

FEDAL

Laser power supply equipment

Development and production of laser power supply equipment for lamp-pumped lasers and diode-pumped lasers; high voltage charging modules, temperature controllers for Peltier(TEC), motion control system, CNC systems



FEDAL, LLC

Foundation: 2002

Production: development and production of laser electronics

Applications: unique products both a single copy for experimental or laboratory works, and small-scale products line to participate in the processor chain of companies, specializing in of laser equipment manufacturing.

FEDAL 公司以 专业化是激光电子产品的的设计和制造。

FEDAL 有限责任公司成立于2002年，并在它操作时间内我们的专家都获得了一种独特的体验，使他们在最短的时间内能够解决各种各样的任务。由于这一点，我们能够开发并生产对发展或实验室工作的独特的品名并且对生产激光设备的企业以参与生产链企业的小批量的产品线。为此一点，我们有资格专家人员采用现代元素基础，以及我们有位于圣彼得堡自己生产的生产并配备了现代化设备。

有光泵浦固体激光器的脉冲和连续供电。

有光泵浦固体激光器的脉冲和连续供电。它们用于泵送在在自由发生模式或因数调制操作的固体激光器。公司拥有不同的标准模型（SF 134-2, SF 134-3, SF138），它们能够工作既作为实验室、教育、医疗、实验设施的一部分设备并且在设施进行孔的焊接，热处理，切割，划线，标记和拉削。这些模型的最大充电容量为从2400焦耳/秒到6500焦耳/秒，驱动器充电电压从750伏到6000伏，与电流泵振幅为从900安培到1600安培。除此以外电源可以配备单元温度稳定（对珀耳帖元件）连接器用于同步多个电源

For a solid lasers with lamp pumping

Models: SF 134-2, SF 134-3, SF 138

Applications: used in the laboratory, educational, medical and experimental machines in welding, heat treatment cutting, scribing, marking and drilling.

Specifications:

Power charge up to 6500J/s,
Charge integrator voltage up to 6kV
Pumping current up to 1600A.
Frequency up to 50 Hz



对于半导体泵浦二极管固体激光器的开关电源。

用途:提供电能给二极管阵列、线、和一个二极管,用于泵强大的固体激光器或光纤激光器。公司拥有不同的标准模型(SF 302, SF304, SF306, SF308)它们能够工作既作为实验室、教育、医疗、实验设施、工业的一部分设备。电源有几种变质:为不同的电压和泵电流。这些模型具有的平均输出功率高达5千瓦,二极管工作电压为从1伏到250伏,泵电流调整的范围从1安培到350安培。

For fiber and solid lasers with diode pumping

Models: SF 302, SF304, SF306, SF308, SF312

Applications: used in the laboratory, educational, medical, experimental and industrial machines.

Specifications:

Average output power of about 5 kW

Operating voltage over the diodes up to 250V

Pumping current up to 350A

Frequency up to 1kHz

Addition - TEC controllers



热稳定的控制器 (TEC)

用于控制珀耳帖热电元件使保持精度预定温度。本公司生产型模式（SP100）。该控制器有几种变质:为各种个样电流（高达12安培）和电压（高达24伏）。SP100具有广泛的应用，包括激光二极管温度、非线性晶体、易溶于配药过程中的液体等的精度控制。

Temperature controllers for Peltier (TEC)

Models: SP 100

Applications: used for controlling Peltier element to maintain precise predetermined temperature.

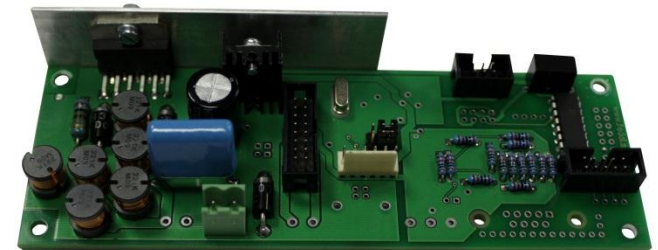
Specifications:

High-precision temperature control of laser diodes

Output current up to 12 A,

Output voltage up to 30

Temperature accuracy minimum 0.1C



高电压电池模块。

用于在部分或完全放电操作 条件下充电电容能量储存。充电器以根据高频换流器与倍频输出特性电流源为制造，这使它对连接负载的类型和短路不加鉴别的。充电器平均功率: 从3千瓦至5千瓦。

High voltage charging modules

Models: SF 500, SF 510

Applications: used in trial facility and industrial lasers to charge the storage capacitor

Specifications:

Charge integrator voltage up to 6kV

Average charger power up to 3-5kW.



多通道激光器的电源系统 (MEPSS)

按照客户技术任务书，“FEDAL”公司对有光泵和半导体泵浦二极管固体激光的强大多通道固体激光器发展独特的系统。多通道激光器电力系统设计为19"机柜或更多的19"机柜。多通道激光器电力系统设计由SF700控制装置和同步器和电源规格型号组成。多通道激光器电力系统内的联络是通过RS-485或光纤通讯线路而发生。多通道激光器电力系统可以使用在特殊的激光设备，技术激光系统，强激光辐射器目的是在强激光辐射与惯性热核聚变物质相互作用的领域进行着眼于目标的研究。多通道激光器电力系统的平均输出功率超过200千瓦。



Multichannel electric power supplied system for diode-pumped lasers

Models: MEPSS

Applications: used for power diode arrays used for pumping high-power solid-state, fiber lasers or power the pumping lamps (used for pumping high-power solid-state lasers). MEPSS can be used in special laser systems , laser technological complexes , laser systems destined for applied research of intense laser-matter interaction and inertial confinement fusion .

Specifications:

Two designs: single 19" case or some 19" cases.

Consists of the control and synchronization units model SF 700 and standard laser power supplies.

Intercommunication via RS 485 or FOCL.

Provides a wide range of repetition frequency, amplitude and laser pulses duration.

Output overage electric power up to 200 kW

We have:

- qualified professionals working
- modern electronic components, microcontrollers, FPGA, power electronics
- factory, located in St. Petersburg
- automated SMD mounting line based on mounting SMD components
- line of automated soldering of pluggable elements (wave solderer)
- assimilation of the combined technology of SMD soldering pins and components
- conveyor convection heater
- stencil printer.



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