ATS-505 THERMOSTREAM®

Advanced Temperature Source for fast and precise thermal conditioning of components, parts, hybrids, modules, subassemblies, and printed circuit boards. Capable of low temperatures without the use of Liquid Nitrogen (LN₂) or Liquid Carbon Dioxide (LCO₂).

**PERFORMANCE:**
- Temperature Range*: -20° to +225°C (50/60Hz)
- No LN₂ or LCO₂ Required

**System Airflow Output**
- 4 to 10 scfm (1.9 to 4.7 l/s) Continuous
- *-20°C temperature achieved at 4scfm under nominal operating conditions

**TEPERATURE 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 thermocouples (type T & K)

**FEATURES:**
- Customizable and savable test setups
- Program & Datalog Storage
- User Defined Temperature Limits
- Local & Remote Operations
- LabView™ drivers
- IEEE-488, RS232 ports

**SYSTEM OPTIONS:**
- **Benchmount Stand Assembly**
  - Attaches the Thermal Wand Stand Assembly directly to a bench top. Can be mounted up to 30.5cm (12 inches) from controller chassis.
- **Pneumatic Wand Lift Assembly**
  - Automates the raising and lowering of the Thermal Wand for the loading and unloading of the DUT.

**APPLICATION OPTIONS:**
- **Thermal Cap**
  - 3.9 or 5.5 inch ID Thermal Cap
Specifications

ATS-505 THERMOSTREAM®
Advanced Temperature Source

System Dimensions - Standard

Weights and Dimensions

Dimensions

- **Controller:** 40.1 cm (15.8 inches) WIDE x 14.8 cm (5.8 inches) HIGH x 48.9 cm (19.2 inches) DEEP
- **Thermal Wand:** 8 cm (3 inches) DIAMETER, 36 cm (14 inches) LONG
- **Stand:** 48.25 cm (19 inches) approximately above benchtop to top of post
- **Reach from Vertical Post:** standard, 51 cm (20 inches)

Weight

- Controller with Thermal Wand and Hose: 14.5 kg (32 lbs.)
- Thermal Wand Stand Assembly: 7 kg (5.5 lbs.)
- Thermal Cap: 0.45 kg (1 lb.)

Noise Level

<70dBA

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**

200 - 250 VAC (230V nominal),
50/60Hz 10 amp, 1phase

**Compressed Air**

Filtered to 5 micron particulate contamination.
Oil Content: <0.1 ppm, by weight, filtered to
0.01 micron oil contaminant.
Dewpoint: ambient to -40°C

**Air Supply Pressure**

5.6 to 7 kg/cm² (80 to 90 PSIG)
5.6 kg/cm² (90 PSIG) nominal

**Total Air Flow Rate Required**

4 to 5 l/s (8-10 scfm)
4.5 l/s (9 scfm) nominal

**Air Supply Temperature**

+20° to +28°C; +23°C nominal

**Operating Environment**

+20° to +28°C; +23°C nominal

**Operating Temperature**

+20° to +28°C; +23°C nominal

**Humidity**

0 to 60%; 45% nominal

1 Reduced performance at operating conditions less than or greater than nominal
2 -40°C dewpoint is nominal for low temperature testing for extended periods
3 Under operating conditions which are greater or less than nominal, performance may be less than specification provided

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Clean, Dry Air (CDA)

Oil Content: <0.1 ppm, by weight, filtered to
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ISO 9001 Certified

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part number SL10800A