

ATS-730-M THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

-90° to +225°C



Advanced Temperature Source 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 (LN₂) or Liquid Carbon Dioxide (LCO₂).

PERFORMANCE:

Temperature Range*

-85 to +225°C (50Hz)

-90 to +225°C (60Hz)

No LN₂ or LCO₂ 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°) achieved at 18scfm

TEMPERATURE CONTROL:

Temperature Display & Resolution

+/- 0.1°C

Temperature Accuracy

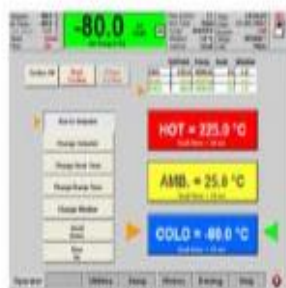
1.0°C (when calibrated against NIST standard)

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

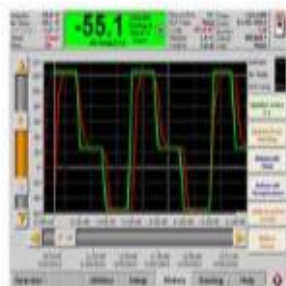
▶ USB, keyboard, mouse, & printer ports

▶ 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

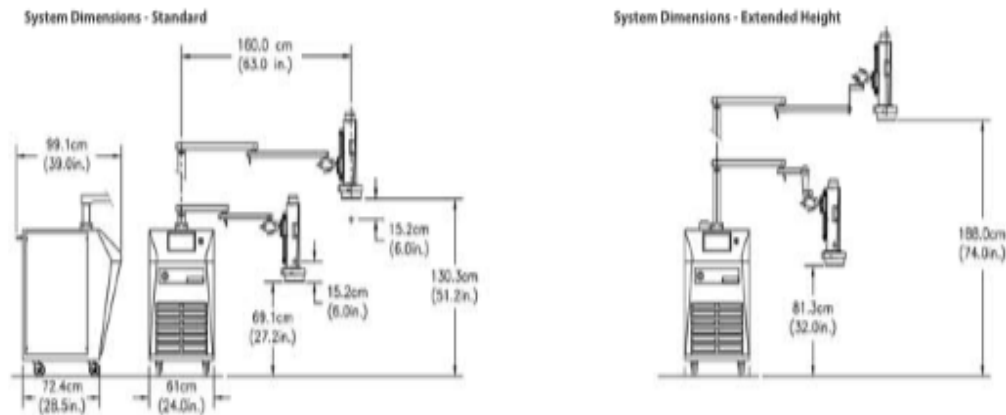
▶ MobileTemp™ Thermal Chambers

Temperature Chambers designed specifically for uses with ATS THERMOSTREAM® Systems. See Additional Datasheets for details.



Specifications

ATS-730-M THERMOSTREAM[®] Advanced Temperature Source



Weights and Dimensions

Base¹	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	160.0 cm (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 23.1 cm (9 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

Power²	200 - 250 VAC (230V nominal), 50/60Hz 30 amp, 1 phase
Compressed Air³	
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 Environment³	
Operating Temperature	+20° to +28°C; +23°C nominal
Humidity	0 to 60%; 45% nominal



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ISO 9001 Certified



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