



## Technical data / Scope of supply

| Performance data: Heating output / COP                                                           |                                      | WZS 42(H)(K)3M                        | WZS 82(H)(K)3M            |
|--------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------|---------------------------|
| Heating capacity   COP                                                                           | at B0/W35 operating point to EN14511 | kW   COP 4,70   4,70                  | 7,70   4,90               |
|                                                                                                  | at B0/W45 operating point to EN14511 | kW   COP 4,42   3,42                  | 6,84   3,61               |
|                                                                                                  | at B0/W55 operating point to EN14511 | kW   COP 4,16   2,58                  | 6,49   2,91               |
|                                                                                                  | at B7/W35 flows analogous to B0/W35  | kW   COP 5,83   5,70                  | 9,20   5,96               |
| Cooling capacity at max. flow rate (B15/W25), units with passive cooling: Identifier K           |                                      | kW 4,3                                | 7                         |
| Limits of use                                                                                    |                                      |                                       |                           |
| Heating circuit return min.   Heating circuit flow max.                                          |                                      | °C 20   60                            | 20   60                   |
| Heat source return min.   max.                                                                   |                                      | °C -5 – 25                            | -5 – 25                   |
| additional operating points                                                                      |                                      | ... B0W65                             | B0W65                     |
| Sound                                                                                            |                                      |                                       |                           |
| Sound pressure level at 1m distance from edge of unit                                            |                                      | dB(A) 31                              | 31                        |
| Sound power level to EN12102                                                                     |                                      | dB(A) 43                              | 43                        |
| Heat source                                                                                      |                                      |                                       |                           |
| Flow rate: minimum   <b>nominal analogous to B0/W35</b>   maximum                                |                                      | l/h 700   <b>1050</b>   1575          | 1200   <b>1750</b>   2600 |
| Max. free heat pump pressure $\Delta p$ (with cooling $\Delta p_K$ ***)   Flow rate              |                                      | bar (bar)   l/h 0,74 (0,72)   1050    | 0,76 (0,7)   1750         |
| Approved anti-freeze Monoethylene glycol   Propylene glycol   Methanol   Ethanol                 |                                      | •   •   •   •                         | •   •   •   •             |
| Anti-freeze concentration: Minimum frost protection down to                                      |                                      | °C -13                                | -13                       |
| max. allowable operating pressure                                                                |                                      | bar 3                                 | 3                         |
| Heating circuit                                                                                  |                                      |                                       |                           |
| Flow rate: minimum   <b>nominal analogous to B0/W35</b>   maximum                                |                                      | l/h 450   <b>850</b>   1300           | 650   <b>1300</b>   1600  |
| Max. free heat pump pressure $\Delta p$ (with cooling $\Delta p_K$ )   Volume flow               |                                      | bar (bar)   l/h 0,72 (0,70)   850     | 0,55 (0,52)   1300        |
| Pressure losses, heat pump $\Delta p$   Volume flow                                              |                                      | bar   l/h — (—)   —                   | — (—)   —                 |
| max. allowable operating pressure                                                                |                                      | bar 3                                 | 3                         |
| General unit data                                                                                |                                      |                                       |                           |
| Total weight (with cooling)                                                                      |                                      | kg (kg) 250 (258)                     | 270 (278)                 |
| Box weight (with cooling)   Tower weight (with cooling)                                          |                                      | kg (kg)   kg (kg) 90 (98)   160 (160) | 110 (118)   160 (160)     |
| Refrigerant type   Refrigerant capacity                                                          |                                      | ...   kg R410A   1,05                 | R410A   1,72              |
| Domestic hot water tank                                                                          |                                      |                                       |                           |
| Net volume                                                                                       |                                      | l 178                                 | 178                       |
| Impressed current anode integrated: • yes — no                                                   |                                      | •                                     | •                         |
| Domestic hot water temperature, heating pump mode   Electric heating element up to °C   up to °C |                                      | 58   65                               | 56   65                   |
| Mixed water quantity according to ErP: 2009/125/EC (at 40°C, draw-off of 10 l/min)               |                                      | l 280                                 | 280                       |
| Standing loss according to ErP: 2009/125/EC (at 65°C)                                            |                                      | W 54                                  | 54                        |
| Maximum pressure                                                                                 |                                      | bar 10                                | 10                        |
| Electrics                                                                                        |                                      |                                       |                           |
| Voltage code   all-pole heat pump fusing *)**)                                                   |                                      | ...   A 3~PE/400V/50Hz   C10          | 3~PE/400V/50Hz   C10      |
| Voltage code   Control voltage fusing **)                                                        |                                      | ...   A 1~N/PE/230V/50Hz   B10        | 1~N/PE/230V/50Hz   B10    |
| Voltage code   Electric heating element fusing **)                                               |                                      | ...   A 3~N/PE/400V/50Hz   B16        | 3~N/PE/400V/50Hz   B16    |
| Voltage code   all-pole fusing for connection via a joint supply cable*)**)                      |                                      | ...   A —   —                         | —   —                     |
| WP*): effect. Power input at B0/W35 to EN14511   Current input   cos $\phi$                      |                                      | kW   A   ... 1,00   2,44   0,59       | 1,57   3,02   0,75        |
| WP*): Max. machine current   Max. power input within the limits of use                           |                                      | A   kW 4,8   2,3                      | 6,01   3,10               |
| Starting current: direct   with soft starter                                                     |                                      | A   A 22,0   —                        | 30,0   —                  |
| Degree of protection                                                                             |                                      | IP 20                                 | 20                        |
| Electric heating element output                                                                  |                                      | kW 9   6   3                          | 9   6   3                 |
| Circulation pump power consumption, heating circuit   heat source min. — max.                    |                                      | W   W 2 – 60   5 – 87                 | 2 – 60   3 – 140          |
| Other unit information                                                                           |                                      |                                       |                           |
| Safety valve, heating circuit   Heat source included in scope of supply: • yes — no              |                                      | —   —                                 | —   —                     |
| Expansion valve, heating circuit   Heat source included in scope of supply: • yes — no           |                                      | —   —                                 | —   —                     |
| Overflow valve   Changeover valve, heating -Domestic hot water integrated: • yes — no            |                                      | •   •                                 | •   •                     |
| Vibration isolators, heating circuit   Heat source integrated: • yes — no                        |                                      | •   •                                 | •   •                     |
| *) Only compressor, **) Follow local regulations, ***) Figures for 25% mono-ethylene glycol      |                                      | 813460a                               | 813462a                   |



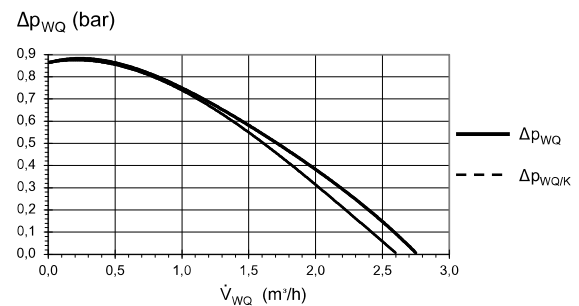
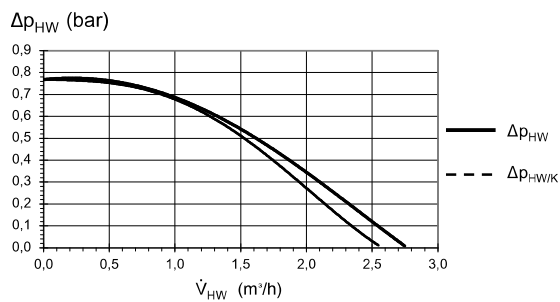
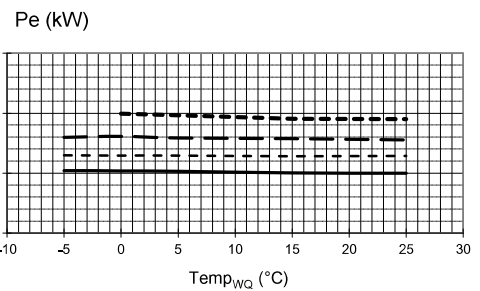
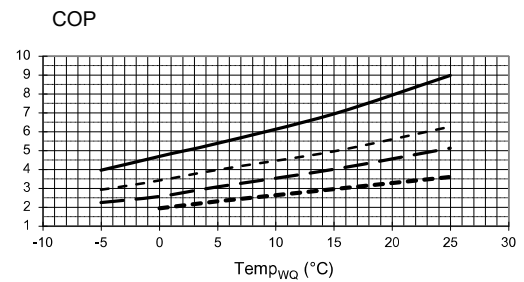
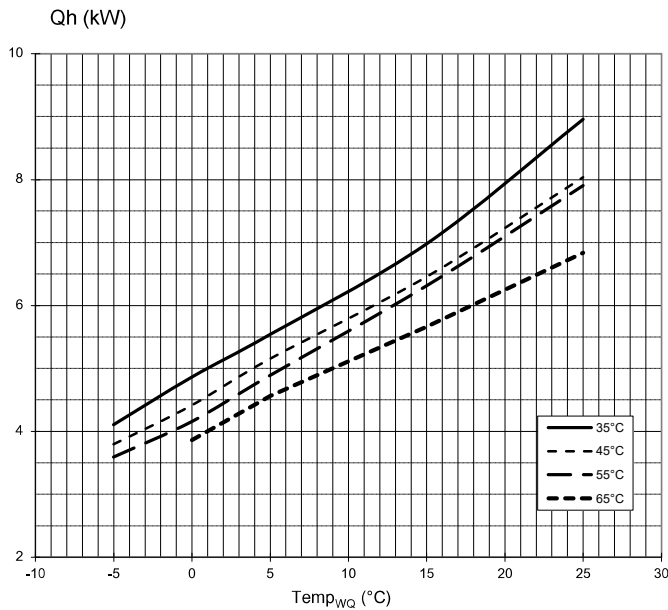
## Technical data / Scope of supply

| Performance data: Heating output / COP                                                      |                                      |                                                             | WZS 102(H)(K)3M           | WZS 122(H)(K)3M           |
|---------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------|---------------------------|---------------------------|
| Heating capacity   COP                                                                      | at B0/W35 operating point to EN14511 | kW   COP                                                    | 9,34   5,05               | 12,18   5,00              |
|                                                                                             | at B0/W45 operating point to EN14511 | kW   COP                                                    | 8,84   3,80               | 11,24   3,76              |
|                                                                                             | at B0/W55 operating point to EN14511 | kW   COP                                                    | 8,30   2,82               | 10,63   2,97              |
|                                                                                             | at B7/W35 flows analogous to B0/W35  | kW   COP                                                    | 11,19   6,30              | 14,55   6,06              |
| Cooling capacity at max. flow rate (B15/W25), units with passive cooling: Identifier K      |                                      | kW                                                          | 8,6                       | 10,8                      |
| Limits of use                                                                               |                                      |                                                             |                           |                           |
| Heating circuit return min.   Heating circuit flow max.                                     |                                      | °C                                                          | 20   60                   | 20   60                   |
| Heat source return                                                                          |                                      | min.   max.                                                 | °C                        | -5 – 25                   |
| additional operating points                                                                 |                                      | ...                                                         | B0W65                     | B0W65                     |
| Sound                                                                                       |                                      |                                                             |                           |                           |
| Sound pressure level at 1m distance from edge of unit                                       |                                      | dB(A)                                                       | 32                        | 31                        |
| Sound power level to EN12102                                                                |                                      | dB(A)                                                       | 44                        | 43                        |
| Heat source                                                                                 |                                      |                                                             |                           |                           |
| Flow rate: minimum   <b>nominal analogous to B0/W35</b>   maximum                           |                                      | l/h                                                         | 1500   <b>2200</b>   3300 | 1900   <b>2800</b>   4200 |
| Max. free heat pump pressure Δp (with cooling ΔpK) ***)   Flow rate                         |                                      | bar (bar)   l/h                                             | 0,93 (0,87)   2200        | 0,75 (0,63)   2800        |
| Approved anti-freeze                                                                        |                                      | Monoethylene glycol   Propylene glycol   Methanol   Ethanol | •   •   •   •             | •   •   •   •             |
| Anti-freeze concentration: Minimum frost protection down to                                 |                                      | °C                                                          | -13                       | -13                       |
| max. allowable operating pressure                                                           |                                      | bar                                                         | 3                         | 3                         |
| Heating circuit                                                                             |                                      |                                                             |                           |                           |
| Flow rate: minimum   <b>nominal analogous to B0/W35</b>   maximum                           |                                      | l/h                                                         | 800   <b>1600</b>   2000  | 1050   <b>2050</b>   2600 |
| Max. free heat pump pressure Δp (with cooling ΔpK)   Volume flow                            |                                      | bar (bar)   l/h                                             | 0,52 (0,48)   1600        | 0,38 (0,30)   2050        |
| Pressure losses, heat pump Δp   Volume flow                                                 |                                      | bar   l/h                                                   | — (—)   —                 | — (—)   —                 |
| max. allowable operating pressure                                                           |                                      | bar                                                         | 3                         | 3                         |
| General unit data                                                                           |                                      |                                                             |                           |                           |
| Total weight (with cooling)                                                                 |                                      | kg (kg)                                                     | 275 (283)                 | 280 (288)                 |
| Box weight (with cooling)   Tower weight (with cooling)                                     |                                      | kg (kg)   kg (kg)                                           | 115 (123)   160 (160)     | 120 (128)   160 (160)     |
| Refrigerant type   Refrigerant capacity                                                     |                                      | ...   kg                                                    | R410A   1,98              | R410A   2,25              |
| Domestic hot water tank                                                                     |                                      |                                                             |                           |                           |
| Net volume                                                                                  |                                      | l                                                           | 178                       | 178                       |
| Impressed current anode                                                                     |                                      | integrated: • yes — no                                      | •                         | •                         |
| Domestic hot water temperature, heating pump mode   Electric heating element                |                                      | up to °C   up to °C                                         | 56   65                   | 55   65                   |
| Mixed water quantity according to ErP: 2009/125/EC (at 40°C, draw-off of 10 l/min)          |                                      | l                                                           | 260                       | 260                       |
| Standing loss according to ErP: 2009/125/EC (at 65°C)                                       |                                      | W                                                           | 54                        | 54                        |
| Maximum pressure                                                                            |                                      | bar                                                         | 10                        | 10                        |
| Electrics                                                                                   |                                      |                                                             |                           |                           |
| Voltage code   all-pole heat pump fusing *)**)                                              |                                      | ...   A                                                     | 3~PE/400V/50Hz   C10      | 3~PE/400V/50Hz   C10      |
| Voltage code   Control voltage fusing **)                                                   |                                      | ...   A                                                     | 1~N/PE/230V/50Hz   B10    | 1~N/PE/230V/50Hz   B10    |
| Voltage code   Electric heating element fusing **)                                          |                                      | ...   A                                                     | 3~N/PE/400V/50Hz   B16    | 3~N/PE/400V/50Hz   B16    |
| Voltage code   all-pole fusing for connection via a joint supply cable*)**)                 |                                      | ...   A                                                     | —   —                     | —   —                     |
| WP*): effect. Power input at B0/W35 to EN14511   Current input   cosφ                       |                                      | kW   A   ...                                                | 1,87   3,73   0,72        | 2,44   4,70   0,75        |
| WP*): Max. machine current   Max. power input within the limits of use                      |                                      | A   kW                                                      | 7,63   4,00               | 9,44   4,80               |
| Starting current: direct   with soft starter                                                |                                      | A   A                                                       | —   22,0                  | —   26,0                  |
| Degree of protection                                                                        |                                      | IP                                                          | 20                        | 20                        |
| Electric heating element output                                                             |                                      | kW                                                          | 9   6   3                 | 9   6   3                 |
| Circulation pump power consumption, heating circuit   heat source                           |                                      | min. — max. W   W                                           | 2 – 60   2 – 180          | 2 – 60   2 – 180          |
| Other unit information                                                                      |                                      |                                                             |                           |                           |
| Safety valve, heating circuit   Heat source                                                 |                                      | included in scope of supply: • yes — no                     | —   —                     | —   —                     |
| Expansion valve, heating circuit   Heat source                                              |                                      | included in scope of supply: • yes — no                     | —   —                     | —   —                     |
| Overflow valve   Changeover valve, heating -Domestic hot water                              |                                      | integrated: • yes — no                                      | •   •                     | •   •                     |
| Vibration isolators, heating circuit   Heat source                                          |                                      | integrated: • yes — no                                      | •   •                     | •   •                     |
| *) Only compressor. **) Follow local regulations, ***) Figures for 25% mono-ethylene glycol |                                      |                                                             | 813463a                   | 813464a                   |



## WZS 42(H)(K)3M

## Performance curves



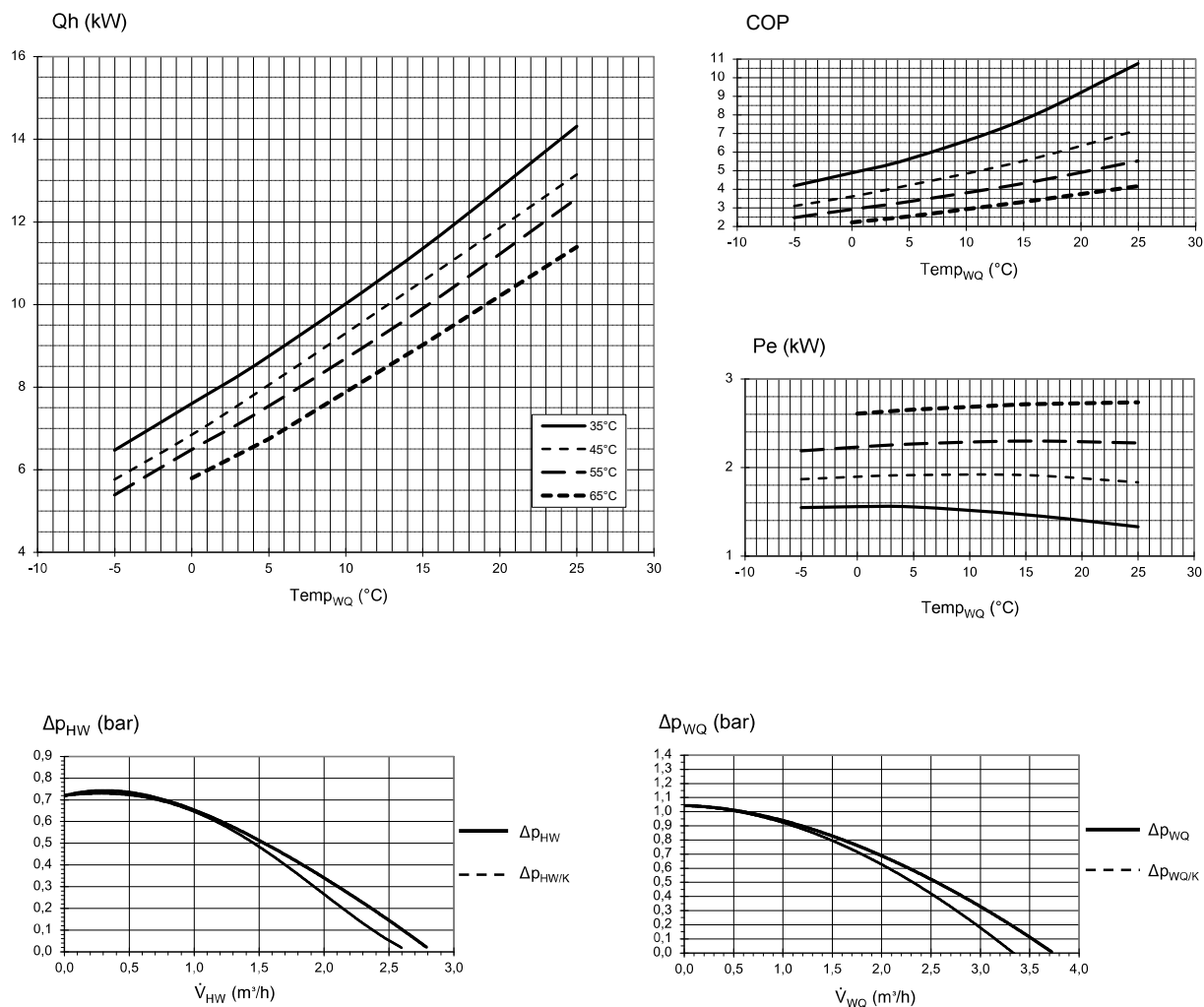
823234

|                                       |                                                                            |
|---------------------------------------|----------------------------------------------------------------------------|
| Keys:                                 | UK823000L/170408                                                           |
| $\dot{V}_{HW}$                        | Heating water volume flow rate                                             |
| $\dot{V}_{WQ}$                        | Heat source volume flow rate                                               |
| Temp <sub>WQ</sub>                    | Heat source temperature                                                    |
| Q <sub>h</sub>                        | Heating capacity                                                           |
| Pe                                    | Power consumption                                                          |
| COP                                   | Coefficient of performance                                                 |
| Δp <sub>HW</sub> / Δp <sub>HW/K</sub> | Heating circuit free pressure / Heating circuit with cooling free pressure |
| Δp <sub>WQ</sub> / Δp <sub>WQ/K</sub> | Heat source free pressure / Heat source with cooling free pressure         |



## Performance curves

## WZS 82(H)(K)3M



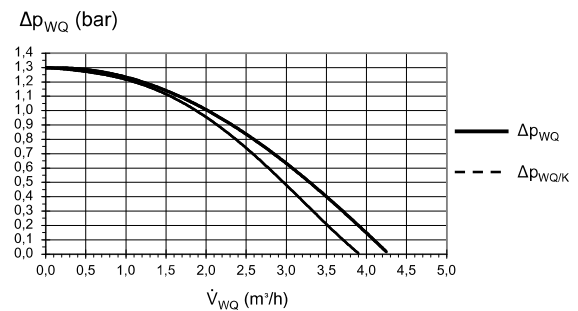
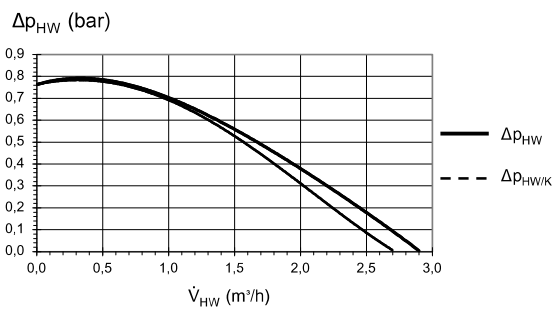
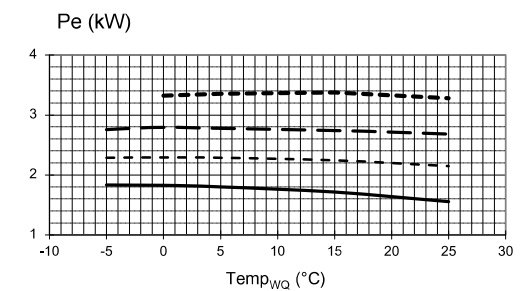
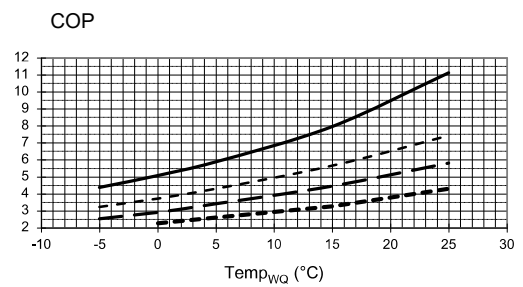
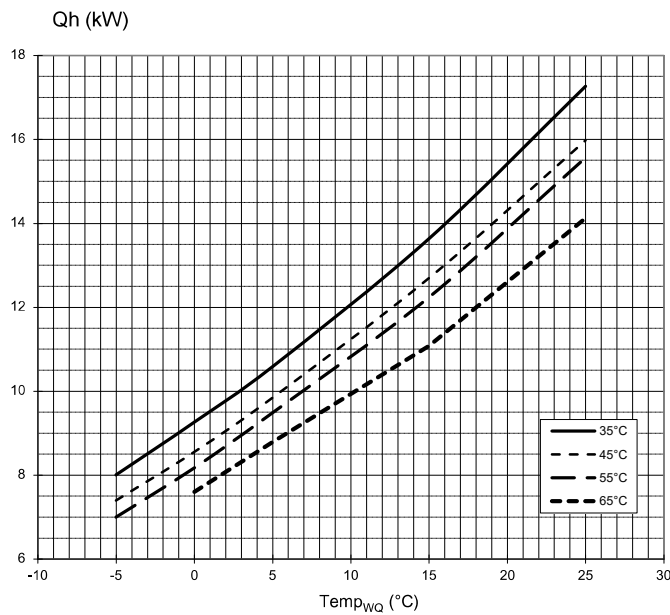
823236

|                                   |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| Keys:                             | UK823000L/170408                                                           |
| $\dot{V}_{HW}$                    | Heating water volume flow rate                                             |
| $\dot{V}_{WQ}$                    | Heat source volume flow rate                                               |
| $Temp_{WQ}$                       | Heat source temperature                                                    |
| $Q_h$                             | Heating capacity                                                           |
| $Pe$                              | Power consumption                                                          |
| COP                               | Coefficient of performance                                                 |
| $\Delta p_{HW} / \Delta p_{HW/K}$ | Heating circuit free pressure / Heating circuit with cooling free pressure |
| $\Delta p_{WQ} / \Delta p_{WQ/K}$ | Heat source free pressure / Heat source with cooling free pressure         |



## WZS 102(H)(K)3M

## Performance curves



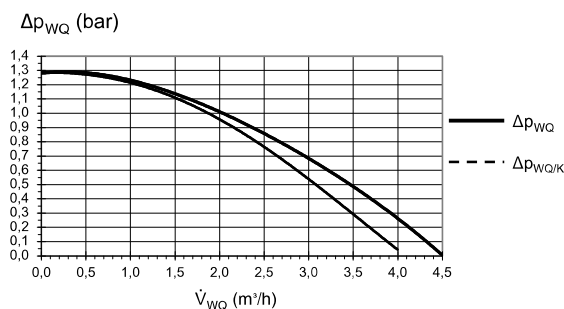
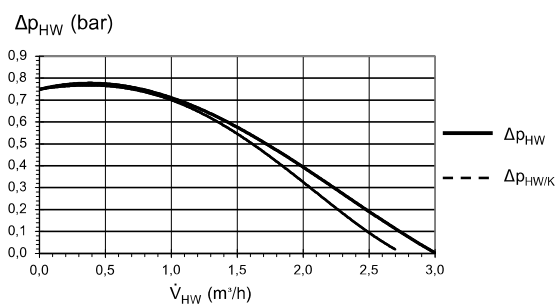
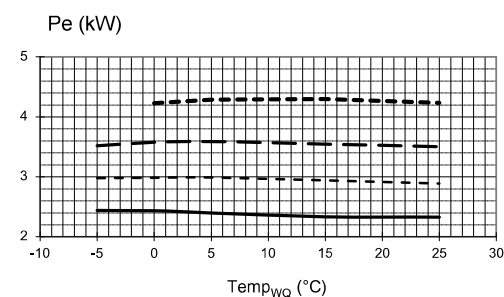
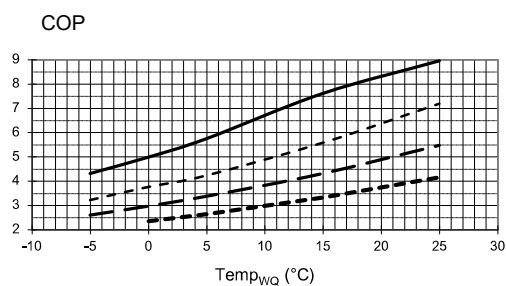
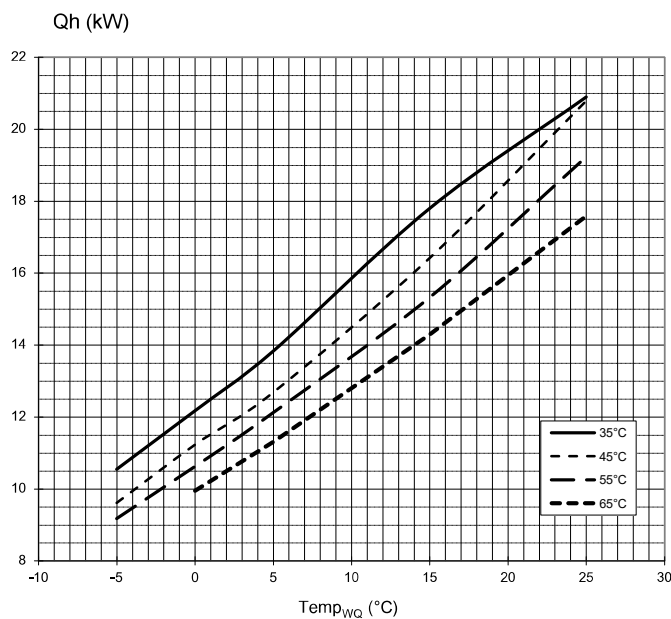
823327

|                                   |                                                                            |
|-----------------------------------|----------------------------------------------------------------------------|
| Keys:                             | UK823000L/170408                                                           |
| $\dot{V}_{HW}$                    | Heating water volume flow rate                                             |
| $\dot{V}_{WQ}$                    | Heat source volume flow rate                                               |
| Temp <sub>WQ</sub>                | Heat source temperature                                                    |
| Q <sub>h</sub>                    | Heating capacity                                                           |
| Pe                                | Power consumption                                                          |
| COP                               | Coefficient of performance                                                 |
| $\Delta p_{HW} / \Delta p_{HW/K}$ | Heating circuit free pressure / Heating circuit with cooling free pressure |
| $\Delta p_{WQ} / \Delta p_{WQ/K}$ | Heat source free pressure / Heat source with cooling free pressure         |



## Performance curves

## WZS 122(H)(K)3M



823238

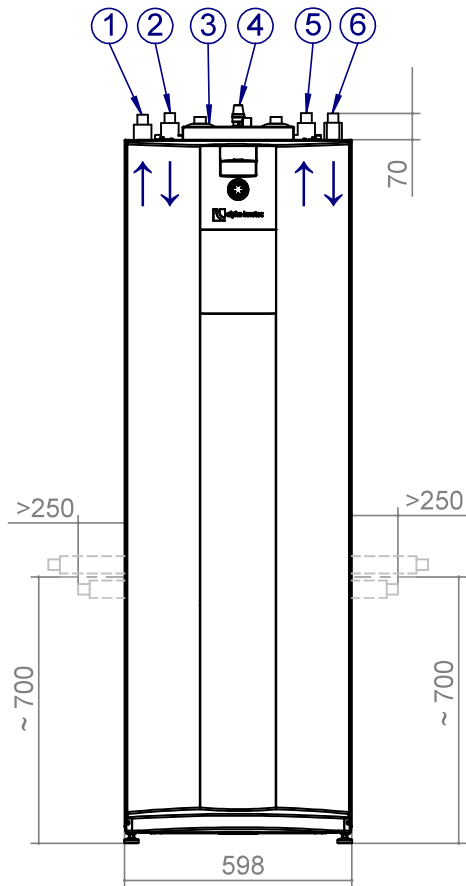
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|-----------------------------------|----------------------------------------------------------------------------|
| Keys:                             | UK823000L/170408                                                           |
| $\dot{V}_{HW}$                    | Heating water volume flow rate                                             |
| $\dot{V}_{WQ}$                    | Heat source volume flow rate                                               |
| Temp <sub>WQ</sub>                | Heat source temperature                                                    |
| Qh                                | Heating capacity                                                           |
| Pe                                | Power consumption                                                          |
| COP                               | Coefficient of performance                                                 |
| $\Delta p_{HW} / \Delta p_{HW/K}$ | Heating circuit free pressure / Heating circuit with cooling free pressure |
| $\Delta p_{WQ} / \Delta p_{WQ/K}$ | Heat source free pressure / Heat source with cooling free pressure         |



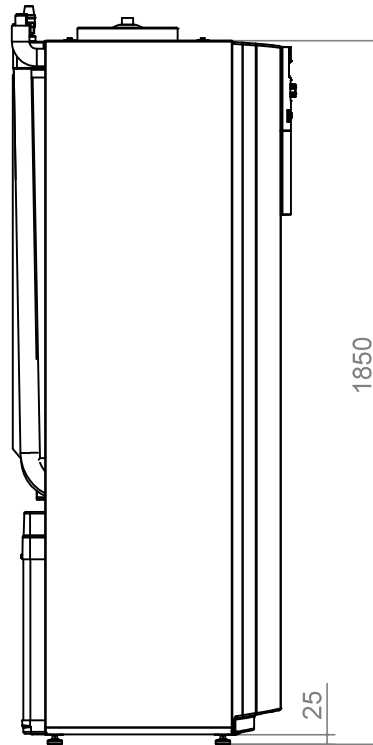
## Dimensional drawings

## WZS 42(H)(K)3M – WZS 122(H)(K)3M

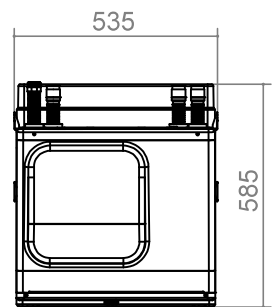
**A**



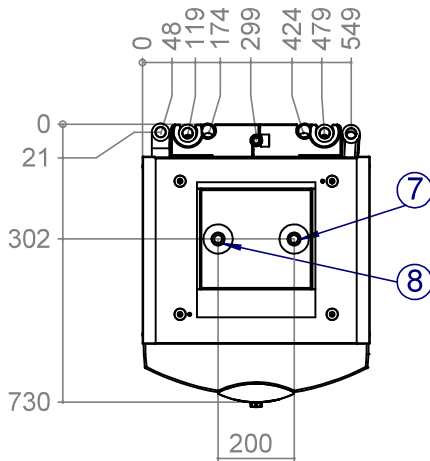
**B**



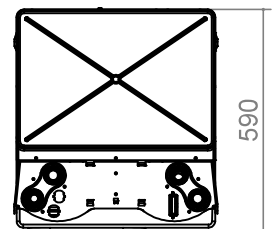
**A1**



**C**



**C1**



Keys: UK819447

All dimensions in mm..

|    |                          |
|----|--------------------------|
| A  | Front view               |
| B  | Side view from left      |
| C  | Plan view                |
| A1 | Front view of module box |
| C1 | Top view of module box   |

| Pos. | Name                                                                            | Dim.                  |
|------|---------------------------------------------------------------------------------|-----------------------|
| 1    | Heating water outlet (flow)                                                     | Ø 28 *)               |
| 2    | Heat source inlet (in heat pump)<br>optionally at the top, on the right or left | Ø 28 *)               |
| 3    | Heating water inlet (return)                                                    | Ø 33 **)              |
| 4    | Heating circuit safety valve<br>(in the separate package)                       | Rp ¾" internal thread |
| 5    | Heat source outlet (from heat pump)<br>optionally at top, right or left         | Ø 28 *)               |
| 6    | Domestic hot water charging circuit inlet (Return)                              | Ø 28 *)               |
| 7    | Drinkwater warm                                                                 | R ¾" external thread  |
| 8    | Drinkwater cold                                                                 | R ¾" external thread  |

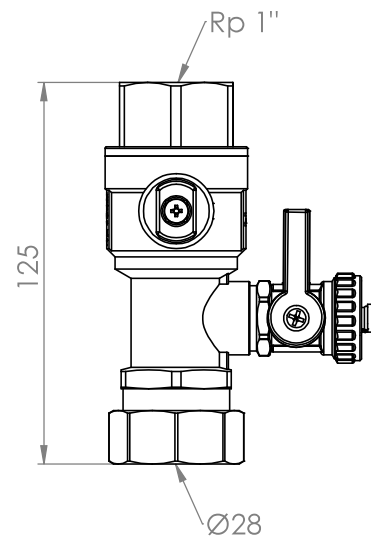
\*) outside diameter \*\*) inside diameter



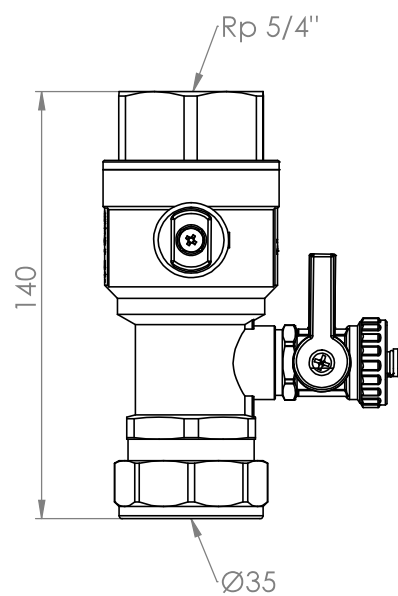
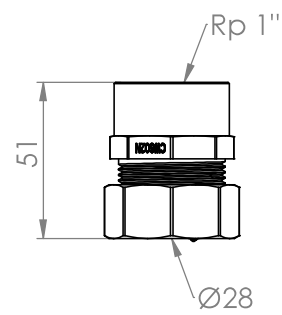
## Connections

Heating circuit

## Dimensional drawings



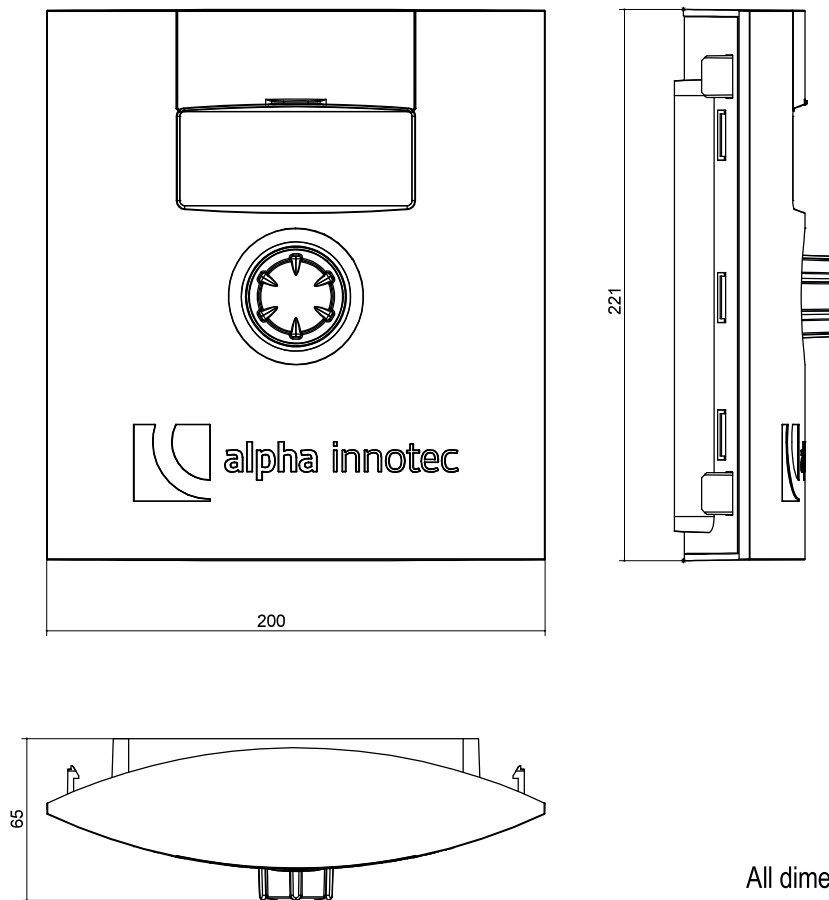
Heating source





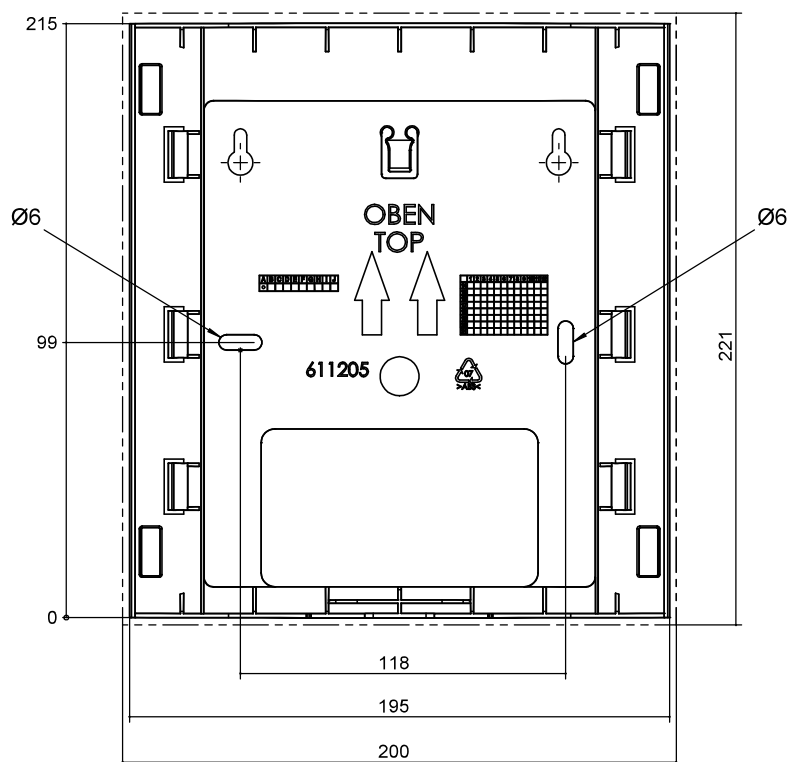
## Dimensional drawings

## Control unit



All dimensions in mm..

## Wall-mounted bracket



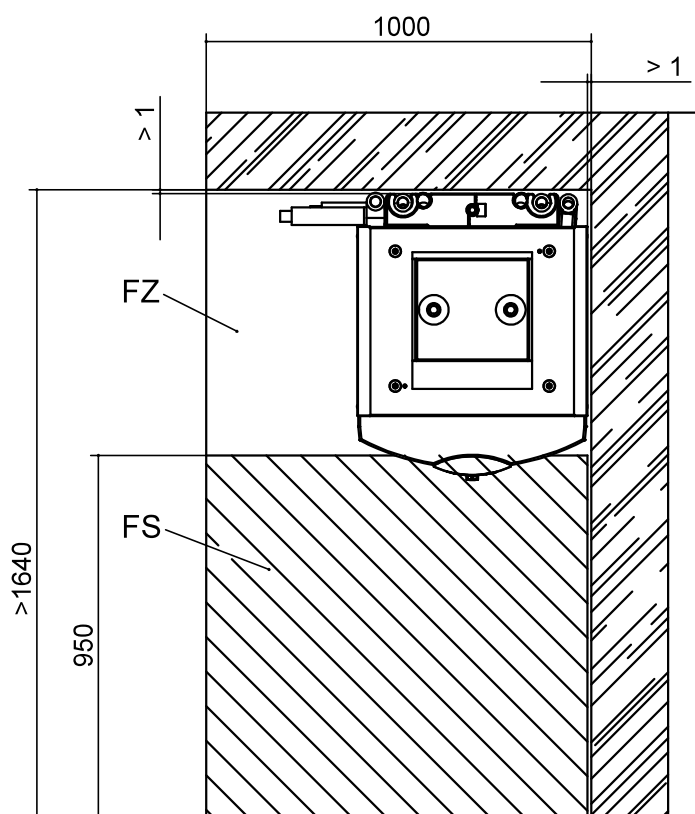
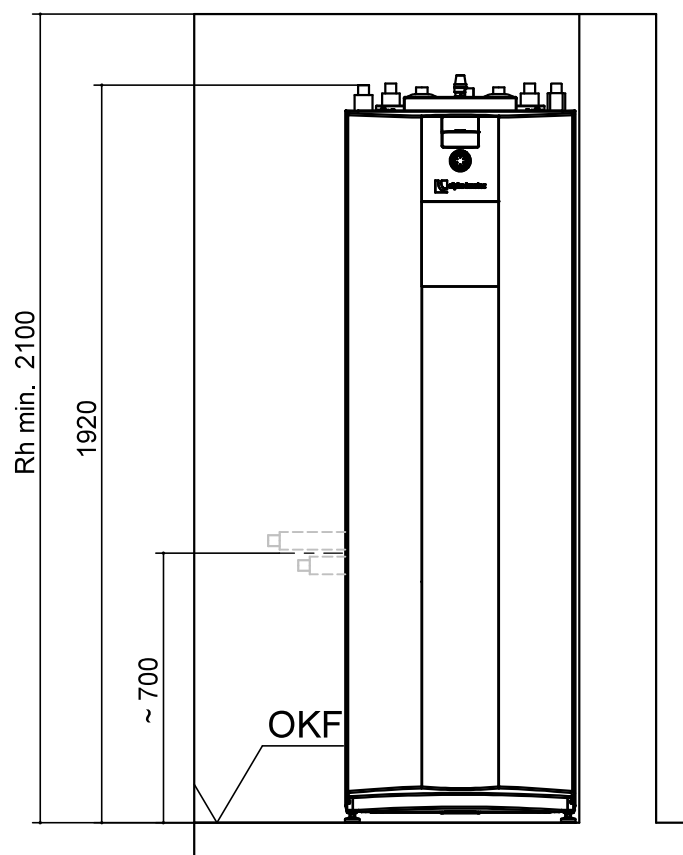
All dimensions in mm..



# WZS 42(H)(K)3M – WZS 122(H)(K)3M

## Installation plan 1

### V1



Keys: UK819448

All dimensions in mm.

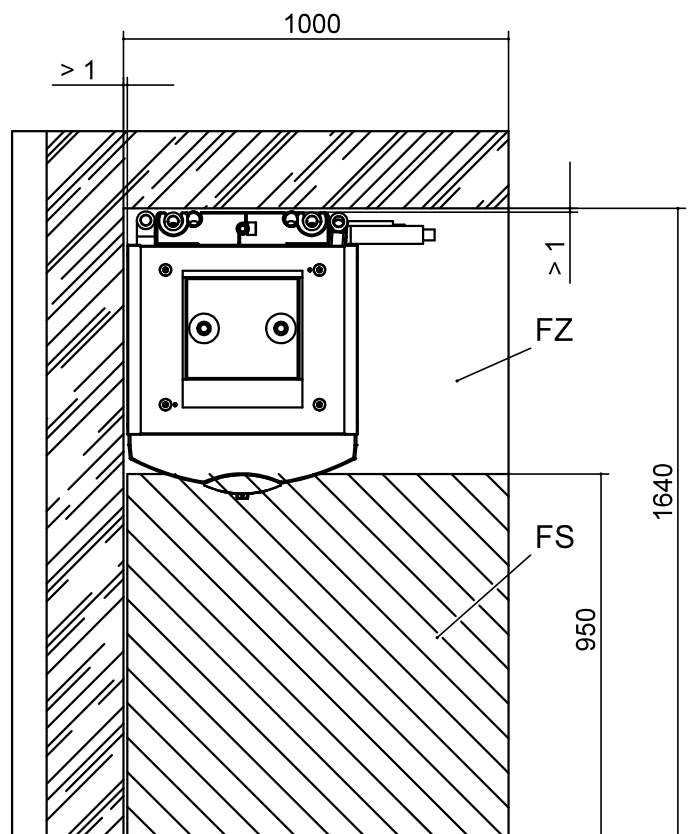
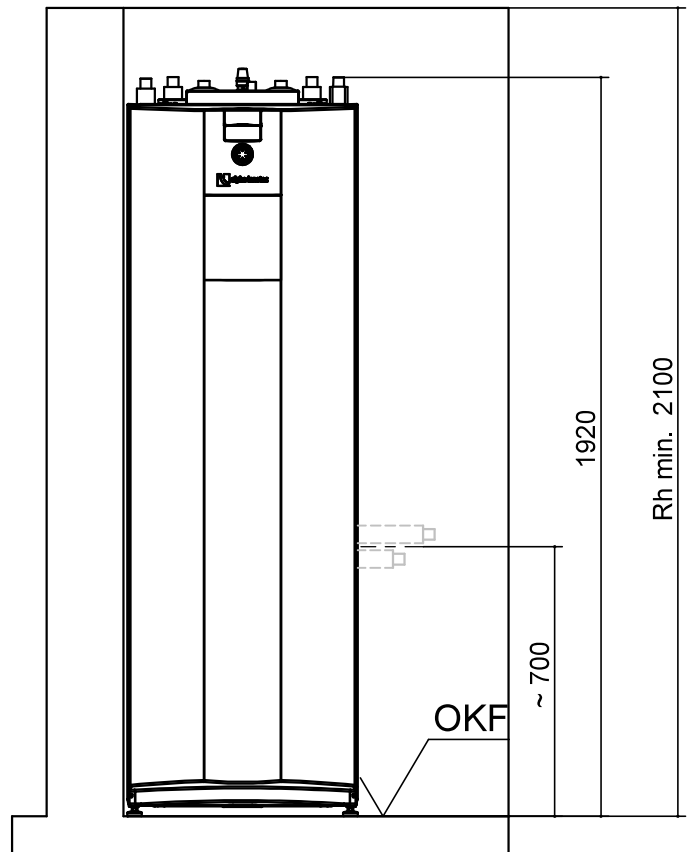
|         |                                                   |
|---------|---------------------------------------------------|
| V1      | Version 1                                         |
| FS      | Free space for service purposes                   |
| FZ      | Free space for functionally necessary accessories |
| OKF     | Finished floor level                              |
| Rh min. | minimum room height                               |



## Installation plan 2

# V2

## WZS 42(H)(K)3M – WZS 122(H)(K)3M



Keys: UK819448

All dimensions in mm.

|         |                                                   |
|---------|---------------------------------------------------|
| V2      | Version 2                                         |
| FS      | Free space for service purposes                   |
| FZ      | Free space for functionally necessary accessories |
| OKF     | Finished floor level                              |
| Rh min. | minimum room height                               |

