ADVANCED COOLING TECHNOLOGY FOR HIGH HEAT LOAD APPLICATIONS

The nVent HOFFMAN RackChiller CDU40 is a rack-based Coolant Distribution Unit (CDU), built for the needs of today’s most demanding HPC requirements. Capable of managing 40kW+ of heat load in a remarkably small 4U of space, this system provides cooling for up to 100 servers. The RackChiller CDU40 is an extremely efficient heat exchanger that uses ASHRAE W4 warm water to manage processor and component heat. As a result, users can expect a significant reduction in data center OPEX.

FEATURES

• Manages 40kW+ of processor load per network
• Compatible with ASHRAE W4 warm water cooling
• N+1 redundant centralized pumps
• Dry-break quick disconnects
• 5" LCD screen with touch functionality
• Integrated Command2 control and monitoring system (Webserver, Modbus, SNMP)
• Internal and external leak detection system
• 4U rack-mount chassis

BENEFITS

• Warm water cooling reduces the need for chillers
• Manages up to 100 servers per rack
• Quick and easy installation and service
• Consumes only 652W
• Can be located anywhere in a rack
• Servers remain hot-swappable for service
• High temperature return water can be used for heat re-use
GENERAL SPECIFICATIONS

- Height 4U/6.97 in./177 mm
- Width 16.93 in./430 mm
- Depth 39.13 in./994 mm
- Weight - Dry 141 lb/64 kg
- Weight - Filled 164 lb/74.4 kg
- Volume capacity (secondary) 2.51 gallons/9.5 liters
- Pump redundancy 3 pumps for n+1 redundancy
- Power requirement 100V – 240V 50/60 Hz
- Current consumption 4.44A – 2.47A
- Power supply 2, N+1, 1000 W each

OPERATIONAL AND PERFORMANCE

- Operating temperature (coolant) 10 °C to 70 °C
- Cooling capacity 40 kW at 10 °C approach
- Primary flow 80 lpm maximum
- Primary operating pressure 75 psi maximum
- Secondary flow 65 lpm/80 lpm maximum
- Secondary operating pressure 20 psi - Secondary bypass opens at 20 psi, over pressure valve opens at 30 psi
- Minimum approach temperature 5K
- Secondary coolant supply range ASHRAE W17 to W45 (previous W1 to W4)

Secondary P-Q Curve (Water) with Tri-Clamp

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