

# Compact Series

## Industrial High Power Diode Laser

The Compact air-cooled lasers are fiber-coupled diode lasers offering up to 120 W output power. With their modular and robust design these lasers have been set-up for easy integration, flexibility and reliability in industrial applications such as plastics welding, selective soldering and heat treatment.

Compact air-cooled lasers are available with various accessories and offers an extensive range of options to provide flexibility for the integration into a wide range of laser-based manufacturing systems.

### FEATURES & BENEFITS

- Output power: up to 120 W
- 19" Rack for easy integrate
- Fiber-Coupled
- Air-Cooled
- Long life diode modules
- Available with scanner and fixed optics
- Comprehensive accessories available

### APPLICATIONS

- Plastics Welding
- Selective Soldering
- Heat Treatment
- Scientific Applications



SPECIFICATIONS	Compact 980						
Nominal Power (W)	30	40	60	100	50	90	120
Power Range (%)	10 to 100						
Laser Beam Quality (BPP) (mm * mrad)	11	22			44		
Power Stability Over 24-hour (%)	±2						
Pulse Frequency Range	10						
Laser On-Signal (Hz)	750						
Analog Modulation (Hz)							
Wavelength (nm)	980						
ELECTRICAL RATINGS							
Voltage (V AC)	200-240 (1P//N/PE)						
Connected Load (kVA)	≤ 0.6						
Effective Power at Nominal Power (kW)	≤ 0.54						
Max. Current Consumption at 230 V (A)	≤ 2.7						
Fuses Type NH (A)	16						
FIBER DELIVERY SYSTEM							
Interface	SMA*	SMA					
Diameter (µm)	100	200			400		
Numerical Aperture	0.22						
Length** (m)	≤ 5	≤ 20					
Accessories (options)	Fixed Optics, Scanners, Process control via Pyrometer, Radial Optics, Line Optics						
DIMENSIONS & WEIGHTS							
Laser Dimension (L x W x H) (mm)	~500 x ~483 x ~176						
Laser Weight (kg)	< 25						
ENVIRONMENTAL CONDITIONS							
Ambient Temperature in Operation (°C)	15 to 35						
Storage Temperature (°C)	24						
CUSTOMER INTERFACE							
Analog Power (V DC)	0 to 10						
Digital Signals (V DC)	24						

\*non-detachable, fixed fiber

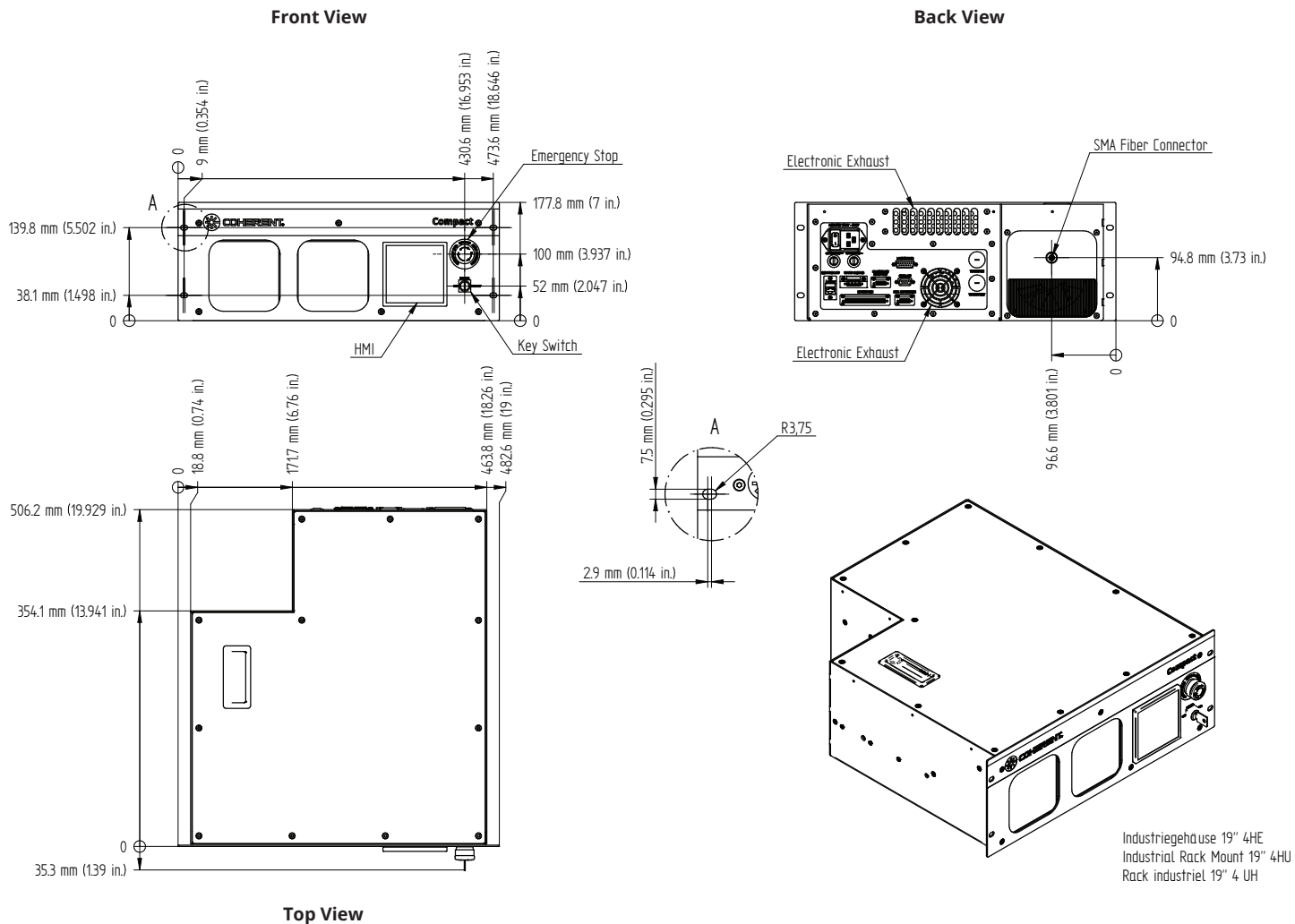
AVAILABLE ACCESSORIES

COLLIMATORS	FIXED OPTICS	FIXED OPTICS WITH INTEGRATED PYROMETER	SCANNER OPTICS
			
<p>The collimator is optimized to the requirements of Compact Series diode laser optical specifications: It is available with different collimating focal length for SMA and QBH fiber connector.</p>	<p>The processing head with fixed spot size is used for soldering or contour welding. Different focal length allow a wide variation of spot sizes to meet the requirements of the application.</p>	<p>The processing head with integrated pyrometer is used for non-contact measuring of the work piece temperature and enables closed loop temperature control. A powerful software package allows processes documentation and optimization.</p>	<p>Scanner optics is used for quasi-simultaneous welding. A broad variation of spot sizes and scanning fields are available to meet the requirements of the application.</p>
SCANNER OPTICS WITH INTEGRATED PYROMETER	OPTICS FOR RADIAL WELDING	OPTICS FOR RADIAL WELDING WITH INTEGRATED PYROMETER	LINE OPTICS
			
<p>The processing head enables quasi-simultaneous welding with the advantage of closed loop temperature control.</p>	<p>The processing head enables simultaneous welding of a radial symmetrical component without rotating part or optics. Customer specific, dimensioning and optical set up can be optimized to the welding geometry.</p>	<p>The processing head enables quasi-simultaneous welding of a radial symmetrical component with the advantage of closed loop temperature control. The programmable servomotor allows the welding without rotating the part.</p>	<p>Line optics are used for applications that require a rectangular or square spot. Customized optical layouts allow a wide variation of different foci.</p>

All processing heads are available with SMA or QBH fiber connector.

## MECHANICAL SPECIFICATIONS

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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Diode Laser Systems. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-028-19-0M0819 Copyright ©2019 Coherent, Inc.

