Nextreme™ Performance Series NRC1200-A1-20-ST1
MFG Part Number: 385910-043

Nextreme™ Performance Chiller

The Nextreme NRC1200 Recirculating Chiller Recirculating Chiller features premium components and environmentally friendly refrigerants in a user-friendly design. It is designed to cool well below ambient and dissipate heat away from thermally sensitive equipment. Featuring variable speed motors for the compressor and condensing fan, the Nextreme NRC1200 offers a high coefficient of performance and low-noise operation. The Nextreme NRC1200 comes with several standard features and additional options allow for application-specific configurations. Power cord is **not** supplied with the unit and **must be ordered separately**.

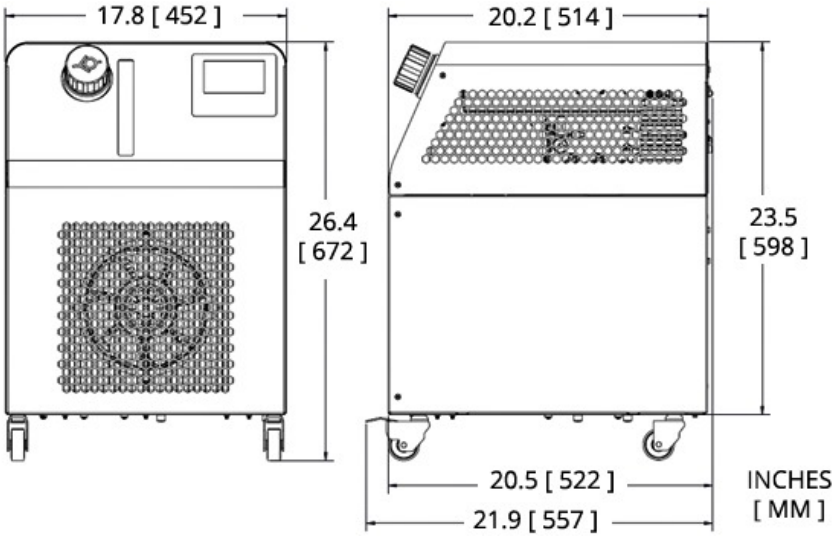
Features

- Reliable Performance
- Environmentally Friendly
- User-Friendly
- Application Specific Configurations

Applications

- Industrial Lasers
- Additive Manufacturing
- Electron Microscopes
- Semiconductor Fabrication
- Laboratory Testing





COOLING POWER OPERATING POINTS

100% Water (20°C Ambient Air)

Cooling Power (Qc) = 1,600 Watts
Fluid Setpoint = 20 °C
Fluid ΔT @ 15.0 L/min = 1.5 °C

100% Water (30°C Ambient Air)

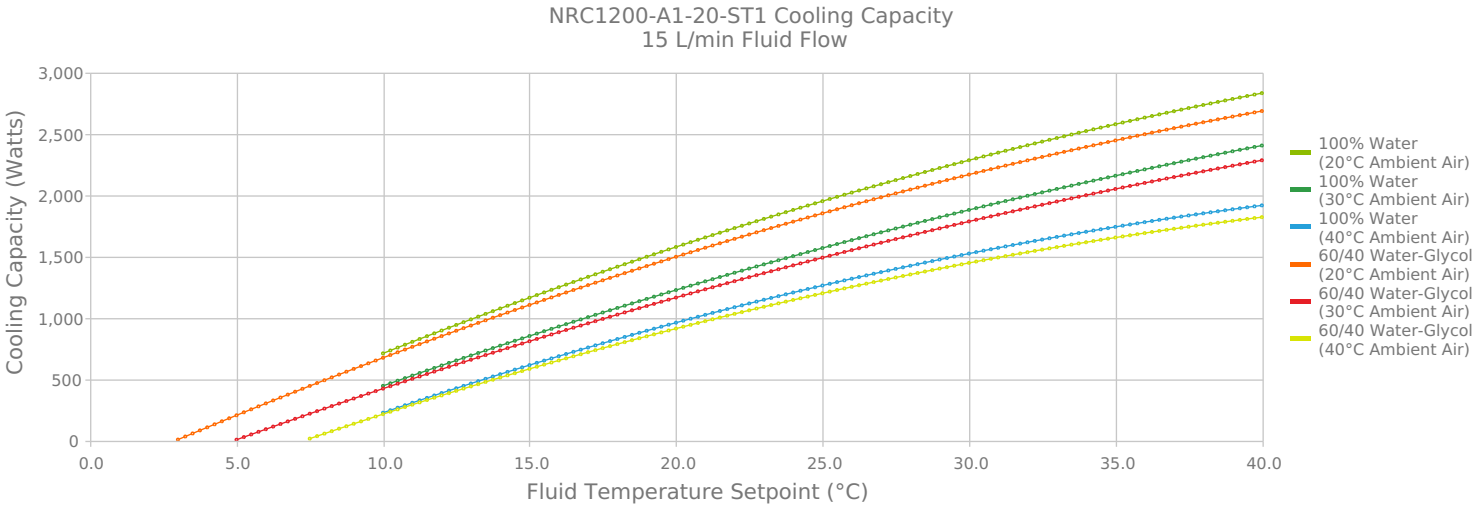
Cooling Power (Qc) = 1,250 Watts
Fluid Setpoint = 20 °C
Fluid ΔT @ 15.0 L/min = 1.2 °C

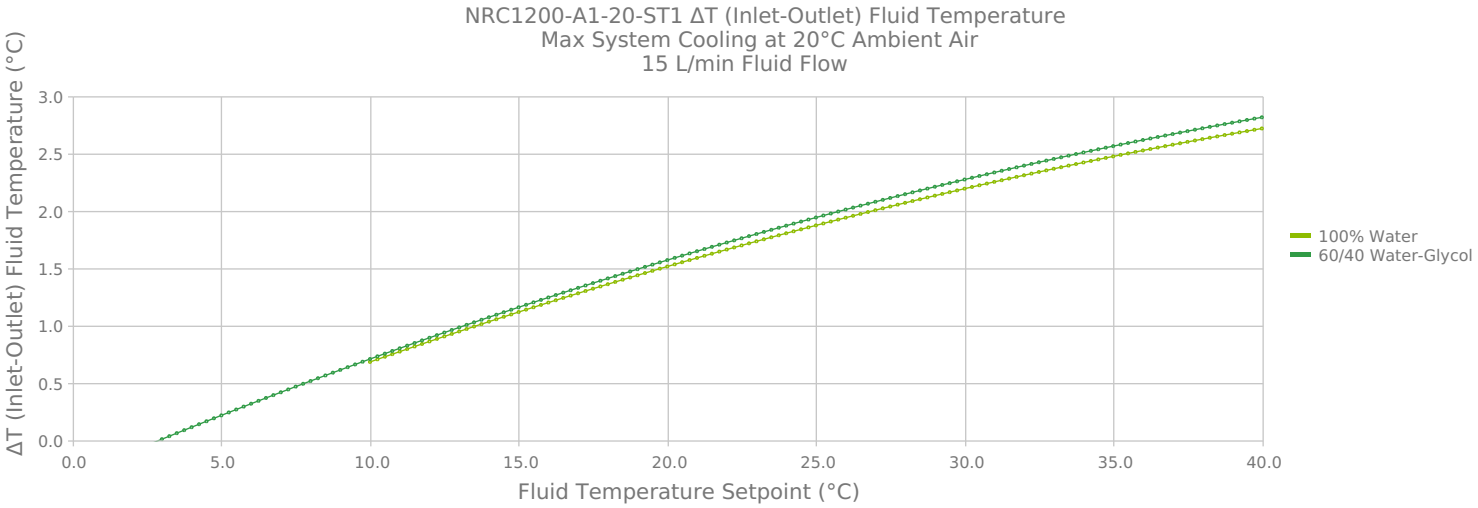
60/40 Water-Glycol (20°C Ambient Air)

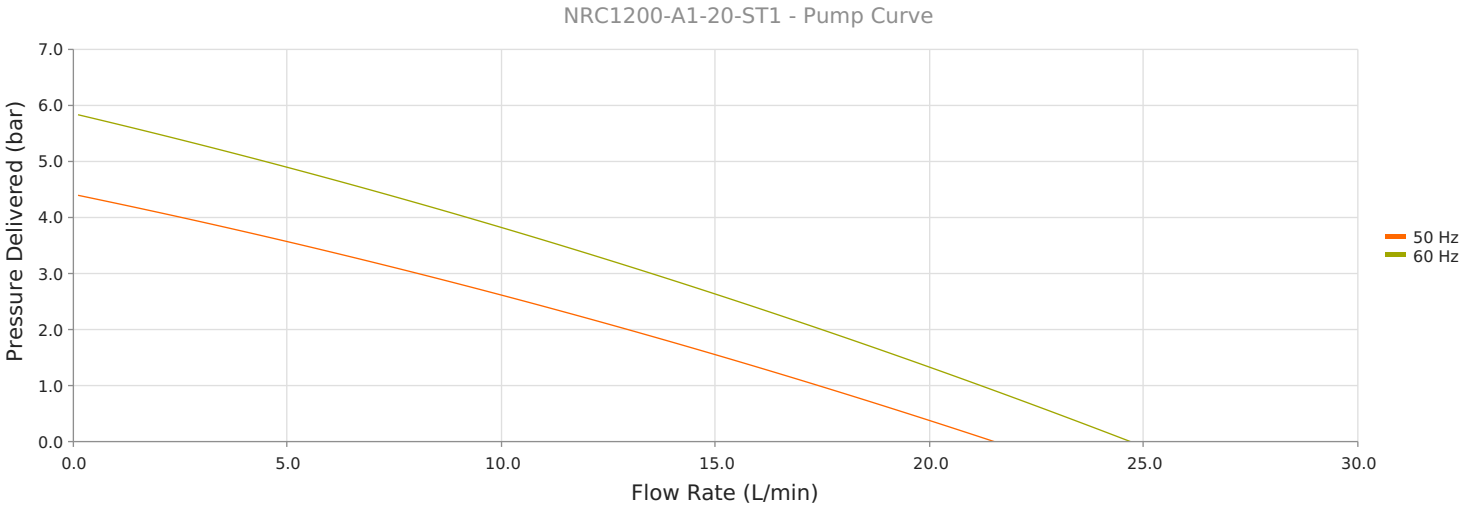
Cooling Power (Qc) = 1,500 Watts
Fluid Setpoint = 20 °C
Fluid ΔT @ 15.0 L/min = 1.6 °C

60/40 Water-Glycol (30°C Ambient Air)

Cooling Power (Qc) = 1,150 Watts
Fluid Setpoint = 20 °C
Fluid ΔT @ 15.0 L/min = 1.2 °C


NRC1200-A1-20-ST1 Cooling Capacity
15 L/min Fluid Flow
Cooling Capacity (Watts)
3,000
2,500
2,000
1,500
1,000
500
0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
Fluid Temperature Setpoint (°C)
100% Water (20°C Ambient Air)
100% Water (30°C Ambient Air)
100% Water (40°C Ambient Air)
60/40 Water-Glycol (20°C Ambient Air)
60/40 Water-Glycol (30°C Ambient Air)
60/40 Water-Glycol (40°C Ambient Air)


NRC1200-A1-20-ST1 ΔT (Inlet-Outlet) Fluid Temperature
Max System Cooling at 20°C Ambient Air
15 L/min Fluid Flow
ΔT (Inlet-Outlet) Fluid Temperature (°C)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
Fluid Temperature Setpoint (°C)
100% Water
60/40 Water-Glycol


NRC1200-A1-20-ST1 - Pump Curve
Pressure Delivered (bar)
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Flow Rate (L/min)
50 Hz
60 Hz

TECHNICAL SPECIFICATIONS

Performance

Nominal Cooling Capacity	1,600 Watts
Setpoint Range	-10°C to 40°C
Temperature Stability	±0.10°C
Nominal Operating Flowrate (60 Hz)	15.0 L/min @ 2.6 Bar
Nominal Operating Flowrate (50 Hz)	15.0 L/min @ 1.5 Bar
Refrigerant	R 513A

Operation

Coolant	Water or Water/Glycol
Operating Temperature	15°C to 40°C
Storage temperature range (w/o coolant)	-25°C to 70°C
Humidity range	30% to 80%
Storage Humidity range	5% to 95%, non-condensing
Altitude	< 2,000 meters
Input Voltage	220 - 230 VAC
Frequency	50/60 Hz
Current	< 8.1 Amps
Maximum Forward Pressure	4.1 Bar
Compliance	ANSI / UL / CSA / IEC EN 61010-1 Edition 3

Physical

Height	670 mm
Length	520 mm
Width	450 mm
Weight	48 kg
Coolant Capacity	5 Liters
Couplings	1/2 in NPT

STANDARD FEATURES

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 Communications	Complete control integration of chiller into higher level assembly control system.
Supply Pressure Sensing	Pressure sensing for applications sensitive to high operating conditions.

ACCESSORY KITS

Feature	Kit Part Number	Description
Flow Control Valve and Flow Sensing Kit	**387004277**	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.
Water Filter Kit	**387004279**	Hot swappable, 5-micron water filter for filtering particulates from the coolant circuit.

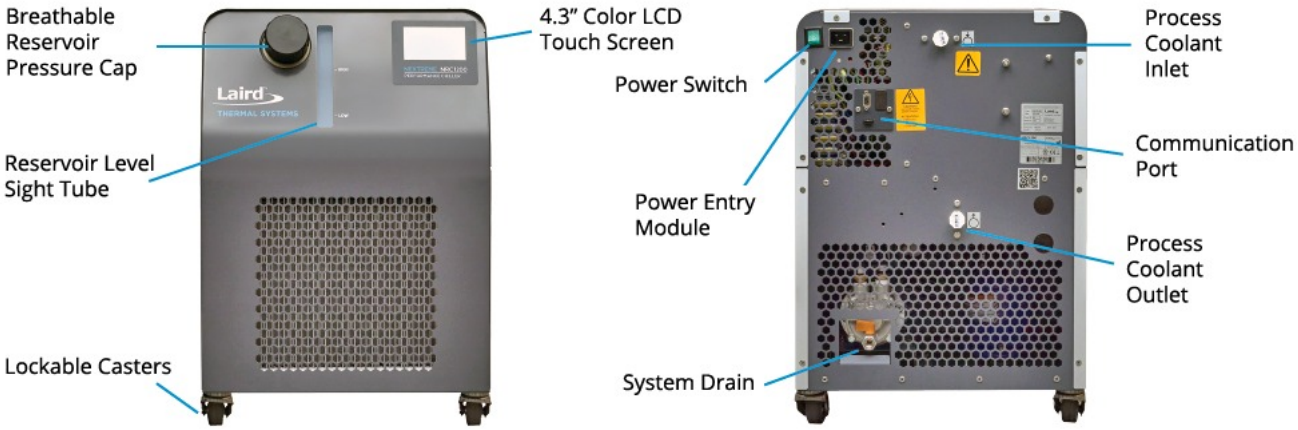
CORD OPTIONS

These power cords have been tested and validated on Nextreme devices.

Power cord is not supplied with the unit and must be ordered separately.

MFG Part Number	Plug Type	Standard	Style	Cable Length	Rating	Color	Connector
387005324	Universal	None	Flying Leads	2.0 m	250VAC, 16A* / 20A**	Black	C19

* IEC ** UL



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Date: 02/18/2022