



## Process Chiller A-80-500

Thermonics specializes in the design and manufacture of low temperature standard and custom fluid chillers for challenging applications. The A-80-500 FluidChill™ system delivers high reliability and precision temperature control.

### FEATURES:

- Touch-screen controller provides precise temperature control with data logging, graphing, performance monitoring, and fault alarms
- Magnetically coupled pump to match wetted materials
- Compatible with multiple heat transfer fluids
- Communications options for remote control and reading chiller parameters



### CHILLER SPECIFICATIONS

#### COOLING AND HEATING SPECIFICATIONS

Cooling Capacity	°C	+25	0	-20	-40	-80
	kW	2.3	2.3	22	2.1	0.5
Condenser	Air-cooled					
Process Heater	1.7kW					
Process Fluid Set Point Range	-85 to +50°C					
Fluid Stability	±0.5°C (at rated load)					

#### PUMP AND PROCESS FLUID

Pump	Gear					
Process Fluid	HFE-7100 or equivalent low temp. fluid					
Wetted Materials	Standard materials include copper, nickel, brass, and plastic. <i>Optional:</i> Fully stainless steel					
Flow Rate	4 GPM (15.1 LPM) at 50 PSIG. <i>Optional:</i> Flow monitoring and control					
Available Pressure	50 PSIG (or less), <i>Optional:</i> Pressure monitoring and control					
Fluid Connections	0.5" NPT					

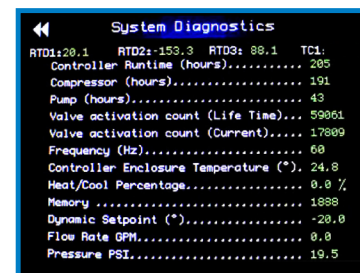
#### CONTROLS AND COMPLIANCE

User Interface	5.7" color touch-screen with temperature graphing and charting					
Temperature Measurement	Range: -210 to +680°C, Resolution: 0.1°C full scale					
Remote Communications	Ethernet, Serial-USB, Web server. <i>Optional:</i> RS-232					
Alarms	Low Flow, Low Reservoir, Out-of-temp Range. <i>Optional:</i> Drip Tray					
Diagnostics	Runtime hours (controller, chiller, compressor, pump), system performance log, valve activation counts, enclosure temperature					
Chiller Compliance	CE / RoHS / designed to meet UL1995/UL61010					

#### OPERATING REQUIREMENTS

Ambient Temperature Range	10 to 32°C (25°C nominal)					
Power Requirement	3-phase, 208 to 230v, 60Hz					
System Dimensions (approx.)	22.0"W X 42.0"D X 75.0"H (55.9 X 106.7 X 190.5cm)					

Programmable touch-screen controls with diagnostics and remote communications



Cooling capacity with 50Hz power reduced by approximately 17%. Consult factory for additional flow rate options. Specifications subject to change.





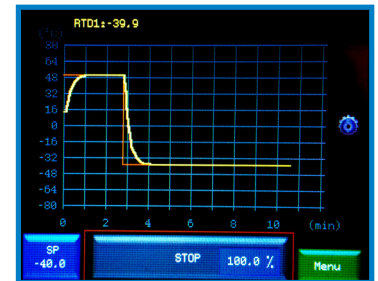
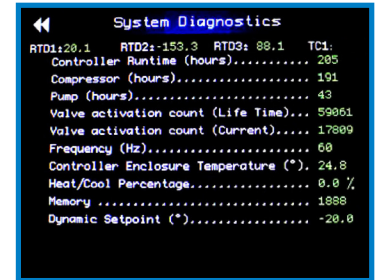
## Chiller Controller

The chiller controller provides precision temperature control with touch-screen operation, easy-to-read information, remote operation, and data logging.

Developed by our in-house engineering team, this controller provides flexible setup and customization not readily achievable with PLCs.

### FEATURES:

- Displays critical parameters such as fluid supply and return temperature and pressure (based on chiller options selected)
- Alarms for out-of-temperature range, low process flow, low reservoir level, and more
- Built-in diagnostics – valve counts, ambient temp, equipment runtimes
- Displays temperature graphs
- Communicates via Ethernet, USB, HTML Web server, RS-232 (optional)
- Logs system data and performance
- CE and RoHs compliant



CONTROLLER SPECIFICATIONS	
Temperature Measurement	Range: -210 to +680°C, Resolution: 0.1°C full scale
User Interface	5.7" color touch-screen with temperature graphing and charting
Control Safety	High and low temperature limits, Independent fail-safe modules (IFM, optional)
Diagnostics	Runtime hours (controller, chiller, compressor, pump), system performance log, valve activation counts, enclosure temperature
Operating Environment	Temperature: 10 to 50°C, Humidity: 0 to 50%
Temperature Sensors	Remote RTD (500 Ohm), thermocouple (type K)
Control Algorithms	Primary loop PID, Dual loop multiple RTD control mode
Communication Interfaces	Ethernet 10/100, Telnet, HTML web server, USB 2.0. RS232 (optional)
Alarms	Low Flow, Low Reservoir, Out-of-Temp Range. <i>Optional</i> : Drip Tray
Controller Compliance	CE / RoHS / UL61010



The inTEST Thermal family includes three temperature-related corporations: Temprotronic, Sigma Systems, and Thermonics.