

## **Heat Sink COOL100**



For example with 110W laser diode. With peltier elements and without heat spread plate.

### **Features**

- Up to 120W heat load
- High temperature accuracy
- Peltier driven, air cooling
- Available with or without peltier elements, temperature sensor and heat spread plate
- LD- and Cooler-cable included

### **Applications**

- Temperature stabilization of passively cooled high power laser diodes, laser arrays and laser stacks up to about 100W optical power



## Description

The heat sink COOL100 was designed for temperature stabilization of high power laser diodes, laser arrays and laser stacks of about 100W optical power. Depending from the temperature difference between laser diode and ambient air the max. heat load is up to 250W.

A heat sink includes the metal block, fans for the heat dissipation, the peltier elements (TEC's), a heat spread plate with a temperature sensor, the laser diode cable and the cooler cable.

For using laser diodes with integrated peltier elements and temperature sensor the heat sink is available without peltier elements, temperature sensor and heat spread plate for a reduced price.

## Specifications

| <b>Thermal Characteristics</b>  | <b>COOL100</b>  |
|---|-----------------|
| Heat Load (max) with a temperature difference between laser diode module and ambient air of |                 |
| 0 K   | 250 W           |
| 5 K   | 180 W           |
| 10 K  | 120 W           |
| T <sub>max</sub> (hot side)   | 50°C            |
| Temperature Difference  | 40 K            |
| Thermal Resistance  | 0.07 K/W        |
| <b>Electrical Characteristics</b>   |                 |
| Temperature Sensor  | NTC 10 kOhm     |
| Peltier Current   | 0...±13 A       |
| Peltier Voltage   | 0...±48 V       |
| Fan Current   | 1,0 A           |
| Fan Voltage   | 12 V            |
| <b>General Characteristics</b>  |                 |
| Ambient Temperature   | 0...30°C        |
| Relative Humidity   | 30...70 %       |
| Weight  | 5 kg            |
| Dimension (w x d x h) in mm <sup>3</sup>  | 270 x 280 x 130 |