



### ■ 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)
- Typical lifetime > 50000 hours
- 5 years warranty

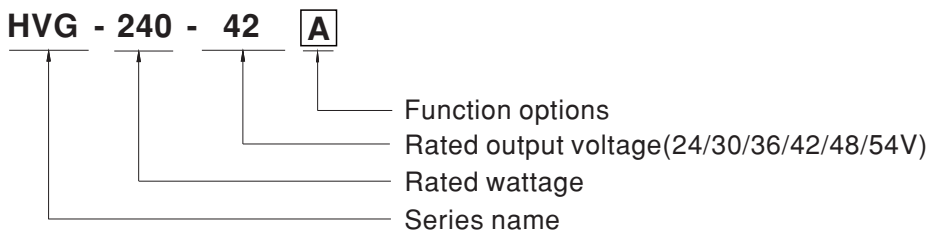
### ■ Applications

- 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-240 series is a 240W AC/DC LED power supply featuring the dual mode constant voltage and constant output. HVG-240 operates from 180~528VAC and offers models with different rated voltage ranging between 24V and 54V. Thanks to the high efficiency up to 93%, 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-240 is equipped with various function options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

### ■ Model Encoding



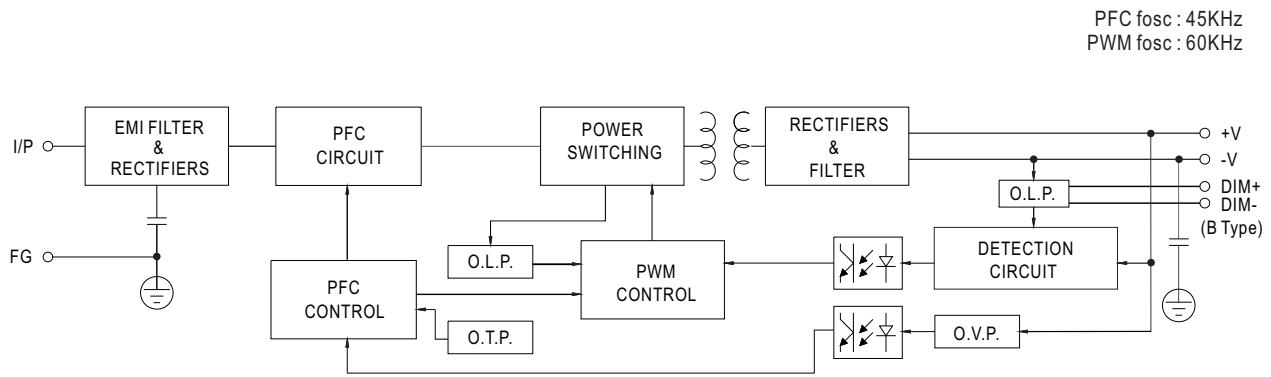
Type	IP Level	Function	Note
A	IP65	Io and Vo adjustable through built-in potentiometer.	In Stock
B	IP67	3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance)	In Stock



**SPECIFICATION**

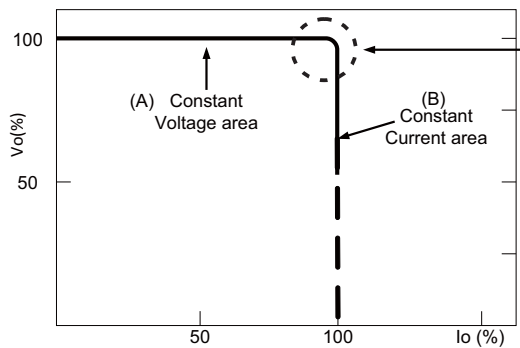
MODEL	HVG-240-24	HVG-240-30	HVG-240-36	HVG-240-42	HVG-240-48	HVG-240-54	
OUTPUT	DC VOLTAGE	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT REGION Note.4	12 ~ 24V	15 ~ 30V	18 ~ 36V	21 ~ 42V	24 ~ 48V	27 ~ 54V
	RATED CURRENT	10A	8A	6.7A	5.7A	5A	4.5A
	RATED POWER	240W	240W	241.2W	239.4W	240W	243W
	RIPPLE & NOISE (max.) Note.2	150mVp-p	200mVp-p	250mVp-p	250mVp-p	250mVp-p	350mVp-p
	VOLTAGE ADJ. RANGE	Adjustable for A-Type only (via the built-in potentiometer)					
		22.4 ~ 25.6V	28 ~ 32V	33.5 ~ 38.5V	39 ~ 45V	44.8 ~ 51.2V	50 ~ 57V
	CURRENT ADJ. RANGE	Adjustable for A-Type only (via the built-in potentiometer)					
		5 ~ 10A	4 ~ 8A	3.3 ~ 6.7A	2.85 ~ 5.7A	2.5 ~ 5A	2.25 ~ 4.5A
	VOLTAGE TOLERANCE Note.3	±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%
LOAD REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
SETUP, RISE TIME Note.6	500ms, 150ms /230VAC, or 347VAC, or 480VAC						
HOLD UP TIME (Typ.)	12ms/347VAC, or 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 or PF ≥ 0.97/277VAC or PF ≥ 0.95/347VAC or PF ≥ 0.93/480VAC @full load (Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)					
	TOTAL HARMONIC DISTORTION	THD < 20% @ ≥ 50% load/230VAC, or 277VAC, or 347VAC, or @ ≥ 60% load/480VAC (Please refer to "TOTAL HARMONIC DISTORTION" section)					
	EFFICIENCY (Typ.)	92.5%	92.5%	93%	93%	92.5%	93%
	AC CURRENT (Typ.)	0.8A / 347VAC	0.6A / 480VAC				
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=532μs measured at 50% I <sub>peak</sub> ) at 480VAC; Per NEMA 410					
	MAX. NO. of PSUs on 16A CIRCUIT BREAKER	4unit(circuit breaker of type B) / 6units(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	27 ~ 34V	33 ~ 39V	43 ~ 49V	48 ~ 54V	55 ~ 63V	60 ~ 67V
		Shut down and latch off o/p voltage, re-power on to recover					
	OVER TEMPERATURE	Shut down and latch off o/p voltage, re-power on to recover					
ENVIRONMENT	WORKING TEMP.	T <sub>case</sub> =-40 ~ +90°C (Refer to "Derating Curve")					
	MAX. CASE TEMP.	T <sub>case</sub> =+90°C					
	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")					
	WORKING HUMIDITY	20 ~ 95% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°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	UL8750 (type"HL"), CSA C22.2 No. 250.13-12; 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 FCC Part 15 Subpart B					
	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)					
OTHERS	MTBF	114.5K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	254.2*68*38.8mm (L*W*H)					
	PACKING	1.31Kg; 12pcs/15.7Kg/0.78CUFT					
NOTE	<ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 347VAC input, rated load and 25°C of ambient temperature.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>Please refer to "DRIVING METHODS OF LED MODULE".</li> <li>De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTICS" sections for details.</li> <li>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.</li> <li>The power supply 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.</li> <li>To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.</li> <li>This series meets the typical life expectancy of &gt;50,000 hours of operation when T<sub>case</sub>, particularly (T<sub>c</sub>) point (or TMP, per DLC), is about 75°C or less.</li> <li>Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a></li> </ol>						

### 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.

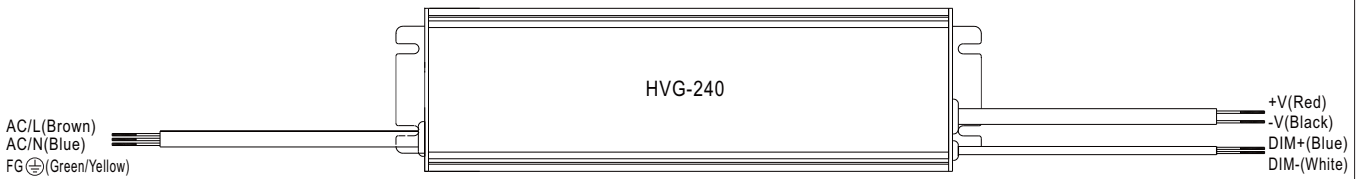


Typical output current normalized by rated current (%)

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.

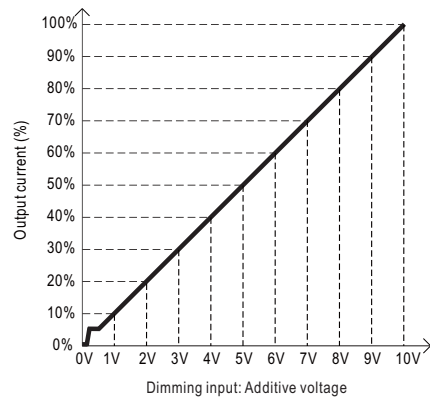
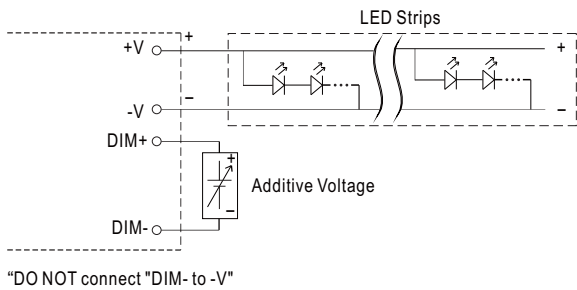
## ■ DIMMING OPERATION



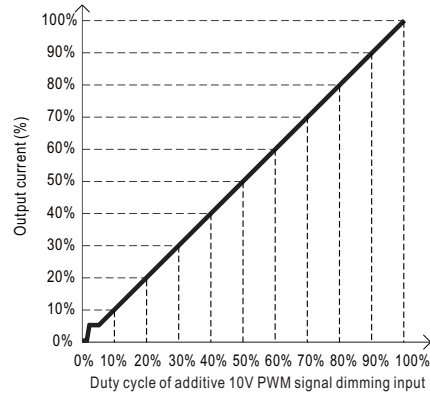
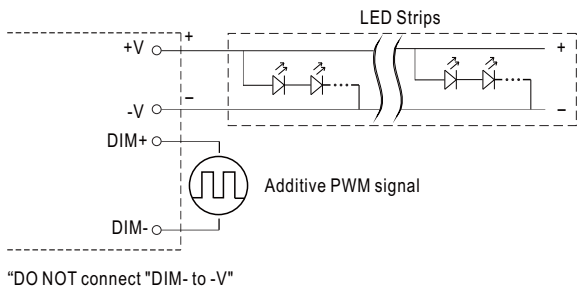
### ※ 3 in 1 dimming function (for B-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:  
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 $\mu$ A (typ.)

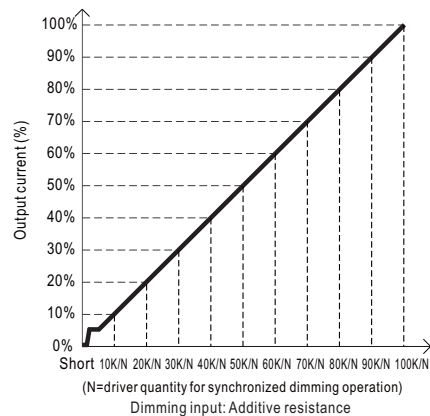
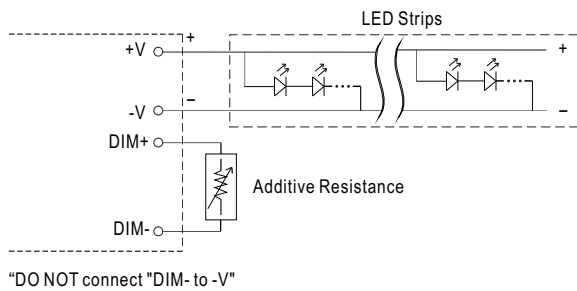
#### ◎ Applying additive 0 ~ 10VDC



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



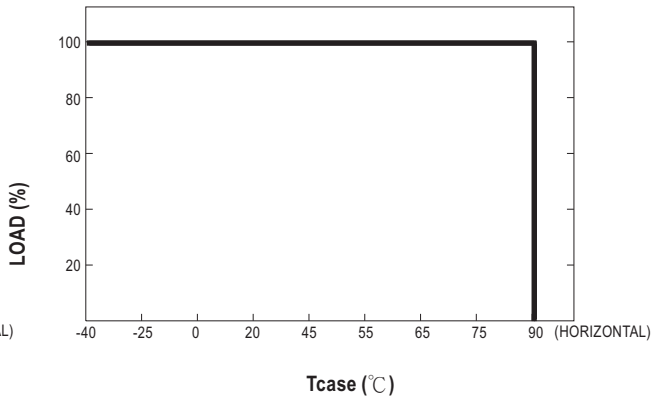
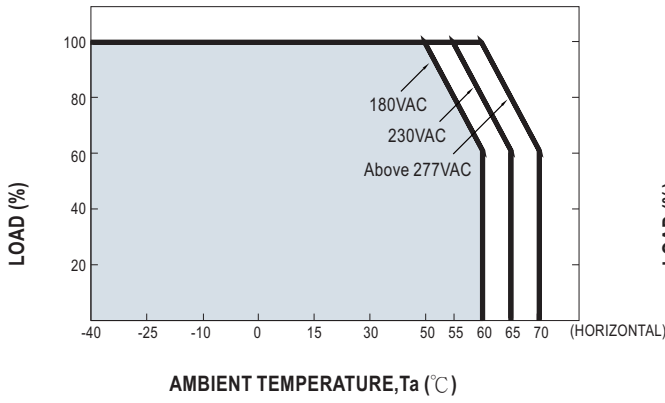
#### ◎ Applying additive resistance:



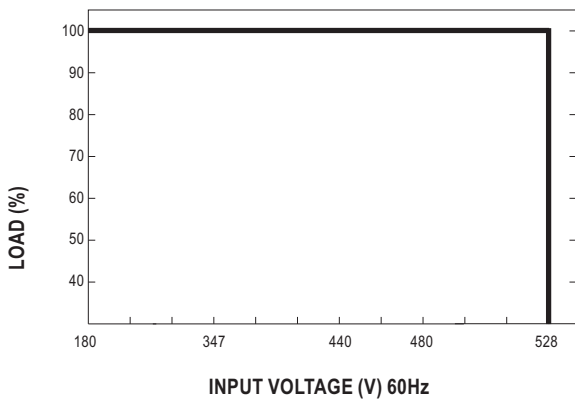
Note : 1. Min. dimming level is about 5% and the output current is not defined when  $0\% < I_{out} < 5\%$ .

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

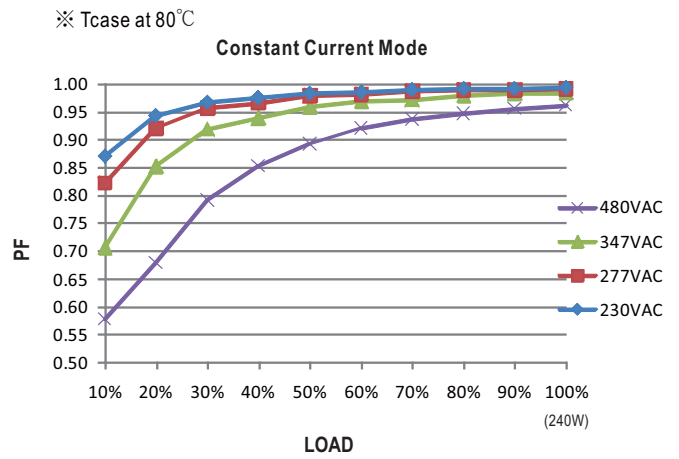
### OUTPUT LOAD vs TEMPERATURE



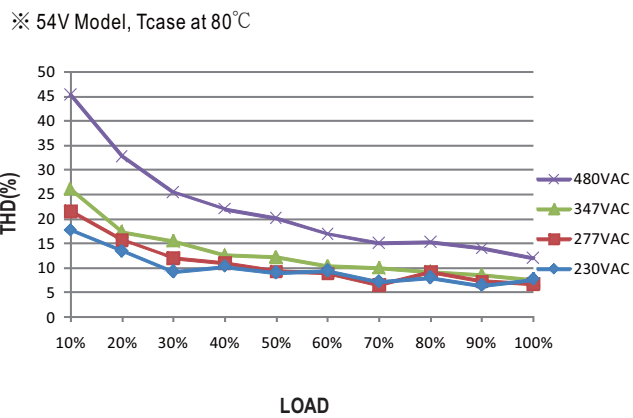
### STATIC CHARACTERISTIC



### POWER FACTOR (PF) CHARACTERISTIC



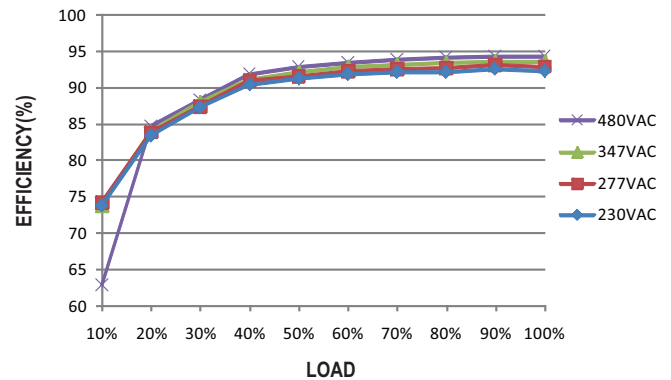
### TOTAL HARMONIC DISTORTION (THD)



### EFFICIENCY vs LOAD

HVG-240 series possess superior working efficiency that up to 93% can be reached in field applications.

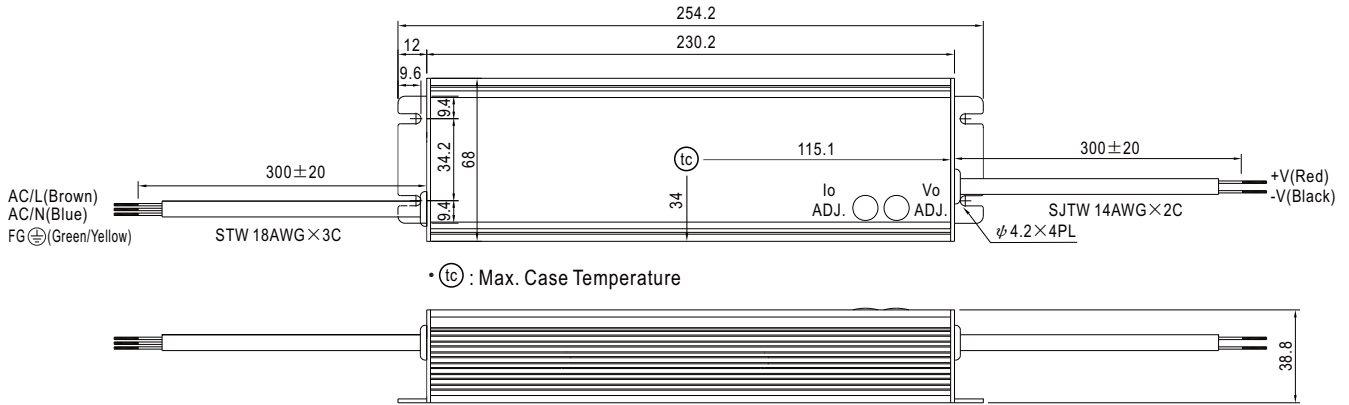
※ 54V Model, Tcase at 80°C



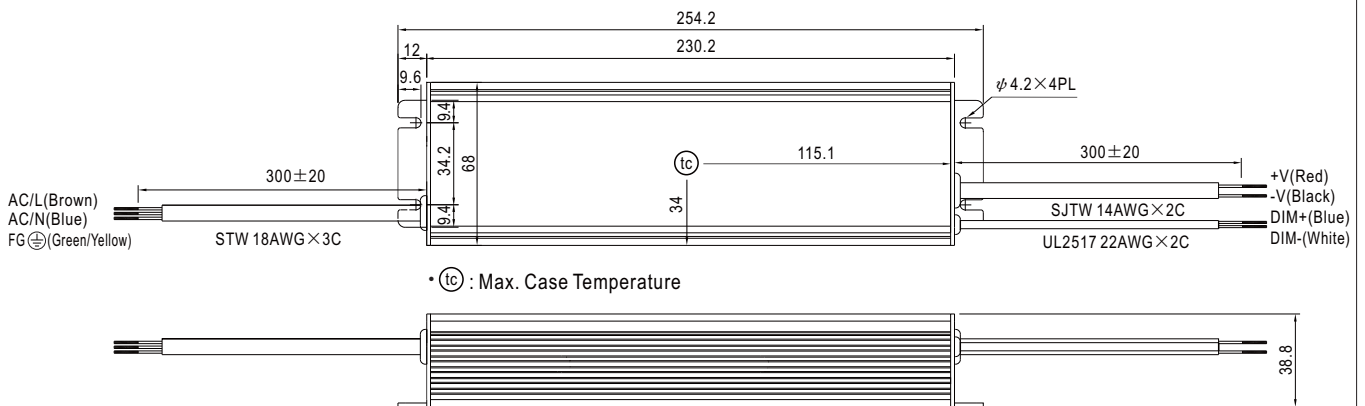
## Mechanical Specification

Case No. 994 Unit:mm

### ※ A-Type



### ※ B-Type



## Installation Manual

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