

# VIVAX

## Heat Pumps catalogue



High efficiency

Long-term profitability

Flexible operation

More comfort

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# Heat pumps

## Complete solution for heating, cooling and domestic hot water

Heat pumps are becoming increasingly available economic and ecological solutions enabling heating, cooling and domestic water. Their numerous benefits make them a top solution for all the living spaces.

### WHY HEAT PUMPS?

Heat pumps use free energy from the environment. Energy sources can be earth, groundwater or air. Only cost of the heat pump operation is electric energy that the heat pump uses.

### LONGTERM COST EFFECTIVENESS

Although the initial investment in a heat pump is a bit higher it is a long-term cost-effective investment, compared to traditional heating solutions based on fossil fuels. Savings in heating goes up to 75 %. Considering the high savings in energy consumption, average investment in heat pump completely returns in only a few years.

Efficiency coefficient (COP) of the VIVAX heat pumps is measured in different operation modes, considering the user needs. In heating mode coefficient is determined at 35 °C water outlet temperature where values are between 4.62 and 5.21 and at 55 °C temperature where values are between 3.31 and 3.52.

### 5 YEAR FACTORY WARRANTY

The warranty for VIVAX heat pumps is 60 months with mandatory annual service by an authorised service centre. This is a regular warranty for our heat pumps, and after the purchase, no additional registration of the device is required to obtain the warranty. Detailed information on warranty conditions and a list of authorised services can be found at [vivax.com](http://vivax.com).



# Product overview

### Split system



|                  | Outdoor unit |        | Outdoor unit |         |         |         |         | Indoor unit  |               |                |
|------------------|--------------|--------|--------------|---------|---------|---------|---------|--------------|---------------|----------------|
| Capacity         | 4,0 kW       | 6,0 kW | 8,0 kW       | 10,0 kW | 12,0 kW | 14,0 kW | 16,0 kW | 4,0 - 6,0 kW | 8,0 - 10,0 kW | 12,0 - 16,0 kW |
| 220 ~ 240 - 1 Ph | •            | •      | •            | •       |         |         |         | •            | •             | •              |
| 380 ~ 415 - 3 Ph |              |        |              |         | •       | •       | •       |              |               |                |

### Split system

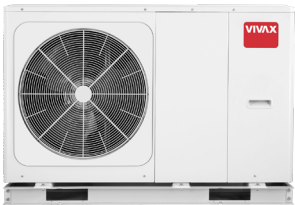


### Pool systems



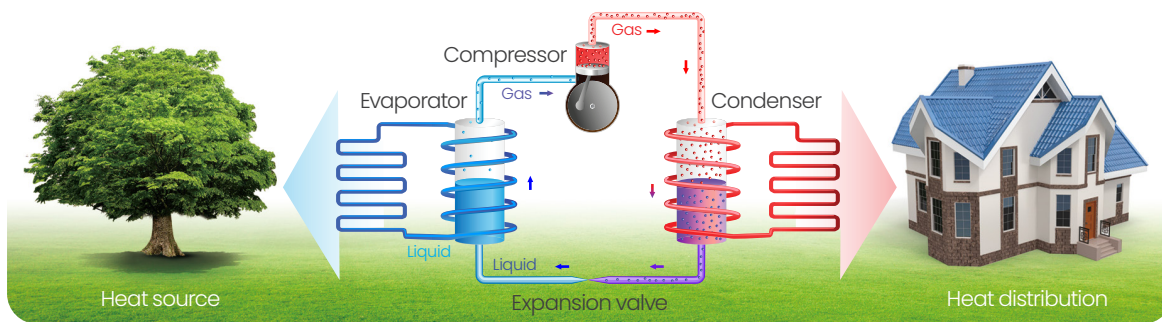
|                  |              |               |                |                  |        |         |         |
|------------------|--------------|---------------|----------------|------------------|--------|---------|---------|
| Capacity         | 4,0 - 6,0 kW | 8,0 - 10,0 kW | 12,0 - 16,0 kW | Capacity         | 7,0 kW | 10,0 kW | 12,0 kW |
| 220 ~ 240 - 1 Ph | •            | •             | •              | 220 ~ 240 - 1 Ph | •      | •       | •       |
| 380 ~ 415 - 3 Ph |              |               |                | 380 ~ 415 - 3 Ph |        |         |         |

### Monoblock system



|                  |        |        |        |         |         |         |         |         |         |         |         |
|------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Capacity         | 4,0 kW | 6,0 kW | 8,0 kW | 10,0 kW | 12,0 kW | 14,0 kW | 16,0 kW | 18,0 kW | 22,0 kW | 24,0 kW | 30,0 kW |
| 220 ~ 240 - 1 Ph | •      | •      | •      | •       |         |         |         | •       |         |         |         |
| 380 ~ 415 - 3 Ph |        |        |        |         | •       | •       | •       | •       | •       | •       | •       |

# How heat pump works



## AIR TO WATER

VIVAX heat pumps are air to water type. Such a design does not require access to water in the soil or the occupation of large areas of land for installation. When choosing the optimal solution, it is important to take into account the operation range of the device with regard to the external temperature, which for VIVAX devices ranges from  $-25\text{ }^{\circ}\text{C}$  to  $+43\text{ }^{\circ}\text{C}$ . VIVAX has monoblock and split units with capacities from 4.0 kW to 16.0 kW. All units use the ecological refrigerant R32. Devices with a capacity of 4.0 kW up to 10.0 kW have a single-phase power supply, and from 12.0 kW to 16.0 kW three-phase. In the split variant an internal unit, the hydrobox is connected to the external unit. In the hydrobox water for space heating and DHW is heated, or cooled if a space cooling is needed. In the monoblock version, the water is heated and cooled inside the outdoor unit.

## CONTROL



- Touch screen
- LCD (Liquid Crystal Display)
- Error display
- Checking operating parameters
- Multi language
- Child lock function
- Built-in temperature sensor and Wi-Fi module
- Modbus protocol

## Stage One

As the refrigerant passes through the expansion valve and expands, its temperature and pressure both drop.

## Stage Two

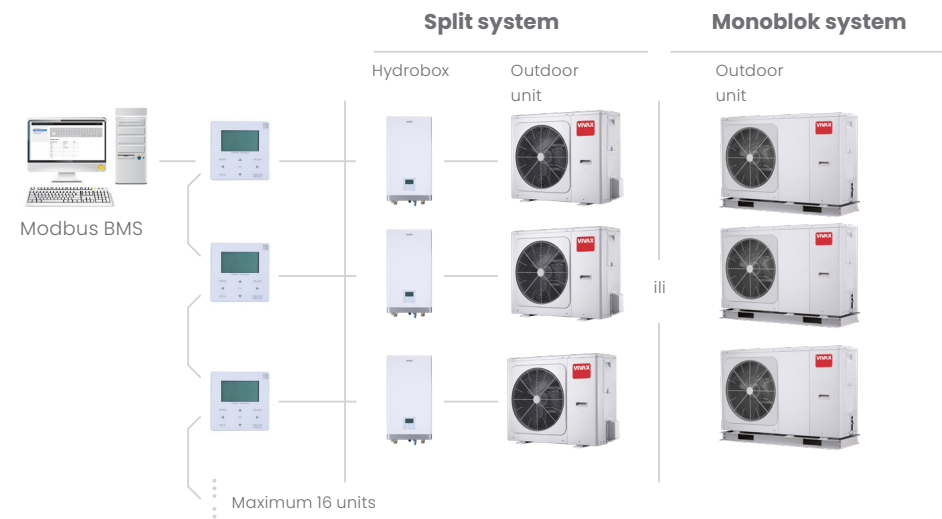
With the temperature of the refrigerant being lower than the ambient temperature, heat passes from the air flowing over the air side heat exchanger to the refrigerant and the refrigerant evaporates.

## Stage Three

When the refrigerant vapor passes through the compressor its pressure increases and its temperature rises above that of the water in hydronic system.

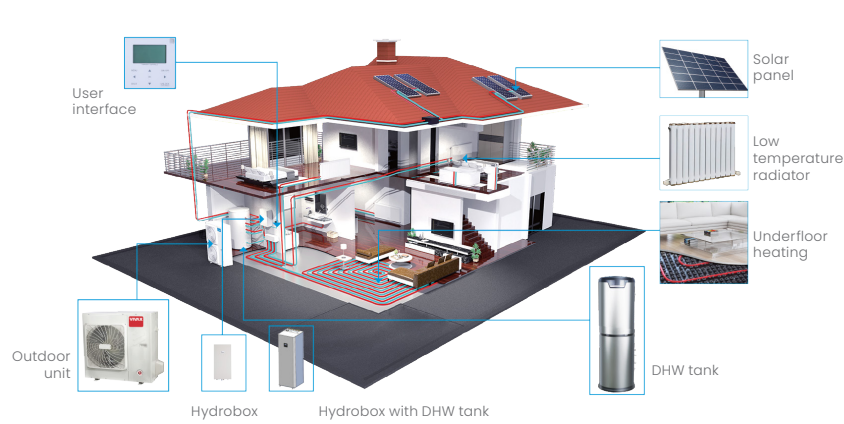
## Stage Four

As the hot vapor refrigerant passes through the water side heat exchanger it heats the water in the hydronic system, which is then pumped indoors to the space heating terminals or hot water tank. The refrigerant cools and condenses and then ready to return to the expansion valve to start the cycle again.



# Split and monoblock system

Split system



|                    |   |
|--------------------|---|
| Application        | Heating + Cooling + Domestic hot water  |
| Type               | Split (outdoor unit + hydrobox)   |
| Refrigerant piping | Between the outdoor unit and hydrobox   |
| Water piping       | Between the hydrobox and indoor heating appliances  |
| Installation       | Under-floor heating loops<br>Fan coil units<br>Low temperature radiators<br>Domestic hot water tank<br>Auxiliary heat sources (such as water heaters and boilers) |

## SPLIT TYPE OUTDOOR UNIT

The outdoor unit absorbs heat from the outside air and transfers it inside through the refrigerant piping.

## HYDROBOX

The hydrobox heats the water with refrigerant from the outdoor unit. The heated water circulates through heating apparatus such as floor heating, radiators, fan coil units as well as inner coil of domestic hot water tank.

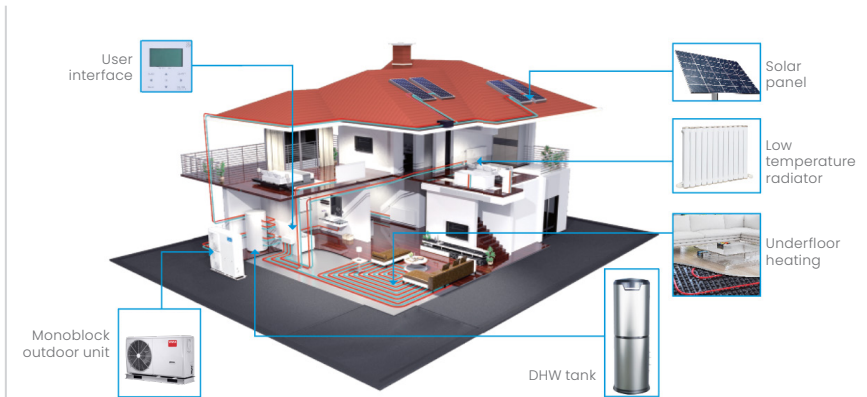
## DOMESTIC HOT WATER TANK

Hot water from the hydrobox is circulated through the domestic hot water tank heating water coil, heating the domestic hot water inside the tank. Immersion electric heaters could be installed in domestic hot water tanks as a backup.

## USER INTERFACE

User interface is connected to the split unit through signal wire. Its main functions are ON / OFF, parameter setting, timer and service parameter setting.

Monoblock system



|                                      |   |
|--------------------------------------|---|
| Application                          | Heating + Cooling + Domestic hot water  |
| Type                                 | Integrated (Heat pump and hydronic box are in the same casing)  |
| Refrigerant piping                   | Inside outdoor unit   |
| Water piping                         | Between outdoor unit and indoor heating appliances  |
| Combinational parts (field supplied) | Under-floor heating coils<br>Fan coil units<br>Low temperature radiators<br>Domestic hot water tank<br>Auxiliary heat sources (such as water heaters and boilers) |

## MONOBLOCK OUTDOOR UNIT

Monoblock outdoor unit absorbs heat from the outside air and transfers it to the water in the hydronic modular, through water to supply heat to indoor side.

## DOMESTIC HOT WATER TANK

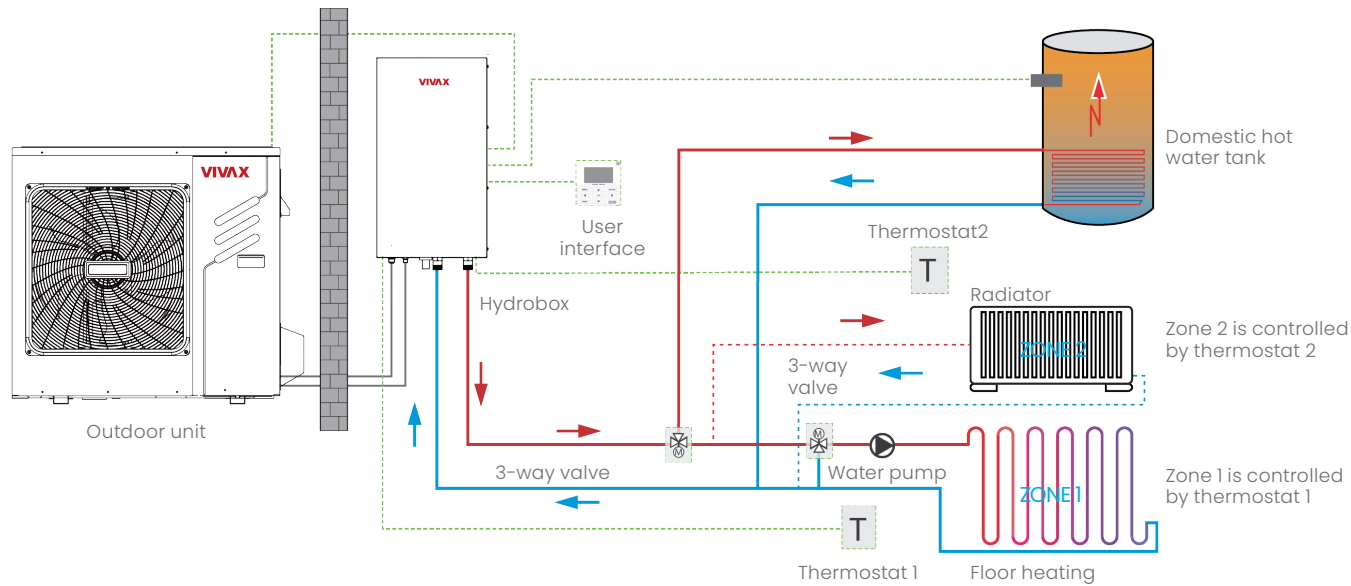
Hot water from the monoblock unit is circulated through the domestic hot water tank's heating water coil, heating the domestic hot water inside the tank. Immersion heaters could be installed in domestic hot water tanks as a backup.

## USER INTERFACE

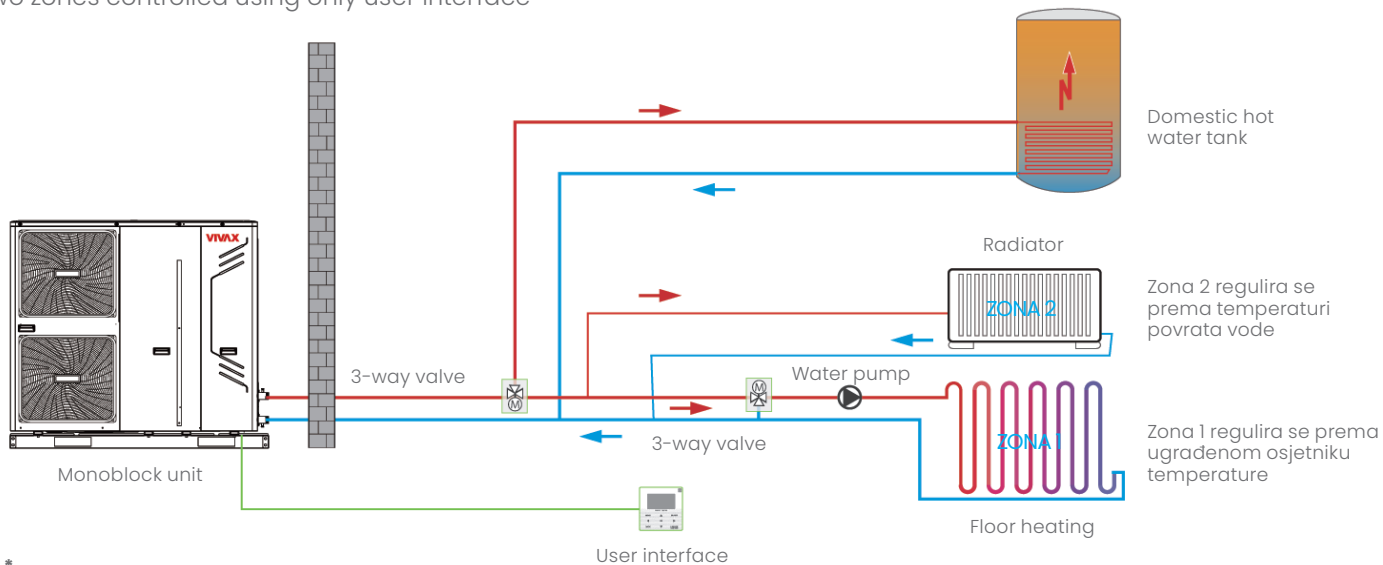
User interface is connected to the monoblock unit through signal wire. Its main functions are ON/OFF, parameter setting, timer and service parameter setting.

# Flexible operation and more comfort

Two zones controlled using user interface and thermostat.



Two zones controlled using only user interface



\* DHW: Domestic hot water

## PRIORITY SETTING FUNCTION AND MULTI MODES CHOICE



Cooling Operation Priority



Space Heating Operation Priority



DHW\* Operation Priority



AUTO mode



Disinfect mode<sup>1</sup>



Holiday mode



Forced DHW mode



ECO mode



Silent mode

### Note:

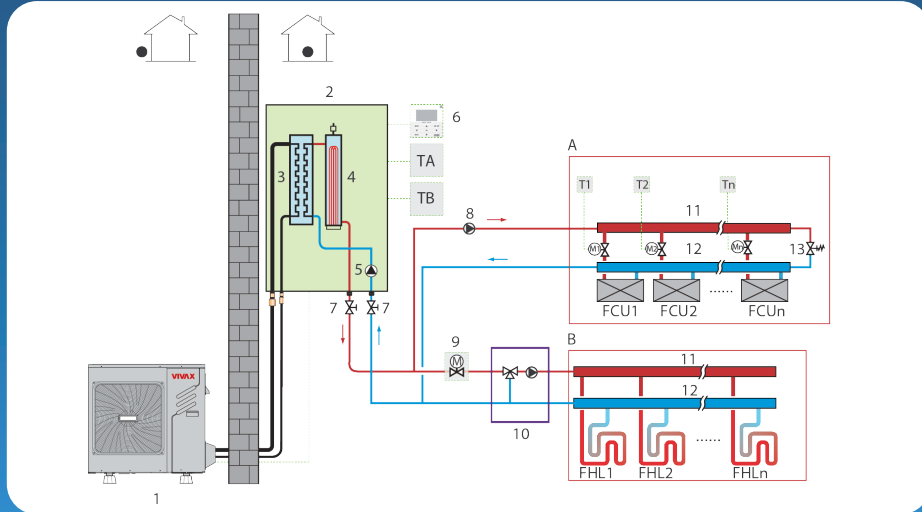
1. Only when the immersion heater of tank is available can the disinfection mode be used.
2. If the water content in the system is below the minimum, accumulation tank have to be installed.

# Complete solution for heating, cooling and domestic hot water | Split system

## Application 1

### Space Heating Through Floor Heating Loops and Fan Coil Units

The floor heating loops and fan coil units require different operating water temperatures. To achieve these two set points, a mixing station is required. Room thermostats for each zone are optional.

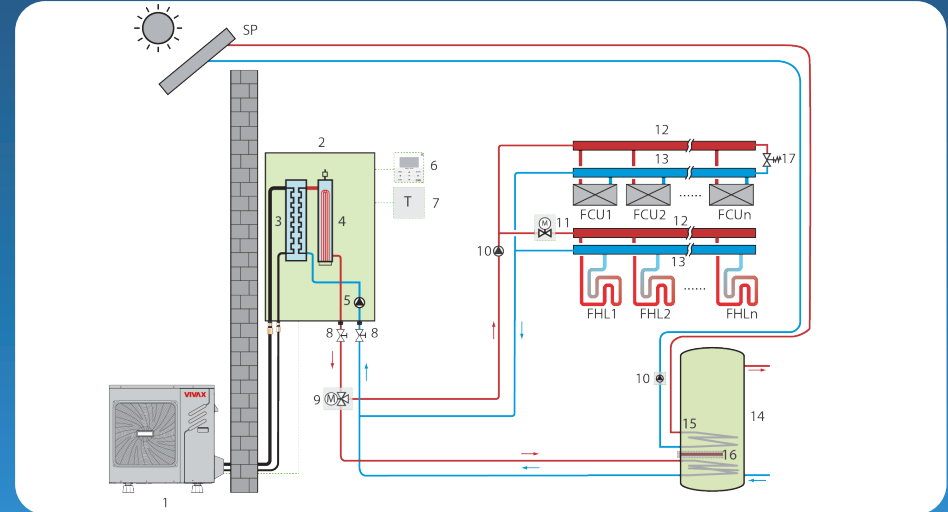


- 1 Outdoor unit
- 2 Hydrobox
- 3 Plate heat exchanger
- 4 Backup electric heater (optional)
- 5 Internal circulator pump
- 6 User interface
- 7 Stop valve (field supplied) \*
- 8 External circulator pump (field supplied) \*
- 9 Motorized 2-way valve (field supplied) \*
- 10 Mixing station (field supplied) \*
- 11 Distributor (field supplied) \*
- 12 Collector (field supplied) \*
- 13 Bypass valve (field supplied) \*
- FHL 1...n Floor heating loops (field supplied) \*
- FCU 1...n Fan coil units (field supplied) \*
- MI...n Motorized valves (field supplied) \*
- T1...n Room thermostats (field supplied) \*
- TA Zone A thermostat (field supplied) \*
- TB Zone B thermostat (field supplied) \*

## Application 2

### Space Heating, Space Cooling and Domestic Hot Water Compatible with Solar Water Heater

Underfloor heating loops and fan coil units are used for space heating and fan coil units are used for space cooling. Domestic hot water is supplied from the domestic hot water tank connected to both the hydronic box and solar water heater. The unit switches to heating or cooling mode according to the temperature detected by the room thermostat. In space cooling mode, the 2-way valve is closed to prevent cold water entering the underfloor heating loops.



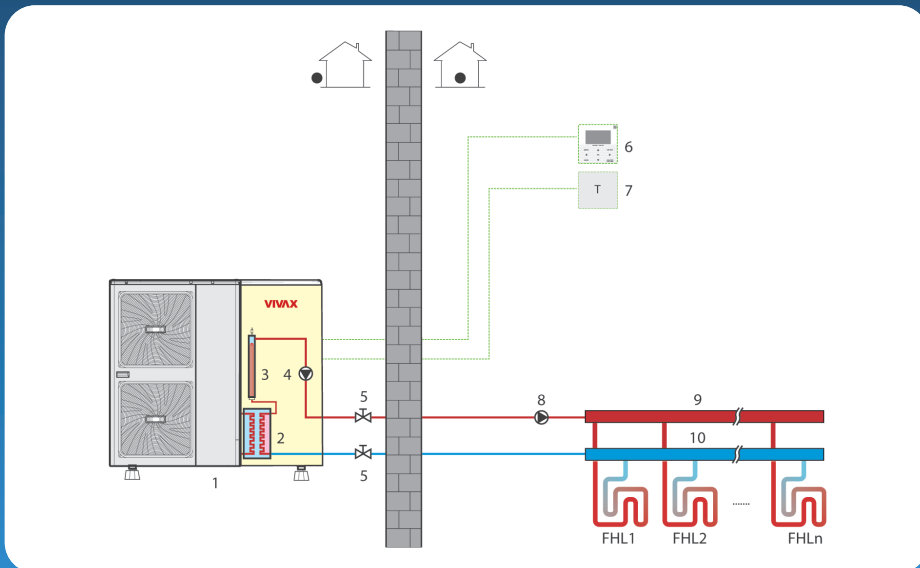
- 1 Outdoor unit
- 2 Hydrobox
- 3 Plate heat exchanger
- 4 Backup electric heater (optional)
- 5 Internal circulator pump
- 6 User interface
- 7 Room thermostat
- 8 Stop valve (field supplied) \*
- 9 Motorized 3-way valve (field supplied) \*
- 10 External circulator pump (field supplied) \*
- 11 Motorized 2-way valve (field supplied) \*
- 12 Distributor (field supplied) \*
- 13 Collector (field supplied) \*
- 14 Domestic hot water tank (field supplied) \*
- 15 Heat exchanger coil
- 16 Immersion heater
- 17 Bypass valve (field) \*
- FHL 1...n Floor heating loops (field supplied) \*
- FCU 1 Fan coil units (field supplied) \*
- SP Solar panel

# Complete solution for heating, cooling and domestic hot water | Monoblock system

## Application 1

### Space Heating Only

The room thermostat is used as a switch. When there is a heating request from the room thermostat, the Monoblock unit operates to achieve the target room temperature set on the user interface. When the room temperature reaches the thermostat's set temperature, the unit stops.

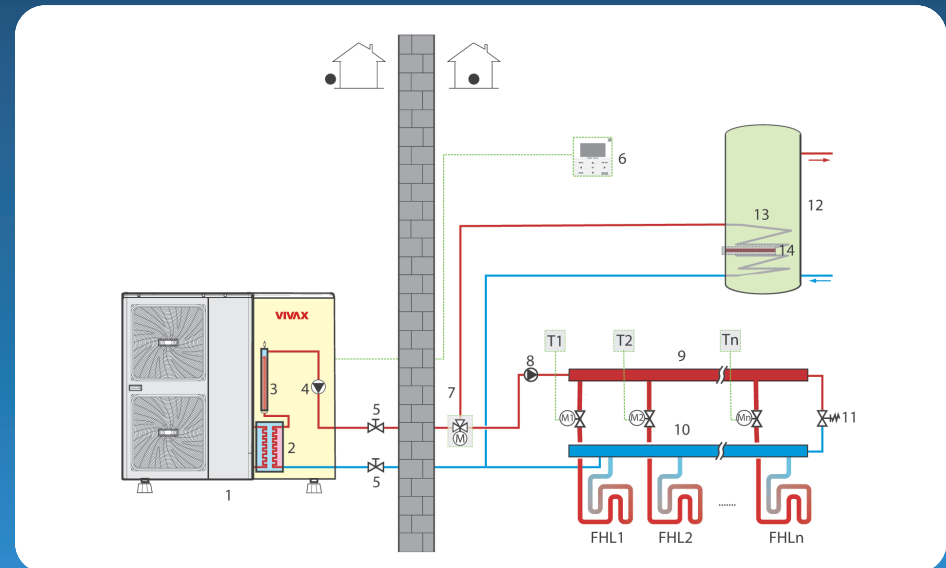


- 1 Heat pump
- 2 Plate heat exchanger
- 3 Backup electric heater(customized)
- 4 Inside circulation pump
- 5 Stop valve (field supplied) \*
- 6 User interface
- 7 Room thermostat (field supplied) \*
- 8 Outside circulate pump (field supplied) \*
- 9 Distributor (field supplied) \*
- 10 Collector (field supplied) \*
- FHL 1...n Floor heating loops (field supplied) \*

## Application 2

### Space Heating and Domestic Hot Water

The room thermostats are not connected to the Monoblock unit but to a motorized valve. Each room's temperature is regulated by the motorized valve on its water circuit. Domestic hot water is supplied from the domestic hot water tank connected to the Mono unit. A bypass valve is required.

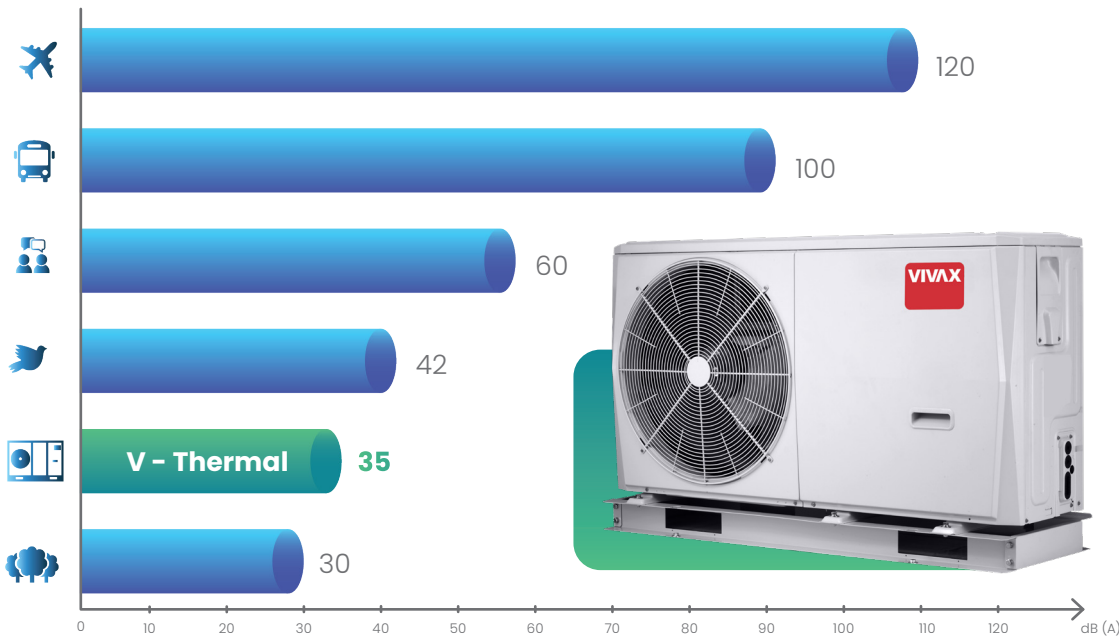


- 1 Heat pump
- 2 Plate heat exchanger
- 3 Backup electric heater(customized)
- 4 Internal circulator pump
- 5 Stop valve \*
- 6 User interface
- 7 Motorized 3-way valve \*
- 8 External circulator pump \*
- 9 Distributor \*
- 10 Collector \*
- 11 Bypass valve \*
- 12 Domestic hot water tank \*
- 13 Heat exchanger coil
- 14 Immersion heater
- FHL 1...n Floor heating loops \*
- M 1...n Motorized valves \*
- T 1...n Room thermostats \*



# DC Inverter technology | Innovative design

Innovative design ensures lower noise. 2 levels of quiet work mode are available.



## 1 | DC inverter motor fan

- CE certification
- Fan motor with continuously variable control
- Silent mode
- Low power consumption

## 2 | DC Inverter compressor

- CE certification
- Wide operating frequency
- Double rotating compressor
- Spray cooling control
- Compact structure

## 3 | DC Inverter water pump \*

- CE certification
- High degree of efficiency
- Big pump head
- Degree of insulation F
- Level of protection IPX4D

\* 18.0 ~ 30.0 kW mono block units - water pump has threespeed options



### 1 | Suction surface concave design

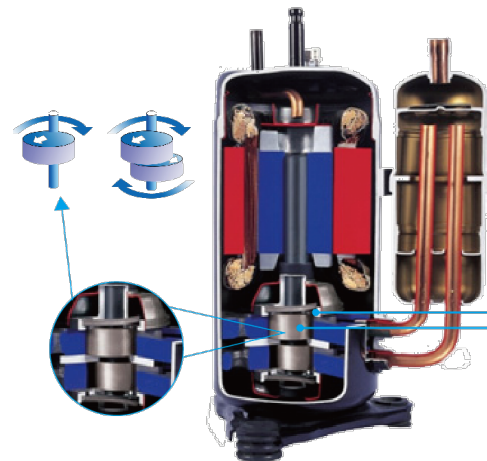
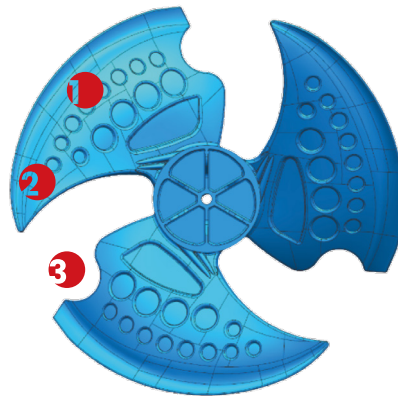
Reduce the size of wake shedding vortex.  
Improve the flow field on blade surface.  
Reduce weight and improve efficiency.

### 2 | Leading edge thickening design

Reduce low frequency noise.  
Effectively improve the blade strength.

### 3 | Trailing edge notch design

Change pressure distribution in the trailing edge of the blade. Reduce the noise of blade.



### Better balance and extremely low vibration

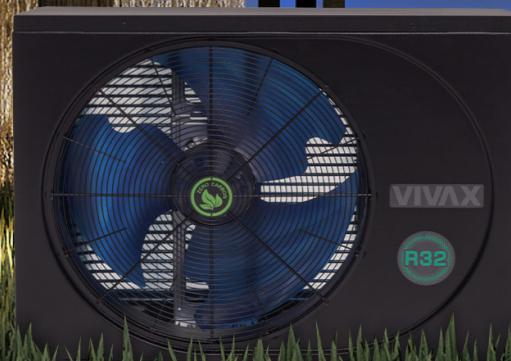
- 2 balance weights
- Twin eccentric cams

### Highly stable moving parts

- Optimize compressor drive technology
- Highly robust bearings
- Compact structure

# Pool heat pumps

Complete solution for heating and cooling swimming pool



Heating and cooling



Centralized control



APP



Smart grid



Smart memory



Silent mode



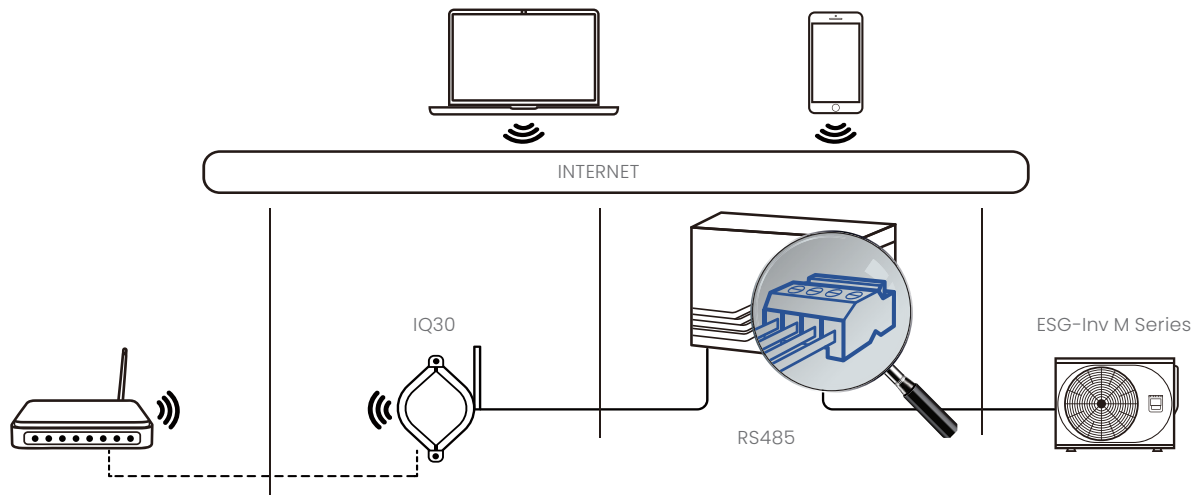
System protection

# System overview

## Smart control

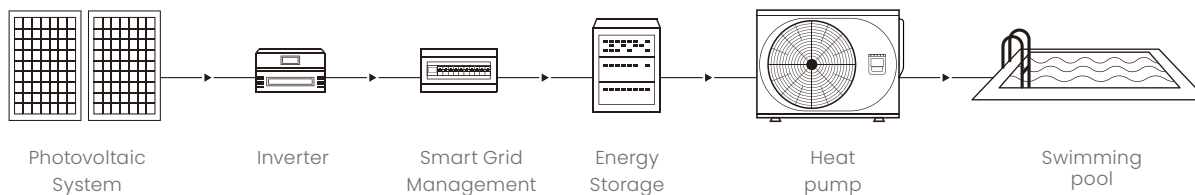
ESG heat pump is compatible with all centralized control pool systems using Modbus protocol and RS485 connector.

App controls and IOT platforms are designed to ensure user ease of operation and reduce equipment maintenance costs.



## SG - Ready (Smart Grid)

SG-ready ensures that ESG heat pump uses as much clean energy as possible from the smart grid and stores the energy in the swimming pool. When the smart grid is fully supplied with clean energy, ESG heat pumps consume close to zero carbon.



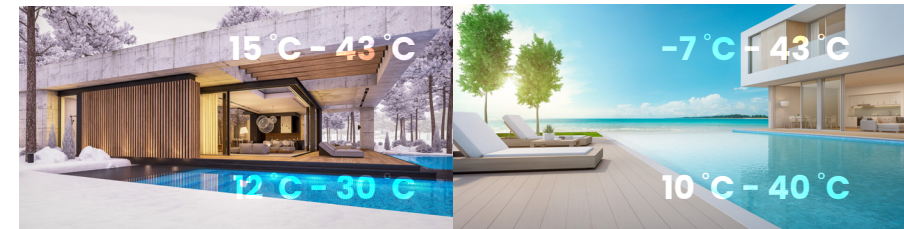
# Zero rate CO<sub>2</sub>

**0 % reduction in heating capacity at temperature conditions from 27 °C to 15 °C**

VIVAX heat pump have 0 % heating capacity recession from ambient temp 27 °C to 15 °C, while traditional heat pump have at least 20 % -30 % capacity recession.

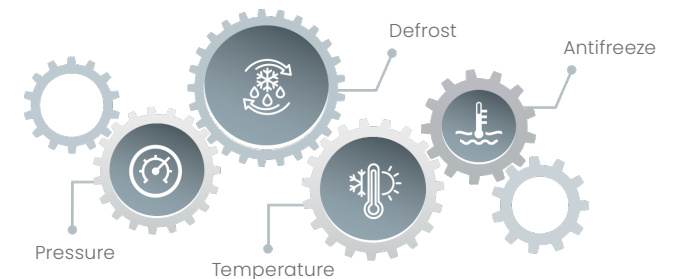
## Heating & cooling

ESG heat pump contains heating and cooling and automatic modes, covering a wide range of operating environment temperature and target water temperature.



## System Protection

ESG series heat pumps have more than 10 protection functions including defrost / pressure / temperature / antifreeze to ensure that the unit runs in a long-term healthy state.



# Specifications

| Split systems – outdoor unit                                |  | HPS-14CH40AERI/O1s R32     | HPS-22CH65AERI/O1s R32 | HPS-28CH84AERI/O1s R32 | HPS-34CHI00AERI/O1s R32 |
|---|--|----------------------------|------------------------|------------------------|-------------------------|
| Power supply  |  | 220-240 v / 1 Ph / 50 Hz   |                        |                        |                         |
| Compressor  | Type   | Twin rotary                |                        |                        |                         |
| Outdoor fan   | Motor type   | DC motor                   |                        |                        |                         |
|   | Number of fans                                     | 1                          |                        |                        |                         |
| Heat exchanger  | Type   | Finned tube heat exchanger |                        |                        |                         |
| Refrigerant   | Type (GWP)   | R32 (675)                  |                        |                        |                         |
|   | Charged volume (kg)                                | 1,50                       |                        | 1,65                   |                         |
| Sound power level <sup>1</sup> (dB (A))                     |  | 56                         | 58                     | 59                     | 60                      |
| Unit dimension - W x H x D (mm)                             |  | 1007 x 712 x 426           |                        | 1118 x 865 x 523       |                         |
| Packing dimension - W x H x D (mm)                          |  | 1065 x 800 x 485           |                        | 1180 x 890 x 560       |                         |
| Gross / net weight (kg)                                     |  | 62 / 57                    |                        | 82 / 77                |                         |
| Piping diameter (mm)  | Liquid phase                                       | 6,35                       |                        | 9,52                   |                         |
|   | Gas phase  | 15,88                      |                        |                        |                         |
| Connection method   |  | Flared                     |                        |                        |                         |
| Between indoor and outdoor unit (m)                         | Max. height difference                             | 20                         |                        |                        |                         |
|   | Pipe length  | 2 - 30                     |                        |                        |                         |
| Additional refrigerant                                      | Additional refrigerant charge (g / m)              | 20                         |                        | 38                     |                         |
|   | Max. pipe length for no additional refrigerant (m) | 15                         |                        |                        |                         |
| Outdoor air temperature range                               | Cooling (°C)                                       | -5 ~ 43                    |                        |                        |                         |
|   | Heating (°C)                                       | -25 ~ 35                   |                        |                        |                         |
|   | DHW (°C)   | -25 ~ 43                   |                        |                        |                         |
| Hydrobox model HPS-   |  | 42HM65AERI/11s             |                        | 84HM100AERI/11s        |                         |
| Heating <sup>1</sup>  | Capacity (kW)                                      | 4,25                       | 6,2                    | 8,3                    | 10                      |
|   | Power input (kW)                                   | 0,82                       | 1,24                   | 1,6                    | 2                       |
|   | COP  | 5,2                        | 5                      | 5,2                    | 5                       |
| Heating <sup>2</sup>  | Capacity (kW)                                      | 4,35                       | 6,35                   | 8,2                    | 10                      |
|   | Power input (kW)                                   | 1,14                       | 1,69                   | 2,08                   | 2,63                    |
|   | COP  | 3,8                        | 3,75                   | 3,95                   | 3,8                     |
| Heating <sup>3</sup>  | Capacity (kW)                                      | 4,4                        | 6                      | 7,5                    | 9,5                     |
|   | Power input (kW)                                   | 1,49                       | 2                      | 2,36                   | 3,06                    |
|   | COP  | 2,95                       | 3                      | 3,18                   | 3,1                     |
| Cooling <sup>4</sup>  | Capacity (kW)                                      | 4,5                        | 6,55                   | 8,4                    | 10                      |
|   | Power input (kW)                                   | 0,81                       | 1,34                   | 1,66                   | 2,08                    |
|   | EER  | 5,55                       | 4,9                    | 5,05                   | 4,8                     |
| Cooling <sup>5</sup>  | Capacity (kW)                                      | 4,7                        | 7                      | 7,4                    | 8,2                     |
|   | Power input (kW)                                   | 1,36                       | 2,33                   | 2,19                   | 2,48                    |
|   | EER  | 3,45                       | 3                      | 3,38                   | 3,3                     |
| Seasonal space heating energy efficiency class <sup>6</sup> | Water outlet temperature 35 °C                     | A+++                       |                        |                        |                         |
|   | Water outlet temperature 55 °C                     | A++                        |                        |                        |                         |

Note:

1. Testing standard: EN12102-1.

Abbreviations:

**DHW:** Domestic hot water

**GWP:** Global Warming Potential

| HPS-41CH120AERI/O3s R32    | HPS-48CH140AERI/O3s R32 | HPS-53CH155AERI/O3s R32 |
|----------------------------|-------------------------|-------------------------|
| 380-415 V / 3 Ph / 50 Hz   |                         |                         |
| Twin rotary                |                         |                         |
| DC motor                   |                         |                         |
| 1                          |                         |                         |
| Finned tube heat exchanger |                         |                         |
| R32 (675)                  |                         |                         |
| 1,84                       |                         |                         |
| 64                         | 65                      | 68                      |
| 1118 × 865 × 523           |                         |                         |
| 1180 × 890 × 560           |                         |                         |
| 116 / 110                  |                         |                         |
| 9,52                       |                         |                         |
| 15,88                      |                         |                         |
| Flared                     |                         |                         |
| 20                         |                         |                         |
| 2 - 30                     |                         |                         |
| 38                         |                         |                         |
| 15                         |                         |                         |
| -5 - 43                    |                         |                         |
| -25 - 35                   |                         |                         |
| -25 - 43                   |                         |                         |
| 120HMI55AERI/11s           |                         |                         |
| 12,1                       | 14,5                    | 16                      |
| 2,44                       | 3,09                    | 3,56                    |
| 4,95                       | 4,7                     | 4,5                     |
| 12,3                       | 14,2                    | 16                      |
| 3,24                       | 3,89                    | 4,44                    |
| 3,8                        | 3,65                    | 3,6                     |
| 12                         | 13,8                    | 16                      |
| 3,87                       | 4,6                     | 5,52                    |
| 3,1                        | 3                       | 2,9                     |
| 12                         | 13,5                    | 14,9                    |
| 3                          | 3,75                    | 4,38                    |
| 4                          | 3,6                     | 3,4                     |
| 11,6                       | 12,7                    | 14                      |
| 4,22                       | 4,98                    | 5,71                    |
| 4,22                       | 2,55                    | 2,45                    |
| A+++                       |                         |                         |
| A++                        |                         |                         |

Note:

1. Evaporator air in 7 °C, 85 % R.H., Condenser water in / out 30 / 35 °C 2. Evaporator air in 7 °C, 85 % R.H., Condenser water in / out 40 / 45 °C 3. Evaporator air in 7 °C, 85 % R.H., Condenser water in / out 47 / 55 °C 4. Condenser air in 35 °C. Evaporator water in / out 23 / 18 °C 5. Condenser air in 35 °C. Evaporator water in / out 12 / 7 °C 6. Seasonal space heating energy efficiency class testes in average climate general conditions. 7. Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

| Split systems – Hydrobox model          |                                 | HPS-42HM65AERI/11s       | HPS-84HM100AERI/11s      | HPS-120HM155AERI/11s |
|---|---------------------------------|--------------------------|--------------------------|----------------------|
| Power supply                            |                                 | 220-240 V / 1 Ph / 50 Hz |                          |                      |
| Sound power level <sup>1</sup> (dB (A)) |                                 | 38                       | 42                       | 43                   |
| Unit dimension - W × H × D (mm)         |                                 | 420 × 790 × 270          |                          |                      |
| Packing dimension - W × H × D (mm)      |                                 | 525 × 1050 × 360         |                          |                      |
| Gross / net weight (kg)                 |                                 | 43 / 37                  |                          | 45 / 39              |
| Heat exchanger                          |                                 | Plate heat exchanger     |                          |                      |
| Water pump                              | Max. pump head (m)              | 9                        |                          |                      |
| Expansion vessel (Primary circuit)      | Volume (L)                      | 8                        |                          |                      |
|   | Charge pressure (MPa)           | 0.1                      |                          |                      |
| Connection                              | Water side (mm)                 | R1"                      |                          |                      |
|   | Refrigerant - Liquid phase (mm) | 6,35                     | 9,52                     |                      |
|   | Refrigerant - Gas phase (mm)    | 15,88                    | 15,88                    |                      |
| Safety valve (MPa)                      |                                 | 0,3                      |                          |                      |
| Minimum water flow (m³ / h)             |                                 | 0,36                     |                          | 0,6                  |
| Total water volume (L)                  |                                 | 5                        |                          |                      |
| Backup E-heater                         | Standard mounted (kW)           | -                        |                          |                      |
|   | Optional (kW)                   | 3 / 9                    |                          |                      |
|   | Capacity steps                  | 1 / 3                    |                          |                      |
|   | Power supply                    | 3,0 kW                   | 220-240 V / 1 Ph / 50 Hz |                      |
|   |                                 | 9,0 kW                   | 380-415 V / 3 Ph / 50 Hz |                      |
| Room temperature range (°C)             |                                 | 5 - 35                   |                          |                      |
| Water outlet temperature                | Cooling (°C)                    | 5 - 25                   |                          |                      |
|   | Heating (°C)                    | 25 - 65                  |                          |                      |
|   | DHW (°C)                        | 30 - 60                  |                          |                      |

Note: 1. Testing standard: EN12102-1.

| Split systems – Hydrobox with tank      |  |                              |                                 | HPS-42HM65AERI/IT19H3s   | HPS-84HM100AERI/IT241H3s | HPS-120HM155AERI/IT241H3s |
|---|--|------------------------------|---------------------------------|--------------------------|--------------------------|---------------------------|
| Power supply                            |  |                              |                                 | 220-240 V / 1 Ph / 50 Hz |                          |                           |
| Domestic hot water tank                 | Type   |                              | Stainless steel                 |                          |                          |                           |
|   | Material   |                              | SUS 316L                        |                          |                          |                           |
|   | Water volume (L)                                 |                              | 190                             | 240                      |                          |                           |
|   | Maximum DHW temperature - Disinfection mode (°C) |                              | 70                              |                          |                          |                           |
|   | Maximum water pressure (Bar)                     |                              | 10                              |                          |                          |                           |
|   | Insulation material                              |                              | Polyurethane (cyclopentane)     |                          |                          |                           |
|   | Insulation thickness                             |                              | 45                              |                          |                          |                           |
| Sound power level <sup>1</sup> (dB(A))  |  |                              |                                 | 38                       | 40                       | 44                        |
| Unit dimension - W × H × D (mm)         |  |                              |                                 | 600 × 1683 × 600         | 600 × 1943 × 600         |                           |
| Packing dimension - W × H × D (mm)      |  |                              |                                 | 730 × 1920 × 730         | 730 × 2180 × 730         |                           |
| Gross / net weight (kg)                 |  |                              |                                 | 161 / 140                | 178 / 157                | 180 / 159                 |
| Heat exchanger                          |  |                              |                                 | Plate heat exchanger     |                          |                           |
| Water pump                              | Max. pump head (m)                               |                              |                                 | 9                        |                          |                           |
| Expansion vessel (Primary circuit)      | Volume (L)                                       |                              |                                 | 8                        |                          |                           |
| Connection                              | Water side (mm)                                  | Heating / Cooling            | Outlet                          | R1"                      |                          |                           |
|   |  |                              | Povrat                          |                          |                          |                           |
|   |  | DHW                          | Cold inlet                      | R3/4"                    |                          |                           |
|   |  |                              | Hot outlet                      |                          |                          |                           |
|   |  |                              | Recirculation                   |                          |                          |                           |
|   |  |                              | Refrigerant - Liquid phase (mm) | 6,35                     | 9,52                     |                           |
|   |  | Refrigerant - Gas phase (mm) | 15,88                           |                          |                          |                           |
| Safety valve (MPa)                      |  |                              |                                 | 0,3                      |                          |                           |
| Minimum water flow (m <sup>3</sup> / h) |  |                              |                                 | 0,36                     | 0,6                      |                           |
| Total water volume (L)                  |  |                              |                                 | 5                        |                          |                           |
| Backup E-heater                         | Standard mounted (kW)                            |                              |                                 | 3                        |                          |                           |
|   | Optional (kW)                                    |                              |                                 | 0                        |                          |                           |
|   | Capacity steps                                   |                              |                                 | 1                        |                          |                           |
|   | Power supply                                     |                              | 3,0 kW                          | 220-240 V / 1 Ph / 50 Hz |                          |                           |
| Room temperature range (°C)             |  |                              |                                 | 5 - 35                   |                          |                           |
| Water outlet temperature                | Cooling (°C)                                     |                              |                                 | 5 - 25                   |                          |                           |
|   | Heating (°C)                                     |                              |                                 | 25 - 65                  |                          |                           |
|   | DHW (°C)   |                              |                                 | 30 - 60                  |                          |                           |

| Pool heat pumps   | HPP-24CH70AERI R32-1       | HPP-30CH90AERI R32-1 | HPP-41CH120AERI R32-1 |
|---|----------------------------|----------------------|-----------------------|
| Power supply  | 208 ~ 230 V 1 ~ 50 / 60 Hz |                      |                       |
| Recommend pool size (15 °C AT) with pool cover                            | 21                         | 27                   | 36                    |
| Recommend pool size (20 °C AT) with pool cover                            | 31,5                       | 40,5                 | 54                    |
| Recommend pool size (25 °C AT) with pool cover                            | 52,5                       | 67,5                 | 90                    |
| Heat pump type(Swimming pool heat pump)                                   | Inverter                   |                      |                       |
| Material  | Metal + plastic            |                      |                       |
| Operating air temperature (°C)  | -7 °C ~ 43 °C              |                      |                       |
| Boost Mode (Max) capacity - Air 27 °C / Water 26 °C / Humid. 80%          | 10,3                       | 12,8                 | 14,5                  |
| Consumed capacity   | 1,56                       | 2,13                 | 2,28                  |
| COP   | 6,60                       | 6,00                 | 6,35                  |
| Heating capacity - Air 27 °C / Water 26 °C / Humid. 80%                   | 2,9-7,16                   | 2,9-9,15             | 2,8-12,5              |
| Consumed capacity   | 0,24-0,95                  | 0,24-1,35            | 0,23-1,79             |
| COP   | 12,1-7,5                   | 12,1-6,8             | 12,2-7,0              |
| Boost Mode (Max) Heating capacity - Air 15 °C / Water 26 °C / Humid. 71 % | 7,3                        | 9,3                  | 10,5                  |
| Consumed capacity   | 1,56                       | 2,09                 | 2,28                  |
| COP   | 4,69                       | 4,45                 | 4,60                  |
| Heating capacity - Air 15 °C / Water 26 °C / Humid. 71 %                  | 1,9-5,3                    | 1,9-6,8              | 2,0-9,1               |
| Consumed capacity   | 0,29-1,04                  | 0,29-1,39            | 0,29-1,8              |
| COP   | 6,55-5,1                   | 6,55-4,9             | 6,9-5,05              |
| Cooling capacity  | 4,5                        | 5,2                  | 7                     |
| Consumed capacity   | 1,13                       | 1,55                 | 1,75                  |
| EER   | 4                          | 3,35                 | 4                     |
| Max current (A)   | 10,5                       | 11                   | 12                    |
| Compressor type   | Rotary                     |                      |                       |
| Number of fans  | 1                          | 1                    | 1                     |
| Fan Power Input (W)   | 50                         | 80                   | 110                   |
| Fan Speed (RPM)   | 450                        | 530                  | 650                   |
| Max fan volume (m³/h)   | 2500                       | 3000                 | 3600                  |
| Refrigerant Amount - R32 (kg)   | 0,55                       | 0,55                 | 0,75                  |
| Sound pressure level (1 m) Boost mode                                     | 48                         | 52                   | 55                    |
| Sound pressure level (3 m) - Boost mode - Theoretical value               | 39                         | 43                   | 46                    |
| Sound pressure level (1 m)  | 41                         | 43                   | 49                    |
| Sound pressure level (3 m) - Theoretical value                            | 32                         | 34                   | 40                    |
| Silence mode sound pressure level (1 m)                                   | 39                         | 39                   | 40                    |
| Silence mode sound pressure level (3 m) - Theoretical value               | 30                         | 30                   | 31                    |
| Water flow (m³/h)   | 3,1                        | 3,9                  | 5,4                   |
| Water pressure drop (kPa)   | 4,6                        | 7,3                  | 13,8                  |
| Water connection (mm)   | 50                         | 50                   | 50                    |
| Gross / net weight (kg)   | 52 / 46                    | 52 / 46              | 56 / 50               |
| Unit dimension - W × H × D (mm)   | 988 × 365 × 712            | 988 × 365 × 712      | 988 × 365 × 712       |
| Packing dimension - W × H × D (mm)  | 1065 × 485 × 845           | 1065 × 485 × 845     | 1065 × 485 × 845      |

| Monoblock systems (4 kW - 16 kW) HPM-                       |                                | 14CH40AERis R32-1H3 | 22CH65AERis R32-1H3 | 28CH84AERis R32-1H3 | 34CH100AERis R32-1H9 | 41CH120AERis R32-3H9 | 48CH140AERis R32-3H9 | 53CH155AERis R32-3H9 |       |
|---|--------------------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|-------|
| Heating A7W35*  | Capacity (kW)                  | 4,20                | 6,35                | 8,40                | 10,0                 | 12,1                 | 14,5                 | 15,9                 |       |
|   | Rated power input (kW)         | 0,82                | 1,28                | 1,63                | 2,02                 | 2,44                 | 3,15                 | 3,53                 |       |
|   | COP                            | 5,10                | 4,95                | 5,15                | 4,95                 | 4,95                 | 4,60                 | 4,50                 |       |
| Heating A7W45   | Capacity (kW)                  | 4,30                | 6,30                | 8,10                | 10,0                 | 12,3                 | 14,1                 | 16,0                 |       |
|   | Rated power input (kW)         | 1,13                | 1,70                | 2,10                | 2,67                 | 3,32                 | 3,92                 | 4,57                 |       |
|   | COP                            | 3,8                 | 3,70                | 3,85                | 3,75                 | 3,70                 | 3,60                 | 3,50                 |       |
| Heating A7W55   | Capacity (kW)                  | 4,40                | 6,00                | 7,50                | 9,50                 | 11,9                 | 13,8                 | 16,0                 |       |
|   | Rated power input (kW)         | 1,49                | 2,03                | 2,36                | 3,06                 | 3,90                 | 4,68                 | 5,61                 |       |
|   | COP                            | 2,95                | 2,95                | 3,18                | 3,10                 | 3,05                 | 2,95                 | 2,85                 |       |
| Heating A2W35   | Capacity (kW)                  | 4,40                | 5,50                | 7,10                | 8,20                 | 9,2                  | 11,0                 | 13,0                 |       |
|   | Rated power input (kW)         | 1,10                | 1,41                | 1,73                | 2,05                 | 2,36                 | 3,06                 | 3,77                 |       |
|   | COP                            | 4,00                | 3,90                | 4,10                | 4,00                 | 3,90                 | 3,60                 | 3,45                 |       |
| Heating A2W45   | Capacity (kW)                  | 5,10                | 5,80                | 7,40                | 7,85                 | 10,60                | 11,50                | 12,70                |       |
|   | Rated power input (kW)         | 1,70                | 1,93                | 2,28                | 2,45                 | 3,53                 | 4,04                 | 4,46                 |       |
|   | COP                            | 3,00                | 3,00                | 3,25                | 3,20                 | 3,00                 | 2,85                 | 2,85                 |       |
| Heating A2W55   | Capacity (kW)                  | 5,10                | 5,65                | 7,10                | 8,10                 | 11,30                | 12,40                | 13,30                |       |
|   | Rated power input (kW)         | 2,08                | 2,31                | 2,73                | 3,16                 | 4,52                 | 5,06                 | 5,54                 |       |
|   | COP                            | 2,45                | 2,45                | 2,60                | 2,56                 | 2,50                 | 2,45                 | 2,40                 |       |
| Heating A-7W35  | Capacity (kW)                  | 4,7                 | 6,00                | 7,00                | 8,00                 | 10,00                | 12,00                | 13,10                |       |
|   | Rated power input (kW)         | 1,52                | 2,00                | 2,19                | 2,62                 | 3,33                 | 4,21                 | 4,85                 |       |
|   | COP                            | 3,10                | 3,00                | 3,20                | 3,05                 | 3,00                 | 2,85                 | 2,70                 |       |
| Heating A-7W45  | Capacity (kW)                  | 4,30                | 5,40                | 6,60                | 7,35                 | 10,20                | 11,70                | 12,80                |       |
|   | Rated power input (kW)         | 1,83                | 2,25                | 2,59                | 2,88                 | 4,25                 | 4,98                 | 5,69                 |       |
|   | COP                            | 2,35                | 2,40                | 2,55                | 2,55                 | 2,40                 | 2,35                 | 2,25                 |       |
| Heating A-7W55  | Capacity (kW)                  | 4,00                | 5,15                | 6,15                | 6,85                 | 9,80                 | 11,00                | 12,50                |       |
|   | Rated power input (kW)         | 2,05                | 2,58                | 3,00                | 3,43                 | 4,78                 | 5,37                 | 6,25                 |       |
|   | COP                            | 1,95                | 2,00                | 2,05                | 2,00                 | 2,05                 | 2,05                 | 2,00                 |       |
| Cooling A35W18  | Capacity (kW)                  | 4,50                | 6,50                | 8,30                | 9,90                 | 12,00                | 13,50                | 14,90                |       |
|   | Rated power input (kW)         | 0,82                | 1,35                | 1,64                | 2,18                 | 3,04                 | 3,75                 | 4,38                 |       |
|   | EER                            | 5,50                | 4,80                | 5,05                | 4,55                 | 3,95                 | 3,60                 | 3,40                 |       |
| Cooling A35W7   | Capacity (kW)                  | 4,70                | 7,00                | 7,45                | 8,20                 | 11,5                 | 12,4                 | 14,0                 |       |
|   | Rated power input (kW)         | 1,36                | 2,33                | 2,22                | 2,52                 | 4,18                 | 4,96                 | 5,60                 |       |
|   | EER                            | 3,45                | 3,00                | 3,35                | 3,25                 | 2,75                 | 2,50                 | 2,50                 |       |
| Seasonal space heating energy efficiency class <sup>6</sup> | Water outlet 35 °C             | η <sub>s</sub>      | 191 %               | 195 %               | 205 %                | 204 %                | 189 %                | 185 %                | 182 % |
|   |                                | Class               | A+++                |                     |                      |                      |                      |                      |       |
|   | Water outlet 55 °C             | η <sub>s</sub>      | 129 %               | 138 %               | 131 %                | 136 %                | 135 %                | 135 %                | 133 % |
|   |                                | Class               | A++                 |                     |                      |                      |                      |                      |       |
| SCOP  | Water outlet temperature 35 °C | 4,85                | 4,95                | 5,21                | 5,19                 | 4,81                 | 4,72                 | 4,62                 |       |
|   | Water outlet temperature 55 °C | 3,31                | 3,52                | 3,36                | 3,49                 | 3,45                 | 3,47                 | 3,41                 |       |
| SEER  | Water outlet temperature 7 °C  | 4,99                | 5,34                | 5,83                | 5,98                 | 4,86                 | 4,83                 | 4,67                 |       |
|   | Water outlet temperature 18 °C | 7,77                | 8,21                | 8,95                | 8,78                 | 7,04                 | 6,85                 | 6,71                 |       |

A: Outdoor temperature  
W: Outlet water temperature

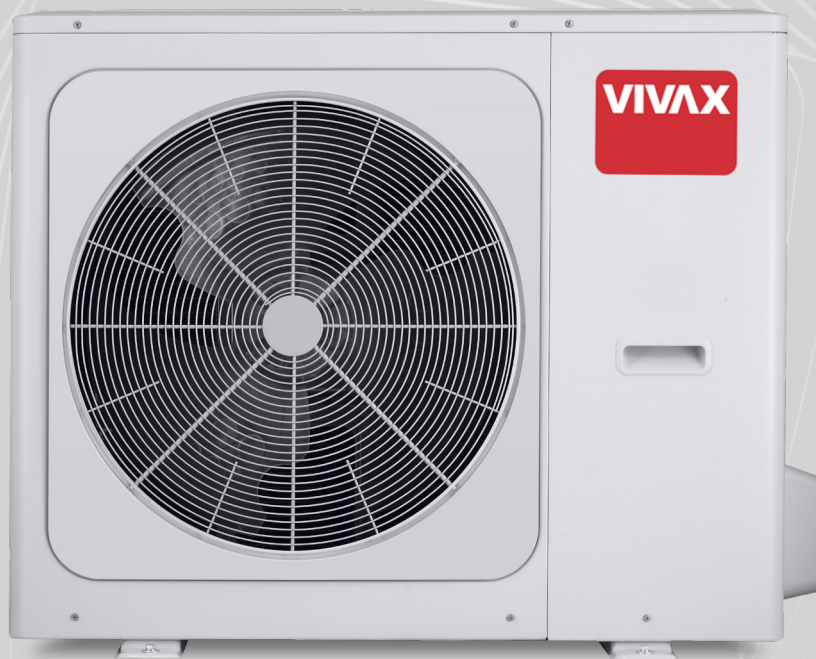
Note:  
The above data test reference standard  
EN14511:2013; EN14825:2013; EN50564:2011; 12102:2011; (EU) No: 811:2013; (EU) No: 813:2013; OJ 2014 / C 207 / 02:2014



| Monoblock systems (4 kW - 16 kW) HPM-       |   | 14CH40AERis R32-1H3        | 22CH65AERis R32-1H3      | 28CH84AERis R32-1H3 | 34CH100AERis R32-1H9 | 41CH120AERis R32-3H9     | 48CH140AERis R32-3H9     | 53CH155AERis R32-3H9 |  |
|---|---|----------------------------|--------------------------|---------------------|----------------------|--------------------------|--------------------------|----------------------|--|
| Power supply                                |   | 18                         | 220-240 V / 1 Ph / 50 Hz |                     |                      | 380-415 V / 3 Ph / 50 Hz |                          |                      |  |
| MOP (A)                                     |   | 12                         | 18                       | 19                  | 19                   | 14                       | 14                       | 14                   |  |
| MCA (A)                                     |   |                            | 14                       | 16                  | 17                   | 10                       | 11                       | 12                   |  |
| Compressor                                  | Type  | Double rotary              |                          |                     |                      |                          |                          |                      |  |
|   | Poles   | 6                          |                          |                     |                      |                          |                          |                      |  |
|   | Speed range (rps)                                   | 10 ~ 120                   |                          |                     |                      |                          |                          |                      |  |
|   | Capacity (60 rps)                                   | 5450                       |                          | 7100                |                      | 14000                    |                          |                      |  |
|   | Input (60 rps)                                      | 1735                       |                          | 2230                |                      | 4380                     |                          |                      |  |
|   | Max. heating frequency (Hz)                         | 78                         | 96                       | 86                  | 96                   | 78                       | 86                       | 92                   |  |
|   | Max. cooling frequency (Hz)                         | 72                         | 84                       | 72                  | 78                   | 70                       | 76                       | 80                   |  |
| Outdoor fan                                 | Motor type  | DC motor                   |                          |                     |                      |                          |                          |                      |  |
|   | Number of fans                                      | 1                          |                          |                     |                      |                          |                          |                      |  |
|   | Max fan volume (m³ / h)                             | 2770                       |                          | 4030                |                      | 4060                     |                          | 4650                 |  |
| Air side heat exchanger                     | Number of rows                                      |                            |                          |                     | 2                    |                          | 3                        |                      |  |
|   | Number of circuits                                  |                            |                          |                     | 8                    |                          | 12                       |                      |  |
| Refrigerant                                 | Type (GWP)  | R32 (675)                  |                          |                     |                      |                          |                          |                      |  |
|   | Charged volume (kg)                                 | 1,40                       |                          |                     |                      | 1,75                     |                          |                      |  |
| Throttle type                               |   | Electronic expansion valve |                          |                     |                      |                          |                          |                      |  |
| Sound power level                           | Heating A7W35 (dB (A))                              | 55                         | 58                       | 59                  | 60                   | 65                       | 65                       | 69                   |  |
|   | Heating maximum (dB (A))                            | 60                         | 61                       | 61                  | 62                   | 65                       | 65                       | 69                   |  |
|   | Heating silence mode <sup>1</sup> (dB (A))          | 56                         | 56                       | 57                  | 58                   | 62                       | 62                       | 63                   |  |
|   | Heating pri tihom načinu rada <sup>2</sup> (dB (A)) | 53                         | 53                       | 55                  | 55                   | 56                       | 56                       | 56                   |  |
|   | Cooling A35W18 (dB (A))                             | 56                         | 58                       | 60                  | 60                   | 64                       | 64                       | 69                   |  |
|   | Cooling maximum (dB (A))                            | 60                         | 61                       | 61                  | 62                   | 65                       | 65                       | 69                   |  |
|   | Cooling silence mode <sup>1</sup> (dB (A))          | 55                         | 57                       | 57                  | 58                   | 62                       | 62                       | 63                   |  |
|   | Cooling silence mode <sup>2</sup> (dB (A))          | 52                         | 54                       | 54                  | 54                   | 56                       | 56                       | 56                   |  |
| Unit dimension - W × H × D (mm)             |   | 1295 × 792 × 429           |                          |                     | 1385 × 945 × 526     |                          |                          |                      |  |
| Packing dimension - W × H × D (mm)          |   | 1375 × 945 × 475           |                          |                     | 1465 × 1120 × 560    |                          |                          |                      |  |
| Gross / net weight (kg)                     |   | 121 / 89                   |                          | 148 / 121           |                      | 188 / 160                |                          |                      |  |
| Loading quantity - HQ / 40 FT / 20 FT (pcs) |   | 104 / 104 / 50             |                          |                     | 64 / 64 / 32         |                          |                          |                      |  |
| Connection method                           |   | Flared                     |                          |                     |                      |                          |                          |                      |  |
| Outdoor air temperature range               | Cooling (°C)  | -5 ~ 43                    |                          |                     |                      |                          |                          |                      |  |
|   | Heating (°C)  | -25 ~ 35                   |                          |                     |                      |                          |                          |                      |  |
|   | DHW (°C)  | -25 ~ 43                   |                          |                     |                      |                          |                          |                      |  |
| Water side heat exchanger                   |   | Pločasti Type              |                          |                     |                      |                          |                          |                      |  |
| Water pump                                  | Max. pump head (m)                                  | 9                          |                          |                     |                      |                          |                          |                      |  |
| Expansion vessel (Primary circuit)          | Volume (L)  | 8                          |                          |                     |                      |                          |                          |                      |  |
|   | Charge pressure (Mpa)                               | 0,3                        |                          |                     |                      |                          |                          |                      |  |
| Water side connection (mm)                  |   | R 1"                       |                          |                     | R 5 / 4"             |                          |                          |                      |  |
| Safety valve (MPa)                          |   |                            |                          |                     |                      | 0,3                      |                          |                      |  |
| Flow switch (m³ / h)                        |   | 0,36                       |                          |                     |                      | 0,6                      |                          |                      |  |
| Total water volume (L)                      |   |                            |                          |                     |                      | 5                        |                          |                      |  |
| Backup E-heater                             | * Optional (kW)                                     | 3,0                        | 3,0                      | 3,0                 | 9,0                  | 9,0                      | 9,0                      | 9,0                  |  |
|   | Capacity steps                                      | 1                          |                          |                     |                      |                          |                          |                      |  |
|   | Power supply  | 3,0 kW                     |                          |                     |                      |                          | 220-240 V / 1 Ph / 50 Hz |                      |  |
|   |   | 6,0 / 9,0 kW               |                          |                     |                      |                          | 380-415 V / 3 Ph / 50 Hz |                      |  |
| Water outlet temperature                    | Cooling (°C)  | 5 ~ 30                     |                          |                     |                      |                          |                          |                      |  |
|   | Heating (°C)  | 12 ~ 65                    |                          |                     |                      |                          |                          |                      |  |
|   | DHW - tank (°C)                                     | 10 ~ 60                    |                          |                     |                      |                          |                          |                      |  |
| Nominal return water temperature range      | Cooling (°C)  | 6 ~ 35                     |                          |                     |                      |                          |                          |                      |  |
|   | Heating - DHW (°C)                                  | 12 ~ 59                    |                          |                     |                      |                          |                          |                      |  |

| Monoblock systems (18 kW - 30 kW)              |                                |       | HPM-61CH180AERis R32-3 | HPM-75CH220AERis R32-3 | HPM-89CH260AERis R32-3 | HPM-102CH300AERis R32-3 |
|--|--------------------------------|-------|------------------------|------------------------|------------------------|-------------------------|
| Heating A7W35*                                 | Capacity (kW)                  |       | 18000                  | 22000                  | 26000                  | 30100                   |
|  | Rated power input (kW)         |       | 3830                   | 5000                   | 6373                   | 7698                    |
|  | COP                            |       | 4,7                    | 4,4                    | 4,08                   | 3,91                    |
| Heating A7W45                                  | Capacity (kW)                  |       | 18000                  | 22000                  | 26000                  | 30000                   |
|  | Rated power input (kW)         |       | 5143                   | 6471                   | 8387                   | 10345                   |
|  | COP                            |       | 3,5                    | 3,4                    | 3,1                    | 2,9                     |
| Heating A7W55                                  | Capacity (kW)                  |       | 18000                  | 22000                  | 26000                  | 30000                   |
|  | Rated power input (kW)         |       | 6545                   | 8302                   | 10612                  | 13043                   |
|  | COP                            |       | 2,75                   | 2,65                   | 2,45                   | 2,3                     |
| Heating A-7W35                                 | Capacity (kW)                  |       | 18000                  | 21000                  | 22000                  | 23000                   |
|  | Rated power input (kW)         |       | 6667                   | 8077                   | 8800                   | 9388                    |
|  | COP                            |       | 2,7                    | 2,6                    | 2,5                    | 2,45                    |
| Cooling A35W18                                 | Capacity (kW)                  |       | 18500                  | 23000                  | 27000                  | 31000                   |
|  | Rated power input (kW)         |       | 3895                   | 5000                   | 6279                   | 7750                    |
|  | EER                            |       | 4,75                   | 4,6                    | 4,3                    | 4                       |
| Cooling A35W7                                  | Capacity (kW)                  |       | 17000                  | 21000                  | 26000                  | 29500                   |
|  | Rated power input (kW)         |       | 5574                   | 7119                   | 9630                   | 11569                   |
|  | EER                            |       | 3,05                   | 2,95                   | 2,7                    | 2,55                    |
| Seasonal space heating energy efficiency class | Water outlet temperature 35 °C | Class | A+++                   |                        |                        |                         |
|  | Water outlet temperature 55 °C | Class | A++                    |                        |                        |                         |
| SCOP   | Water outlet temperature 35 °C |       | 4,6                    | 4,53                   | 4,5                    | 4,2                     |
|  | Water outlet temperature 55 °C |       | 3,2                    | 3,23                   | 3,15                   | 3,15                    |
| SEER   | Water outlet temperature 7 °C  |       | 4,7                    | 4,7                    | 4,66                   | 4,49                    |
|  | Water outlet temperature 18 °C |       | 5,48                   | 5,67                   | 5,88                   | 5,71                    |

| Monoblock systems (18 kW - 30 kW)   |                     | HPM-61CH180AERis R32-3     | HPM-75CH220AERis R32-3 | HPM-89CH260AERis R32-3 | HPM-102CH300AERis R32-3 |
|-------------------------------------|---------------------|----------------------------|------------------------|------------------------|-------------------------|
| Power supply                        |                     | 380-415 V / 3 Ph / 50 Hz   |                        |                        |                         |
| MOP (A)                             |                     | 18                         | 21                     | 24                     | 28                      |
| MCA (A)                             |                     | 21                         | 24,5                   | 27                     | 28,5                    |
| Compressor                          |                     | Twin rotary                |                        |                        |                         |
| Outdoor fan                         | Motor type          | DC fan                     |                        |                        |                         |
|                                     | Number of fans      | 2                          |                        |                        |                         |
| Air side heat exchanger             |                     | Plate type                 |                        |                        |                         |
| Water pump                          | Max. pump head (m)  | 12                         |                        |                        |                         |
| Refrigerant                         | Type (GWP)          | R32                        |                        |                        |                         |
|                                     | Charged volume (kg) | 5                          |                        |                        |                         |
| Throttle type                       |                     | Electronic expansion valve |                        |                        |                         |
| Sound power level <sup>2</sup> (dB) |                     | 71                         | 73                     | 75                     | 77                      |
| Water flow (m <sup>3</sup> / h)     |                     | 3,1                        | 3,78                   | 4,47                   | 5,18                    |
| Internal water volume (L)           |                     | 3,5                        | 3,5                    | 3,5                    | 3,5                     |
| Unit dimension - W × H × D (mm)     |                     | 1129 x 1558 x 440          |                        |                        |                         |
| Packing dimension - W × H × D (mm)  |                     | 1220 x 1735 x 565          |                        |                        |                         |
| Gross / net weight (kg)             |                     | 206 / 177                  |                        |                        |                         |
| Water side connections (inch)       |                     | 1-1/4" BSP                 | 1-1/4" BSP             | 1-1/4" BSP             | 1-1/4" BSP              |
| Water outlet temperature            | Cooling (°C)        | -5 ~ 46                    |                        |                        |                         |
|                                     | Heating (°C)        | -25 ~ 35                   |                        |                        |                         |
|                                     | DHW - tank (°C)     | -25 ~ 43                   |                        |                        |                         |
| Water inlet temperature             | Cooling (°C)        | 5 ~ 25                     |                        |                        |                         |
|                                     | Heating - DHW (°C)  | 25 ~ 60                    |                        |                        |                         |



**VIVAX**  
Simply good.

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