Non-Dimmable Drivers

AL-98-04-24200

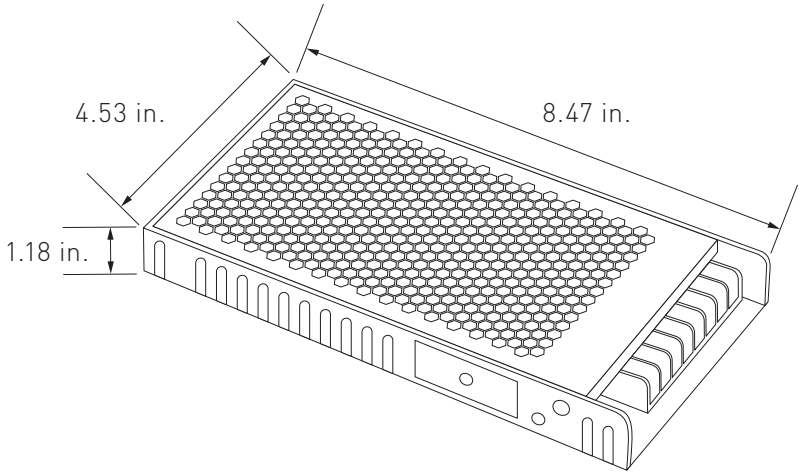
Alloy LED offers Non-Dimmable Drivers that supply reliable, efficient low voltage power to RGB and RGB-W color controllers (which have on-board dimming functionality) and for use with white tape light on an on/off switch. Although non-dimmable drivers are compatible with AC on/off switches, they are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

- Already derated (can be loaded to maximum wattage capacity
- IP40 for use indoors in dry environments
- 5 year warranty

QUICK SPECIFICATIONS

Input	120V	120V AC
Features	100% Max. Load; 0% Min. Load	100% maximum load 0% minimum load
Environment	IP40	Dry environment (IP40) Protected against solid objects greater than 1mm
Certifications	RoHS; c UL us	RoHS UL Recognized Component
Warranty	PRODUCT 5 YEARS WARRANTY	5 year limited

DIMENSIONS



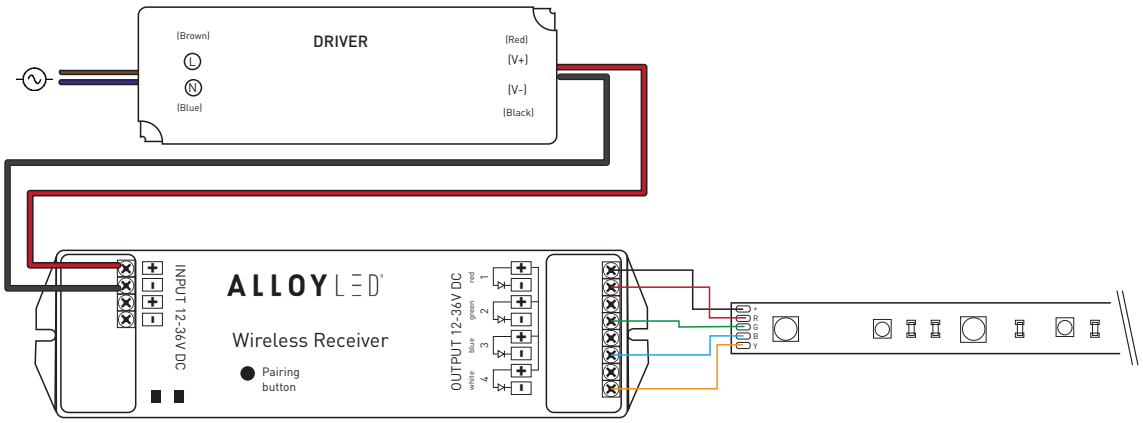
TECHNICAL INFORMATION

Item #		AL-98-04-24200
Output	DC Voltage[1]	24V DC
	Rated Current	8.4A
	Current Adj. Range	0~8.4A
	Rated Power	201.6W
	Ripple & Noise (Max.)[2]	150mVp-p
	Voltage Tolerance[3]	±1.0%
	Line Regulation	±0.2%
	Load Regulation	±0.5%
	Setup, Rise Time[6]	3000ms, 50ms at full load
	Hold Up Time (Avg.)	8ms at full load
Input	Voltage Range[4]	85-264V AC
	Frequency Range	85-264V AC
	Efficiency (Avg.)	89.5%
	AC Current (Avg.)	2.5A/115V AC - 1.3A/230V AC
	Inrush Current (Max.)	20A/115V AC - 40A/230V AC
	Leakage Current	<1mA / 240V AC
Protection	Overload	105~135% rated output power
		Protection type: Hiccup mode, recovers automatically after fault condition is removed
	Over Voltage	27.6~32.4V
		Protection type: Shut down o/p voltage, re-power on to recover
	Over Temperature	Shut down o/p voltage, recovers automatically after temperature goes down
Environment	Working Temp.	-30 ~ 70°C / -22 ~158°F (Refer to output load derating curve)
	Working Humidity	20~90% RH, non-condensing
	Storage Temp., Humidity	-20~+85°C / -4~185°F / 10~95%RH
	Temp Coefficient	±0.03%/°C (0~45°C / 32~113°F)
	Vibration	10~500Hz~2G 10 min./1 cycle, period for 60 min. each along X, Y, Z axes
Safety & EMC	Safety Standards	UL60950-1, TUV EN60950-1, EAC TP TC 004, CCC GB4943.1, BSMI CNS14336-1, AS/NZS 60950.1
	Withstand Voltage	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH
	Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH
	EMC Emission	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2 Class A (≤80% load), EN61000-3-3
	EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, light industry level, criteria A , EAC TP TC 020
Other	Warranty	5 Year Limited
	MTBF	224.5K hrs min. MIL-HDBK-217F (25°C)
	Size	8.47 x 4.53 x 1.18 in.

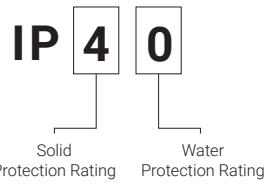
1. All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25ºC, 77ºF of ambient temperture.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line 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.