

Q-smart 100

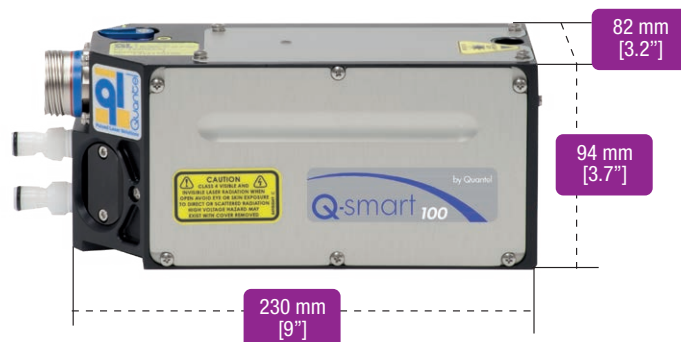
Compact Q-switched Nd:YAG laser

- External harmonic modules enable flexibility
- Easy wavelength change
- Compact laser head design
- Sealed head design for operation in various environments



Power supply 9.6 kg [21.2 lbs]²

Laser head 2 kg [4.5 lbs]¹



¹ Without optional mounting feet ² With coolant added

Q-smart

Harmonic module dimensions in mm [inches]	97 [3.8] x 81 [3.2] x 93 [3.7]
Harmonic module weight in kg [lbs]	0.8 [1.7]
Variable attenuator dimensions in mm [inches]	126 [5] x 81 [3.2] x 93 [3.7]
Variable attenuator weight in kg [lbs]	0.9 [2.0]

Q-smart 100 Specifications

Model	QSM100-20-G
REPETITION RATE [Hz]	20
PULSE ENERGY [mJ] ⁽¹⁾	
1064 nm	100
532 nm	60 ⁽²⁾
355 nm	30 ⁽³⁾
266 nm	20 ⁽⁴⁾
PULSE WIDTH [ns]	
1064 nm	< 10
532 nm	< 10
355 nm	< 10
266 nm	< 10
ENERGY STABILITY [% rms]	
1064 nm	< 1.5
532 nm	< 3
355 nm	< 5
266 nm	< 5
BEAM DIAMETER [mm]	
1064 nm	5
532 nm	5
355 nm	5
266 nm	5
BEAM DIVERGENCE [mrad]	
1064 nm	< 1

POINTING STABILITY [μrad]	< 100
TRANSVERSE MODE	Single
RESONATOR CONFIGURATION	GRM
POLARIZATION DIRECTION	
1064 nm	H
532 nm	H
355 nm	V
266 nm	V
SPECTRAL PURITY	
532 nm	> 98 %
355 nm	> 95 %
266 nm	> 95 %

POWER	100 - 240 VAC, 50/60 Hz, < 6.3 A
COMPUTER INTERFACE	Ethernet (RJ45 connector)

OPERATING TEMPERATURE [°C]	15 - 30
STORAGE TEMPERATURE [°C]	5 - 70

CABLE LENGTH	3 m [10 ft], 10 m [33 ft], 15 m [50 ft]
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Certification	
CE	EN 60825-1, 61010:2001, 61000-6-1:2001
CDRH	CDRH 21 CFR 1040.10

- ¹ Operating the laser at higher than 10% above the specified pulse energy values may result in optical damage, which is not covered under warranty
² Requires second harmonic module based on KTP (45 mJ is pulse energy specification with a LBO based second harmonic module)
³ Operation at 355 nm requires a LBO based second harmonic module for specified pulse energy
⁴ Operation at 266 nm requires a KTP based second harmonic module for specified pulse energy

