PicoLAS
FOCUSSING POWER TO THE POINT

Rev. 1905

LDP-CW 80-20

CW Driver for High Power Laser Diodes

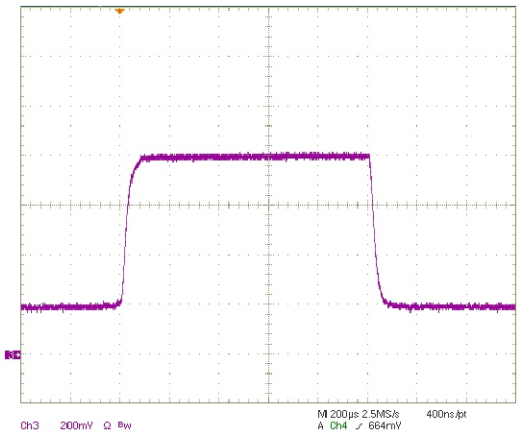

Figure: Current monitor output, scale: 20A/Div

- Output current: 2 .. 80 A
- Simmer current functionality
- Compliance voltage: 1 .. 20 V
- Analog modulation up to 2 kHz
- Optional housing available
- Stackprotector® and other protective features
- High efficiency

Technical Data*

Output current	2 .. 80 A
Max. compliance voltage	20 V
Simmer current	2 .. 80 A **
Max. output power	1600 W
Current ripple	< 1 A
Current overshoot	< 1 %
Analog modulation (60 A_{pp})	> 2 kHz **
Current settling time (full-scale)	< 150 µs
Current setting input	0 .. 1.6 V external (50 A/V)
Current monitor	50 A/V **
Voltage monitor	0.1 V/V **
Connectivity	LDP-C BOB PLB-21 USB 2.0
Supply voltage	4 .. 26 V DC (at least 1 V above compl. voltage)
Power dissipation @ 80 A / 12 V	90 W
Dimensions in mm	100 x 180 x 69
Weight	1052 g
Operating temperature	0 to +55 °C

* Specifications measured with a fast recovery diode instead of a laser diode.
Technical data is subject to change without further notice.
** See manual for details

Product Description

The LDP-CW 80-20 is a compact and efficient current supply to drive cw laser diodes.
The operating range includes continuous current as well as analog modulation of the output current. If required, a simmer current from 0% to 100% of the output current can be set up easily.
The innovative current regulation concept of the LDP-CW 80-20 produces, compared to the commonly used linear regulation concept, considerably less losses. Hence, only one supply voltage is needed for the control logic and the power stage.
The LDP-CW 80-20 is suitable for a very wide range of applications. Especially several redundant protective features as well as a build in self-test enable the use for medical applications.

- Stackprotector® cuts the power stage from the supply
- Innovative current regulation concept actively prevents laser diode from overshoots and overcurrent
- A crowbar shorts the output in case of an error
- Integrated Soft Start
- Protection against transients through regulated current rise time
- Overtemperature shutdown
- Enable/Disable input
- Pulser status output
- Protection of the laser diode against reverse currents

Optional Accessories: LDP-C BOB
PLB-21

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