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 LN_2 or LCO_2 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

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

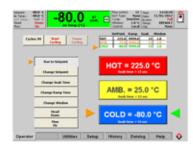
► Frost Free Test Environment

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

Without the control of the control o

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.



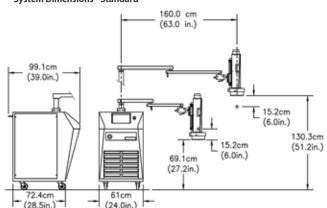
^{*} under nominal operating conditions ultimate high & low temperatures (±1°) achieved at 12scfm

Specifications

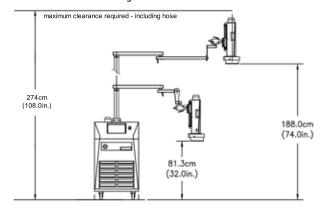
ECO-710-M THERMOSTREAM®

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 Height130.3 cm (51.2 in.) - extended height option: 188.0 (74.0 in.)Minimum Operating Height69.1 cm (27.2 in.) - extended height option: 81.3 (32.0 in.)

Noise Level < 56 dBA

Service and Safety

RefrigerantsHCFC and CFC-free, non-toxic, non-flammableServiceabilityAuto-diagnostics and field replaceable modules

Over Temperature Protection Setttable high and low air temperature limits (factory set at +230°C)

Compliance CE, RoHS

Facility Requirements

Air Supply Temperature

Operating Environment³

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 Pressure6.2 to 7.6 BAR (90 to 110 PSIG)Total Air Flow Rate Required7.1 to 14.2 l/s (15-30 scfm)

11.8 l/s (25 scfm) nominal +20 to +25°C; +22°C nominal +20 to +28°C; +23°C nominal

Humidity 0 to 60%; 45% nominal



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

ISO 9001 Registered





¹ an additional 20.3cm (8 in.) clearance is required for supply connections and cabinet ventilation

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