

COOLING SYSTEM DATASHEET

SOETECK · IN-RROW PRECISION COOLING

SoetecK In-Row Air-Cooled DX Precision Air Conditioner (007RA-090RA)

Air-cooled DX in-row precision cooling, 7.5–90.5 kW, inverter compressor and EC fans, 300/600/900 mm widths

SKU ST-IRAC

SoetecK



COOLING CAPACITY

up to 91 kW

POWER SUPPLY

380 V 3Ph 50 Hz

AIR SUPPLY MODE

Front / Side

PRICE

On request**REQUEST A QUOTATION ONLINE**

serverinvest.com/product/soetecK-in-row-air-cooled-precision-air-conditioning



01 Product overview

The Soetec In-Row Air-Cooled Precision Air Conditioner is a direct-expansion (DX) cooling unit installed within a row of server cabinets and paired with its own outdoor condenser. It needs no chilled water plant, which makes it a straightforward option for server rooms, edge sites and data centre rows where high-density racks need dedicated cooling close to the load.

Eleven indoor models cover 7.5 kW to 90.5 kW of total cooling at 37 °C/24% RH return air and 45 °C condensing temperature, all with a 100% sensible heat ratio. Cabinets are 2000 mm high and 1100 mm deep, in widths of 300, 600 or 900 mm, so they align with standard IT racks. Cold air is supplied from the front or side directly to the rack inlets, shortening the air path and allowing tight control of temperature and humidity.

Refrigeration and airflow

Panasonic inverter compressor with R410A refrigerant matches capacity to the actual heat load.

Electronic expansion valve modulates smoothly over a wide range, lowering superheat and improving EER.

Backward-curved ZIEHL-ABEGG EC fans adjust airflow steplessly; a large V-shaped evaporator spreads air evenly over the coil.

Reheat of 3 or 6 kW is fitted; humidifiers of 1.5 or 3 kg/h are optional.

The controller has a 7-inch graphical touchscreen showing temperature and humidity trends, supports remote monitoring and restarts automatically after a power interruption. SNMP, dual power input and leak detection are optional. Standard units operate down to -15 °C outdoors,...

HIGHLIGHTS

- 11 indoor models from 7.5 kW to 90.5 kW total cooling
- Panasonic inverter compressor, R410A, electronic expansion valve
- ZIEHL-ABEGG EC fans, 2,300–16,200 m³/h airflow
- 300, 600 or 900 mm wide, 2000 mm high, 1100 mm deep
- 7-inch touchscreen controller with remote monitoring
- Low-temperature kit for outdoor ambient down to -35 °C

KEY SPECIFICATIONS

Air supply mode	Front / Side
Refrigerant	R410A
Power supply	380 V 3Ph 50 Hz
Fan section	ZIEHL-ABEGG EC fan
Compressor	Panasonic inverter compressor
Rating conditions	37 °C / 24% RH return air, 45 °C condensing temperature
Outdoor operating range	Down to -15 °C standard; -35 °C with low-temperature kit
Options	SNMP monitoring port, dual power input, leak detection
SHR	100 % (all models)
Mount type	Row (all models)
Cooling type	DX (all models)
Height	2000 mm (all models)



02 Full specifications

GENERAL

Air supply mode	Front / Side
Refrigerant	R410A
Power supply	380 V 3Ph 50 Hz
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Compressor	Panasonic inverter compressor
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Options	SNMP monitoring port, dual power input, leak detection

MODEL DATA (007RA–090RA)

Indoor unit models	007RA · 012RA · 017RA · 020RA · 025RA · 030RA · 040RA · 050RA · 065RA · 075RA · 090RA
Total cooling capacity	007RA: 7.5 kW · 012RA: 12.6 kW · 017RA: 17.8 kW · 020RA: 25.5 kW · 025RA: 31.5 kW · 030RA: 41.5 kW · 040RA: 50.5 kW · 050RA: 75.5 kW · 065RA: 21.5 kW · 075RA: 65.5 kW · 090RA: 90.5 kW
SHR	100 % (all models)
Airflow	007RA: 2300 m³/h · 012RA: 2500 m³/h · 017RA: 4500 m³/h · 020RA: 4920 m³/h · 025RA: 5100 m³/h · 030RA: 6000 m³/h · 040RA: 8100 m³/h · 050RA: 10200 m³/h · 065RA: 12100 m³/h · 075RA: 13600 m³/h · 090RA: 16200 m³/h
Mount type	Row (all models)
Cooling type	DX (all models)
Height	2000 mm (all models)
Depth	1100 mm (all models)
Width	007RA: 300 mm · 012RA: 300 mm · 017RA: 300 mm · 020RA: 300 mm · 025RA: 300 mm · 030RA: 300 mm · 040RA: 600 mm · 050RA: 600 mm · 065RA: 600 mm · 075RA: 900 mm · 090RA: 900 mm
Weight	007RA: 213 kg · 012RA: 233 kg · 017RA: 253 kg · 020RA: 258 kg · 025RA: 260 kg · 030RA: 320 kg · 040RA: 360 kg · 050RA: 420 kg · 065RA: 460 kg · 075RA: 540 kg · 090RA: 620 kg
Reheat	007RA: 3.0 kW · 012RA: 3.0 kW · 017RA: 6.0 kW · 020RA: 6.0 kW · 025RA: 6.0 kW · 030RA: 6.0 kW · 040RA: 6.0 kW · 050RA: 6.0 kW · 065RA: 6.0 kW · 075RA: 6.0 kW · 090RA: 6.0 kW
Humidifier (optional)	007RA: 1.5 kg/h · 012RA: 1.5 kg/h · 017RA: 1.5 kg/h · 020RA: 1.5 kg/h · 025RA: 1.5 kg/h · 030RA: 3 kg/h · 040RA: 3 kg/h · 050RA: 3 kg/h · 065RA: 3 kg/h · 075RA: 3 kg/h · 090RA: 3 kg/h
Power input option 1	007RA: 208-240V/50-60Hz/1Ph-2Ph · 012RA: 208-240V/50-60Hz/1Ph-2Ph · 017RA: 380-415V/50-60Hz/3Ph · 020RA: 380-415V/50-60Hz/3Ph · 025RA: 380-415V/50-60Hz/3Ph · 030RA: 380-415V/50-60Hz/3Ph · 040RA: 380-415V/50-60Hz/3Ph · 050RA: 380-415V/50-60Hz/3Ph · 065RA: 380-415V/50-60Hz/3Ph · 075RA: 380-415V/50-60Hz/3Ph · 090RA: 380-415V/50-60Hz/3Ph
FLA option 1, with heating	007RA: 37.3 A · 012RA: 48.7 A · 017RA: 27.0 A · 020RA: 26.7 A · 025RA: 27.9 A · 030RA: 34.6 A · 040RA: 37.7 A · 050RA: 48.1 A · 065RA: 60.6 A · 075RA: 70.8 A · 090RA: 84.6 A
FLA option 1, with humidifier	007RA: 42.4 A · 012RA: 53.8 A · 017RA: 32.1 A · 020RA: 31.8 A · 025RA: 33.0 A · 030RA: 39.7 A · 040RA: 47.9 A · 050RA: 58.3 A · 065RA: 70.8 A · 075RA: 81.0 A · 090RA: 94.8 A
Power input option 2	012RA: 380-415V/50-60Hz/3Ph · 017RA: 200-230V/50-60Hz/3Ph · 020RA: 200-230V/50-60Hz/3Ph · 025RA: 200-230V/50-60Hz/3Ph · 030RA: 200-230V/50-60Hz/3Ph · 040RA: 200-230V/50-60Hz/3Ph

FLA option 2, with heating	012RA: 20.9 A · 017RA: 49.4 A · 020RA: 48.8 A · 025RA: 51.1 A · 030RA: 63.2 A · 040RA: 68.9 A
FLA option 2, with humidifier	012RA: 22.0 A · 017RA: 52.5 A · 020RA: 52.0 A · 025RA: 54.2 A · 030RA: 66.4 A · 040RA: 75.1 A
Power input option 3	017RA: 460V/60Hz/3Ph · 020RA: 460V/60Hz/3Ph · 025RA: 460V/60Hz/3Ph · 030RA: 460V/60Hz/3Ph · 040RA: 460V/60Hz/3Ph · 050RA: 460V/60Hz/3Ph · 065RA: 460V/60Hz/3Ph · 075RA: 460V/60Hz/3Ph · 090RA: 460V/60Hz/3Ph
FLA option 3, with heating	017RA: 22.3 A · 020RA: 22.1 A · 025RA: 23.1 A · 030RA: 28.6 A · 040RA: 31.1 A · 050RA: 39.7 A · 065RA: 50.1 A · 075RA: 58.5 A · 090RA: 69.9 A
FLA option 3, with humidifier	017RA: 26.5 A · 020RA: 26.3 A · 025RA: 27.3 A · 030RA: 32.8 A · 040RA: 39.6 A · 050RA: 48.2 A · 065RA: 58.6 A · 075RA: 66.9 A · 090RA: 78.4 A
Standard outdoor unit model	007RA: KSF12AN · 012RA: KSF18AN · 017RA: KSF24AN · 020RA: KSF32AN · 025RA: KSF38AN · 030RA: KSF42AN · 040RA: KSF52AN · 050RA: KSF62AN · 065RA: KSF85AN · 075RA: KSF52AN · 090RA: KSF62AN
Outdoor unit quantity	007RA: 1 · 012RA: 1 · 017RA: 1 · 020RA: 1 · 025RA: 1 · 030RA: 1 · 040RA: 1 · 050RA: 1 · 065RA: 1 · 075RA: 2 · 090RA: 2

03 Engineered, delivered & supported by ServerInvest

Engineering & sizing

Selected and sized against your real IT load, room and redundancy targets.

Installation

Delivery, installation and commissioning by our engineers across Europe.

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ISO 9001, ISO 14001 and ISO 27001 certified project delivery.

Service & support

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