



User's Manual



(Independent type)



IP67                                                                                                                                         

## ■ Features

- Constant power mode output with multiple stage selectable by NFC setting (H-type)
- Constant voltage mode output available(12/24/48V)
- Plastic housing with class II and PFC design
- Meet UL8750 Class 2 / Class P power unit
- Flicker free, complying with CE ErP directive
- Standby power consumption <0.5W
- Meet emergency lighting (EL) application
- Fully encapsulated with IP67
- Minimum dimming level 0.1% (DALI-2 DT6)
- Dimming functions: 3 in 1 dimming (Dim-to-off)  
DALI-2 + Push dimming
- 5 years warranty

## ■ Applications

- Recessed Light
- Down Light
- Panel Light
- Commercial Lighting
- Decorative Lighting
- LED strip lighting
- DALI digital Lighting

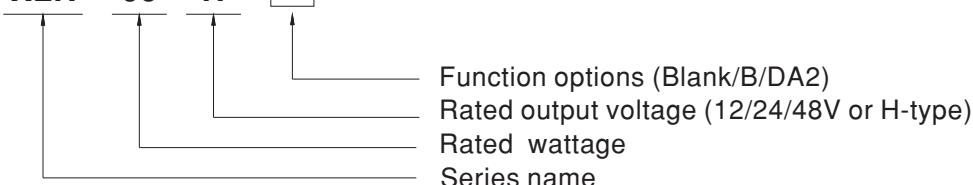
## GTIN CODE

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

### ■ Description

XLN-60 Series is a 60W with constant power and constant voltage output LED driver . It can operate from 110~305V AC and output current ranging between 900 mA to 1700 mA selectable by NFC setting. Thanks to high efficiency up to 90%, it is able to operate for -25℃~90℃ case temperature under free air convection. XLN-60 is designed based on latest safety regulation with 3 in 1 and DALI-2 dimming. XLN-60 can be adjusted for brightness with a push button as a simple way dimming, so it provides more flexibility for LED Lighting application.

## ■ Model Encoding

XLN - 60 - H - 

| Type  | Function                                                                          | Note     |
|-------|-----------------------------------------------------------------------------------|----------|
| Blank | H type output current selectable by NFC setting with constant power mode          | In stock |
|       | 12, 24, 48V Constant voltage output                                               |          |
| B     | H type output current selectable by NFC setting and built-in 3 in 1 dimming       |          |
|       | 12, 24, 48V Constant voltage output and built-in 3 in 1 Dimming(PWM Style output) |          |
| DA2   | H type output current selectable by NFC setting and built-in DALI-2 dimming       |          |
|       | 12, 24, 48V Constant voltage output and built-in DALI-2(PWM Style output)         |          |

Note: 1. 12/24/48V output is fixed without NFC Function.

1. 12/24/48V output is fixed without NR function.
2. For more current setting, please contact MW sales representative.

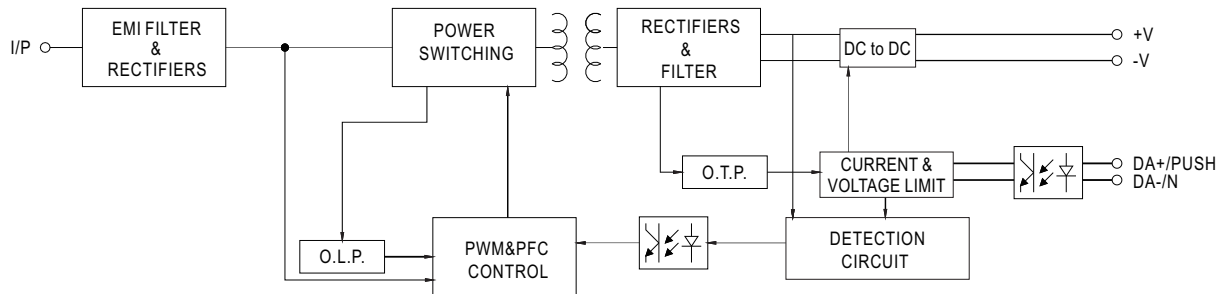
**SPECIFICATION**

| MODEL                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | XLN-60-12-□                                                                                                                                                                                                                                                                                          | XLN-60-24-□    | XLN-60-48-□         |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------|
| OUTPUT                    | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 12V                                                                                                                                                                                                                                                                                                  | 24V            | 48V                 |
|                           | DEFAULT CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 5A                                                                                                                                                                                                                                                                                                   | 2.5A           | 1.25A               |
|                           | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 60W                                                                                                                                                                                                                                                                                                  | 60W            | 60W                 |
|                           | SETUP,RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 800ms,180ms/230VAC ,1000ms,180ms/115VAC                                                                                                                                                                                                                                                              |                |                     |
| INPUT                     | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 110~305VAC 155~400VDC                                                                                                                                                                                                                                                                                |                |                     |
|                           | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 47 ~ 63Hz                                                                                                                                                                                                                                                                                            |                |                     |
|                           | POWER FACTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PF≥0.95/115VAC, PF≥0.95/230VAC,PF≥0.9/277VAC@full load<br>(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)                                                                                                                                                                               |                |                     |
|                           | TOTAL HARMONIC DISTORTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | THD< 20%(@load ≥50%/230VAC; @load ≥75%/277VAC), THD<10%@load 100%/230VAC, THD<10%@Load 100%/115VAC<br>(Please refer to “ TOTAL HARMONIC DISTORTION(THD)" section)                                                                                                                                    |                |                     |
|                           | EFFICIENCY(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 86%                                                                                                                                                                                                                                                                                                  | 87%            | 88%                 |
|                           | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.75A/115VAC, 0.35A/230VAC, 0.3A/277VAC                                                                                                                                                                                                                                                              |                |                     |
|                           | INRUSH CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | COLD START 15A(twidth=310μs measured at 50% Ipeak) at 230VAC; Per NEMA 410                                                                                                                                                                                                                           |                |                     |
|                           | MAX. NO. of PSUs on 16A CIRCUIT BREAKER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 25 units (circuit breaker of type B) / 36 units (circuit breaker of type C) at 230VAC                                                                                                                                                                                                                |                |                     |
|                           | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <0.75mA / 277VAC                                                                                                                                                                                                                                                                                     |                |                     |
| STANDBY POWER CONSUMPTION | Note5<br>Note8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Standby power consumption<0.5W(Dimming OFF, only for standard version B/DA2-type)                                                                                                                                                                                                                    |                |                     |
| PROTECTION                | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 105~180% rated output power<br>Protection type: Hiccup mode, recovers automatically after fault condition is removed.                                                                                                                                                                                |                |                     |
|                           | SHORT CIRCUIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                 |                |                     |
|                           | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 14-17V                                                                                                                                                                                                                                                                                               | 26-35V         | 52-63V              |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Shut down output voltage , re-power on to recover                                                                                                                                                                                                                                                    |                |                     |
| OVER TEMPERATURE          | Shut down output voltage , recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                      |                |                     |
| ENVIRONMENT               | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Tcase=-25~90℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)                                                                                                                                                                                                                                |                |                     |
|                           | MAX. CASE TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Tcase=90℃                                                                                                                                                                                                                                                                                            |                |                     |
|                           | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20 ~ 90% RH non-condensing                                                                                                                                                                                                                                                                           |                |                     |
|                           | STORAGE TEMP.,HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -40 ~ +80℃, 10 ~ 95% RH                                                                                                                                                                                                                                                                              |                |                     |
|                           | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±0.03%/℃ (0 ~ 50℃)                                                                                                                                                                                                                                                                                   |                |                     |
|                           | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                              |                |                     |
| SAFETY&EMC                | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | UL8750(type "HL" and Class P),CSA C22.2 No. 250.13-12;ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendix J suitable for emergency installations(DC input 176-280VDC); BS EN/EN62384 independent, GB19510.14, GB19510.1, EAC TP TC 004 approved; Design refer to AS/NZS 61347-1, AS/NZS 61347-2-13 |                |                     |
|                           | DALI STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Comply with IEC62386-101, 102, 207                                                                                                                                                                                                                                                                   |                |                     |
|                           | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | I/P-O/P:3.75KVAC                                                                                                                                                                                                                                                                                     |                |                     |
|                           | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | I/P-O/P:>100M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                                                                                                                           |                |                     |
|                           | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BS EN/EN55015, BS EN/EN61000-3-2 Class C; BS EN/EN61000-3-3; GB 17625.1,GB/T 17743, EAC TP TC 020                                                                                                                                                                                                    |                |                     |
|                           | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level(surge immunity Line-Line 1KV), EAC TP TC 020                                                                                                                                                                                     |                |                     |
|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                      |                |                     |
| OTHERS                    | FLICKER Note.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PstLM ≤ 1, SVM ≤ 0.4                                                                                                                                                                                                                                                                                 |                |                     |
|                           | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4053.7K hrs min. Telcordia SR-332 (Bellcore)                                                                                                                                                                                                                                                         | 329.4Khrs min. | MIL-HDBK-217F (25℃) |
|                           | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 141.5*49*32mm(L*W*H)                                                                                                                                                                                                                                                                                 |                |                     |
|                           | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.49Kg ; 30pcs/15.7Kg/0.81CUFT                                                                                                                                                                                                                                                                       |                |                     |
| NOTE                      | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature.<br>2. De-rating may be needed under low input voltages. Please refer to “STATIC CHARACTERISTIC” sections for details.<br>3. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.<br>4. Current ripple is measured 50%~100% of maximum voltage under rated power delivery.<br>5. Standby power consumption is measured at 230VAC.<br>6. 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>(as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> )<br>7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).<br>8. To fulfill requirements of the latest ErP regulation for lighting fixture, this LED driver can only be used behind a switch without permanently connected to the mains.<br>9. Flicker is measured at full load with LED strip.<br>10. RCM is on a voluntary basis. Non IC classification Independent LED control gear is not suitable for residential installations.<br>11.This series meets the typical life expectancy of 50000 hours of operation when Tcase,particularly tc point(or TMP,per DLC), is about 75℃ or less.<br>12. For more information, please contact with MEAN WELL sales.<br>※ Product Liability Disclaimer : For detailed information , please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a> |                                                                                                                                                                                                                                                                                                      |                |                     |

**SPECIFICATION**

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                      |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MODEL</b>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>XLN-60-H-□</b>                                                                                                                                                                                                                                                                                    |
| <b>OUTPUT</b>         | <b>OPEN CIRCUIT VOLTAGE</b> <small>Note14</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 60V                                                                                                                                                                                                                                                                                                  |
|                       | <b>DEFAULT CURRENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1400mA                                                                                                                                                                                                                                                                                               |
|                       | <b>CURRENT ADJ. RANGE (BY NFC)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.9~1.7A                                                                                                                                                                                                                                                                                             |
|                       | <b>CONSTANT CURRENT REGION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 9~54V                                                                                                                                                                                                                                                                                                |
|                       | <b>RATED POWER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 60W                                                                                                                                                                                                                                                                                                  |
|                       | <b>CURRENT RIPPLE</b> <small>Note4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <4%                                                                                                                                                                                                                                                                                                  |
|                       | <b>CURRENT TOLERANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ±5%                                                                                                                                                                                                                                                                                                  |
|                       | <b>DIMMING RANGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0~100%                                                                                                                                                                                                                                                                                               |
| <b>INPUT</b>          | <b>SETUP,RISE TIME</b> <small>Note13</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 800ms,100ms/230VAC ,1000ms,100ms/115VAC                                                                                                                                                                                                                                                              |
|                       | <b>VOLTAGE RANGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 110~305VAC 155~400VDC                                                                                                                                                                                                                                                                                |
|                       | <b>FREQUENCY RANGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 47 ~ 63Hz                                                                                                                                                                                                                                                                                            |
|                       | <b>POWER FACTOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PF ≥ 0.95/115VAC, PF ≥ 0.95/230VAC, PF ≥ 0.9/277VAC@full load<br>(Please refer to "POWER FACTOR (PF) CHARACTERISTIC" section)                                                                                                                                                                        |
|                       | <b>TOTAL HARMONIC DISTORTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | THD< 20%(@load ≥ 50%/230VAC; @load ≥ 75%/277VAC), THD<10%@load 100%/230VAC, THD<10%@Load 100%/115VAC<br>(Please refer to "TOTAL HARMONIC DISTORTION(THD)" section)                                                                                                                                   |
|                       | <b>EFFICIENCY(Typ.)</b> <small>Note12</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 90%                                                                                                                                                                                                                                                                                                  |
|                       | <b>AC CURRENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.75A/115VAC, 0.35A/230VAC, 0.3A/277VAC                                                                                                                                                                                                                                                              |
|                       | <b>INRUSH CURRENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | COLD START 15A(twidth=310μs measured at 50% Ipeak) at 230VAC; Per NEMA 410                                                                                                                                                                                                                           |
|                       | <b>MAX. NO. of PSUs on 16A CIRCUIT BREAKER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 25 units (circuit breaker of type B) / 36 units (circuit breaker of type C) at 230VAC                                                                                                                                                                                                                |
|                       | <b>LEAKAGE CURRENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <0.75mA / 277VAC                                                                                                                                                                                                                                                                                     |
| <b>PROTECTION</b>     | <b>STANDBY POWER CONSUMPTION</b> <small>Note5 Note8</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Standby power consumption<0.5W (Dimming off, only for standard version B/DA2-type)                                                                                                                                                                                                                   |
|                       | <b>SHORT CIRCUIT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                 |
|                       | <b>OVER TEMPERATURE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | DA2 type: Stage 1: Derating to 75% loading; stage2: Derating to 50% loading;<br>Recovers automatically after fault condition is removed<br>Blank & B type: Derating to lowest output level, Recovers automatically after fault condition is removed                                                  |
| <b>ENVIRONMENT</b>    | <b>WORKING TEMP.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Tcase=-25~90℃ (Please refer to " OUTPUT LOAD vs TEMPERATURE" section)                                                                                                                                                                                                                                |
|                       | <b>MAX. CASE TEMP.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Tcase=90℃                                                                                                                                                                                                                                                                                            |
|                       | <b>WORKING HUMIDITY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 20 ~ 90% RH non-condensing                                                                                                                                                                                                                                                                           |
|                       | <b>STORAGE TEMP.,HUMIDITY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | -40 ~ +80℃, 10 ~ 95% RH                                                                                                                                                                                                                                                                              |
|                       | <b>TEMP. COEFFICIENT</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ±0.03%/℃ (0 ~ 50℃)                                                                                                                                                                                                                                                                                   |
|                       | <b>VIBRATION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                              |
| <b>SAFETY&amp;EMC</b> | <b>SAFETY STANDARDS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | UL8750(type"HL" and Class P),CSA C22.2 No. 250.13-12; ENEC BS EN/EN61347-1, BS EN/EN61347-2-13(EL) appendix J suitable for emergency installations(DC input 176-280VDC); BS EN/EN62384 independent, GB19510.14, GB19510.1, EAC TP TC 004 approved; Design refer to AS/NZS 61347-1, AS/NZS 61347-2-13 |
|                       | <b>DALI STANDARDS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Comply with IEC62386-101, 102, 207                                                                                                                                                                                                                                                                   |
|                       | <b>WITHSTAND VOLTAGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I/P-O/P:3.75KVAC                                                                                                                                                                                                                                                                                     |
|                       | <b>ISOLATION RESISTANCE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | I/P-O/P:>100M Ohms / 500VDC / 25℃ / 70% RH                                                                                                                                                                                                                                                           |
|                       | <b>EMC EMISSION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BS EN/EN55015, BS EN/EN61000-3-2 Class C; BS EN/EN61000-3-3; GB 17625.1,GB/T 17743, EAC TP TC 020                                                                                                                                                                                                    |
|                       | <b>EMC IMMUNITY</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN61547, light industry level(surge immunity Line-Line 1KV), EAC TP TC 020                                                                                                                                                                                     |
| <b>OTHERS</b>         | <b>FLICKER</b> <small>Note9</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | PstLM ≤ 1, SVM ≤ 0.4                                                                                                                                                                                                                                                                                 |
|                       | <b>MTBF</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4053.7Khrs min. Telcordia SR-332 (Bellcore) 329.4Khrs min. MIL-HDBK-217F (25℃)                                                                                                                                                                                                                       |
|                       | <b>DIMENSION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 141.5*49*32mm (L*W*H)                                                                                                                                                                                                                                                                                |
|                       | <b>PACKING</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0.49Kg ; 30pcs/15.7Kg/0.81CUFT                                                                                                                                                                                                                                                                       |
| <b>NOTE</b>           | <ol style="list-style-type: none"> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature.</li> <li>De-rating may be needed under low input voltages. Please refer to "STATIC CHARACTERISTIC" sections for details.</li> <li>Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time.</li> <li>Current ripple is measured 50%~100% of maximum voltage under rated power delivery.</li> <li>Standby power consumption is measured at 230VAC.</li> <li>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. (as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a>)</li> <li>The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).</li> <li>To fulfill requirements of the latest ErP regulation for lighting fixture, this LED driver can only be used behind a switch without permanently connected to the mains.</li> <li>Flicker is measured at full load with LED modules.</li> <li>RCM is on a voluntary basis. Non IC classification Independent LED control gear is not suitable for residential installations.</li> <li>This series meets the typical life expectancy of 50000 hours of operation when Tcase,particularly tc point(or TMP,per DLC), is about 75℃ or less.</li> <li>Efficiency is measured at 1050mA/54V output set by DIP switch.</li> <li>Based on IEC 62386-101/102 DALI power on timing and interruption regulations, the set up time needs to test with a DALI controller which can support for DALI power on function, otherwise the start up time will be higher than 0.5 second.</li> <li>Output hiccups under no-load condition.(only for H-type).</li> <li>For more information, please contact with MEAN WELL sales.</li> </ol> <p>※ Product Liability Disclaimer : For detailed information,please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |                                                                                                                                                                                                                                                                                                      |

## BLOCK DIAGRAM

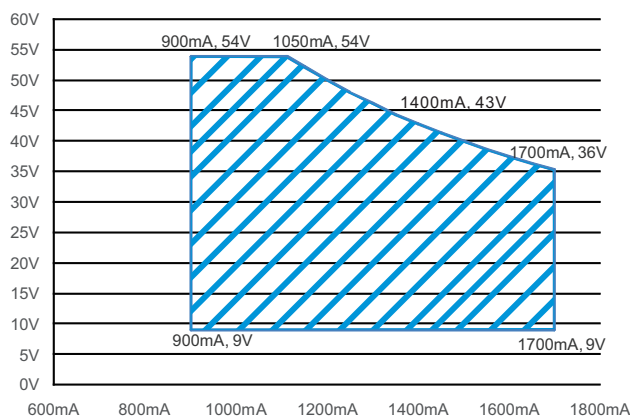


## DRIVING METHODS OF LED MODULE

※ I-V Operating Area

◎ XLN-60-H

For 60W application



## CONSTANT POWER TABLE

XLN-60-H is a multiple-stage constant power driver, selection of output current through NFC setting is exhibited below.

| Vo    | Io              |
|-------|-----------------|
| 9~54V | 900mA           |
| 9~54V | 1050mA          |
| 9~50V | 1200mA          |
| 9~46V | 1300mA          |
| 9~43V | 1400mA(default) |
| 9~40V | 1500mA          |
| 9~38V | 1600mA          |
| 9~36V | 1700mA          |

Note: 1.The operating voltage range which show on this table is recommend to use.

## NFC Function Description

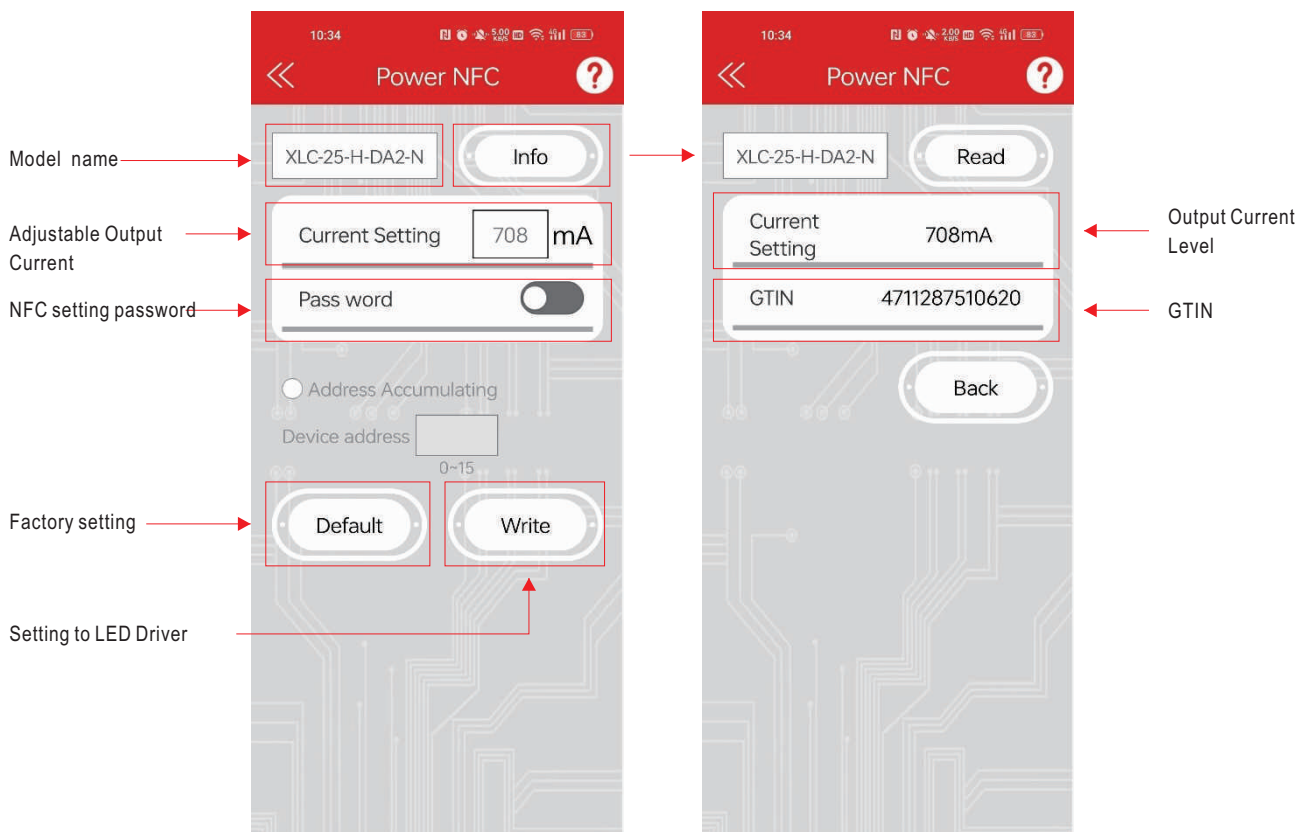
The output current of the NFC Mode LED driver can be adjusted using NFC via the mobile APP

Operation Instruction:

- Compatible phone
  - Install an NFC-compatible smart mobile device or phone with Android™ 4.1 or IOS12 updates.
- Steps for setting output current via NFC
  1. Download Meanwell APP on mobile device or mobile phone, and enable NFC function.
  2. Check the NFC antenna position of the mobile phone please.
  3. Enter Meanwell APP ->Top left menu –Installation Manual/APP->PowerNFC , approach the LED driver NFC sensing position and perform sensing.
  4. APP displays the functional parameters, and the relevant parameters are modified as required.
  5. Tap the APP write button and quickly move the phone antenna close to the NFC sensing position of the LED driver.
  6. The write completes when the mobile phone displays"Success".

## APP Function Description

※ APP Interface:



- To be used through APP available on Apple Store and Google Play Store for iOS and Android, Search 'MEAN WELL' on



Note: Current accuracy: the numerical error between the set current and the actual current is within 2%.

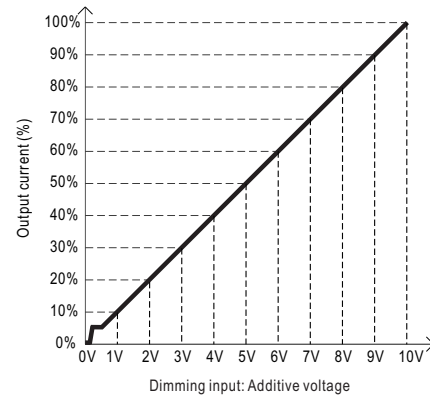
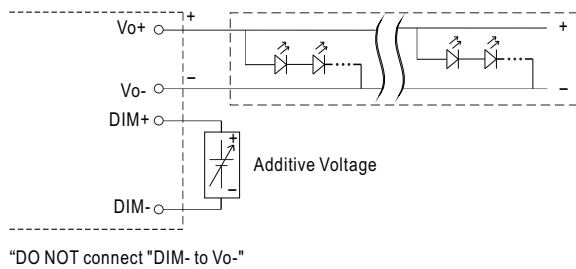
## DIMMING OPERATION

### ◎ B type

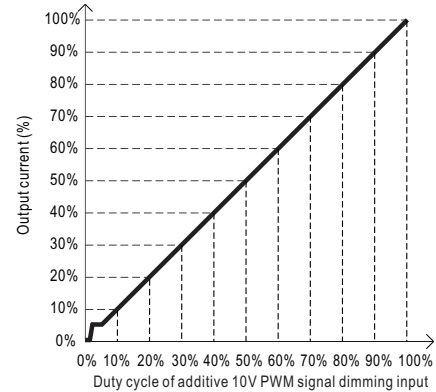
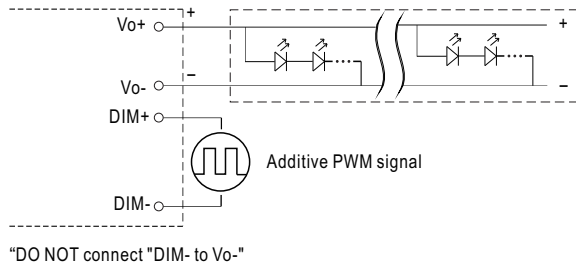
#### ※ 3 in 1 dimming function

- 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.)

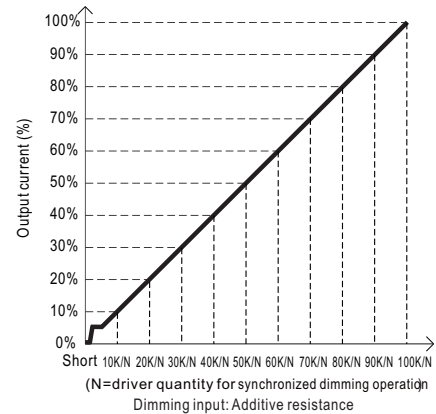
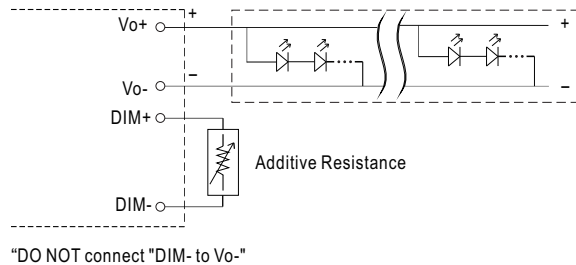
#### ◎ Applying additive 0 ~ 10VDC



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



#### ◎ Applying additive resistance: 0~100k $\Omega$



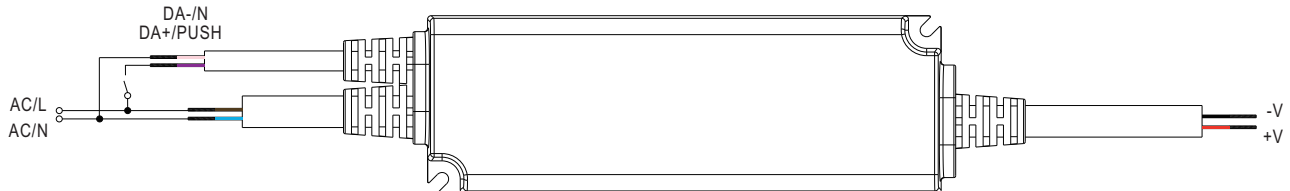
Note : 1. Min. dimming level is about 8% and the output current is not defined when  $0\% < I_{out} < 8\%$ .

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.

## DIMMING OPERATION

### DA2 type (DALI-2 digital dimming function)

#### ※ Input wiring diagram



#### ※ PUSH dimming (primary side)

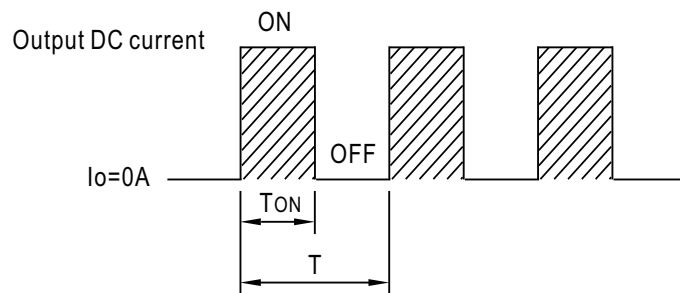
- The factory default dimming level is at 100%.
- If the push action lasts less than 0.05 sec., it will not lead to a change for the status of the driver.
- Up to 10 drivers can perform the PUSH dimming at the same time when utilizing one common push button.
- The maximum length of the cable from the push button to the last driver is 20 meters.

| Action       | Action duration     | Function                                                          |
|--------------|---------------------|-------------------------------------------------------------------|
| Short Push   | 0.1~1s              | Turn ON-OFF the driver                                            |
| Double Click | Click twice in 1.5s | Set up the dimming level to 100%                                  |
| Long Push    | 1.5~10s             | Every Long Push changes the dimming direction, dimming up or down |

## PWM OUTPUT DIMMING PRINCIPLE

### ※ For 12V/24V/48V PWM style output dimming

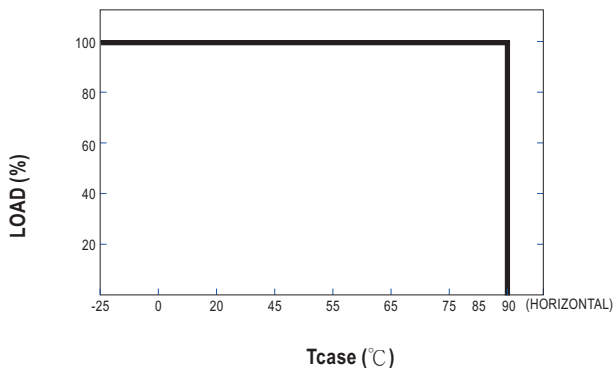
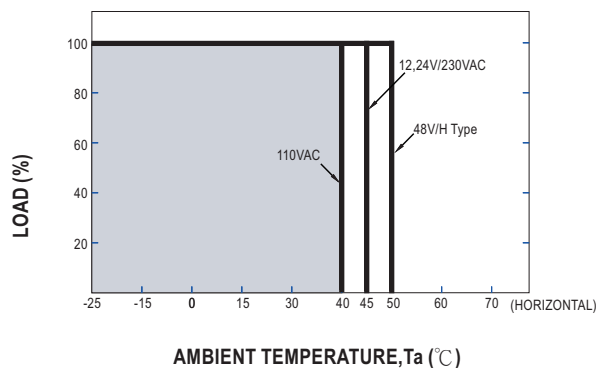
- Dimming is achieved by varying the duty cycle of the output current.



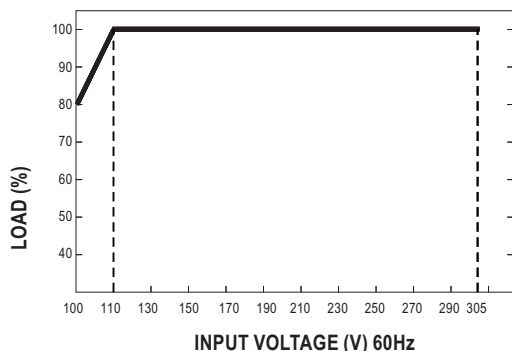
$$\text{Duty cycle(\%)} = \frac{T_{ON}}{T} \times 100\%$$

Output PWM frequency :  
 4kHz for B-Type fixed (Typ.)  
 3.2kHz for DA2-Type fixed (Typ.)

### ■ OUTPUT LOAD vs TEMPERATURE

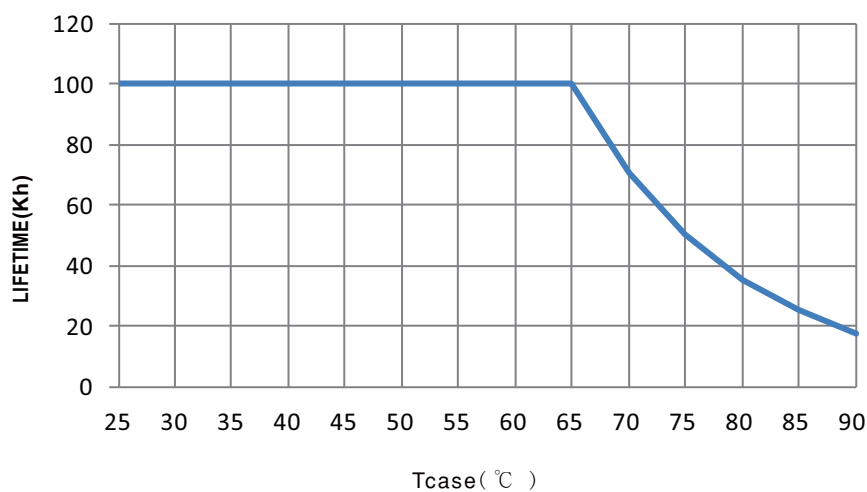


### ■ STATIC CHARACTERISTIC



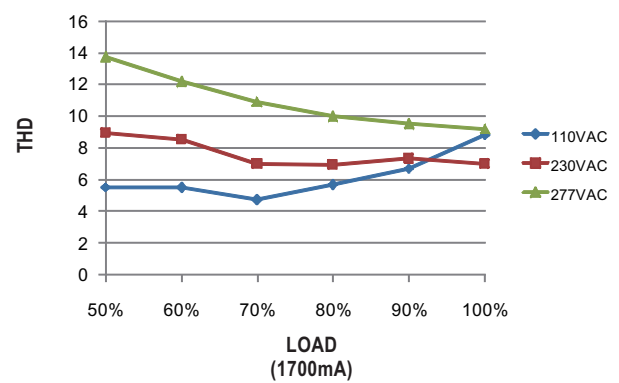
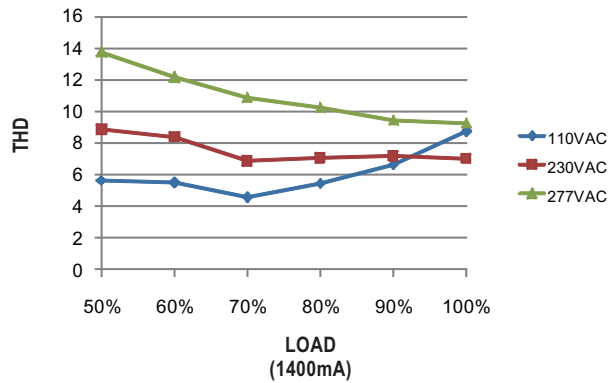
※ De-rating is needed under low input voltage.

### ■ LIFE TIME



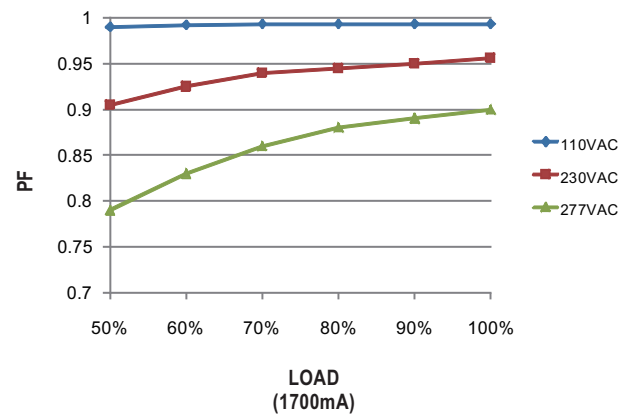
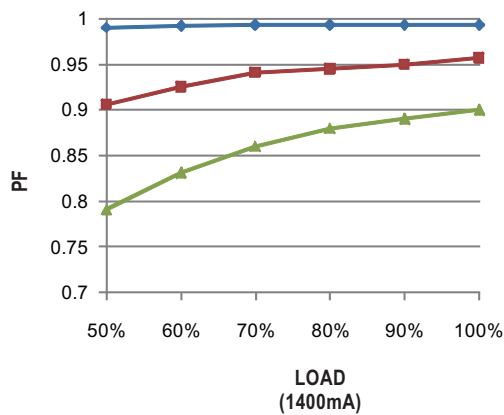
### TOTAL HARMONIC DISTORTION (THD)

※ Tcase at 75℃



### POWER FACTOR (PF) CHARACTERISTIC

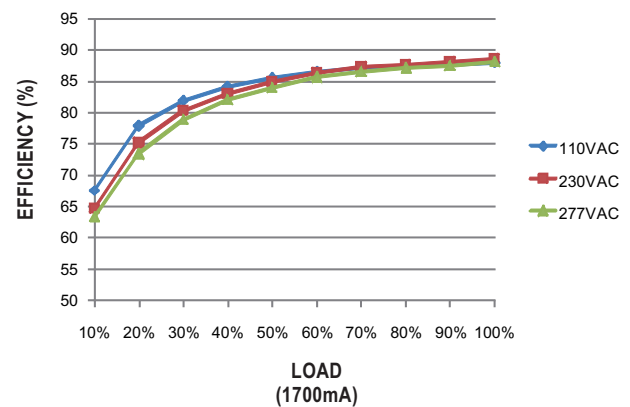
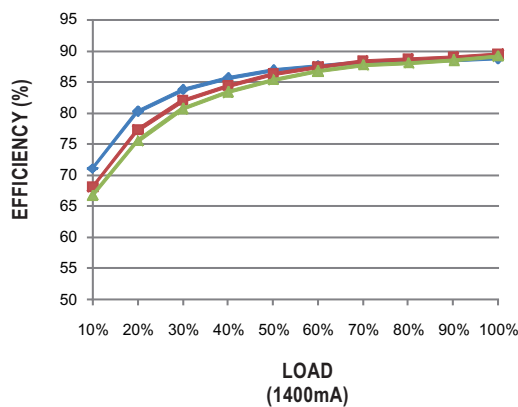
※ Tcase at 75℃



### EFFICIENCY vs LOAD

XLN-60 series possess superior working efficiency that up to 90% can be reached in field applications.

※ Tcase at 75℃

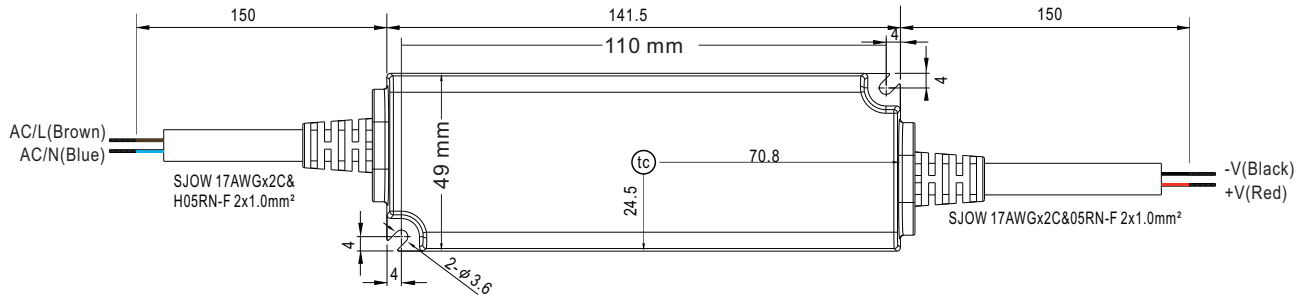


# MECHANICAL SPECIFICATION

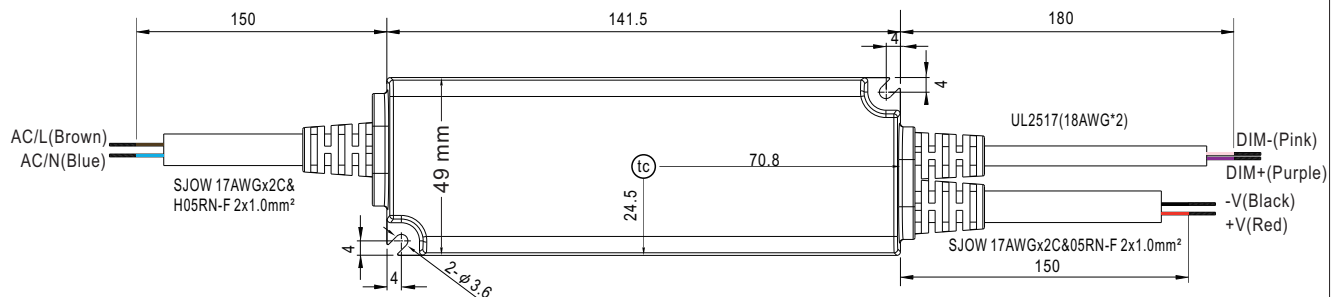
Case No. XLN-60

Unit: mm

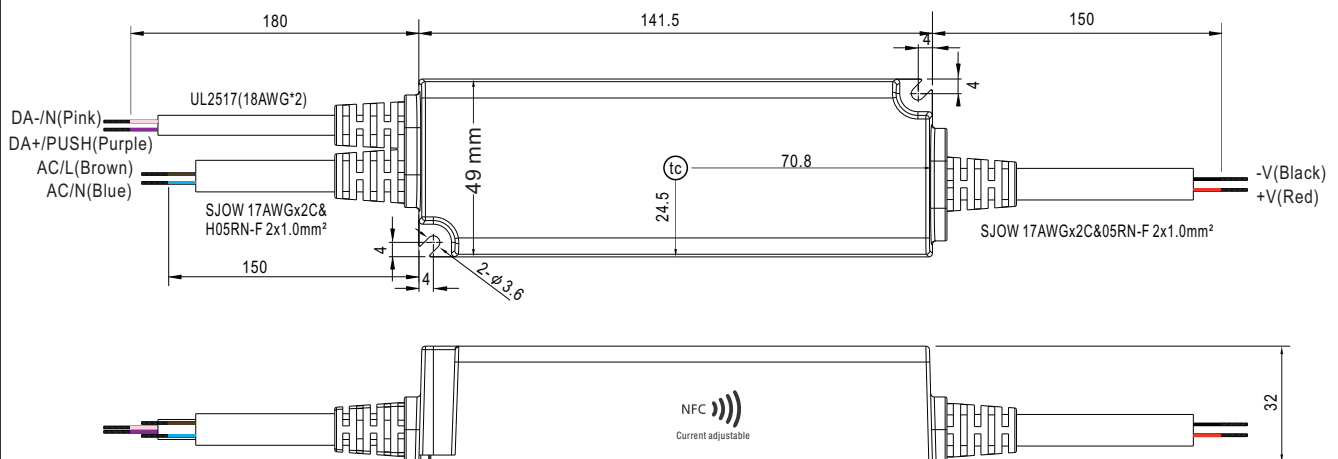
## ※ Blank type



## ※ B type



## ※ DA2 type



# Installation Manual

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