

# singlemode fiber laser

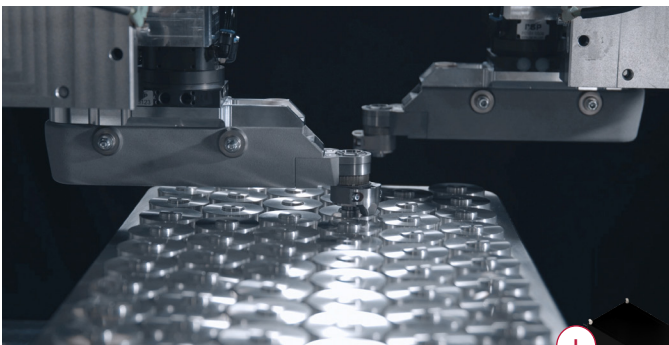


**MODULAR LASER SOURCES WITH 1 – 2 kW POWER  
AND SPLICED FIBERS OF 10 – 14  $\mu$ m**

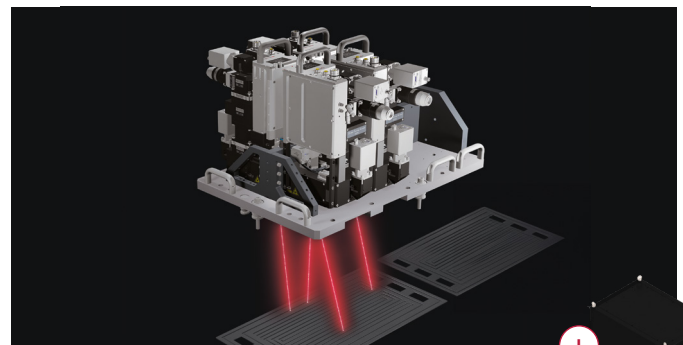
Brightlight lasers are offered in combination with various Scansonic optics for laser welding, brazing, cladding, cutting and hardening. Brightlight is supported by Scansonic's worldwide sales and service network as well as Scansonic's development teams.



## APPLICATION EXAMPLES



Bundle of FCW optics with laser and spliced 14  $\mu$ m fiber for battery contacting



Bundle of FCW optics with laser and spliced 10  $\mu$ m fiber for laser welding of fuel-cells and panel coolers



## LASER SPEC.

<b>Operation mode</b>	Singlemode
<b>Polarization</b>	random
<b>Central emission wavelength</b>	1070 nm
<b>Output Power</b>	1-8*1000 W / 1-8*2000 W
<b>Power range</b>	1% – 100%
<b>Output emission bandwidth</b>	+/-5 nm
<b>Modulation frequency</b>	50 kHz
<b>Switching time</b>	5 $\mu$ s

## OPTICAL OUTPUT SPEC.

<b>Delivery cable connector</b>	QBH
<b>Delivery Diameter / color / cable type</b>	13 mm / yellow / metal shielded cable
<b>Beam quality M<sup>2</sup></b>	10 $\mu$ m < 1,05 / 14 $\mu$ m < 1,1
<b>Delivery cable diameter output</b>	10 $\mu$ m (max 1 kW) / 14 $\mu$ m
<b>Delivery cable length</b>	5 m (10 m on request by limited beam quality)

## ELECTRICAL SPEC.

<b>Voltage</b>	220 V – 240 V (1 kW, L+N+PE) / 360 V – 440 V (2 kW, L1-L3 +N+PE)
<b>Max. input current</b>	16 A (each 1 kW laser) / 7 A (each 2 kW laser)
<b>Frequency</b>	50 Hz – 60 Hz
<b>Max. input power</b>	3 kW (each 1 kW laser) / 6 kW (each 2 kW laser)

## MECHANICAL SPEC.

### Dimensions ( L x H x B )

Cabinet size small	892 mm x 433 mm x 744 mm
Cabinet size medium	868 mm x 543 mm x 1013 mm
Cabinet size large	995 mm x 960 mm x 1203 mm

### Weight

125 kg – 400 kg



up to 3 singlemode laser



up to 5 single mode laser



up to 8 single mode laser

## ENVIRONMENTAL SPEC.

Operation temperature range	0 °C – 40 °C
Storage temperature range	-10 °C – 50 °C
Operation humidity	0% – 95%
Storage humidity range	0% – 95%

## COOLING SPEC.

Water temperature	20 °C – 25°C
Water pressure	3 bar – 5 bar
Flow rate	12 l/min (each 1 kW laser) / 20 l/min (each 2 kW laser)
Cooling capacity	2 kW (each 1 kW laser) / 4 kW (each 2 kW laser)

