	SPECIFICATION YTTERBIUM FIBER LASER Model YLR-300/3000-QCW-MM-AC-Y14	Spec:	G22-29650
		Revision:	03
		Issue date:	14.08.15
		Page:	1 of 4

1. Optical characteristics

N	Characteristics	Test conditions	Symbol	Min.	Typ.	Max.	Unit
1	Operation Mode			Pulsed / CW			
2	Polarization			Random			
3	Maximal Average Power	Pulsed mode CW mode	$P_{average}$ P_{CW}	300 300			W
4	Maximal Peak Power	Pulsed mode	P_{peak}	3000			W
5	Duty Cycle	Pulsed mode	DC			50*	%
6	Pulse Duration	Pulsed mode	τ	0.05**		50***	ms
7	Maximal Pulse Energy	Pulsed mode	E_{max}	30			J
8	Emission Wavelength		λ		1070		nm
9	Emission Linewidth	Pulsed mode, max. output power	$\Delta\lambda$		5	6	nm
10	Long-term Power Instability	Time interval: 4 hrs T= const, max. output power CW & Pulsed modes			± 0.5	± 1	%
11	Red Guide Laser Power			0.1		1.0	mW

* Maximum duty cycle limit is inversely proportional to peak power: 10% for 3000W, 15% for 2000W, ..., 50% for 600W and lower.

** 10 μ s optional.

*** Maximum pulse duration limit is inversely proportional to peak power: 10ms for 3000W, 15ms for 2000W, ..., 50ms for 600W and lower.


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	1.3 3.1 6	1.6 3.8 8	2.0 4.5 10	mm x mrad
2	Delivery Fiber Length		L		5.0	TBD	m
3	Delivery Cable Bending Radius			50			mm
4	Output Fiber Termination			QBH-compatible connector			

3. General characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Cooling method	Forced Air			
2	Operating Ambient Temperature Range	10		35	$^{\circ}$ C
3	Humidity	10		90	%
4	Storage Temperature	- 40		+ 75	$^{\circ}$ C
5	Dimensions, WxDxH:	6U 19" rack mountable 448 x 502 x 266			mm
6	Weight			50	kg

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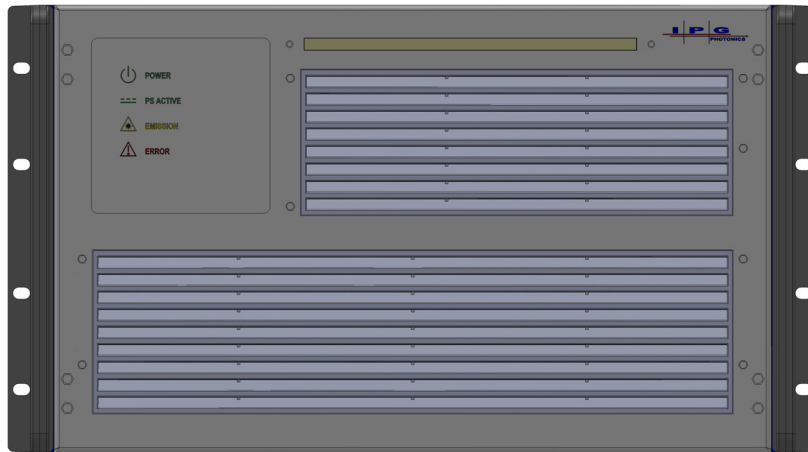
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		Revision:	03
		Issue date:	14.08.15
		Page:	2 of 4

4. Electrical characteristics

N	Characteristics	Min.	Typ.	Max.	Unit
1	Operating Voltage, single-phase	200-240 VAC, 50/60 Hz			
2	Maximum Power Consumption		1100	1300	W
			1200	1400	VA
3	Control	Analog / RS-232 / Ethernet *			

* For details please refer to YLR Interface specification or YLR-Series User's Guide.

5. External layout



Standard configuration without touch-screen display



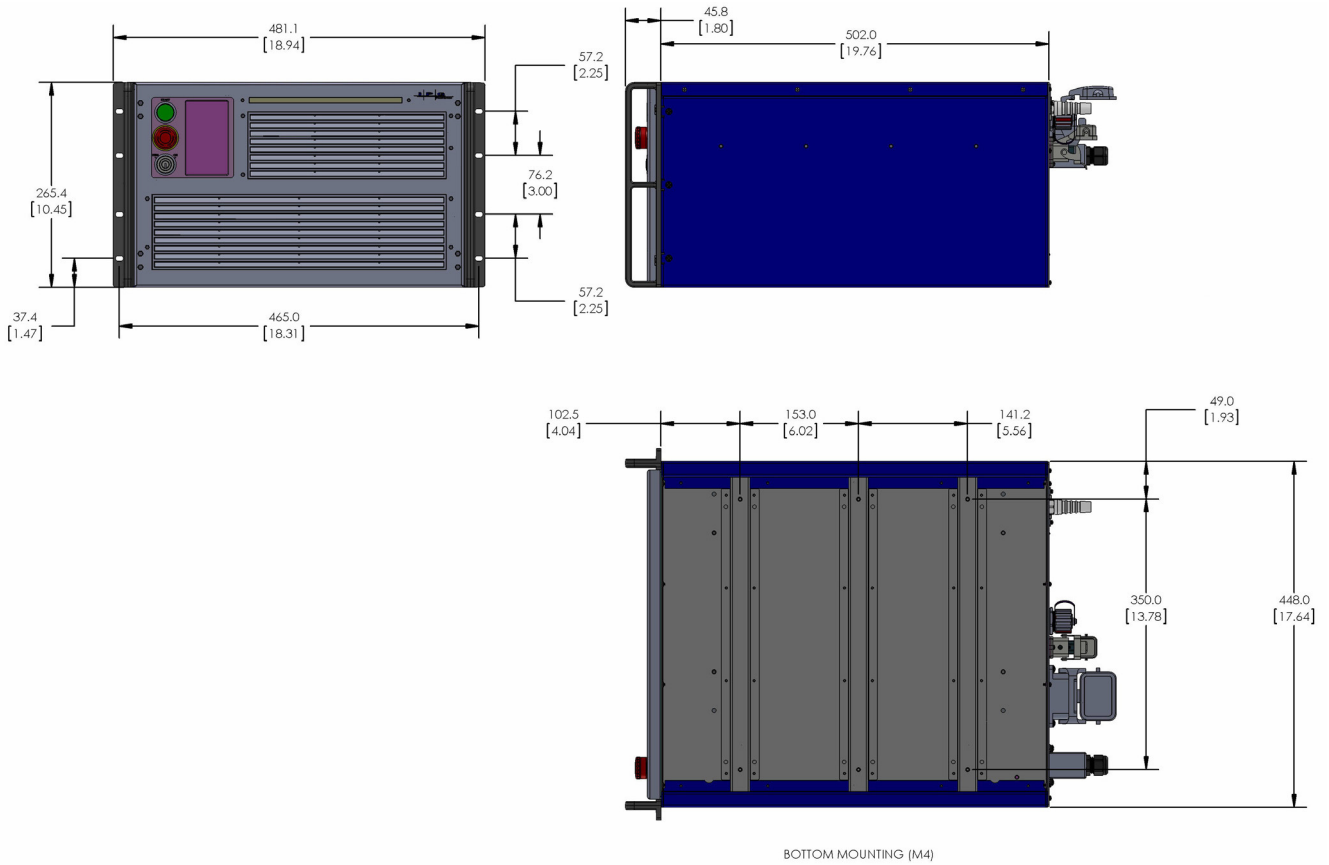
Optional configuration with touch-screen display

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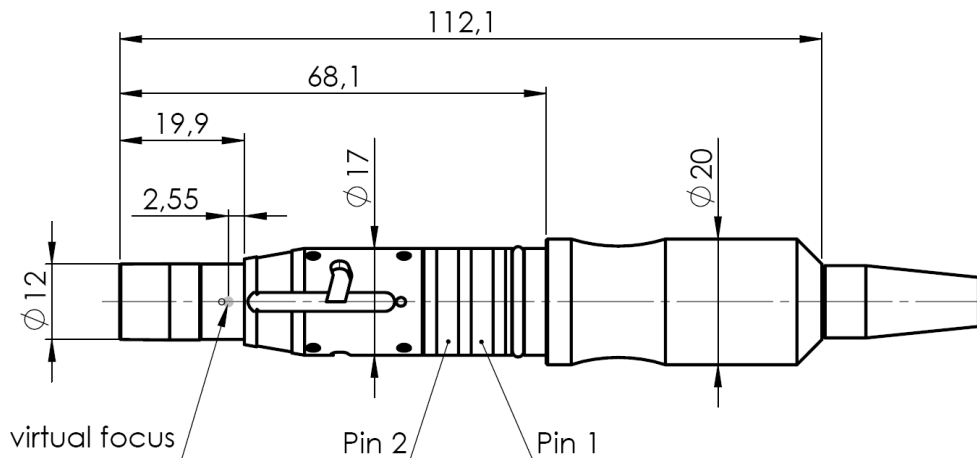


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YTTERBIUM FIBER LASER
Model YLR-300/3000-QCW-MM-AC-Y14

Spec:	G22-29650
Revision:	03
Issue date:	14.08.15
Page:	3 of 4




Laser cabinet



QBH-compatible connector, without water cooling

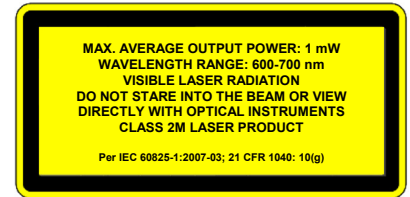
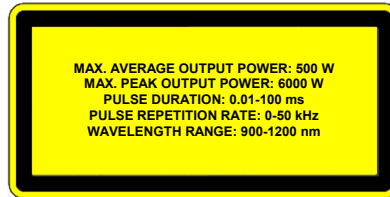
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		Revision:	03
		Issue date:	14.08.15
		Page:	4 of 4

6. 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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