

• **EIS**® ENERGY SAVE

High efficiency

Heat Pumps

Versatile

Water Tanks

Modern

Fan Coils



SWEDISH INGENUITY

REDUCED ENERGY COSTS – INCREASED ENVIRONMENTAL BENEFITS

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ES Heat pumps and system solutions for maximum savings

Whether you are heating your property with electricity, oil, wood, pellets or district heating today, you can use a highly efficient ES air / water heat pump as a starting point to create great savings, functionality and security in a modern, open and future-proof heating system – with the ability to change and complement the system in the future as your needs change!

Energy Save AB develop and offer cost effective, smart and flexible solutions for maximum energy savings to the market.

It's good to be smart – and green!



Green ECO-friendly refrigerant

New ES Heat pump line AW-R32 uses an ECO friendly R32 refrigerant. The conventional refrigerants used for inverter heat pumps today has a global warming potential (GWP) more than three times higher than R32 refrigerant which is used for the new ES heat pump Line. The units have also less refrigerant volume for the same or even higher heating capacities. With this refrigerant we fulfil the EU norms that are not mandatory yet, but will become in the future. It also contributes to a high efficiency working of the heat pump.



Low noise units

AW-R32 units use a special variable speed fan motor and fan blades with innovative blade design to reduce the sound level given up from the heat pump. The compressor is placed in an extra compartment that is insulated with sound absorbing materials. With these technologies we achieve low sound levels that makes the units almost not hearable, even running at maximum speeds. The units can also be set to work during the night in even lower sound levels via weekly timers.



High efficiency heat pumps

ES heat pumps are equipped with the latest technology on the market that is designed specifically for heat pumps, to insure the best performances and low heating costs. Components used in the ES heat pumps are from world-wide known producers, that are making innovations in this field, with a long and successful history.



R410A refrigerant

NP-V7-S units use a R410A refrigerant, which is used for inverter heat pumps for several years and it has proven that it is a reliable and efficient medium for Air-Water heat pump systems as well as for Air conditioning units.



Control via internet

Each ES heat pump is equipped with an internet module that allows the customer to have full control of the heat pump at any given time and place. The unit connects to the internet and can be controlled by any smart device or PC.



Reliable and efficient technology

All ES heat pumps have a 5-year warranty on the compressor due to the use of highly efficient and reliable compressor technology, that also makes the unit low noise and helps reduce the heating costs to a minimum.



Remote control

ES heat pumps can be connected to an external monitoring and controlling system via a Modbus connection such as a Building management system (BMS). This allows full control of the ES heat pumps with climate control systems currently used in the building.

The AW-R32-M Series

The AW-R32-M heat pump series uses the latest technologies for maximum efficiency and minimum environmental impact. The units are very quiet thanks to the special designed fans and a noise shielded compressor compartment.

With R32 as refrigerant the units are not just more eco-friendly, but even more efficient than units using other types of refrigerants. The “M” in the name stands for Monobloc, which describes the connection between indoor and outdoor unit – a hydraulic connection which provides an easier installation.

The units have an additional heater that serves as a back up to prevent freezing of the water in the outdoor unit. Its power supply is separate from the heat pump and will kick-in only in real emergency cases. Heating power ranges from 6–19 kW and there are two different types. The AWC has a small indoor control box and the AWT is a so called All-In-One indoor unit, with a water tank for preparing hot sanitary water. The AWT contains most of the elements needed for an installation into your home (switching valve, expansion vessel, etc...).

For your home, an ES AW-R32-M Heat Pump is a solution for the future.

[See full range, page 9–12.](#)



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The NP-V7-S Series

The ES NP-V7-S units are highly efficient heat pumps that use a traditional R410A refrigerant. Designed for high performance and long lifespan.

The “S” in the name stands for a Split type connection which means that the hydraulic system is connected to the indoor unit. The connection between the indoor and the outdoor unit is made with refrigerant piping. In case of an emergency there is no risk of water freezing in the outdoor unit.

Heating power ranges from 6–13 kW. There are three types, the NPH, NPT and NPET version. The NPH has an indoor unit containing the controls and water pump, suitable for adapting to any existing heating system. The NPT and NPET are so called All-In-One indoor units, with a water tank for preparing fresh sanitary water. The NPT has a water tank in stainless steel that heats the fresh sanitary water through a coil, on demand. The NPET has an enamelled water tank that is used as a 250 liter hot water storage. This system ensures that there is always enough water waiting to be used.

The NP-V7-S heat pumps will make your home warm and cosy.

See full range, page 13–18.



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Advanced LED Touch Screen Controller

All ES heat pumps use an advanced LED Touch Screen controller which allows a big range of installation options, ensuring the best performance to reduce heating costs and offer sophisticated safety features for a carefree working of the heat pump.

Key features

- Heating, cooling and DHW mode
- Two mixing heating/cooling circuits
- Night mode
- Controlling additional heating sources
- Dual temperature settings for DHW
- Vacation mode
- Floor curing
- Anti-Legionella function



Info menu for easy diagnostics

The Info menu makes an easy diagnostic of the working of the heat pump with a hydraulic and refrigerant scheme containing all needed data at one place.



Heat Pumps

AWC6 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,74

Heating capacity: 6,50 kW

COP: 4,70

Max. temperature outlet: 58 °C

Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 52 dB(A)

Refrigerant: R32

Technical specifications, see page 20.



AWC9 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,73

Heating capacity: 9,20 kW

COP: 4,71

Max. temperature outlet: 58 °C

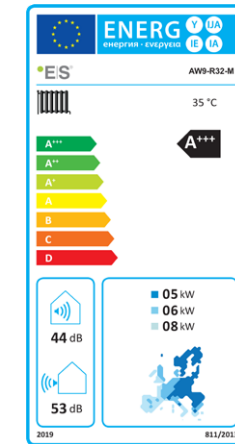
Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 53 dB(A)

Refrigerant: R32

Technical specifications, see page 20.



AWC12 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,71

Heating capacity: 11,60 kW

COP: 4,90

Max. temperature outlet: 58 °C

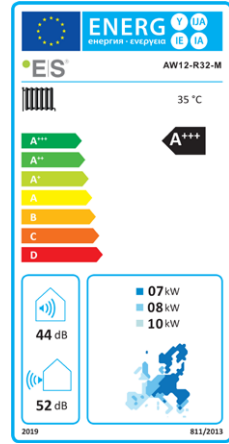
Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 52 dB(A)

Refrigerant: R32

Technical specifications, see page 20.



Google Play



AWC15 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,98

Heating capacity: 15,30 kW

COP: 5,06

Max. temperature outlet: 58 °C

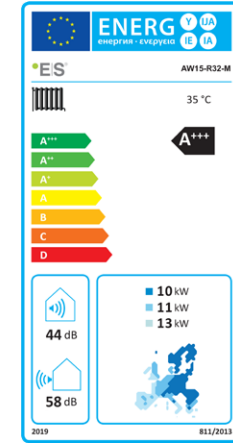
Working range: -25°C to +65 °C

Power supply: 400 V

Sound power level: 58 dB(A)

Refrigerant: R32

Technical specifications, see page 21.



Google Play



AWC19 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,85

Heating capacity: 18,50 kW

COP: 5,01

Max. temperature outlet: 58 °C

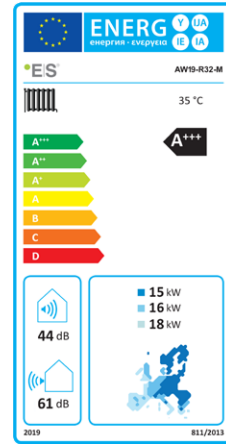
Working range: -25°C to +65°C

Power supply: 400 V

Sound power level: 61 dB(A)

Refrigerant: R32

Technical specifications, see page 21.



AWT6 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,74

Heating capacity: 6,50 kW

COP: 4,70

Max. temperature outlet: 58 °C

Working range: -25°C to +65 °C

Power supply: 230 V

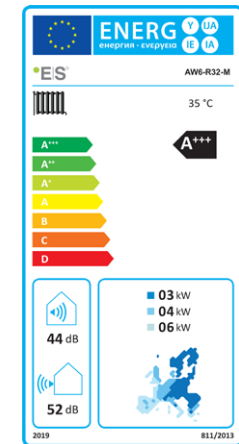
Sound power level: 52 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R32

Technical specifications, see page 22.



AWT9 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,73

Heating capacity: 9,20 kW

COP: 4,71

Max. temperature outlet: 58 °C

Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 53 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R32

*Technical specifications,
see page 22.*



A+++

>dB
Low noise



BMS
compatibility



Google Play



AWT12 – R32-M

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,71

Heating capacity: 11,60 kW

COP: 4,90

Max. temperature outlet: 58 °C

Working range: -25°C to +65 °C

Power supply: 230 V

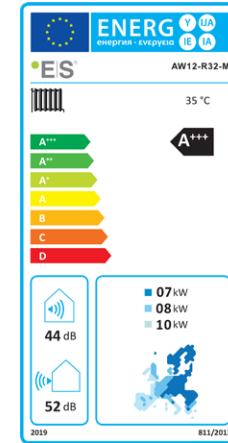
Sound power level: 52 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R32

*Technical specifications,
see page 22.*



A+++

>dB
Low noise



BMS
compatibility



Google Play



NPH6 – V7-S

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,47

Heating capacity: 6,21 kW

COP: 5,87

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

Sound power level: 57 dB(A)

Refrigerant: R410A

*Technical specifications,
see page 23.*



NPH9 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,99

Heating capacity: 10,10 kW

COP: 4,65

Max. temperature outlet: 55 °C

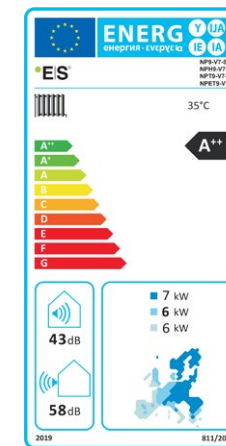
Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 58 dB(A)

Refrigerant: R410A

*Technical specifications,
see page 23.*



NPH11 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,92

Heating capacity: 11,50 kW

COP: 5,05

Max. temperature outlet: 55 °C

Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 58 dB(A)

Refrigerant: R410A

Technical specifications, see page 23.



NPH13 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 4,08

Heating capacity: 12,60 kW

COP: 4,77

Max. temperature outlet: 55 °C

Working range: -25°C to +65 °C

Power supply: 230 V

Sound power level: 59 dB(A)

Refrigerant: R410A

Technical specifications, see page 23.



NPT6 – V7-S

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,47

Heating capacity: 6,21 kW

COP: 5,87

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

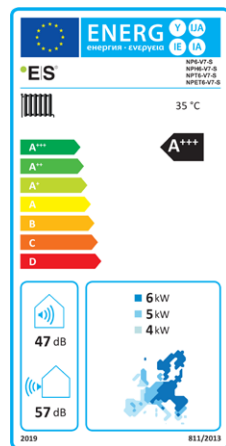
Sound power level: 57 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R410A

*Technical specifications,
see page 24.*



NPT9 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,99

Heating capacity: 10,10 kW

COP: 4,65

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

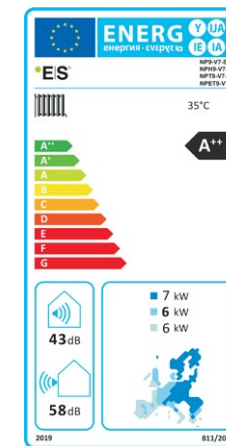
Sound power level: 58 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R410A

*Technical specifications,
see page 24.*



NPT11 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,92

Heating capacity: 11,50 kW

COP: 5,05

Max. temperature outlet: 55 °C

Working range: –25°C to +65°C

Power supply: 230 V

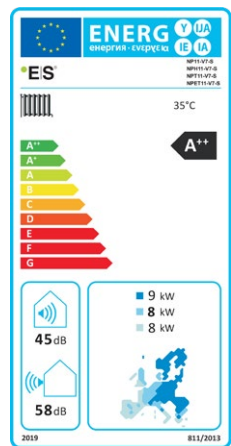
Sound power level: 58 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R410A

*Technical specifications,
see page 24.*



NPT13 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 4,08

Heating capacity: 12,60 kW

COP: 4,77

Max. temperature outlet: 55 °C

Working range: –25°C to +65°C

Power supply: 230 V

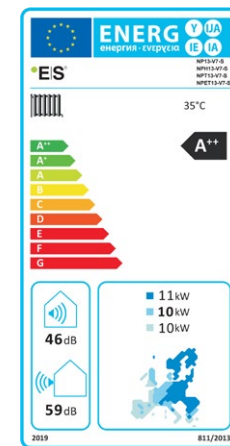
Sound power level: 59 dB(A)

Tank: 250 liter

Tank type: Stainless steel

Refrigerant: R410A

*Technical specifications,
see page 24.*



NPET6 – V7-S

Controller: Touch screen

Energy efficiency: A+++

SCOP: 4,47

Heating capacity: 6,21 kW

COP: 5,87

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

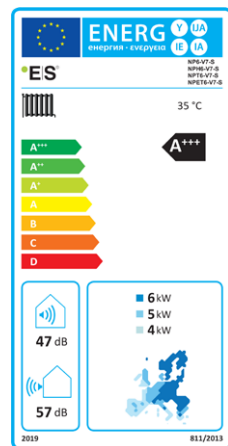
Sound power level: 57 dB(A)

Tank: 250 liter

Tank type: Enamelled

Refrigerant: R410A

*Technical specifications,
see page 25.*



NPET9 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,99

Heating capacity: 10,10 kW

COP: 4,65

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

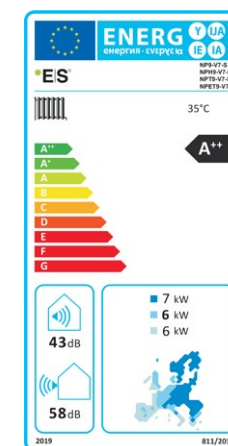
Sound power level: 58 dB(A)

Tank: 250 liter

Tank type: Enamelled

Refrigerant: R410A

*Technical specifications,
see page 25.*



NPET11 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 3,92

Heating capacity: 11,50 kW

COP: 5,05

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

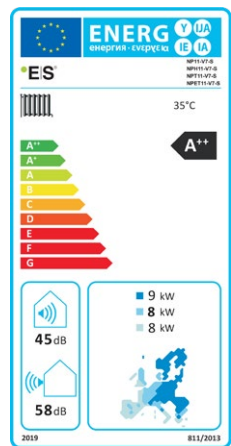
Sound power level: 58 dB(A)

Tank: 250 liter

Tank type: Enamelled

Refrigerant: R410A

*Technical specifications,
see page 25.*



NPET13 – V7-S

Controller: Touch screen

Energy efficiency: A++

SCOP: 4,08

Heating capacity: 12,60 kW

COP: 4,77

Max. temperature outlet: 55 °C

Working range: -25°C to +65°C

Power supply: 230 V

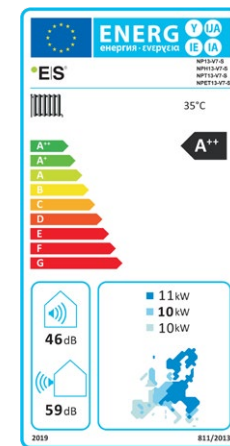
Sound power level: 59 dB(A)

Tank: 250 liter

Tank type: Enamelled

Refrigerant: R410A

*Technical specifications,
see page 25.*



ES Heat Pump Stand

ES heat pump stands are made from a robust and weather resistant materials. The width can be adjusted according to the heat pump model. With adjustable feet the heat pump can be positioned also on not so straight floor surface to a horizontal position. Vibration dampers prevent amplification of the sound level and spreading of the vibrations to the floor.

Just two ES Stand models are needed for a range of heat pumps from 6kW and up to 20kW.

The stands come in two colour variations, silver and in dark grey.

OUS40-45 Silver



OUS40-45 Gray

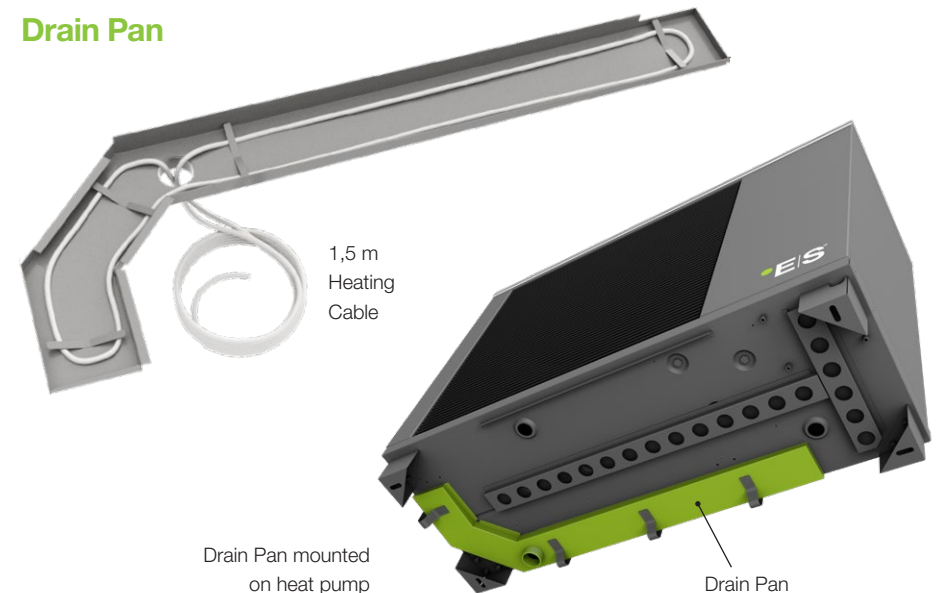


ES Drain Pan Kit

The drain pan kit collects the condensing water from the outdoor unit to a centralized drainage, so no ice sheet can form under the unit. It is designed for an easy and fast installation by using quick hooks for installation and a "T" connector to connect the power supply for the electrical heating cable. The collective output for the condensing water is 5/4" through which a heating cable is routed. The 140 W heating cable is heating the drain pan and it extends out to heat the draining piping for up to 1,5 m.

The ES drain pan kit is suitable both for the NP-V7-S series as for the AW-R32-M series of ES heat pumps.

Drain Pan



Technical Specification Heat Pumps

AWC – R32-M (6–12 kW)

| | Unit | AWC6-R32-M | AWC9-R32-M | AWC12-R32-M |
|--|---------|----------------------|-------------|--------------|
| ErP Energy efficiency class | | A+++ | A+++ | A+++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,74 | 4,73 | 4,71 |
| Heating mode (A7/W35) | | | | |
| Heating capacity* | kW | 3,50 - 6,50 | 4,30 - 9,20 | 5,50 - 11,60 |
| COP max - Coefficient of Performance* | | 4,70 | 4,71 | 4,90 |
| Rated input power* | kW | 0,75 - 1,41 | 0,92 - 2,10 | 1,10 - 2,68 |
| Max. temperature of heating water | °C | 58 | | |
| Operating range heating | °C | -25 to +45 | | |
| DHW Tank | | | | |
| Type | | / | / | / |
| Volume | l | / | / | / |
| Cooling mode | | | | |
| Cooling capacity** | kW | 6,22 - 7,45 | 6,70 - 9,50 | 7,00 - 9,80 |
| EER max - Energy Efficiency Ratio** | | 4,45 | 4,60 | 3,80 |
| Min. temperature of cooling water | °C | 7 | | |
| Operating range cooling | °C | 0 to +65 | | |
| Power supply - specifications | | | | |
| Voltage (outdoor unit) | V/Hz/ph | 220-240/50/1 | | |
| Fuse for heat pump only (outdoor unit) | A/type | 10A/C | 16A/C | 16A/C |
| Fuse for indoor unit + electrical flow heater | A/type | / | / | / |
| Refrigerant specification | | | | |
| Type / Mass of refrigerant | kg | R32 / 0,90 | R32 / 1,40 | R32 / 1,80 |
| Type of connection between indoor-outdoor unit | | Hydraulic connection | | |
| Dimensions of hydraulic pipes connectors | | G1" | | |

(* Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30 °C/35 °C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 18°C and ambient temperature 35°C

| | Unit | AWC6-R32-M | AWC9-R32-M | AWC12-R32-M |
|---|-------|---|------------------|------------------|
| Controller | | | | |
| Controller Type | | LCD Touch Screen | | |
| LCD Size | | 4,3" | | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | | |
| Internet connection | | Serial Integrated | | |
| Sound power and sound pressure level | | | | |
| Sound power level LwA - Indoor unit | dB(A) | / | / | / |
| Sound power level LwA - Outdoor unit*** | dB(A) | 52 | 53 | 52 |
| Sound pressure level on distance | | | | |
| Outdoor unit - 1 m | dB(A) | 44 | 45 | 44 |
| Outdoor unit - 5 m | dB(A) | 30 | 31 | 30 |
| Outdoor unit - 10 m | dB(A) | 24 | 25 | 24 |
| Outdoor unit - 15 m | dB(A) | 20 | 21 | 20 |
| Net dimensions | | | | |
| Indoor unit (WxHxD) | mm | 450 x 380 x 135 | | |
| Outdoor unit (WxHxD) | mm | 1010 x 735 x 370 | 1165 x 885 x 370 | 1165 x 885 x 370 |
| Net weight | | | | |
| Indoor unit / Outdoor unit | kg | 10 / 67 | 10 / 80 | 10 / 85 |
| Serial integrated components | | | | |
| Electrical flow heater | kW/ph | / | / | / |
| Circulation water pump - A energy class | type | Wilo Para 25-130/9-87/IPWM1 | | |
| Temperature Sensors | | Serial Integrated - All | | |
| 3-way diverting valve for DHW tank | | / | / | / |
| Expansion vessel heating water | l | / | / | / |

(***) Measured according to standard EN 12102.

AWC – R32-M (15 & 19 kW)

| | Unit | AWC15-R32-M | AWC19-R32-M |
|--|---------|----------------------|--------------|
| ErP Energy efficiency class | | A+++ | A+++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,98 | 4,85 |
| Heating mode (A7/W35) | | | |
| Heating capacity* | kW | 6,00 - 15,30 | 9,20 - 18,50 |
| COP max - Coefficient of Performance* | | 5,06 | 5,01 |
| Rated input power* | kW | 1,22 – 3,20 | 1,83 – 4,14 |
| Max. temperature of heating water | °C | 58 | |
| Operating range heating | °C | -25 to +45 | |
| DHW Tank | | | |
| Type | | / | / |
| Volume | l | / | / |
| Cooling mode | | | |
| Cooling capacity** | kW | 7,20 – 18,50 | 8,50 – 22,50 |
| EER max - Energy Efficiency Ratio** | | 5,42 | 5,12 |
| Min. temperature of cooling water | °C | 7 | |
| Operating range cooling | °C | 0 to +65 | |
| Power supply - specifications | | | |
| Voltage (outdoor unit) | V/Hz/ph | 400/50/3 | |
| Fuse for heat pump only (outdoor unit) | A/type | 3p 16A/C | |
| Fuse for indoor unit + electrical flow heater | A/type | / | / |
| Refrigerant specification | | | |
| Type / Mass of refrigerant | kg | R32 / 2,55 | R32 / 2,60 |
| Type of connection between indoor-outdoor unit | | Hydraulic connection | |
| Dimensions of hydraulic pipes connectors | | G1-1/4" | |

(*) Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 18°C and ambient temperature 35°C

| | Unit | AWC15-R32-M | AWC19-R32-M |
|---|-------|---|-------------|
| Controller | | | |
| Controller Type | | LCD Touch Screen | |
| LCD Size | | 4,3" | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | |
| Internet connection | | Serial Integrated | |
| Sound power and sound pressure level | | | |
| Sound power level LwA - Indoor unit | dB(A) | / | / |
| Sound power level LwA - Outdoor unit*** | dB(A) | 58 | 61 |
| Sound pressure level on distance | | | |
| Outdoor unit - 1 m | dB(A) | 50 | 53 |
| Outdoor unit - 5 m | dB(A) | 36 | 39 |
| Outdoor unit - 10 m | dB(A) | 30 | 33 |
| Outdoor unit - 15 m | dB(A) | 27 | 30 |
| Net dimensions | | | |
| Indoor unit (WxHxD) | mm | 450 x 380 x 135 | |
| Outdoor unit (WxHxD) | mm | 1085 x 1450 x 390 | |
| Net weight | | | |
| Indoor unit / Outdoor unit | kg | 10 / 120 | 10 / 140 |
| Serial integrated components | | | |
| Electrical flow heater | kW/ph | / | / |
| Circulation water pump - A energy class | type | Wilo Para 25-130/9-87/IPWM1 | |
| Temperature Sensors | | Serial Integrated - All | |
| 3-way diverting valve for DHW tank | | / | / |
| Expansion vessel heating water | l | / | / |

(***) Measured according to standard EN 12102.

AWT – R32-M (6–12 kW)

| | Unit | AWT6-R32-M | AWT9-R32-M | AWT12-R32-M |
|--|---------|---|-------------|--------------|
| ErP Energy efficiency class | | A+++ | A+++ | A+++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,74 | 4,73 | 4,71 |
| Heating mode (A7/W35) | | | | |
| Heating capacity* | kW | 3,50 - 6,50 | 4,30 - 9,20 | 5,50 - 11,60 |
| COP max - Coefficient of Performance* | | 4,70 | 4,71 | 4,90 |
| Rated input power* | kW | 0,75 – 1,41 | 0,92 – 2,10 | 1,10 – 2,68 |
| Max. temperature of heating water | °C | 58 | | |
| Operating range heating | °C | -25 to +45 | | |
| DHW Tank | | | | |
| Type | | Stainless steel tank – fresh water system | | |
| Volume | l | 250 | | |
| Cooling mode | | | | |
| Cooling capacity** | kW | 6,22 – 7,45 | 6,70 – 9,50 | 7,00 – 9,80 |
| EER max - Energy Efficiency Ratio** | | 4,45 | 4,60 | 3,80 |
| Min. temperature of cooling water | °C | 7 | | |
| Operating range cooling | °C | 0 to +65 | | |
| Power supply - specifications | | | | |
| Voltage (outdoor unit) | V/Hz/ph | 220-240/50/1 | | |
| Fuse for heat pump only (outdoor unit) | A/type | 10A/C | 16A/C | 16A/C |
| Fuse for indoor unit + electrical flow heater | A/type | 3p 16A/C | | |
| Refrigerant specification | | | | |
| Type / Mass of refrigerant | kg | R32 / 0,90 | R32 / 1,40 | R32 / 1,80 |
| Type of connection between indoor-outdoor unit | | Hydraulic connection | | |
| Dimensions of hydraulic pipes connectors | | G1" | | |

(* Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 18°C and ambient temperature 35°C

| | Unit | AWT6-R32-M | AWT9-R32-M | AWT12-R32-M |
|---|-------|---|------------------|------------------|
| Controller | | | | |
| Controller Type | | LCD Touch Screen | | |
| LCD Size | | 4,3" | | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | | |
| Internet connection | | Serial Integrated | | |
| Sound power and sound pressure level | | | | |
| Sound power level LwA - Indoor unit | dB(A) | / | / | / |
| Sound power level LwA - Outdoor unit*** | dB(A) | 52 | 53 | 52 |
| Sound pressure level on distance | | | | |
| Outdoor unit - 1 m | dB(A) | 44 | 45 | 44 |
| Outdoor unit - 5 m | dB(A) | 30 | 31 | 30 |
| Outdoor unit - 10 m | dB(A) | 24 | 25 | 24 |
| Outdoor unit - 15 m | dB(A) | 20 | 21 | 20 |
| Net dimensions | | | | |
| Indoor unit (WxHxD) | mm | 600 x 1780 x 680 | | |
| Outdoor unit (WxHxD) | mm | 1010 x 735 x 370 | 1165 x 885 x 370 | 1165 x 885 x 370 |
| Net weight | | | | |
| Indoor unit / Outdoor unit | kg | 125 / 67 | 125 / 80 | 125 / 85 |
| Serial integrated components | | | | |
| Electrical flow heater | kW | 6 (9) kW - 2x 3kW (+ 3 kW) | | |
| Circulation water pump - A energy class | type | Wilo Para 25-130/9-87/IPWM1 | | |
| Temperature Sensors | | Serial Integrated - All | | |
| 3-way diverting valve for DHW tank | | Serial Integrated | | |
| Expansion vessel heating water | l | 11 | | |

(***) Measured according to standard EN 12102.

NPH – V7-S (6–13 kW)

| | Unit | NPH6 V7-S | NPH9 V7-S | NPH11 V7-S | NPH13 V7-S |
|--|---------|------------------------|--------------|--------------|--------------|
| ErP Energy efficiency class | | A+++ | A++ | A++ | A++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,47 | 3,99 | 3,92 | 4,08 |
| Heating mode (A7/W35) | | | | | |
| Heating capacity* | kW | 2,19 - 6,21 | 4,33 - 10,10 | 4,67 - 11,50 | 4,20 - 12,60 |
| COP max - Coefficient of Performance* | | 4,05 - 5,87 | 4,02 - 4,65 | 3,83 - 5,05 | 3,89 - 4,77 |
| Rated input power* | kW | 0,54 - 1,53 | 0,97 - 2,15 | 0,92 - 3,03 | 0,92 - 3,07 |
| Max. temperature of heating water | °C | 55 | | | |
| Operating range heating | °C | -25 to +45 | | | |
| DHW Tank | | | | | |
| Type | | / | / | / | / |
| Volume | l | / | / | / | / |
| Cooling mode | | | | | |
| Cooling capacity** | kW | 1,59 - 4,50 | 2,34 - 5,05 | 2,17 - 6,74 | 2,34 - 7,91 |
| EER max - Energy Efficiency Ratio** | | 2,52 - 4,32 | 1,58 - 2,40 | 2,15 - 3,00 | 2,33 - 3,12 |
| Min. temperature of cooling water | °C | 7 | | | |
| Operating range cooling | °C | 0 to +65 | | | |
| Power supply - specifications | | | | | |
| Voltage | V/Hz/ph | 220-240/50/1 | | | |
| Fuse for heat pump only | A/type | 10A/C | 16A/C | 16A/C | 16A/C |
| Fuse for heat pump + electrical flow heater | A/type | / | / | / | / |
| Refrigerant specification | | | | | |
| Type / Mass of refrigerant | kg | R410A / 1,30 | R410A / 2,50 | R410A / 2,55 | R410A / 3,00 |
| Type of connection between indoor-outdoor unit | | Refrigerant connection | | | |
| Dimensions of refrigerant pipes connectors | | 1/4" - 1/2" | 3/8" - 1/2" | 3/8" - 1/2" | 3/8" - 5/8" |

(*) Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 12°C/7°C and ambient temperature 35°C

| | Unit | NPH6 V7-S | NPH9 V7-S | NPH11 V7-S | NPH13 V7-S |
|---|-------|---|-----------------|------------------|-------------------|
| Controller | | | | | |
| Controller Type | | LCD Touch Screen | | | |
| LCD Size | | 4,3" | | | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | | | |
| Internet connection | | Serial Integrated | | | |
| Sound power and sound pressure level | | | | | |
| Sound power level LwA - Indoor unit | dB(A) | 47 | 43 | 45 | 46 |
| Sound power level LwA - Outdoor unit*** | dB(A) | 57 | 58 | 58 | 59 |
| Sound pressure level on distance | | | | | |
| Outdoor unit - 1 m | dB(A) | 49 | 50 | 50 | 51 |
| Outdoor unit - 5 m | dB(A) | 35 | 36 | 36 | 37 |
| Outdoor unit - 10 m | dB(A) | 29 | 30 | 30 | 31 |
| Outdoor unit - 15 m | dB(A) | 26 | 26 | 26 | 27 |
| Net dimensions | | | | | |
| Indoor unit (WxHxD) | mm | 410 x 750 x 270 | | | |
| Outdoor unit (WxHxD) | mm | 920 x 730 x 353 | 947 x 755 x 355 | 1056 x 765 x 414 | 1154 x 1195 x 460 |
| Net weight | | | | | |
| Indoor unit / Outdoor unit | kg | 29 / 52 | 31 / 67 | 31 / 70 | 31 / 118 |
| Serial integrated components | | | | | |
| Electrical flow heater | kW/ph | / | / | / | / |
| Circulation water pump - A energy class | type | Grundfos UPM 25-75 180 | | | |
| Temperature Sensors | | Serial Integrated - All | | | |
| 3-way diverting valve for DHW tank | | / | / | / | / |
| Expansion vessel heating water | l | / | / | / | / |

(***) Measured according to standard EN 12102.

NPT – V7-S (6–13 kW)

| | Unit | NPT6-V7-S | NPT9-V7-S | NPT11-V7-S | NPT13-V7-S |
|--|---------|---|--------------|--------------|--------------|
| ErP Energy efficiency class | | A+++ | A++ | A++ | A++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,47 | 3,99 | 3,92 | 4,08 |
| Heating mode (A7/W35) | | | | | |
| Heating capacity* | kW | 2,19 - 6,21 | 4,33 - 10,10 | 4,67 - 11,50 | 4,20 - 12,60 |
| COP max - Coefficient of Performance* | | 4,05 - 5,87 | 4,02 - 4,65 | 3,83 - 5,05 | 3,89 - 4,77 |
| Rated input power* | kW | 0,54 - 1,53 | 0,97 - 2,15 | 0,92 - 3,03 | 0,92 - 3,07 |
| Max. temperature of heating water | °C | 55 | | | |
| Operating range heating | °C | -25 to +45 | | | |
| DHW Tank | | | | | |
| Type | | Stainless steel tank - fresh water system | | | |
| Volume | l | 250 | | | |
| Cooling mode | | | | | |
| Cooling capacity** | kW | 1,59 - 4,50 | 2,34 - 5,05 | 2,17 - 6,74 | 2,34 - 7,91 |
| EER max - Energy Efficiency Ratio** | | 2,52 - 4,32 | 1,58 - 2,40 | 2,15 - 3,00 | 2,33 - 3,12 |
| Min. temperature of cooling water | °C | 7 | | | |
| Operating range cooling | °C | 0 to +65 | | | |
| Power supply - specifications | | | | | |
| Voltage | V/Hz/ph | 220-240/50/1 | | | |
| Fuse for heat pump only | A/type | 10A/C | 16A/C | 16A/C | 16A/C |
| Fuse for heat pump + electrical flow heater | A/type | 16A/C (400V) 25A/C (230V) | | | |
| Refrigerant specification | | | | | |
| Type / Mass of refrigerant | kg | R410A / 1,30 | R410A / 2,50 | R410A / 2,55 | R410A / 3,00 |
| Type of connection between indoor-outdoor unit | | Refrigerant connection | | | |
| Dimensions of refrigerant pipes connectors | | 1/4" - 1/2" | 3/8" - 1/2" | 3/8" - 1/2" | 3/8" - 5/8" |

(* Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 12°C/7°C and ambient temperature 35°C.

| | Unit | NPT6-V7-S | NPT9-V7-S | NPT11-V7-S | NPT13-V7-S |
|---|-------|---|-----------------|-----------------|-------------------|
| Controller | | | | | |
| Controller Type | | LCD Touch Screen | | | |
| LCD Size | | 4,3" | | | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | | | |
| Internet connection | | Serial Integrated | | | |
| Sound power and sound pressure level | | | | | |
| Sound power level LwA - Indoor unit | dB(A) | 47 | 43 | 45 | 46 |
| Sound power level LwA - Outdoor unit*** | dB(A) | 57 | 58 | 58 | 59 |
| Sound pressure level on distance | | | | | |
| Indoor unit - 1 m | dB(A) | 42 | 32 | 37 | 38 |
| Outdoor unit - 1 m | dB(A) | 49 | 50 | 50 | 51 |
| Outdoor unit - 5 m | dB(A) | 35 | 36 | 36 | 37 |
| Outdoor unit - 10 m | dB(A) | 29 | 30 | 30 | 31 |
| Outdoor unit - 15 m | dB(A) | 26 | 26 | 26 | 27 |
| Net dimensions | | | | | |
| Indoor unit (WxHxD) | mm | 600 x 1780 x 680 | | | |
| Outdoor unit (WxHxD) | mm | 920 x 730 x 353 | 947 x 755 x 355 | 056 x 765 x 414 | 1154 x 1195 x 460 |
| Net weight | | | | | |
| Indoor unit / Outdoor unit | kg | 125 / 52 | 130 / 67 | 130 / 70 | 125 / 118 |
| Serial integrated components | | | | | |
| Electrical flow heater | kW | 6 (9) kW - 2x 3kW (+ 3 kW) | | | |
| Electrical heater in tank | kW | 0,5 | | | |
| Circulation water pump - A energy class | type | Grundfos UPM 25-75 180 | | | |
| Temperature Sensors | | Serial Integrated - All | | | |
| 3-way diverting valve for DHW tank | | Serial Integrated | | | |
| Expansion vessel heating water | l | 11 | | | |

(***) Measured according to standard EN 12102.

NPET – V7-S (6–13 kW)

| | Unit | NPET6-V7-S | NPET9-V7-S | NPET11-V7-S | NPET13-V7-S |
|--|---------|---------------------------|--------------|--------------|--------------|
| ErP Energy efficiency class | | A+++ | A++ | A++ | A++ |
| SCOP 35°C (floor heating) EN 14825 | | 4,47 | 3,99 | 3,92 | 4,08 |
| Heating mode (A7/W35) | | | | | |
| Heating capacity* | kW | 2,19 - 6,21 | 4,33 - 10,10 | 4,67 - 11,50 | 4,20 - 12,60 |
| COP max - Coefficient of Performance* | | 4,05 - 5,87 | 4,02 - 4,65 | 3,83 - 5,05 | 3,89 - 4,77 |
| Rated input power* | kW | 0,54 - 1,53 | 0,97 - 2,15 | 0,92 - 3,03 | 0,92 - 3,07 |
| Max. temperature of heating water | °C | 55 | | | |
| Operating range heating | °C | -25 to +45 | | | |
| DHW Tank | | | | | |
| Type | | Enamelled DHW tank | | | |
| Volume | l | 250 | | | |
| Cooling mode | | | | | |
| Cooling capacity** | kW | 1,59 - 4,50 | 2,34 - 5,05 | 2,17 - 6,74 | 2,34 - 7,91 |
| EER max - Energy Efficiency Ratio** | | 2,52 - 4,32 | 1,58 - 2,40 | 2,15 - 3,00 | 2,33 - 3,12 |
| Min. temperature of cooling water | °C | 7 | | | |
| Operating range cooling | °C | 0 to +65 | | | |
| Power supply - specifications | | | | | |
| Voltage | V/Hz/ph | 220-240/50/1 | | | |
| Fuse for heat pump only | A/type | 10A/C | 16A/C | 16A/C | 16A/C |
| Fuse for heat pump + electrical flow heater | A/type | 16A/C (400V) 25A/C (230V) | | | |
| Refrigerant specification | | | | | |
| Type / Mass of refrigerant | kg | R410A / 1,30 | R410A / 2,50 | R410A / 2,55 | R410A / 3,00 |
| Type of connection between indoor-outdoor unit | | Refrigerant connection | | | |
| Dimensions of refrigerant pipes connectors | | 1/4" - 1/2" | 3/8" - 1/2" | 3/8" - 1/2" | 3/8" - 5/8" |

(*) Measured according to standard EN 14511. Heating condition: water inlet/outlet temperature 30°C/35°C, ambient temperature DB/WB 7°C/6°C.

(**) Measured according to standard EN 14511. Cooling condition: water inlet/outlet temperature 12°C/7°C and ambient temperature 35°C

| | Unit | NPET6-V7-S | NPET9-V7-S | NPET11-V7-S | NPET13-V7-S |
|---|-------|---|-------------------|-------------------|-------------------|
| Controller | | | | | |
| Controller Type | | LCD Touch Screen | | | |
| LCD Size | | 4,3" | | | |
| Controller features | | 2x Mixing Heating Circuit + 2x Mixing Cooling Circuit + DHW Heating | | | |
| Internet connection | | Serial Integrated | | | |
| Sound power and sound pressure level | | | | | |
| Sound power level LwA - Indoor unit | dB(A) | 47 | 43 | 45 | 46 |
| Sound power level LwA - Outdoor unit*** | dB(A) | 57 | 58 | 58 | 59 |
| Sound pressure level on distance | | | | | |
| Indoor unit - 1 m | dB(A) | 42 | 32 | 37 | 38 |
| Outdoor unit - 1 m | dB(A) | 49 | 50 | 50 | 51 |
| Outdoor unit - 5 m | dB(A) | 35 | 36 | 36 | 37 |
| Outdoor unit - 10 m | dB(A) | 29 | 30 | 30 | 31 |
| Outdoor unit - 15 m | dB(A) | 26 | 26 | 26 | 27 |
| Net dimensions | | | | | |
| Indoor unit (WxHxD) | mm | 600 x 1860 x 730 | | | |
| Outdoor unit (WxHxD) | mm | 920 x 730 x 353 | 947 x 755 x 355 | 1056 x 765 x 414 | 1156 x 1195 x 460 |
| Net weight | | | | | |
| Indoor unit / Outdoor unit | kg | 186 / 52 | 190 / 67 | 190 / 70 | 190 / 118 |
| Serial integrated components | | | | | |
| Electrical flow heater | kW | 3 kW - 1x 3 kW | 6 kW - 2x 3 kW | 6 kW - 2x 3 kW | 6 kW - 2x 3 kW |
| Electrical heater in tank | kW | 1,5 | | | |
| Circulation water pump - A energy class | type | Grundfos UPM 25-75 180 | | | |
| Temperature Sensors | | Serial Integrated - All | | | |
| 3-way diverting valve for DHW tank | | Serial Integrated | | | |
| Expansion vessel heating water | l | / | / | / | / |

(***) Measured according to standard EN 12102.

ES Fan Coils

ES fan coils used for heating purposes, is basically a radiator with a fan that circulates the air around the heat exchanger.

The fan coil uses water as medium and can be used both for heating and cooling. By circulating the air around the heat exchanger, the heat transfer to the air increases dramatically. For heating purposes this means that the water temperature in the heating system can be lowered quite much and keep the desired room temperature. Lower water temperature also increases the efficiency of the heating system.

The following functions are available and can be adjusted:

- Heating, cooling, dehumidifying and air circulation mode
- Timer operation
- Night mode / silent working
- Fan speed
- Room temperature setting

Automatic keylock activates after 10 seconds without operation.

| MODEL | Unit | FCF1550-V3 | FCF3100-V3 | FCF4600-V3 | FCF6300-V3 |
|------------------------------|---------|-----------------|-----------------|------------------|------------------|
| (a) Cooling capacity at 12°C | kW | 0,75 | 1,50 | 2,20 | 3,10 |
| (b) Heating capacity at 50°C | kW | 0,99 | 2,00 | 2,80 | 4,20 |
| (c) Heating capacity at 70°C | kW | 1,55 | 3,10 | 4,60 | 6,30 |
| Water flow | l/hour | 162 | 343 | 471 | 600 |
| Pressure drop | kPa | 7,00 | 7,50 | 19,00 | 25,00 |
| Volume heat exchanger | l | 0,48 | 0,85 | 1,15 | 1,48 |
| Max. water pressure | Bar | 10 | | | |
| Water connection | inch | G1/2 | | | |
| Air flow min/max | m³/hour | 50/160 | 150/320 | 200/460 | 300/580 |
| Power supply | V/Ph/Hz | 230/1/50 | | | |
| Power consumption | W | 14 | 23 | 27 | 33 |
| (d) Sound level min/max | dB(A) | 20/39 | 18/40 | 19/42 | 21/42 |
| Net dimensions, W x H x D | mm | 694 x 580 x 129 | 894 x 580 x 129 | 1094 x 580 x 129 | 1294 x 580 x 129 |
| Weight | kg | 16 | 22 | 28 | 34 |

(a) Cooling. Water in/out 7/12°C; room temperature DB/WB 27/19°C. (b) Heating. Water inlet 50°C; room temperature 20°C
 (c) Heating. Water inlet 70°C; room temperature 20°C. (d) Sound pressure is tested in accordance to EN12102-2008 and ISO3745:201



Easy to use control display.

ES Buffer Tanks

ES buffer tanks are manufacture from high performance stainless steel for longer lifespan and for high performance. Due to the chosen construction material the system connected to it is not being polluted with particles that could affect other components in the system, as it may happen with traditional black steel buffer tanks.

The slim design of the ES buffer tanks makes sure that the space usage is as less as possible. Both the 100 liter and the 200 liter version need less then 0,2 m² of space when installed. The 100 liter versions includes a wall bracket, so that it can also be mounted on the wall for even less space usage.

Both the 100 and 200 liter models have an additional coil inside to have the possibility for connecting additional heating sources or for preheating the sanitary water.

| MODEL | Unit | BT100TC-1 | BT100TC-2 | BT100SC-1 | BT200TC-1 |
|-------------------------------|------|---------------------|--------------------|--------------------|--------------------|
| Max water pressure | bar | 10 | | | |
| Water temperature Max. | °C | 95 | | | |
| Volume | l | 100 | 100 | 100 | 200 |
| Hight | mm | 1500 | | | |
| Diameter | mm | 375 | 375 | 375 | 520 |
| Material of inner tank | / | Stainless steel 304 | | | |
| Material of coil | / | Stainless steel 316 | | | |
| Insolation - Type / Thickness | mm | Polyurethan / 37,5 | Polyurethan / 37,5 | Polyurethan / 37,5 | Polyurethan / 50,0 |
| Colour | / | White | | | |
| Thermometer | / | Yes | | | |
| Weight | kg | 26,20 | 29,30 | 24,60 | 46,30 |
| Coil | m | / | 15 | / | 20 |
| Coil diameter | mm | | 22 | | 22 |
| 2 inch/ R50 connector | pcs | / | 1 | 1 | 1 |
| Wall bracket | / | Yes | Yes | Yes | / |
| Connections | / | On top | On top | On the side | On top |
| Thermowell | pcs | 2 | | | |

Great solution for all instantiations



ES Multifunctional Tanks

ES Multifunction Tank – designed to efficiently combine several different heat sources and is very well insulated for minimal heat losses and maximum efficiency.

ES multifunction tank is a complete heating system for residential and hot water heating. The tank has connections for several sources of energy and becomes the "hub" in the house's heating system. It can be used as a clean electric boiler, or connected to solar collector, pellets, heat pump, water-powered wood stove, etc. in combination.

| MODEL | Unit | MWT 75.4 | MWT 300.4-3H | MWT 500.4-3H |
|--|------|------------------------------|----------------------|---------------------|
| Water pressure Max. | bar | 10 | | |
| Water temperature Max. | °C | 95 | | |
| Volume | l | 75 | 300 | 500 |
| Height | mm | 875 | 1560 | 1850 |
| Diameter | mm | 476 | 630 | 708 |
| Inner tank and coils | | Stainless 304 and 316 | | |
| Outer tank | | Stainless 304, powder-coated | | |
| Insulation | | Polyurethane, 50 mm | Polyurethane, 100 mm | Polyurethane, 70 mm |
| Weight (blank) | kg | 30 | 95 | 120 |
| Spiral (s) for solar collector/hot water | m | 15 | 10+20+20 | 15+20+20 |
| Capacity coils, kW total | kW | 4,90 | 16,30 | 17,90 |
| R50 connector | pcs | 1 | 1 | 2 |
| Electric heater | kW | - | 3 | 3 |
| Connections Tank/spirals | | 1 " Inv. ghost | | |

ES Multifunction tanks are constructed in stainless steel. This keeps the system clean, increases efficiency and has a longer lifespan. The tank is therefore approved also as a pure water heater. Corrugated stainless spirals provide maximum heat transfer between the accumulator volume and hot water or solar collector.

The 300 and 500 liter tanks have a 3 kW electric heater built in to increase the capacity of larger hot water needs. This is thermostat regulated from 30-75 °C and it is intended only as a backup for heating hot water.



Diverting Valve

LK 525 MultiZone 3W is a motorized 3-way zone valve for On/Off control. The zone valve is designed with a turning slide which allows it to withstand a larger pressure difference and reduces the risk of it stalling after a long intermission. This makes it especially suited for heat pump applications where there can be long intermissions between the changes to the direction of the flow during the warm season.



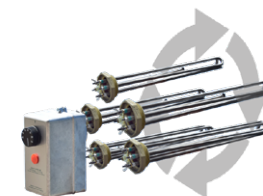
LK 525 MultiZone 3W Diverting valve

| | |
|----------------------------|--|
| Working temperature | Min. 5 °C/Max. 80 °C (90 °C briefly) |
| Ambient temperature | Min. 1 °C/Max. 60 °C |
| Max. working pressure | 1.0 MPa (10 bar) |
| Max. differential pressure | 100 kPa (1 bar) |
| Leakage | < 0.1% of KVS at 100 kPa |
| Angle of rotation | 60°/360° |
| Media 1 | Water - Glycol/Ethanol mixture max. 50% |
| Hydraulic connection | G1" or G1 1/4" |
| Thread standard | G -- male thread |
| Actuator | 7 VA, 230 VAC, 50 Hz or 7 VA, 24 VAC, 50 Hz |
| Operation time | 8 seconds (60°) |
| Electrical connection | Fixed wire alternatively Molex®-compatible connector |
| Signal connector | Single pole SPST |
| Protection class | IP 40 (Molex®) / IP 44 (Cable) |
| Material, external cover | Brass EN 12164 CW614N |
| Material, slide/spindle | PPS Composite |
| Cable specification | Dimension 3 x 0.75 mm ² |
| Wire colours | Blue, brown, black |
| External insulation | PVC |
| Connection | Molex® or Molex®-compatible connector, 6-circuit |

Electrical Heaters

Customizable heating elements

The heating elements are designed to fit one common controller that contains a thermostat for manual control, overheat protection and a contactor which enables a fully automatic control via ES heat pumps. Heating capacities of the heating elements range from 1,5 kW and up to 9 kW to provide an optimal solution for each house. Suitable for 230 V and 400 V connection.



Control box G2"

| FEATURES | SUITABLE FOR |
|---|---|
| <ul style="list-style-type: none"> • Automatic control via heat pump • Manual control via thermostat • Overheat protection | Heating elements with G2" connection (whole range). |



Heating Elements G2"

| LENGTH | OUTPUT POWER | CONNECTION |
|---------|--------------|------------|
| 280 mm | 6,0 kW | G2" |
| 390 mm | 4,5 kW | G2" |
| 390 mm | 6,0 kW | G2" |
| 390 mm | 9,0 kW | G2" |
| 485 mm* | 4,5 kW | G2" |
| 485 mm* | 6,0 kW | G2" |
| 485 mm* | 9,0 kW | G2" |

* Inactive 150 mm



Heating elements for AWT and NPT units

ES indoor units AWT and NPT have a standard built-in 9 kW Inline back up electrical heater. Those can be modified to a lower power with the 270 mm heating elements to 6 kW or even 3 kW according to local regulations.

Heating Elements DN40

| LENGTH | OUTPUT POWER | CONNECTION |
|--------|-------------------|------------|
| 270 mm | 3 kW (3 x 1,0 kW) | DN40 |
| 270 mm | 6 kW (3 x 2,0 kW) | DN40 |



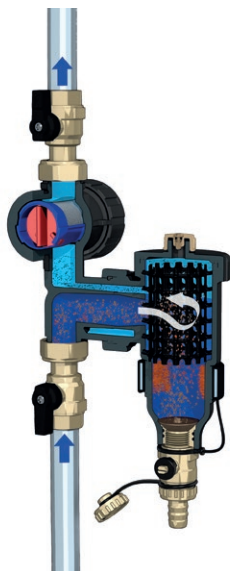
Dirtmagplus Filter

Multifunction device in composite with dirt separator, magnets and strainer.

The DIRTMAGPLUS® multifunction device is composed of two separate components arranged in series: a dirt separator and an interchangeable strainer.

The presence of these two components allows for continuous protection of the generator and devices from any impurities that form in the hydraulic circuit both at the time of system start-up and in normal operating conditions.

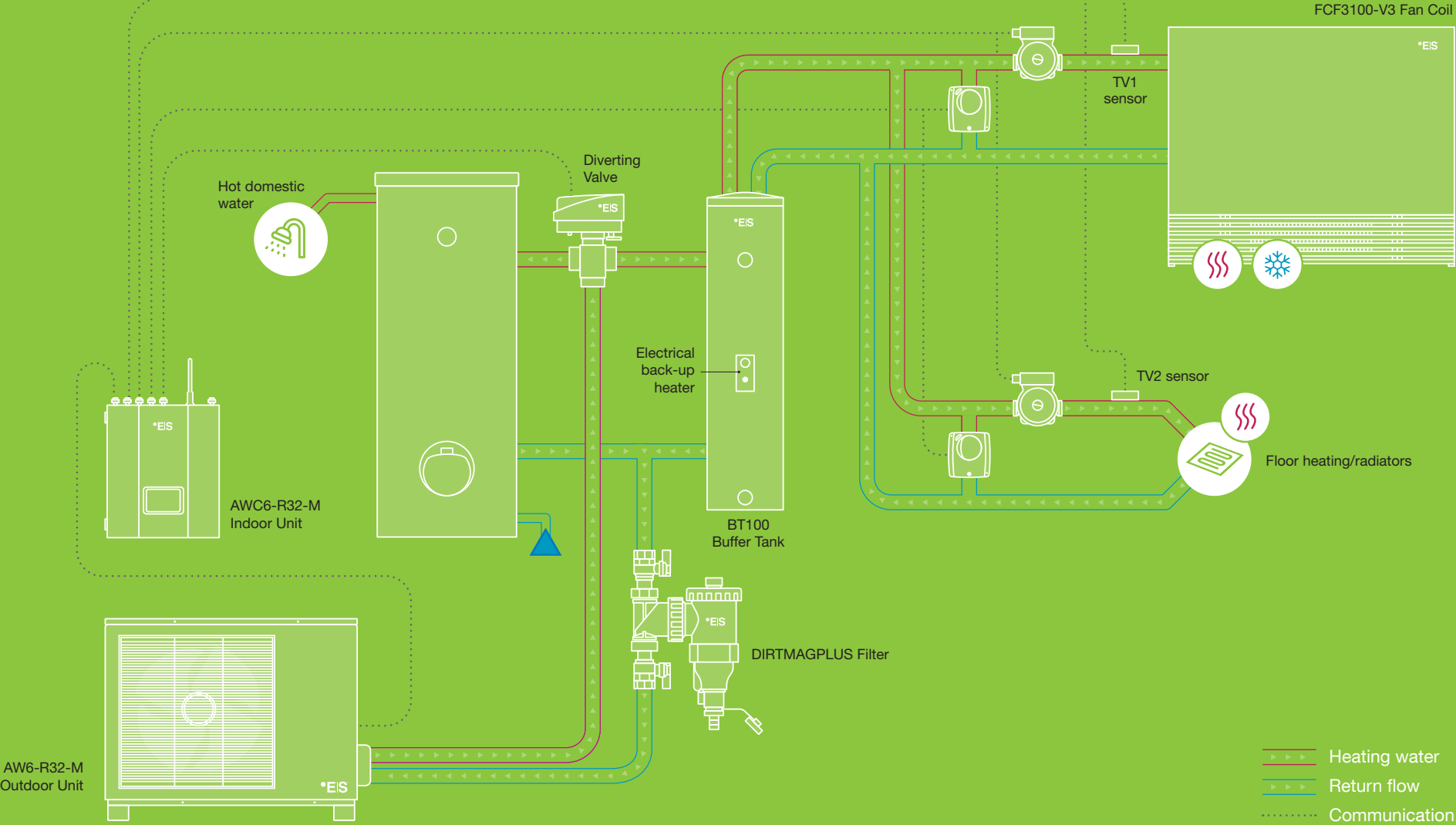
Ferrous impurities are also trapped inside the body of the device thanks to the action of the two magnets inserted in a special removable outer ring.



Dirtmagplus Filter

| | |
|---|-------------------------|
| Medium | Water, glycol solutions |
| Max. percentage of glycol | 30% |
| Maximum working pressure | 3 bar |
| Working temperature range | 0–90°C |
| Ring system magnetic induction | 2 x 0,30 T |
| Initial cleaning strainer mesh size (blue supplied) Ø | 0,30 mm |
| Maintenance strainer mesh size (grey-spare part code F49474/GR) Ø | 0,80 mm |
| Device internal volume | 0,40 l |

ES Products in a System



- ▶▶▶ Heating water
- ▶▶▶ Return flow
- ⋯⋯⋯ Communication

What we do

SWEDISH INGENUITY



ES products are design to modernize your existing heating system cost efficiently step by step and therefore provide minimal time to return your investment.

In addition, our products are easy to install and to combine with other ES products as well as the existing heating products of other brands.

*Save on your heating costs by adding the heat pump to your existing heating system.
Use ES air-to-water heat pumps.*

Cost-effective, convenient and environmentally friendly.

About Energy Save

Swedish ES Energy Save AB develops and offers cost-effective, smart and flexible products for maximum energy efficiency. We have many years of experience in developing heat pumps for the Nordic market with more than 10,000 units installed. We work with the industries best partners for your building. We package Scandinavian cutting-edge expertise and innovative energy technology through prefabricated energy modules.

Our main target is to always be the market leader offering the best comparison of price to performance ratio to our customers.

Slovenia: Energy Save Nordic D.O.O. · Tržaška cesta 85, 2000 Maribor, Slovenia

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