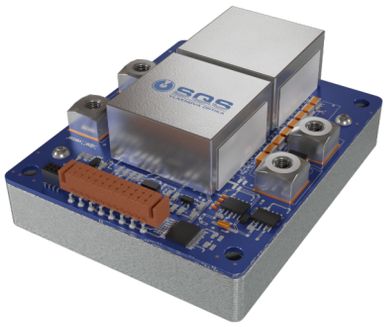
High Power Laser Diode Driver

High Current or High Voltage Variants



SQS Vláknová optika offers a laser driver for highly demanding industrial, medical and research laser applications in a half-brick size.

The driver enables laser diode power supply in continuous wave (CW), quasi-continuous wave (QCW) or pulsed operation regimes regimes with a high efficiency up to 95%, high current setpoint accuracy, excellent stability, and low ripple current.

The laser diode driver may be computer-controlled by digital or analog signals via free control software with a graphical user interface. The laser driver offers several protection features incl. soft start current ramp to user setpoint, reverse current protection, overheating protection, and safety interlock function.

Applications
Diode bars, diode stacks, laser welding, laser soldering, medical lasers, LED arrays.

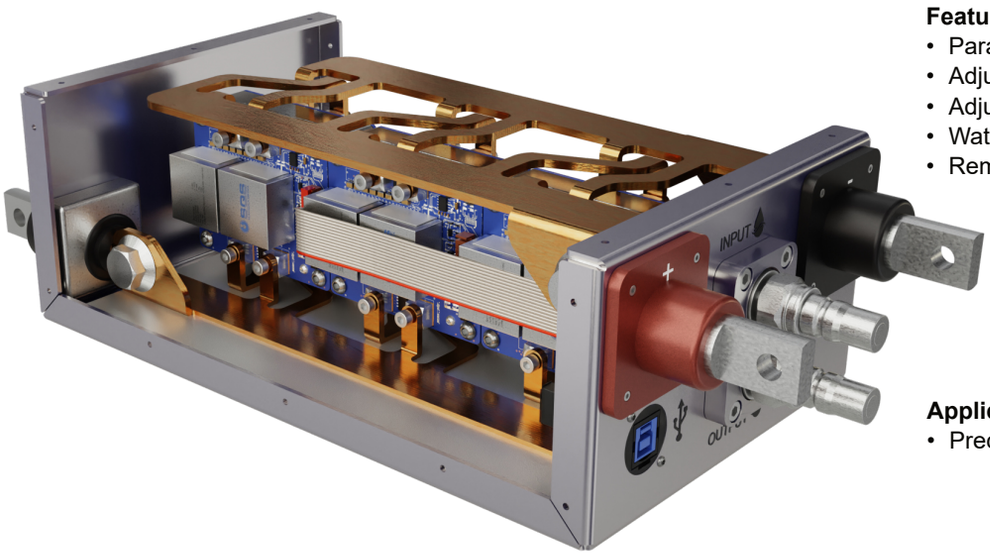
Features
- Adjustable current limit
- Over-current protection
- Over-voltage protection
- Over-temperature protection
- Safety interlock
- Internal crowbar
- Analog / digital (RS232) control
- Analog status Information
- Digital status and system information
- Compact design (half brick size)

CML-12-10-100 High Current Variant	
Key specification	
Input voltage	12 VDC
Output voltage	0 - 10 VDC
Output current	5 - 100 A
Rise time	< 1 ms
Fall time	< 1 ms
Current setpoint accuracy	±0.5% (5 - 50 A), ±1% (50 - 100 A)

CML-48-40-50 High Voltage Variant	
Key specification	
Input voltage	48 VDC
Output voltage	0 - 40 VDC
Output current	0 - 50 A
Rise time	< 1 ms
Fall time	< 1 ms
Current setpoint accuracy	±0.5% (5 - 50 A), ±1% (50 - 100 A)

UNDER DEVELOPMENT

Laser driver stack - application example



Features
- Parallel laser driver connection
- Adjustable voltage 0 - 10 V
- Adjustable current 0 - 600 A
- Water cooled design
- Remote control and system information

Application
- Precise current control

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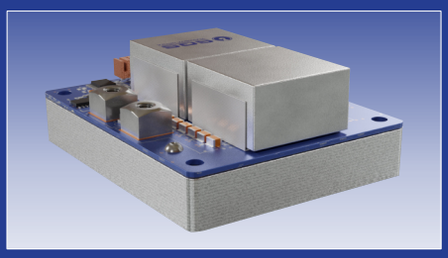

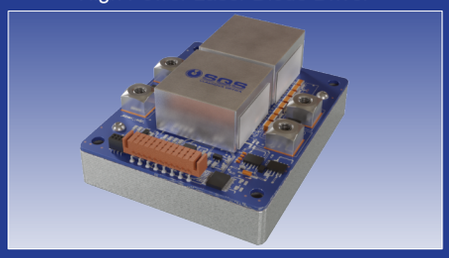

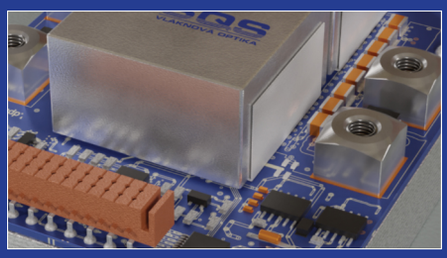

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