

SUPER HP


Custom sizes and shapes, up to 100 000 W upon request



KEY FEATURES

- > **THE HIGHEST POWER HANDLING**
Custom models handle up to 100 000 W of continuous power
- > **INFINITE CUSTOMIZATION CAPABILITIES**
 1. Choose YOUR size
 2. Choose YOUR maximum power
 3. We will customize one just for you!
- > **COMPACT AND LIGHT WEIGHT**
Lighter and more compact than any other high power detector on the market, thanks to our unique design
- > **AVAILABLE WITH YAG AND CO₂ CALIBRATIONS**
All HP models can be calibrated at YAG and CO₂ wavelengths with a calibration uncertainty of $\pm 5\%$
- > **DIRECT USB CONNECTION TO A PC**
Each head comes with both a DB15 connector (for use with a Gentec-EO display device) and a USB2.0 output for direct connection to a PC. Other connectors available upon request
- > **TRACK WATER PARAMETERS**
Water flow and temperature are monitored in real time and displayed continuously
- > **HIGH POWER NIST-TRACEABLE CALIBRATION WITH A 5 KW FIBER LASER**

OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**
Contains all the calibration data
- > **USB PORT**
 - Connects directly to a PC
 - Included in all HP models
- > **BLU WIRELESS METER** 
Connects via Bluetooth to a PC

COMPATIBLE DISPLAYS & PC INTERFACES



MIRO ALTITUDE



MAESTRO



TUNER



UNO

ACCESSORIES



Stand with steel post
For 30 kW model



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



5 m USB cable
(Included)



Pelican carrying case



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Specifications



*Also traceable to NRC-CNRC



HP280A-30KW-HD		CUSTOMIZATION CAPABILITIES
MAX AVERAGE POWER	30000W	Upto100000W
EFFECTIVE APERTURE	280x280mm	Up to 500 x 500 mm
COOLING METHOD	Water-cooled	Water-cooled
MEASUREMENT CAPABILITY		
Spectral range	0.19-20 μm	0.19-20 μm
Calibrated spectral range ^a	0.248- 21 μm	0.248 - 25 μm & 106 μm
Noise equivalent power ^b	$\pm 25\text{W}$	Adapted to maximum power
Minimum average power ^c	1000W	Adapted to maximum power
Rise time (nominal)	25s	545s
Calibration uncertainty		
at 1064 nm	$\pm 5\%$	$\pm 5\%$
at 0.25- 2.5 μm	$\pm 6\%$	$\pm 6\%$
Repeatability	$\pm 2\%$	$\pm 2\%$
Linearity with power	$\pm 2\%$	$\pm 2\%$
Linearity vs beam diameter ^d	$\pm 2\%$	$\pm 2\%$
DAMAGE THRESHOLDS		
Maximum average power density ^e		
10kW	2.5kW/cm ²	2.5kW/cm ²
25kW	---	0.25kW/cm ²
30kW	0.2kW/cm ²	0.2kW/cm ²
PHYSICAL CHARACTERISTICS		
Effective aperture	280x280mm	Square apertures up to 400 x 400 mm Rectangular and round apertures also available
Absorber (high damage threshold)	HD	HD
Cooling water		
Required cooling flow	0-30 kW: 05 -18) LPM < $\pm 1\text{LPM}/\text{min}^{-1}$ 0-10 kW: (8 -12) LPM < $\pm 1\text{LPM}/\text{min}^{-1}$	Adapted to maximum power
Temperature range	15- 25 °C	15-25 °C
Rate of temperature change	< $\pm 3^\circ\text{C}/\text{min}$	< $\pm 3^\circ\text{C}/\text{min}$
Dimensions	300H x 300W x 92D mm	
Weight (head only)	20kg	
ORDERING INFORMATION		
Available output options	DB15 & USB or Bluetooth & USB	DB15 & USB or Bluetooth & USB
Compatible stand	STAND HP280A-30KW-HD	Ask
Product page		

- a. Calibrations at 21 to 25 μm and 106 μm are available on special request.
b. Nominal value, actual value depends on electrical noise in the measurement system.
c. For lower powers, call your Gentec-EO representative.
d. For a centered beam with size from 20% to 80% of the total aperture.
e. At 1064 nm, 1.07-7.08 μm and 10.6 μm .
f. $> 1\text{min}$