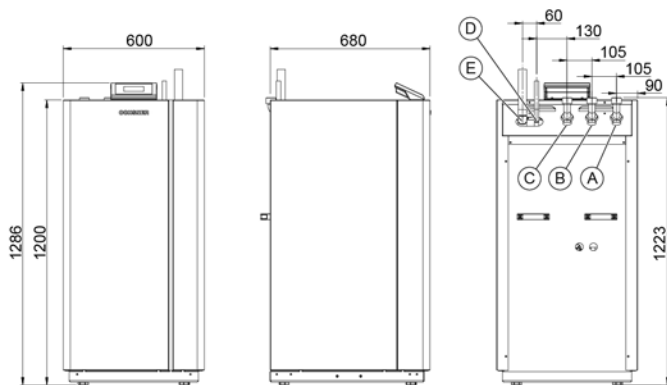


AIR 11 C11A

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

ORDER NUMBER: 287020
SERIES: M2
TF MAX. 65 °C
SPLIT



(A) FLHC (outlet) (B) FLT (outlet) (C) RTN (inlet) (D) WQA (outlet) (E) WQA (inlet)

APPLIANCE DATA

| | | |
|----------------------|--------|------------------|
| Dimensions HxWxD | [mm] | 1285x600x681 |
| Hydraulic connection | [inch] | 1 1/4" |
| Weight | [kg] | 124 |
| Casing colour | | White/anthracite |

HEATING MODE PERFORMANCE FIGURES (to EN 14511)

Standard point A10/W35

| | | |
|---|----------|-------------|
| Heating output | [kW] | 11,00 |
| Total power consumption / operating current | [kW]/[A] | 2.30 / 4.70 |
| COP | | 4,90 |

Operating point A7/W35

| | | |
|---|----------|-------------|
| Heating output | [kW] | 10,20 |
| Total power consumption / operating current | [kW]/[A] | 2.30 / 4.50 |
| COP | | 4,50 |

Standard point A2/W35

| | | |
|---|----------|-------------|
| Heating output | [kW] | 8,80 |
| Total power consumption / operating current | [kW]/[A] | 2.20 / 4.40 |
| COP | | 4,00 |

Standard point L-7/W35

| | | |
|---|----------|-------------|
| Heating output | [kW] | 6,80 |
| Total power consumption / operating current | [kW]/[A] | 2.00 / 4.20 |
| COP | | 3,30 |

Operating point L-10/W35

| | | |
|---|----------|-------------|
| Heating output | [kW] | 6,20 |
| Total power consumption / operating current | [kW]/[A] | 2.00 / 4.10 |
| COP | | 3,10 |

Operating point A2/W50

| | | |
|---|----------|-------------|
| Heating output | [kW] | 7,90 |
| Total power consumption / operating current | [kW]/[A] | 2.80 / 5.80 |
| COP | | 2,80 |

Operating point A2/W60

| | | |
|---|----------|-------------|
| Heating output | [kW] | 7,60 |
| Total power consumption / operating current | [kW]/[A] | 3.20 / 6.60 |
| COP | | 2,40 |

COOLING MODE PERFORMANCE FIGURES

Operating point A30/W18

| | | |
|---|----------|-------------|
| Cooling capacity | [kW] | 9,60 |
| Total power consumption / operating current | [kW]/[A] | 3.00 / 6.20 |
| Energy efficiency ratio EER | | 3,20 |

Operating point A30/W7

| | | |
|---|----------|-------------|
| Cooling capacity | [kW] | 8,70 |
| Total power consumption / operating current | [kW]/[A] | 2.90 / 6.00 |
| Energy efficiency ratio EER | | 3,00 |

SPECIFICATION

| | | |
|---|--------------|---------------|
| Phases/nominal voltage/frequency | [~]/[V]/[Hz] | 3/400/50 |
| Output factor cos φ | | 0,70 |
| Fuse protection (tripping curve "C") | [A] | 10 |
| Max. operating current | [A] | 7,90 |
| Max. starting current/max. with soft start | [A] | 40.00 / 20.00 |
| Sound power/sound pressure level (at 1 m distance) indoor unit | [dBA] | 44.50 / 36.50 |
| Sound power/sound pressure level (at 10 m distance), outdoor unit | [dBA] | 52.0 / 24.0 |

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] | 1,70 |
| Internal pressure differential | [mbar] | 205 |
| Flow meter (FM) | Internal | Installed as |
| Circulation pump heat sink (WNA) | Internal | Yonos Para HPS 25/7.5 |
| Residual head I WNA external | [mbar] | 446 |

REFRIGERANT CIRCUIT

| | | |
|--------------------|---------|---|
| Refrigerant | R407C | |
| Defrost technology | Hot gas | |
| Refrigerant charge | [kg] | 9 |

COMPRESSOR

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

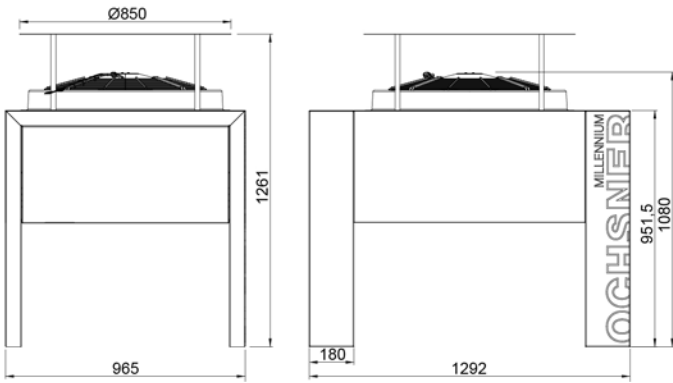
FAN

| | | |
|------------------------|----------|----------|
| Type | axial | |
| Number | [pce] | 1 |
| Voltage/frequency | [V]/[Hz] | 230/50 |
| Power consumption | [W] | 1 x 40 |
| Max. operating current | [A] | 1 x 1.40 |

EVAPORATOR

| | | |
|---|--------------------------|---------------|
| Unit type | VHS-M 9 | |
| Dimensions HxWxD | [mm] | 1080x1290x960 |
| Type | Finned pipe | |
| Number | [pce] | 1 |
| Weight | [kg] | 93 |
| 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] | 5,70 |
| Air flow rate | [m³/h] | 3000 |
| Application range min./max | [°C] | -22 / 40 |

| 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 |



SPLIT EVAPORATOR VHS-M 9

RECOMMENDED ACCESSORIES

| | Order no./type | Description | Pressure loss |
|--|--------------------|--------------------------|---------------------------------|
| Heat pump separating cylinders | min. PU300 | 30 l/kW at L2/W35 | - |
| DHW tank | min. SP300/SP350 | 30 l/kW at L2/W50 | - |
| External plate heat exchanger (DHW heating) | 911251 PHE 2007 | Prim.: 1" Sec.: 1" | Prim.: 65 mbar Sec.: 72 mbar |
| 3-way switching module internal | 980196 | - | - |
| 3-way switching module external | 290229 | DN32 (1 1/4") kvs 16 | 11 mbar |
| Electric immersion heater internal | 980197 | 8.8 kW (2.9 / 2.9 / 2.9) | - |
| External electric immersion heater (heat pump buffer tank) | 922509 | 9 kW | - |

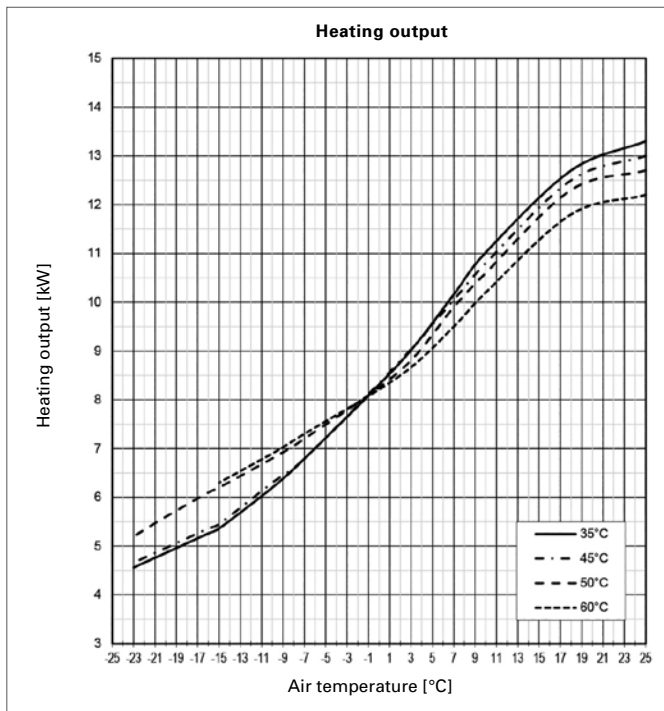
| Application | Booster heater output |
|----------------------------------|--|
| Bivalent parallel | Sizing according to calculated value (offer program), but with minimum 50% of building heat load |
| Bivalent partial parallel | Sizing to 100% of building heat load |
| Bivalent alternative | Sizing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

| | Max. connection length | Max. height differential |
|-------------|------------------------|--------------------------|
| AIR 11 C11A | Lmax ≤ 20 | Hmax ≤ 10 |

LIMITS OF USE AIR 11 C11A

| | |
|---|---|
| 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 11 C11A



PRODUCT DATA ErP: AIR 11 C11A

| | COLDER | MEAN | HOTTER |
|--|------------|-----------------------------|---------|
| LOW TEMPERATURE | A++ | 35°C | |
| ηs | 153 | 166 | 185 |
| Energy consumption [kWh] | 3239 | 3757 | 2509 |
| P rated [kW] | 5 | 8 | 9 |
| SCOP | 3,90 | 4,21 | 4,69 |
| MEDIUM TEMPERATURE | A++ | 55°C | |
| ηs | 122 | 129 | 139 |
| Energy consumption [kWh] | 5589 | 5412 | 3229 |
| P rated [kW] | 7 | 9 | 9 |
| SCOP | 3,12 | 3,30 | 3,54 |
| DHW | A | SP300 | |
| ηWH | 82 | 90 | 104 |
| Energy consumption [kWh] | 1728 | 1580 | 1371 |
| Draw-off profile | | XL | |
| Tank losses [W] | | 94 | |
| | | indoor | outdoor |
| Sound power level [dBA] | | 44,5 | 52,0 |
| Controller class with room remote control | VII | Controller contribution [%] | 3,5 |
| Controller class without room remote control | III | Controller contribution [%] | 1,5 |

