

DSS 1064-Q

Diode Pumped Passively Q-Switched Solid State Laser

- 1064 nm
- Pulsed (≤ 1.5 ns)
- Up to 70 μ J
- Up to 20 kHz
- External and Internal Trigger Mode
- Free Beam or Fiber Coupling



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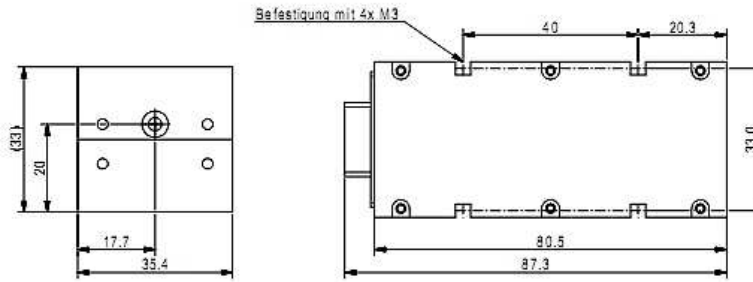
Optical Data		DSS1064-Q1	DSS1064-Q2	DSS1064-Q3
	Wavelength	1064 nm		
	Pulse Energy	> 10 μ J @ 15 kHz	> 20 μ J @ 10 kHz	> 50 μ J @ 1 kHz
	Peak Power	> 6.5 kW @ 15 kHz	> 13 kW @ 10 kHz	> 31 kW @ 1 kHz
	Max. Pulse Repetition Rate	20 kHz	10 kHz	2.5 kHz
	Pulse Width (FWHM)	≤ 1.5 ns		
	Polarization Ratio	> 100:1 vertical		
	Power Stability (%rms, 6 hours) ¹⁾	< ± 5 %	< ± 3 %	< ± 3 %
	Laser Classification	3B / IIIb		
Optical Output	Spatial Mode	TEM ₀₀		
	Beam Divergence (full angle)	< 3.0 mrad	< 3.0 mrad	< 4.0 mrad
	Beam Diameter at Output Plane	600 \pm 100 μ m	500 \pm 100 μ m	600 \pm 100 μ m
Electrical Data	Power Consumption mean (max.)	10 W (40 W)	13 W (40W)	15 W (70 W)
	Operating Voltage (OEM)	12 V DC		
	Line Voltage (with AC-DC adapter)	90 ... 240 V AC		
	Marking	CE		
Interfaces	RS 232 , USB			
	External Trigger (TTL, rising edge) 1 Hz ... max. repetition rate			
	Interface for TTL-control and power monitor			
Miscellaneous	Warm-up Time	< 5 min		
	Operating Temperature	18 ... 38 $^{\circ}$ C		
Options	STAND ALONE Version (incl. key-switch, heat-sink and manual shutter)			
	Synchronization Signal Output (rise time < 2 ns)			
	Fiber Coupling for fiber with core diameter > 70 μ m			
¹⁾ after 5 min warm up, temperature variation ± 3 $^{\circ}$ C and < 3 $^{\circ}$ C/hour				

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 Product specifications are subject to change without notice.

Dimensions

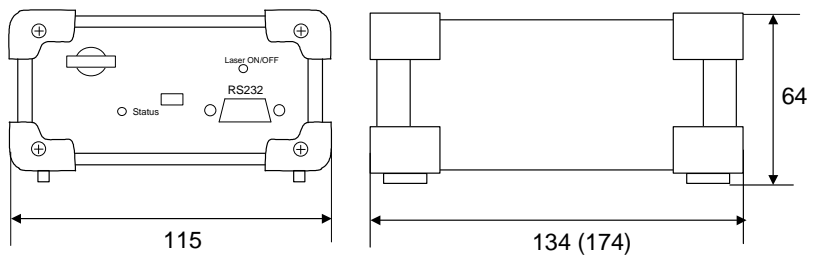
Laser Head:

87.3 x 35.4 x 33 mm



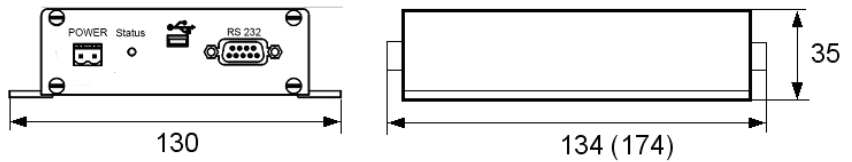
Controller STAND ALONE:

Q1, Q2: 134 x 115 x 64 mm; Q3: 174 x 115 x 64 mm



Controller OEM:

Q1, Q2: 134 x 130 x 35 mm; Q3: 174 x 130 x 35 mm



Laser Safety Labels

The DSS1064-Q lasers are class IIIb/3B according to IEC 60825-1:2007



wavelength: 1064 nm max. output: 20 μJ pulse duration: <1.6 ns max. repetition rate: 20 kHz <small>Complies with IEC 60825-1 (October 2007) Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001</small>	INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT	LASER RADIATION IS EMITTED FROM THIS APERTURE
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wavelength: 1064 nm max. output: 30 μJ pulse duration: <1.6 ns max. repetition rate: 10 kHz <small>Complies with IEC 60825-1 (October 2007) Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001</small>	INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT	LASER RADIATION IS EMITTED FROM THIS APERTURE
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wavelength: 1064 nm max. output: 150 μJ pulse duration: <1.6 ns max. repetition rate: 2.5 kHz <small>Complies with IEC 60825-1 (October 2007) Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated July 26, 2001</small>	INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT	LASER RADIATION IS EMITTED FROM THIS APERTURE
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Q1 series

Q2 series

Q3 series

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