

FX-Series

Ultrashort Pulse InnoSlab Lasers

EDGEWAVE

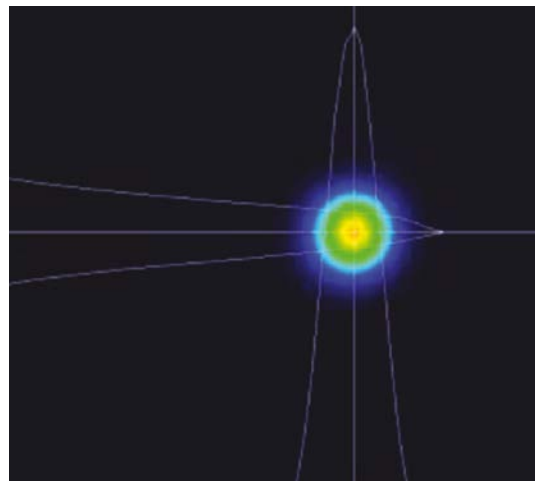
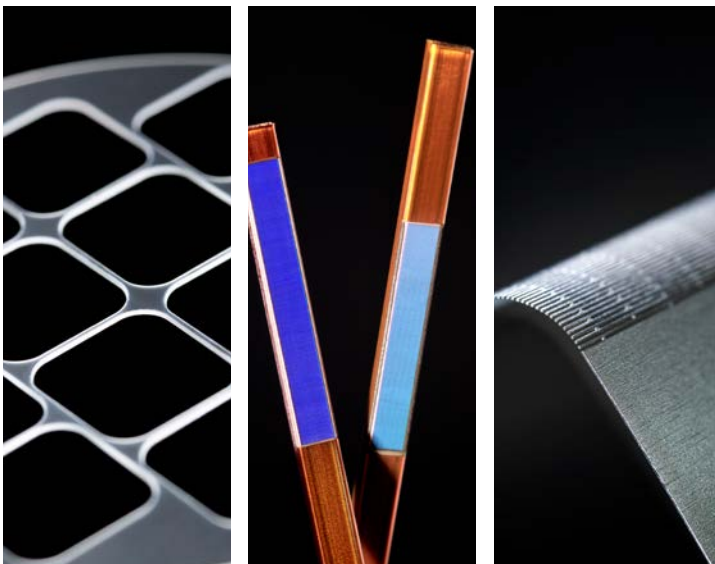


Favourable Applications

- milling, cutting and drilling of display-glass, sapphire, ceramic, etc.
- ablation and structuring of thin layer
- precision 3D engraving/milling
- milling, drilling and cutting of CFP
- laser induced selective etching
- rapid prototyping

Unique Features

- ultrashort pulse
- high pulse energy
- high peak power
- high repetition rate
- burst mode
- compact setup
- tailored beam profile



Overview of FX-Series

Model	FXxxx-1	FXxxx-2	FXxxx-3	FXxxx-4
Wavelength [nm]	IR	Green	UV	DUV
Highest beam quality M ²	1.1	1.1	1.1	1.1
Max. average power [W]	400	200	90	15
Max. repetition rate [MHz]	50	50	50	50
Max. pulse energy [μJ]	2000	900	400	200
Min. pulse width [fs]	400	300	300	300
Energy stability [%] rms	1	2	2	3
Timing stability [ns]	20	20	20	20
Polarisation	> 100:1	> 100:1	> 100:1	> 100:1
Beam ellipticity (far field) [%]	< 10	< 10	< 10	< 10
Diameter at window [mm]	3	3	3	3
Full divergence angle [μrad]	500	250	226	226
Point stability [μrad]	< 50	< 50	< 50	< 50
Warm-up time from cold start [min]	15	20	30	30
Warm-up time from standby [min]	10	15	30	30

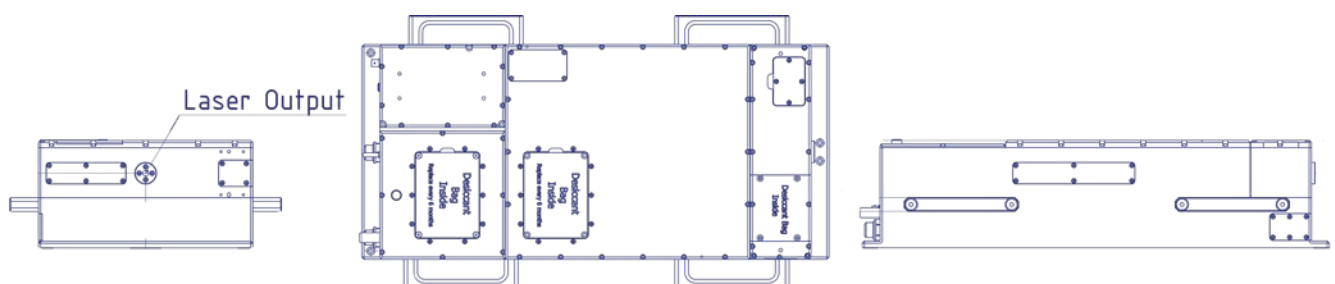
Utility & Ambient Requirements

Power supply	90 V-264 V or 180 V-264 V, 50/60 Hz
Power	1.2 kW-3.6 kW
Chiller	230, 208, 115, 100 V, 50/60 Hz
Power	0.8 kW-3.6 kW
Operation ambient temperature	15 °C-35 °C
Relative humidity, non-condensing	10 %-80 %

Dimensions & Weights

Laser head	650 mm x 298 mm x 150 mm
Supply incl. chiller	19" x (10 HU-15 HU) x 700 mm
Laser head	< 50 kg
Supply incl. chiller	62 kg-110 kg

EdgeWave follows a policy of continuous product improvement. Specifications are subject to change without notice.



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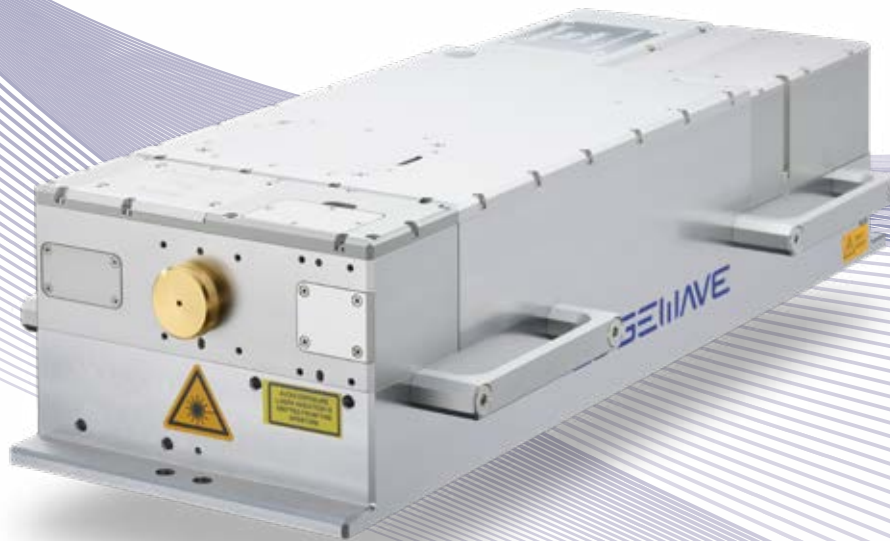
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FXz-Series

Short Pulse InnoSlab Lasers

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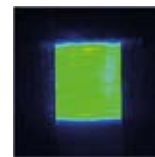
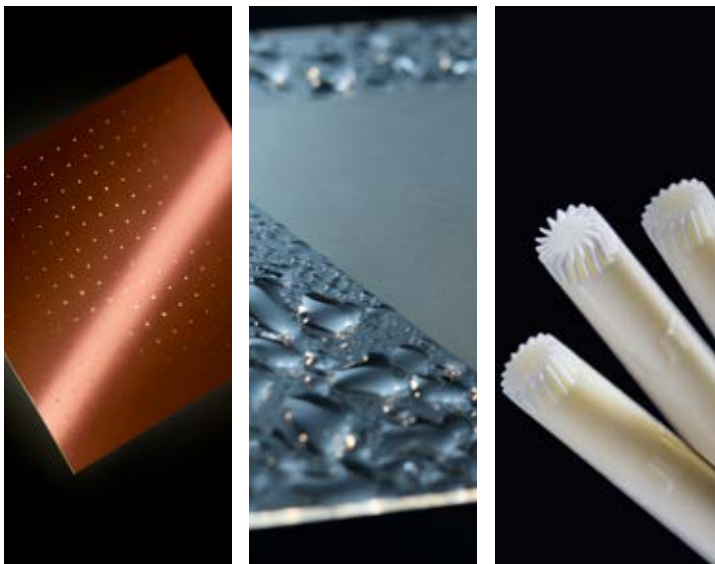


Favourable Applications

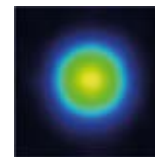
- milling, cutting and drilling of display-glass, sapphire, ceramic, etc.
- ablation and structuring of thin layer
- precision 3D engraving/milling
- drilling and cutting of CFP
- laser induced selective etching
- rapid prototyping

Unique Features

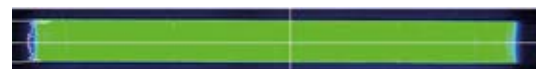
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- high pulse energy
- high peak power
- high repetition rate
- burst mode
- compact setup
- tailored beam profile



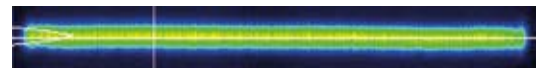
square top-hat



circular gaussian



rectangular top-hat



line shaped top-hat

Overview of FXz-Series

Model	FXxxx-1	FXxxx-2	FXxxx-3	FXxxx-4
Wavelength [nm]	IR	Green	UV	DUV
Highest beam quality M2	1.1	1.1	1.1	1.1
Max. average power [W]	100	60	30	3
Max. repetition rate [MHz]	100	100	100	100
Max. pulse energy [μ J]	1400	700	340	170
Min. pulse width [fs]	500	400	400	400
Energy stability [%] rms	1	2	2	2
Timing stability [ns]	20	20	20	20
Polarisation	> 100:1	> 100:1	> 100:1	> 100:1
Beam ellipticity (far field) [%]	< 10	< 10	< 10	< 10
Diameter at window [mm]	3	3	3	3
Full divergence angle [μ rad]	500	250	226	226
Point stability [μ rad]	< 50	< 50	< 50	< 50
Warm-up time from cold start [min]	15	20	30	30
Warm-up time from standby [min]	10	15	30	30

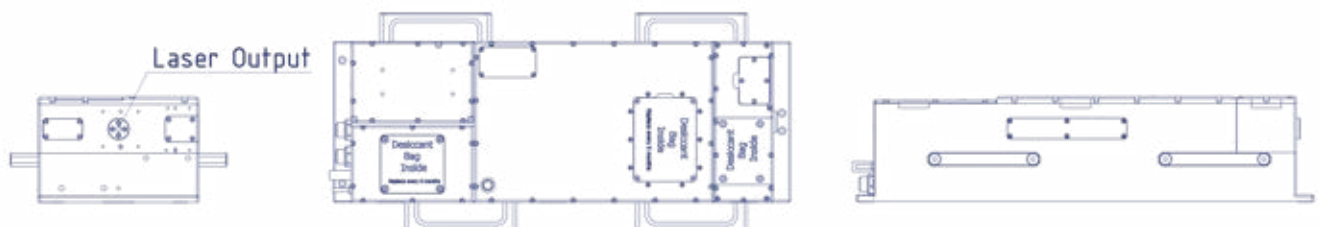
Utility & Ambient Requirements

Power supply	90 V-264 V or 180 V-264 V, 50/60 Hz
Power	600 W-2 kW
Chiller	230, 208, 115, 100 V, 50/60 Hz
Power	0.8 kW-2 kW
Operation ambient temperature	15 °C-35 °C
Relative humidity, non-condensing	10 %-80 %

Dimensions & Weights

Laser head	650 mm x 228 mm x 150 mm
Supply incl. chiller	19" x (10 HU-15 HU) x 700 mm
Laser head	< 42 kg
Supply incl. chiller	40 kg-45 kg

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FX600-Series

Ultrashort Pulse InnoSlab Lasers

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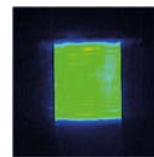
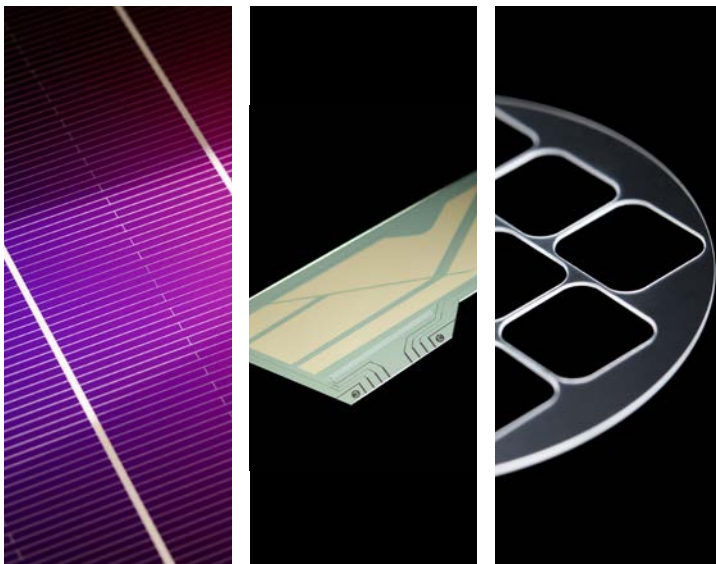


Favourable Applications

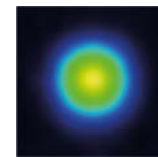
- milling, cutting and drilling of display-glass, sapphire, ceramic, etc.
- ablation and structuring of thin layer
- precision 3D engraving
- milling, drilling and cutting of CFP
- laser induced selective etching
- rapid prototyping

Unique Features

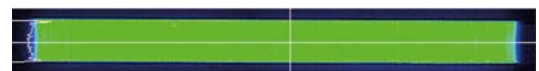
- ultrashort pulse
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- burst mode
- compact setup
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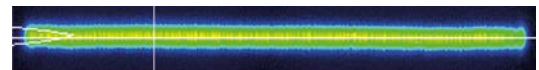
square top-hat



circular gaussian



rectangular top-hat



line shaped top-hat

Overview of FX600-Series

Model	FXxxx-1	FXxxx-2	FXxxx-3	FXxxx-4
Wavelength [nm]	IR	Green	UV	DUV
Highest beam quality M ²	1.1	1.1	1.1	1.1
Max. average power [W]	600	250	120	20
Max. repetition rate [MHz]	100	100	100	100
Max. pulse energy [μJ]	3000	1200	600	250
Min. pulse width [fs]	400	300	300	300
Energy stability [%] rms	1	2	2	2
Timing stability [ns]	20	20	20	20
Polarisation	> 100:1	> 100:1	> 100:1	> 100:1
Beam ellipticity (far field) [%]	< 10	< 10	< 10	< 10
Diameter at window [mm]	3	3	3	3
Full divergence angle [μrad]	500	250	226	226
Point stability [μrad]	< 50	< 50	< 50	< 50
Warm-up time from cold start [min]	15	20	30	30
Warm-up time from standby [min]	10	15	30	30

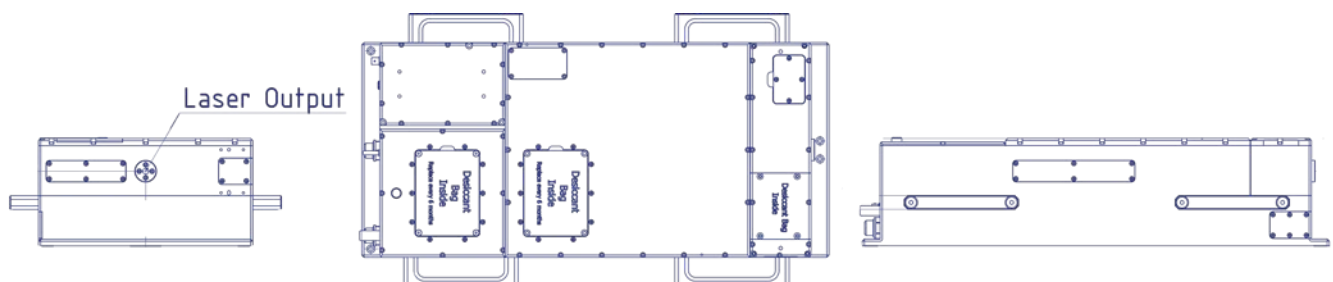
Utility & Ambient Requirements

Power supply	90 V-264 V or 180 V-264 V, 50/60 Hz
Power	3.6 kW-7 kW
Chiller	230, 208, 115, 100 V, 50/60 Hz
Power	1 kW-7 kW
Operation ambient temperature	15 °C-35 °C
Relative humidity, non-condensing	10 %-80 %

Dimensions & Weights

Laser head	650 mm x 385 mm x 150 mm
Supply incl. chiller	19" x (10 HU-15 HU) x 700 mm
Laser head	63 kg
Supply incl. chiller	62 kg-110 kg

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