redge FORMERLY LENNOX

# eComfort & eComfort Advanced

## Air source Heat pumps / Chillers



R32

FIX SPEED - AIR SOURCE

35 - 210 kW

35 - 210 kW

R32

ADVANCED - AIR SOURCE

40 - 210 kW

40 - 210 kW

Redge participates in the ECP programme for LCP-HP.
Check ongoing validity of certificate : www.eurovent-certification.com

EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

- **Fast and easy installation and commissioning** thanks to the integration of a complete hydraulic module with buffer tank and immersed heating rods.
- Compact and discreet design **for perfect architectural integration.**
- Outstanding **seasonal SCOP efficiencies**, exceeding the European EcoDesign 2017 requirements for heating applications.
- **Excellent SEPR seasonal energy efficiencies**, which exceed the European EcoDesign 2021 requirements regarding high-temperature process cooling.
- **Precise water temperature control** in heating and cooling modes thanks to highly efficient components.

## THERMODYNAMIC SYSTEM

- Extended operating map to match most market requirements
- New heat exchanger and latest generation components to provide high efficiency and the best Total Cost of Ownership (TCO) of the market
- R32 refrigerant (GWP = 675) enabling a decrease of the refrigerant load (-30%) and of the unit's carbon footprint (-75% TeqCO2)
- Desuperheater (as an option): additional plate heat exchanger on each circuit to recover the rejected heat and provide free hot water for sanitary or industrial purposes

## INVERTER COMPRESSOR

The heating and cooling demand is precisely adapted to the needs :

- Optimized design for compact footprint, including water tank (as an option)
- The control of the outlet water temperature is perfect.
- Buffer tank requirements in case of low water volume or fast variable heat load are reduced.

Inverter

**R32 is an obvious choice to replace R410A. It already makes up 50% of its composition, and it has a number of other key advantages:**

- **low GWP: 675**
- **low cost**
- **pure substance**
- **many providers due to no patent**

Photos and illustrations are not contractual.

## EC STANDARD FANS

Intelligent noise attenuation management thanks to:
# Acoustic compressor jacket
# High efficiency EC fans
# A further increase in energy savings through improved seasonal efficiencies (floating HP).
# Year-round operation down to -20 °C outdoor temperature in cooling mode.
# Year-round operation up to 30 °C outdoor temperature in heating mode (heat pump).
# Intelligent noise attenuation management, programmable night and day, combined with acoustic covers.


## TOTAL MODULATION

The eCOMFORT range benefits from the **latest technologies** to achieve **very high seasonal efficiencies**
# Refrigerant : thanks to a very high efficiency variable speed compressor with permanent magnet motor,
# Air : with high-efficiency EC fans with “Owlet” type blades and high performance integrated diffusers to improve airflow efficiency,
# Water : thanks to the variable speed inverter of the water pump.
# The integrated control management (ModBus / BACnet / Ethernet TCP / IP communication interface / Redge Cloud as an option) offers a turnkey control solution.


## eDRIVE

Variable speed drive pump option, which modulates the water flow through the plate heat exchanger and reduces energy costs:
# Saves energy consumption especially at part-load conditions and during off period, reaching up to 75% reduction of the pump consumption.
# Savings on the initial system cost, due to fewer pumps and piping connections than primary-secondary systems.
# Flexibility and accuracy of the pump operation control: smooth start and stop, gradual change of speed, accuracy and stability of control.
# Reduction of the repeated stress on the pump and piping resulting in longer equipment lifetime.
# Elimination of the start-up current thanks to variable frequency drive that controls a gradual pump motor supply.


- **Fast and easy installation and commissioning** thanks to the integration of a complete hydraulic module with buffer tank and immersed heating rods.
- Compact and discreet design **for perfect architectural integration**.
- Outstanding **seasonal SCOP efficiencies**, exceeding the European EcoDesign 2017 requirements for heating applications.
- **Excellent SEPR seasonal energy efficiencies**, which exceed the European EcoDesign 2021 requirements regarding high-temperature process cooling.
- **Precise water temperature control** in heating and cooling modes thanks to highly efficient components.

## CONTROL

- eClimatic electronic controller and intelligent control parameters optimising part-load efficiency.
- Integrated communication solutions offering flexibility (master/slave, Modbus).
- DC Advanced display, equipped with a graphic screen providing access to the main user parameters, with two optional displays:
  - Remote Display
  - Service Display

eCLIMATIC


DC Advanced

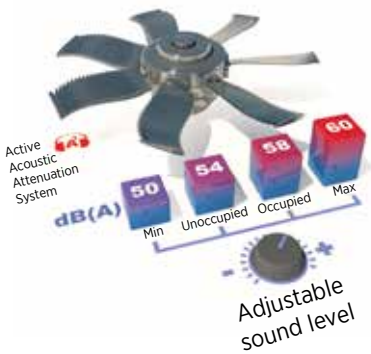

## CASING & DESIGN

- Casing made of white painted galvanised steel.
- Compact design, perfect for architectural integration.
- All thermodynamic and hydraulic components installed inside the box.
- Unit designed with reduced height for discreet installation on a roof or on the ground (up to 1.7m), without the need for a peripheral screen.
- Optimized design for compact footprint, including water tank (as an option)

## ACOUSTIC COMFORT

Three different noise level configurations available:

- **Quiet operation** (standard), achieved with compact design, silent compressors and pumps, and with high-performance propeller fans, all installed in a closed box.
- **Low noise level option**: High performance acoustic compressor jacket can have the noise produced by the unit.
- **Active Acoustic Attenuation System** with variable fan speed allows progressive adaptation of the unit to the building load while respecting the noise level constraints and the operating limits (as an option).




Photos and illustrations are not contractual.

## REMOTE MONITORING

# Connectivity through **RedgeCloud**
# BMS through: **e-savvy**



## THERMODYNAMIC SYSTEM

# Multi-scroll compressors, mounted in tandem or trio, to provide the best seasonal efficiencies.
# Aluminium microchannel condenser coil on cooling only units.
# Large surface exchangers built with copper tubing and aluminium fins on heat-pump units.
# High performance propeller fans with profiled blades to improve efficiency and reduce noise level (EC version in standard).
# Thermally insulated and frost-protected water heat exchangers made from stainless steel plates with copper brazing.
# One or two independent circuits, each equipped with electronic expansion valves.
# R32 refrigerant (GWP = 675) enabling a decrease of the refrigerant load (-30%) and of the unit's carbon footprint (-75% TeqCO2)
# Desuperheater (as an option): additional plate heat exchanger on each circuit to recover the rejected heat and provide free hot water for sanitary or industrial purposes.

## INTEGRATED HYDRAULIC MODULE

# Enables Plug & Play installation and reduced footprint
# Available with eDrive technology (inverter) to reduce operation costs

# G(A) A(B) H(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1 or 2** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Heat pumps units

| eCOMFORT - GAH | | | | 035S | 040S | 045S | 050S | 055S | 060S |
|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | |
| Cooling capacity (1) | | | kW | 37,7 | 41,2 | 46,9 | 50,5 | 56,1 | 63,2 |
| Total absorbed power (1) | | | kW | 13,2 | 14,2 | 16,5 | 17,7 | 19,0 | 22,0 |
| EER (1) | | | | 2,9 | 2,9 | 2,9 | 2,9 | 3,0 | 2,9 |
| Comfort Application | **Standard Fans** | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.21 | 4.48 | 4.26 | 4.33 | 4.18 | 4.18 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 165 | 176 | 167 | 170 | 164 | 164 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 6.03 | 6.58 | 5.58 | 5.59 | 5.5 | 5.43 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.41 | 3.52 | 3.55 | 3.5 | 3.56 | 3.52 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | |
| Heating capacity (1) | | | kW | 39,1 | 42,1 | 48,4 | 52,2 | 56,6 | 64,3 |
| Total absorbed power (1) | | | kW | 13,2 | 14,1 | 15,9 | 17,5 | 18,9 | 21,8 |
| COP (1) | | | | 2,95 | 2,99 | 3,05 | 2,99 | 2,99 | 2,95 |
| Comfort Application | **Standard Fans** | Seasonal Coeficient of Performance (6) **SCOP** | | 3,46 | 3,54 | 3,57 | 3,56 | 3,54 | 3,54 |
| | | Seasonal energy efficiency (7) **ηs,h** | % | 136 | 139 | 140 | 140 | 139 | 139 |
| **Acoustic data** | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 75,3 | 75,3 | 73,5 | 74,7 | 77,1 | 81,3 |
| **Electrical data** | | | | | | | | | |
| Maximum power | | | kW | 16.9 | 18.9 | 20.7 | 22.4 | 25.4 | 28.8 |
| Maximum current | | | A | 28.8 | 31.1 | 35.4 | 38.2 | 42.8 | 47.5 |
| Starting current | | | A | 98.8 | 108.5 | 146.7 | 157.7 | 162.4 | 164.4 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of compressors | | | | 2 | 2 | 2 | 2 | 2 | 2 |
| Total refrigerant load - R32 | | | kg | 5,2 | 5,8 | 6,3 | 7,5 | 7,6 | 9,0 |
| **Evaporator** | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 6,5 | 7,1 | 8,1 | 8,7 | 9,7 | 10,9 |
| Nominal pressure drop | | | kPa | 37,4 | 31,9 | 29,9 | 34,5 | 34,1 | 32,7 |
| **Hydraulic connection** | | | | | | | | | |
| Type | | | | Threaded male | | | | | |
| Diameter | | | | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825 | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) A(B) H(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D)**035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1 or 2** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Heat pumps units

| eCOMFORT - GAH | | | | 065S | 070S | 080S | 095S | 110S | 115S | 125S |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | | |
| Cooling capacity (1) | | | kW | 64,3 | 69,6 | 84,7 | 94,1 | 105,3 | 118,0 | 126,4 |
| Total absorbed power (1) | | | kW | 20,8 | 23,1 | 27,7 | 30,9 | 36,4 | 39,4 | 42,7 |
| EER (1) | | | | 3,09 | 3,02 | 3,06 | 3,05 | 2,90 | 2,99 | 2,96 |
| Comfort Application | **Standard Fans** | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4,56 | 4,53 | 4,46 | 4,56 | 4,60 | 4,39 | 4,62 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 179 | 178 | 175 | 180 | 181 | 173 | 182 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 5,78 | 5,69 | 5,82 | 5,81 | 5,73 | 5,59 | 5,65 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3,56 | 3,54 | 3,70 | 3,64 | 3,66 | 3,66 | 3,69 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | | |
| Heating capacity (1) | | | kW | 64,9 | 70,4 | 84,9 | 94,8 | 106,7 | 117,5 | 126,1 |
| Total absorbed power (1) | | | kW | 20,4 | 23,0 | 26,8 | 30,1 | 33,9 | 38,9 | 40,7 |
| COP (1) | | | | 3,18 | 3,06 | 3,17 | 3,15 | 3,15 | 3,02 | 3,10 |
| Comfort Application | **Standard Fans** | Seasonal Coeficient of Performance (6) **SCOP** | | 3,65 | 3,63 | 3,63 | 3,59 | 3,61 | 3,58 | 3,73 |
| | | Seasonal energy efficiency (7) **ηs,h** | % | 143 | 142 | 142 | 141 | 141 | 140 | 146 |
| **Acoustic data** | | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 80,9 | 82,5 | 85,1 | 86,8 | 87,3 | 88,6 | 87,1 |
| **Electrical data** | | | | | | | | | | |
| Maximum power | | | kW | 28.4 | 31 | 37.1 | 41.6 | 47.2 | 54.3 | 57.4 |
| Maximum current | | | A | 47.2 | 52.8 | 63.1 | 69.4 | 78.7 | 88.5 | 96.9 |
| Starting current | | | A | 164 | 209 | 219.3 | 273.5 | 320.5 | 330.4 | 253.1 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of compressors | | | | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| Total refrigerant load - R32 | | | kg | 10,0 | 10,5 | 11,5 | 15,0 | 15,5 | 15,5 | 18,0 |
| **Evaporator** | | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 11,1 | 12,0 | 14,6 | 16,2 | 18,2 | 20,4 | 21,8 |
| Nominal pressure drop | | | kPa | 33,7 | 39,3 | 39,2 | 47,5 | 36,3 | 44,7 | 33,9 |
| **Hydraulic connection** | | | | | | | | | | |
| Type | | | | Victaulic | | | | | | |
| Diameter | | | | 2" | 2" | 2" | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825 | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) A(B) H(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1 or 2** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Heat pumps units

| eCOMFORT - GAH | | | | 140S | 110D | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | | |
| Cooling capacity (1) | | | kW | 152,0 | 108,6 | 125,3 | 140,3 | 166,1 | 187,3 | 209,1 |
| Total absorbed power (1) | | | kW | 54,8 | 38,4 | 43,3 | 48,4 | 55,1 | 62,5 | 73,0 |
| EER (1) | | | | 2,78 | 2,83 | 2,89 | 2,90 | 3,01 | 3,00 | 2,86 |
| Comfort Application | **Standard Fans** | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4,36 | 4,56 | 4,42 | 4,49 | 4,62 | 4,56 | 4,49 |
| Comfort Application | **Standard Fans** | Seasonal energy efficiency (3) **ηs,c** | % | 171 | 179 | 174 | 177 | 182 | 179 | 176 |
| Process Application | **Standard Fans** | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 5,31 | 5,64 | 5,40 | 5,36 | 5,73 | 5,49 | 5,27 |
| Process Application | **Standard Fans** | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3,65 | 3,78 | 3,70 | 3,72 | 3,82 | 3,76 | 3,67 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | | |
| Heating capacity (1) | | | kW | 154,5 | 114,1 | 129,3 | 142,5 | 170,7 | 190,3 | 216,1 |
| Total absorbed power (1) | | | kW | 52,9 | 35,4 | 41,4 | 45,9 | 53,3 | 61,1 | 73,0 |
| COP (1) | | | | 2,92 | 3,22 | 3,12 | 3,11 | 3,20 | 3,12 | 2,96 |
| Comfort Application | **Standard Fans** | Seasonal Coeficient of Performance (6) **SCOP** | | 3,70 | 3,78 | 3,76 | 3,79 | 3,78 | 3,74 | 3,71 |
| Comfort Application | **Standard Fans** | Seasonal energy efficiency (7) **ηs,h** | % | 145 | 148 | 147 | 148 | 148 | 147 | 145 |
| **Acoustic data** | | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 90,3 | 78,7 | 84,3 | 86,8 | 88,1 | 90,1 | 90,6 |
| **Electrical data** | | | | | | | | | | |
| Maximum power | | | kW | 72.4 | 48.1 | 57.6 | 64.5 | 74.1 | 88.3 | 99.5 |
| Maximum current | | | A | 117.5 | 81.8 | 95 | 108.6 | 126 | 145.8 | 164.5 |
| Starting current | | | A | 321.7 | 201.3 | 211.8 | 264.8 | 282.2 | 350 | 406.3 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | | |
| Number of circuits | | | | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Number of compressors | | | | 3 | 2+2 | 2+2 | 2+2 | 2+2 | 2+2 | 2+2 |
| Total refrigerant load - R32 | | | kg | 18,3 | 17,8 | 19,0 | 20,0 | 26,0 | 26,2 | 26,4 |
| **Evaporator** | | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 26,2 | 18,7 | 21,6 | 24,2 | 28,6 | 32,3 | 36,1 |
| Nominal pressure drop | | | kPa | 47,6 | 19,6 | 25,4 | 20,6 | 28,1 | 31,0 | 38,1 |
| **Hydraulic connection** | | | | | | | | | | |
| Type | | | | Victaulic or Welded | | | | | | |
| Diameter | | | | 2 1/2" | 2 1/2" | 2 1/2" | 2 1/2" | 3" | 3" | 3" |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825 | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) B(B) H(C) 040(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **040** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version - Advanced Inverter

## Heat pumps units

| eCOMFORT - GBH | | | | 040S | 060S | 070S | 080S | 110S | 120S |
|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | |
| Cooling capacity (1) | | | kW | 39,5 | 57,7 | 64,0 | 76,4 | 93,4 | 109,2 |
| Total absorbed power (1) | | | kW | 13,6 | 20,8 | 22,5 | 26,8 | 33,5 | 37,6 |
| EER (1) | | | | 2,9 | 2,8 | 2,8 | 2,9 | 2,8 | 2,9 |
| Comfort Application | EC Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.53 | 4.55 | 4.45 | 4.35 | 4.5 | 4.68 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 178 | 179 | 175 | 171 | 177 | 184 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 6.23 | 5.95 | 5.78 | 5.65 | 5.62 | 5.51 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.52 | 3.54 | 3.36 | 3.24 | 3.21 | 3.14 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | |
| Heating capacity (1) | | | kW | 40,4 | 60,0 | 68,3 | 83,4 | 100,4 | 121,5 |
| Total absorbed power (1) | | | kW | 13,6 | 20,6 | 23,0 | 28,8 | 32,5 | 41,6 |
| COP (1) | | | | 3,0 | 2,9 | 3,0 | 2,9 | 3,1 | 2,9 |
| Comfort Application | EC Fans | Seasonal Coeficient of Performance (6) **SCOP** | | 3.93 | 3.93 | 4 | 3.95 | 4.05 | 4.05 |
| | | Seasonal energy efficiency (7) **ηs,h** | % | 154 | 154 | 157 | 155 | 159 | 159 |
| **Acoustic data** | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 82,5 | 83,3 | 82,9 | 85,6 | 85,6 | 87,8 |
| **Electrical data** | | | | | | | | | |
| Maximum power | | | kW | 16.4 | 25.3 | 28.8 | 37.5 | 42.6 | 55.2 |
| Maximum current | | | A | 26.2 | 41 | 47.3 | 61.4 | 70.7 | 89.8 |
| Starting current | | | A | 26.2 | 41 | 166.8 | 217.6 | 226.9 | 331.7 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of compressors | | | | 1 | 1 | 2 | 2 | 2 | 2 |
| Total refrigerant load - R32 | | | kg | 5,8 | 8,2 | 10,5 | 12,0 | 20,2 | 21,0 |
| **Evaporator** | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 6,8 | 10,0 | 11,0 | 13,2 | 16,1 | 18,8 |
| Nominal pressure drop | | | kPa | 29,4 | 27,5 | 33,4 | 32,4 | 29,1 | 25,9 |
| **Hydraulic connection** | | | | | | | | | |
| Type | | | | Threaded male | | | | | |
| Diameter | | | | 1 1/2" | 2" | 2" | 2" | 2 1/2" | 2 1/2" |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) B(B) H(C) 040(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **040** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version - Advanced Inverter

## Heat pumps units

| eCOMFORT - GBH | | | | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | |
| Cooling capacity (1) | | | kW | 123,5 | 144,1 | 158,1 | 169,9 | 196,0 |
| Total absorbed power (1) | | | kW | 42,3 | 50,4 | 51,7 | 55,6 | 66,6 |
| EER (1) | | | | 2,9 | 2,9 | 3,1 | 3,1 | 2,9 |
| Comfort Application | EC Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.85 | 4.8 | 4.98 | 4.9 | 4.95 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 191 | 189 | 196 | 193 | 195 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 5.59 | 5.34 | 5.93 | 5.69 | 5.46 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.66 | 3.67 | 3.78 | 3.76 | 3.69 |
| **Nominal thermal performances - Heating mode** | | | | | | | | |
| Heating capacity (1) | | | kW | 126,8 | 146,9 | 161,1 | 171,3 | 199,9 |
| Total absorbed power (1) | | | kW | 40,4 | 48,2 | 49,9 | 53,6 | 65,3 |
| COP (1) | | | | 3,1 | 3,1 | 3,2 | 3,2 | 3,1 |
| Comfort Application | EC Fans | Seasonal Coeficient of Performance (6) **SCOP** | | 3.88 | 3.88 | 3.9 | 3.88 | 3.93 |
| | | Seasonal energy efficiency (7) **ηs,h** | % | 152 | 152 | 153 | 152 | 154 |
| **Acoustic data** | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 85,3 | 88,0 | 88,2 | 89,4 | 89,8 |
| **Electrical data** | | | | | | | | |
| Maximum power | | | kW | 58 | 68.3 | 71.9 | 81.6 | 94.8 |
| Maximum current | | | A | 95.1 | 113.4 | 120.4 | 134.3 | 156.5 |
| Starting current | | | A | 211.9 | 269.6 | 276.7 | 338.5 | 398.3 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | |
| Number of circuits | | | | 2 | 2 | 2 | 2 | 2 |
| Number of compressors | | | | 2+2 | 2+2 | 2+2 | 2+2 | 2+2 |
| Total refrigerant load - R32 | | | kg | 20,0 | 22,0 | 27,0 | 27,2 | 27,6 |
| **Evaporator** | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 21,3 | 24,9 | 27,3 | 29,3 | 33,8 |
| Nominal pressure drop | | | kPa | 24,8 | 21,6 | 25,7 | 25,9 | 33,8 |
| **Hydraulic connection** | | | | | | | | |
| Type | | | | Victaulic | | | | |
| Diameter | | | | 2"1/2 | | 3" | | |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) A(B) C(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Cooling only units

| eCOMFORT - GAC | | | | 035S | 040S | 045S | 050S | 055S | 060S |
|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | |
| Cooling capacity (1) | | | kW | 38,4 | 41,6 | 47,5 | 51,8 | 55,0 | 63,6 |
| Total absorbed power (1) | | | kW | 12,7 | 13,8 | 15,8 | 17,0 | 18,5 | 21,1 |
| EER (1) | | | | 3,0 | 3,0 | 3,0 | 3,1 | 3,0 | 3,0 |
| Comfort Application | Standard Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.36 | 4.6 | 4.3 | 4.46 | 4.35 | 4.38 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 171 | 181 | 169 | 175 | 171 | 172 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 6.15 | 6.63 | 5.61 | 5.68 | 5.59 | 5.53 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.36 | 3.49 | 3.5 | 3.47 | 3.48 | 3.49 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | |
| Heating capacity (1) | | | kW | - | - | - | - | - | - |
| Total absorbed power (1) | | | kW | - | - | - | - | - | - |
| COP (1) | | | | - | - | - | - | - | - |
| Comfort Application | Standard Fans | Seasonal Coeficient of Performance (6) **SCOP** | | - | - | - | - | - | - |
| | | Seasonal energy efficiency (7) **ηs,h** | % | - | - | - | - | - | - |
| **Acoustic data** | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 76,9 | 76,9 | 75,0 | 76,3 | 77,3 | 82,9 |
| **Electrical data** | | | | | | | | | |
| Maximum power | | | kW | 16.9 | 18.9 | 20.7 | 22.4 | 24.1 | 28.8 |
| Maximum current | | | A | 28.8 | 31.1 | 35.4 | 38.2 | 41 | 47.5 |
| Starting current | | | A | 98.8 | 108.5 | 146.7 | 157.7 | 160.4 | 164.4 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of compressors | | | | 2 | 2 | 2 | 2 | 2 | 2 |
| Total refrigerant load - R32 | | | kg | 3,0 | 3,4 | 3,8 | 4,4 | 4,3 | 5,0 |
| **Evaporator** | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 6,6 | 7,2 | 8,2 | 8,9 | 9,5 | 11,0 |
| Nominal pressure drop | | | kPa | 38,7 | 32,4 | 41,7 | 36,1 | 40,5 | 43,3 |
| **Hydraulic connection** | | | | | | | | | |
| Type | | | | Threaded male | | | | | |
| Diameter | | | | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 | 1"1/2 |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825 | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) A(B) C(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Cooling only units

| eCOMFORT - GAC | | | | 065S | 070S | 080S | 095S | 110S | 115S | 125S |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | | |
| Cooling capacity (1) | | | kW | 64,3 | 70,0 | 86,3 | 95,8 | 108,3 | 119,3 | 128,6 |
| Total absorbed power (1) | | | kW | 20,4 | 22,6 | 26,9 | 29,9 | 34,8 | 37,9 | 41,1 |
| EER (1) | | | | 3,1 | 3,1 | 3,2 | 3,2 | 3,1 | 3,2 | 3,1 |
| Comfort Application | **Standard Fans** | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.6 | 4.58 | 4.61 | 4.67 | 4.73 | 4.6 | 4.73 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 181 | 180 | 181 | 184 | 186 | 181 | 186 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 5.79 | 5.72 | 5.9 | 5.86 | 5.8 | 5.77 | 5.77 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.53 | 3.52 | 3.68 | 3.6 | 3.63 | 3.66 | 3.7 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | | |
| Heating capacity (1) | | | kW | - | - | - | - | - | - | - |
| Total absorbed power (1) | | | kW | - | - | - | - | - | - | - |
| COP (1) | | | | - | - | - | - | - | - | - |
| Comfort Application | **Standard Fans** | Seasonal Coeficient of Performance (6) **SCOP** | | - | - | - | - | - | - | - |
| | | Seasonal energy efficiency (7) **ηs,h** | % | - | - | - | - | - | - | - |
| **Acoustic data** | | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 82,5 | 84,2 | 86,7 | 88,4 | 87,3 | 90,2 | 88,7 |
| **Electrical data** | | | | | | | | | | |
| Maximum power | | | kW | 28.4 | 31 | 37.1 | 41.6 | 47.2 | 54.3 | 57.4 |
| Maximum current | | | A | 47.2 | 52.8 | 63.1 | 69.4 | 78.7 | 88.5 | 96.9 |
| Starting current | | | A | 164 | 209 | 219.3 | 273.5 | 320.5 | 330.4 | 253.1 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of compressors | | | | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| Total refrigerant load - R32 | | | kg | 5,8 | 5,8 | 7,4 | 7,5 | 8,0 | 8,6 | 9,2 |
| **Evaporator** | | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 11,1 | 12,1 | 14,9 | 16,5 | 18,7 | 20,6 | 22,2 |
| Nominal pressure drop | | | kPa | 33,7 | 39,6 | 40,5 | 49,1 | 38,1 | 45,6 | 35,0 |
| **Hydraulic connection** | | | | | | | | | | |
| Type | | | | Victaulic or Welded | | | | | | |
| Diameter | | | | 2" | 2" | 2" | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) A(B) C(C) 035(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Standard Air source unit - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **035** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version

## Cooling only units

| eCOMFORT - GAC | | | | 140S | 110D | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | | |
| Cooling capacity (1) | | | kW | 154,8 | 111,4 | 127,5 | 142,3 | 167,8 | 187,2 | 210,5 |
| Total absorbed power (1) | | | kW | 51,1 | 36,9 | 41,9 | 46,6 | 53,6 | 60,7 | 69,9 |
| EER (1) | | | | 3,0 | 3,0 | 3,0 | 3,1 | 3,1 | 3,1 | 3,0 |
| Comfort Application | Standard Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4.53 | 4.66 | 4.6 | 4.65 | 4.72 | 4.71 | 4.64 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 178 | 183 | 181 | 183 | 186 | 185 | 183 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 5.52 | 5.7 | 5.54 | 5.51 | 5.8 | 5.64 | 5.45 |
| | | Seasonal Energy Performance Ratio (5) **SEPR** - Medium temperature (-8°C) | | 3.69 | 3.79 | 3.74 | 3.79 | 3.82 | 3.77 | 3.72 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | | |
| Heating capacity (1) | | | kW | - | - | - | - | - | - | - |
| Total absorbed power (1) | | | kW | - | - | - | - | - | - | - |
| COP (1) | | | | - | - | - | - | - | - | - |
| Comfort Application | Standard Fans | Seasonal Coeficient of Performance (6) **SCOP** | | - | - | - | - | - | - | - |
| | | Seasonal energy efficiency (7) **ηs,h** | % | - | - | - | - | - | - | - |
| Seasonal efficiency class (8) | | | | - | - | - | - | - | - | - |
| **Acoustic data** | | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 91,7 | 80,3 | 85,9 | 88,4 | 89,7 | 91,7 | 92,1 |
| **Electrical data** | | | | | | | | | | |
| Maximum power | | | kW | 72.4 | 48.1 | 57.6 | 64.5 | 74.1 | 88.3 | 99.5 |
| Maximum current | | | A | 117.5 | 81.8 | 95 | 108.6 | 126 | 145.8 | 164.5 |
| Starting current | | | A | 321.7 | 201.3 | 211.8 | 264.8 | 282.2 | 350 | 406.3 |
| Short circuit current | | | kA | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 | 10,0 |
| **Refrigeration circuit** | | | | | | | | | | |
| Number of circuits | | | | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Number of compressors | | | | 3 | 2+2 | 2+2 | 2+2 | 2+2 | 2+2 | 2+2 |
| Total refrigerant load - R32 | | | kg | 9,4 | 10,8 | 11,4 | 12,8 | 14,4 | 15,0 | 15,2 |
| **Evaporator** | | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 26,7 | 19,2 | 22,0 | 24,6 | 28,9 | 32,3 | 36,3 |
| Nominal pressure drop | | | kPa | 49,3 | 20,5 | 26,2 | 21,1 | 28,6 | 31,0 | 38,6 |
| **Hydraulic connection** | | | | | | | | | | |
| Type | | | | Victaulic or Welded | | | | | | |
| Diameter | | | | 2"1/2 | 2"1/2 | 2"1/2 | 2"1/2 | 3" | 3" | 3" |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) B(B) C(C) 040(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
(B) **A** = Air source unit fix compressor - **B** = Advanced Air source unit
(C) **C** = Cooling only unit - **H** = Heat pump unit
(D) **040** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version - Advanced Inverter

## Cooling only units

| eCOMFORT - GBC | | | | 040S | 060S | 070S | 080S | 110S | 120S | 125D | 140D |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | | | | | | |
| Cooling capacity (1) | | | kW | 43,8 | 65,0 | 71,3 | 87,7 | 108,3 | 132,1 | 124,8 | 146,7 |
| Total absorbed power (1) | | | kW | 15,1 | 22,8 | 24,4 | 28,6 | 36,4 | 44,4 | 40,9 | 48,6 |
| EER (1) | | | | 2,90 | 2,85 | 2,92 | 3,06 | 2,98 | 2,97 | 3,05 | 3,02 |
| Comfort Application | EC Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 4,75 | 4,88 | 4,73 | 4,80 | 4,98 | 4,88 | 5,0 | 5,0 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 187 | 192 | 186 | 189 | 196 | 192 | 195,4 | 197,5 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 6,32 | 6,01 | 6 | 6,16 | 6,29 | 5,97 | 5,5 | 5,7 |
| | | Seasonal Energy Performance Ratio (5) SEPR - Medium temperature (-8°C) | | 3,41 | 3,53 | 3,42 | 3,53 | 3,60 | 3,56 | 3.68 | 3.74 |
| **Nominal thermal performances - Heating mode** | | | | | | | | | | | |
| Heating capacity (1) | | | kW | - | - | - | - | - | - | - | - |
| Total absorbed power (1) | | | kW | - | - | - | - | - | - | - | - |
| COP (1) | | | | - | - | - | - | - | - | - | - |
| Comfort Application | EC Fans | Seasonal Coeficient of Performance (6) **SCOP** | | - | - | - | - | - | - | - | - |
| | | Seasonal energy efficiency (7) **ηs,h** | % | - | - | - | - | - | - | - | - |
| **Acoustic data** | | | | | | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 84,2 | 85,0 | 84,6 | 87,2 | 87,1 | 89,5 | 84,4 | 86,1 |
| **Electrical data** | | | | | | | | | | | |
| Maximum power | | | kW | 16.4 | 25.3 | 28.8 | 37.5 | 42.6 | 55.2 | 58 | 68.3 |
| Maximum current | | | A | 26.2 | 41 | 47.3 | 61.4 | 70.7 | 89.8 | 95.1 | 113.4 |
| Starting current | | | A | 26.2 | 41 | 166.8 | 217.6 | 226.9 | 331.7 | 211.9 | 269.6 |
| Short circuit current | | | kA | 10 | | | | | | | |
| **Refrigeration circuit** | | | | | | | | | | | |
| Number of circuits | | | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Number of compressors | | | | 1 | 1 | 2 | 2 | 2 | 2 | 2+2 | 2+2 |
| Total refrigerant load - R32 | | | kg | 3,6 | 4,6 | 6,0 | 7,4 | 8,8 | 9,0 | 9,2 | 9,4 |
| **Evaporator** | | | | | | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 7,6 | 11,2 | 12,3 | 15,1 | 18,7 | 22,8 | 21,53 | 25,31 |
| Nominal pressure drop | | | kPa | 35,8 | 45,1 | 41,1 | 41,7 | 38,1 | 36,7 | 25 | 22 |
| **Hydraulic connection** | | | | | | | | | | | |
| Type | | | | Threaded male | | | | Victaulic or Welded | | | |
| Diameter | | | | 1"1/2 | 2 | | | 2"1/2 | | | |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

# G(A) B(B) C(C) 040(D) S(E) P(F) 1(G) M(H)

(A) **G** = eComfort
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(D) **040** = Approximate power in kW
(E) **S** = Single circuit - **D** = Double circuit
(F) **P** = Refrigerant R32
(G) **1** = Revision number
(H) **M** = 400V/3/50Hz

## Air source version - Advanced Inverter

## Cooling only units

| eCOMFORT - GBC | | | | 160D | 185D | 210D |
|---|---|---|---|---|---|---|
| **Nominal thermal performances - Cooling mode** | | | | | | |
| Cooling capacity (1) | | | kW | 159,5 | 170,0 | 196,6 |
| Total absorbed power (1) | | | kW | 50,6 | 54,1 | 64,2 |
| EER (1) | | | | 3,15 | 3,14 | 3,06 |
| Comfort Application | EC Fans | Seasonal Energy Efficiency Ratio (2) **SEER** | | 5.05 | 5.03 | 5.08 |
| | | Seasonal energy efficiency (3) **ηs,c** | % | 199 | 198 | 200 |
| Process Application | | Seasonal Energy Performance Ratio (4) **SEPR** - High temperature (7°C) | | 6.01 | 5.95 | 5.64 |
| | | Seasonal Energy Performance Ratio (5) SEPR - Medium temperature (-8°C) | | 3.77 | 3.75 | 3.7 |
| **Nominal thermal performances - Heating mode** | | | | | | |
| Heating capacity (1) | | | kW | - | - | - |
| Total absorbed power (1) | | | kW | - | - | - |
| COP (1) | | | | - | - | - |
| Comfort Application | EC Fans | Seasonal Coeficient of Performance (6) **SCOP** | | - | - | - |
| | | Seasonal energy efficiency (7) **ηs,h** | % | - | - | - |
| **Acoustic data** | | | | | | |
| Global sound power level - Standard unit | | | dB(A) | 85,2 | 87,3 | 87,5 |
| **Electrical data** | | | | | | |
| Maximum power | | | kW | 71.7 | 81.6 | 94.8 |
| Maximum current | | | A | 120 | 135.1 | 157.1 |
| Starting current | | | A | 276.3 | 338.5 | 398.3 |
| Short circuit current | | | kA | 10 | | |
| **Refrigeration circuit** | | | | | | |
| Number of circuits | | | | 2 | 2 | 2 |
| Number of compressors | | | | 2+2 | 2+2 | 2+2 |
| Total refrigerant load - R32 | | | kg | 14,6 | 15 | 15,2 |
| **Evaporator** | | | | | | |
| Nominal water flow rate | | | $m^3/h$ | 27,52 | 29,32 | 33,91 |
| Nominal pressure drop | | | kPa | 26 | 26 | 34 |
| **Hydraulic connection** | | | | | | |
| Type | | | | Victaulic or Welded | | |
| Diameter | | | | 3" | | |

**(1)** EUROVENT certified data, in accordance with standard EN 14511.
**Cooling mode:** Evaporator water temperature = 12/7°C | Outdoor air temperature = 35°C / **Heating mode:** Condenser water temperature = 40/45°C | Outdoor air temperature = 7°C
**(2)** SEER in accordance with standard EN 14825. | **(3)** Following ecodesign regulation EU 2016/2281 on space cooling, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(4)** Following ecodesign regulation EU 2016/2281 on process cooling units, normalized leaving water temperature at 7°C, in accordance with standard EN 14825. | **(5)** Following ecodesign regulation EU 2015/1095 on process cooling chillers, normalized leaving water temperature at -8°C, in accordance with standard EN 14825. | **(6)** SCOP in accordance with standard EN 14825. Heating mode performance is defined for average climate conditions. | **(7)** Following ecodesign regulation EU 813/2013 on space heaters, normalized leaving water temperature at 7°C, in accordance with standard EN 14825, average climate conditions. | **(8)** Following energy labelling regulation EU 811/2013 on space heaters.

## Air source version

### Heat pumps units

| eCOMFORT - GAH | | 035S | 040S | 045S | 050S | 055S | 060S | 065S | 070S | 080S |
|---|---|---|---|---|---|---|---|---|---|---|
| A | mm | 1125 | | | 1125 | | | 2250 | | |
| B | | 1320 | | | 1320 | | | 1320 | | |
| C | | 1740 | | | 2109 | | | 1779 | | |
| **Weight of standard units** | | | | | | | | | | |
| Basic unit | kg | 350 | 369 | 385 | 416 | 424 | 448 | 614 | 608 | 649 |

## Air source version

### Heat pumps units

| eCOMFORT - GAH | | 095S | 110S | 115S | 125S | 140S | 110D | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | mm | 2250 | | | 2250 | | | | | 2250 | | |
| B | | 1320 | | | 1740 | | | | | 2650 | | |
| C | | 2071 | | | 2071 | | | | | 2071 | | |
| **Weight of standard units** | | | | | | | | | | | | |
| Basic unit | kg | 742 | 771 | 793 | 918 | 1006 | 975 | 1017 | 998 | 1388 | 1463 | 1463 |

## Air source version - Advanced

### Heat pumps units

| eCOMFORT - GBH | | 040S | 060S | 070S | 080S | 110S | 120S |
|---|---|---|---|---|---|---|---|
| A | mm | 1125 | 1125 | 2250 | 2250 | 2250 | 2250 |
| B | | 1320 | 1320 | 1320 | 1320 | 1320 | 1320 |
| C | | 1740 | 2109 | 1770 | 1779 | 2071 | 2071 |
| **Weight of standard units** | | | | | | | |
| Basic unit | kg | 351 | 401 | 609 | 705 | 746 | 789 |

## Air source version - Advanced

### Heat pumps units

| eCOMFORT - GBH | | 125S | 140S | 160S | 185S | 210S |
|---|---|---|---|---|---|---|
| A | mm | 2250 | 2250 | 2250 | 2250 | 2250 |
| B | | 1740 | 1740 | 2650 | 2650 | 2650 |
| C | | 2071 | 2071 | 2071 | 2071 | 2071 |
| **Weight of standard units** | | | | | | |
| Basic unit | kg | 1001 | 1065 | 1360 | 1427 | 1427 |

## Air source version

### Cooling only units

| eCOMFORT - GAC | | 035S | 040S | 045S | 050S | 055S | 060S | 065S | 070S | 080S |
|---|---|---|---|---|---|---|---|---|---|---|
| A | mm | 1125 | | | 1125 | | | 2250 | | |
| B | | 1320 | | | 1320 | | | 1320 | | |
| C | | 1740 | | | 2109 | | | 1779 | | |
| **Weight of standard units** | | | | | | | | | | |
| Basic unit | kg | 325 | 339 | 350 | 379 | 385 | 405 | 565 | 559 | 605 |

## Air source version

### Cooling only units

| eCOMFORT - GAC | | 095S | 110S | 115S | 125S | 140S | 110D | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | mm | 2250 | | | 2250 | | | | | 2250 | | |
| B | | 1320 | | | 1740 | | | | | 2650 | | |
| C | | 2071 | | | 2071 | | | | | 2071 | | |
| **Weight of standard units** | | | | | | | | | | | | |
| Basic unit | kg | 679 | 701 | 730 | 846 | 932 | 893 | 932 | 911 | 1216 | 1340 | 1340 |

## Air source version - Advanced

### Cooling only units

| eCOMFORT - GBC | | 040S | 060S | 070S | 080S | 110S | 120S |
|---|---|---|---|---|---|---|---|
| A | mm | 1125 | | 2250 | 2250 | | |
| B | | 1320 | | 1320 | 1320 | | 1320 |
| C | | 1740 | 2109 | 1779 | 1779 | 2071 | 2071 |
| **Weight of standard units** | | | | | | | |
| Basic unit | kg | 332 | 367 | 547 | 640 | 682 | 721 |

## Air source version - Advanced

### Cooling only units

| eCOMFORT - GBC | | 125D | 140D | 160D | 185D | 210D |
|---|---|---|---|---|---|---|
| A | mm | 2250 | | 2250 | | |
| B | | 1740 | | 2650 | | |
| C | | 2071 | | 2071 | | |
| **Weight of standard units** | | | | | | |
| Basic unit | kg | 894 | 949 | 1201 | 1283 | 1283 |