

### **HLG-600H** series



















#### Features

- Constant Voltage + Constant Current mode output
- Metal housing with class I design
- Standby power consumption <0.5W at remote off</li>
- 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  $-40^{\circ}\text{C} \sim +90^{\circ}\text{C}$  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



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



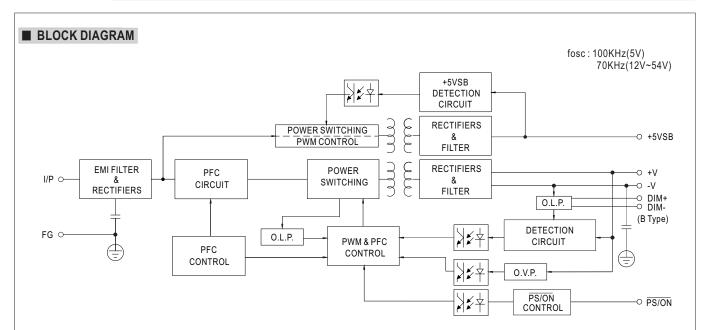
# HLG-600H series

#### **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	
	DC VOLTAGE		12V	15V	20V	24V	30V	36V	42V	48V	54V	
	CONSTANT CURRENT	Γ REGION Note.4	6 ~12V	7.5 ~ 15V	10 ~ 20V	12 ~ 24V	15 ~ 30V	18 ~ 36V	21 ~ 42V	24 ~ 48V	27 ~ 54V	
	RATED CURRENT	Г	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 ) Nata 2		150mVp-p	150mVp-p	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p	
	KIFFEE & NOISE	(IIIax.) Note.2					200111V p-p	230111VP-P	230111V p-p	230111VP-P	330111VP-P	
	VOLTAGE ADJ. R.	ANGE			via built-in po		I		I		T	
OUTPUT				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)									
	OUTRICE TO THE		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 TOLER	ANCE Note.3	±3.0%	±2.0%	±1.5%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	
	LINE REGULATIO	N	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATI	ON	±2.0%	±1.5%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	SETUP, RISE TIMI					- 0.0 /0	1 - 0.0 /0			_ = 515 / 5	1 - 0.070	
	-	500ms, 80ms/ 115VAC, 230VAC 15ms / 115VAC, 230VAC										
	HOLD UP TIME (Typ.)			'								
	VOLTAGE RANGE Note.5		90 ~ 305VAC 127 ~ 431VDC									
			(Please refer to "STATIC CHARACTERISTIC" section)									
	FREQUENCY RANGE		47 ~ 63Hz									
	DOMED FACTOR (T)		PF≥0.98/115VAC, PF≥0.95/230VAC, PF≥0.93/277VAC @ full load									
	POWER FACTOR	POWER FACTOR (Typ.)		(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)								
			THD<20% (@ load ≥50% /115VAC, 230VAC; @ load ≥75%/277VAC)									
	TOTAL HARMONIC DISTORTION		(Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)									
	EFFICIENCY	EFFICIENCY 230VAC		93.5%				Q5 F0/	96%	96%	96%	
INPUT	EFFICIENCY		92%		94.5%	95%	95%	95.5%		96%		
	(Typ.)	277VAC	92.5%	93.5%	94.5%	95%	95%	95.5%	96%	96%	96%	
	AC CURRENT (Ty		7A / 115VAC	3.3A / 230	OVAC 2.9	A / 277VAC						
	INRUSH CURREN	IT(Typ.)	COLD START 70A(twidth=1000µs measured at 50% Ipeak) at 230VAC; Per NEMA 410									
	MAX. No. of PSUs	on 16A	1mit /airait	hunalian af tuna	D) / 2ita /a	بعمامهما فانتما	of tumo (C) at 22	0)//				
	CIRCUIT BREAKE	ER	1 unit (circuit breaker of type B) / 2 units (circuit breaker of type C) at 230VAC									
	LEAKAGE CURRE	ENT	<0.75mA / 277VAC									
	STANDBY POWER C											
	OVER CURRENT	Note.4	95~108%									
			Constant current limiting, recovers automatically after fault condition is removed									
PROTECTION	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									
			Shut down o/p voltage, re-power on to recover									
	REMOTE ON/OFF	CONTROL	Power on : "High" >2 ~ 5V or Open circuit Power off : "Low" <0 ~ 0.5V or Short circuit									
FUNCTION	5V STANDBY		5Vsb: 5V@0.5A; tolerance $\pm$ 5%, ripple: 100mVp-p(max.)									
	WORKING TEMP.		Tcase= -40 ~ +90°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)									
-			Tcase=+90°C									
	MAX. CASE TEMP.		20 ~ 95% RH non-condensing									
ENVIRONMENT	WORKING HUMIDITY											
	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									
				UL60950-1, UL8750(t)								
	SAFETY STANDARDS Note.7											
				КС61347-1, КС <mark>\$</mark> 1347 <mark>-2-13(тог 24А,3ъА,4ъА,ъ4А опіу) арргоvе</mark>								
SAFETY &	WITHSTAND VOL	TAGE	I/P-O/P:3.75K//AC I/P-FG:2KVAC O/P-FG:1.5KVAC									
EMC	ISOLATION RESIS		I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH									
(Note 10)	EMC EMISSION	Note.7	Y									
	-mo Limboloid	NOTE.	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV),									
	EMC IMMUNITY											
			EAC TP TC 020; KC KN15, KN61547(for 24A,36A,48A,54A only)									
	MTBF		76.9K hrs min. MIL-HDBK-217F (25°C)									
OTHERS	DIMENSION		280*144*48.5mm (L*W*H)									
	PACKING		3.9Kg; 4pcs/1	6.6Kg/0.9CUF	T							
NOTE	1. All parameters	NOT special	ly 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											
				der low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.								
	_		asured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.									
			C(GB19510.14, GB19510.1, GB17743 and GB17625.1) is an optional model . Please contact MEAN WELL for details.									
			al life expectancy of >62,000 hours of operation when Tcase, particularly (to point (or TMP, per DLC), is about 75°C or less.									
			anty statement on MEAN WELL's website at http://www.meanwell.com									
			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										
	1		, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)									
		-	e derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). and IP water proof function installation caution, please refer our user manual before using.									
	12. For any appli	cation note a	nd IP water pro	oof function ins	stallation caution	on, please refe	r our user mar	nual before usi	ng.			
	https://www.n	neanwell.com	n/Upload/PDF/L	.ED_EN.pdf								
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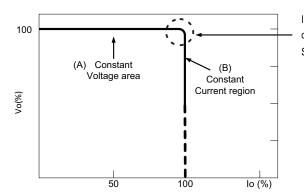


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#### ■ DRIVING METHODS OF LED MODULE

X 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.



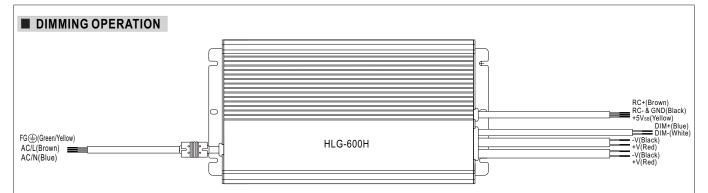
Typical output current normalized by rated current (%)

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.

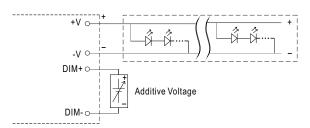


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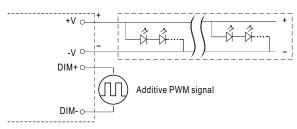
#### ※ 3 in 1 dimming function (for B-Type)

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



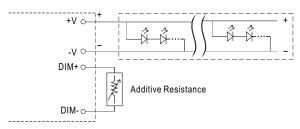
"DO NOT connect "DIM- to -V"

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

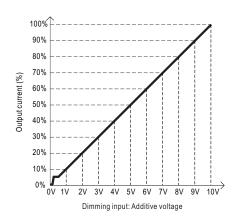


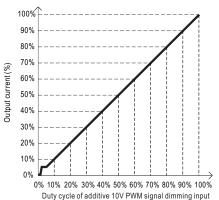
"DO NOT connect "DIM- to -V"

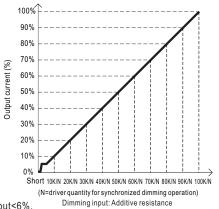
O Applying additive resistance:



"DO NOT connect "DIM- to -V"





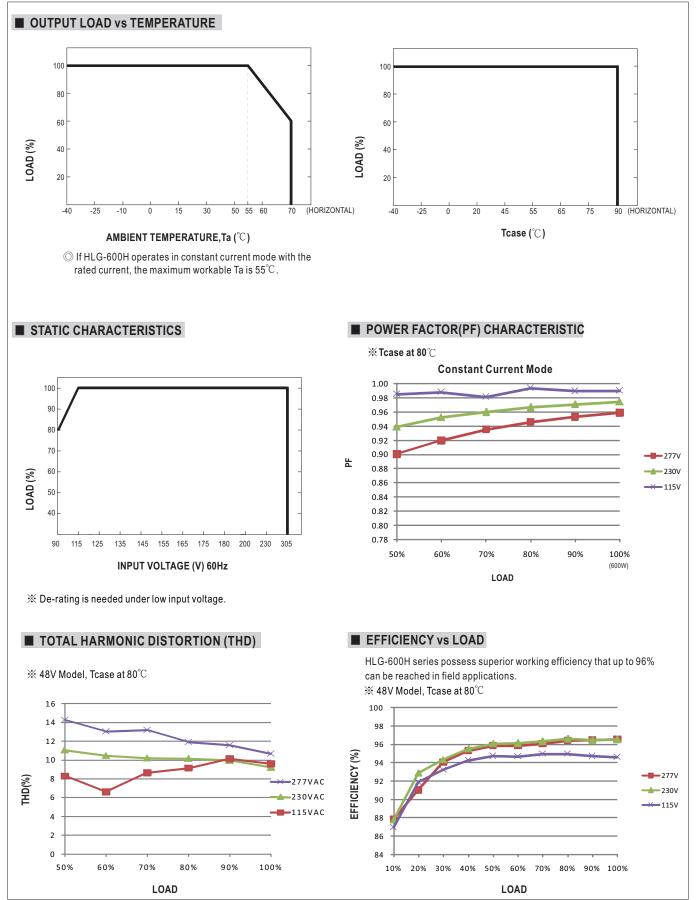


Note : 1. Min. dimming level is about 6% and the output current is not defined when 0% < Iout < 6%.

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.



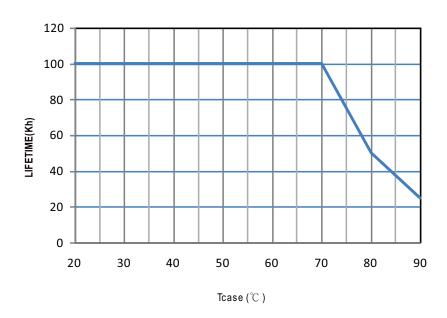
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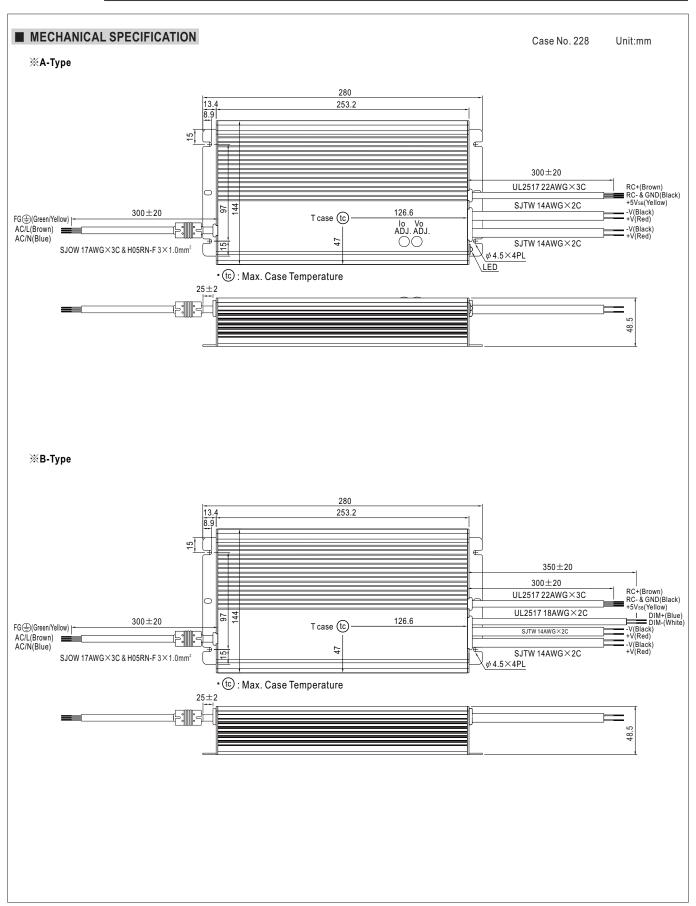
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#### **■** LIFETIME





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