

1.1.2.6 High Power Water Cooled Thermal Sensors and Power Pucks

5W to 1500W

Features

- High powers
- Water cooled
- Up to 1500W
- $\phi 34\text{mm}$ and $\phi 50\text{mm}$ apertures

1000W / 1000W-LP

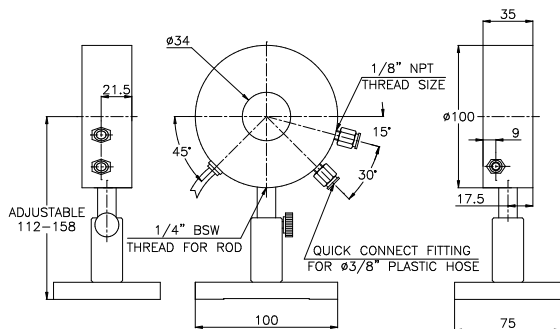


L1500W / L1500W-LP



Model	1000W	1000W-LP	L1500W	L1500W-LP
Use	General purpose	High power densities and long pulses	General purpose	High power densities and long pulses
Absorber Type	Broadband	LP	Broadband	LP
Spectral Range μm	0.19 - 20	0.4 - 1.5, 10.6	0.19 - 20	0.4 - 1.5, 10.6
Aperture mm	$\phi 34\text{mm}$	$\phi 34\text{mm}$	$\phi 50\text{mm}$	$\phi 50\text{mm}$
Power Mode				
Power Range	5W - 1000W	5W - 1000W	15W - 1500W	15W - 1500W
Power Scales	1000W / 200W	1000W / 200W	1500W / 300W	1500W / 300W
Power Noise Level	200mW	200mW	700mW	700mW
Maximum Average Power Density kW/cm^2	7.5 at 500W 6 at 1000W	9 at 500W 7 at 1000W	7.5 at 500W 5 at 1500W	9 at 500W 6 at 1500W
Response Time with Meter (0-95%) typ. s	2.5	2.5	2.7	2.7
Power Accuracy +/-%	3 (a)	3 (a)	4 (a)	4 (a)
Linearity with Power +/-%	2	2	2	2
Energy Mode				
Energy Range	300mJ - 300J	300mJ - 300J	500mJ - 200J	500mJ - 200J
Energy Scales	300J / 30J	300J / 30J	200J / 20J	200J / 20J
Minimum Energy mJ	300mJ	300mJ	500mJ	500mJ
Maximum Energy Density J/cm^2				
<100ns	0.3	0.05	0.3	0.05
1 μs	0.4	0.3	0.4	0.3
0.5ms	5	20	5	20
2ms	10	50	10	50
10ms	30	150	30	150
Cooling	water	water	water	water
Minimum Water Flow Rate at Full Power	1.8 liter/min (b)	1.8 liter/min (b)	2.5 liter/min (b)	2.5 liter/min (b)
Weight kg	0.8	0.8	1.2	1.2
Version	V2	V2	V1	V1
Part number: Standard Sensor	7Z02664	7Z02668	7Z02661	7Z02665
StarLink Sensor: Direct USB link to PC (p. 42)	787005			
Notes: (a)	Calibrated for $\sim 0.8\mu\text{m}$ 1.064 μm and 10.6 μm	Calibrated for 1.064 μm and 10.6 μm	Calibrated for $\sim 0.8\mu\text{m}$ 1.064 μm and 10.6 μm	Calibrated for 1.064 μm and 10.6 μm
Notes: (b)	Water temperature range 18-30°C. Water temperature rate of change <1°C/min.			

1000W / 1000W-LP



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