

ThermoStream® ECO-710-M

20 Amp, Ultra Quiet

-80 to +225°C



Data Sheet

The ECO Series is designed with the laboratory environment in mind where audible noise and heat dissipation are concerns. It operates on an energy-efficient, 20 amp, 50/60Hz circuit and incorporates our proprietary **WhisperStream® technology** delivering quiet, smooth-sounding operation. These fast, precise temperature forcing systems provide effective testing and conditioning of electronic components, boards and modules. Built with proven ThermoStream reliability and supported worldwide.

PERFORMANCE

Temperature Range*

-80 to +225°C (50/60Hz)

No LN₂ or LCO₂ Required

Transition Rate*

-55 to +125°C, approx. 10 seconds

125 to -55°C, approx. 10 seconds

System Airflow Output*

4 to 18scfm (1.9 to 8.5 l/s) Continuous

* under nominal operating conditions
ultimate high & low temperatures (±1°) 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

internal diode, thermocouples (T & K), RTD (100 Ohm platinum)

FEATURES

► ECO Friendly

20 Amp Operation

full performance with 20 amp service

Automatic Power Reduction

reduces power usage during idle periods

Heat Only Mode

reduces power usage when cold temperatures are not used

► WhisperStream Technology

quieter, smooth-sounding operation, 56 dBA

► Frost Free Test Environment

dry air purge for tester interface, prevents condensation: 0.5 to 3scfm (0.25 to 1.5 l/s)

► Heated Defrost

quickly removes moisture buildup from internal chiller

► Fully adjustable thermal head

► Windows® OS

► Local & remote operations

► LabView™ & LabWindows® drivers

► On-screen help

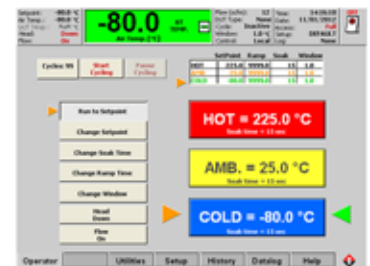
► Ethernet, IEEE-488, RS232 ports

► USB, mouse ports

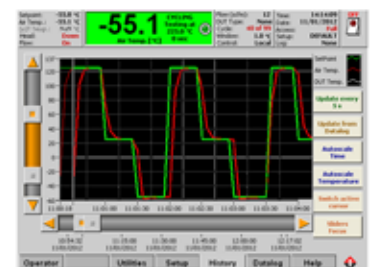
► Customizable and savable test setups

► Program & datalog storage
(via ethernet or USB)

► User defined temperature limits



OPERATOR SCREEN



DATALOG SCREEN

APPLICATION OPTIONS

► Thermal Cap or FlexExtender Hose

4.5 or 5.5 inch ID Thermal Cap or optional FlexExtender Hose for connection to external Thermal Chambers or enclosures

► MobileTemp™ Thermal Chambers

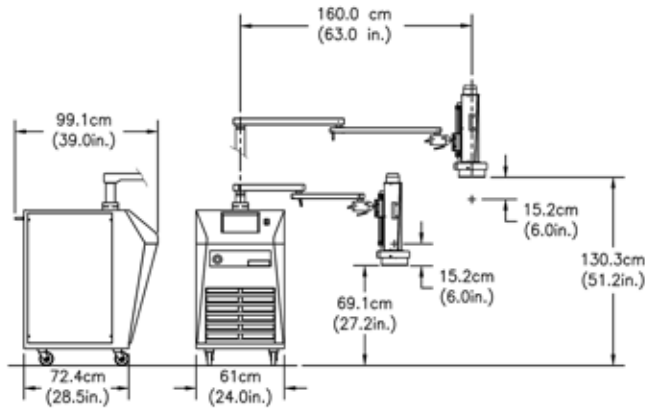
Temperature Chambers designed specifically for use with ThermoStream systems. See Additional Datasheets for details.



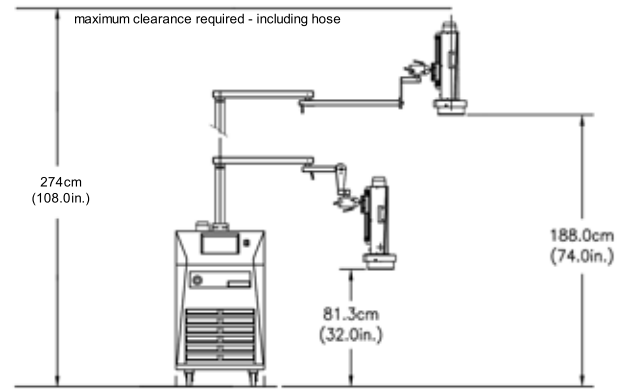
Specifications

ECO-710-M THERMOSTREAM® With WhisperStream quiet technology

System Dimensions - Standard



System Dimensions - Extended Height



Weights and Dimensions

Base¹

Width: 61.0 cm (24 in.), Depth: 72.4 cm (28.5 in.)

Height: 108 cm (42.5 in.)

System Weight

Not packed: 236 kg (520 lbs.)

Packed: 365 kg (805 lbs.)

Mobility

Four static dissipative, swivel caster wheels

Maximum Reach

160.0cm (63 in.)

Maximum Operating Height

130.3 cm (51.2 in.) - extended height option: 188.0 (74.0 in.)

Minimum Operating Height

69.1 cm (27.2 in.) - extended height option: 81.3 (32.0 in.)

Noise Level

< 56 dBA

¹ an additional 20.3cm (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

Settable high and low air temperature limits (factory set at +230°C)

Compliance

CE, RoHS

Facility Requirements

Power²

200 - 250 VAC (230V nominal), 50/60Hz, 20 amp, 1phase

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: <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)

11.8 l/s (25 scfm) nominal

Air Supply Temperature

+20 to +25°C; +22°C nominal

Operating Environment³

+20 to +28°C; +23°C nominal

Humidity

0 to 60%; 45% nominal

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

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



inTEST Thermal Solutions
41 Hampden Road
Mansfield, MA 02048
TEL: 1.781.688.2300
www.inTESTthermal.com

ISO 9001 Registered



www.inTESTthermal.com
www.hakuto-vacuum.com.tw

part number SL11120A