

Product introduction

JISIM JD5209A is a constant voltage LED intelligent tunable white dimming driver. It is a product specially designed for indoor constant voltage lamps. It supports Bluetooth tunable white dimming function. The customized dimming curve section makes the human eye more comfortable; when no external signal is connected, it can be used as a non-dimming driver; It is suitable for LED strips, linear lamps, lamp films, magnetic lamps, decorative lamps; It is widely used in smart homes, smart hotels, smart commercial lighting, smart offices, smart buildings, large public buildings, etc. Places.



Product Features

- Compact SELV independent dimmable driver
- Support Bluetooth tunable white dimming
- Globally certified, SELV equivalent
- Suitable for class I II III luminaires
- Output power up to 120W
- Up to 50000 hours life time, 5-Year Warranty (Long-lasting Capacitor)
- Smooth dimming, no stroboscopic, no noise, dimming range: 0.1-100%
- Small size and light weight, High power factor, High Efficiency, Low THD
- The housing is made from V0 flame retardant PC materials from CHIMEI
- Standby power consumption <0.5 W, meets ErP energy efficiency certification



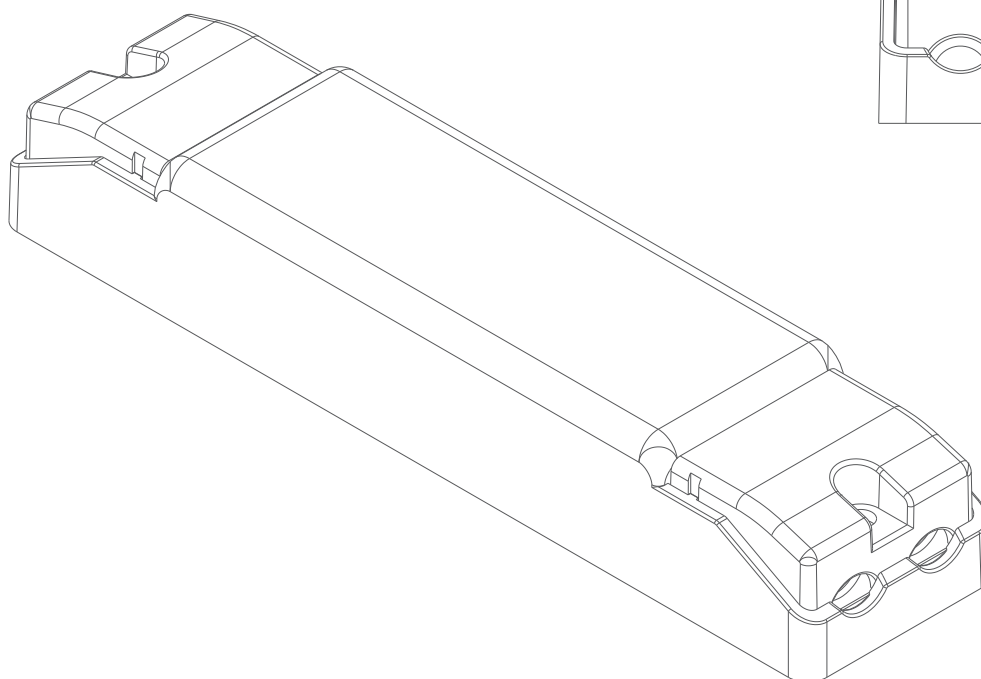
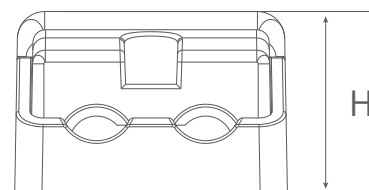
Technical Specifications (All parameters not specially mentioned are measured at 230VAC input, full load and 25°C of ambient temperature)

Model	JD5209A			Output Type	Constant Voltage	
Input	DC Voltage Range	220-240V		Communication mode	Bluetooth	
	AC Voltage Range	220-240V		Output Feature	Isolation	
	Rated Voltage	220Vac/230Vac/240Vac		IP Rating	IP20	
	Input Frequency	0/50/60Hz		Insulation Rating	Class II (Suitable for class I II III light fixtures)	
	Input Current	≤0.75A/230Vac(at full load)		No Load Output Voltage	≤25Vdc	
	Input Power	Max.135W		Rated Voltage	24Vdc	
	Power Factor	PF>0.95C/230Vac(at full load)		Output Current Range	Max.5A	
	THD	THD<8%/230Vac(at full load)		Output Power Range	120W	
	Efficiency	≥90%(at full load)		Dimming Range	0.1~100%	
	Inrush Current	<75A&230uS@230Vac		Ripple	Max.240mV	
Anti-Surge	L-N:1KV		Voltage Accuracy	±5%		
Leakage Current	<0.5mA/230Vac		PWM Frequency	16000Hz		
Protection	Overload Protection	Hiccup Mode (Auto-Recovery after Elimination)		Working Temperature	ta:-20°C~45°C	
	Open Circuit Protection	≤25Vdc		Working Humidity	20~95%RH(No Condensation)	
	Short Circuit Protection	Hiccup Mode (Auto-Recovery after Elimination)		Storage Temperature/Humidity	-20~85°C/10~95%RH	
				Case Temperature	tc:90°C	
Safety & EMC	Withstand Voltage	I/P-O/P: 3750Vac, 5mA, 60s			Life Time	>50000h@tc=90°C
	Insulation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH				
	Safety Standards	CCC	China	GB19510.1, GB19510.14		
		CE	European Union	EN61347-1, EN61347-2-13, EN62493		
		KC	Korea	KC61347-1, KC61347-2-13		
		TUV	Germany	EN61347-1, EN61347-2-13, EN62493		
		ENEC	Europe	EN61347-1, EN61347-2-13, EN IEC62384		
		CB	CB Member States	IEC61347-1, IEC61347-2-13		
		RCM	Australia	AS/NZS61347.1, AS61347.2.13		
		BIS	India	IS15885(PART2/SEC13)		
	EMC Emission	EAC	Russia	IEC61347-1, IEC61347-2-13		
		UKCA	United Kingdom	BS EN61347-1, BS EN IEC61347-2-13, BS EN62493		
		CCC	China	GB/T17743, GB17625.1		
		CE	European Union	EN IEC55015, EN IEC61000-3-2, EN61000-3-3		
		KC	Korea	KSC9815, KSC9547		
RCM		Australia	EN IEC55015, EN IEC61000-3-2, EN61000-3-3			
UKCA		United Kingdom	BS EN IEC55015, BS EN IEC6100-3-2, BS EN61000-3-3			
EMC Immunity	EAC	Russia	IEC62493.IEC61547, EN55015.IEC61000-3-2, IEC61000-3-3			
	BIS	India	IS15885(PART2/SEC13)			
ErP	Flicker/ Stroboscopic Effect	IEEE1789	Meet IEEE Std1789-2015			
		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		
	Spectrum Analyzer	KH3932	Intelligent Electrical Parameter Meter	PF9800	LED Load	
	Surge Generator	SUG61005TB(7.5KV)-2216	Oscilloscope	TBS1102B		
	Stroboscope	LANSHU-201B	Digital Wattmeter	PM2818C		

Bluetooth Tunable White Dimmable LED Driver

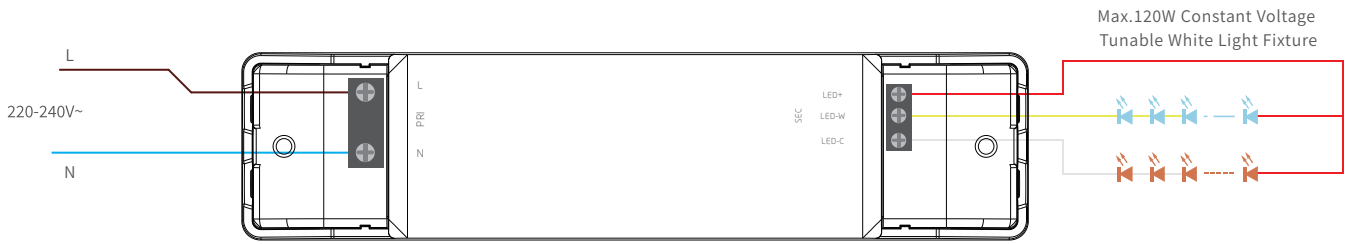
2D Diagram

Length (L)	Width (D)	Heigh(H)	Weight(W)
325mm	44mm	30mm	365.1±10g



Bluetooth Tunable White Dimmable LED Driver

Wiring Diagram



Installation Instructions

Interface	Marking	Description	Wire cross section	Wire Stripping length
Input	N	Input terminal of AC neutral wire	0.75...1.5mm ² (16-18AWG)	5...6mm
	L	Input terminal of AC live wire	0.75...1.5mm ² (16-18AWG)	5...6mm
Output	LED+	Positive electrode output of the driver	0.75...2.5mm ² (14-18AWG)	5...6mm
	LED-W	Negative electrode output of warm light	0.75...2.5mm ² (14-18AWG)	5...6mm
	LED-C	Negative electrode output of cold light	0.75...2.5mm ² (14-18AWG)	5...6mm

Connection instructions

1. Rated torque: M2.6, 0.35~0.40N.m
2. All connections must be as short as possible to ensure good EMI performance.
3. Driver output 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)

App operation Instructions

1.Account Registration

Download and install the Mi Home App via HarmonyOS/IOS/Android. Once installed, you can proceed with login/registration.

2.Adding Devices

After creating a family in "My" - "Family Management" - "Create Family" as a new user, manage the family location and naming of rooms within the family. Tap the "Mi Home" interface to "Add Devices". Select "Auto Discover" in the device addition list to automatically search for devices.

The Devices can be automatically discovered. Follow the prompts to complete device addition (ensure that already added devices are powered on or reset with the light in breathing mode. For remote control, a Bluetooth gateway should be paired).

3.Function Settings

After successfully adding the device, tap the device to enter the specific light control interface, where you can freely control the device's on/off status, lighting level, color temperature, grouping, scene timing, and more features.

4.Scenes and Automation

Users can customize scenes and automation based on their needs, with features such as lighting scene libraries and circadian rhythm lighting.

5.Resetting the Device

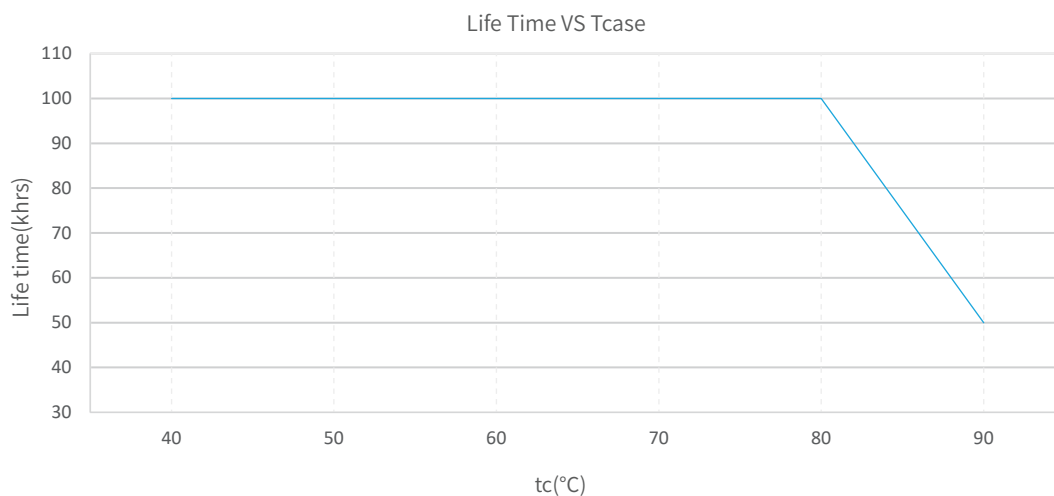
Turn the power switch on and off consecutively 8 times , After the 9th power-on, the lamp will breathe bright to dark 5 times, indicating successful resetting. The lamp defaults to neutral light at 100%,signifying that the device has been successfully reset and entered the network configuration state.

6.Voice Control

The device supports voice control within the Mi Home ecosystem.

Bluetooth Tunable White Dimmable LED Driver

Product Characteristic Curves



The life-time of the LED driver is shown in the figure above calculated (based on the 90% survival rate). The relation of tc to ta temperature depends also on the luminaire design.

Packaging Image



Packaging Size

Packaging Details	Carton Size	Packing Units	Weight
Inner Packaging Box	329x 49 x 34mm	1pcs	405.2±10g
Small Carton Packaging	350 x 197 x 167mm	13pcs	5.56kg
Large Carton Packaging	420 x 360 x 365mm	52pcs	23.2kg

Packaging instructions:

Each large carton packaging contains 4 small carton packagings, Each small carton packaging contains 13 inner packaging boxes.

Bluetooth Tunable White Dimmable LED Driver

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 within 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 release in written form shall prevail.