



### PRODUCT FEATURES

- Universal input voltage: 90-305Vac;
- Constant current design; Efficiency up to 95%;
- Isolated dimming: DALI-2 dimming;
- Dim-to-off; No glimmer after Dim-to-off;
- Flicker free: Total Output Current Ripple 5%;
- Surge protection: 4KV line-line, 6KV line-earth;
- Multiple protection: SCP, OVP, OTP;
- IP65 design for indoor and outdoor applications;
- 5 years warranty.

### APPLICATION

- Suitable for industrial lighting.

### DESCRIPTION

G6-DALI series is specially designed for industrial lighting applications. It is constant current LED driver that operates from 90-305Vac with DALI-2 dimming function. This round integrated structure enables it to have a better heat dissipation cooler, significantly improving reliability and extending product life. To ensure trouble free operation, protection is provided against input surge, output over voltage, short circuit, and over temperature.

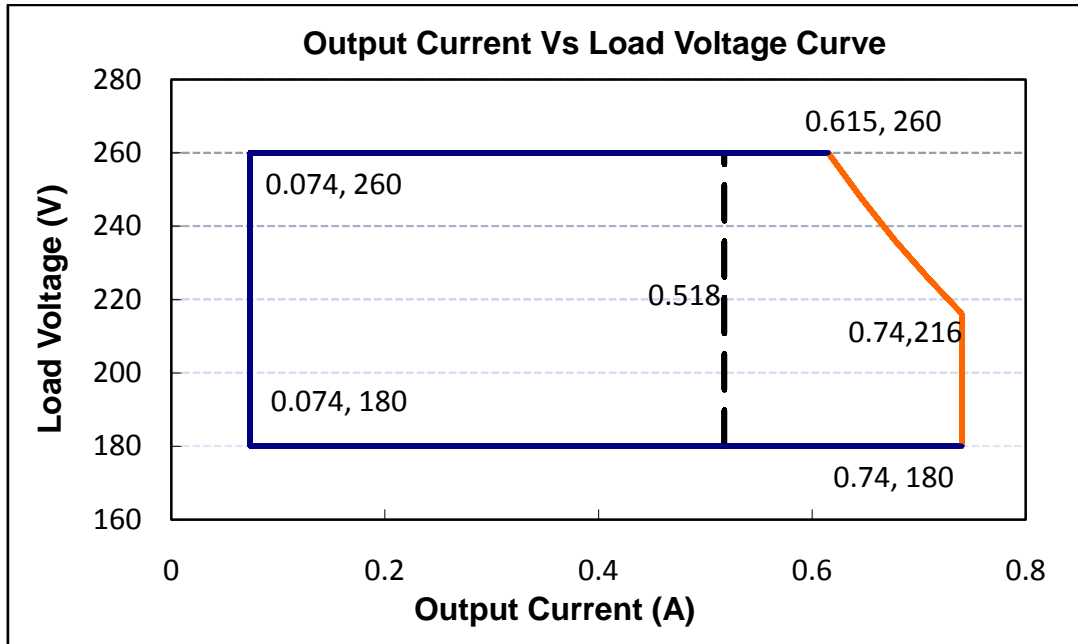
### MODELS

| Model Number<br>[1] | Max Output Power<br>(W) | Output Voltage Range<br>(Vdc) | Output Current Adjustable Range (A) | Full Power Current Adjustable Range (A)<br>[1] | Default Output Specification | Typical Efficiency<br>[2] | Power Factor |        |
|---------------------|-------------------------|-------------------------------|-------------------------------------|--|------------------------------|---------------------------|--------------|--------|
|                     |                         |                               |                                     |  |                              |                           | 120Vac       | 230Vac |
| G6-160D260H         | 160                     | 180-260                       | 0.518-0.74                          | 0.615-0.74                                     | 180-216V/0.740A              | 95%                       | 0.99         | 0.96   |

### Notes:

1. Output current adjustable range with constant power at max output power;
2. All specifications are measured at 25°C ambient temperature, input voltage 230Vac, and the typical value tested by full load, if no specific note.

### OPERATING AREA I-V



Notes: Adjustable range of resistance is suitable for the right area of the dotted line.

The drivers are not allowed to work in over-load condition, otherwise warranty will expire.

### INPUT SPECIFICATIONS

| Parameter                        | Min.  | Typ.       | Max.                | Notes                     |
|----------------------------------|-------|------------|---------------------|---------------------------|
| Input Voltage                    | 90Vac | 100-277Vac | 305Vac              |                           |
| Input Frequency                  | 47Hz  | 50/60      | 63Hz                |                           |
| Leakage Current                  | -     | -          | 0.75mA              | 277Vac/60Hz               |
| Input AC Current                 | -     | -          | 2.6A                | 100-277Vac & full load    |
| Inrush Current(I <sup>2</sup> T) | -     | -          | 1.5A <sup>2</sup> S | 230Vac, full load         |
| Power Factor                     | 0.98  | 0.99       | -                   | 120Vac, full load         |
|                                  | 0.95  | 0.96       | -                   | 230Vac, full load         |
|                                  | 0.91  | 0.92       | -                   | 277Vac, full load         |
| THD                              | -     | 5%         | 10%                 | 120-240Vac, 80%-100% load |
|                                  | -     | 7%         | 15%                 | 277Vac, 80%-100% load     |

**OUTPUT SPECIFICATIONS**

| Parameter                           | Min.  | Typ. | Max.  | Notes   |
|-------------------------------------|-------|------|-------|---|
| Output Current Tolerance            | -8%   | -    | +8%   |   |
| Output Current Range (A)            | 0.518 | -    | 0.740 |   |
| Total Output Current Ripple (pk-pk) | -     | 5%   | 10%   | 20MHz BW, 100% Load & load is LED, ripple is different with difference LED load |
| Startup Overshoot Current           | -     | -    | 10%   | 100-277Vac & 100% Load, load is LED   |
| No Load Output Voltage(V)           | -     | 290V | 320V  |   |
| Standby Power                       |       |      | 0.5W  | Dim-to-off  |
| Line Regulation                     | -1%   | -    | +1%   | 25°C±10°C ambient temperature, input voltage changes from 100Vac to 277Vac      |
| Load Regulation                     | -3%   | -    | +3%   | 25°C±10°C ambient temperature, 230Vac input, load changes from 80% to 100%.     |
| Turn-on Delay Time                  | -     | -    | 1.0S  | 120Vac, 100% load   |
|                                     | -     | -    | 1.0S  | 230Vac, 100% load   |

**GENERAL SPECIFICATIONS**

| Parameter                                    | Min.                         | Typ.      | Max.    | Notes  |
|--|------------------------------|-----------|---------|--|
| Efficiency @ 120Vac                          | 90%                          | 92%       | -       | 25°C±10°C ambient temperature, 100% load,  |
| Efficiency @ 230Vac                          | 92%                          | 95%       | -       | 25°C±10°C ambient temperature, 100% load,  |
| Efficiency @ 277Vac                          | 93%                          | 95%       | -       | 25°C±10°C ambient temperature, 100% load,  |
| Dielectric Strength                          | Input-PE                     | -         | 1650Vac | 5mA/60S  |
|  | Output- PE                   | -         | -       |  |
| Grounding Resistance                         | -                            | -         | 0.1Ω    | 25A/60S  |
| Insulation Resistance                        | 10MΩ                         | -         | -       | Input-PE, Output-PE, 500Vdc/60S/25°C/70%RH   |
| MTBF   | -                            | 200000Hrs | -       | 25°C±10°C ambient temperature, 230Vac, 80% load (MIL-HDBK-217F)                      |
| Lifetime                                     | -                            | 50000Hrs  | -       | 230Vac & 100% load, 75°C case temperature, refer to lifetime VS Tc curve for details |
| Operating Case Temperature for Safety Tc_s   | -40°C                        | -         | +90°C   |  |
| Operating Case Temperature for Warranty Tc_w | -40°C                        | -         | +75°C   | 5 years warranty<br>Humidity: 10% to 95% RH  |
| Storage Temperature                          | -40°C                        | -         | +85°C   | Humidity: 5% to 100% RH  |
| Dimensions (D×H)mm                           | Φ130×64.6                    |           |         |  |
| Net Weight                                   | 950±150g/PCS                 |           |         |  |
| Package                                      | L490*W370*H175mm; 12PCS/Ctn. |           |         |  |

**DIMMING**

| Parameter            | Min.    | Typ. | Max.     | Parameter                   |
|----------------------|---------|------|----------|-----------------------------|
| High Voltage Level   | 9.5V    | 16V  | 22.5V    |                             |
| Lower Voltage Level  | -6.5V   | 0V   | 6.5V     |                             |
| Dimming Output Range | 10%Imax | -    | 100%Imax | Imax=0.74A; Dim to off <10% |
| Sink Current         | -       | -    | 2.0mA    |                             |

**SAFETY STANDARDS**

| Safety Category | Country / Territory | Standards                 | Whether have Certification |
|-----------------|---------------------|---------------------------|----------------------------|
| CCC             | China               | GB19510.1, GB19510.14     | √                          |
| CE              | Europe              | EN61347-1, EN61347-2-13   | √                          |
|                 |                     | EN62493                   | √                          |
|                 |                     | EN62384                   | √                          |
| ENEC            |                     |                           |                            |
| CB              | CB Countries        | IEC61347-1, IEC61347-2-13 | √                          |
| BIS             | India               | IS 15885(PART 2/SEC 13)   |                            |
| UL              | USA                 | UL 8750                   |                            |
| CUL             | Canada              | CSA C22.2 No.250.13       |                            |
| KC              | South Korea         | K61347-1, K61347-2-13     |                            |
| PSE             | Japan               | J61347-1, J61347-2-13     |                            |
| SAA             | Australia           | AS/NZS IEC 61347.2.13     | √                          |
|                 |                     | AS/NZS 61347.1            | √                          |

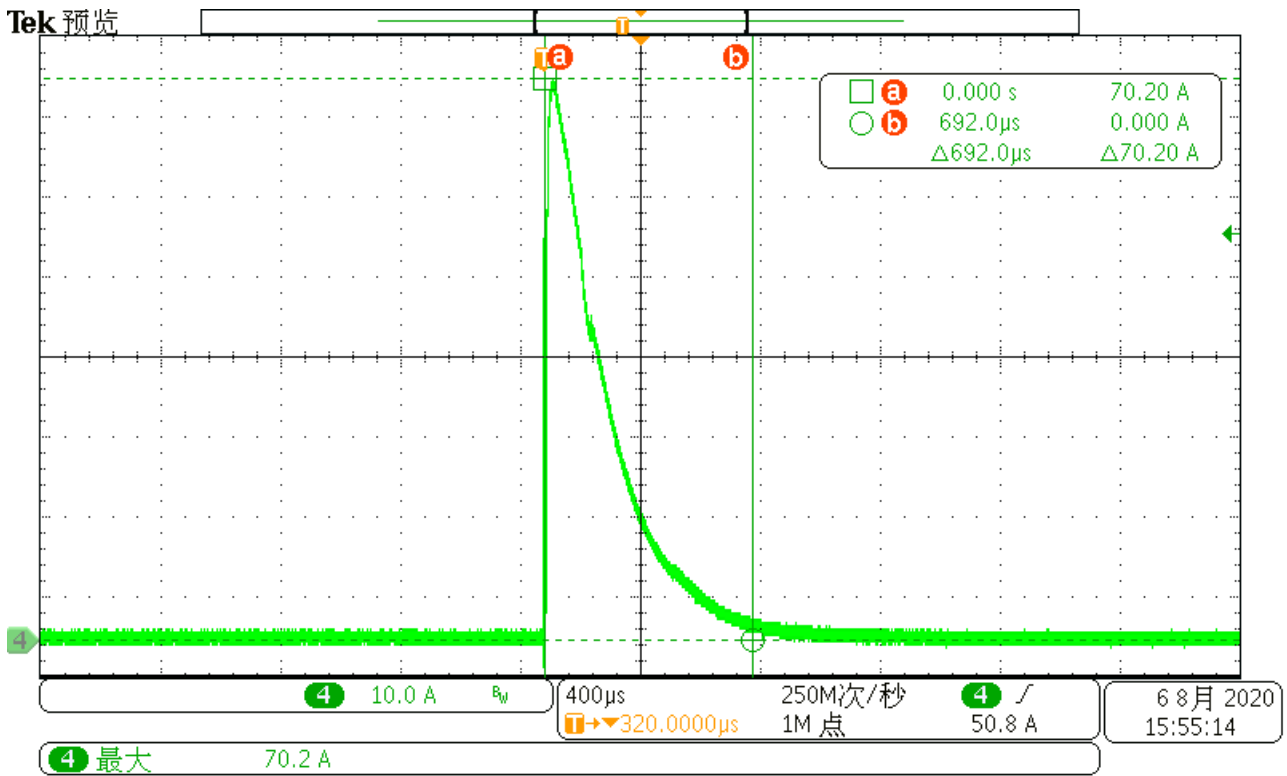
**EMC COMPLIANCE**

| EMC Category | Country / Territory | Standards                  | Whether have Certification |
|--------------|---------------------|----------------------------|----------------------------|
| CCC          | China               | GB/T 17743, GB 17625.1     | √                          |
| CE           | Europe              | EN 55015                   | √                          |
|              |                     | EN 61000-3-2, EN 61000-3-3 | √                          |
|              |                     | EN61000-4-2,3,4,5,6,11     | √                          |
|              |                     | EN 61547                   | √                          |
| KC           | South Korea         | K61547, K00015             |                            |
| PSE          | Japan               | J55015                     |                            |
| FCC          | USA                 | FCC part 15                |                            |

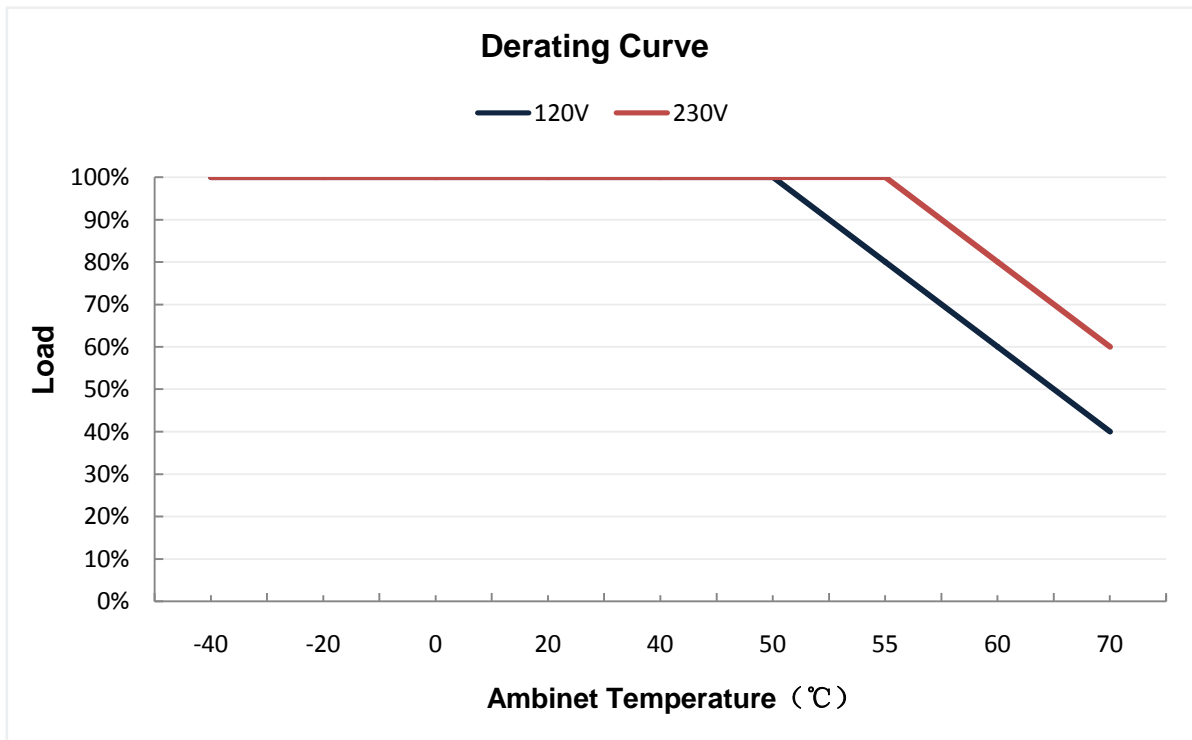
**NOTE:**

This LED driver meets the EMI specifications above, but EMI performance of a luminaire that contains it depends also on the other devices connected to the driver and on the fixture itself.

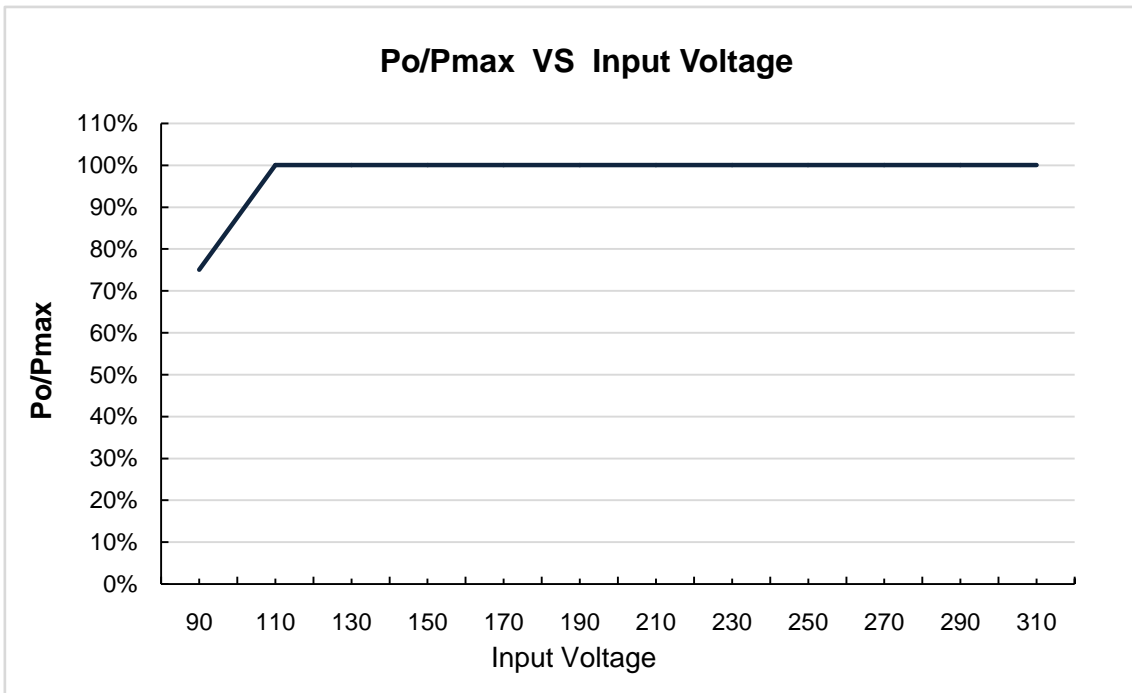
### INRUSH CURRENT WAVEFORM



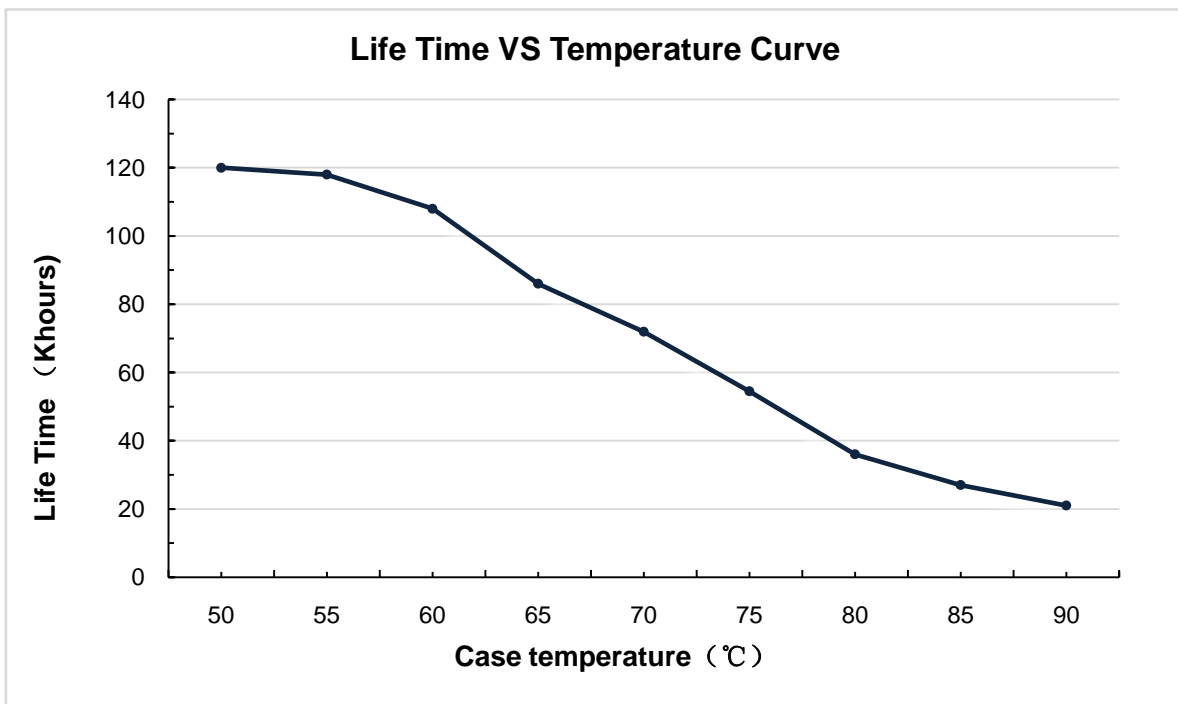
### DERATING CURVE



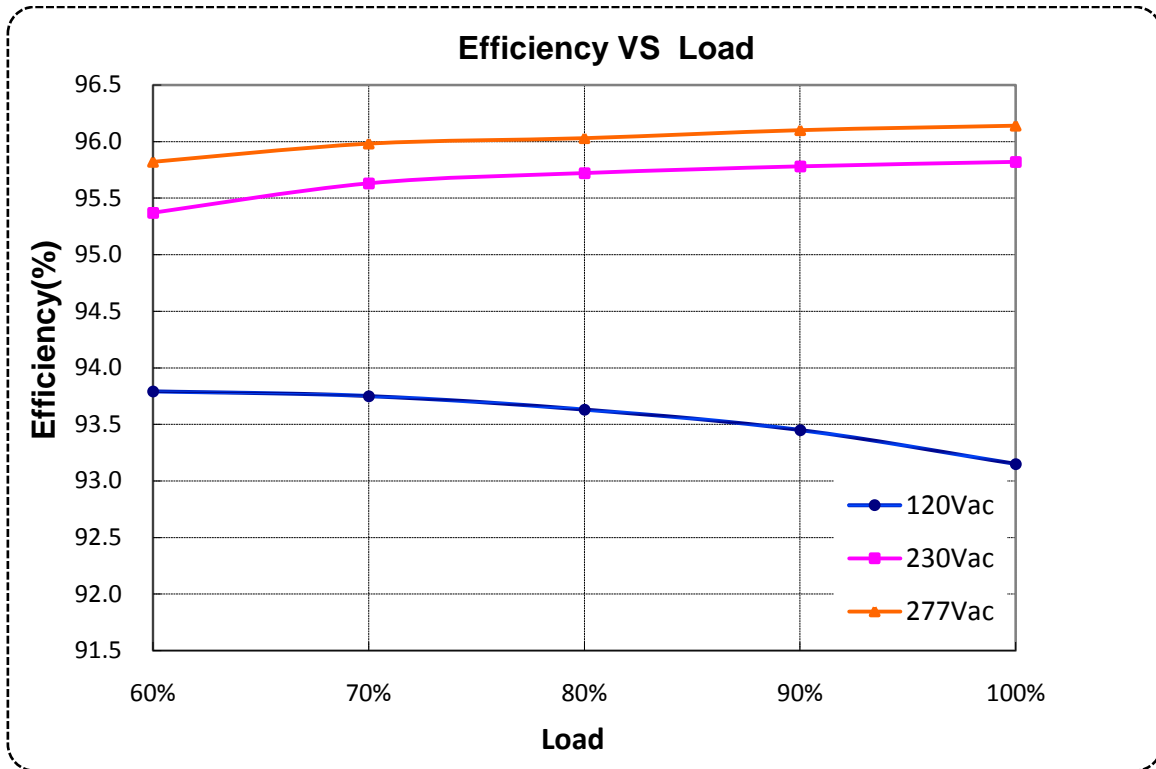
### OUTPUT POWER VS INPUT VOLTAGE



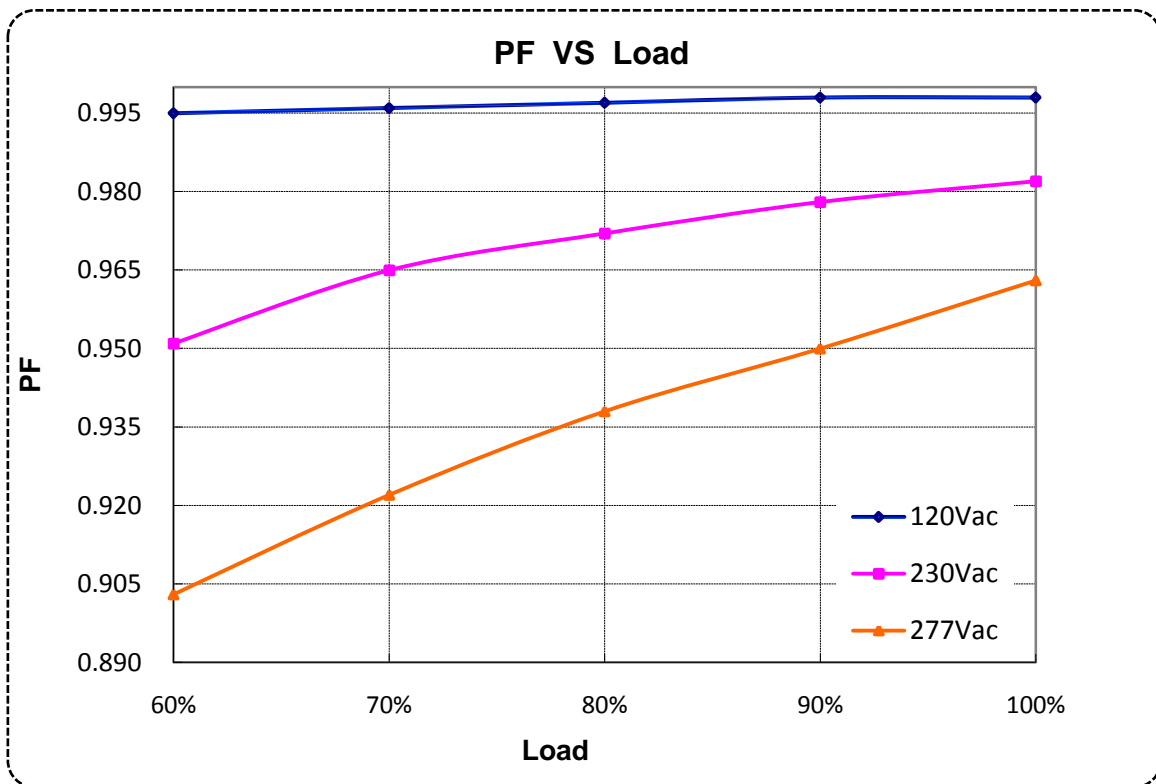
### LIFETIME VS CASE TEMPERATURE



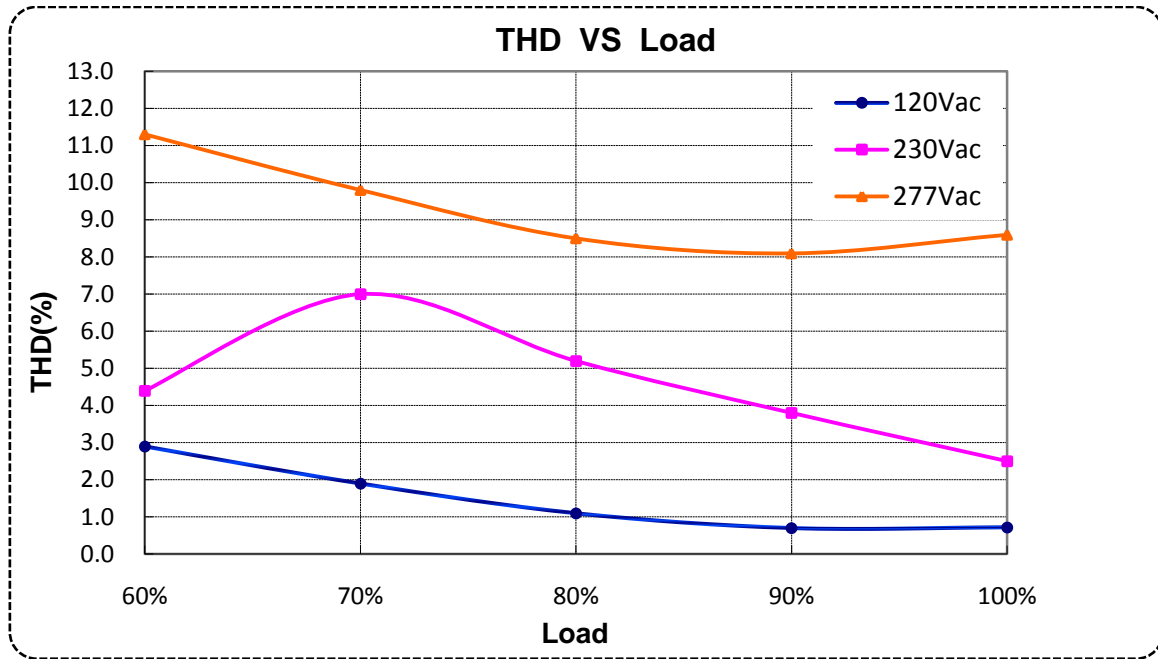
### EFFICIENCY VS LOAD



### POWER FACTOR VS LOAD



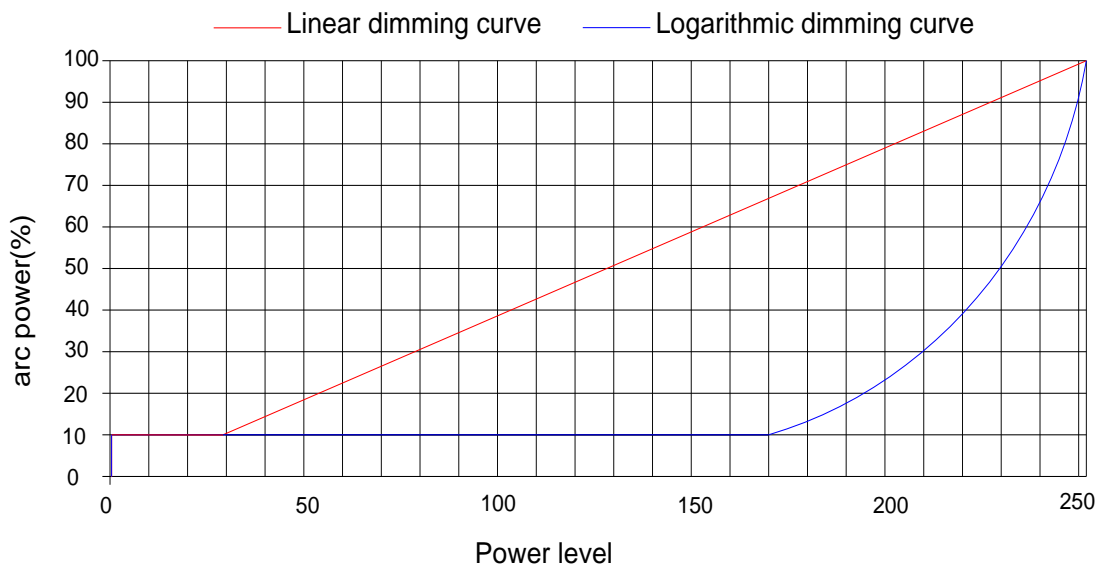
### TOTAL HARMONIC DISTORTION



### PROTECTIONS

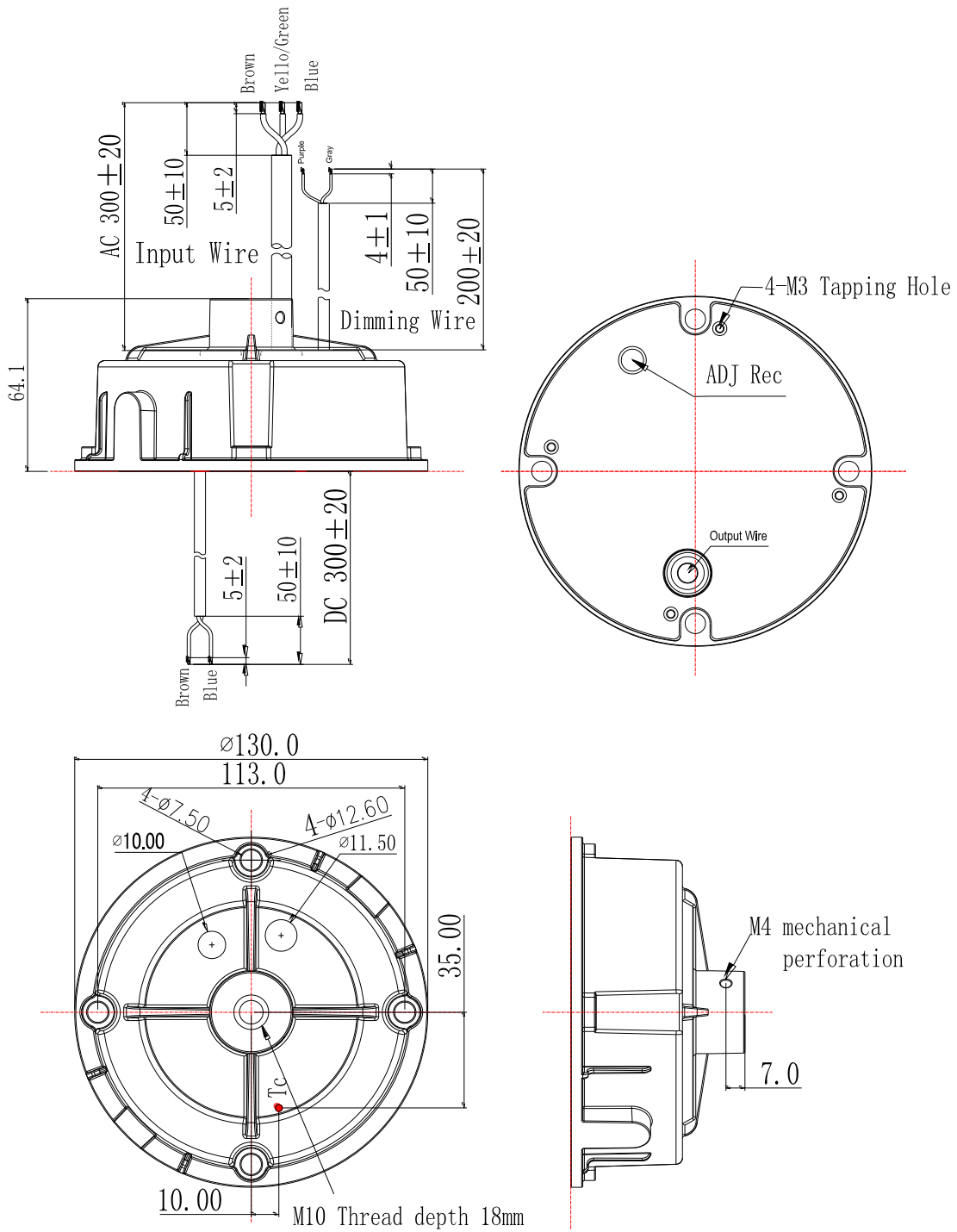
| Parameter                   | Notes  |
|-----------------------------|--|
| Over Temperature Protection | Decreases output current, returning to normal after over temperature is removed, exclude auxiliary power supply.   |
| Short Circuit Protection    | Hiccup mode and auto recovery. No damage will occur when any output is short circuited. The output shall return to normal when the fault condition is removed. |
| Over Voltage Protection     | Run into protection model when output voltage exceeds limit, and return to normal when the fault.  |

### DALI-2 DIMMING CURVE



**Note: Factory Default Output Logarithmic Curve**

### MECHANICAL OUTLINE



**Note: Case color: RAL 9017 matte black.**

| Wire    | Specification                           | Note   |
|---------|---|--------|
| Input   | CCC+VDE 3x1.0mm <sup>2</sup> L=300±20mm | CCC/CE |
| Output  | CCC+VDE 2x1.0mm <sup>2</sup> L=300±20mm | CCC/CE |
| Dimming | 22AWG*2C L=200±20mm                     |        |



# Product Specification

Product Name: 160W Non-isolated DALI-2 LED Driver

Product Model: G6-160D260H

Rev. A.3

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| Prepared By | Checked By | Approved By |
|-------------|------------|-------------|
|             |            |             |

# Specification for Approval

Product Name: 160W Non-isolated DALI-2 LED Driver

Product Model: G6-160D260H

Rev. A.3

| CUSTOMER AUTHORIZED SIGNATURE   |            |             |
|---|------------|-------------|
| Tested By   | Checked By | Approved By |
|   |            |             |
| (Company seal)Return one copy to MOSO with approved signature and company seal. |            |             |

| Prepared By | Checked By | Approved By |
|-------------|------------|-------------|
|             |            |             |