

WL Series Liquid Cooling System

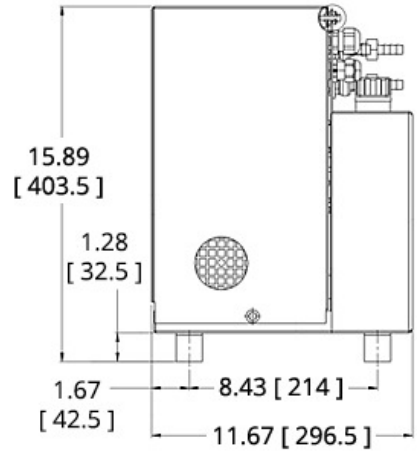
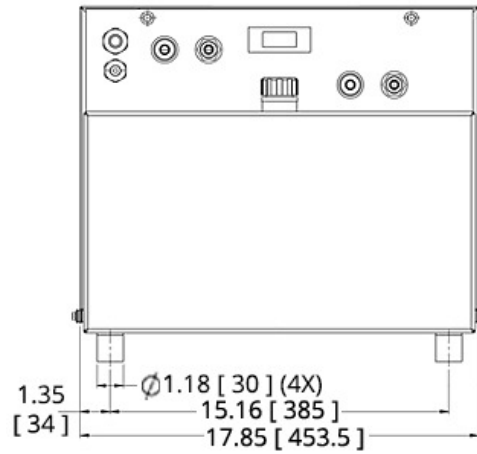
The WW5001 uses facility water as a hot side heat dissipation mechanism, which increases the cooling capacity while maintaining form factor. The WW Series system is designed to operate using water as coolant.

Features

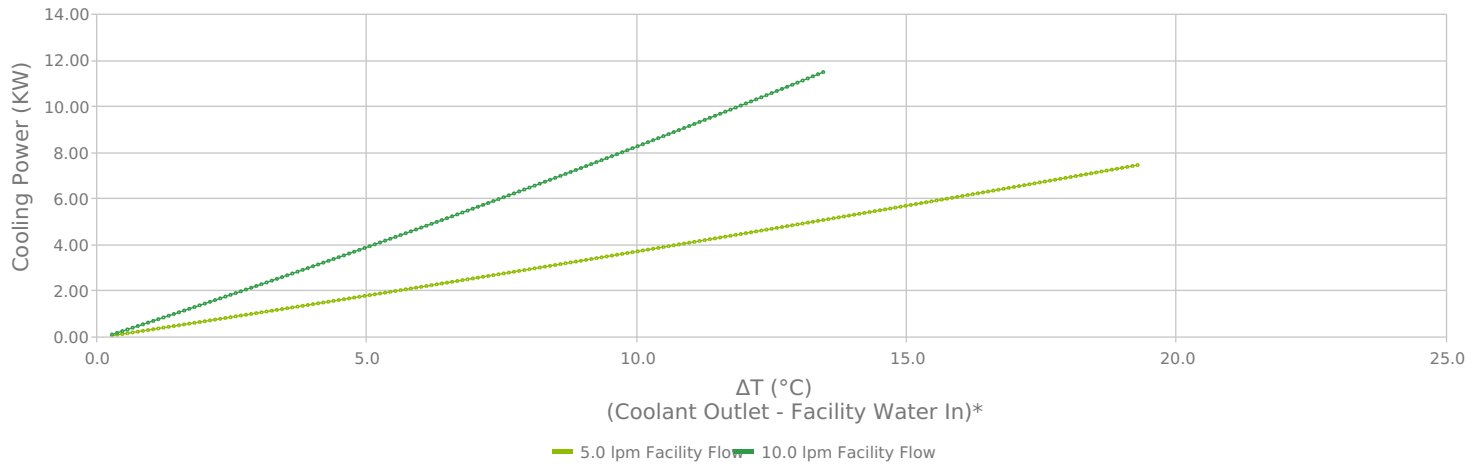
- Cooling to ambient
- High heat pumping capacity
- Compact form factor
- Long life operation

Applications

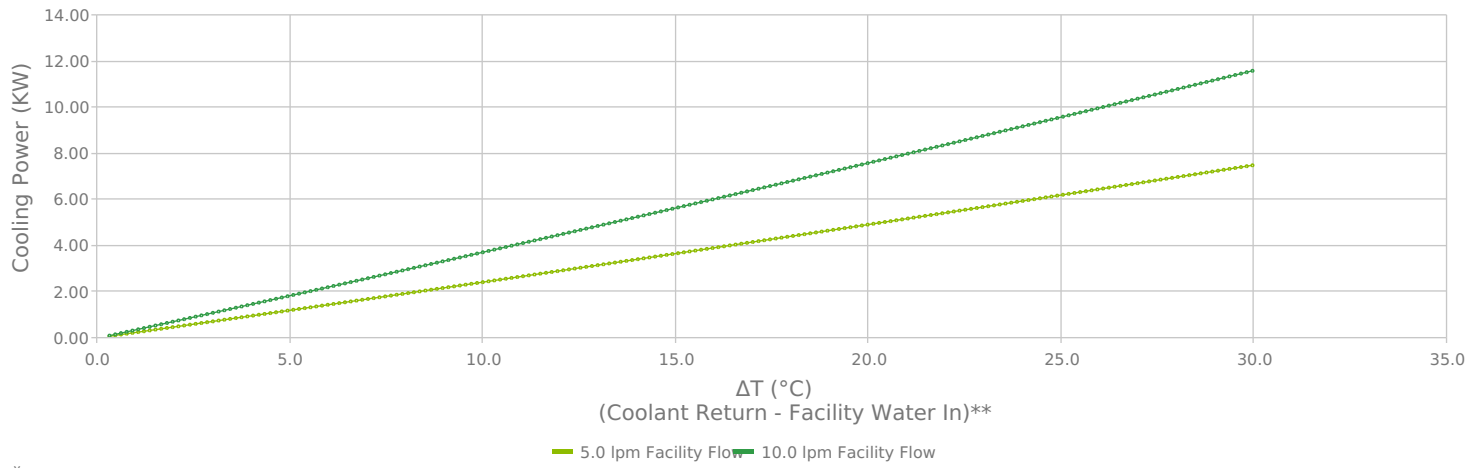
- Cooling Particle Accelerators: Linear Accelerators and Cyclotrons
- Semiconductor Fabrication Equipment Cooling
- X-ray Cooling in Industrial Scanners



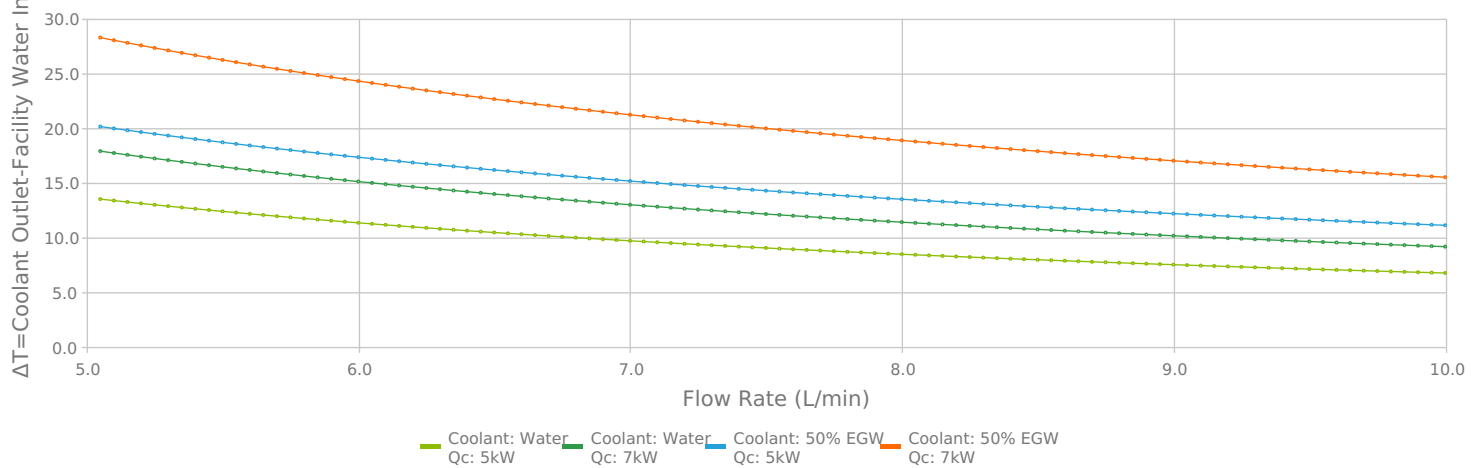
WW5001 Cooling Power



WW5001 Cooling Power

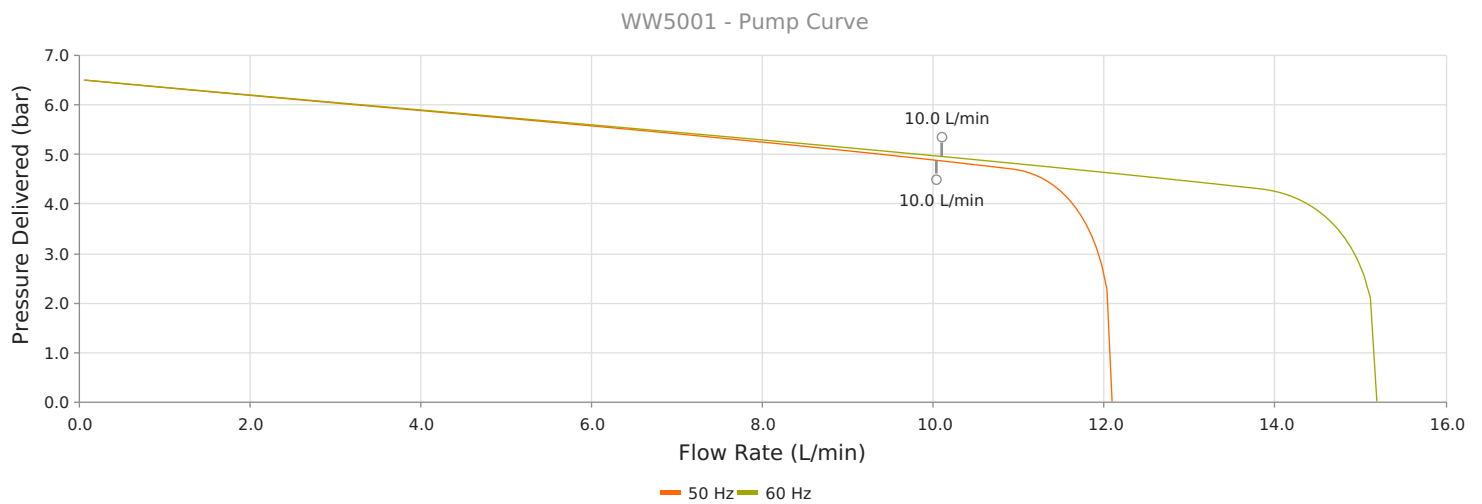
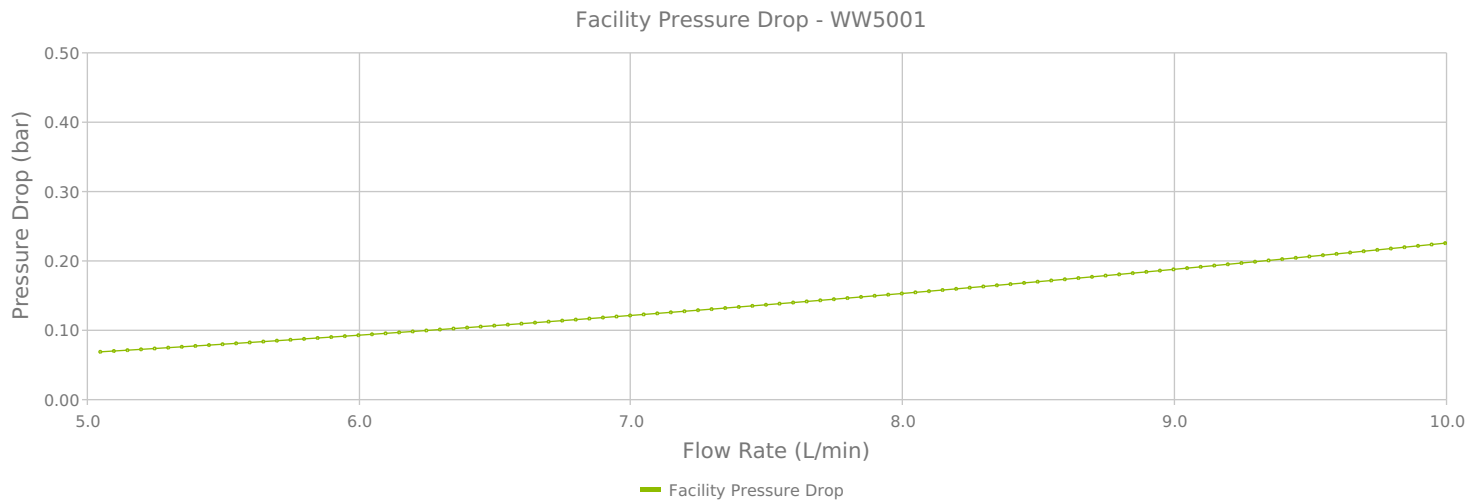
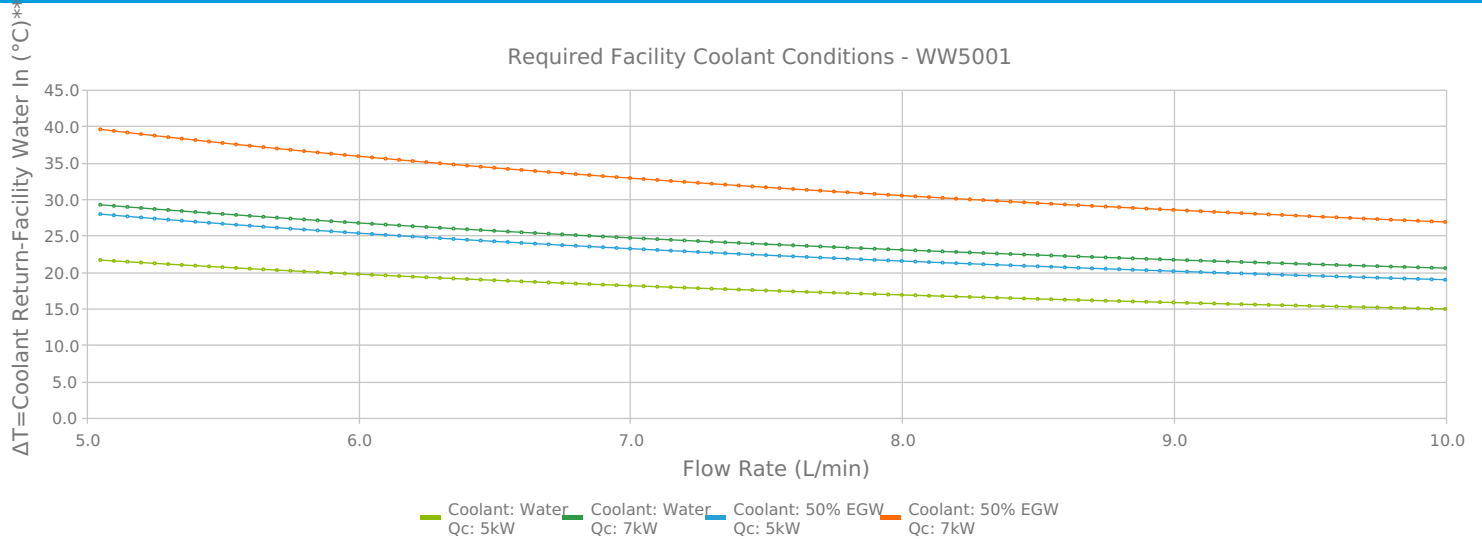


Required Facility Coolant Conditions - WW5001



* ΔT (Coolant Outlet - Facility Water In) is the temperature difference between the facility water temperature and the coolant temperature that is at the outlet of the heat exchanger during steady-state operation. This temperature difference would initially be 0 and increase to the steady state value under load. This would also be the temperature at the inlet to the application.

** ΔT (Coolant Return - Facility Water In) is the temperature difference between the facility water temperature and the outlet temperature of the application at the nominal coolant flow. More flow (application pressure drop less than nominal) would necessarily mean a smaller ΔT .



* ΔT (Coolant Outlet - Facility Water In) is the temperature difference between the facility water temperature and the coolant temperature that is at the outlet of the heat exchanger during steady-state operation. This temperature difference would initially be 0 and increase to the steady state value under load. This would also be the temperature at the inlet to the application.

** ΔT (Coolant Return - Facility Water In) is the temperature difference between the facility water temperature and the outlet temperature of the application at the nominal coolant flow. More flow (application pressure drop less than nominal) would necessarily mean a smaller ΔT .

TECHNICAL SPECIFICATIONS

Performance

Nominal Cooling Capacity	5,000 W
Nominal Operating Flowrate (60 Hz)	10.0 L/min @ 4.0 Bar
Nominal Operating Flowrate (50 Hz)	10.0 L/min @ 4.0 Bar

Operation

Coolant	Water
Operating Temperature	0°C to 40°C
Storage temperature range (w/o coolant)	-20°C to 70°C
Humidity range	10% to 90%
Storage Humidity range	5% to 95%, non-condensing
Input Voltage	230 VAC
Frequency	50/60 Hz
Current	< 2.1 Amps
Noise	< 48 dB(A)
Flow Switch Open	≤ 4 L/min
Maximum Forward Pressure	6.5 Bar

Physical

Height	370 mm
Length	450 mm
Width	300 mm
Weight	27 kg
Coolant Capacity	8.5 Liters
Couplings	Press Fit (9 mm ID hose)

Any information furnished by Laird and its agents, whether in specifications, data sheets, product catalogues or otherwise, is believed to be (but is not warranted as being) accurate and reliable, is provided for information only and does not form part of any contract with Laird. All specifications are subject to change without notice. Laird assumes no responsibility and disclaims all liability for losses or damages resulting from use of or reliance on this information. All Laird products are sold subject to the Laird Terms and Conditions of sale (including Laird's limited warranty) in effect from time to time, a copy of which will be furnished upon request.

© Copyright 2019-2024 Laird Thermal Systems, Inc. All rights reserved. Laird™, the Laird Ring Logo, and Laird Thermal Systems™ are trademarks or registered trademarks of Laird Limited or its subsidiaries.

Revision: 00 Date: 09-25-2024

Print Date: 09-25-2024