V@0.5A; tolerance ±5%, ripple : 100mVp-p(max.)								
ENVIRONMENT	WORKING TEMP.	Tcase= -40~+90°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)								
	MAX. CASE TEMP.	Tcase= +90°C								
	WORKING HUMIDITY	20~95% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-40~+85°C, 10~95% RH non-condensing								
	TEMP. COEFFICIENT	±0.03%/°C (0~55°C)								
	VIBRATION	10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes								
SAFETY & EMC (Note 10)	SAFETY STANDARDS Note.7	UL60950-1, UL8750(type "HL"), CSA C22.2 No. 250.13-12, ENEC EN61347-1, EN61347-2-13 independent, EN62384, IP65 or IP67, J61347-1, J61347-2-13, CCC GB4943.1, EAC TP TC 004, AS/NZS 60950.1(by CB) approved								
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:1.5KVAC								
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH								
	EMC EMISSION Note.7	Compliance to EN55032 (CISPR32) Class B, EN55015, EN61000-3-2 Class C (@ load≥50%) ; EN61000-3-3, EAC TP TC 020								
OTHERS	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV), EAC TP TC 020								
	MTBF	76.9K hrs min. MIL-HDBK-217F (25°C)								
	DIMENSION	280*144*48.5mm (L*W*H)								
NOTE	PACKING	3.9Kg; 4pcs/16.6Kg/0.9CUFT								
	1.	All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.								
	2.	Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.								
	3.	Tolerance : includes set up tolerance, line regulation and load regulation.								
	4.	Please refer to "DRIVING METHODS OF LED MODULE".								
	5.	De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.								
	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.								
	7.	The model certified for CCC(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.								
	8.	This series meets the typical life expectancy of >62,000 hours of operation when Tcase, particularly (tC) point (or TMP, per DLC), is about 75°C or less.								
	9.	Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com								
	10.	The driver is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)								
	11.	The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).								

■ BLOCK DIAGRAM

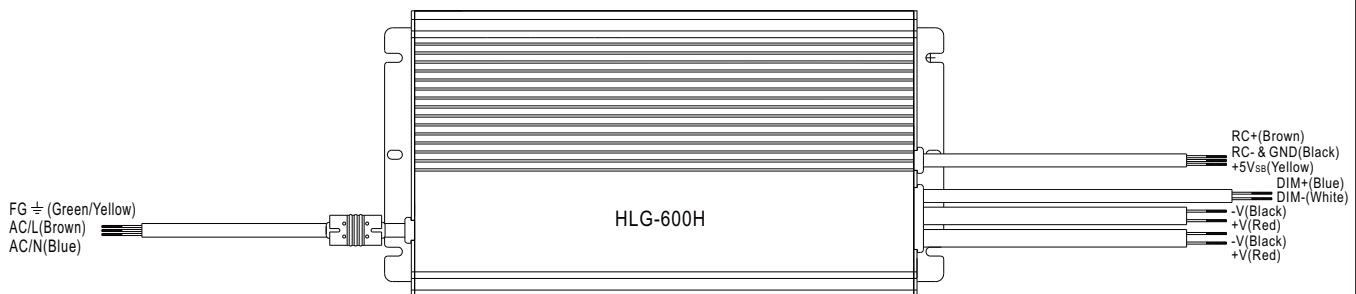


■ DRIVING METHODS OF LED MODULE

※ 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.



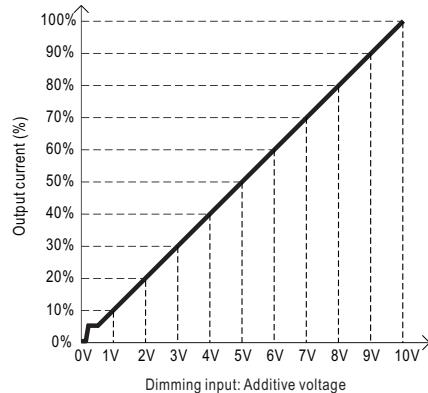
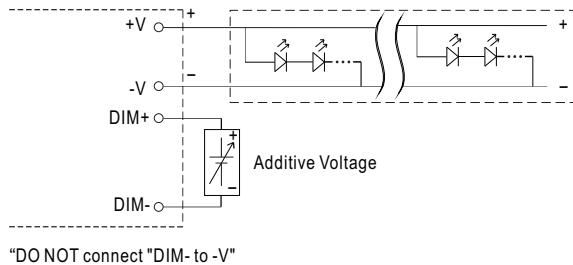
DIMMING OPERATION



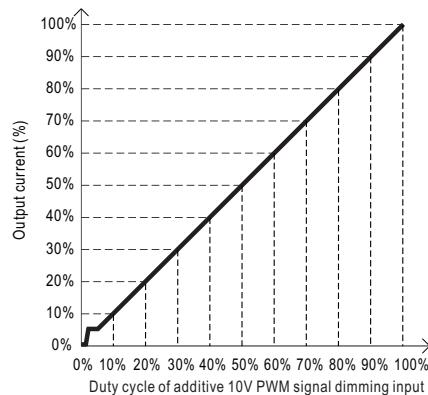
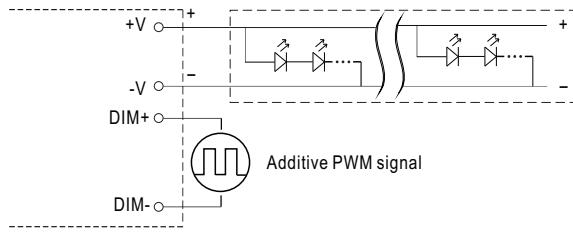
※ 3 in 1 dimming function (for B-Type)

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

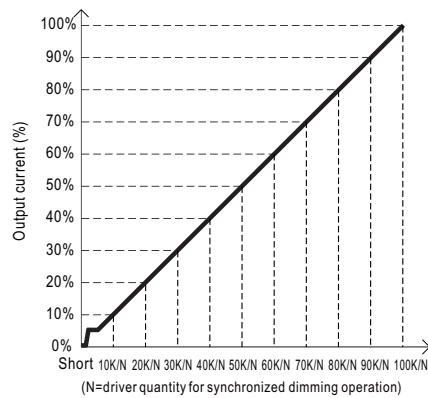
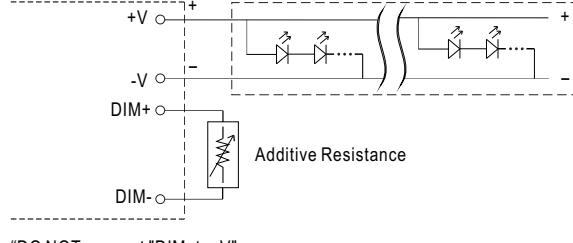
◎ Applying additive 0 ~ 10VDC



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



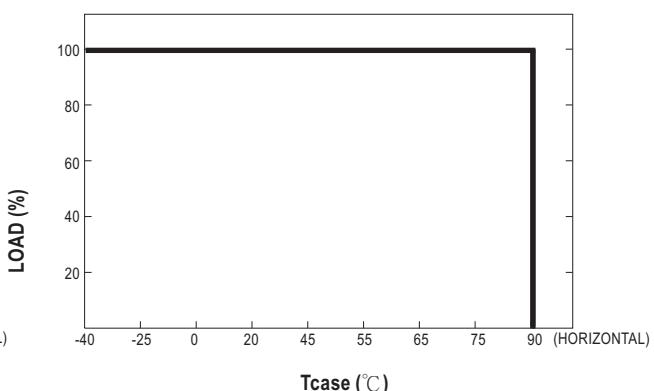
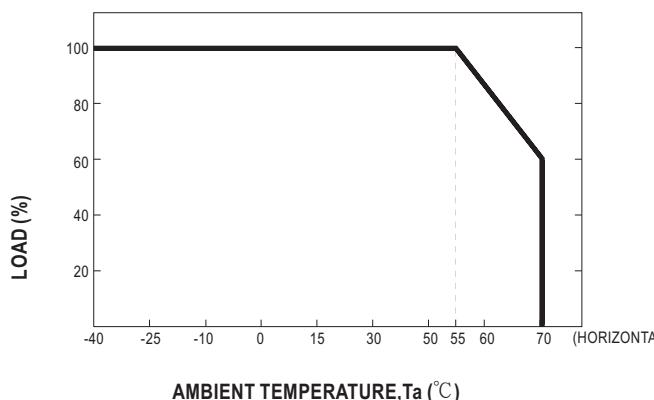
◎ Applying additive resistance:



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

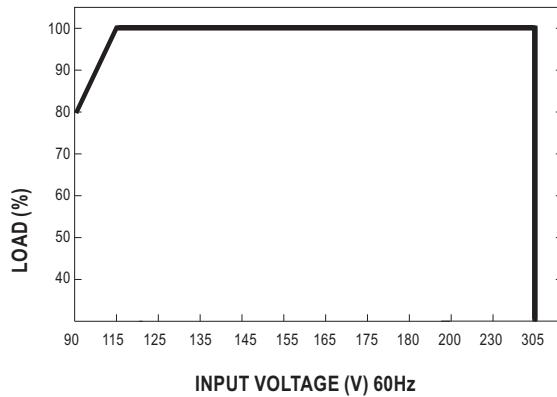
2. The output current could drop down to 0% when dimming input is about 0k Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.

■ OUTPUT LOAD vs TEMPERATURE



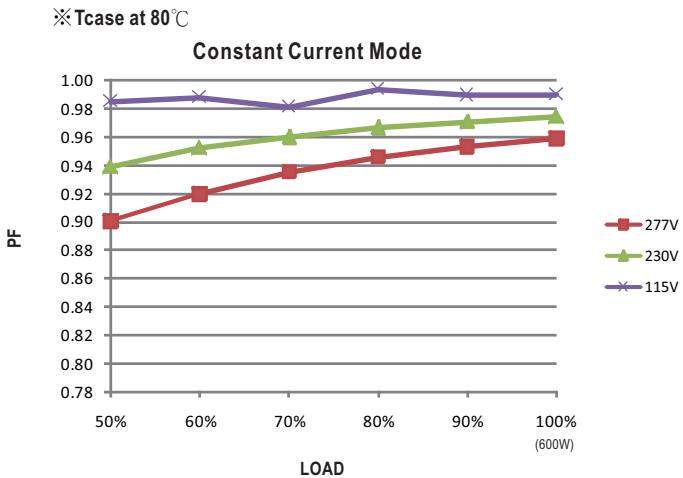
◎ If HLG-600H operates in constant current mode with the rated current, the maximum workable T_a is 55°C.

■ STATIC CHARACTERISTICS



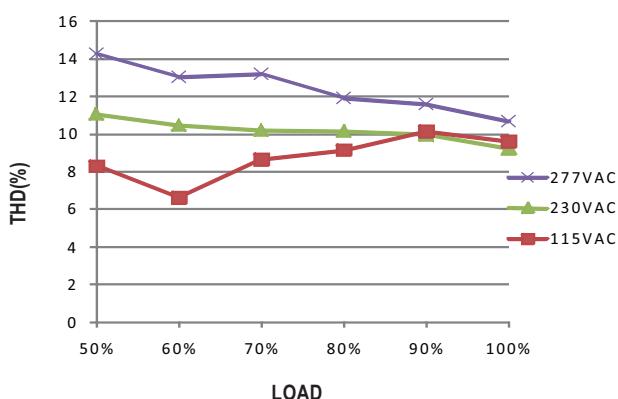
※ De-rating is needed under low input voltage.

■ POWER FACTOR(PF) CHARACTERISTIC



■ TOTAL HARMONIC DISTORTION (THD)

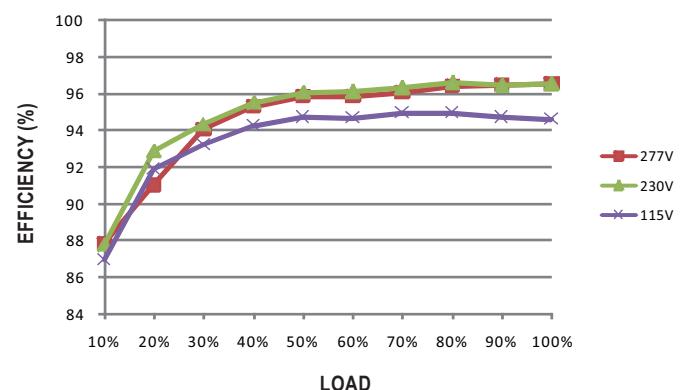
※ 48V Model, T_{case} at 80°C

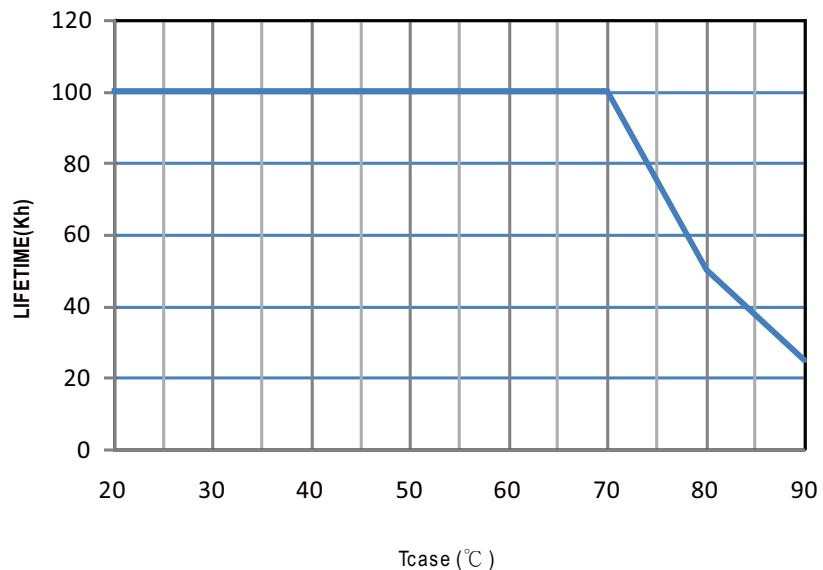


■ EFFICIENCY vs LOAD

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

※ 48V Model, T_{case} at 80°C

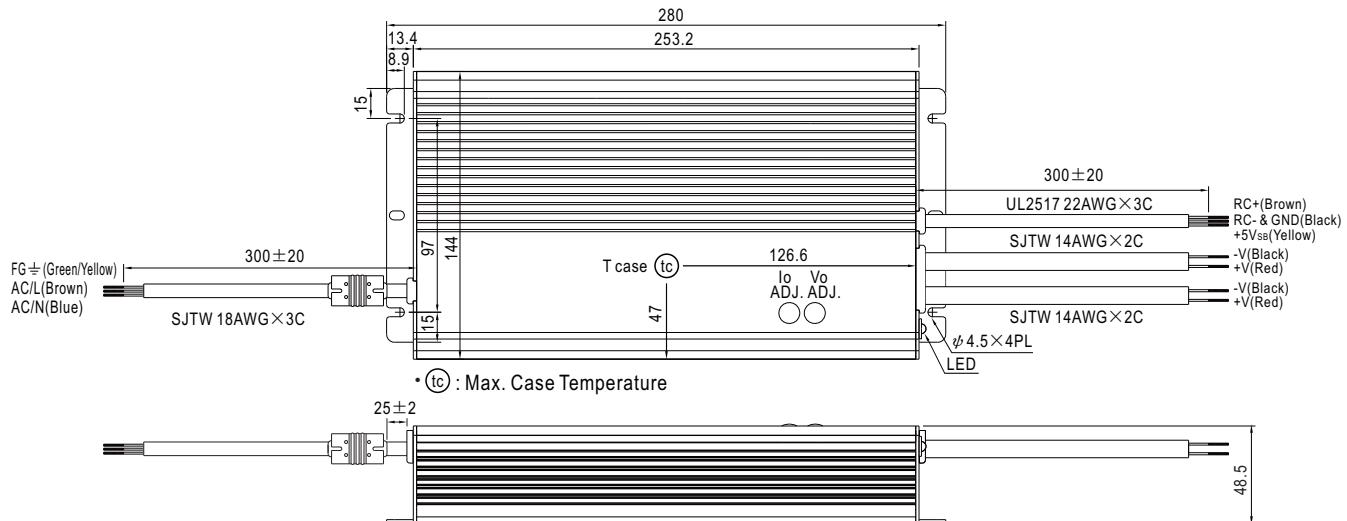


LIFETIME

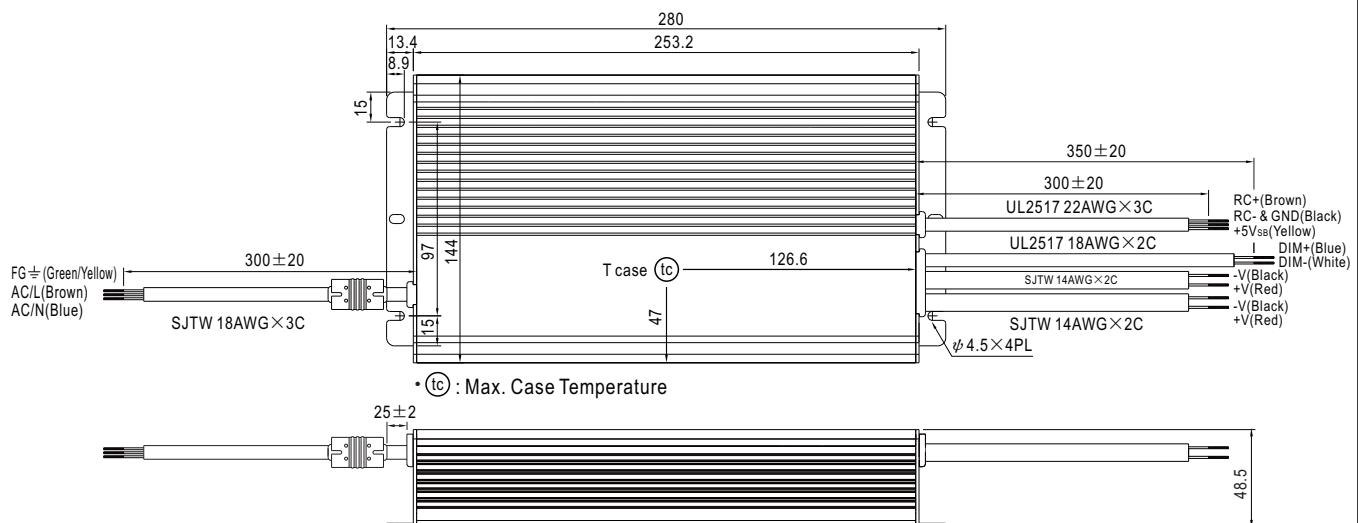
■ MECHANICAL SPECIFICATION

Case No. 228 Unit:mm

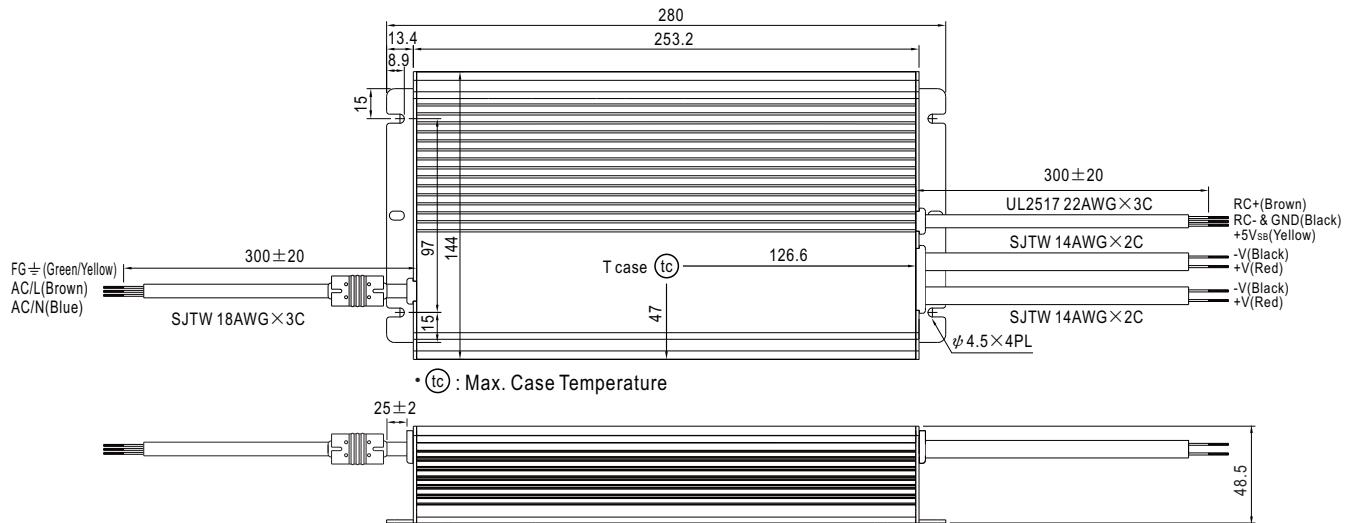
※A-Type



※B-Type



※Blank-Type



■ INSTALLATION MANUAL

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