



AC input with fixed cable



AC input with connector



SELV

IP67

 IS 15885 (Part 2/Sec13)  
R-41027766


cUL us



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EAC CB CE UK CA

## ■ Features

- Full power output at 70~100% constant power mode operation
- Wide input range 100 ~ 305VAC with active PFC function
- Metal housing design with IP67
- Multiple dimming functions:3 in 1. (0-10V/PWM/Resistor)
- Surge protection with 6kV /4kV
- Dimming circuit with Isolated for latest safety regulation
- Typical lifetime>50000 hours and 5 years warranty
- AC input cable with connector for flexible Installation

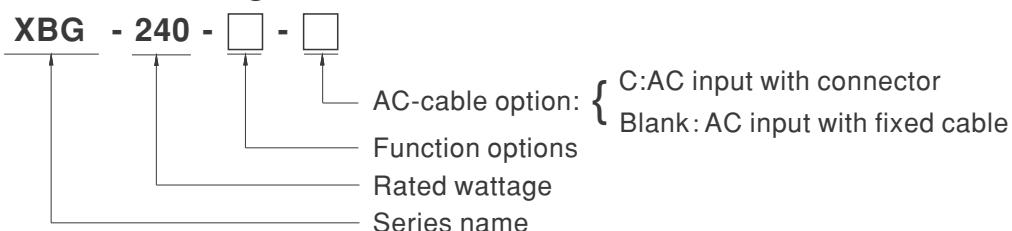
## ■ Applications

- LED bay lighting
- LED stage lighting
- LED spot lighting
- Explosion-proof lighting
- Type HL LED driver for class I division 2.

## ■ Description

XBG-240 series is a 240W AC/DC LED driver featuring the constant power mode. XBG-240 operates from 100~305VAC and offers with different rated current ranging between 4000mA and 5700mA. 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 ingress protection level allows this series to fit both indoor and outdoor applications. Moreover the innovative environment-adaptive capability allows this series to reliably light on the LEDs for all kinds of application environments in almost any spots that may install LED luminaires in the world. XBG-240 series comply with the latest version of IEC61347/IEC60598-1 and UL8750 international safety regulations. The output and dimming circuit are also completely in accordance with the new regulations with isolation to ensure the safety of both users and luminaire system during installation.

## ■ Model Encoding



| Type | IP Level | Function  | Note     |
|------|----------|---|----------|
| A    | IP67     | constant power adjustable via built-in potentiometer  | In Stock |
| AB   | IP67     | constant power adjustable via built-in potentiometer + 3 in 1 dimming function (0~10Vdc, 10V PWM signal and Resistor) | In Stock |

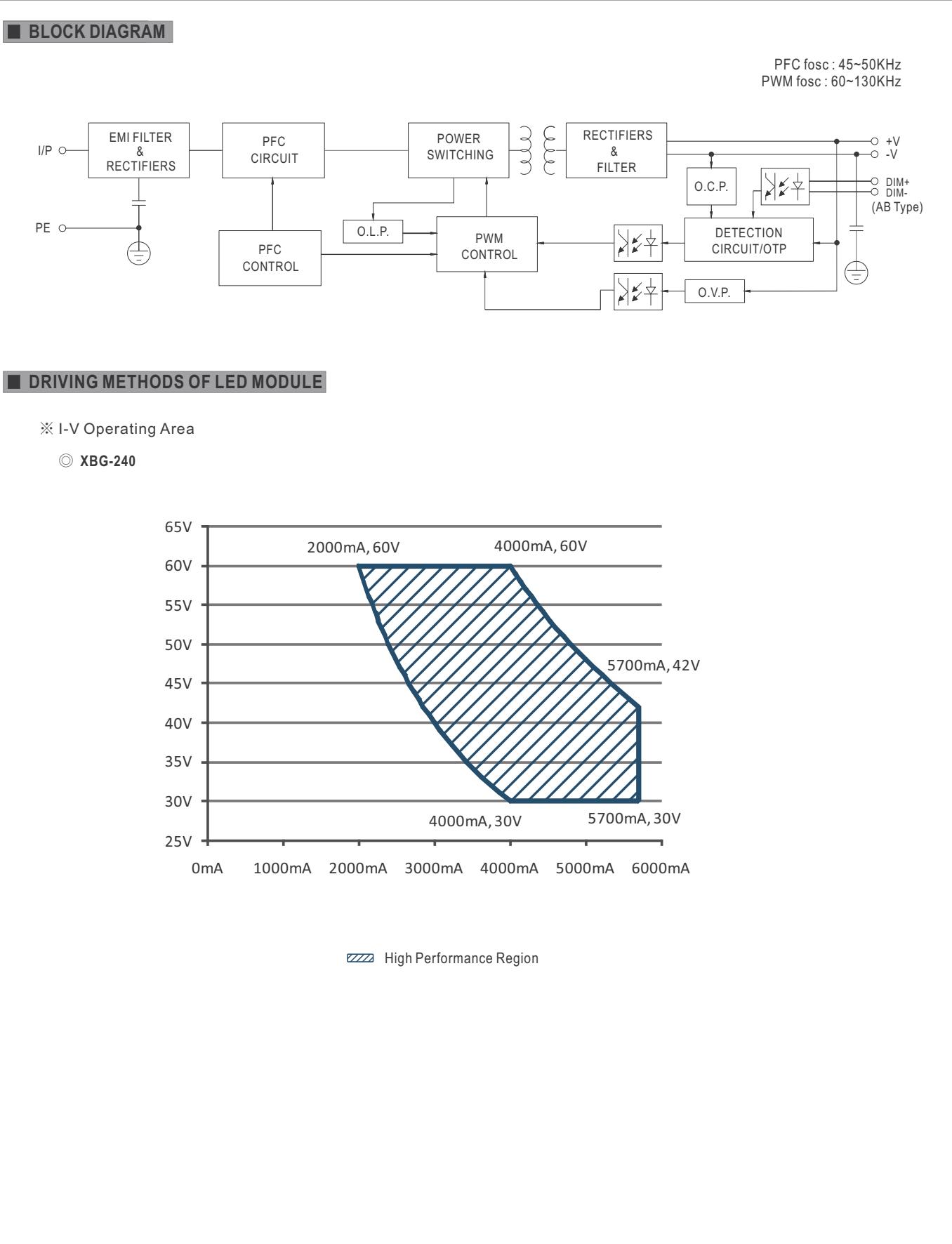
## SPECIFICATION

|  |   |   |   |  |  |
|--|---|---|---|--|--|
| MODEL  |   | XBG-240-□-□   |   |  |  |
| OUTPUT   | DEFAULT CURRENT                         | 4900mA  |   |  |  |
|  | RATED POWER                             | 240W  |   |  |  |
|  | CONSTANT CURRENT REGION                 | 30~60V  |   |  |  |
|  | FULL POWER CURRENT RANGE                | 4000~5700mA   |   |  |  |
|  | OPEN CIRCUIT VOLTAGE (max.)             | 65V   |   |  |  |
|  | CURRENT ADJ. RANGE                      | 2000~5700mA   |   |  |  |
|  | CURRENT RIPPLE                          | 4.0% max. @rated current  |   |  |  |
|  | CURRENT TOLERANCE                       | ±5%   |   |  |  |
| INPUT  | SET UP TIME Note.4                      | 500ms/230VAC, 1200ms/115VAC   |   |  |  |
|  | VOLTAGE RANGE Note.2                    | 100~305VAC 142~431VDC<br>(Please refer to "STATIC CHARACTERISTIC" section)  |   |  |  |
|  | FREQUENCY RANGE                         | 47~63Hz   |   |  |  |
|  | POWER FACTOR (Typ.)                     | PF ≥ 0.97 / 115VAC, PF ≥ 0.95 / 230VAC, PF ≥ 0.92 / 277VAC at full load<br>(Please refer to "Power Factor Characteristic" section)  |   |  |  |
|  | TOTAL HARMONIC DISTORTION               | THD < 10% (@ load ≥ 50% at 115VAC/230VAC, @load ≥ 75% at 277VAC)<br>Please refer to "TOTAL HARMONIC DISTORTION (THD)" section   |   |  |  |
|  | EFFICIENCY (Typ.)                       | 93%   |   |  |  |
|  | AC CURRENT (Typ.)                       | 3.2A / 115VAC 1.3A / 230VAC 1.2A / 277VAC   |   |  |  |
|  | INRUSH CURRENT(Typ.)                    | COLD START 65A(twidth=600μs measured at 50% Ipeak) at 230VAC; Per NEMA 410  |   |  |  |
|  | MAX. NO. of PSUs on 16A CIRCUIT BREAKER | 3 unit(circuit breaker of type B) / 5 units(circuit breaker of type C) at 230VAC  |   |  |  |
|  | LEAKAGE CURRENT                         | <0.75mA / 277VAC  |   |  |  |
| PROTECTION   | STANDBY POWER CONSUMPTION               | Standby power consumption <0.5W for AB-Type   |   |  |  |
|  | SHORT CIRCUIT                           | Hiccup mode or constant current limiting, recovers automatically after fault condition is removed   |   |  |  |
|  | OVER VOLTAGE                            | 66~78V  |   |  |  |
|  | OVER TEMPERATURE                        | Shut down output voltage, re-power on to recover  |   |  |  |
| ENVIRONMENT  | WORKING TEMP.                           | Tcase=-40~+85°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)  |   |  |  |
|  | MAX. CASE TEMP.                         | Tcase=+85°C   |   |  |  |
|  | WORKING HUMIDITY                        | 20~95% RH non-condensing  |   |  |  |
|  | STORAGE TEMP., HUMIDITY                 | -40~+80°C, 10~95% RH non-condensing   |   |  |  |
|  | TEMP. COEFFICIENT                       | ±0.03%/°C (0~60°C)  |   |  |  |
| SAFETY & EMC   | VIBRATION                               | 10~500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes   |   |  |  |
|  | SAFETY STANDARDS                        | UL8750(type"HL"), CSA C22.2 No. 250.13-12; ENEC BS EN/EN1347-1, BS EN/EN1347-2-13 independent, BS EN/EN62384; IS15885(Part2/Sec13); GB19510.1,GB19510.14; IP67;EAC TP TC 004 approved |   |  |  |
|  | WITHSTAND VOLTAGE                       | I/P-O/P:3.75KVAC I/P-PE:2KVAC O/P-PE:1.5KVAC  |   |  |  |
|  | ISOLATION RESISTANCE                    | I/P-O/P; I/P-PE, O/P-PE:100M Ohms / 500VDC / 25°C / 70% RH  |   |  |  |
|  | EMC EMISSION                            | Parameter   | Standard  |  |  |
|  |   | Conducted   | BS EN/EN55015(CISPR15),GB/T17743  |  |  |
|  |   | Radiated  | BS EN/EN55015(CISPR15),GB/T17743  |  |  |
|  |   | Harmonic Current  | BS EN/EN1000-3-2,GB17625.1  |  |  |
|  | EMC IMMUNITY                            | Voltage Flicker   | BS EN/EN1000-3-3  |  |  |
|  |   | BS EN/EN1547  |   |  |  |
|  |   | Parameter   | Standard  |  |  |
|  |   | ESD   | BS EN/EN61000-4-2   |  |  |
| OTHERS   | EMC IMMUNITY                            | Radiated  | BS EN/EN61000-4-3   |  |  |
|  |   | EFT/Burst   | BS EN/EN61000-4-4   |  |  |
|  |   | Surge   | BS EN/EN61000-4-5   |  |  |
|  |   | Conducted   | BS EN/EN61000-4-6   |  |  |
|  |   | Magnetic Field  | BS EN/EN61000-4-8   |  |  |
|  |   | Voltage Dips and Interruptions  | BS EN/EN61000-4-11  |  |  |
|  |   |   | >95% dip 0.5 periods, 30% dip 25 periods,<br>>95% interruptions 250 periods |  |  |
|  |   |   |   |  |  |
| NOTES  | MTBF                                    | 615.83K hrs min. Telcordia SR-332(Bellcore); 154.57K hrs min. MIL-HDBK-217F (25°C)  |   |  |  |
|  | LIFETIME Note.5                         | 50000 hrs min.  |   |  |  |
|  | DIMENSION                               | φ 176mm *65mm(D*H)  |   |  |  |
|  | PACKING                                 | 1.92Kg;8pcs/17.5Kg/1.47CUFT   |   |  |  |
| 1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25°C of ambient temperature.<br>2. De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.<br>3. 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.<br>4. 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.<br>5. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly tc point (or TMP, per DLC), is about 75°C or less.<br>6. To fulfill requirements of the latest ErP regulation for lighting fixture, this LED drive can only be used behind a switch without permanently connected to the mains.<br>7. Please refer to the warranty statement on MEAN WELL's website at <a href="http://www.meanwell.com">http://www.meanwell.com</a><br>8. 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).<br>9. Products sourced from the Americas regions may not have the PSE/CCC/BIS/KC logo. Please contact your MEAN WELL sales for more information.<br>10. For any application note and IP water proof function installation caution, please refer our user manual before using.<br><a href="https://www.meanwell.com/Upload/PDF/LED_EN.pdf">https://www.meanwell.com/Upload/PDF/LED_EN.pdf</a> |   |   |   |  |  |
| ※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a>   |   |   |   |  |  |

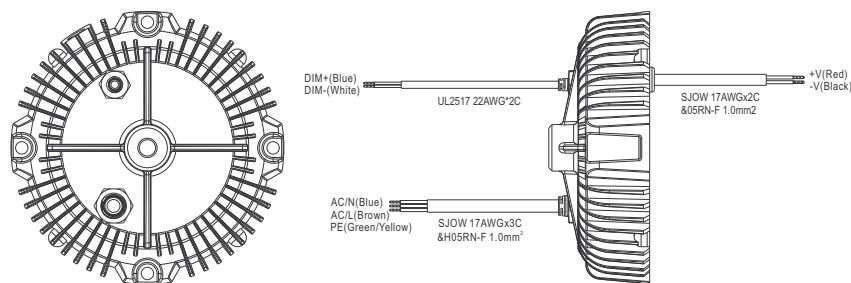


240W Constant Power Mode LED Driver

**XBG-240** series



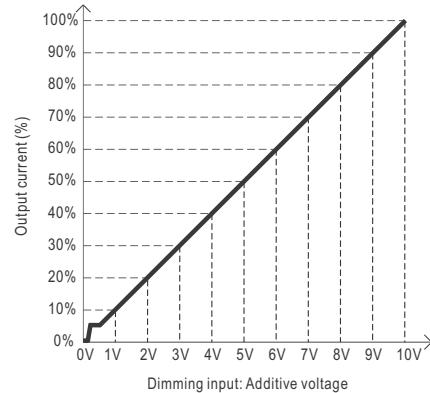
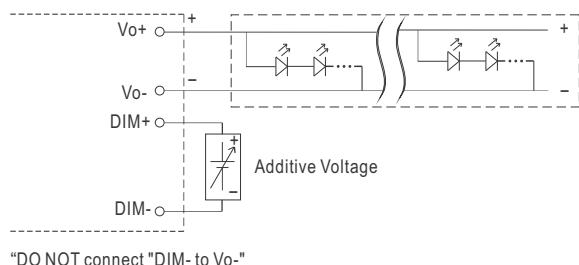
## ■ DIMMING OPERATION



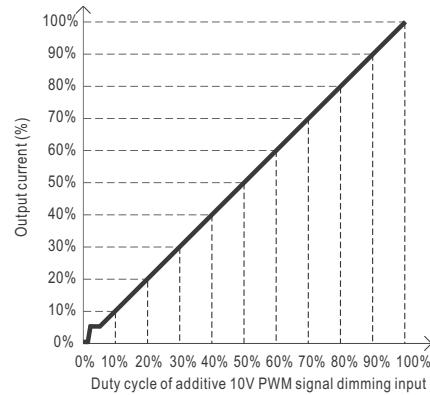
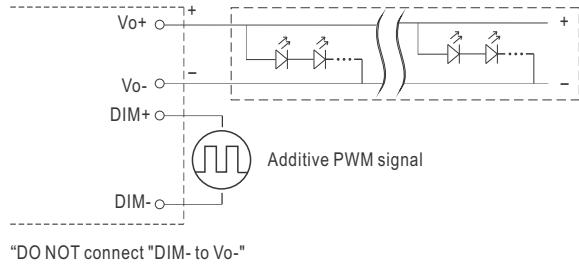
## ※ 3 in 1 dimming function (for AB-Type)

- 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: 100µA (typ.)

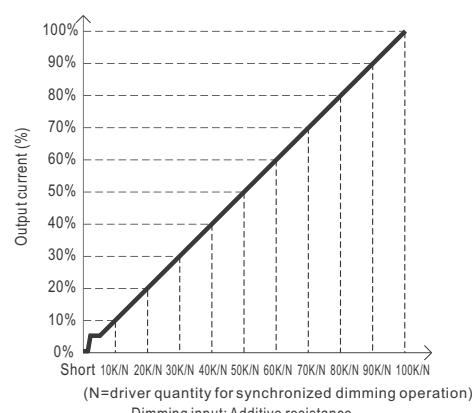
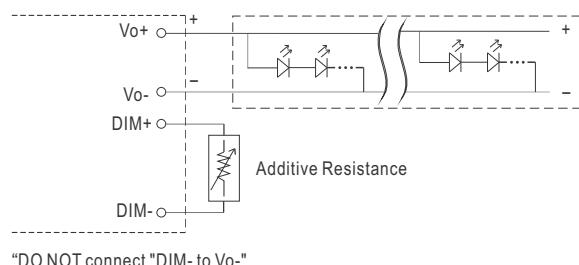
## ○ Applying additive 0 ~ 10VDC



## ○ 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%.

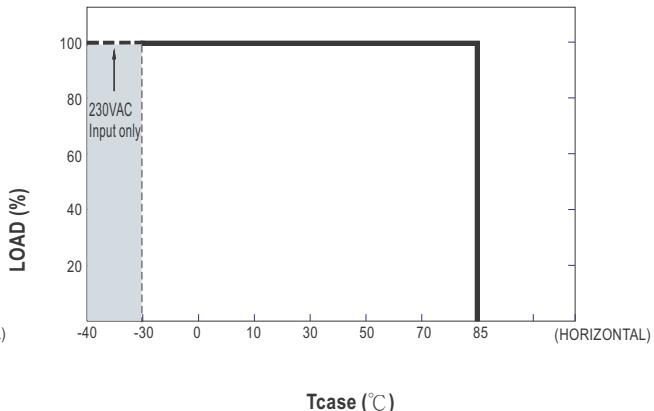
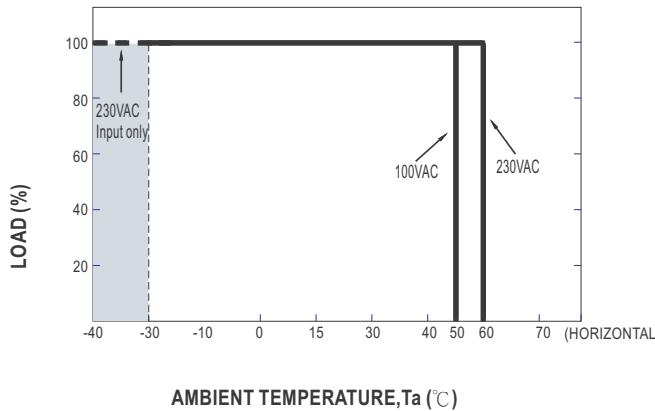
2. The output current could drop down to 0% when dimming input is about 0Ω or 0Vdc, or 10V PWM signal with 0% duty cycle.



240W Constant Power Mode LED Driver

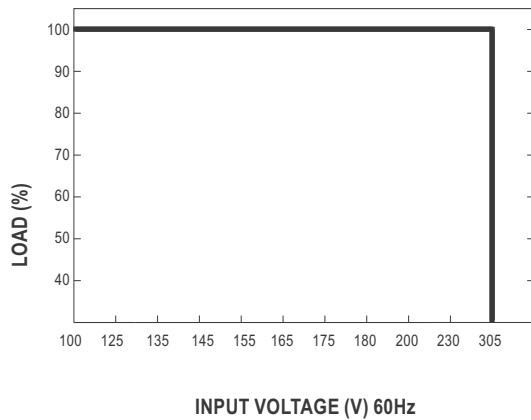
**XBG-240** series

■ OUTPUT LOAD vs TEMPERATURE



NOTE: It may has a soft-start status when operation at -30°C fullload and 100VAC input condition.

■ STATIC CHARACTERISTIC

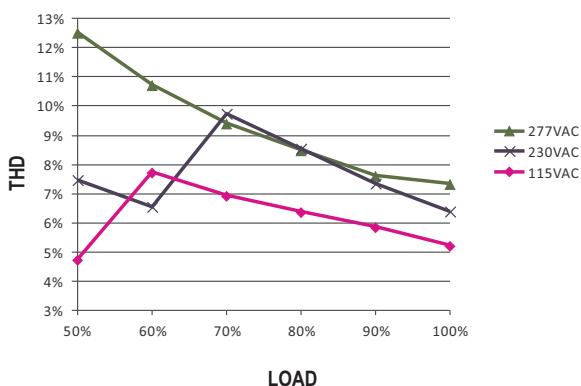


■ POWER FACTOR (PF) CHARACTERISTIC



■ TOTAL HARMONIC DISTORTION (THD)

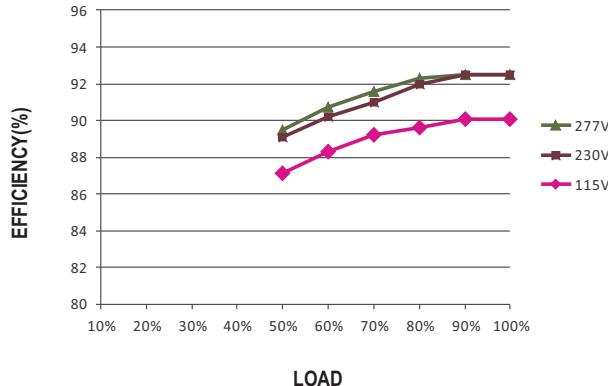
※ 4000mA Model, Tcase at 65°C

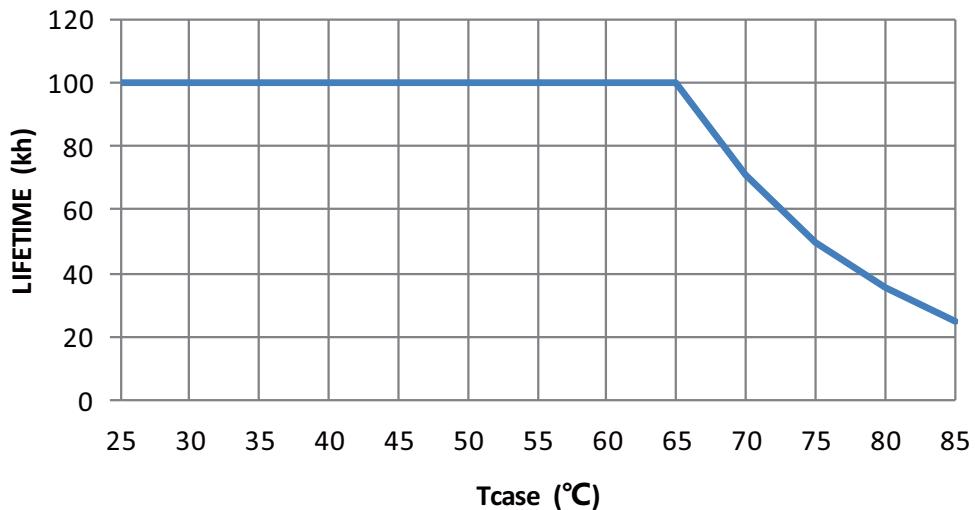


■ EFFICIENCY vs LOAD

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

※ 4000mA Model, Tcase at 65°C



**LIFE TIME****INSTALLATIONS****Caution**

- Please inspect the appearance of the driver if the package is damaged. There should not be any cracks.
- Please do not drop or bump the driver.
- All screws including the suspension screw should be paired with a spring washer and locked tight.
- The entire luminaire, including the driver, should be limited to 15Kg or less.
- The luminaire should be cautiously protected from damage due to shock throughout packaging and transportation.
- Please thoroughly follow the preceding cautionary notes to prevent the luminaire from falling, leading to injuries.



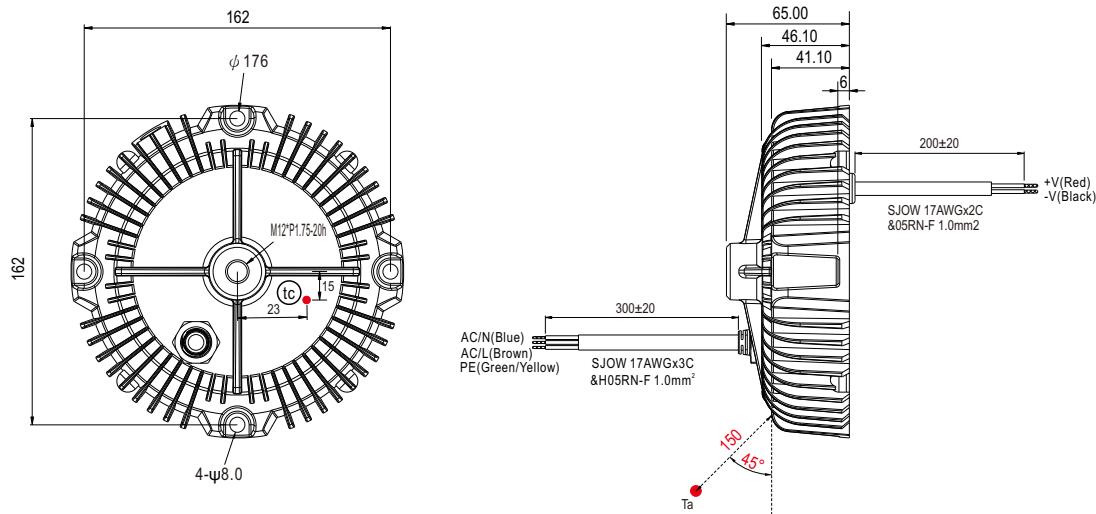
240W Constant Power Mode LED Driver

XBG-240 series

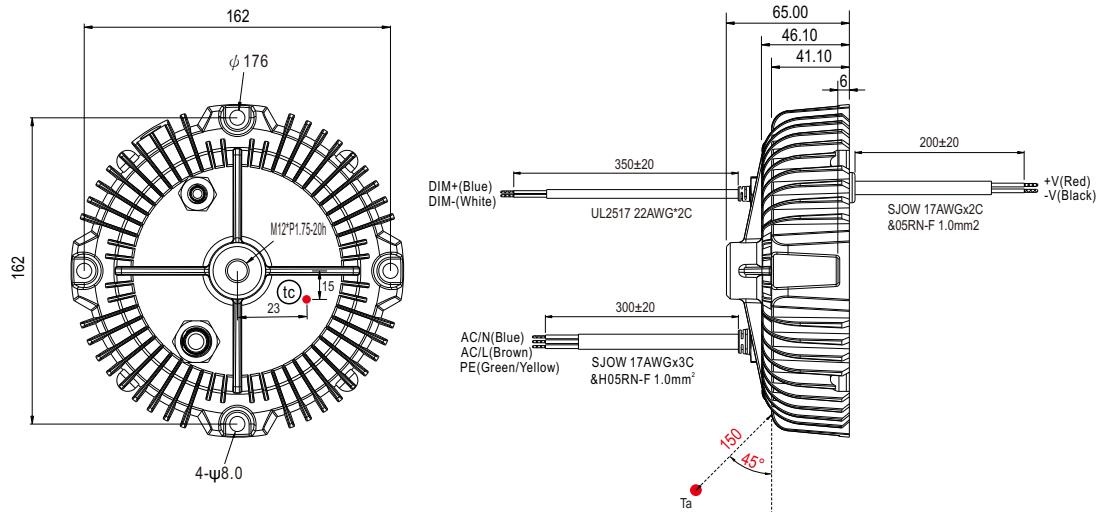
## ■ MECHANICAL SPECIFICATION

Case No.281 Unit:mm

※ A-Type(AC Cable with fixed cable)

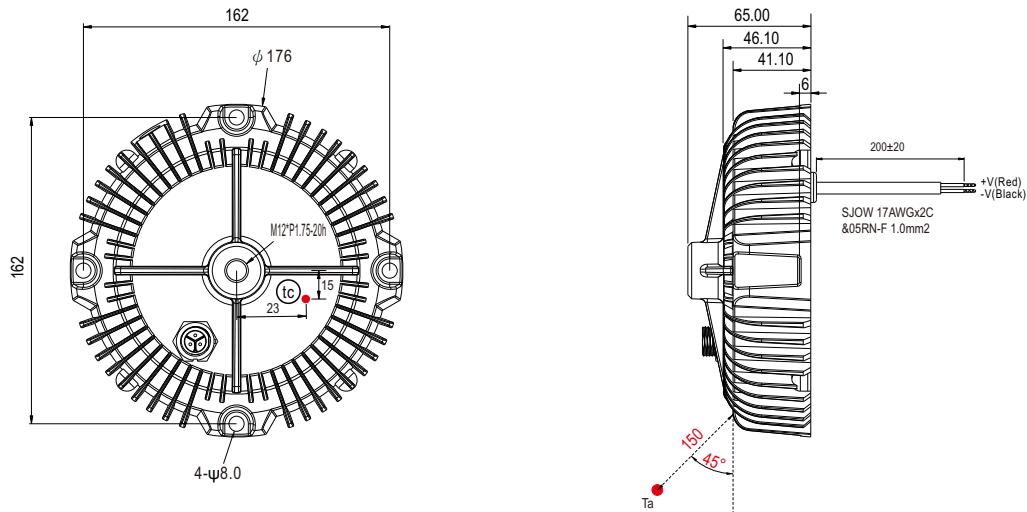


※ AB-Type(AC Cable with fixed cable)

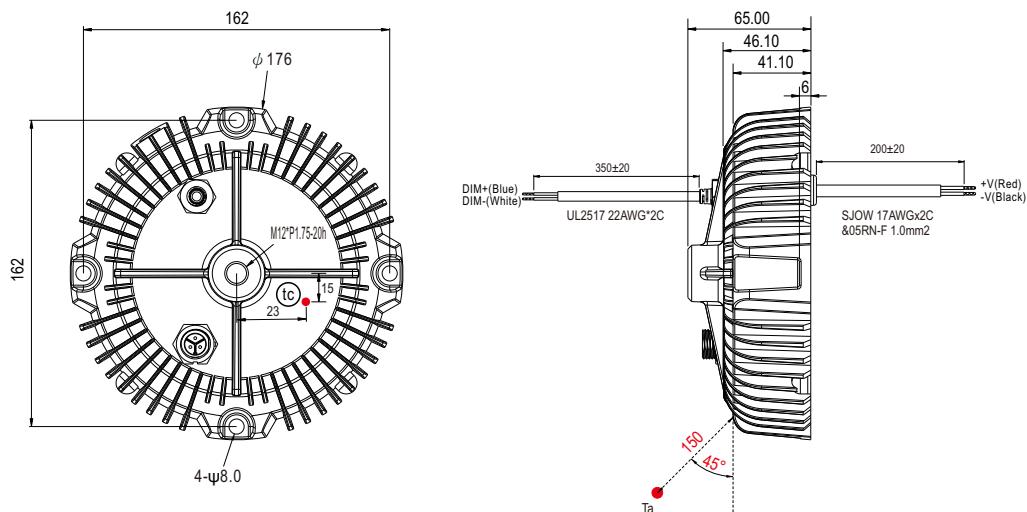


- $(tc)$  : Max. Case Temperature.(case temperature measured point)
- $T_a$ : Ambient Temperature measured point

## ※ A-C-Type(AC cable with connector)



## ※ AB-C-Type(AC cable with connector)



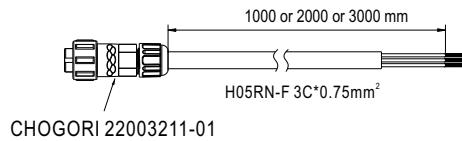
## Terminal Pin No. Assignment(CHOGORI 22003515-01)

| Pin No. | Assignment   | Drawing   |
|---------|--------------|---|
| 1       | AC/L         |   |
| 2       | AC/N         |   |
| 3       | PE $\ominus$ |  |

- (tc) : Max. Case Temperature.(case temperature measured point)
- Ta: Ambient Temperature measured point

## AC input cable option

| Item | Order part NO.  |
|------|-----------------|
| 1M   | 1FF5XBG-160-IP1 |
| 2M   | 1FF5XBG-160-IP2 |
| 3M   | 1FF5XBG-160-IP3 |



## ■ INSTALLATION MANUAL

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