

	<b>SPECIFICATION</b> <b>YTTERBIUM FIBER LASER</b> <b>Model YLR-3000</b>	Spec:	G22-29730
		Revision:	00
		Issue date:	09.01.2020
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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		$P_{nom}$	3000			W
4	Emission Wavelength	Output power: 3000 W	$\lambda$		1070		nm
5	Emission Linewidth	Output power: 3000 W	$\Delta\lambda$		1.5	5	nm
6	Short-term Power Instability	Output power: 3000 W Frequency range: 10 kHz – 20 MHz			1.5	3.0	rms %
7	Long-term Power Instability	Output power: 3000 W Time interval: 4 hrs (T=Constant)			±1	±3	%
8	Switching ON/OFF Time	Output power: 3000 W			30	50	µs
9	Power Modulation Rate	Output power: 3000 W				10	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	Option 1 – 50 µm core fiber Option 2 – 100 µm core fiber Option 3 – 200 µm core fiber	BPP	1.7 3.4 6	2.4 4.8 9.6	2.8 5.6 11.2	mm x mrad
2	Delivery Fiber Length		L		5.0	TBD	m
3	Delivery Cable Bending Radius			80			mm
4	Output Fiber Termination			QBH-compatible connector			

## 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:	4U 19" rack mountable 448 x 801 x 177			mm
5	Weight			75	kg
6	Laser "Cold Start" Temperature	20			°C

## 4. Cooling

N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Method			Tap or DI-water			
2	Water Temperature			21*	22	25	°C

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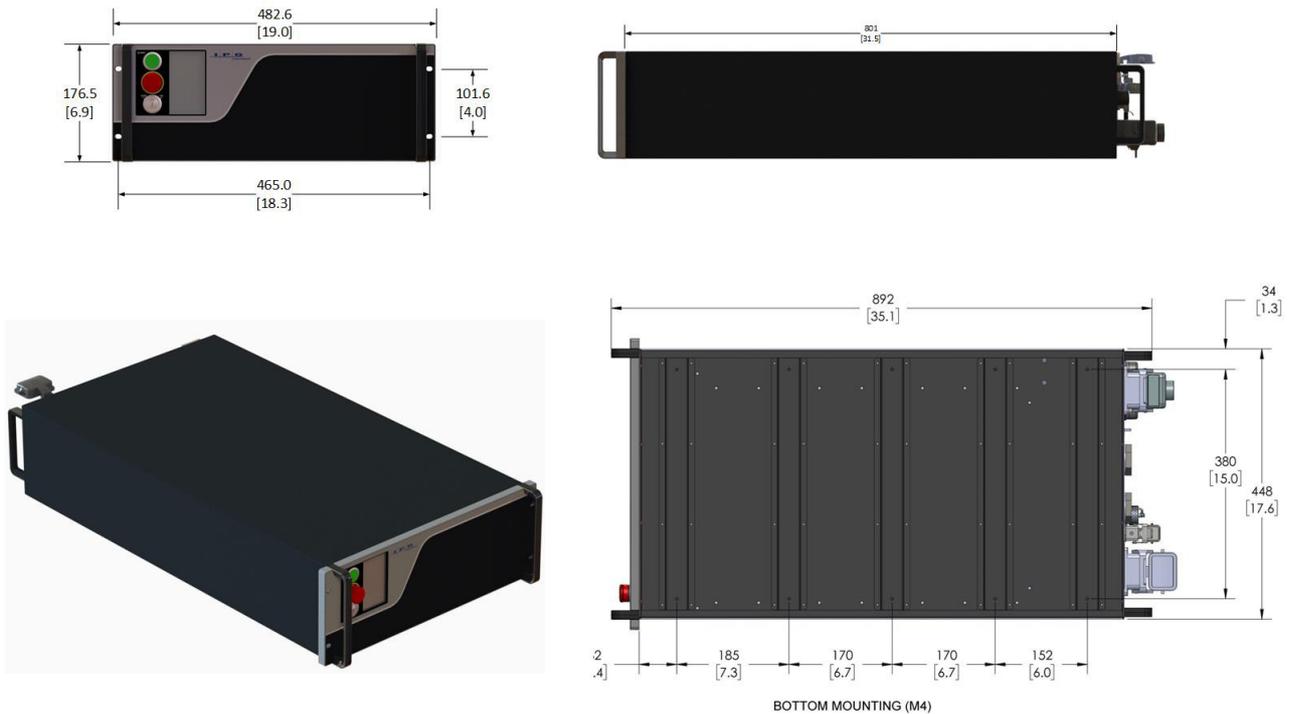
	*always above dew point					
3	Water Pressure		1.5		3.5	bar
4	Water Flow		15			l/min
5	Chiller Cooling Capacity		5.5			kW

## 5. Electrical characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Operating Voltage, 3-phase	400-480 VAC, 50/60 Hz			
2	Maximum Power Consumption		7400	8500	W
			7900	9000	VA
3	Control	Analog / RS-232 / Ethernet *			

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

## 6. External layout



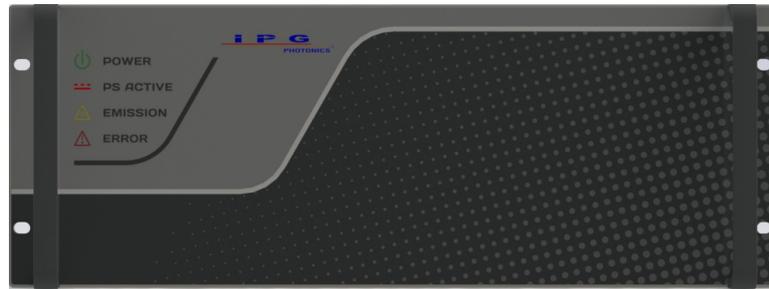
**Laser cabinet**

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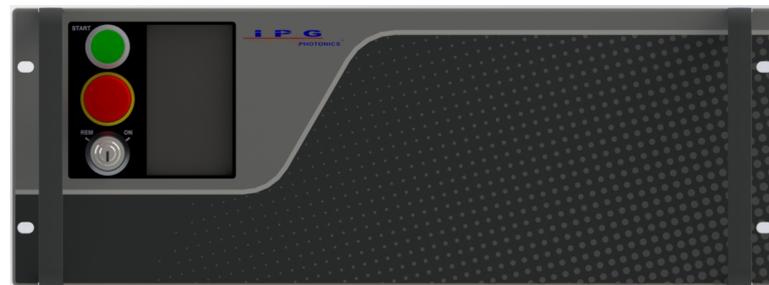


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Model YLR-3000**

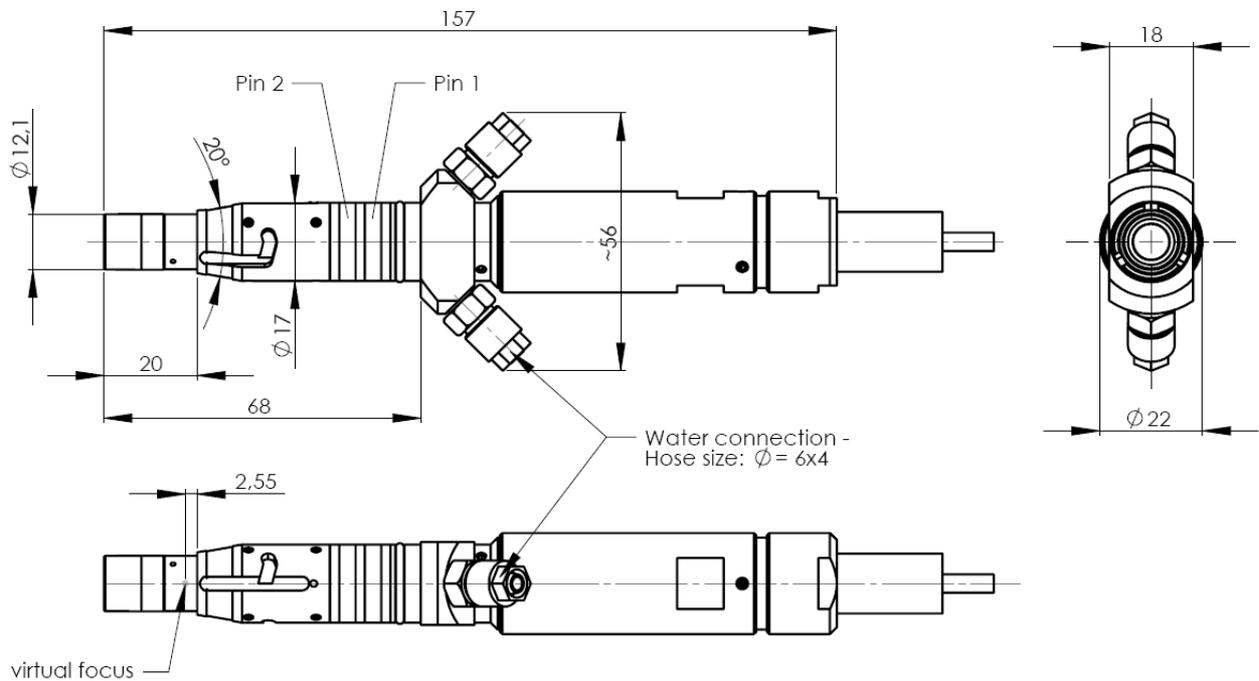
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**Standard configuration without touch-screen display**



**Optional configuration with touch-screen display**



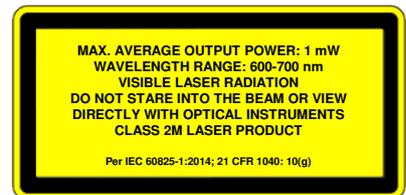
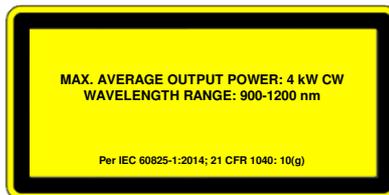
**QBH-compatible connector, water cooled**

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## 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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