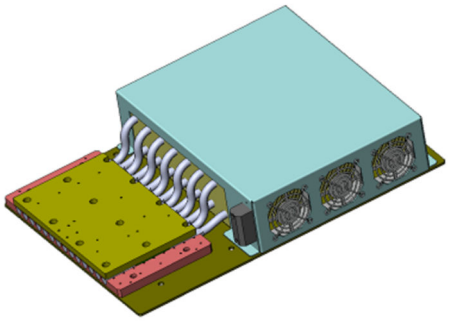
1. Introduction

Model OCP-475 is a compact light weight thermoelectric cold plate based of our EHS-025 heatsink. It employs the state-of-the-art LED cooling technology, designed for temperature controlling high power laser diodes or any other high heat devices that requires temperature stabilization.



The key features are:

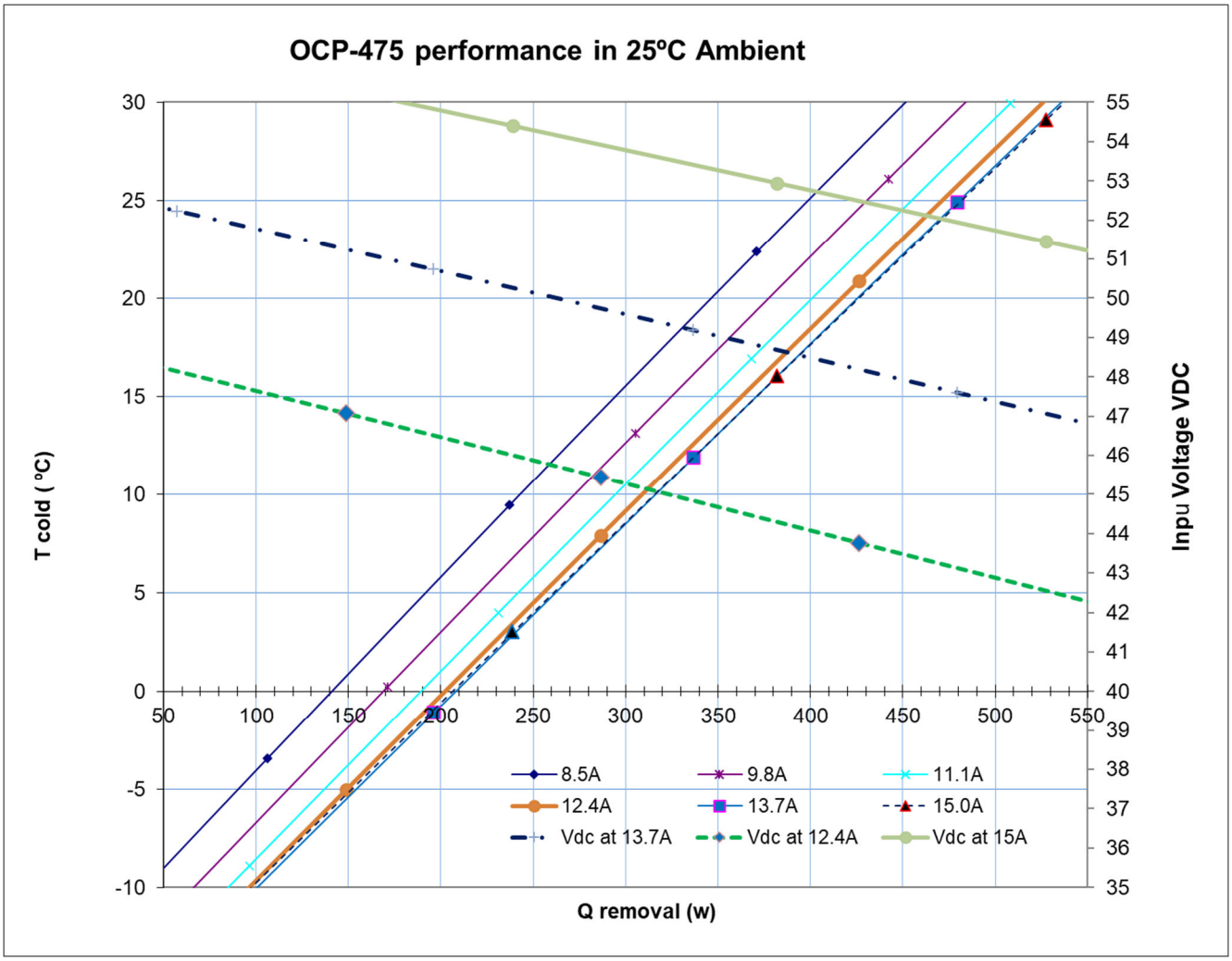
a) In a 25ºC ambient environment, maximum heat removal capacity is 475w for diodes rated at 25ºC case temperature. Or -20ºC cold plate temperature at no heat load.
b) Optimum operating power is I≈14.5A, V≈52V in 25ºC ambient at 475w heatload
c) Mass at 22.6lbs
d) Predrilled/tapped mounting holes for nLight E24i and Aero diodes
e) Fits in a 2U 19” rack mount chassis.
f) Removable bottom carrying plate and fan assembly, so users may incorporate the EHS core for integrating into OEM systems.
g) Carrying plate provides pre-drilled holes for 8-32 screws or ¼-20 screws on 1” pattern for securing EHS-025 on any optical tables

h) Fans may be PWM modulated to lower noise for less demanding cooling scenarios

2. Performance

The following chart illustrates the performance of OCP-475 in a 25ºC ambient. The performance curve elevated further in a higher ambient environment, while the required driving voltage rises. The chart also indicates the optimum drive current is between 14.3A and 15.6A. Driving the TECs with lower or higher current will result in lower performance.

Contact us if you need this chart in a different ambient environment.



3. Cooling Fan Specifications

There are 3 cooling fans wired in parallel. We offer 3 options and the table below summarizes the key specifications:

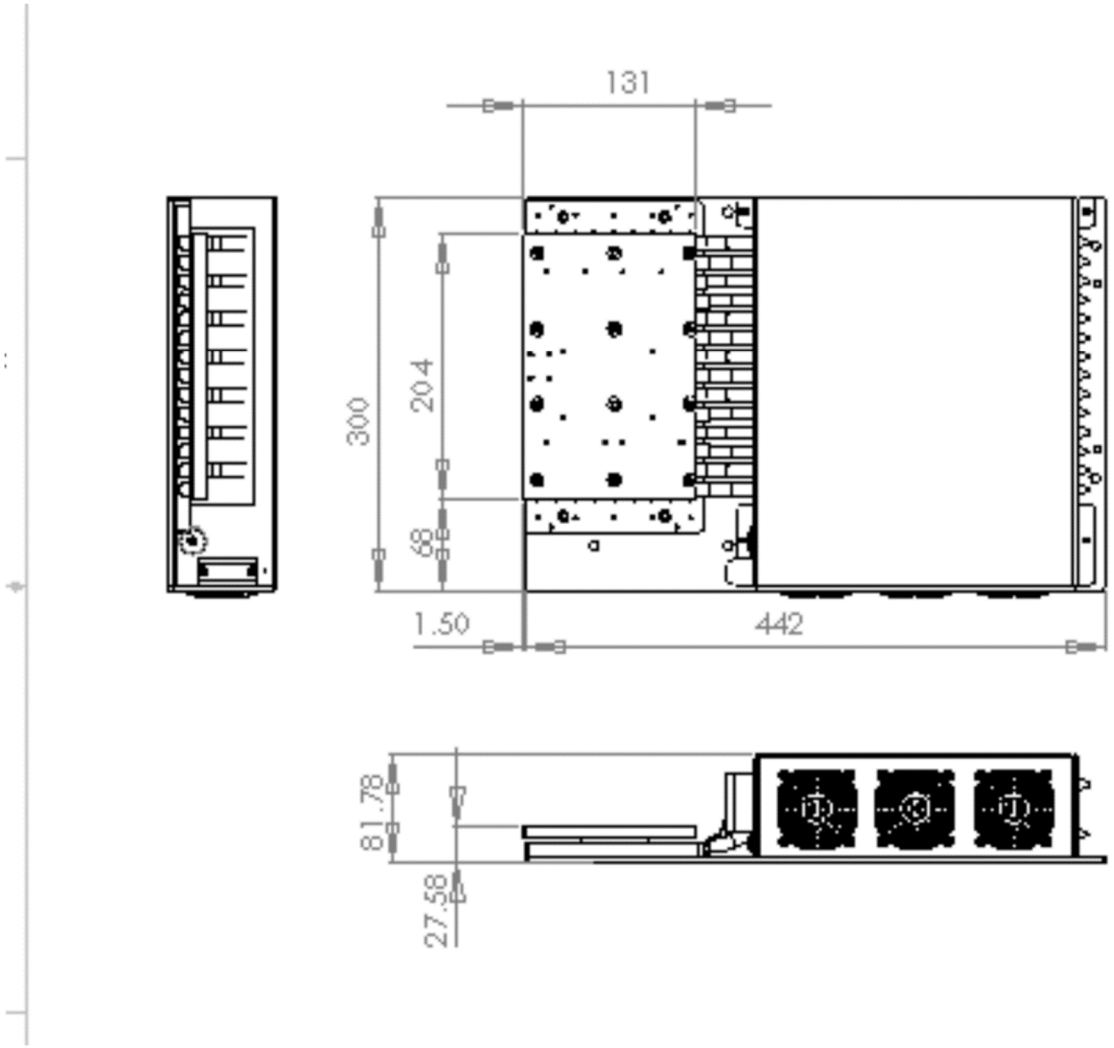
Fan's rated voltage	12VDC
Fan's operating voltage range	7 – 13.8VDC
Input power/fan	18.5w
Rated current/fan	1.54A
Noise/fan	58dBA

4. Pin outs of terminal block

Pin 1	TEC+
Pin 2	TEC-
Pin 3	Fan +
Pin 4	Fan -
Pin 5	Fan tachometer
Pin 6	Fan PWM control (special request only)

5. Dimensions and Diode mounting

The relevant dimensions are show in the drawing below. The cold plate had two sets of predrilled mounting holes for two Aero diodes, and one set of mounting holes for a single nLight E24i diode. Custom mounting holes may be available upon request.



6. Pricing and availability

For pricing and availability, please contact ETE:

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