



## LDP-C 120-20

### Driver for High Power Laser Diodes



- Output current: 0 .. 120 A
- Compliance voltage: 1 .. 20 V
- Minimum pulse width: 4  $\mu$ s
- Analog modulation up to 4 kHz
- Stackprotector® and other protective features
- High efficiency

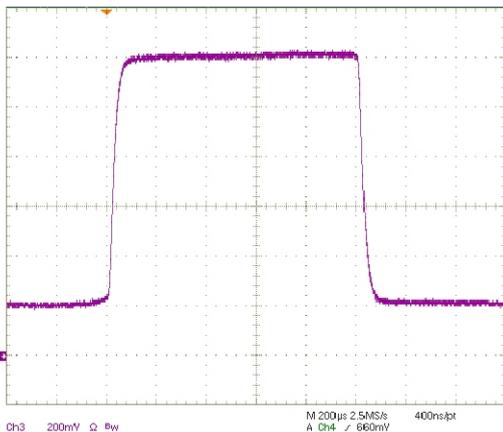


Figure: Current monitor output, scale: 20A/Div

### Technical Data\*

Output current	0 .. 120 A
Max. compliance voltage	20 V
Max. output power	2400 W
Pulse width	4 $\mu$ s .. cw
Current ripple	< 1 %
Current overshoot	< 1 %
Analog modulation (100 A <sub>pp</sub> )	< 4 kHz **
Current settling time (full-scale)	< 100 $\mu$ s
Current setting input	0 .. 2.4 V external (50 A/V)
Current monitor	50 A/V **
Voltage monitor	0.05 V/V **
Connectivity	LDP-C BOB, PLB-21, USB 2.0
Supply voltage	24 V DC (at least 3 V above diode laser voltage)
Power dissipation @ 120 A / 12 V diode voltage	150 W
Dimensions in mm	100 x 180 x 69
Weight	1530 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-C 120-20 is a compact and efficient current supply to drive stacked 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-C 120-20 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-C 120-20 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
- Driver status output
- Protection of the laser diode against reverse currents

Optional Accessories: LDP-C BOB  
PLB-21