



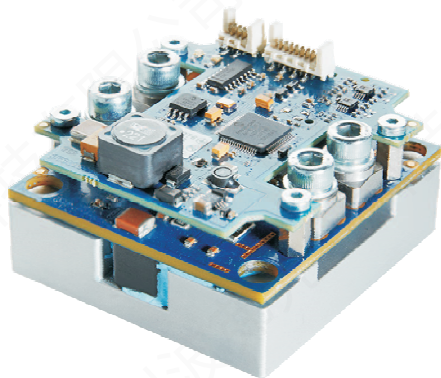
PicoLAS

FOCUSSING POWER TO THE POINT

LDP-CW 130-05

Rev. 1910

Fully digital controlled cw Driver for High Power Laser Diodes



- Output current: 5 .. 130 A
- Compliance voltage: 0 .. 5 V
- Output power: 900 W
- Coverage of cw range
- Analog modulation
- Several protective features
- High efficiency

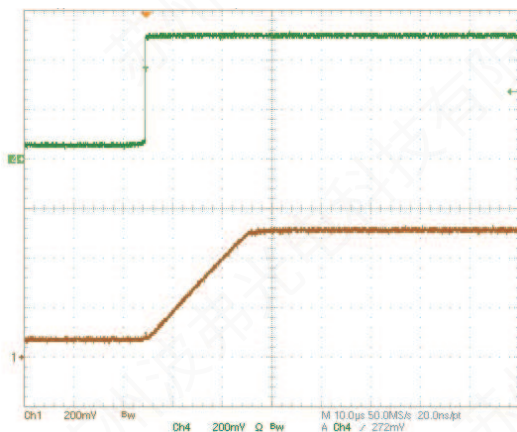


Figure: Soft Start, Current monitor output, scale: 10A/Div

Product Description

The LDP-CW 130-05 is a very affordable, compact and efficient current supply for an output power up to 1 kW.

The capability ranges from continuous output current to analog modulated waveforms like sinusoidal, rectangular or triangular. The modulation is limited usually by the load inductance.

Intended fields of application are laser soldering and welding as well as generic surface treatment and show lasers.

The innovative current regulation concept of the LDP-CW 130-05 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 current consumption drawn from the power supply only needs to cover the average laser power and is typically much less than 130 A.

Technical Data*

Output current	5 .. 130 A
Compliance voltage	0 .. typ.5 V (max. 10 V)
Current ripple	< 1 %
Current ripple frequency	> 1 MHz
Current overshoot	< 1 %
Analog modulation (10 A _{pp})	TBD**
Current settling time (full-scale)	TBD**
Current setpoint input	Analog or digital
Current monitor	TBD**
Voltage monitor	Via RS-232
Supply voltage	24 V DC
Max. power dissipation	75 W
	Half brick size
Dimensions in mm	75 x 60.9 x 29
Weight	225 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 further details

Designed to shield your laser diode from damage, the LDP-CW 130-05 features a number of powerful protective safeguards:

- Innovative current regulation concept actively prevents laser diode from overshoots and overcurrent
- Integrated Soft Start
- Overtemperature shutdown
- Enable/Disable input
- Driver status output
- Protection of the laser diode against reverse currents

Optional Accessories: LDP-C BOB
PLB-21