

# ATS-515 THERMOSTREAM®

DATASHEET AND SPECIFICATIONS

**-45° 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\*

-45 to +225°C (50/60Hz)

No LN<sub>2</sub> or LCO<sub>2</sub> Required

### Transition Rate\*

-40 to +125°C, <12 seconds

+125 to -40°C, <40 seconds

### System Airflow Output\*

4 to 10scfm (1.9 to 4.7 l/s) Continuous

\*Under nominal operating conditions.

Transition rates achieved with 20amp system, 10scfm

## 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



OPERATOR SCREEN



PROGRAM 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 Feature

#### Heat Only Mode

reduces power usage when cold temperatures are not used

### ► Fully Adjustable Thermal Head

### ► Local & Remote Operations

### ► LabView™ drivers

### ► IEEE-488, RS232 ports

### ► customizable and savable test setups

### ► Program & Datalog Storage

### ► User Defined Temperature Limits

## APPLICATION OPTIONS:

### ► Thermal Cap

5.5 inch ID Glass Thermal Cap to enclose your test subject

### ► High Performance Air Dryer

(optional) a 20scfm air dryer for drying supply air to <-70°C dewpoint, refer to air dryer data sheet (SL10690) for technical specifications

### ► System Cart

(optional) a castered, heavy-duty, steel cart for portability and easy mounting of thermal head and operator control module

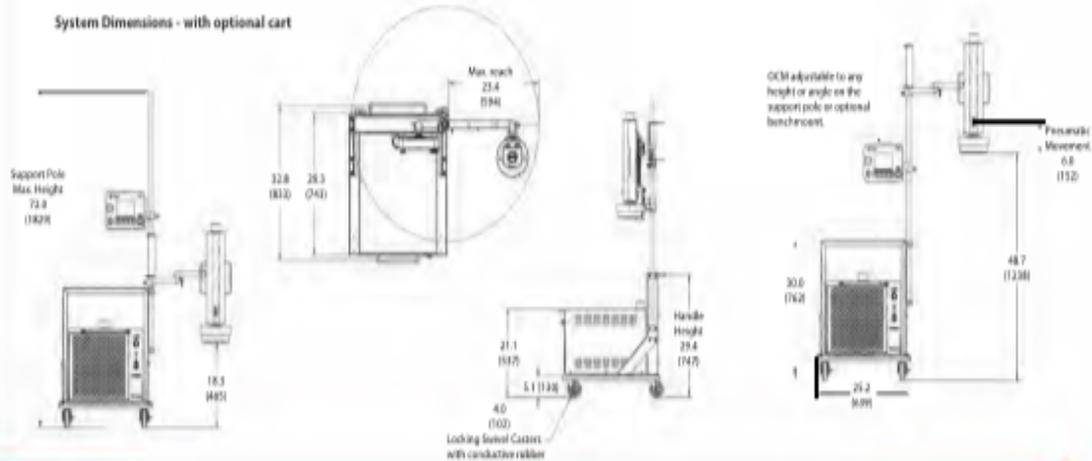
### ► Benchmount

(optional) conveniently clamps the thermal head to a benchtop or workstation



# Specifications

# ATS-515 THERMOSTREAM<sup>®</sup> Advanced Temperature Source



## Weights and Dimensions

<b>Dimensions</b>	<b>Controller:</b> 26.7cm (10.5 inches) wide X 20.7cm (8.13 inches) high X 9.8cm (3.8 inches) deep <b>Chiller:</b> 51.3cm (20.2 inches) wide X 41.4cm (16.3 inches) high X 74.9cm (29.5 inches) deep
<b>Weight</b>	<b>System:</b> 112.0kg (247lbs.) <b>Chiller:</b> 74.5kg (157lbs) <b>Chiller with Cart:</b> 100.8kg (215lbs)
<b>Noise Level</b>	<60dBA

## Service and Safety

<b>Refrigerants</b>	HCFC and CFC-free, non-toxic, non-flammable
<b>Serviceability</b>	Auto-diagnostics and field replaceable modules
<b>Over Temperature Protection</b>	+230°C (factory set); Operator can set high and low air temperature limits

## Facility Requirements

<b>Power<sup>1</sup></b>	115 ±10% VAC, 60Hz, 20amp (15amp available) 100 ±10% VAC, 50Hz, 20amp (15amp available) 200 ±10% VAC, 50Hz, 16amp 220 ±10% VAC, 60Hz, 16amp 230 ±10% VAC, 50Hz, 16amp
<b>Compressed Air<sup>2</sup></b>	
<b>Clean, Dry Air (CDA)</b>	Filtered to 5 micron particulate contamination. Oil Content: <0.1 ppm, by weight, filtered to 0.01 micron oil contaminant. Dewpoint: <-70°C @ 6.2 BAR (90PSI)
<b>Air Supply Pressure</b>	5.5 to 7.6 BAR (90 to 110 PSIG)
<b>Total Air Flow Rate Required</b>	5.7 l/s (12 scfm) 2.8 l/s (6scfm) minimum
<b>Air Supply Temperature</b>	+20° to +25°C; +22°C nominal
<b>Operating Environment<sup>3</sup></b>	
<b>Operating Temperature</b>	+20° to +28°C; +23°C nominal
<b>Humidity</b>	0 to 60%; 45% nominal



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<sup>1</sup> System is configured for operation within the voltages listed above. Please specify power configuration with order.

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