

1. Product Description



Isolated LED Driver for Class I LED Luminaire

Category: AC100-277V, dimmable, flicker-free

Property: 0-10V/PWM/Rx dim, active PFC, high PF, low THD

Application: indoor office lighting, decorative lighting, commercial lighting & residential lighting. It's specially designed for tri-proof light.

Warranty: 5 years (Please refer to the warranty condition.)

Certificate: UL, FCC



2. Technical Data

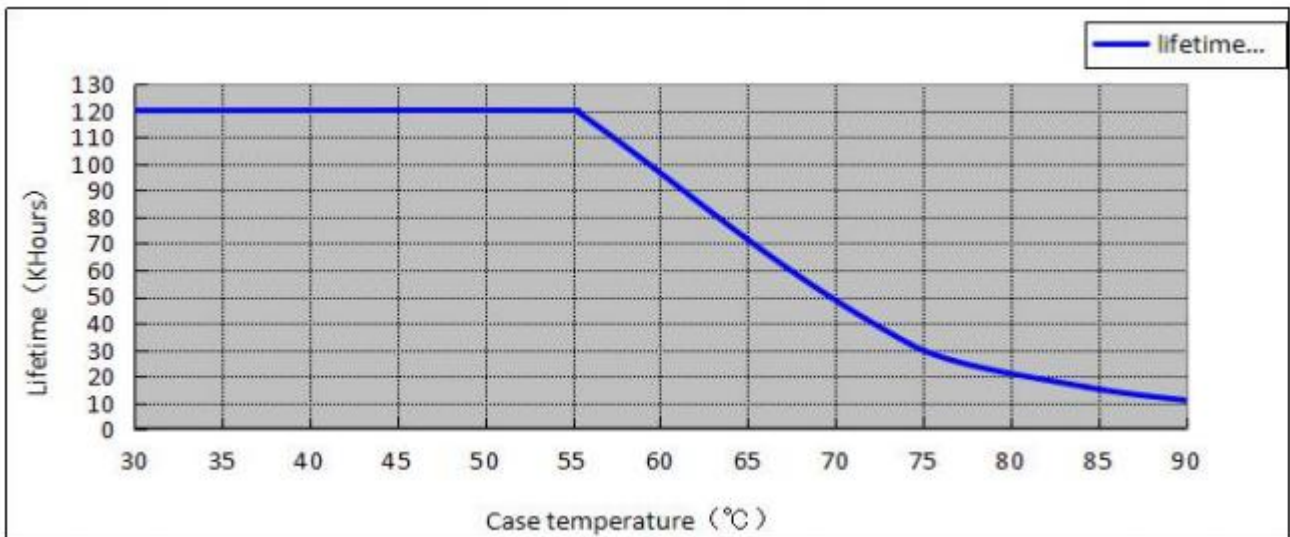
| | Full Model Number | LF-GLD045YS | LF-GLD045YS | LF-GLD045YS | LF-GLD045YS | LF-GLD045YS | LF-GLD045YS | LF-GLD045YS |
|------------------------------|------------------------------------|--|--------------|--------------|--------------|--------------|--------------|--------------|
| | | 0800U | 0850U | 0900U | 0950U | 1000U | 1050U | 1100U |
| Output | Output Voltage | 25-42Vdc | | | | | | |
| | Output Current | 800mA | 850mA | 900mA | 950mA | 1000mA | 1050mA | 1100mA |
| | Ripple Voltage | < 1V | | | | | | |
| | Current Tolerance | ±5% | | | | | | |
| | Start-up Time | 100Vac<1S, 230Vac <0.5S, 277Vac <0.5S | | | | | | |
| | Temperature Drift | ±10% | | | | | | |
| | Line Regulation | ±5% | | | | | | |
| Input | Line Regulation | ±5% | | | | | | |
| | Rated Input Voltage | 100-277Vac (Voltage Limit: 90-305Vac) | | | | | | |
| | Frequency | 47Hz-63Hz | | | | | | |
| | Input Current | 0.65A Max | | | | | | |
| | Power Factor | ≥0.98/120Vac | ≥0.98/120Vac | ≥0.98/120Vac | ≥0.98/120Vac | ≥0.98/120Vac | ≥0.98/120Vac | ≥0.98/120Vac |
| | | ≥0.95/230Vac | ≥0.95/230Vac | ≥0.95/230Vac | ≥0.95/230Vac | ≥0.95/230Va | ≥0.95/230Va | ≥0.95/230Vac |
| | | ≥0.9/277Vac | ≥0.9/277Vac | ≥0.9/277Vac | ≥0.9/277Vac | ≥0.9/277Vac | ≥0.9/277Vac | ≥0.9/277Vac |
| | THD | ≤20% | | | | | | |
| | Efficiency | ≥85%/120Vac | ≥85%/120Vac | ≥85%/120Vac | ≥85%/120Vac | ≥85%/120Vac | ≥85%/120Vac | ≥85%/120Vac |
| | | ≥86%/230Vac | ≥86%/230Vac | ≥86%/230Vac | ≥86%/230Vac | ≥86%/230Vac | ≥86%/230Vac | ≥86%/230Vac |
| ≥85%/277Vac | | ≥85%/277Vac | ≥85%/277Vac | ≥85%/277Vac | ≥85%/277Vac | ≥85%/277Vac | ≥85%/277Vac | |
| In-Rush Current | I<80A/350uS@230Vac | | | | | | | |
| Stand-by Power | ≤1.0W @120Vac, @230Vac or @ 277Vac | | | | | | | |
| Protective Feature | Open Circuit Protection | Open circuit voltage ≤ 55Vdc | | | | | | |
| | Short Circuit Protection | Hiccup mode (auto-recovery) | | | | | | |
| Environment Condition | Working Temperature | -30℃ ~ +50℃ | | | | | | |
| | Working Humidity | 20-90%RH (no condensation) | | | | | | |
| | Storage Temperature/Humidity | -40℃ ~ +80℃ (6 months under the class I environment); 10-90%RH (no condensation) | | | | | | |
| | Atmospheric Pressure | 86-106KPa | | | | | | |
| Safety & Norm | Certificate | UL, FCC | | | | | | |
| | Hi-Pot Test | I/P-O/P: 3.75KVac, <5mA, 60S; I/P-FG:1.6KVac, <5mA 60S; O/P-FG: 0.5KVac, <5mA 60S | | | | | | |
| | Insulation Resistance | I/P-O/P, I/P-FG, O/P-FG: 500VDC, >100MΩ | | | | | | |
| | Surge Rating | Comply with IEC61000-4-5 (L-N:1KV, L/N-PG:2KV) | | | | | | |
| | EMI | FCC Part 15 Class B | | | | | | |
| | EMS | Comply with EN61000-4-2,3,4,5,6,8,11; EN61547 | | | | | | |
| Others | Packing (Weight) | Carton size: 39 x 29 x 21 cm (L*W*H); Net weight: 181g±5%/pc; 8.41KG±5%/ctn; 48pcs/ctn | | | | | | |
| | IP Rating | \ | | | | | | |
| | Warranty | 5 years (Max. case temperature must not exceed 70℃) | | | | | | |

| | | | |
|--------------|-------------|---------------|--|
| Model | LF-GLD045YS | Series | Dimmable & Flicker-free Series for Tri-proof Light |
|--------------|-------------|---------------|--|

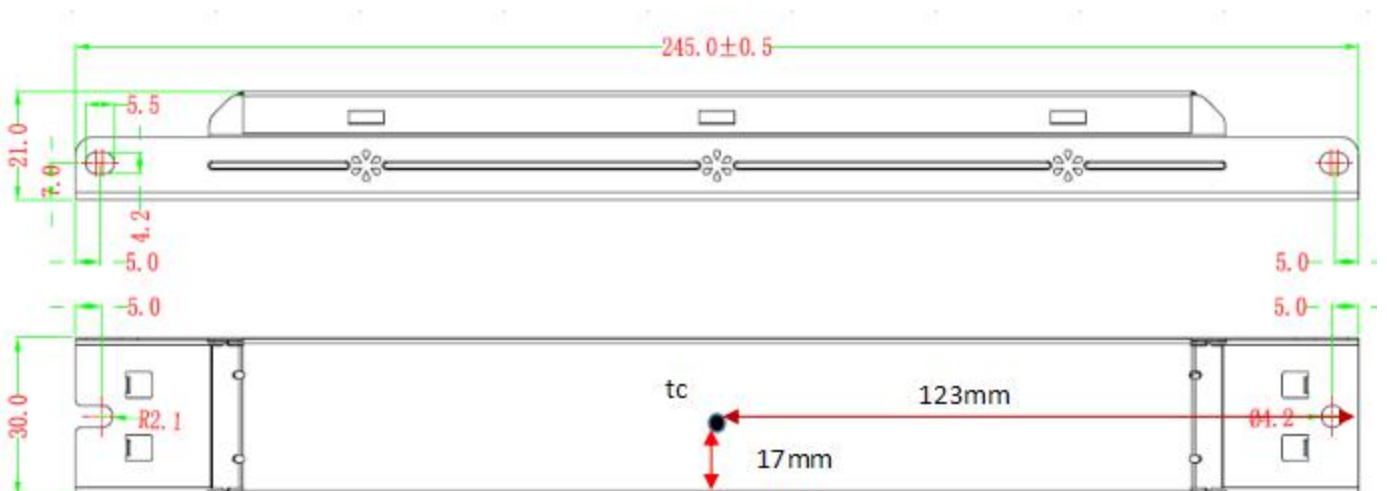
| | |
|--------------------------|---|
| Testing Equipment | AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectroanalyzer: KH3935, hi-pot tester: TH9201B, stroboscope (flicker index tester) 60N-01, etc. |
| Testing Condition | If there's no special statement, the parameters above, including the power factor, THD and efficiency, are the test results under the ambient temperature 25°C and humidity 50%, input 120Vac, 230Vac, 277Vac and 90% load. |
| Additional Remark | <ol style="list-style-type: none"> 1. It is recommended that customer should install an over & under voltage protection and surge protection device to ensure safety before connecting to electricity. 2. The PC cover, housing, end caps and other parts of the LED driver inside the LED luminaire must conform to UL94 V-0 flammability standard or above. 3. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED luminaire. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED luminaire manufacturer should re-confirm the EMC of the whole LED luminaire. |

3. Product Lifetime Curve

The curve below illustrates the driver's lifetime data when the LED driver's Max. case temperature reaches 40°C, 50°C, 60°C, 70°C and 80°C.

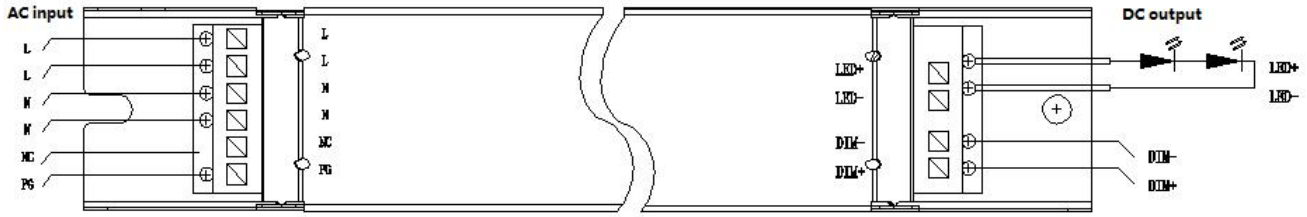


4. Dimensional Drawing with Tc Point (Unit: mm; Tolerance: +0.5mm): 245*30*21mm



| | | | |
|--------------|-------------|---------------|--|
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|--------------|-------------|---------------|--|

5. Wiring Diagram:



6. Dimming

Three dimming modes in one driver. The test data below are for your reference only.

1) 0-10V dim: dimming range 0%~100%. (Tested with LIFUD 0-10V dimmer.)

| Dimming Voltage | 0-0.3V | 0.5V | 1V | 2V | 3V | 4V | 5V | 6V | 7V | 8V | 9V | 10V | OPEN |
|-----------------------------|--------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| Percentage of Rated Current | OFF | ON | 12% | 23% | 34% | 46% | 57% | 68% | 79% | 91% | 99% | 99% | 95%-105% |

2) PWM dim: dimming range 0%~100%. Voltage amplitude: 10V. The frequency of PWM signal is 300Hz~3KHz. (Tested with PWM signal generator: RIGOL.)

| PWM Signal | 0-6% | 7% | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100% | OPEN |
|-----------------------------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----------|
| Percentage of Rated Current | OFF | ON | 13% | 26% | 37% | 48% | 58% | 69% | 80% | 92% | 99% | 99% | 95%-105% |

3) Resistance dim: dimming range 0%~100%. Resistance range: 10kΩ~100kΩ. (Tested with LEVITON dimmer.)

| Rx Range | 0-5K | 6K | 10K | 20K | 30K | 40K | 50K | 60K | 70K | 80K | 90K | 100K | OPEN |
|-----------------------------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|----------|
| Percentage of Rated Current | OFF | ON | 13% | 24% | 35% | 46% | 58% | 69% | 80% | 91% | 99% | 99% | 95%-105% |

Remark: The “Iout percentage” above are typical values.