

PowerFactor™ Dimmable LED Driver with Junction Box

AL-98-10-XXXXX



PowerFactor Dimmable Drivers provide smooth, stable, and efficient dimming capability for LED lighting. They are compatible with many models of Triac, ELV, MLV, forward and reverse phase dimmers, and on/off switches. All PowerFactor multi-tap models, and wattages up to 24V/96W, are Class 2 compliant, making them safe and inspection-ready.

- High power factor for high efficiency
- Dry/damp/wet environment
- Flicker-free 100~0% dimming

QUICK SPECIFICATIONS

Item Number	AL-98-10-12030 AL-98-10-24030 AL-98-10-12060 AL-98-10-24060 AL-98-10-24096 AL-98-10-24192-MT AL-98-10-24288-MT AL-98-10-12300-MT	AL-98-10-12120 AL-98-10-24150 AL-98-10-24200 AL-98-10-24300
Input	 120~277V AC	
Features	    99% Power Factor 100% maximum load 10% minimum load Class 2	   99% Power Factor 100% maximum load 10% minimum load
Environment	  DRY LOCATION Dry/damp/wet environment	
Certifications	   UL Listed RoHS NEMA 4X	
Warranty	 6 year limited	

12V MODELS TECHNICAL INFORMATION

Item Number	AL-98-10-12030	AL-98-10-12060	AL-98-10-12120
DC Voltage	12V DC	12V DC	12V DC
Voltage Regulation	±0.5%		
Rated Current	2.5A	5A	10A
Rated Power	30W	60W	120W
Load Regulation	± 1%		± 2%
Voltage Range	120~277V AC		
Frequency Range	47~63HZ		
Power Factor (Avg.)	≥0.99 (120V AC) ; ≥0.98 (277V AC)	≥0.98 (120V AC) ; ≥0.95 (277V AC)	≥0.99 (120V AC) ; ≥0.96 (277V AC)
Full Load Efficiency (Avg.)	79%	83%	82%
AC Current (Avg.)	0.5A (100V AC)	0.9A (100V AC)	1.7A (100V AC)
Inrush Current	7A, 50%, 420us	14A, 50%, 780us	20A, 50%, 1.6ms
Leakage Current	<0.5mA		
Short Circuit	Short circuit protection: re-powers on after fault condition is removed		
Overloading	≤120% shut down o/p voltage, re-power on to recover		
Working Temp.	-40~+60°C / -40~+140°F		
Working Humidity	20~90% RH, non-condensing		
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH		
Safety Standards	UL8750, UL1310		UL 8750
Withstand Voltage	I/P-O/P: 1.88KV AC		
Isolation Resistance	I/P-O/P: 100MQ/500V DC/25°C, 77°F/70%RH		
EMC Emission	FCC 47 CFR Part 15, Subpart B		
Warranty	6 year limited		
Dimensions (L x W x H)	6.5 x 3.72 x 1.02 in.	7.4 x 3.72 x 1.02 in.	8.66 x 3.72 x 1.57 in.
Knockouts (Number - dia.)	6 knockouts - 1/2 in. and 2 knockouts - 7/8 in.		8 knockouts - 7/8 in.

24V MODELS TECHNICAL INFORMATION

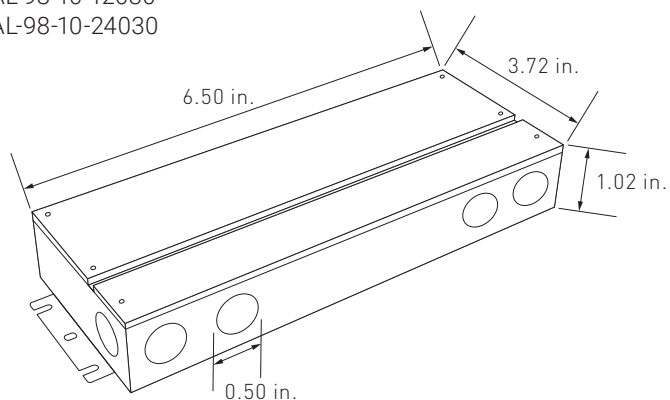
Item Number	AL-98-10-24030	AL-98-10-24060	AL-98-10-24096	AL-98-10-24150	AL-98-10-24200	AL-98-10-24300
DC Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Voltage Regulation	±0.5%					
Rated Current	1.25A	2.5A	4A	6.25A	8.33A	12.5A
Rated Power	30W	60W	96W	150W	200W	300W
Load Regulation	± 1%					
Voltage Range	120~277V AC					
Frequency Range	47~63HZ					
Power Factor (Avg.)	≥0.99 (120V AC) ; ≥0.97 (277V AC)	≥0.98 (120V AC) ; ≥0.95 (277V AC)	≥0.98 (120V AC) ; ≥0.96 (277V AC)	≥0.99 (120V AC) ; ≥0.94 (277V AC)	≥0.98 (120V AC) ; ≥0.95 (277V AC)	≥0.99 (120V AC) ; ≥0.97 (277V AC)
Full Load Efficiency (Avg.)	79%	83%	>83%	>85%	>86%	>88%
AC Current (Avg.)	0.5A (100V AC)	0.9A (100V AC)	1.3A (100V AC)	1.8A (110V AC)	2.3A (110V AC)	3.4A (110V AC)
Inrush Current	7A, 50%, 420us	14A, 50%, 780us	20A, 50%, 1.6ms	15A, 50%, 1.4ms		20A, 50%, 1.9ms
Leakage Current	<0.5mA					
Short Circuit	Short circuit protection: re-powers on after fault condition is removed					
Overloading	≤120% shut down o/p voltage, re-power on to recover					
Working Temp.	-40~+60°C / -40~+140°F					
Working Humidity	20~90% RH, non-condensing					
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH					
Safety Standards	UL8750, UL1310			UL 8750		
Withstand Voltage	I/P-O/P: 1.88KV AC					
Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70% RH					
EMC Emission	FCC 47 CFR Part 15, Subpart B					
Warranty	6 year limited					
Dimensions (L x W x H)	6.5 x 3.72 x 1.02 in.	7.4 x 3.72 x 1.02 in.	8.66 x 3.72 x 1.57 in.	10.24 x 4.13 x 1.77 in.		10.94 x 4.33 x 1.77 in.
Knockouts (Number - dia.)	6 knockouts - 1/2 in. and 2 knockouts - 7/8 in.		8 knockouts - 7/8 in.			

MULTI-TAP MODELS TECHNICAL INFORMATION

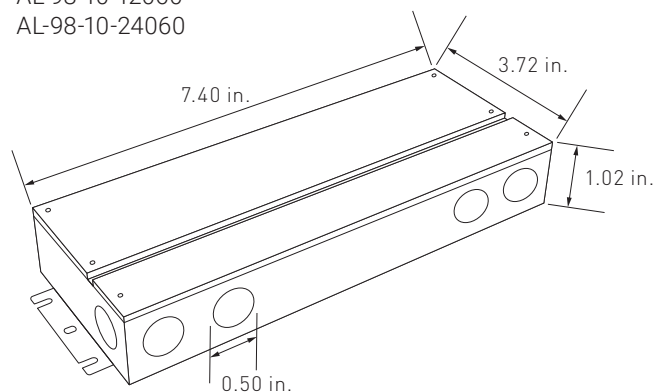
Item Number	AL-98-10-24192-MT	AL-98-10-24288-MT	AL-98-10-12300-MT
DC Voltage	24V DC	24V DC	12V DC
Voltage Regulation	±0.5%		
Number of Channels	2	3	5
Current per Channel	4A (8A total)	4A (12A total)	5A (25A total)
Wattage per Channel	96W (192W total)	96W (288W total)	60W (300W total)
Load Regulation	± 1%		
Voltage Range	120~277V AC		
Frequency Range	47~63HZ		
Power Factor (Avg.)	≥0.99 (110V AC) ; ≥0.94 (277V AC)	≥0.99 (110V AC) ; ≥0.95 (277V AC)	
Full Load Efficiency (Avg.)	87% (110V AC) ; 89% (277V AC)		85% (110V AC) ; 90% (277V AC)
AC Current (Avg.)	2.3A (100V AC)	3.4A (100V AC)	3.6A (100V AC)
Inrush Current	19A (twidth=1.3ms) @120VAC ; 38A (twidth=960us) @277VAC	35A (twidth=960us) @120VAC ; 43A (twidth=1ms) @277VAC(twidth=960us) @120VAC ; 43A (twidth=1ms) @277VAC	
Leakage Current	<0.5mA		
Short Circuit	Short circuit protection: re-powers on after fault condition is removed		
Overloading	≤120% shut down o/p voltage, re-power on to recover		
Working Temp.	-40~+60°C / -40~+140°F		
Working Humidity	20~90% RH, non-condensing		
Storage Temp., Humidity	-40~+80°C, -40~176°F / 10~95%RH		
Safety Standards	UL 8750, UL 1310		
Withstand Voltage	I/P-O/P: 1.88KV AC		
Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH		
EMC Emission	FCC 47 CFR Part 15, Subpart B		
Warranty	6 year limited		
Dimensions (L x W x H)	10.94 x 4.33 x 1.77 in..	11.85 x 4.33 x 1.77 in.	
Knockouts (Number - dia.)	8 knockouts - 7/8 in.		

DIMENSIONS

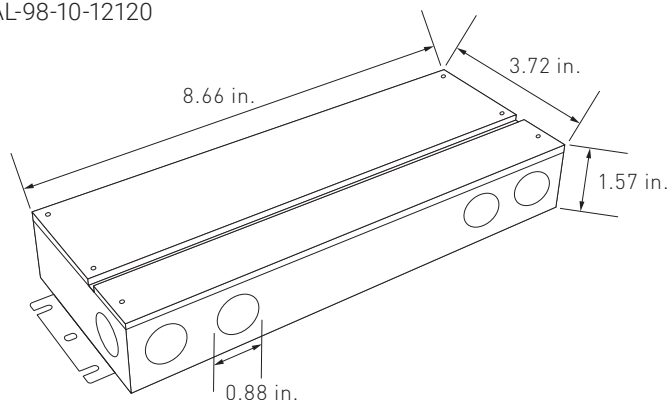
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AL-98-10-24030



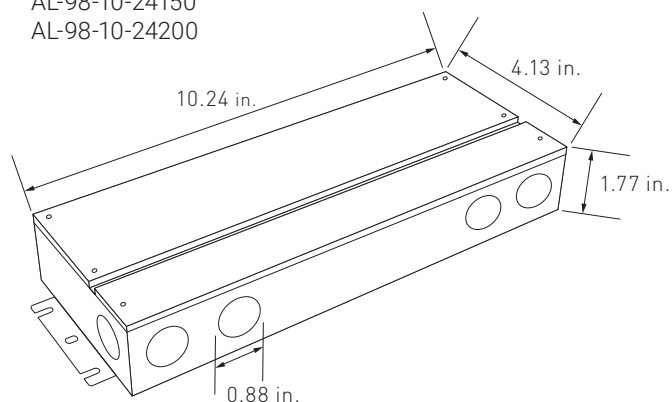
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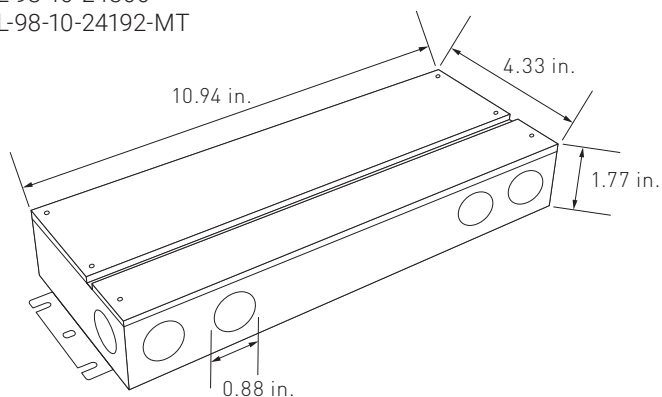
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AL-98-10-12120



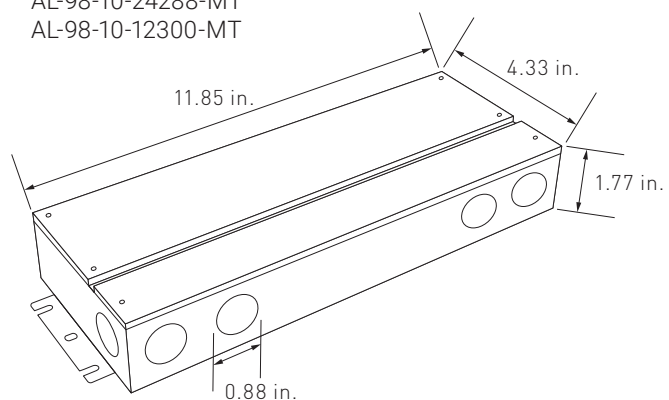
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AL-98-10-24200



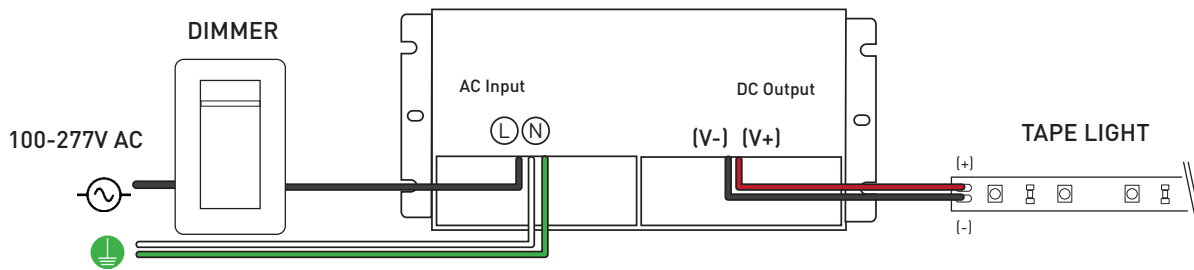
AL-98-10-24300
AL-98-10-24192-MT



AL-98-10-24288-MT
AL-98-10-12300-MT



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.