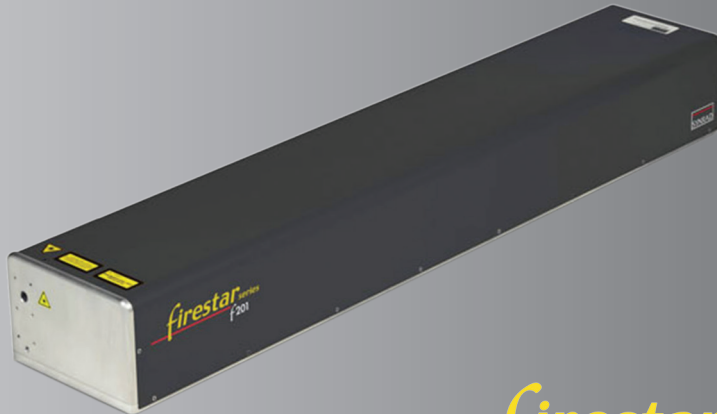


firestar f201 - Fully Integrated CO₂ Laser



firestar
series
f201

- > 200 W average power
- Near-Perfect beam quality
- Integrated RF supply
- Longer resonator design
- Synrad performance & reliability

The firestar f201 sets high standards for production lines with CO₂ laser manufacturing.

By combining the f-series' core building blocks, Synrad's patented free-space resonator design and fully integrated RF drive, the newest member of Synrad's firestar f-series, the 200 watt **f201**, provides the best cost per delivered watt available in today's industrial laser marketplace.

The 200 watt single tube **f201**, with its innovative elongated tube design, displays excellent power stability, a distinct advantage in applications such as "Kiss-Cutting" multi-layer materials, semiconductor wafer processing, scoring and perforating packaging material, and thin-film welding.

The **f201** features internal beam conditioning that delivers near-perfect output in both the near and far field. With a Beam Quality Number (M^2) that approaches theoretical limits, the **f201** delivers more focused processing power than lasers with higher raw output numbers.

Complete with gas purge (standard) to maintain internal optic integrity and water cooling for higher electronic component efficiencies and longer life times, the **f201** is built for the toughest of industrial environments.

firestar f201 Features :

- 200 Watts
- Near-Perfect Beam Quality
- Integrated RF
- Longer Resonator Design = Excellent Power Stability
- Gas Purge (Standard)
- Water Cooled
- Ruggedized 3-point mounting system
- Metric and English Mounting, Standard

Specifications:

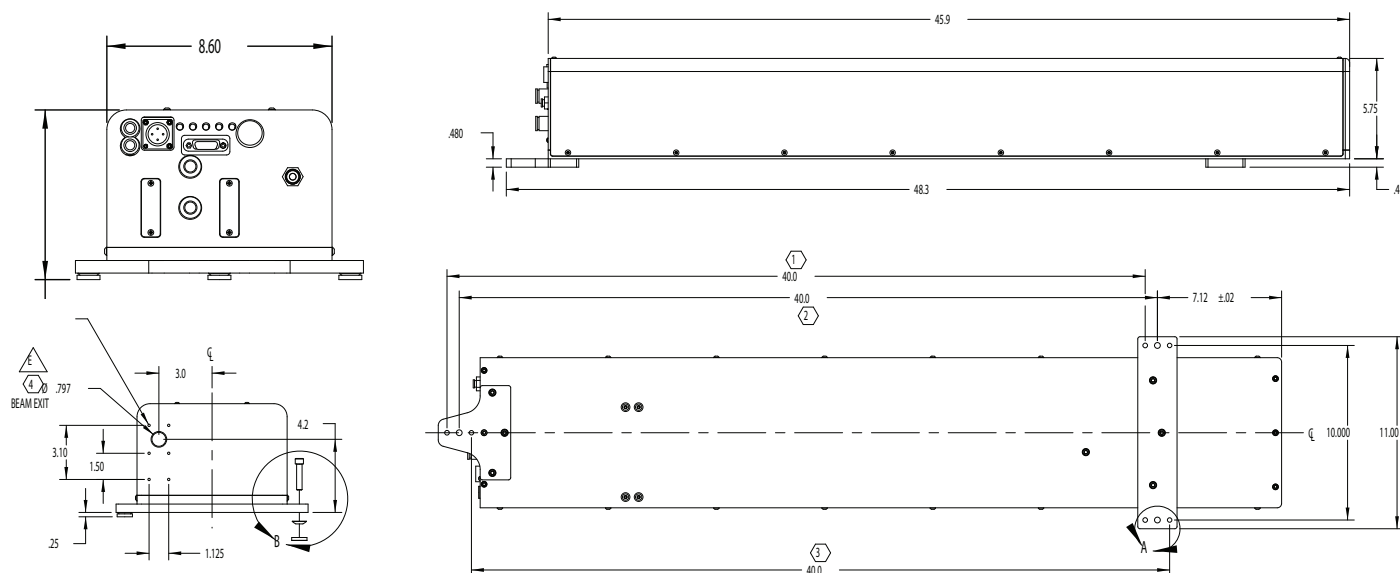
Model	f201
Average Output Power (minimum) ⁽¹⁾	>200 W
Wavelength	10.2 μ m - 10.7 μ m
Rise Time / Fall Time	< 150 μ s / < 150 μ s
Power Stability from Cold Start	\pm 7%
Power Stability after 3 Minutes	\pm 5%
Duty Cycle Range	0% - 100%
Beam Waist Diameter (at 1/e ²)	4.5 mm
Beam Divergence, full angle (at 1/e ²)	4.0 mrad \pm 0.2 mrad
Mode Quality ¹	$M^2 = 1.2 \pm 0.1$
Ellipticity ⁽³⁾	< 1.2
Polarization	Linear (Horizontal)
Cooling	Water (18-22°C)
Heat Load (maximum)	4000 W
Flowrate, Water ⁽²⁾	2.0 GPM, < 60 PSI
Input Voltage / Current (maximum)	96VDC / 36A
Dimensions (in)	48.3 x 11.0 x 6.48
Dimensions (mm)	1227 x 279 x 165
Weight (lbs / kg)	96.0 lb / 43.5 kg

Specifications subject to change without notice.

1. Power level guaranteed for 24 months from date of shipment, regardless of hours, provided laser is operated within the recommended coolant flowrate and operating temperature range.
2. At coolant temperatures above 22°C, derate power 0.5 W/°C to 1 W/°C
3. Measured at Near Field and Far Field.

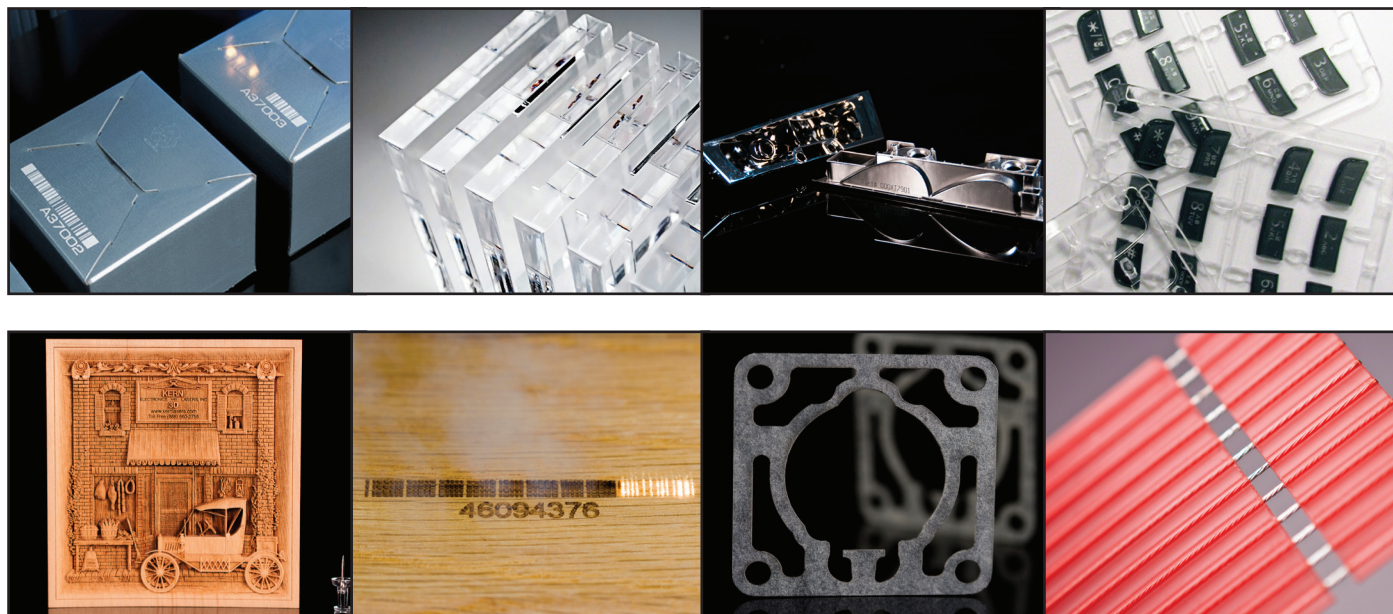
Firestar f201 - Fully integrated CO₂ Laser

Outline and Mounting:




Typical Applications:

The high average power, fast rise and fall times, enables high-speed marking, coding, cutting and engraving of materials.



These are only examples of potential uses for the **firestar f201**.
Contact your Synrad Representative to determine the best laser for your applications.

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



Scan here to learn more about
Synrad's pulsed lasers

