MESSTEC Power Converter GmbH

Data Sheet DTP 800-60



Features

Drives laser diodes and TECs Exceptionally short rise and fall time

High current stability
Very low ripple current

Excellent dynamic performance

No overshoot, no ringing High output impedance

Specification Diode Unit

Diode current 0 ... 60 A
Diode voltage 0 ... 29 V
Supply voltage 15 V ... 30 V
Output power 800 W max*
Pulse width 200 ns ... CW

Rise time 100 ns Fall time 57 ns

Pulse frequency 200 KHz / 1 MHz max

Ripple current 0.2 %

Diode current monitor 83.33 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 $0 \dots \pm 29 \text{ V max}$ TEC current $0 \dots \pm 15 \text{ A max}$ Supply voltage $15 \text{ V } \dots 30 \text{ V}$ TEC power 450 W max^* Temperature range $0 \dots +50 \text{ °C}$ Accuracy $\pm 0.1 \text{ K}$ Temperature monitor100 mV / °C

Temperature sensors PT 1000 or KTY 11-5

General specifications

* 800 W max, Diode power plus TEC power Ambient temperature 0 ... +45 °C

Dimensions 259 x 87 x 105 mm

Weight 2315 g Ordering Code 10100532

Description

The DTP 800-60 is a super fast pulsed laser diode driver and a full bridge TEC driver with temperature controller utilizing MPCs technology.

This multiple patented technology allows pulsing with fall times 120 times shorter compared to the state of the art and with very low electromagnetic interference.

No current overshoot or ringing arise when altering output current or load impedance abruptly. The DTP 800-60 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.

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