

## Product introduction

JISIM JD1102 is a constant-current LED intelligent dimming driver, a compact product specially designed for indoor small-aperture embedded lamps. It supports triac (forward and reverse edge phase-cut) dimming function, and has a built-in slow-bright start function. The customized dimming curve makes the human eye more comfortable. When no external signal is connected, it can be used as a conventional driver. It is suitable for LED downlights, LED linear lights, and is widely used in high-end places such as smart homes, smart hotels, intelligent commercial lighting, smart offices, and intelligent buildings.

## Product Features

- Input voltage: 220-240Vac, global certification.
- V0 fire rating, Taiwan Chimei PC shell.
- Compact SELV independent dimming driver.
- Applicable to Class I/II/III indoor lighting fixtures.
- Smooth dimming,flicker-free,dimming range: 0.1-100%
- Small size, light weight, high efficiency, and low harmonic.
- DIP switch for multi-level current setting, with maximum output power of 10W.
- Up to 50,000 hours of service life with 5-year warranty (long-life capacitors).
- Compatible with most mainstream brand phase-cut dimmers on the market.
- Supports forward and reverse edge phase-cut dimming functions.
- Standby power consumption <0.5W, compliant with ErP energy efficiency certification.



## Technical Specifications (All parameters not specially mentioned are measured at 230VAC input, full load and 25°C of ambient temperature)

Model	JD1102			Features	Output Type	constant current	
Input	DC Voltage Range	220-240V	Dimming Interface		TRIAC		
	AC Voltage Range	220-240V	Output Feature		Isolation		
	Rated Voltage	220Vac/230Vac/240Vac	IP Rating		IP20		
	Input Frequency	50/60Hz	Insulation Rating		Class II (Suitable for class I II III light fixtures)		
	Input Current	≤0.12A/230Vac(at full load)	No Load Output Voltage		≤35Vdc		
	Input Power	Max.15W	Output Voltage Range		3-24V		
	Efficiency	≥76%(at full load)	Output Current Range		350-700mA		
	Inrush Current	Cold start 15.2A(Test twidth=102us under 50% Ipeak@230Vac)	Output Power Range		1-10W		
	Anti-Surge	L-N:1KV	Dimming Range		0.1~100%		
Protection	Leakage Current	<0.5mA/230Vac	Output		Ripple Current	<5%	
	Overload Protection	Hiccup Mode (Auto-Recovery after Elimination)			Voltage Accuracy	±5%	
	Open Circuit Protection	≤35Vdc			Working Temperature	ta:-20°C~45°C	
Safety & EMC	Short Circuit Protection	Hiccup Mode (Auto-Recovery after Elimination)			Working Humidity	20~90%RH(No Condensation)	
	Withstand Voltage	I/P-O/P:3750Vac, 5mA,60s			Storage Temperature/Humidity	-40~85°C/5~95%RH	
	Insulation Resistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH			Case Temperature	tc:80°C	
	Safety Standards	CCC	China		Life Time	>50000h@tc=80°C	
		CE	European Union				
		KC	Korea				
		TUV	Germany				
		ENEC	Europe				
		CB	CB Member States				
		RCM	Australia				
		BIS	India				
		EAC	Russia				
ErP	Flicker/Stroboscopic Effect	IEEE1789	Meet IEEE Std1789-2015	Environment			
		CIESVM	Pst≤1, SVM≤0.4				
	DF	Phase Factor	DF≥0.9				
Test Equipment	AC Source	PS-61005	Withstand Voltage Tester		TH9302D	Other	
	DC Electronic Load	IT8512A+	Thermostatic Humidity Chamber		HT-H-802		
	Surge Generator	SUG61005TB(7.5KV)-2216	Intelligent Electrical Parameter Meter		PF9800	LED Load	
	Stroboscope	LANSHU-201B	Oscilloscope		TBS1102B		
			Digital Wattmeter		PM2818C		

## Triac Dimmable LED Driver

## LED Current Settings

Number	Output			Power (W)	Switch Position		
	Current (mA)	Voltage (VDC)	NO Load Outout Voltage (VDC)		1	2	3
*1	350	3-24		8.4	/	/	/
2	400	3-24		9.6	ON	/	/
3	450	3-22		9.9	/	ON	/
4	500	3-20		10	ON	ON	/
5	550	3-18	35	9.9	/	/	ON
6	600	3-16		9.6	ON	/	ON
7	650	3-15		9.7	/	ON	ON
8	700	3-14		9.8	ON	ON	ON

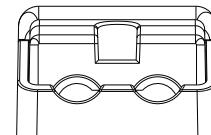
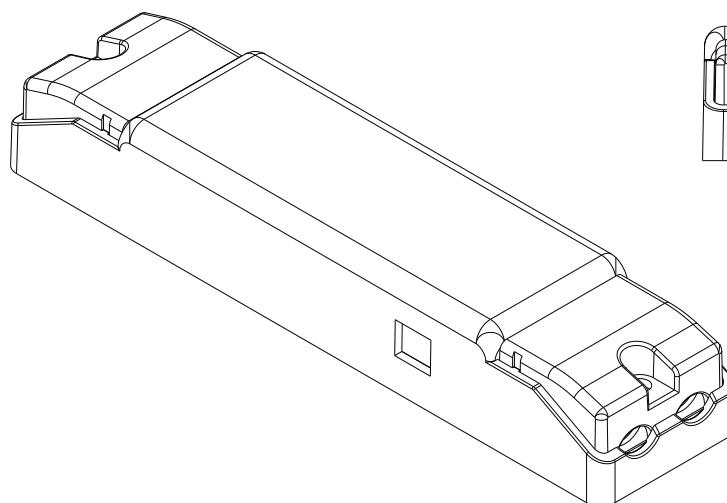
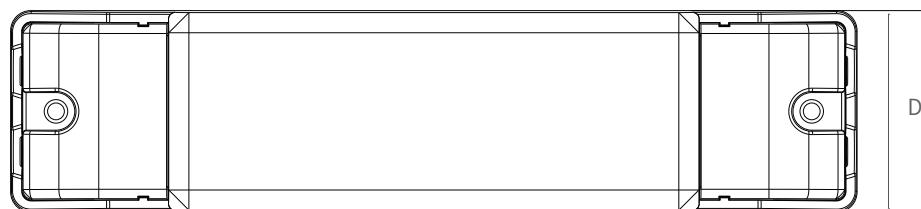
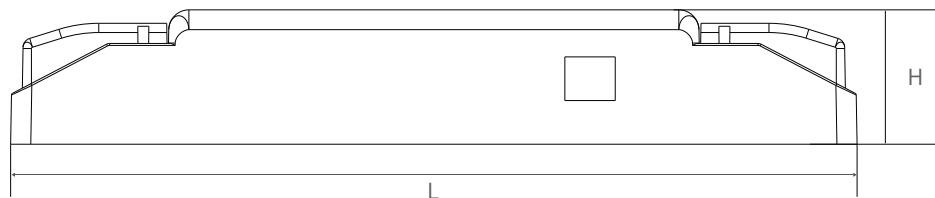
◀ \* Factory default.

1. Please disconnect the AC input before adjusting the output current via the DIP switch, if not, it may damage the lighting fixture.

2. No Overload, The output power should be less than or equal to 10W.

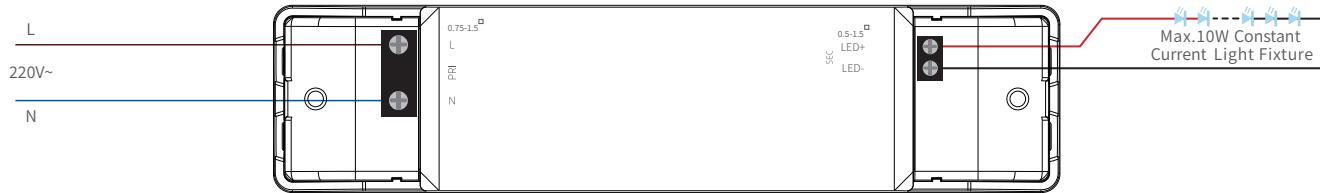
## 2D Diagram

Length (L)	Width (D)	Heigh(H)	Weight(W)
126mm	30mm	20mm	68±10g



## Triac Dimmable LED Driver

## Wiring Diagram



## Installation Instructions

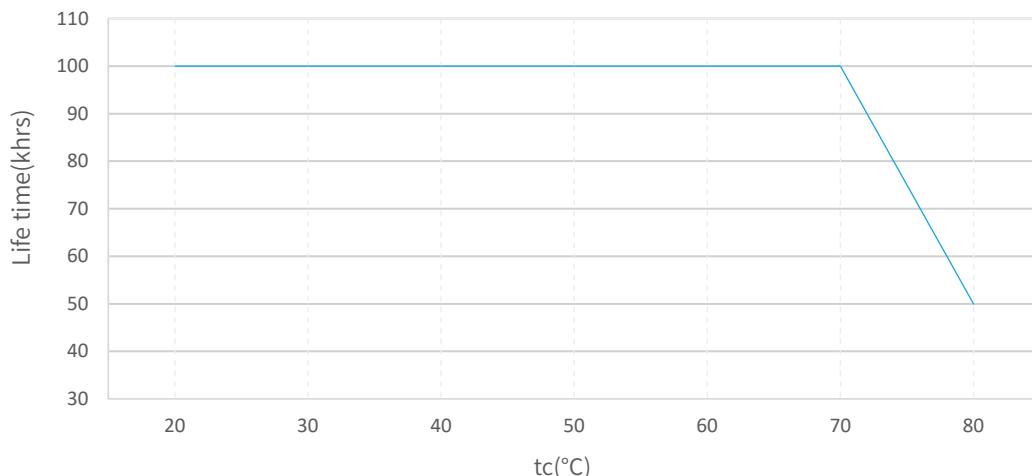
Interface	Marking	Description	wire cross Section	wire Stripping Length
Input	L	Input terminal of AC live wire	0.75...1.5mm <sup>2</sup> (16-18AWG)	5...6mm
	N	Input terminal of AC neutral wire	0.75...1.5mm <sup>2</sup> (16-18AWG)	5...6mm
Output	LED+	Positive electrode output of the driver	0.5...1.5mm <sup>2</sup> (16-20AWG)	5...6mm
	LED-	Negative electrode output of the driver	0.5...1.5mm <sup>2</sup> (16-20AWG)	5...6mm

## Connection instructions

- 1.Rated torque: M2.6,0.35~0.40N.m
- 2.No secondary switches are allowed.
- 3.The driver output does not support hot swap
- 4.Incorrect wiring can damage the LED.
- 5.The power cable should be kept at a certain distance from the driver and other connecting cables (5-10cm recommended)

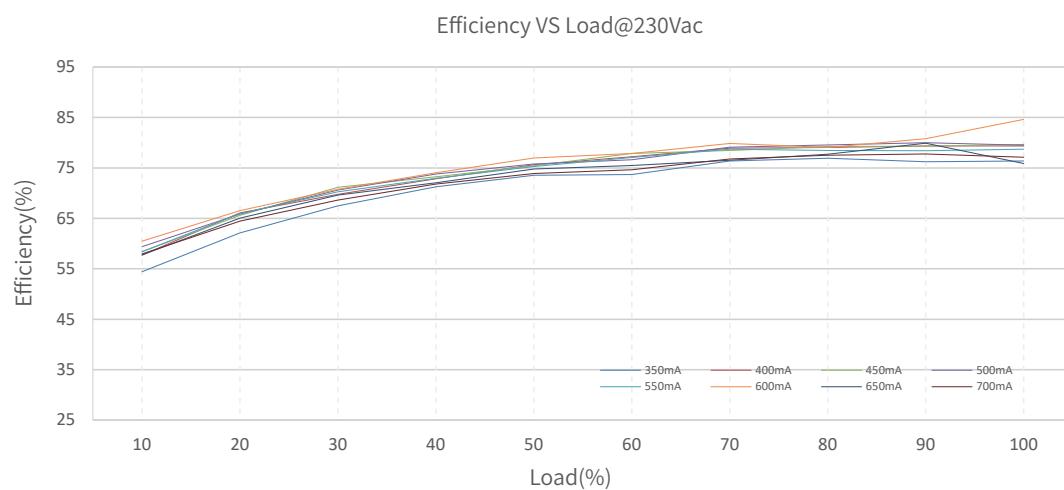
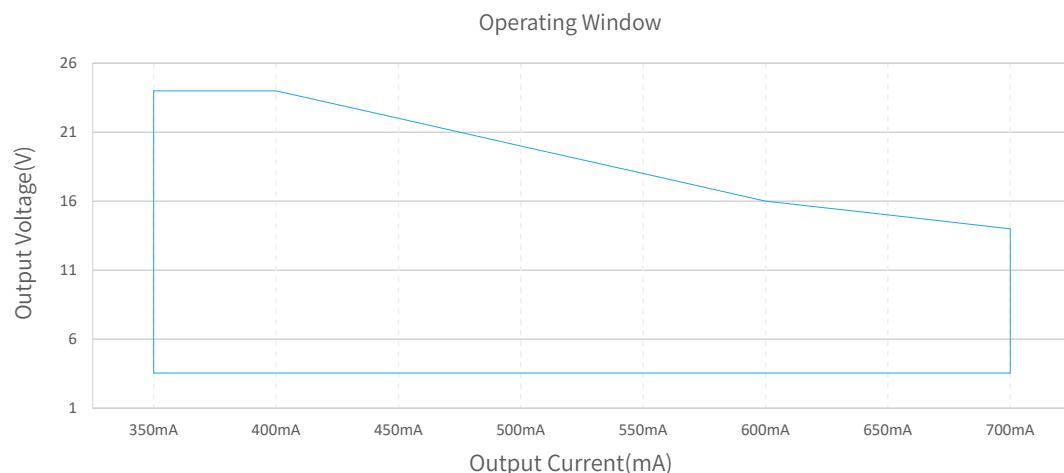
## Product Characteristic Curves

Life Time VS Tcase



The life-time of the LED driver is shown in the figure above calculated (based on the 80% survival rate).  
The relation of tc to ta temperature depends also on the luminaire design.

## Triac Dimmable LED Driver



## Packaging Image



## Triac Dimmable LED Driver

## Packaging Size

Packaging Details	Carton Size	Packing Units	Weight
Inner Packaging Box	140x33x23mm	1pcs	78.2±10g
Small Carton Packaging	350 x 197 x 167mm	80pcs	6.56kg
Large Carton Packaging	420 x 360 x 365mm	320pcs	27.1kg

## Packaging instructions:

Each large carton packaging contains 4 small carton packagings, Each small carton packaging contains 80 inner packaging boxes.

## Cautions

- This product is used as a component in conjunction with a lighting fixture. Due to the influence of EMC from the lighting fixture and wiring, customers should perform EMC testing to confirm the entire product set.
- No operation with power on. Installation and debugging should be performed by qualified professionals. Please read the product manual carefully before installation.
- This product can only be used outside the light body, Cannot be used inside of the light, and it must be used with in the specified working environment.
- This product is not waterproof and should be avoided from direct sunlight and rain. If it is installed outdoors, please use a waterproof case.
- Good heat dissipation conditions are beneficial to the product's lifetime. Please install the product in a suitable environment, and strictly prohibit using double-sided tape to attach the casing or circuit board.
- Please check the parameters of the LED driver to ensure they meet the application requirements of the lighting fixture.
- Please install according to the standard wire gauge specified in the manual to avoid malfunctions caused by inappropriate wiring.
- Before powering on, please ensure that the wiring is correct to prevent damage to the driver or lighting fixture caused by incorrect wiring.
- If a malfunction occurs, please do not attempt to repair it yourself, if you have any questions, please contact the manufacturer.
- The manual is for reference only. Please refer to the actual product. Any changes to this product will not be notified separately.
- For more information, please send an email to fei.l@jisim-tech.com.

## Warranty Terms

- The product is warranted for 5 years. (The life and MTBF of the product are for reference only, and do not represent a warranty statement.)
- During the warranty period, if any quality issues arise, JISIM will provide free repair or replacement services.

## Non-Warranty Terms

The following situations are not covered by the free warranty or replacement service:

- The warranty period has expired.
- Damage caused by human factors such as overvoltage, overload, or improper operation.
- Deformation or damage to the exterior appearance.
- Damage caused by natural disasters or other irresistible human factors.
- The warranty label has been torn off or removed.
- No contract or invoice proof is provided.



## Notice:

1. Repair or replacement provided is the only remedy for customers. JISIM is not liable for any incidental or consequential damage unless it is within the law.
2. JISIM has the right to amend or adjust the terms of this warranty, and any release in written form shall prevail.