

LDP-QCW 400-12

QCW Driver for High Power Laser Diodes

Rev. 1905



- Output current: 50 .. 400 A
- Compliance voltage: 2 .. 12 V
- Stackprotector® and other protective features
- High efficiency
- Compact design
- Baseplate cooled

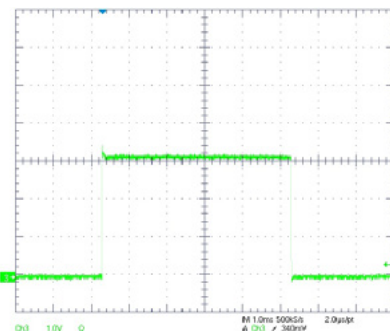


Figure: Current monitor output, scale: 100A/Div

Product Description

The LDP-QCW 400-12 is a compact and efficient current supply to drive qcw laser diodes. It is designed for very high currents of up to 400 A and provides power of up to 4800 W. With its compact design the LDP-QCW 400-12 has a very good power-size ratio.

For an easy use of the driver only one supply voltage is needed for the control logic and the power stage. Also the control is very convenient. In combination with the PLB-21 or via USB, the LDP-QCW 400-12 is capable of generating pulses on its own. No external pulse generator is required and all parameters can be comfortably adjusted.

The LDP-QCW 400-12 is suitable for a wide range of applications. That includes illumination, pumping of solid-state lasers, spot welding and others.

Technical Data*

Output current	50 .. 400 A
Max. compliance voltage	12 V
Min. pulse duration	< 100 μs
Max. pulse duration	5 ms
Max. repetition rate	> 1 kHz**
Max. duty cycle	10 %**
Max. rise time	< 10 μs
Current overshoot	< 5 %
Pulse trigger input	5 V TTL
Current setting input	0 .. 1.5 V external (200 A/V)
Current monitor	200 A/V
Voltage monitor	0.05 V/V
Connectivity	LDP-C BOB PLB-21 USB 2.0
Supply voltage	24 .. 48 V DC**
Max. power dissipation	200 W
Dimensions in mm	100 x 180 x 92
Weight	1.2 kg
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

- Stackprotector® cuts the power stage from the supply
- Innovative current control concept actively prevents laser diode from overshoots and overcurrent
- Protection against transients through adjustable current rise time
- Overtemperature shutdown
- Enable/Disable input
- Driver status output
- Protection of the laser diode against reverse currents
- Baseplate cooling, internal fans preventing hot spots

Optional Accessories: LDP-C BOB
PLB-21