**№ CB** [|| ( € | | | |













- Full power output at 75~100% constant power mode operation
- Metal case with IP67, suitable for outdoor application
- Surge protection with 6KV/4KV
- · 3 in 1 dimming (Dim-to-off and Isolation design)
- Protection Functions: OLP/SCP/OVP/OTP
- Lifetime>50,000 hours and 5 years warranty

## Applications

- · Bay lighting
- · Stage lighting
- Floodlight lighting
- Fishing lighting
- · Horticulture lighting
- Stadium lighting
- LED strip lighting (ABV type)
- Agricultural lighting (ABV type)
- DMX power supply
- Type "HL" for use in class I, Division 2

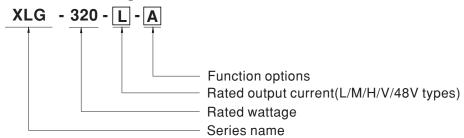
#### GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

## Description

XLG-320 series is a 315W LED AC/DC driver featuring with constant power mode. XLG-320 operates from 120~305VAC and offers models with different rated current ranging between 1050mA and 7420mA. Thanks to the high efficiency up to 94.5% with the fanless design, the entire series is able to operate for - $40^{\circ}\text{C} \sim +85^{\circ}\text{C}$  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. XLG-320 series comply with the latest version of IEC61347/GB7000.1-2015 and UL8750 international safety regulations. The output and dimming circuit are also completely in accordance with the new regulations and isolation to ensure the safety of both user and luminaire system during installation.

#### ■ Model Encoding



| Type              | IP Level | Function  | Note     |  |
|-------------------|----------|---|----------|--|
| Blank             | IP67     | Io and Vo fixed.(For harsh environment)   |          |  |
| Α                 | IP67     | Output constant power adjustable via built-in lo potentiometer  | In Stock |  |
| AB                | IP67     | Output constant power adjustable via built-in lo potentiometer + 3 in 1 dimming function (0~10Vdc, 10V PWM signal and resistance) | In Stock |  |
| ABV<br>(48V only) | IP67     | Vo adjustable via built-in potentiometer + 3 in 1 dimming function (Flicker free C.V. Dimming)                                    | In Stock |  |

Note: 1.V model is constant voltage operation without the AB type

File Name:XLG-320-SPEC 2023-05-04

# 315W Constant Power Mode LED Driver

| MODEL                                 |  | XLG-320-L-   | XLG-320-M-   | XLG-320-H-   | XLG-320-V-  |  |  |  |
|---------------------------------------|--|--|--|--|---|--|--|--|
|                                       | RATED CURRENT (Default)  | 1400mA   | 2800mA   | 5600mA   | 13A/24V   |  |  |  |
|                                       | RATED POWER Note.10  | 315W   | 310.8W   | 312W   | 24V/312W, 12V/216W  |  |  |  |
|                                       | CONSTANT CURRENT REGION  | 150~300V   | 74 ~ 148V  | 30 ~ 56V   | NC  |  |  |  |
|                                       | OUTPUT VOLTAGE ADJ. RANGE  | NC   | NC   | NC   | 24V or 12V  |  |  |  |
|                                       | FULL POWER CURRENT RANGE   | 1050~1400mA  | 2100~2800mA  | 5570~7420mA  | 13~18A(24V/13A,12V/18   |  |  |  |
|                                       | OPEN CIRCUIT VOLTAGE (max.)  | 340V   | 180V   | 60V  | NC  |  |  |  |
|                                       | CURRENT ADJ. RANGE   | 500~1400mA   | 1050~2800mA  | 2800~7420mA  | NC  |  |  |  |
| DUTBUT                                | CURRENT RIPPLE   | 5.0% max. @rated current   | 5.0 max. @rated current  | 5.0% max. @rated   |   |  |  |  |
| DUTPUT                                | CURRENT TOLERANCE  | ±5%  | ±5%  | ±5%  | NC  |  |  |  |
|                                       | RIPPLE & NOISE(max.)   | NC   | NC   | NC   | 240mV p-p   |  |  |  |
|                                       | VOLTAGE TOLERANCE  | NC   | NC   | NC   | ±3%   |  |  |  |
|                                       | LINE REGULATION  | NC   | NC   | NC   | ±0.5%   |  |  |  |
|                                       | LOAD REGULATION  | NC   | NC   | NC   | ±2%   |  |  |  |
|                                       | SET UP TIME Note.9   | 500ms/230VAC, 1200ms/115VAC  |  |  |   |  |  |  |
|                                       | RISE TIME, HOLD UP TIME (Typ.)   | 160ms,10ms/230VAC/115VAC(only for V-type)  |  |  |   |  |  |  |
|                                       | VOLTAGE RANGE Note.2   | 100 ~ 305VAC 142VDC ~ 431VDC (Please refer to "STATIC CHARACTERISTIC" ang " DRIVING METHODS OF LED MODULE"section)   |  |  |   |  |  |  |
|                                       | EDECUENCY DANCE  | ,  | TERISTIC and DRIVING METH  | ODS OF LED MODULE Section  | n)  |  |  |  |
|                                       | FREQUENCY RANGE  | 47 ~ 63Hz  |  |  |   |  |  |  |
|                                       | POWER FACTOR (Typ.)  | PF≥0.98 / 115VAC, PF≥0.95 / 23<br>(Please refer to "Power Factor Chai  | ,  | load   |   |  |  |  |
|                                       |  | THD< 10% @ load ≥ 50% at 115VA   |  | 750/ at 277\/AC:   |   |  |  |  |
|                                       | TOTAL HARMONIC DISTORTION  | Please refer to "TOTAL HARMONI   | , ,  | 75% at 277 VAC;  |   |  |  |  |
| INDUT                                 | EFFICIENCY (Typ.)  |  |  | 00.50/   | 030/  |  |  |  |
| INPUT                                 | EFFICIENCY (Typ.)  | 94.5%  | 93.5%  | 92.5%  | 93%   |  |  |  |
|                                       | AC CURRENT (Typ.)  | 3A / 120VAC 1.6A / 230VAC  | 1.3A / 277VAC  | Dor NEMA 440   |   |  |  |  |
|                                       | INRUSH CURRENT(Typ.)   | COLD START 45A(twidth=1200μs me  | easured at 50% Ipeak) at 230VAC;   | Per NEMA 410   |   |  |  |  |
|                                       | MAX. NO. of PSUs on 16A  | 2 unit(circuit breaker of type B) / 4 units(circuit breaker of type C) at 230VAC   |  |  |   |  |  |  |
|                                       | CIRCUIT BREAKER  |  |  |  |   |  |  |  |
|                                       | LEAKAGE CURRENT  | <0.75mA / 277VAC   |  |  |   |  |  |  |
|                                       | STANDBY POWER CONSUMPTION Note.5   | Standby power consumption <0.5W for AB-Type(Dimming OFF)   |  |  |   |  |  |  |
|                                       | SHORT CIRCUIT  | Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed  |  |  |   |  |  |  |
|                                       | SHORT CIRCUIT  | 350 ~ 380V   | 190 ~ 220V   | 63 ~ 78V   | 27 ~ 34V  |  |  |  |
|                                       | OVER VOLTAGE   |  |  | 03~180   | 21 ~ 34V  |  |  |  |
| ROTECTION                             | N .  | Shut down output voltage, re-power on to recovery  |  |  |   |  |  |  |
|                                       | OVER TEMPERATURE Note.11   | L/M/H-Type: Tcase>85°C ±5°C ,derate power automatically   V-Type: Shut down output voltage, re-power on to recover   |  |  |   |  |  |  |
|                                       |  | 1 1  | e-power on to recover  |  |   |  |  |  |
|                                       | OVER LOAD Note.10  | 108~135%(only for V-type)  |  |  |   |  |  |  |
|                                       |  | Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed  |  |  |   |  |  |  |
|                                       | WORKING TEMP.  | Tcase=-40 ~ +85°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)   |  |  |   |  |  |  |
|                                       | MAX. CASE TEMP.  | Tcase=+85°C  |  |  |   |  |  |  |
| NVIRONMENT                            | WORKING HUMIDITY   | 20 ~ 95% RH non-condensing   |  |  |   |  |  |  |
| · · · · · · · · · · · · · · · · · · · | STORAGE TEMP., HUMIDITY  | -40 ~ +80°C, 10 ~ 95% RH non-cond  | densing  |  |   |  |  |  |
|                                       | TEMP. COEFFICIENT  | ±0.03%/°C (0~60°C)   |  |  |   |  |  |  |
|                                       | VIBRATION  | 10 ~ 500Hz, 5G 12min./1cycle, perio  | od for 72min, each along X, Y, Z   | axes   |   |  |  |  |
|                                       |  | UL8750(type"HL"), CSA C22.2 No. 2  | * ' '  |  | dependent, BS EN/EN62384:   |  |  |  |
|                                       | SAFETY STANDARDS   |  |  |  | (C61347-1,KC61347-2-13 approved   |  |  |  |
|                                       | WITHSTAND VOLTAGE  | I/P-O/P:3.75KVAC I/P-FG:2KVA   | AC O/P-FG:1.5KVAC  |  |   |  |  |  |
|                                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohi   |  |  |   |  |  |  |
|                                       |  | Parameter  | Standard   |  | Test Level / Note   |  |  |  |
|                                       |  | Conducted  | BS EN/EN55015  | (CISPR15) ,GB/T17743   |   |  |  |  |
|                                       | EMC EMISSION   | Radiated   |  | (CISPR15),GB/T17743  |   |  |  |  |
|                                       |  | Harmonic Current   |  | -3-2 , GB/T17625.1   | Class C @load≥50%   |  |  |  |
| SAFETY & EMC                          |  | Voltage Flicker  | BS EN/EN61000  |  |   |  |  |  |
|                                       |  | BS EN/EN61547  | DO LIV/LIVO 1000   |  |   |  |  |  |
|                                       |  | Parameter  | Standard   |  | Test Level / Note   |  |  |  |
|                                       |  | ESD  | BS EN/EN61000-   | 4-2  | Level 3, 8KV air ; Level 2, 4KV contact                                       |  |  |  |
|                                       |  | Radiated   | BS EN/EN61000-   |  | Level 2   |  |  |  |
|                                       |  | EFT / Burst  | BS EN/EN61000-   |  | Level 3   |  |  |  |
|                                       |  | Surge  | BS EN/EN61000-   |  | 4KV/Line-Line 6KV/Line-Earth  |  |  |  |
|                                       | EMC IMMINITY   | 90   | BS EN/EN61000-   |  | Level 2   |  |  |  |
|                                       | EMC IMMUNITY   |  |  |  | Level 4   |  |  |  |
|                                       | EMC IMMUNITY   | Conducted  |  |  | LOYOI T   |  |  |  |
|                                       | EMC IMMUNITY   |  | BS EN/EN61000-   | 1.0  | >050/ dip 0 5 poriodo 200/ di- 05 1   |  |  |  |
|                                       | EMC IMMUNITY   | Conducted  |  |  | >95% dip 0.5 periods, 30% dip 25 periods, >95% interruptions 250 periods      |  |  |  |
|                                       |  | Conducted Magnetic Field Voltage Dips and Interruptions  | BS EN/EN61000-<br>BS EN/EN61000-   | 4-11   |   |  |  |  |
|                                       | мтвғ   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332(   | BS EN/EN61000-<br>BS EN/EN61000-   |  |   |  |  |  |
|                                       | MTBF DIMENSION   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)   | BS EN/EN61000-<br>BS EN/EN61000-   | 4-11   |   |  |  |  |
|                                       | MTBF DIMENSION PACKING   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg:9pcs/14Kg/0.76CUFT   | BS EN/EN61000-<br>BS EN/EN61000-<br>(Bellcore); 168.1 K hrs min. M   | 4-11<br>MIL-HDBK-217F (25°€)   |   |  |  |  |
|                                       | MTBF DIMENSION PACKING  1. All parameters NOT specially mention  | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg;9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated of   | BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M   | 4-11 MIL-HDBK-217F (25°C)  |   |  |  |  |
| )THERS                                | MTBF DIMENSION PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon  | Conducted Magnetic Field  Voltage Dips and Interruptions  1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)  1.45Kg;9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated on that will be operated in combination w | BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25°C of ambient temperataRACTERISTIC" sections for details tith final equipment. Since EMC perfo   | 4-11 MIL-HDBK-217F (25°C)  sture.  | >95% interruptions 250 periods  |  |  |  |
| DTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg;9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated or put voltages. Please refer to "STATIC CHent that will be operated in combination wist re-qualify EMC Directive on the comple  | BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25°C of ambient tempera 4ARACTERISTIC* sections for details tith final equipment. Since EMC perforate installation again.  | 4-11  MIL-HDBK-217F (25°C)  tture. s.  rmance will be affected by the core   | >95% interruptions 250 periods  |  |  |  |
| OTHERS                                | MTBF DIMENSION PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe  | Conducted Magnetic Field  Voltage Dips and Interruptions  1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)  1.45Kg;9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated on that will be operated in combination w | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25°C of ambient tempera  1ARACTERISTIC* sections for details ith final equipment. Since EMC perforte installation again.  Case, particularly @ point (or TMP,   | 4-11  MIL-HDBK-217F (25°C)  uture. s. rmance will be affected by the couper DLC), is 75°C or less.   | >95% interruptions 250 periods  |  |  |  |
| DTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe 5. To fulfill requirements of the latest Erf 6. Please refer to the warranty statemen  | Conducted  Magnetic Field  Voltage Dips and Interruptions  1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)  1.45Kg;9pcs/14Kg/0.76CUFT  ed are measured at 230VAC input, rated or put voltages. Please refer to "STATIC CHent that will be operated in combination will st re-qualify EMC Directive on the complectancy. 50,000 hours of operation when TP regulation for lighting fixture, this LED dr to n MEAN WELL's website at http://www.  | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25 <sup>™</sup> C of ambient tempera 4ARACTERISTIC* sections for details ith final equipment. Since EMC perfo tet installation again. Tcase, particularly ⊕ point (or TMP, river can only be used behind a switc .meanwell.com  | 4-11  MIL-HDBK-217F (25°C)  Iture. s. rmance will be affected by the cor per DLC), is 75°C or less. th without permanently connected   | >95% interruptions 250 periods  mplete installation,                          |  |  |  |
| DTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe- 5. To fulfill requirements of the latest Erf 6. Please refer to the warranty statemen 7. The ambient temperature derating of 3  | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg:9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated of high conditional point of the complexity of the | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25°C of ambient tempera- HARACTERISTIC" sections for details tith final equipment. Since EMC perforate installation again.  Case, parlicularly @ point (or TMP, river can only be used behind a switcmeanwell.com  "CV1000m with fan models for operations."  | 4-11  MIL-HDBK-217F (25°C)  Iture. s. rmance will be affected by the cor per DLC), is 75°C or less. th without permanently connected   | >95% interruptions 250 periods  mplete installation,                          |  |  |  |
| OTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe 5. To fulfill requirements of the latest Erf 6. Please refer to the warranty statemen 7. The ambient temperature derating of 3 8. For any application note and IP water https://www.meanwell.com/Upload/PC   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg:9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated of uput voltages. Please refer to "STATIC OHent that will be operated in combination wis tre-qualify EMC Directive on the complectancy >50,000 hours of operation when TP regulation for lighting fixture, this LED dr to mEAN WeLL's website at http://www.3.5°C/1000m with fanless models and of 5 proof function installation caution, please F/LED E.Npd.  | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- BS EN/EN61000-  Current and 25°C of ambient tempera  ARACTERISTIC* sections for details ith final equipment. Since EMC perforte installation again.  Crase, particularly @ point (or TMP, river can only be used behind a switcomeanwell.com  5°C/1000m with fan models for operat refer our user manual before using.  | 4-11  MIL-HDBK-217F (25°C)  tture. s. rmance will be affected by the cor per DLC), is 75°C or less. th without permanently connected ing altitude higher than 2000m(65   | >95% interruptions 250 periods  mplete installation,                          |  |  |  |
| )THERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe 5. To fulfill requirements of the latest Erf 6. Please refer to the warranty statemen 7. The ambient temperature derating of 8. For any application note and IP water https://www.meanwell.com/Upload/PE 9. Products sourced from the Americas r   | Conducted Magnetic Field  Voltage Dips and Interruptions  1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)  1.45Kg;9pcs/14Kg/0.76CUFT ed are measured at 220VAC input, rated on the complex of th | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- (Bellcore); 168.1 K hrs min. M  current and 25°C of ambient tempera- HARACTERISTIC" sections for details tith final equipment. Since EMC perforate installation again.  Case, particularly (©) point (or TMP, river can only be used behind a switcmeanwell.com  "C/1000m with fan models for operat refer our user manual before using.  logo. Please contact your MEAN WE   | 4-11  MIL-HDBK-217F (25°C)  Atture.  S.  Immance will be affected by the corper DLC), is 75°C or less.  In without permanently connected ing altitude higher than 2000m(65)  ELL sales for more information.   | >95% interruptions 250 periods  mplete installation, It to the mains.         |  |  |  |
| DTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life experion 5. To fulfill requirements of the latest 6. Please refer to the warranty statemen 7. The ambient temperature derating of 8. For any application note and IP water https://www.meanwell.com/Upload/PC 9. Products sourced from the Americas r 10. The output voltage of the V Type defe   | Conducted Magnetic Field Voltage Dips and Interruptions 1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H) 1.45Kg:9pcs/14Kg/0.76CUFT ed are measured at 230VAC input, rated of uput voltages. Please refer to "STATIC OHent that will be operated in combination wis tre-qualify EMC Directive on the complectancy >50,000 hours of operation when TP regulation for lighting fixture, this LED dr to mEAN WeLL's website at http://www.3.5°C/1000m with fanless models and of 5 proof function installation caution, please F/LED E.Npd.  | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000-  (Bellcore); 168.1 K hrs min. No  current and 25°C of ambient temperal ARACTERISTIC° sections for details this final equipment. Since EMC perfoote installation again.  Tcase, particularly @ point (or TMP, river can only be used behind a switch as witch as the company of the c | 4-11  MIL-HDBK-217F (25°C)  ture. s. rmance will be affected by the cor per DLC), is 75°C or less. th without permanently connected ting altitude higher than 2000m(65  ELL sales for more information. d, otherwise the OLP point is not v  | >95% interruptions 250 periods  mplete installation, I to the mains.  500ft). |  |  |  |
| DTHERS                                | MTBF  DIMENSION  PACKING  1. All parameters NOT specially mention 2. De-rating may be needed under low ir 3. The driver is considered as a compon the final equipment manufacturers mu 4. This series meets the typical life expe 5. To fulfill requirements of the latest Erf 6. Please refer to the warranty statemen 7. The ambient temperature derating of 3 8. For any application note and IP water https://www.meanwell.com/Upload/PE 9. Products sourced from the Americas r 10. The output voltage of the V Type defa 11. When the secondary OTP fails, there 12. When the current adjustment is more | Conducted  Magnetic Field  Voltage Dips and Interruptions  1476.4K hrs min. Telcordia SR-332( 246*77*39.5mm (L*W*H)  1.45Kg;9pcs/14Kg/0.76CUFT  ed are measured at 230VAC input, rated or put voltages. Please refer to "STATIC CHent that will be operated in combination with the operation of the operation of the operation installation caution, please of the operation of the operatio | BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- BS EN/EN61000- GBEILCORE); 168.1 K hrs min. In Courrent and 25°C of ambient tempera- HARACTERISTIC" sections for details tith final equipment. Since EMC perforate installation again. Tease, particularly (©) point (or TMP, river can only be used behind a switcmeanwell.com "50′(1000m with fan models for operat refer our user manual before using. Togo. Please contact your MEAN WESVR by clockwise direction to the end dby Shut down output voltage, re-porenter the Protection state.  | 4-11  MIL-HDBK-217F (25°C)  Atture.  S.  S.  Trannace will be affected by the corper DLC), is 75°C or less. the without permanently connected ting altitude higher than 2000m(65)  ELL sales for more information. If the corper on to recovery for the H/M/L-1 were on to recovery for the H/M/L-1. | >95% interruptions 250 periods  mplete installation, I to the mains.  500ft). |  |  |  |

M , L type : RCM is on a voluntary basis and meets relevant IEC or AS/NZS standards complying with AS/NZS 4417.1.

14. It may has an over-shoot status at output current when AC On/Of operate with lower VI and lower loading conditions.

15. If you need the NOM (Mexico) certificate, Please contact MEAN WELL sales representative for details.

16. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uf & 47 uf parallel capacitor.

17. Please refer to "DRIVING METHODS OF LED MODULE".

X Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

# 312W Constant Voltage LED Driver

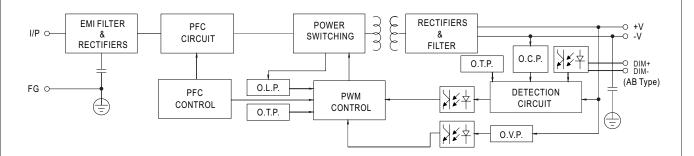
### **SPECIFICATION**

| MODEL        |   | XLG-320-48-ABV  |  |   |  |  |  |
|--------------|---|---|--|---|--|--|--|
|              | RATED CURRENT   | 6.5A  |  |   |  |  |  |
|              | RATED POWER (Max.)  | 312W  |  |   |  |  |  |
|              | DC VOLTAGE  | 48V(Adjustable 43.2~52.8V)  |  |   |  |  |  |
|              | RIPPLE & NOISE(max.)  | 250mVp-p  |  |   |  |  |  |
| DUTPUT       | VOLTAGE TOLERANCE   | +2.0%   |  |   |  |  |  |
| 2011-01      | LINE REGULATION   | ±0.5%   |  |   |  |  |  |
|              | LOAD REGULATION   |   |  |   |  |  |  |
|              | DIMMING TOLERANCE   | ±0.5%   |  |   |  |  |  |
|              |   | ±4%   |  |   |  |  |  |
|              | SET UP TIME Note.9  | 500ms/230VAC, 1200ms/115VAC   |  |   |  |  |  |
|              | RISE TIME, HOLD UP TIME (Typ.)  | 160ms,10ms/230VAC/115VAC  |  |   |  |  |  |
|              | VOLTAGE RANGE Note.2  | 100 ~ 305VAC 142VDC ~ 431VDC (Please refer to "STATIC CHARACTERISTIC")  |  |   |  |  |  |
|              | FREQUENCY RANGE   | 47 ~ 63Hz   |  |   |  |  |  |
|              | POWER FACTOR (Typ.)   | PF≥0.98 / 115VAC, PF≥0.95 / 230VAC, PF≥0.92 / 277VAC at full load   |  |   |  |  |  |
|              | TOTAL HARMONIC DISTORTION   | THD< 10% @ load ≥ 50% at 115VAC/230VAC, THD<15%@Load>75% at 277VAC;   |  |   |  |  |  |
| NPUT         | EFFICIENCY (Typ.)   | 93.5%   |  |   |  |  |  |
|              | AC CURRENT (Typ.)   | 33.7/0<br>3A/120VAC 1.6A/230VAC 1.3A/277VAC   |  |   |  |  |  |
|              | INRUSH CURRENT(Typ.)  | COLD START 45A(twidth=1200µs measured at 50% lpeak) at 230VAC; 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 230VAC  |  |   |  |  |  |
|              | LEAKAGE CURRENT   | <0.75mA/277VAC  |  |   |  |  |  |
|              | STANDBY POWER CONSUMPTION   | Standby power consumption <0.5W for AB  | V/BV-Type(Dimming OFF)   |   |  |  |  |
|              | SHORT CIRCUIT   |   | ecovers automatically after fault condition is removed   |   |  |  |  |
|              | CCIVI VIIVOIT   | ,   | attorial continuous semoved  |   |  |  |  |
|              | OVER VOLTAGE  | 54 ~ 60V  |  |   |  |  |  |
| OTECTION     | OVED TEMPED ATTOR   | Shut down output voltage, re-power on to recovery   |  |   |  |  |  |
| - 1 LO 1 ION | OVER TEMPERATURE Note.10  | Shut down output voltage, re-power on to re   | ecovery  |   |  |  |  |
|              | OVER LOAD   | Hiccup mode or Constant current limiting, re  | ecovers automatically after fault condition is removed   |   |  |  |  |
|              |   | Hiccup mode or Constant current limiting, recovers automatically after fault condition is removed   |  |   |  |  |  |
|              | WORKING TEMP.   | Tcase=-20 ~ +85°C (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)  |  |   |  |  |  |
|              | MAX. CASE TEMP.   | Tcase=+85℃  |  |   |  |  |  |
| /IRONMENT    | WORKING HUMIDITY  | 20 ~ 95% RH non-condensing  |  |   |  |  |  |
| INCHILLINI   | STORAGE TEMP., HUMIDITY   | -20 ~ +80°C, 10 ~ 95% RH non-condensing   |  |   |  |  |  |
|              | TEMP. COEFFICIENT   | ±0.03%/°C (0~60°C)  |  |   |  |  |  |
|              | VIBRATION   | 10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes   |  |   |  |  |  |
|              | VIBRATION   |   |  |   |  |  |  |
|              | SAFETY STANDARDS  | UL8750(type"HL"), CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13 independent, BS EN/EN62384; GB19510.1, GB19510.14; EAC TP TC 004; 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   |  |   |  |  |  |
|              | IOOZATION NEOIOTANOE  | Parameter   | Standard   | Test Level / Note                         |  |  |  |
|              |   | Conducted   | BS EN/EN55015(CISPR15) ,GB/T17743  |   |  |  |  |
|              | EMO EMICOLONI   | Radiated  |  |   |  |  |  |
|              | EMC EMISSION  | Tidalatod   | BS EN/EN55015(CISPR15),GB/T17743   |   |  |  |  |
| AFETY &      |   | Harmonic Current  | BS EN/EN61000-3-2 , GB/T17625.1  | Class C @load≥50%                         |  |  |  |
| ИС           |   | Voltage Flicker   | BS EN/EN61000-3-3  |   |  |  |  |
|              |   | BS EN/EN61547   |  |   |  |  |  |
|              |   | Parameter   | Standard   | Test Level / Note                         |  |  |  |
|              |   | ESD   | BS EN/EN61000-4-2  | Level 3, 8KV air ; Level 2, 4KV contact   |  |  |  |
|              |   | Radiated  | BS EN/EN61000-4-3  | Level 2                                   |  |  |  |
|              |   | EFT / Burst   | BS EN/EN61000-4-4  | Level 3                                   |  |  |  |
|              | EMC IMMUNITY  | Surge   | BS EN/EN61000-4-5  | 4KV/Line-Line 6KV/Line-Earth              |  |  |  |
|              |   | Conducted   | BS EN/EN61000-4-6  | Level 2                                   |  |  |  |
|              |   | Magnetic Field  | BS EN/EN61000-4-8  | Level 4                                   |  |  |  |
|              |   |   |  | >95% dip 0.5 periods, 30% dip 25 periods, |  |  |  |
|              |   | Voltage Dips and Interruptions  | BS EN/EN61000-4-11   | >95% interruptions 250 periods            |  |  |  |
|              | MTBF  | 1476.4K hrs min. Telcordia SR-332(Bellcore); 168.1 K hrs min. MIL-HDBK-217F (25°C)  |  |   |  |  |  |
| THERS        | DIMENSION   | 246*77*39.5mm (L*W*H)   |  |   |  |  |  |
|              | PACKING   | 1.45Kg;9pcs/14Kg/0.76CUFT   |  |   |  |  |  |
|              |   | oned are measured at 230VAC input, rated current and 25°C of ambient temperature.   |  |   |  |  |  |
| DTE          | 3. The driver is considered as a componithe final equipment manufacturers mu 4. This series meets the typical life expects. To fulfill requirements of the latest Erf. 6. Please refer to the warranty statement 7. The ambient temperature derating of 5. 8. For any application note and IP water https://www.meanwell.com/Upload/PD 9. Products sourced from the Americas r 10. When the secondary OTP fails, there. | st re-qualify EMC Directive on the complete install<br>stancy >50,000 hours of operation when Tcase, pe<br>regulation for lighting fixture, this LED driver can<br>con MEAN WELL's website at http://www.meanwe<br>s.5°C/1000m with fanless models and of 5°C/1000r<br>proof function installation caution, please refer our<br>Fr/LED_EN.pdf | equipment. Since EMC performance will be affected by the creation again.  articularly (© point (or TMP, per DLC), is 75°C or less.  only be used behind a switch without permanently connecte  ell.com  meth fan models for operating altitude higher than 2000m(6  r user manual before using.   sase contact your MEAN WELL sales for more information.  t down output voltage, re-power on to recovery. | d to the mains.                           |  |  |  |



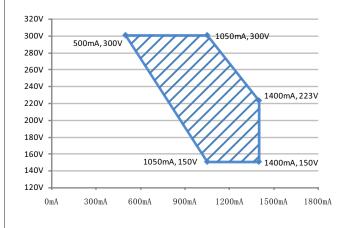
#### ■ BLOCK DIAGRAM

PFC fosc : 45KHz PWM fosc : 100KHz

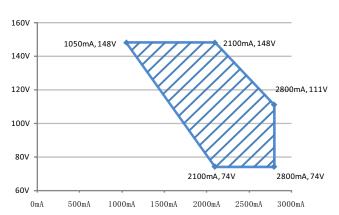


#### ■ DRIVING METHODS OF LED MODULE

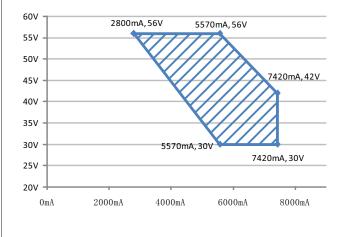


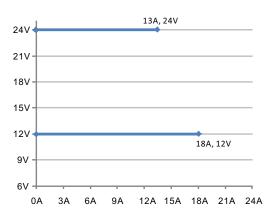


#### XLG-320-M



#### ⊚ XLG-320-H

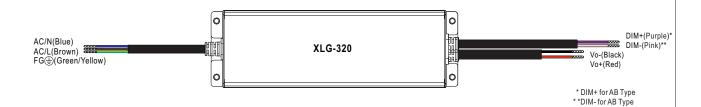




🔆 V type output voltage adjustable via biult-in potentiometer

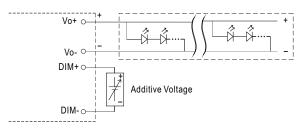


#### **■ DIMMING OPERATION**



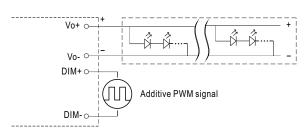
#### ※ 3 in 1 dimming function (for AB-Type)

- 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: 100  $\mu$  A (typ.)



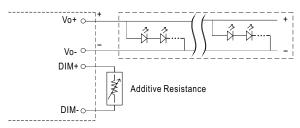
"DO NOT connect "DIM- to Vo-"

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

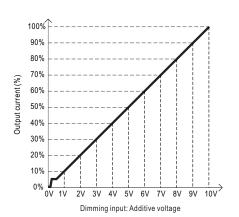


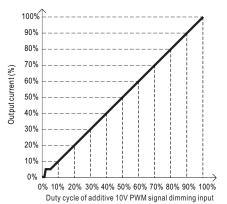
"DO NOT connect "DIM- to Vo-"

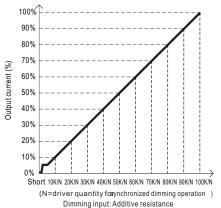
O Applying additive resistance:



"DO NOT connect "DIM- to Vo-"





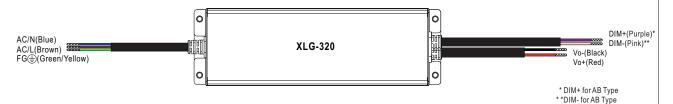


Note : 1. Min. dimming level is about 8% and the output current is not defined when 0% lout <8%

- 2. The output current could drop down to 0% when dimming input is about  $0\Omega$  or 0Vdc, or 10V PWM signal with 0% duty cycle.
- 3. When PWM frequency >2K HZ ,the lighting will be triggered at 10~15% PWM duty .

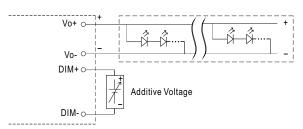


#### **■ DIMMING OPERATION**



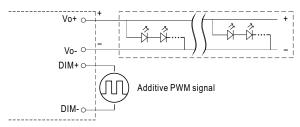
#### **※** 3 in 1 dimming function (for ABV-Type)

- Output constant voltage 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.)
- O Applying additive 0 ~ 10VDC



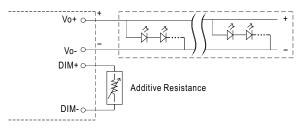
"DO NOT connect "DIM- to Vo-"

O Applying additive 10V PWM signal (frequency range 200Hz ~ 3KHz):

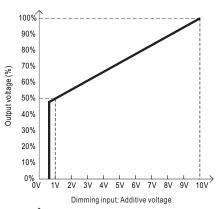


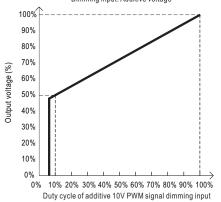
"DO NOT connect "DIM- to Vo-"

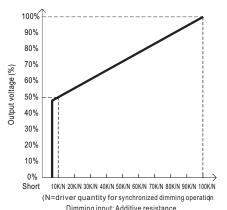
O Applying additive resistance:



"DO NOT connect "DIM- to Vo-"



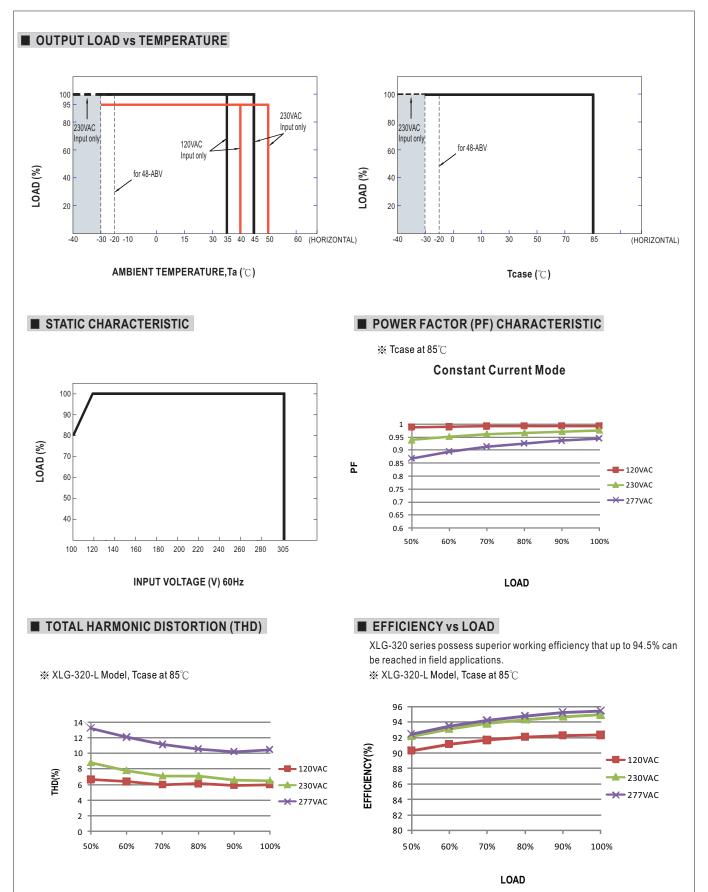




Note: 1. Min. dimming level is about 50% of output voltage and the output voltage is not defined when Vout < 50%

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



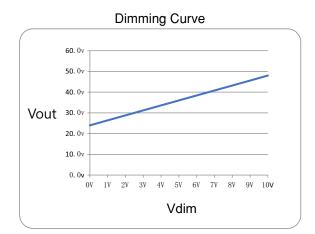


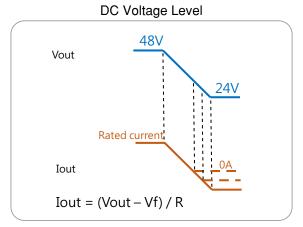


### ■ CONSTANT VOLTAGE DIMMING OPERATION:

48-ABV type

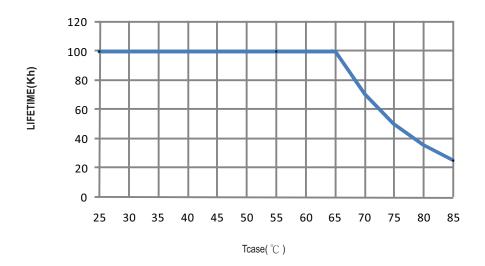
Note: flicker free design for agricultural lighting flicker free design for Indoor LED strip lighting



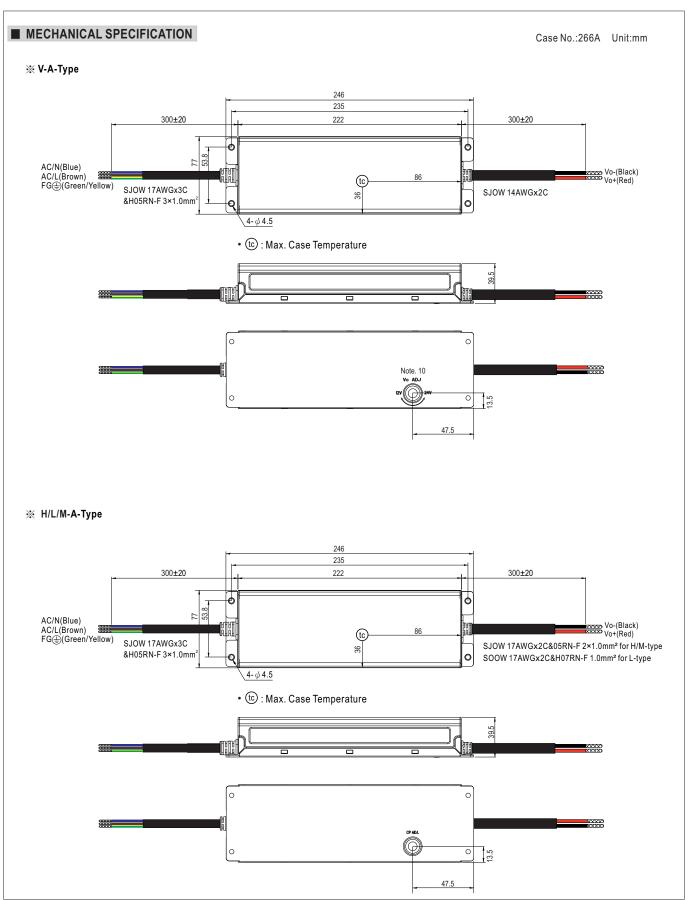


(Not a PWM style output)

#### ■ LIFE TIME









# ■ MECHANICAL SPECIFICATION Case No.:266A Unit:mm **※** AB/ABV-Type 235 300±20 222 320±20 9 UL2517 20AWGx2C DIM+(Purple) DIM-(Pink) AC/N(Blue) AC/L(Brown) FG (Green/Yellow) (tc Vo-(Black) SJOW 17AWGx3C 38 &H05RN-F 3×1.0mm2 0 300±20 SJOW 17AWGx2C&05RN-F 2×1.0mm<sup>2</sup> SOOW 17AWGx2C&H07RN-F 1.0mm<sup>2</sup> for L-type • (tc): Max. Case Temperature **■ INSTALLATION MANUAL**

 ${\bf Please\ refer\ to: http://www.meanwell.com/manual.html}$