

# Merion C

Compact diode-pumped  
pulsed Nd:YAG laser



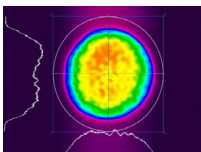
## MAIN FEATURES

- Up to 200 mJ @ 1064 nm
- Superior beam profile up to 400 Hz
- Compact and portable
- IP66 sealed optics
- Industrial design, built to last
- Easy to integrate
- LaserBrain technology for interchangeable laser head
- Motorized variable attenuator and harmonics integrated in the laser head
- Fiber coupling available at 1064 nm, 532 nm and 1540 nm **NEW**

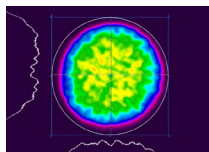
## MAIN APPLICATIONS

- PHOTOACOUSTIC IMAGING
- LiDAR
- LIBS
- LASER ULTRASOUND
- WAFER INSPECTION
- LASER PEENING
- DYE, OPO & TI:SA PUMPING

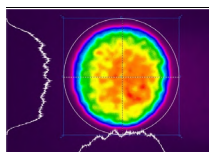
## Typical beam profiles



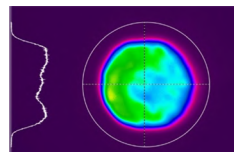
Merion C – S4  
Near field @ 1064 nm



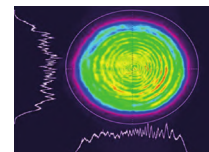
Merion C – S4  
Near field @ 532 nm



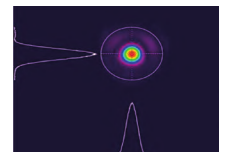
Merion C – S4  
Near field @ 355 nm



Merion C – S4  
Near field @ 266 nm



Merion C – G5  
Near field @ 1064 nm



Merion C – G5  
Far field @ 1064 nm

REVA - Lumibird reserves the right to modify the specifications without prior notice.

[www.quantel-laser.com](http://www.quantel-laser.com)

Many options and configurations are available.  
Please contact Lumibird to find the best match for  
your needs and compatibility between options.

# Merion C

## Compact diode-pumped pulsed Nd:YAG laser



### SPECIFICATIONS

		MERION C - S4	MERION C - G4	MERION C - S5	MERION C - G5
Repetition rate		Up to 400 Hz	Up to 400 Hz	Up to 200 Hz	Up to 200 Hz
Energy per pulse (mJ)	1064 nm	100	100	200	200
	532 nm	50	50	100	100
	355 nm	30	30	60	60
	266 nm	3.5	3.5	7	7
	1540 nm	On request	NA	On request	NA
Pulse duration (ns) <sup>(1)</sup>	1064 nm	< 10	< 7	< 10	< 7
Beam diameter (mm)	1064 nm	4		5.5	
Beam divergence (mrad) <sup>(2)</sup>	1064 nm	< 5	< 1	< 7	< 1
Polarization ratio (%) <sup>(3)</sup>	1064 nm	≥ 98			
Spatial profile	All wavelengths	Uniform near field	Excellent focusability	Uniform near field	Excellent focusability

(1) Measured at FWHM with fast photodiode and 1 GHz scope

(2) Full angle at D4 sigma

(3) Horizontal @ 1064 nm and @ 532 nm - Vertical @ 355 nm and @ 266 nm

Power drift (%) <sup>(4)</sup>	1064 nm	± 3
Pulse to pulse energy stability (%) <sup>(5)</sup>	1064 nm	± 1 (0.5)
	532 nm	± 2 (0.6)
	355 nm	± 3 (0.8)
	266 nm	± 4.5 (1.5)
Jitter (ns) <sup>(6)</sup>	All wavelengths	± 0.5
Linewidth (cm <sup>-1</sup> ) <sup>(7)</sup>	1064 nm	≤ 0.7

(4) Over 8 hours for  $\Delta T^\circ \leq \pm 3^\circ \text{C}$

(5) Peak-to-peak (RMS), 99% of shots

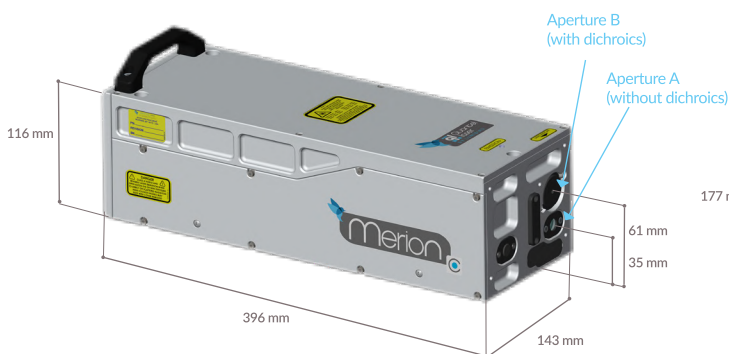
(6) With respect to Q-Switch trigger

(7) Measured at FWHM with a grating spectrometer with 0.045 cm<sup>-1</sup> resolution

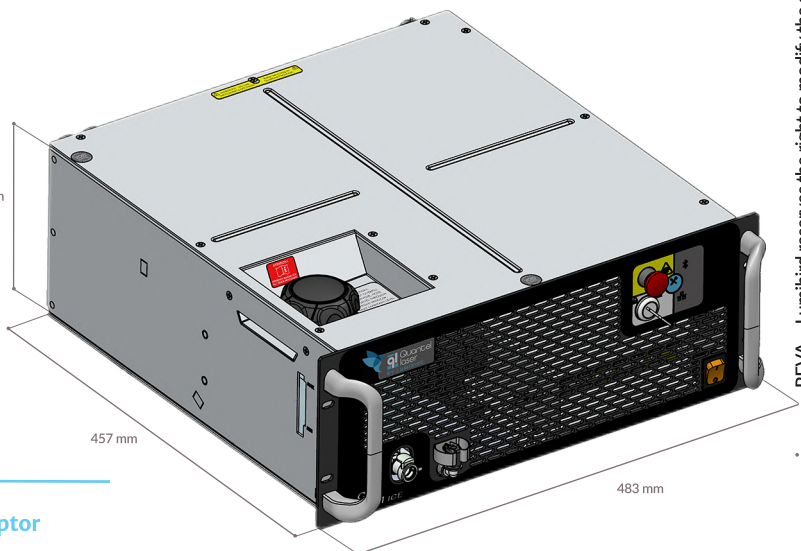
### OTHER INFORMATION

Power requirements	100-240 VAC, 50/60 Hz, Single phase, 850 VA	
Cooling	Water to air	
Operating temperature	+ 18 °C to + 35 °C	
Storage temperature	+ 5 °C to + 50 °C	
Diode warranty	2 billion shots	
Weight (kg)	Laser head (without options)	8.6
	Electronics	16.4

### Laser head

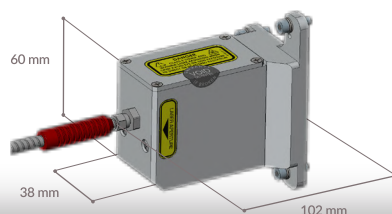


### Integrated cooling & electronics



### OPTIONS

Fiber optic launch adaptor



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