



■ Features

- Wide input range 180 ~ 528VAC
- Constant Current mode output
- Metal housing with Class I design
- Built-in active PFC function
- IP67 / IP65 design 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

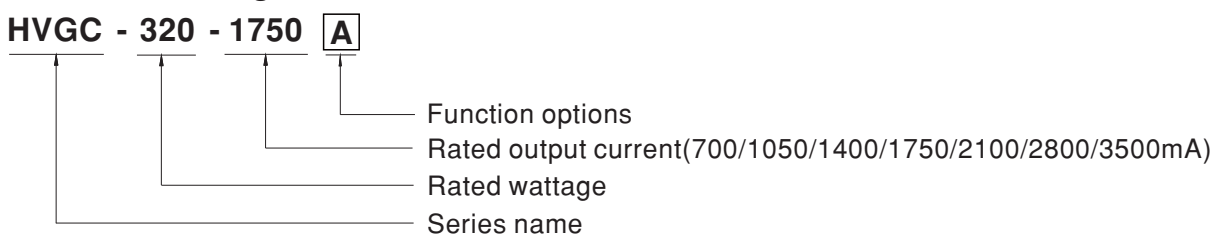
■ Applications

- LED street lighting
- LED high-bay lighting
- Parking space lighting
- LED fishing lamp
- Type "HL" for use in Class I , Division 2 hazardous (Classified) location.

■ Description

HVGC-320 series is a 320W LED AC/DC LED power supply featuring the constant current mode and high voltage output. HVGC-320 operates from 180~528VAC and offers models with different rated current ranging between 700mA and 3500mA. Thanks to the high efficiency up to 93.5%, 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. HVGC-320 is equipped with various functioning options, such as dimming methodologies, so as to provide the optimal design flexibility for LED lighting system.

■ Model Encoding



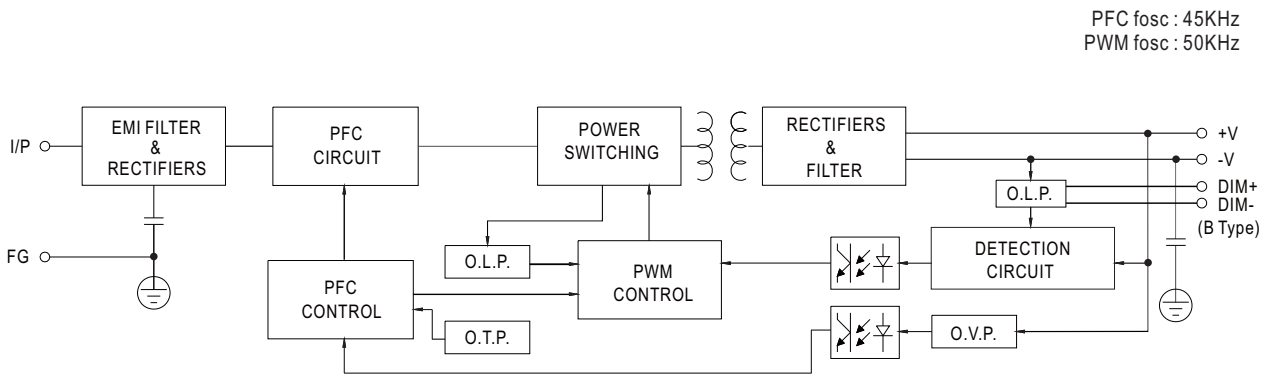
| Type | IP Level | Function | Note |
|------|----------|--|----------|
| A | IP65 | I _o adjustable through built-in potentiometer. | In Stock |
| B | IP67 | 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance) | In Stock |



SPECIFICATION

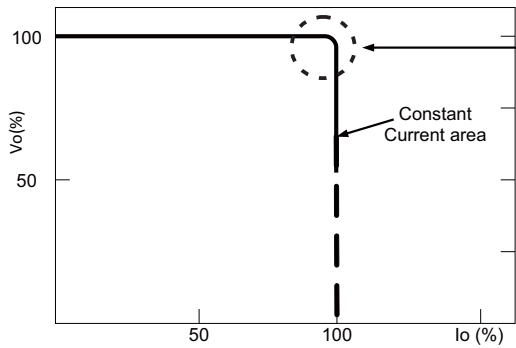
| MODEL | | HVGC-320-700 <input type="checkbox"/> | HVGC-320-1050 <input type="checkbox"/> | HVGC-320-1400 <input type="checkbox"/> | HVGC-320-1750 <input type="checkbox"/> | HVGC-320-2100 <input type="checkbox"/> | HVGC-320-2800 <input type="checkbox"/> | HVGC-320-3500 <input type="checkbox"/> | |
|-----------------------------------|---|---|--|--|--|--|--|--|--|
| OUTPUT | RATED CURRENT | 700mA | 1050mA | 1400mA | 1750mA | 2100mA | 2800mA | 3500mA | |
| | RATED POWER | 300W | 320W | 320W | 320W | 320W | 320W | 320W | |
| | CONSTANT CURRENT REGION <small>Note.2</small> | 214 ~ 428V | 152.4 ~ 304.8V | 114.3 ~ 228.6V | 91.4~182.8V | 76.2 ~ 152.4V | 57 ~ 114.3V | 45.7 ~ 91.4V | |
| | OPEN CIRCUIT VOLTAGE (max.) | 442V | 311V | 234V | 187V | 156V | 118V | 94V | |
| | CURRENT ADJ. RANGE | Adjustable for A-Type only (via built-in potentiometer) | | | | | | | |
| | | 350~700mA | 525~1050mA | 700~1400mA | 875~1750mA | 1050~2100mA | 1400~2800mA | 1750~3500mA | |
| | CURRENT RIPPLE | 5.0% max. @rated current | | | | | | | |
| | CURRENT TOLERANCE | ±5% | | | | | | | |
| SET UP TIME <small>Note.4</small> | 500ms/230VAC, or 347VAC, or 480VAC | | | | | | | | |
| INPUT | VOLTAGE RANGE <small>Note.3</small> | 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.) | 93.5% | 93.5% | 93.5% | 93.5% | 93.5% | 93.5% | 93% | |
| | AC CURRENT (Typ.) | 1.1A / 347VAC 0.8A / 480VAC | | | | | | | |
| | INRUSH CURRENT(Typ.) | COLD START 50A(<small>t</small> width=920μs measured at 50% I _{peak}) at 480VAC; Per NEMA 410 | | | | | | | |
| | MAX. NO. of PSUs on 16A CIRCUIT BREAKER | 2 unit(circuit breaker of type B) / 4 units(circuit breaker of type C) at 480VAC | | | | | | | |
| LEAKAGE CURRENT | <0.75mA / 480VAC | | | | | | | | |
| PROTECTION | SHORT CIRCUIT | Constant current limiting, recovers automatically after fault condition is removed | | | | | | | |
| | OVER VOLTAGE | 445 ~ 455V | 320 ~ 351V | 240 ~ 263V | 192 ~ 210V | 160 ~ 175V | 120 ~ 131V | 96 ~ 105V | |
| | OVER TEMPERATURE | Shut down o/p voltage with re-power on to recovery | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | T _{case} =-40 ~ +90°C (Refer to "Derating Curve") | | | | | | | |
| | MAX. CASE TEMP. | T _{case} =+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 | | | | | | | |
| SAFETY & EMC | SAFETY STANDARDS | UL8750 (type"HL"), CSA C22.2 No. 250.12-13, 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), criteria A | | | | | | | | |
| OTHERS | MTBF | 141.2K hrs min. MIL-HDBK-217F (25°C) | | | | | | | |
| | DIMENSION | 262*90*43.8mm (L*W*H) | | | | | | | |
| | PACKING | 2Kg; 8pcs/17Kg/0.92CUFT | | | | | | | |
| NOTE | <ol style="list-style-type: none"> All parameters NOT specially mentioned are measured at 347VAC input, rated current and 25°C of ambient temperature. Please refer to "DRIVING METHODS OF LED MODULE". De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTICS" sections for details. 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. 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. 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. 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. Please refer to the warranty statement on MEAN WELL's website at http://www.meanwell.com | | | | | | | | |

Block Diagram



DRIVING METHODS OF LED MODULE

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

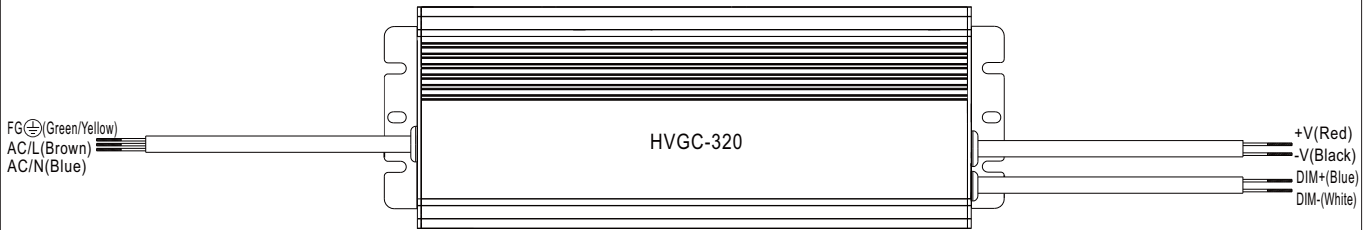


Typical output current normalized by rated current (%)

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.

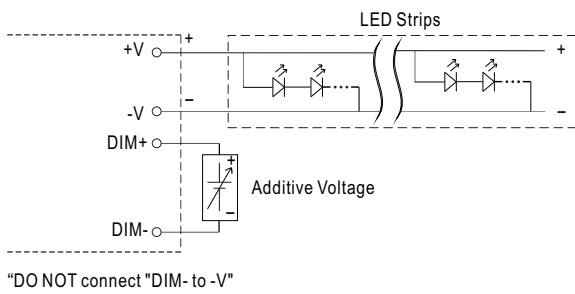
■ DIMMING OPERATION



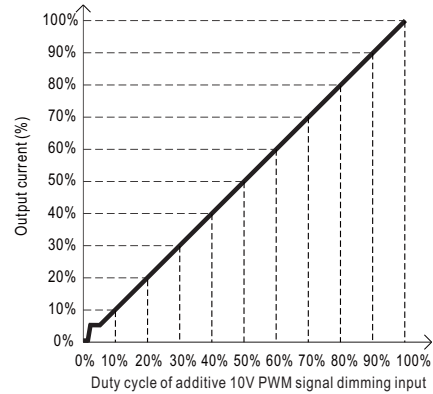
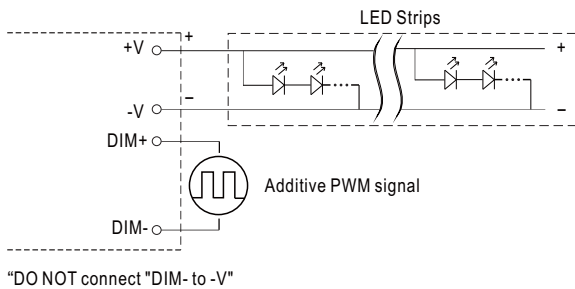
※ **3 in 1 dimming function (for B-Type)**

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

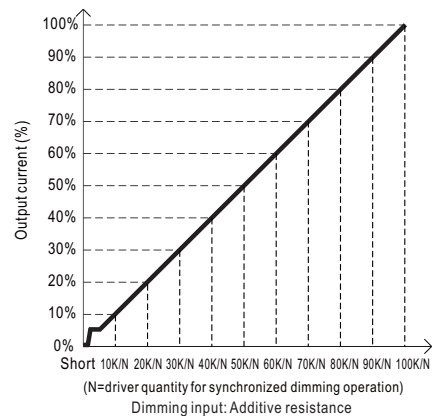
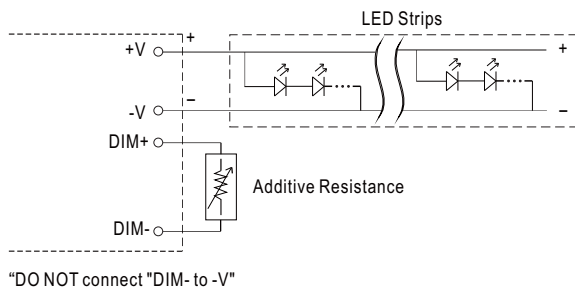
◎ Applying additive 0 ~ 10VDC



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

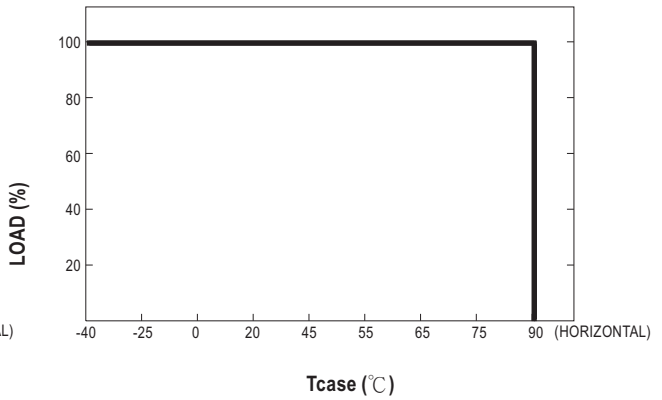
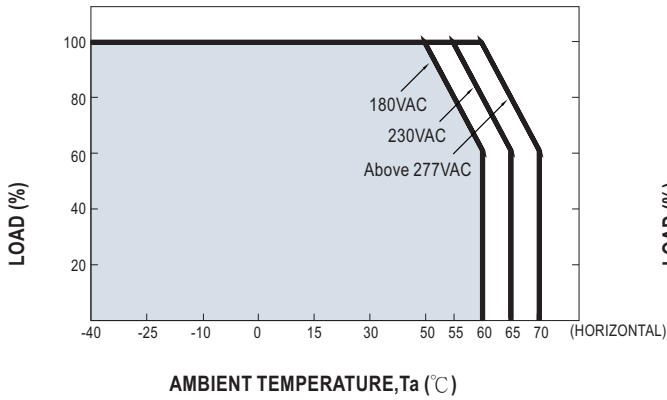


◎ Applying additive resistance:

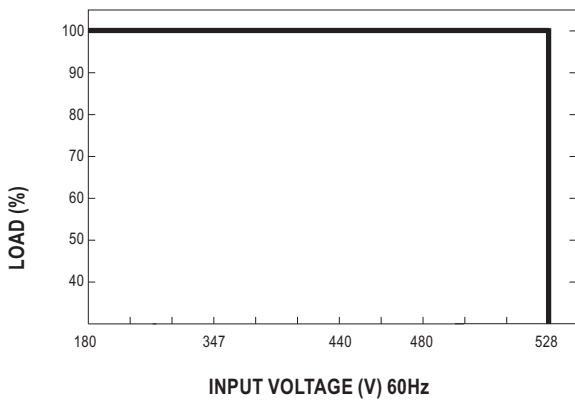


Note : 1. Min. dimming level is about 5% and the output current is not defined when 0% < I_{out} < 5%.
 2. The output current could drop down to 0% when dimming input is about 0kΩ or 0Vdc, or 10V PWM signal with 0% duty cycle.

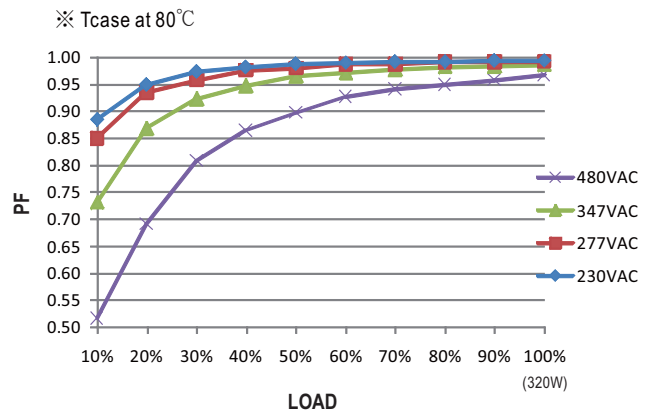
OUTPUT LOAD vs TEMPERATURE



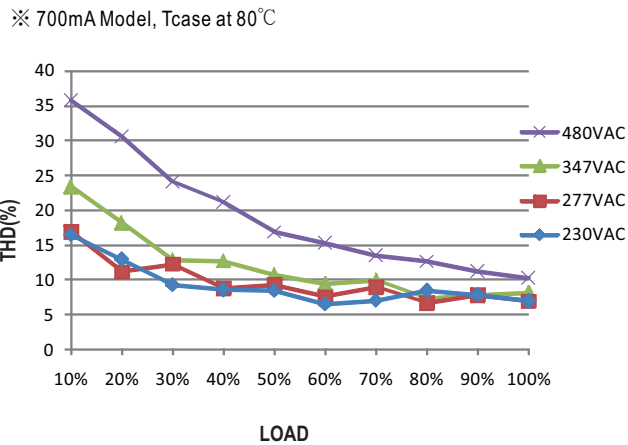
STATIC CHARACTERISTIC



POWER FACTOR (PF) CHARACTERISTIC



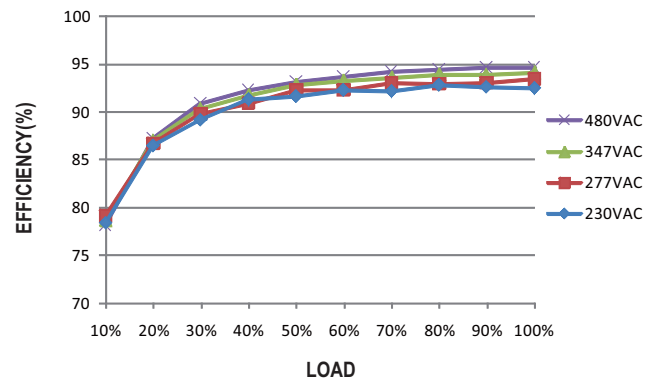
TOTAL HARMONIC DISTORTION (THD)



EFFICIENCY vs LOAD

HVGC-320 series possess superior working efficiency that up to 93.5% can be reached in field applications.

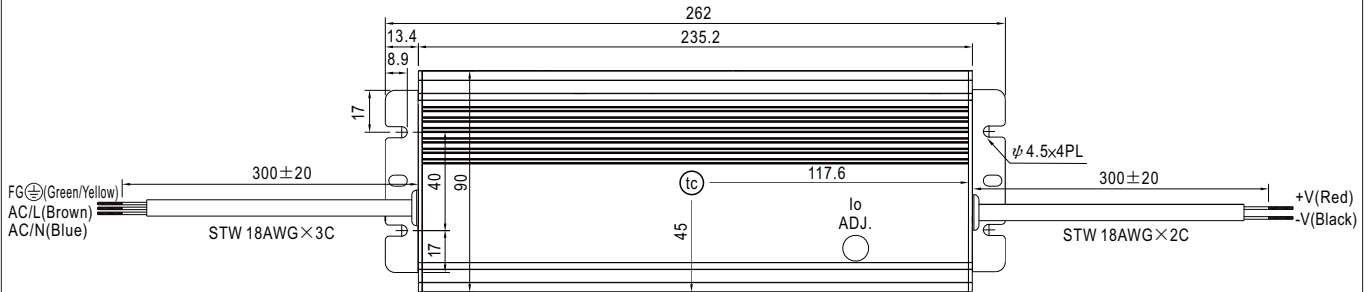
※ 700mA Model, Tcase at 80°C



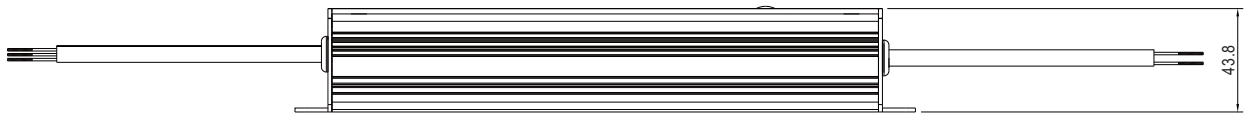
Mechanical Specification

Case No. 228 Unit:mm

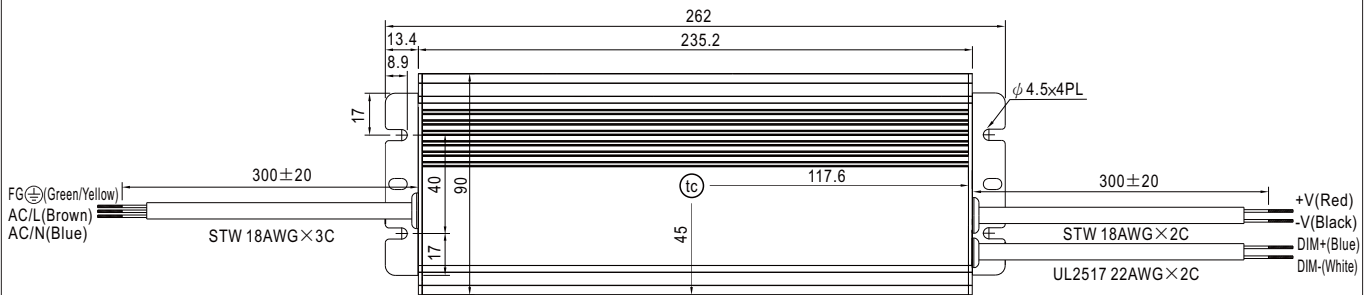
※ **A-Type**



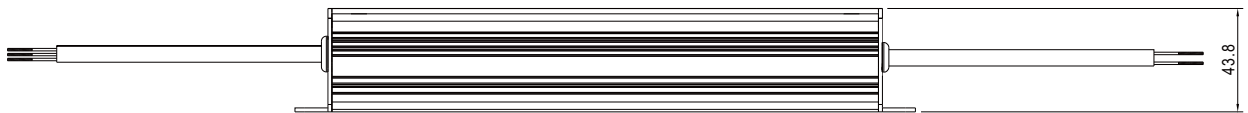
• t_c : Max. Case Temperature



※ **B-Type**



• t_c : Max. Case Temperature



Installation Manual

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