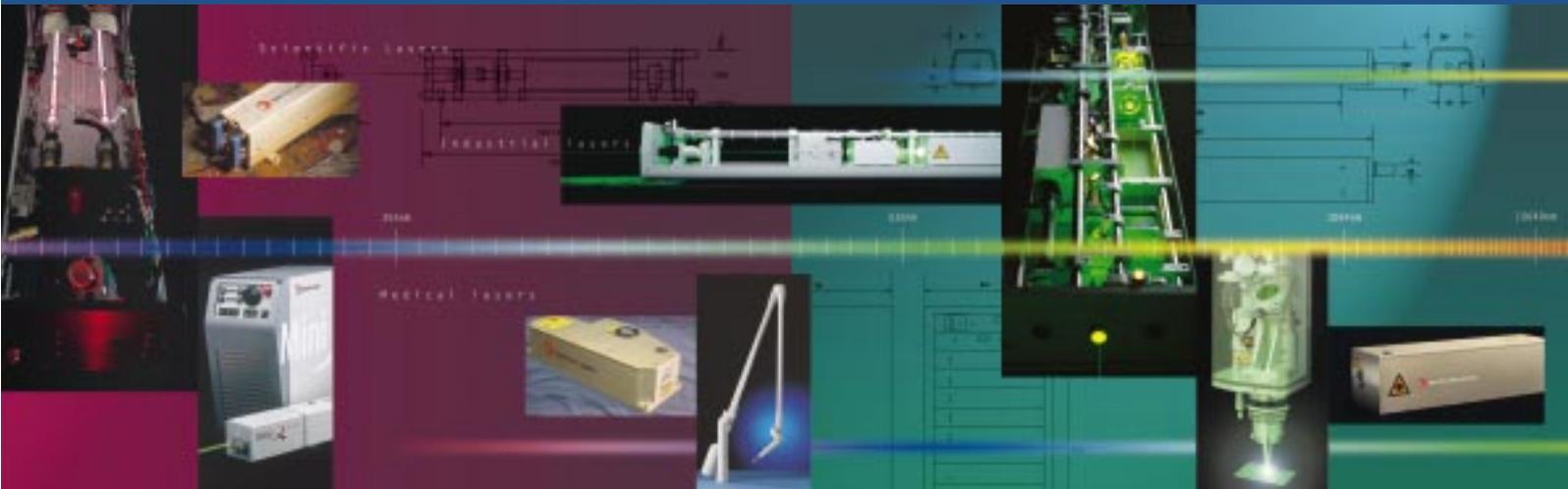


# PRODUCT SPECIFICATIONS

DPSS Nd:YAG

LASERS



## SPECIFICATION

GENERAL						
<b>Nd:YAG CW Laser oscillator</b>						
Wavelength (nm)	1064	1064	1064	1064	1064	1064
Head	•	•	•	•	•	•
- Sealed standard						
- Sealed extended						
- Invar						
Stacked diode array pumped	•	•	•	•	•	•
Diffuse ceramic reflectors	•	•	•	•	•	•
CW SPECIFICATION						
	SLD2102S	SLD2112S	SLD2112TS	SLD2112TSP	SLD2103S	SLD2104S
<b>Mode</b>	<b>MM</b>	<b>MM</b>	<b>TEM<sub>00</sub></b>	<b>TEM<sub>00</sub></b>	<b>MM</b>	<b>MM</b>
Maximum CW output (W)	20	15	5	6	30	40
Beam quality M <sup>2</sup> at rated input (</=)	6	3.5	1.3	1.3	14	7
Beam product [l/e <sup>2</sup> ] (mm.mrad)	8	4.5	1.7	1.7	18.5	9
Beam divergence full angle [l/e <sup>2</sup> ] (mrad)	4	3.5	2.5	2.5	6	4
RMS stability at rated input (%)	1.5	1.5	1.5	1.5	1.5	1.5
Linear polarisation	No	No	No	Optional	No	No
Q-SWITCHED SPECIFICATION						
	SLD2102QS	SLD2112QS	SLD2112TQS	SLD2112TQSP	SLD2103QS	SLD2104QS
<b>Mode</b>	<b>MM</b>	<b>MM</b>	<b>TEM<sub>00</sub></b>	<b>TEM<sub>00</sub></b>	<b>MM</b>	<b>MM</b>
Nominal CW output for Q-switching (W)	20	15	5	6	30	40
Beam quality M <sup>2</sup> at rated input	6	3.5	1.3	1.3	14	7
Beam product [l/e <sup>2</sup> ] (mm.mrad)	8	4.5	1.7	1.7	18.5	9
Beam divergence full angle [l/e <sup>2</sup> ] (mrad)	4	3.5	2.5	2.5	6	4
Pulse to pulse stability at 5kHz pk-pk% (RMS%)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)
Q-switched frequency range (kHz)	1-50	1-50	1-60	1-60	1-50	1-50
TYPICAL Q-SWITCHED PERFORMANCE						
<b>Mode</b>	<b>MM</b>	<b>MM</b>	<b>TEM<sub>00</sub></b>	<b>TEM<sub>00</sub></b>	<b>MM</b>	<b>MM</b>
Measured at frequency	<b>1kHz</b>	<b>1kHz</b>	<b>1kHz</b>	<b>1kHz</b>	<b>1kHz</b>	<b>1kHz</b>
Pulse peak power (kW)	70	78	26	26	88.5	202
Pulse energy (mJ)	4.3	3	1	1	6.2	7.7
Pulse width FWHM (ns)	60	40	40	40	70	38
Average power (W)	4.3	3	1	1	6.2	7.7
SERVICES						
Max. ambient temperature (°C)	35	35	35	35	35	35
Electrical consumption at CW spec. power (kW)	2.5	2.5	2.5	2.5	2.5	2.5
ELECTRICAL REQUIREMENT						
System controller unit	CW200	CW200	CW200	CW200	CW200	CW200
Power supply unit	CW100D	CW100D	CW100D	CW100D	CW100D	CW100D
(50/60Hz) 220/240V 1Ø, N & E	10	10	10	10	10	10
COOLING WATER REQUIREMENTS						
Chiller unit (Standard)	CL26HGB	CL26HGB	CL26HGB	CL26HGB	CL26HGB	CL26HGB
Cooler unit (Optional)	CCL100	CCL100	CCL100	CCL100	CCL100	CCL100
DIODE LIFE						
Guaranteed (hrs)	§	§	§	§	§	§
Nominal [cont. running at rated input] (hrs)	10,000	10,000	10,000	10,000	10,000	10,000

For certain models both Multimode or TEM<sub>00</sub> outputs are available from the same laser as an option.

§ Contact Spectron.

Diode Pumped Laser Range

1064	1064	1064	532	1064	1064	1064	1064	1064
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•

SLD2114S	SLD2114TS	SLD2114TSP	SLD2114TGS	SLD2106S	SLD21100S	SLD21110S	SLD21110TS	SLD21110TP
MM	TEM <sub>00</sub>	TEM <sub>00</sub>	TEM <sub>00</sub>	MM	MM	MM	MM	TEM <sub>00</sub>
30	10	12	3	60	100	65	15	18
4	1.3	1.3	1.3	12	16	8	2.5	1.3
5	1.7	1.7	1.7	15	21	10	3.25	2
3.5	2.5	2.5	2.5	5.5	7.5	4.5	2.5	2
1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
No	No	Optional	Yes	No	No	No	No	Optional

SLD2114OS	SLD2114TOS	SLD2114TOSP	SLD2114TOGS	SLD2106OS	SLD21100OS	SLD21110OS	SLD21110TOS	SLD21110TOP
MM	TEM <sub>00</sub>	TEM <sub>00</sub>	MM	MM	MM	MM	Low MM	TEM <sub>00</sub>
30	10	12	3	60	90	65	15	18
4	1.3	1.3	1.3	12	16	8	2.5	1.3
5	1.7	1.7	1.7	15	21	10	3.25	2
3.5	2.5	2.5	2.5	5.5	7.5	4.5	2.5	2
3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)	3(1.5)
1-50	1-60	1-60	1-60	1-50	1-50	1-50	1-50	1-60

MM	TEM <sub>00</sub>	TEM <sub>00</sub>	MM	MM	MM	MM	Low MM	TEM <sub>00</sub>
1kHz	1kHz	1kHz	5kHz	1kHz	1kHz	1kHz	1kHz	1kHz
109	52	52	21.2	262	271	197	36	176
4.6	2.2	2.2	0.9	10.6	15.5	9.3	1.7	7.4
42	42	42	46	40	57	47	47	42
4.6	2.2	2.2	3.9	10.5	15.5	9.3	1.7	7.4

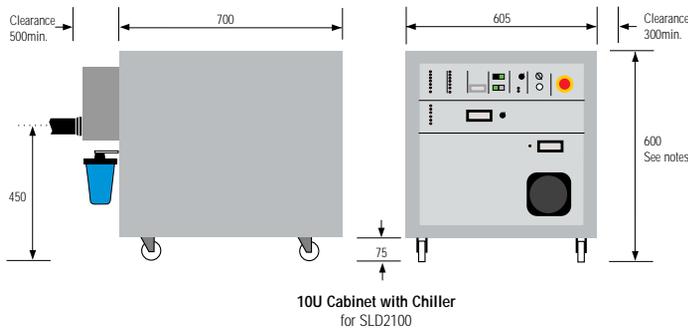
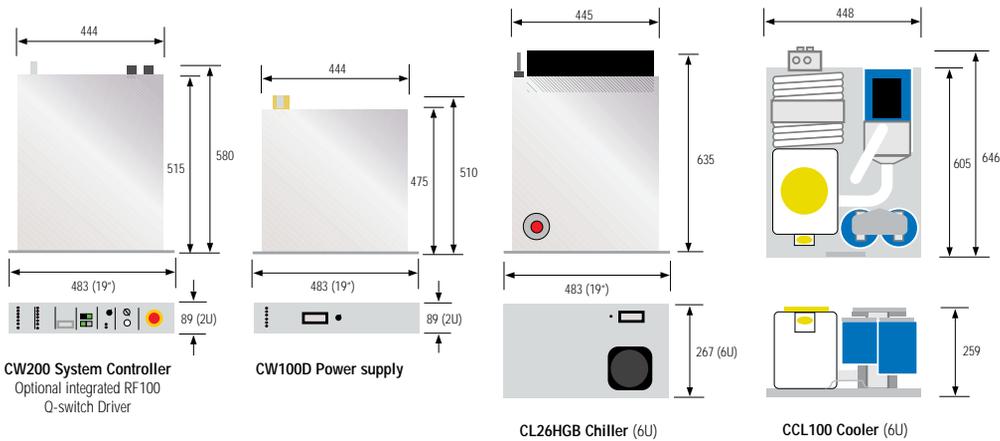
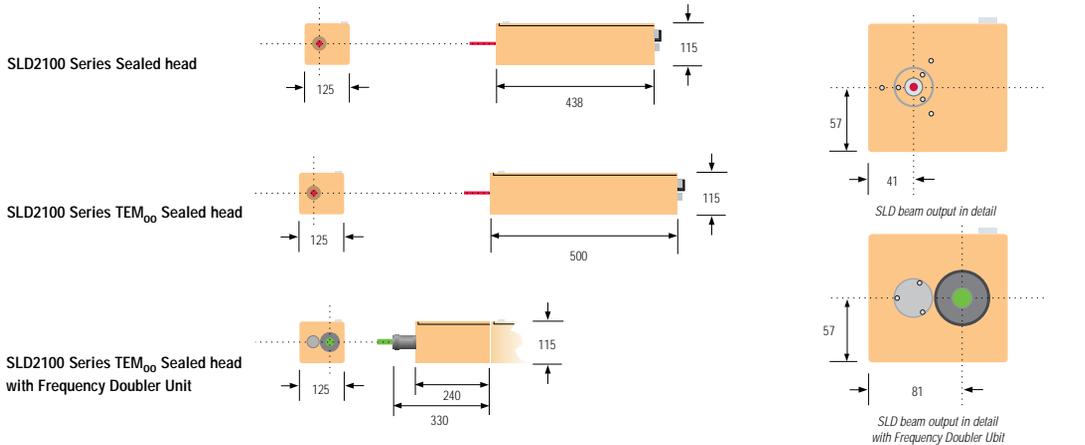
35	35	35	35	35	35	35	35	35
2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

CW200								
CW100D								
10	10	10	10	10	12	12	12	12

CL26HGB								
CCL100								

\$	\$	\$	\$	\$	\$	\$	\$	\$
10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

Individual product datasheets on all the products shown here are available as Acrobat PDF files for e-mailing. Contact us with your proposed application and we will give you every assistance.



**NOTES**

- Foot positions are variable.
- Rail lengths vary according to exact system and configuration but are available typically as shown.
- Other rail lengths are available to special order.
- Cabinet height is variable and depends on exact system configuration.
- Dimensions are in mm unless otherwise stated.
- Individual product datasheets on all the products shown here are available as Acrobat PDF files for e-mailing.
- Contact us with your proposed application and we will give you every assistance.



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