Vertiv™ CoolChip 1-Phase Fluid Network

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Liquid cooling has rapidly emerged as the technology of choice for efficiently managing high density artificial intelligence, machine learning, and high-performance computing applications. Delivering liquid directly to the chip is a vital part of these deployments. The Vertiv™ CoolChip Fluid Network is an in-rack manifold that provides a reliable, clean, and effective route between server and coolant distribution unit.

Secondary Fluid Networks

Deploying liquid directly to the chip or even to rear door heat exchangers would not be possible without this often-overlooked link in the chain. The secondary fluid network, which includes row- and rack-based manifolds, provide necessary routing of fluid to the liquid-cooled racks.

Vertiv CoolChip Fluid Network acts as a universal distribution conduit, linking the high-powered servers directly to coolant distribution units such as Vertiv™ CoolChip EconoPhase CDU or the Vertiv™ Liebert® XDU. The stainless steel construction provides a robust design, and multiple coupling sizes and port quantity combinations allow for highly tailored deployments for any direct to chip liquid cooling application.

Main Features

- **Stainless Steel Construction** provides a durable and robust product
- **Multiple Sizes and Flow Rates** allow for customization of your liquid cooling deployment
- **Universal Mounting Bracket** enable mounting on any industry-standard rack
- **Dripless Quick Disconnects** ensure quick and safe installation and service operation
- **Air Bleeder Valve** eases installation complexity and increases system efficiency, maximizing the amount of cooling fluid in the circuit
- **Integrated Drain Valve** allows for easy installation and maintenance
- **Top or Bottom Connections** enable configuration in the field, adding flexibility to the install and application

Key Benefits

- Meet various deployment needs with multiple configurations
- Ensure high cooling availability and efficiency with several coupling options for proper sizing
- Universal mounting bracket speeds installation
- Assured cleanliness with vacuum brazed stainless steel construction and factory validated precleaning process

Technical Data

Model	RM112	RM113	RM114
W x D x H, mm (inch)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392x1838x194 (15.4 x 72.4 x 7.6)
Weight Dry, kg (lbs.)	38.96 (85.88)	34.41 (75.86)	29.87 (65.85)
Operational Weight, kg (lbs)	53.81 (118.63)	48.15 (105.85)	42.22 (93.10)
Coupling ID, mm	3	3	3
Port Quantity	48	42	36
Rack Size Compatibility	52U	48U / 52U	42U / 48U / 52U
Inlet Position	Top or Bottom		

Model	RM122	RM123	RM124
W x D x H, mm (inch)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392x1838x194 (15.4 x 72.4 x 7.6)
Weight Dry, kg (lbs.)	49.24 (108.54)	43.42 (95.73)	37.58 (82.85)
Operational Weight, kg (lbs)	65.66 (144.76)	58.40 (128.74)	51.11 (112.67)
Coupling ID, mm	6	6	6
Port Quantity	48	42	36
Rack Size Compatibility	52U	48U / 52U	42U / 48U / 52U
Inlet Position	Top or Bottom		

Model	RM132	RM133	RM134
W x D x H, mm (inch)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392 x 2371 x 194 (15.4 x 93.3 x 7.6)	392x1838x194 (15.4 x 72.4 x 7.6)
Weight Dry, kg (lbs.)	69.36 (152.90)	61.02 (134.53)	52.67 (116.12)
Operational Weight, kg (lbs)	88.10 (194.12)	77.98 (171.92)	67.9 (149.69)
Coupling ID, mm	9	9	9
Port Quantity	48	42	36
Rack Size Compatibility	52U	48U / 52U	42U / 48U / 52U
Inlet Position	Top or Bottom		

Material Specifications	
Base Material	304 Stainless Steel
Max Operating Pressure, bar (psi)	8 (116)
System Operation Temperature, C (F)	0 to 70 (32 to 158)

	Hose ID Sizes: mm (in)			
Hose Specification	**6.4 (0.25)**	**9.5 (0.37)**	**12.7 (0.5)**	**25.4 (1)***
Material	UL94 V0 Rating EPDM			
Length, m (ft)	0.4 (1.3)	0.4 (1.3)	0.4 (1.3)	1 (3.3)
Outside diameter, mm (in)	15 (0.59)	18.5 (0.73)	22 (0.87)	36.5 (1.44)
Min. allowable bend radius, mm (in)	50 (2)	65 (2.5)	75 (3)	150 (6)

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