

LCP Inline Flush CW

The LCP Inline Flush CW (Cold Water) can provide up to 30kW of cooling output to components in adjacent enclosures and racks, reducing air temperature via an air-to-water heat exchanger. The standard LCP Inline Flush CW comes equipped with two EC fans that provide 18kW of cooling. This configuration makes the cooling solution more scalable (from 18 – 30kW), improves redundancy and reduces overall noise levels. In addition, the fans are located in the front of the units, away from the maximum heat generated by computer components. Engineered to supply cooled air directly into the cold aisle, cooling an entire row of enclosures, this design feature not only improves heat dissipation, it will extend the life of the fans.

Server air temperature is moderated independently from ambient air within the data center so cooling can be adapted to the needs of individual components and enclosures. Up to four fan modules may be installed to adapt the system's capacity to a unit's precise requirements. And, the increased capacity is available within the same footprint – just 12 inches wide. LCP units are truly scalable – going from 18kW with two fans to 30kW with four by just by adding two fans to the system.



Data center row view

The Rittal Advantage:

High Performance Cooling

- Up to 30kW using water as warm as 59°F water
- Increased use of “free” cooling

High-efficiency Monitoring

- Server-friendly temperature monitoring
- Communication via SNMP over Ethernet
- Touch screen available

High-tech Fans

- EC fans inside cold area
- Economy and Facility modes boost energy efficiency
- Cooling capacity varies with number of fans
- Box-type, plug-in fans can provide N+1 redundancy

Installation-friendly

- 12-inch wide footprint
- Mechanical connections available from top or bottom
- Top or bottom feed water connections
- Low weight for low load on raised floor
- Free access to 19-inch equipment
- Raised floor or slab installation

Operational Efficiencies

- Equal temperature distribution throughout the rack
- High Energy Efficient Ratio (EER) at the chiller



Note: Imperial measurements are approximate, metric measurements are exact.

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a technical overview

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Part No.	3311.148	3311.548
Height inches (mm)	78.7 (2000)	78.7 (2000)
Width inches (mm)	11.8 (300)	11.8 (300)
Depth inches (mm)	41.3 (1050)	47.2 (1200)
Door Configuration	Perforated Front/Perforated Rear	
Color	RAL 9005 Jet Black	
Weight lb (kg)	441 (200)	

System Characteristics

System capacity kW	18kW (1 fan) / 27kW (2 fans) / 30kW (3 fans) The LCP Inline Flush CW is capable of supporting multiple cabinets with a variety of heat loads. Capacity is based on the following parameters: flow rate, ΔT, and glycol percentage.
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Input Specifications

AC input voltage	208V, 2~, 60 Hz / 230V, 1~, 50/60 Hz
Chilled water supply temp.	59°F
Maximum water flow rate	26.4 GPM

Additional Parameters

Air flow volume	2825 CFM (4 fans)
EC Fans	2 fans (can add 2 more), electronically commutated, N+1, hot swappable
Max. power consumption	9.6A at 208V / 8.1A 230V (4 fans)
Water supply pressure	29 to 85 PSI
System noise	78 dBA (open air above reflective floor, distance 1m)
Operating temperature	43°F to 95°F
Water system connections	1½" BSP ext. thread supply/return connection, ¾" ID condensate drain hose
Network connection	RJ45
Fill quantity	2.1 gallons (8 liters)
Water supply quality	Purified cooling water. Recommend use of a fine mesh filter. No lime scale or loose debris. Low hardness and low conductivity. Recommended pH 7 - 8.5.

Software Connectivity

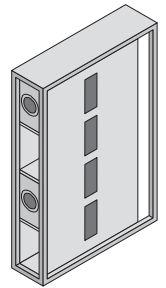
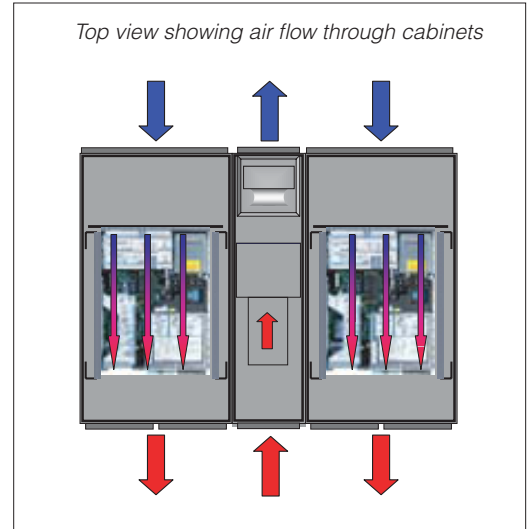
Software compatibility	Internet Browser: IE 10, Safari 6.0.5, Firefox 24, or Chrome 30.0.1599.69 (31), Opera 16, for browser-based configuration. PC: Network-enabled PC running Windows XP SP3, Windows Vista SP1, or Windows 7, Windows 8.
Support for multiple systems in the data center	Optional data center client/server based software package (RiZone) that provides real-time monitoring of the entire data center.

Certifications

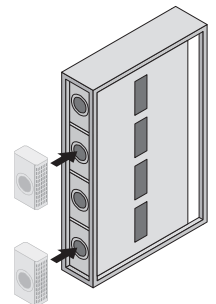
Certifications/Approvals	UL, cUL, CE, RoHS, ISO 9001/14001 certified
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Accessories

3311.030	LCP display
9977.379	LCP water connecton hose kit, 1.5" BSP to 1.5" NPT
9971.173 / 9971.174 / 9971.175	LCP 1.5" ID hose lengths - 10ft / 15ft / 25ft
3311.016	Fan module



The LCP Inline Flush CW ships with two fan modules.



Adding two fans can increase cooling capacity to 30kw.

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