



Wavelength Optics

193 nm (ArF)



Maximum Frequency

200 Hz
500 Hz
1000 Hz



Power Setting

Standard Power (SP)
High Power (HP)



Cooling Concept

Air Cooled (AC)
Liquid Cooled (LC)

Key Specifications

Series		MLI		
Gas/Optics		ArF		
Wavelength (nm)		193		
Max. Repetition Rate (Hz)		200	500	1000
Standard Power Configuration (SP)	Stabilized Energy (mJ)	6		
	Maximum Energy (mJ)	9		
High Power Configuration (HP)	Stabilized Energy (mJ)	8		
	Maximum Energy (mJ)	12		
Energy Stability (sigma, %)		<2 (E ≥ stabilized pulse Energy)		
Pulse Duration (fwhm, ns)		5..10		
Beam Dimensions (fwhm, V x H mm)		6x3 (typical)		
Beam Divergence (fwhm, V x H mrad)		2x1 (typical)		
Duty Cycle, Air Cooled (AC)		100%	40%, max. 10min on	20%, max. 5min on
Duty Cycle, Water Cooled (LC)		100%		
Weight		75kg		
Electrical, Standard Power (SP)		230V, 50/60Hz, ≤ 2kVA		
Electrical, High Power (HP)		230V, 50/60Hz, ≤ 2.3kVA		
Electrical Connection, Internal Fuse		single phase (IEC 60320 - C14), 10AT		
Housing		Stainless Steel, IP20		
Dimensions, Air Cooled (AC) (L x W x H)		560 x 315 x 445mm ³		
Dimensions, Water Cooled (LC) (L x W x H)		560 x 355 x 445mm ³		
Packaging Dimensions (L x W x H)		0.8 x 0.5 x 0.7m ³		
Visual Impression				

Environmental conditions

Ambient Temperature	15..35°C
Relative Air Humidity	15..80 % rel. (non-condensing)
Max. Altitude above Sea Level	3000m

Air cooling

Volume Flow	400m ³ /h
Diameter Suction Hose Connection	158mm

Water cooling

Temperature Stability:	+/- 2°C
Required Flow Rate in Laser:	≥ 2L/min
Cooling Capacitance:	≥ 1000W
Required Setting Temperature:	30..40°C
Pressure to Cooling Inlet:	< 5bar
Water Connection at Laser Side	CPC LCD10004
Water Connection at Hose Side	CPC PLCD23004

Gas System

Laser Tube Volume, Standard Power (SP)	6,5l
Laser Tube Volumen High Power (HP)	6,3l
Operating Pressure	5..6bar@20°C
Gas Inlet Pressure, Premix	7..9bar (abs.)
Gas Inlet Pressure, Flush	1.5..3bar (abs.)
Gas Connectors	6mm compression fitting
Gas Filter Capacity	200 gas exchanges
Prerequisite	Intrinsically safe gas system, limited to 9bar (abs.).
ArF Premix Composition	0.133% F2 (2.8), 1.80% Ar (5.5), Ne (4.8) balance
Flush Gas (Optics Exchange)	Helium (5.0)
Purge Gas (for Beam Path)	Nitrogen (5.5)

Lifetime in Pulses

Laser Tube (Pulses)		>2,000M	Typical: 4,000M
High Voltage Circuit (Pulses)		>4,000M	Typical: 8,000M
Electronics (Pulses)		>4,000M	Typical: 10,000M
Gas Filter Capacity		200 gas exchanges	
Passive Gas Lifetime		1 month 50%	Typical: 3 months 50%
Active Gas Lifetime, Standard Power (SP) (Pulses)	Stabilized @6mJ	30M	Typical: 50M
Active Gas Lifetime, High Power (HP) (Pulses)	Stabilized @8mJ	20M	Typical: 40M
Optics Lifetime, Standard Power (SP) (Pulses)	Stabilized @6mJ	500M	Typical: 1,000M
Optics Lifetime, High Power (HP) (Pulses)	Stabilized @8mJ	300M	Typical: 600M

Note: Specifications are subject to change without notice

Dimensions, Air Cooled (AC)-Models

