ATS-830-M THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

-90° 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 (LN₂) or Liquid Carbon Dioxide (LCO₂).

PERFORMANCE:
Temperature Range*
-90 to +225°C
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°C) achieved at 18scfm

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

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

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)

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

APPLICATION OPTIONS:
► MobileTemp™ Thermal Chambers
Temperature Chambers designed specifically for uses with ATS THERMOSTREAM® Systems. See Additional Datasheets for details.
### Specifications

**ATS-830-M THERmostream®**

**Advanced Temperature Source**

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#### 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** | 160.0 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 |

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#### 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 |

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#### Facility Requirements

| **Power** 2 | 60Hz only, system does not operate at 50Hz |
| **Compressed Air** 3 | 200 - 250 VAC (230V nominal), 60Hz, 30 amp, 1 phase |
| **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 (90PSIG)  
| **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 | +20° to +28°C; +23°C nominal |
| **Operating Temperature** | 0 to 60%; 45% nominal |

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

2 Under operating conditions which are greater or less than nominal, performance may be less than specification provided.

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**inTEST Thermal Solutions**

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**ISO 9001 Certified**

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part number SL10870A