



Thermonics specializes in the design and manufacture of low temperature standard and custom fluid chillers for challenging applications. The A-40-1100 FluidChill $^{\text{TM}}$ system delivers high reliability and precision temperature control.

Chiller Specifications

Cooling and Heating Capacity

Cooling Capacity	°C	+25	0	-20	-40	-45
	kW	6.6	6.6	4.0	1.1	0.5
Condenser	Air-co	oled				
Process Heater	1.7kW	1				
Process Fluid Set Point Range	-40 to	+50°0				
Fluid Stability	±0.5°	C (at r	ated loa	ıd)		

Pump and Process Fluid

Pump	Gear or Turbine	
Process Fluid	Syltherm XLT	
Wetted Materials	laterials Copper or Stainless Steel	
Flow Rate	te 4 GPM (15.1 LPM) at 50 PSIG	
Available Pressure	50 PSIG (or less)	
Fluid Connections	d Connections 0.5" NPT	

Controls and Compliance

Controls and Compilance				
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			
Alarms	Low Flow, Low Reservoir, Out-of-temp Range, Drip Tray			
Diagnostics	Runtime hours (controller, chiller, compressor, pump), system performance log, valve activation counts, enclosure temperature			
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 (approximate)	22.0" X 42.0" X 72.5" (55.9 X 106.7 X 184.2 cm)

Cooling capacity with 50Hz power reduced by approximately 17%. Consult factory for applications using other heat transfer fluids and flow rates. Specifications subject to change.



Programmable touch-screen controls with diagnostics and remote communications

Chiller Features

- Touch-screen controller provides precise temperature control with data logging, graphing, performance monitor, and fault alarms
- Stainless steel, magnetically coupled pump options
- Compatible with multiple heat transfer fluids
- Communications options for remote control and reading chiller parameters

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.

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 pressure, low fluid reservoir, over temperature
Compliance	CE / RoHS / UL61010



Controller 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

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