



IP65 IP67

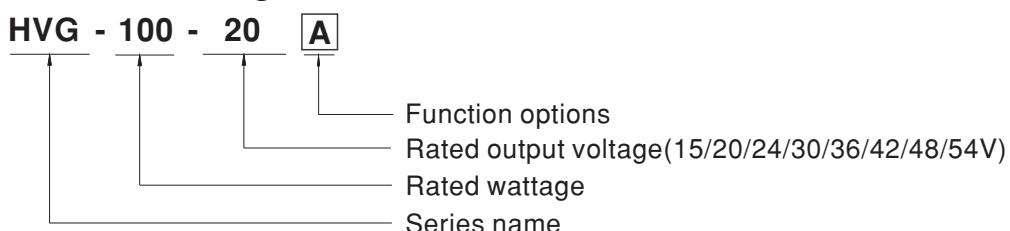
■ Features

- Wide input range 180 ~ 528VAC
- Constant Voltage + Constant Current mode output
- Metal housing with Class I design
- Built-in active PFC function
- Class 2 power unit
- 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

■ Description

HVG-100 series is a 100W AC/DC LED driver featuring the dual mode constant voltage and constant current output. HVG-100 operates from 180~528VAC and offers models with different rated voltage ranging between 15V and 54V. Thanks to the high efficiency up to 91%, 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. HVG-100 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	Built-in Smart timer dimming function by user request.	By request



100W Constant Voltage + Constant Current LED Driver

HVG-100 series

SPECIFICATION

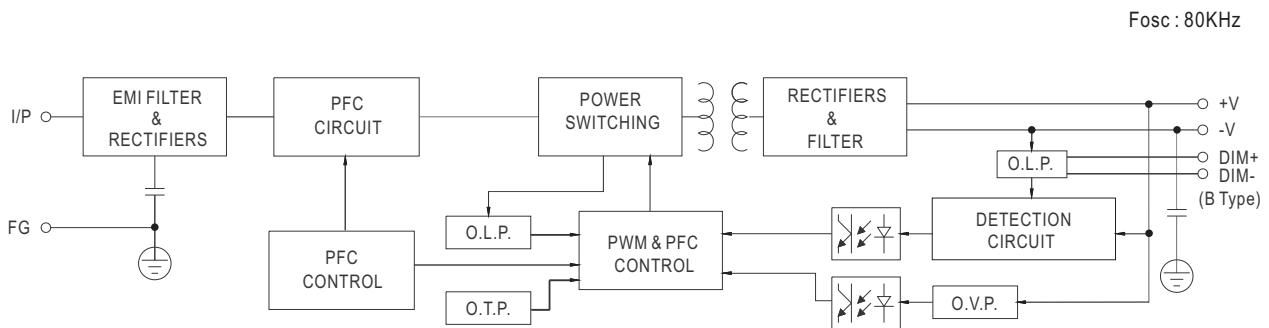
MODEL	HVG-100-15	HVG-100-20	HVG-100-24	HVG-100-30	HVG-100-36	HVG-100-42	HVG-100-48	HVG-100-54	
OUTPUT	DC VOLTAGE	15V	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT REGION Note.4	9~15V	10~20V	12~24V	15~30V	18~36V	21~42V	24~48V	27~54V
	RATED CURRENT	5A	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	RATED POWER	75W	96W	96W	96W	95.4W	95.76W	96W	95.58W
	RIPLPE & NOISE (max.) Note.2	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)							
		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)							
		2.75 ~ 5A	2.64 ~ 4.8A	2.2 ~ 4A	1.76 ~ 3.2A	1.45 ~ 2.65A	1.25 ~ 2.28A	1.1 ~ 2A	0.97 ~ 1.77A
	VOLTAGE TOLERANCE Note.3	±2.0%	±1.0%	±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%
	LOAD REGULATION	±1.5%	±0.5%	±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.)	30ms/347VAC, 480VAC							
	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 ≥ 0.98/277VAC, PF ≥ 0.97/347VAC, 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 15V model]; @ load ≥ 75%/480VAC) (Please refer to "TOTAL HARMONIC DISTORTION (THD)" section)							
	EFFICIENCY (Typ.)	89%	90%	91%	91%	90.5%	90.5%	91%	91%
	AC CURRENT (Typ.)	0.38A / 347VAC	0.28A / 480VAC						
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 25A(twidth=900μs measured at 50% Ipeak) at 480VAC; Per NEMA 410							
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	5 units (circuit breaker of type B) / 8 units (circuit breaker of type C) at 480VAC							
	LEAKAGE CURRENT	<0.75mA / 480VAC							
	OVER CURRENT	95 ~ 108% Constant current limiting, recovers automatically after fault condition is removed							
ENVIRONMENT	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	18 ~ 21V	23 ~ 27V	28 ~ 34V	34 ~ 38V	41 ~ 46V	47 ~ 53V	54 ~ 60V	59 ~ 65V
		Shut down o/p voltage with auto-recovery or re-power on to recovery							
	OVER TEMPERATURE	Shut down o/p voltage, recovers automatically after temperature goes down							
SAFETY & EMC	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 ~ +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							
OTHERS	SAFETY STANDARDS	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 ≥ 50% load, @ load ≥ 60% only for 15V model); EN61000-3-3, FCC Part 15 Subpart B, 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							
NOTE	MTBF	174.9K hrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	236*68*38.8mm (L*W*H)							
	PACKING	1.18Kg; 12pcs/15.2Kg/0.74CUFT							
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 driver 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 80°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									



100W Constant Voltage + Constant Current LED Driver

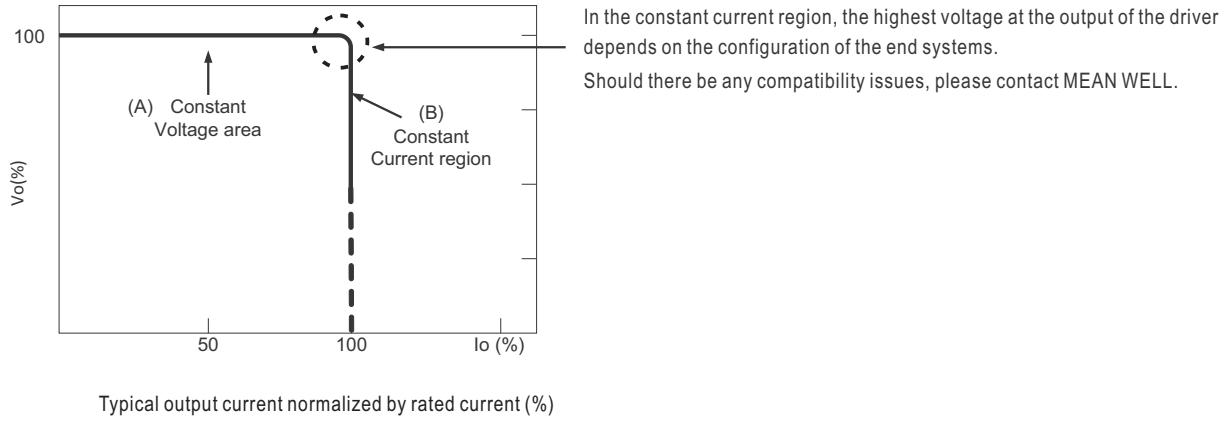
HVG-100 series

■ Block Diagram

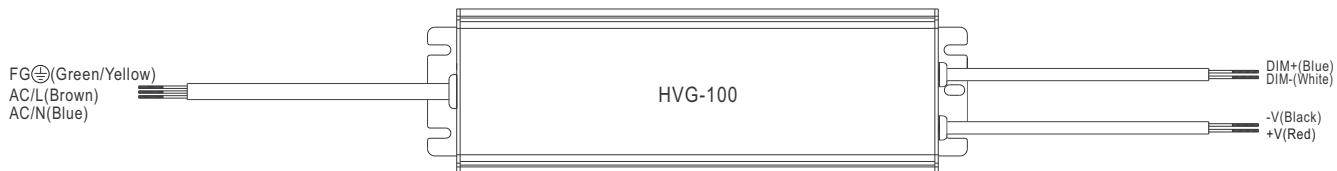


■ DRIVING METHODS OF LED MODULE

※ 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.



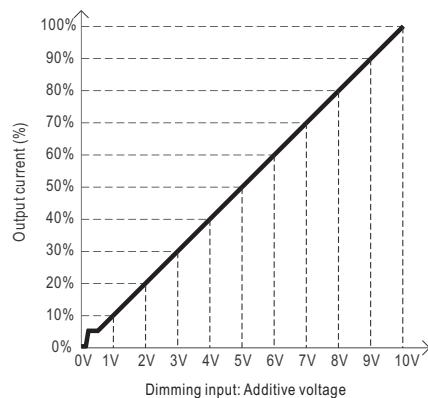
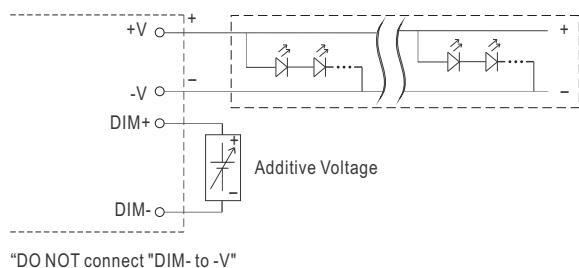
DIMMING OPERATION



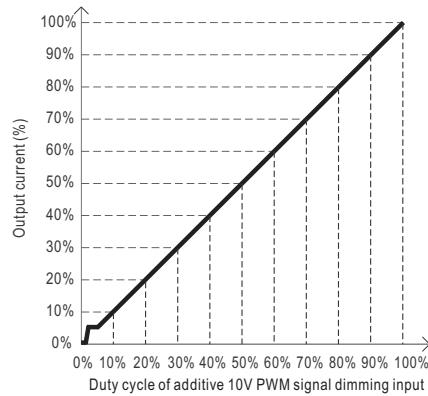
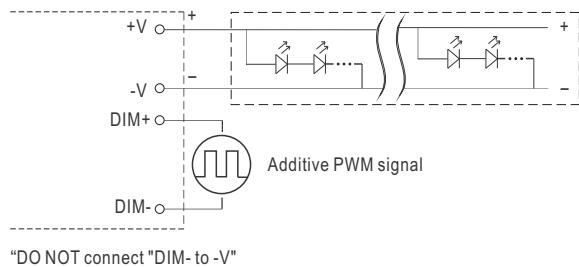
※ 3 in 1 dimming function (for B/AB-Type)

- 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.)

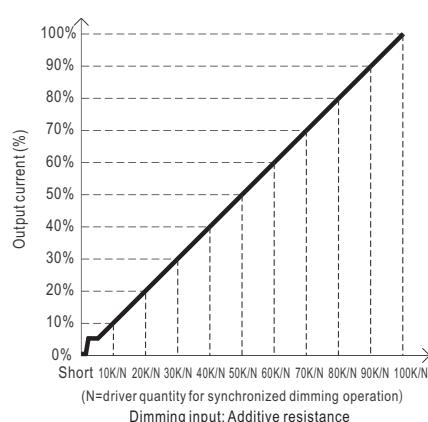
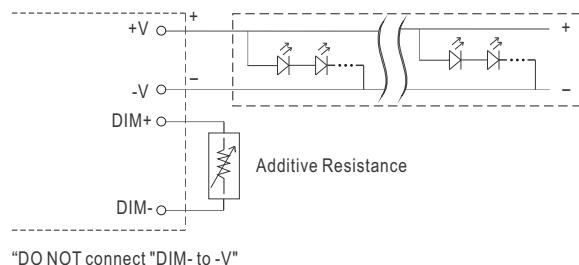
◎ Applying additive 0 ~ 10VDC



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



◎ Applying additive resistance:



Note : 1. Min. dimming level is about 8% and the output current is not defined when 0% < Iout < 8%.

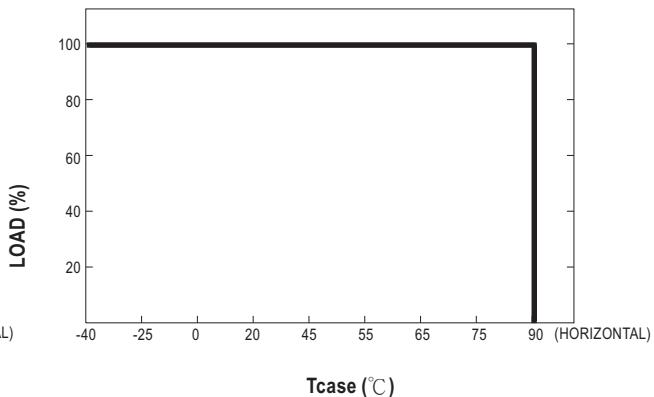
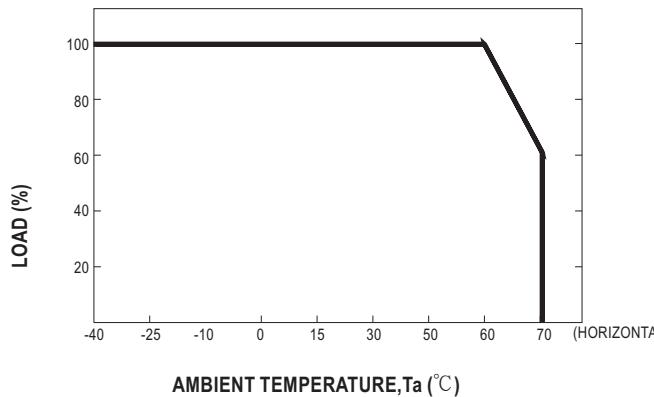
2. The output current could drop down to 0% when dimming input is about 0k Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.



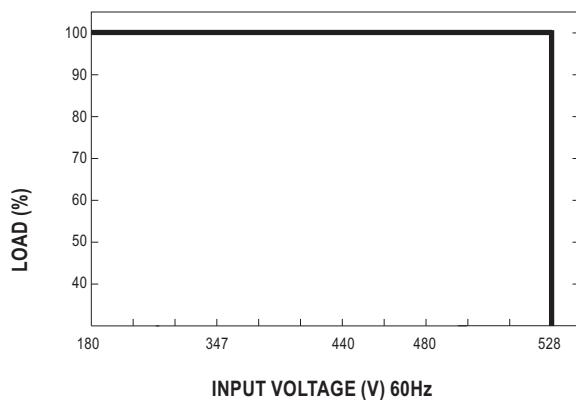
100W Constant Voltage + Constant Current LED Driver

HVG-100 series

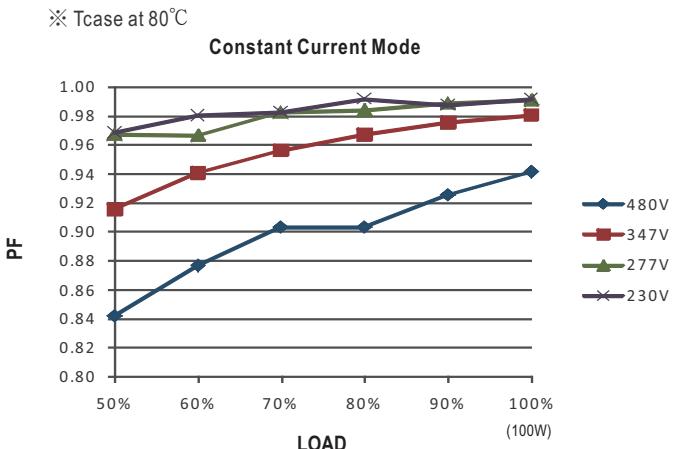
■ OUTPUT LOAD vs TEMPERATURE (Note.9)



■ STATIC CHARACTERISTIC

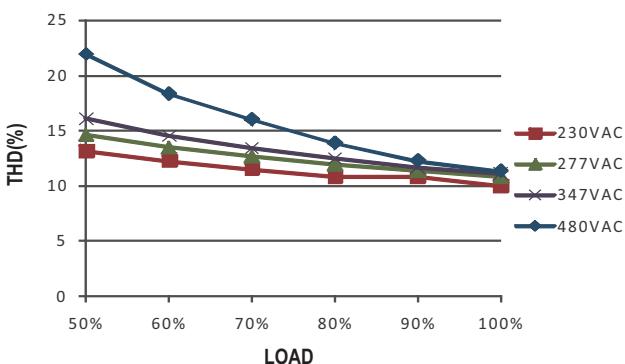


■ POWER FACTOR (PF) CHARACTERISTIC



■ TOTAL HARMONIC DISTORTION (THD)

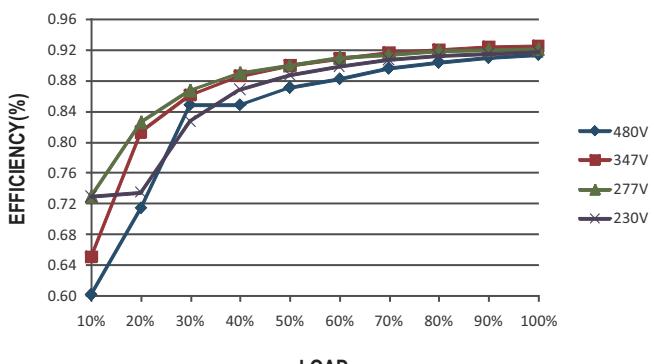
※ 48V Model, Tcase at 80°C

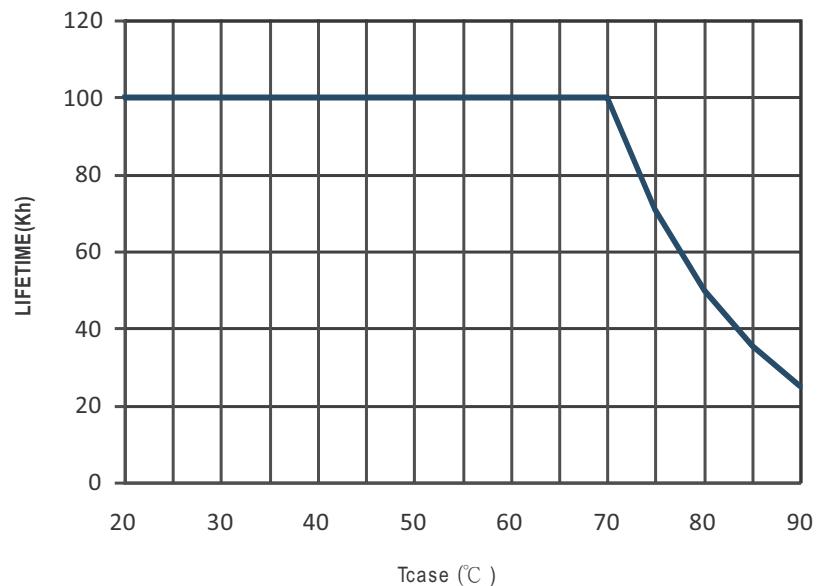


■ EFFICIENCY vs LOAD

HVG-100 series possess superior working efficiency that up to 91% can be reached in field applications.

※ 48V Model, Tcase at 80°C



LIFE TIME



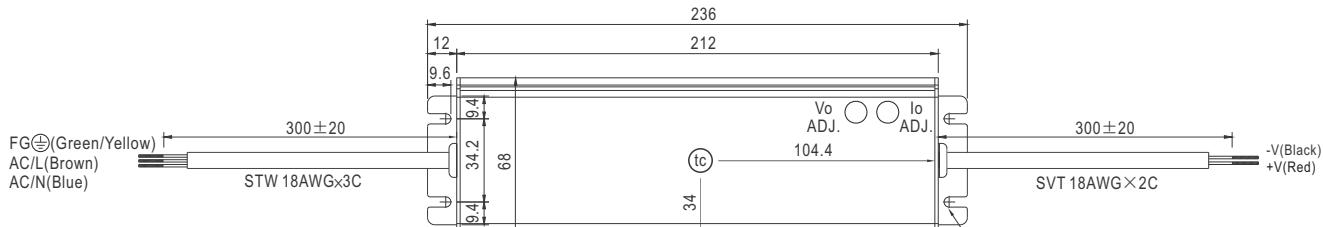
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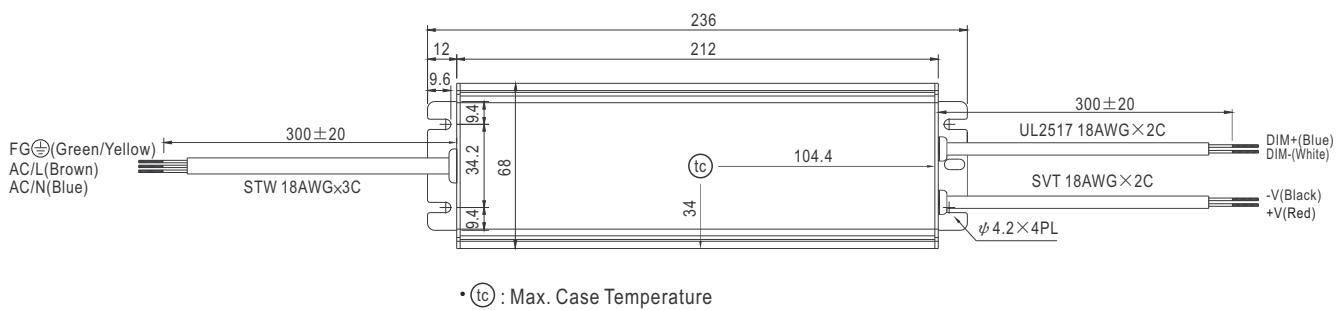
■ MECHANICAL SPECIFICATION

Case No. 994 Unit:mm

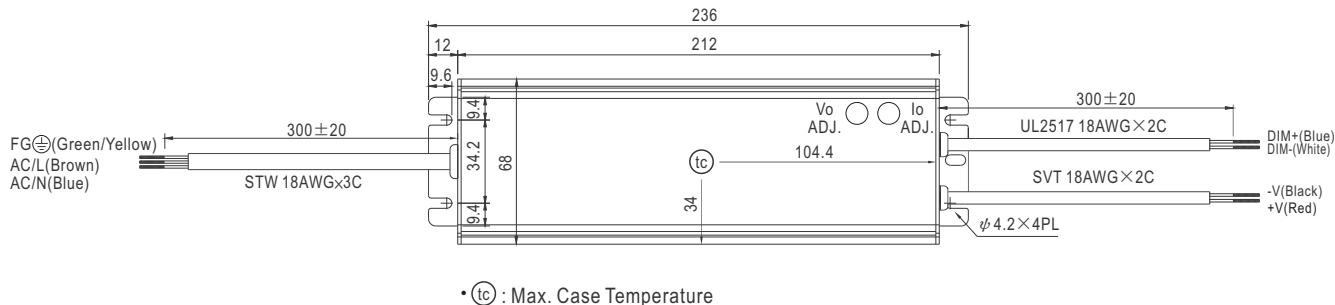
※ A-Type



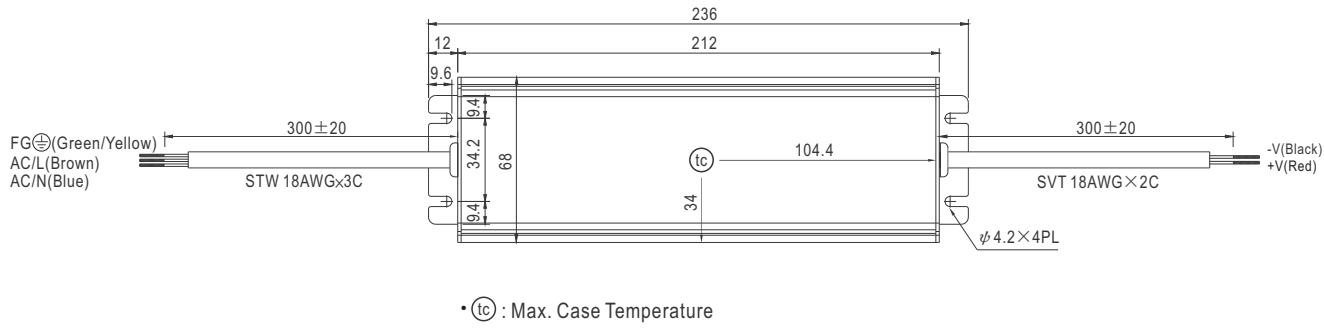
※ B-Type



※ AB-Type



※ D-Type





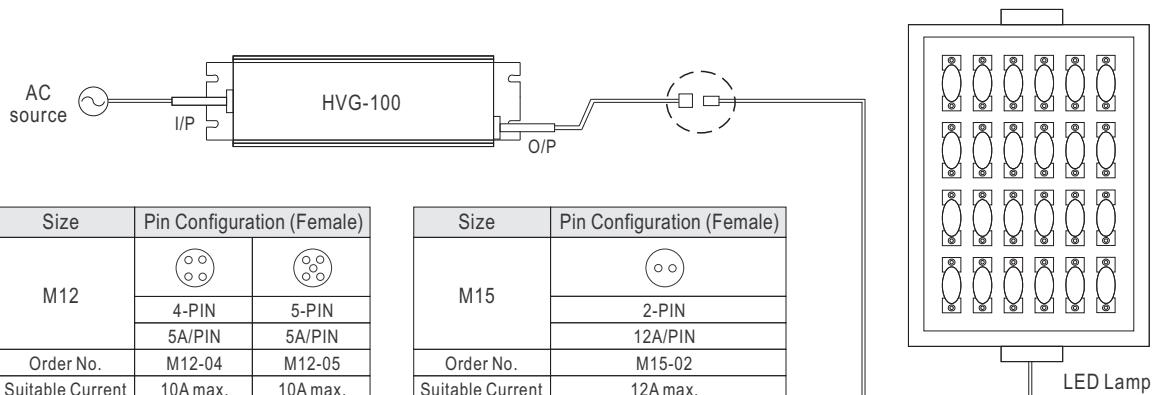
100W Constant Voltage + Constant Current LED Driver

HVG-100 series

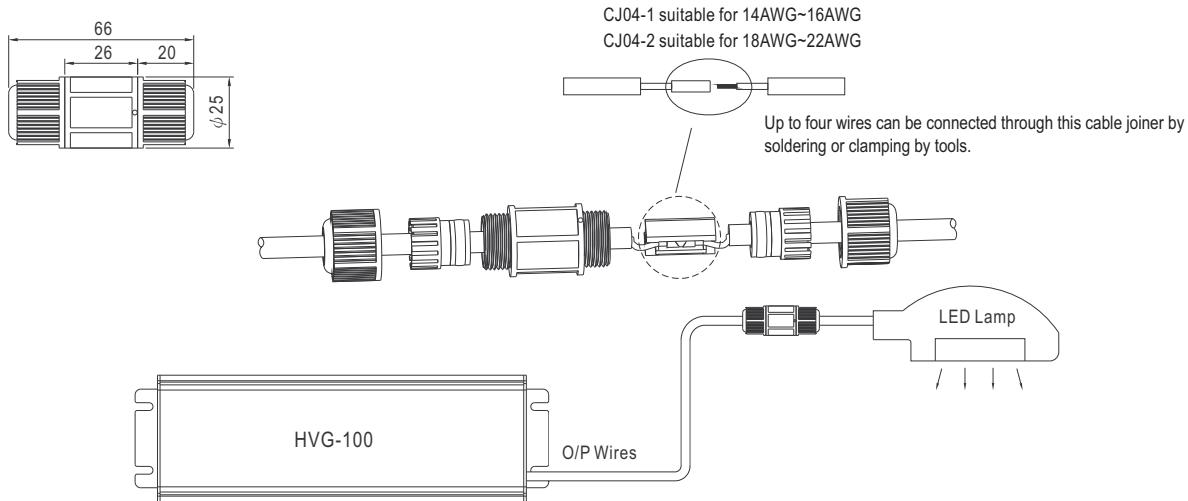
■ WATERPROOF CONNECTION

※ Waterproof connector

Waterproof connector can be assembled on the output cable of HVG-100 to operate in dry/wet/damp or outdoor environment.



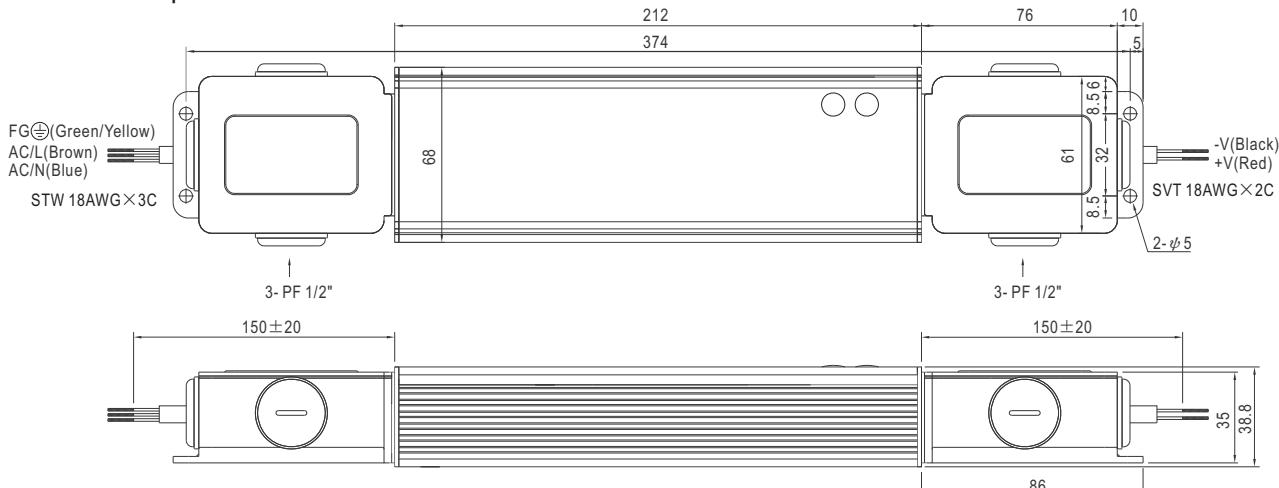
⊗ Cable Joiner



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

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

※ Junction Box Option



◎ Optional junction box available for A-type, please contact MEAN WELL for details.

■ INSTALLATION MANUAL

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