

PrimaVolt® No Minimum Load Dimmable Driver with Junction Box

AL-98-03-XXXXX-NM



PrimaVolt No Minimum Load Dimmable Drivers with Junction Box provide the smoothest, most stable, and most efficient power and dimming capability in our line of power supplies.

- Compatible with leading- and trailing-edge ELV, MLV, and incandescent dimmers, and on/off switches
- Wide-range compatibility, flicker-free dimming
- Includes ETL Listed junction box
- Short circuit and over current protection
- Air-cooled for longer life
- Dry/damp location (IP20)

Note: For an inspection-ready solution, Alloy LED recommends using the included junction box.

QUICK SPECIFICATIONS

Item Number	AL-98-03-12024-NM AL-98-03-24024-NM AL-98-03-12048-NM AL-98-03-24048-NM AL-98-03-12060-NM AL-98-03-24060-NM AL-98-03-24080-NM AL-98-03-24096-NM	AL-98-03-12080-NM AL-98-03-12120-NM AL-98-03-24150-NM AL-98-03-24200-NM
Input	 120V AC	
Features	   100% maximum load 0% minimum load Class 2	  100% maximum load 0% minimum load
Environment	  Dry/damp environment Protection from solid objects	
Certifications	  ETL Listed Junction Box RoHS	
Warranty	 5 year limited	

12V MODELS TECHNICAL INFORMATION

Item Number	AL-98-03-12024-NM	AL-98-03-12048-NM	AL-98-03-12060-NM	AL-98-03-12080-NM	AL-98-03-12120-NM
DC Voltage	12V DC	12V DC	12V DC	12V DC	12V DC
Voltage Accuracy	±5%				
Rated Current	2A	4A	5A	6.66A	10A
Rated Power	24W	48W	60W	80W	120W
Minimum Load	0%				
Maximum Load	100%				
Specified Input Voltage	120V AC				
Frequency Range	47~63HZ				
Power Factor (Avg.)	PF≥0.75	PF≥0.65	PF≥0.65~0.75	≥0.7/110V ; ≥0.73/220V	
Full Load Efficiency (Avg.)	>83% (12V DC)			>85%	
AC Current (Avg.)	0.32A/110V AC – 0.16A/220V AC	0.84A @120V AC, 0.39A@220V AC	1A	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	<0.7mA/110V AC, <0.5mA/220V AC		<0.50mA/120V AC	<0.25mA/110V/220V AC	<0.27mA/110V/220V AC
Short Circuit	Short circuit protection and autorecovery				
Over Current	≤1.2 times output current	≤1.4 times output current	≤1.2 times output current	≤140V AC (90~135V) , ≤270V AC (170~265V)	
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	UL8750, UL1310			EN-60950-1, EN61347-1 EN61347-2-13	
Withstand Voltage	I/P-O/P: 1.5KV AC				
Isolation Resistance	I/P-O/P: 100MΩ/500V DC/25°C, 77°F/70%RH				
EMC Emission	FCC Part 15 B			Compliance to EN55015, EN61000-3-2 (≥50% load)	
Warranty	5 Year Limited				
Size (Junction Box) LxWxH	13.78 x 3.03 x 1.46 in. (incl. mounting tabs)			14.96 x 3.03 x 2.24 in. (incl. mounting tabs)	
Size (Driver) LxWxH	6.10 x 2.12 x 0.79 in.	7.00 x 2.40 x 0.95 in.	7.10 x 2.36 x 1.38 in.	8.27 x 2.70 x 1.70 in.	9.06 x 2.76 x 1.82 in.
Color	White	White	White	Black	Black

All parameters NOT specially mentioned are measured at 110V / 220V AC input, rated load, and 25°C, 77°F of ambient temperature.

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

DIMMER COMPATIBILITY

Note: Our drivers are compatible with most ELV, MLV, incandescent dimmers, and on/off switches. Reference examples shown below.

LUTRON [®]	LEVITON	INSTEON	LEGRAND
TGCL-153PR-WH	6602-IW	2334-232	ADTP700RMTUW1
TGCL-153PH-WH	6672-1LW	2442-222	
TG-600PR	6672-1LI		
TG-10PR-WH	6672-1LT		
DVCL-153PR-WH	6683-IW		
DVWCL-153PH-LA	IPL06		
DV-600PR	TBL03		
DVW-603PGH-WH	TTI06-1LZ		
MACL-153MH-LA	VPI06-1LZ		
SCL-153PR-WH			
S-600PR-WH			
CTCL-153PDH-LA			
CT-600PR			
CT-603PGH-WH			
CT-103PR-WH			

TECHNICAL INFORMATION

Item Number	AL-98-03-24024-NM	AL-98-03-24048-NM	AL-98-03-24060-NM	AL-98-03-24080-NM	AL-98-03-24096-NM	AL-98-03-24150-NM	AL-98-03-24200-NM
DC Voltage	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC	24V DC
Voltage Accuracy	±5%						
Rated Current	1A	2A	2.5A	3.33A	2A	6.25A	8.33A
Rated Power	24W	48W	60W	80W	96W	150V AC	200W
Minimum Load	0%						
Maximum Load	100%						
Specified Input Voltage	120V AC						
Frequency Range	47~63HZ						
Power Factor (Avg.)	PF≥0.75	PF≥0.65	PF≥0.65~0.75	≥0.7/110V ; ≥0.73/220V	≥0.7/110V ; ≥0.7/170V ; ≥0.71/220V ; ≥0.71/265V	≥0.71/110V ; ≥0.73/220V	≥0.73/110V ; ≥0.76/220V
Full Load Efficiency (Avg.)	>84% (24V DC)			>86%	>85%	>86%	
AC Current (Avg.)	0.33A/110V AC – 0.13A/220V AC	0.83A @120V AC, 0.39A@220V AC	1A	0.61A/110V AC – 0.58A/170V AC – 0.46A/220V AC – 0.41A/265V AC		1.32A	1.76A
Leakage Current	<0.7mA/110V AC, <0.5mA/220V AC		<0.50mA/120V AC	<0.25mA/110V/220V AC		<0.6mA/110V/ <0.7mA/220V AC	<0.70mA/110VAC, <0.65mA/220VAC
Short Circuit	Short circuit protection and autorecovery						
Over Current	≤1.2 times output current	≤1.4 times output current	≤1.2 times output current	≤140V AC (90~135V) , ≤270V AC (170~265V)		≤120%	≤140V AC (90~135V), ≤270V AC (170~265V)
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	UL8750, UL1310			EN-60950-1, EN61347-1 EN61347-2-13		EN61347-1 EN61347-2-13	
Withstand Voltage	I/P-O/P: 1.5KV AC					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	FCC Part 15 B			Compliance to EN55015, EN61000-3-2 (≥50% load)			
Warranty	5 Year Limited						
Size (Junction Box) LxWxH	13.78 x 3.03 x 1.46 in. (incl. mounting tabs)			14.96 x 3.03 x 2.24 in. (incl. mounting tabs)		15.98 x 3.43 x 2.36 in. (incl. mounting tabs)	
Size (Driver) LxWxH	6.10 x 2.12 x 0.79 in.	7.00 x 2.40 x 0.95 in.	7.10 x 2.36 x 1.38 in.	8.27 x 2.70 x 1.70 in.	9.06 x 2.76 x 1.82 in.	8.92 x 3.05 x 1.85 in.	
Color	White	White	White	Black	Black	Black	Black

All parameters NOT specially mentioned are measured at 110V / 220V AC input, rated load, and 25°C, 77°F of ambient temperature.

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

DIMMER COMPATIBILITY

Note: Our drivers are compatible with most ELV, MLV, incandescent dimmers, and on/off switches.

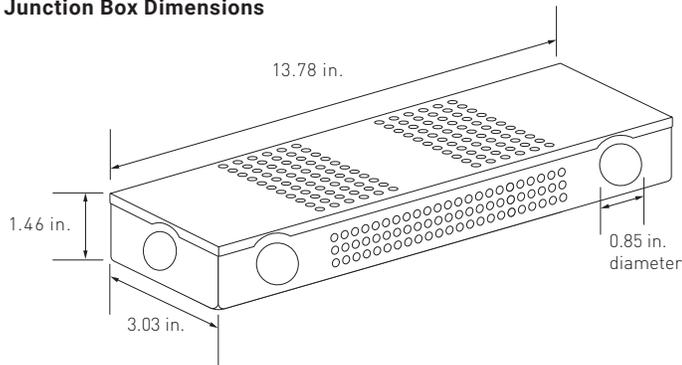
Reference examples shown below.

LUTRON [®]	LEVITON	INSTEON	LEGRAND
TGCL-153PR-WH	6602-IW	2334-232	ADTP700RMTUW1
TGCL-153PH-WH	6672-1LW	2442-222	
TG-600PR	6672-1LI		
TG-10PR-WH	6672-1LT		
DVCL-153PR-WH	6683-IW		
DVWCL-153PH-LA	IPL06		
DV-600PR	TBL03		
DVW-603PGH-WH	TT106-1LZ		
MACL-153MH-LA	VPI06-1LZ		
SCL-153PR-WH			
S-600PR-WH			
CTCL-153PDH-LA			
CT-600PR			
CT-603PGH-WH			
CT-103PR-WH			

DIMENSIONS

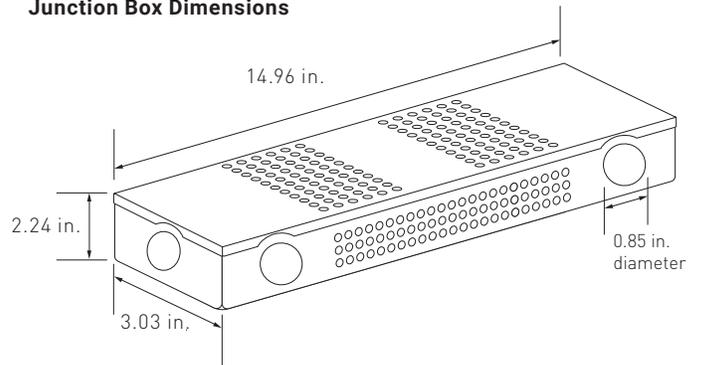
Item Number	Dimensions of driver (LxWxH):
AL-98-03-12024-NM	6.10 in. x 2.12 in. x 0.79 in.
AL-98-03-24024-NM	
AL-98-03-12048-NM	7.00 x 2.40 x 0.95 in.
AL-98-03-24048-NM	
AL-98-03-12060-NM	7.10 x 2.36 x 1.38 in.
AL-98-03-24060-NM	

Junction Box Dimensions



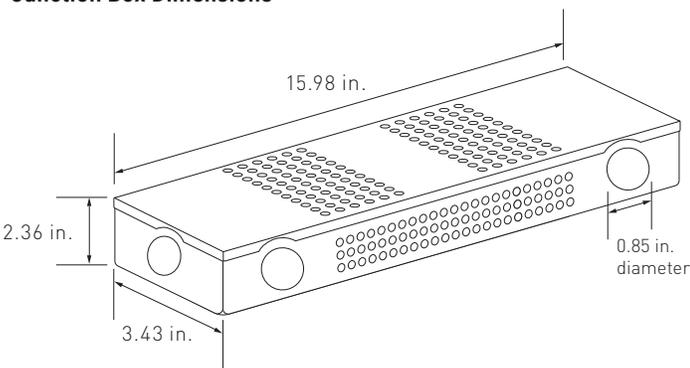
Item Number	Dimensions of driver (LxWxH):
AL-98-03-12080-NM	8.27 x 2.70 x 1.70 in.
AL-98-03-24080-NM	
AL-98-03-24096-NM	9.06 x 2.76 x 1.82 in.
AL-98-03-12120-NM	

Junction Box Dimensions



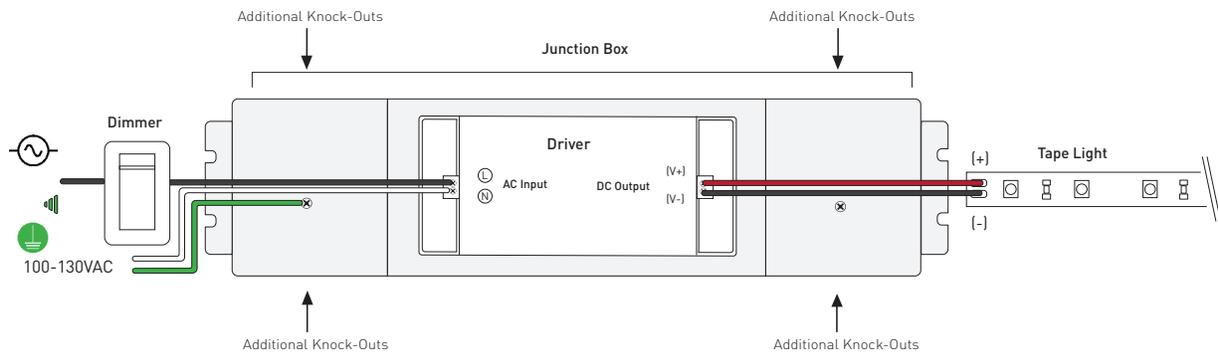
Item Number	Dimensions of driver (LxWxH):
AL-98-03-24150-NM	8.92 x 3.05 x 1.85 in.
AL-98-03-24200-NM	

Junction Box Dimensions

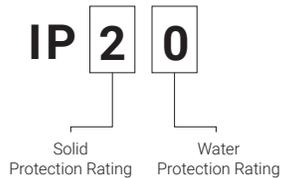


WIRING DIAGRAMS

Using a Standard Wall Dimmer



IP (INGRESS PROTECTION) RATING GUIDE



Solid Ingress Rating

0	Not protected against solid objects
1	Protected against solid objects greater than 50mm
2	Protected against solid objects greater than 12.5mm
3	Protected against solid objects greater than 2.5mm
4	Protected against solid objects greater than 1mm
5	Protected against limited amounts dust
6	Dust tight

Water Ingress Rating

0	Not protected against water
1	Protected against vertically falling water droplets
2	Protected against vertically falling water droplets with enclosure tilted up to 15°
3	Protected against sprays of water up to 60°
4	Protected against water splashes from all directions
5	Protected against jets of water
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.