

LDP-CW 80-20

CW-Driver for High Power Laser Diodes

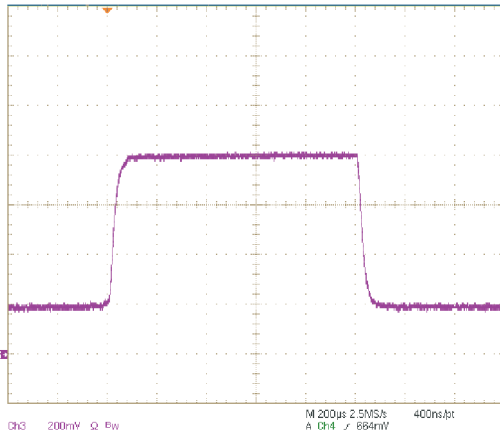


Figure: Current monitor output, scale: 20A/Div

Product Description:

The LDP-CW 80-20 is a compact and efficient current supply to drive cw-laserdiodes. The operating range includes continuous current as well as pulsing the diode. If required, a simmer current between two pulses can be set up easily. Besides pulsing the diode, analog modulation of the output current is also possible. 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 selftest enable the use for medical applications.

- 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
Simmercurrent	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 58
Weight	760 g
Operating temperature	0 to + 55 °C

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

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

Optional Accessories: LDP-C-BOB PLB-21