



IP65 IP67

■ Features

- Wide input range 180 ~ 528VAC
- Constant Voltage + Constant Current mode output
- Metal housing with Class I design
- Built-in active PFC function
- IP67 / IP65 rating for indoor or outdoor installations
- Function options: output adjustable via potentiometer; 3 in 1 dimming (dim-to-off) ; Timer dimming
- Typical lifetime>50000 hours
- 5 years warranty

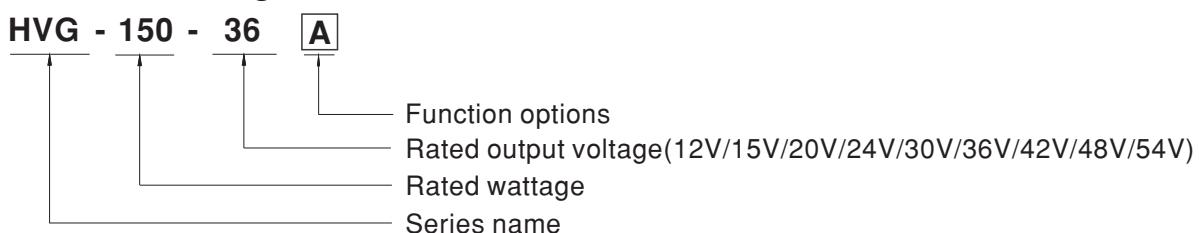
■ Applications

- LED street lighting
- 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

HVG-150 series is a 150W AC/DC LED power supply featuring the dual mode constant voltage and constant current output. HVG-150 operates from 180~528VAC and offers models with different rated voltage ranging between 12V and 54V. Thanks to the high efficiency up to 91.5%, with the fanless design, the series is able to operate from -40°C through as high as +85°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. HVG-150 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
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
D	IP67	Timer dimming function, contact MEAN WELL for details(safety pending).	By request

SPECIFICATION

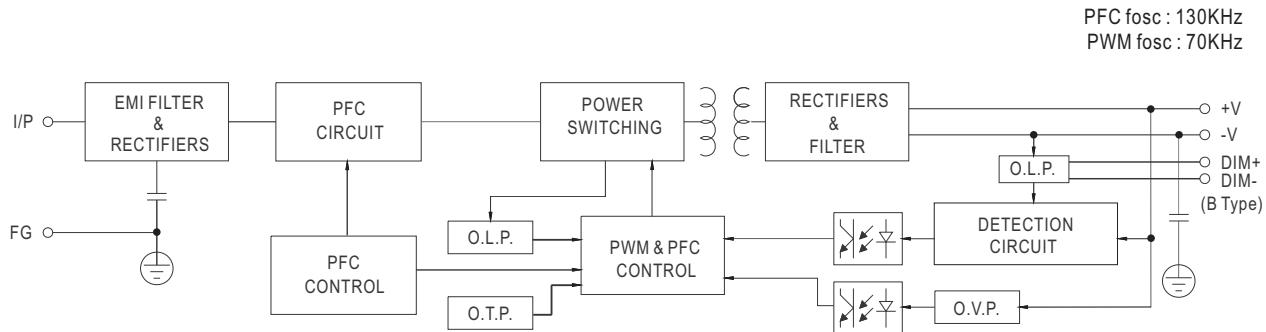
MODEL	HVG-150-12	HVG-150-15	HVG-150-20	HVG-150-24	HVG-150-30	HVG-150-36	HVG-150-42	HVG-150-48	HVG-150-54								
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V							
	CONSTANT CURRENT REGION Note.4	7.2~12V	8.25~15V	11~20V	13.2~24V	16.5~30V	19.8~36V	23.1~42V	26.4~48V	29.7~54V							
	RATED CURRENT	10A	10A	7.5A	6.25A	5A	4.17A	3.58A	3.13A	2.78A							
	RATED POWER	120W	150W	150W	150W	150W	150.12W	150.36W	150.24W	150.12W							
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p							
	VOLTAGE ADJ. RANGE	Adjustable for A/AB-Type only (via the built-in potentiometer)															
		10.8 ~ 13.5V	13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	38 ~ 46V	43 ~ 53V	49 ~ 58V							
	CURRENT ADJ. RANGE	Adjustable for A/AB-Type only (via the built-in potentiometer)															
		6 ~ 10A	5.5 ~ 10A	4.13 ~ 7.5A	3.44 ~ 6.25A	2.75 ~ 5A	2.29 ~ 4.17A	1.97 ~ 3.58A	1.72 ~ 3.13A	1.53 ~ 2.78A							
	VOLTAGE TOLERANCE Note.3	±2.5%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%							
	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 /230VAC, 347VAC, 480VAC															
	HOLD UP TIME (Typ.)	18ms/347VAC, 480VAC															
INPUT	VOLTAGE RANGE Note.5	180 ~ 528VAC 254VDC ~ 747VDC (Please refer to "STATIC CHARACTERISTIC" section)															
	FREQUENCY RANGE	47 ~ 63Hz															
	POWER FACTOR (Typ.)	PF ≥ 0.98/230VAC, PF ≥ 0.97/277VAC, PF ≥ 0.95/347VAC, PF ≥ 0.93/480VAC @full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)															
	TOTAL HARMONIC DISTORTION	THD < 20%(@ load ≥ 50%/230VAC, 277VAC, 347VAC [@ load ≥ 60% only for 12V model]; @ load ≥ 75%/480VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)															
	EFFICIENCY (Typ.)	87%	89%	90.5%	91%	91%	91%	91%	91.5%	91.5%							
	AC CURRENT (Typ.)	347VAC 0.45A	0.5A														
		480VAC 0.35A	0.38A														
	INRUSH CURRENT (Typ.)	COLD START 35A(twidth=790/ μ s measured at 50% Ipeak) at 480VAC; Per NEMA 410															
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	4 units (circuit breaker of type B) / 6 units (circuit breaker of type C) at 480VAC															
	LEAKAGE CURRENT	<0.75mA / 480VAC															
PROTECTION	OVER CURRENT	95 ~ 108%															
		Constant current limiting, recovers automatically after fault condition is removed															
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed															
	OVER VOLTAGE	14.4 ~ 16.8V 18 ~ 21V 23 ~ 27V 28 ~ 34V 34 ~ 38V 41 ~ 46V 47 ~ 53V 54 ~ 60V 59 ~ 65V															
	OVER TEMPERATURE	Shut down o/p voltage with auto-recovery or re-power on to recovery															
ENVIRONMENT	WORKING TEMP.	Tcase=-40 ~ +85°C (-40 ~ +75°C for 12V model, -40 ~ +80°C for 15V model)(Please refer to "OUTPUT LOAD vs TEMPERATURE" section)															
	MAX. CASE TEMP.	Tcase=+85°C (+75°C for 12V model, +80°C for 15V model)															
	WORKING HUMIDITY	20 ~ 95% RH non-condensing															
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH															
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)															
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes															
SAFETY & EMC	SAFETY STANDARDS Note.7	UL8750(type "HL"), CSA C22.2 No. 250.0-08, EAC TP TC 004, IP65 or IP67 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	Compliance to EN55015, EN61000-3-2 Class C (@ load ≥ 55% load, @ load ≥ 60% only for 12V model) ; EN61000-3-3, FCC Part 15 Subpart, EAC TP TC 020															
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, light industry level (surge immunity Line-Earth 4KV, Line-Line 2KV), EAC TP TC 020															
OTHERS	MTBF	158.6K hrs min. MIL-HDBK-217F (25°C)															
	DIMENSION	245*68*38.8mm (L*W*H)															
	PACKING	1.24Kg; 12pcs/15.9Kg/0.78CUFT															
NOTE	1. All parameters NOT specially mentioned are measured at 347VAC input, rated load 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 power supply may lead to increase of the set up time. 7. 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. 8. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly t_{CO} 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 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). 11. For any application note and IP water proof function installation caution, please refer our user manual before using. https://www.meanwell.com/Upload/PDF/LED_EN.pdf																
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx																



150W Constant Voltage + Constant Current LED Driver

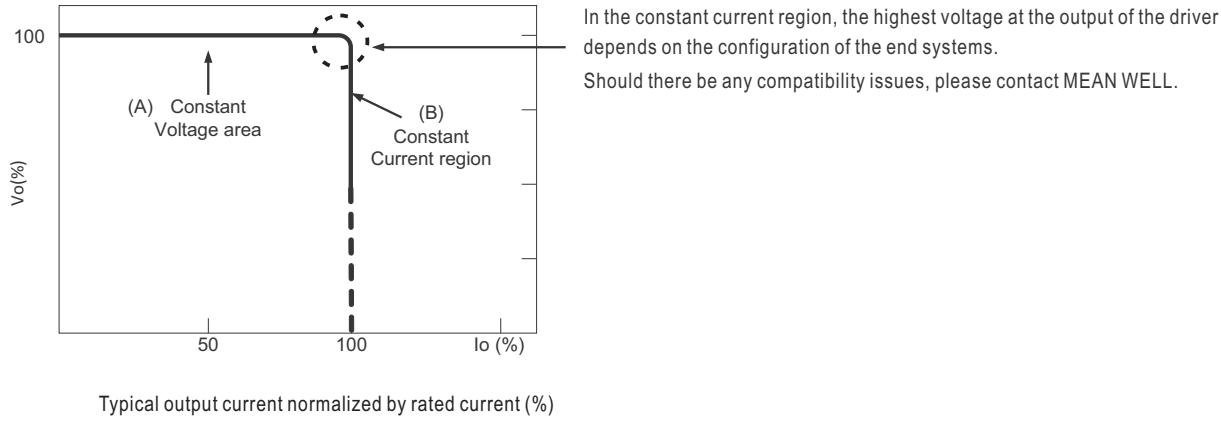
HVG-150 series

Block Diagram

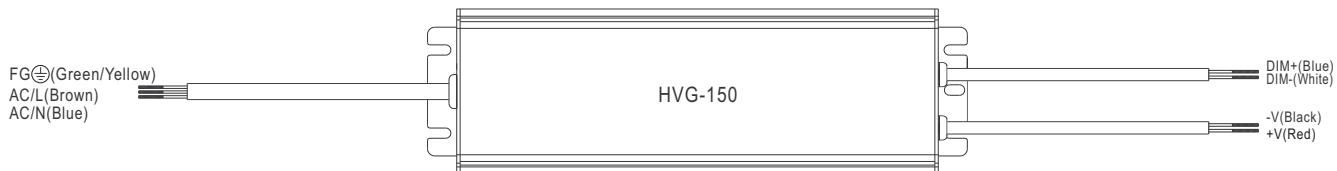


DRIVING METHODS OF LED MODULE

※ 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.



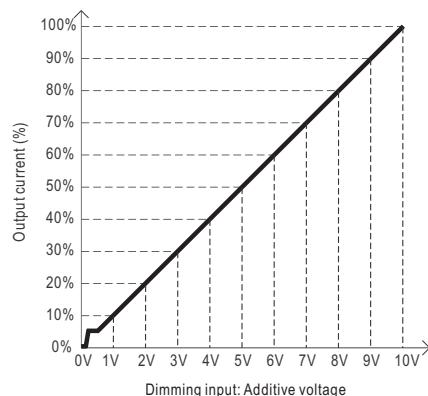
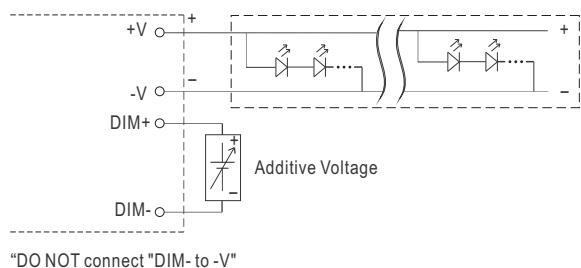
DIMMING OPERATION



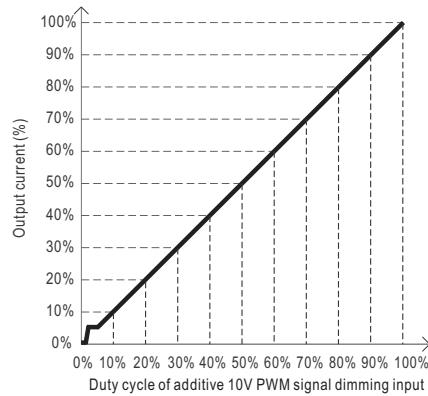
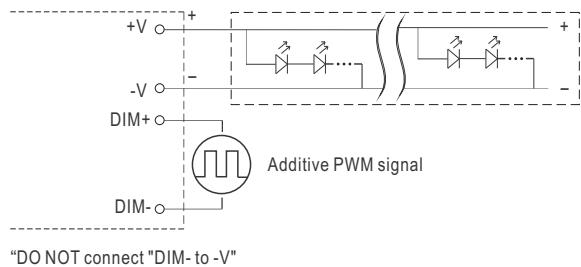
※ 3 in 1 dimming function (for B/AB-Type)

- 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.)

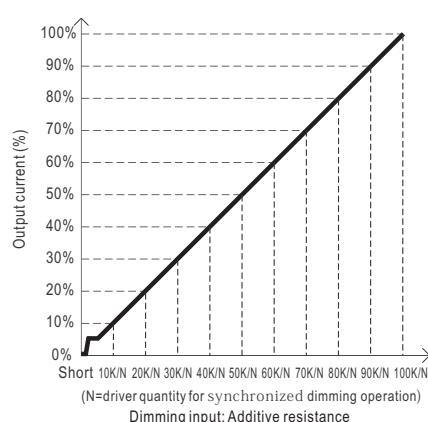
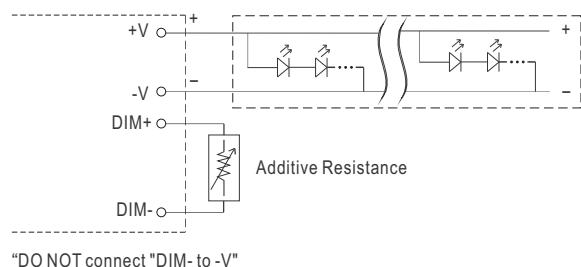
◎ Applying additive 0 ~ 10VDC



◎ 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%.

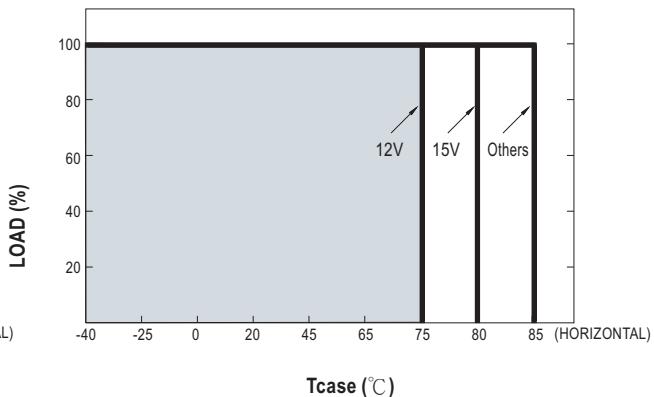
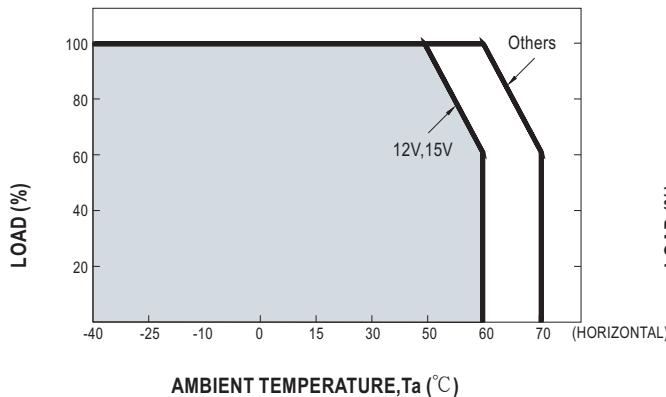
2. The output current could drop down to 0% when dimming input is about 0k Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.



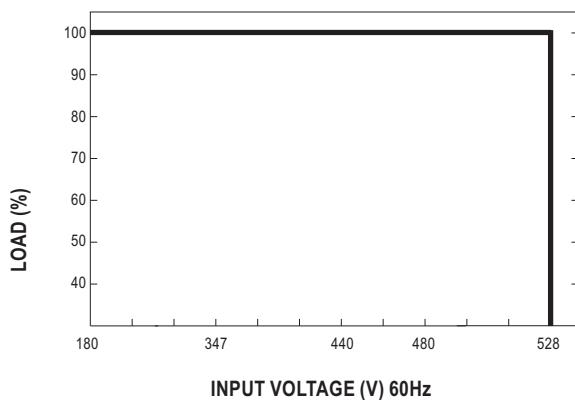
150W Constant Voltage + Constant Current LED Driver

HVG-150 series

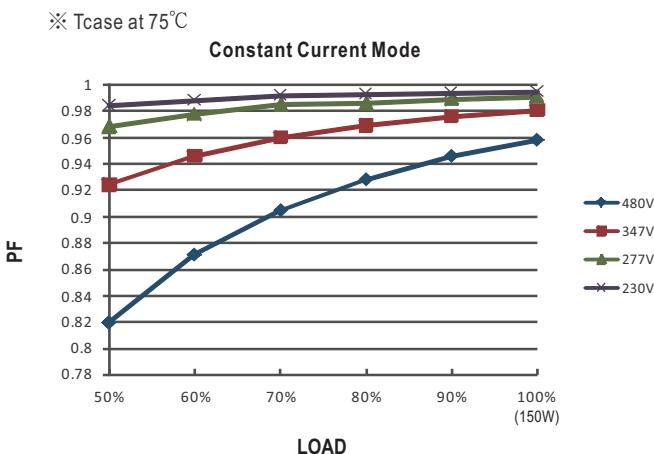
■ OUTPUT LOAD vs TEMPERATURE (Note.9)



■ STATIC CHARACTERISTIC

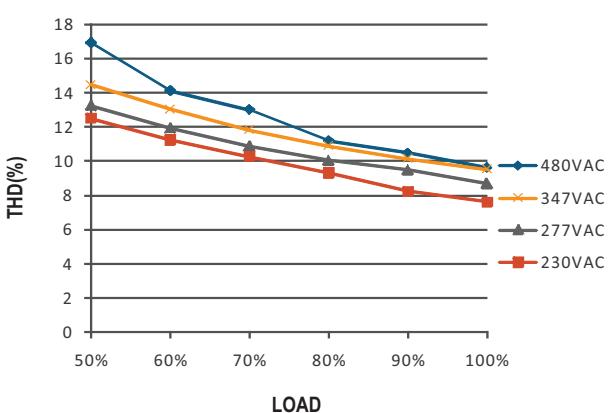


■ POWER FACTOR (PF) CHARACTERISTIC



■ TOTAL HARMONIC DISTORTION (THD)

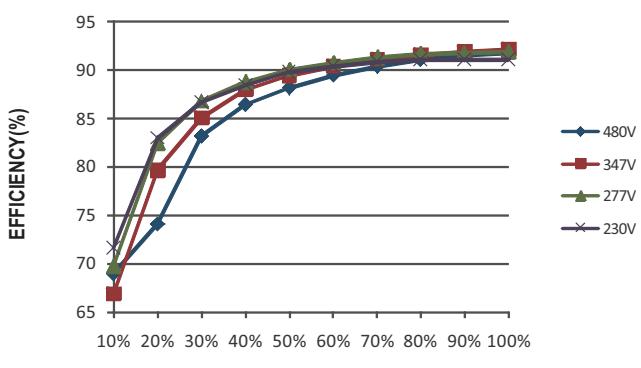
※ 48V Model, T_{case} at 75°C



■ EFFICIENCY vs LOAD

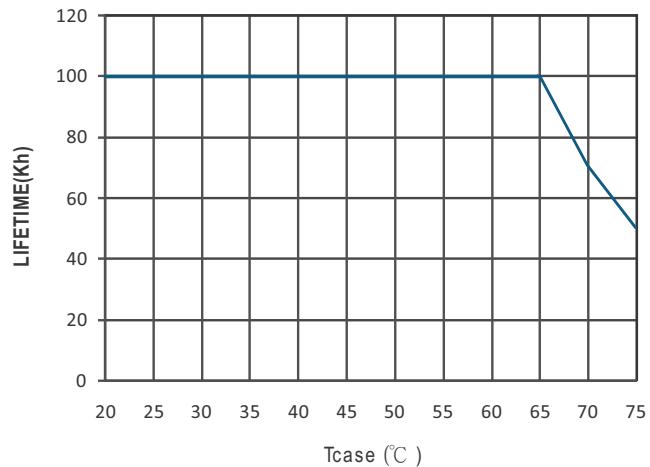
HVG-150 series possess superior working efficiency that up to 91.5% can be reached in field applications.

※ 48V Model, T_{case} at 75°C

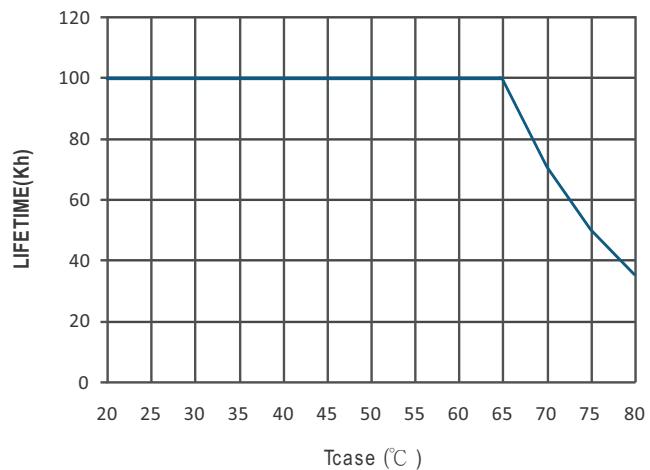


LIFE TIME

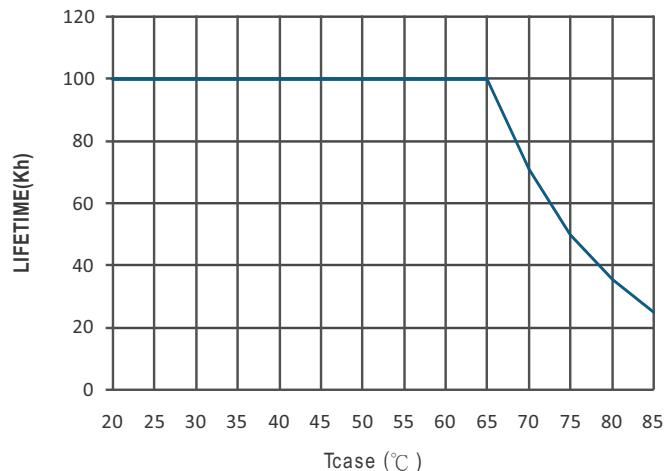
※ For HVG-150-12



※ For HVG-150-15



※ For others





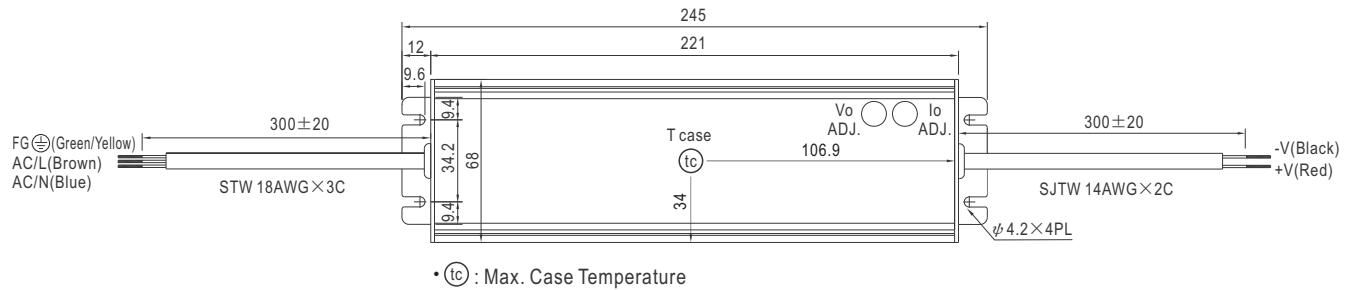
150W Constant Voltage + Constant Current LED Driver

HVG-150 series

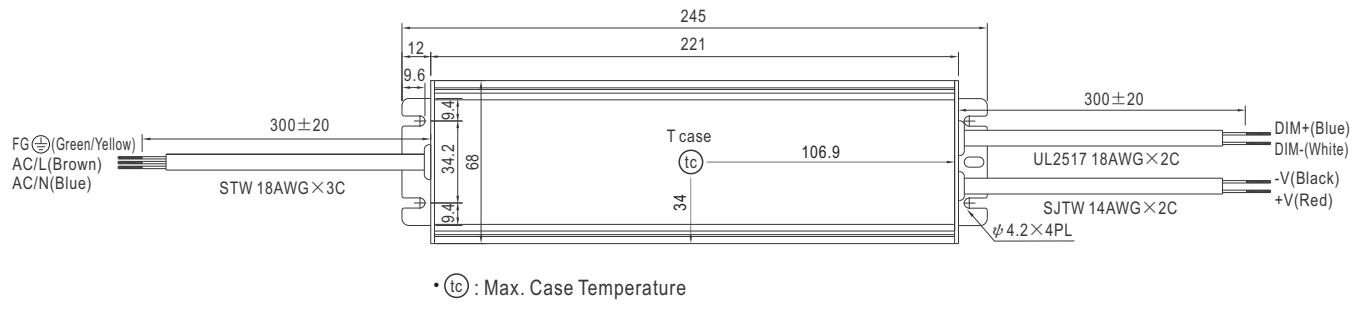
■ MECHANICAL SPECIFICATION

Case No. 994 Unit:mm

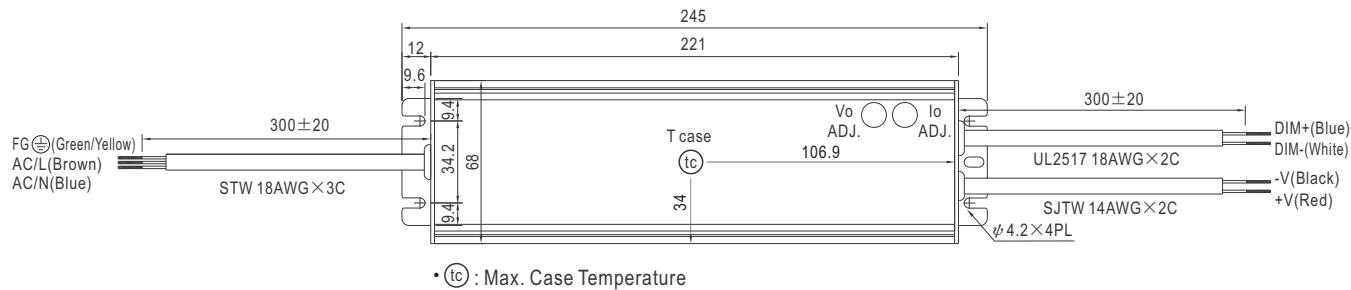
※ A-Type



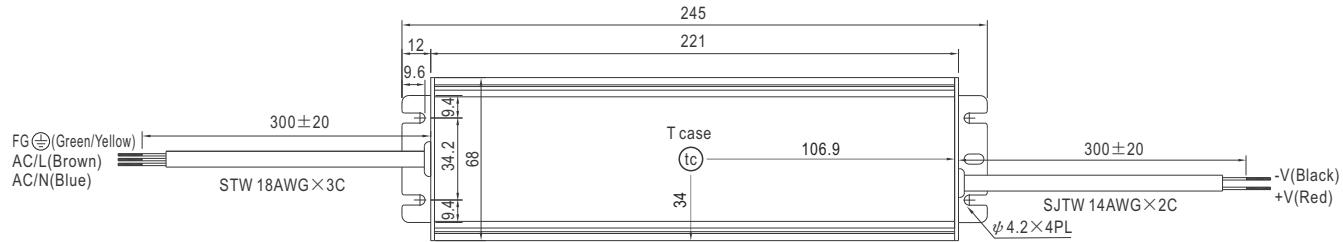
※ B-Type



※ AB-Type



※ D-Type





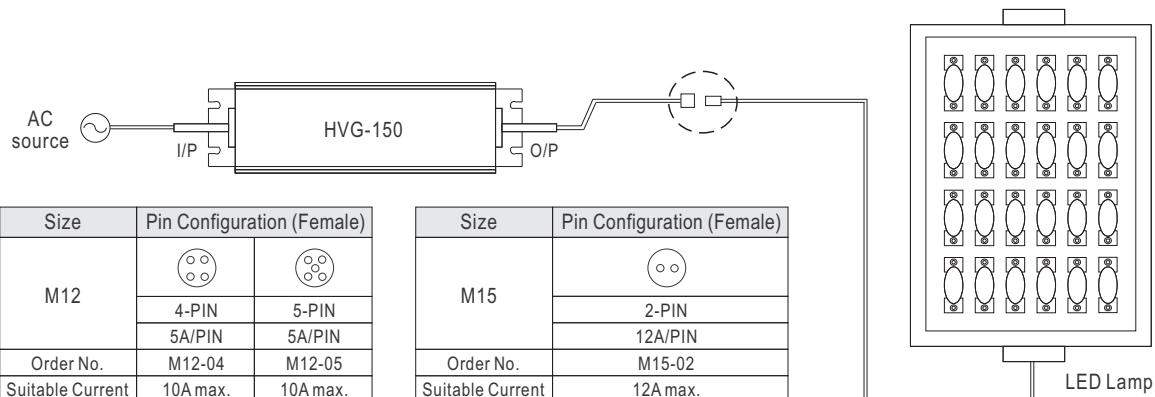
150W Constant Voltage + Constant Current LED Driver

HVG-150 series

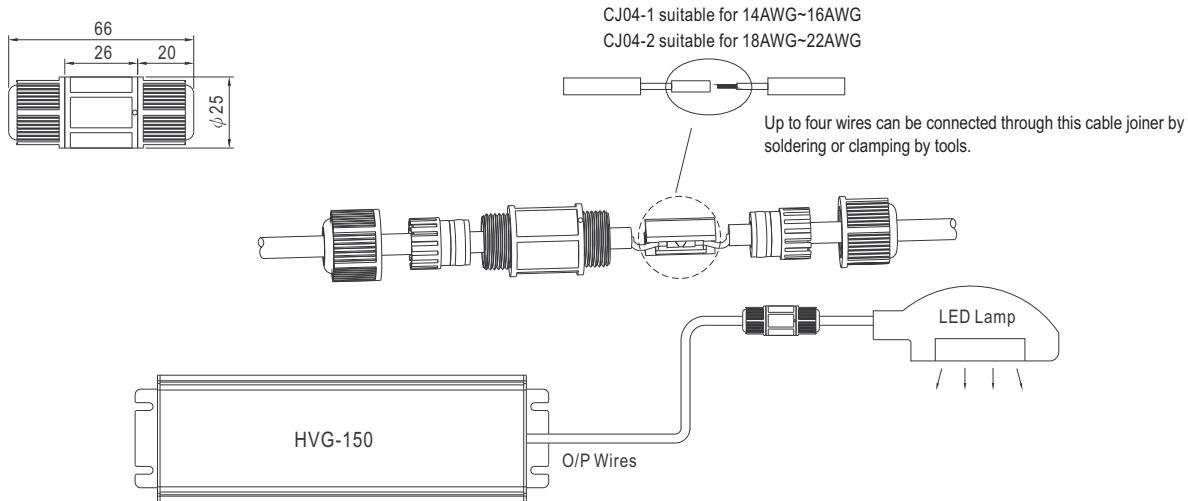
■ WATERPROOF CONNECTION

※ Waterproof connector

Waterproof connector can be assembled on the output cable of HVG-150 to operate in dry/wet/damp or outdoor environment.



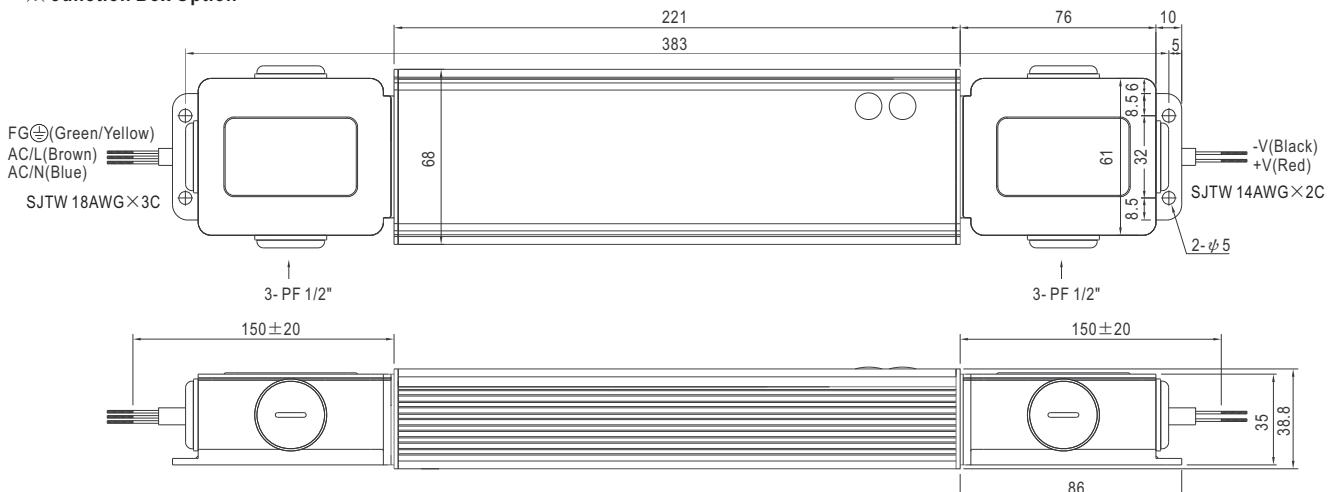
⊗ Cable Joiner



◎ CJ04 cable joiner can be purchased independently for user's own assembly.

MEAN WELL order No. : CJ04-1, CJ04-2.

※ Junction Box Option



◎ Junction box option is available for A - Type. Please contact MEAW WELL for details.

■ INSTALLATION MANUAL

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