

MAX 创鑫激光



MFSC-10000M (G5.3) 单模块连续光纤激光器

使用手册

版权说明

引 语

MFSC

MFSC

公司简介

2004

<http://www.maxphotonics.com>



:
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: 400-900-9588
: +86-755-36869371
: info@maxphotonics.com

	1
第一章 特性说明	4
第二章 安全信息	5
1 -	5
2-	6
3-	6
4-	8
5-	11
第三章 产品描述	12
1-	12
2-	12
3-	12
4-	13
5-	13
6-	13
7-	14
第四章 详细规格	15
1-	15
2-	16
3-	16
4-LOE&QBH	17
5-	18
6-	19






第五章 使用指南	20
1-	20
2-	20
3-	20
4-	22
5-	22
6-	24
7-	27
第六章 光纤连接器检查和清洁指南	32
1-	32
2-	33
3-	34
4-LOE	38
第七章 拆装指南	40
1-	40
2-	44
第八章 服务与维修	45
1-	45
2-	46
第九章 保修声明	48
1-	48
2-	48

第一章 特性说明

MFSC
MFSC
>33%
MFSC
1060nm 1100 nm
Class 4

第二章 安全信息

1 -

MFSC
20KW

1060nm 1100 nm

1

2-

2

LaserVision USA Kentek Corporation Rochwell Laser
Industries

3-

EN IEC 61000-6-4:2019

CISPR 16-2-1

CISPR 16-2-3

EN IEC 61000-6-2:2019

EN 61000-4-2:2009

EN 61000-4-3:2020

EN 61000-4-4:2012

EN 61000-4-5:2014+A1:2017

EN 61000-4-6:2014

EN 61000-4-11:2020

EN 60825-1:2014+A11:2021

CDRH 21 CFR 1040.10

EN 60204-1:2018

	MFSC		CE EMC	
EMC Directive		EMC	EMC	EN 61000-6-4
EN 61000-6-2				
	MFSC		Class 4	21 CFR
J 1040.10 d				
		Class 4	EN 60825-1	9

4-

2

MFSC

3

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12

4

1

360-440VAC, 3P+PE

2

3

4

360-440VAC, 3P+PE

5

创鑫推荐您按照如下的措施操作，以期延长激光器的使用寿命：

1

1.0m

2

1.5m

1m

3

4

5

6

7

5-

Laser Institute of America(LIA)

13501 Ingenuity Drive, Suite 128

Orlando,Florida 32826

Phone:407 380 1553,Fax: 407 380 5588

Toll Free:1 800 34 LASER

American National Standards Institute

ANSI Z136.1, American National Standard for the Safe Use of Lasers

(Available through LIA)

International Electro-technical Commission

IEC 60825-1, Edition 1.2

Center for Devices and Radiological Health

21 CFR 1040.10 - Performance Standards for Light-Emitting Products

US Department of Labor - OSHA

Publication 8-1.7 - Guidelines for Laser Safety and Hazard Assessment.

Laser Safety Equipment

Laurin Publishing

Laser safety equipment and Buyer's Guides

第三章 产品描述

1-

MFSC

1

2

3

4

5

1

2

2-

4-

5-



	START	

6-



	ETHERNET	
	ECAT OUT	
	ECAT IN	
	CTRL	
	BLUETOOTH	
	AC 380V	AC
	WATER OUT	(1.25
	WATER IN	(1.25

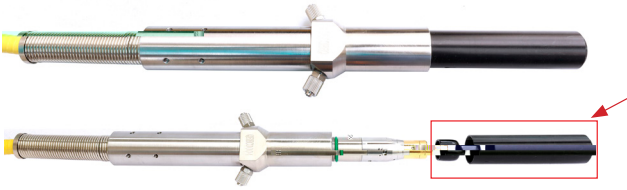
7-

1

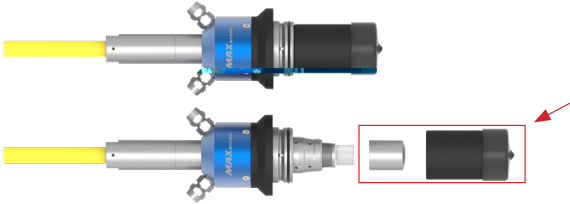
LOE

QBH

QBH



LOE2.0



LOE3.1



第四章 详细规格

1-

	/				
MFSC-10000M(G5.3)	100%		10000		W
		10		100	%
	100%	1070	1080	1090	nm
3dB	100%		5	7	nm
	100% >1h		<i>f</i> 1	<i>f</i> 2	%
	100% >24h		<i>f</i> 2	<i>f</i> 3	%
BPP	50um	1.4		1.9	mm x mrad
			150	200	μs
			150	200	μs
	100%			5	KHz
	100%	200			uW
			25		m
	50				μm
		200			mm
	LOE				

2-

		360	400	440	VAC
	MFSC-10000M(G5.3) 100%			36	KW
		10	25	40	
		10		80	%
	0		/ 0		
		-10	25	60	
	* * =535*950*580			/ mm	
	MFSC-10000M(G5.3)	230(± 10)			kg

3-

1			
2		24	20
3		4	bar
4	MFSC-10000M(G5.3)	100	L/min
5	MFSC-10000M(G5.3)	28	KW

40

22

;

p 0.5bar

;

0

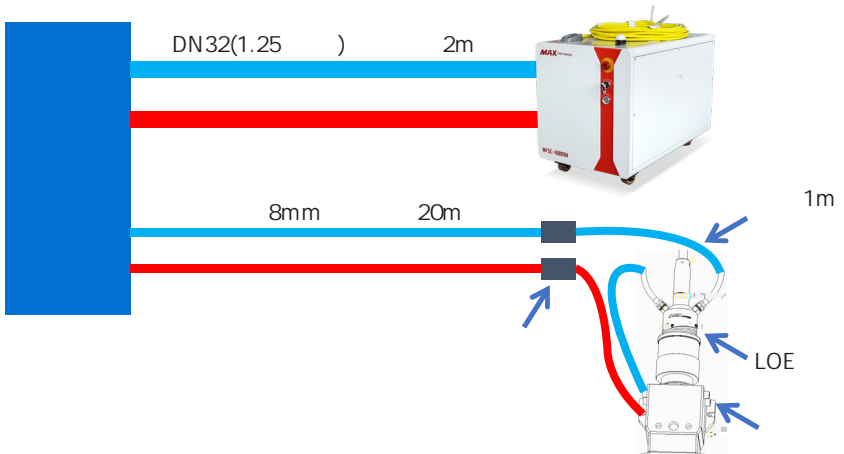
20%

()

4-LOE&QBH

			L/min	bar	
LOE		8	4	4	28-30

	8mm	20m;			
QBH/LOE	QBH 6	LOE 8		1m;	
QBH				p 1.5bar	
LOE				p 3bar	



5-

1

1000

2

10 40

3

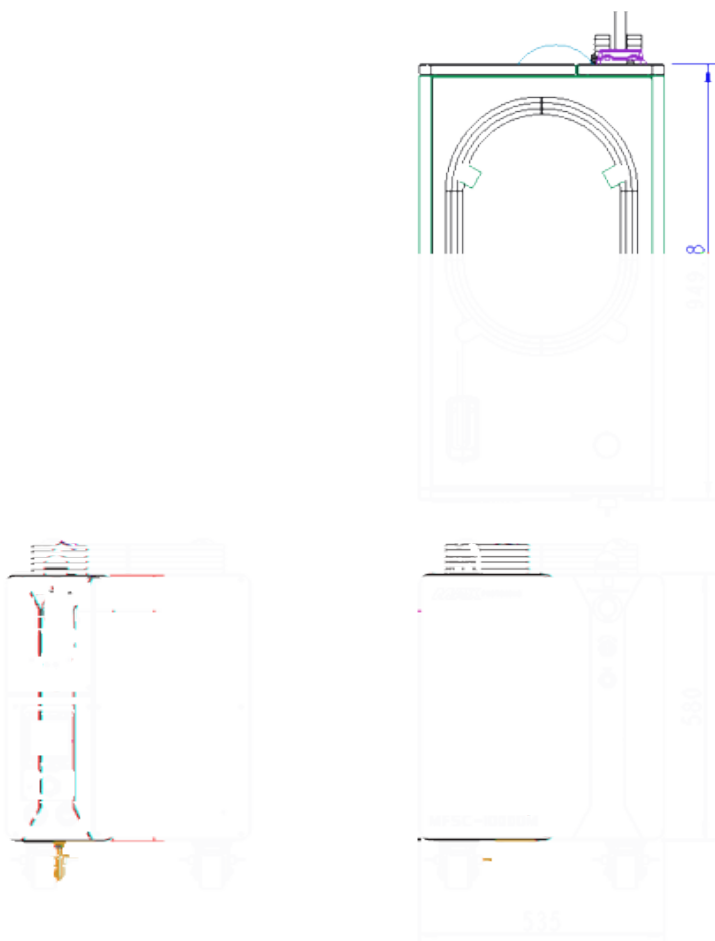
10% - 85%

4

- - 对照表														
%	30	35	40	45	50	55	60	65	70	75	80	85	90	95
)	Td()													
10	-7.0	-5.0	-3.0	-1.3	0.0	1.5	2.5	3.6	4.8	5.8	6.7	7.6	8.4	9.2
11	-6.5	-4.0	-2.0	-0.5	1.0	2.5	3.5	4.8	5.8	6.7	7.7	8.6	9.4	10.2
12	-5.0	-3.0	-1.0	0.5	2.0	3.3	4.4	5.5	6.7	7.7	8.7	9.5	10.9	11.2
13	-4.5	-2.0	-0.2	1.4	2.8	4.1	5.3	6.6	7.7	8.7	9.6	10.5	11.4	12.2
14	-3.2	-1.0	0.7	2.2	3.5	5.1	6.4	7.5	8.6	9.6	10.6	11.5	12.4	13.2
15	-2.3	-0.3	1.5	3.1	4.6	6.0	7.3	8.4	9.6	10.6	11.6	12.5	13.4	14.2
16	-1.3	0.5	2.4	4.0	5.6	7.0	8.3	9.5	10.6	11.6	12.6	13.4	14.3	15.2
17	-0.5	1.5	3.2	5.0	6.5	8.0	9.2	10.2	11.5	12.5	13.5	14.5	15.3	16.2
18	0.2	2.3	4.0	5.8	7.4	9.0	10.2	11.3	12.5	13.5	14.5	15.4	16.4	17.2
19	1.0	3.2	5.0	7.2	8.4	9.8	11.0	12.2	13.4	14.5	15.4	16.5	17.3	18.2
20	2.0	4.0	6.0	7.8	9.4	10.7	12.0	13.2	14.4	15.4	16.5	17.4	18.3	19.2
21	2.8	5.0	7.0	8.6	10.2	11.0	12.9	14.2	15.3	16.4	17.4	18.4	19.3	20.2
22	3.5	5.8	7.8	9.5	11.0	12.5	13.8	15.2	16.3	17.3	18.4	19.4	20.3	21.2
23	4.4	6.8	8.7	10.4	12.0	13.5	14.8	16.2	17.3	18.4	19.4	20.4	21.3	22.2
24	5.3	7.7	9.7	11.4	13.0	14.5	15.8	17.0	18.2	19.3	20.4	21.4	22.3	23.1
25	6.2	8.6	10.5	12.3	14.0	15.4	16.8	18.0	19.1	20.3	21.3	22.3	23.2	23.9
26	7.0	9.4	11.4	13.2	14.8	16.3	17.7	19.0	20.1	21.2	22.3	23.3	24.2	25.1
27	8.0	10.3	12.2	14.0	15.8	17.3	18.7	19.9	21.1	22.2	23.2	24.3	25.2	26.1
28	8.8	11.2	13.2	15.0	16.7	18.0	19.6	20.9	22.0	23.0	24.2	25.2	26.2	27.1
29	9.7	12.0	14.0	15.9	17.6	19.2	20.5	21.3	23.0	24.1	25.2	26.2	27.2	28.1
30	10.5	12.9	14.9	16.8	18.5	20.0	21.4	22.8	23.9	25.1	26.2	27.2	28.2	29.1
31	11.4	13.8	15.9	17.8	19.4	20.9	22.4	23.0	24.8	26.0	26.9	28.2	29.2	30.1
32	12.2	14.7	16.8	18.6	20.3	21.9	23.3	24.6	25.8	27.0	28.1	29.2	30.1	31.1
33	13.0	15.6	17.6	19.6	21.3	22.9	24.2	25.6	26.8	28.0	29.0	30.1	32.1	32.1
34	13.9	16.5	18.6	20.5	22.2	23.8	25.2	26.6	27.7	29.0	29.5	31.1	32.1	33.1
35	14.9	17.4	19.5	21.4	23.0	24.6	26.2	27.5	28.7	29.9	31.0	32.1	33.1	34.1
36	15.7	18.1	20.3	22.2	24.0	25.0	27.0	28.4	29.0	30.9	32.0	33.1	34.1	35.2
37	16.6	19.2	21.2	23.2	24.9	26.5	27.9	29.5	30.7	31.8	33.0	34.1	35.2	36.2
38	17.5	19.9	22.0	23.9	25.8	27.4	28.9	30.3	31.5	32.6	33.9	35.1	36.0	37.0
39	18.1	20.8	23.0	24.9	26.6	28.3	29.8	31.2	32.5	33.8	34.9	36.2	36.8	38.1
40	19.2	21.6	23.8	25.8	27.6	29.2	30.7	32.1	33.5	34.7	35.8	36.8	38.1	39.1

6-

mm



第五章 使用指南

1-

2-

360-440VAC

ΔW	ΔVAC	ΔA	ΔA	ΔkW
MFSC-10000M	400V f 10%,3P+PE	54	100	46

3-

CTRL

HDB44



MFSC-10000M(G5.3) CTRL

HDB44				
33		EXLOCK_CH1B/	1B	1B/1A
34		EXLOCK_CH1A/	1A	()
8		CONTROL-/	-	± ()
23		CONTROL+ /	+	± ()
39		ERROR/ ALARM_B/	B	-
40		ERROR/ ALARM_A/	A	V 30VDC, I 100mA
29		AN1_PWR_PEAK_10V-/O-10V	-	1V-10%
14		AN1_PWR_PEAK_10V+/O-10V	+	10V-100%I 1mA
2		PWM1-/	1-	20VDC V 30VDC 0VDC V 5VDC I 5mA
17		PWM1+ /	1+	
4		ENABLE1-/	1-	20VDC V 30VDC 0VDC V 5VDC I 5mA
19		ENABLE1+ /	1+	
37		EMERGENCY1_INPUT-/	1 -	± ()
38		EMERGENCY1_INPUT+ /	1 +	± ()

4-

1

2

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5

(MAIN SWITCH) ON

6

"ON"

7

START

8

3

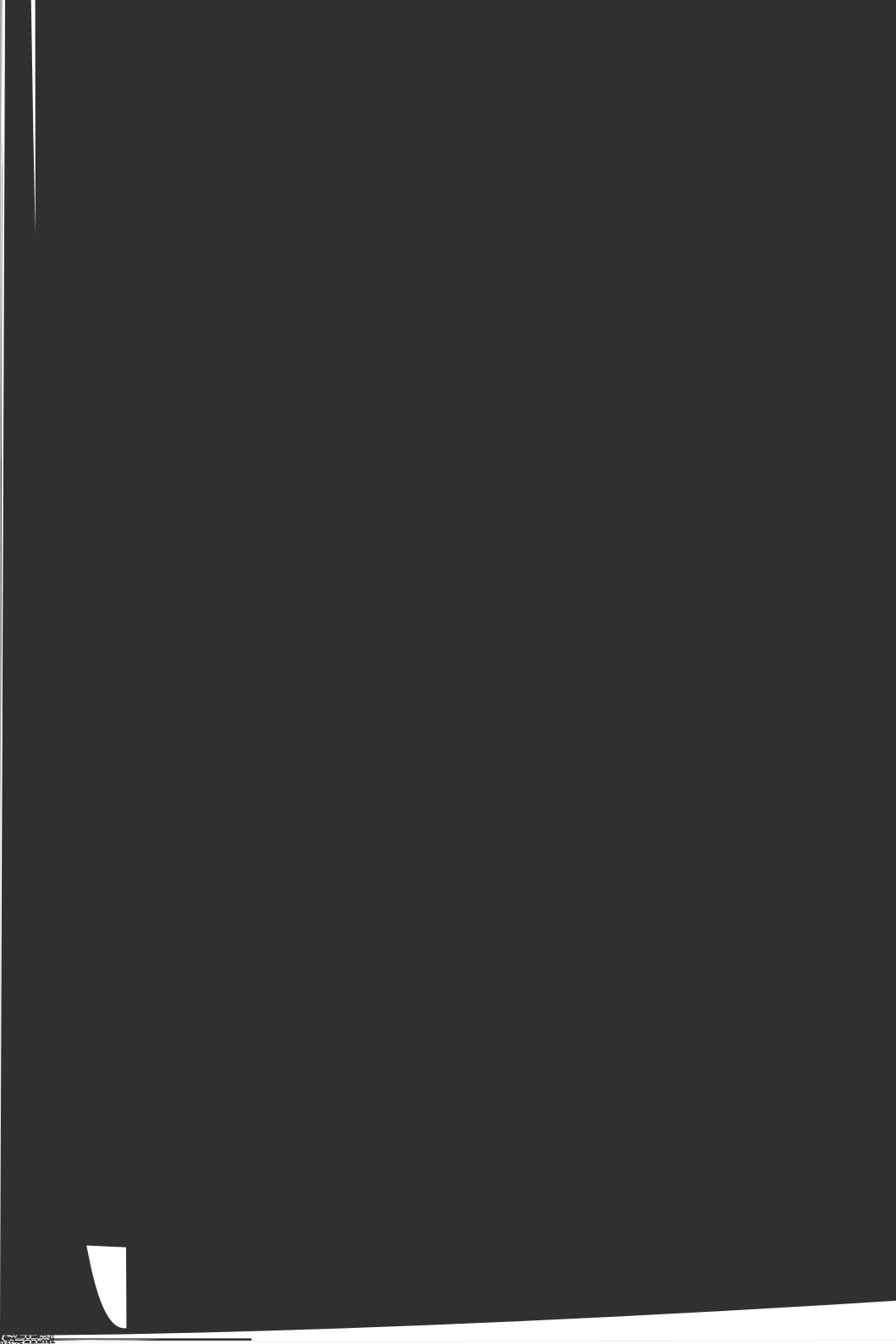
3

5-

1

2

3



6- 软件安装及使用说明

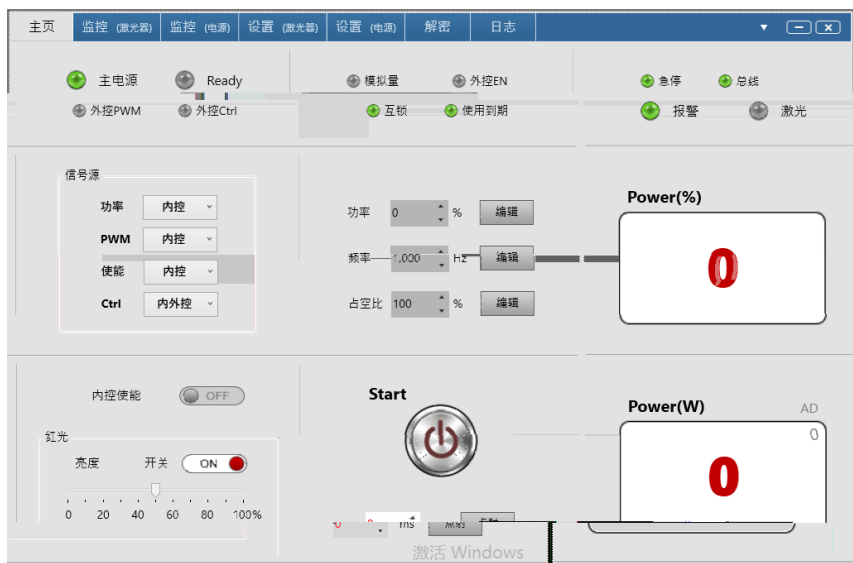
1	-	-	NET4.6	G6-Series-n.
n.n.n				n5

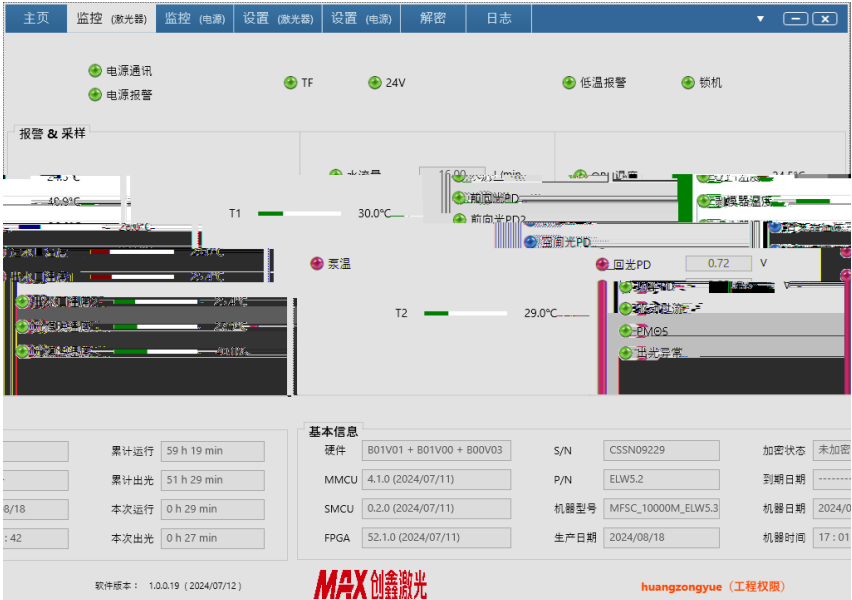


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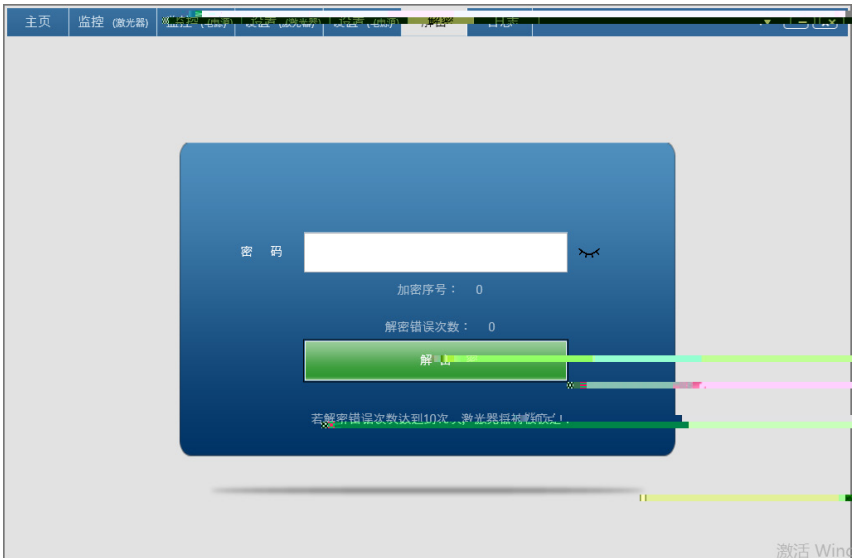
PC , IP,

ECAT





7



7-

		/ /
1	PD	PD 1. 2.
2	PD2	, PD 1. , 2.
3		,
4	PD	, PD 1.

5		<p>1. ,</p> <p>2. ,</p> <p>3. ,</p> <p>4. ,</p> <p>5. , 3-5 , ,</p>
6		<p>1. ,</p> <p>2. MOS ,</p>
7	PMOS	<p>1. ,</p> <p>2. PMOS MOS</p>
8		<p>1. ,</p> <p>2. ,</p>

9	T1	,
10	T2	,
11	QBH	QBH QBH
12	QBH	QBH
13		,

14		,
15		,
16		,
17	1	,
18	2	,

19		, 1. 2.
20		, 2. 2.
21		,

第六章 光纤连接器检查和清洁指南

1-

1

2



3

>99.5%

4

5

20



显微镜

酒精

清洁布

棉签

橡胶指套

2-

1

LOE

1000



2

1

OFF

2

20

2.2.5

3

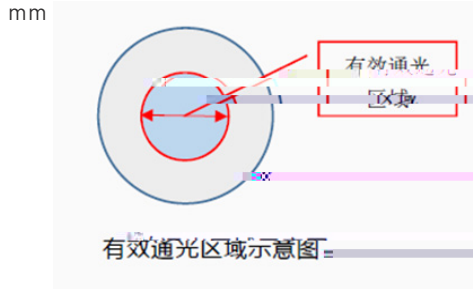
4

3

5

:

	(3mm)	(3mm)
4000W-20KW		0.1 0.005
2000W-4000W	0.05 0.002	0.1 0.005
2000W ()	0.1 0.005	0.1 0.01



3-

1

“OFF”

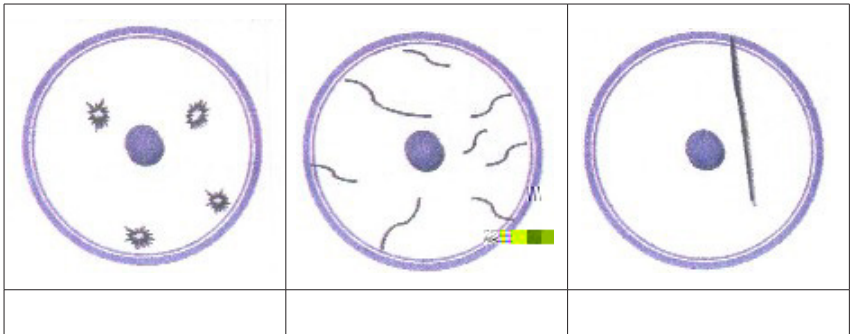
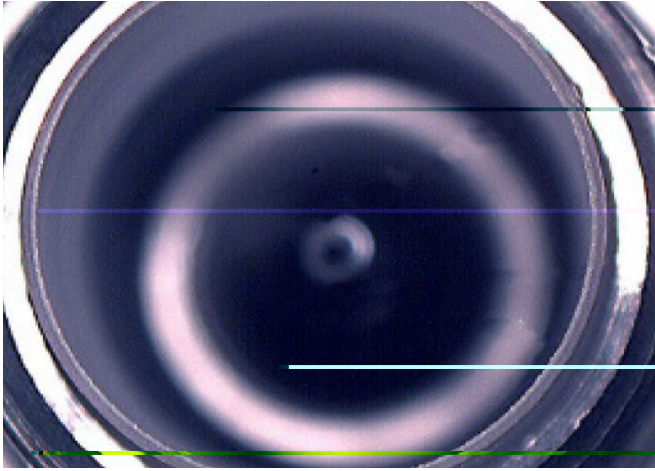
2

1

20

180,

2



2

3

1



2

20

3.2.1



3

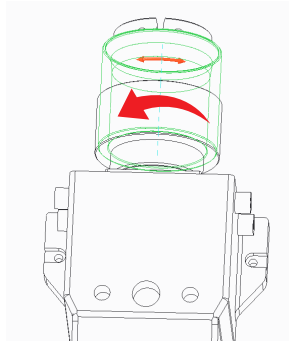
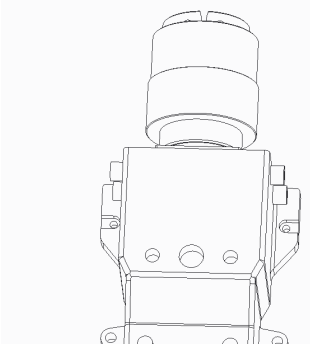


4-LOE

1

1 LOE

LOE

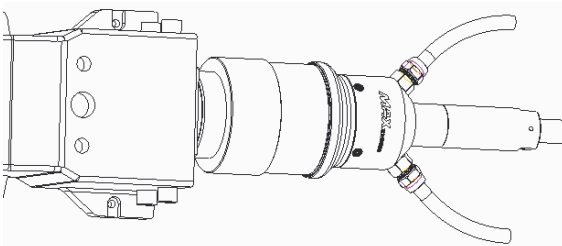
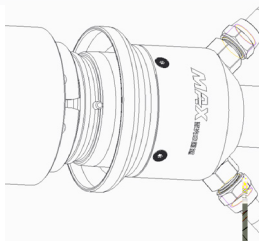
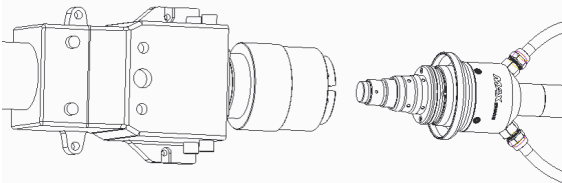


2

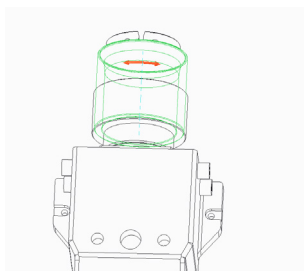
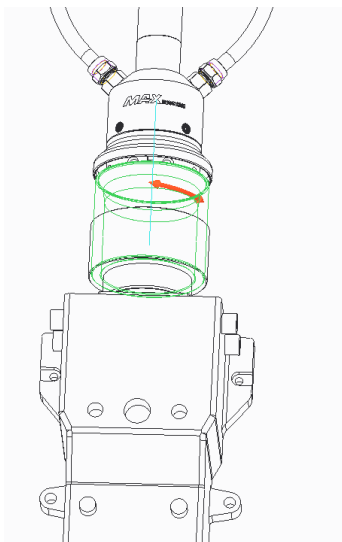
LOE

LOE

LOE



3



2

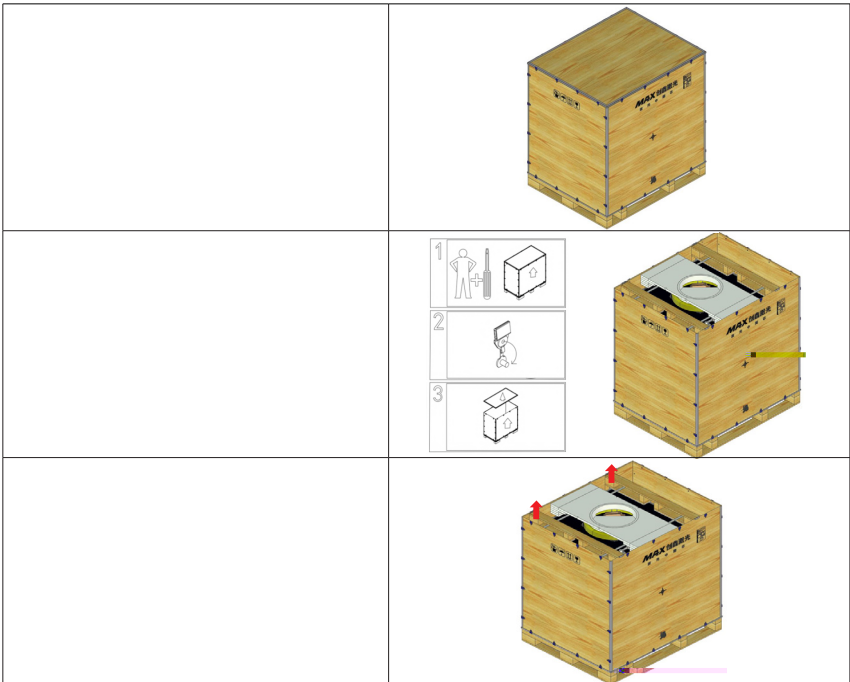
LOE

LOE

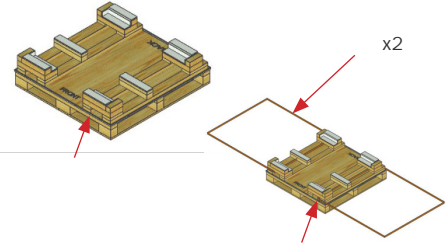
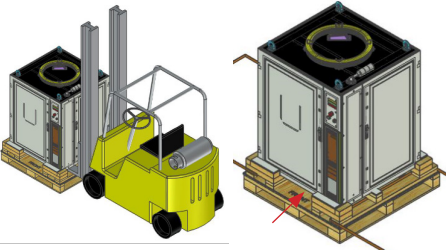
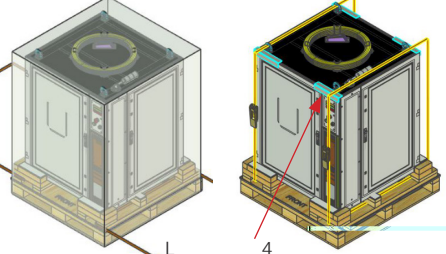
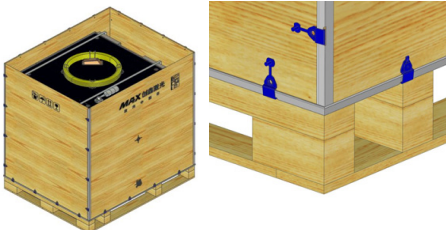
第七章 拆装指南

1-

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<p>-> -> -></p>	
<p>1. 2. 3.</p> <p>PE 180,</p>	
	

	 <p>x2</p>
	
<p>PE</p> <p>4</p> <p>1. 2. 3. 4.</p>	 <p>L</p> <p>4</p>
<p>-></p> <p>-></p> <p>-></p>	



30

)

(

2-

1		MFSC-XXX		1
2				1
3				1
4				3
5				2
8				2
9				1
10				1
11	2*2			6
12	QBH			1
13				1
14				1
15				1

第八章 服务与维修

1-

18682447838

2-

1

1 7X24

400-900-9588

1 -> 2

-> 3

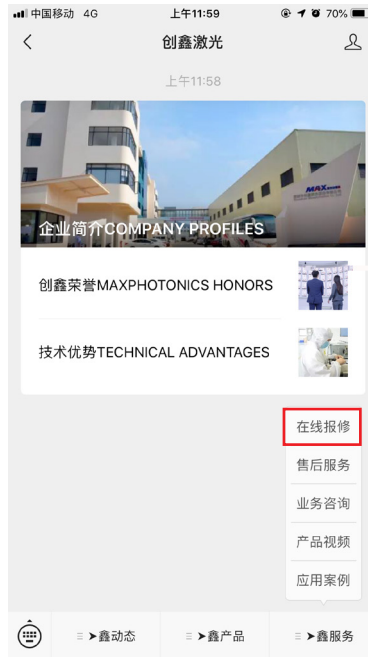
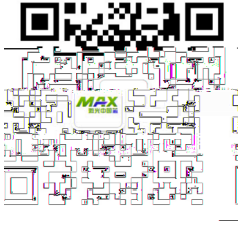
-> 4

-> 5

18682446878

18682447838

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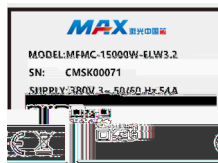
3

www.maxphotonics.com

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2

1	PN
2	SN
3	
4	



第九章 保修声明

1-

2-

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2
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4
5
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