



## 7 Amp, 48 Volt Thermoelectric Cooler Controller 336 Watts Output Power



### 7 Amp, 48 Volt Laser Diode Thermoelectric Cooler Controller

- o Bipolar Output up to 7 Amps and 48 Volts
- o Safety Features Protect the Thermoelectric Cooler from Over-Current and Over-Temperature Conditions
- o Fast Acting Closed-Loop Feedback
- o User-Programmable PID Parameters
- o Highly Versatile Temperature Sensor Inputs



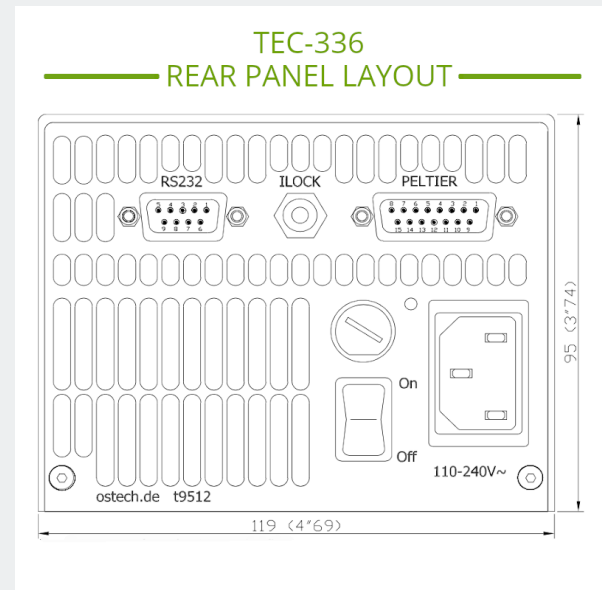
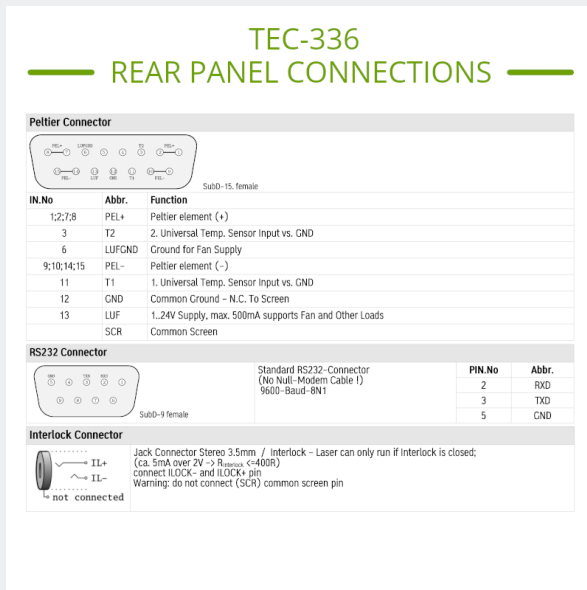
**LASER  
DIODE TEC  
CONTROLLERS**

## TEC-336 Laser Diode Thermoelectric Cooler Controller Overview

The TEC-336 model 336 Watt TEC controller is optimized for fast and accurate temperature stabilization of high power laser diodes and high voltage Peltier-controlled thermal loads. They deliver millidegree temperature stability control with high output power in an affordable laboratory instrument. The high voltage capability of the TEC-336 is useful for large or stacked Peltier devices for high-heat pumping capability.

## Simple GUI Interface and Powerful Programming Tools

These systems come with a standard RS-232 interface and can be ordered with an optional USB interface. LabView drivers are available at no charge. A LabView GUI makes set-up and control of the system fast and simple. The user also has complete control through an intuitive front panel menu / LCD display with a key pad.



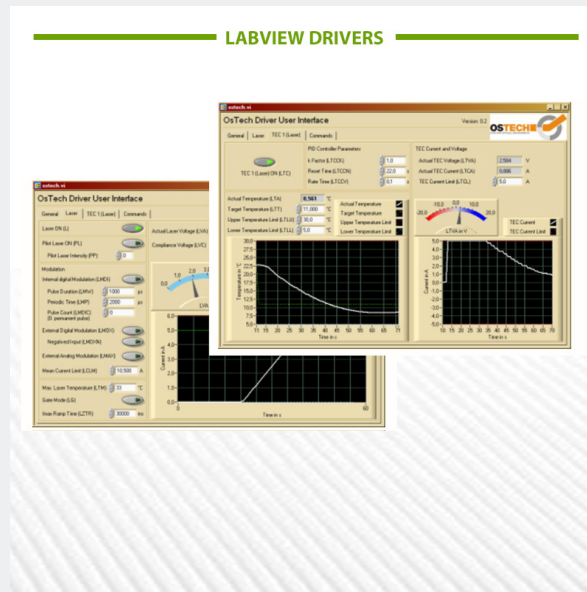
## Versatile Controller Features and Built-In Device Protection

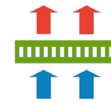
The TEC-336 includes thoughtfully designed safety features to protect your laser investment.

- o Output to drive an external cooling fan, capable of supplying up to 500 mA at 24 V.
- o Programmable temperature and current limits.

## Dual Temperature Sensor Inputs

The TEC-336 controllers feature two temperature sensor inputs, one for control of the TEC and one for control of an external fan sensor for high power fan based control applications. They support both NTC laser diode thermistors (ie 10k Ohm) as well as I.C. sensors such as the pt100. They can also be used to control other electro-optical devices in research and development or manufacturing test applications.





## TEC-336 Laser Diode Thermoelectric Cooler Controller Specifications

### TEC CONTROLLER OUTPUT

- TEC Output Power Total: 336 Watts
- TEC Output Current Range (bipolar):  $\pm 7.00$  Amps
- TEC Output Voltage Range (bipolar) :  $\pm 48.00$  Volts
- TEC Control Loop Algorithm: Full P.I.D.
- P.I.D. Variables: User Adjustable (ships with factory pre-set variables)
- Temperature Accuracy: 0.01°C
- Temperature Control Stability (1 hour @ 25°C): 0.05°C
- TEC Setpoint Resolution: 0.01°C
- Temperature Range: -25°C to 150°C
- Hardware Design Topology: H-Bridge, Bipolar Peltier Controller

### RECOMMENDED ACCESSORIES

- kab-39 Unterminated Connecting Cable -or- kab-231 Terminated Connecting Cable
- acc-417 USB-RS232 Converter

### TEC PROTECTION FEATURES

- Peltier Element Protection: User Set Current Limit
- User Set Upper & Lower Temperature Limits
- Rear Panel Safety Interlock

### TEMPERATURE SENSOR

- Thermistors: All 2 Wire NTC Types: 10 k $\Omega$ , 100 k $\Omega$
- IC Temperature Sensors: PT100, PT1000

### USER INTERFACE AND CONNECTORS

- Front Panel: Alphanumeric LCD
- RS232 Standard: SubD-9, Female
- USB Optional: \$95.00 (Option SVC-USB)
- LabView Drivers Included
- Peltier Connector: SubD-15, Female
- Safety Interlock: Jack Connector, Stereo 3.5mm

### DIMENSIONS AND POWER INPUT

- Universal 110V ~ 240 VAC Input
- Dimensions: 95 mm (H)  $\times$  119 mm (W)  $\times$  280 mm (L)



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DIODE TEC  
CONTROLLERS**

## Product Sales and Service

Orders for this product are fulfilled by LaserDiodeControl.com, part of the Laser Lab Source group. It is manufactured for Laser Lab Source by OsTech, GmbH.

## 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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