

| Model | Output Current | Input Current | Input Power | Output Power Range | PF | Efficiency | Output Voltage | No load Voltage |
|-------------------------|----------------|---------------|-------------|--------------------|--------|------------|----------------|-----------------|
| LC100W250-1050 DALI NFC | 250-1050mA | ≤0.62A | 107.5W | 13.50-100.00W | ≥ 0.95 | 95% | 54-240Vdc | 260Vdc |

*** Test result @230V, 50Hz, Full Load**

1. Parameters

| category | Item | Technical Norm |
|-----------------------------------|--|---|
| Features | Output Type | Constant Current |
| | Dimming Type | Amplitude (DALI-2) |
| | Output current setting | Near field communication (NFC) |
| | Output Features | Non-Isolation |
| | IP Grade | IP20 |
| | Insulation Class | Class I |
| Input | Rated Input Voltage | 220-240VAC |
| | Range of Input Voltage | 198-264VAC |
| | Range of DC Input Voltage | 180-280VDC |
| | Frequency | 0/50/60Hz, Range:0/47-63Hz |
| | Overvoltage protection | 2h@380VAC, 48h@320VAC |
| | Input Current | ≤0.62A max |
| | Input Power | ≤107.5W max |
| | Power Factor | ≥0.95 (230VAC, full load) |
| | THD | ≤7% (230VAC, full load) |
| | Standby Power Consumption | ≤0.45W @230VAC (DALI system DIM to off) |
| | Inrush Current | ≤20A/30us (230VAC, full load) |
| | Connected quantity of 10A Breaker | 9pcs/type A ;15pcs/type B ;25pcs/type C@ 230Vac |
| Connected quantity of 13A Breaker | 12pcs/type A ;20pcs/type B ;32pcs/type C@ 230Vac | |
| Connected quantity of 16A Breaker | 15pcs/type A ;25pcs/type B ;40pcs/type C@ 230Vac | |
| Connected quantity of 20A Breaker | 19pcs/type A ;31pcs/type B ;50pcs/type C@ 230Vac | |

| | | |
|----------------|----------------------------------|--|
| Output | Output Voltage | 54-240V |
| | U-OUT (working voltage) | < 260V |
| | Output Current | 250-1050mA (by NFC setting, Factory set current of 250mA) |
| | Max. Output Power | 100W |
| | Efficiency | ≥95% (230VAC, full load) |
| | Output current ripple (< 100 Hz) | <1% (Imax-Imin) / (Imax+Imin) |
| | Current Accuracy | ±5% |
| | Output PstLM (at full load) | ≤1 |
| | Output SVM (at full load) | ≤0.4 |
| | Starting Time (AC mode) | ≤0.8S (230VAC, full load, by DALI system) |
| | Starting Time (DC mode) | ≤0.4S |
| | Switching over time (AC/DC) | ≤0.4S |
| Control Method | Secondary PUSH dimming | Secondary PUSH dimming (Max. lead wire length: 20m, same port of DALI) |
| | PUSH-button | Max parallel connections qty for Push-dim 15 |
| | DALI function | DALI dimming (Max. lead wire length: 300m) logarithm or linear dimming curve selectable |
| | Dimming range | DALI dimming: 1%-100% |
| | NFC current setting | The output current can be set within the total value range in 1-mA-steps. Output current is mean value. Setting is by KGP's software APP/APK/PC with FEIG equipment or mobile phone. |
| Protection | Short Circuit Protection | Auto Recovery |
| | Overload Protection | Auto Recovery (not be hot swap) |
| | No-load Protection | Auto Recovery |
| | Insulation voltage | 1500V 5mA 60S between P-E |
| | Insulation resistance | >100M ohm @ 500VDC L/N to PE |
| | Leakage current | < 700µA, I/P to O/P or I/P to PE @230V input |
| Environment | Ta/Operation Temperature | -25....+50°C |
| | Ts/Storage Temperature | -25....+85°C |
| | Tc/Enclosure Temperature | 85°C |
| | Humidity | 10%....90%RH |
| | Atmosphere | 86-108KPa |
| Construction | Connection Method | Push-in Terminal |
| | Installation | Built -in |
| | PRI Wire preparation | 0.5-1.5 [□] / 8-9mm |
| | SEC Wire preparation | 0.5-1.5 [□] / 8-9mm |
| | DALI Wire preparation | 0.5-1.5 [□] / 8-9mm |
| | Dimension | 280*29.4*21mm (L*W*H) |









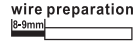

| | | |
|-----------|--------------------------|---|
| Standards | Certification | CE/ENEC/SAA/UKCA/CB |
| | Safety Standards | EN61347-1:2015/A1:2021; EN61347-2-13:2014/A1:2017; EN62384:2006/A1:2009; AS 61347.2.13:2018; AS/NZS61347.1:2016; BS EN61347-1:2015/A1:2021; BS EN61347-2-13:2014/A1:2017; IEC 61347-2-13:2014; IEC 61347-1:2015 |
| | EMC Standards | AS/NZS CISPR 15:2011; AS CISPR 15:2017 ; |
| | Performance | EN 62384 |
| | DALI performance | EN 62386-101 (DALI-2) EN 62386-102 (DALI-2) EN 62386-207 (DALI-2, including part 251, 252, 253) |
| | Surge | L-N/1KV (L/N)-PE/2KV |
| Others | RoHS | 2011/65/EU |
| | Life Time | 50000h Tc=85°C |
| | | 75000h Tc=80°C |
| | | 100000h Tc=75°C |
| Warranty | 5years , F.R. < 10000ppm | |

Remark:

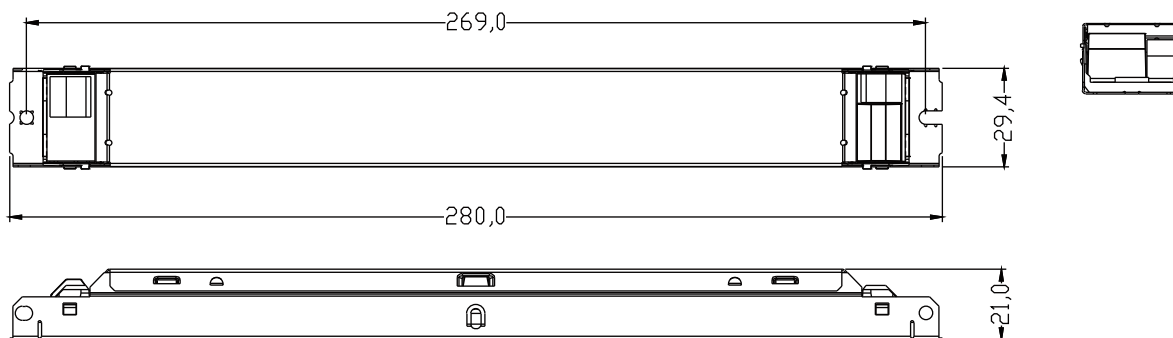
- All Parameters, if not specified, are measured at 230VAC/50Hz and 25°C ambient temperature.
- LED Driver is a component of the luminaires, Luminaires and wire layout will affect the EMC, please check the EMC with end products again.
- During the PUSH DIM test, the number of parallel connections must be less than 15PCS.

| | | | |
|-----------------|--------------------|---------------------|--------------------|
| Distance | 15m | 30m | 50m |
| Cable selection | 0.5mm ² | 0.75mm ² | 1.0mm ² |

2. Label

| | | | | | | |
|--|---|--|---|--|--|---|
| <input type="checkbox"/> L <input type="checkbox"/> N <input type="checkbox"/> ⊕ <input type="checkbox"/> DA <input type="checkbox"/> DA | KGP Electronics GmbH Hueckstraße 19 DE-58511 Lüdenscheid | LC100W250-1050 DALI NFC Constant Current Type for operation with LED modules only Input Voltage:220-240VAC Input Frequency:0/50-60Hz Range of application DC 180-280V Output:250-1050mA 54-240VDC | LED Dimmable Driver Power Factor: ≥ 0.95 I _{in} : ≤ 0.62A Prange=13.5-100W U _{out} :260VDC Max.100W Tc:85°C Ta:50°C |         | wire preparation  Input: 0.5-1.5" DALI: 0.5-1.5" Output: 0.5-1.5" | Output + □ Output - □ NFC)))  |
|--|---|--|---|--|--|---|

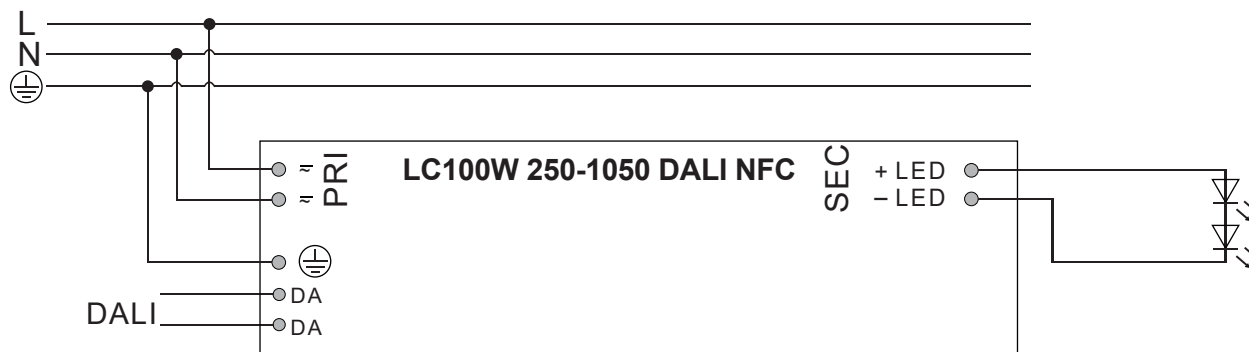
3. Dimension (Unit: mm)



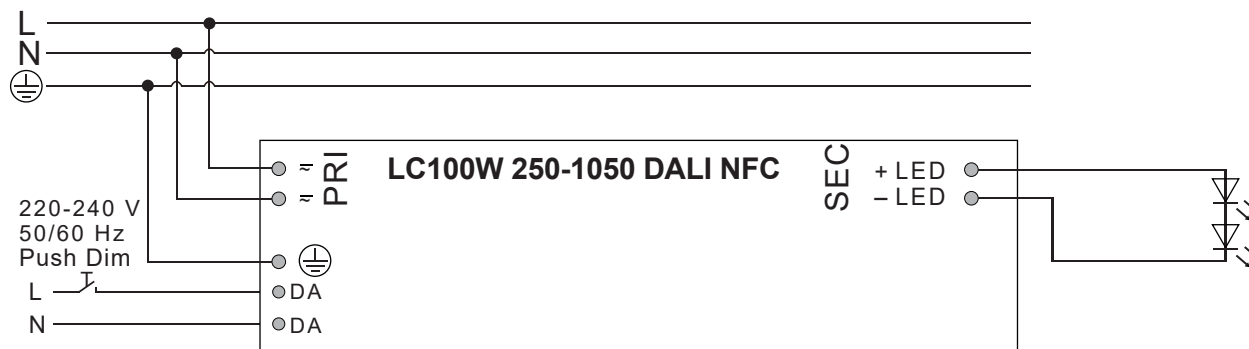
4. Installation / wiring

Circuit diagram

220-240 V
0/50/60 Hz

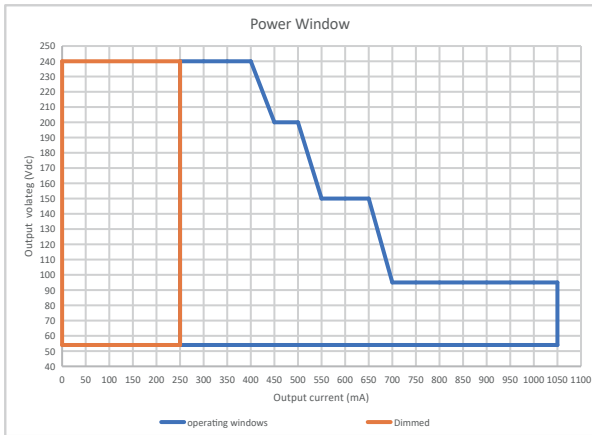


220-240 V
50/60 Hz
Push Dim

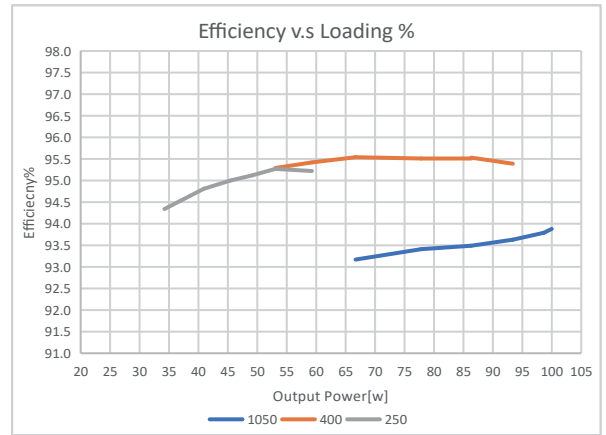


5. Electrical values

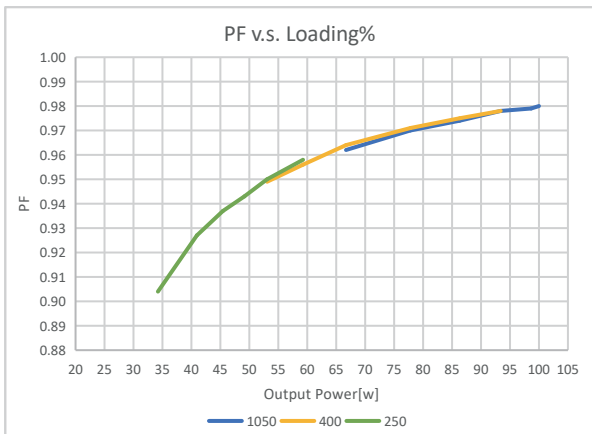
1. Operating power windows



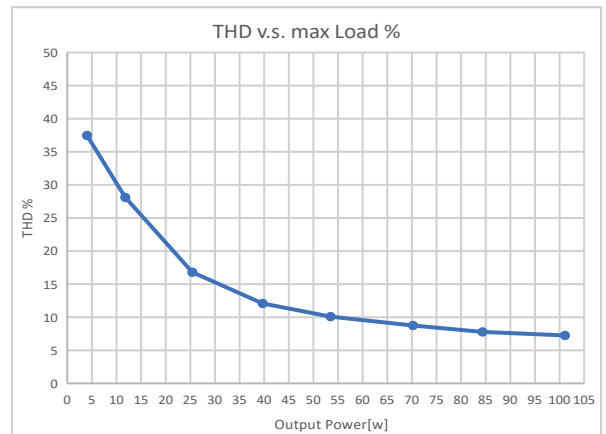
2. Efficiency v.s. Load



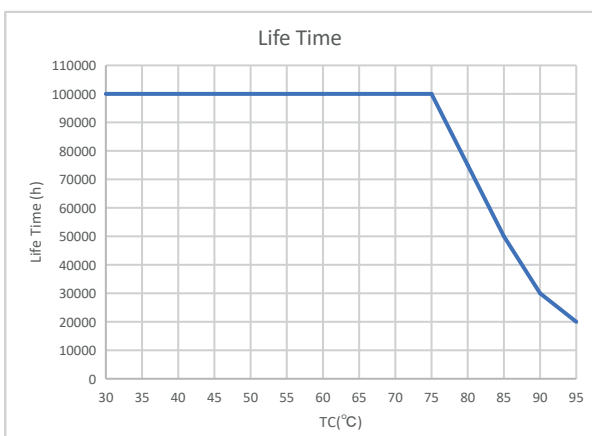
3. PF v.s. Load



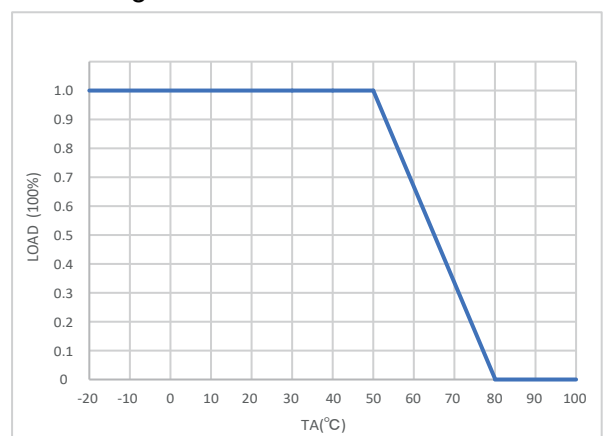
4. THD v.s. Load



5. Life time



6. Derating



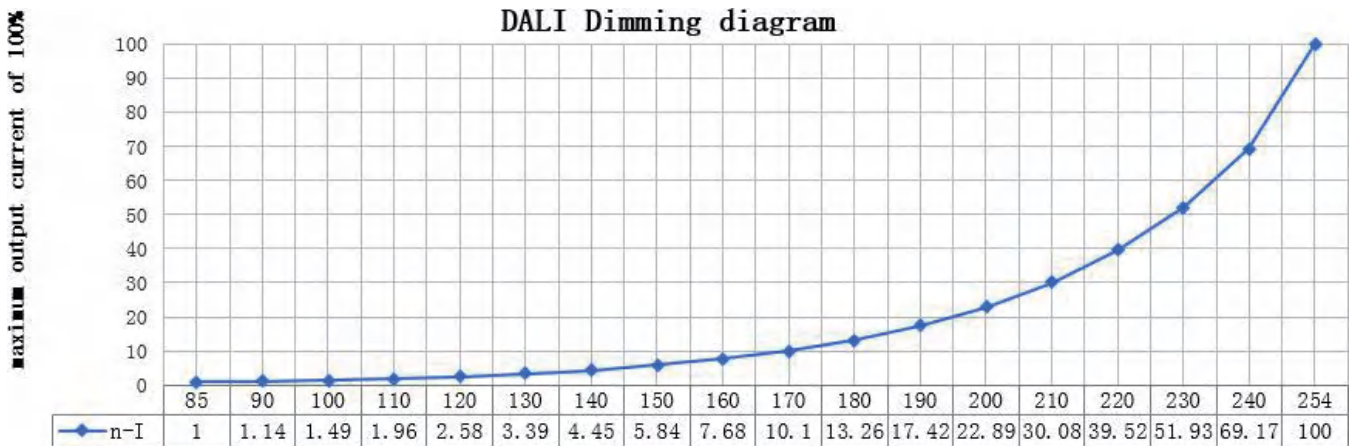
6. DALI dimming curve

formula for DALI dimming.

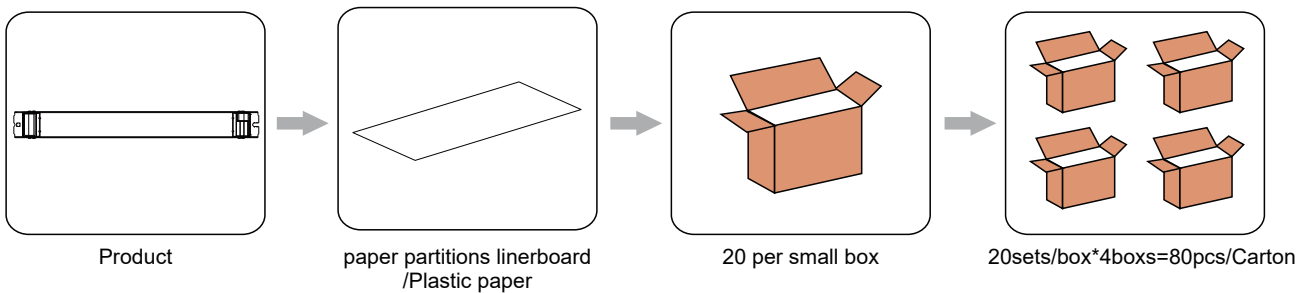
$$X(n)=10^{\{[(n-1)/(253/3)]-1\}}$$

Here, n means the target dimming stage of the total 254 stages.

X(n) means the percent of the maximum output current



7. Packing information



Inner box

| Carton L*W*H(mm) | Pcs/Carton | Net weight/ Pcs(kg) | Net weight/ Carton(kg) | Gross weight / Carton(kg) |
|------------------|------------|---------------------|------------------------|---------------------------|
| 290*155*110 | 20 | 0.193 | 3.86 | 3.97 |

Outer box

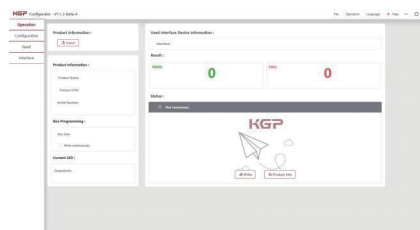
| Carton L*W*H(mm) | Pcs/Carton | Net weight/ Pcs(kg) | Net weight/ Carton(kg) | Gross weight / Carton(kg) |
|------------------|------------|---------------------|------------------------|---------------------------|
| 325*303*240 | 80 | 0.193 | 15.44 | 16.37 |







8. NFC current setting:

NFC Reader (optional)

Feature:

Easily on-line read a output current from a driver or write a new current data to a driver throughout KGP NFC reader within few seconds.



| Product | Description | Interface | Matching antenna | Zhaga approval | Usage |
|--|--|------------------|--|----------------|------------------------------------|
|  ID CPR30+ | Desktop programmer | USB | Integrated | Yes | Single Programming on Desktop |
|  ID ISC.PRH101-USB | Handheld programmer | USB | Integrated | Yes | Single Programming by Handheld |
|  ID ISC.MR102-USB | Middle range programmer, for connecting external antenna | USB | RF-MANT12786  | Yes | Single Programming on Product line |
|  ID ISC.LR1002-E | Long range programmer, for connecting external antenna | USB,RS232,TCP/IP | ID ISC.ANT310/310  | Yes | Multi Programming System |

APP NFC

Feature:

Quickly check output current of a LED driver simply via iPhone smart phone, as well as, correct or setup a new current data immediately with no extra equipment at any job site.

iPhone

ICON



Main



Download method

1.Scan the QR code to download



2.On your iPhone, search for KGP NFC in APP Store to download it



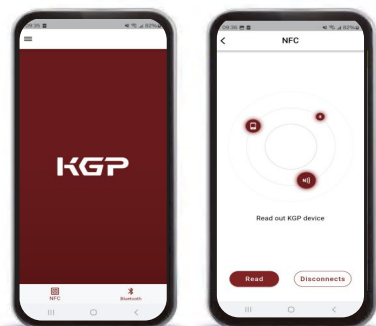
iPhone smartphones with NFC can be downloaded and used directly

Android

ICON



Main




Download method

1.Scan the QR code to download



Android smartphones with NFC can be downloaded and used directly

An iPhone/Android smartphone without NFC requires the following devices to use it

| Product | Description | Interface | Matching antenna | Zhaga approval | Usage |
|---|------------------------------|------------------------------|------------------|----------------|---|
| ID ECCO Smart HF-BLE  | Handheld wireless programmer | USB,Bluetooth LE V4.2 & V5.0 | Integrated | Yes | Handheld programming, installation and maintenance work |

9. Push Dim :

9.1 On / off:

Short push (120ms-600ms) on the switch

Stepless dimming: long push (> 0.6sec) on the switch

9.2 Power-on memory function

When the LED driver is powered on, it will restore the memory before the LED driver is powered off. (brightness remembers the brightness after the last dimming is stable, and the brightness during dimming is not memorized)

9.3 Light on/off

If the light is on, the light will be off after a short press. If the light is off, the light will be on after a short press. The time range of short press is 120-600ms.

9.4 PUSH Dimming

Press and hold the push switch for a long time, the light will enter the dimming state, if the previous time is dimming, it will automatically turn to dimming the next time. After releasing the reset button, the dimming stops and the current illuminance is maintained. The dimming range is 1%-100%. The default is to dim when the power is first long-press. If the brightness of the power-on is the maximum brightness, the first long-press is to dim. (Long press 0.6-3S to start dimming.)

9.5 Forced synchronization

Long press for 10 seconds to turn on all the lights and turn on the same brightness (50%), and continue to quickly short press will not change. After a short period of time without short press operation, the module exits the synchronization mode, and the short press restores the switch function.

9.6 PUSH Dimming rate

Long press the push switch 10S to switch the dimming rate to 3S, Long press the push switch 20S to switch the dimming rate to 6S.

10. REVISION HISTORY

| Date | Revision | Remark |
|------------|----------|---|
| 2023.08.29 | V0.01 | Modify fonts, add NFC content, Inrush Current, update images |
| 2023.09.11 | V0.02 | Parameters(Inrush Current, Control Method, Remark) |
| 2023.11.02 | V0.03 | Packing information, update images, Label |
| 2024.04.15 | V0.04 | Label, Packing information, Electrical values, Dimension, update images |
| 2024.09.15 | V0.05 | Label, Packing information, Parameters, update images |
| 2024.12.02 | V0.06 | Label, Parameters, Electrical values, update images |
| 2025.01.20 | V0.07 | Label, NFC current setting, update images |
| 2025.02.10 | V0.08 | Packing information, Dimming Type |