

# OPTONICA

## AC Triac Dimmer

SKU: 6389

1 Channel/RDM/Stand-alone function/Leading edge or trailing edge/Numeric display/Din rail

### Features

- AC phase-cut mosfet dimmer with DMX512 function, one 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.
- Reverse-phase dimming or forward-phase dimming selectable.
- Minimum brightness set from 1% to 40%.
- Stand-alone dynamic mode and dimmer mode selectable, which is 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.

### Technical Parameters

CE RoHS EMC LVD

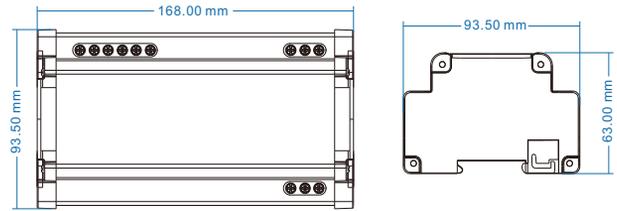
Input and Output	
Input voltage	100-240V AC
Output voltage	100-240V AC
Output current	1CH, 6A
Output power	600-1440W
Safety and EMC	
EMC standard (EMC)	EN 55015:2013
	EN 61547:2009
	EN 61000-3-2:2014
	EN 61000-3-3:2013
Safety standard(LVD)	EN 61347-2-11:2002
	EN 61347-1:2015
	EN 62493:2015
Certification	CE,EMC,LVD

Dimming data	
Input signal	DMX512
Dimming level	256 levels
Dimming range	0-100%
Environment	
Operation temperature	T <sub>a</sub> : -30 °C ~ +55 °C
Case temperature(Max.)	T <sub>c</sub> : +85 °C
IP rating	IP20
Warranty and Protection	
Warranty	3 years
Protection	Over-heat

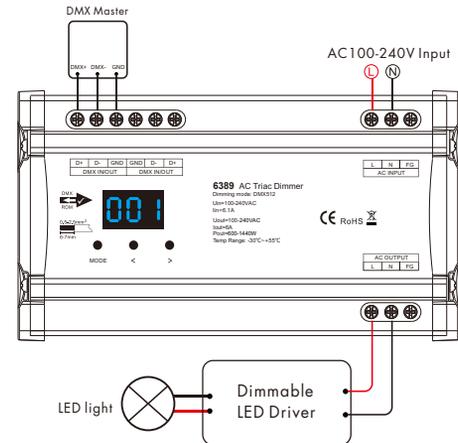
### Compatible Load Types

Load Type	Maximum Load	Remarks
Dimmable LED lamps	1000W @ 220V 500W @ 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	1000W @ 220V 500W @ 110V	Maximum permitted number of drivers is 1000W divided by driver nameplate power rating, and make sure the surge current is no more than 2 times 65A.
Incandescent lighting, HV Halogen lamps	1500W @ 220V 750W @ 110V	

### Mechanical Structures and Installations



### Wiring Diagram



Note:

1. 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.
2. An DMX signal amplifier is needed when more than 32 decoders are connected, or use overlapping signal line, signal amplification should not be more than 5 times continuously.
3. If the recoil effect occurs because of longer signal line or bad line quality, please try to connect 0.25W 90-120Ω terminal resistor at the end of each DMX signal line.

## ⚠ Caution:

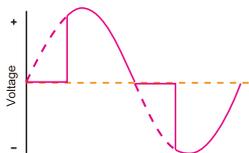
Please carefully ensure all wire connections and polarities are correct and secure before applying power, otherwise this controller will be damaged.

## Operation

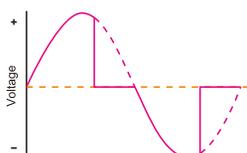
### System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: control method, minimum brightness curve, automatic blank screen. short press M key to switch three items.
- Control method: short press ◀ or ▶ key to switch for 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.
- 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 001~999, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode start address(001~999), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.
- DMX Dimming: Each SK2 DMX decoder occupy 1 DMX address when connecting the DMX console.



DMX mode  
(001 ~ 999)

### Stand-alone dimmer mode

- Short press M key, when display L1~L8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L1~L8).
- Each dimmer mode can adjust brightness independently. Long press M key for 2s, prepare for setup brightness. Press ◀ or ▶ key to setup brightness value(100~1FF). 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-2, enter stand-alone dynamic mode.
- Press ◀ or ▶ key to change dynamic mode number(P-1~P-2)
- 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 items. 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-2)



Speed  
(8 level)



Brightness  
(10 level, 100%)

### Dynamic mode list

No.	Name
P-1	0%, 50%, 100% light change in sequence
P-2	light fade in and fade out

### 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, reverse phase control, 10% minimum brightness, dimmer mode number is 1, dynamic mode number is 1, disable automatic blank screen.

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