UP52M-300W-QED-D0
Thermal detector for laser power measurement up to 300 W.

KEY FEATURES

MODULAR CONCEPT
Increase the power capability of your detector: 4 different cooling modules

HIGH PEAK POWER DIFFUSING ABSORBER
Perfect for pulsed beams with high energy density

COMPACT DESIGN
40 mm thick

HIGH AVERAGE POWER
Measure up to 300 W of continuous power

SMART INTERFACE
Containing all the calibration data

COMPATIBLE STAND
STAND-S-443

SPECIFICATIONS

MEASUREMENT CAPABILITIES

Maximum average power (continuous)\(^1\) 300 W

Maximum average power (1 minute)\(^2\) 300 W

Noise equivalent power\(^3\) 15 mW

Spectral range\(^4\) 0.3 - 2.5 μm

Typical rise time\(^5\) 4 sec

Typical power sensitivity\(^6\) 0.06 mV/W

Power calibration uncertainty\(^7\) ±2.5 %

Repeatability ±0.5 %

1. Minimum cooling flow 1 liters/min, water temperature ≤ 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
3. Nominal value, actual value depends on electrical noise in the measurement system.
4. This spectral range refers to the calibration traceability.
5. With anticipation.
6. Into 100 kΩ load. Maximum output voltage = sensitivity x maximum power.
7. Including linearity with power.

MEASUREMENT CAPABILITIES (ENERGY MODE)

Maximum measurable energy\(^8\) 1000 J

Noise equivalent energy\(^2\) 0.25 J

Minimum repetition period 9 s

Maximum pulse width 371 ms

Energy calibration uncertainty\(^3\) ±5 %

1. For 360 μs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
2. Nominal value, actual value depends on electrical noise in the measurement system.
3. When single-shot energy calibration is purchased

DAMAGE THRESHOLDS

Maximum average power density\(^1\) 100 kW/cm²

Maximum energy density\(^2\) 8 J/cm²

1. At 1064 nm, 10 W CW.
2. At 1064 nm, 7 ns, 10 Hz.
3. When single-shot energy calibration is purchased.
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<tr>
<td>Aperture diameter</td>
<td>52 mm</td>
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<td>Absorber</td>
<td>QED</td>
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<tr>
<td>Dimensions</td>
<td>89H x 89W x 40D mm</td>
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<td>Weight</td>
<td>0.84 kg</td>
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ORDERING INFORMATIONS

UP52M-300W-QED-D0 203878
UP52M-300W-QED-IDR-D0 205205
UP52M-300W-QED-INT-D0 205198
UP52M-300W-QED-BLU-D0 TBD

INTERESTED IN THIS PRODUCT?

GET A QUOTE

Find your local sales representative at gentec-eo.com/contact-us