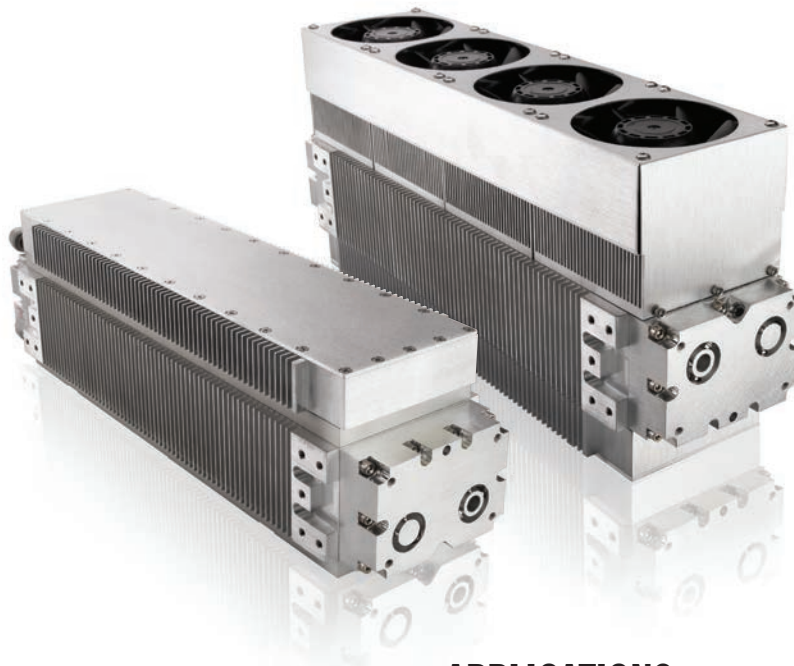


Diamond C-30 & C-30+ Series

Low Power CO₂ OEM Lasers for Marking and Engraving Applications

The Coherent C-30 CO₂ laser provides 30 Watts of power with best-in-class reliability and package size, making it the OEM laser of choice for high performance laser marking and engraving systems. This production-ready, easy-to-integrate laser system enables high quality laser marking with low maintenance and operating costs. The C-30 is ideal for laser processing of many materials, including paper, plastics, wood, rubber, leather, cloth and more.

The C-30 is part of the Coherent C-Series family of products which offer a full range of power levels – from 20 W to 70 W. Based on a sealed waveguide and integrated RF power supply design, the C-30 boasts outstanding production-proven reliability (lifetime >50,000 hours), while delivering superior beam quality and power stability in a compact, flexible and integrated package. The modular platform design provides cost effective optimization of operating wavelength (from 9.3 to 10.6 μm) and cooling configuration (air/liquid), enabling rapid adapt-ability to changing applications and market needs.



FEATURES

- Superior beam quality, power stability and rugged reliability
- Industry leading compact size with integrated RF power supply
- High performance at multiple wavelengths - 9.3 μm , 10.2 μm , and 10.6 μm
- Wide power range with continuous wave (CW) or pulse width modulation (PWM) control
- Air and liquid cooled configurations available
- High quality laser processing on a wide range of materials

APPLICATIONS

- Marking
- Engraving
- Cutting

Diamond C-30 & C-30+ Series

Specifications	Diamond C-30 (9.3 μm)	Diamond C-30 (10.2 μm)	Diamond C-30
Wavelength (μm)	9.24 to 9.35	10.11 to 10.31	10.55 to 10.63
Optical Output Power ¹ (W)	17	30	30
Power Stability ² (%)	±5		
Mode Quality (M ²)	<1.2		
Beam Diameter (mm)	1.8 ±0.2		
Beam Divergence (mrad, full angle)	7.5 ±0.5		
Polarization	>100 to 1 (fixed linear, parallel to width)		
Operating Frequency and Duty Cycle	0 to 200 kHz, 0 to 100% DC		
Ingress Protection Rating (IP)	NA		
Configuration and Facility Requirements			
Weight	6.6 kg (14.5 lbs.)		
Dimensions (L x W x H)	395 x 93 x 155 mm (15.5 x 3.7 x 6.1 in.)		
Input Power ³	48 VDC, 11.5 A		
Cooling	Liquid Available upon Request		
Heat Dissipation (W)	<575		
Maximum Case Temperature	<60°C (140°F)		
Operating Environment Temperature Altitude Humidity	5 to 40°C (41 to 104°F) <2000 m (6500 ft.) Non-condensing		
Shipping/Storage Environment	-10 to 60°C (14 to 140°F), non-condensing		

Notes:

1. Power measured at 25°C and derated by 1%/C for higher laser head temperatures.
2. Power stability based on $\pm(P_{\text{max}} - P_{\text{min}})/(2 \cdot P_{\text{max}})$ average power measurement at constant duty cycle after 10-minute warm-up at operating condition.
3. Optional fans add 1 A.

Diamond C-30 & C-30+ Series

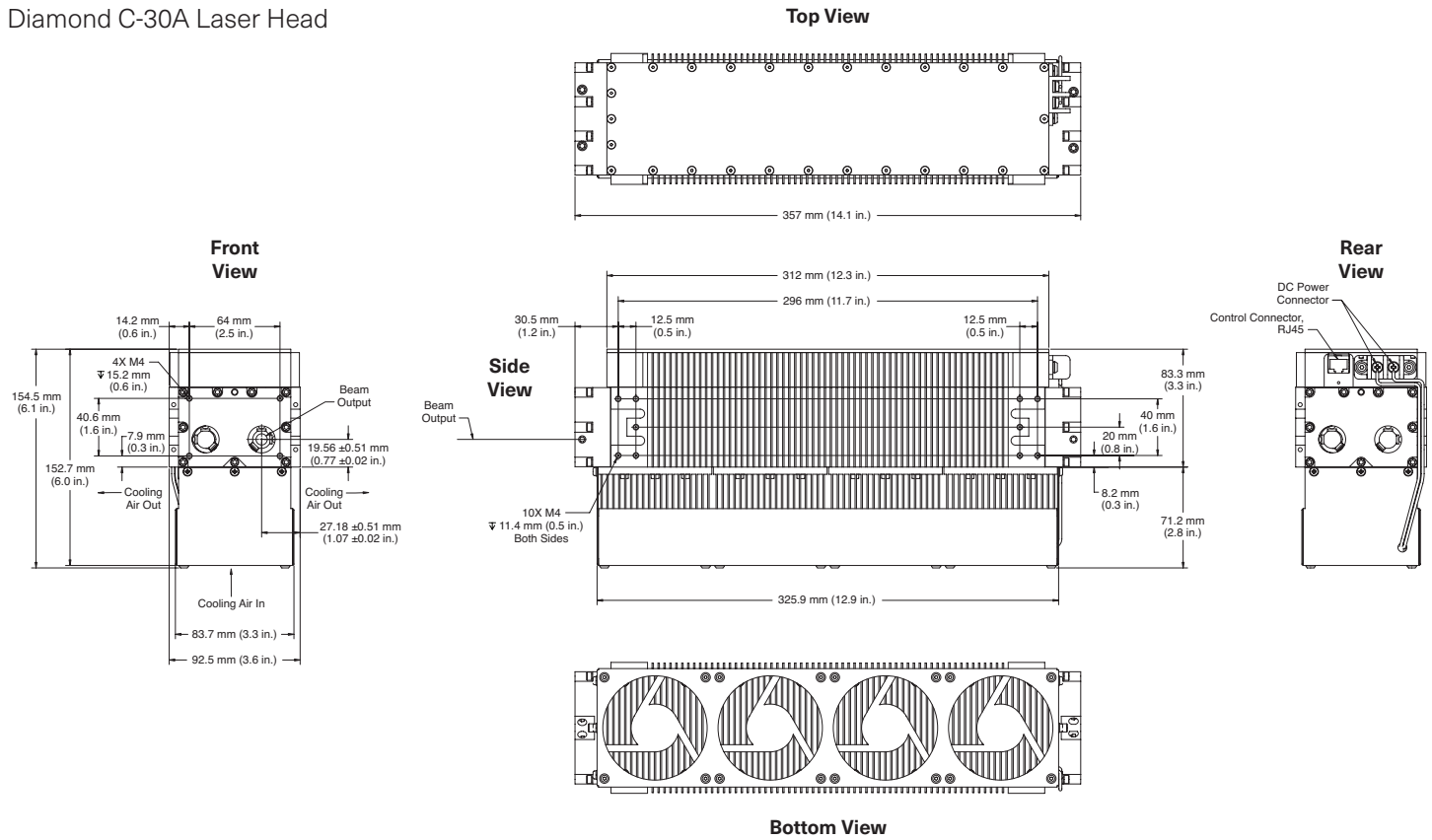
Specifications	Diamond C-30+ (9.3 μm)	Diamond C-30+ (10.2 μm)	Diamond C-30+
Wavelength (μm)	9.24 to 9.35	10.11 to 10.31	10.55 to 10.63
Optical Output Power ¹ (W)	17	30	30
Power Stability ² (%)	±4		
Mode Quality (M ²)	<1.2		
Beam Diameter (mm)	1.8 ±0.2		
Beam Divergence (mrad, full angle)	7.5 ±0.5		
Polarization	>100 to 1 (fixed linear, parallel to width)		
Operating Frequency and Duty Cycle	0 to 200 kHz, 0 to 100% DC		
Ingress Protection Rating (IP)	IP 65		
Configuration and Facility Requirements			
Weight	6.8 kg (15.0 lbs.)		
Dimensions (L x W x H)	475 x 93 x 155 mm (18.7 x 3.7 x 6.1 in.)		
Input Power ³	48 VDC, 11.5 A		
Cooling	Liquid Available upon Request		
Heat Dissipation (W)	<575		
Maximum Case Temperature	<60°C (140°F)		
Operating Environment Temperature Altitude Humidity	5 to 45°C (41 to 113°F) <2000 m (6500 ft.) Non-condensing		
Shipping/Storage Environment	-10 to 60°C (14 to 140°F), non-condensing		

Notes:

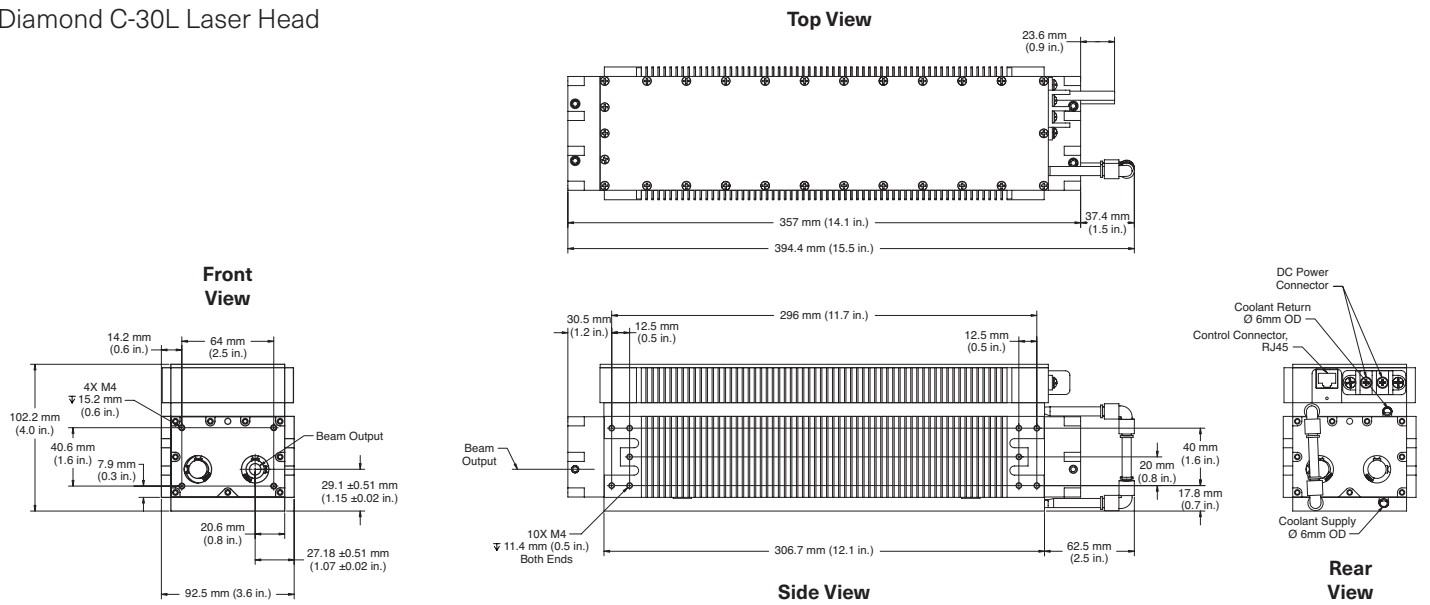
1. Power measured at 25°C and derated by 1%/C for higher laser head temperatures.
2. Power stability based on $\pm(P_{\text{max}} - P_{\text{min}})/(2 \cdot P_{\text{max}})$ average power measurement at constant duty cycle after 10-minute warm-up at operating condition.
3. Optional fans add 1 A.

Mechanical Specifications

Diamond C-30A Laser Head

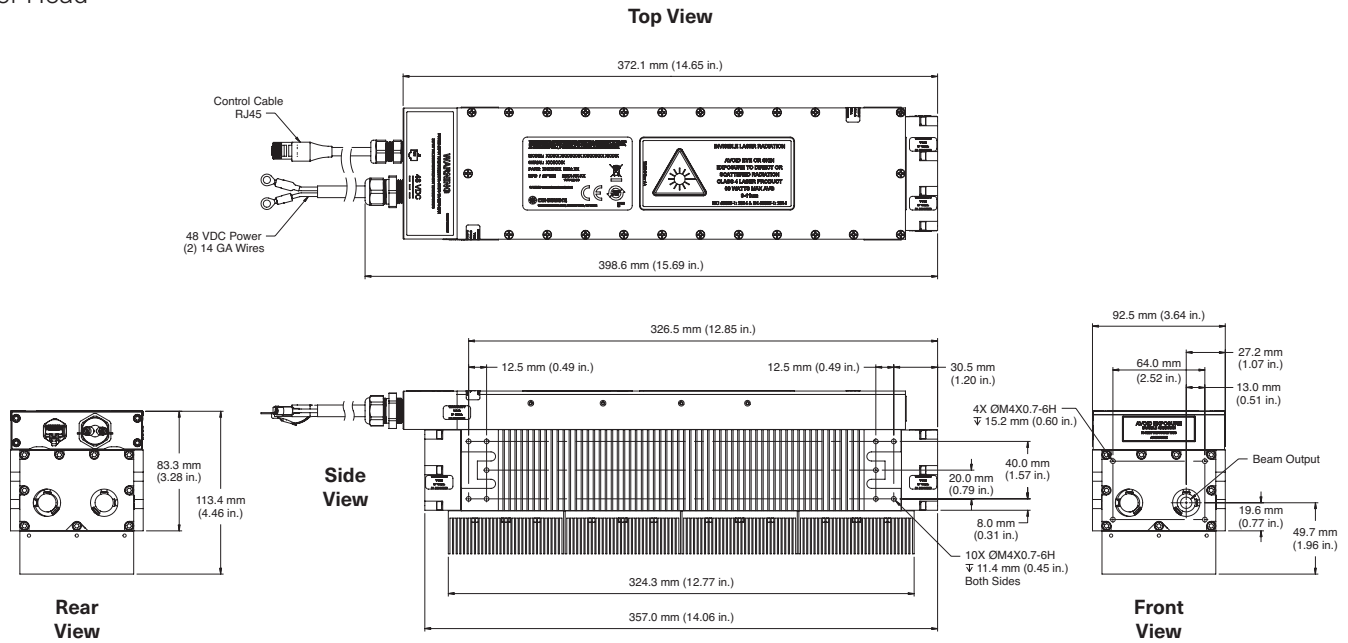


Diamond C-30L Laser Head

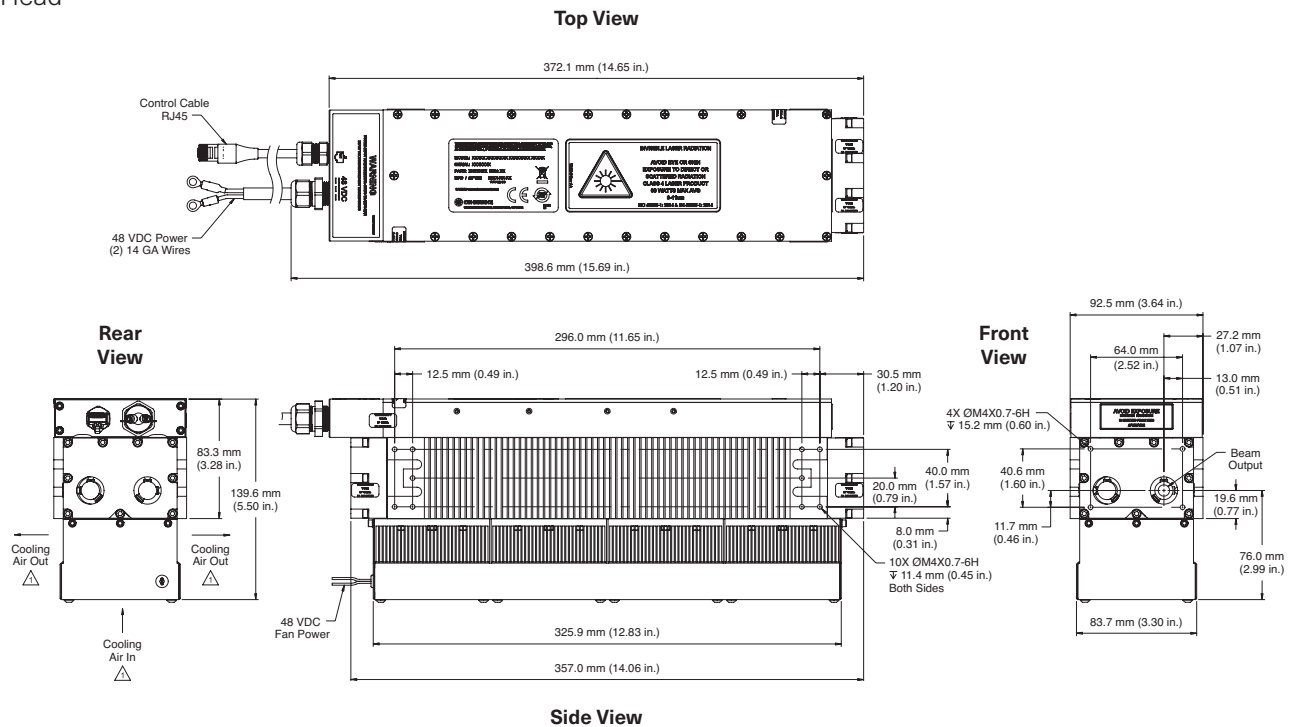


Mechanical Specifications

Diamond C-30+ Air-Cooled Laser Head

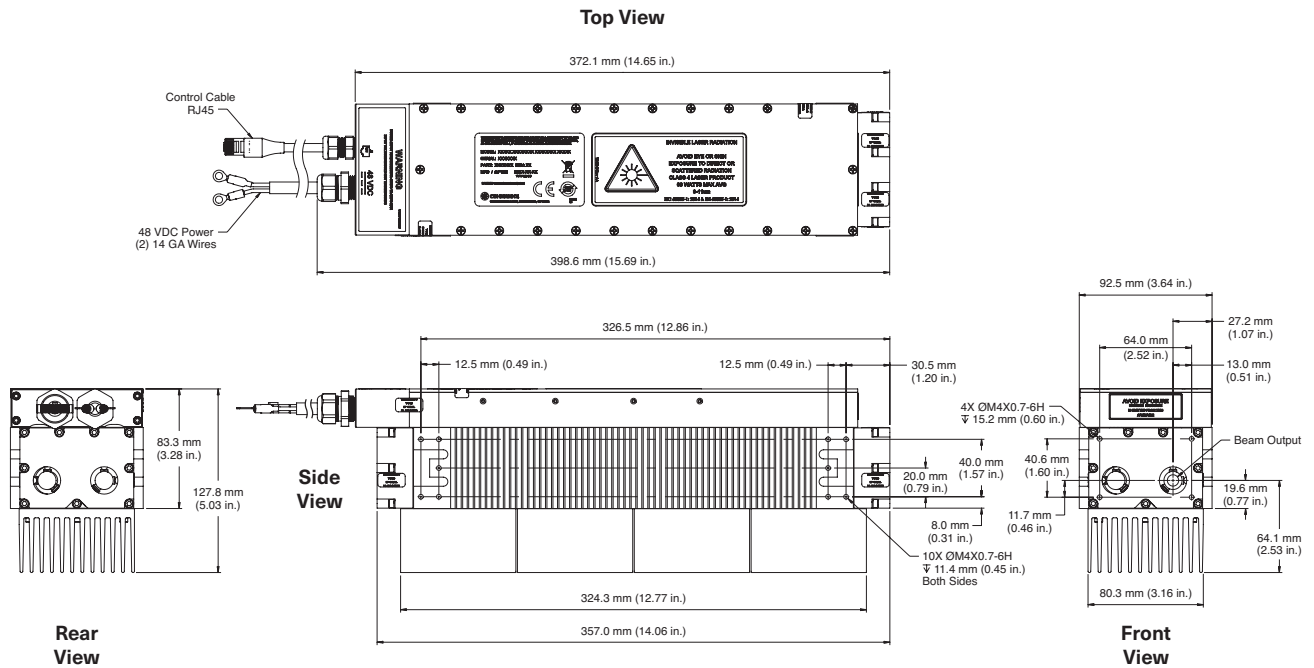


Diamond C-30A+ Air-Cooled with Fans Laser Head



Mechanical Specifications

Diamond C-30+ Air-Cooled, Axial Flow
Laser Head



Mechanical Specifications

Diamond C-30+ Liquid-Cooled Laser Head

