ATS-810-M THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

-80° to +225°C

Designed for **60Hz operation only**, this Advanced Temperature Source is for fast and precise thermal conditioning of components, parts, hybrids, modules, subassemblies, and printed circuit boards. Capable of ultra-low temperatures **without** the use of Liquid Nitrogen (LN_2) or Liquid Carbon Dioxide (LCO_2).

PERFORMANCE:

Temperature Range*
-80 to +225°C
No LN_2 or LCO_2 Required

Transition Rate*
-55 to +125°C, approx. 10 seconds or less
125 to -55°C, approx. 10 seconds or less

System Airflow Output*
4 to 18scfm (1.9 to 8.5 l/s) Continuous

* under nominal operating conditions
ultimate low temperatures (±1°C) achieved at 12scfm

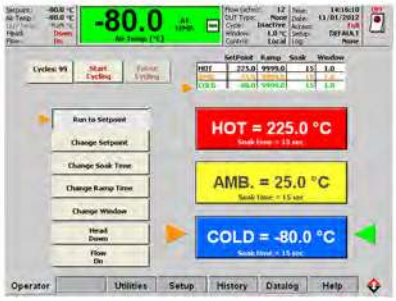
TEMPERATURE CONTROL:

Temperature Display & Resolution
+/- 0.1°C

Temperature Accuracy
1.0°C (when calibrated against NIST standard)

DUT Temperature Control
proprietary control algorithm enables DUT temperature to be directly controlled

DUT Sensor Ports
internal diode, thermocouples (T & K), RTD (100 Ohm platinum)



OPERATOR SCREEN

FEATURES:

- **Frost Free Feature**
  dry air purge for tester interface, prevents condensation: 0.5 to 3scfm (0.25 to 1.5 l/s)
- **ECO Friendly Features**
  Automatic Power Reduction
  reduces power usage during idle periods
  Heat Only Mode
  reduces power usage when cold temperatures are not used
- **Heated Defrost Feature**
  quickly removes moisture buildup from internal chiller
- **Fully Adjustable Thermal Head**
- Windows® OS
- Local & Remote Operations
- LabView™ & LabWindows® drivers
- On-Screen Help
- Ethernet, IEEE-488, RS232 ports
- USB, keyboard, mouse, & printer ports
- customizable and savable test setups
- Program & Datalog Storage (via ethernet or USB)
- User Defined Temperature Limits

DATALOG SCREEN

APPLICATION OPTIONS:

- **Thermal Cap or FlexExtender Hose**
  4.5 or 5.5 inch ID Thermal Cap or optional FlexExtender Hose for connection to external Thermal Chambers or enclosures
- **MobileTemp™ Thermal Chambers**
  Temperature Chambers designed specifically for uses with ATS THERMOSTREAM® Systems. See Additional Datasheets for details.

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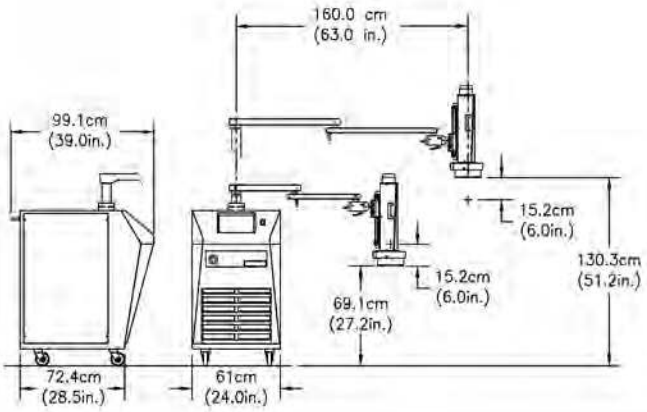
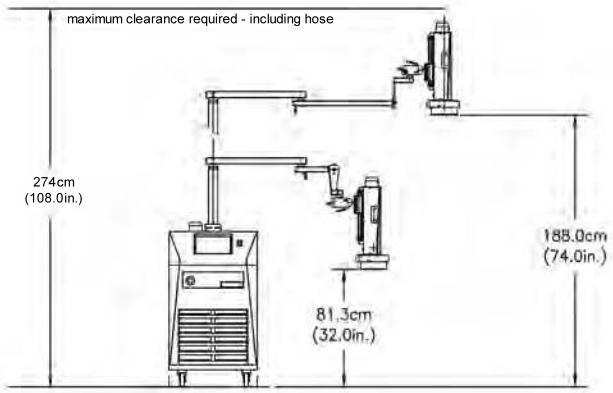
Specifications

ATS-810-M THERMOSTREAM®
Advanced Temperature Source

System Dimensions - Standard



System Dimensions - Extended Height



Weights and Dimensions

Base [1]	Width: 61.0 cm (24 in.), Depth: 72.4 cm (28.5 in.) Height: 108 cm (42.5 in.)
System Weight	Not packed: 236 kg (520 lbs.) Packed: 365 kg (805 lbs.)
Mobility	Four static dissipative, swivel caster wheels
Maximum Reach	160.0cm (63 in.)
Maximum Operating Height	130.3 cm (51.2 in.) - extended height option: 188.0 (74.0 in.)
Minimum Operating Height	69.1 cm (27.2 in.) - extended height option: 81.3 (32.0 in.)
Noise Level	<65dBA

[1] an additional 20.3cm (8 in.) clearance is required for supply connections and cabinet ventilation

Service and Safety

Refrigerants	HCFC and CFC-free, non-toxic, non-flammable
Serviceability	Auto-diagnostics and field replaceable modules
Over Temperature Protection	+230°C (factory set): Operator can set high and low air temperature limits

Facility Requirements

Power [2]	**60Hz only, system does not operate at 50Hz** 200 - 250 VAC (230V nominal), 60Hz, 30 amp, 1phase
Compressed Air [3]	
Clean, Dry Air (CDA)	Filtered to 5 micron particulate contamination. Oil Content: <0.1 ppm, by weight, filtered to 0.01 micron oil contaminant. Dewpoint: <10°C @ 6.2 BAR (90PSI)
Air Supply Pressure	6.2 to 7.6 BAR (90 to 110 PSIG)
Total Air Flow Rate Required	7.1 to 14.2 l/s (15-30 scfm) 11.8 l/s (25 scfm) nominal
Air Supply Temperature	+20° to +25°C; +22°C nominal
Operating Environment [3]	
Operating Temperature	+20° to +28°C; +23°C nominal
Humidity	0 to 60%; 45% nominal

[2] System is configured for operation within voltages listed above using an internal transformer. Please specify power configuration with order

[3] Under operating conditions which are greater or less than nominal, performance may be less than specification provided

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