

COOLING SYSTEM DATASHEET

SOETECK · RACK-MOUNTED COOLING

Soetec Rack-Mounted Air-Cooled Precision Air Conditioner

19-inch rack-mounted DX precision cooling from 2.5 to 12.8 kW for small server rooms, edge and telecom sites

SKU S-KA

Soetec



COOLING CAPACITY

up to 13 kW

TOTAL CAPACITY

S-003KA: 3.9...

MOUNT TYPE

Rack

PRICE

On request**REQUEST A QUOTATION ONLINE**serverinvest.com/product/soetec-rack-mounted-precision-air-conditioning

01 Product overview

The Soetec rack-mounted precision air conditioner is a compact direct-expansion (DX) cooling unit that installs inside a standard 19-inch server rack, occupying between 6U and 12U. It delivers targeted cooling and humidity control right where the heat is generated, without taking up floor space for a separate room unit.

It is a practical choice for small data centres, branch-office server rooms, distributed IT closets and telecom base stations where space is tight and conditions vary. Rack-front, rack-bottom (S-003HAN) and top-mount (S-TA series) variants cover capacities from 2.5 kW up to 12.8 kW, with a 100% sensible heat ratio suited to dry IT loads.

How it works

A large V-shaped evaporator spreads airflow evenly across the coil for efficient heat exchange, while a backward-curved centrifugal EC fan adjusts air volume steplessly to the actual load to cut energy use and noise. Fixed-speed and inverter refrigeration circuits are available. The indoor unit pairs with a matched KSF air-cooled outdoor condenser, which is powered from the indoor unit.

Top, bottom (fan lowered), front-top and ducted air supply options

7-inch graphical touchscreen showing temperature and humidity trends, remote management and automatic restart after power loss

Drawer-type electrical box on slide rails for easier servicing

Options including low-temperature kit (-35 °C outdoor), pipe extension, condensate pump, leak detection, dual power feed, SNMP and electric reheat

Standard units operate at...

HIGHLIGHTS

- Rack, rack-bottom and top-mount models from 2.5 kW to 12.8 kW
- 100% sensible heat ratio for dry IT heat loads
- Backward-curved EC fan with stepless airflow modulation
- 7-inch touchscreen controller with remote monitoring and auto-restart
- Optional low-temperature kit for outdoor operation down to -35 °C
- Key components rated for MTBF of at least 100,000 hours

KEY SPECIFICATIONS

Unit height	4U – 12U
Mount type	Rack
Cooling type	Air-cooled DX
Sensible heat ratio	1.0 (100%)
Total capacity	S-003KA: 3.9 kW · S-005KA: 5.9 kW · S-007KA: 8.6 kW · S-012KA: 12.8 kW
SHR	S-003KA: 100 % · S-005KA: 100 % · S-007KA: 100 % · S-012KA: 100 %
Width × depth	483 × 828 mm (all models)
Weight	S-003KA: 31 kg · S-005KA: 43 kg · S-007KA: 52 kg · S-012KA: 70 kg
Reheat (optional)	S-003KA: 1.2 kW · S-005KA: 1.2 kW · S-007KA: 2.4 kW · S-012KA: 2.4 kW
FLA (option 1)	S-003KA: 13.9 A · S-005KA: 15.2 A · S-007KA: 21.6 A · S-012KA: 18.0 A
Power input (option 2)	S-012KA: 208V/60Hz/3Ph, FLA 32.9 A
Height	S-003KA: 632 mm · S-005KA: 790 mm · S-007KA: 790 mm · S-012KA: 1240 mm



02 Full specifications

OVERVIEW

Unit height	4U – 12U
Mount type	Rack
Cooling type	Air-cooled DX
Sensible heat ratio	1.0 (100%)

S-KA RACK-MOUNTED SERIES – INDOOR UNIT

Total capacity	S-003KA: 3.9 kW · S-005KA: 5.9 kW · S-007KA: 8.6 kW · S-012KA: 12.8 kW
SHR	S-003KA: 100 % · S-005KA: 100 % · S-007KA: 100 % · S-012KA: 100 %
Air volume	S-003KA: 700 m³/h · S-005KA: 1100 m³/h · S-007KA: 1200 m³/h · S-012KA: 2400 m³/h
Height	S-003KA: 266 mm (6U) · S-005KA: 355 mm (8U) · S-007KA: 445 mm (10U) · S-012KA: 533 mm (12U)
Width × depth	483 × 828 mm (all models)
Weight	S-003KA: 31 kg · S-005KA: 43 kg · S-007KA: 52 kg · S-012KA: 70 kg
Reheat (optional)	S-003KA: 1.2 kW · S-005KA: 1.2 kW · S-007KA: 2.4 kW · S-012KA: 2.4 kW
Power input (option 1)	S-003KA: 208-240V/50-60Hz/1-2Ph · S-005KA: 208-240V/50-60Hz/1-2Ph · S-007KA: 208-240V/50-60Hz/1-2Ph · S-012KA: 380-415V/50-60Hz/3Ph
FLA (option 1)	S-003KA: 13.9 A · S-005KA: 15.2 A · S-007KA: 21.6 A · S-012KA: 18.0 A
Power input (option 2)	S-012KA: 208V/60Hz/3Ph, FLA 32.9 A

S-KA RACK-MOUNTED SERIES – OUTDOOR UNIT

Outdoor unit model	S-003KA: KSF06AC · S-005KA: KSF08AC · S-007KA: KSF12AC · S-012KA: KSF18AC
Height	S-003KA: 632 mm · S-005KA: 790 mm · S-007KA: 790 mm · S-012KA: 1240 mm
Depth	S-003KA: 395 mm · S-005KA: 420 mm · S-007KA: 420 mm · S-012KA: 420 mm
Width	800 mm (all models)
Weight	S-003KA: 35 kg · S-005KA: 38 kg · S-007KA: 50 kg · S-012KA: 77 kg
FLA (option 1)	S-003KA: 12.6 A · S-005KA: 13.2 A · S-007KA: 19.6 A · S-012KA: 16.0 A
Outdoor operating range	-15 °C and above; -35 °C with low-temperature kit
Rating conditions	37 °C / 24% RH return air, 35 °C outdoor, standard condenser

S-003HAN RACK-BOTTOM UNIT

Total capacity	3.5 kW
SHR	100%
Airflow	700 m³/h
Reheat	1.2 kW
Mount type	Rack bottom
Power input	220V/50-60Hz/1Ph
FLA	13.5 A
Dimensions (H × D × W)	355 mm (8U) × 900 × 440 mm
Weight	45 kg

Cooling type	Air-cooled DX
Refrigerant	R410A
Monitoring port	RS485
Working range	-15 to 45 °C

S-TA TOP-MOUNT SERIES

Total cooling	S-002TA: 2.5 kW · S-003TA: 3.5 kW · S-005TA: 5.5 kW
SHR	100% (all models)
Air volume	S-002TA: 500 m³/h · S-003TA: 600 m³/h · S-005TA: 1200 m³/h
Mount / cooling type	Top / DX
Height	S-002TA: 390 mm (9U) · S-003TA: 390 mm (9U) · S-005TA: 521 mm (12U)
Width × depth	600 × 1100 mm (all models)
Weight	S-002TA: 50 kg · S-003TA: 55 kg · S-005TA: 65 kg
Power input	208-240V/50-60Hz/1-2Ph
FLA	S-002TA: 5.5 A · S-003TA: 6.5 A · S-005TA: 7.8 A

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.

Certified processes

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

Service & support

Maintenance, spare parts and support from a single partner.



Interested in this solution?

Request a quotation online or talk to a solutions engineer — we reply within one business day.
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