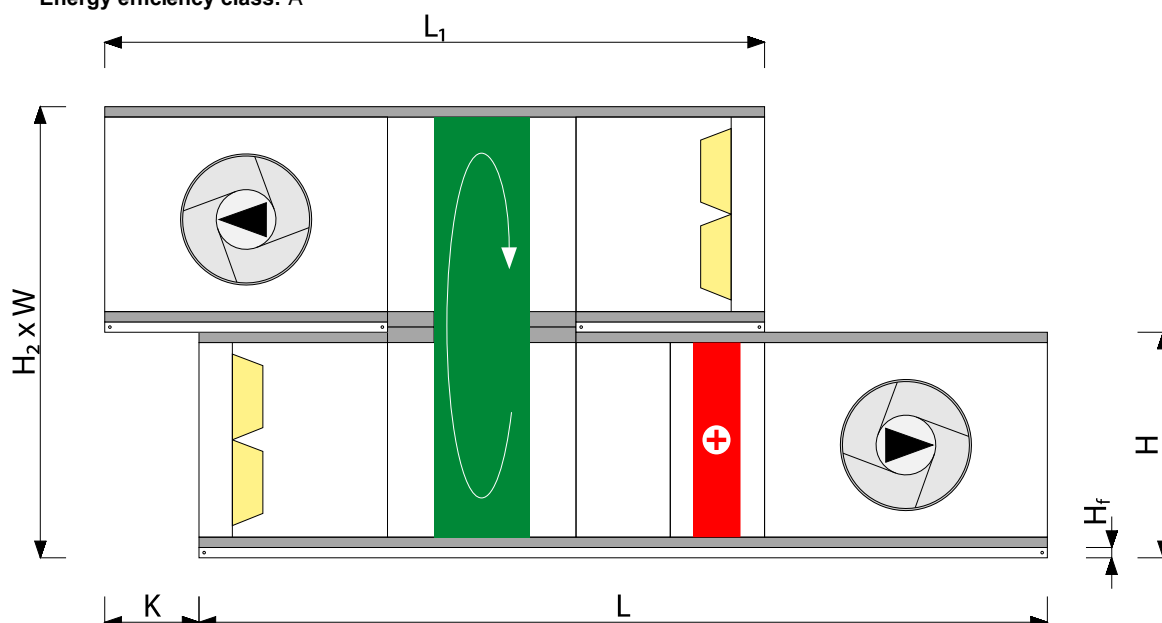


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1. PN-1; Aktu Zale
TYPE: Sup-Exh
SET: VS-21-R-RH
SIZE: 21
SUPPLY: 2100 m³/h
EXHAUST: 2100 m³/h
INSULATION THICKNESS: 40 mm
EXTERNAL PRESSURE: 300 Pa
EXTERNAL PRESSURE: 300 Pa
WEIGHT OF UNIT (+/- 10%): 324 kg
SFP: 2,29 kW/m³/s (EN 13779)
Energy efficiency class: A



OPTIONAL SETS ARE INTEGRAL PART OF BASE UNIT.

(*) Net weight of AHU including optional equipment without controls.

Unit dimensions

| Dimension name | W | H | H2 | Hf | L | L1 | K | h _{xw} |
|------------------|--------------|-----|-----|----|------|------|---|-----------------|
| Dimension | 961 | 528 | 976 | 80 | 2953 | 2221 | 0 | 313x821 |
| Supply | 758,758,1490 | | | | | | | |
| Exhaust | 758,758 | | | | | | | |

Pamatnes rāmja ārējie izmēri ir iekļauti OMM

Supply part



Filter

| | | | |
|-----------------------|----------------|---------------------|----------|
| Name | VS 21 P.FLT G4 | Final pressure drop | 150 Pa |
| Air pressure drop | 92 Pa | Air velocity | 1,86 m/s |
| Initial pressure drop | 33 Pa | Type | DEU4 |



Rotary exchanger

| | | | |
|----------------------------------|-------------------|----------------------------------|---------|
| Type | VS 21 RRG.ROT.SET | Latent efficiency (winter) | 29 % |
| Pressure drop (supply) | 109 Pa | Supply air intake (in summer) | 25,2 °C |
| Pressure drop (supply - winter) | 109 Pa | Supply air outlet (in summer) | 25,2 °C |
| Pressure drop (exhaust) | 147 Pa | Exhaust air intake (in summer) | 24 °C |
| Pressure drop (exhaust - winter) | 147 Pa | Exhaust air outlet (in summer) | 24 °C |
| Air velocity (supply) | 2,5 m/s | Sensible efficiency (summer) | 0 % |
| Air velocity (exhaust) | 3 m/s | Latent efficiency (summer) | 0 % |
| Supply air intake (in winter) | -23 °C | Total recovery capacity (summer) | 0 kW |

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| | | | | |
|--------------------------------|----------|------|-------------------------------------|---------|
| Supply air outlet (in winter) | 10,4 °C | 22 % | Total recovery capacity (winter) | 25,8 kW |
| Exhaust air intake (in winter) | 22 °C | 30 % | Sensible recovery capacity | 0 kW |
| Exhaust air outlet (in winter) | -11,8 °C | 95 % | (summer) | |
| Sensible efficiency (winter) | | 74 % | Sensible recovery capacity (winter) | 23,5 kW |
| Sensible efficiency (winter) | | 74 % | Percentage of air in by-pass | 0 % |
| balanced flow | | | | |

**Water heater**

| | | | | |
|------------------------|-------------|----------|------------------------|-----------|
| Name | VS 21 WCL 2 | | Glycol content | 0 % |
| Air pressure drop | | 48 Pa | Medium pressure drop | 1,31 kPa |
| Air velocity | | 2,54 m/s | Inlet temp. of medium | 80 °C |
| Air intake (in winter) | 5,4 °C | 30 % | Outlet temp. of medium | 60 °C |
| Air outlet (in winter) | 20 °C | 12 % | Medium flow rate | 0,44 m³/h |
| Air intake (in summer) | 25,2 °C | 60 % | Total heater capacity | 10,31 kW |
| Air outlet (in summer) | 25,2 °C | 60 % | Header type | R 1" |
| Type of glycol | Ethylene | | | |

**Fan section**

| | | | | |
|--------------------------|-------------------------|------------|-------------------------------------|-----------------------|
| Fan | | | Frequency | 59,2 Hz |
| Name | VS 21 DRCT.DR.FAN 1 v.2 | | Rated voltage | 3x230 V |
| Static pressure | | 549 Pa | Rated current | 3 A |
| Static pressure (winter) | | 548,7 Pa | Rated power | 0,75 kW |
| Dynamic pressure | | 64 Pa | Electric power consumption | 0,672 kW |
| External pressure | | 300 Pa | Electric power consumption (winter) | 0,672 kW |
| Static efficiency | | 68 % | Rated revolutions | 2855 1/min |
| Total efficiency | | 76 % | Fan section | VS 21 1 |
| Rated revolutions | | 3383 1/min | DRCT.DR.PLUG.FAN.SET | 25/0,75/2 |
| Shaft power | | 0,476 kW | | |
| Motor | M 0,75/2P v.2 | | Frequency converter | VS 21-150 FC 0,75 v 1 |
| IEC size | | 80 | | 2 |
| | | | Frequency converter's power supply | 1x230 V |
| | | | SFPs | 1,15 kW/m³/s |

Sound-level table

| Frequency | | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Lw dB(A) |
|-----------------|-------|--------|--------|--------|---------|---------|---------|---------|----------|
| Intake | dB | 69,2 | 74,7 | 74,3 | 69,1 | 63,9 | 55,1 | 50,2 | 74,7 |
| Outlet | dB | 75,2 | 81,7 | 82,3 | 79,1 | 75,9 | 71,1 | 67,2 | 84,1 |
| Environment | dB | 65,2 | 68,3 | 62,6 | 57,3 | 56,3 | 42,1 | 35,2 | 64,8 |
| Sound press. ** | dB(A) | 42,1 | 52,7 | 52,4 | 50,3 | 50,5 | 36,1 | 27,1 | 57,8 |

(**) Approximate data of sound pressure.

Exhaust section**Filter**

| | | | | |
|-----------------------|----------------|-------|---------------------|----------|
| Name | VS 21 P.FLT G4 | | Final pressure drop | 150 Pa |
| Air pressure drop | | 92 Pa | Air velocity | 1,86 m/s |
| Initial pressure drop | | 33 Pa | Type | DEU4 |

**Fan section**

| | | | | |
|--------------------------|-------------------------|------------|-------------------------------------|------------|
| Fan | | | Frequency | 59 Hz |
| Name | VS 21 DRCT.DR.FAN 1 v.2 | | Rated voltage | 3x230 V |
| Static pressure | | 539 Pa | Rated current | 3 A |
| Static pressure (winter) | | 538,7 Pa | Rated power | 0,75 kW |
| Dynamic pressure | | 64 Pa | Electric power consumption | 0,662 kW |
| External pressure | | 300 Pa | Electric power consumption (winter) | 0,662 kW |
| Static efficiency | | 68 % | Rated revolutions | 2855 1/min |
| Total efficiency | | 76 % | Fan section | VS 21 1 |
| Rated revolutions | | 3371 1/min | DRCT.DR.PLUG.FAN.SET | 25/0,75/2 |
| Shaft power | | 0,469 kW | | |



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| | | | | |
|----------|---------------|----|------------------------------------|-----------------------|
| Motor | M 0,75/2P v.2 | 80 | Frequency converter | VS 21-150 FC 0,75 v 1 |
| IEC size | | | Frequency converter's power supply | 2 1x230 V |
| | | | SFPe | 1,13 kW/m³/s |

Sound-level table

| Frequency | | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | Lw dB(A) |
|-----------------|-------|--------|--------|--------|---------|---------|---------|---------|----------|
| Intake | dB | 70,2 | 75,7 | 75,3 | 71,1 | 65,9 | 59,1 | 54,2 | 76,1 |
| Outlet | dB | 75,2 | 81,7 | 82,3 | 79,1 | 75,9 | 71,1 | 67,2 | 84 |
| Environment | dB | 65,2 | 68,3 | 62,6 | 57,3 | 56,3 | 42,1 | 35,2 | 64,7 |
| Sound press. ** | dB(A) | 42,1 | 52,7 | 52,4 | 50,3 | 50,5 | 36,1 | 27,1 | 57,7 |

(**) Approximate data of sound pressure.

Options

| | | | | | |
|---------------------|------------------|---|--------|--------------|---|
| Flexible connection | VS 21/30 FLX.CNC | 1 | Damper | VS 21 A.DAMP | 1 |
| | 821x313 | | | 821x313 | |
| Flexible connection | VS 21/30 FLX.CNC | 1 | Damper | VS 21 A.DAMP | 1 |
| | 821x313 | | | 821x313 | |
| Flexible connection | VS 21/30 FLX.CNC | 1 | Siphon | VS 00 SPHN | 1 |
| | 821x313 | | | | |
| Flexible connection | VS 21/30 FLX.CNC | 1 | | | |
| | 821x313 | | | | |

Controls AR-1E

| | | | | | |
|-------------------------|-------------------|---|-------------------------|-----------------|---|
| Fuse element | VS 21-150 FUSE gG | 1 | Throttle valve actuator | VS 00 AD.ACTR | 1 |
| | 10A type10x38 | | | ON-OFF 10Nm | |
| Fuse element | VS 21-150 FUSE gG | 1 | Valve set | VS 00 3W.VLV 4 | 1 |
| | 10A type10x38 | | Pressure control | VS 10-150 | 1 |
| HMI Interface Basic | HMI BASIC UPC | 1 | | DFF.PRSS.GG 400 | |
| HMI Interface Advanced | HMI ADVANCED | 1 | | Pa | |
| | UPC | | Pressure control | VS 10-150 | 1 |
| Duct temperature sensor | NTC.TEMP.SNR | 4 | | DFF.PRSS.GG 400 | |
| | DUCT | | | Pa | |
| Throttle valve actuator | VS 00 AD.ACTR | 1 | Antifreeze thermostat | VS 10-40 | 1 |
| | ON-OFF/S 10Nm | | | FROST.THMST 2m | |
| | | | Capillary grip | VS | 1 |
| | | | | CPLRY.GRIP.SET | |
| | | | | 3# | |

Control box VS 10-75 CG UPC