LTSYS

LF-80-600-2100-G1A2

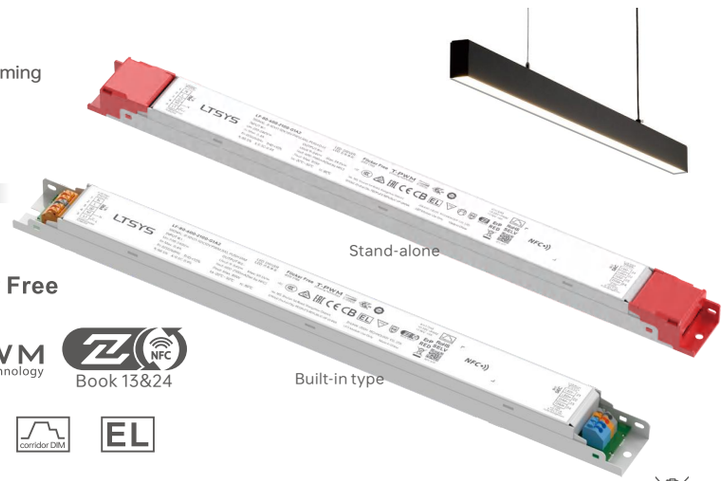
0-10V
PUSH DIM

# Office Linear Smart Dimming Power Supply (Constant Current Type)

- Slim metal housing;
- Overall design complies with Zhaga standards: built-in models meet Zhaga Book 13 and Book 24 specifications, while standalone models meet Zhaga Book 24 requirements;
- Supports 0-10V, PUSH DIM, and corridor lighting dimming;
- Supports NFC rapid programming, enabling smartphone app control via NFC to adjust output current, dimming modes, and other parameters for driver data interaction;
- NFC current setting with step increments as low as 1mA for enhanced compatibility and precision;
- Ultra-low 0-10V port consumption <0.05mA;
- T-PWM ultra-deep dimming technology achieving 0.01% dimming depth;
- 0-100% full-range dimming with zero visible flicker, meeting high-frequency exemption standards;
- Features soft-start gradual brightening for enhanced visual comfort;
- EU ERP compliance: no-load power consumption and network standby power <0.5W;
- 0V output at no load to prevent LED fixture damage from poor contact;
- Over-temperature, over-voltage, overload, and short-circuit protection with automatic recovery;
- Suitable for indoor Class I, II, and III luminaires, such as linear lights, triple-proof lights, floor lamps, bracket lights, and other linear or ultra-thin fixtures;
- Lifespan up to 100,000 hours under normal use;
- 5-year warranty.

5 in 1 Dimming
0-10V
1-10V
10V PWM
RX
PUSH DIM

DIM




**Flicker Free**
IEEE 1789

**T-PWM**
Dimming Technology

Book 13&24

Dimmable:
1:10000

corridor DIM

EL

SELV
RoHS

ErP

The certification icon represents undergoing certification applications only, and final certification qualification subject to actual product.

Multi current setting

Overheat Protection

Over voltage protection

Over Load protection

Short circuit protection

## Technical Specs

| Model | | LF-80-600-2100-G1A2 (Stand-alone) | | | LF-80-600-2100-G1A2 (Built-in type) |
|---|---|---|---|---|---|
| FEATURES | Output Type | Constant current | | | |
| | Dimming Interface | 0-10V(1-10V,10V PWM,RX), PUSH DIM | | | |
| | Output Feature | Isolation | | | |
| | Zhaga Standard | Book 24 | | | Book 13,24 |
| | Installation Method | Can be independently installed in ceilings or light channels, etc. | | | Installed inside the luminaire |
| | Other Features | Corridor Lighting Applications | | | |
| | IP Rating | IP20 | | | |
| | Insulation Class | Class II (Suitable for class I/II/III light fixtures) | | | |
| OUTPUT | Output Voltage | 9-54V⎓ | | | |
| | Max. Output Voltage(No-load) | ≤59.5V⎓ | | | |
| | Rated Current Range | 600-2100mA (Set higher current levels via the mobile app's NFC feature, with step increments as low as 1mA; Default: 600mA) | | | |
| | Load Power Range | 5.4-80W | | | |
| | Dimming Range | 0~100%，Dimming depth: 0.01% | | | |
| | LF Current Ripple | < 5%(Maximum current for non dimming state) | | | |
| | Current Accuracy | ±5% | | | |
| | PWM Frequency | ≤3600Hz | | | |
| INPUT | AC Voltage Range | 220-240V～ | | | |
| | DC Voltage Range | 220-240V⎓ | | | |
| | Rated Voltage | 230V～ | | | |
| | Frequency | 0/50/60Hz | | | |
| | Input Current | ≤0.4A/230V～ | | | |
| | Power Factor | PF > 0.9/230V～ (Fully loaded) | | | |
| | THD | 230V～@THD<10% (Fully loaded) | | | |
| | Efficiency(Typ.) | 88.5% | | | |
| | Inrush Current | Cold start20A(Test twidth=215us tested under 50% Ipeak)/230V～ | | | |
| | Anti Surge | L-N: 2KV L-FG/N-FG: 4KV | | | |
| | Leakage Current | Max.0.5mA | | | |
| ENVIRONMENT | Operating Temperature | ta:-20°C~50°C tc:80°C | | | |
| | Working Humidity | 20~95%RH，non-condensing | | | |
| | Storage Temperature/Humidity | -40~80°C/10~95%RH | | | |
| | Temperature Coefficient | ±0.03%/°C(-20°C~50°C) | | | |
| | Vibration | 10~500Hz, 2G 12min/1cycle, 72 min for X, Y and Z axes respectively | | | |
| PROTECTION | Overload Protection | Automatically protect the device when the load exceeds 102% of the rated power. Automatically recover once load is reduced | | | |
| | Overheat Protection | Intelligently adjust or turn off the current output if the PCB temperature ≥110°C. When the PCB temperature <90°C, automatically recover normal output | | | |
| | Overvoltage Protection | Automatically protect the device when voltage exceeds the no-load voltage. It can be recovered automatically | | | |
| | Short Circuit Protection | Enter hiccup mode if short circuit occurs, and recover automatically | | | |
| SAFETY & EMC | Withstand Voltage | I/P-O/P: 3750V～/1min/ < 5mA，I/P-FG: 1750V～ /1min/ < 5mA，O/P-FG:500V～ /1min/ < 5mA，Signal-FG:500V～/1min/ < 5mA ① | | | |
| | Insulation Resistance | I/P-O/P: 100MΩ/500V～ /1min/25°C/70%RH | | | |
| | Safety Certifications | CCC | China | GB19510.1，GB19510.14，GB19510.213 | |
| | | TUV | Germany | EN61347-1，EN61347-2-13，EN62493 | |
| | | CB | CB Member States | IEC61347-1，IEC61347-2-13 | |
| | | CE | European Union | EN61347-1，EN61347-2-13，EN62384 | |
| | | EAC | Russia | IEC61347-1，IEC61347-2-13 | |
| | | RCM | Australia | AS 61347-1，AS 61347-2-13 | |
| | | ENEC | Europe | EN61347-1，EN61347-2-13，EN62384 | |
| | EMC Emission | CCC | China | GB/T17743，GB17625.1 | |
| | | CE | European Union | ENIEC55015，ENIEC61000-3-2，EN61000-3-3 | |
| | | EAC | Russia | IEC62493，IEC61547，EH55015 | |
| | | RCM | Australia | EN55015，EN61000-3-2，EN61000-3-3，EN61547 | |
| | EMC Immunity | EN61000-4-2,3,4,5,6,8,11,EN61547 | | | |
| ErP | Power Consumption | Networked standby | | < 0.5W(After shutdown by command) | |
| | | No-load power consumption | | < 0.5W (When the lamp is not connected) | |
| | Flicker/Stroboscopic Effect | IEEE1789 | | Meet IEEE 1789 standard/High frequency exemption level | |
| | | CIE SVM | | PstLM≤1.0，SVM≤0.4 | |
| OTHERS | Weight(N.W.) | 310g±5g | | | 295g±5g |
| | Dimensions | 385x30.5x21.3mm(LxWxH) | | | 360x30.5x21.3mm(LxWxH) |

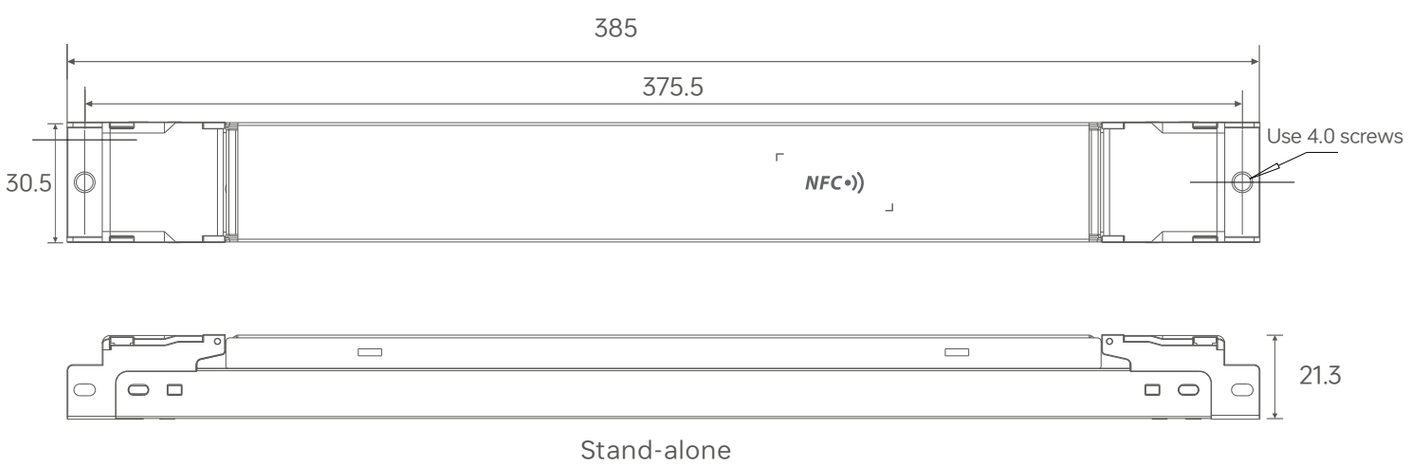
①Note: When performing a withstand voltage test to ground (FG), the gas discharge tube at the drive input must be temporarily removed to prevent functional operation of the internal gas discharge tube (see IEC 60598-1-10.2). After testing is complete, it must be reinstalled to restore surge protection functionality for the power line to ground and ensure reliable contact.

## Typical Current Corresponding Parameter Table

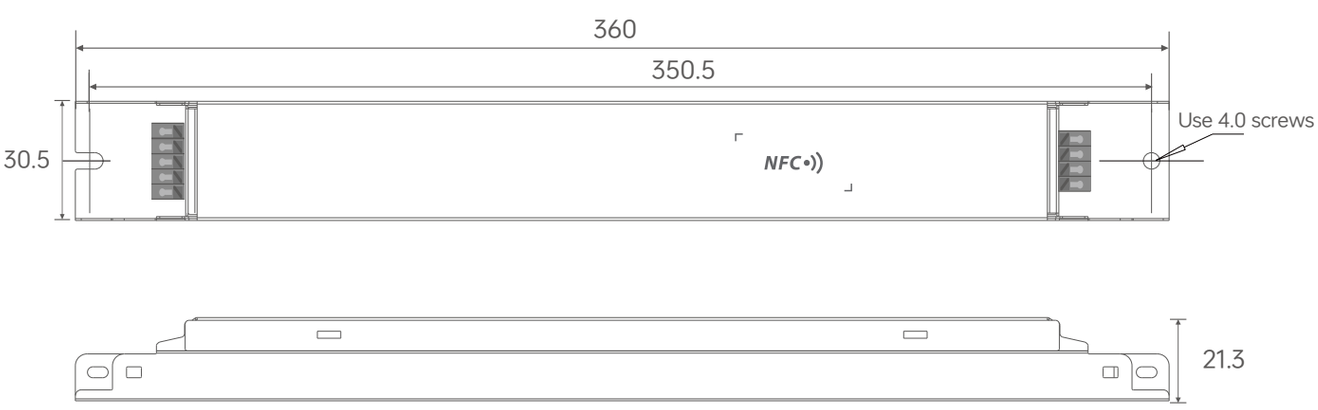
| The following 31 groups of typical current data are provided for model selection reference. More currents can be set via the mobile phone APP NFC. The settable range is 600-2100mA, and the current step value can be as low as 1mA. | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LF-80-600-2100-G2A2 | Output Current | 600mA | 650mA | 700mA | 750mA | 800mA | 850mA | 900mA | 950mA |
| | Output Voltage | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc |
| | Output Power | 5.4-32.4W | 5.85-35.1W | 3.6-21.6W | 6.75-40.5W | 7.2-43.2W | 7.65-45.9W | 8.1-48.6W | 8.55-51.3W |
| | Output Current | 1000mA | 1050mA | 1100mA | 1150mA | 1200mA | 1250mA | 1300mA | 1350mA |
| | Output Voltage | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc | 9-54Vdc |
| | Output Power | 9-54W | 9.45-56.7W | 9.9-59.4W | 10.35-62.1W | 10.8-64.8W | 11.25-67.5W | 11.7-70.2W | 12.15-72.9W |
| | Output Current | 1400mA | 1450mA | 1500mA | 1550mA | 1600mA | 1650mA | 1700mA | 1750mA |
| | Output Voltage | 9-54Vdc | 9-54Vdc | 9-53.3Vdc | 9-51.6Vdc | 9-50Vdc | 9-48.5Vdc | 9-47.1Vdc | 9-45.7Vdc |
| | Output Power | 12.6-75.6W | 13.05-78.3W | 13.5-80W | 13.95-80W | 14.4-80W | 14.85-80W | 15.3-80W | 15.75-80W |
| | Output Current | 1800mA | 1850mA | 1900mA | 1950mA | 2000mA | 2050mA | 2100mA | |
| | Output Voltage | 9-44.4Vdc | 9-43.2Vdc | 9-42.1Vdc | 9-41Vdc | 9-40Vdc | 9-39Vdc | 9-38.1Vdc | |
| | Output Power | 16.2-80W | 16.65-80W | 17.1-80W | 17.55-80W | 18-80W | 18.45-80W | 18.9-80W | |

## Product Size

Unit: mm



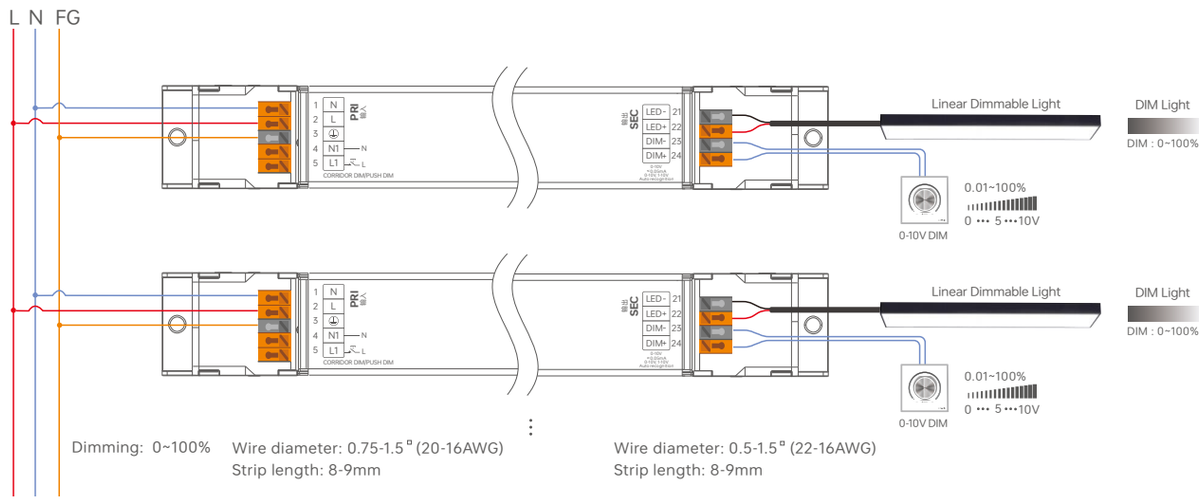

Stand-alone




Built-in type

# Connectivity Diagram

## 0-10V Connection Method

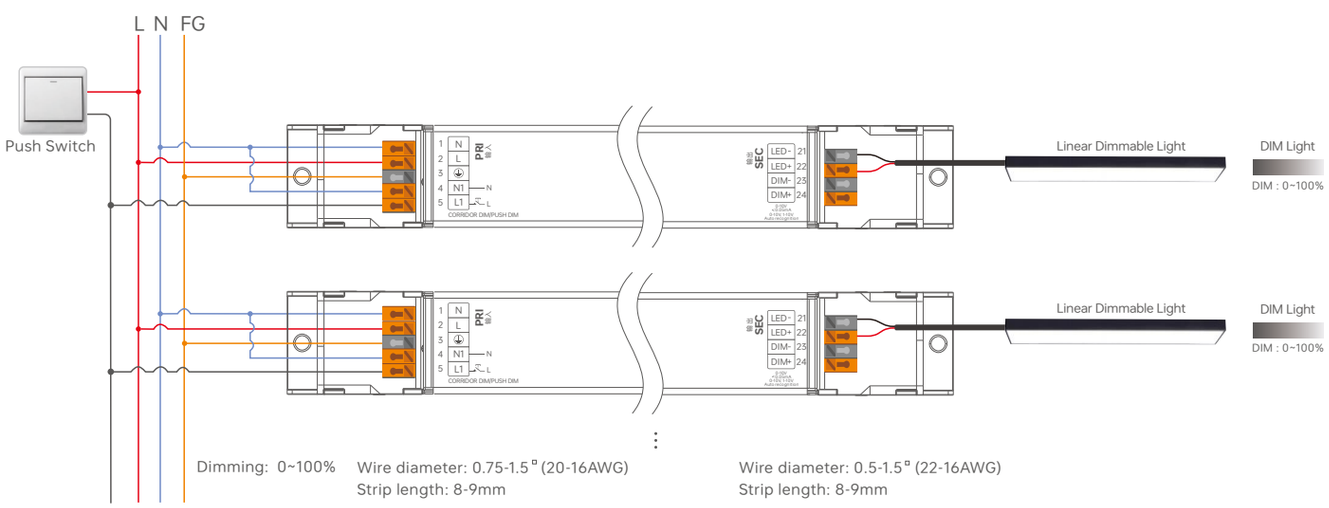



Dimming: 0~100%

Wire diameter: 0.75-1.5㎟ (20-16AWG)
Strip length: 8-9mm

Wire diameter: 0.5-1.5㎟ (22-16AWG)
Strip length: 8-9mm

## PUSH DIM Connection




Dimming: 0~100%

Wire diameter: 0.75-1.5㎟ (20-16AWG)
Strip length: 8-9mm

Wire diameter: 0.5-1.5㎟ (22-16AWG)
Strip length: 8-9mm

Push Switch

### Operation Instructions

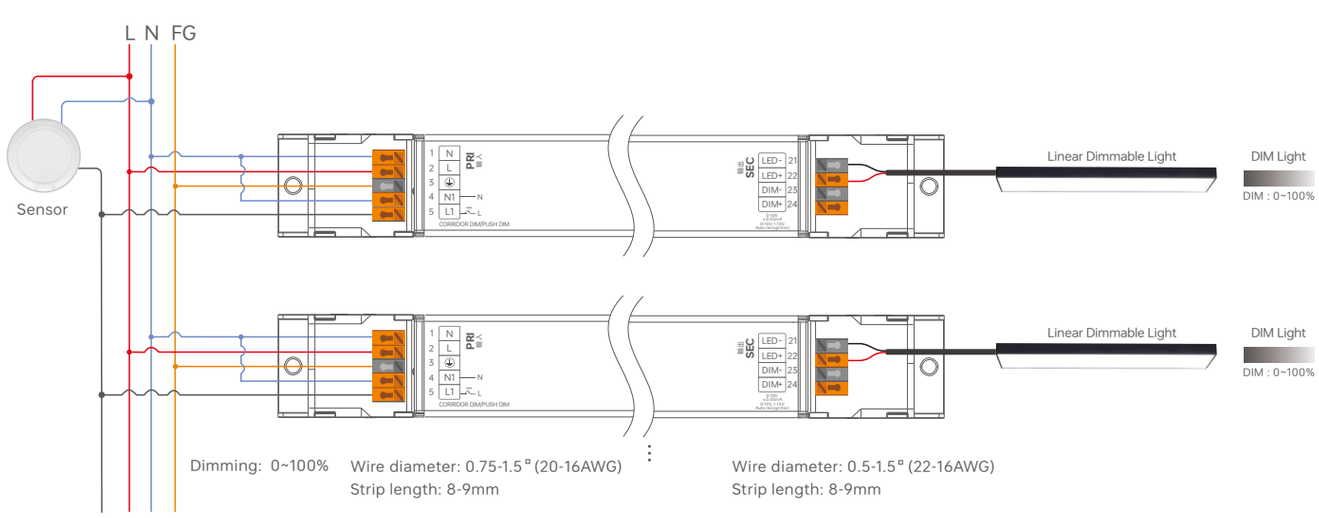
- Short press : on/off control.
- Long press: Brightness adjustment +/-, each subsequent long press will adjust the brightness in the opposite direction.
- Dimming Memory: When switched on or off again, the light will return to the previously adjusted brightness level.

### Switch to PUSH DIM dimming mode

Method 1: If already switched to Corridor Dimming mode, connect the wiring according to the PUSH DIM wiring diagram. Reset the switch by pressing it 5 times within 3 seconds, then hold it down for 6 seconds, followed by pressing it 5 times within 3 seconds. The driver will automatically switch to PUSH DIM dimming mode.

Method 2: If already switched to Corridor Mode, you can switch to PUSH DIM dimming mode via the NFC Lighting app.

## Corridor Light Mode Connection




Dimming: 0~100%

Wire diameter: 0.75-1.5㎟ (20-16AWG)
Strip length: 8-9mm

Wire diameter: 0.5-1.5㎟ (22-16AWG)
Strip length: 8-9mm

**Switch to the corridor light mode**

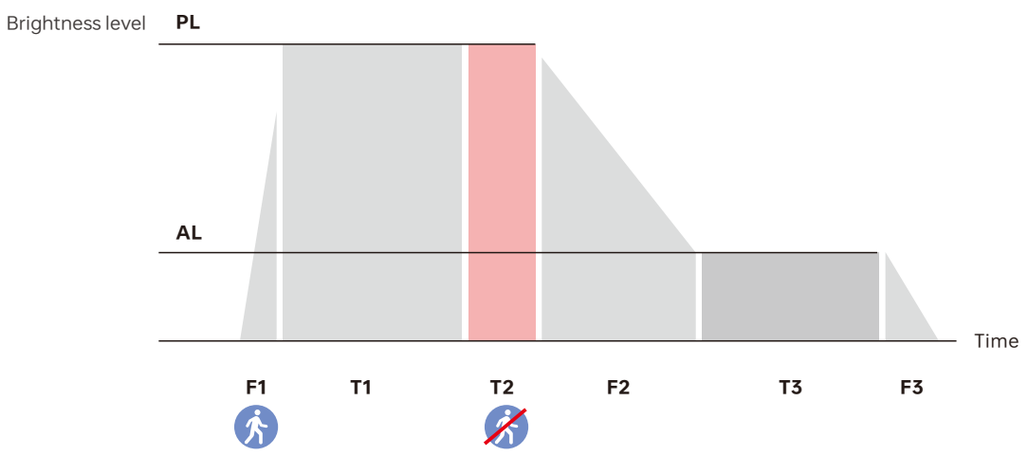
**Method 1:** Switch the driver to the corridor light mode via the NFC Lighting app, and the Push DIM mode will be turned off.

**Method 2:** After connecting the wires according to the corridor dimming wiring diagram, keep moving within the effective sensing area for more than 2 minutes, and it will automatically switch to the corridor dimming mode with all lights on at full brightness.

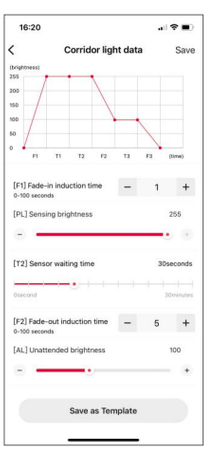
**Method 3:** After connecting the wires according to the corridor dimming wiring diagram, first replace the sensor with a common switch, then turn on the common switch and keep it conducting for 2 minutes. The driver will automatically switch to the corridor dimming mode. After that, remove the common switch and replace it with the sensor again.

**Note:**: During normal operation, it is recommended to set the hold-time of the motion sensor to the minimum.
It is necessary to select a motion sensor with an AC switch.

## Process of Corridor Dimming

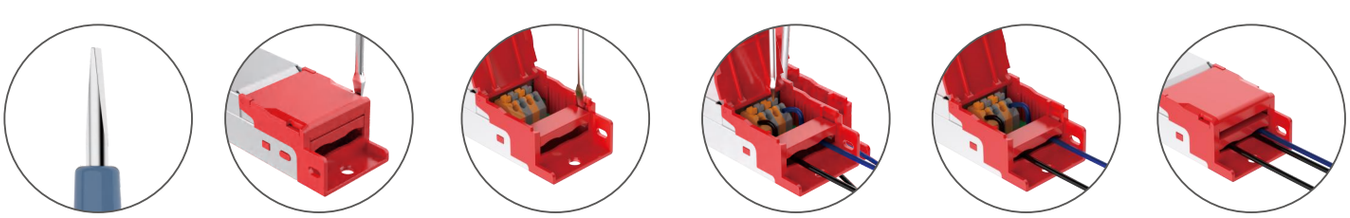



| Name | Default | Setting Range |
|---|---|---|
| (F1) Fade-in Detection Time | 1 s | 0-100 s |
| (PL) Detection Brightness | 255 | 0-255 |
| (T1) Induction Hold Time | Set via the sensor | |
| (T2) Delay Time | 30 s | 0 s,5 s,10 s,20 s,30 s,45 s,1 min, 2 min, 3 min,5 min,10 min,20 min,30 min |
| (F2) Gradual Exit Sensing Time | 1 s | 0-100 s |
| (AL) Hold Brightness Level | 100 | 0-255 |
| (T3) Detection Hold Time | 30 s | 0 s,5 s,10 s,20 s,30 s,45 s,1 min,2 mins,3 mins,5 mins, 10 mins,20 mins,30 mins,Permanent |
| (F3) Fade-out Time to Off | 1 s | 0-100 s |



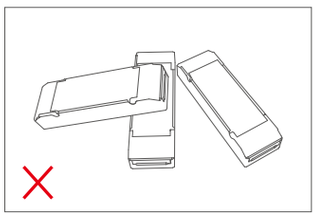

**Note:** *If the lamp needs to be on standby at a low brightness level, the [T3] Sensing Standby Time should be set to "Permanent".
*The above parameters are set through the NFC lighting APP.

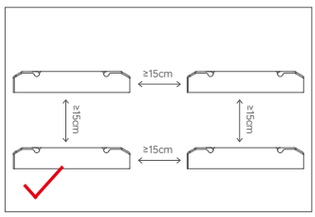
## Protective Housing Application Diagram



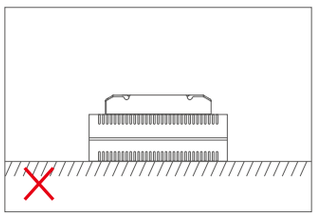
1. Prepare a screwdriver with a 0.6mm bit.
2. Use a screwdriver to pry up the protective cover on the side panel.
3. Use a screwdriver to pry up the side of the terminal block.
4. Connect the wiring according to the wiring diagram.
5. Press down on the wire board to secure the wire.
6. Close the protective cover.

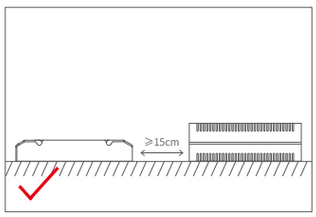
# Installation Precautions





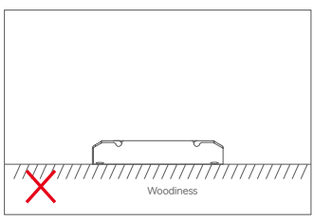

Please do not stack the products. The distance between two products should be ≥15cm so as not to affect heat dissipation or the lifetime of the products.

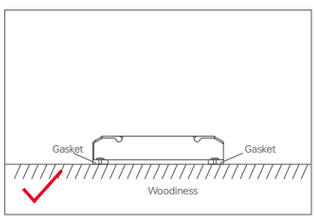





Please not place the products on power supplies. The distance between the product and the power supplies should be ≥15cm so as not to aśect heat dissipation or shorten the lifetime of the products.

Note: Installation must comply with the product's operating temperature range. Do not install inside lighting fixtures to avoid exceeding the product's operating temperature range, which may affect its lifespan.




Do not fix the product screws tightly against the wooden board. Instead, add a washer with a thickness of ≥ 7mm under the fixing screws. Leaving some gaps can effectively dissipate heat, preventing any impact on the product's heat dissipation performance and service life.

# Use the NFC Lighting APP

Scan the QR code below with your mobile phone and follow the prompts to complete the APP installation (According to performance requirements, you need to use a NFC-capable Android phone, or an iphone 8 and later that are compatible with iOS 13 or higher).

✱ Before you begin setting the parameters of the driver, please make sure the driver is powered off.

## Read/Write the LED driver

Use your NFC-capable phone to read LED driver data, then edit the parameters and they can be directly written to the driver.

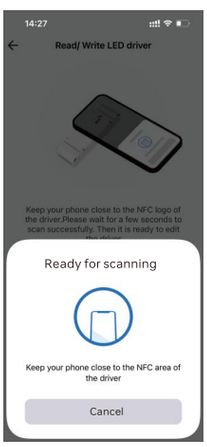
**1.Read the LED driver**
On the APP home page, click【Read/Write LED driver】, then keep the programmer's sensing area close to the NFC sensing area of the driver to read the driver parameters.

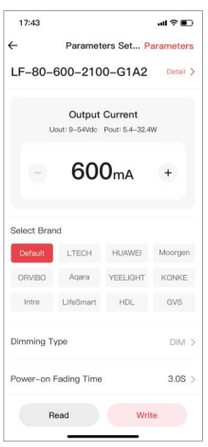
**2. Edit parameters**

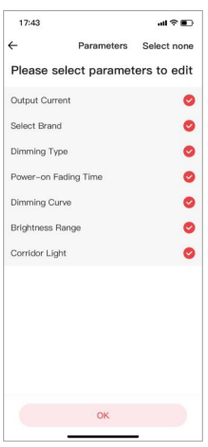
Click on [Parameter Management] to edit more advanced parameters such as Output Current,Select Brand, Dimming Type, Power-on Fading Time, Dimming Curve,Brightness Range and Corridor Light.

**3. Write to the drive**

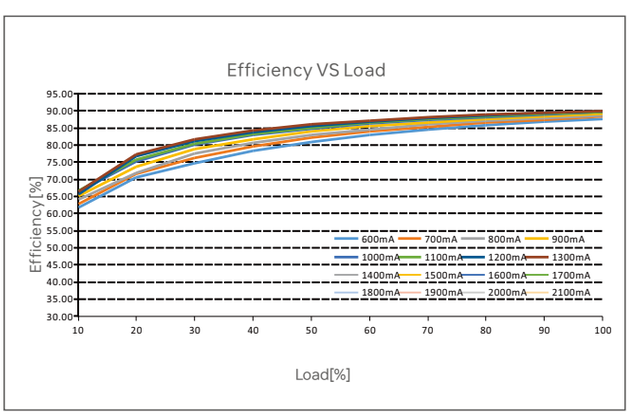
After completing the parameter settings, click 【Write】in the upper right corner, and keep the programmer's sensing area close to the NFC sensing area of the driver, so the parameters can be written to the driver.

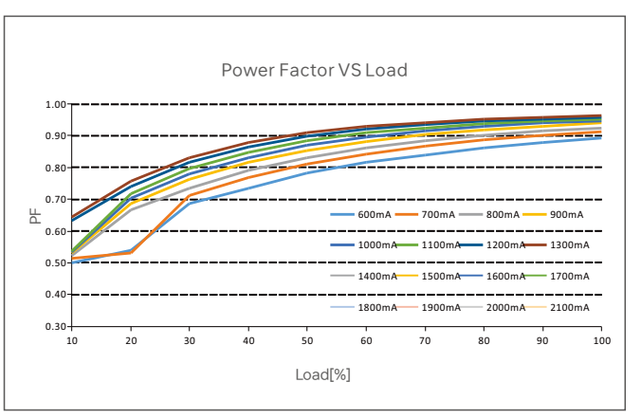



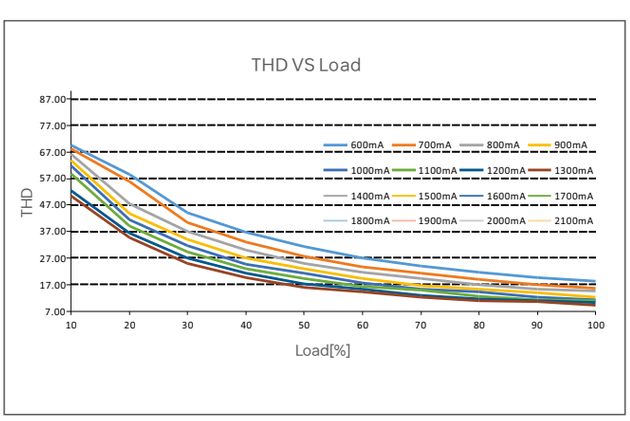



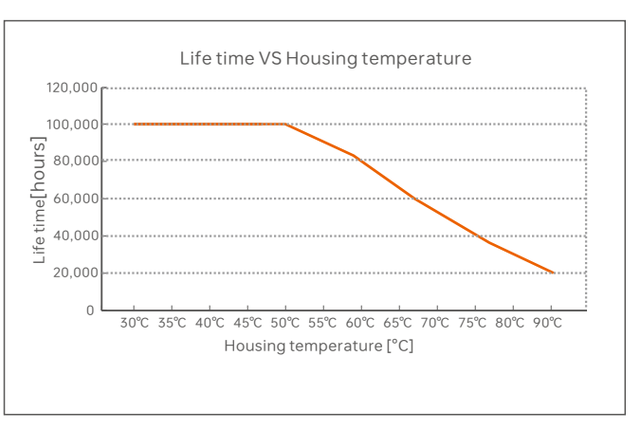




## Relationship Diagrams




LF-80-600-2100-G1A2

## Surge Current & Corresponding Miniature Circuit Breaker (MCB) Load Capacity Table

| MCB Model | B10 | B13 | B16 | B20 | B25 | C10 | C13 | C16 | C20 | C25 | D10 | D13 | D16 | D20 | D25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Load Capacity | 15 | 19 | 24 | 30 | 40 | 17 | 22 | 27 | 35 | 43 | 20 | 25 | 31 | 39 | 49 |

Remarks:

1. Test Conditions: Cold start 20A(Test twidth=215us tested under 50% Ipeak)/230V～.
2. The number of supported drivers may vary depending on the brand and model of the MCB.
3. It is recommended not to exceed the specified load capacity during on-site installation. The actual load should be determined based on field conditions.
4. If the ambient temperature exceeds 30℃ or multiple MCBs are installed side by side, the number of installed drivers must be reduced and recalculated accordingly.
5. Electricians typically use Type B MCBs for residential lighting and Type C MCBs for commercial lighting applications.
6. Different testing equipment may yield variations in measured current peaks and pulse widths. Always use professional-grade instruments for accurate testing.

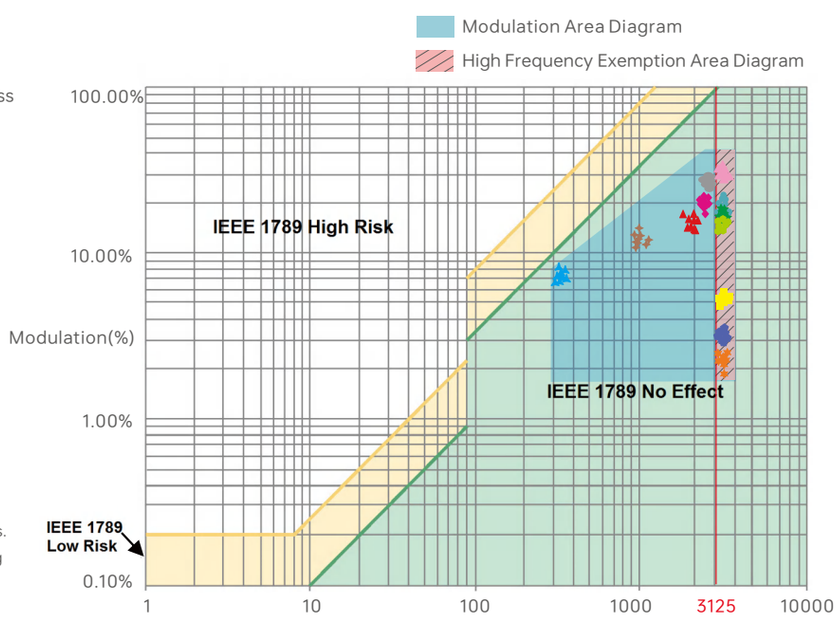
## Flicker Test Sheet

IEEE 1789

| Limit of modulation in low risk area | |
|---|---|
| Waveform frequency of optical output | limit (%) |
| $f \leq 8Hz$ | 0.2 |
| $8Hz < f \leq 90Hz$ | $0.025 \times f$ |
| $90Hz < f \leq 1250Hz$ | $0.08 \times f$ |
| $f > 1250Hz$ | Exemption assessment |
| Limit of modulation in no effect area | |
| Waveform frequency of optical output | limit (%) |
| $f \leq 10Hz$ | 0.1 |
| $10Hz < f \leq 90Hz$ | $0.01 \times f$ |
| $90Hz < f \leq 3125Hz$ | $(0.08/2.5) \times f$ |
| $f > 3125Hz$ | Exemption assessment (High frequency exemption) |

Brightness

- 0.1%
- 1%
- 5%
- 10%
- 20%
- 30%
- 40%
- 50%
- 60%
- 70%
- 80%
- 90%
- 100%

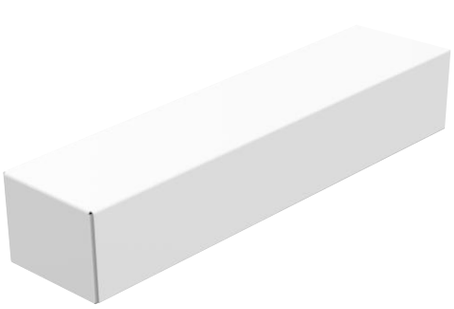



Marks in the right chart were tested results of different current ranges.
The output frequeny is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.

## Packaging Specification

| | |
|---|---|
| Model | LF-80-600-2100-G1A2 |
| Packaging box size | 405×255×140mm(L×W×H) |

## Packaging Style Drawing



Inner packaging box


Full box packaging

## Transportation and Storage

1. Transportation

Products can be shipped via vehicles, boats and planes.

During transportation, products should be protected from rain and sun. Please avoid severe shock and vibration during the loading and unloading process.

2. Storage

The storage conditions should comply with the Class I Environmental Standards. The products that have been stored for more than six months are recommended to be re-inspected and can be used only after they have been qualified.

## Attentions

- Product installation and commissioning should be done by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will prolong the working life of products. Please ensure good ventilation.
- Please check if the working voltage used complies with the parameter requirements of products.
- The diameter of wire used must be able to load the light fixtures you connect and ensure the firm wiring.
- Before you power on products, please make sure all the wiring is correct in case of incorrect connection that causes damage to light fixtures.
- If a fault occurs, please do not attempt to fix products by yourself. If you have any question, please contact your suppliers.

✻ This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

## Warranty Agreement

- Warranty periods from the date of delivery: 5 years.
- Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.

### Update Log

| Version | Updated Time | Update Conten | Updated by |
|---|---|---|---|
| A0 | 20251111 | Original version | Haipeng Li |