



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

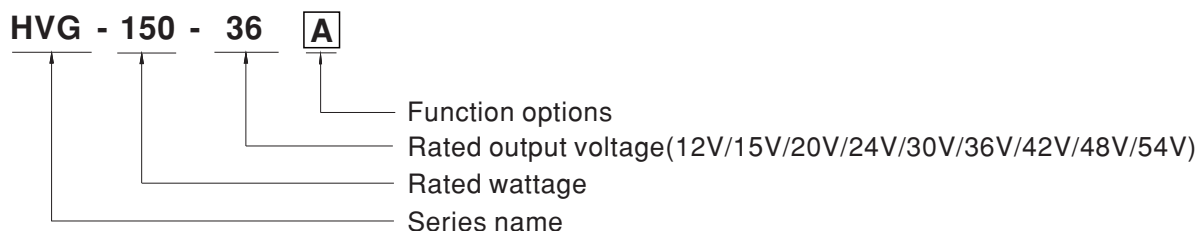
Applications

- 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
D	IP67	Timer dimming function, contact MEAN WELL for details(safety pending).	By request



150W Constant Voltage + Constant Current LED Driver

HVG-150 series**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 <small>Note.4</small>	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.) <small>Note.2</small>	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A-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-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 <small>Note.3</small>	±2.5%	±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%	±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 <small>Note.6</small>	500ms, 80ms /230VAC, 347VAC, 480VAC								
	HOLD UP TIME (Typ.)	18ms/347VAC, 480VAC								
	VOLTAGE RANGE <small>Note.5</small>	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%
PROTECTION	AC CURRENT (Typ.)	347VAC	0.45A	0.5A						
		480VAC	0.35A	0.38A						
	INRUSH CURRENT (Typ.)	COLD START 35A (width=790μs measured at 50% I _{peak}) 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								
ENVIRONMENT	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, recovers automatically after temperature goes down								
SAFETY & EMC	WORKING TEMP.	T _{case} = -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.	T _{case} = +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								
OTHERS	SAFETY STANDARDS <small>Note.7</small>	UL8750(type"HL"), CSA C22.2 No. 250.0-08, 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								
	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)								
NOTE	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 T _{case} , particularly (T _c) 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								

PFC fosc : 130KHz
PWM fosc : 70KHz

Should there be any compatibility issues, please contact MEAN WELL.

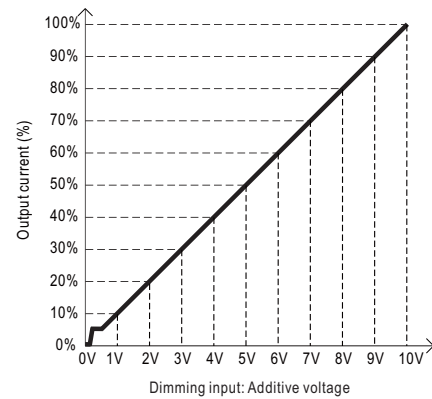
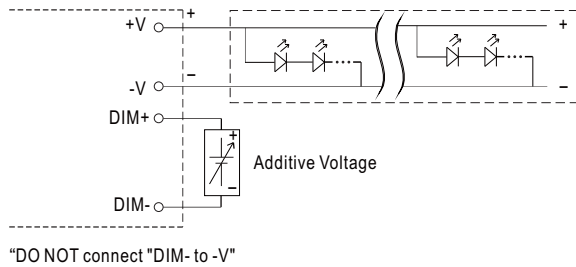
DIMMING OPERATION



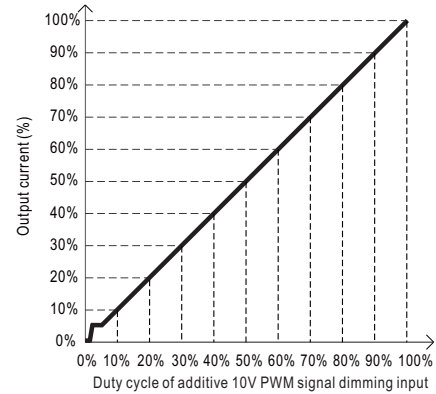
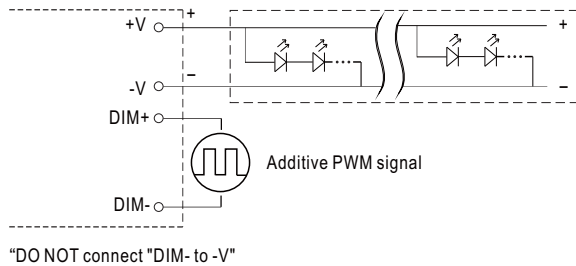
※ 3 in 1 dimming function (for B-Type)

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

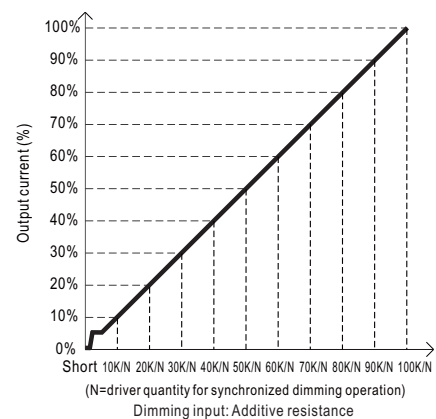
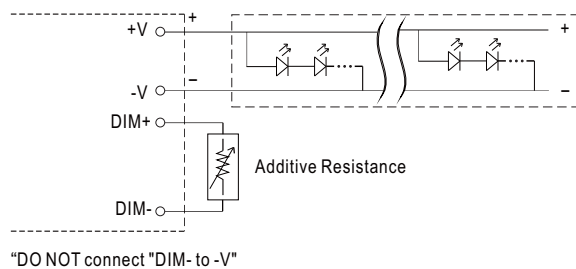
◎ Applying additive 0 ~ 10VDC



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



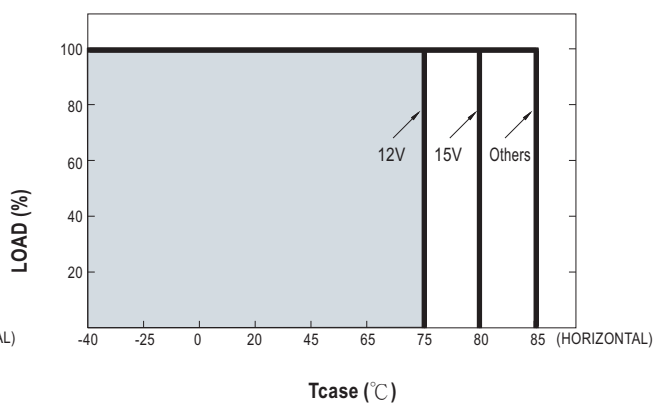
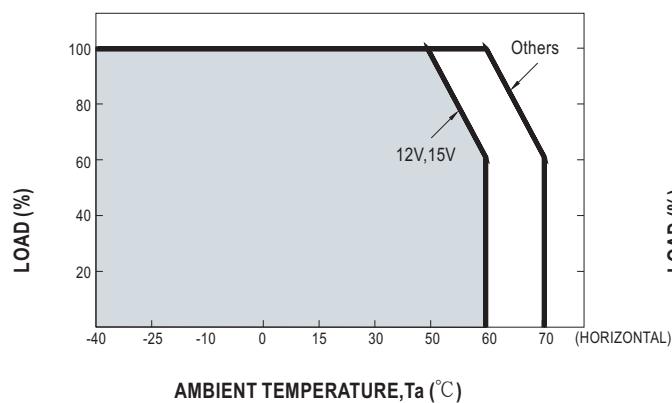
◎ Applying additive resistance:



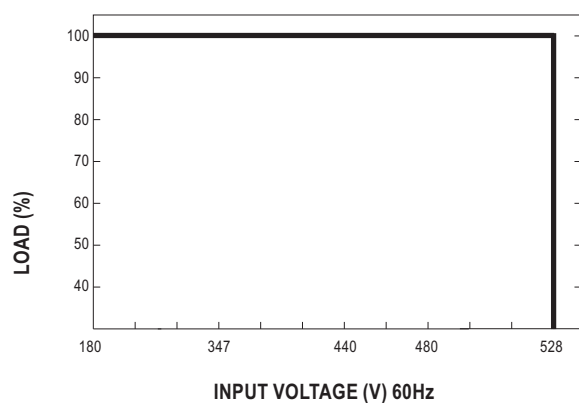
Note : 1. Min. dimming level is about 6% and the output current is not defined when 0% < I_{out} < 6%.

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.

OUTPUT LOAD vs TEMPERATURE

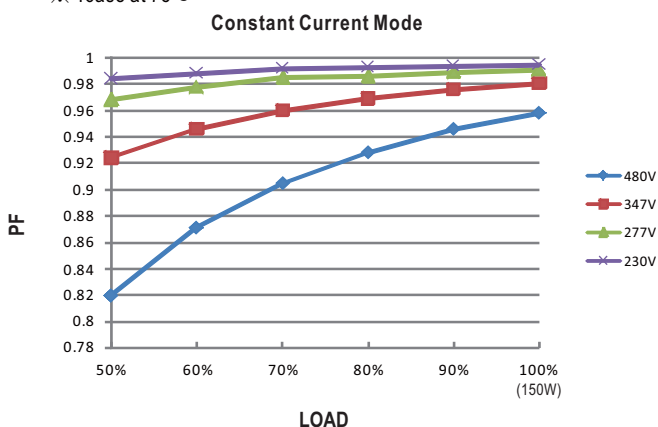


STATIC CHARACTERISTIC



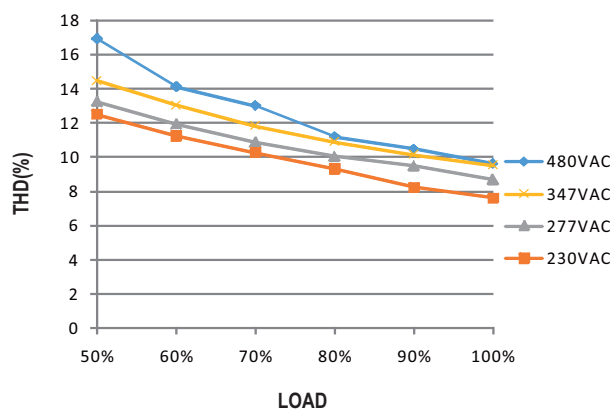
POWER FACTOR (PF) CHARACTERISTIC

※ T_{case} at 75°C



TOTAL HARMONIC DISTORTION (THD)

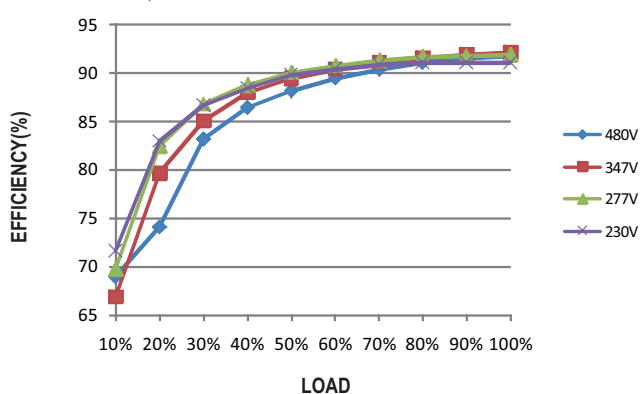
※ 48V Model, T_{case} at 75°C



EFFICIENCY vs LOAD

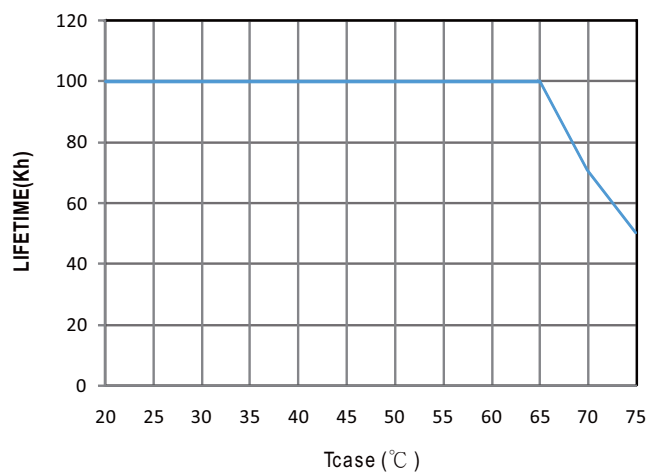
HVG-150 series possess superior working efficiency that up to 91.5% can be reached in field applications.

※ 48V Model, T_{case} at 75°C

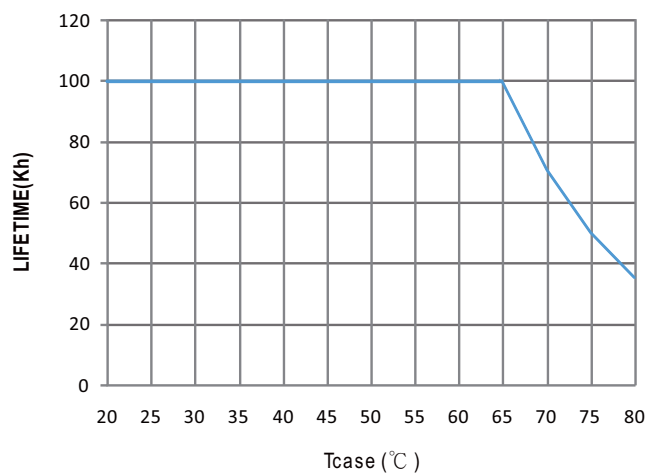


■ LIFE TIME

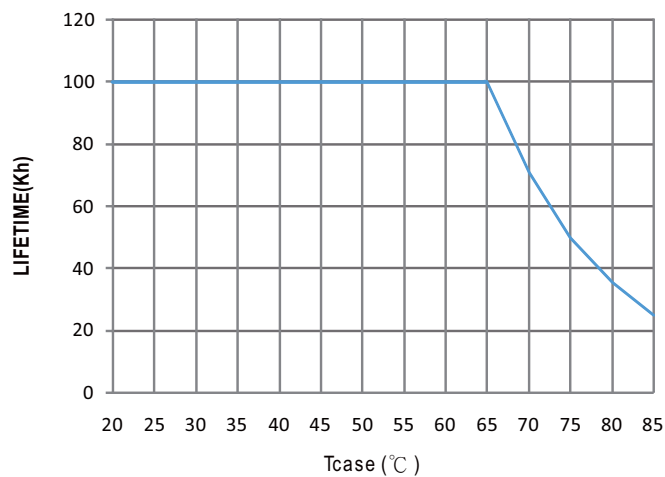
※ For HVG-150-12



※ For HVG-150-15



※ For others

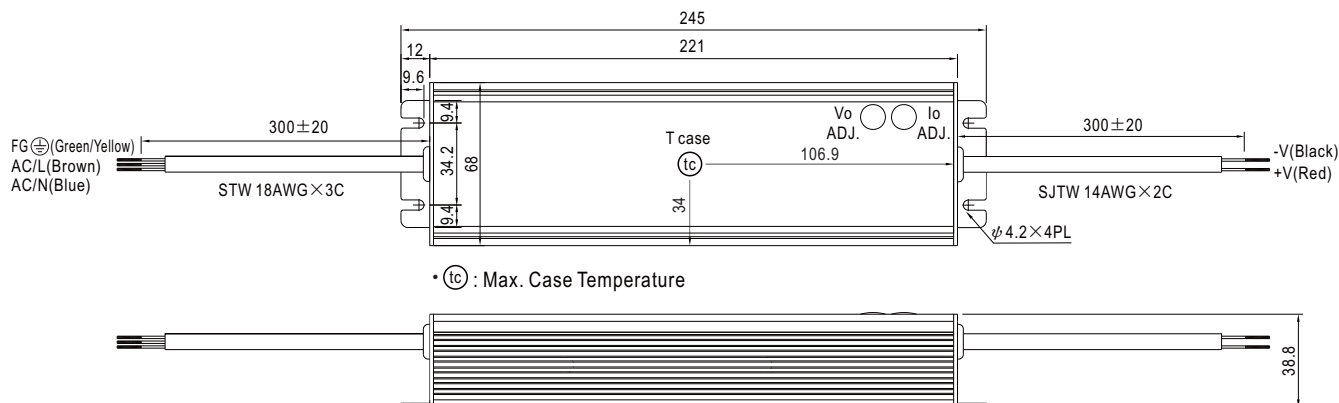


MECHANICAL SPECIFICATION

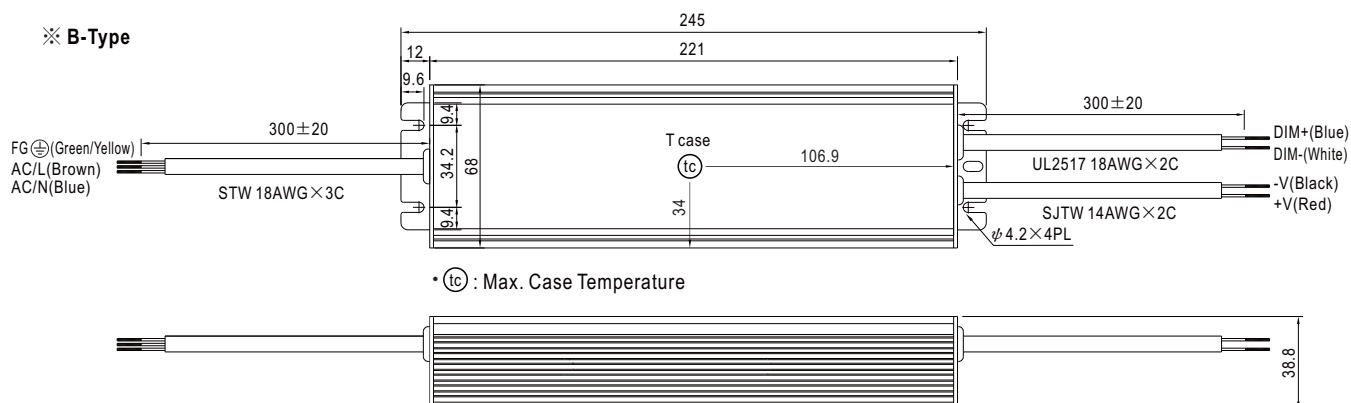
Case No. 994

Unit:mm

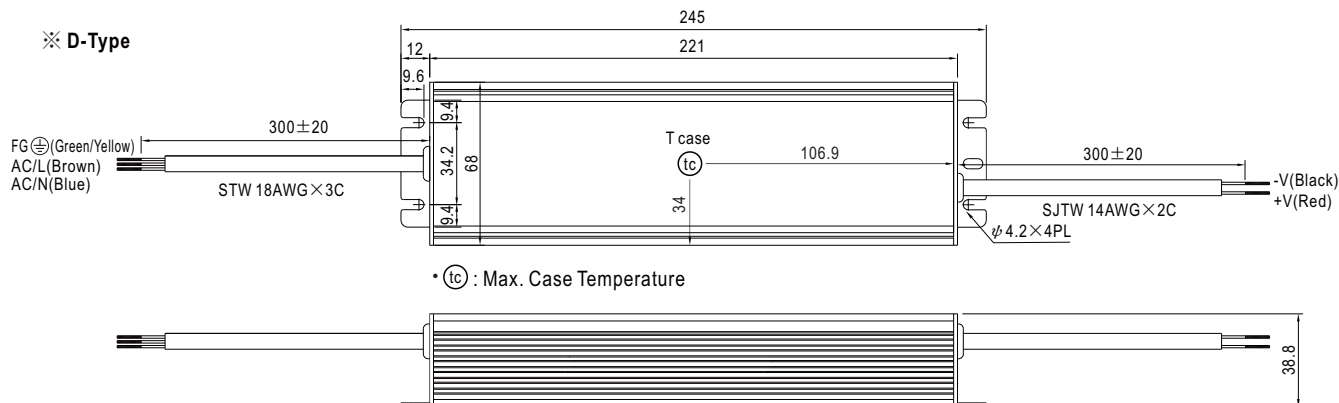
※ **A-Type**



※ B-Type



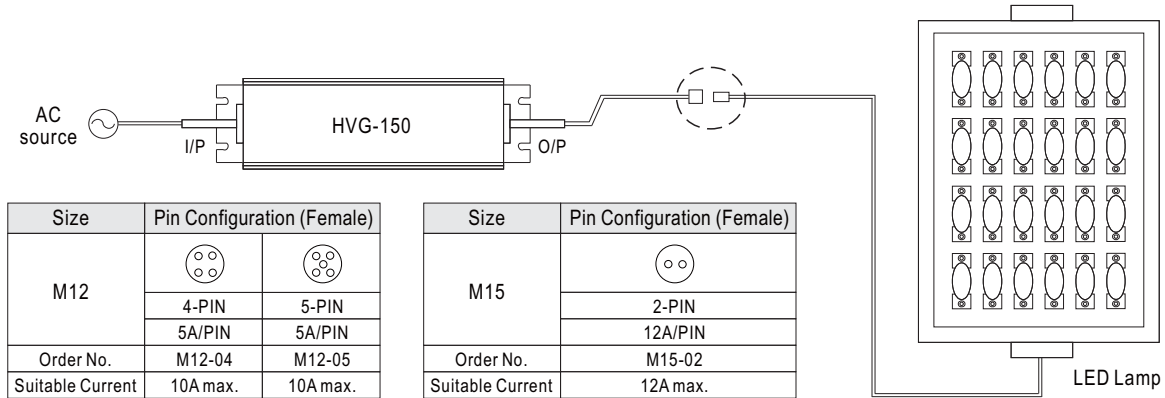
※ **D-Type**



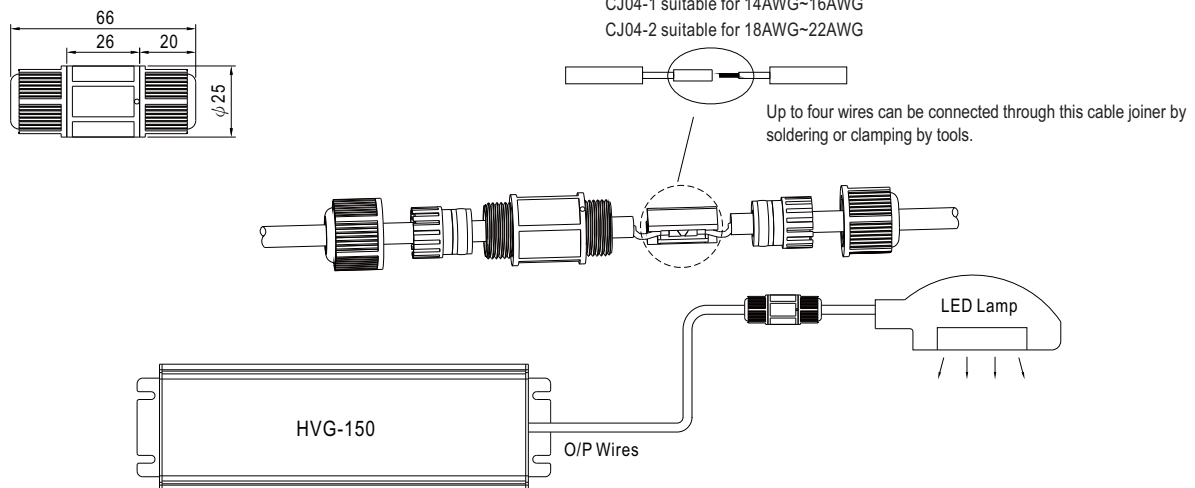
■ WATERPROOF CONNECTION

※ Waterproof connector

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

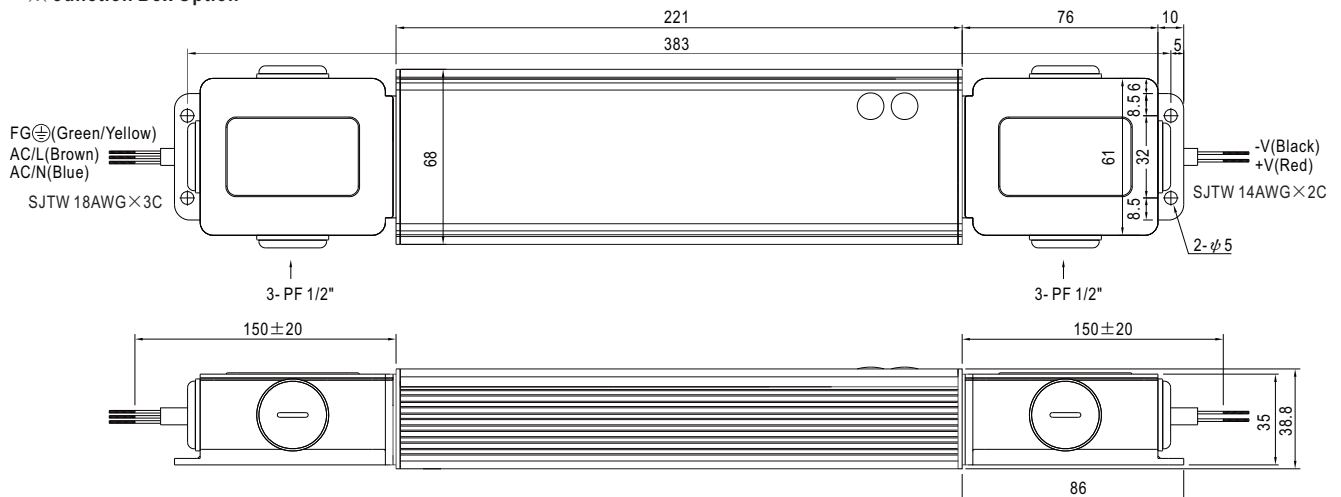


※ Cable Joiner



◎ 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 MEAN WELL for details.

■ INSTALLATION MANUAL

Please refer to : <http://www.meanwell.com/webnet/search/InstallationSearch.html>