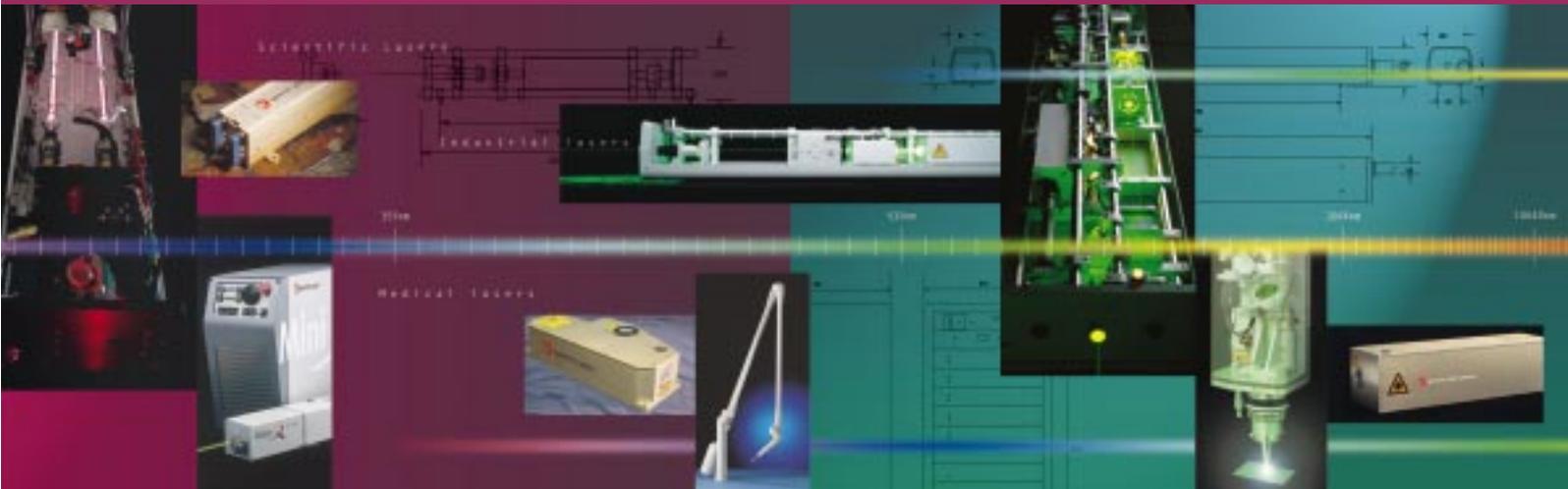


PRODUCT SPECIFICATIONS

LAMP PUMPED

Nd:YAG LASERS



S P E C I F I C A T I O N

GENERAL						
Nd:YAG CW Laser oscillator						
Wavelength	1064nm	1064nm	1064nm	1064nm	1064nm	1064nm
Single linear krypton arc lamp pumped	•	•	•	•	•	•
Diffuse ceramic reflectors	•	•	•	•	•	•
CW SPECIFICATION						
	SL502	SL502T**	SL902	SL902T**	SL903T	SL905T
Mode	MM	TEM₀₀	MM	TEM₀₀	TEM₀₀	TEM₀₀
Maximum CW output (W)	35	6	65	16	20	28
Rated lamp input for max. CW output (kW)	2	2	4	4	4	5
Beam quality M ² at rated input	8	<1.3	8	<1.3	<1.3	<1.3
Beam product [l/e ²] (mm.mrad)	10	1.7	11	1.7	1.7	1.7
Beam divergence full angle [l/e ²] (mrad)	3.5	1.5	5.5	2.5	2.5	3
RMS stability at rated input (%)	1.5	1.5	1.5	1.5	1.5	1.5
Linear polarisation	N/A	Optional	N/A	Optional	Standard	Standard
Q-SWITCHED SPECIFICATION						
	SL502Q	SL502TQ**	SL902Q	SL902TQ**	SL903TQ	SL905TQ
Mode	MM	TEM₀₀	MM	TEM₀₀	TEM₀₀	TEM₀₀
Nominal CW output for Q-switching (W)	35	6	65	16	20	28
Rated lamp input for max. Q-switched output (kW)	2	2	4	4	4	5
Beam quality M ² at rated input	8	<1.3	8	<1.3	<1.3	<1.3
Beam product [l/e ²] (mm.mrad)	10	1.7	11	1.7	1.7	1.7
Beam divergence full angle [l/e ²] (mrad)	3.5	1.5	5.5	2.5	2.5	3
Pulse to pulse stability at 5kHz pk-pk% (RMS%)	4(1.5)	4(1.5)	4(1.5)	4(1.5)	3(1)	4(1.5)
Q-switched frequency range (kHz)	1-20	1-20	1-25	1-25	1-30+	1-30
TYPICAL Q-SWITCHED PERFORMANCE *						
	TEM₀₀	TEM₀₀	MM	TEM₀₀	TEM₀₀	TEM₀₀
	1kHz	1kHz	1kHz	1kHz	1kHz	1kHz
Pulse peak power (kW)	72	14.5	150	40	45	87
Pulse energy (mJ)	8	1.6	15	4	4.5	7
Pulse width FWHM (ns)	110	110	100	100	100	80
Average power (W)	8	1.6	15	4	4.5	7
SERVICES						
Max. ambient temperature (°C)	35	35	35	35	35	35
Electrical consumption at CW spec. power (kW)	4.5	4.5	5	5	5	6
ELECTRICAL REQUIREMENT						
System controller unit	CW200	CW200	CW200	CW200	CW200	CW200
Power supply unit	CW600	CW600	CW600	CW600	CW600	CW600
(50/60Hz) 220/240V 1Ø, N & E	21	21				
A (50/60Hz) 340/440V 3Ø & E (A/phase)			9	9	9	11
B (50/60Hz) 180/250V 3Ø & E (A/phase)			17	17	17	22
COOLING WATER REQUIREMENTS						
Chiller/(Cooler) unit	CL30HGB	CL30HGB	(CCL100)	(CCL100)	(CCL100)	(CCL100)
Minimum pressure (bar)			2	2	2	2
Maximum pressure (bar)			5	5	5	5
Water consumption at 20°C (l/min)			7.5	7.5	7.5	9.5
Maximum water temperature (°C)			20	20	20	20
LAMP LIFE						
Guaranteed (hrs)	1500	1500	800	800	800	400
Nominal [cont. running at rated input] (hrs)	2500	2500	1000	1000	1000	600

* More data is available on individual product specification sheets.

** Multimode or TEM₀₀ outputs are available from the same laser as an option

CW Nd:YAG Lamp Pumped Laser Range

1064nm	532nm	1064nm	1064nm	1064nm	1064nm	1064nm	1064nm
•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•

SL912T		SL1301	SL1302	SL1308	SL1308T**	SL2502	SL5502
TEM₀₀		MM	MM	MM	TEM₀₀	MM	MM
9		180	110	90	18	250	400
4		6	6	5	5	7.5	16
<1.3		32	13	8	<1.3	50	35
1.7		43	17.5	11	1.7	67	47
2.1		12	11	6.5	2.5	17	11
1.5		2	3	2	2	3	3
Optional		N/A	N/A	N/A	N/A	N/A	N/A

SL912TQ	SL905TOG		SL1302Q	SL1308Q	SL1308TQ**	SL2502Q	SL5502Q
TEM₀₀	TEM₀₀		MM	MM	TEM₀₀	MM	MM
9	5		110	90	18	250	400
4	5		6	5	5	7.5	16
<1.3	<1.3		13	8	<1.3	50	35
1.7	<0.87		17.5	11	1.7	67	47
2.1	3.5		11	6.5	2.5	17	11
4(7.5)	6(2.0)		7(2.5)	6(2.0)	6(2.0)	8.5(3)	12(4)
1-35	4-10		1-25	1-25	1-25	6-25	20-30

TEM₀₀	TEM₀₀		MM	MM	TEM₀₀	MM	MM
1kHz	4kHz		1kHz	1kHz	1kHz	6kHz	30kHz
20	11.4		260	200	40	140	14.6
2.3	1.25		29	20	4	31	12
115	110		110	100	100	220	820
2.3	5		29	20	4	190	360

35	35	35	35	35	35	35	35
5	6	7	7	6	6	8.5	20

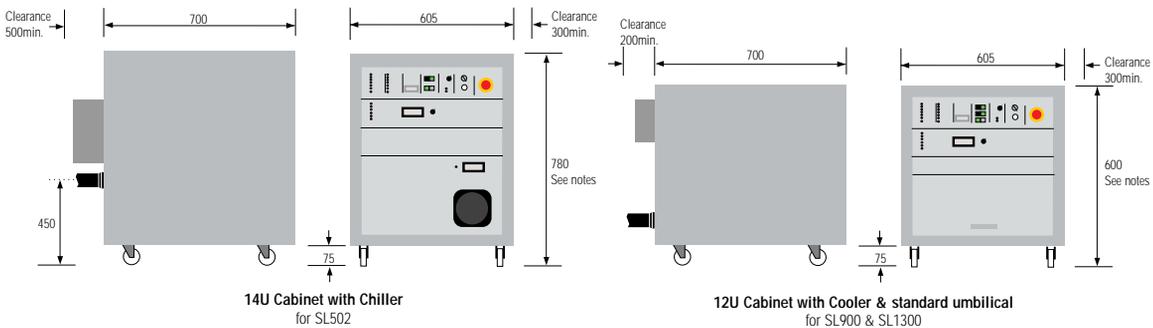
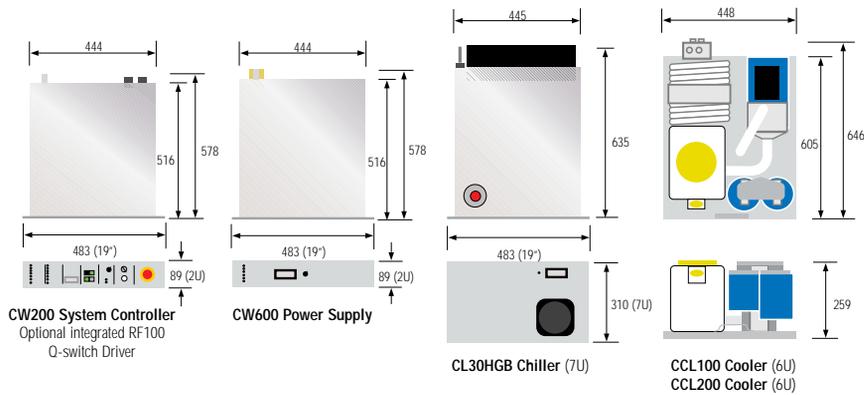
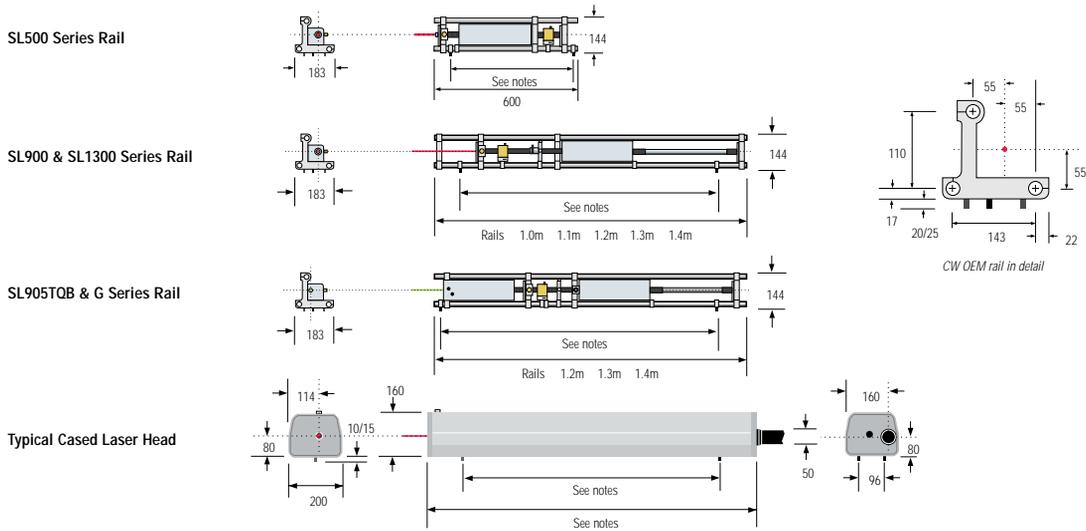
CW200	CW202						
CW600	CW600	CW600	CW600	CW600	CW600	CW1200	CW1200x2
9	11	12	12	11	11	16	37
17	22	24	24	22	22		

(CCL100)	(CCL100)	(CCL100)	(CCL100)	(CCL100)	(CCL100)	(CCL200)	(CCL200)x2
2	2	2	2	2	2	2	2
5	5	5	5	5	5	5	5
7.5	9.5	10	10	9.5	9.5	15	30
20	20	20	20	20	20	20	20

800	400	400	400	400	400	400	400
1000	600	600	600	600	600	600	600

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.

Büro Berlin Schwarzschildstraße 1 D - 12489 Berlin GERMANY wl@polytec.de



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.



POLYTEC GmbH
 Büro Berlin Schwarzschildstraße 1 D - 12489 Berlin
 Tel: +49 (30) 63 92 51 40 Fax: +49 (30) 63 92 51 41



GERMANY wl@polytec.de
 www.polytec.de

