

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 (LN₂) or Liquid Carbon Dioxide (LCO₂).

PERFORMANCE:

Temperature Range*
-45 to +225°C (50/60Hz)
No LN₂ or LCO₂ 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

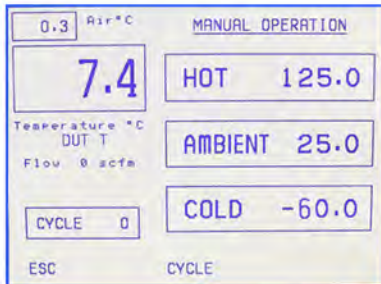
TEMPERATURE CONTROL:

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

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

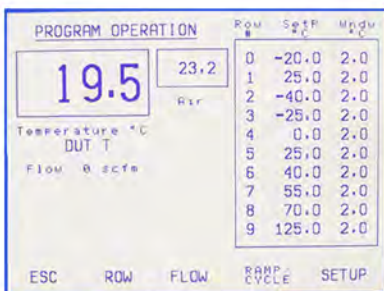
- ▶ Local & Remote Operations
- ▶ LabView™ drivers
- ▶ IEEE-488, RS232 ports
- ▶ customizable and savable test setups
- ▶ Program & Datalog Storage
- ▶ User Defined Temperature Limits

Fully Adjustable Thermal Head

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



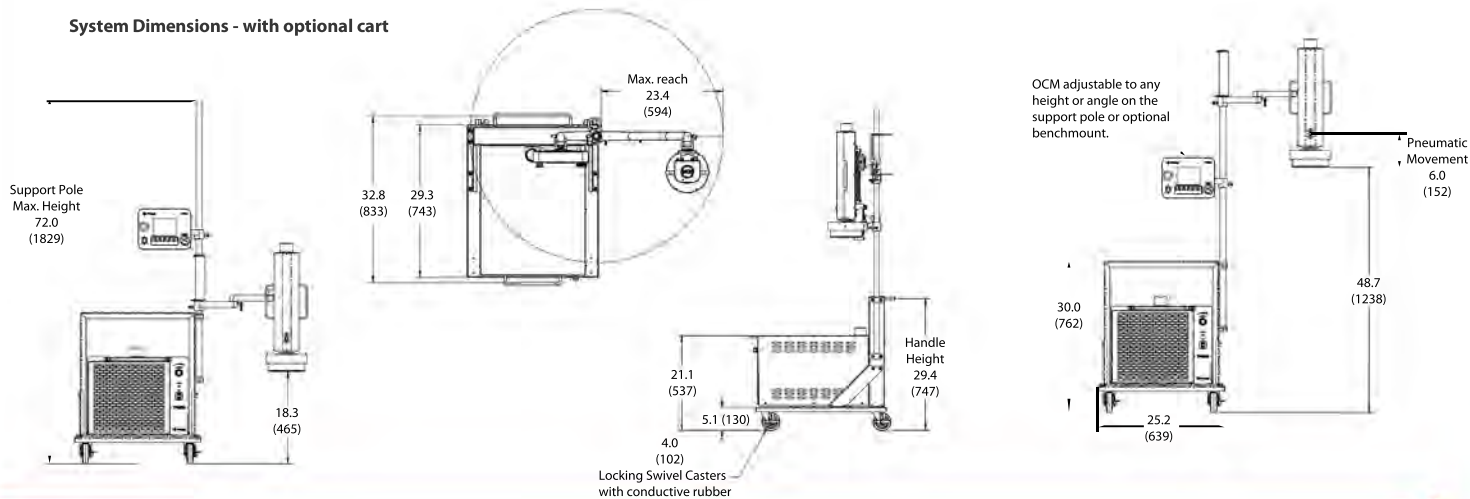
PROGRAM SCREEN



Specifications

ATS-515 THERMOSTREAM® Advanced Temperature Source

System Dimensions - with optional cart



Weights and Dimensions

Dimensions

Controller: 26.7cm (10.5 inches) wide X 20.7cm (8.13 inches) high X 9.8cm (3.8 inches) deep

Chiller: 51.3cm (20.2 inches) wide X 41.4cm (16.3 inches) high X 74.9cm (29.5 inches) deep

Weight

System: 112.0kg (247lbs.)

Chiller: 74.5kg (157lbs)

Chiller with Cart: 100.8kg (215lbs)

Noise Level

<60dBA

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

Power²

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

Compressed Air³

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: <-70°C @ 6.2 BAR (90PSI)

Air Supply Pressure

5.5 to 7.6 BAR (90 to 110 PSIG)

Total Air Flow Rate Required

5.7 l/s (12 scfm)
2.8 l/s (6scfm) minimum

Air Supply Temperature

+20° to +25°C; +22°C nominal

Operating Environment³

Operating Temperature

+20° to +28°C; +23°C nominal

Humidity

0 to 60%; 45% nominal



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ISO 9001 Certified



² System is configured for operation within voltages listed above. Please specify power configuration with order.

³ Under operating conditions which are greater or less than nominal, performance may be less than specification provided.