

COOLING SYSTEM DATASHEET

SOETECK · ROOM PRECISION AIR CONDITIONING

Soetek Room Cooling Precision Air Conditioning Units

Upflow and downflow perimeter precision air conditioners from 5.5 to 122.9 kW for data centres and server rooms

SKU SYRC

Soetek



COOLING CAPACITY

up to 123 kW

AIR SUPPLY MODE

Front / side / ...

REFRIGERANT

R410A

PRICE

On request**REQUEST A QUOTATION ONLINE**serverinvest.com/product/soetek-room-cooling-precision-air-conditioning-units

01 Product overview

Soetech room cooling units are perimeter precision air conditioners that hold temperature and humidity within tight limits across an entire computer room. Available as upflow (front/top discharge) or downflow units for raised-floor supply, the range spans compact 5.5 kW W-series units to dual-circuit SYRC models delivering 122.9 kW.

They are used in data centres and server rooms, telecom equipment rooms, electronics and precision-manufacturing workshops, laboratories and medical environments such as operating theatres, anywhere stable conditions protect equipment and processes.

Efficiency and control

Fixed-speed or inverter refrigeration systems can be selected. Backward-curved EC fans modulate airflow steplessly with the load, and a large V-shaped evaporator distributes air evenly for effective heat transfer. Each unit includes PTC electric reheat and an electrode humidifier, so it can dehumidify, reheat and humidify as well as cool. The controller features a 7-inch graphical touchscreen with temperature and humidity trend curves, remote management and automatic restart after a power interruption.

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

Drawer-type electrical box on slide rails for service access

Options: low-temperature kit, pipe extension, condensate pump, leak detection, dual power supply, V-shaped condensers

Key components specified for MTBF of at least 100,000 hours; customised performance and dimensions available

ServerInvest sizes, supplies and...

KEY SPECIFICATIONS

Air supply mode	Front / side / down
Refrigerant	R410A
Fan	ZIEHL-ABEGG EC fan
Compressor	Copeland / Mitsubishi
Outdoor operating range	-15 °C and above; -35 °C with low-temperature kit
Fan type	AC / EC
Filter rating	W-005: G3 • W-007: G3 • W-012: G3 • W-017: G4 • W-020: G4 • W-025: G4
Power input 2 / 3	W-012 to W-025: 200-230V/60Hz/3Ph or 460V/60Hz/3Ph
Drain / water-in connection Circuit	20 mm / 3/4" G Single
Fan type	EC
Filter rating	G4

HIGHLIGHTS

- 19 models from 5.5 kW to 122.9 kW total cooling capacity
- Upflow and downflow (underfloor) configurations, single or dual circuit
- ZIEHL-ABEGG EC fans and Copeland/Mitsubishi compressors, R410A
- Integrated PTC reheat and electrode humidifier for full climate control
- 7-inch touchscreen controller with remote monitoring and auto-restart
- Air-cooled outdoor units; optional low-temperature kit to -35 °C



02 Full specifications

OVERVIEW

Air supply mode	Front / side / down
Refrigerant	R410A
Fan	ZIEHL-ABEGG EC fan
Compressor	Copeland / Mitsubishi
Rating conditions	24 °C / 50% RH return air, 45 °C condensing temperature; standard ESP 20 Pa
Outdoor operating range	-15 °C and above; -35 °C with low-temperature kit

W SERIES (UPFLOW FA / DOWNFLOW DA), 5.5–27.5 KW

Cooling capacity	W-005: 5.5 kW · W-007: 7.5 kW · W-012: 12.5 kW · W-017: 17.5 kW · W-020: 21.2 kW · W-025: 27.5 kW
Sensible capacity	W-005: 5.2 kW · W-007: 6.8 kW · W-012: 11.3 kW · W-017: 15.9 kW · W-020: 19.1 kW · W-025: 25 kW
SHR	W-005: 94.5 % · W-007: 90.7 % · W-012: 90.4 % · W-017: 90.9 % · W-020: 90.1 % · W-025: 90.9 %
Air volume	W-005: 2000 m³/h · W-007: 2250 m³/h · W-012: 2850 m³/h · W-017: 5000 m³/h · W-020: 6200 m³/h · W-025: 6700 m³/h
Fan type	AC / EC
Heating capacity (PTC)	W-005: 3 kW · W-007: 3 kW · W-012: 4 kW · W-017: 6 kW · W-020: 6 kW · W-025: 6 kW
Humidification (electrode)	W-005: 2.5 kg/h · W-007: 2.5 kg/h · W-012: 4 kg/h · W-017: 4.5 kg/h · W-020: 4.5 kg/h · W-025: 5 kg/h
Filter rating	W-005: G3 · W-007: G3 · W-012: G3 · W-017: G4 · W-020: G4 · W-025: G4
Weight	W-005: 118 kg · W-007: 128 kg · W-012: 178 kg · W-017: 300 kg · W-020: 318 kg · W-025: 338 kg
Width	W-005: 550 mm · W-007: 550 mm · W-012: 650 mm · W-017: 750 mm · W-020: 750 mm · W-025: 850 mm
Depth	W-005: 450 mm · W-007: 450 mm · W-012: 550 mm · W-017: 700 mm · W-020: 700 mm · W-025: 700 mm
Height	W-005: 1750 mm · W-007: 1750 mm · W-012: 1850 mm · W-017: 1900 mm · W-020: 1900 mm · W-025: 1900 mm
Power input 1	W-005: 208-240V/50-60Hz/1-2Ph · W-007: 208-240V/50-60Hz/1-2Ph · W-012: 380-415V/50-60Hz/3Ph · W-017: 380-415V/50-60Hz/3Ph · W-020: 380-415V/50-60Hz/3Ph · W-025: 380-415V/50-60Hz/3Ph
FLA cooling (input 1)	W-005: 14.5 A · W-007: 16.5 A · W-012: 13.1 A · W-017: 14.3 A · W-020: 19.4 A · W-025: 23.1 A
FLA with heating/hum. (input 1)	W-005: 28.2 A · W-007: 30.2 A · W-012: 19.2 A · W-017: 23.4 A · W-020: 28.5 A · W-025: 32.2 A
Power input 2 / 3	W-012 to W-025: 200-230V/60Hz/3Ph or 460V/60Hz/3Ph
Refrigerant pipe connection	W-005: 10/12 mm · W-007: 10/12 mm · W-012: 12/16 mm · W-017: 16/16 mm · W-020: 16/16 mm · W-025: 16/22 mm
Drain / water-in connection	20 mm / 3/4" G
Circuit	Single
Outdoor unit	W-005: KSF08 · W-007: KSF12 · W-012: KSF18 · W-017: KSF24 · W-020: KSF24 · W-025: KSF32

SYRC SERIES (UPFLOW / DOWNFLOW), 32.5–122.9 kW

Cooling capacity	SA/SW30: 32.5 kW · SA/SW35: 37.7 kW · SA/SW40: 41.8 kW · SA/SW50: 50.0 kW · DA/DW45: 43.5 kW · DA/DW55: 53.1 kW · DA/DW65: 65.1 kW · DA/DW70: 71.1 kW · DA/DW80: 83.6 kW · DA/DW90: 92.1 kW · DA/DW100: 100.9 kW · DA/DW110: 110.9 kW · DA/DW120: 122.9 kW
Sensible capacity	SA/SW30: 29.3 kW · SA/SW35: 34.0 kW · SA/SW40: 38.1 kW · SA/SW50: 45.0 kW · DA/DW45: 39.2 kW · DA/DW55: 47.8 kW · DA/DW65: 58.8 kW · DA/DW70: 64.0 kW · DA/DW80: 75.3 kW · DA/DW90: 83.6 kW · DA/DW100: 91.1 kW · DA/DW110: 97.1 kW · DA/DW120: 105.2 kW
Air volume	SA/SW30: 8325 m ³ /h · SA/SW35: 8620 m ³ /h · SA/SW40: 10500 m ³ /h · SA/SW50: 12400 m ³ /h · DA/DW45: 10500 m ³ /h · DA/DW55: 12400 m ³ /h · DA/DW65: 16650 m ³ /h · DA/DW70: 17240 m ³ /h · DA/DW80: 21000 m ³ /h · DA/DW90: 22600 m ³ /h · DA/DW100: 24800 m ³ /h · DA/DW110: 26200 m ³ /h · DA/DW120: 27100 m ³ /h
Fan type	EC
Heating capacity (PTC)	SA/SW30: 6 kW · SA/SW35: 6 kW · SA/SW40: 9 kW · SA/SW50: 9 kW · DA/DW45: 9 kW · DA/DW55: 9 kW · DA/DW65: 9 kW · DA/DW70: 9 kW · DA/DW80: 12 kW · DA/DW90: 12 kW · DA/DW100: 12 kW · DA/DW110: 12 kW · DA/DW120: 12 kW
Humidification (electrode)	SA/SW30: 8 kg/h · SA/SW35: 8 kg/h · SA/SW40: 10 kg/h · SA/SW50: 10 kg/h · DA/DW45: 10 kg/h · DA/DW55: 10 kg/h · DA/DW65: 10 kg/h · DA/DW70: 10 kg/h · DA/DW80: 12 kg/h · DA/DW90: 12 kg/h · DA/DW100: 12 kg/h · DA/DW110: 12 kg/h · DA/DW120: 12 kg/h
Filter rating	G4
Weight	SA/SW30: 433 kg · SA/SW35: 438 kg · SA/SW40: 468 kg · SA/SW50: 528 kg · DA/DW45: 478 kg · DA/DW55: 568 kg · DA/DW65: 688 kg · DA/DW70: 718 kg · DA/DW80: 788 kg · DA/DW90: 866 kg · DA/DW100: 888 kg · DA/DW110: 902 kg · DA/DW120: 930 kg
Width	SA/SW30: 1126 mm · SA/SW35: 1126 mm · SA/SW40: 1326 mm · SA/SW50: 1326 mm · DA/DW45: 1326 mm · DA/DW55: 1326 mm · DA/DW65: 1826 mm · DA/DW70: 1826 mm · DA/DW80: 2226 mm · DA/DW90: 2226 mm · DA/DW100: 2226 mm · DA/DW110: 2226 mm · DA/DW120: 2226 mm
Depth × height	990 × 1975 mm (all models)
Power input	380-415V/50-60Hz/3Ph; also 460V/60Hz/3Ph or 208-230V/60Hz/3Ph
FLA (380-415V)	SA/SW30: 35.5 A · SA/SW35: 36.3 A · SA/SW40: 46.0 A · SA/SW50: 49.6 A · DA/DW45: 48.2 A · DA/DW55: 53.8 A · DA/DW65: 66.4 A · DA/DW70: 67.2 A · DA/DW80: 83.0 A · DA/DW90: 86.6 A · DA/DW100: 90.2 A · DA/DW110: 93.8 A · DA/DW120: 97.2 A
Circuit	SA/SW30–50: single · DA/DW45–120: dual
Outdoor unit	SA/SW30: KSF38 · SA/SW35: KSF52 · SA/SW40: KSF52 · SA/SW50: KSF62 · DA/DW45: 2× KSF32 · DA/DW55: 2× KSF32 · DA/DW65: 2× KSF42 · DA/DW70: 2× KSF52 · DA/DW80: 2× KSF52 · DA/DW90: 2× KSF62 · DA/DW100: 2× KSF62 · DA/DW110: 2× KSF70 · DA/DW120: 2× KSF76
Pipe / drain / water-in connection	16/22 mm / 20 mm / 3/4" G
Water-cooled condenser flow (SW/DW)	SA/SW30: 7.24 m ³ /h · SA/SW35: 7.96 m ³ /h · SA/SW40: 9.1 m ³ /h · SA/SW50: 10.91 m ³ /h · DA/DW45: 2× 4.88 m ³ /h · DA/DW55: 2× 5.41 m ³ /h · DA/DW65: 2× 7.24 m ³ /h · DA/DW70: 2× 7.96 m ³ /h · DA/DW80: 2× 9.1 m ³ /h · DA/DW90: 2× 9.53 m ³ /h · DA/DW100: 2× 10.91 m ³ /h · DA/DW110: 2× 11.96 m ³ /h · DA/DW120: 2× 13.36 m ³ /h
Condenser water pressure drop	SA/SW30: 53 kPa · SA/SW35: 50.1 kPa · SA/SW40: 50.8 kPa · SA/SW50: 52.2 kPa · DA/DW45: 48.3 kPa · DA/DW55: 51.3 kPa · DA/DW65: 52.6 kPa · DA/DW70: 50.1 kPa · DA/DW80: 50.8 kPa · DA/DW90: 50.4 kPa · DA/DW100: 52.2 kPa · DA/DW110: 50.3 kPa · DA/DW120: 51.7 kPa
Condenser water piping	SA/SW30: 32 mm · SA/SW35: 32 mm · SA/SW40: 32 mm · SA/SW50: 42 mm · DA/DW45: 28 mm · DA/DW55: 28 mm · DA/DW65: 32 mm · DA/DW70: 32 mm · DA/DW80: 32 mm · DA/DW90: 32 mm · DA/DW100: 42 mm · DA/DW110: 42 mm · DA/DW120: 42 mm

03 Engineered, delivered & supported by ServerInvest

Engineering & sizing

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

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