

#### **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	6	9	0 - 660mA	0 - 660mA 540 5 in se			
E12 - 660mA	4	6	0 - 660mA	- 660mA 400 7 in seri			
E12 - 440mA	4	9	0 - 440mA	400	5 in series max		
E26 - 48v6w	6 @ 48v	40 – 56 120 vac*	0 – 125 mA <i>8 mA*</i>	540	16 in parallel max		
E12 - 48v3w	3.5 @ 48v	40 – 56	0 – 65 mA	350	32 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.

### **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	Х		*	Х		Globular
Frosted		Х	Х	Х		Hemisphere

X= Stock, \* = on request

# **Other Dimmable LED Specifications**

Model	Hole in Ceiling mm	Drill Size	Finished Outside Diameter	Watts	Volts	Lm/W	mA	Wiring*
		Inch	mm		 			
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 ¼ "	120	12	48	90	240	Р
MR16			49	5	48	100	100	P
MS31008	70	3	85	5.4	9	90	600	S
DL-120	102	4	120	6	9	130	660	S
DL-98B	70	2 3/4	85	6	9	130	660	S
P023S12-1440	Strip	<sup>3</sup> ⁄4	4500	12	9	120	1440	S
GU10	60	50	60	5	48	130	100	Р

\*S is serial \*F

\*P is parallel

### Recommended 660mA DC Drivers with dimming

DC drivers	6 Watt S	3.6 Watt P	WiFi	DALI
AL-WS-DR1	5	11		
AL-WS-DR2	10	22		x
AL-WS-DR2C	10	22		
AL-WS-DR2W	10	22	x	
AL-WS-Bath	5	11		

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

## Recommended 48v DC Drivers

DC drivers	Max Watts per Channel	Watts Total	Dimming	# Channels
AL-WS-DR1	24	24	Yes	1
AL-WS-DR2	24	48	Yes	2
SRP-2305-75	75	75	Yes	2
ELG-150-48DA	150	150	Yes	1
On/Off Switch	100	100	No	-

# Ordering part numbers

Model	Voltage	Current	ССТ	CRI	Lumens	Filament	Frosted
RL-E26-660mA-2700K	7.5-9	0-660mA	2700K	80, 90	540	Filament	
RL-E26-660mA-3500K	7.5-9	0-660mA	3500K	80, 90	540	Filament	
RL-E26-660mA-4000K	7.5-9	0-660mA	4000K	90	540	Filament	
RL-E26-48v6w-2700K	44-56v	5-130mA	2700K	90	540	Filament	
RL-E26-48v6w-4000K	44-56v	5-130mA	4000K	90	540	Filament	
ATX-E26-660mA-3000K	7.5-9	0-660mA	3000K	90	540	Frosted	
ATX-E26-660mA-3500K	7.5-9	0-660mA	3500K	90	540	Frosted	
ATX-E26-660mA-4000K	7.5 - 9	0-660mA	4000K	90	540	Frosted	
RL-E12-440mA-2700K	7.5 - 9	0-440mA	2700K	90	400	Filament	
RL-E12-660mA-2700K	5 - 6	0-660mA	2700K	90	400	Filament	
RL-E12-660mA-4000K	5 - 6	0-660mA	4000K	90	540	Filament	
RL-E12-48v3w-2700K	44-56v	65 mA	2700K	90	400	Filament	
RL-E12-48v3w-4000K	44-56v	65 mA	2700K	90	400	Filament	