

## AV - PSD Series 100W

Whole Family: AV-PSD-24V-100W



### Features

Output:	Constant Voltage
Range:	100-277VAC
PFC design:	Built-in active PFC function
Efficiency:	Up to 89%
Protections:	Short circuit / Over load / Over temperature
Heat dissipation:	Cooling by free air convection
Waterproof performance:	Driver built-in Junction box, for dry, damp and wet locations.
Dimming function:	Phase dimming: work with Forward phase, MLV and Reverse phase, ELV, TRIAC dimmers. 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1.
Dimming range:	0-100% dimmingdepth0.1%
Application:	Suitable for the application of LED lighting
Warranty:	5 years warranty
Others:	PWM output, High power factor PF>0.9, Flicker-free dimming

**TRIAC & 0-10V Dimmable LED Driver - Constant Voltage Output - AV - PSD Series 100W****Specification**

Model		
Certificate		
<b>Output</b>	DC Voltage	24V
	Voltage Tolerance	±0.5V
	Voltage Regulation	±0.5%
	Rated Current	4.17A
	Rated Power	100W
	Load Regulation	±1%
<b>Input</b>	Voltage Range	100-277VAC
	Frequency Range	40-60Hz
	Power Factor @ Full Load	>0.9
	THD (Typ.) @ Full Load	<20% @120VAC & 277VAC
	Efficiency (Typ.) @ Full Load	≥85%@120VAC / ≥86%@277VAC
	AC Current (Max.)	1.5A
	Inrush Current (Typ.)	60.0A
Leakage Current	<0.5mA	
<b>Protection</b>	Short Circuit	Shutdown o/p voltage, re-power on to recover after fault condition removed.
	Over Load	105%~110% shutdown o/p voltage, re-power on to recover after fault condition removed.
	Over Temperature	Shell surface temp. 100°C ±10°C shutdown o/p voltage, automatically recover after cooling.
<b>Environment</b>	Working Temp.	-40~+45°C (see derating curve)
	Working Humidity	20-95% RH non-condensing
	Storage Temp. / Humidity	-40~+80°C, 10-95% RH non-condensing
	Temp. Coefficient	±0.03%/°C (0-50°C)
	Vibration	10~500Hz, 5G 12min./1 cycle, period for 72min. each along X, Y, Z axes
<b>Safety &amp; EMC</b>	Safety Standards	UL8750; CAN/CSA-C22.2 No.250.13
	Withstand Voltage	I/P-O/P: 1.88KVAC I/P-FG: 1.88KVAC O/P-FG: 0.5KVAC
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH
	EMC Immunity	FCC/ICES do not request this test.
	EMC Emission	FCC 47CFR Part 15, Subpart B
<b>Others</b>	Net Weight	1.375KG
	Dimension	220 × 95.4 × 43.8mm (L × W × H)
	Packing	298 × 265 × 220mm / 10 pcs/CTN
<b>Notes</b>	1. All parameters NOT specially mentioned are measured at 120VAC input, rated load and 25°C of ambient temperature.	
	2. Tolerance: includes setup tolerance and load regulation.	



**TRIAC & 0-10V Dimmable LED Driver - Constant Voltage Output - AV - PSD Series 100W**
**MCB recommendation**

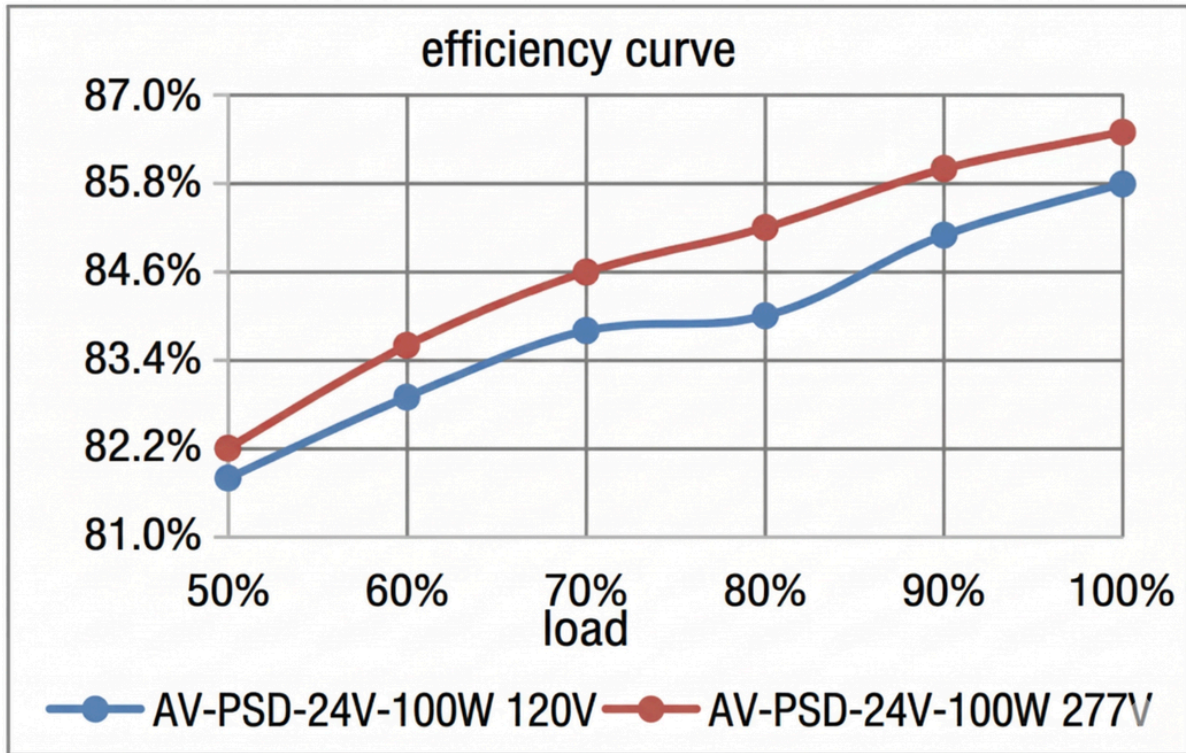
When the input voltage is 120Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	The number of LEDDriver
Ctype	10A	7
	13A	9
	16A	11
	20A	13
	25A	15
When the input voltage is 277Vac, the number of LED Driver matched by circuit breakers is as follows:		
MCBType	Level	The number of LEDDriver
Ctype	10A	4
	13A	5
	16A	6
	20A	8
	25A	10

**Note:**

1. The above quantities of the led drivers connected on the Type C is recommended base on the maximum ambient temperature is 50 °C.
2. The breaker should be selected according to the input rated voltage, input rated current, ambient temperature, and trip characteristic curve.

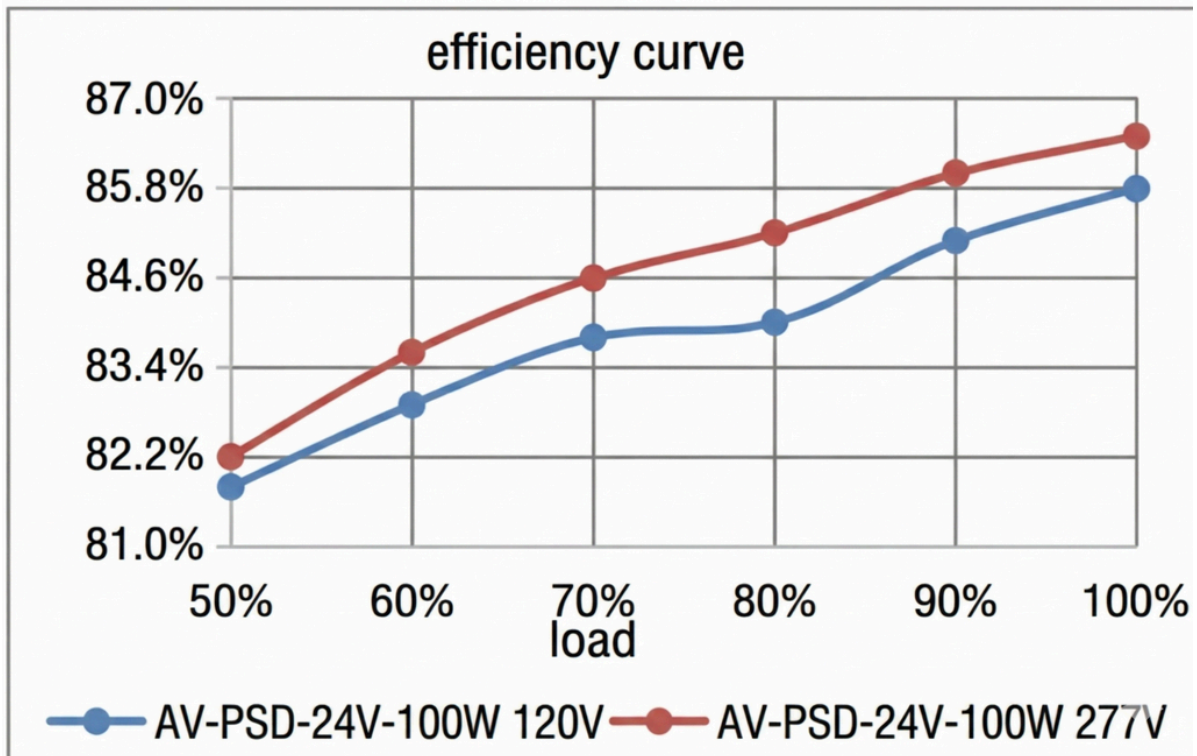


## Efficiency Curve (efficiency vs output load)

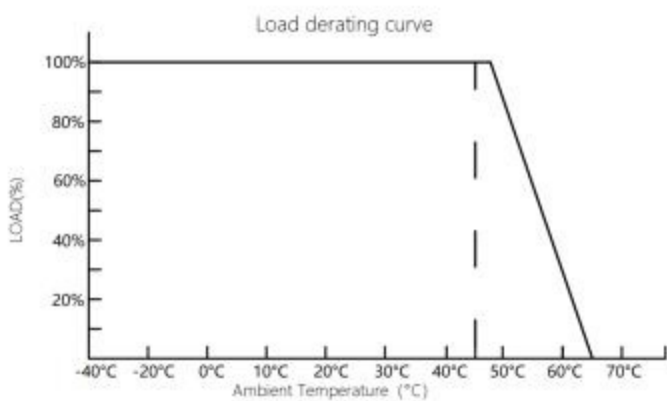




## Power Factor Curve (power factor vs output load)



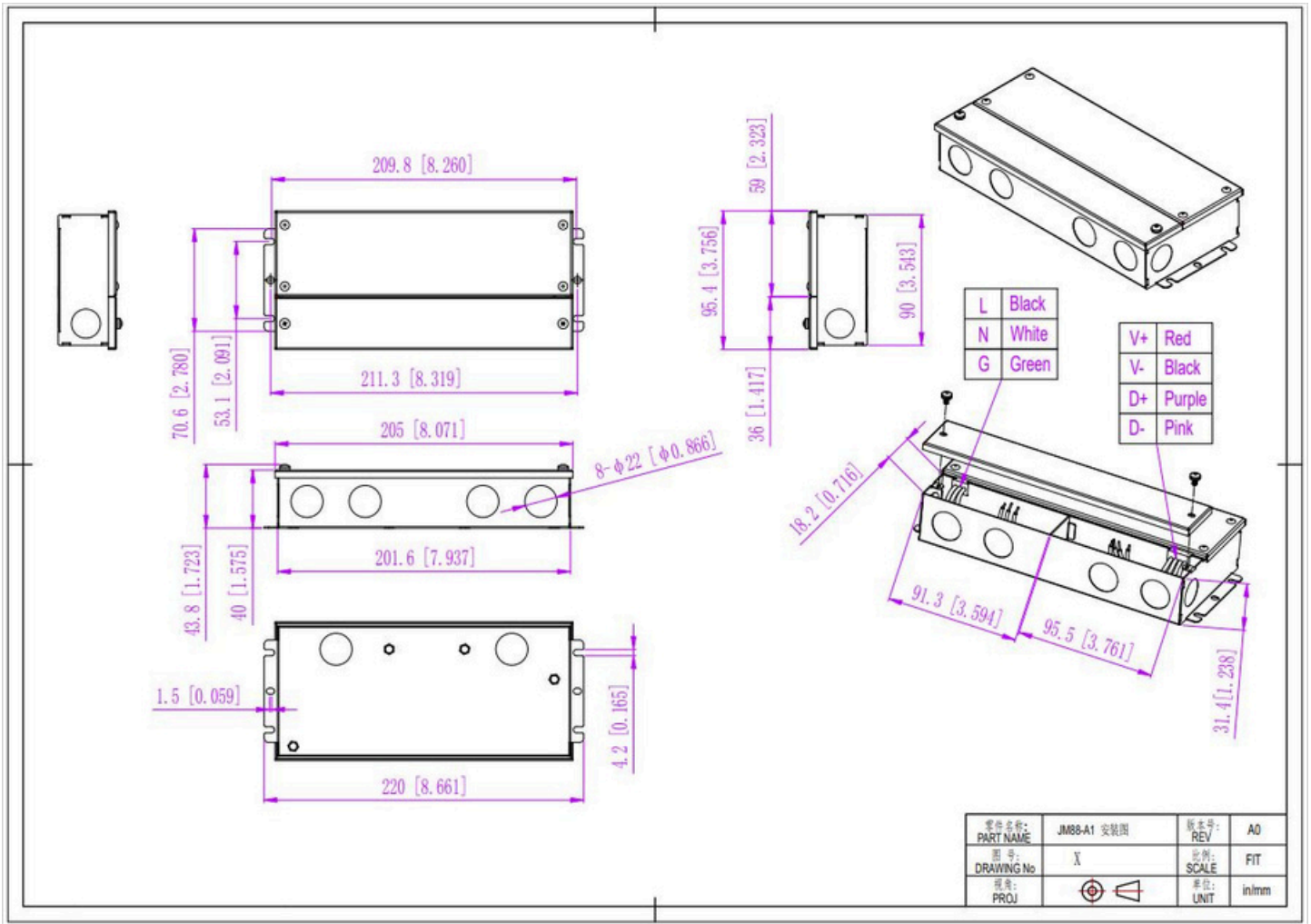
## Derating Curve (output load vs TEMP.)



1. To extend their life, please refer to the Derating Curve and derate according to the temperature.
2. Please note that the rise in temperature of LED fixtures over a long period of time will cause their power to rise. Therefore, we recommend the power supply to reserve a certain amount of load to avoid overloading.

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**TRIAC & 0-10V Dimmable LED Driver - Constant Voltage Output - AV - PSD Series 100W****Mechanical Specification****12V&24V&48V Version**

## American wire gauge

JM88-A1

Inputwire Black(L)White(N)Green(G)(3\*18AWG)

Outputwire Red(V+)Black(V-)(2\*16AWG)

Dimmingwire Purple(D+)Pink(D-)(2\*18AWG)

Remarks: Please make sure your connect these correctly otherwise your product will not function correctly and could be damaged.

**Warm tips:**

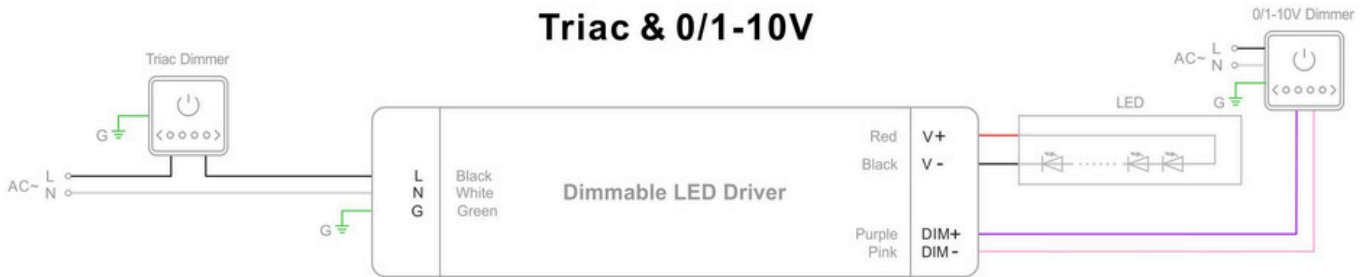
1. Recommended Max. Carrying Current (A) = wire diameter(mm<sup>2</sup>) x 10A/mm<sup>2</sup>  
For example: 1mm<sup>2</sup> output cable, Recommended Max. Carrying Current (A) = 1mm<sup>2</sup> x 10A/mm<sup>2</sup>=10A
2. Any other requests for cable, we can customize.



## TRIAC & 0-10V Dimmable LED Driver - Constant Voltage Output - AV - PSD Series 100W

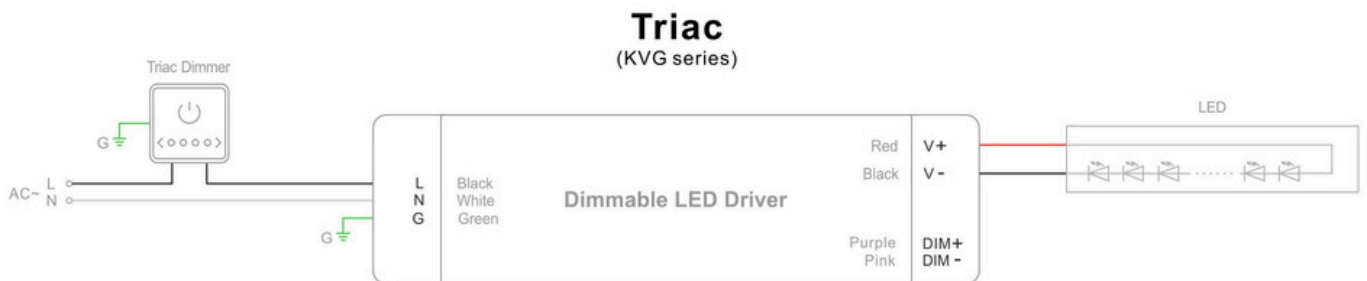
### Dimming Operation and Connecting Diagram

- **Using two ways of dimming at the same time**, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;



- **Using one dimming ---TRIAC/Phase cut dimming**

1. The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer or lighting system.
2. Working with Forward phase, MLV and Reverse phase , ELV, TRIAC dimmers or light system.
3. Min. loading is about 10%.
4. Please try to use dimmers with power at least 1.5 times as the output power of the driver.



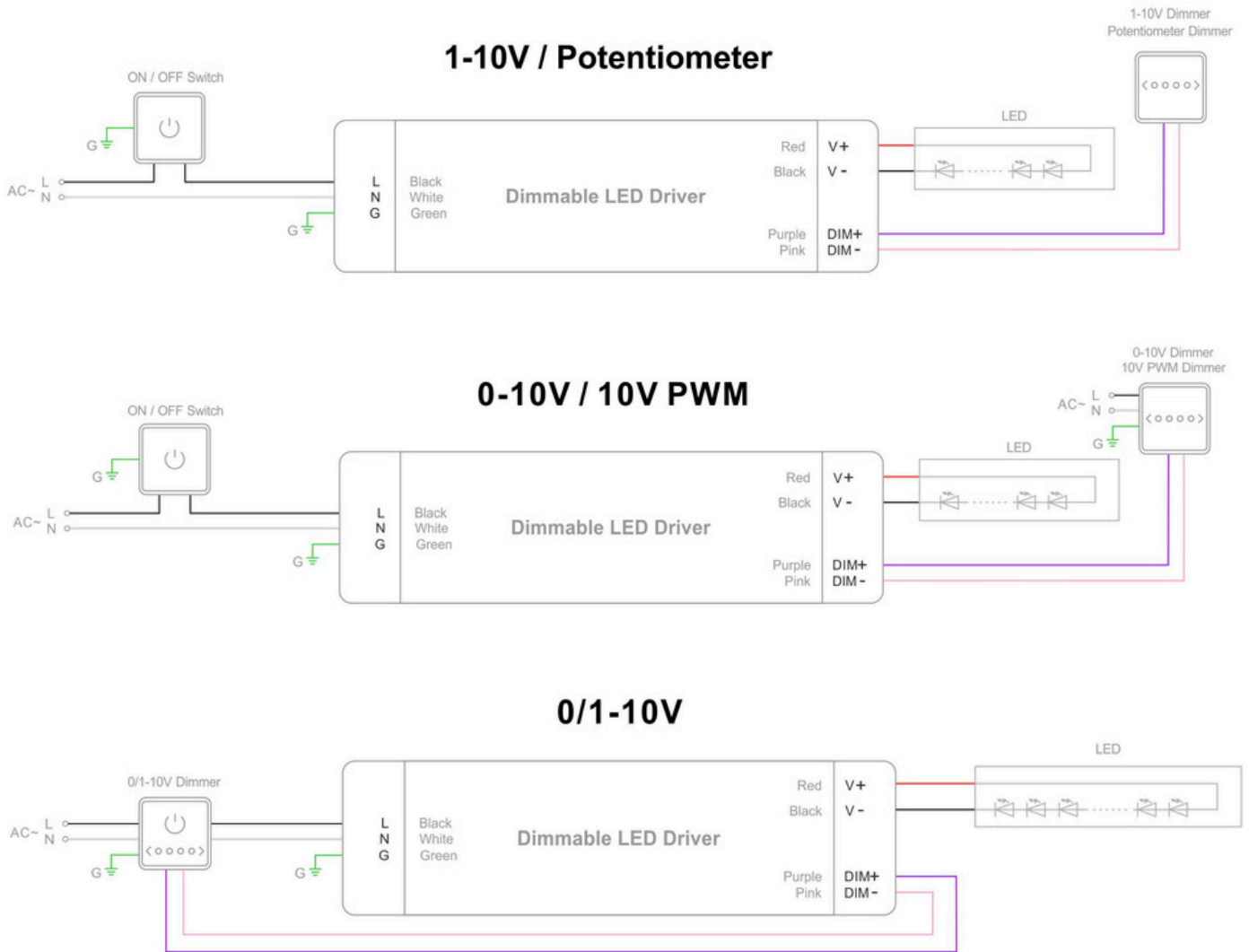


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## TRIAC & 0-10V Dimmable LED Driver - Constant Voltage Output - AV - PSD Series 100W

### Using one dimming ---0-10/ 1-10V/ 10V PWM/ Potentiometer dimming



### Instructions

1. This driver should be installed by qualified and professional person.
2. Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
3. Ensure that wiring is correct before test in order to avoid light and power supply damage.
4. If driver Cannot work normally, don't maintain privately.

Have any questions, please contact AVERYLED.

Please visit our website or contact us for more information! [www.averyled.com](http://www.averyled.com)

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