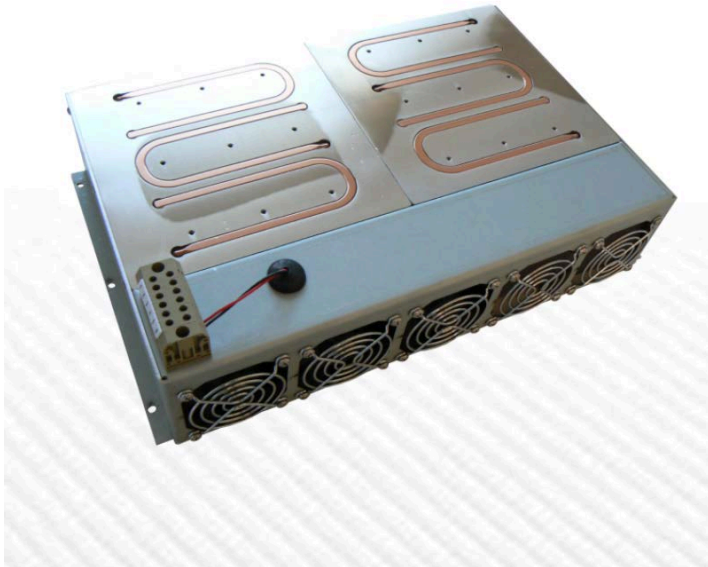




LASER LAB SOURCE

world leading products for **Scientists & Engineers**



RLS/HS-004

Up to 300 Watts of Laser Waste Heat Removal Capacity

Heat Pipes Soldered into Nickel Plated Mounting Surface

Five High-Volume Fans, Prewired to Terminal Block

Thermal Resistance from Mounting Plate to Ambient ~ 0.04°C/W

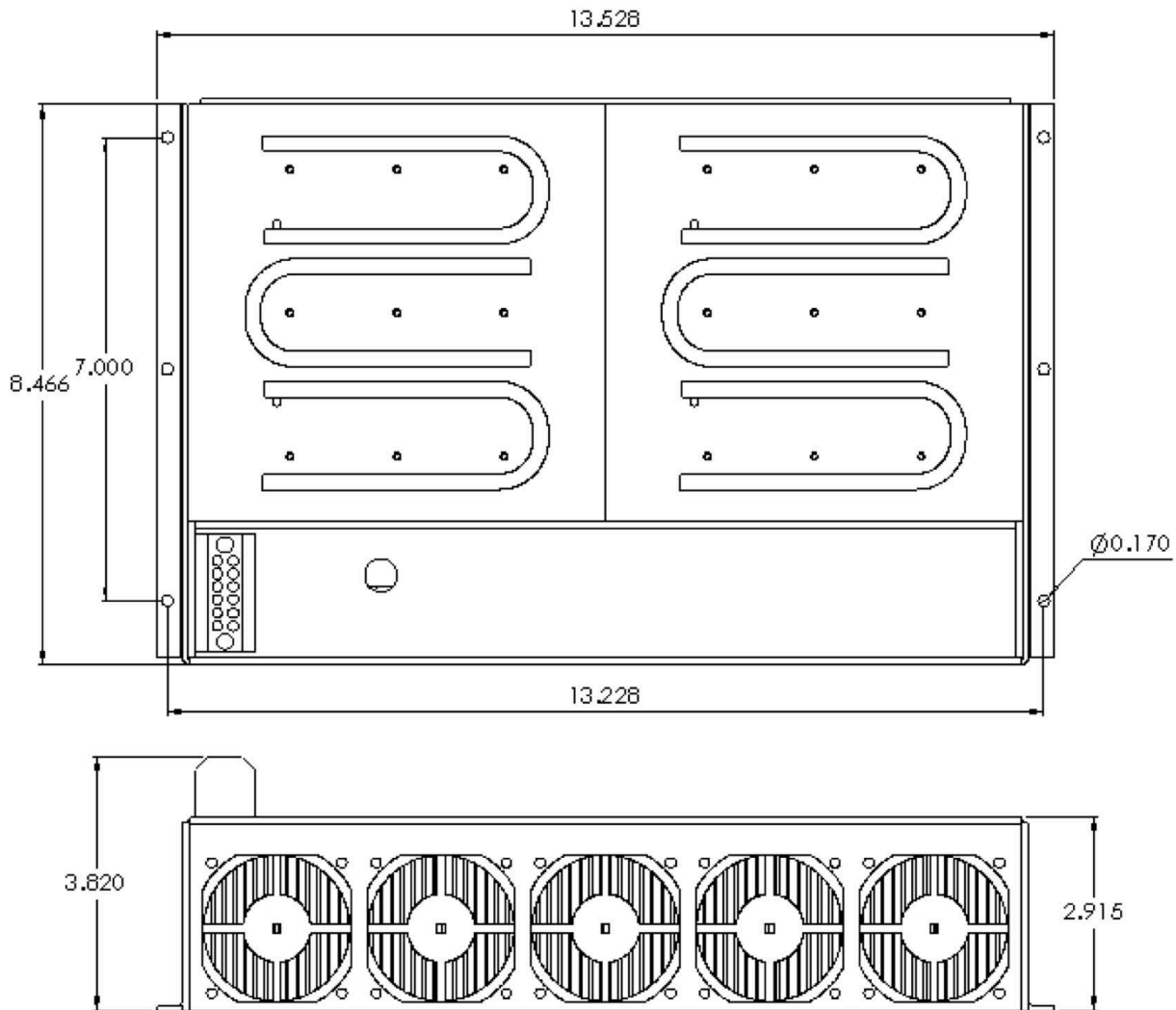
Custom Mounting Plates Available on Request

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Laser Scientists and Engineers

1. Introduction

The model HS-004 is a compact high performance fan based heat sink designed for general cooling of high power laser diodes. The heat sink is nickel plated with integrated copper heat pipes that are soldered into place to maximize heat transfer. Copper heat pipes are known to have extremely high thermal conductivity; six embedded heat pipes make sure that the heat sources thermal waste is spread over the entire base. This minimizes the spreading resistance and maximizes the effectiveness of the heat sink fins.



The heat sink fins are forged into place. Forged fins offer better performance than bonded fins because there are no low conductivity epoxies at the joint between the fins and heat sink's base. The fins are also periodically segmented to break down the laminar layer of the airflow. Breaking down the laminar air flow increases turbulence and improves cooling effectiveness.

2. Performance

The thermal resistance of model HS-004 is 0.04 °C/W from heatsink to ambient.

3. Cooling Fan Specifications (5 Fans in Parallel)

Parameters	Specification Per Fan
Rated voltage	12 VDC
Operating voltage range	4.5 - 13.8 VDC
Input power	4.08 W
Rated current	0.34 A
Noise	46.5 dBA



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PRODUCT SALES AND SERVICE:

Orders for this product are fulfilled by LaserDiodeControl.com, part of the Laser Lab Source marketplace group. It is manufactured for sale on Laser Lab Source by elite thermal engineering.

PRODUCT WARRANTY:

This product is sold with a full one year warranty. It is warranted to be free from defects in material and/or workmanship for a period of one year from the date of shipment.



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