

# ATS-545-T THERMOSTREAM®

## DATASHEET AND SPECIFICATIONS

-80° 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 (LN<sub>2</sub>) or Liquid Carbon Dioxide (LCO<sub>2</sub>).

### PERFORMANCE:

#### Temperature Range\*

-75 to +225°C (50Hz)

-80 to +225°C (60Hz)

No LN<sub>2</sub> or LCO<sub>2</sub> 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 ( $\pm 1^\circ$ ) 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

thermocouples (type T & K)

### 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 Feature

Heat Only Mode  
reduces power usage when cold temperatures are not used

► Local & Remote Operations

► LabView™ drivers

► IEEE-488, RS232 ports

► customizable and savable test setups

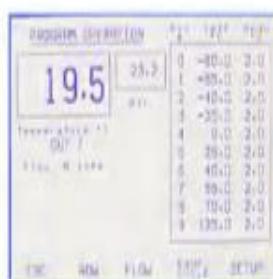
► Program & Datalog Storage

► User Defined Temperature Limits



OPERATOR SCREEN

#### Fully Adjustable Thermal Head



PROGRAM SCREEN

### APPLICATION OPTIONS:

#### FlexExtender Hose

FlexExtender Hose for connection to external Thermal Chambers or enclosures. 2', 4', or 6' length standard, custom lengths available.

note: FlexExtender length affects performance

#### MobileTemp™ Thermal Chambers

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

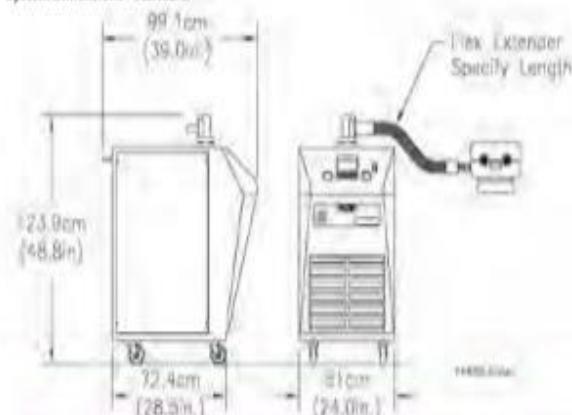


# Specifications

## ATS-545-T THERMOSTREAM®

Advanced Temperature Source

### System Dimensions - Standard



### Weights and Dimensions

**Base<sup>1</sup>** Width: 61.0 cm (24 in.), Depth: 72.4 cm (28.5 in.)

Height: 123.9 cm (48.8 in.)

**System Weight** Not packed: 226 kg (500 lbs.)

Packed: 341 kg (762 lbs.)

**Mobility**

Four static dissipative, swivel caster wheels

**FlexExtender Length**

FlexExtender hose available in 1', 2', and 4' standard lengths  
custom lengths available

**Noise Level**

<65dBA

<sup>1</sup> An additional 20.5cm (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<sup>2</sup>** 200 - 250 VAC (230V nominal),  
50/60Hz 30 amp, 1 phase

#### Compressed Air<sup>3</sup>

**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)

**Air Supply Temperature**

11.8 l/s (25 scfm) nominal

+20° to +25°C; +22°C nominal

**Operating Environment<sup>3</sup>**

+20° to +28°C; +23°C nominal

**Operating Temperature**

0 to 60%; 45% nominal

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ISO 9001 Certified



<sup>2</sup> System is configured for operation within voltage listed above using ac internal transformer. Please specify power configuration with order.

<sup>3</sup> Under operating conditions which are greater or less than normal, performance may be less than specification provided.