

ReUse-MAE: Laserdrilling MAE

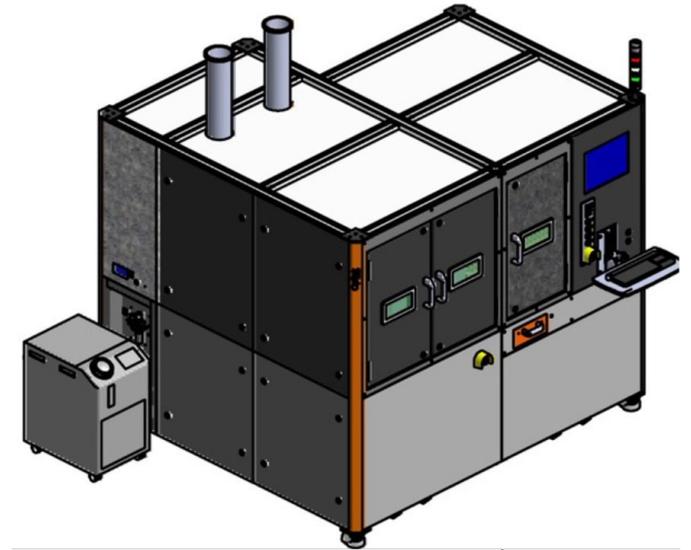
Operation process / Drilling SOFC substrate

MAE-manufacturer

Machine type
Serial number
Year of manufacture
Plant
Inventory number

OPTEK

TX-6400
TX-384
Dec2020
BaP
302193880



Technical data

Number of clamping points and lasers:

2

Lasertype:

IPG-Laser YLPN-2-500x1500-200-R

Laser wave length:

[nm] 1064

Av. Laser Power

[W] 200

Pulse energy

[mJ] 2

Pulse duration

[ns] 500

Power Requirement:

[-] 7,36kVA, 230VAC, 32A

MAE-dimension WxLxH, only MAE

[mm] 1965 x 1810 x 1800

MAE weight

[kg] 950

Condition

Ready for use

Peripherie (Periphery)

Laser Marking system

Trumpf TruMark 3130

Extraction system

Nederman

Loading system

manual

Special features

magnetic substrate separator

Process steps

Feeding machine /de-stack

Lasermarking

Laserdrilling

Re-stack

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Pictures



ReUse-MAE: Laserdrilling MAE Pictures

	YTTERBIUM PULSED FIBER LASER SPECIFICATION: YLPN-SERIES 19"4U RACK MOUNTABLE	Spec:	E67311
		Revision:	07
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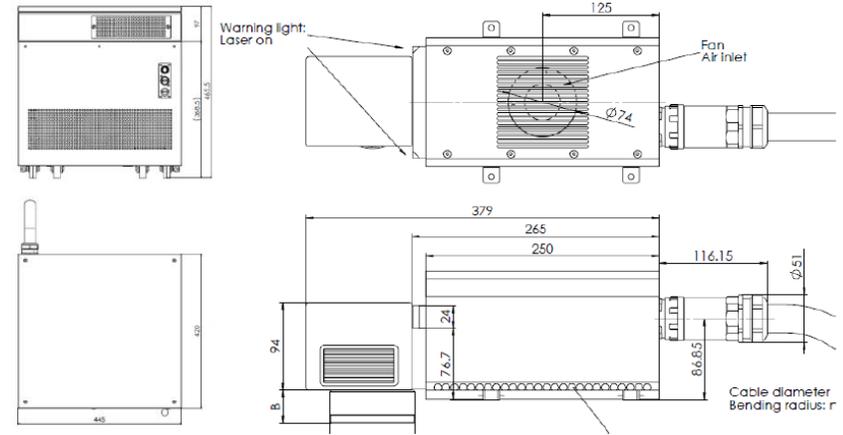
1 Laser product matrix

Pulse energy	Beam quality, M2			Nominal Average Power		
	min	typ	max	100W	200W	300W
1 mJ	1.2	1.5	2.0	YLPN-1-100-100-R YLPN-1-30x240-100-R	YLPN-1-100-200-R YLPN-1-30x240-200-R	YLPN-1-100-300-R YLPN-1-30x240-300-R
2 mJ	1.2	1.5	2.0	YLPN-2-1500-100-R YLPN-2-500x1500-100-R	YLPN-2-500x1500-200-R YLPN-2-30x120-200-R	by request
2 mJ	2	3	5.0	YLPN-2-200x600-100-R	YLPN-2-200x600-200-R	by request
5 mJ	3	5	6.0	YLPN-5-400-100-R	YLPN-5-400-200-R	by request
10 mJ	6	9	10	N/A	YLPN-10-200x400-200-R	by request
10 mJ	8	12	14	N/A	YLPN-10-30x240-200-R	YLPN-10-30x240-300-R

2 Optical characteristics

No	Characteristic	Conditions	Symbol	Min.	Typ.	Max.	Unit	
1	Mode of operation			pulsed				
2	Polarization state			random				
3	Nominal average output power	PRR=PRR _{nom}	P _{nom}				W	
				• 100W series	95	100		110
				• 200W series	190	200		220
				• 300W series	290	300		330
4	Nominal pulse energy	P _{out} =P _{nom} PRR<PRR _{nom}	E _{nom}	Refer to the "pulse characteristics" table for 100W/200W/300W series			mJ	
5	Pulse duration	FWHM P _{out} =P _{nom} PRR=PRR _{nom}	T				ns	
6	Nominal pulse repetition rate		PRR _{nom}				kHz	
7	Minimum pulse repetition rate		PRR _{min}					
8	Maximum pulse repetition rate		PRR _{max}					
9	Central emission wavelength		λ	1062	1064	1066	nm	

ReUse-MAE: Laserdrilling MAE Peripherie



ReUse-MAE: Defined cutting Layout and type plate

