

Technical Specification For DAT CO2 Laser marker

	CO ₂ -F30	CO ₂ -F50
Wavelength	10.55μm~10.63μm	10.55μm~10.63μm
Continuous power output (1)	>30W	≥55W
Power stability	<±5%	<±5%
Pattern of laserspot	>98% TEM00	>98% TEM00
LaserSpot size (2)	1.8±0.2 mm	1.8±0.2 mm
Beam divergence angle (3)	7.5±0.5mrad	7.5±0.5mrad
Laser spot quality	M2<1.2	M2<1.2
Degree of polarization	>100: 1	>100: 1
External modulation signal	TTL Signal, frequency <25kHz	TTL Signal, frequency <25kHz
Cooling mode	Air cooling	water-cooling
Laser weight	5.2kg	TBD
Voltage	48VDC<±2%, Noise / fluctuation P-P value <1%supply voltage	48VDC<±2%, Noise / fluctuation P-P value <1%supply voltage
Power current	(4) ≤12A	≤25A(5)
Thermal load produced	≤600W	≤600W
Cooling water velocity	N/A	≥5.7L/min
Cooling water temperature	N/A	15°C~30°C
Hardness of cooling water	N/A	<150mg/L
ambient temperature	5°C~40°C	5°C~40°C
Working altitude	2000m	2000m
Ambient humidity	Non condensation	Non condensation
Preionization time	42S	Non

(1) When the laser head temperature is higher than 25 degrees, the laser power decreases by 1% when the temperature rises 1 degrees.
 (2) the diameter of the aperture at the exit of the 1/e2.
 (3) beam divergence angle. (4) The typical value is 10A
 (5) The peak current is 35Aand the duration is 1ms