

Наличие и актуальные цены на

# HBG-100P-36A

https://www.mean-

well.ru/store/HBG-100P-36A/









#### Features

- · Constant Current mode output
- · Circular shape PCB type design
- · Built-in active PFC function
- Function options: output adjustable via potentiometer;
   3 in 1 dimming; DALI
- Typical lifetime>50000 hours
- 5 years warranty

# Applications

- · LED bay lighting
- · LED down lighting
- LED spot lighting
- · LED mining lighting
- · LED stage lighting

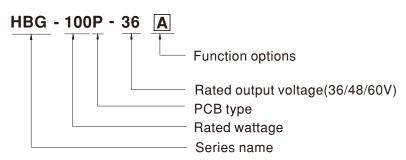
#### **■** GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

## Description

HBG-100P series is a 100W AC/DC PCB type LED driver featuring the circular shape design. It operates from  $90\sim305$ VAC and offers constant current output models with different rated voltage ranging between 36V and 60V. Thanks to the high efficiency up to 91.5%, with the fanless design, the entire series is able to operate for  $-40^{\circ}$ C  $\sim +45^{\circ}$ C under free air convection. HBG-100P is equipped with various function options, such as dimming methodology, so as to provide the optimal design flexibility for LED lighting system.

# ■ Model Encoding



Туре	Function	Note
Α	lo adjustable through built-in potentiometer.	In Stock
В	3 in 1 dimming function (1~10Vdc, 10V PWM signal and resistance)	In Stock
DA	DALI control technology.	In Stock



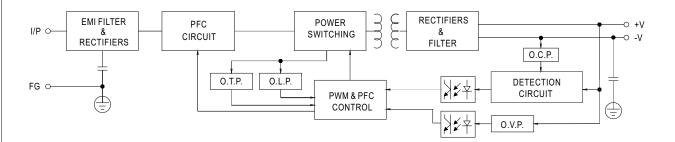


## **SPECIFICATION**

MODEL		HBG-100P-36	HBG-100P-48	HBG-100P-60		
	RATED CURRENT	2.7A	2A	1.6A		
ОИТРИТ	RATED POWER	97.2W	96W	96W		
	CONSTANT CURRENT REGION Note.2	21.6 ~ 36V	28.8 ~ 48V	36 ~ 60V		
	OPEN CIRCUIT VOLTAGE(max.)		49V	62V		
		Adjustable for A-Type only (via built-in potentiometer)				
	CURRENT ADJ. RANGE	1.62 ~ 2.7A	1.2 ~ 2A	1.0 ~ 1.6A		
	CURRENT RIPPLE	5.0% max. @rated current				
	CURRENT TOLERANCE	±5.0%				
	SET UP TIME Note.4	2000ms / 115VAC 500ms / 230VAC				
		90 ~ 305VAC 127 ~ 431VDC				
	VOLTAGE RANGE Note.3	(Please refer to "STATIC CHARACTERISTIC" section)				
	FREQUENCY RANGE	47 ~ 63Hz				
		PF≥0.96/115VAC, PF≥0.96/230VAC, PF≥0.94/277VAC@full load				
	POWER FACTOR	(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)				
		THD<20%(@load≧60%/115VC,230VAC; @load≧75%/277VAC)				
	TOTAL HARMONIC DISTORTION	(Please refer to "TOTAL HARMONIC				
INPUT	EFFICIENCY (Typ.) Note.5	91%	91%	91.5%		
	AC CURRENT	1.1A / 115VAC 0.5A / 230VAC	0.45A / 277VAC	•		
	INRUSH CURRENT(Typ.)	COLD START 60A(twidth=550µs measured at 50% lpeak) at 230VAC; Per NEMA 410				
	MAX. No. of PSUs on 16A	4 units (circuit breaker of type B) / 8 units (circuit breaker of type C) at 230VAC				
	CIRCUIT BREAKER					
	LEAKAGE CURRENT	<0.75mA / 277VAC				
	OVER CURRENT	95 ~ 108%				
		Constant current limiting, recovers au	tomatically after fault condition is remo	ved		
PROTECTION		41 ~ 49V	54 ~ 63V	65 ~ 75V		
	OVER VOLTAGE	Shut down o/p voltage, re-power on to	recovery			
	OVER TEMPERATURE Note.10	Shut down o/p voltage, re-power on to recovery				
	WORKING TEMP.		TPUT LOAD vs TEMPERATURE" secti	on)		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0~45°C)				
	VIBRATION	10 ~ 500Hz, 2G 12min./1cycle, period	for 72min. each along X, Y, Z axes			
		UL8750,CSA C22.2 No.250.13-12; ENEC BS EN/EN61347-1,BS EN/EN61347-2-13,BS EN/EN62384, GB19510.1,				
SAFETY & EMC	SAFETY STANDARDS	GB19510.14,EAC TP TC 004 approved				
	DALI STANDARDS	Compliance to IEC62386-101, 102, 207 for DA-Type only				
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH				
	EMC EMISSION	Compliance to BS EN/EN55015, BS EN/EN61000-3-2 Class C (@load ≧60%); BS EN/EN61000-3-3, GB/T 17743, GB17625.1,EAC TP TC 020				
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level (surge immunity:Line-Earth:4KV, Line-Line:2KV), EAC TP TC 020				
	MTBF		2 (Bellcore) ;346.9K hrs min. MIL-HI	DBK-217F (25°C)		
OTHERS	DIMENSION	Refer to mechanical specification	,,	,		
	PACKING	0.3Kg; 45pcs/14.5Kg/1.60CUFT				
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature. 2. Please refer to "DRIVING METHODS OF LED MODULE". 3. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details. 4. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. 5. The DA type power supply is less efficient than the typical efficiency in specification by 1%. 6. 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. (as available on https://www.meanwell.com//Upload/PDF/EMI_statement_en.pdf) 7. This series meets the typical life expectancy of >50,000 hours of operation when Ta is about 45°C or less. 8. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com 9. 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). 10. All functional testing must be filled with potting,including OTP function .  **W Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx					

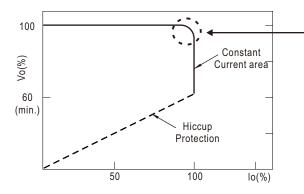
## ■ BLOCK DIAGRAM

fosc: 100KHz



## ■ DRIVING METHODS OF LED MODULE

💥 This series works in constant current mode to directly drive the LEDs.



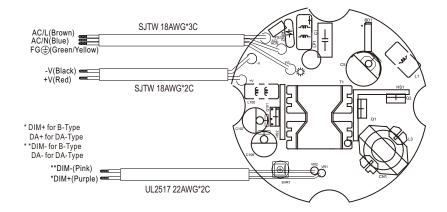
Typical output current normalized by rated current (%)

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.



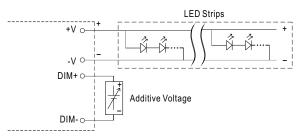
## **■ DIMMING OPERATION**



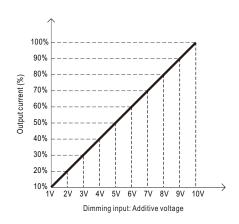
#### ※ 3 in 1 dimming function (for B-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:
   1 ~ 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.)

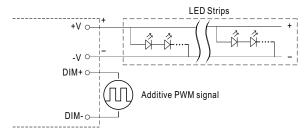
#### O Applying additive 1 ~ 10VDC



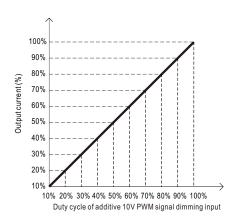
"DO NOT connect "DIM- to -V"



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

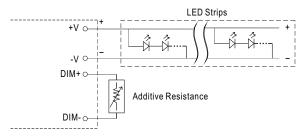


"DO NOT connect "DIM- to -V"

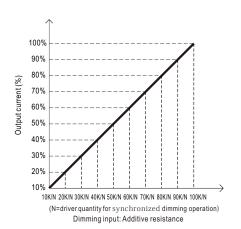




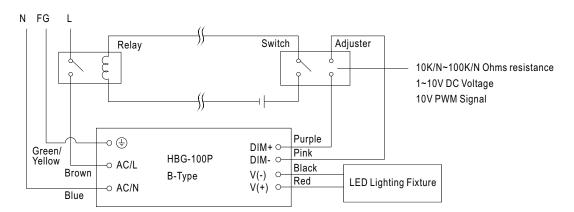
#### Applying additive resistance:



"DO NOT connect "DIM- to -V"



Note: In the case of turning the lighting fixture down to 0% brightness, please refer to the configuration as follow, or please contact MEAN WELL for other options.



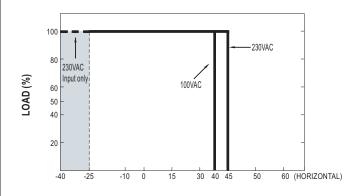
Using a switch and relay can turn ON/OFF the lighting fixture.

#### DALI Interface (primary side; for DA-Type)

- $\cdot$  Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

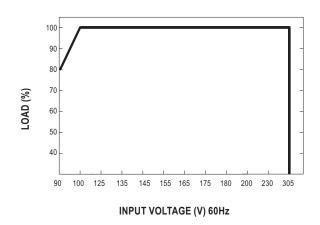


## ■ OUTPUT LOAD vs TEMPERATURE



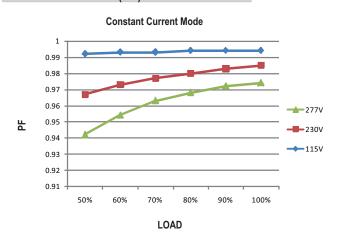
AMBIENT TEMPERATURE, Ta (°℃)

#### ■ STATIC CHARACTERISTIC

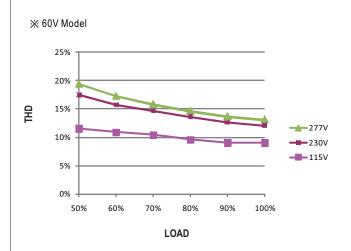


※ De-rating is needed under low input voltage.

## ■ POWER FACTOR (PF) CHARACTERISTIC



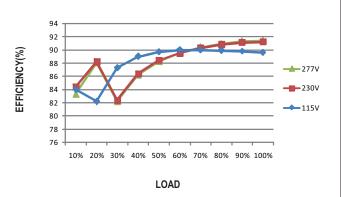
## ■ TOTAL HARMONIC DISTORTION (THD)



## ■ EFFICIENCY vs LOAD

HBG-100P series possess superior working efficiency that up to 91.5% can be reached in field applications.

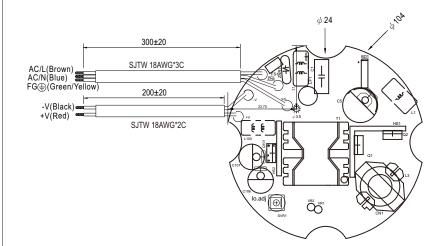
**※** 60V Model

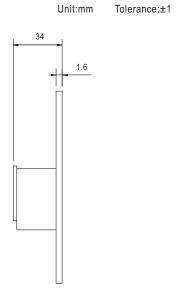




## ■ MECHANICAL SPECIFICATION

## ※ A-type





#### ※ B/DA type

