



<http://atx-led.com>

E26 / E12 LED Lights **Low Voltage (9v / 48 vdc)** **Direct Current Controlled**

E26 / E12 series

Standard Edison
Screw in Bulbs

Bright LEDs, Cool Operation

			
Frosted E26 A19	Filament E26 A60 A19 Style	CoB style – high output PAR38	Filament E12 C35 style

Operating Concept

ATX LED provides light using DC currents at low voltages, this saves copper, and solves the flicker associated with conventional 120vac lighting. DC fixtures and bulbs with no internal drivers, allow perfect dimming and lower energy usage, they also last far longer since the parts that fail have been eliminated. We offer many bulb and fixtures types.

Over the 125 years since the Edison light bulb was invented, the E26 bulb base became the world wide standard, new and old fixtures can still be used in a DC project, using our E26 and E12 series.

Single bulb fixtures require no special consideration, and 120vac rated E26 / E12 fixture can be used. Indoor projects with 1-4 bulbs in one or more fixtures are best installed using the series (9v) wiring method. For larger fixtures, unmodified fixtures, and outdoors we recommend using the 48v type (native, parallel wiring). Either method results in excellent dimming and very long service life.

Technical specifications

Model Type	Watts	Volts	Current	lm	Note
E26 - 660mA A60	6	9	0 - 660mA	540	5 in series max
E12 - 660mA** C35	2	6	0 - 330mA	250	7 in series max
E12 - 440mA C36	4	9	0 - 440mA	400	5 in series max
E26 - 48v6w A60	6 @ 48v	40 – 56 120 vac*	0 – 125 mA 8 mA*	540	16 in parallel max
E12 - 48v3w C35	3.5 @ 48v	40 – 56	0 – 65 mA	350	32 in parallel max
PAR38	12 @ 48v	36-56	0-240 mA	2000	8 in parallel max
Color Temperature Options					
Degrees K	2700 warm	3000	3500 Daylight	4000	CRI-90
Operating Temperature	-20 to 40 Deg C non condensing				

120 vac operation is provided in case the bulb is installed into a 120vac wired fixture.*

*660mA** these bulbs must be operated at 330 mA max – set DR2 to max level 229, or wire in parallel*

Detailed Wiring Options

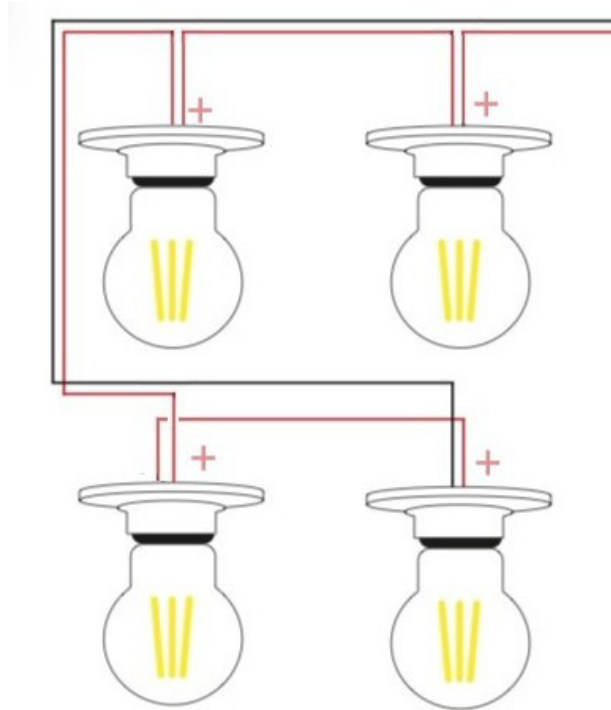
Available in 3 different dimming styles, 2 different socket styles, 2 different filament styles, the ATX E26 and E12 series offers the same dimming controls as our P023 and DL series of downlights.

The models are:

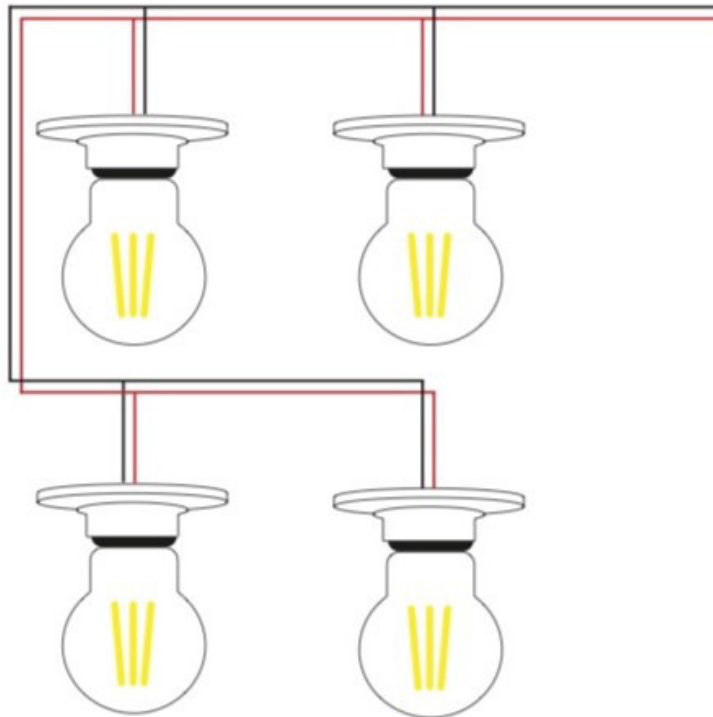
- a) **CCR** – Constant Current Reduction. External Driver required. The voltage per LED is between 7.5 and 9 volts, with current from 0-660 mA for perfect flicker free dimming to 0.16%. Up to 5 LEDs are wired in series, and two series circuits are wiring to each AL-WS-DR2 for applications from 1 to 10 bulbs. Fixed color temperature, 3 color temperature options, Frosted and Filament style bulbs. The driver can be located up to 150 ft from the LEDs – since constant current eliminates the concerns about voltage drop
- b) **CV** – Controlled by Voltage. The Brightness is constant from 46v to 56 volts, and dimming down to 5% is possible over a 44 to 38 volt range using any ATX LED wall switch. Fixed color temperature, 3 color options.

Model	2700	3000	3500	4000	5000	Beam
Filament	X		*	X		Globular
Frosted		X	X	X		Hemisphere

Series wiring - perfect dimming 3000:1 ratio



Parallel wiring - large Chandeliers, acceptable dimming



Other Dimmable LED Specifications

Model	Hole in Ceiling mm	Drill Size Inch	Finished Outside Diameter mm	Watts	Volts	Lm/W	mA	Wiring*
P023R6-660	102	4"	120	6	9	90	660	S
P023R6-48v6w	102	4"	120	6	48	90	120	P
P023R11-1440	169	6 5/8"	188	12	9	100	1440	S
P023R11-48v12W	110	4 1/4"	120	12	48	90	240	P
DL-120	102	4	120	6	9	130	660	S
DL-127	70	2 3/4	85	6	9	130	660	S
P023S12-1440	Strip	3/4	4500	12	9	120	1440	S
GU10 / MR16	60	50	60	5	48	130	100	P
PAR-38	-	-	120	12	48	150	240	P

*S is serial

*P is parallel

Recommended 660mA DC Drivers with perfect dimming

N = # of LEDs (Use 51v supply to these dimmers)

DC drivers	6 Watt E26	3.6 Watt E12	WiFi	DALI
AL-WS-DR1	5	11		
AL-WS-DR2	10	22		X
AL-WS-DR2C	10	22		X
AL-WS-DR2W	10	22	X	

Recommended Parallel Drivers for large Chandeliers


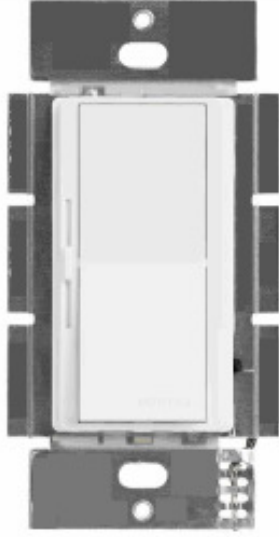
DC drivers	Max Watts per Channel	Watts Total	Dimming	# Channels
AL-WS-DR1	24	24	Yes	1
AL-WS-DR2	24	48	Yes	2
AL-SML-DR2- 70CCT	75	75	Yes	1*
ELG-150-48DA	150	150	Yes	1
On/Off Switch	100	100	No	-

* set to Warm or Cool only

Ordering part numbers

Model	Voltage	Current	CCT	CRI	Lumens	Filament	Frosted
E26-660mA-2700K-A60	7.5-9	0-660mA	2700K	80, 90	540	Filament	
E26-660mA-3500K-A60	7.5-9	0-660mA	3500K	80, 90	540	Filament	
E26-660mA-4000K-A60	7.5-9	0-660mA	4000K	90	540	Filament	
E26-48v6w-2700K-C35	44-56v	5-130mA	2700K	90	540	Filament	
E26-48v6w-4000K-C35	44-56v	5-130mA	4000K	90	540	Filament	
ATX-E26-660mA-3000K-A60	7.5-9	0-660mA	3000K	90	540		Frosted
ATX-E26-660mA-3500K-A60	7.5-9	0-660mA	3500K	90	540		Frosted
ATX-E26-660mA-4000K-A60	7.5 - 9	0-660mA	4000K	90	540		Frosted
PAR38-48v12w-4000K	44-56v	0-240mA	4000K	90	1800		Clear
PAR38-48v12w-4000K	44-56v	0-240mA	4000K	90	1800		Clear
E12-440mA-2700K-A60	7.5 - 9	0-440mA	2700K	90	400	Filament	
E12-660mA-2700K-A60	5 - 6	0-660mA	2700K	90	400	Filament	
E12-660mA-4000K-A60	5 - 6	0-660mA	4000K	90	540	Filament	
E12-48v3w-2700K-C35	44-56v	65 mA	2700K	90	400	Filament	
E12-48v3w-4000K-C35	44-56v	65 mA	2700K	90	400	Filament	

Meet the AL-WS-DR2 – DALI wall switch Driver

	http://atx-led.com
<p>AL-WS-DR2 44-54vdc</p> <p>DALI DT8 Switch / Driver</p> <p>Dual output Constant Current, CV and CL driver 12v and 48v Fan driver</p> <p>28 Watt Tunable CCT 56 Watt Fixed</p>	

Product Description - AL-WS-DR2 wall switch

This switch operates just like any standard residential light switch – however it takes 24-54v DC instead of 120VAC, and directly drives up to 56 watts of LED bulbs. This Decorator style switch in a standard residential style outline fits into any home, looks like any switch yet meets NEC article 411 for Low Voltage lighting.

It supports fixed color temperature or tunable white LED fixtures for time of day light controls. With tunable white, it supports dim to warm.

Stand alone it operates as a simple switch for 2 strings of LED's with up to 660mA to 30 watts per channel. For example, with a 54v supply, 10 x 6 Watt LEDs can be connected, 5 in series to each of the 2 outputs on this switch / dimmer device. Use AWG 16 or 18 to bring 51v or 54v from a central power supply over to the switches, then use AWG 20 to connect to your LEDs – no crimping tools are required to wire this device.

For 3-way operation – a simple 2 wire link with AWG24 or better allows 2, 3, or an unlimited numbers of switches to control one set of LED's. Any single pole switch found at Home Depot can be used to add a 3-Way remote switch, or the AL-WS-M momentary switch can be used for unlimited 3-Way connections.

A proven mechanical switch and brightness slider leverages mass production of Decorator switches, now for low voltage applications – a casual user requires no training, no App to use this switch. Perfect, flicker free dimming from off to 0.1% to 100%. No network setup is required.

To enable Home / BUSiness automation – the AL-WS-DR2 includes a IEC 62386 opto isolated serial bidirectional port for remote and voice control. Use the ATX LED Hub to connect to Alexa or Google home voice control. The 62386 protocol is supported, with automatic addressing. Use low cost wire in uncomplicated topology to implement remote management. Power and BUS have in and out connectors to avoid wire nuts.

