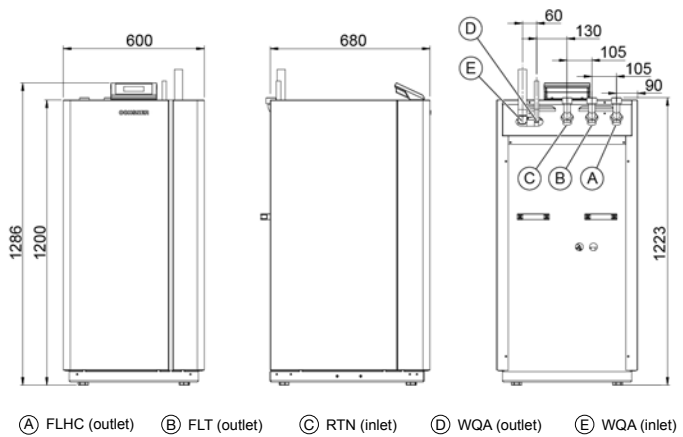


AIR 41 C12A

HIGH EFFICIENCY AIR/WATER HEAT PUMP
INCL. HORIZONTAL SPLIT EVAPORATOR

ORDER NUMBER: 287060
SERIES: M4
TF MAX. 65 °C
SPLIT



APPLIANCE DATA

| | | |
|----------------------|--------|------------------|
| Dimensions HxWxD | [mm] | 1285x600x681 |
| Hydraulic connection | [inch] | 2" |
| Weight | [kg] | 164 |
| Casing colour | | White/anthracite |

HEATING MODE PERFORMANCE FIGURES (to EN 14511)

| Standard point A10/W35 | | |
|---|----------|--------------|
| Heating output | [kW] | 40,00 |
| Total power consumption / operating current | [kW]/[A] | 8.20 / 16.70 |
| COP | | 4,90 |

| Operating point A7/W35 | | |
|---|----------|--------------|
| Heating output | [kW] | 37,20 |
| Total power consumption / operating current | [kW]/[A] | 8.10 / 16.50 |
| COP | | 4,60 |

| Standard point A2/W35 | | |
|---|----------|--------------|
| Heating output | [kW] | 30,30 |
| Total power consumption / operating current | [kW]/[A] | 7.40 / 15.00 |
| COP | | 4,10 |

| Standard point L-7/W35 | | |
|---|----------|--------------|
| Heating output | [kW] | 25,10 |
| Total power consumption / operating current | [kW]/[A] | 7.40 / 15.00 |
| COP | | 3,40 |

| Operating point L-10/W35 | | |
|---|----------|--------------|
| Heating output | [kW] | 23,40 |
| Total power consumption / operating current | [kW]/[A] | 7.40 / 15.00 |
| COP | | 3,20 |

| Operating point A2/W50 | | |
|---|----------|--------------|
| Heating output | [kW] | 27,40 |
| Total power consumption / operating current | [kW]/[A] | 8.80 / 17.90 |
| COP | | 3,10 |

| Operating point A2/W60 | | |
|---|----------|--------------|
| Heating output | [kW] | 26,40 |
| Total power consumption / operating current | [kW]/[A] | 9.30 / 18.90 |
| COP | | 2,80 |

COOLING MODE PERFORMANCE FIGURES

| Operating point A30/W18 | | |
|---|----------|--------------|
| Cooling capacity | [kW] | 27,20 |
| Total power consumption / operating current | [kW]/[A] | 8.40 / 17.10 |
| Energy efficiency ratio EER | | 3,20 |

| Operating point A30/W7 | | |
|---|----------|--------------|
| Cooling capacity | [kW] | 25,90 |
| Total power consumption / operating current | [kW]/[A] | 8.30 / 16.90 |
| Energy efficiency ratio EER | | 3,10 |

| Hydraulic version | | | Electric immersion heater | | 3-way switching module | |
|-------------------|------|----|---------------------------|----------|------------------------|----------|
| | | | Internal | external | Internal | external |
| M2-1 | M4-1 | | x | | x | |
| M2-2 | M4-2 | | | x | x | |
| M2-3 | M4-3 | | x | | | x |
| M2-4 | M4-4 | M6 | | x | | x |

SPECIFICATION

| | | |
|---|--------------|----------------|
| Phases/nominal voltage/frequency | [-]/[V]/[Hz] | 3/400/50 |
| Output factor cos φ | | 0,71 |
| Fuse protection (tripping curve "C") | [A] | 25 |
| Max. operating current | [A] | 24,80 |
| Max. starting current/max. with soft start | [A] | 127.00 / 63.50 |
| Sound power/sound pressure level (at 1 m distance) indoor unit | [dBA] | 55.50 / 47.50 |
| Sound power/sound pressure level (at 10 m distance), outdoor unit | [dBA] | 61.0 / 33.0 |

CONDENSER

| | | |
|---|----------|------------------------|
| Type | | Plate heat exchanger |
| Material | | Stainless steel 1.4301 |
| Max. refrigerant operating pressure | [bar] | 30 |
| Max. heat transfer medium operating pressure | [bar] | 3 |
| Heat transfer medium temperature differential | [K] | 5 |
| Application range | [°C] | 65 |
| Heat transfer medium | | Water |
| Test pressure | [bar] | 45 |
| Heat transfer medium flow rate | [m³/h] | 6,00 |
| Internal pressure differential | [mbar] | 820 |
| Flow meter (FM) | Internal | Installed as |
| Circulation pump heat sink (WNA) | Internal | Stratos Para 25/1-12 |
| Residual head I WNA external | [mbar] | 109 (M4-1), 406 (M4-4) |

REFRIGERANT CIRCUIT

| | | |
|--------------------|------|---------|
| Refrigerant | | R407C |
| Defrost technology | | Hot gas |
| Refrigerant charge | [kg] | 16 |

COMPRESSOR

| | | |
|-------------------|----------|--------|
| Type | | Scroll |
| Output levels | | 1 |
| Speed | [rpm] | 2900 |
| Voltage/frequency | [V]/[Hz] | 400/50 |

FAN

| | | |
|------------------------|----------|----------|
| Type | | axial |
| Number | [pce] | 2 |
| Voltage/frequency | [V]/[Hz] | 230/50 |
| Power consumption | [W] | 1 x 337 |
| Max. operating current | [A] | 1 x 2.80 |

EVAPORATOR

| | | |
|---|--------|--------------------------|
| Unit type | | VHS-M 35 |
| Dimensions HxWxD | [mm] | 1080x2220x960 |
| Type | | Finned tube |
| Number | [pce] | 1 |
| Weight | [kg] | 180 |
| Fin pack material | | Copper/aluminium |
| Casing material | | Stainless steel / coated |
| Max. refrigerant operating pressure | [bar] | 30 |
| Relative humidity | [%] | 80 |
| Heat transfer medium temperature differential | [K] | 5,90 |
| Air flow rate | [m³/h] | 9800 |
| Application range min./max | [°C] | -22 / 40 |



SPLIT EVAPORATOR VHS-M 35

RECOMMENDED ACCESSORIES

| | Order no./type | Description | Pressure loss |
|--|----------------|--------------------|------------------------------|
| Heat pump buffer tank | min. PU1000 | 30 l/kW at L2/W35 | - |
| DHW tank | min. SP750 | 30 l/kW at L2/W50 | - |
| External plate heat exchanger (DHW/911316 heating) | PHE 9507 | Prim.: 2" Sec.: 2" | Prim.: 65 mbar Sec.: 90 mbar |
| 3-way switching module internal | 980191 | - | 58 mbar |
| 3-way switching module external | 290342 | DN50 (2"), kvs 40 | 23 mbar |
| Electric immersion heater internal | - | - | - |
| External electric immersion heater (heat pump buffer tank) | 922509 | 2 x 9 kW | - |

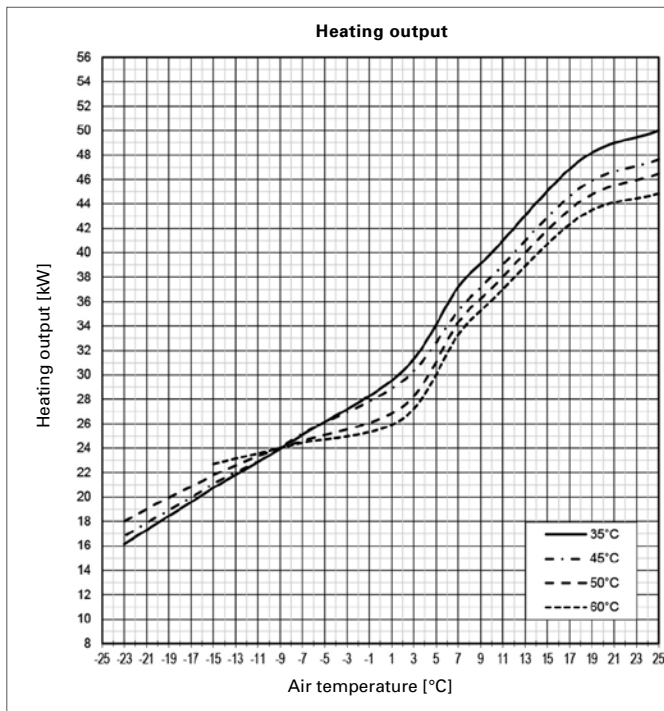
| Application | Booster heater output |
|----------------------------------|--|
| Bivalent parallel | Sizing according to calculated value (offer program), but with minimum 50% of building heat load |
| Bivalent partial parallel | Sizing to 100% of building heat load |
| Bivalent alternative | Sizing to 100% of building heat load |

| | Max. connection length | Max. height differential |
|-------------|------------------------|--------------------------|
| AIR 41 C12A | L ≤ 15 | Hmax ≤ 5 |

LIMITS OF USE AIR 41 C12A

| | |
|---|---|
| Outdoor temperature/max. heat pump flow temperature | A-10/W65°C A-15/W60°C A-20/W55°C |
| Underfloor heating (-15°C / 35°C) | YES |
| Radiators (-15°C / 50°C) | YES |
| Radiators (-15°C / 55°C) | YES |
| Radiators (-15°C / 65°C) | YES |
| Radiators (-15°C / 65°C) | Booster heater should be sized for 100% heat load |
| Domestic hot water | YES |

PERFORMANCE CURVES AIR 41 C12A



PRODUCT DATA ErP: AIR 41 C12A

| | COLDER | MEAN | HOTTER |
|--|------------|-----------------------------|--------|
| LOW TEMPERATURE | A++ | 35°C | |
| ηs | 156 | 170 | 195 |
| Energy consumption [kWh] | 14062 | 12736 | 8163 |
| P rated [kW] | 23 | 27 | 30 |
| SCOP | 3,97 | 4,33 | 4,96 |
| MEDIUM TEMPERATURE | A++ | 55°C | |
| ηs | 123 | 136 | 158 |
| Energy consumption [kWh] | 17392 | 14962 | 8927 |
| P rated [kW] | 22 | 25 | 27 |
| SCOP | 3,14 | 3,47 | 4,03 |
| | indoor | outdoor | |
| Sound power level [dBA] | 55,5 | 61 | |
| Controller class with room remote control | VII | Controller contribution [%] | 3,5 |
| Controller class without room remote control | III | Controller contribution [%] | 1,5 |

INSTALLATION

VHS-M 35



Longitudinal clearance to wall:
10 cm or min. 100 cm

Lateral clearance to walls:
100 cm

