

# Temperature Controller ( $\pm 16A/\pm 30V$ )

## BRM-6202

BRM-6202 is a Peltier driver temperature controller, Which Supports up to  $\pm 16A$  output current.

BRM-6202 is designed with Dual Control Modes:

- Current Control Mode: Delivers unidirectional current for heating/cooling
- Temperature Control Mode: Auto-adjusts current magnitude/direction via PID to maintain setpoint

The unit features I/O interface for external sensor connections:

- PT100 : Precise Peltier temperature monitoring
- NTC: Heat sink/extended temperature measurement



## Features

- Wide Operating Voltage Range:  $\pm 30V$  for flexible power compatibility
- Dual Control Modes:
  - Current Control: Direct drive for Peltier devices
  - Temperature Control:  $0.1^\circ C$  precision with PID regulation
- Multi-NTC Support: Configurable parameters for various NTC models
- Versatile Device Compatibility:
  - Peltier modules (TEC)
  - Thermistor-based components

## Applications

- Laser Diode Precision Temperature Control
  - Stable wavelength locking for optical communications
  - High-accuracy thermal management of DFB/FP lasers
- Industrial Temperature Regulation
  - Process control systems requiring  $\pm 0.1^\circ C$  stability
  - Equipment thermal stabilization
- Nonlinear Crystal Temperature Stabilization
  - Critical for frequency doubling/SHG applications
  - $LiNbO_3$ , KTP crystal oven control
- Photodetector Cooling
  - Dark current reduction in APD/PMT devices
  - IR detector performance optimization
- PN Junction Characterization
  - Semiconductor material research
  - Temperature-dependent I-V curve analysis

## What's included

#	Part Description	Model	Qty.
1	Temperature Controller( $\pm 16A/\pm 30V$ )	BRM-6202	1
2	Power cable	BC-105075	1

## Specifications

Model	BRM-6202
Output Current	$\pm 16A$
Output Voltage	$\pm 30V$
Temperature Resolution	$0.1^{\circ}C$
Operating Mode	Current / Temperature control
Heating and Cooling Devices	Peltier / Thermal Resistance
Sensor Interface	1 channel PT100 interface 1 channel NTC interface
Temperature Range	-100°C ~200°C (PT100) -6°C ~150°C (NTC)
Power Supply	110/220VAC
Dimensions	230 × 275 × 135mm

## Dimensions (mm)

