



SELV IP67



Features :

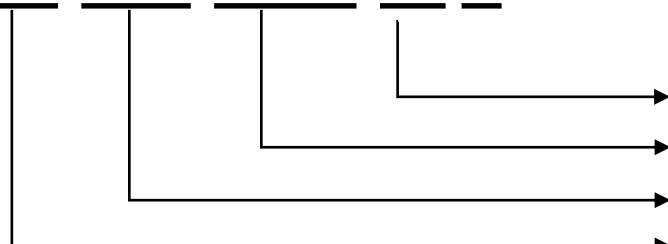
- Metal housing design with functional grounding
- Built-in active PFC function
- Meet IP67 grade, can meet the demand of indoor and outdoor installation.
- Function-option : The output current is adjusted by potentiometer
- Optional dimming function: 0-10V, PWM, Timing
- Surge Protection: L-N 4kV
- 5 years warranty

Application :

- LED Street Lighting
- LED Architectural Lighting
- LED Patio Lighting
- LED Floodlight
- Other LED Lighting Fixtures

Model Code

HT-HLB-120H-36 A



Function-option (Blank : Conventional A : Adjustable ; B : Dimming + Adjustable ; T : Time Control)
Maximum Output voltage
Rated Power
Series Name
Internal Code

Model List

Model	O/P Voltage	O/P Current	Rated Power	O/P Current Tolerance	THD (Typ.)	PF (Typ.)	Efficiency (Typ.)
HT-HLB-120H-36A	25-36V	3.3A	120W	±5%	15%	0.97	90%
HT-HLB-120H-48A	36-48V	2.5A	120W	±5%	15%	0.97	90%
Custom-Tailor	/	/	/	/	/	/	/

Input Characteristics

Parameter	Min	Typ.	Max	Remarks
Rated AC input range	100Vac		277Vac	
AC input range	90Vac		305Vac	
Input frequency range	47Hz		63Hz	
Max input current			1.6A	90Vac, full load
Inrush current			60A	230Vac/50Hz, cold start
No load power		1.0W	1.5W	230Vac/50Hz, no load
Power factor	0.95	0.97		230Vac/50Hz, full load
	0.90			100-277Vac/50Hz, 70-100% Load
THD			20%	100-277Vac/50Hz, 70-100% Load

■ Output Characteristics

Parameter		Min	Typ.	Max	Remarks
Output voltage range	HLB-120H-36	25V	33V	36V	
	HLB-120H-48	36V	45V	48V	
	Custom-Tailor	/	/	/	
Rated output current	HLB-120H-36			3.3A	
	HLB-120H-48			2.5A	
	Custom-Tailor	/	/	/	
Current adjustable range	HLB-120H-36	1.55A	3.3A	3.65A	
	HLB-120H-48	1.25A	2.5A	2.75A	
	Custom-Tailor	/	/	/	
No load voltage	HLB-120H-36	38V	42V	48V	
	HLB-120H-48	50V	52V	55V	
	Custom-Tailor	/	/	/	
Efficiency @230Vac	HLB-120H-36	88%	90%	/	
	HLB-120H-48	88%	90%	/	
	Custom-Tailor	/	/	/	
Output current tolerance		-5%		+5%	
Output current ripple (PK-PK)			5%	10%	Full load
Start-up current overshoot				10%	
Start-up time			1S	2S	230Vac
Line Regulation		-1%		+1%	Full load
Load Regulation		-2%		+2%	

Other Characteristics

Parameter		Min	Typ.	Max	Remarks
0-10V Dimming (Optional)	Dim Vmax	-20V		14V	
	Dim Range	10%Iomax		100%Ioset	
	Voltage	1V		10V	
	OFF	/	/	/	Dim-off value
	ON	/	/	/	
PWM Dimming (Optional)	High	5V		10V	
	Low	-0.3V		-0.6V	
	Frequency	200Hz		2KHz	
	PWM Duty	1%		99%	
Timing Curve (Optional)	IC Control	By programming			Typically 2-5 sections
Protection	OTP	90°C	100°C	110°C	Tc, Self-recovery
	Short Circuit Protection	Driver will not damaged with short-circuit power <10W			Hiccup mode
Life time		50000 hrs			230Vac, full load, Tc 75°C,
Tc				90°C	
Warranty		5 years			Tc: 75°C
Net Weight		750g			
Dimension		216*58*38			L x W x H (mm)

NOTE: All the parameters above are tested Ta 25°C, unless specified.

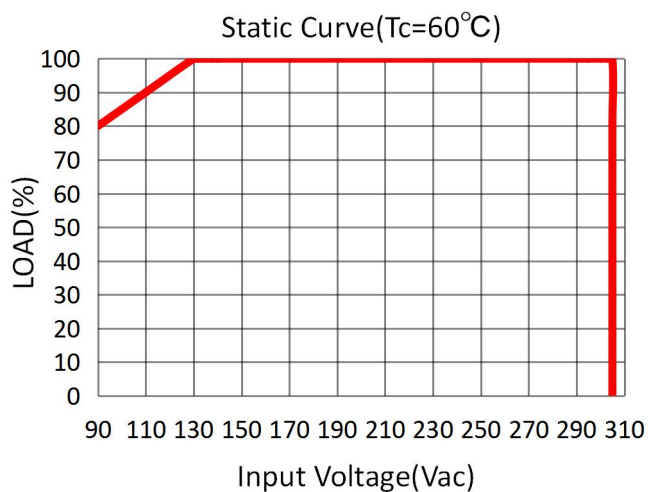
■ Environmental Requirements

Parameter	Min	Typ.	Max	Remarks
Operating Temperature	-40°C	25°C	+60°C	
Storage Temperature	-40°C	25°C	+85°C	
Operation Humidity	10%RH		90%RH	
Storage Humidity	5%RH		95%RH	
Altitude	-65m		4000m	
Cooling Method	Air Cooling			

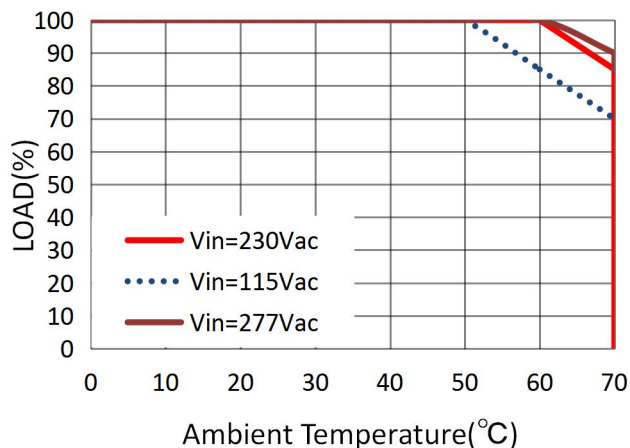
■ Safety and EMI/EMS Standards

Certification		Standard	Status	Remarks
UL/CUL		UL8750	√	
TUV		EN 61347-2-13:2014 EN 61347-1:2008+A1:2001+A2:2013 EN62493:2015	√	
SAA		AS/NZS61347.2.13	√	
CCC		GB19510.14-2009	√	
CE		EN 61347-2-13:2014 EN 61347-1:2008+A1:2001+A2:2013	√	
Item		Standard	Remarks	
Insulation strength	Input-output	3200Vac/5mA Max/60s	Reinforced insulation	
	Primary- Earth	1600Vac/5mA Max/60s	Basic insulation	
	Sec.- Earth	1000Vac/5mA Max/60s	Function insulation	
Insulation resistance	Input-output	≥10MΩ	Testing Voltage: 500Vdc	
Ground resistor		≤0.1Ω	25A/1min	
Leakage current		≤0.75mA	277Vac	
Item		Criterion	Remarks	
Conduction Emission		EN55015:2013+A1:2015		
Radiation Emission		EN55015:2013+A1:2015		
Harmonic Current Emissions		ICE/EN 61000-3-2	Class C	
Surge		ICE/EN 61000-4-5	Difference mode 4KV , Common mode 6KV	

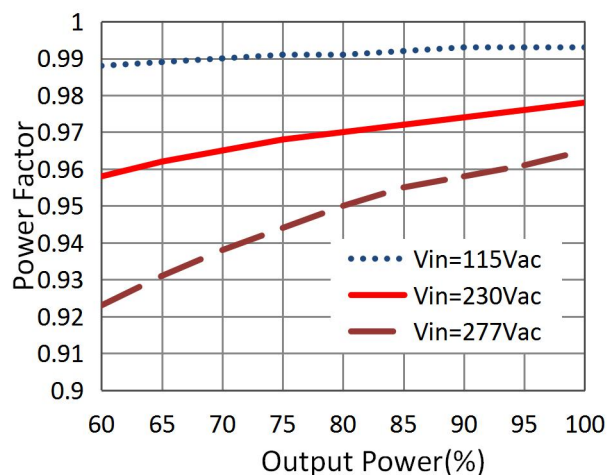
Input Power VS Input Voltage



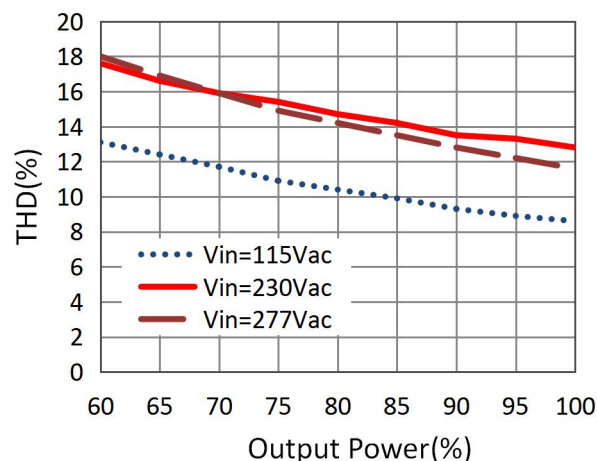
O/P Power VS Ambient Temperature



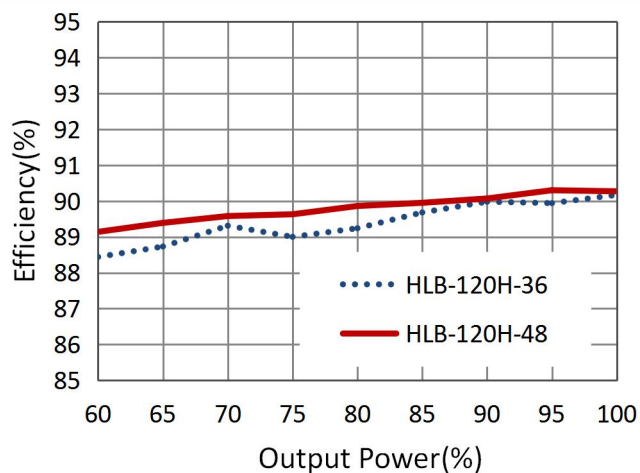
Power Factor VS Output Power



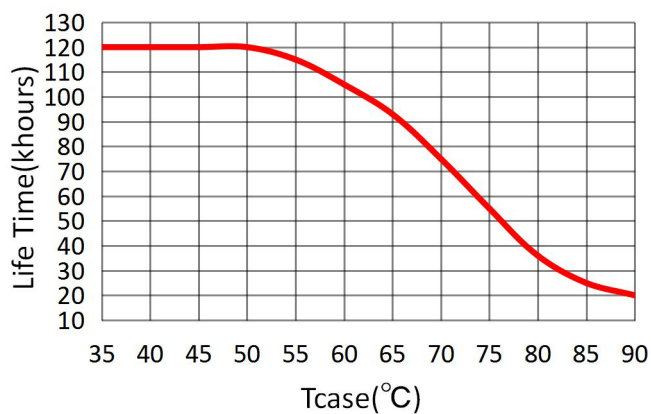
THD VS Output Power



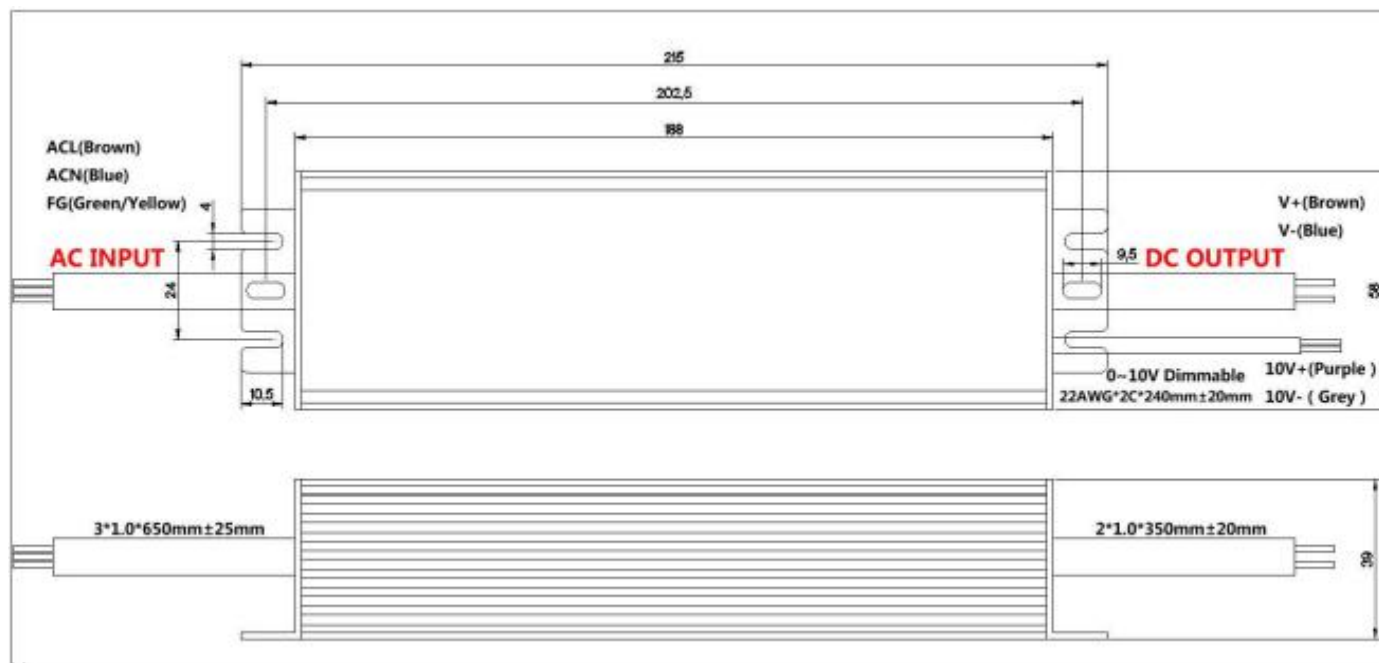
Efficiency VS Output Power



Lifespan VS Case Temperature



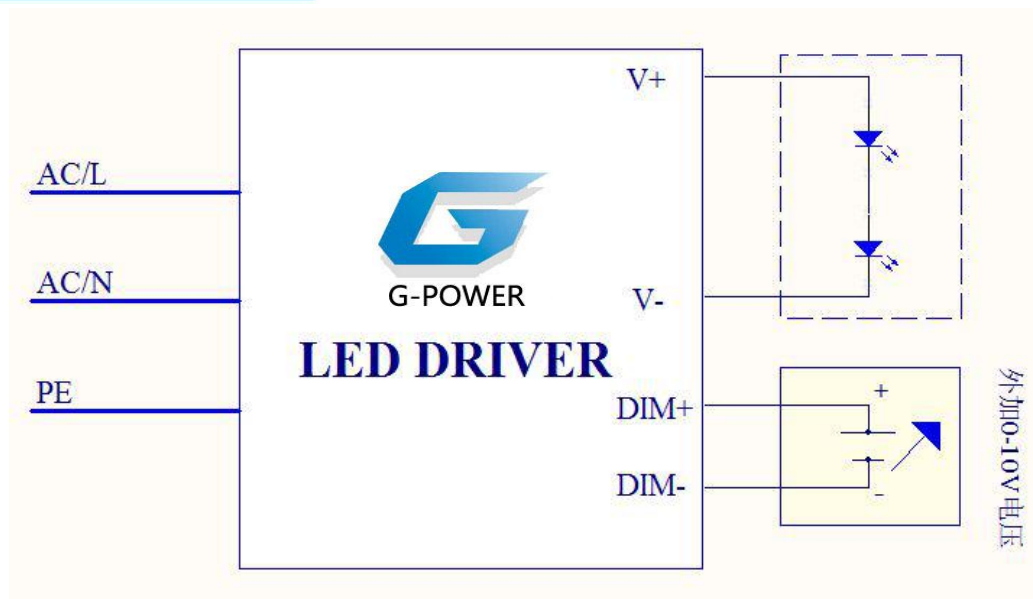
Mechanical Characteristics (Unit: mm)



NOTE :

Input Wire	UL model: UL #18AWG 3*0.824mm ² , GREEN: PE , BLACK: L , WHITE: N Euro model: VDE 3*1.0mm ² , YELLOW/GREEN: PE , BROWN: L , BLUE: N
Output Wire	UL model: UL #18AWG 2*0.824mm ² , RED: V+ , BLACK: V- Euro model: VDE 2*1.0mm ² , BROWN: V+ , BLUE: V-
DIM Wire	#22AWG, PURPLE: DIM+ , GRAY: DIM-

■ Dimming Diagram



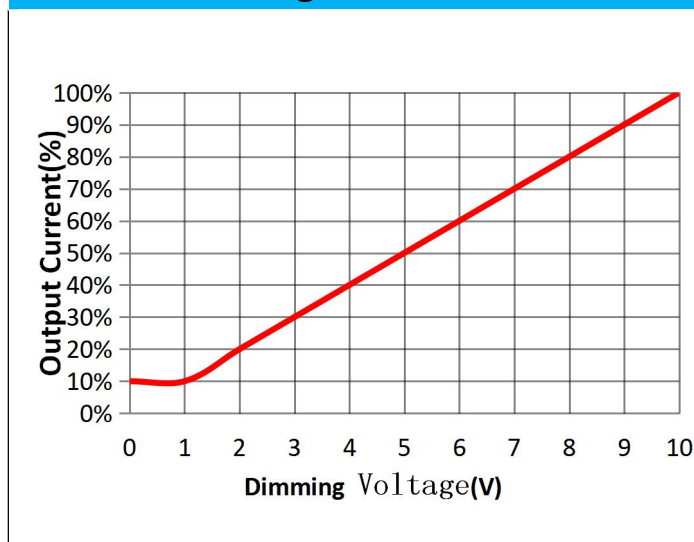
- ❖ Output current could be adjusted by connecting 0-10V or PWM signal between DIM+ and DIM-
- ❖ DO NOT connect " DIM- "and" V- " to avoid abnormal output
- 0-10V Dimming(Typ.) :

Voltage Range	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

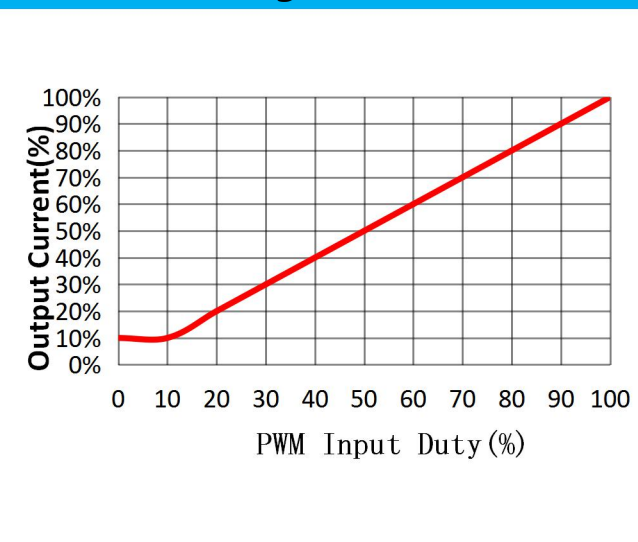
- 10V PWM frequency range (Typ.): 200Hz-2KHz,

PWM duty	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	OPEN
Rated current percentage	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	95-108%

0-10V Dimming Curve



PWM Dimming Curve



■ Installation Tips

Highly recommended to seal the adjustable hole with silicon glue (#704 preferred) after adjusting the driver's output current. Torsion with proper strength to avoid permanent damage to the potentiometer inside

■ Package, Transportation & Storage

1. Package

- a. Outside carton dimension: $L \times W \times H = 51\text{cm} \times 42\text{cm} \times 15\text{cm}$;
- b. 20 PCS/Carton;
- c. Net weight/PC : 15kg ; Gross weight/Carton : 16.5kg
- d. The packing box shall contain the product name, model number, manufacturer's mark, date of manufacture, etc. Each shipment is accompanied by an inspection report.

2. Transportation

Packaging is designed suitable for transportation by trucks, vessels and flights. The products should be shielded from direct sunshine, loaded/unloaded with caution.

3. Storage

The product storage meets the standard of the GB 3873 - 83.

Products should be rechecked if stock for over 1 year before installation.