WS 170 KRET





Short description

Centralised ventilation unit with very effective heat recovery through enthalpy cross-counterflow exchanger, EC motors with constant volumetric flow regulation, supply and exhaust air on the right, 4 x DN 125, including frost protection heating and RLS 1 WR control unit and mobile control by app, DIBT approval, 40 - 160 m³/h, 23 - 46 m³/h in interval mode, KNX connection possible, 4 x SVR 125 plug connector or 90° B90-125 elbow needed to connect folded spiral-seams ducts (order as accessories)

Application examples

Low-energy house, Single-family house, Living room, Office

Article number

0095.0281

Technical data

| Model | Comfort model, right |
|--|---|
| Number of ventilation levels | 4 |
| Air flow volume | 40 m³/h - 160 m³/h |
| Volumetric flow constant | yes |
| SEC average | -36,53 kWh/(m²*a) |
| Energy efficiency class | A |
| Type of voltage | Alternating current |
| Rated voltage | 230 V |
| Frequency | 50 Hz/60 Hz |
| SPI value in accordance with DIN EN 13141-7 (A7) | 0,28 Wh/m³ |
| Power consumption | 21 W - 80 W (At 100 Pa counter pressure) |
| Power consumption in accordance with DIN EN 13141-7 (A7) | 36 W |
| Stand-by power consumption | < 1 W |
| I _{max} | 0,5 A (With active 4 A frost protection heating) |
| Degree of protection | IP 00 |
| DIBT approval | yes |
| PHI certification | No |
| Installation site | Wall |
| Installation site | Bathroom / Kitchen / Cellar / Storage tank / Jamb wall / Utility room / |
| | Heating room / Hall |
| System type | Centralised |
| Housing material | Galvanised sheet steel, powder coated |
| Heat exchanger material | Synthetic material |
| Inner coating material | Plastic EPP |
| Colour | Traffic white (RAL 9016) |
| Weight | 46 kg |
| Weight including packaging | 51 kg |
| Filter class | ISO Coarse 80 % (G4) / ISO ePM1 55 % (F7) |
| Connection diameter | 125 mm |

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|---|---|---|
| Deph375 mDeph640 mHeight with packaging640 mDeph with packaging900 mColumb th packaging400 mAutoma20° Cup to 60°CAmbient emperature at L _{Max} 20° Cup to 60°CAmbient emperature at L _{Max} 90%Max. degree of heat provision in accordance with DIN EN 1314790%(A7)ToronaHeat exchanger construction typeEnthalpy cross-counterflowHumidty recovery with enthalpy heat exchanger in accordance with6%Power of preheating register0,74 kWPower of preheating register6,74 kWPostion – exhaust airrightBypasNoSuffreeze circuityesSuffreeze circuitwith ine controlMurifly control (optional)Khaust air / supply airHumidty control (optional)KistKNX connection (optional)KistKNX connection (optional)Kist QAKNX connection (optional)Kist QAKist quality control (optional)Sist Q | Width | 595 mm |
| <table-row><table-row><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container><table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-container></table-row></table-row> | Height | 820 mm |
| Height with packaging 990 nm Depth with packaging 400 nm Aristream temperature at I _{Max} -20 °C up to 60 °C Ambient temperature 10 °C up to 40 °C Max. degree of heat provision in accordance with DIN EN 13141-7 90 % (A7) 90 % Heat exchanger construction type Enthalpy cross-counterflow Humidity recovery with enthalpy heat exchanger in accordance with 66 % Power of preheating register 0.74 kW Position – exhaust air 1ight Bypas No Frost protection integrated Enthalpy heat exchanger yes Summer circuit SkD Hur quality control (optional) KSM KNX connection (optional) KSM KNX connection (optional) RLS1 WR, App Cortrol unit included in scope of delivery. E-SM Mobile control yes Procean wireless integration (optional) KSD Control unit included in scope of delivery. SkD Control unit included in scope of delivery. St2 MG/L) 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 | Depth | 375 mm |
| Depth with packaging400 mmAirstream temperature at I _{Max} -20 °C up to 60 °CAmbient temperature10 °C up to 40 °CMax. degree of heat provision in accordance with DIN EN 13141-790 %(A7)-Heat exchanger construction typeEnthalpy cross-counterflowHumidity recovery with enthalpy heat exchanger in accordance66 %DIN EN 13141-7 (A2)-Power of preheating register0,74 kWPostion – exhaust airrightBypasNoFrost protectionintegratedAntifreze circuityesSummer circuitExhaust air / supply airFilter monitoringwith time controlHumidity control (optional)EXQ 10/3KNX connection (optional)KSMMOBDUS InterfaceintegratedControl unit included in scope of delivery.RLS 1WR, AppControl unit included in scope of delivery.ESMFibce ontrolyesPochen wireless integration (optional)ESI WR, AppPochen wireless integration (optional)SU WR, AppPochen wireless integration (optional)S2 WA(J/34 dB(A)/35 dB(A) (Spacing 1m, sound absorption 10 m)Packing unit1 pieceRangeK | Width with packaging | 640 mm |
| Aistream imperature at I _{Max} -20 °C up to 60 °C Ambient temperature 10 °C up to 40 °C Max. degree of heat provision in accordance with DIN EN 13141-7 (A7) 90 % Heat exchanger construction type Enthalpy cross-counterflow Humidity recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2) 6% Power of preheating register 0,74 kW Position – exhaust air inght Bypass No Frost protection integrated Enthalpy heat exchanger yes Antifreeze circuit yes Summe ricuit Exchaust air / supply air Filter monitoring with time control Humidity control StoD Corg regulation StoD Atfreeze circuit SkD KX connection (optional) K-SM KN connection (optional) K-SM MODBUS interface integrated Control unit included in scope of dellvery. RLS 1 VR, App Control unit included in scope of dellvery. Sch Bnoble control yes Housing emission sound pressure level <td>Height with packaging</td> <td>990 mm</td> | Height with packaging | 990 mm |
| Abient emperature10 °C up to 40 °CMax. degree of heat provision in accordance with DIN EN 131417 (A7)90 %Heat exchanger construction typeEnthalpy cross-counterflowHumidty recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2)60 %Power of preheating register74 KWPostion – exhaust airrightPostion – exhaust airintegratedPostion – exhaust airNoStratege circuitseaPostion – exhaust airintegratedPostion – exhaust airintegratedPost | Depth with packaging | 400 mm |
| Ax. degree of heat provision in accordance with DIN EN 13141-7 (A7)90 %Heat exchanger construction typeEnthalpy cross-counterflowHumidity recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2)66 %Power of preheating register0,74 kWPower of preheating register0,74 kWPostion – exhaust airintegratedBypassNoFrost protectionintegratedEnthalpy heat exchangeryesAntifreeze circuityesSummer circuitintegratedHumidity controlExhaust air / supply airFilter monitoringWith time controlHumidity control (optional)K-SMKNX connection (optional)K-SMKNX connection (optional)K-SMControl unit included in scope of delivery.RLS 12WR, AppControl unit included in scope of delivery.F-SMHobies controlyesHousing emission sound pressure level2/2 del(A) / 3 dB(A) (Spacing 1m, sound absorption 10 m?Packing unit1 pieceRangeK | Airstream temperature at I _{Max} | -20 °C up to 60 °C |
| ArControlHeat exchanger construction typeEnthalpy cross-counterflowHumidity recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2)66 %Power of preheating register0.74 kWPostion – exhaust airrightBypasNoFrost protectionintegratedEnthalpy heat exchangeryesAntifreze circuityesSummer circuitExhaust air / supply airFilter monitoringwith time controlHumidity control (optional)KSDAri quality control (optional)EAQ 10/3KNX connection (optional)RLS 1 WR, AppControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)SesEnCocan wireless integration (optional)SesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 1 m ² Poking unit1 pieceRangeK | Ambient temperature | 10 °C up to 40 °C |
| Heat exchanger construction typeEnthalpy conservounterflowHumidity recovery with enthalpy heat exchanger in accordance6%DNE N1 3141-7 (A2)74Power of preheating register0,74 kWPostion – exchangerrightByapsaNoForts protectionintegratedForts protectionyesAntifreeze circuityesSummer circuitSchaust air / supply airFilter monitoringKithiene controlFortgrotectionKalden accordOrg regulationKalden accordAntiquety controlKalden accordAntiquety controlKalden accordKith controlKalden accordKonnection (optional)Kalden accordControl Inticluded inscept of delivery.Kalden AccordAntiquety control (optional)Schaust arcord (Schausen accord)Antiper control (optional)Schausen accord)Antiper control (Schausen accord)Schausen accord)Antiper control (Schausen accord)Schausen accord)Antiper control (Schausen accord)Schausen accord)Antiper control (Schausen accord)Schausen accord)Antiper control (Schausen accord | Max. degree of heat provision in accordance with DIN EN 13141-7 | 90 % |
| Hurridity recovery with enthalpy heat exchanger in accordance with DIN EN 13141-7 (A2) 64 Power of preheating register 0,74 kW Position – exhaust air right Bypass No Frost protection integrated Enthalpy heat exchanger yes Antifreeze circuit yes Summer circuit Exhaust air / supply air Filter monitoring with time control Hurridity control KD Ari quality control (optional) K-SM KNX connection (optional) K-SM Colorul uni included in scope of delivery. RLS 1 WR, App Control unit (optional) RLS 1 WR, App Control unit (optional) ges Position - exities integration (optional) ges Antifeze circuit Store circuit Anti quality control (optional) RLS 1 WR, App Control unit (optional) ges Mobile control yes Position - exities integration (optional) ges Posities integration (optional) ges Positie (optional) ges Positie (optional) RLS 1 WR, App Positie (optional) ges Positie (optional) ges Positie (optional) ges Positie (opti | (A7) | |
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| Power of preheating register0,74 kWPosition – exhaust airrightBypassNoFrost protectionintegratedEnthalpy heat exchangeryesAntifreeze circuityesSumme circuitExhaust air / supply airFilter monitoringwith time controlHumidity controlintegratedCo2 regulationSKDAit quality control (optional)K-SMKNX connection (optional)RLS 1WR, AppControl unit included in scope of delivery.RLS 1WR, AppControl unit (optional)E-SMBiole controlyesHousing emission sound pressure levelyesPacking unit1 pieceRangeK | Humidity recovery with enthalpy heat exchanger in accordance with | 66 % |
| Position – exhaust airrightBypassNoFrost protectionintegratedEnthalpy heat exchangeryesAntifreeze circuitSkaust air / supply airSumme circuitExhaust air / supply airFilter monitoringwith time controlHumidity controlIntegratedCo2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)E-SMBible controlJ2 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ² Position unit1 pieceRust guntal1 piece | DIN EN 13141-7 (A2) | |
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| From integrated From protection yes Enthalpy heat exchanger yes Antifreeze circuit yes Summer circuit Exhaust air / supply air Filter monitoring with time control Humidity control integrated CO2 regulation SKD Air quality control (optional) EAQ 10/3 KNX connection (optional) K-SM MODBUS interface integrated Control unit included in scope of delivery. RLS 1 WR, App Control unit (optional) E-SM Mobile control yes Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ²) Packing unit 1 piece Range K | Position – exhaust air | right |
| Enthalpy heat exchangeryesAntifreeze circuityesSumer circuitExhaust air / supply airFilter monitoringwith time controlHumidity controlintegratedCO2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ² Packing unit1 pieceRangeK | Bypass | No |
| Antifreeze circuityesSummer circuitExhaust air / supply airFilter monitoringwith time controlHumidity controlintegratedCO2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)E-SMMobile controlyesPacking unit32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²RangeK | Frost protection | integrated |
| Summer circuitExhaust air / supply airFilter monitoringwith time controlHumidity controlintegratedCO2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²Packing unit1 pieceRangeK | Enthalpy heat exchanger | yes |
| Filter monitoring with time control Humidity control integrated CO2 regulation SKD Air quality control (optional) EAQ 10/3 KNX connection (optional) K-SM MODBUS interface integrated Control unit included in scope of delivery. RLS 1 WR, App Control unit (optional) RLS 12 WS, RLS G1 WS EnOcean wireless integration (optional) ges Mobile control yes Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ²) Packing unit 1 piece | Antifreeze circuit | yes |
| Humidity controlintegratedCO2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)ELS 12 WS, RLS G1 WSFnOcean wireless integration (optional)gesMobile control32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10Packing unitnaRangeK | Summer circuit | Exhaust air / supply air |
| CO2 regulationSKDAir quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)RLS 72 WS, RLS G1 WSEnOcean wireless integration (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²)Packing unitT pieceRangeK | Filter monitoring | with time control |
| Air quality control (optional)EAQ 10/3KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)RLS 72 WS, RLS G1 WSEnOcean wireless integration (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²)Packing unitI pieceRangeK | Humidity control | integrated |
| KNX connection (optional)K-SMMODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)RLS 72 WS, RLS G1 WSEnOcean wireless integration (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²Packing unit1 pieceRangeK | CO ₂ regulation | SKD |
| MODBUS interfaceintegratedControl unit included in scope of delivery.RLS 1 WR, AppControl unit (optional)RLS T2 WS, RLS G1 WSEnOcean wireless integration (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²)Packing unit1 pieceRangeK | Air quality control (optional) | EAQ 10/3 |
| Control unit included in scope of delivery. RLS 1 WR, App Control unit (optional) RLS T2 WS, RLS G1 WS EnOcean wireless integration (optional) E-SM Mobile control yes Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ²) Packing unit 1 piece Range K | KNX connection (optional) | K-SM |
| Control unit (optional)RLS T2 WS, RLS G1 WSEnOcean wireless integration (optional)E-SMMobile controlyesHousing emission sound pressure level32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²)Packing unit1 pieceRangeK | MODBUS interface | integrated |
| EnOcean wireless integration (optional) E-SM Mobile control yes Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m²) Packing unit 1 piece Range K | Control unit included in scope of delivery. | RLS 1 WR, App |
| Mobile control yes Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ²) Packing unit 1 piece Range K | Control unit (optional) | RLS T2 WS, RLS G1 WS |
| Housing emission sound pressure level 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 m ²) Packing unit 1 piece Range K | EnOcean wireless integration (optional) | E-SM |
| m²) Packing unit 1 piece Range K | Mobile control | yes |
| Packing unit 1 piece Range K | Housing emission sound pressure level | 32 dB(A) / 34 dB(A) / 35 dB(A) (Spacing 1m, sound absorption 10 |
| Range K | | m²) |
| | Packing unit | 1 piece |
| GTIN (EAN) 4012799952817 | Range | К |
| | GTIN (EAN) | 4012799952817 |

Sound power level in octave range

| | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1 kHz | 2 kHz | 4 kHz | 8 kHz | Total |
|-------------------------|-------|--------|--------|--------|-------|-------|-------|-------|-------|
| L _{WA2} , Step | 23 | 29 | 28 | 28 | 26 | 20 | 14 | 4 | 34 |
| 1 (dB(A)) | | | | | | | | | |
| L _{WA5} , Step | 25 | 36 | 34 | 34 | 38 | 30 | 18 | 5 | 43 |
| 1 (dB(A)) | | | | | | | | | |



WS 170 KRET

| | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1 kHz | 2 kHz | 4 kHz | 8 kHz | Total |
|--------------------------|-------|--------|--------|--------|-------|-------|-------|-------|-------|
| L _{WA6} , Step | 25 | 36 | 37 | 35 | 42 | 32 | 20 | 6 | 45 |
| 1 (dB(A)) | | | | | | | | | |
| L _{WA2} , Level | 27 | 28 | 29 | 29 | 28 | 21 | 15 | 3 | 36 |
| 2 (dB(A)) | | | | | | | | | |
| L _{WA5} , Level | 26 | 36 | 36 | 36 | 41 | 32 | 19 | 4 | 44 |
| 2 (dB(A)) | | | | | | | | | |
| L _{WA6} , Level | 26 | 37 | 39 | 37 | 44 | 35 | 23 | 8 | 46 |
| 2 (dB(A)) | | | | | | | | | |
| L _{WA2} , Level | 22 | 29 | 32 | 31 | 30 | 23 | 17 | 4 | 37 |
| 3 (dB(A)) | | | | | | | | | |
| L _{WA5} , Level | 18 | 35 | 37 | 37 | 44 | 37 | 22 | 8 | 46 |
| 3 (dB(A)) | | | | | | | | | |
| L _{WA6} , Level | 23 | 36 | 40 | 39 | 47 | 40 | 25 | 11 | 49 |
| 3 (dB(A)) | | | | | | | | | |

 L_{WA2} = housing sound power level in dB.

 L_{WA5} = free inlet sound power level in dB.

 L_{WA6} = free outlet sound power level in dB.

 L_{WA5} , L_{WA6} = sound power level emitted to the free surroundings. Measured at a subsequent operating point on the connections facing the room. L_{WA5} Exhaust air connections, L_{WA6} Supply air connections.

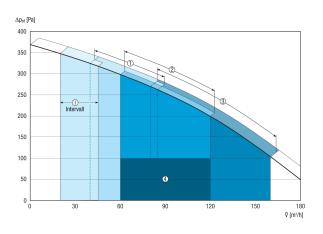
Operating point, level 1: Air volume 70 m³/h and external pressure 100 Pa

Operating point, level 2: Air volume 100 m³/h and external pressure 100 Pa

Operating point, level 3: Air volume 130 m³/h and external pressure 100 Pa

In accordance with DIN 45635, Part 38, April 1986.

Characteristic curve

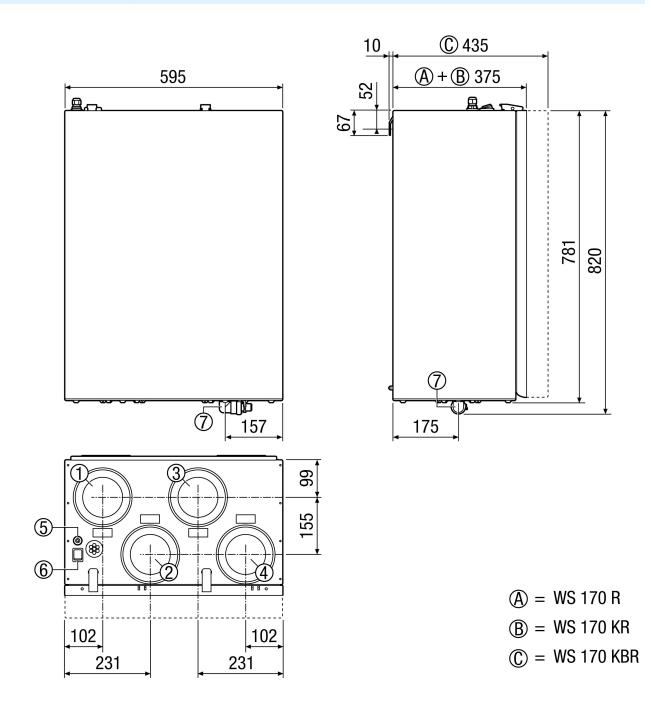


- I Interval / vacation operation for humidity protection
- ① Reduced ventilation
- ② Nominal ventilation
- ③ Intensive / Party operation
- ④ Recommended setting range



Dimensioned drawing [mm]





- ① DN 125 outgoing air
- 2 DN 125 outside air
- ③ DN 125 exhaust air
- ④ DN 125 supply air
- © Cable screw-connection
- 6 Main switch
- ⑦ Condensation connection