

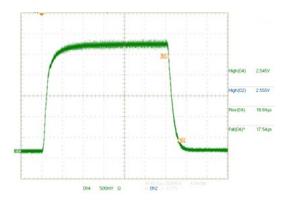
LDP-CW 250-40 F

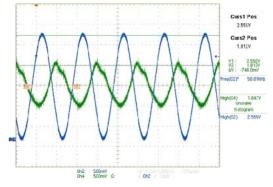
Driver for Laser Diode Stacks (10 kW)

Rev. 1801



- Fast Analog modulation
- High efficiency
- Compact design: 5 W / cm<sup>3</sup>
- Isolated control interface





## **Product Description**

The LDP-CW 250-40 is a very efficient and compact driver for high power laser diodes and is available in two different versions: Standard and fast modulated (F). Both versions deliver a max. Output voltage of 40 V with a current of up to 250 A. This 10 kW driver has an exceptional compact design leading to excellent power density of 5 W/cm³ and a high efficiency of up to 94 %.

The standard version features a very low current ripple of <0.8 %, minimal overshoot of <3 % with a maximum modulation frequency of 1 kHz. The F version increases the maximum modulation frequency to 50 kHz (-3 dB) with a pulse rise time of <20  $\mu$ s, while keeping the maximum overshoot below 3 %.



## Technical Data\*

Output current Compliance voltage Efficiency Current ripple Current overshoot Analog modulation Modulation voltage Current monitor Current rise time Current fall time Supply voltage power stage Supply voltage control stage | 18 V .. 60 V DC, 6 W

Losses Cooling

Power connection Control (18 V .. 60 V / 6 W) Modulation, Current Monitor Dimensions in mm Weight

10 A.. 250 A (300 A peak) 10 V .. 40 V

> 91 % @ 12 V, > 40 A < 2.8 % (measured at 250 A) < 3.0 % (measured at 250 A)

0 .. 50 kHz 0 .. 3 V (10 mV/A) 0 .. 3 V (10 mV/A)

 $< 20 \, \mu s$ < 20 µs 48 V DC

280 W @ 12 V/250 A Water max. 45 °C

Bus bars 5 x 10 mm Phoenix RM5.08 SMC

310 x 110 x 60 2.5 kg

Specifications measured with a fast recovery diode instead of a laser diode and measured at a supply voltage of 24 V. Technical data is preliminary and subject to change without further notice.

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