

## 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 $\mu\text{m}$	0.19 - 20	0.25 - 2.2	0.15 - 20
Absorption	~88%	>94% from 0.25 to 1.1 $\mu\text{m}$	~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 <sup>2</sup>	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 <sup>2</sup>			Single (c) 10-50Hz (c)
<100ns	0.3	0.1	3 (d) 1.5
1 $\mu\text{s}$	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
Compliance	CE, China RoHS	CE, China RoHS	CE, China RoHS
Version			
<b>Part number</b>	<b>7Z02658</b>	<b>7Z02782</b>	<b>7Z02743</b>

Notes:

(a) Above 1.1 $\mu\text{m}$  there is an additional calibration uncertainty of up to 2%.

(b) Calibrated for 0.25 – 2 $\mu\text{m}$ , 10.6 $\mu\text{m}$   
 (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/cm<sup>2</sup> for wavelengths <500nm

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