# Crystal **#IS**

SUPPORT DOCUMENT OCTOBER 7, 2020

# **Guidance for Powering Klaran UVC LED Light Engines**

Klaran LE is a UVC LED light engine that can be used in various applications to disinfect air and surfaces. Each light engine requires a unique power supply to correctly drive the board (light engine), and the power supply must be properly mounted to the board. This document provides step-by-step guidance for connecting and operating the board.

## **Connecting and Operating Guidance**

• Purchase the appropriate **wall plug power supply** for the board. Refer to Table 1 (below) to find an example power supply that corresponds to the part number of the Klaran LE used in your application.

Boards are marked "PWR-IN" (on the 3 LED and 12 LED boards). There is a connector on the 9 LED board.

PART NUMBER	NO. OF LEDs	DRIVE VOLTAGE OUTPUT (V)	DRIVE CURRENT OUTPUT (A)	EXAMPLE POWER SUPPLY
LE -24V-3V-HC	3	24	0.5	Globtek: Model GT86121-1224-W2
LE-12V-9V-HC	9	12	2.0	Qualtek: Model QAWA-24-12-US01
LE-24V-12V-HC	12	24	1.5	Qualtek: Model QFWB-36-24-US01

#### TABLE 1: OUTPUT VOLTAGE AND CURRENT THAT IS REQUIRED FOR DRIVING THE LED STRIP

Connect the board to the wall plug. Refer to the images in this document (below).

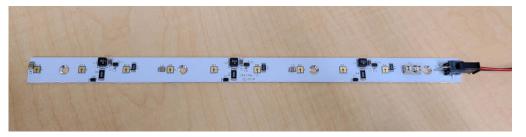
- **a.** For the 3 LED and 12 LED Board: Connect the red and black wire to the board using a *connector* (prepared with wires or soldering wires) directly to the board. Example connector: AVX Corporation CONN SSL BRIDGE 10POS 2MM
- **b.** For the 9 LED Board: You will need to prepare *Molex type connector*.
- 3 Once the connections are made, mount the board on to your heat sink.

To mount the board to the heat sink, apply thermal paste between the back of the board and heat sink. Use mechanical attachment to hold the board on the heat sink.

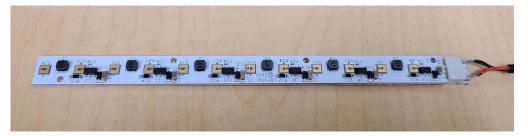
4 Once the board is mounted to the heat sink, you can begin operating the light engine.



3 LED board



9 LED board



12 LED board

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