# LDT-ZB-RF-AC-DIM-1A5

## Zigbee & RF Single-Line AC Phase-Cut Dimmer

A single-line mains dimmer with Zigbee, compatible RF and local push-button control for suitable dimmable AC lamps. The single-line power path is distinct from ordinary L/N-powered dimmers.

### Model specifications

| | |
|---|---|
| Supply voltage | 100-240 VAC |
| Output type | 1-channel single-line AC phase-cut dimming |
| Maximum output current | 1.5 A |
| Nominal output power | 150-360 W; load-type limits apply |
| Dimmable LED load | 100 W at 110 V / 200 W at 220 V |
| Minimum connected load | 30 W |
| Control inputs | Zigbee + RF 2.4 GHz + AC Push-Dim |
| Dimming | 0-100%; 256 levels |
| Minimum brightness settings | 15%, 20%, 25% or 30% |
| Published RF distance | Up to 30 m, unobstructed |
| Protection | Overheat and overload |
| Operating temperature | -20 to +55 °C |
| Maximum case temperature | +85 °C |
| IP rating | IP20 |
| Body dimensions | 56 x 56 x 28 mm |

Minimum connected load is 30 W. This single-line dimmer is not a general replacement for every no-neutral installation. Observe the terminal drawing, current limit and lamp compatibility; the device is not a low-voltage LED controller.

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

Triac

# ZigBee + RF Single Line AC Phase Cut RF Dimmer

## Feature



- RF + AC Push +single line phase cut dimmer, 1 channel output.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- **Control app cloud control, support on/off, brightness adjust,** delay turn on/off light, timer run, scene and music play function.
- Philips HUE APP control by connect with Philips HUE bridge.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu voice assistant.
- 256 levels 0-100% dimming smoothly without any flash.
- Min brightness can be set by key.
- Light on/off fade time 3s selectable.
- Compatibility with RF 2.4G single zone or multiple zone dimming remote control.
- Connect with AC push switch to achieve on/off and 0-100% dimming function.
- Easy to be placed in standard wall junction box behind a push switch.
- Over-heat / Over-load protection, recover automatically.

CE RoHS

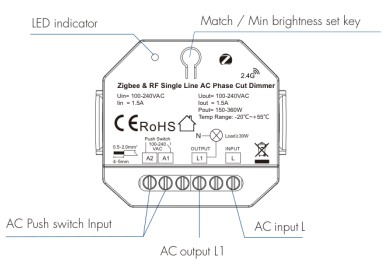
## Technical Parameters

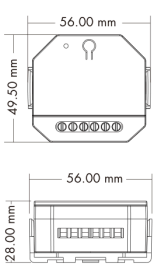
| Input and Output | |
|---|---|
| Input voltage | 100-240VAC |
| Output voltage | 100-240VAC |
| Input current | 1.5A |
| Output current | 1.5A |
| Output power | 150-360W |
| **Warranty and Protection** | |
| Warranty | 5 years |
| Protection | Over-heat,Over-load |

| Dimming data | |
|---|---|
| Input signal | ZigBee + RF + Push Dim |
| Control distance | 30m(Barrier-free space) |
| Dimming gray scale | 256 level |
| Dimming range | 0-100% |
| **Environment** | |
| Operation temperature | Ta: -20 ℃ ~ +55 ℃ |
| Case temperature (Max.) | Tc: +85 ℃ |
| IP rating | IP20 |

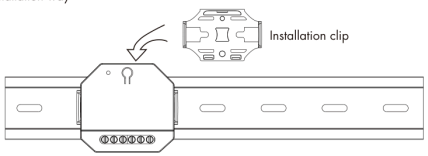
| Safety and EMC | |
|---|---|
| EMC standard | EN IEC 55015/ EN IEC 61547 EN IEC 61000-3-2/ EN IEC 61000-3-3 ETSI EN 301 489-1/-3/-17 |
| Safety standard | EN 61347-1/-2 |
| Radio equipment | ETSI EN 300 328 ETSI EN 300 440 |
| Certification | CE RoHS |
| **Package** | |
| Size | L60 x W60 x H40mm |
| Gross weight | 0.067kg |

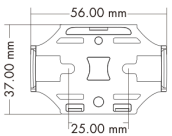
## Mechanical Structures and Installations




Installation way



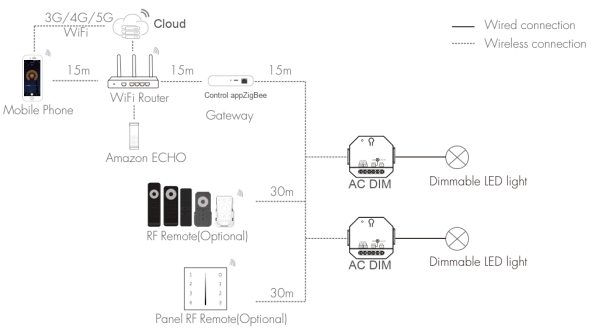




1. The installation must be installed or removed by a professional electrician.
2. Please keep the device out of the reach of children.
3. Please keep away from water, humid or hot environment.
4. The device should be kept away from strong signal sources (such as microwave ovens) to avoid signal interruption and cause the device not to work properly.
5. Avoid placing the device close to or near high-density materials (such as metal, concrete walls, etc.), which will reduce or block the wireless signal.

## Compatible Load Types

| Load Type | Maximum Load | Remarks |
|---|---|---|
| Dimmable LED lamps | 200W @ 220V<br>100W @ 110V | Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer. |
| Incandescent lighting, HV Halogen lamps | 400W @ 220V<br>200W @ 110V | |

## System Wiring

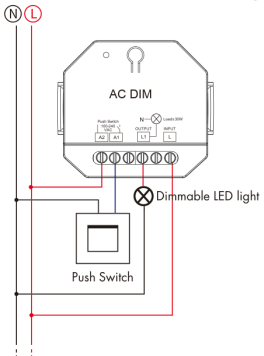



Note:

1. The above distance is measured in spacious (no obstacle) environment, please refer to the actual test distance before installation.
2. **Users must use the Control appZigBee gateway to realize remote control and voice control.**

## Wiring Diagram

⚠ **Caution:** Please carefully ensure all wire connections and polarities are correct and secure before applying power, otherwise this dimmer will be damaged.




Note:
1. To work properly, the single line phase cut dimmer of the connected load lamps should be ≥30W.
2. When calculating the maximum number of load lamps, the input power or input current parameters of a single lamp must be used, the output power parameters can not be used.

In addition, the maximum surge current of the dimmer is 65A, the sum of surge current of multiple dimmable LED lamps should not exceed 2 times.
otherwise, the product will be overloaded and damaged.

## Push Dim Function

- **Short press:** Turn on or off light.
- **Long press (1-6s):** Press and hold to step-less dimming, With every other long press, the light level goes to the opposite direction.
- **Dimming memory:** Light returns to the previous dimming level when switched off and on again, even at power failure.

## Min Brightness Setting

Long press Min set key for 10s, the light blink 2 times, ready for min brightness set, then short press Min set key 1-4 times, to get 4 min brightness: 15%, 20%, 25%, 30%,
the light will output the current min brightness immediately, wait 5s, quit min brightness set,
the light will output 100% brightness automatically.

## Light on/off Fade Time

Switch off the power, then switch on power, repeat again, then short press Match key 3 times, the light on/off time will be set to 3s, the indicator light blink 3 times.
Long press Match key 20s, restore factory default parameter, min light brightness is 15%, on/off fade time is 0.5s.

## APP Operating Instruction

**Please download the corresponding Smart Life app according to your region.**

Press and hold Match/Set key for 2s, reset ZigBee network.

Press and hold Match/Set key for 5s, or push twice Match/Set key fastly, Clear previous network connection, enter config mode.
the blue LED indicator fast flash.

**If Control app network connection succeed, the blue LED indicator will stop flash, and in Control app, you can find ZB3.0-DIM device.**

Smart life APP

## APP Interface



**Switch interface**
Touch on/off key to turn on or off light.
The Timer can be set to automatically turn on or off lights for the next 24 hours
The schedule can be add multiple timers to turn on or off the lights according to different times.

**Scene interface**
The 1-4 scene is static color.
the inner brightness of these scene can be editable.

## AC DIM Match RF Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

**Use the controller's Match key**

Match:
Short press match key,
immediately press on/off key (single zone remote)
or zone key (multiple zone remote) on the remote.
The LED indicator fast flash a few times means match is successful.

Delete:
Press and hold match key for 15s to delete all match,
The LED indicator fast flash a few times
means all matched remotes were deleted.

**Use Power Restart**

Match:
Switch off the power, then switch on power, repeat again.
Immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 3 times on the remote.
The light blinks 3 times means match is successful.

Delete:
Switch off the power, then switch on power, repeat again.
Immediately short press on/off key (single zone remote)
or zone key (multiple zone remote) 5 times on the remote.
The light blinks 5 times means all matched remotes were deleted.

## AC DIM Work as ZigBee-RF Converter to Match Other RF Switch or Controller

User can choose the suitable match/delete ways. Two options are offered for selection:

**Use the controller's Match key**

Match:
Short press match key of the controller,
**immediately press on/off key on the Control app.**
The LED indicator fast flash a few times
means match is successful.

Delete:
Press and hold match key of the controller for 5s,
The LED indicator fast flash a few times
means match was deleted.

**Use Power Restart**

Match:
Switch off the power of the controller, then switch on power, repeat again,
**Immediately short press on/off key 3 times on the Control app.**
The light blinks 3 times means match is successful.

Delete:
Switch off the power of the controller, then switch on power, repeat again,
**Immediately short press on/off key 5 times on the Control app.**
The light blinks 5 times means match was deleted.