

Iradion® Infinity Z Series

Ceramic CO₂ Lasers, Model 16X



The new **Iradion Infinity** CO₂ laser series combines the exceptional performance of a monolithic ceramic resonator with the latest RF design into a single integrated package.

The result is a compact, efficient, and powerful laser with fast rise and fall time and great optical characteristics.

Feature	Benefit
Pure ceramic	No contamination, no leaks
Low thermal expansion	Enhanced laser stability
Fast driver electronics	Quick rise and fall time
High efficiency	Air cooled up to 120 Watts
30% fewer parts	Higher reliability
Adjustable power <1 Watt to MAX	Flexibility
Long lifetime	No need to ever refill tube
OEM configurations available	Optimized for your application

Options available:

- Beam Expander
- Pointer Diode

IRADION
Ceramic Core CO₂ Lasers

www.iradionlaser.com

Specifications

Iradion Z-Series Model	162-9.3µm	163	164
Rated Optical Power (Watts)	25	30	40
Mode Quality (M ²)	≤1.2	≤1.2	≤1.2
Beam Ellipticity	<1.2:1	<1.2:1	<1.2:1
Beam Diameter (mm) 1/e ²	2.3+/-0.3	2.3+/-0.3	2.3+/-0.3
Beam Divergence (mrad, full angle)	<7	<7	<7
Wavelength (µm)	9.3	10.6 / 10.2	10.6 / 10.2
Rise Time (µs)	< 75	< 75	< 75
Power Stability from Cold (%)	+/-7 % from cold, guaranteed +/-5% after 3-15 mins typical	+/-6 % from cold, guaranteed +/-5 % after 3-15 mins typical	+/-6 % from cold, guaranteed +/-5 % after 3-15 mins typical
Polarization	Random	Random	Random
Cooling	Air or Fan	Air or Fan	Air or Fan
Flow Rate (air)	140CFM x2	140CFM x2	140CFM x2
Input Power (Watts)	680	576	680
Input Voltage / Current	40V / 17A	48V / 12A	40V / 17A
Weight (kg / lbs.)	9/20	9/20	9/20

Specifications are preliminary and subject to change without notice

Laser Interface

Connectors	15 pin D	RJ45
Fire Command	Yes	Yes
Interlock	Yes	Yes
Fault Signal	Yes	Yes
RS232 Comm*	Yes	Yes
Ready Signal	Yes	No
Key Switch Control	Yes	No
Forward RF Signal	Yes	No
Reflected RF Signal	Yes	No
Lase Light Signal	Yes	No

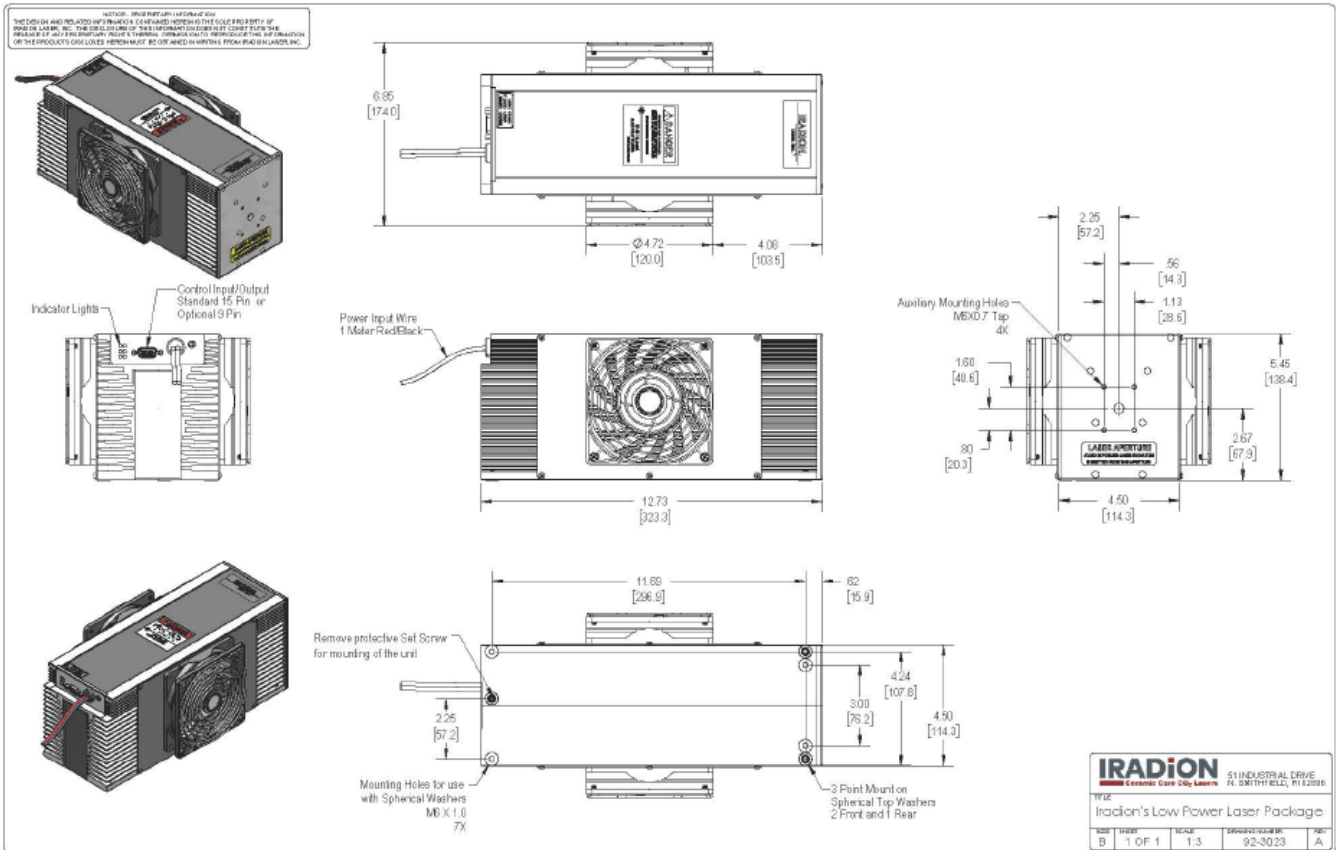
* The laser control card can be monitored via RS232 communications. A variety of signals, laser information, and the temperature can be interfaced to your host controller

Indicator lights:

LASE ●● FAULT IN
 LOCK ●● TEMP
 READY ●● POWER



Fan cooled



Order Information: 16X*
 *Model designator:
 F = for fan cooled
 A = for air cooled (no fans)
 Example: 40 Watts Fan cooled 164F

Patents: US 7460577 B2
 US 8295319 B2



Invisible Laser Radiation
 Avoid eye skin exposure to
 direct or scattered radiation.
 Class 4 Laser Product.

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