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ASTRAL™ CALORIMETER SPECIFICATIONS

Model No.	AC2500	AC25HD	ACX25HD	AC2501	ACX2501	AC25UV	AC2504	AC5000	AC50HD	ACX50HD	AC5001	ACX5001	AC50UV	AC5004
Type Absorber	Surface	Surface	Surface	Volume	Volume	Volume	Volume	Surface	Surface	Surface	Volume	Volume	Volume	Volume
Aperture size (dia.)	25.4 mm	25.4 mm	8 mm	25.4 mm	8 mm	25.4 mm	25.4 mm	50.8 mm	50.8 mm	16 mm	50.8 mm	16 mm	50.8 mm	50.8 mm
Spectral Response	.25 - 35 µm	.19 - 12 µm	.4 - 2 µm	.266 - 1.2 µm	.4 - 1.2 µm	.19 - .36 µm	.85 - 4.2 µm	.25 - 35 µm	.19 - 12 µm	.4 - 2 µm	.266 - 1.2 µm	.4 - 1.2 µm	.19 - .36 µm	.85 - 4.2 µm
Average Power (max.)	10 W	10 W	10 W	10 W	10 W	10 W	10 W	30 W	30 W	30 W	30 W	30 W	30 W	30 W
Noise Level	10 µW or µJ*	10 µW or µJ*	10 µW or µJ	10 µW or µJ*	10 µW or µJ	10 µW or µJ*	10 µW or µJ*	0.1 mW or mJ	0.1 mW or mJ	0.1 mW or mJ	0.1 mW or mJ	0.1 mW or mJ	0.1 mW or mJ	0.1 mW or mJ
Power Density (max.)	200 W/cm²	1.5 kW/cm²	12 kW/cm²	See Note 13	See Note 14	See Note 17	See Note 16	200 W/cm²	1.5 kW/cm²	12 kW/cm²	See Note 13	See Note 14	See Note 17	See Note 16
Peak Power Density (max.)	1 MW/cm²	100 MW/cm²	800 MW/cm²	See Note 18	8.5 GW/cm²	See Note 21	See Note 20	1 MW/cm²	100 MW/cm²	800 MW/cm²	See Note 18	8.5 GW/cm²	See Note 21	See Note 20
Single Pulse Energy (max.)	10 J	10 J	10 J	10 J	10 J	10 J	10 J	30 J	30 J	30 J	30 J	30 J	30 J	30 J
Energy Density (max.)	See Note 5	See Note 6	See Note 7	See Note 8	See Note 9	See Note 12	See Note 11	See Note 5	See Note 6	See Note 7	See Note 8	See Note 9	See Note 12	See Note 11
Precision	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Accuracy	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Response Time (With Indicator in Watts Mode)	3 sec.	3 sec.	3 sec.	3 sec.	3 sec.	3 sec.	3 sec.	5 sec.	5 sec.	5 sec.	5 sec.	5 sec.	5 sec.	5 sec.
Dimensions (D x L) (cm.) D=Out. Dia. L=Length	9.53 x 5.6	9.53 x 5.6	9.53 x 9.70	9.53 x 5.6	9.53 x 9.70	9.53 x 5.6	9.53 x 5.6	12.07 x 5.8	12.07 x 5.8	12.07 x 9.96	12.07 x 5.8	12.07 x 9.96	12.07 x 5.8	12.07 x 5.8
Weight (kgs.)	0.68	0.68	0.77	0.68	0.77	0.68	0.68	1.3	1.3	1.4	1.3	1.4	1.3	1.3

*Calorimeter installed in isoperibol Enclosure

ENERGY DENSITY FOR CALORIMETERS

Note 5	**Surface Absorbing - Models AC2500, AC5000, 36-0401, 36-0801, UC150** Max. J/cm² = 1000 x (pulse width)$^{1/2}$ to a maximum of 200 J/cm²
Note 6	**HD Models** Max. J/cm² = 4500 x (pulse width)$^{1/2}$ to a maximum of 14 J/cm²
Note 7	**XHD Models** Max. J/cm² = 36,000 x (pulse width)$^{1/2}$ to a maximum of 42.5 J/cm²
Note 8	**AC2501 and AC5001** For repetitive pulses: 4.1 J/cm² @ 1064 nm, 3.2 J/cm² @ 532 nm, 1.2 J/cm² @ 355 nm, 24 mJ/cm² @ 266 nm For single pulse: 8J/cm² @ 1064 nm, 6.2 J/cm² @ 532 nm, 2.3 J/cm² @ 355 nm, 46 mJ/cm² @ 266 nm
Note 9	**ACX2501 and ACX5001** = Note 8 specs. x 8 for 400 nm to 1.2 µm
Note 11	**AC2504 and AC5004** For repetitive pulses: 4.8 J/cm² @ 1064 nm For single pulse: 10 J/cm² @ 1064 nm
Note 12	**AC25UV, AC50UV, UC150UV, 38-4UV5, 38-8UV5** For repetitive pulses: 1.1 J/cm² @ 355 nm, For single pulse: 40 J/cm² @ 355 nm

POWER DENSITY FOR VOLUME ABSORBING CALORIMETERS

Note 13	**AC2501 and AC5001** 30 W/cm² @ 1064 nm, 23 W/cm² @ 532 nm, 8.5 W/cm² @ 355 nm 175 mW/cm² @ 266 nm
Note 14	**ACX2501 and ACX5001** = Note 13 specs. x 8 for 400 nm to 1.2 µm
Note 16	**AC2504 and AC5004** 35 W/cm² @ 1064 nm
Note 17	**AC25UV, AC50UV, UC150UV, 38-4UV5,38-8UV5** 50 W/cm² @ 355 nm

PEAK POWER DENSITY FOR VOLUME ABSORBING CALORIMETERS

Note 18	**AC2501 and AC5001** 100 GW/cm² @ 1064 nm, 78 GW/cm² @ 532 nm, 29 GW/cm² @ 355 nm, 580 MW/cm² @ 266 nm
Note 20	**AC2504 and AC5004** 125 GW/cm² @ 1064 nm
Note 21	**AC25UV, AC50UV, UC150UV, 38-4UV5, 38-8UV5** For repetitive pulses: 101 MW/cm² @ 355 nm For single pulse: 3.5 GW/cm² @ 355 nm

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