

1.1.2.5 Medium Power Large Aperture Thermal Sensors - Apertures 65mm

400mW to 300W

Features

- Thin profile, very large aperture
- CW to 50W, intermittent to 300W
- Ø65mm aperture

L50(300)A-LP2-65



L50(300)A / L50(300)A-PF-65



Model	L50(300)A	L50(300)A-LP2-65	L50(300)A-PF-65
Use	General purpose	Long pulse lasers	Large beam short pulsed lasers
Absorber Type	Broadband	LP2	PF type
Spectral Range μm	0.19 - 20	0.25 - 2.2	0.15 - 20
Absorption	~88%	>94% from 0.25 to 1.1 μm	~85%
Aperture mm	Ø65mm	Ø65mm	Ø65mm
Power Mode			
Power Range	400mW - 300W	400mW - 300W	400mW - 300W
Maximum Intermittent Power	300W for 2min, 150W for 4.5min, 50W continuous		
Power Scales	300W / 30W	300W / 30W	300W / 30W
Power Noise Level	20mW	20mW	20mW
Maximum Average Power Density kW/cm ²	9.5 at 300W 17 at 50W	17 at 300W 50 at 50W	3
Response Time with Meter (0-95%) typ. s	3	3	3
Power Accuracy +/-%	3	3 ^(a)	4 ^(b)
Linearity with Power +/-%	1	1	1
Energy Mode			
Energy Range	200mJ - 300J	200mJ - 1000J	200mJ - 300J
Energy Scales	300J / 60J / 6J	1000J / 600J / 60J / 6J	300J / 60J / 6J
Minimum Energy mJ	200	200	200
Maximum Energy Density J/cm ²			Single ^(c) 10-50Hz ^(c)
<100ns	0.3	0.1	3 ^(d) 1.5
1 μs	0.4	0.9	3 ^(d) 1.5
0.5ms	5	50	7 7
2ms	10	130	15 15
10ms	30	400	40 40
Cooling	convection / ballistic	convection / ballistic	convection / ballistic
Weight kg	0.9	0.9	0.9
Version			
Part number	7Z02658	7Z02782	7Z02743

Notes:

(a) Above 1.1 μm there is an additional calibration uncertainty of up to 2%.

(b) Calibrated for 0.25 – 2 μm , 10.6 μm

(c) For 10-50Hz, derate as follows:

Wavelength	Derate to value
1064nm	Not derated
532nm	Not derated
355nm	70% of stated value
266nm	15% of stated value
193nm	10% of stated value

(d) Damage threshold 1.5J/cm² for wavelengths <500nm

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