

UP55G

55 mm Ø, 15 mW - 500 W, Fan-Cooled



KEY FEATURES

- 1 Fan-Cooled**
High Power without the need for water cooling
- 2 Portable**
Perfect for production environments and service technicians
- 3 High Quality Absorber**
For the highest power handling in the UP Series
- 4 Energy Mode**
Measure single shot energy up to 200 J
- 5 Smart Interface**
Containing all the calibration data

AVAILABLE MODELS



UP55G-500F-H12
(500W-Fan-Cooled)

ACCESSORIES



Stand with Steel Post



Extension Cable
(4, 15, 20 or 25 m)



Fiber Adaptors and Connectors
(FC, SC or SMA)



3-Port Fiber Cylinder with
Adaptors and Plug



12V Power Supply
(for Fan-Cooled version)



Pelican Carrying Case

SEE ALSO

HOW IT WORKS	12
CALIBRATION	6
TECHNICAL DRAWINGS	98
ABSORPTION CURVES	103
COMPATIBLE MONITORS	
MAESTRO	18
TUNER	22
UNO	24
S-LINK-2	26
P-LINK	28

UP55G

SPECIFICATIONS



*Also traceable to NRC-CNRC

MODELS	UP55G-500F-H12
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	500 W / 500 W
EFFECTIVE APERTURE	55 mm Ø
COOLING METHOD	Fan-Cooled

MEASUREMENT CAPABILITY

Spectral Range	0.19 – 20 µm	
Noise Equivalent Power ^a	15 mW	
Rise Time (nominal) ^b	2.8 sec	
Sensitivity (typ into 100 kΩ load) ^c	0.06 mV/W	
Calibration Uncertainty ^d	±2.5 %	
Repeatability	±0.5 %	
Energy Mode		
Sensitivity	0.013 mV/J	
Maximum Measurable Energy ^e	200 J	
Noise Equivalent Energy ^a	0.25 J	
Minimum Repetition Period	14.3 sec	
Maximum Pulse Width	433 ms	
Accuracy with energy calibration option	±5 %	

DAMAGE THRESHOLDS

Maximum Average Power Density		
1064 nm, 10 W, CW	45 kW/cm ²	
1064 nm, 500 W, CW	8 kW/cm ²	
Pulsed Laser Damage Thresholds	Max Energy Density	Peak Power Density
1064 nm, 360 µs, 5 Hz	9 J/cm ²	25 kW/cm ²
1064 nm, 7 ns, 10 Hz	1 J/cm ²	143 MW/cm ²
532 nm, 7 ns, 10 Hz	0.6 J/cm ²	86 MW/cm ²
266 nm, 7 ns, 10 Hz	0.3 J/cm ²	43 MW/cm ²

PHYSICAL CHARACTERISTICS

Effective Aperture Diameters	55 mm Ø
Absorber (High Damage Threshold)	H12
Dimensions	120H x 120W x 135D mm
Weight (head only)	2.75 kg

ORDERING INFORMATION

Full Product Name	UP55G-500F-H12
Product Number (Including stand)	201100

a. Nominal value, actual value depends on electrical noise in the measurement system.
 b. With Gentec-EO MAESTRO, UNO, P-LINK and S-LINK-2 monitors.
 c. Maximum output voltage = sensitivity x maximum power.

d. Including linearity with power.
 e. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).

Specifications are subject to change without notice