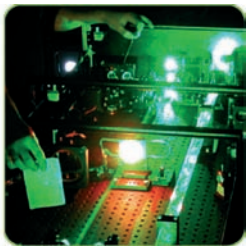
Saga

FLASHLAMP-PUMPED YAG SERIES







FEATURES

- UP TO 2.3 J @ 10 HZ, 1064 NM
- UP TO 1.5 J @ 10 HZ, 532 NM
- ULTRASTABLE ENERGY OUTPUT
- PASSIVE BEAM POINTING STABILIZATION
- EXCELLENT BEAM PROFILE
- COMPUTER CONTROL

APPLICATIONS

- MATERIAL PROCESSING
- INSTRUMENTATION
- SCIENTIFIC
- COMPANION PUMP LASER FOR ULTRAFAST TW SYSTEMS
- IDEAL PUMP FOR OPO AND DYE LASERS



High Energy Solid-State Pulsed Laser

Saga is the most efficient and compact flashlamp pumped solid-state laser on the market, producing up to 2.3 J per pulse with only two pumping chambers.

Its original optical cavity design based on an unstable resonator and a gaussian end cavity mirror enhances energy extraction. The beam exhibits a Super-Gaussian profile in the near field.

Saga is the limited footprint solution for matching high energy requirements and for pumping ultrafast TW lasers.

Saga operates at 1064, 532, 355 or 266 nm and offers various options to ease day-to-day operations such as :

- Easy optical set up alignment thanks to the diode laser pointing in the direction of the Saga output.
- Thermoregulated structure to offer outstanding beam-pointing stability and cut down harmonic generation warming-up time.
- Through RS232 interface, Saga supervision offers remote control of the laser emission, repetition rate and output energy variation, while ensuring safe and optimum operation.

THALES LASER

Output Specifications

Model	120/10(A)	220/10(A)	230/10	HP
Repetition rate	10	10	10	10
Energy per pulse (mJ)				
at 1,064 nm	1,200	1,500	2,300	-
at 532 nm	600	800	1,250	1,500
at 355 nm	350	420	600	-
at 266 nm	120	150	170	-
Shot-to-shot stability (% rms)	1.2	1.2	1.2	1.2
Pulse duration (ns)	4 - 8	4 - 8	4 - 8	4 - 8
Time jitter rms (ns)	0.5	0.5	0.5	0.5
Spectral width (cm-1)	1	1	1	1
Beam diameter (mm)	9.5	9.5	13	13
Divergence (mrad)	0.5	0.5	0.5	0.5
Beam pointing stability (µrad)	± 50	± 50	± 50	± 50
Beam spatial profile				
Near field	Top Hat [1]	Top Hat [1]	Top Hat [1]	Top Hat [1]
Far field	Gaussian [2]	Gaussian [2]	Gaussian[2]	Gaussian [2]

(1) Fit to supergaussian order 10 > 90 % - (2) Fit to Gaussian > 95 %

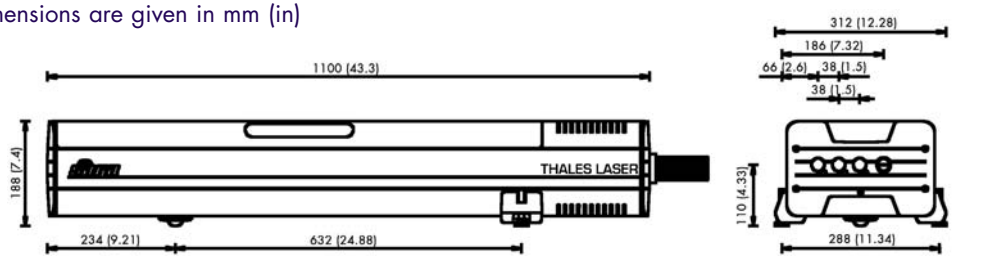
Utilities

Power requirements	Voltage	208 VAC ± 5 %	230 VAC ± 5 %
	Current	25 A	20 A
	Frequency	60 Hz	50 Hz
Water requirements (except A models)	Flow	1 gal/mn	4 l/mn
	Static pressure	45 - 119 psi	310 - 830 kPa
Software	Windows 95, 98, 2000, NT, XP		

Physical characteristics

Laser head	Weight	66 lbs	30 kg
	Umbilical length	8 ft	3 m
Power supply 2 x LS152	Size (H x W x L)	17.6 x 16.9 x 31.1 in	49.5 x 43 x 79 cm
	Weight	209 lbs	95 kg
Water exchanger	Size (H x W x L)	19.1 x 8.3 x 27.9 in	48.5 x 21 x 71 cm
	Weight	77 lbs	35 kg
Air exchanger	Size (H x W x L)	19.5 x 8.5 x 28.1 in	49.5 x 21.5 x 71.5 cm
	Weight	77 lbs	35 kg

Dimensions are given in mm (in)





Due to Thales Laser continuous product improvement policy, specifications are subject to change without notice - Last Update: Jully 2006

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