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	MOPA pulsed fiber laser	Date:	2024
	Model : YFPN-1000-GMC-LR0500HW	Page:	1/6

1. Optical characteristics

No.	Characteristics	Parameter value	Unit
1	Central wavelength	1060-1080	nm
2	Spectral width @ 3 dB	<20	nm
3	Maximum pulse energy	2.0	mJ
4	Output power	1000	W
5	Power adjustment range	0-100	%
6	Frequency adjustment range	1-6000	kHz
7	Laser switching ON/ OFF time	<20	μs
8	Pulse width	20-500	ns
9	Output power instability	<5	%
10	Beam quality M ²	<1.8	/
11	Polarization direction	Random	/
12	Anti-high reflection	No	/
13	Indicator red light	0.3-2	mW
14	Output method	QBH	/
15	QBH divergence angle (full width)	<80	mrad
16	Delivery cable length	5	m



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2. Electrical characteristics

No.	Characteristics	Parameter value	Unit
17	Power supply voltage	220	VAC
18	Working current	<16	A
19	Power consumption	<3520	W
20	220V mains current requirement	≥ 16	A

3. Environmental requirements

No.	Characteristics	Parameter value	Unit
21	Operating temperature	0 - 40	°C
22	Storage temperature	-10 - 60	°C
23	Cooling method	Water cooling	/
24	Low temperature water temperature (laser)	28 ± 1	°C
25	High temperature water temperature (QBH)	30 ± 1	°C
26	Water cooler flow rate (laser)	≥ 10	L/min
27	Water cooler flow rate (QBH)	≥ 2	L/min



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28	Chassis water pipe diameter	12	mm
29	QBH water pipe diameter	6	mm
30	Cooling capacity	>3	kW

4. Structural characteristics

No.	Characteristics	Parameter value	Unit
31	Laser dimension	692*485*130	mm ³
32	Output head dimension	QBH standard parts	As shown in the figure below
33	Net weight	<40	kg



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5. The pulse width corresponds to the power reduction frequency point and the maximum single pulse energy

No.	Pulse width (ns)	Power reduction frequency (kHz)	Upper frequency limit (kHz)	Max single pulse energy (mJ)
1	1(CW)	/	/	/
2	20	5000	6000	0.20
3	30	4000	6000	0.25
4	40	3200	4000	0.31
5	50	3050	4000	0.33
6	60	2800	3000	0.36
7	80	2200	3000	0.45
8	90	2000	3000	0.50
9	100	1600	2000	0.63
10	120	1450	2000	0.69
11	150	1250	2000	0.80
12	200	1000	1500	1.00
13	250	850	1000	1.04
14	350	700	900	1.25
15	450	600	700	1.67
16	500	500	600	2.00





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Specifications

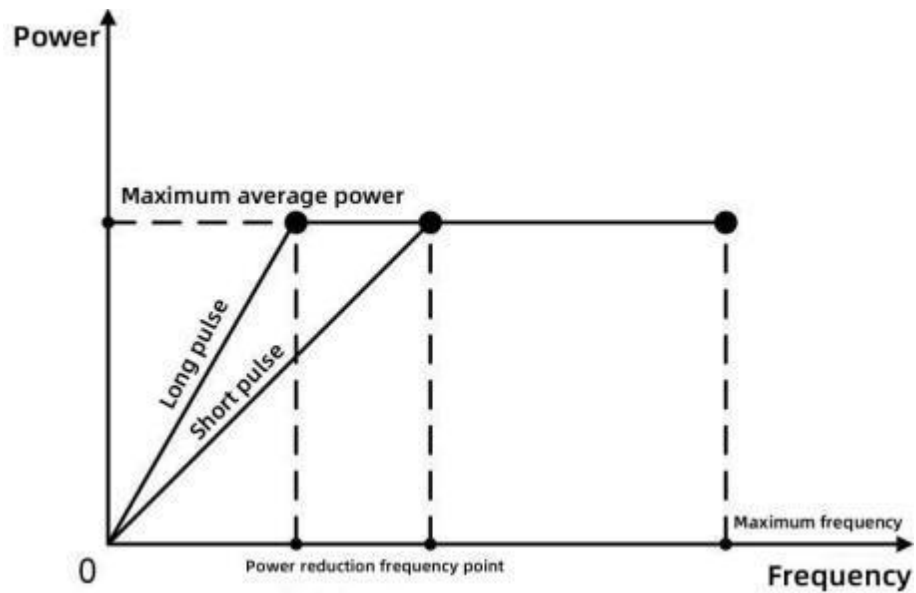
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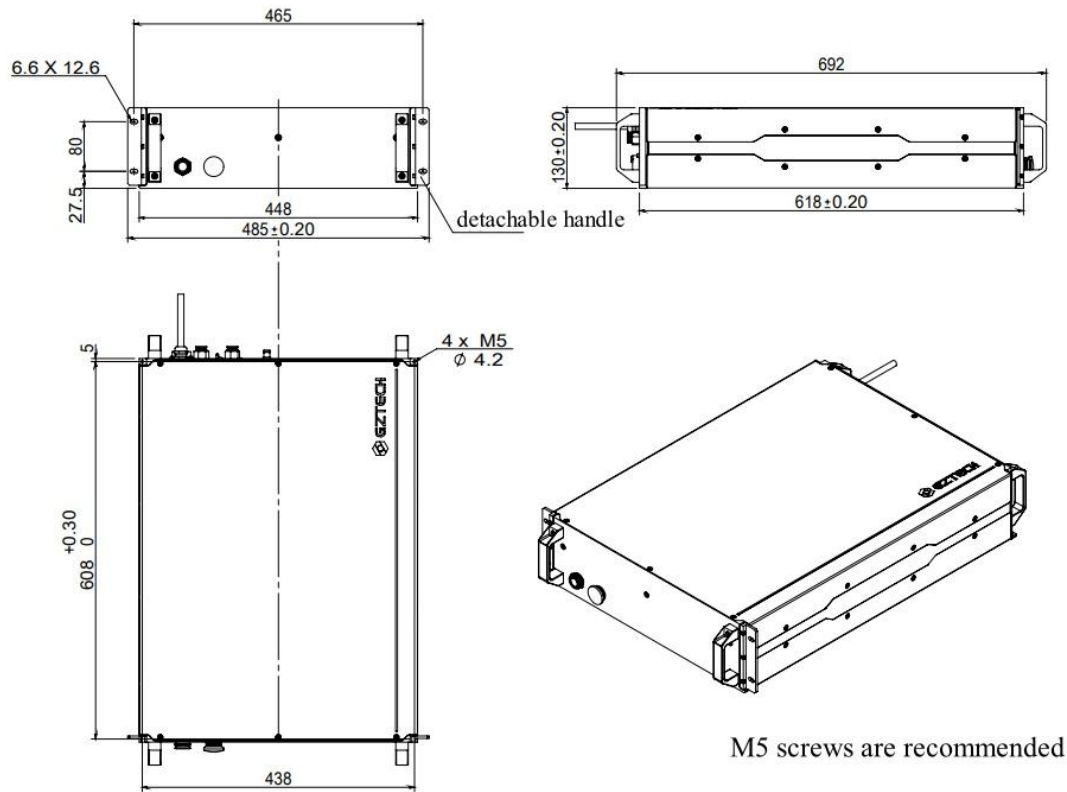


The relationship between laser output power and frequency

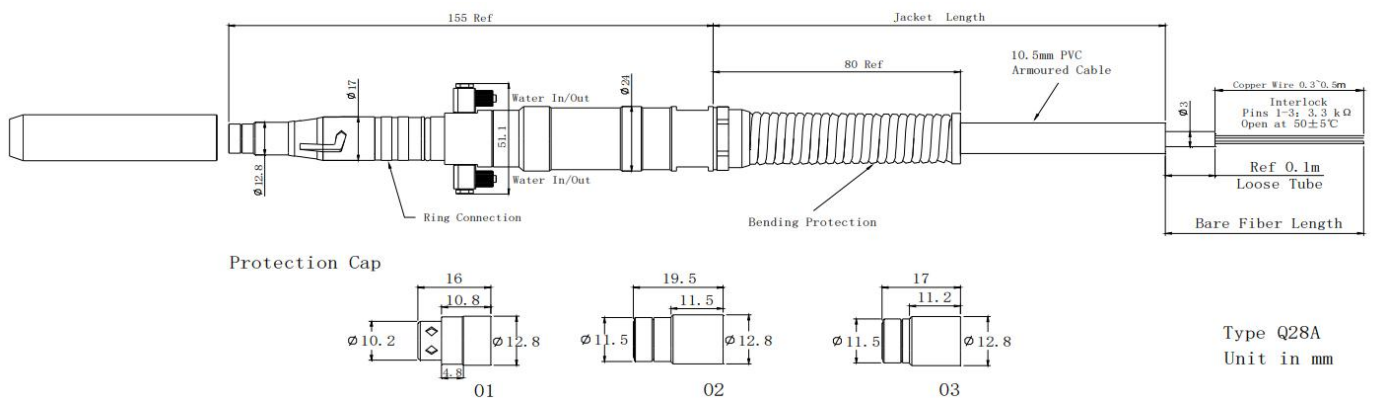


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6. Dimension



Laser dimension



QBH dimension

