

LDP-C 200-20

Driver for High Power Laser Diodes

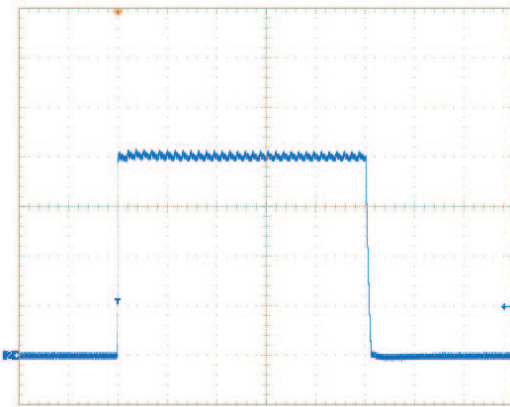
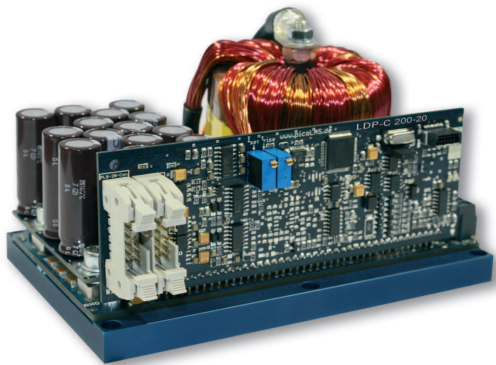


Figure: Current monitor output, scale: 50A/Div

Product Description:

The LDP-C 200-20 OEM is a compact high-power current supply to drive almost any kind of Laser Diode.

The pulsing capability ranges from single pulses over hundred kilohertz repetition frequency up to continuous operation. Pulses are generated by shorting the output, thus the current between two pulses equals zero.

Several analog Inputs and monitor outputs provide an easy way to control the LPD-C. In combination with the PLB-21, the LDP-C 200-20 is capable of generating pulses on its own. No external Pulse generator is required and all parameters can be comfortably adjusted.

The innovative current regulation concept of the LDP-C 200-20 produces, compared to the commonly used linear regulation concept, considerably less losses.

- Output current: 10 .. 200 A
- Output current between pulses: 0 A
- Compliance Voltage: 2 .. 20 V
- Coverage of both cw and qcw range
- Several protective features
- Adjustable current rise time
- Max. Output Power: 4000 W

Technical Data:*

Output current	10 .. 200 A
Max. compliance voltage	20 V
Typ. pulse rise time (@100 A)	0.8 .. 5 μ s **
Typ. pulse trigger delay	2 .. 6 μ s **
Min. pulse duration (@100 A)	< 5 μ s **
Max. pulse duration	cw
Max. repetition rate (@100 A)	> 100 kHz **
Current ripple	< 2,5 A, > 20 kHz
Current overshoot	< 5 %
Current settling time (full-scale)	< 100 ms **
Pulse trigger input	5 V TTL into 500 Ω PLB-20
Current setting input	0 .. 2 V external (100 A/V) Internal poti PLB-20
Current monitor	100 A/V
Voltage monitor	0.1 V/V
Supply voltage	+ 24 V DC
Dimensions in mm	145 x 107 x 90
Operating temperature	0 to + 55 $^{\circ}$ C
Weight	1582 g

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

** See User Manual for Details.

Designed to shield your laser diode from damage, the LDP-C 200-20 features a number of powerful protective safeguards:

- Innovative current regulation concept actively prevents laser diode from overshoots and over-current
- Protection against transients through regulated current rise time
- Over-temperature shutdown
- Enable/Disable input
- Shunt MOSFETs short the output clamps in case of an error
- Protection of the laser diode against reverse currents

Optional Accessories: LDP-C-BOB PLB-21