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1. Optical characteristics

N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Operation Mode			CW / Modulated			
2	Polarization			Random			
3	Nominal Output Power		P_{nom}	500			W
4	Emission Wavelength	Output power: 500 W	λ		1070		nm
5	Emission Linewidth	Output power: 500 W	$\Delta\lambda$		4	5	nm
6	Short-term Power Instability	Output power: 500 W Frequency range: 10 kHz – 20 MHz			1.0	2.0	rms %
7	Long-term Power Instability	Output power: 500 W Time interval: 4 hrs (T=Constant)			±1	±3	%
8	Switching ON/OFF Time	Output power: 500 W			30	50	μs
9	Power Modulation Rate	Output power: 500 W				50	kHz
10	Red Guide Laser Power			0.1		1.0	mW

2. Optical output

N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Beam Quality		M^2		1.05	1.1	mm
2	Delivery Fiber Length		L		5.0	TBD	m
3	Output Fiber Termination			QBH-compatible connector			
4	Beam Divergence*	Full angle, 86% level	θ	130	140	150	mrad
5	Delivery Cable Bending Radius			50**			mm


* The specified values are valid for delivery fibers with the length ≤ 10 m. Longer delivery fibers result in the full divergence angle of 100 ± 10 mrad.

** For water cooled QBH-compatible connector the minimum bending radius of the delivery cable is 80 mm.

3. General characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Operating Ambient Temperature Range	10		50	°C
2	Humidity	10		95	%
3	Storage Temperature	- 40		+ 75	°C
4	Dimensions, WxDxH:	3U 19" rack mountable 448 x 580 x 132			mm
5	Weight			40	kg
6	Laser "Cold Start" Temperature	20			°C

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4. Cooling

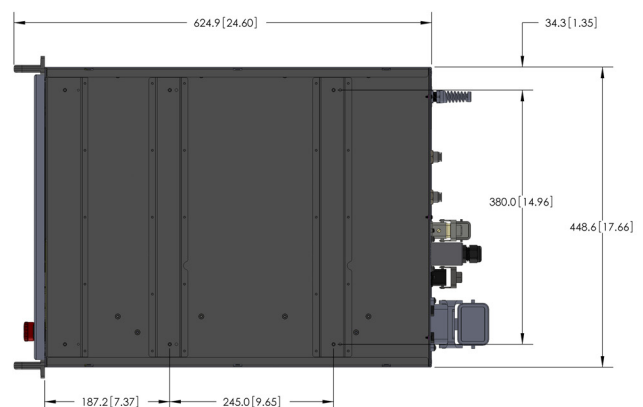
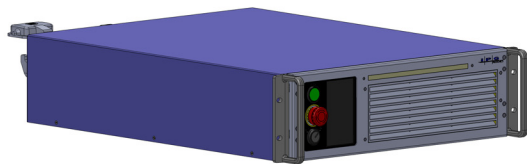
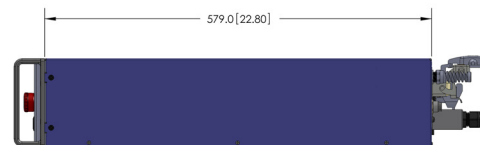
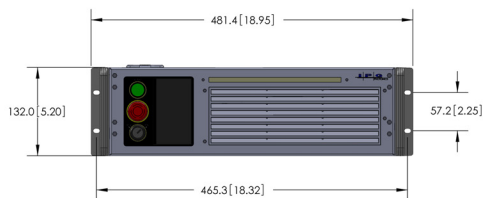
N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Method			Tap or DI-water			
2	Water Temperature *always above dew point			21*	22	25	°C
3	Water Pressure			1.5		3.5	bar
4	Water Flow			3.5			l/min
5	Chiller Cooling Capacity			1.2			kW

5. Electrical characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Operating Voltage, single-phase	200-240 VAC, 50/60 Hz			
2	Maximum Power Consumption		1500	1700	W
			1600	1800	VA
3	Control	Analog / RS-232 / Ethernet *			

* For details please refer to YLR-Series User Guide.


6. External layout

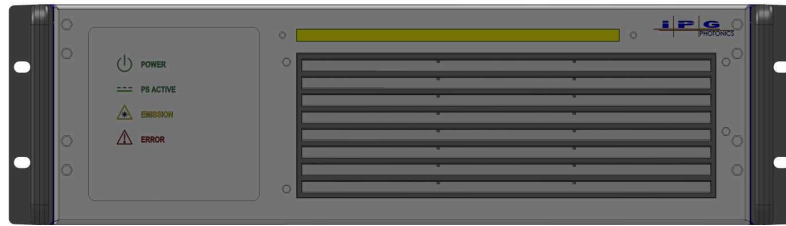


BOTTOM MOUNTING (M4)

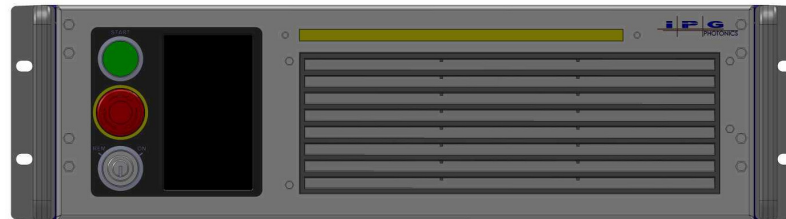
Laser cabinet

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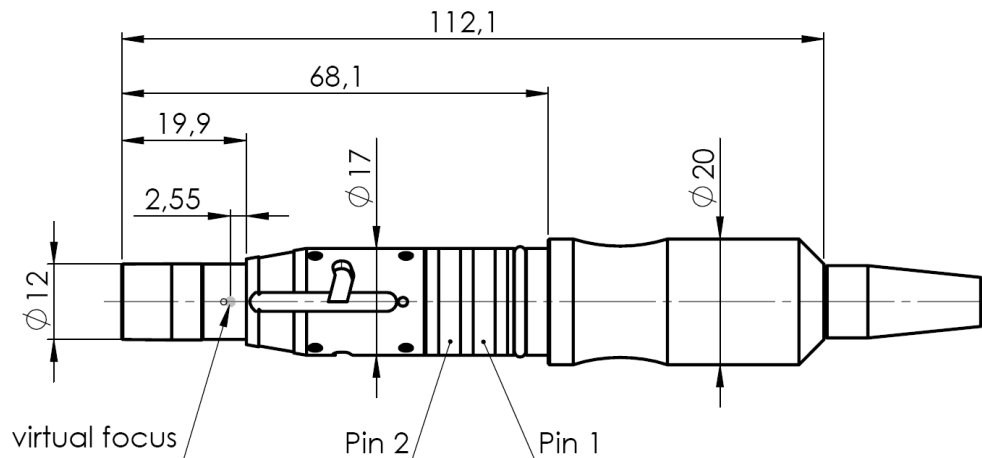
	<p align="center">SPECIFICATION YTTERBIUM FIBER LASER Model YLR-500-WC-Y14</p>	<p>Spec: Revision: Issue date: Page:</p>	<p>G22-15681 05 19.12.14 3 of 4</p>
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Standard configuration without touch-screen display




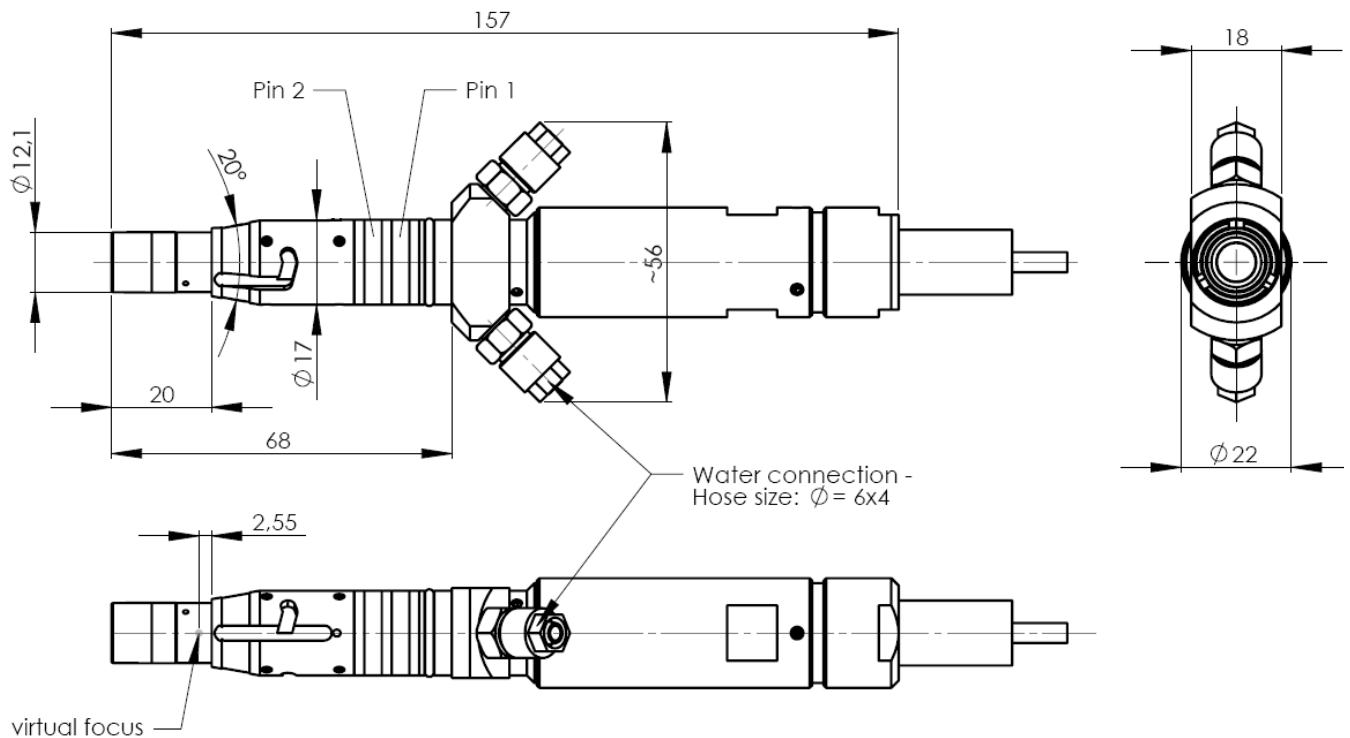
Optional configuration with touch-screen display



QBH-compatible connector, without water cooling

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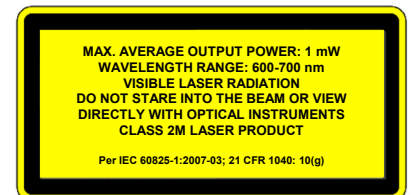
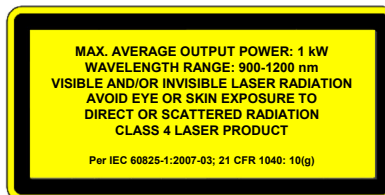
	<p align="center">SPECIFICATION YTTERBIUM FIBER LASER Model YLR-500-WC-Y14</p>	<p>Spec: Revision: Issue date: Page:</p>	<p>G22-15681 05 19.12.14 4 of 4</p>
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QBH-compatible connector, water cooled

7. Beam management accessories

N	Type	Model
1	Attachable Collimator	D25F50, D25F60, D25F85, D50F100, D50F120, D50F160, D50F200
2	Compact Beam Coupler	BC1x112
3	Compact Beam Switch	BS1xN12
N – number of output channels (1, 2, 3 or 4)		



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