PrimaVolt® Dimmable Driver

AL-98-03-12XXX

- Compatible with leading edge and trailing edge TRIAC dimmers
- Wide-range compatibility, flicker-free dimming
- Short circuit and over current protection
- Air-cooled for long life operation

QUICK SPECIFICATIONS

Item Number	**AL-98-03-12012** **AL-98-03-12020** **AL-98-03-24020** **AL-98-03-12030** **AL-98-03-24030** **AL-98-03-12045** **AL-98-03-24045**	**AL-98-03-12060** **AL-98-03-24060** **AL-98-03-12080**	**AL-98-03-24080** **AL-98-03-24100** **AL-98-03-12120**
Input	120V 120V AC		
Features	100% Max. Load, 60% Min. Load, CLASS 2 100% maximum load 60% minimum load Class 2		100% Max. Load, 60% Min. Load 100% maximum load 60% minimum load
Environment	DRY LOCATION, IP40 Dry environment (IP40) Protected against solid objects greater than 1mm	DRY LOCATION, WET LOCATION, IP67 Dry/damp/wet environment (IP67) Dust tight and protected against immersion in 1m of water for up to 30 minutes	
Certifications	c UL us LISTED, RoHS UL Listed RoHS		
Warranty	WARRANTY 5 YEAR 5 year limited		

12V MODELS TECHNICAL INFORMATION

Item Number	AL-98-03-12012	AL-98-03-12020	AL-98-03-12030	AL-98-03-12045	AL-98-03-12060	AL-98-03-12080	AL-98-03-12120
DC Voltage	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC
Voltage Accuracy	±5%						
Rated Current	1A		1.66A	3.75A	5A	6.66A	10A
Rated Power	12W		30W	45W	60W	80W	120W
Minimum Load	0% (on/off switch) / 60% (w/dimmer)						
Voltage Range	120V AC						
Frequency Range	47~63HZ						
Power Factor (Avg.)	PF≥0.92/110V ; PF≥0.94/220V ; PF≥0.95/250V			PF≥0.94/120V ; PF≥0.95/220V ; PF≥0.93/265V	PF≥0.95/110V ; PF≥0.96/170V ; PF≥0.95/220V ; PF≥0.93/265V		≥0.92/110V ; ≥0.93/170V ; ≥0.95/220V ; ≥0.95/265V
Full Load Efficiency (Avg.)	>81% (12V DC)	>86% (12V DC)	>83% (12V DC)	>84% (12V DC)	>85% (12V DC)		
AC Current (Avg.)	0.17A/110V AC — 0.15A/170V AC — 0.12A/220V AC — 0.1A/265V AC	0.14A/110V AC — 0.12A/220V AC — 0.1A/265V AC	0.14A/110V AC — 0.12A/220V AC — 0.01A/250V AC	0.34A/120V AC — 0.27A/220V AC — 0.24A/265V AC	0.61A/110V AC — 0.58A/170V AC — 0.46A/220V AC — 0.93A/265V AC	0.61A/110V AC — 0.58A/170V AC — 0.46A/220V AC — 0.41A/265V AC	0.66A/110V AC — 0.63A/170V AC — 0.57A/220V AC — 0.52A/265V AC
Leakage Current	<0.8mA/110V AC, <0.7mA/220V AC	<0.27mA/110V AC, <0.25mA/220V AC		< 0.25mA/120V/230V AC	<0.25mA/110V/220V AC		<0.27mA/110V/220V AC
Short Circuit	Short circuit protection and autorecovery						
Over Current	1.4 times output current	≤140V AC	1.4 times output current	≤140V AC			
Working Temp., Humidity	-40~+60°C / -40~+140°F / 20~90%RH, non-condensing						
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH						
Safety Standards	EN-60950-1, EN-61347-1/-2/-13		EN61347-2-13, EN62493	EN-60950-1, EN-61347-1/-2/-13			
Withstand Voltage	I/P-O/P: 3.75KV AC						I/P-O/P: 3.75KV AC I/P-FG: 1.88KV AC O/P-FG: 0.5K VAC
Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH						
EMC Emission	Compliance to EN55015, EN61000-3-2 (≥50% load)						
EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 11, EN61547, a light industry level			Compliance to EN55015; EN61000-4-2,3, 4, 5, 6, 8, 11, EN61547, a light industry level (surge4KV)			
Warranty	5 Year Limited						
Dimensions (L x W x H)	5.71 x 2.17 x 0.77 in.		7.09 x 2.36 x 1.38 in.		7.87 x 2.76 x 1.81 in.		9.06 x 2.76 x 1.81 in.

All parameters NOT specially mentioned are measured at 110V, 230V AC input, rated load, and 25°C of ambient temperature.

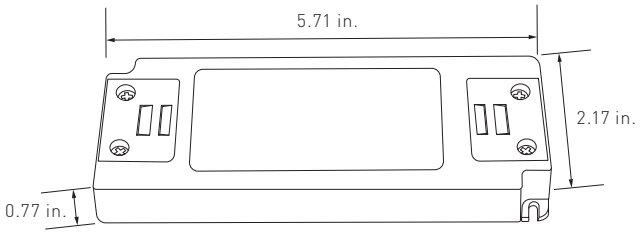
24V MODELS TECHNICAL INFORMATION

Item Number	AL-98-03-24020	AL-98-03-24030	AL-98-03-24045	AL-98-03-24060	AL-98-03-24080	AL-98-03-24100
DC Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Voltage Accuracy	±5%					
Rated Current	0.83A		1.87A	2.5A	4.16A	4.16A
Rated Power	20W	30W	45W	60W	100W	100W
Minimum Load	0% (on/off switch) / 60% (w/dimmer)					
Voltage Range	120V AC					
Frequency Range	47~63HZ					
Power Factor (Avg.)	PF≥0.92/110V ; PF≥0.94/220V ; PF≥0.95/250V		PF≥0.94/120V ; PF≥0.95/220V ; PF≥0.93/265V	PF≥0.95/110V ; PF≥0.96/170V ; PF≥0.95/220V ; PF≥0.93/265V	≥0.92/110V ; ≥0.93/170V ; ≥0.95/220V ; ≥0.95/265V	
Full Load Efficiency (Avg.)	>85% (24V DC)	>84% (24V DC)		>85% (24V DC)	>83% (24V DC)	
AC Current (Avg.)	0.17A/110V AC — 0.15A/170V AC — 0.12A/220V AC — 0.1A/265V AC	0.14A/110V AC — 0.12A/220V AC — 0.01A/250V AC	0.34A/120V AC — 0.27A/220V AC — 0.24A/265V AC	0.61A/110V AC — 0.58A/170V AC — 0.46A/220V AC — 0.93A/265V AC	0.61A/110V AC — 0.58A/170V AC — 0.46A/220V AC — 0.41A/265V AC	
Leakage Current	<0.8mA/110V AC, <0.7mA/220V AC		<0.25mA/120V/230V AC	<0.25mA/110V/220V AC		
Short Circuit	Short circuit protection and autorecovery					
Over Current	1.4 times output current		≤140V AC			
Working Temp., Humidity	-40~+60°C / -40~+140°F / 20~90%RH, non-condensing					
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH					
Safety Standards	EN-60950-1, EN-61347-1/-2/-13	EN61347-2-13, EN62493	EN-60950-1, EN-61347-1/-2/-13			
Withstand Voltage	I/P-O/P: 3.75KV AC				I/P-O/P: 3.75KV AC I/P-FG: 1.88KV AC O/P-FG: 0.5K VAC	
Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH				I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH	
EMC Emission	Compliance to EN55015, EN61000-3-2 (≥50% load)					
EMC Immunity	Compliance to EN61000-4-2, 3, 4, 5, 6, 11, EN61547, a light industry level		Compliance to EN55015; EN61000-4-2,3, 4, 5, 6, 8, 11, EN61547, a light industry level (surge4KV)			
Warranty	5 Year Limited					
Dimensions (L x W x H)	5.71 x 2.17 x 0.77 in.	7.09 x 2.36 x 1.38 in.		7.87 x 2.76 x 1.81 in.	9.06 x 2.76 x 1.81 in.	

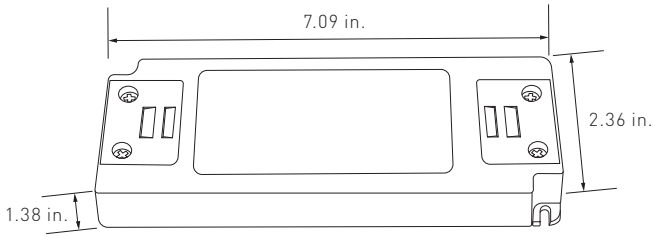
All parameters NOT specially mentioned are measured at 110V, 230V AC input, rated load, and 25°C of ambient temperature.

DIMENSIONS

AL-98-03-12012
AL-98-03-12020
AL-98-03-24020



AL-98-03-12030
AL-98-03-24030
AL-98-03-12045
AL-98-03-24045



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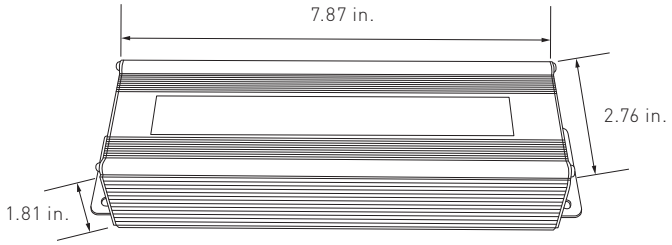
AL-98-03-24080



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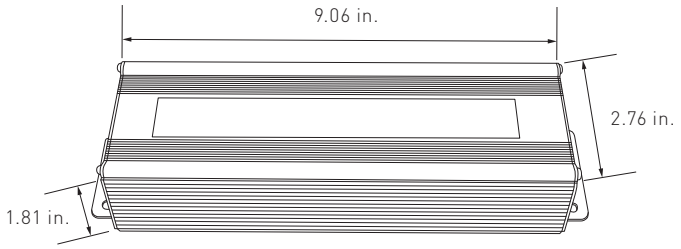
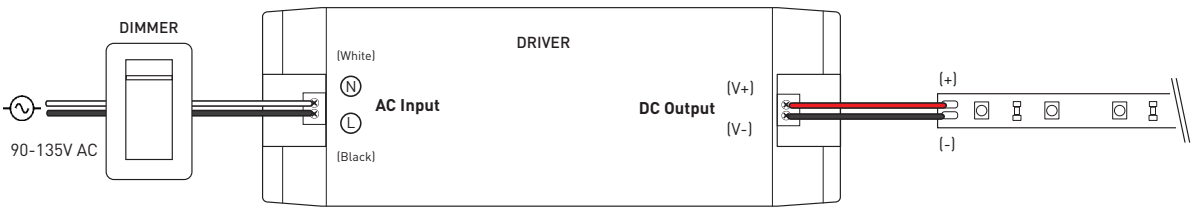
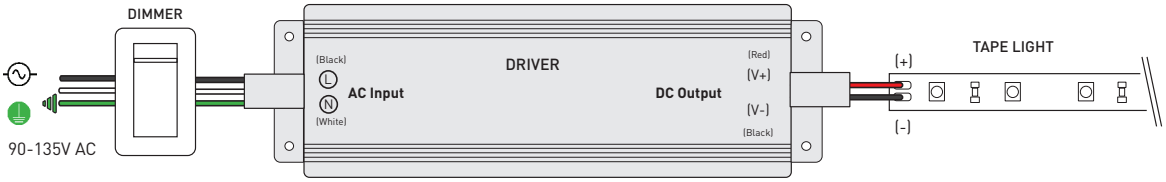


WIRING DIAGRAMS

AL-98-03-12012
AL-98-03-12020
AL-98-03-24020
AL-98-03-12030
AL-98-03-24030
AL-98-03-12045
AL-98-03-24045



AL-98-03-12060
AL-98-03-24060
AL-98-03-12080
AL-98-03-24080
AL-98-03-24100
AL-98-03-12120



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.