ATS-605 THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

-20° 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*
-20° to +225°C
No LN₂ or LCO₂ Required

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

FEATURES:

- customizable and savable test setups
- Program & Datalog Storage
- User Defined Temperature Limits

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

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
Thermocouples (type T & K)

Local & Remote Operations

LabView™ drivers

IEEE-488, RS232 ports

ATS-605 SHOWN WITH
OPTIONAL THERMAL STAND

OPERATOR SCREEN

PROGRAM SCREEN

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  +/− 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)

- Local & Remote Operations
- LabView™ drivers
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Specifications

ATS-605 THERMOSTREAM®
Advanced Temperature Source

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: .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

60Hz only, system does not operate at 50Hz
115 ±10% VAC, 60 Hz 15 amp, 1phase
230 ±10% VAC, 60 Hz 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) nominal
4.5 l/s (9 scfm) nominal

Air Supply Temperature

+20°C to +28°C; +23°C nominal

Operating Environment

+20°C to +28°C; +23°C nominal

Operating Temperature

0 to 60%; 45% nominal

Humidity

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