Non-Dimmable Drivers

AL-98-04-12100, AL-98-04-24100

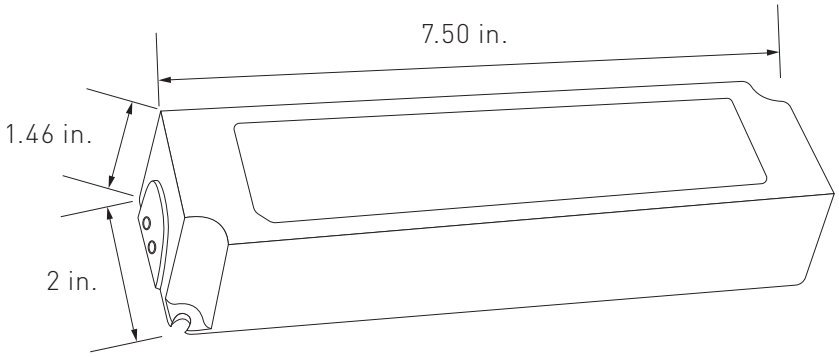
Alloy LED offers Non-Dimmable Drivers that supply reliable, efficient low voltage power to RGB and RGB-W color controllers (which have on-board dimming functionality) and for use with white tape light on an on/off switch. Although non-dimmable drivers are compatible with AC on/off switches, they are not dimmable with AC dimmer switches.

- Already derated (can be loaded to maximum wattage capacity
- IP67 for use outdoors or indoors in wet environments
- 5 year warranty

QUICK SPECIFICATIONS

Input	120V	120V AC
Features	100% Max. Load; 0% Min. Load	100% maximum load 0% minimum load
Environment	IP67	Dry/wet environment (IP67) Dust tight and protected against immersion in 1m of water for up to 30 mins
Certifications	RoHS; c UL us	RoHS UL Recognized Component
Warranty	PRODUCT 5 YEARS WARRANTY	5 year limited

DIMENSIONS



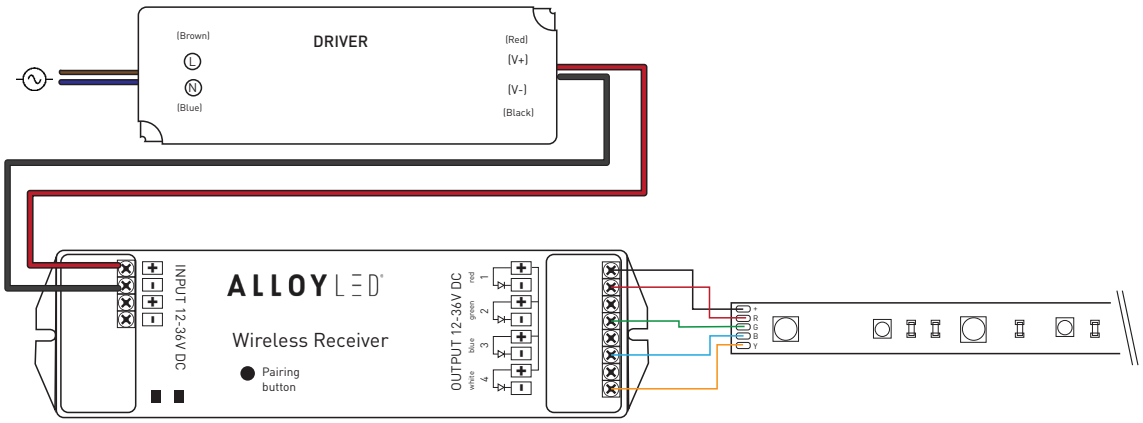
TECHNICAL INFORMATION

Item #		AL-98-04-12100	AL-98-04-24100
Output	DC Voltage[1]	12V DC	24V DC
	Rated Current	8.5A	4.2A
	Current Adj. Range	0~8.5A	0~4.2A
	Rated Power	100W	100W
	Ripple & Noise (Max.)[2]	120mVp-p	150mVp-p
	Voltage Tolerance[3]	±5.0%	
	Line Regulation	±1.0%	
	Load Regulation	±2.0%	
	Setup, Rise Time[6]	200ms, 25ms/230V AC 200ms, 25ms/115V AC at full load	
	Hold Up Time (Avg.)	50ms/230V AC 14ms/115V AC at full load	
Input	Voltage Range[4]	120V AC	
	Frequency Range	47~63HZ	
	Efficiency (Avg.)	85% (12V DC)	88% (24V DC)
	AC Current (Avg.)	2.2A/115V AC 1.2A/230V AC	
	Inrush Current (Max.)	COLD START 75A (twidth=700μs measured at 50% Ipeak) at 230VAC	
	Leakage Current	0.25mA /240V AC	
Protection	Overload	110~150% rated output power	
		Protection type: Hiccup mode, recovers automatically after fault condition is removed	
	Over Voltage	13.8~16.2V	27.6~32.4V
		Protection type: Shut down o/p voltage, re-power on to recover	
Environment	Working Temp.	-30~+70°C, -22°F~+158°F (Refer to"Derating Curve")	
	Working Humidity	20~90% RH, non-condensing	
	Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH	
	Temp Coefficient	±0.03%/°C (0~50°C, 32~122°F)	
	Vibration	10~500Hz~2G 10min./1 cycle, period for 60min. each along X, Y, Z axes	
Safety & EMC	Safety Standards	UL879, UL1310, CSA C22.2 No. 207-M89, CAN/CSA C22.2 No. 223-M91, IP67, IEC60950-1:2005+A2:2013 approved; design refer to TUV EN60950-1	
	Withstand Voltage	I/P-O/P: 3KV AC	
	Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH	
	EMC Emission	Compliance to EN55022 (CISPR22) ClassB, EN61000-3-2 Class A,EN61000-3-3	
	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, light industry level, criteria A	
Other	Warranty	5 Year Limited	
	MTBF	732Khrs min. MIL-HDBK-217F (25°C, 77°F)	
	Size	7.5 x 2 x 1.46 in.	

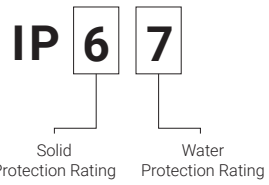
1. All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25ºC, 77ºF of ambient temperture.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
5. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the setup time.
7. The unit might not be suitable for lighting applications in EU countries. Please check with your local authorities for the possible use of the unit.
8. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes.

Warning: Do NOT reverse polarity high voltage input of the driver as it will destroy the product.

WIRING DIAGRAMS



IP (INGRESS PROTECTION) RATING GUIDE



Solid Ingress Rating		Water Ingress Rating	
0	Not protected against solid objects	**0**	Not protected against water
1	Protected against solid objects greater than 50mm	**1**	Protected against vertically falling water droplets
2	Protected against solid objects greater than 12.5mm	**2**	Protected against vertically falling water droplets with enclosure titled up to 15˚
3	Protected against solid objects greater than 2.5mm	**3**	Protected against sprays of water up to 60˚
4	Protected against solid objects greater than 1mm	**4**	Protected against water splashes from all directions
5	Protected against limited amounts dust	**5**	Protected against jets of water
6	Dust tight	**6**	Protected against heavy seas and jets of water
		7	Protected against immersion in 1m of water for up to 30 min.

TROUBLESHOOTING

Q: Why are the lights connected to the driver blinking roughly once a second?
A: The driver may be overloaded. Check to make sure the maximum wattage is not being exceeded. There could also be a possibility of incompatible voltage. Confirm that the driver and tape light voltage match.

Q: How do I determine the compatibility?
A: Check the voltage, wattage, load capacity of both the tape light and driver.

Q: Is it possible to have multiple runs of tape light that are daisy-chained together connect to a driver with 1 lead wire?
A: Yes, but only if the total length of consecutive runs do not exceed the tape light's maximum run and also does not exceed the driver's maximum wattage.