

Commercial Testing Systems

DATATEST ERT 1000

This system is designed to meet the needs of commercial system manufacturers whose products require startup loads exceeding 100 Amps. Testing sequences are typically more comprehensive and have a duration of 10-20 min. This system specializes in multi-circuit and custom testing requirements. Testing sequence can be paused while adjustments and corrections are made.



Multi Compressor Commercial Testing System



DataServ HMI Screen



DataServ HMI Screen



Multi Compressor Commercial Testing System with Rotating Boom, Duct Load Simulator, and 200-amp Variable Transformer

Product Detail

STANDARD FEATURES:

- Rotating boom design allows system to reach multiple locations
- Customized tooling and connectors to match your product and process
- Heavy duty modular connections allowing fast change over and repairs
- High pot test initiated via safety interlocked touch switches
- Large flat screen LCD HMI (Touchscreen available)
- Comprehensive messaging and operator interaction
- Bar code scanner automatically loads test cycle
- DataServ 3.0 provides an internet accessible control interface, test configuration, production analysis/reports, and maintenance troubleshooting
- Built-in maintenance logging and PM scheduling
- Unit pressure and temperature monitoring
- Circuit breaker protection for maintenance convenience
- Adjustable power source low voltage conditions simulation
- Multiple tap construction supplies voltage from 0-600V
- Custom single phase 240V supply design for scroll compressor power demands
- Performance testing compensation for ambient conditions
- Specialized high current tooling connections
- Multiple compressor and circuit testing
- Monitors indoor blower velocity and temperature
- Output can be configured to test Delta or Wye configurations
- NFPA 70 compliant (optional)

DATA COLLECTED:

- Electrical signature: volts, amps, watts
- Component Monitoring (volts, amps): Outdoor Fan, Indoor Blower, Vent Motor, Pump, Inducer, Compressor, Start Windings
- Hypot • Continuity check • Wire test • Winding test
- Transformer verification: volts, amps, watts • Crankcase heater
- Vibration • Pressures: high side, low side, differential
- Temperatures: ambient, inlet, outlet, refrigerant lines
- Temperature compensation: amps, pressures, temperature
- Humidity • Multi speed fan operation • Water control: flow and purge
- Gas flow • Inducer differential pressure • Air flow
- DC motor verification: volts, amps, watts
- Communicating controls operation and control (CANBUS, Modbus, and Custom)
- CO2 sensor verification • Low ambient temperature verification
- Economizer verification • Alarm relay verification
- Key Component verification
- QC check verification • GUI interface verification
- Strip heat resistance verification • Defrost board verification
- Refrigerant cycle monitoring • Locked rotor monitoring
- Motor rotation monitoring • Fan speed and flow verification
- Vent/damper operation and verification • Outdoor thermostat verification
- Recirculation/sump pump operation • Compressor unloader verification
- System performance: Capacity, BTU, COP (Coefficient of Performance), Super Heat, Sub Cooling
- Low pressure cutouts • High pressure cutouts

Commercial Testing Systems (continued)

DATATEST ERT 1000

TESTS PERFORMED:

Cooling Mode:

- Verify proper electrical signature,
- Pressure and temperature ranges,
- Component operation,
- System performance, and Operating stages

Heating Mode (Heat Pump):

- Verify proper electrical signature,
- Pressure ranges,
- Temperature ranges,
- Component operation,
- Performance,
- Reversing valve operation, and Stages

Heating Mode (Electrical Heat):

- Verify proper electrical signature,
- Heater current draw or resistance,
- Temperature ranges,
- Component operation,
- Performance,
- Stages,
- Emergency backup call

Heating Mode (Gas Furnace):

- Verify proper electrical signature,
- Pressure ranges,
- Temperature ranges,
- Component operation,
- Performance,
- Burner stages,
- Gas flow,
- Inducer current draw,
- Inducer differential pressure,
- Flue operation,
- Ignition sequence,
- Low gas flow shut down
- Blocked flue shut down

Idle State:

- Verify proper electrical signature,
- Transformer operation

Defrost Board Operation:

- Verify fan shutdown and
- Heat strip operation

Dehumidification Test:

- Verify proper electrical signature,
- Pressure ranges
- Temperature ranges,
- Component operation,
- Performance,
- Stages,
- Refrigeration line temperature

Vent Package Test:

- Verify proper electrical signature,
- Component operation,
- Stages,
- Filter operation

Low Voltage Start:

- Verify proper electrical signature at brown out conditions,
- Component operation

UL Safety Test:

- Hypot,
- Ground bond,
- Insulation,
- Continuity check,
- Contactor pull-in verification

Wire Test:

- Verify proper unit connections prior to testing

Windings Test:

- Verify that unit wiring is not cross phased and power leads are connected prior to applying voltage.

Low Ambient Controls:

- Verify delayed fan operation starting and shutting down.

MACHINE FEATURES:

Test Mode

Allows operator to apply voltage to unit and manipulate thermostat controls for troubleshooting purposes or to run pilot units to collect test values.

Service Mode

Allows Maintenance to operate and monitor individual components of the tester to verify operation, troubleshoot and perform PM.

Analog Sensor Calibration

Provides a simple means of verifying sensor operation and adjusting the readings to match a control source.

Station Performance Monitoring

Track testing results over an adjustable range including pass, fail, processed, first time yield, operator idle time, etc.

Operator Security

Insure only trained operators can operate the test station, track operator efficiency, prevent unauthorized and unsafe use.

Personalized Work Instructions and Messaging

Customize and adjust the work instructions to fit the nomenclature and culture of your work environment. You have complete control over wording, font, color and size.

Network and Remote Connectivity Monitoring and Troubleshooting

On screen notifications allow the operator to know if a problem has occurred to the system connections.

Wireless Bar Code Readers Standard

Touchscreen Monitors Available

DIMENSIONS:

90"H x 134"W x 36"D

UTILITY REQUIREMENTS:

480V, 3Ø, 100A-200A