



**SPECIFICATION
YTTERBIUM FIBER LASER
Model YLR-2000-U-K**

Spec:	G22-29735
Revision:	01
Issue date:	08/16/2020
Page:	1 of 3

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}	2000			W
4	Emission Wavelength	Output power: 2000 W	λ		1070		nm
5	Emission Linewidth	Output power: 2000 W	$\Delta\lambda$		1.5	4	nm
6	Short-term Power Instability	Output power: 2000 W Frequency range: 10 kHz – 20 MHz			1.0	2.0	rms %
7	Long-term Power Instability	Output power: 2000 W Time interval: 4 hrs (T=Constant)			± 1	± 3	%
8	Switching ON/OFF Time	Output power: 2000 W			30	50	μ s
9	Power Modulation Rate	Output power: 2000 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	Option 1 – 50 μ m core fiber Option 2 – 100 μ m core fiber Option 3 – 200 μ m core fiber	BPP	1.7 3.4 6.8	2.1 4.2 8.4	2.7 5.4 10.8	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		40	$^{\circ}$ C
2	Humidity	10		90	%
3	Storage Temperature	- 20		+ 60	$^{\circ}$ C
4	Dimensions, WxDxH:	2U 19" rack mountable 448 x 760 x 88			mm
5	Weight			40	kg

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		Revision:	01
		Issue date:	08/16/2020
		Page:	2 of 3

4. Cooling

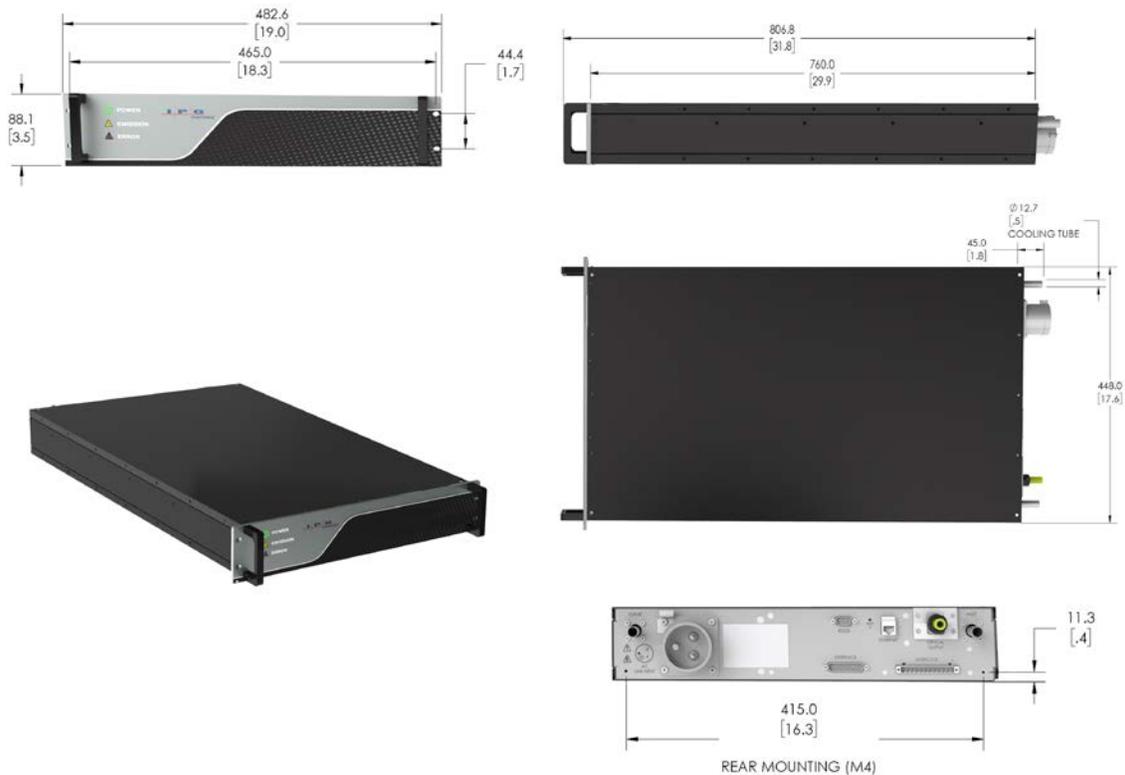
N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Method			Tap or DI-water			
2	Water Temperature *always above dew point			21*	22	25	°C
3	Water Pressure			2.5		5.5	bar
4	Water Flow			12			l/min
5	Chiller Cooling Capacity			3.5			kW

5. Electrical characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Operating Voltage, single-phase	200-240 VAC, 50/60 Hz			
2	Maximum Power Consumption		5300	5600	W
				6100	VA
3	Control	Analog / RS-232 / Ethernet *			

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

6. External layout



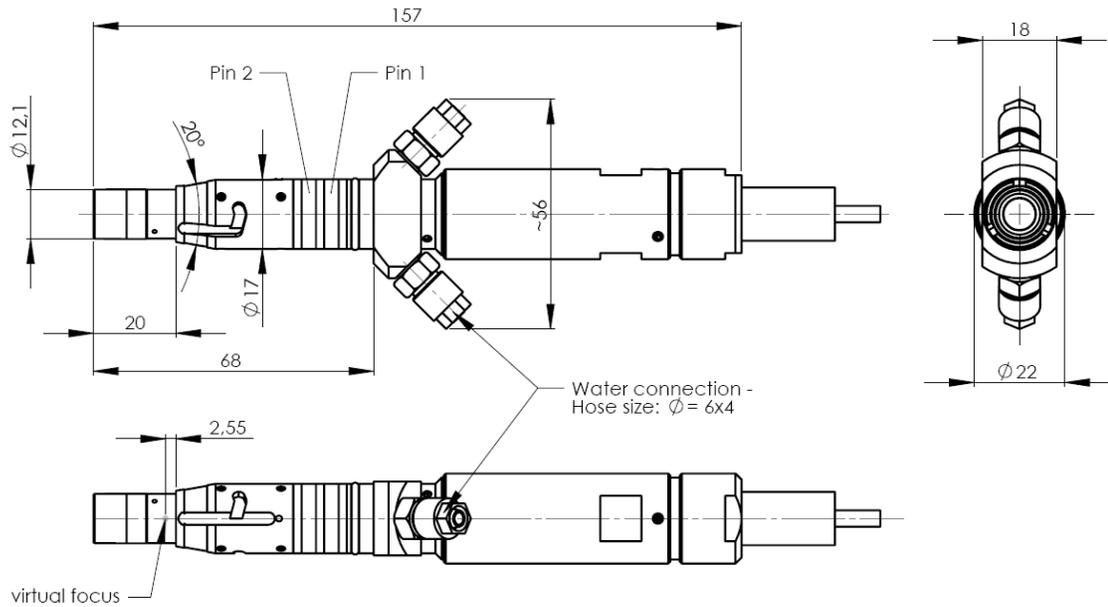
Laser cabinet

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Page:	3 of 3



QBH-compatible connector, water cooled

DANGER
INVISIBLE LASER RADIATION
CLASS 4 LASER PRODUCT
CLASS 4 INVISIBLE LASER RADIATION
WHEN OPEN
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
Per IEC 60825-1:2014; 21 CFR 1040: 10(g)

MAX. AVERAGE OUTPUT POWER: 2500 W CW
WAVELENGTH RANGE: 900-1200 nm
Per IEC 60825-1:2014; 21 CFR 1040: 10(g)

MAX. AVERAGE OUTPUT POWER: 1 mW
WAVELENGTH RANGE: 600-700 nm
VISIBLE LASER RADIATION
DO NOT STARE INTO THE BEAM OR VIEW
DIRECTLY WITH OPTICAL INSTRUMENTS
CLASS 2M LASER PRODUCT
Per IEC 60825-1:2014; 21 CFR 1040: 10(g)

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