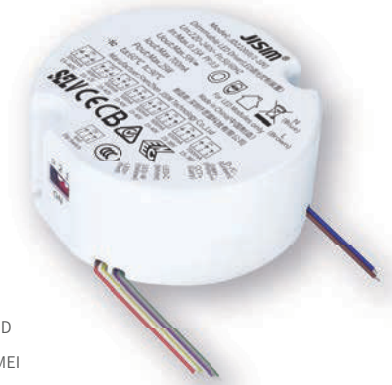


## 0/1-10V PWM RX Tunable White Dimmable LED Driver



### Product introduction >>>----->>>

JISIM JD2220 is a 25W constant current LED intelligent Tunable White 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 an external signal,it can be used as a non-dimmable driver and supports a gradual start-up effect.It 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,1-10 V,10VPWM,Rx dimming
- Glue filling process, Global Certification
- Suitable for Class I/ II /III indoor light fixtures
- Smooth dimming,flicker-free,dimming range: 0.3-100%
- DIP switch for multi-current setting, Max. output power 25W
- Up to 30000 hours life time,5-Year Warranty(Long-lasting Capacitor)
- 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	JD2220			Output Type	Constant Current	
Input	DC Voltage Range	198-264V		Dimming Interface	2-CH 0-10V/1-10V_RX_PWM	
	AC Voltage Range	198-264V		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	≤0.15A/230Vac(at full load)		No Load Output Voltage	≤59Vdc	
	Input Power	Max.30W		Output Voltage Range	15-40Vdc	
	Power Factor	PF>0.9C/230Vac(at full load)		Output Current Range	350-700mA	
	THD	THD<8%/230Vac(at full load)		Output Power Range	5-25W	
	Efficiency	≥84.5%(at full load)		Dimming Range	0.3-100%	
	Inrush Current	Cold start 15A(Test twidth=102us under 50% Ipeak@230Vac)		Ripple Current	<5%	
Anti-Surge	L-N:1KV		Current Accuracy	±5%		
Leakage Current	<0.5mA/230Vac		PWM Frequency	<6000Hz		
Protection	Overload Protection	Hiccup Mode (Auto-Recovery after Elimination)		Working Temperature	ta:-20°C~60°C	
	Open Circuit Protection	≤59Vdc		Working Humidity	20~95%RH(No Condensation)	
	Stort Circuit Protection	Hiccup Mode (Auto-Recovery after Elimination)		Storage Temperature/Humidity	-20~85°C/10~95%RH	
Safety & EMC	Withstand Voltage	I/P-O/P: 3750Vac, 5mA,60s, I/P-DIM/P:1500Vac,5mA,60s,O/P-DIM/P:1500Vac,5mA,60s			Case Temperature	tc:90°C
	Insulation Resistance	I/P-O/P:100MΩ/500VDC/25°C/70%RH			Life Time	>30000h@tc=90°C
	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	EN61000-4-2,3,4,5,6,8,11,EN61547					
ErP	Power Consumption	Standby Power Consumption	<0.5W (PWM Off)			
	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	Ntelligent Electrical Parameter Meter	PF9800	LED Load	
	Surge Generator	SUG61005TB(7.5KV)-2216	Oscilloscope	TBS1102B		
	Stroboscope	LANSHU-201B	Digital Wattmeter	PM2818C		

## 0/1-10V PWM RX Tunable White Dimmable LED Driver

### LED Current Settings

Number	Output				Switch Position		
	Current (mA)	Voltage (VDC)	NO Load Outout Voltage (VDC)	Power (W)	1	2	3
*1	350	15-40	59	14	/	/	/
2	400	15-40		16	ON	/	/
3	450	15-40		18	/	ON	/
4	500	15-40		20	ON	ON	/
5	550	15-40		22	/	/	ON
6	600	15-40		24	ON	/	ON
7	650	15-38		24.7	/	ON	ON
8	700	15-36		25	ON	ON	ON

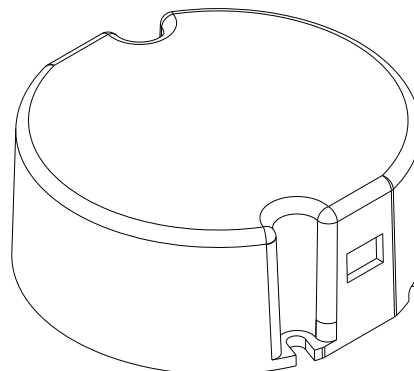
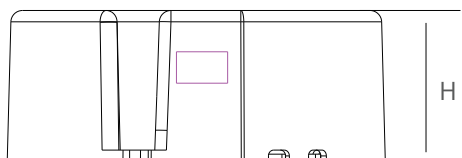
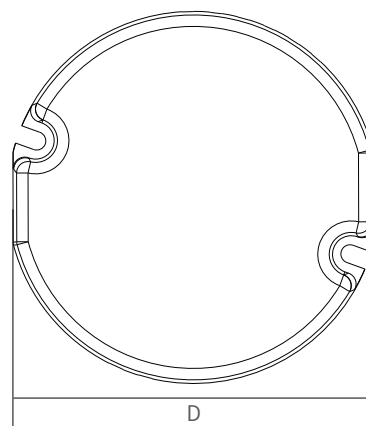
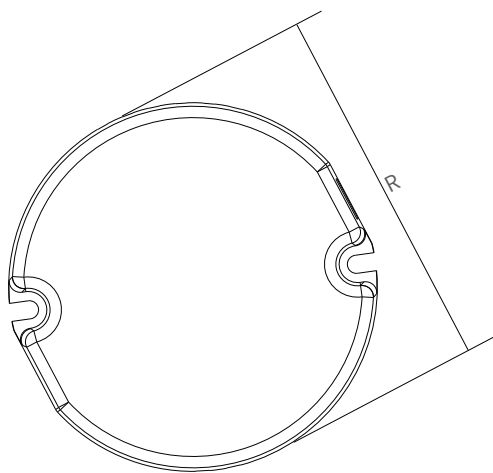
◀ \* Factory default.

◀ 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 25W.

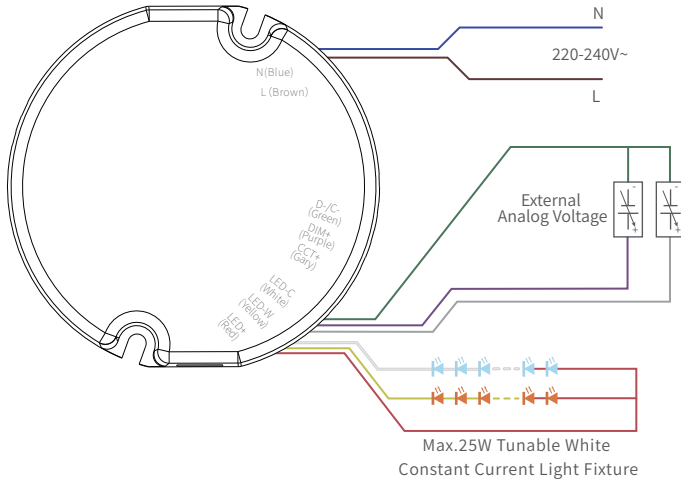
### 2D Diagram

Diameter (R)	Width (D)	Heigh (H)	Weight (W)
65mm	63mm	26mm	123±10g



## 0/1-10V PWM RX Tunable White Dimmable LED Driver

### Wiring Diagram

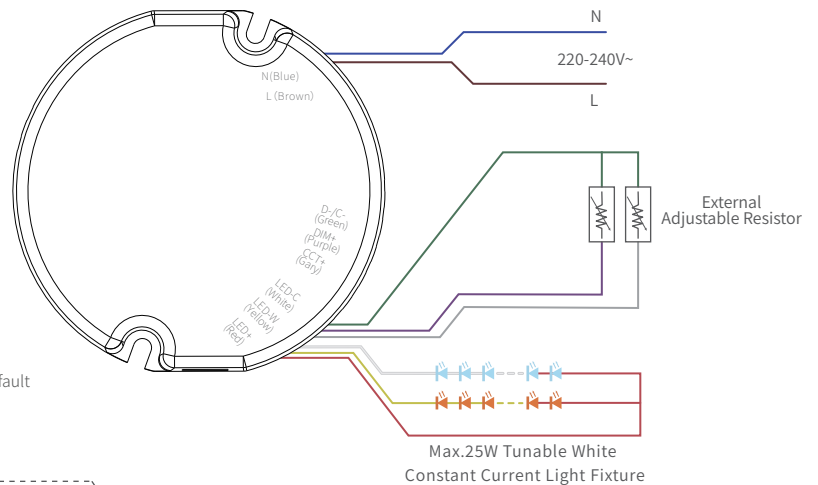


#### Explanation of 0/1-10V Interface Signals

- ◀ 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  $1.1 \pm 0.05V$ .
- ◀ The CCT+ terminal is used to adjust the color temperature between warm and cool:  
When the input voltage at the CCT+ terminal is adjusted within the range of 0/1-10V, the color temperature changes accordingly. The lower the voltage value, the lower the color temperature (warmer light); the higher the voltage value, the higher the color temperature (cooler light). The turn-on/off voltage for cool light is  $1.1 \pm 0.05V$ , and for warm light, it is  $8.5 \pm 0.05V$ .
- ◀ When both the DIM+ and CCT+ terminals are left floating (unconnected), the default output is 100% cool Brightness.

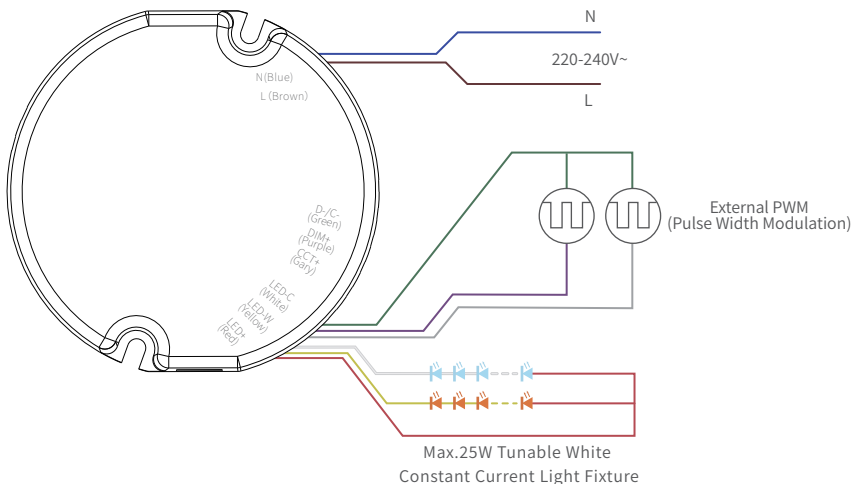
#### Potentiometer (Rx) Interface Signal Description

- ◀ The DIM+ terminal is used for adjusting brightness:  
When the resistance value at the DIM+ terminal is adjusted within 0-100K $\Omega$ , the brightness changes from 0 to 100%. Specifically, a resistance value of  $3K\Omega \pm 1K\Omega$  triggers the light to turn on/off.
- ◀ The CCT+ terminal is used for adjusting the color temperature between warm and cool tones:  
When the resistance value at the CCT+ terminal is adjusted within 0-100K $\Omega$ , the color temperature changes accordingly. The lower the resistance value, the lower the color temperature (warmer light); conversely, the higher the resistance value, the higher the color temperature (cooler light).
- ◀ When both the DIM+ and CCT+ terminals are left floating (not connected), the default output is 100% cold Brightness.



#### PWM Interface Signal Description

- ◀ 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%.
- ◀ The CCT+ terminal is used for adjusting the color temperature between warm and cool tones:  
When the 10V PWM signal at the CCT+ terminal is adjusted from 0 to 100%, the color temperature varies accordingly. Specifically, a lower PWM value results in a lower color temperature (warmer light), while a higher PWM value results in a higher color temperature (cooler light).
- ◀ When both the DIM+ and CCT+ terminals are left floating (not connected), the default output is 100% cold Brightness.



### Installation Instructions

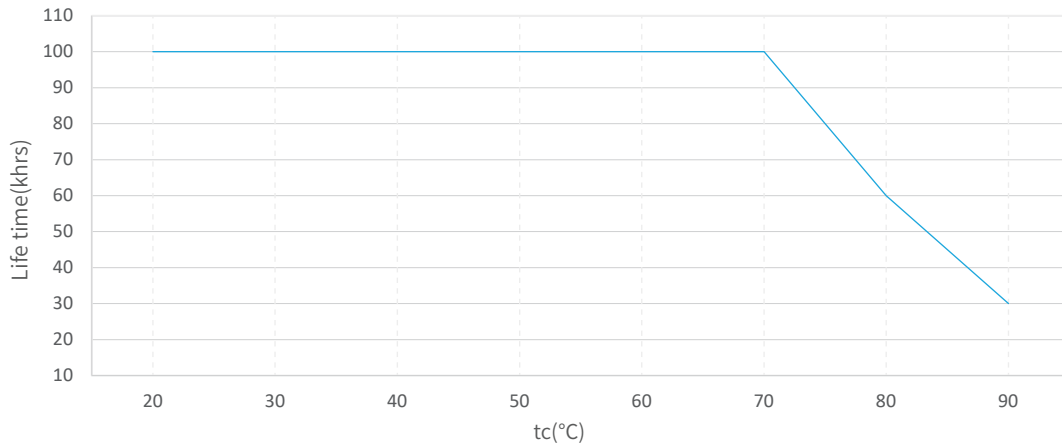
Interface	Marking	Description
Input	N	Input terminal of AC neutral wire
	L	Input terminal of AC live wire
Output	LED-C	Negative electrode output of cold light
	LED-W	Negative electrode output of warm light
	LED+	Positive electrode output of the driver
Signal	D-/C-	Negative electrode of CCT/DIM
	DIM+	Positive electrode input 0-10V/PWM/RX dimming
	CCT+	Positive electrode of CCT

#### 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.

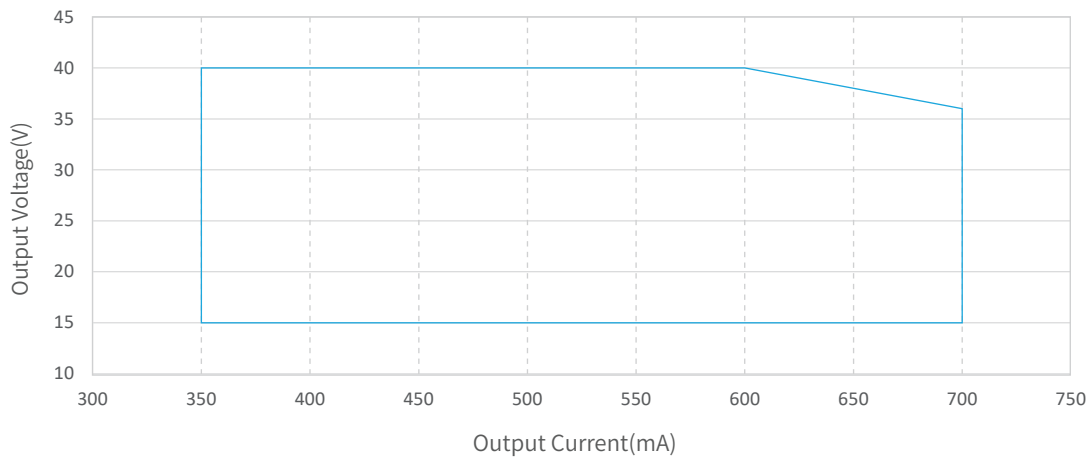
### Product Characteristic Curves

Life Time VS Tcase

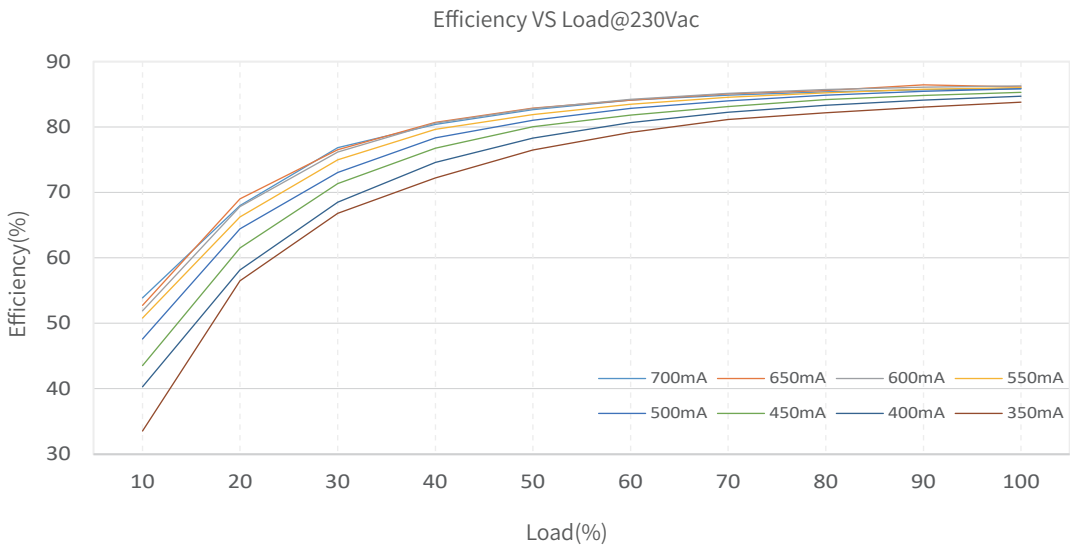
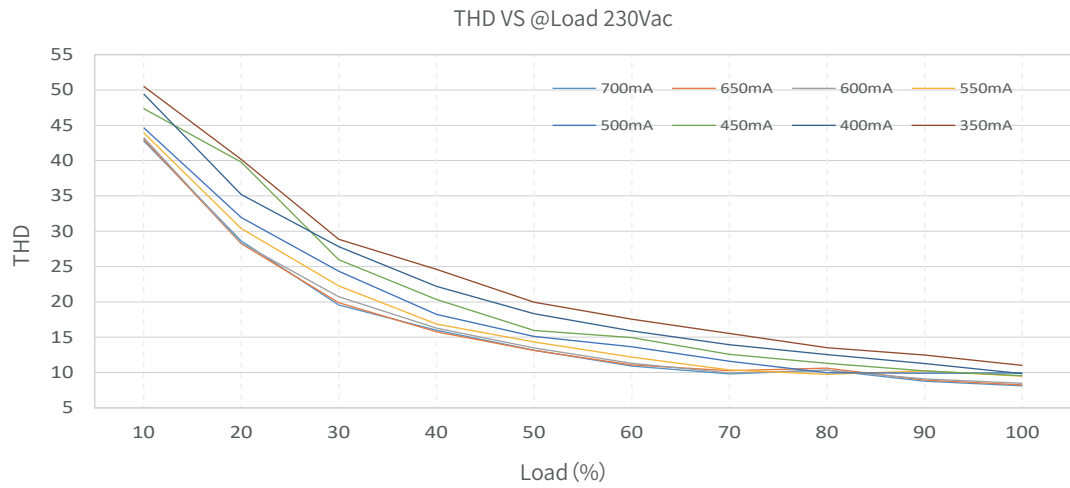
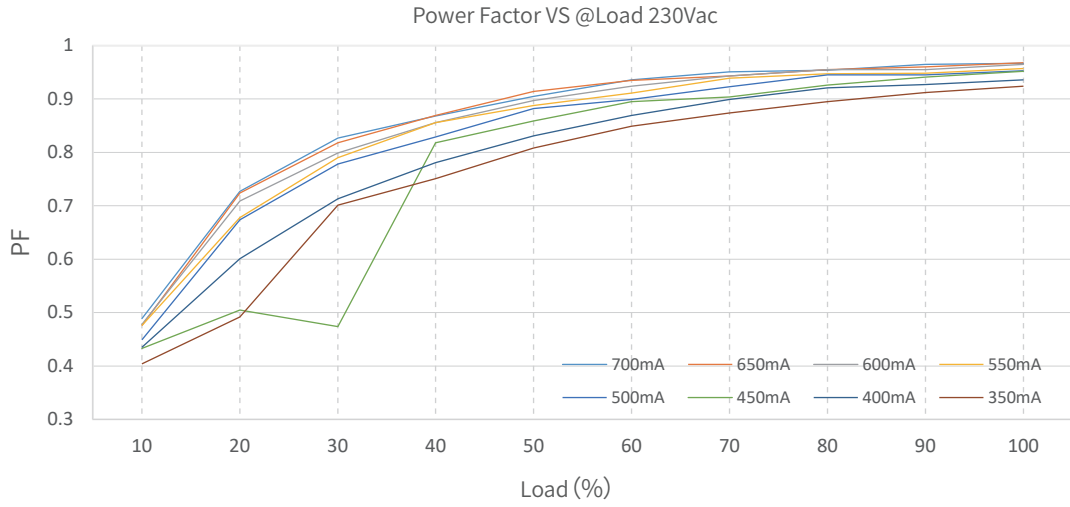


The life-time of the LED driver is shown in the figure above calculated (based on the 90% survival rate). The relation of tc to ta temperature depends also on the luminaire design.

Operating Window



0/1-10V PWM RX Tunable White Dimmable LED Driver



## 0/1-10V PWM RX Tunable White Dimmable LED Driver

## Packaging Image



## Packaging Size

Packaging Details	Carton Size	Packing Units	Weight
Inner Packaging Box	74x 75 x 33mm	1pcs	137.9±10g
Small Carton Packaging	350 x 197 x 167mm	48pcs	6.9kg
Large Carton Packaging	420 x 360 x 365mm	192pcs	28.58kg

## Packaging instructions:

Each large carton packaging contains 4 small carton packagings, Each small carton packaging contains 48 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 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. 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.

## 0/1-10V PWM RX Tunable White Dimmable LED Driver

## 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.