Fast Change Rate “FCR” Temperature & Humidity Test Chambers

The Tenney FCR Series Temperature Humidity Cycling Chamber features scroll compressor technology that provides quiet operation, fast transition rates, and reliable operations.

Multiple heating and cooling systems are available, as well as a diverse list of options that together will create the chamber to accommodate your specific application.

Features
- Synergy Quattro touch screen controller
- Ethernet & R232 communications
- Heated viewing glass window
- Chamber light
- Two 3” cable ports
- Reliable scroll compressor technology
- Nichrome wire air heater precise control
- Refrigeration Pressure transducers
- Solid state humidity sensor (when RH option is selected)
- Platinum RTD temperature sensor
- Heavy-duty leveling casters
- Thermal expansion valves for precise cooling control
- FM approved safety OTP
- Backup safety thermal cutoff
- Main electrical disconnect with Lock Out capability
- Chamber vent port
- Water cooled condenser

Options
- IEEE communications
- 5 gallon water reservoir*
- Recirculating system for humidity water*
- Water demineralizer*
- Pump to drain
- Dehumid/Dry Air Purge
- Product load control
- UUT Module
- Customer Alarm Output Contact
- Additional ports
- Shelving, adjustable and removable
- CO2 or LN2 cooling boost system
- Boost heating system
- GN2 purge system
- Maintenance Kit
- Recording instruments
- NIST Calibration
- Tenney Environmental offers calibration services accredited to the ISO 17025 standard
- Additional engineered to order custom configurations available
* Humidity Model Only

Specifications and Product Information are subject to change without notice.
Consult your Tenney Environmental Sales Representative for a full list of available options.
Synergy Quattro Controller Features

- User-friendly LCD graphical 320 x 240 color display/touch screen programmer with simple English language prompts for program entry
- Real time clock
- Near infinite number of programs and steps
- PID control with auto-tune and operator adjustable to match special chamber loading conditions (2-channel capability)
- Tenney's exclusive state of the art logic circuits automatically select the necessary refrigeration and heating capacities as well as humidification operating modes, as required to achieve the desired chamber environment
- Storage and retrieval of programs and test data from USB Port, local flash disk and/or removal PCMCIA flash card
- Separate I/O controller (Olympic) for machine interface, machine diagnostics
- RS-232 serial communications
- Advanced Ethernet (10/100) communications capabilities using TCP/IP networking protocols
- USB Port for data collection of set point temperature and humidity, actual for air temperature and humidity
- Built in limit alarms
- Flash disk on chip storage
- Microsoft's advanced WindowsTM CE operating system
- Serial communications are standard and wired externally to the cabinet with a DB9 port

Temperature Ranges

- Single stage (S, RS models) -35°C to 180°C
- Cascade (C, RC models) -68°C to 180°C

Relative Humidity Range

- 20%RH to 95%RH in the dry bulb range of 20°C to 85°C, limited by a 5°C dew point

Benefits

- Robust design delivers consistent, reliable, repeatable results that lead to higher productivity
- Improved serviceability and reduced maintenance cost
- Constructed for long life and thermal integrity

Available Sizes

- 10 ft³
- 20 ft³
- 30 ft³
- 40 ft³
- 64 ft³

Available Refrigeration Size

- 6HP
- 10HP
- 15HP
Performance is based upon an empty chamber with air temperature measured at the supply air stream, operating at 24°C (75°F) ambient air. Operating at 50Hz or higher than 24°C ambient air, performance may be reduced. Consult factory regarding any special cooling requirements.