ACCESS LASER
Member of the TRUMPF Group

AL20-S-FCCL

Access Laser's AL20-S-FCCL is a highly stable and compact CO_2 laser perfect for scientific and high precision industrial applications. With temperature tunable lines between 10.5µm to 10.7µm specific material absorptions can be matched. Without the need for water cooling this laser is ideal for leading edge OEMs in high demand environments.

Dimensions & Weight

Laser Weight	19 lbs
Dimensions (L x W x H, inch)	20.8 x 3.9 x 7.0
RF Driver Weight	7 lbs

Specifications

Laser Power

Wavelength (µm)	10.5 to 10.7
CW Power (W)	20
[2]Peak Power (W)	20
[1]Power Stability (±%)	2

DC Power Requirements

Supply Voltage	28VDC
Electronic PWM Parameters	Frequency up to 100KHz, Duty Cycle 0-100%

Beam Characteristics

Beam Waist Diameter (mm)	2.4
Waist Location	Output Coupler
[2]Mode Quality (M^2)	<1.1
Full Div. Angle (mrad)	5.5

Heat & Cooling

Heat Dissipation	< 500W
Cooling Requirement	Fan Cooled Closed Loop
Working Temperature (°C)	5 to 40

Optical Parameters

Polarization	>20:1 Fixed Linear Vertical

Notes

[1]Power Stability calculated in CW at thermal equilibrium $\pm\frac{(P_{max}-P_{min})}{(P_{max}+P_{min})}$

[2]Beam specifications measured at $\frac{1}{e^2}$

Water Cooling

Min Flow Rate: 3.8 1pm (1 gpm)

Recommended Flow Rate: 9.5 1pm (2.5 gpm)

Max Pressure: 10 bar (150 psi)

Required Chiller Stability of ±0.1 °C

Storage Temperature Range: 5-50 °C

Options Available

Real Time Power Monitoring

Stabilization to ± 1% with Line Tracker

$^{13}CO_2$ & $C^{18}O_2$ Isotope Gas Fills

Selective 10.3µm, 9.6µm and 9.3µm optics

Water Cooling options available

Power may exceed listed value.
Power measured at the strongest line.

All are specifications are subject to change without notice.

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