

Power Repeater Specification

AW3-PDA AW4-PDA



COLORS AW4-PDA
4 Channel LED Power Repeater
Apply to single color, dual color, RGB, RGBW LED strip or module.
U_{in}=12-60VDC I_{in}-Max20A

U _{out}	12VDC	24VDC	36VDC	48VDC	60VDC
I _{out}	4CH-5A	4CH-5A	4CH-5A	4CH-5A	4CH-5A
P _{out}	4CH-60W	4CH-120W	4CH-180W	4CH-240W	4CH-300W

Ta=35°C
0.5-2.0mm
4-5mm
www.colorsled.com

COLORS AW3-PDA
3 Channel LED Power Repeater
Apply to single color, dual color, RGB LED strip or module.
U_{in}=12-60VDC I_{in}-Max15A

U _{out}	12VDC	24VDC	36VDC	48VDC	60VDC
I _{out}	3CH-5A	3CH-5A	3CH-5A	3CH-5A	3CH-5A
P _{out}	3CH-60W	3CH-120W	3CH-180W	3CH-240W	3CH-300W

Ta=35°C
0.5-2.0mm
4-5mm
www.colorsled.com

【Features】

- 12-60V constant voltage power repeater.
- 3/4 channel, 5A max. per channel.
- To receive PWM signal control.
- Power repeater in series or in parallel to expand output unlimitedly.
- Apply to single color, dual color, RGB or RGBW constant voltage LED strip or module.
- Protection: Reverse Polarity.
- Certification: CE、RoHS;
- Warranty: 5 years.



【Technical Parameters】

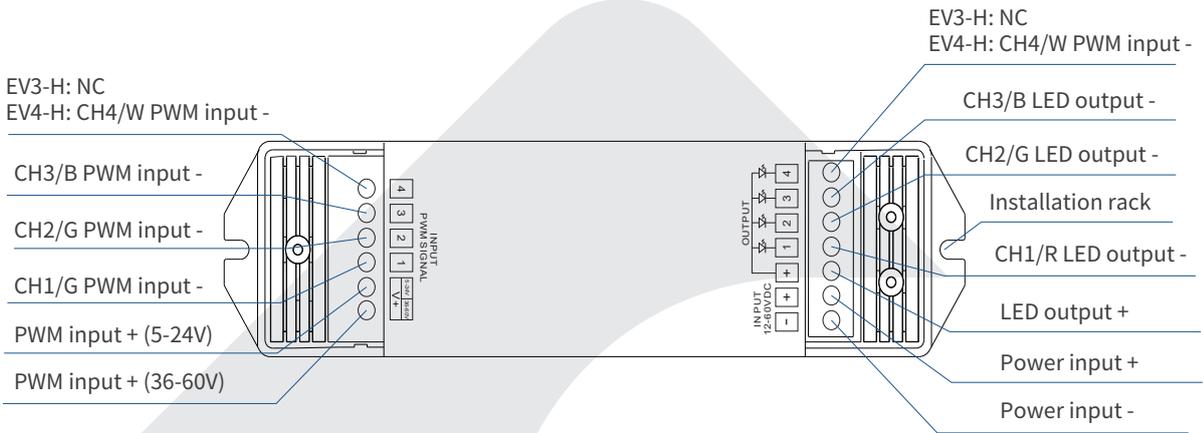
Name	Item	Parameter	
Power repeater	Model	AW3-GBA	AW4-GBA
	Input voltage	DC12-60V	DC12-60V
	Input current	Max 15A	Max 20A
	Output voltage	DC12-60V	DC12-60V
	Output current	Max15A,5A/CH	Max20A,5A/CH
	Output Power	Max 180W@12V Max 360W@24V Max 540W@36V Max 720W@48V Max 900W@60V	Max 240W@12V Max 480W@24V Max 720W@36V Max 960W@48V Max 1200W@60V
	Input signal	PWM	
	Output type	Constant voltage	
	Protection	Reverse Polarity	
	Production size	L175*W45*H27mm	
	Operation temperature	-30 C— +55 C	
	Case temperature (Max.)	+85 C	
	IP rating	IP20	
	Certification	CE RoHS	
Warranty	5年 (T _c <85℃)		

Remarks:

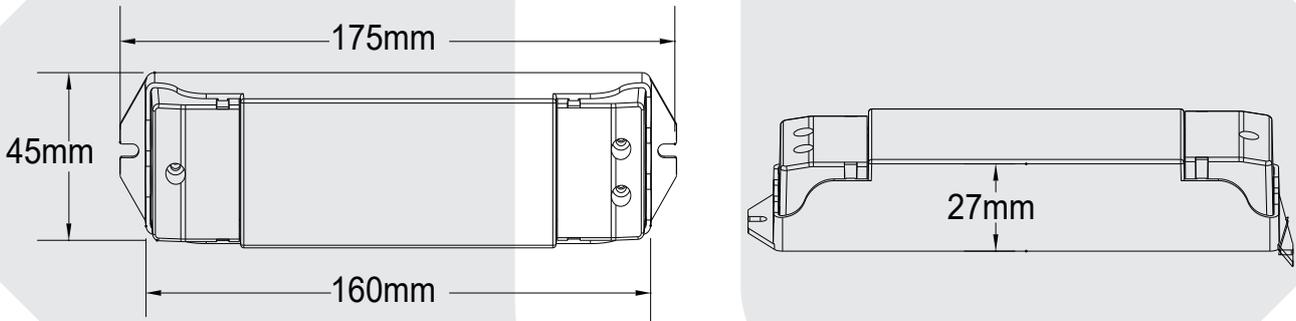
- 1、 The above parameters are based on the standard test;
- 2、 The above parameters are typical values.;

[Mechanical Structures and Installations]

1、 Wiring location:

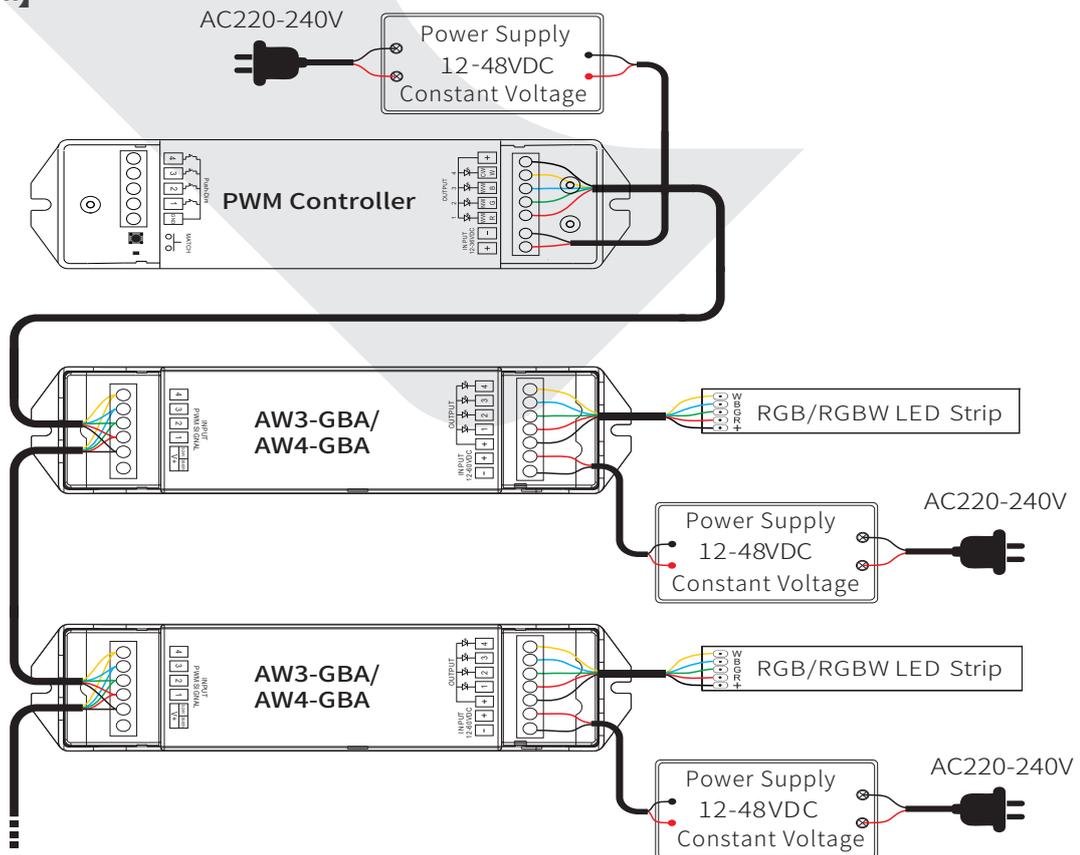


2、 Dimensions:

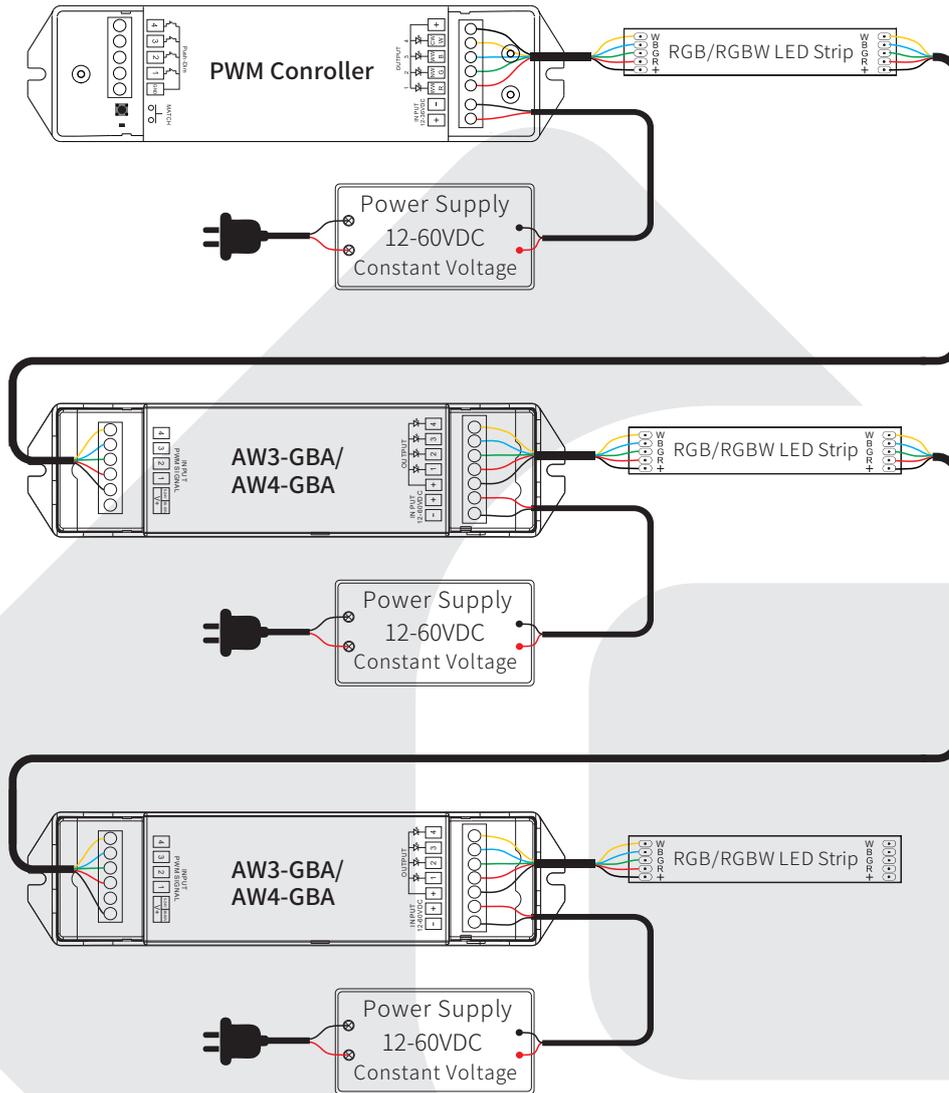


[Wiring Diagram]

1、 tandem:



2、 Series connection:



NOTE: The PWM input can be 5-24V or 36-60V, please select correct V+ wire terminal.

[Malfunctions analysis & troubleshooting]

Malfunctions	Causes	Troubleshooting
No light	<ol style="list-style-type: none"> 1. No power. 2. Wrong connection or insecure. 	<ol style="list-style-type: none"> 1. Check the power. 2. Check the connection.
Wrong color	<ol style="list-style-type: none"> 1. Wrong connection of R/G/B/W wires. 	<ol style="list-style-type: none"> 1. Reconnect R/G/B/W wires.
Uneven intensity between front and rear, with voltage drop	<ol style="list-style-type: none"> 1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability 	<ol style="list-style-type: none"> 1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.

【Packing】

1. Packing list:

Model	Manual	PE Bag	Controller	Individual box
AW3-PDA	1PCS	1PCS	1PCS	1PCS
AW4-PDA	1PCS	1PCS	1PCS	1PCS

2. Packaging Information:

Model	Individual box size	Quantity/box	Number / Box	net weight (kg)	Net weight per carton (kg)	Gross weight (kg)	Carton size (mm)
AW3-PDA	L178*50*38 mm	1PCS	100PCS	0.110	11	13.2	285*245*220
AW4-PDA	L178*50*38 mm	1PCS	100PCS	0.110	11	13.2	285*245*220

【Reliability Test Information】

Test items	Testing requirements	Guideline	Test method or condition (streamline)
Performance Testing	No load	Colors	Input 48Vdc, Output 48Vdc.
	Short circuit protection	Colors	The output positive and negative poles are short-circuited, Then input 48V, the controller should be able to self.
	Load capacity	Colors	DC48V input, output full load, controlThe controller should work normally.
High temperature aging test	Work stability	Colors	Input voltage: 48VDC, load LED current: 10.01A (full load); Conditions: temperature 55°C, aging time 24H.

【Precautions】 :

1. The product shall be installed and serviced by a qualified person.
2. This product is non-waterproof. Please avoid direct sun, rain and high humid ambient.
3. Good heat dissipation will prolong the working life of the controller, Please ensure good ventilation.
4. Please check if the output voltage of any power supplies used comply with the working voltage of the product.
5. Ensure all wire connections and polarities are correct and secure before applying power to avoid any damage to the LED lights.
6. If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.