LDT-DALI-AC-DIM-1A5-L

Digital-Display DALI AC Phase-Cut Dimmer

A DALI-controlled mains phase-cut dimmer with a digital display, manual/automatic address setting and alternate push-button control for compatible dimmable AC lighting.

Supply voltage	100-240 VAC
Output type	1-channel AC phase-cut dimming
Maximum output current	1.5 A
Nominal output power	150-360 W; load-type limits also apply
Control inputs	DALI + Push-Dim + local display/buttons
DALI addresses	1 address
Phase-cut mode	Leading or trailing edge, selectable
Dimming	0-100%; 256 levels
Protection	Overheat; automatic recovery
Operating temperature	-30 to +55 °C
Maximum case temperature	+70 °C
IP rating	IP20
Body dimensions	187 x 46 x 22 mm

The 150-360 W nominal value is not an unrestricted LED load allowance. This is an AC-output dimmer, not a low-voltage strip controller.

The following reference pages include the complete wiring, dimensions, settings and operating instructions. Use the lighting and hardware variant identified above; shared references may illustrate other separate models.

DALI

AC Triac DALI Dimmer

Features



- AC phase-cut DALI dimmer, one DALI address, one channel output.
- In accordance with DALI standard protocol IEC 62386-102, IEC 62386-205 and in compliance with DALI products from other international incorporation.
- DALI address can be manually assigned and shown in digital display or automatically assigned by DALI master.
- Reverse-phase dimming or forward-phase dimming selectable.
- Connect with external push switch to achieve on/off and 0-100% dimming function.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- Over-heat protection, recover automatically.

DALI 2 CE RoHS

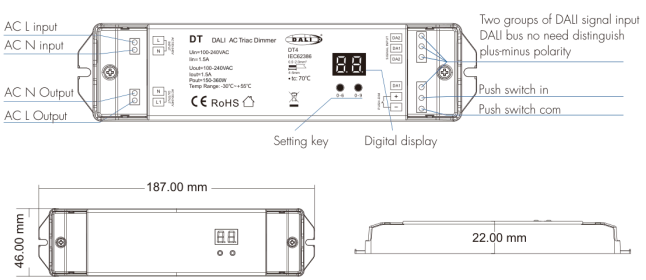
Technical Parameters

Input and Output	
Input voltage	AC100-240V
Output voltage	AC100-240V
Output current	Max 1.5A
Output power	150-360W
Dimming level	256 level
Dimming range	0-100%

Environment	
Operation temperature	Ta: -30˚C ~ +55˚C
Case temperature (Max.)	Tc: +70˚C
IP rating	IP20
Warranty and Protection	
Warranty	5 years
Protection	Over-heat

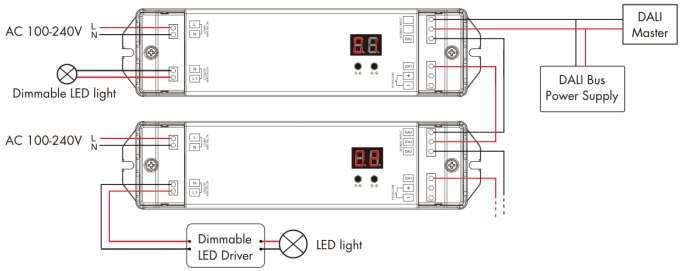
Safety and EMC	
EMC standard	EN IEC 55015/ EN IEC 61547-1/-2 ETSI EN 301 489-1/-17
Safety standard	EN 61347-1/-2
Certification	CE RoHS DALI-2
Package	
Size	L190 x W48 x H25mm
Gross weight	0.140kg

Mechanical Structures and Installations



Wiring Diagram

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



Note:
When calculating the maximum number of load lamps or drivers, the input power or input current parameters of a single lamp or driver 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 drivers should not exceed 2 times. otherwise, the product will be overloaded and damaged.

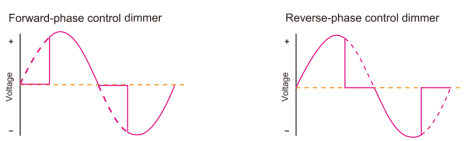
Compatible Load Types

Load Type	Maximum Load	Remarks
Dimmable LED lamps	200W @ 220V 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.
Triac Dimmable LED drivers	200W @ 220V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver rated input power, and make sure the surge current is no more than 2 times 65A.
Incandescent lighting, HV Halogen lamps	400W @ 220V 200W @ 110V	

Operation

Reverse-phase or forward-phase dimming setting

Long press two buttons at the same time for 2s, switch between reverse-phase dimming("CR") or forward-phase("CF") dimming.



Minimum brightness setting

- Under Reverse-phase or forward-phase dimming setting, Long press two buttons at the same time for 2s, digital display start flashes.
- Short press left button to set "tens" position and right button to set "units" position.
- The minimum brightness can be set to 1%~40%, the factory default is 10%.
- Long press any of the two buttons for 2s or timeout 10s, quit Minimum brightness setting, digital display stop flashes.

Open-circuit detection Setting

- After entering the minimum brightness setting, long press two buttons at the same time for 2 seconds.
  The digital display flashes, entry into open-circuit detection setting.
- Short press any key to set the function: the display shows 'on' to enable open-circuit detection; 'oF' to disable it.
- Long press any setting key for 2 seconds or wait 10 seconds to exit open-circuit detection setting; the display stops flashing.

Set DALI address via buttons

- Long press any buttons for 2s, prepare for set the start DALI address, digital display start flashes.
- Short press left button to set "tens" position and right button to set "units" position.
- The address can be set from 00~63-FF. no DALI address is assigned for the dimmer, digital display shows "FF".
- Long press any of the two buttons for 2s or timeout 10s, quit start DALI address setting, digital display stop flashes.

DALI address assigned by DALI masters

DALI address can also be assigned by DALI Master controller automatically.
Please refer to user manuals of compatible DALI Masters for specific operations.
The digital display will show "AU" When the DALI master is assigning address.
After address is assigned, the digital display will show the start DALI address"xx", xx is from 00 to 63.

Push-Dim Function

The provided Push-Dim interface allows for a simple dimming method using commercially available non-latching(momentary) wall switchs.

- 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.
- Synchronization:
  If more than one controller are connected to the same push switch, do a long press for more than 10s,
  then the system is synchronized and all lights in the group dim up to 100%.
  This means there is no need for any additional synchrony wire in larger installations.
  We recommend the number of controllers connected to a push switch does not exceed 25 pieces,
  The maximum length of the wires from push to controller should be no more than 20 meters.

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.