

DT 800-50 CW Laser Diode Driver and TEC Driver

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	800 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

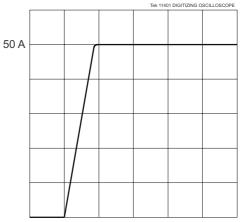
Specification TEC Unit

TEC voltage **TEC** current Supply voltage TEC power Temperature range Accuracy Temperature monitor Temperature sensors PT 1000 or KTY 11-5

V 0 ... ± 29 V max 0 ... ± 15 A max 15 V ... 30 V 450 W max* 0 ... +50 °C ±0.1 K 100 mV / °C

50 A 29 V





500 us/Div

General specifications

* 800 W max, Diode power	plus TEC power
Ambient temperature	0 +45 °C
Dimensions	259 x 69 x 105 mm
Weight	1900 g
Ordering Code	10100108

Description

The DT 800-50 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 800-50 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.