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 (LN$_2$) or Liquid Carbon Dioxide (LCO$_2$).

**PERFORMANCE:**

Temperature Range*  
-60° to +225°C  
No LN$_2$ or LCO$_2$ required

Transition Rate*  
-40 to +125°C, <12 seconds  
+125 to -40°C, <40 seconds

System Airflow Output*  
5 scfm (2.4 l/s) Fixed Flow Rate

*Under nominal operating conditions.

**FEATURES:**

- **Frost Free Feature**  
  dry air purge for tester interface, prevents condensation: 0.5 to 3 scfm (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**

**APPLICATION OPTIONS:**

- **Thermal Cap**  
  5.5 inch ID Glass Thermal Cap to enclose your test subject

- **High Performance Air Dryer**  
  (optional) a 20 scfm 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

**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
Specifications

ATS-625 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

Power

60Hz only, system does not operate at 50Hz
115 ±10% VAC, 60Hz, 20amp
220 ±10% VAC, 60Hz, 20amp

Compressed Air

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)
5.7 l/s (12 scfm)

Total Air Flow Rate Required

2.8 l/s (6scfm) minimum

Air Supply Temperature

+20° to +25°C; +22°C nominal

Operating Environment

+20° to +28°C; +23°C nominal

Operating Temperature

Humidity

0 to 60%; 45% nominal

1 System is configured for operation within voltages listed above. Please specify power configuration with order.
2 Under operating conditions which are greater or less than nominal, performance may be less than specification provided.