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Customized laser solutions

Diode-Pumped Laser Engineering group



All-Solid-State Lasers
Laser Optics & Coatings

www.dple.by



Portable double pulse laser for LIBS applications



1064 nm
10 Hz
100 mJ

Type of laser	IFL-N5010-DPL
Operating wavelength, nm	1064
Output pulse energy for each channel, mJ	up to 50
Pulse repetition rate, Hz	1 ÷ 10
Pulse-to-pulse delay, μ s	1 ÷ 100
Lasing pulse duration, ns	8 ÷ 12
Cooling	Forced air cooling
Dimensions (L × W × H), mm	510×200×230

Ultraviolet pulsed laser



266 nm
3 mJ
15 Hz

Type of laser	IFL-N315-UV
Operating wavelength, nm	266
Output pulse energy, mJ	3
Pulse repetition rate, Hz	15
Lasing pulse duration, ns	<8
Cooling	Forced air cooling
Dimensions (L × W × H), mm	395×215×105

Laser Optics & Coatings



- Axicons
- Interferometers
- Polarizer
- Waveplates
- Optical Filters for High Radiation Density Applications
- Lenses (diameters up to 250 mm, various substrates available)

- DKDP Pockels Cells

- ✓ **More than 40-year experience**
- ✓ **Customer-required parameters and quantities**
- ✓ **High-precision optical technologies**

- Optical Windows
- Mirrors and Beamsplitters
- Interference Filters
- Polarization Optics
- Prisms
- Cuvettes
- Deep Optical Contact Elements

DPLE
GROUP

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Eye-safe OPO systems

New

**25 mJ, 60 Hz
50 mJ, 30 Hz
1.57 μm**



Type of laser	IFL-N5030-OPO	IFL-N2560-OPO
Operating wavelength, nm	1570 $\pm$ 5	
Output pulse energy, mJ	50	25
Pulse repetition rate, Hz	up to 30	up to 60
Beam diameter, mm	<5	<5
Lasing pulse duration, ns	<10	<10
Operating temperature interval, $^{\circ}\text{C}$	+10 $\div$ +30	
Duty cycle	100% (continuous shooting)	
Cooling	Conductive through the bottom or forced air cooling	
Dimensions (L $\times$ W $\times$ H), mm	300 $\times$ 155 $\times$ 125 or 190	

Eye-safe erbium lasers with passive Q-switching

**2-8 mJ
up to 5 Hz
1.54 μm**



Type of laser	IFL-E23-P	IFL-E75-P	IFL-E81-P
Operating wavelength, nm	1535	1535	1535
Output pulse energy, mJ	2	7	8
Pulse repetition rate, Hz	up to 3	up to 5	up to 1
Beam quality factor M^2	<1.5	<1.5	<1.3
Lasing pulse duration, ns	<20	<20	<20
Operating temperature interval, $^{\circ}\text{C}$	-40 $\div$ +50	-40 $\div$ +50	-40 $\div$ +50
Dimensions (L $\times$ W $\times$ H), mm	60 $\times$ 30 $\times$ 30	75 $\times$ 45 $\times$ 30	75 $\times$ 45 $\times$ 30

Nd:YAG pulsed lasers

**up to 200 mJ
30 Hz**



All harmonics

Type of laser	IFL-N20030-EO	IFL-N18030-4H
Operating wavelength, nm	1064	1064, 532, 355, 266
Output pulse energy, mJ	up to 200	180 (1064 nm) 90 (532 nm) 45 (355 nm) 20 (266 nm)
Pulse repetition rate, Hz	30	30
Beam diameter, mm	<5	<5
Lasing pulse duration, ns	7 $\div$ 10	7 $\div$ 10 (1064 nm)
Cooling	Forced air cooling	
Dimensions (L $\times$ W $\times$ H), mm	355 $\times$ 200 $\times$ 100	225 $\times$ 440 $\times$ 155

New

High power Nd:YAG laser for LIDAR systems

**400 mJ
1064 nm
532 nm
355 nm**



Type of laser	IFL-N40030-L		
Operating wavelength, nm	1064, 532, 355		
Output pulse energy, mJ	400 (1064 nm)	230 (532 nm)	100 (355 nm)
Pulse repetition rate, Hz	30		
Beam diameter, mm	<6		
Beam divergence, mrad	<1.5		
Lasing pulse duration, ns	8 $\div$ 11 (1064 nm)		
Cooling method	Forced air cooling		
Dimensions (L $\times$ W $\times$ H), mm	525 $\times$ 245 $\times$ 190		

Eye-safe erbium lasers with EO Q-switching

**10 mJ
5 Hz
1.54 μm**



Type of laser	IFL-E105-EO
Operating wavelength, nm	1535
Output pulse energy, mJ	10
Pulse repetition rate, Hz	5
Beam diameter, mm	2
Lasing pulse duration, ns	<20
Operating temperature interval, $^{\circ}\text{C}$	+10 $\div$ +50
Dimensions (L $\times$ W $\times$ H), mm	150 $\times$ 50 $\times$ 40

Nd:YAG pulsed lasers without forced cooling

short time remote control or ignition



Type of laser	IFL-NC6530-P	IFL-N4030-EO
Operating wavelength, nm	1064	1064
Output pulse energy, mJ	65	40
Pulse repetition rate, Hz	up to 30	30
Lasing pulse duration, ns	3 $\div$ 5	<9
Dimensions (L $\times$ W $\times$ H), mm	110 $\times$ 50 $\times$ 50	150 $\times$ 70 $\times$ 60