

BLUEHELIX TECH RRT C WALL HUNG CONDENSATION BOILERS INSTANTANEOUS DHW PRODUCTION



> STRENGTHS:

- Careful design of aesthetics and silent operation, it maintains the legacy of appreciation of the previous "Bluehelix" series
- Boiler with high thickness stainless steel primary exchanger, with large passes (the largest in the category) guaranteeing duration and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- MC²: Multi Combustion Control, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- M.G.R: Methane, LPG, Propane-air Ready with a simple configuration the boiler can run on natural gas, LPG without the use of any additional conversion kits
- Exclusive exchanger-burner system with self-cooling door: it simplifies maintenance and lowers the cost thanks to a lower number of parts that need replacing
- Instantaneous production of domestic hot water with a dedicated DHW plate exchanger
- Hydraulic fittings covered by the boiler jacket
- Large multi-purpose backlit graphic display to set parameters easily and correctly
- By-pass with standard supply

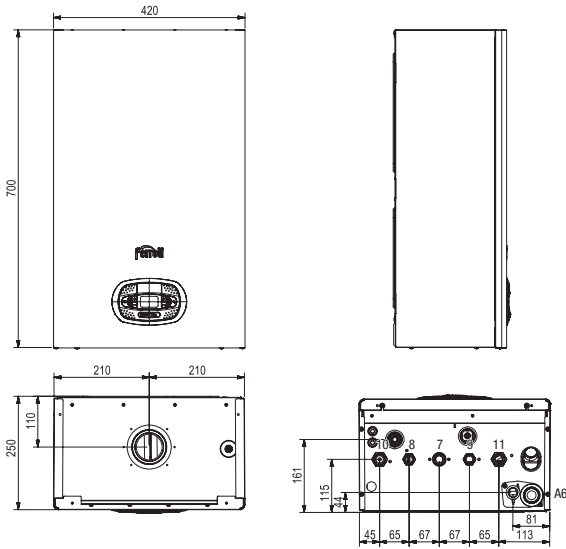
> ADVANTAGES OF BLUEHELIX TECH RRT C:

- Particularly suitable for operation in flues requiring "heavy duty" pipes thanks to approval for operation with flue gas discharge with a diameter of 50mm
- F.P.S: Flue gas Protection System. The flue gas check valve provided by standard offers easy connection to pressurised collective flue systems (ex. in restructuring), in accordance with regulation UNI 7129
- Designed to simplify and facilitate normal maintenance and cleaning operations
- Solar system set up: set up for the production of domestic hot water combined with solar panel systems
- STOP AND GO: you can delay burner ignition by starting it up only when domestic hot water is actually drawn
- Certified 3-star comfort in DHW production mode in accordance with EN 13203
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode through outdoor probe (optional)
- Low consumption modulating heat pump (ErP Ready - Class A)
- Digital flame control with three ignition tries if operation gets blocked due to failed flame detection (natural gas mod.)
- Place of installation: also outdoors, in a partially protected place down to -5°C by standard and even -15°C with the addition of the optional antifrost heating elements kit



| BLUEHELIX TECH RRT | | 24 C | 28 C | 34 C |
|--|-----------------|---------------|---------------|---------------|
| ERP Class | (Class G - A++) | A | A | A |
| | (Class G - A) | XL A | XL A | XXL A |
| Heating max /min heat input (Hs) | kW | 22.7 / 5.6 | 24.5 / 5 | 34.0 / 7.1 |
| Heating max /min heat output (80/60°C) | kW | 20 / 4.9 | 24 / 4.9 | 30 / 6.3 |
| Heating max /min heat output (50/30°C) | kW | 21.7 / 5.4 | 26 / 5.4 | 32.5 / 6.9 |
| DHW max / min heat input (Hi) | kW | 25 / 5 | 28.5 / 5 | 34.7 / 6.4 |
| DHW max / min heat output | kW | 24.5 / 4.9 | 28.0 / 4.9 | 34.0 / 6.3 |
| Efficiency Pmax / Pmin (80-60°C) (Hi) | % | 98 / 97.8 | 98.1 / 98 | 98 / 97.8 |
| Efficiency Pmax / Pmin (50-30°C) (Hi) | % | 106.1 / 107.5 | 106.1 / 107.5 | 106.1 / 107.5 |
| Efficiency 30% (Hi) | % | 109.8 | 109.7 | 109.8 |
| Max / min heating operating pressure | bar | 3 / 0.8 | 3 / 0.8 | 3 / 0.8 |
| DHW max / min operating pressure | bar | 9 / 0.3 | 9 / 0.3 | 9 / 0.3 |
| DHW flow rate Δt 25°C | l/min | 14 | 16.1 | 19.5 |
| DHW flow rate Δt 30°C | l/min | 11.7 | 13.4 | 16.2 |
| Empty weight | kg | 28 | 28 | 32 |
| No. of pieces/pallet | nr. | 10 | 10 | 10 |
| CODE | NAT GAS/LPG | 0T3B2BWA | 0T3B2AWA | 0T3B3AWA |

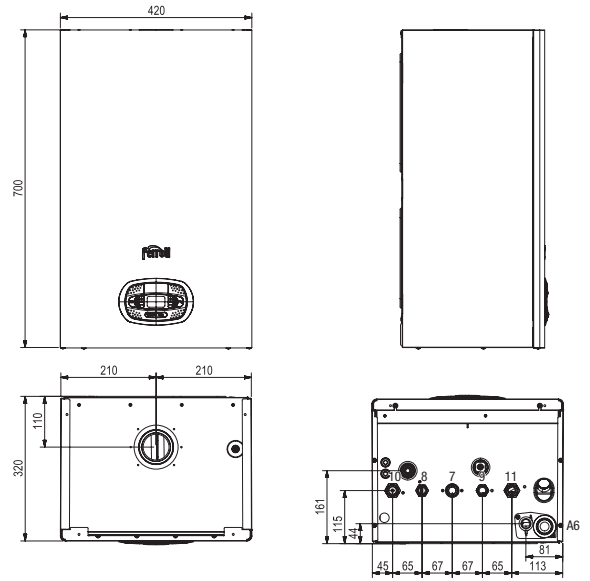
BLUEHELIX TECH RRT 24 / 28 C



VIEW FROM ABOVE

VIEW FROM BELOW

BLUEHELIX TECH RRT 34 C






VIEW FROM ABOVE

VIEW FROM BELOW


> KEY

- 7 3/4" gas inlet
- 8 1/2" DHW outlet
- 9 1/2" DHW inlet
- 10 3/4" system flow
- 11 3/4" system return
- A6 condensation discharge fitting

> ACCESSORIES FOR FLUES DIAMETER Ø 50 MM

| DESCRIPTION | CODE |
|---|----------|
|  Extension 1 m ø 50 twin pipes | 041086X0 |
|  Bend 90° ø 50 twin pipes | 041085X0 |
|  Reduction from ø 80 to ø 50 twin pipes (1 piece) | 041087X0 |

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| DESCRIPTION | CODE |
|--|----------|
|  galvanised template | 046049X0 |
|  kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets | 012043W0 |
|  kit for connection of 5 pipe fittings nb: the kit does not include taps and connection nipples | 012047W0 |
|  outdoor probe | 013018X0 |
|  thermostatic mixer kit 1/2" connections | 013002X0 |

| DESCRIPTION | CODE |
|--|----------|
|  90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers | 041084X0 |
|  coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers | 041006X0 |
|  coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers | 041083X0 |
|  discharge kit twin pipes 80/80 for condensing boilers complete with test point | 041082X0 |
|  auxiliary antifrost kit down to -15°C | 013022X0 |

BLUEHELIX TECH RRT H WALL HUNG CONDENSATION BOILERS HEATING ONLY



> STRENGTHS:

- Careful design of aesthetics and silent operation, it maintains the legacy of appreciation of the previous "Bluehelix" series
- Boiler with high thickness stainless steel primary exchanger, with large passes (the largest in the category) guaranteeing duration and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- MC²: Multi Combustion Control, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- M.G.R: Methane, LPG, Propane-air Ready with a simple configuration the boiler can run on natural gas, LPG without the use of any additional conversion kits
- Exclusive exchanger-burner system with self-cooling door: it simplifies maintenance and lowers the cost thanks to a lower number of parts that need replacing
- DHW production combined with storage tank (optional), 3-way valve with standard supply in boiler
- Hydraulic fittings covered by the boiler jacket
- Large multi-purpose backlit graphic display to set parameters easily and correctly
- By-pass with standard supply

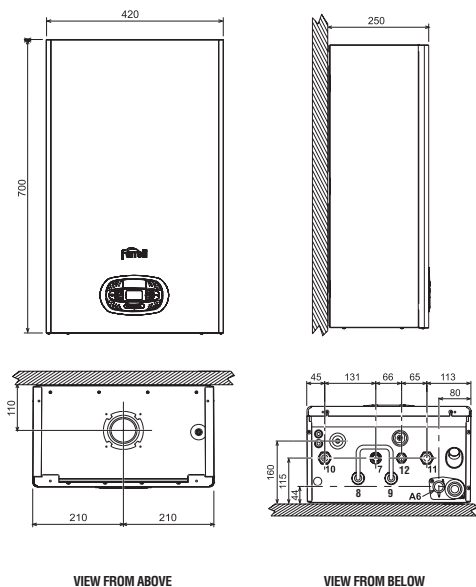
> ADVANTAGES OF BLUEHELIX TECH RRT H:

- Particularly suitable for operation in flues requiring "heavy duty" pipes thanks to approval for operation with flue gas discharge with a diameter of 50mm
- F.P.S: Flue gas Protection System. The flue gas check valve provided by standard offers easy connection to pressurised collective flue systems (ex. in restructuring), in accordance with regulation UNI 7129
- Designed to simplify and facilitate normal maintenance and cleaning operations
- Minimum polluting emissions (class 6 according to EN 15502-1)
- Sliding temperature operating mode through outdoor probe (optional)
- Low consumption modulating heat pump (ErP Ready - Class A)
- Digital flame control with three ignition tries if operation gets blocked due to failed flame detection (natural gas mod.)
- Place of installation: also outdoors, in a partially protected place down to -5°C by standard and even -15°C with the addition of the optional antifrost heating elements kit

| | | | | | | | | | | |
|--------------------------------------|---|---|------------------------------|---------------------------------|--|---|----------------------------------|---------------------|-----------------------------------|---|
| COLLECTIVE PRESSURISED FPS | MULTI COMB. CONTROL m ² c ² | EASY MAINTENANCE Icon of a worker | FLUE GAS Ø 50mm 50 | METHANE LPG READY MGR | EXCHANGER STAINLESS STEEL Icon of a coil | CLIMATIC Icon of sun and moon | ETA_s 94% 94 | CLASS 6 6 | PROTECTED -5°C -15°C | REMOTE Icon of a remote control |
|--------------------------------------|---|---|------------------------------|---------------------------------|--|---|----------------------------------|---------------------|-----------------------------------|---|

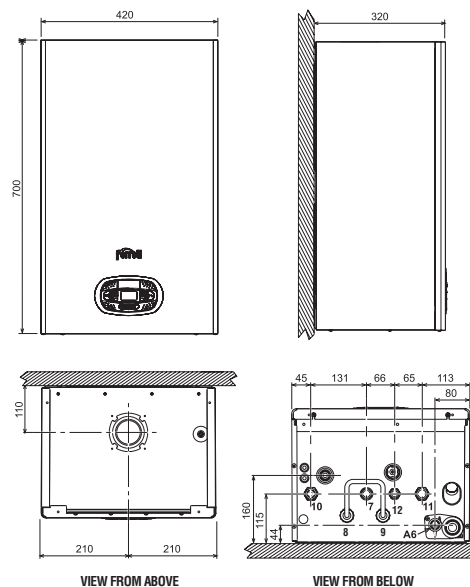
| BLUEHELIX TECH RRT | | 24 H | 30 H |
|---|-----------------------------|-----------------|-----------------|
| ERP Class | (Class G - A ⁺) | A | A |
| Heating max / min heat input (Hs) | kW | 24.5 / 5.0 | 30.6 / 6.4 |
| Heating max / min heat output (80/60°C) | kW | 24 / 4.9 | 30 / 6.3 |
| Heating max / min heat output (50/30°C) | kW | 26.0 / 5.4 | 32.5 / 6.9 |
| Efficiency Pmax / Pmin (80-60°C) (Hi) | % | 98.1 / 98.0 | 97.9 / 98.0 |
| Efficiency Pmax / Pmin (50-30°C) (Hi) | % | 106.1 / 107.5 | 106.1 / 107.5 |
| Efficiency 30% (Hi) | % | 109.7 | 109.5 |
| Max / min heating operating pressure | bar | 3 / 0.8 | 3 / 0.8 |
| Empty weight | kg | 28 | 31 |
| No. of pieces/pallet | nr. | 10 | 10 |
| CODE | NAT GAS/LPG | 0T3D2BWA | 0T3D3AWA |

BLUEHELIX TECH RRT 24 H






- > KEY**
- 7 3/4" gas inlet
 - 8 3/4" DHW outlet
 - 9 3/4" DHW inlet
 - 10 3/4" system flow
 - 11 3/4" system return
 - 12 1/2" system filling fitting
 - A6 condensation discharge fitting

BLUEHELIX TECH RRT 30 H



> ACCESSORIES FOR FLUES DIAMETER Ø 50 MM

| | DESCRIPTION | CODE |
|---|--|----------|
|  | Extension 1 m Ø 50 twin pipes | 041086X0 |
|  | Bend 90° Ø 50 twin pipes | 041085X0 |
|  | Reduction from Ø 80 to Ø 50 twin pipes (1 piece) | 041087X0 |

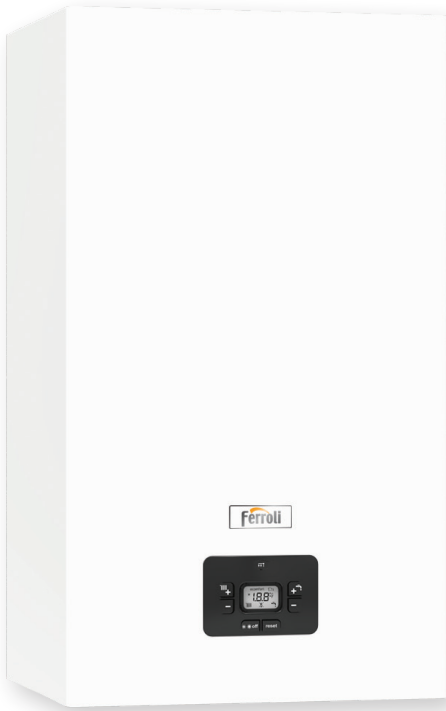
> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| | DESCRIPTION | CODE |
|---|---|----------|
|  | 90° coaxial bend, 360° swivel with 45° pitch Ø 100/60 mm for condensing boilers | 041084X0 |
|  | coupling for vertical coaxial pipe Ø 80/125 mm for condensing boilers | 041006X0 |
|  | outdoor probe | 013018X0 |
|  | thermostatic mixer kit 1/2" connections | 013002X0 |

| | DESCRIPTION | CODE | |
|--|--|-----------|----------|
|  | coupling for vertical coaxial pipe Ø 100/60 mm for condensing boilers | 041083X0 | |
|  | discharge kit twin pipes 80/80 for condensing boilers complete with test point | 041082X0 | |
|  | auxiliary antifrost kit down to -15°C | 013022X0 | |
|  | additional sensor for managing any external storage tank | 2 m cable | 1KWMA11W |
| | | 5 m cable | 043005X0 |

BLUEHELIX PRIMA 24 C

WALL HUNG CONDENSATION BOILERS
INSTANTANEOUS DHW PRODUCTION

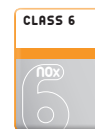


> STRENGTHS:

- Boiler with single-circuit stainless steel primary exchanger without joints and/or welding, it maintains high efficiency also on old systems.
- **MC²: Multi Combustion Control**, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- **M.G.R: Methane, LPG, Propane-air Ready** with a simple configuration the boiler can run on natural gas, LPG without the use of any additional conversion kits
- **Instantaneous production** of domestic hot water with a **dedicated** DHW plate exchanger
- User interface with display and multi-purpose keys to adjust and set the parameters
- **By-pass with standard supply**

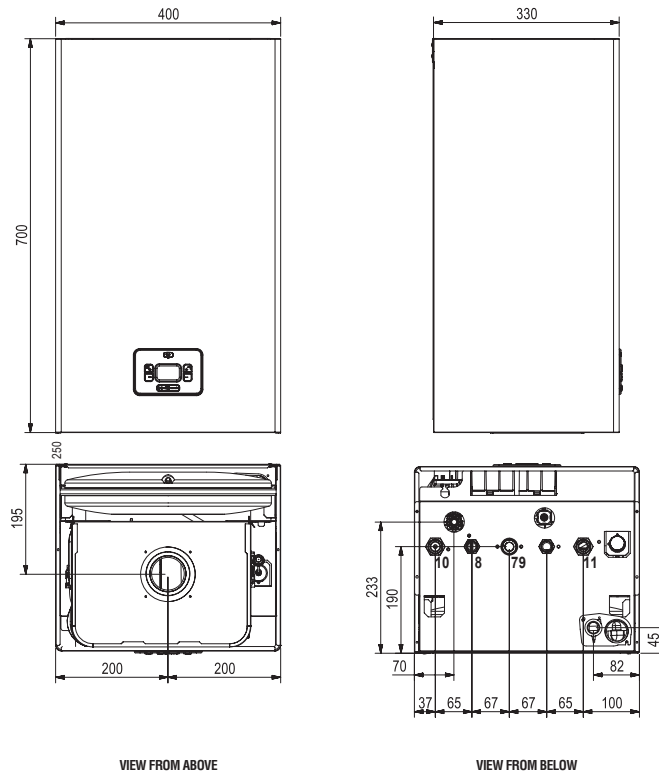
> ADVANTAGES OF BLUEHELIX PRIMA 24 C:

- **Solar system set up:** set up for the production of domestic hot water combined with solar panel systems
- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Sliding temperature operating mode** through outdoor probe (optional)
- **Low consumption modulating** circulator (ErP Ready - Class A)
- **Digital flame control** with three ignition tries if operation gets blocked due to failed flame detection (natural gas mod.)
- **Place of installation:** also outdoors, in a partially protected place down to -5°C by standard and even -15°C with the addition of the optional antifrost heating elements kit



| BLUEHELIX PRIMA | | 24 C |
|--|-----------------------------|-----------------|
| ERP Class | (Class G - A ⁺) | A |
| | (Class G - A) | XL A |
| Heating max /min heat input (Hs) | kW | 22.9 / 4.7 |
| Heating max /min heat output (80/60°C) | kW | 20.0 / 4.1 |
| Heating max /min heat output (50/30°C) | kW | 21.8 / 4.5 |
| DHW max / min heat input (Hi) | kW | 25.0 / 4.2 |
| DHW max / min heat output | kW | 24.3 / 4.1 |
| Efficiency Pmax / Pmin (80-60°C) (Hi) | % | 97.1 / 97.0 |
| Efficiency Pmax / Pmin (50-30°C) (Hi) | % | 105.8 / 106.9 |
| Efficiency 30% (Hi) | % | 108.8 |
| Max / min heating operating pressure | bar | 3 / 0.8 |
| DHW max / min operating pressure | bar | 9 / 0.3 |
| DHW flow rate Δt 25°C | l/min | 14 |
| DHW flow rate Δt 30°C | l/min | 11.7 |
| Empty weight | kg | 25 |
| No. of pieces/pallet | nr. | 10 |
| CODE | NAT GAS/LPG | OTPB2AWA |

BLUEHELIX PRIMA 24 C



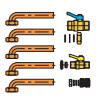
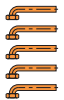


VIEW FROM ABOVE

VIEW FROM BELOW

> KEY

- 7 3/4" gas inlet
- 8 1/2" DHW outlet
- 9 1/2" DHW inlet
- 10 3/4" system flow
- 11 3/4" system return

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| | DESCRIPTION | CODE |
|---|---|----------|
|  | kit for connection of fittings complete with gas tap with cone, DHW tap, pipes, nipple, gaskets | 012048W0 |
|  | kit for connection of 5 pipe fittings nb: the kit does not include taps and connection nipples | 012049W0 |
|  | outdoor probe | 013018X0 |
|  | thermostatic mixer kit 1/2" connections | 013002X0 |

| | DESCRIPTION | CODE |
|--|---|----------|
|  | 90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers | 041084X0 |
|  | coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers | 041006X0 |
|  | coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers | 041083X0 |
|  | discharge kit twin pipes 80/80 for condensing boilers complete with test point | 041082X0 |
|  | auxiliary antifrost kit down to -15°C | 013022X0 |

BLUEHELIX K 50 CONDENSING WALL HUNG BOILER, STAINLESS STEEL DHW STORAGE

ERP



> STRENGTHS:

- It reaches **one of the highest seasonal space heating efficiencies** in its category: η_s 94%
- **A+ SYSTEM**: combined with the modulating remote control and the outdoor probe (optional) it reaches the top efficiency class **A+** (scale from G to A+++)
- **Stainless steel** primary heat exchanger
- **DHW production** with 50-litre stainless steel storage tank
- Set-up for **recirculation fittings** (provided with the accessory: fitting connection kit)
- **Stainless steel full pre-mixing burner** with broad modulating range
- **Low consumption modulating heat pump (ErP Ready - Class A)**
- **Digital commands with user interface display**, multi-purpose for easily and correctly entering parameters
- **Can be combined with the modulating remote control**

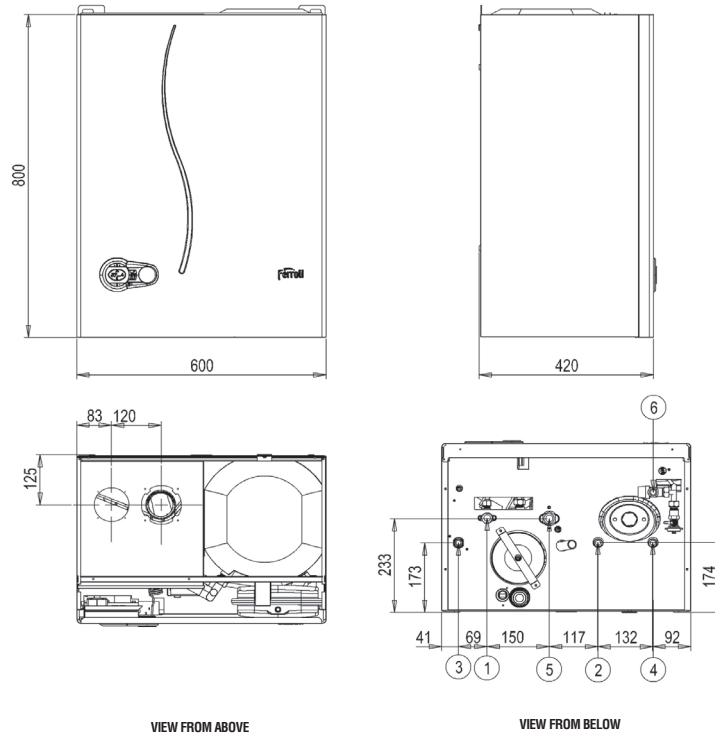
> ADVANTAGES OF BLUEHELIX K 50:

- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Sliding temperature operating mode** in combination with the optional outdoor probe
- **Certified 3-star comfort** in DHW production mode in accordance with EN 13203, set forth by Reg. 812/2013
- **Exchanger protection function** with Δt control
- **Antilegionella function** with programmable timing
- **Timed block protection** for circulator and three-way valve
- **Digital flame control** with three reignition tries if operation gets blocked due to failed flame detection (only in natural gas mode)
- **Antifrost function** with standard protection down to -5°C



| MODEL | | | 25 K 50 | 32 K 50 |
|-------------------------------|------------------------------|------------------------------|--------------------|--------------------|
| ERP Class | | (Class G - A++) | A | A |
| | XL | (Class G - A) | A | A |
| Heat input (L.C.V.) | Heating Min / Max DHW Max | kW kW | 5.8 / 25.0 27.5 | 6.7 / 29.5 32.0 |
| Heat output | 80°C-60°C | Heating Min / Max DHW Max | 5.7 / 24.5 27.0 | 6.6 / 28.9 32.0 |
| | 50°C-30°C | Heating Min / Max | 6.2 / 26.5 | 7.2 / 31.3 |
| Useful thermal efficiency | 80°C-60°C | Pmax % / Pmin % | 98.0 / 97.8 | 98.0 / 97.8 |
| | 50°C-30°C | Pmax % / Pmin % | 106.1 / 107.5 | 106.1 / 107.5 |
| | Reduced load 30% | Pmax % | 108.8 | 108.8 |
| Nox emissions class | | class | 6 | 6 |
| Storage tank capacity | | litres | 50 | 50 |
| Domestic hot water production | Δt 30°C | l/10 min | 175 | 195 |
| | Δt 30°C | l/h | 820 | 945 |
| Heating operating pressure | Max | bar | 3 | 3 |
| Domestic operating pressure | Max | bar | 9 | 9 |
| Empty weight | | kg | 61 | 80 |
| No. of pieces/pallet | | nr. | 10 | 10 |
| CODE | | NATURAL GAS | OTAX2AWA | OTAX3AWA |

BLUEHELIX 25 / 32 K 50



VIEW FROM ABOVE


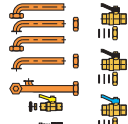


VIEW FROM BELOW

> KEY

- 1 3/4" heating system flow
- 2 1/2" DHW outlet
- 3 1/2" gas inlet

- 4 1/2" DHW inlet
- 5 3/4" heating system return
- 6 safety valve discharge

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| DESCRIPTION | CODE |
|---|----------|
|  galvanised template | 056004X0 |
|  kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets, recirculation fitting | 052003X0 |
|  fitting cover sheet metal | 056005X0 |
|  outdoor probe | 013018X0 |
|  thermostatic mixer kit 1/2" connections | 013002X0 |

| DESCRIPTION | CODE |
|--|----------|
|  coupling for vertical coaxial pipe \varnothing 100/60 mm for condensing boilers | 041002X0 |
|  coupling for vertical coaxial pipe \varnothing 80/125 mm for condensing boilers | 041006X0 |
|  90° coaxial bend, 360° swivel with 45° pitch \varnothing 100/60 mm for condensing boilers | 041001X0 |
|  discharge kit twin pipes 80/80 for condensing boilers complete with test point | 041039X0 |

BLUEHELIX TECH S 45 H WALL HUNG CONDENSING BOILERS, HEATING ONLY

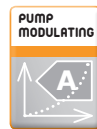
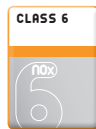


> STRENGTHS:

- **Boiler body** with high thickness stainless steel primary exchanger
- **Stainless steel full pre-mixing burner**
- Digital control **panel**
- **Electronic flame modulation** in heating and in DHW
- Can be combined with the **modulating remote control**
- Large **multi-purpose backlit graphic display** to set parameters easily and correctly
- **By-pass** with standard supply
- **Elegant design and compact size**
- **Outer casing** coated with white anaphoresis epoxy powders

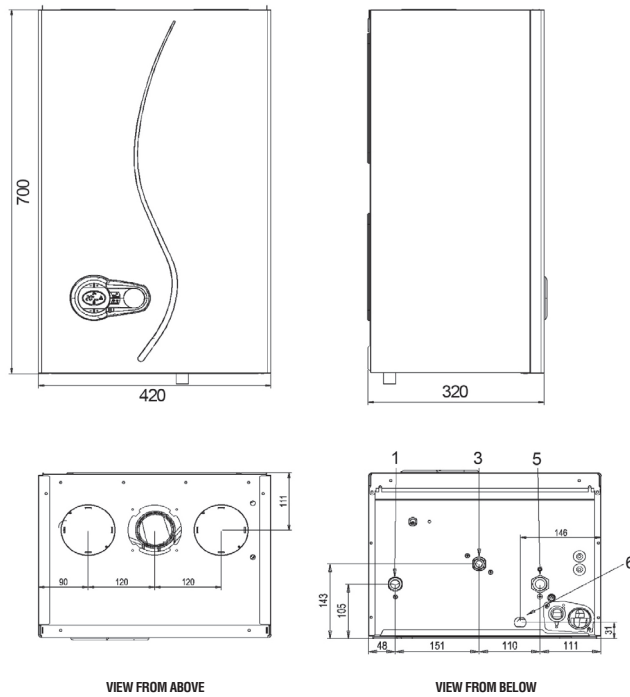
> ADVANTAGES OF BLUEHELIX TECH 45 H:

- **ECO** function in domestic mode for more **savings** when hot water is not really used
- **Sliding temperature operating mode** through outdoor probe (optional)
- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Low consumption** modulating **heat pump (ErP Ready - Class A)**
- **Digital flame control** with three ignition tries if operation gets blocked due to failed flame detection (natural gas mod.)



| MODEL | | | S 45 H |
|------------------------------------|--|--|---------------------------------------|
| ERP Class | | (Class G - A ⁺) | A |
| Heat input (L.C.V.) | Heating Min / Max DHW Max | kW kW | 7.5 / 43.0 - |
| Heat output 80°C-60°C 50°C-30°C | Heating Min / Max Heating Min / Max | kW kW | 7.3 / 42.1 8.0 / 45.6 |
| Useful thermal efficiency | 80°C-60°C 50°C-30°C 30% partial load | Pmax % / Pmin % Pmax % / Pmin % Pmax % | 98.0 / 97.8 106.1 / 107.5 108.8 |
| Domestic hot water production | Δt 30°C Δt 25°C | l/min l/min | - - |
| Heating operating pressure | Max / Min | bar | 4.5 / 0.8 |
| Empty weight | | kg | 33.5 |
| No. of pieces/pallet | | nr. | 10 |
| CODE | | NATURAL GAS | OT2D5IWA |



BLUEHELIX TECH S 45 H



> KEY

- 1 3/4" heating system flow
- 2 3/4" storage tank delivery
- 3 1/2" gas inlet
- 4 3/4" storage tank return
- 5 3/4" heating system return
- 6 safety valve

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| DESCRIPTION | CODE |
|--|----------|
|  <p>outdoor probe</p> | 013018X0 |
|  <p>kit for management with thermostat (not supplied) of a dhw storage tank</p> | 013017X0 |

| DESCRIPTION | CODE | | | | |
|---|---|--------------|----------|--------------|----------|
|  <p>coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers</p> | 041002X0 | | | | |
|  <p>coupling for vertical coaxial pipe ø 80/125 mm for condensing boilers</p> | 041006X0 | | | | |
|  <p>90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers</p> | 041001X0 | | | | |
|  <p>discharge kit twin pipes 80/80 for condensing boilers complete with test point</p> | 041039X0 | | | | |
|  <p>additional sensor for managing any external storage tank</p> | <table border="1"> <tr> <td>cable 2 m</td> <td>1KWMA11W</td> </tr> <tr> <td>cable 5 m</td> <td>043005X0</td> </tr> </table> | cable 2 m | 1KWMA11W | cable 5 m | 043005X0 |
| | cable 2 m | 1KWMA11W | | | |
| cable 5 m | 043005X0 | | | | |

FORCE W

ERP



CONDENSATION THERMAL MODULES FOR CASCADE SYSTEMS FROM POWER PLANT



> STRENGTHS:

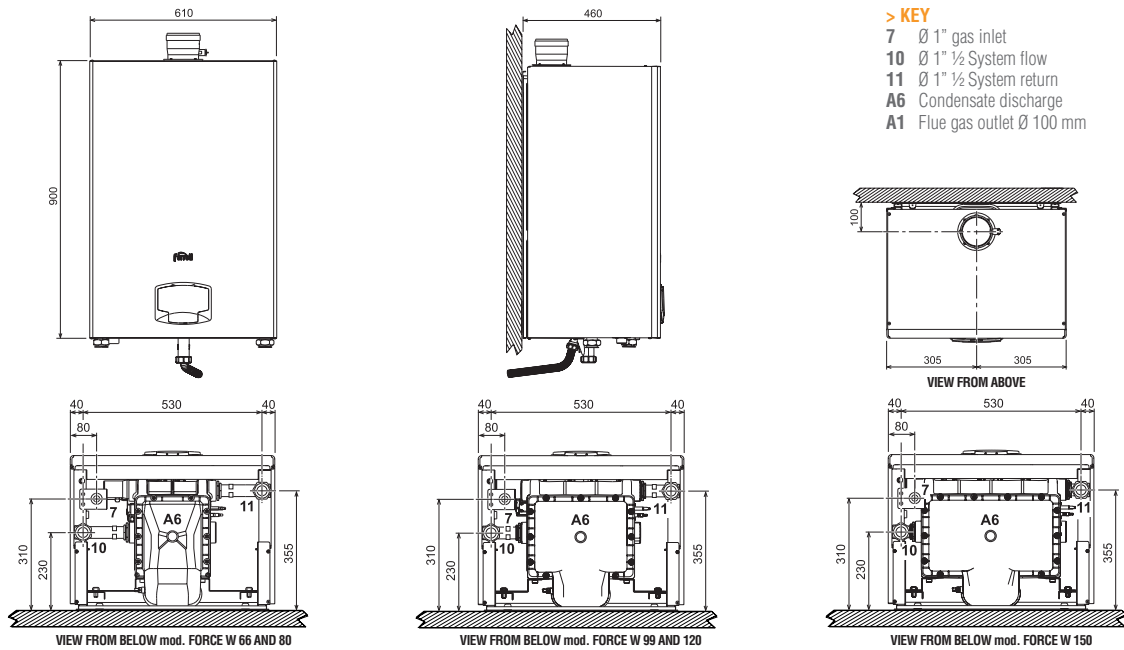
- **High power condensation thermal module**, designed for single installations or in cascades up to 600 kW
- **Hydraulic, gas and flue gas accessories** for cascade installation with 2, 3 and 4 modules
- Heat exchanger with pre-assembled elements in **aluminium-silicon alloy** designed to achieve maximum exchange efficiency and low pressure drops on the water circuit
- Full pre-mixing **combustion unit** with metal fibre micro-flame burner with very low polluting emissions (**Class 6** according to EN 15502-1). The modules can run on **Natural Gas and LPG**
- **Generator protection systems:**
 - * Double sensor (delivery and return) system for operation at **ΔT constant** (reg. from 0 to 60°C)
 - * Exchanger overtemperature protection sensor calibrated to 95°C
 - * Flue gas safety sensor
 - * Water pressure switch with minimum threshold of 0.8 bar
- Hydraulic unit (provided as accessory) with three-way shut-off valve for discharge into the atmosphere and possibility of choosing between two **circulators, standard and high head**
- Air / Flue gas circuit with intake in the installation site and **check valve** on the flue gas ejection duct to size the pressurised manifold

> ADVANTAGES OF FORCE W:

- Module cascade management with **self-configuring Master / Slave system** and possibility of setting the generator on/off sequence
- Electronics on board the machine to manage a **system with two direct zones and one DHW storage** or systems with differentiated temperatures (direct and mixed) in combination with the FZ4 B temperature control unit
- **Range Rated** certified generator to adjust the generated power to the system's needs by increasing the efficiency of the system and preserving the mechanics of the machine
- The modules can be controlled and conducted remotely:
 - * Power or temperature adjustment with 0 - 10V signal
 - * Blocking alarm signal for safety and to restart operation
 - * **Opentherm (OT) and Modbus** communication protocols with settable parameters



| MODEL | | | W 60 | W 80 | W 99 | W 120 | W 150 |
|-----------------------------------|---|-----------------|---|---------------|---------------|---------------|---------------|
| ERP Class |  | (Class G - A+) |  | - | - | - | - |
| Heating heat input | Max / Min | kW | 58.0 / 15.0 | 74.4 / 15.0 | 96.6 / 19.0 | 113.0 / 19.0 | 159.0 / 24.0 |
| Heating heat output 80°C-60°C | Max / Min | kW | 56.5 / 14.7 | 72.9 / 14.7 | 94.6 / 18.76 | 110.3 / 18.7 | 140.0 / 23.6 |
| Useful heating output 50°C-30°C | Max / Min | kW | 61.5 / 15.7 | 77.0 / 14.7 | 100.0 / 20.5 | 117.0 / 20.0 | 148.0 / 25.9 |
| Efficiency | 80°C-60°C | Pmax % / Pmin % | 98.3 / 98.3 | 98.0 / 98.3 | 98.0 / 98.3 | 97.8 / 98.3 | 97.8 / 98.3 |
| | 50°C-30°C | Pmax % / Pmin % | 104.8 / 108.5 | 103.5 / 108.5 | 103.5 / 108.5 | 103.5 / 108.0 | 103.5 / 108.0 |
| | 30% partial load | Pmax % | 108.6 | 108.6 | 108.1 | 108.1 | 108.1 |
| NOx emissions class | | | 6 | 6 | 6 | 6 | 6 |
| NOx (O ₂ =0%) weighted | | mg/kWh | 50 | 54 | 39 | 38 | 40 |
| CO (O ₂ =0%) weighted | | mg/kWh | 75 | 85 | 49 | 50 | 50 |
| Heating operating pressure | Max / Min | bar | 6 / 0.8 | 6 / 0.8 | 6 / 0.8 | 6 / 0.8 | 6 / 0.8 |
| Water volume | | lt | 4.2 | 4.2 | 5.6 | 5.6 | 6.7 |
| Empty weight | | kg | 54 | 54 | 63 | 63 | 73 |
| No. of pieces/pallet | | no. | 6 | 6 | 6 | 6 | 6 |
| CODE | | NATURAL GAS | OMDLAAWA | OMDLCAWA | OMDLDAWA | OMDLEAWA | OMDLFAWA |



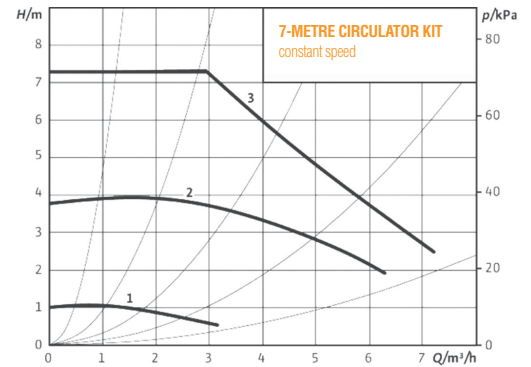
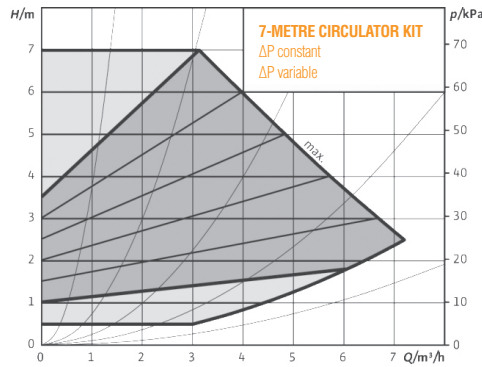
> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| DESCRIPTION | CODE |
|--|----------|
| low-consumption modulating circulator Head 7 m | 042070X0 |
| low-consumption modulating circulator Head 10 m | 042071X0 |
| system hydraulic kit: 1 x MF 1" 1/2 cock, 1 x 3-way T 1" 1/2 cock, 1 x 1" 1/2 check valve, 1 x MM 1" 1/2 nipple, 2 gaskets | 042072X0 |
| safety manifold | 042075X0 |
| hydraulic (DN65 delivery and return), gas (DN40) manifolds kit for cascade installation | 042074X0 |
| cascade hydraulic manifolds flanges kit DN65 | 042073X0 |
| self-standing frame starter kit* for single or cascade installations * (self-standing only with installation with hydraulic manifolds kits) | 042076X0 |
| self-standing frame extension kit for cascade installation | 042077X0 |
| hydraulic separator DN 65 For installation until 300 kW | 042078X0 |
| installation kit for hydraulic separator DN 65 | 042079X0 |
| Hydraulic separator DN 100 For installation until 600 kW | 042080X0 |
| Installation kit for hydraulic separator DN 100 | 042081X0 |
| gasketed plates heat exchanger | |

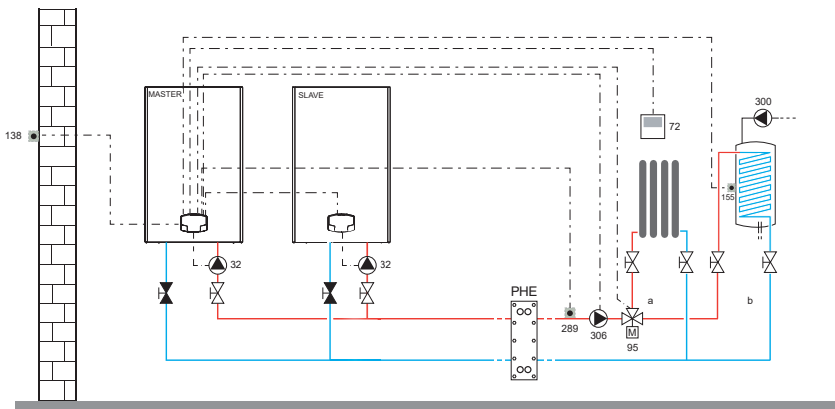
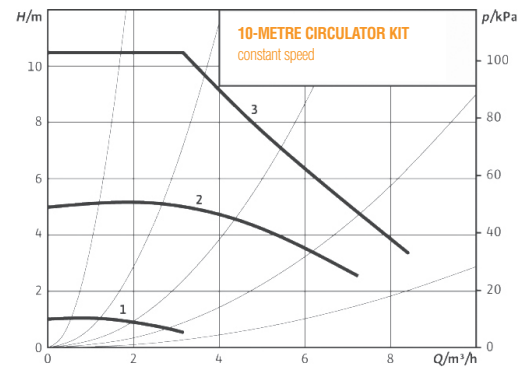
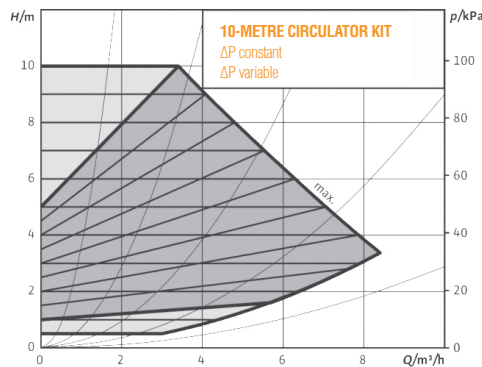
| DESCRIPTION | CODE | |
|---|---------------------------------------|----------|
| kit for management with thermostat (not supplied) of a dhw storage tank (for heating only boilers) | 013017X0 | |
| additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator | 2 m cable 1KWMA11W | |
| | 5 m cable 043005X0 | |
| outdoor probe | 013018X0 | |
| Ø 100 flue gas terminal | 1KWMA29K | |
| M/F flue gas outlet reduction Ø 100/80 mm | 041090X0 | |
| flue gas manifold starter kit cascade | 041091X0 | |
| flue gas manifold extension kit cascade | 041092X0 | |
| 90° bend kit in pps Ø 80 mm | 1KWMA01W | |
| | 90° bend kit in pps Ø 100 mm | 041077X0 |
| | 90° bend kit in pps Ø 200 mm | 041060X0 |
| 0.5 m pps Ø 100 mm MF flue gas duct kit | 041072X0 | |
| 1 m pps Ø 80 mm MF flue gas duct kit | 1KWMA83W | |
| | 1 m pps Ø 100 mm MF flue gas duct kit | 041073X0 |
| | 1 m pps Ø 200 mm MF flue gas duct kit | 041062X0 |
| neutralisers (see chapter on condensation neutralisers for condensing boilers) | | |

FORCE W CONDENSATION THERMAL MODULES FOR CASCADE SYSTEMS FROM POWER PLANT

CIRCULATOR KIT 7 m



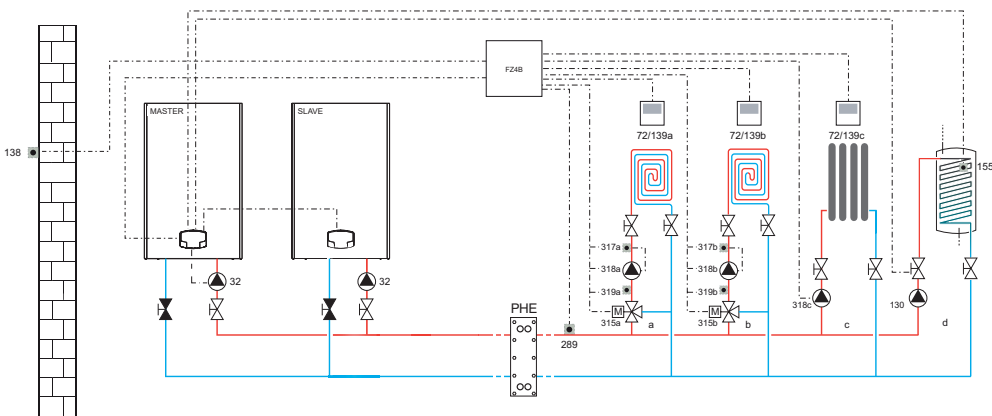
CIRCULATOR KIT 10 m



CASE A: REPLACEMENT OF THE EXISTING GENERATOR ON A HIGH TEMPERATURE SYSTEM

Thermal system with two loops separated by a plate heat exchanger (PHE). The primary circuit is fed by two FORCE W modules connected as a cascade operating in AUTO-CASCADE mode managed directly by the boiler electronics. A "direct" high temperature circuit and a DHW storage with recirculation pump are connected on the secondary circuit (system side). In addition to SLAVE thermal unit management, without any additional equipment, the MASTER generator can control the system's main components.

KEY 32 Boiler circulator **72a** Room thermostat 1st zone (mixed) **72b** Room thermostat 2nd zone (mixed) **72c** Room thermostat 3rd zone (direct) **138** Outdoor probe **139a** Remote timer control 1st zone (mixed) **139b** Remote timer control 2nd zone (mixed) **139c** Remote timer control 3rd zone (direct) **155** Storage tank probe **300** Antilegionella circulator **315a** Mixing valve 1st zone (mixed) [A = OPENING PHASE B = NEUTRAL C = CLOSING PHASE] **315b** Mixing valve 2nd zone (mixed) [A = OPENING PHASE B = NEUTRAL C = CLOSING PHASE] **317a** Safety thermostat 1st zone (mixed) **317b** Safety thermostat 2nd zone (mixed) **318a** Circulator 1st zone (mixed) **318b** Circulator 2nd zone (mixed) **318c** Circulator 3rd zone (direct) **319a** Delivery sensor 1st zone (mixed) **319b** Delivery sensor 2nd zone (mixed) **a** 1st zone (mixed) **b** 2nd zone (mixed) **c** 3rd zone (direct) **d** Storage tank circuit **FZ4 B** Zone control card **PHE** Steel plate heat exchanger

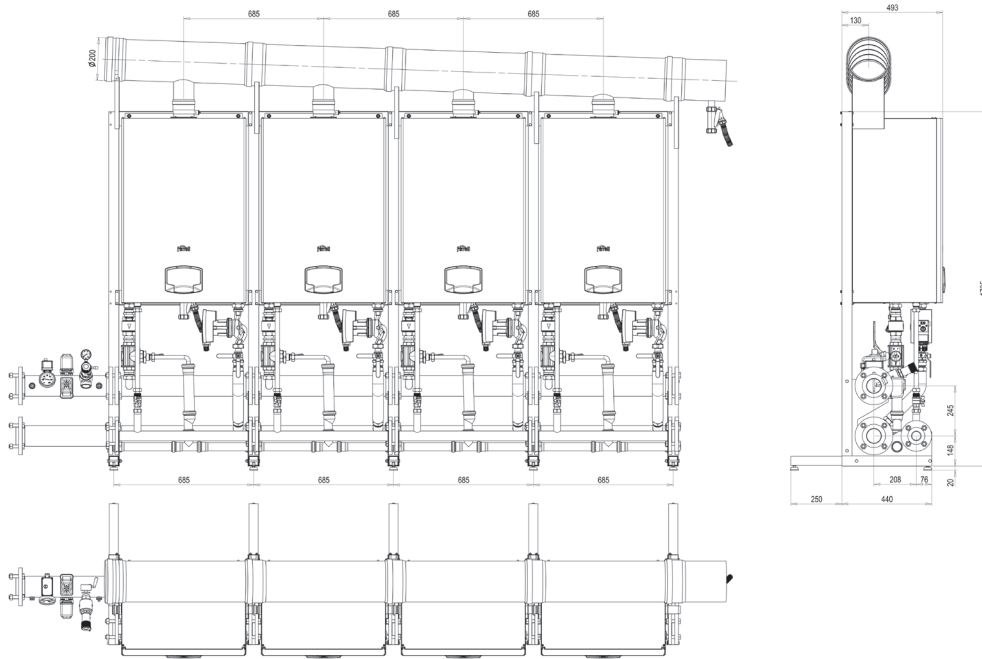


CASE B: NEWLY DESIGNED SYSTEM

Thermal system with two loops separated by a plate heat exchanger (PHE). The primary circuit is fed by two FORCE W modules connected as a cascade operating in AUTO-CASCADE mode managed directly by the boiler electronics. The secondary circuit is composed of two mixed low temperature "zones", a high temperature direct one and a DHW storage.

The MASTER generator controls DHW production directly, in addition to managing the SLAVE thermal unit. The heating zones are controlled by card FZ4 B, connected to the generators through Open Therm.

FORCE W CASCADE EXAMPLES



CASCADE KIT FITTINGS

- Delivery/return manifolds DN65 PN16
- Gas manifold DN40 PN16
- Condensation drain manifold Ø 40 mm
- Flue gas manifold Ø 200 mm

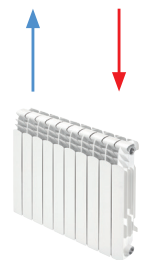
| P _{out} (50,30°C) | MODULES FORCE W | | | | | Tot. modules | Self-standing frame (start) | Self-standing frame (extension) | 7-m modulating circulator | 10-m modulating circulator | FORCE W hydraulic kit (3-way 1"1/2 cock - 2-way 1"1/2 check valve) | hydraulic DN65 delivery and return, gas (DN40) manifolds kit for cascade installation | Safety manifold | Blind flange kit DN65 | 5 m storage tank probe and/or system flow | Flue gas manifold starter kit | Flue gas manifold extension kit | Hydraulic separator DN 65 (up to 300 kW) | Installation kit for hydraulic separator DN 65 | Hydraulic separator DN 100 (up to 600 kW) | Installation kit for hydraulic separator DN 100 | Plate heat exchanger |
|-------------------------------|--------------------|----|----|-----|-----|--------------|-----------------------------|---------------------------------|---------------------------|----------------------------|--|---|-----------------|-----------------------|---|-------------------------------|---------------------------------|--|--|---|---|----------------------|
| | 60 | 80 | 99 | 120 | 150 | | 042076X0 | 042077X0 | 042070X0 | 042071X0 | 042072X0 | 042074X0 | 042075X0 | 042073X0 | 043005X0 | 041091X0 | 041092X0 | 042078X0 | 042079X0 | 042080X0 | 042081X0 | see table |
| 62 | 1 | | | | | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - | 1 | 1 | - | - | 1 | |
| 77 | | 1 | | | | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - | 1 | 1 | - | - | 1 | |
| 98 | | | 1 | | | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - | 1 | 1 | - | - | 1 | |
| 117 | | | | 1 | | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - | 1 | 1 | - | - | 1 | |
| 148 | | | | | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | 1 | - | - | 1 | 1 | - | - | 1 | |
| 124 | 2 | | | | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 139 | 1 | 1 | | | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 154 | | 2 | | | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 179 | 1 | | | 1 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 194 | | 1 | | 1 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 215 | | | 1 | 1 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 234 | | | | 2 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 265 | | | | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | - | - | 1 | |
| 296 | | | | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | - | - | 1 | 1 | 1 | |
| 332 | | | 1 | 2 | | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 351 | | | | 3 | | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 373 | | 1 | | | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 394 | | | 1 | | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 413 | | | | 1 | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 444 | | | | | 3 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 3 | - | - | 1 | 1 | 1 | |
| 468 | | | | | 4 | 4 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | - | - | 1 | 1 | 1 | |
| 506 | 1 | | | | 3 | 4 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | - | - | 1 | 1 | 1 | |
| 530 | | | | 2 | 2 | 4 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | - | - | 1 | 1 | 1 | |
| 561 | | | | 1 | 3 | 4 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | - | - | 1 | 1 | 1 | |
| 592 | | | | | 4 | 4 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | - | - | 1 | 1 | 1 | |

FORCE W SIZING AND CHOICE PLATE EXCHANGER

Below are some examples of sizing of plate heat exchangers to be combined with FORCE W generators. The choice and testing of the heat exchanger to be used, in relation to the system, is always the responsibility of the customer. The installation technician is in charge of installation. Characteristics and technical data of the PHE plate heat exchangers are in the "System components" section.

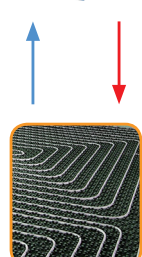
> HIGH TEMPERATURE SYSTEMS

| System power | Models FORCE W | | | | | INSPECTABLE PLATE EXCHANGERS PHE | | | | | |
|--------------|----------------|----|----|-----|-----|----------------------------------|----------|------------------|----------------|--------------------|----------------|
| | | | | | | MODEL | CODE | Primary: 80/60°C | | Secondary: 50/70°C | |
| | | | | | | | | Flow rates | Pressure drops | Flow rates | Pressure drops |
| kW | 60 | 80 | 99 | 120 | 150 | m³/h | m²H₂O | m³/h | m²H₂O | | |
| 62 | 1 | | | | | PHE 32380 29P | 052682X0 | 2.72 | 0.6745 | 2.71 | 0.5968 |
| 77 | | 1 | | | | PHE 32380 41P | 052683X0 | 3.38 | 0.6205 | 3.37 | 0.6136 |
| 98 | | | 1 | | | PHE 32380 41P | 052683X0 | 4.31 | 1.0001 | 4.29 | 0.9891 |
| 117 | | | | 1 | | PHE 32380 47P | 052684X0 | 5.14 | 1.1973 | 5.12 | 1.1852 |
| 148 | | | | | 1 | PHE 50420 35P | 052686X0 | 6.50 | 0.6655 | 6.47 | 0.6655 |
| 124 | 2 | | | | | PHE 32380 47P | 052684X0 | 5.45 | 1.3435 | 5.42 | 1.3299 |
| 139 | 1 | 1 | | | | PHE 32380 53P | 052685X0 | 6.11 | 1.1245 | 6.08 | 1.4589 |
| 154 | | 2 | | | | PHE 50420 35P | 052686X0 | 6.77 | 0.7169 | 6.74 | 0.7169 |
| 179 | 1 | | | 1 | | PHE 50420 35P | 052686X0 | 7.86 | 0.9512 | 7.83 | 0.9510 |
| 194 | | 1 | | 1 | | PHE 50420 35P | 052686X0 | 8.52 | 1.1068 | 8.49 | 1.1065 |
| 215 | | | 1 | 1 | | PHE 50420 35P | 052686X0 | 9.45 | 1.3430 | 9.41 | 1.3430 |
| 234 | | | | 2 | | PHE 50420 43P | 052687X0 | 10.28 | 1.1238 | 10.24 | 1.1233 |
| 265 | | | | 1 | 1 | PHE 50420 43P | 052687X0 | 11.64 | 1.4220 | 11.59 | 1.4213 |
| 296 | | | | | 2 | PHE 50420 53P | 052688X0 | 14.59 | 1.2763 | 14.52 | 1.2754 |
| 332 | | | 1 | 2 | | PHE 50420 53P | 052688X0 | 15.42 | 1.5776 | 15.36 | 1.5863 |
| 351 | | | | 3 | | PHE 50420 59P | 052689X0 | 15.42 | 1.5179 | 15.36 | 1.5166 |
| 373 | | 1 | | | 2 | PHE 50420 59P | 052689X0 | 16.39 | 1.7046 | 16.32 | 1.703 |
| 394 | | | 1 | | 2 | PHE 50420 67P | 052690X0 | 17.31 | 1.6019 | 17.24 | 1.6019 |
| 413 | | | | 1 | 2 | PHE 50420 67P | 052690X0 | 18.15 | 1.7531 | 18.07 | 1.7512 |
| 444 | | | | | 3 | PHE 50420 67P | 052690X0 | 19.60 | 2.0138 | 19.42 | 2.0116 |
| 468 | | | | 4 | | PHE 50420 67P | 052690X0 | 20.56 | 2.0745 | 20.47 | 2.0722 |
| 506 | 1 | | | | 3 | PHE 50420 81P | 052692X0 | 22.23 | 2.0738 | 22.14 | 4.0838 |
| 530 | | | | 2 | 2 | PHE 50420 81P | 052692X0 | 23.29 | 2.2676 | 23.19 | 2.2645 |
| 561 | | | | 1 | 3 | PHE 50420 85P | 052693X0 | 24.65 | 2.4048 | 24.54 | 2.4014 |
| 592 | | | | | 4 | PHE 50420 97P | 052694X0 | 26.01 | 2.3475 | 25.90 | 2.3437 |



> LOW TEMPERATURE SYSTEMS

| System power | Models FORCE W | | | | | INSPECTABLE PLATE EXCHANGERS PHE | | | | | |
|--------------|----------------|----|----|-----|-----|----------------------------------|----------|------------------|----------------|--------------------|----------------|
| | | | | | | MODEL | CODE | Primary: 60/40°C | | Secondary: 30/40°C | |
| | | | | | | | | Flow rates | Pressure drops | Flow rates | Pressure drops |
| kW | 60 | 80 | 99 | 120 | 150 | m³/h | m²H₂O | m³/h | m²H₂O | | |
| 62 | | | | | | PHE 32380 29P | 052682X0 | 2.70 | 0.680 | 5.37 | 3.615 |
| 77 | | 1 | | | | PHE 32380 29P | 052682X0 | 3.36 | 1.042 | 6.67 | 4.014 |
| 98 | | | 1 | | | PHE 32380 29P | 052682X0 | 4.27 | 1.677 | 8.49 | 6.468 |
| 117 | | | | 1 | | PHE 32380 41P | 052683X0 | 5.10 | 1.427 | 10.14 | 5.530 |
| 148 | | | | | 1 | PHE 32380 53P | 052685X0 | 6.45 | 3.104 | 12.83 | 6.513 |
| 124 | 2 | | | | | PHE 32380 47P | 052684X0 | 5.40 | 1.348 | 10.75 | 5.238 |
| 139 | 1 | 1 | | | | PHE 32380 47P | 052684X0 | 6.06 | 1.690 | 12.05 | 6.570 |
| 154 | | 2 | | | | PHE 32380 53P | 052685X0 | 6.71 | 1.809 | 13.35 | 7.048 |
| 179 | 1 | | | 1 | | PHE 50420 35P | 052686X0 | 7.80 | 0.937 | 15.51 | 3.646 |
| 194 | | 1 | | 1 | | PHE 50420 35P | 052686X0 | 8.45 | 1.148 | 16.81 | 4.244 |
| 215 | | | 1 | 1 | | PHE 50420 35P | 052686X0 | 9.37 | 1.392 | 18.63 | 5.155 |
| 234 | | | | 2 | | PHE 50420 35P | 052686X0 | 10.20 | 1.632 | 20.28 | 6.052 |
| 265 | | | | 1 | 1 | PHE 50420 43P | 052687X0 | 11.55 | 1.470 | 22.97 | 5.467 |
| 296 | | | | | 2 | PHE 50420 53P | 052688X0 | 12.90 | 1.316 | 25.85 | 4.915 |
| 332 | | | 1 | 2 | | PHE 50420 53P | 052688X0 | 14.47 | 1.635 | 28.77 | 1.635 |
| 351 | | | | 3 | | PHE 50420 59P | 052689X0 | 15.29 | 1.561 | 30.42 | 6.804 |
| 373 | | 1 | | | 2 | PHE 50420 59P | 052689X0 | 16.25 | 1.752 | 32.33 | 6.579 |
| 394 | | | 1 | | 2 | PHE 50420 67P | 052690X0 | 17.17 | 1.643 | 34.15 | 6.192 |
| 413 | | | | 1 | 2 | PHE 50420 67P | 052690X0 | 18.00 | 1.798 | 35.79 | 6.778 |
| 444 | | | | | 3 | PHE 50420 71P | 052691X0 | 19.35 | 1.920 | 38.48 | 7.258 |
| 468 | | | | 4 | | PHE 50420 81P | 052692X0 | 20.39 | 1.823 | 40.56 | 6.918 |
| 506 | 1 | | | | 3 | PHE 50420 97P | 052694X0 | 22.05 | 1.763 | 43.85 | 6.735 |
| 530 | | | | 2 | 2 | PHE 50420 97P | 052694X0 | 23.09 | 1.928 | 45.93 | 7.368 |
| 561 | | | | 1 | 3 | PHE50750 71P | 052695X0 | 24.44 | 1.711 | 48.62 | 6.568 |
| 592 | | | | | 4 | PHE50750 71P | 052695X0 | 25.79 | 1.899 | 51.31 | 7.292 |



FORCE W CHOICE HYDRAULIC SEPARATOR

The hydraulic separator guarantees the independence between the primary circuit (generator) and the secondary circuit (system) without any disturbance or interference between them. The separator is proposed complete with deaerator, sludge separator and is fully insulated.

CHARACTERISTICS:

Max operating pressure: 6 bar - Temperature range: 0 - 100°C - Fittings: DN 65 / DN 100

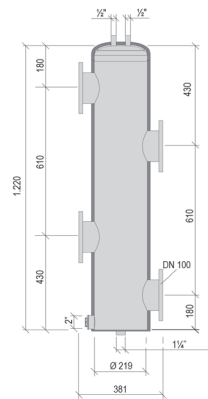
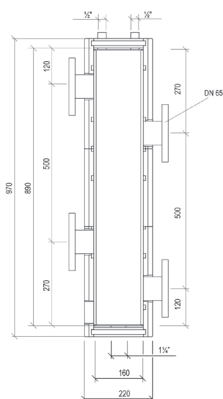
HYDRAULIC SEPARATOR FOR INSTALLATION UP TO 300 KW

| DESCRIPTION | CODE |
|--|----------|
|  Hydraulic separator DN 65 | 042078X0 |
|  Kit for hydraulic separator installation | 042079X0 |

HYDRAULIC SEPARATOR FOR INSTALLATION UP TO 600 KW

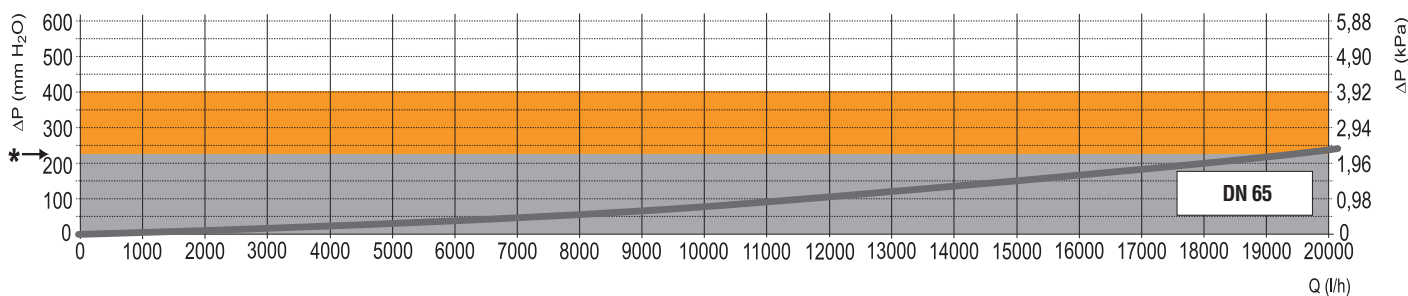
| DESCRIPTION | CODE |
|---|----------|
|  Hydraulic separator DN 100 | 042080X0 |
|  Kit for hydraulic separator installation | 042081X0 |

DIMENSION AND TECHNICAL DATA



| MODEL | | DN 65 | DN 100 |
|-----------------|-------------------|--------------------|--------------------|
| Flow rate | m ³ /h | 18 | 30 |
| Water content | lt | 21 | 46 |
| Max temperature | °C | 100 | 100 |
| Max pressure | bar | 6 | 6 |
| Material | - | ST37.1 stainless | ST37.1 stainless |
| Insulation | - | Black EPP - 40 g/l | Black EPP - 40 g/l |

PRESSURE DROP



* Nominal reference: internal speed ~ 0.2 m/s - inlet side speed 1.2 m/s

■ limited working range
■ Recommended working range

BLUEHELIX B FLOOR STANDING CONDENSING BOILER, FOR HEATING ONLY



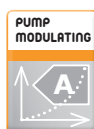
> STRENGTHS:

- It reaches **one of the highest seasonal space heating efficiencies** in its category: η_s **94%** (only mod. 35)
- **A+ SYSTEM**: combined with the modulating remote control and the outdoor probe (optional) it reaches the top efficiency class **A+** (scale from G to A+++)
- **Stainless steel** primary heat exchanger
- **Stainless steel full pre-mixing burner** with broad modulating range
- **Low consumption modulating heat pump (ErP Ready - Class A)**
- **Digital commands with user interface display**, multi-purpose for easily and correctly entering parameters
- **Can be combined with the modulating remote control**
- **Easily accessible hydraulic and gas fittings** to facilitate replacing old generators
- **Flue gas discharge with spilt or coaxial pipes**; possibility of right, left or rear outlet

> ADVANTAGES OF BLUEHELIX B:

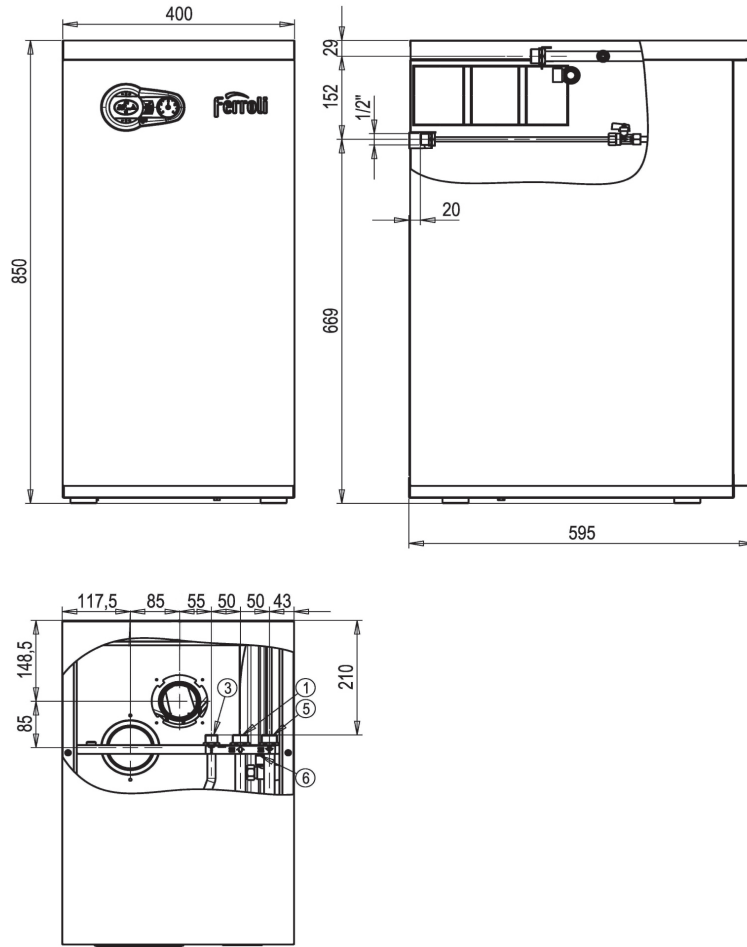
- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Sliding temperature operating mode** in combination with the optional outdoor probe
- **Exchanger protection function** with Δt control
- **Timed circulator block protection**
- **Digital flame control** with three reignition tries if operation gets blocked due to failed flame detection (only in natural gas mode)
- **Antifrost function** with standard protection down to -5°C

* only mod. 35



| MODEL | | | B 35 | B S 45 |
|----------------------------|-----------------------------|------------------|-----------------|-----------------|
| ERP Class | | (Class G - A+++) | A | A |
| Heat input (L.C.V.) | Heating Min / Max | kW | 6.7 / 32.0 | 7.5 / 43.0 |
| Heat output | 80°C-60°C Heating Min / Max | kW | 6.6 / 31.4 | 7.3 / 42.1 |
| | 50°C-30°C Heating Min / Max | kW | 7.2 / 34.0 | 8.1 / 45.6 |
| Useful thermal efficiency | 80°C-60°C | Pmax % / Pmin % | 98.0 / 97.8 | 98.0 / 97.8 |
| | 50°C-30°C | Pmax % / Pmin % | 106.1 / 107.5 | 106.1 / 107.5 |
| | Reduced load 30% | Pmax % | 108.8 | 108.8 |
| Nox emissions class | | class | 6 | 6 |
| Heating operating pressure | Max | bar | 3 | 3 |
| Empty weight | | kg | 69 | 69 |
| CODE | NATURAL GAS | | 0TA03AWA | 0TAD5AWA |

BLUEHELIX B






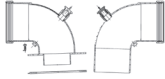

> KEY

- 1 3/4" system flow
- 3 1/2" gas inlet

- 5 3/4" system return
- 6 safety valve discharge

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

| DESCRIPTION | | CODE |
|---|---------------|----------|
|  | outdoor probe | 013018X0 |
|  | cable 2 m | 1KWMA11W |
| | cable 5 m | 043005X0 |

| DESCRIPTION | | CODE |
|--|---|----------|
|  | 90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers | 041001X0 |
|  | discharge kit twin pipes 80/80 complete with test point | 041065X0 |
|  | kit for management with thermostat (not supplied) of a dhw storage tank | 013017X0 |

FLUES CHIMNEY ACCESSORIES CONDENSING GAS BOILERS

1KWMA56W



1 mt Concentric terminal pipe, Ø 60/100 mm, external PVC, internal PPs.
Includes wall gasket.

1KWMA58W



1 mt Concentric terminal pipe, Ø 80/125 mm, external PVC, internal PPs.
Includes wall gasket.

1KWMA57W



1 mt M-F concentric extension, Ø 60/100 mm, external PVC, internal PPs

1KWMA59W



1 mt M-F concentric extension, Ø 80/125 mm, external PVC, internal PPs

041051X0



90° M-F concentric bend, Ø 60/100 mm, PPs

1KWMA73W



90° M-F concentric bend, Ø 80/125 mm, external aluminium, internal PPs

1KWMA83W



1 mt M-F pipe, Ø 80 mm, PPs

1KWMA01W



90° M-F bend, Ø 80 mm, PPs

1KWMA64W



45° M-F concentric bend, Ø 60/100 mm, external PVC, internal PPs

1KWMA72W



45° M-F concentric bend, Ø 80/125 mm, external PVC, internal PPs

1KWMA88W



90° M-F bend, Ø 60 mm, PPs

1KWMA65W



45° M-F bend, Ø 80 mm, PPs

1KWMA70W



Flue or air test point Ø 80 mm (M-F) PPs

041000X0



90° M-F bend, Ø 80 mm, PPs, with test point

041049X0



Concentric roof terminal, Ø 60/100 mm, external PVC, internal PPs (✱)

010036X0



Concentric roof terminal, Ø 80/125 mm, external PVC, internal PPs (✱)

FLUES CHIMNEY ACCESSORIES CONDENSING GAS BOILERS

041050X0



M-F reduction,
ø 80/60 mm

041086X0



1m extension,
ø 50 mm

1KWMA89W



1m M-F pipe,
ø 60 mm

041085X0



90° M-F bend,
ø 50 mm

041087X0



Reduction,
ø 80/50 mm



INCLUDES Ø 132 MM COLLAR (ADJUSTABLE IN HEIGHT) FOR CONNECTION TO FERROLI'S ROOF TILES.
ACCESSORIES VALID FOR ROOM SEALED MODELS ONLY



FLUES CHIMNEY ACCESSORIES TRADITIONAL GAS BOILERS AND WATER HEATERS

1KWMA56A



1 mt concentric terminal pipe, Ø 60/100 mm, external PVC, internal aluminium. Includes wall gasket.

1KWMA66A



1 mt concentric terminal pipe, Ø 60/100 mm, aluminium. Includes wall gasket.

1KWMR56A



1 MT concentric terminal pipe, Ø 80/125 mm, aluminium

1KWMA56U



1 mt M-F concentric extension, Ø 60/100 mm, external PVC, internal aluminium

1KWMR56U



1 mt M-F concentric extension, Ø 80/125 mm, external PVC, internal aluminium

1KWMA81W



90° M-F concentric bend, Ø 60/100 mm, external PVC, internal aluminium

010002X0



90° M-F concentric bend, Ø 80/125 mm, external PVC, internal aluminium

1KWMA31W



45° M-F concentric bend, Ø 60/100 mm, external PVC, internal aluminium

1KWMA72K



45° M-F concentric bend, Ø 80/125 mm, aluminium

1KWMA08K



1 mt M-F pipe, Ø 100 mm, aluminium

1KWMA38A



0,5 mt M-F pipe, Ø 80 mm, aluminium

1KWMA70U



90° M-F bend, Ø 80 mm, aluminium, with test point

1KWMA82A



90° M-F bend, Ø 80 mm, aluminium

1KWMA04K



90° M-F bend, Ø 100 mm, aluminium

FLUES CHIMNEY ACCESSORIES TRADITIONAL GAS BOILERS AND WATER HEATERS

1KWMA65A



45° M-F bend, Ø 80 mm, aluminium

1KWMA19K



Reduction nipple for flexible pipe, Ø 72/79 mm, stainless steel AISI 316 L

1KWMA03K



45° M-F bend, Ø 100 mm, aluminium

1KWMA16U



Vertical connection, Ø 80 mm, aluminium, with test point

1KWMA02K



90° F-F bend, Ø 80 mm, aluminium

1KWMA03U



M-F reduction, Ø 80-100 mm, aluminium

1KWMA01K



45° F-F bend, Ø 80 mm, aluminium

FLUES CHIMNEY ACCESSORIES UNIVERSAL USE

Accessories valid for room sealed models only

1KWMA84A



Wall gasket, Ø 80 mm, silicon

1KWMR11A



Wall gasket, Ø 100 mm, silicon

1KWMA91A



Wall gasket, Ø 60 mm, silicon

1KWMR09A



Wall gasket, Ø 125 mm, silicon

1KWMA85A



Air terminal, Ø 80mm, stainless steel

1KWMA14K



Air terminal Ø 100 mm, stainless steel

1KWMA86A



Flue terminal, Ø 80 mm, stainless steel

1KWMA29K



Flue terminal Ø 100 mm, stainless steel

1KWMA90A



Flue terminal, Ø 60 mm, stainless steel

1KWMA07U



Connection joint, Ø 80 mm, steel

1KWMA08U



Connection joint, Ø 100 mm, steel

1KWMA81U



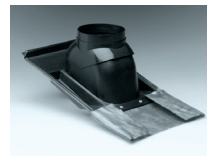
Roof tile for flat roofs, PVC Ø 132 mm

1KWMA86U



Roof reduction from Ø 125 mm to Ø 80 mm, PVC
(For adaption of code 010026X to evacuation chimney
only thus closing air inlet)

1KWMA82U



Roof tile for sloping roofs, PVC and lead moldable
support Ø 132 mm

010026X0



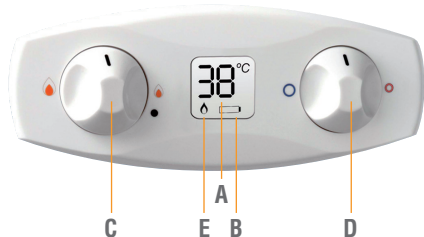
Concentric roof terminal, Ø 80/125 mm, external
plastic, internal aluminium, condensate-proof (✱)

PHASING OUT

ZEFIRO ECO LOW NOx GAS INSTANTANEOUS WATER HEATER

NATURAL DRAUGHT - OPEN FLUE

ERP



> KEY

- A Display of domestic hot water temperature
- B Battery level signal
- C Burner power/off regulation
- D Temperature regulation
- E Burner on symbol

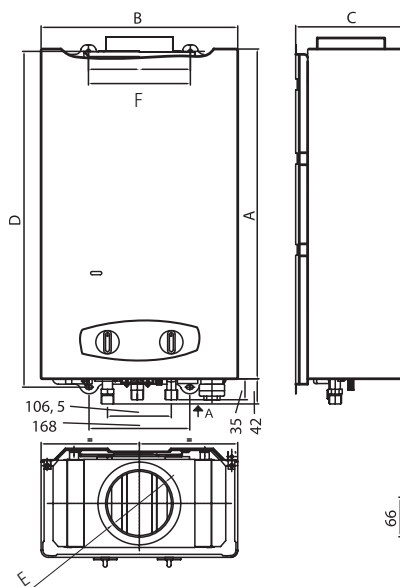
Gas water heater with open chamber and natural draught, with modulating heat power with emission of **LOW NOx flue gas - Class 6**

> STRENGTHS:

- **Heat exchanger** with copper finned pipes, finished externally with an aluminium rustproof treatment
- **Modulating heat input** and fine regulation of hot water output temperature
- **Display** for easy and prompt reading with operation indicators of the device and battery charge. Power and hot water temperature regulation using comfortable ergonomic **knobs**
- Battery power supply

> ADVANTAGES OF ZEFIRO ECO:

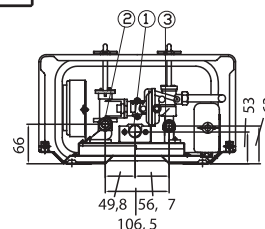
- Product sold in Natural gas and LPG version
- Wide range of hot water **temperature regulation** and **power modulation**
- Compact **size** and reduced weight



| DIMENSIONS (mm) | ECO 11 | ECO 14 |
|-----------------|--------|--------|
| A | 550 | 650 |
| B | 328 | 400 |
| C | 181 | 181 |
| D | 560 | 660 |
| E (ø) | 110 | 130 |
| F | 170 | 220 |

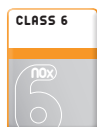
> KEY

- 1 hot water output 1/2"
- 2 1/2" gas inlet
- 3 cold water inlet 1/2"



VIEW FROM ABOVE

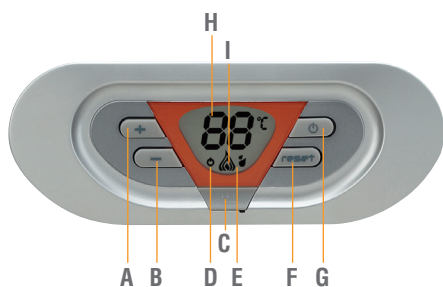
VIEW FROM BELOW



| MODEL | | | ECO 11 | ECO 14 |
|---|-----------------|---------------|----------------------|----------------------|
| ERP Class | M | (Class G - A) | A | A |
| Nominal heat input (Pn) | | kW | 21.1 | 26.8 |
| Useful power | Min / Max | kW | 7.1 / 18.8 | 9.5 / 23.7 |
| NOx Class (according to EN 15502) | | | 6 | 6 |
| Maximum operating pressure | | bar | 10 | 10 |
| Domestic hot water production | Δt 25°C | l/min | 11.0 | 13.9 |
| | Δt 30°C | l/min | 9.1 | 11.3 |
| Domestic hot water temperature regulation | Min / Max | °C | 40 / 65 | 40 / 65 |
| Power supply | | | Battery | Battery |
| No. of pieces/pallet | | no. | 20 | 20 |
| CODE | NAT. GAS LPG | | GCA1MKAA GCA1MLAA | GCA1PKAA GCA1PLAA |

SKY ECO F LOW NOx GAS INSTANTANEOUS WATER HEATER FORCED DRAUGHT - ROOM SEALED

ERP



Gas water heater with sealed chamber, modulating heat power and electronic control of combustion with emission of **LOW NOx flue gas - Class 6**

> STRENGTHS:

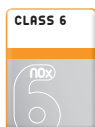
- **Heat exchanger** with copper finned pipes, finished externally with an aluminium rustproof treatment
- **ECS (Evolved Combustion System): electronic control of combustion and continuous modulating heat input**, managed continuously by a microprocessor that ensures maximum water heater efficiency according to the thermal load
- **Flue gas output and air inlet** that are set via a coaxial pipe 60/100 mm with double 80 mm pipe (air/flue gas). Supply of full accessories for both solutions
- Ideal for installation both **indoors and outdoors**, in a partially protected place (standard minimum -5°C and down to -15°C with the optional antifrost heating elements kit)
- Simple and intuitive **key controls** to adjust the water temperature and **large display** for easy, prompt reading
- **Set up** to operate with solar panel systems





> ADVANTAGES OF SKY ECO F:

- Product sold in Natural gas and LPG version
- Wide range of hot water **temperature regulation** and **power modulation**
- Compact **size**, reduced weight and **highly functional internal** layout of the device in order to facilitate maintenance

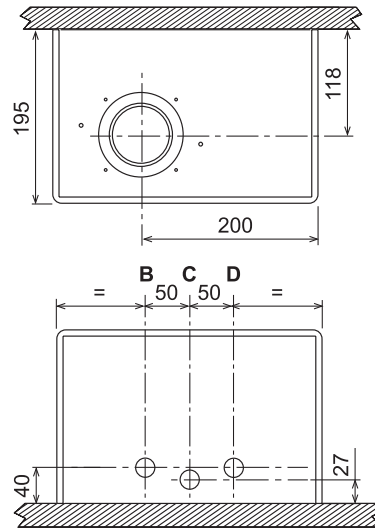
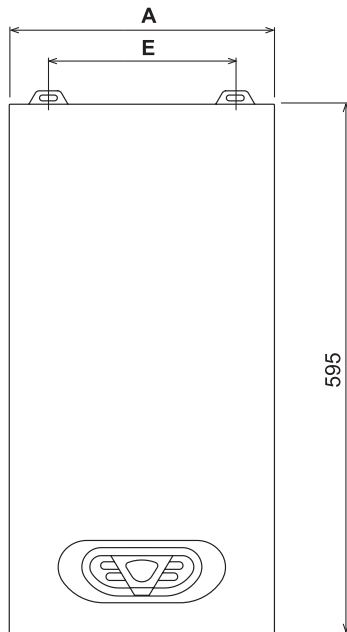
> KEY

- A** Key to increase the domestic hot water temperature
- B** Key to decrease the domestic hot water temperature
- C** Service Tool connection
- D** OFF symbol
- E** DHW operation symbol
- F** Reset key
- G** Device on/off key
- H** Multifunction symbol
- I** Burner on symbol and current power level (Flashing during faulty combustion)



| MODEL | | | ECO 11 F | ECO 14 F | ECO 17 F |
|---|---|------------|---|---|---|
| ERP Class |  (Class G - A) | |  |  |  |
| Nominal heat input | Max | kW | 21.7 | 26.9 | 32.9 |
| Heat output | Max / Min | kW | 19.5 / 5.5 | 24.2 / 9.37 | 29.6 / 11.47 |
| NOx Class (according to EN 15502) | | | 6 | 6 | 6 |
| Maximum operating pressure | | bar | 10 | 10 | 10 |
| Maximum DHW production | Δt 25°C / Δt 30°C | l/min | 11.2 / 9.3 | 13.9 / 11.6 | 17.0 / 14.2 |
| Domestic hot water temperature regulation | Min / Max | °C | 40 / 65 | 40 / 65 | 40 / 65 |
| Empty weight | | Kg | 14 | 15 | 18 |
| Electric power supply | | V/Hz | 230 / 50 | 230 / 50 | 230 / 50 |
| No. of pieces/pallet | | no. | 10 | 10 | 10 |
| CODE | NAT. GAS | | ODF94IAA | ODF95IAA | ODF97IAA |
| | LPG | | ODF94KAA | ODF95KAA | ODF97KAA |

SKY ECO F



> KEY

B Domestic outlet Ø 1/2"





C Gas inlet Ø 3/4"

D Domestic inlet Ø 1/2"

| DIMENSIONS | ECO 11 F | ECO 14 F | ECO 17 F |
|-------------|----------|----------|----------|
| A mm | 295 | 335 | 375 |
| E mm | 210 | 250 | 290 |

STARTING FLUE ACCESSORIES

| DESCRIPTION | CODE |
|---|----------|
|  air/flue gas splitter pipe kit 80/80 mm | 010031X0 |
|  flanged coupling for vertical coaxial pipe ø 100/60 mm | 010006X0 |
|  complete coaxial flue gas discharge air intake kit ø 60/100 mm, horizontal (L = 1000 mm) | 010012X0 |

| DESCRIPTION | CODE |
|--|----------|
|  Coaxial pipe ø 60/100 mm with end and gasket, and inner part made of aluminium; outer part made of plastic Length L = 1000 mm | 1KWMA56A |
|  Male/female coaxial extension ø 60/100 mm complete with gaskets, aluminium internal, plastic external Length L = 1000 mm | 1KWMA56U |
|  Coaxial bend 90°, ø 60/100 mm, complete with gaskets Package 1 piece | 1KWMA81W |
|  electric heating elements kit for auxiliary antifrost down to -15°C | 013009X0 |