

Non-Dimmable Drivers












AL-98-04-XXXXX



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)
- 5 year warranty

QUICK SPECIFICATIONS

Item Number	AL-98-04-12006 AL-98-04-24200	AL-98-04-12036, AL-98-04-24036 AL-98-04-12060, AL-98-04-24060 AL-98-04-12100, AL-98-04-24100 AL-98-04-12120, AL-98-04-24151
Input	 120V AC	
Features	  100% maximum load 0% minimum load	
Environment	  Dry environment (IP40) Protected against solid objects greater than 1mm	   Dry/wet environment (IP67) Dust tight and protected against immersion in 1m of water for up to 30 mins
Certifications	  RoHS UL Recognized Component	
Warranty	 5 year limited	

12V MODELS TECHNICAL INFORMATION

Item Number	AL-98-04-12006	AL-98-04-12036	AL-98-04-12060	AL-98-04-12100	AL-98-04-12120
DC Voltage	12V DC	12V DC	12V DC	12V DC	12V DC
Rated Current	0.67A	3A	5A	8.5A	10A
Current Adj. Range	0~0.67A	0~3A	0~5A	0~8.5A	0~10A
Rated Power	8W	36W	60W	100W	120W
Ripple & Noise (Max.)	150mVp-p	120mVp-p			120W
Voltage Tolerance	±5.0%				
Line Regulation	±1.0%				
Load Regulation	±2.0%				
Setup, Rise Time	500ms, 20ms/115V AC at full load	500ms, 20ms/230V AC 500ms, 20ms/115V AC at full load		200ms, 25ms/230V AC 200ms, 25ms/115V AC at full load	1500ms, 50ms / 115VAC
Hold Up Time (Avg.)	16ms/115V AC at full load	50ms/230V AC 16ms/115V AC at full load		50ms/230V AC 14ms/115V AC at full load	10ms/115VAC at full load
Voltage Range	120V AC				90V - 132V AC
Frequency Range	47~63HZ				
Efficiency (Avg.)	>80% (12V DC)	>84% (12V DC)	>83% (12V DC)	85% (12V DC)	>87% (12V DC)
AC Current (Avg.)	0.3A/115V AC 0.15A/230V AC	1.1A/115V AC 0.7A/230V AC	1.2A/115V AC 1A/230V AC	2.2A/115V AC 1.2A/230V AC	3.0A/115V AC
Inrush Current	COLD START 70A (twidh=120μs measured at 50% Ipeak) at 230V AC	COLD START 55A (twidh=510μs measured at 50% Ipeak) at 230V AC	COLD START 60A (twidh=510μs measured at 50% Ipeak) at 230V AC	COLD START 75A (twidh=700μs measured at 50% Ipeak) at 230VAC	COLD START 75A (twidh=900μs measured at 50% Ipeak) at 115V AC
Leakage Current	0.25mA /240V AC				
Overload	105% rated output power	110~150% rated output power			
	Protection type: Hiccup mode, recovers automatically after fault condition is removed				
Over Voltage	13.8~16.2V				13.5~17V
	Protection type: Shut down o/p voltage, re-power on to recover				
Working Temp.	-30~+65°C, -22°F~+149°F (Refer to*Derating Curve")				-25~+65°C, -13°F~149°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 Standards	Design refer to UL8750,CSA C22.2 No.250.0-08; ENEC EN61347-1,EN61347-2-13	UL1310, CAN/CSA C22.2 No.223-M91, IP67approved; design refer to TUVEN60950-1	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	UL879, UL1310, CSA C22.2 No. 207-M89, CAN/CSA C22.2 No. 223-M91, IP67,	UL8750, CSA C22.2 No 250. 13-12, UL879, CSA C22.2 No. 207-M89, IP67 approved
Withstand Voltage	I/P-O/P: 3.75KV AC	I/P-O/P: 3KV AC			
Isolation Resistance	I/P-O/P:>100MQ/500V DC/25°C, 77°F/70% RH				
EMC Emission	Compliance to EN55015, EN61000-3-2 Class A,EN61000-3-3	Compliance to EN55022 (CISPR22) ClassB, EN61000-3-2 Class A,EN61000-3-3			
EMC Immunity	Compliance to EN61547, EN61000-4-2,3,4,5,6,8,11; light industry level(surge 2KV), criteria A	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A			
Warranty	5 Year Limited				
MTBF	743.5Khrs min. MIL-HDBK-217F (25°C, 77°F)	732Khrs min. MIL-HDBK-217F (25°C, 77°F)			703Khrs min. MIL-HDBK-217F (25°C, 77°F)
Dimensions (L x W x H)	2.32 x 1.18 x 0.95 in.	5.83 x 1.58 x 1.18 in.	6.4 x 1.67 x 1.26 in.	7.50 x 2.00 x 1.46 in.	7.52 x 2.50 x 1.48 in.

1. All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C, 77°F 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.

24V MODELS TECHNICAL INFORMATION

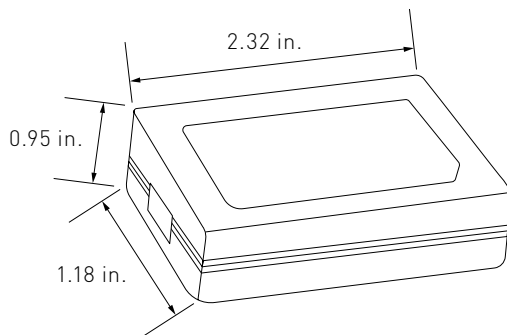
Item Number	AL-98-04-24036	AL-98-04-24060	AL-98-04-24100	AL-98-04-24151	AL-98-04-24200
DC Voltage	24V DC	24V DC	24V DC	24V DC	24V DC
Rated Current	1.5A	2.5A	4.2A	6.3A	8.4A
Current Adj. Range	0~1.5A	0~2.5A	0~4.2A	0~6.3A	0~8.4A
Rated Power	36W	60W	100W	151.2W	151.2W
Ripple & Noise (Max.)	150mVp-p			151.2W	201.6W
Voltage Tolerance	±5.0%				±1.0%
Line Regulation	±1.0%				±0.2%
Load Regulation	±2.0%				±0.5%
Setup, Rise Time	500ms, 20ms/230V AC 500ms, 20ms/115V AC at full load		200ms, 25ms/230V AC 200ms, 25ms/115V AC at full load	1500ms, 50ms / 115VAC	3000ms, 50ms at full load
Hold Up Time (Avg.)	50ms/230V AC 16ms/115V AC at full load		50ms/230V AC 14ms/115V AC at full load	10ms/115VAC at full load	8ms at full load
Voltage Range	120V AC			90V - 132V AC	85-264V AC
Frequency Range	47~63HZ				85-264V AC
Efficiency (Avg.)	>85% (24V DC)	>86% (24V DC)	88% (24V DC)	>89% (24V DC)	89.5%
AC Current (Avg.)	1.1A/115V AC 0.7A/230V AC	1.2A/115V AC 1A/230V AC	2.2A/115V AC 1.2A/230V AC	3.0A/115V AC	2.5A/115V AC - 1.3A/230V AC
Inrush Current	COLD START 55A (twidth=510μs measured at 50% Ipeak) at 230V AC	COLD START 60A (twidth=510μs measured at 50% Ipeak) at 230V AC	COLD START 75A (twidth=700μs measured at 50% Ipeak) at 230VAC	COLD START 75A (twidth=900μs mea- sured at 50% Ipeak) at 115V AC	20A/115V AC - 40A/230V AC
Leakage Current	0.25mA /240V AC				<1mA / 240V AC
Overload	110~150% rated output power				105~135% rated output power
	Protection type: Hiccup mode, recovers automatically after fault condition is removed				
Over Voltage	27.6~32.4V			27~35V	27.6~32.4V
	Protection type: Shut down o/p voltage, re-power on to recover				
Working Temp.	-30~+65°C, -22°F~+149°F (Refer to"Derating Curve")		-30~+70°C, -22°F~+158°F (Refer to"Derating Curve")	-25~+65°C, -13°F~149°F (Refer to "Derating Curve")	-30 ~ 70°C / -22 ~158°F (Refer to output load derating curve)
Working Humidity	20~90% RH, non-condensing				
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH				-20~+85°C / -4~185°F / 10~95%RH
Temp. Coefficient	±0.03%/°C (0~50°C, 32~122°F)				±0.03%/°C (0~45°C / 32~113°F)
Vibration	10~500Hz, 2G 10min./1 cycle, period for 60min. each along X, Y, Z axes				
Safety Standards	UL1310, CAN/CSA C22.2 No.223-M91, IP67approved; design refer to TUVEN60950-1	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	UL879, UL1310, CSA C22.2 No. 207-M89, CAN/CSA C22.2 No. 223-M91, IP67	UL8750, CSA C22.2 No 250. 13-12, UL879, CSA C22.2 No. 207-M89, IP67 approved	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: 3KV AC				I/P-O/P: 100MQ/500V DC/25°C, 77°F/70%RH
Isolation Resistance	I/P-O/P:>100MQ/500V		I/P-O/P:>100MQ/500V DC/25°C, 77°F/70% RH		I/P-O/P:>100MQ/500V
EMC Emission	Compliance to EN55022 (CISPR22) ClassB, EN61000-3-2 Class A,EN61000-3-3				Compliance to EN55022 (CIS-PR22) 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				Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN55024, light industry level, criteria A , EAC TP TC 020
Warranty	5 Year Limited				
MTBF	743.5Khrs min. MIL-HDBK-217F (25°C, 77°F)	732Khrs min. MIL-HDBK-217F (25°C, 77°F)		703Khrs min. MIL-HDBK-217F (25°C, 77°F)	224.5K hrs min. MIL-HDBK-217F (25°C)
Dimensions (L x W x H)	5.83 x 1.58 x 1.18 in.	6.4 x 1.67 x 1.26 in.	7.50 x 2.00 x 1.46 in.	7.52 x 2.50 x 1.48 in.	8.47 x 4.53 x 1.18 in.

1. All parameters NOT specially mentioned are measured at 230V AC input, rated load and 25°C, 77°F of ambient temperature.
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.
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8. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes.

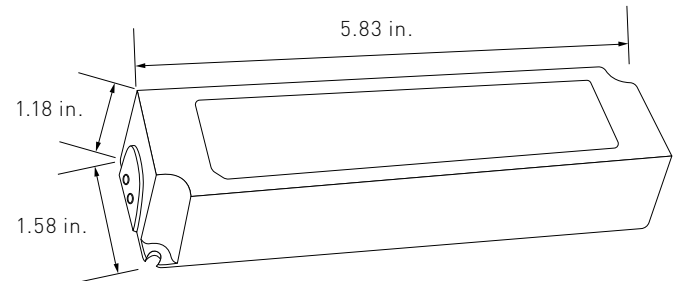
Warning: Do NOT reverse polarity high voltage input of the driver as it will destroy the product.

DIMENSIONS

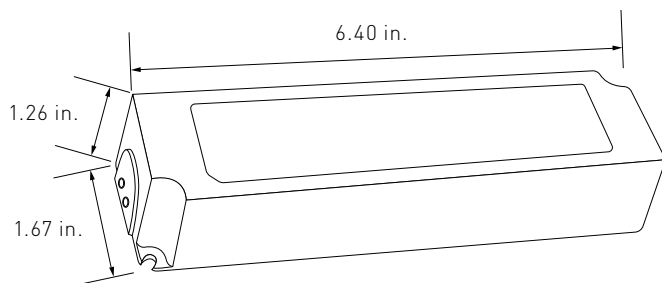
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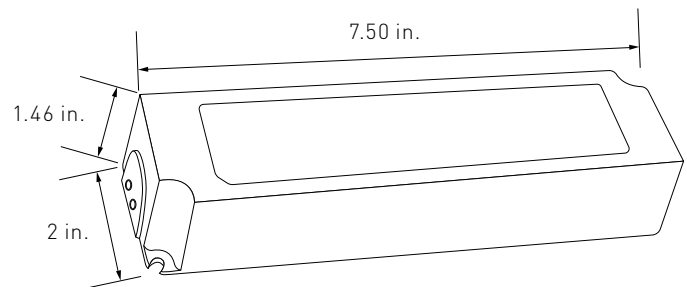
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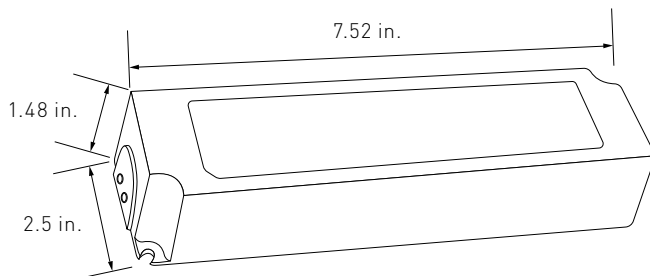
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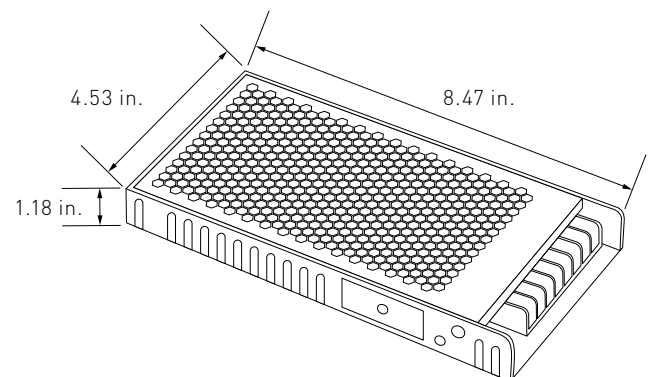
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AL-98-04-24100



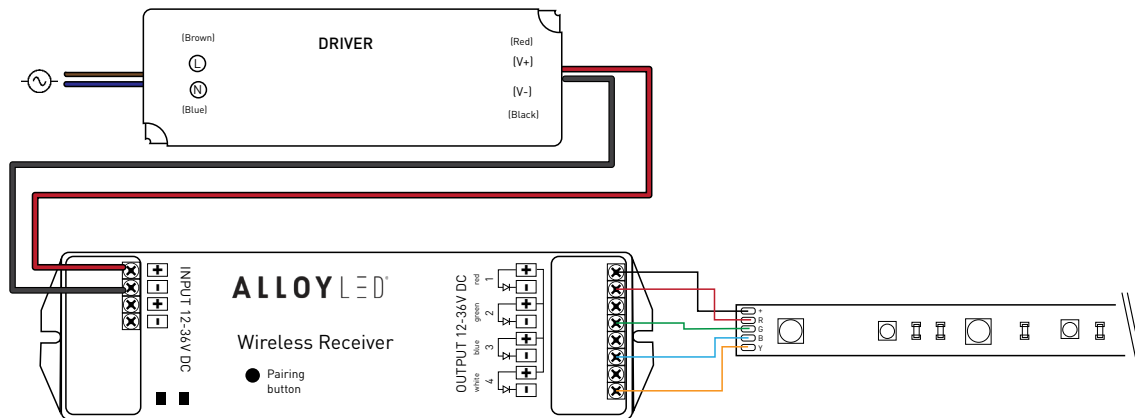
AL-98-04-12120
AL-98-04-24151



AL-98-04-24200



WIRING DIAGRAMS



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.