Step Lights

3 x 5 inch standard size

AL-Step35 series

Bright LEDs, Cool Operation
Tunable White or
Fixed

Product Details

These LED step lights offer different wattage, orientation and color options. The step lights offer very high lumen output at low current and low heat, ideal for outdoor applications. There are two driver models, the tunable white, CC, 4 wire Signature model, and the fixed CCT, CV, 2 wire Value model with built in current limiting.

The CC (constant current) models are recommended for up to 360 mA (240mA), at that current, the voltage will be about 2.8v.   Up to 15 devices can be operated on an AL-WS-DR2 with series wiring.

The (CV) Constant Voltage models are recommended for use at 48-51v and are internally current limited at 125 mA, or less as temperature increases via built in thermal protection – the current will be reduced to protect the LED chips from overheating in sunny locations, especially after sunset.   These devices have no active components, and no inrush current - operation with PWM is allowed, analog dimming is supported over the 38v to 46v range. They also have active line termination to reduce ringing on long lines.

Technical specifications

Material – Aluminum
White and Black case color
Fits standard single gang wall boxes – Tinned 6 inch wires

Style	Watts	Dimming	Max Voltage	Current Limiter	Temperature Limiter	Orientation	Color / Lumen	CRI
AL-Step35-48v6w	6	40-45v	52	120 mA	Yes**	Horizontal	3000K 1200 lm	CRI80
AL-Step35V-48v4w	4	40-45v	52	80 mA	Yes**	Vertical	3000K 800 lm	CRI80
AL-Step35-2W-CCT	1.2	0-390mA	3v @ 390mA	None*	No	Horizontal	2700K to 5000K 200 lm	CRI95+
AL-Step35V-Q1A-27/5000K	800mW	0-260mA	3v @ 260mA	None*	No	Vertical	2700K to 5000K 150 lm	CRI95+

* driver must be current limited   ** current will be limited as internal temperature increases

Value Line CL Dimming specifications

Use a simple on/off switch, or use a 51v 70 watt driver like the AL-SML-DR2-1500 for dimming of the 51v type fixtures with fixed color temperature.   The AL-WS-DR2 with a 54v supply can also be used for DALI control with fixed color with up to 56 watts (8 or 14 fixtures).

This product will dim at the range of 40v to 44v, and be current limited above 44v. Use any voltage controlled or current limited dimmer / driver or fixed supply @ 45v or greater. These are wired in Parallel. Because of the high lumen (1200) dimming is strongly recommended. Voltages above 46v are allowed, but will reduce the lumens / watt efficiency as more heat is created.

Signature Line CC Dimming specifications

Use an AL-WS-DR2 with its 2 channels to implement perfect dimming and color tuning via filtered DC, to constant current fixtures.   The wall switch or a DALI master can be used to change the color temperature by time of day.   Use series wiring, 15 can be connected to a DR2 channel with perfect 3000:1 dimming and color control.

Using the ZWD control in the ATX LED Hub, we strongly recommend reducing the max level in the DR2 to from 254 (default 660mA) to 232 (360 mA), or 217 (240mA). Operation above 360mA (240mA) is too bright for most applications.

Wiring requirements

Solid 18/2 wire is recommended. For the tunable white, please make a full loop of 18/2

Style	Minimum qty / DR2	DR2 Max Limit	Max Qty per switch	Dimmable Qty per AL-SML-DR2-1500	Wire Leads
AL-Step35-2W CCT	3	232	15 / DR2	18 x 5 = 90	OJ-606
AL-Step35V-Q1A-27/5000K	3	217	15 / DR2	18 x 6 = 108	OJ-606
AL-Step35-48v6w-3000K	1	Automatic	16 / On-Off*	24 @ 3w each	Tinned AWG20
AL-Step35V-48v4w-3000K	1	Automatic	24 / On-Off*	36 @ 2w each	Tinned AWG20

*This is a simple On/Off switch or it can also be a 48v driver, assuming 96 watt Class 2 limits

Ordering part numbers

Model	Alignment	Case Color		Driver
AL-Step35-2W-CCT	Horizontal	White		CC
AL-Step35-2W-CCT -black	Horizontal		Black	CC
AL-Step35V-Q1A-27/5000k	Vertical	White		CC
AL-Step35V-Q1A-27/5000k-black	Vertical		Black	CC
AL-Step35-48v6w-3000K	Horizontal	White		CV / CL
AL-Step35--48v6w-3000K-black	Horizontal		Black	CV / CL
AL-Step35V--48v4w-3000K	Vertical	White		CV / CL
AL-Step35V--48v4w-3000K-black	Vertical		Black	CV / CL