	SPECIFICATION YTTERBIUM PULSED FIBER LASERS YLP-C series	Spec: Revision: Page:	E27028 08 1 of 4
--	---	-----------------------------	------------------------

This document specifies the following devices:

Average output power, W	Pulse energy	
	0.5mJ	1mJ
10W	YLP-C-0.5-100-20-10	–
20W	–	YLP-C-1-100-20-20

Part number legend: YLP– C– Pulse energy [mJ]– Pulse Duration [ns]– RR [kHz]– Average Power [W]

1. Optical characteristics


N	Characteristic	Test condition	Symbol	Min	Typ	Max	Unit
1	Mode of operation			Pulsed			
2	Polarization			Random			
3	Maximum pulse energy • YLP-C-0.5-100-20-10 • YLP-C-1-100-20-20		E _{max}		0.5 1		mJ
4	Nominal average output power • YLP-C-0.5-100-20-10 • YLP-C-1-100-20-20		P _{nom}	9.5 19	10 20	11 21	W
5	Output power adjustment range			10		100	%
6	Nominal pulse repetition rate		RR _{nom}		20		kHz
7	Pulse duration	FWHM P _{out} = P _{nom} RR= RR _{nom}	Δτ	80	100	120	ns
8	Central emission wavelength		λ	1055	1064	1075	nm
9	Emission Bandwidth	FWHM	Δλ		5	10	nm
10	Long-term average power instability	P _{out} = P _{nom}				5	%
11	Pulse repetition rate	Extended PRR mode		2		80	kHz
12	Laser switching ON/OFF time	BS1 mode			2	3	μs
13	Guide laser power (optional)	λ= 660nm		0.3	0.5	1	mW

2. General Characteristics

N	Characteristic	Min	Typ	Max	Unit
14	Environment temperature range	0		+40	°C
15	Cooling method	4 built-in fans			
16	Warm-up time to start of operation			10	sec
17	Humidity (non-condensed environment)	10		95	%
18	Laser module dimensions	233x59x292			

Issued by:	Issue Date:
S. Maryashin	30.04.2012

CONFIDENTIAL: This document and any data disclosed therein is the property of IPG Photonics Corporation and its affiliates, and constitute and contain proprietary information. Neither receipt nor possession of this document confers or transfers any right to duplicate, use, or disclose any information contained herein except as expressly authorized in writing by IPG Photonics Corporation.

	<p align="center">SPECIFICATION YTTERBIUM PULSED FIBER LASERS YLP-C series</p>	Spec: Revision: Page:	E27028 08 2 of 4
---	---	-----------------------------	------------------------

3. Electrical Characteristics

N	Characteristic	Test condition	Min	Typ	Max	Unit
19	Supply voltage		23	24	25	VDC
20	Current consumption • YLP-C-0.5-100-20-10 • YLP-C-1-100-20-20				4 5	A

4. Optical Output

N	Characteristic	Test condition	Min	Typ	Max	Unit
21	Protection cable type		metal shielded / PVC coated			
22	Delivery cable diameter		6		7	mm
23	Beam quality M ²				2.0	
24	Output fiber cable length • YLP-C-0.5-100-20-10 • YLP-C-1-100-20-20			5 3		m
25	Output beam diameter	@ 86% power	6		9	mm
26	Output beam ellipticity			10	20	%
27	Output beam offset				1	mm
28	Output beam misalignment				2	mrاد
29	Output beam divergence adjustment		minimum of divergence			

5. Control Interfaces

- Control interface “type D”, digital signal lines (DB-25 plug connector)
- RS-232C interface, control and monitoring (DB-9 plug connector)


6. Delivery configuration and options

Standard laser configuration includes:

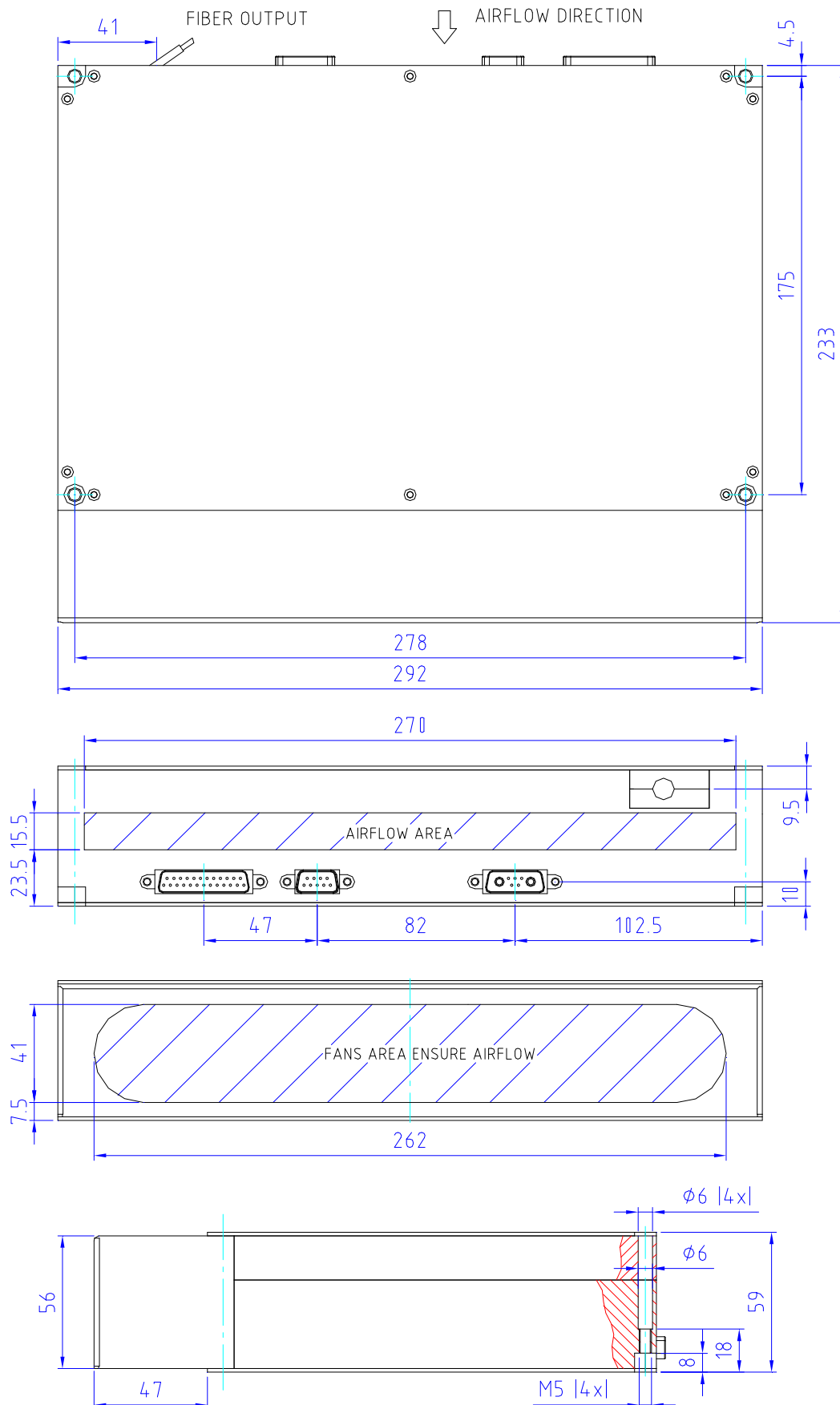
- Bitstream 1 (BS1) mode including high contrast (HC)
- Extended pulse repetition rate (PRR) mode
- RS-232C control and monitoring interface
- Output isolated head


Options:

- Guide laser (red aiming diode)
- Output beam diameter alteration
- Delivery fiber length alteration
- Power supply 100/240 AC autoranging
- USB Remote control, laboratory grade (including PC software)

	<p align="center">SPECIFICATION YTTERBIUM PULSED FIBER LASERS YLP-C series</p>	<p>Spec: 08 Revision: 08 Page: 3 of 4</p>	<p>E27028</p>
--	---	---	---------------

7. Laser module dimensions



	<p align="center">SPECIFICATION YTTERBIUM PULSED FIBER LASERS YLP-C series</p>	<p>Spec: Revision: Page:</p>	<p>E27028 08 4 of 4</p>
--	---	--	-----------------------------------

8. Isolated output head dimensions

