JISIM 仟思盟[®]

0/1-10V PWM RX Dimmable LED Driver

C € RoHS

Product introduction

tion ••••

JISIM JD2143 is a 8.4W constant current LED intelligent dimmable driver specifically designed for built in driver luminaires. it supports deep dimming functions such as 0-10V,1-10V,10V PWM,and RX.The customized dimming curve provides a more comfortable viewing experience for the human eye.When not connected to anexternal signal,it can be used as a non-dimmable driver and supports a gradual start-up effect.lt is suitable for LED Track light, LED surface-mounted downlights,LED wall lamps.Paired with various intelligent control systems,it is widely used in smart homes, smart hotels,intelligent commercial spaces,smart offices,smart buildings,and other facilities.

Product Features

- Compact SELV built in Dimmable Driver
- Support 0-10V,1-10V,10VPWM,Rx dimming
- Suitable for Class I/ II / III indoor light fixtures
- Smooth dimming,flicker-free,dimming range: 0.1-100%
- Glue filling process, Adapt to higher ambient temperatures
- DIP switch for multi-current setting, Max. output power 8.4W
- Up to 30000 hours life time,5-Year Warranty(Long-lasting Capacitor)
- Small size and light weight, High Efficiency
- The housing is made from V0 flame retardant PC materials from CHIMEI



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

Model	JD2143				Output Type		Constant Current	
	DC Voltage Range	220-240V		Features	Dimming Interface		1-CH 0-10V/1-10V_RX_PWM	
	AC Voltage Range	220-240V			Output Feature		Isolation	
	Rated Voltage	220Vac/230Vac/240Vac			IP Rating		IP20	
Input	Input Frequency	0/50/60Hz			Insulation Rating		Class II (Suitable for class I II III light fixtures)	
	Input Current	≤0.1A/230Vac(at full load)			No Load Output Voltage		≤35Vdc	
	Input Power	Max.11W			Output Voltage Range		2-24Vdc	
	Efficiency	≥78%(at full load)			Output Current Range		350-700mA	
	Inrush Current	Cold start 15A(Test twidth=102us under 50% Ipeak@230Vac)			Output Power Range		1-8.4W	
	Leakage Current	<0.5mA/230Vac	\/230Vac		Dimming Range		0.1~100%	
	Overload Protection	Hiccup Mode (Auto-Recovery after Elimination)		-	Ripple Current Current Accuracy		<5% ±5%	
Protection	Open Circuit Protection	≤35Vdc			PWM Frequency		<6000Hz	
	Stort Circuit	Hiccup Mode (Auto-Recovery after Elimination)			Working Temperature ta:		ta:-20°C~60°C	
	Protection				Working Humidity		20~95%RH(No Condensation)	
	Flicker/ Stroboscopic Effect	IEEE1789	Meet IEEE Std1789-2015	Environment	Storage Temperature/Humidity		-20~85°C/10~95%RH	
ErP				-	Case Temperature		tc:90°C	
		CIESVM	Pst≤1, SVM≤0.4		Life Time		>30000h@tc=9)00h@tc=90°C
Test Equipment		AC Source	PS-61005	Withstand Voltage Tester		TH9302D		- Other
		DC Electronic Load	IT8512A+	Thermostatic Humidity Chamber		HT-H-802		
		Spectrum Analyzer	KH3932	Ntelligent Electrical Parameter Meter		PF9800		
		Surge Generator	SUG61005TB(7.5KV)-2216	Oscilloscope		TBS1102B		LED Load
		Stroboscope	LANSHU-201B	Digital Wattmeter		PM2	818C	

LED Current Settings

	 	Out	Switch Position			
Number	Current	Voltage	NO Load Outout Voltage	Power	1	2
	(mA)	(VDC)	(VDC)	(W)		
*1	350	2-24		8.4	/	/
2	450	2-18	35	8.4	ON	/
3	600	2-14	, 35 !	8.4	/	ON
4	700	2-12		8.4	ON	ON

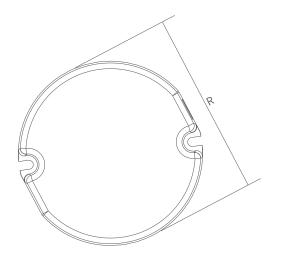
- ★ * Factory default.
- 1. Please disconnect the AC input before adjusting the output current via the DIP switch, If not, it may damage the lighting fixture.
- 2. No Overload, The output power should be less than or equal to 8.4W.

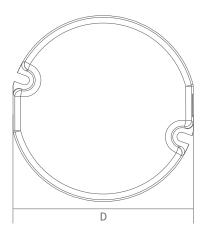
版本:20240907-1.0 www.jisim-tech.com

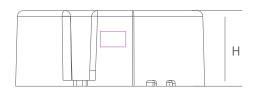


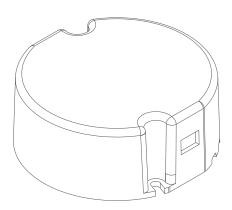
2D Diagram











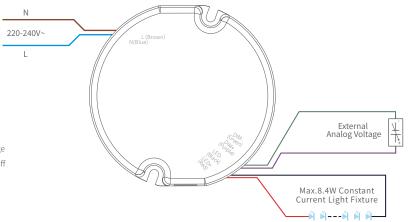
Wiring Diagram

© Explanation of 0/1-10V Interface Signals ©

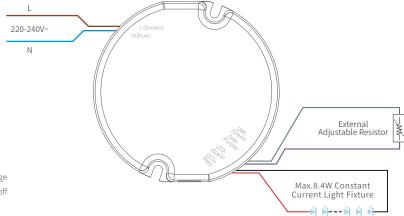
◀ The DIM+ terminal is used to adjust brightness:

When the voltage at the DIM+ terminal is adjusted within the range of 0/1-10V, the brightness changes from 0 to 100%. The light turns on/off at a voltage value of 1.1 \pm 0.05V.

When DIM+ terminals is left floating (unconnected), the default output is 100% Brightness.





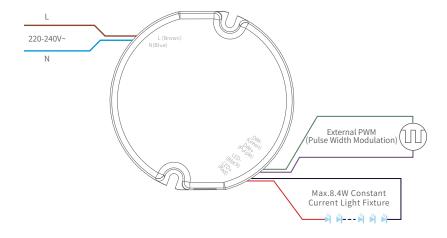


Explanation of 0/1-10V Interface Signals

- ◆ The DIM+ terminal is used to adjust brightness:

 When the voltage at the DIM+ terminal is adjusted with the policy of the
 - When the voltage at the DIM+ terminal is adjusted within the range of 0/1-10V, the brightness changes from 0 to 100%. The light turns on/off at a voltage value of 1.1 \pm 0.05V.
- When DIM+ terminals is left floating (unconnected), the default output is 100% Brightness.

- ◆ The DIM+ terminal is used for adjusting brightness: When the 10V PWM signal at the DIM+ terminal is adjusted from 0 to 100%, the brightness changes correspondingly from 0 to 100%.
- When DIM+ terminals is left floating (unconnected), the default output is 100% cool Brightness.



Installation Instructions

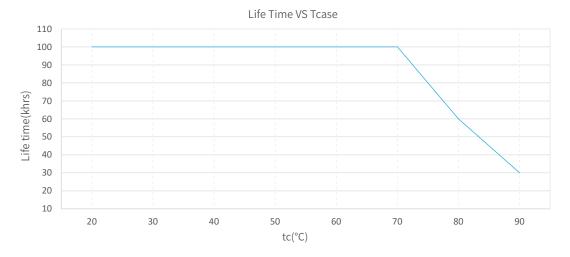
Interface	Marking	Description		
l l	L	Input terminal of AC live wire		
Input	N	Input terminal of AC neutral wire		
Output	LED-	Negative electrode output of the driver		
I Output	LED+	Positive electrode output of the driver		
Signal	DIM-	Negative electrode input 0-10V/PWM/RX dimming		
Jigilal	DIM+	Positive electrode input 0-10V/PWM/RX dimming		

Connection instructions

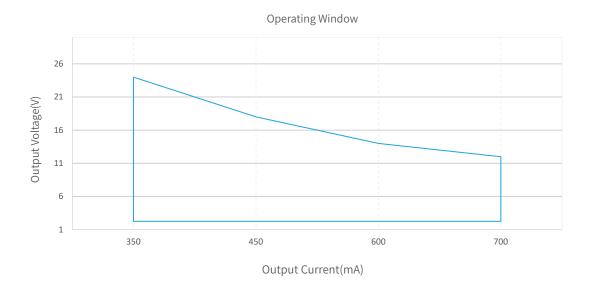
- 1. Check the color of the interface and cable carefully before wiring.
- 2.All connections must be as short as possible to ensure good EMI performance.
- $3. No \ secondary \ switches \ are \ allowed.$
- $4. The \, driver \, output \, does \, not \, support \, hot \, swap$
- 5.Incorrect wiring can damage the LED.

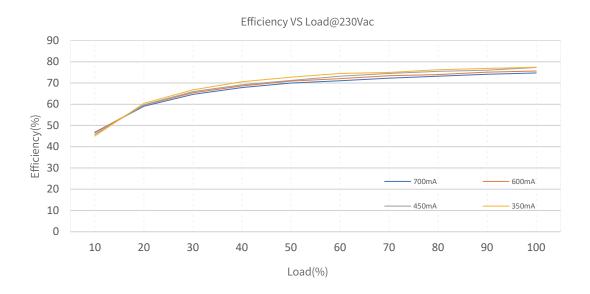


Product Characteristic Curves



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 Image



Packaging Size

Packaging Details	Carton Size	Packing Units	Weight
Inner Packaging Box	55x50x26.5mm	1pcs	58.4±10g
Small Carton Packaging	350 x 197 x 167mm	108pcs	6.6kg
Large Carton Packaging	420 x 360 x 365mm	408pcs	27.3kg

Packaging instructions:

Each large carton packaging contains 4 small carton packagings, Each small carton packaging contains 108 inner packaging boxes.

Cautions

- ➤ This product is used as a componentin 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 carefuly before installation.
- ➤ This product can be installed inside the luminaire for use, but the internal temperature of the luminaire must be strictly controlled to not exceed 60°C. Exceeding this temperature may adversely affect the service life of the luminaire.
- > This product is not waterproof and should be avoided from direct sunlight and rain. fit 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.