

1.1.2.7 High Power Thermal Sensors

1.1.2.7.2 High Power Water Cooled Thermal Sensors

20W to 5000W

5000W-BB-50 / 5000W-LP1-50

Features

- Powers up to 5000W
- Water cooled
- Ø50mm aperture



Model	5000W-BB-50	5000W-LP1-50
Use	General purpose	High power densities and long pulses
Absorber Type	Broadband	LP1
Spectral Range μm	0.19 - 20	0.35 - 2.2
Aperture mm	Ø50mm	Ø50mm
Power Mode		
Power Range	20W - 5000W	20W - 5000W
Power Scales	5000W / 500W	5000W / 500W
Power Noise Level	1W	1W
Maximum Average Power Density kW/cm^2	6 at 1000W 2 at 5000W	6 at 1000W 2 at 5000W
Response Time with Meter (0-95%) typ. s	3	3
Power Accuracy +/-%	5 (a)	5 (a)
Linearity with Power +/-%	2	2
Energy Mode		
Energy Range	NA	NA
Energy Scales	NA	NA
Minimum Energy mJ	NA	NA
Maximum Energy Density J/cm^2		
<100ns	0.3	0.05
1 μs	0.4	0.3
0.5ms	5	20
2ms	10	50
10ms	30	200
Cooling	water	water
Fiber Adapters	Consult Ophir representative	Consult Ophir representative
Accessories for High Power Sensors	See pages 59, 60 & 61	See pages 59, 60 & 61
Percent of Light Backscattered		
Minimum Water Flow Rate at Full Power	4.5 liter/min (b)	4.5 liter/min (b)
Cable Length	1.5 meters	1.5 meters
Weight kg	2.8	2.8
Version	V1	
Part number	7Z02754	7Z02760S
Notes: (a)	Calibrated for $\sim 0.8\mu\text{m}$, $1.064\mu\text{m}$ and $10.6\mu\text{m}$	Calibrated for $\sim 0.8\mu\text{m}$ and $1.064\mu\text{m}$
Notes: (b)	Water temperature range 18-30°C. Water temperature rate of change $<1^\circ\text{C}/\text{min}$.	

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