

Features

Drives laser diodes and TECs
 High accuracy
 High current stability
 Very low ripple current
 Excellent dynamic performance
 No overshoot, no ringing
 High output impedance



Specification Diode Unit

Diode current	0 ... 50 A
Diode voltage	0 ... 29 V
Supply voltage	15 V ... 30 V
Output power	400 W max*
Accuracy	±0.1 %
Temperature stability	±50 ppm / °C
Ripple current	0.1 %
Settling time	<1ms
Diode current monitor	100 mV / A
Diode voltage monitor	200 mV / V
Auxiliary voltage outputs	+5.1 V, +15 V, -15 V
Reference voltage output	+5 V

Specification TEC Unit

TEC voltage	0 ... ±29 V max
TEC current	0 ... ±15 A max
Supply voltage	15 V ... 30 V
TEC power	450 W max*
Temperature range	0 ... +50 °C
Accuracy	±0.1 K
Temperature monitor	100 mV / °C
Temperature sensors	PT 1000 or KTY 11-5

General specifications

* 450 W max, Diode power plus TEC power	
Ambient temperature	0 ... +45 °C
Dimensions	259 x 69 x 105 mm
Weight	1900 g
Ordering Code	10100232

Description

The DT 400-50 is a high-precision laser diode driver and a full bridge TEC driver with temperature controller and control logic utilizing MPCs patented technology.

This technology has a lot of advantages and is particularly suited for driving laser diodes.

It offers high accuracy and current stability, excellent dynamic performance, high output impedance, low electromagnetic interference and a lot of features for protecting laser diodes.

No current overshoot or ringing arise when altering output current or load impedance abruptly.

The DT 400-50 can be operated by a microcontroller, an external control logic or completely analog.

Two operating modes are possible, mode Laser On/Off and mode Auto On.

The device is well suited to build up simple laser systems with manual controlling, or complex laser systems with safety interlock, RS 232 interface and an industrial interface for controlling by a programmable logic controller.

A comprehensive range of accessories is available, like eight different types of control panels, a safety interlock unit and a control interface unit with an industrial interface and a RS 232 interface, which allows fully controlling and configuring the system.

For detailed information see operating manual or visit our website.

