PicoLAS
FOCUSSING POWER TO THE POINT

LDP-QCW-II 600-50
QCW Driver for High Power Laser Diodes

- Output current: 60 .. 600 A
- Compliance voltage: 0 .. 50 V
- Internal isolation
- Prepulse option included
- Compact design
- Baseplate cooling
- Optional: External Capacitor Bank

Technical Data*

Output current	60 .. 600 A
Max. compliance voltage	0 .. 50 V
Min. pulse duration	< 100 µs
Max. pulse duration	5 ms**
Max. repetition rate	> 1 kHz**
Max. duty cycle	10 %**
Max. rise time	< 25 µs
Current overshoot	< 5 %**
Current monitor	Typical 200 A/V
Voltage monitor	Typical 0.025 V/V
Pulse trigger input	5 V TTL
Connectivity	RS-232, optional: LDP-C BOB
Supply voltage	48 V DC
Max. power dissipation	TBD**
Dimensions in mm	295 x 150 x 160
Weight	3.32 kg
Operating temperature	0 to +55 °C
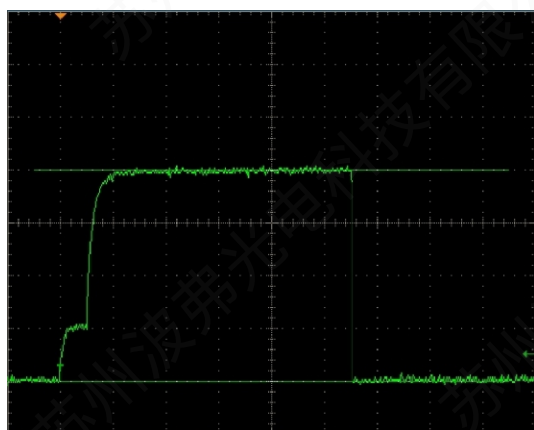
Figure: Output signal for a 50 µs / 50 A prepulse and 200 A / 500 µs main pulse

* Specifications measured with a fast recovery diode instead of a laser diode.
** See manual for details

- Overtemperature shutdown
- Enable/Disable input
- Driver status output
- Protection of the laser diode against reverse currents
- Baseplate cooling, internal fans preventing local hot spots on the driver
- Two independent interlock circuits for systems with high safety requirements

Product Description

The LDP-QCW-II 600-50 is a compact and efficient current supply to drive high power laser diodes in qcw operation.
It is designed for high currents of up to 600 A with an output voltage of up to 50 V. With its compact design the LDP-QCW-II 600-50 can achieve a peak power of 72 kW leading to an excellent power to size ratio.
It needs only one supply voltage for the control logic and the power stage. The driver settings and output is controlled by a RS-232 interface. As the LDP-QCW-II 600-50 is capable of generating pulses on its own, no external pulse generator is required and all parameters can be easily adjusted.
The LDP-QCW-II 600-50 is the perfect choice for a wide range of applications. The high maximum power makes the driver especially suitable for medical applications.

Optional Accessories: LDP-C BOB