

COOLING SYSTEM DATASHEET

SOETECK · IN-ROW PRECISION COOLING

SoetecK Chilled Water In-Row Cooling Unit (025RC-065RC)

Chilled water in-row precision cooling for high-density racks, up to 107.6 kW per unit in 300/600 mm widths

SKU ST-CWIR

SoetecK



COOLING CAPACITY

up to 108 kW

POWER SUPPLY

380 V 3Ph 50 Hz

AIR SUPPLY MODE

Front / Side

PRICE

On request**REQUEST A QUOTATION ONLINE**

serverinvest.com/product/soetecK-chilled-water-in-row-cooling-system



01 Product overview

The Soetec chilled water in-row cooling unit sits directly between server cabinets and delivers conditioned air to the rack inlets. Because the cooling coil is close to the heat source, air travels a short distance, duct losses are minimal and temperature and humidity can be held tightly. It is intended for high-density rows in data centres and for computer rooms where fast response and accurate control matter.

The range covers three rack-height models (025RC, 045RC and 065RC) in 300 mm or 600 mm widths and 1100 mm depth. Capacity depends on return air and water temperatures: with 7/12 °C chilled water and 45 °C return air (hot-aisle containment) the units deliver 47.1, 76.0 and 107.6 kW respectively, and remain fully sensible across the published operating points. Higher water temperatures such as 10/15 °C or 13/18 °C are supported, which helps chillers run longer in free-cooling mode.

Fans and control

ZIEHL-ABEGG EC fans modulate speed to match cooling demand and air pressure, use 20–30% less energy than AC motor fans according to Soetec, and soft-start to limit inrush current. The fan array is configured N+1 so airflow continues if one fan fails. The controller supports teamwork between multiple units, up to 16 remote temperature/humidity sensors and RS485 communication, with SNMP and TCP/IP available as options for integration with DCIM or BMS platforms. A 3 kW reheater is standard and a 1.5 kg/h CAREL electrode humidifier is optional.

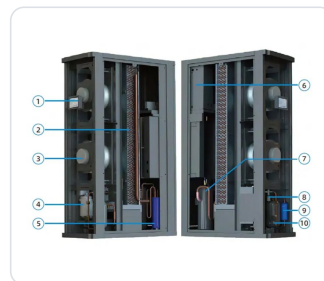
ServerInvest sizes, supplies and...

KEY SPECIFICATIONS

Air supply mode	Front / Side
Power supply	380 V 3Ph 50 Hz
Fan section	ZIEHL-ABEGG EC fan
Humidifier section	CAREL electrode type
Communication	RS485 standard; SNMP and TCP/IP optional
Remote sensors	Up to 16 temperature/humidity sensors
Airflow	025RC: 4800 m ³ /h • 045RC: 9000 m ³ /h • 065RC: 11400 m ³ /h
Mount type	Row (all models)
Height	2000 mm (42U) (all models)
Depth	1100 mm (all models)
Width	025RC: 300 mm • 045RC: 600 mm • 065RC: 600 mm
Weight	025RC: 190 kg • 045RC: 330 kg • 065RC: 400 kg

HIGHLIGHTS

- Three models: 025RC, 045RC and 065RC, 42U height (2000 mm)
- Up to 107.6 kW at 45 °C return air with 7/12 °C water
- ZIEHL-ABEGG EC fans with N+1 redundancy
- Front or side air supply, 4,800–11,400 m³/h airflow
- Controller supports up to 16 remote T/H sensors, RS485 standard
- Optional CAREL electrode humidifier, 3 kW reheat



02 Full specifications

GENERAL

Air supply mode

Front / Side

Power supply	380 V 3Ph 50 Hz
Fan section	ZIEHL-ABEGG EC fan
Humidifier section	CAREL electrode type
Communication	RS485 standard; SNMP and TCP/IP optional
Remote sensors	Up to 16 temperature/humidity sensors

COOLING CAPACITY (025RC · 045RC · 065RC)

Total capacity (45 °C/12% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 47.1 / 43.2 / 39.3 kW · 045RC: 76.0 / 69.6 / 63.2 kW · 065RC: 107.6 / 98.6 / 89.6 kW
Sensible capacity (45 °C/12% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 47.1 / 43.2 / 39.3 kW · 045RC: 76.0 / 69.6 / 63.2 kW · 065RC: 107.6 / 98.6 / 89.6 kW
Total capacity (40 °C/18% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 41.0 / 36.8 / 32.9 kW · 045RC: 65.4 / 59.0 / 52.4 kW · 065RC: 93.2 / 84.0 / 74.8 kW
Sensible capacity (40 °C/18% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 40.8 / 36.8 / 32.9 kW · 045RC: 65.4 / 59.0 / 52.4 kW · 065RC: 93.0 / 84.0 / 74.8 kW
Total capacity (37 °C/24% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 38.8 / 33.0 / 28.9 kW · 045RC: 59.8 / 52.4 / 46.0 kW · 065RC: 87.0 / 75.0 / 65.8 kW
Sensible capacity (37 °C/24% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 36.3 / 33.0 / 28.9 kW · 045RC: 59.2 / 52.4 / 46.0 kW · 065RC: 83.2 / 75.0 / 65.8 kW
Total capacity (35 °C/26% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 35.9 / 30.3 / 26.3 kW · 045RC: 55.4 / 48.2 / 41.6 kW · 065RC: 80.4 / 69.0 / 59.6 kW
Sensible capacity (35 °C/26% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 33.8 / 30.3 / 26.3 kW · 045RC: 54.8 / 48.2 / 41.6 kW · 065RC: 77.4 / 69.0 / 59.6 kW
Total capacity (32 °C/30% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 31.7 / 26.3 / 22.2 kW · 045RC: 48.4 / 41.4 / 34.8 kW · 065RC: 71.0 / 59.8 / 50.4 kW
Sensible capacity (32 °C/30% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 29.9 / 26.3 / 22.2 kW · 045RC: 48.2 / 41.4 / 34.8 kW · 065RC: 68.2 / 59.8 / 50.4 kW
Total capacity (30 °C/34% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 29.1 / 23.6 / 19.5 kW · 045RC: 44.4 / 37.0 / 30.4 kW · 065RC: 65.4 / 53.6 / 44.2 kW
Sensible capacity (30 °C/34% RH return air) – water 7/12 · 10/15 · 13/18 °C	025RC: 27.1 / 23.6 / 19.5 kW · 045RC: 43.6 / 37.0 / 30.4 kW · 065RC: 62.0 / 53.6 / 44.2 kW

PHYSICAL AND ELECTRICAL DATA

Airflow	025RC: 4800 m³/h · 045RC: 9000 m³/h · 065RC: 11400 m³/h
Mount type	Row (all models)
Height	2000 mm (42U) (all models)
Depth	1100 mm (all models)
Width	025RC: 300 mm · 045RC: 600 mm · 065RC: 600 mm
Weight	025RC: 190 kg · 045RC: 330 kg · 065RC: 400 kg
Reheat	3 kW (all models)
Humidifier (optional)	1.5 kg/h (all models)
Power input (option 1)	025RC: 208-240V/50-60Hz/1Ph-2Ph · 045RC: 380-415V/50-60Hz/3Ph · 065RC: 380-415V/50-60Hz/3Ph
FLA option 1, with heating	025RC: 22.7 A · 045RC: 13.7 A · 065RC: 16 A
FLA option 1, with humidifier	025RC: 28 A · 045RC: 19 A · 065RC: 26 A
Power input (option 2)	045RC: 200-230V/50-60Hz/3Ph · 065RC: 200-230V/50-60Hz/3Ph
FLA option 2, with heating	045RC: 25 A · 065RC: 29 A
FLA option 2, with humidifier	045RC: 28.1 A · 065RC: 35.5 A
Power input (option 3)	045RC: 460V/50-60Hz/3Ph · 065RC: 460V/50-60Hz/3Ph
FLA option 3, with heating	045RC: 11.3 A · 065RC: 13.2 A
FLA option 3, with humidifier	045RC: 16 A · 065RC: 22 A

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Engineering & sizing

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