NRC2400
Nextreme Recirculating Chillers

The Nextreme Recirculating Chiller Series offers dependable performance in a simple, user-friendly system design. The platform offers several standard options and features that allows configuration of the product depending on specific application needs.

FEATURES

Reliable Performance
- Industry proven components
- Increased instrumentation for monitoring of system health
- Ease of maintenance

Environmentally Friendly
- Low GWP refrigerant
- Variable speed motors for increased energy efficiency and reduced noise

User-Friendly
- Logical flow of LCD touchscreen display and system operating status
- Quick start guide to allow rapid setup
- Detailed user manual for thorough system understanding

Application Specific Configurations
- Multiple cooling capacities
- Flow control and measurement options
- Several pump sizes and technologies

APPLICATIONS

Medical
- Imaging
- Biotech
- Pharmaceutical

Analytical Instrumentation
- Mass Spectrometers
- Chromatography
- Microscopes

Laser
- Surgical
- Marking
- Cutting
- Printing

Industrial
- X-Ray Scanning
- Packaging
- Additive Manufacturing

Semiconductor
- Lithography
- Ion Implant
- Etch

MODEL NUMBERING

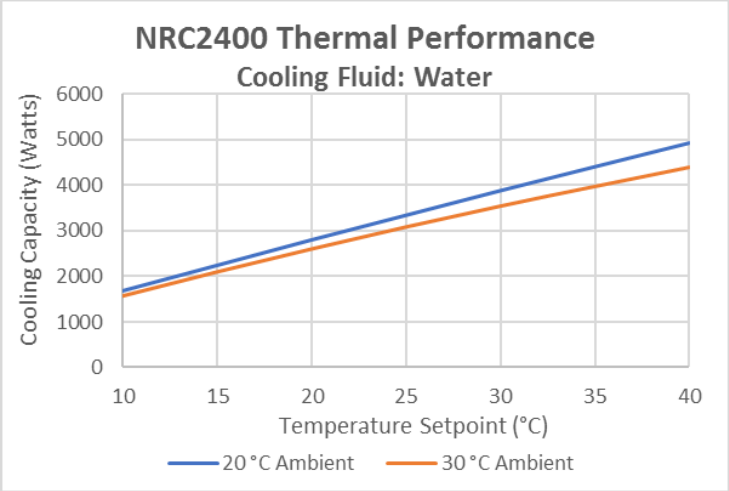
NRC2400 A1 20 ST1 _ _ _

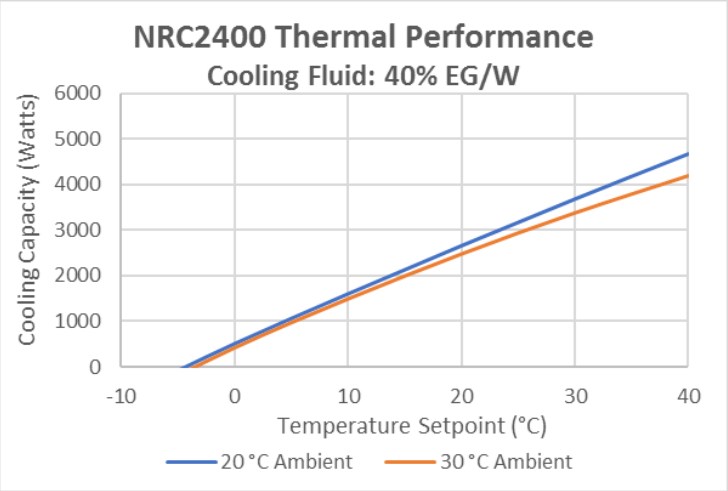
Basic Model No.	Cooling Engine	Electrical Configuration	Pump Options	System Options
NRC2400 2,800 Watts	**A1** Air Cooled / R513A **W1** Water Cooled / R513A	**20** 200-240V~, 1ph,50/60Hz	**ST1** Stainless, Turbine Pump	**D** Deionization Filter ** **F** Flow Control and Sensing **H** DI Water Compatible (High Purity) **W** Water Filter

NOTE:
System option codes are added to the end of the model number in alphabetical order.
** Must include option H with Deionization Filter.

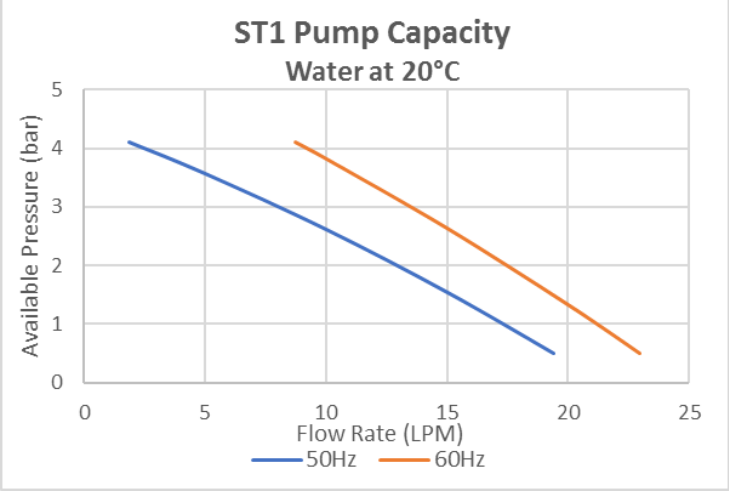
See Laird Thermal Systems Online Wizard Configurator for Manufacturer's Part Number. www.lairdthermal.com

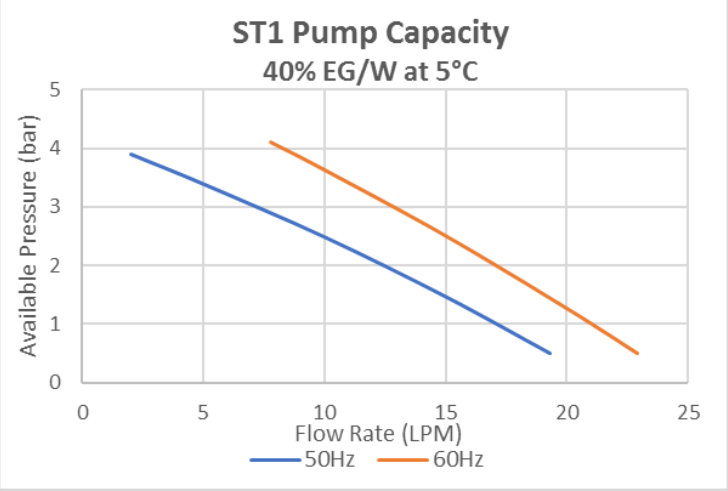
THERMAL PERFORMANCE





PUMP CAPACITY

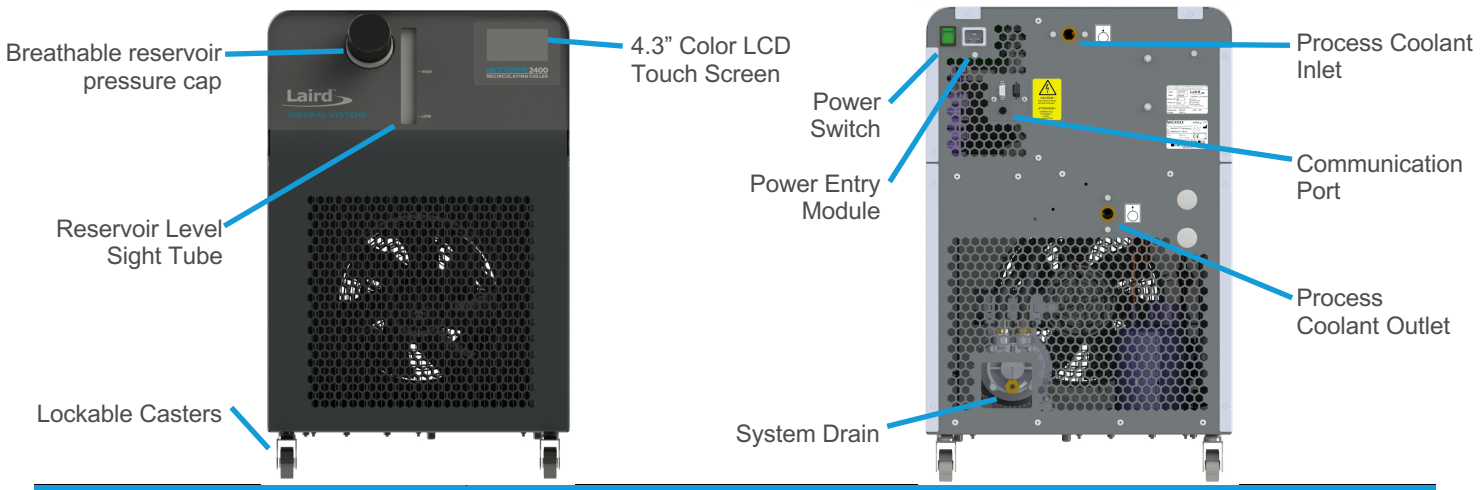




TECHNICAL SPECIFICATIONS	
Model	NRC2400
Performance	
Cooling capacity[1]	2,800 Watts (9,550 BTU/hr)
Setpoint Range	0°C to 40°C (32°F to 104°F)
Temperature Stability	±0.1°C (±0.2°F)
Nominal Flow Rate[1] (50Hz / 60Hz)	15 lpm @ 2.6 bar / 15 lpm @ 1.5 bar (3.9 gpm @ 38 psi /) 3.9 gpm @ 22 psi)
Maximum available pressure	4.1 bar (60 psi)
Refrigerant	R 513A
Storage	
Temperature, w/o coolant	-25°C to 70°C (-13°F to 158°F)
Humidity	5% to 95%, non-condensing
Operation	
Coolant	Water or Water/Glycol
Temperature[2]	15°C to 40°C (59°F to 104°F)
Relative Humidity	30% to 80%
Altitude	≤2,000 meters ≤(6,560 feet)
Input	
Voltage	200 - 240 VAC
Frequency	50/60 Hz
Physical	
Dimensions, W x D x H	48 X 52 x 75 cm (18.9 x 20.5 x 29.5 in)
Weight (w/o coolant)	54 kg (119 lbs)
Coolant Capacity	5 L (1.3 gal)
Couplings	1/2” NPT
Compliance	CE UL Mark for Laboratory Equipment (ANSI / UL / CSA / IEC EN 61010-1 Edition 3)

1. Nominal capacity rating is given at a 20°C (68°F) setpoint, 20°C (68°F) ambient temperature, sea level, and 60Hz operation.
2. For ambient conditions outside this range, please contact Laird Thermal Systems.

FEATURES



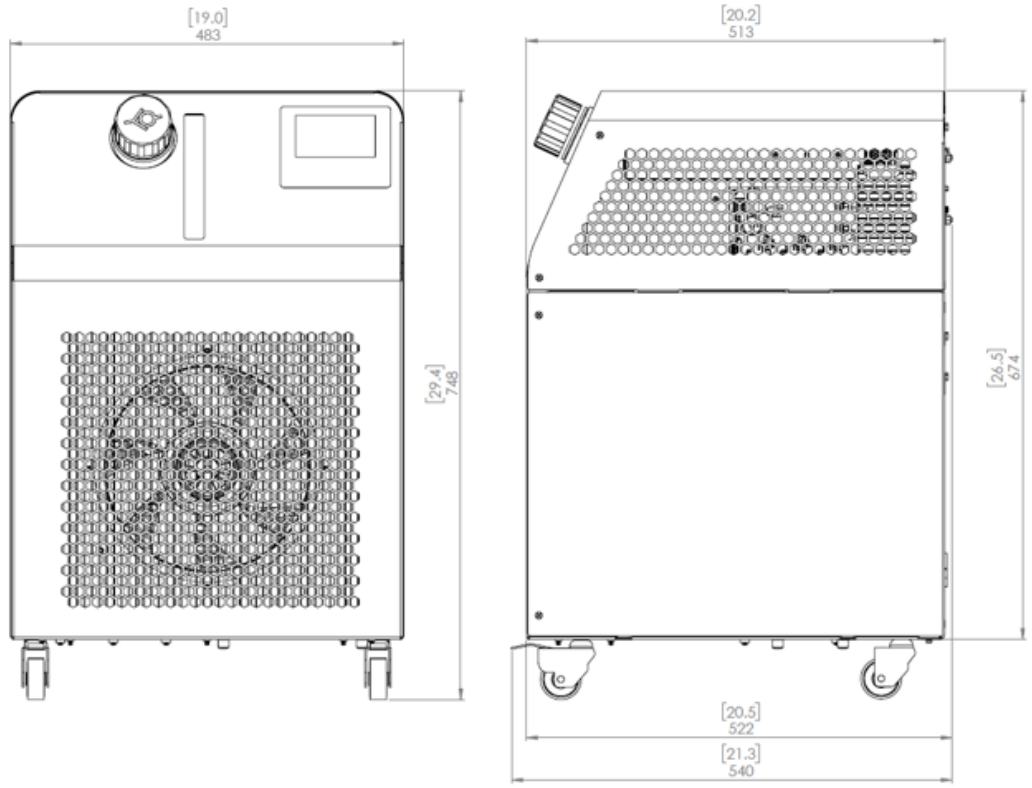
STANDARD FEATURES

Feature	Description
Variable Speed Motors	Variable speed compressor and condensing fans for quiet operation and improved energy efficiency.
Semi-Closed Fluid System	Sealed fluid system with breathable reservoir cap (similar to an automobile). This prevents evaporative loses, introduction of bacteria, and the need for components to prevent fluid from draining back into the system when installed below the application.
Optical Fluid Level Switch	Fluid level sensing with no moving parts.
RS-232 / RS-485 Communications	Complete control integration of chiller into higher level assembly control system.
Supply Pressure Sensing	Pressure sensing for applications sensitive to high operating conditions.

OPTIONAL FEATURES

Feature	Description
Water Filter Kit	Hot swappable, 5-micron water filter for filtering particulates from the coolant circuit.
Flow Control Valve and Flow Sensing Kit	Externally installed valve for reducing the overall flow to the application. Full flow continues through the chiller to maintain high heat transfer rates and temperature stability. Flow meter for measuring coolant flow rate. Installed external to the chiller with both a local display and connectivity to chiller LCD display.
High Purity Plumbing	Wetted materials compatible with deionized water. Stainless steel and plastics used for components within the recirculating fluid loop.
DI Water Package	Ion filtration and wetted materials suitable for operation at fluid resistivity levels of 1 to 3 MOhm*cm.

DRAWINGS



NOTE:

1. Dimensions are in mm.
2. Dimensions in parenthesis are in inches.

RoHS