HP60

60 mm Ø with cone reflector, 300 W - 15 000 W

New product

KEY FEATURES

HIGH POWER HANDLING
Handles up to 15 kW of continuous power. Custom models available for higher powers.

LOW BACK REFLECTIONS
The cone reflector traps most of the incident laser power inside the detector head. With its TUBE extension, the HP60A-15KW-GD-TUBE has the lowest back reflection rating: under 2%.

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%

DIRECT USB CONNECTION TO A PC
Each head comes with both a DB15 connector (for use with a Gentec-EO display device) and a USB output for direct connection to a PC

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

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

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

5 m USB cable
(Included)

Water filter
(Metric: 202984, Imperial: 202990)

Pelican carrying case

**A USB power adaptor will be necessary if the HP is used with a DB15 extension cable.*

HP60
Specifications

*Also traceable to NRC-CNRC

	HP60A-10KW-GD	HP60A-15KW-GD	HP60A-15KW-GD-TUBE
MAX AVERAGE POWER	10 kW	15 kW	15 kW
EFFECTIVE APERTURE	60 mm Ø	60 mm Ø	70 mm Ø
COOLING METHOD	Water-cooled	Water-cooled	Water-cooled
MEASUREMENT CAPABILITY			
Spectral range	0.8 - 12 µm	0.8 - 12 µm	0.8 - 12 µm
Calibrated spectral range [a]	0.8 - 2.1 µm	0.8 - 2.1 µm	0.8 - 2.1 µm
Noise equivalent power [b]	10 W	15 W	15 W
Minimum average power [c]	300 W	500 W	500 W
Rise time (nominal)	12 s	15 s	15 s
Back reflections	10%	5 - 10%	1 - 2%
Calibration uncertainty	± 5% at 1064 nm & 1070 nm	± 5% at 1064 nm & 1070 nm	± 5% at 1064 nm & 1070 nm
Repeatability	± 2%	± 2%	± 2%
Linearity with power	± 2%	± 2%	± 2%
Linearity with beam diameter	± 2.0%	± 2.5%	± 2.5%
Linearity with beam position [d]	± 3.0%	± 4.0%	± 4.0%
DAMAGE THRESHOLDS			
Maximum average power density [e]			
1 kW	70 kW/cm²	70 kW/cm²	70 kW/cm²
5 kW	35 kW/cm²	35 kW/cm²	35 kW/cm²
10 kW	20 kW/cm²	20 kW/cm²	20 kW/cm²
15 kW		10 kW/cm²	10 kW/cm²
PHYSICAL CHARACTERISTICS			
Effective aperture	60 mm Ø	60 mm Ø	70 mm Ø tube aperture
Absorber	GD (cone reflector)	GD (cone reflector)	GD (cone reflector)
Cooling water			
Required cooling flow [f]	(6 - 8) LPM < ± 1 LPM/min	(8 - 10) LPM < ± 1 LPM/min	(8 - 10) LPM < ± 1 LPM/min
Temperature range	15 - 25 °C	15 - 25 °C	15 - 25 °C
Rate of temperature change	< ± 3°C/min	< ± 3°C/min	< ± 3°C/min
Maximum water pressure (input)	413 kPa (60 psi)	413 kPa (60 psi)	413 kPa (60 psi)
Dimensions	127H x 127W x 97D mm	153H x 153W x 97D mm	153H x 153W x 272D mm
Weight	6 kg	10 kg	15 kg
ORDERING INFORMATION			
Available output options	DB15 & USB or Bluetooth & USB	DB15 & USB or Bluetooth & USB	DB15 & USB or Bluetooth & USB
Compatible stand	STAND-S-443-C	2x STAND-S-443-C	3x STAND-S-443-C
Product page			

a. Calibrations at 2.1 to 2.5 µm and 10.6 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 beam size of 20% of the aperture area, moved across 80% of the aperture area.
e. At 1064 nm, 1.07-1.08 µm and 10.6 µm, for beams < 50 mm Ø.
f. > 1 min. contact Gentec-EO for deionized water cooling module option.