LDT-DMX-2AC-DIM-1A

Two-Channel DMX / RDM AC Phase-Cut Dimmer

A two-channel mains-output DMX/RDM decoder with a numeric display. Control both outputs together from one DMX address, or address the channels independently in two-channel decode mode.

Model specifications

Supply voltage	100-240 VAC
Output type	2 independent AC phase-cut lighting outputs
Maximum output current	1 A per channel
Nominal output power	2 x (100-240) W
Dimmable LED load	50 W at 110 V / 100 W at 220 V per channel
Control inputs	DMX512 / RDM + local display/buttons; no RF
DMX decode modes	1 address for linked outputs or 2 addresses for independent outputs
DMX address range	001-512; allow the required address slots
Dimming	0-100%; 256 levels
Phase-cut selection	Forward phase or reverse phase
Minimum brightness	1-40%
Local operation	Standalone two-channel dimming or four dynamic modes
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	170 x 50 x 23 mm

Two 1 A channels, not one 2 A output. The published LED limits are lower than nominal watts. This model has no RF or Wi-Fi remote pairing. Check DMX-loss behaviour before a live installation.

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.

DMX512

AC Triac DMX Dimmer

- AC phase-cut mosfet dimmer with DMX512 function, two channel output.
- Comply with the DMX512 standard protocols.
- Digital numeric display, set DMX decode start address by buttons.
- RDM function can realize intercommunication between DMX master and decoder. For example, DMX decoder address can be set by DMX master console.
- 1/2 DMX channel output selectable.
- Reverse-phase dimming or forward-phase dimming selectable.
- Minimum brightness set from 1% to 40%.
- Stand-alone dynamic mode and 2 channel dimmer mode selectable, which be controlled by buttons with built-in programs, instead of DMX signal.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- Over-heat protection, recover automatically.



FC CE RoHS emc LVD

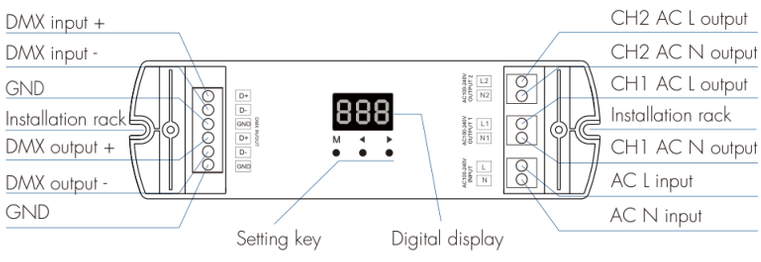
Technical Parameters

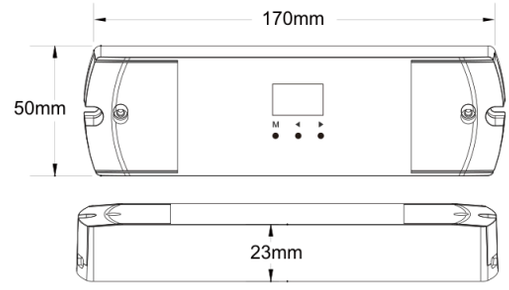
Input and Output	
Input voltage	100-240VAC
Output voltage	2 x (100-240)VAC
Output current	2CH, 1A/CH
Output power	2 x (100-240)W
Dimming data	
Dimming level	256 levels
Dimming range	0-100%

Safety and EMC	
EMC standard (EMC)	EN IEC 55015:2019+A11:2020 EN 61547:2009 EN IEC 61000-3-2:2019+A11:2021 EN 61000-3-3:2013+A11:2019
Safety standard(LVD)	EN 61347-1:2015+A1:2021 EN 61347-2-13:2014+A1:2017
Certification	CE,EMC,LVD
Warranty	
Warranty	5 years

Environment	
Operation temperature	Ta: -30 °C ~ +55 °C
Case temperature (Max.)	Tc: +85 °C
IP rating	IP20
Package	
Size	L175 x W54 x H27mm
Gross weight	0.135kg

Mechanical Structures and Installations





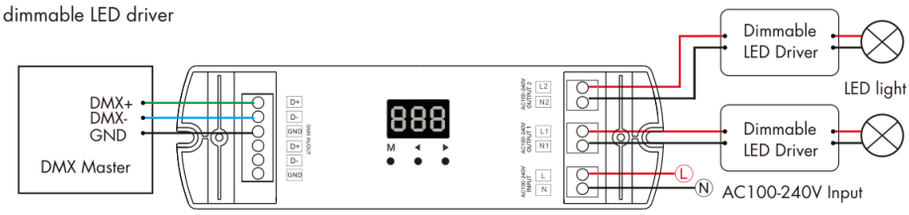
Wiring Diagram

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

- Connect with dimmable LED light



- Connect with Triac dimmable LED driver



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 60A, 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

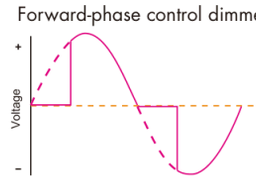
Load Type	Maximum Load	Remarks
Dimmable LED lamps	100W @ 220V 50W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
Triac Dimmable LED drivers	200W @ 220V 50W @ 110V	Maximum permitted number of drivers is 100W divided by driver nameplate power rating, and make sure the surge current is no more than 2 times 60A.
Incandescent lighting, HV Halogen lamps	200W @ 220V 200W @ 110V	

Operation

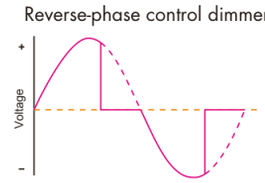
System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: decode mode, control method, default output level, minimum brightness curve, automatic blank screen. short press M key to switch five item.
- Decode mode: short press ◀ or ▶ key to switch one-channel decode("d-1") or two-channel decode("d-2").
  When set as 1 channel decode, the decoder occupy only 1 DMX address, and two channel output the same brightness of this DMX address.
- Control method: short press ◀ or ▶ key to switch forward-phase("C-F") or reverse-phase("C-R").

Forward-phase control dimmer



Reverse-phase control dimmer



- Minimum brightness: short press ◀ or ▶ key to set minimum brightness, from 1% to 40%("b01" to"b40"). You need set suitable minimum brightness to avoid flick.
- Default output level: press ◀ or ▶ key to change default 0-100% level ("d00" to "dFF") when no DMX input signal.
- Automatic blank screen: short press ◀ or ▶ key to switch enable("bon") or disable("boF") automatic blank screen.
- Long press M key for 2s or timeout 10s, quit system parameter setting.

DMX mode

- Short press M key, when display 001~512, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode start address(001~512), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.
- **DMX Dimming: Each DMX DMX decoder occupy 2 DMX address when connecting the DMX console.**
  For example, the defaulted start address is 1, their corresponding relationship in the form:



DMX mode
(001~512)
Stand-alone dimmer mode

DMX Console	DMX Decoder Output
CH1 0-255	CH1 0-100%
CH2 0-255	CH2 0-100%

- Short press M key, when display L-1~L-8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L-1~L-8).
- Each dimmer mode can adjust each channel brightness independently.
  Long press M key for 2s, prepare for setup two channel brightness.
  Short press M key to switch two channel(100-1FF, 200-2FF).
  Press ◀ or ▶ key to setup brightness value of each channel.
  Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.



Stand-alone dimmer mode
(L-1~L-8)

Stand-alone dynamic mode

- Short press M key, when display P-1~P-4, enter stand-alone dynamic mode.
- Press ◀ or ▶ key to change dynamic mode number(P-1~P-4).
- Each mode can adjust speed and brightness.
  Long press M key for 2s, prepare for setup mode speed, brightness.
  Short press M key to switch two item. Press ◀ or ▶ key to setup value of each item.
  Mode speed: 1-10 level speed(S-1, S-9, S-F).
  Mode brightness: 1-10 level brightness(b-1, b-9, b-F).
  Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone dynamic mode only when DMX signal is disconnected or lost.



Stand-alone dynamic mode
(P-1~P-4)



Speed
(8 level)



Brightness
(10 level,100%)

Dynamic mode list

No.	Name
P-1	2ch light on/off synchronously
P-2	2ch single light on/off in sequence
P-3	2ch light fadein and fadeout synchronously
P-4	2ch light fadein and fadeout in sequence

Restore factory default parameter

- Long press ◀ and ▶ key for 2s, restore factory default parameter, display"RES".
- Factory default parameter: DMX decode mode, DMX decode start address is 1, two channel decode, rerverse-phase control, 10% minimum brightness, dimmer mode number is 1, dynamic mode number is 1, output 100% level when no DMX input, disable automatic blank screen.