

# CB LK @ C € SELV RoHS

#### Product introduction

JISIM JD5220C is a 20W constant current LED intelligent tunable white dimmable driver specifically designed  $for small\ aperture\ luminaires.\ lt\ supports\ Blue tooth\ dimming\ functions. The\ customized\ dimming\ curve$ 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 small aperture  $downlights, spotlights, linear\ lights. Paired\ with\ various\ intelligent\ control\ systems, it\ is\ widely\ used\ in\ smart$ homes, smart hotels, intelligent commercial spaces, smart offices, smart buildings, and other facilities.

**>>>** 

#### Product Features

- Compact SELV independent Dimmable Driver
- Support Bluetooth tunable white dimming
- Global Certification, SELV equivalent
- Suitable for Class I/ II / III indoor light fixtures

- DIP switch for multi-current setting, Max. output power 20W
- Up to 50000 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
- Smooth dimming,flicker-free,dimming range: 0.1-100% 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	JD5120C					Output Type	Constant Curr	ent	
Input	DC Voltage Range 100-240V				Features	Dimming Interface	Bluetooth		
	AC Voltage Range	100-240V				Output Feature	Isolation		
	Rated Voltage	120Vac/23	0Vac			IP Rating	IP20		
	Input Frequency	50/60Hz			1	Insulation Rating	Class II (Suitable	for class         light fixture	
	Input Current	≤0.25A/100Vac(at full load) ≤0.12A/230Vac(at full load)				No Load Output Voltage	Max.59V		
	Input Power	Max.24W				Output Voltage Range	15-40Vdc		
	Power Factor	PF>0.95C/100Vac(at full load) PF>0.9C/230Vac(at full load)				Output Current Range	350-700mA		
	THD	THD<10%/	/230Vac(at full load)		Output	Output Power Range	5-20W		
	Efficiency	≥83%(at f	ull load)			Dimming Range	0.1~100%		
	Inrush Current	Cold start 15A(Test twidth=102us under 50% Ipeak@230Va				Ripple Current	<5%		
	Anti-Surge	L-N:1KV				Current Accuracy	±5%		
	Leakage Current	<0.5mA/23	80Vac			PWM Frequency	4000Hz		
Protection	Overload	Hissup Ma	do (Auto Dogovory of	tor Climination\		Working Temperature	ta:-20°C~45°C		
	Protection	Hiccup Mode (Auto-Recovery after Elimination)			Environment	Working Humidity	20~90%RH(No	Condensation)	
	Open Circuit	≤59Vdc				Storage Temperature/Hur			
rotection	Protection				- Liiviioiiiiieiic	Case Temperature	tc:75°C		
	Stort Circuit Protection	Hiccup Mode (Auto-Recovery after Elimination)				Life Time	>50000h@tc=	:75°C	
	Withstand Voltage	I/P-O/P:37	50Vac, 5mA,60s						
	Insulation Resistance			0%RH					
		/P-O/P:100MΩ/500VDC/25°C/70%RH   CCC   China   GB19510.1, GB19510.14							
		CE	European Union	EN61347-1, EN61347-2-13, EN62493					
	Safety Standards -	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)					
Safety		EAC	Russia	IEC61347-1, IEC61347-2-13					
&		UKCA	United Kingdom	BS EN61347-1, BS EN IEC61347-2-13, BS EN62493					
EMC	EMC Emission	CCC	China	GB/T17743, GB17625.1					
		CE	European Union	ENIEC55015, ENIEC61000-3-2, EN61000-3-3					
		KC	Korea	KSC9815, KSC9547					
		RCM	Australia	EN IEC55015, EN IEC61000-3-2, EN61000-3-3					
		UKCA							
		EAC Russia IEC62493.IEC61547, EN55015.IEC61000-3-2, IEC61000-3-3							
		BIS India IS15885(PART2/SEC13)							
	EMC Immunity		-2,3,4,5,6,8,11,EN615	. , , ,					
	Power Consumption		wer Consumption	<0.5W (PWM Off)					
		IEEE1789		Meet IEEE Std1789-2015					
ErP	Flicker/ Stroboscopic Effect	CIESVM		Pst≤1, SVM≤0.4					
	DF	Phase Factor		DF≥0.9					
Test Equipment		AC Source P.		PS-61005	Withstand Vo	ltage Tester	TH9302D	Other	
				IT8512A+		: Humidity Chamber	HT-H-802		
		Spectrum Analyzer		KH3932	Ntelligent Ele	ectrical Parameter Meter	PF9800		
		Surge Generator		SUG61005TB(7.5KV)-2216	Oscilloscope		TBS1102B	LED Load	
		Stroboscope						-	

版本:20241206-1.0 www.jisim-tech.com



**LED Current Settings** 

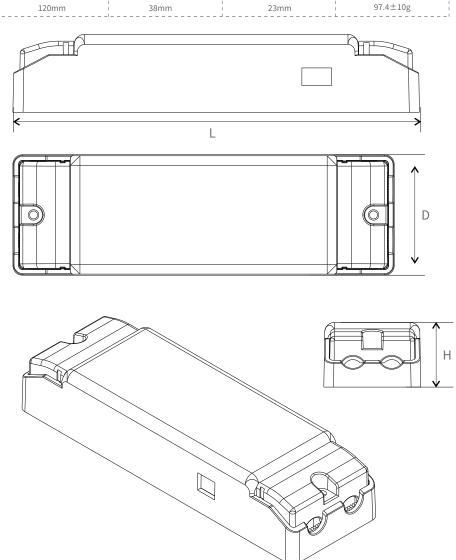
-----

	Output				Switch Position		
Number	Current	Voltage	NO Load Outout Voltage	Power	1	2	3
	(mA)	(VDC)	(VDC)	(W)	 		
*1	350	15-40		14	/	/	/
2	400	15-40		16	ON	/	/
3	450	15-40		18	/	ON	/
4	500	15-40	59	20	ON	ON	/
5	550	15-36	39	19.8	/	/	ON
6	600	15-33		19.8	ON	/	ON
7	650	15-30		19.5	/	ON	ON
8	700	15-28		19.6	ON	ON	ON

- ★ \* Factory default.
  - 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 20W.

2D Diagram







### Wiring Diagram





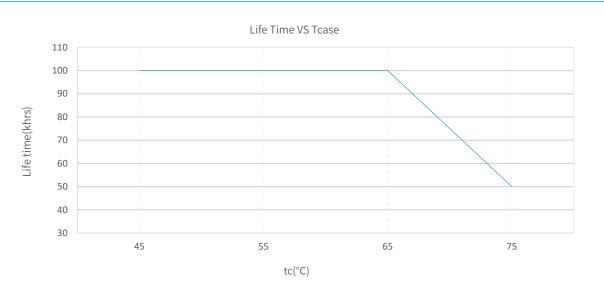
#### Installation Instructions

Interface	Marking	Description	Wire cross Section	Wire Stripping Length
Input	L	Input terminal of AC live wire	0.751.5mm² (16-18AWG)	56mm
	N	Input terminal of AC neutral wire	0.751.5mm² (16-18AWG)	56mm
Output	LED-W	Negative electrode output of warm light	0.51.0mm² (16-20AWG)	56mm
	LED-C	Negative electrode output of cold light	0.51.0mm² (16-20AWG)	56mm
	LED+	Positive electrode output of the driver	0.51.0mm² (16-20AWG)	56mm

#### Connection instructions

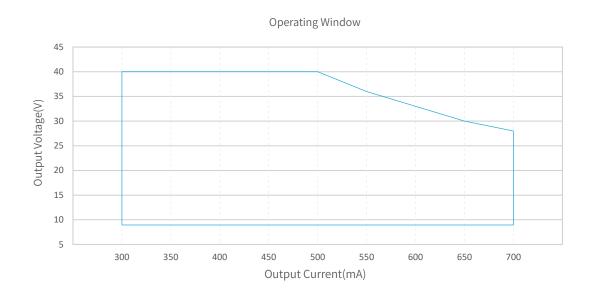
- 1.Rated torque: M2.6,0.35~0.40N.m
- $2. All\ connections\ must\ be\ as\ short\ as\ possible\ to\ ensure\ good\ EMI\ performance.$
- 3. Driver output support hot swap.
- $4. Incorrect wiring \, can \, damage \, the \, LED.$
- 5.The power cable should be kept at a certain distance from the driver and other connecting cables (5-10cm recommended)

#### Product Characteristic Curves

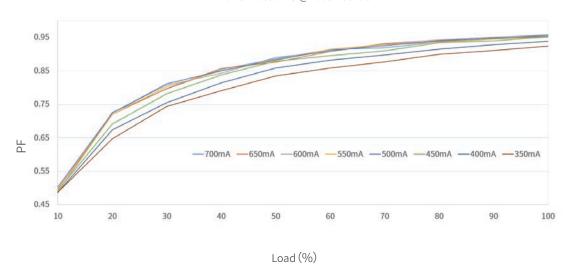


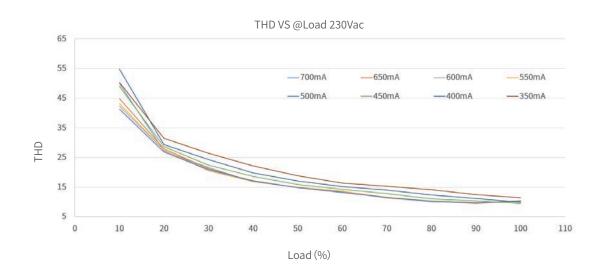
The life-time of the LED driver is shown in the figure above calculated (based on the 75% survival rate). The relation of tc to ta temperature depends also on the luminaire design.



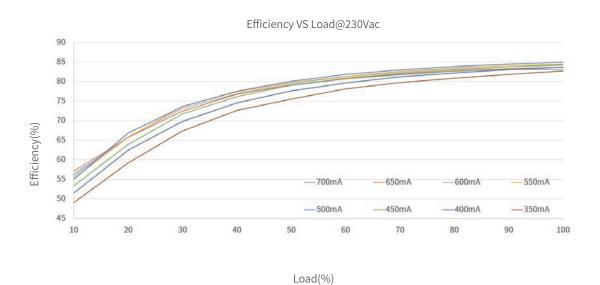


### Power Factor VS @Load 230Vac









Packaging Image

----



Packaging Size

Packaging Details	Carton Size	Packing Units	Weight
Inner Packaging Box	124x41x30mm	1pcs	119±10g
Small Carton Packaging	350 x 197 x 167mm	48pcs	6kg
Large Carton Packaging	420 x 360 x 365mm	192pcs	24.9kg

Packaging instructions:

 $Each \ large\ carton\ packaging\ contains\ 4\ small\ carton\ packaging\ spaces.$ 



#### 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 only be used outside the light body, Cannot be used inside ofthe ight, and it mustbe used within the specifed working environment.
- > 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.