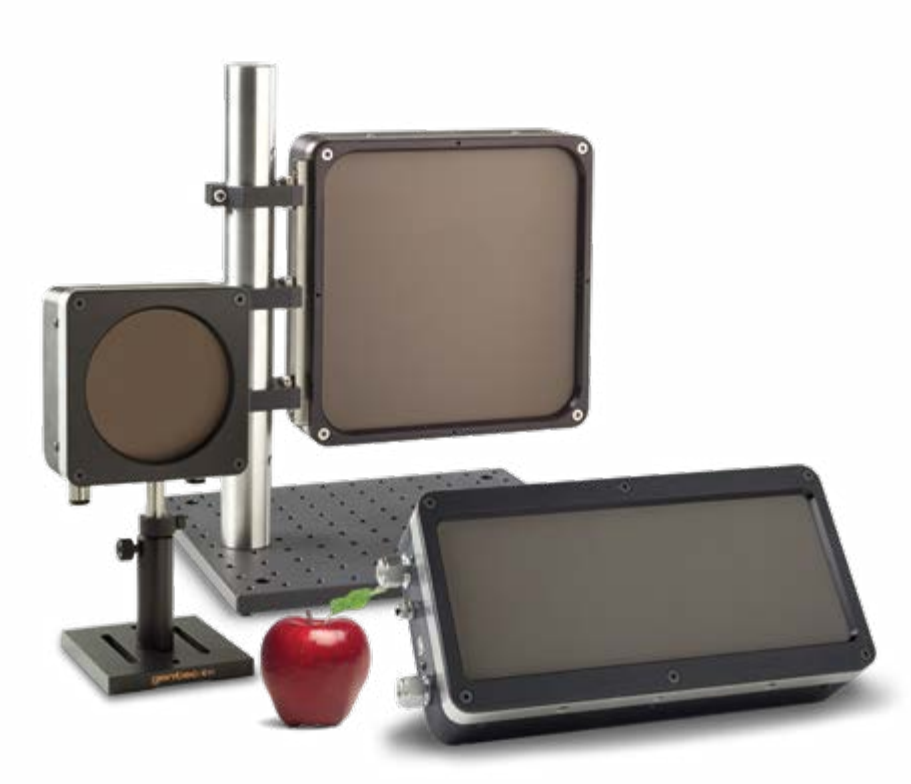
SUPER HP

Custom Sizes and Shapes, up to 100,000 W upon request



AVAILABLE MODELS (CUSTOM BUILT)

HP280/100A-10KW-HD
(10 kW-Water-Cooled)

HP210A-25KW-HD
(25 kW-Water-Cooled)

HP280-30KW-HD
(30 kW-Water-Cooled)

NOW AVAILABLE!

TUBE EXTENSION TO REDUCE BACK REFLECTIONS

All HP models can be fitted with a custom water-cooled absorbing TUBE to reduce the back reflections below 4%. The TUBE extension is backward compatible so you can send your already purchased HP detector to be retrofitted*.

* The HP detector needs to be sent back to be retrofitted and recalibrated (Calibration is included)

ACCESSORIES

Stand with Steel Post
For 25 kW Model

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

5 m USB Cable
(Included)

Pelican Carrying Case

KEY FEATURES

1. **THE HIGHEST POWER HANDLING**
   Custom models handle up to 100 000 W of continuous power

2. **STABLE READING**
   Less sensitive to variations in water cooling temperature than any other high power water-cooled meter on the market

3. **INFINITE CUSTOMIZATION CAPABILITIES**
   1. Choose YOUR size
   2. Choose YOUR maximum power
   3. We will customize one just for you!

4. **COMPACT AND LIGHT WEIGHT**
   Lighter and more compact than any other high power detector on the market, thanks to our unique design

5. **AVAILABLE WITH YAG AND CO_2 CALIBRATIONS**
   All HP Models can be calibrated at YAG and CO_2 wavelengths with a calibration uncertainty of ±5%

6. **DIRECT USB CONNECTION TO A PC**
   Each head comes with both a DB-15 connector (for use with a Gentec-EO monitor) and a USB2.0 output for direct connection to a PC. Other connectors available upon request

7. **TRACK WATER PARAMETERS**
   Water flow and temperature are monitored in real time and displayed continuously

8. NEW **HIGH POWER NIST-TRACEABLE CALIBRATION WITH A 5 KW FIBER LASER**

SEE ALSO

Watch the Introduction video available on our website at www.gentec-eo.com

SUPER HP

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	HP280/100A-10KW-HD	HP210A-25KW-HD	HP280A-30KW-HD	CUSTOMIZATION CAPABILITIES
MAX AVERAGE POWER	10 000 W	25 000 W	30 000 W	Up to 100 000 W
EFFECTIVE APERTURE	280 x 100 mm	210 x 210 mm	280 x 280 mm	Up to 400 x 400 mm
COOLING METHOD	Water-Cooled	Water-Cooled	Water-Cooled	Water-Cooled
MEASUREMENT CAPABILITY				
Spectral Range	0.19 – 20 µm	0.19 – 20 µm	0.19 - 20 µm	0.19 – 20 µm
Noise Equivalent Power [a]	±10 W	±20 W	±25 W	Adapted to Maximum Power
Minimum Average Power [b]	300 W	500 W	1 000 W	Adapted to Maximum Power
Rise Time (nominal)	20 sec	25 sec	25 sec	≤ 45 sec
Sensitivity (typ into 100 kΩ load)	0.2 mV/W	0.08 mV/W	0.07 mV/W	Adapted to Maximum Power
Calibration Uncertainty				
@ 1064 nm	±5 %	±5 %	±5 %	±5 %
@ 0.25- 2.5 µm	±6 %	±6 %	±6 %	±6 %
Repeatability	±2 %	±2 %	±2 %	±2 %
Linearity with Power	±2 %	±2 %	±2 %	±2 %
Linearity vs Beam Diameter [c]	±2 %	±2 %	±2 %	±2 %
DAMAGE THRESHOLDS				
Maximum Average Power Density [d]				
10 kW	2.5 kW/cm²	2.5 kW/cm²	2.5 kW/cm²	2.5 kW/cm²
25 kW	---	0.25 kW/cm²	---	0.25 kW/cm²
30 kW	---	---	0.2 kW/cm²	0.2 kW/cm²
PHYSICAL CHARACTERISTICS				
Effective Aperture	280 x 100 mm	210 x 210 mm	280 x 280 mm	Square Apertures Up to 400 x 400 mm Rectangular and Round Apertures also available
Absorber (High Damage Threshold)	HD	HD	HD	HD
Required Cooling Flow	(6 - 10) LPM < ±1 LPM/min [f]	(12 - 15) LPM < ±1 LPM/min [f]	0-30 kW: (15 - 18) LPM < ±1 LPM/min [f] 0-10 kW: (8 - 12) LPM < ±1 LPM/min [f]	Adapted to Maximum Power
Cooling Water				
Temperature Range	15 – 25 °C	15 – 25 °C	15 – 25 °C	15 – 25 °C
Rate of Temperature Change	< ±3°C/min	< ±3°C/min	< ±3°C/min	< ±3°C/min
Output Connectors	DB-15 cable & USB port	DB-15 cable & USB port	DB-15 cable & USB port	DB-15 cable & USB port
PCB Electrical Supply	Through USB or Gentec-EO Monitors	Through USB or Gentec-EO Monitors	Through USB or Gentec-EO Monitors	Through USB or Gentec-EO Monitors
Maximum Output Signal	2 V	2 V	2 V	Analog Output 2V or 12V
Dimensions	152H x 305W x 75D mm	229H x 229W x 80D mm	300H x 300W x 92D mm	
Weight (head only)	11 kg	16 kg	20 kg	
ORDERING INFORMATION				
Product Name	HP280/100A-10KW-HD	HP210A-25KW-HD	HP280A-30KW-HD	Please call for more information on our customization capabilities

Specifications are subject to change without notice

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. For lower powers, call your Gentec-EO representative.
c. For a centered beam with size from 20% to 80% of the total aperture.
d. At 1064 nm, 1.07-1.08 µm and 10.6 µm.
e. Average period > 1 min.
f. > 1min