Ferroli

2020 / 2021

Product Catalogue

CLIMA&COMFORT | RESIDENTIAL

CONTENTS
PRODUCT CATALOGUE
FERROLI

IMPORTANT

For installation of room sealed and forced flue boilers and water heaters, use Ferroli original flue gas kits and accessories. Whenever original flue gas accessories are not used, Ferroli will not be held liable in case of anomalies that could jeopardise the function and safety of the system.

This document includes international standard products and codes. Some products and accessories may differ or not be available in particular geographical areas. For product and code confirmation, commercial conditions, delivery time and eventual minimum lots etc, please refer to Ferroli's commercial rapresentatives. Application of accessories to be checked on respective installation manuals.

CERTIFIED QUALITY SYSTEM

KEY OF SYMBOLS

Products for replacement with identical model only (restiction valid only in the EU)

PRODUCT FOR EXTRA EU MARKETS ONLY. Product not admitted in the EU (can only be sold and installed in the EU if firstly introduced in the EU market before 26 September 2015).

Remote control of boiler parameters via remote control (ROMEO)

The equipment is only suitable for operation in **indoor locations**

Suitable for operation **outdoors** with a minimum temperature of **-T1°C for the standard version** and, if fitted with the antifrost kit, even **-T2°C**

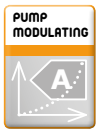
Suitable for operation **outdoors** with a minimum temperature of **-T1°C for the standard version** and, if fitted with the antifrost kit, even **-T2°C**

Appliance certified as **"range rated"** according to EN 483

Electronics features built-in **master-slave cascade** operation, without additional controllers

Possible connection to an optional outdoor probe, thus enabling **system flow temperature compensation**

It reaches **one of the highest seasonal room heating efficiencies** in its category: η_s **94%**



Equipment fitted with **low consumption high modulating efficiency circulator (Erp Ready - Class A)**

Ultra high performing "Blue Forever" electrical heating elements featuring a special surface treatment that almost entirely reduces limescale build-up

Stainless steel high performance bivalent **primary exchanger**

Stainless steel high performance mono-thermal **primary exchanger**

Stainless steel **exchanger Patented AISI 316 TI**

The device is suitable to be combined with traditional **high temperature** systems; it cannot be combined or installed with direct delivery to systems with low temperature radiant panels

Appliance can be combined with preheating systems for the domestic hot water

Generator equipped with devices to **facilitate handling** during shipping and installation

Generator equipped with devices to **facilitate handling** during shipping and installation

Simplified electric wiring with direct access to the external connection terminal board available on the lower part of the device

You can **delay burner ignition** by starting it up only when domestic hot water is actually drawn

This equipment is designed specifically to offer **particularly simple** installation and maintenance

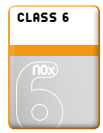
F.P.S: **F**lue gas **P**rotection **S**ystem. The check valve offers **easy connection to pressurised collective flue systems** (ex. in restructuring), in accordance with regulation UNI 7129

MC²: **M**ulty **C**ombustion **C**ontrol, new combustion system with patented gas-adaptive technology

M.G.R: **M**ethane, **L**pg, Propane-air **R**eady, with a simple configuration the boiler can run on natural gas, lpg without the use of any additional conversion kits

Approved for operation with **50mm diameter flue gas discharge**

Antifrost function, if gas and power supplied



Minimum polluting emissions **(class 6 according to EN 15502-1)** already in compliance with the requirements of the ErP directive of 26.09.2018 (NOx emissions < 56mg/kWh)

Modulating ratio between **Pmax** and **Pmin**

Exclusive integrated Ferroli **"Thermobalance"™** combustion cell

WALL HUNG BOILERS

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

CONDENSING
TRADITIONAL

BLUEHELIX MAXIMA

WALL HUNG CONDENSING BOILERS
INSTANTANEOUS DHW PRODUCTION

ERP

A+ SYSTEM scala G ÷ A+++

THERMO BALANCE

A+

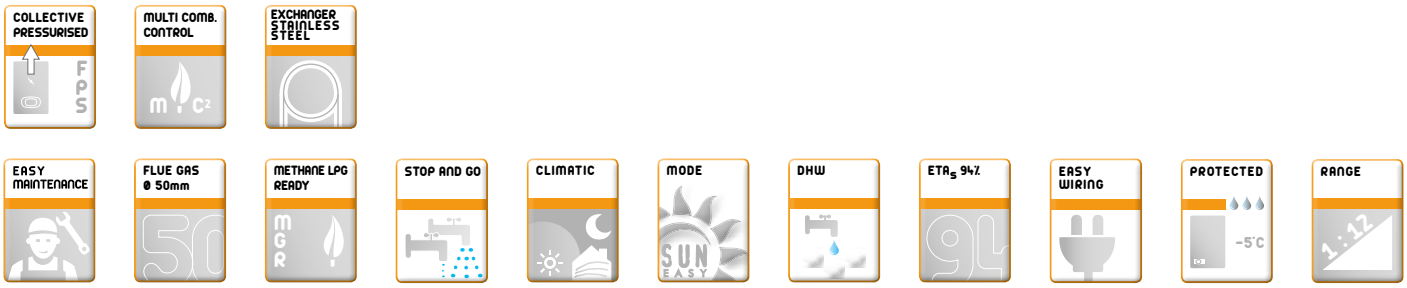
H2 HYDROGEN PLUG-IN

> STRENGTHS:

- **Aesthetics** with exclusive lines (Patent) that radically remodel the aesthetic concept by using tempered crystal and having curved shapes
- Wide range of optional **accessories** available: kit **remote control** Wi-Fi CONNECT controlled via App, **hydraulic connection kit** (5 pipes, 4 valves), **fitting cover** casing
- **Boiler** with extra thick **stainless steel** primary exchanger, with large passes guaranteeing duration and reduced maintenance
- **High head, enhanced modulating heating circulator** on all models also able to adapt to particularly resistant systems
- **Low consumption modulating pump (ErP Ready - Class A)**
- **Standard semi-automatic system electro-charging**
- **Enhanced DHW exchanger with high number of plates**, particularly immune to clogging and able to maintain constant DHW production capacity over time
- A+ SYSTEM : being combined with the **CONNECT** modulating remote control, and the outdoor temperature reading directly from the internet, it reaches the maximum **energy efficiency A+** (scale from G to A+++)
- It easily adapts to the load conditions thanks to the **broad modulating range** that can reach **1:12** (mod. 34C, 1:10 mod. 28C)
- **Ready to operate with natural gas mixtures enriched with hydrogen**
- **MC²**: Multi Combustion Control, new combustion system with gas-adaptive patented technology for better adaptability of use to the varying gas mains conditions
- **M.G.R: M**ethane, **L**PG, Propane-air **R**eady 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

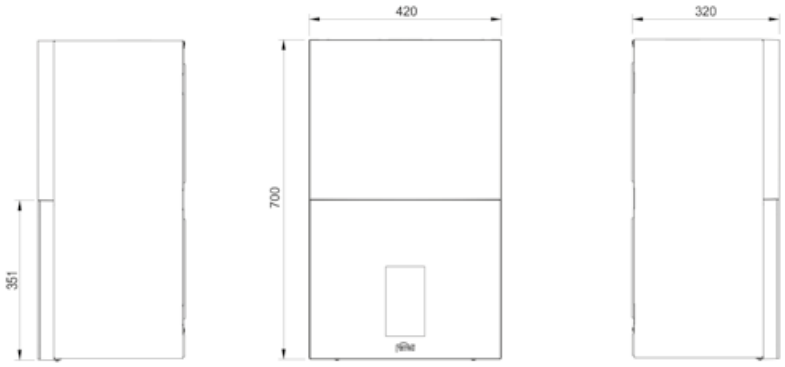
> ADVANTAGES OF BLUEHELIX MAXIMA:

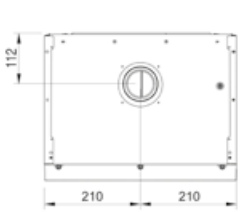
- **7" colour touch-screen graphic display**
- Prompt display of the operation status thanks to the front **multicolour LED**
- **Designed to simplify and make normal maintenance and cleaning steps easier** thanks to easy access to the internal parts
- **Simplified electric wiring** that does not require removing the boiler's casing thanks to **direct access to the external connection terminal board** available on the lower part of the device.



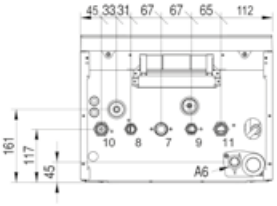
BLUEHELIX MAXIMA			28 C	34 C
ERP Class (*) boiler + CONNECT remote control		(Class G - A+++)	A / A+ (*)	A / A+ (*)
		(Class G - A)	XL A	XXL A
Heating max / min heat input (Hs)	kW		24.5 / 2.9	30.6 / 2.9
Heating max / min heat output (80/60°C)	kW		24 / 2.8	30 / 2.8
Heating max / min heat output (50/30°C)	kW		26 / 3.1	32.5 / 3.1
DHW max / min heat input (Hi)	kW		28.5 / 2.9	34.7 / 2.9
DHW max / min heat output	kW		28.0 / 2.8	34.0 / 2.8
Efficiency Pmax / Pmin (80-60°C) (Hi)	%		98.1 / 98	97.9 / 98
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
DHW max / min operating pressure	bar		9 / 0.3	9 / 0.3
DHW flow rate Δt 25°C	l/min		16.1	19.5
DHW flow rate Δt 30°C	l/min		13.4	16.2
Empty weight	kg		28	32
CODE	**NAT GAS/LPG**		**0TSB4MWA**	**0TSB7MWA**

BLUEHELIX MAXIMA





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

> HYDRAULIC AND CONTROL ACCESSORIES

	DESCRIPTION	CODE
	**CONNECT**, wifi modulating remote control with programmable thermostat function	013010XA
	galvanised template	046049X0
	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets	012043W0

	DESCRIPTION	CODE
	kit for connection of 5 pipe fittings nb: the kit does not include taps and connection nipples	012049W0
	fitting cover kit	046057X0
	thermostatic mixer kit 1/2" connections	013002X0

> COAXIAL ACCESSORIES FOR FLUES 60/100

	DESCRIPTION	CODE
	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm	041095X0
	coupling for vertical coaxial pipe ø 100/60 mm	041096X0
	90° coaxial bend, ø 60/100 mm	041097X0
	45° coaxial bend, ø 60/100 mm	041098X0
	coaxial extension, L=1000 mm M-F, ø 60/100 mm	041099X0
	coaxial terminal pipe, L=1000 mm, ø 60/100 mm, includes wall gasket	041100X0

> SEPARATE ACCESSORIES FOR FLUES 80/80

	DESCRIPTION	CODE
	discharge kit twin pipes 80/80 complete with test point	041101X0
	90° bend, ø 80 mm, M-F	041102X0
	45° bend, ø 80 mm, M-F	041103X0
	terminal pipe, L=1000 mm, M-F, ø 80 mm	041104X0
	accessories in white colour, see page FLUES CHIMNEY ACCESSORIES CONDENSING GAS BOILERS	

BLUEHELIX TECH RRT C

WALL HUNG CONDENSING BOILERS
INSTANTANEOUS DHW PRODUCTION

ERP

THERMO BALANCE

> STRENGTHS:

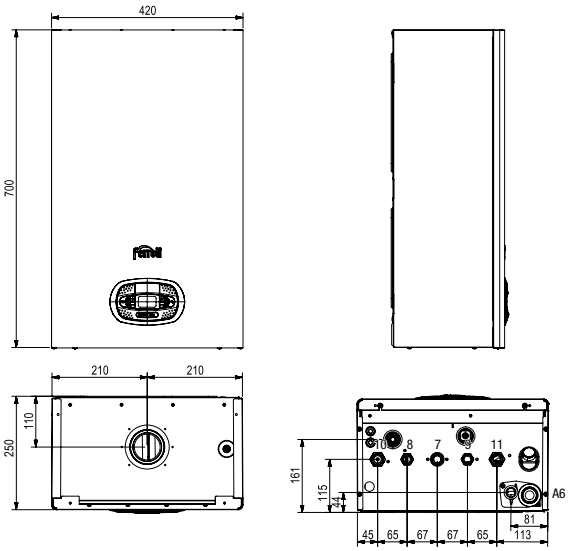
- **Careful design of aesthetics and silent operation, it maintains the legacy of appreciation of the previous "Bluehelix" series**
- **Boiler** with **high thickness stainless steel primary exchanger, with large passes** (the largest in the category) guaranteeing duration and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- **MC²: M**ulti **C**ombustion **C**ontrol, 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: M**ethane, **L**PG, Propane-air **R**eady 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: F**lue gas **P**rotection **S**ystem. 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

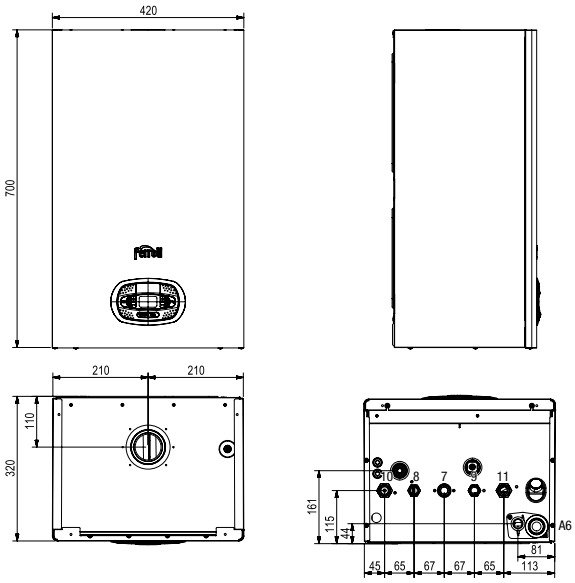
BLUEHELIX TECH RRT			24 C	28 C	34 C
ERP Class		(Class G - A⁺⁺)	A	A	A
		(Class G - A)	XL A	XL A	XXL A
Heating max / min heat input (Hs)	kW		22.7 / 5.6	24.5 / 5	34.0 / 7.1
Heating max / min heat output (80/60°C)	kW		20 / 4.9	24 / 4.9	30 / 6.3
Heating max / min heat output (50/30°C)	kW		21.7 / 5.4	26 / 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	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 TECH RRT H

WALL HUNG CONDENSING BOILERS
HEATING ONLY

ERP

THERMO BALANCE

> STRENGTHS:

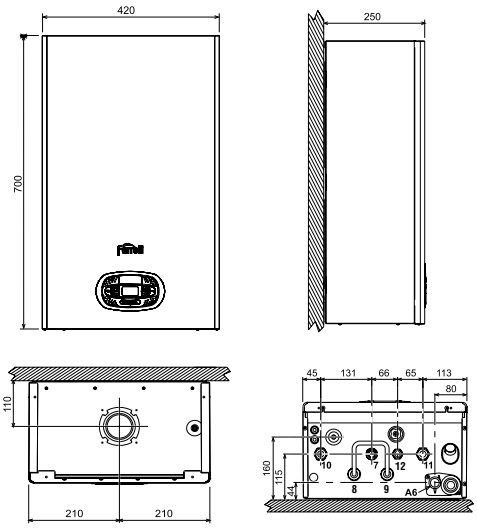
- **Careful design of aesthetics and silent operation, it maintains the legacy of appreciation of the previous "Bluehelix" series**
- **Boiler** with high thickness stainless steel primary exchanger, **with large passes** (the largest in the category) **guaranteeing duration** and reduced maintenance, it maintains high efficiency even on old systems with oxidation and soiling
- **MC²: M**ulti **C**ombustion **C**ontrol, 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: M**ethane, **L**PG, Propane-air **R**eady 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: F**lue gas **P**rotection **S**ystem. 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

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

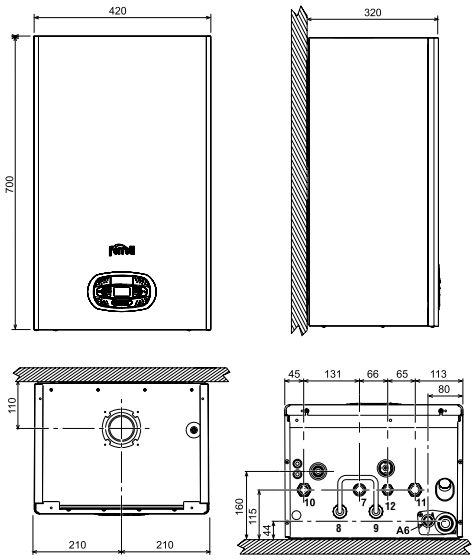


VIEW FROM ABOVE VIEW FROM BELOW

> 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



VIEW FROM ABOVE VIEW FROM BELOW

> 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	cable 2 m	1KWMA11W
		cable 5 m	043005X0

BLUEHELIX ALPHA

WALL HUNG CONDENSING BOILERS
INSTANTANEOUS DHW PRODUCTION

ERP

> STRENGTHS:

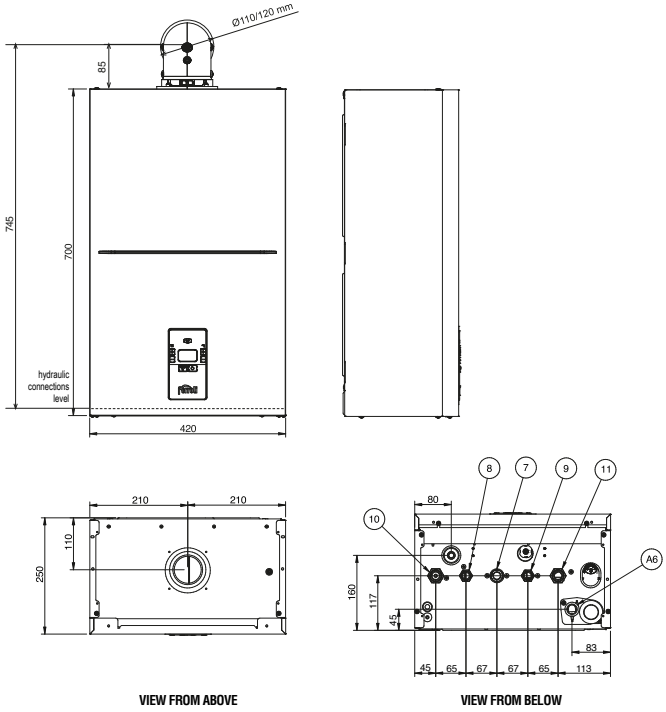
- Boiler with single-circuit stainless steel primary exchanger without joints and/or welding, it maintains high efficiency even in old systems.
- **MC²: M**ulti **C**ombustion **C**ontrol, new combustion system with gas-adaptive patented technology of industrial origin for better adaptability of use to the varying gas mains conditions (e.g. pressure fluctuations or drops)
- **M.L.R: M**ethane, **L**PG, Propane-air **R**eady with a simple configuration the boiler can run on methane, LPG and propane-air without using 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
- **Bypass as per standard**

> ADVANTAGES OF BLUEHELIX ALPHA:

- **Solar system set-up:** set up for the production of domestic hot water combined with solar panel systems
- **Flue ducting:** particularly suitable for operation in flues requiring "heavy duty" pipes thanks to approval for operation with 50mm diameter flue outlets.
- **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)
- A+ SYSTEM : (for **mod. 28C** and **34C**) combined with the modulating remote control CONNECT, it reaches the top efficiency class A+ (scale from G to A+++)
- User interface with display and multi-purpose keys to adjust and set the parameters
- **Digital flame control** with three ignition attempts if operation gets blocked due to failed flame detection (methane mod.)
- **Place of installation:** also outdoors, in a partially protected place down to -5°C as per standard and even -15°C with the addition of the optional antifreeze heaters kit
- Removable **casing** into three pieces for easier maintenance or inspection.
- **F.P.S.: F**lue gas **P**rotection **S**ystem. The optional flue gas accessory (041106X0 - Exhaust gas check valve kit), which can be installed outside the boiler, allows an easy connection to pressurised collective flue systems (e.g. in restructuring), in accordance with the UNI 7129 standard.
  NOTE: the kit cannot be used in recessed installations.

BLUEHELIX ALPHA		24 C	28 C	34 C
ERP Class	(Class G - A++)	A	A+	A+
	(Class G - A)	XL A	XL A	XL A
Heating max / min heat input (Hs)	kW	20.6 / 4.2	24.5 / 4.8	30.0 / 5.0
Heating max / min heat output (80/60°C)	kW	20 / 4.1	24 / 4.7	30 / 4.8
Heating max / min heat output (50/30°C)	kW	21.8 / 4.5	26 / 5.0	31.9 / 5.4
DHW max / min heat input (Hi)	kW	25 / 4.2	28.5 / 4.8	34.8 / 5.0
DHW max / min heat output	kW	24.3 / 4.1	28.0 / 4.8	34.0 / 4.8
Pmax efficiency (80-60°C) (Hi)	%	97.1	97.8	97.7
Pmin efficiency (80-60°C) (Hi)	%	97.0	97.6	97.2
Pmax efficiency (50-30°C) (Hi)	%	105.8	106.1	106.2
Pmin efficiency (50-30°C) (Hi)	%	106.9	107.3	107.1
Efficiency 30%	%	108.8	109.7	109.7
Max / Min heating working pressure	bar	3 / 0.8	3 / 0.8	3 / 0.8
Max heating temperature	°C	95	95	95
Heating water content	litres	3.0	3.4	4.3
Heating expansion vessel capacity	litres	8	8	10
Heating expansion vessel preload pressure	bar	0.8	0.8	0.8
DHW max / min working 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	27	27	31
No. of pieces/pallet	**nr.**	**12**	**12**	**10**
CODE	**NAT GAS/LPG**	**0TPF2AWA**	**0TPF4AWA**	**0TPF7AWA**

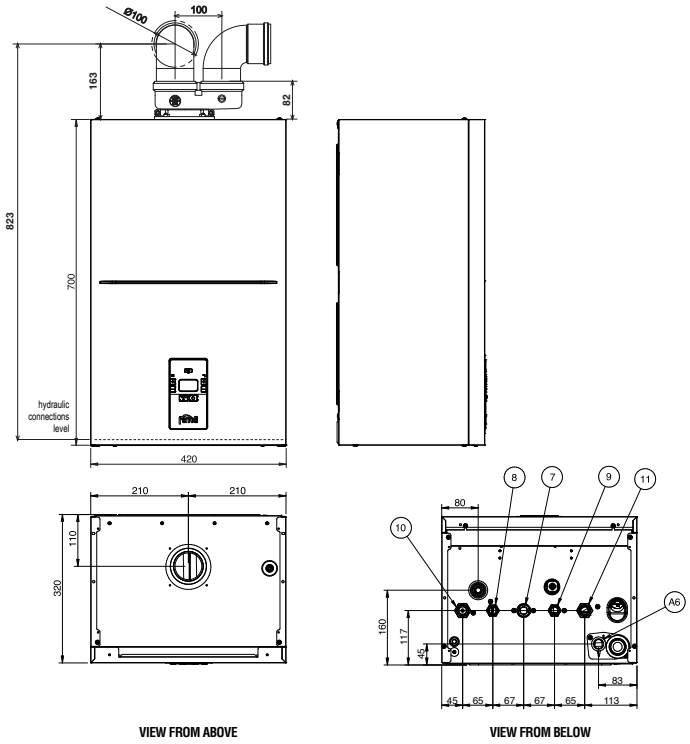
BLUEHELIX ALPHA 24 C - 28 C



VIEW FROM ABOVE

VIEW FROM BELOW

BLUEHELIX ALPHA 34 C



VIEW FROM ABOVE

VIEW FROM BELOW

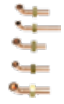
> ACCESSORIES FOR FLUES DIAMETER Ø 50 MM

	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

> 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, 2 system taps, pipes, nipple, gaskets	012043W0
	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
	Kit backflow preventer valve	041106X0
	auxiliary antifrost kit down to -15°C	013022X0

BLUEHELIX PRIMA 24 C

WALL HUNG CONDENSING BOILERS
INSTANTANEOUS DHW PRODUCTION

ERP

> STRENGTHS:

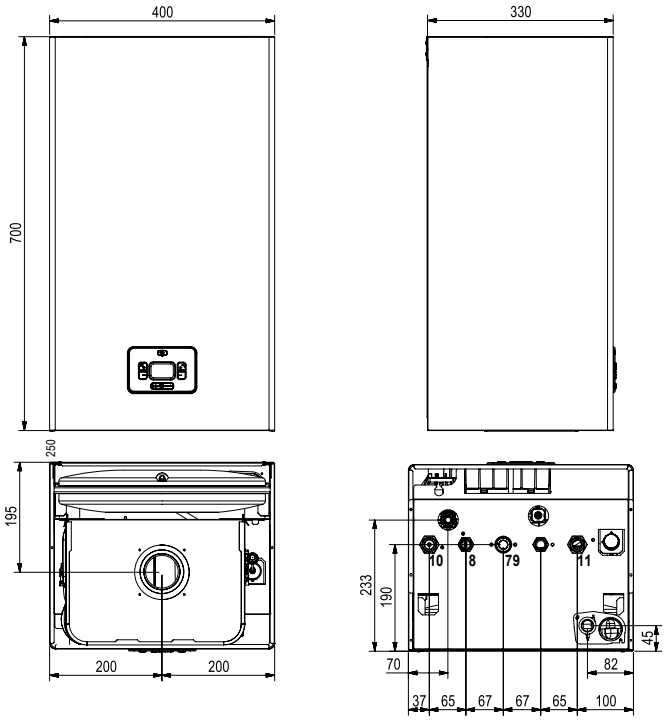
- Boiler with single-circuit stainless steel primary exchanger without joints and/or welding, it maintains high efficiency also on old systems.
- **MC²: M**ulti **C**ombustion **C**ontrol, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- **M.G.R: M**ethane, **L**PG, Propane-air **R**eady 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**	**0TPB2AWA**

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

DIVACONDENS D PLUS

WALL HUNG ATMOSPHERIC CONDENSING BOILERS, WITH INSTANTANEOUS DHW PRODUCTION - LOW NOx

ERP

> STRENGTHS:

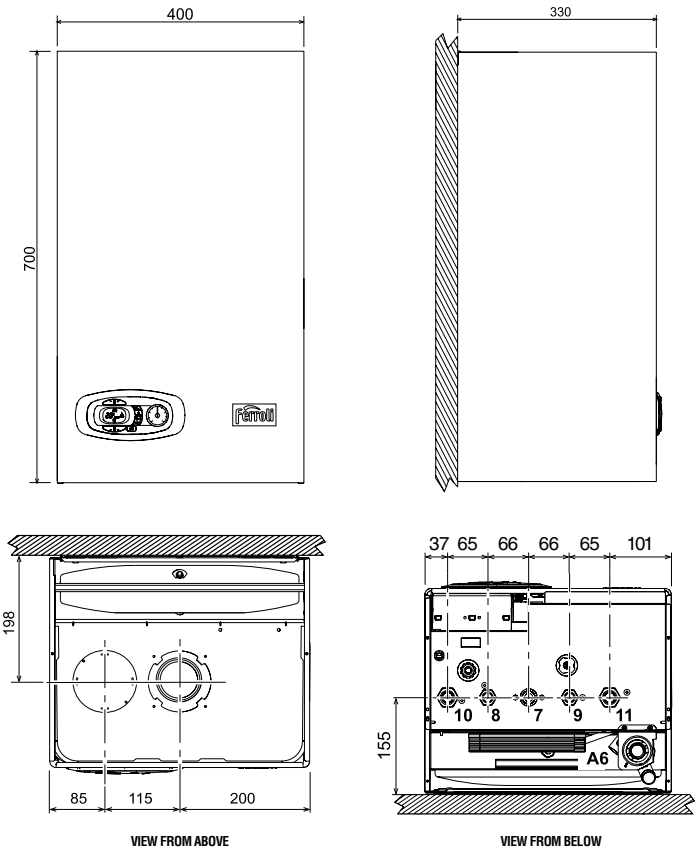
- Condensing boiler to heat **high temperature systems** and for domestic hot water production. It is not suitable to be directly connected to underfloor systems, use of mixng valves
- **Primary heat exchanger** with a compact shape
- **Instantaneous production** of domestic hot water with a **dedicated plate exchanger**
- **Flue recovery facility** of the latent condensation heat. Pre-heats system return before primary exchanger
- Boiler with a watertight chamber and forced draught, with **low NOx emissions atmospheric burner**, stainless steel
- Standard hydraulic **by-pass**
- **High efficiency and low consumption circulator** (ErP - Class A) with block protection system by being activated for a few seconds every 24 hours of inactivity
- Can be combined with the **modulating** remote **control**
- Simple and complete control panel, user interface with **display** and setting **keys**

> ADVANTAGES OF DIVACONDENS D PLUS:

- Robust post-condenser supplied by the closed circuit of the primary, namely **with no external mains water inlet**. The heat exchange with the flue gas takes place inside large diameter water passages.
- Generator of **simple and rational operation**
- **Condensate collection device** that protects the air pressure switch, for regular combustion even in very harsh outdoor temperatures
- **ECO** function in domestic mode for more **savings** when hot water is not really used
- **Solar system set up:** set up for the production of domestic hot water combined with solar panel systems
- **Place of installation:** also for outdoor use in a partially protected place that is up to -5°C, as standard

MODEL			24
ERP Class		(Class G - A++)	B
	XL	(Class G - A)	A
Heat input (L.C.V.)	Heating Min / Max	kW	10.0 / 25.0
Heat output 80°C-60°C	Heating Min / Max	kW	9.2 / 24.1
	DHW Max	kW	24.1
50°C-30°C	Heating Min / Max	kW	9.6 / 25.9
Useful thermal efficiency	80°C-60°C	Pmax % / Pmin %	96.5 / 92.0
	50°C-30°C	Pmax % / Pmin %	103.5 / 96.0
	30% partial load	Pmax %	103.5
NOx Emissions			6
Domestic hot water production	Δt 30°C	l/min	11.6
	Δt 25°C	l/min	14.0
Heating operating pressure	Max / Min	bar	3 / 0.8
Empty weight		kg	35
No. of pieces/pallet		**nr.**	**10**
CODE		**NATURAL GAS**	**0CCR4YWA**

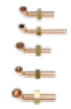
DIVACONDENS D PLUS F 24



> KEY

7 Gas inlet - Ø 3/4”
8 DHW water outlet - Ø 1/2”
9 DHW inlet - Ø 1/2”
10 System flow - Ø 3/4”
11 System return - Ø 3/4”
A6 Condensate discharge connection

> 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
	thermostatic mixer kit 1/2” connections	013002X0
	outdoor probe	013018X0

	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	041039X0

BLUEHELIX TOP RRT K 50

CONDENSING WALL HUNG BOILER, STAINLESS STEEL DHW STORAGE TANK

ERP

A+ SYSTEM scala G ÷ A+++

> STRENGTHS:

- **Boiler** with **high thickness stainless steel primary heat 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
- A+ SYSTEM: combined with the modulating remote control and the external probe (optional) it reaches the top efficiency class **A+** (scale from G to A+++)
- It easily adaptsto the load conditions thanks to the **broad modulating range** that can reach **1:12** (mod. 34, 1:10 mod. 28)
- **MC²: M**ulti **C**ombustion **C**ontrol, new combustion system with industrial-derived gas-adaptive patented technology for better adaptability of use to the varying gas network conditions (e.g. pressure fluctuations or drops)
- **M.G.R: M**ethane, **L**PG, Propane-Air **R**eady with a simple configuration the boiler can run on methane, LPG and propane-air 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** with 50-litre stainless steel storage tank
- Set-up for **recirculation fittings** (provided with the accessory: fitting connection kit)
- **Hydraulic fittings covered** by the boiler shell
- Large multi-purpose **backlit graphic display** to set parameters easily and correctly
- **Bypass as per standard**

> ADVANTAGES OF BLUEHELIX TOP RRT K 50:

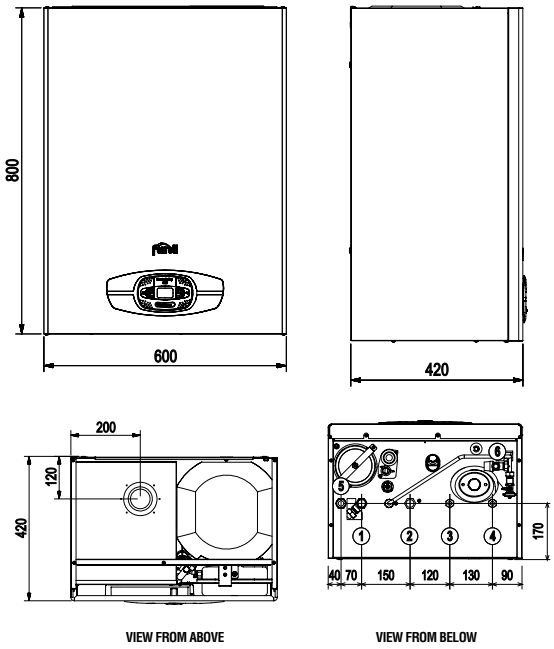
- **Particularly suitable for operation in flues requiring "heavy duty" pipes thanks to approval for operation with 50mm diameter flue outlets**
- **F.P.S: F**lue gas **P**rotection **S**ystem. The flue gas check valve provided as per standard offers easy connection to pressurised collective flue systems (e.g. in restructuring), in accordance with regulation UNI 7129
- **Designed to simplify and make normal maintenance and cleaning steps easier**
- **Antilegionella function** with programmable timing
- **Timed block protection** for circulator and three-way valve
- **Certified 3-star comfort in DHW production mode** in accordance with EN 13203
- **Sliding temperature operating mode** through external 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 (methane mod.)

COLLECTIVE PRESSURISED

EASY MAINTENANCE | FLUE GAS Ø 50mm | METHANE LPG READY | MULTI COMB. CONTROL | CLIMATIC | RANGE 1:12 | DHW | ETAs 94% | EXCHANGER STAINLESS STEEL | PROTECTED -5°C -15°C | REMOTE

MODEL				28 K 50	34 K 50
ERP Class			(Class G - A+++)	A	A
			(Class G - A)	XL A	XXL A
Heat input (LCV)		Heating Min / Max	kW	2.9 / 24.5	2.9 / 30.6
		Max DHW	kW	28.5	32.7
Heat output	80°C-60°C	Heating Min / Max	kW	2.8 / 24.0	2.8 / 30.0
		Max DHW	kW	28.0	34.0
	50°C-30°C	Heating Min / Max	kW	3.1 / 26.0	3.1 / 32.5
Useful thermal efficiency		80°C-60°C	Pmax % / Pmin %	98.1 / 97.8	97.9 / 98.0
		50°C-30°C	Pmax % / Pmin %	106.1 / 107.5	106.1 / 107.5
		Reduced load 30%	Pmax %	109.7	109.5
Nox emissions class			class	6	6
Storage tank capacity			litres	50	50
Domestic hot water production		Δt 30°C	l/10 min	161	195
		Δt 30°C	l/h	831	1005
Heating working pressure		Max	bar	3	3
DHW working pressure		Max	bar	9	9
Empty weight			kg	62	65
No. of pieces/pallets			**no.**	**6**	**6**
CODE			**NATURAL GAS**	**0T3T2AWA**	**0T3T3AWA**

BLUEHELIX TOP RRT 28 / 34 K 50



> KEY

1 3/4" heating system delivery
2 3/4" heating system return
3 1/2" DHW outlet
4 1/2" DHW inlet
5 3/4" gas inlet
6 safety valve

> 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
	kit for connection of fittings complete with gas tap with cone, DHW tap, 2 system taps, pipes, nipple, gaskets, recirculation fitting	012045W0
	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

BLUEHELIX TECH S 45 H

WALL HUNG CONDENSING BOILERS, HEATING ONLY

ERP

> STRENGTHS:

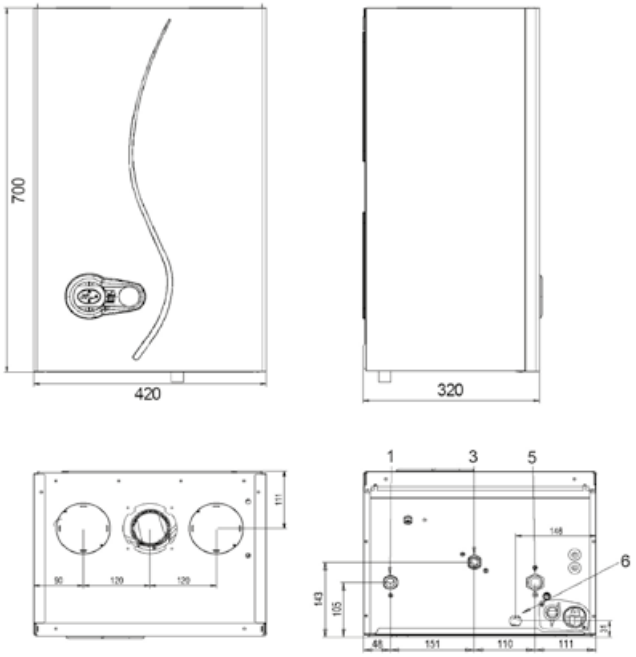
- **Boiler body** with high thickness stainless steel primary exchanger
- **Stainless steel full pre-mixing burner**
- Digital control **panel**
- **Electronic flame modulation** in heating and in DHW
- Can be combined with the **modulating** remote **control**
- Large **multi-purpose backlit graphic 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 S 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**	**0T2D5IWA**

BLUEHELIX TECH S 45 H



VIEW FROM ABOVE

VIEW FROM BELOW

> 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
	outdoor probe	013018X0
	kit for management with thermostat (not supplied) of a dhw storage tank	013017X0

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

FORCE W

I ERP

HIGH POWER CONDENSING MODULES FOR CASCADE INSTALLATION

> STRENGTHS:

- **High power condensing thermal module**, designed for single installations or in sequence **up to 600 kW**
- Hydraulic, gas and flue gas accessories **for cascade installation**, with 2, 3 and 4 modules
- Pre-assembled **heat exchanger with elements in aluminum-silicon** alloy engineered for the maximum efficiency and minimum pressure drops on the water circuit
- **Total pre-mixing unit**, for a micro-flame combustion with very low polluting emissions (Class 6 according to EN 15502-1). The metal micro-fiber burner can run on Natural gas or LPG
- Generator protection systems:
  * **Double sensor** (delivery and return) **system to operate at constant ΔT** (from 0 to 60°C)
  * **Exchanger overtemperature protection** sensor calibrated to 95°C
  * Flue gas safety sensor
  * Water pressure switch with minimum limit of 0,8 bar
- Hydraulic unit (supplied as accessory) with three-way valve for discharge into the atmosphere and a no-return valve. It's possible choosing between two circulators, standard and high head
- Air / Flue gas circuit with intake in the installation room and **check valve on the flue gas** ejection duct to design the pressurised manifold

> ADVANTAGES OF FORCE W:

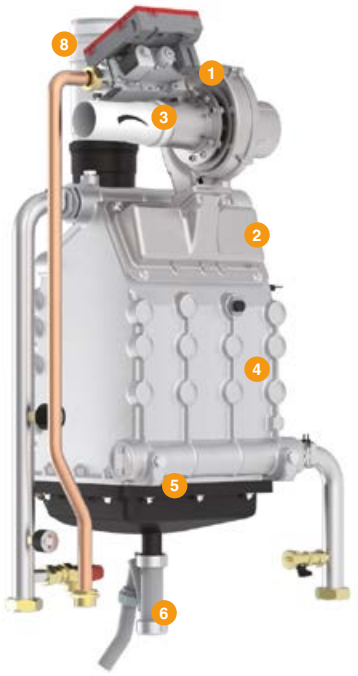
- **Master / Slave cascade** management with self-configuration system and possibility of setting the on/off sequence of the single generator.
- The electronic control on board is design to manage a double system zone and one DHW storage. In combination with the regulator FZ4 B the boiler can manage different temperature zone (direct and mixed)
- **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

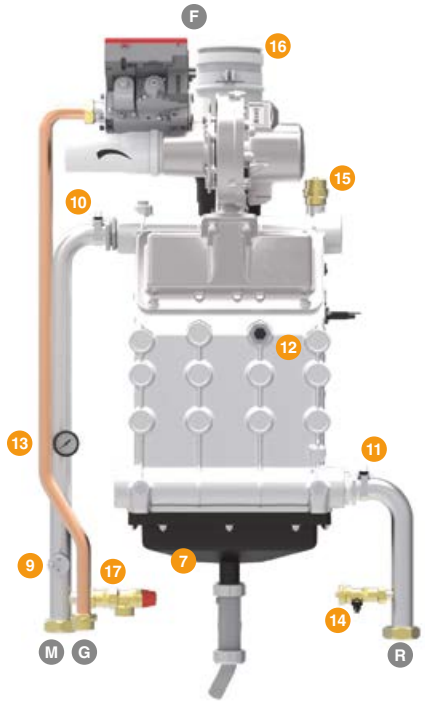
MODEL			W 60	W 80	W 99	W 120	W 150
ERP Class		(Class G - A++)	A	-	-	-	-
Heating heat input	Max/Min	kW	58.0 / 15.0	74.4 / 15.0	96.6 / 19.0	113.0 / 19.0	143.0 / 24.0
Heating heat output 80°C-60°C	Max/Min	kW	57 / 14.7	72.9 / 14.7	94.7 / 18.7	110.5 / 18.7	140.0 / 23.6
Useful heating output 50°C-30°C	Max/Min	kW	60.8 / 16.3	77.0 / 16.3	100.0 / 20.5	117.0 / 20.5	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		**Nr.**	**6**	**6**	**6**	**6**	**6**

Thermal module FORCE W	**0MDLAAWA**		**0MDLCAWA**		**0MDLDAWA**		**0MDLEAWA**		**0MDLFAWA**	
System hydraulic kit	042072X0		042072X0		042072X0		042072X0		042072X0	
High performance modulating pump (7 mt)	042070X0	-	042070X0	-	042070X0	-	042070X0	-	042070X0	-
High performance modulating pump (10 mt)	-	042071X0	-	042071X0	-	042071X0	-	042071X0	-	042071X0

* FORCE W modules are supply without hidraulic kit and circulator.

FORCE W COMPONENTS DESCRIPTION





1 Pre-mixing unit

2 Burner

3 SILENCER The combustion unit can operate with Methane, LPG and Propane air with conversion kits that can be installed by authorised service technicians. The pre-mixing unit, combined with the low NOx micro-flame burner, has allowed for the Class 6 certification of the generator in accordance with UNI 15502-1

4 Aluminium heat exchanger in AL/Si alloy single block obtained by die-casting. The water passages inside the heat exchanger are particularly wide to ensure low pressure drops. Completely wet combustion chamber integrated in the casting

5 Condensate collection manifold

6 Condensate discharge

7 Flue gas safety sensor 110°C

8 SWING CHECK VALVE A thermostat calibrated at 110°C has been installed on the flue gas manifold to ensure perfect operation of the flue gas exhaust together with a swing check valve with a gravity damper that prevents flue gas return into the boiler. Appliances provided with this device enable design engineers to size the pressurised flue gas channel

9 Water pressure switch min 0.8 bar

10 System delivery temperature sensor

11 System return temperature sensor

12 HEAT EXCHANGER OVER-TEMPERATURE SAFETY SENSOR The heat exchanger's operating temperature is checked by three independent sensors that are positioned in three different detection points. This ensures maximum safety during operation and protects the heat exchanger, increasing its service life.

13 Pressure gauge (the pressure can also be read on the display)

14 Boiler drain cock

15 Air bleed valve

16 Combustion analysis outlet

17 Safety valve 6 bar

M System delivery ø 1' 1/2

R System return ø 1' 1/2

G Gas inlet ø 1'

F Flue gas outlet ø 100

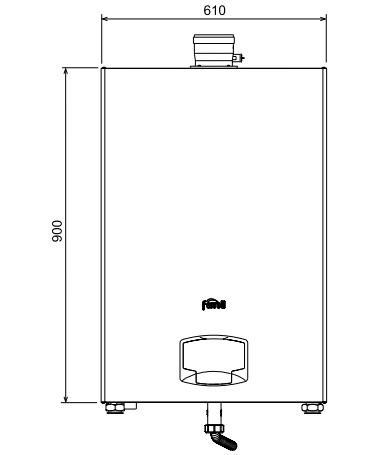
> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

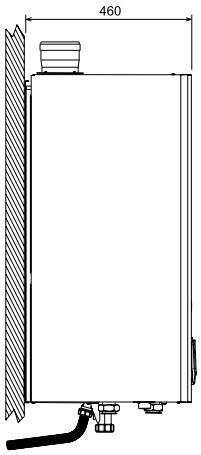
	DESCRIPTION		CODICE
	low-consumption modulating circulator Head 7 m		042070X0
	low-consumption modulating circulator Head 10 m		042071X0
	**system hydraulic kit:** 1 x MF 1"1/2 cock, 1 x 3-way T 1" 1/2 cock, 1 x 1" 1/2 check valve, 1 x MM 1"1/2 nipple, 2 gasketts		042072X0
	kit for management with thermostat (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	cable 2 mt	1KWMA11W
		cable 5 mt	043005X0
	**Temperature controls** in chapter on **SYSTEM COMPONENTS**		
	neutralisers (see chapter on condensation neutralisers for condensing boilers)		

	DESCRIPTION	CODE
	outdoor probe	013018X0
	ø 100 flue gas terminal	1KWMA29K
	M/F flue gas outlet reduction ø 100/80 mm	041090X0
	90° bend kit in pps ø 80 mm	1KWMA01W
	90° bend kit in pps ø 100 mm	041077X0
	1 m pps ø 80 mm MF flue gas duct kit	1KWMA83W
	1 m pps ø 100 mm MF flue gas duct kit	041073X0

FORCE W

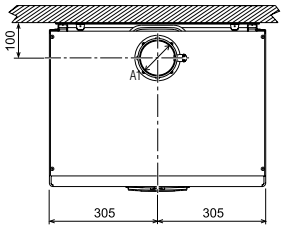
DIMENSIONS AND CONNECTIONS
HEAD FLOW RATE CURVES



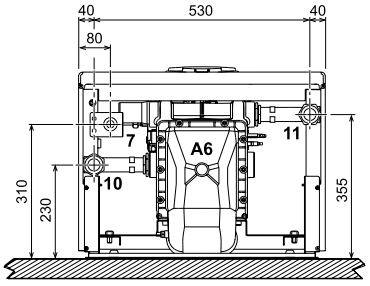


> KEY

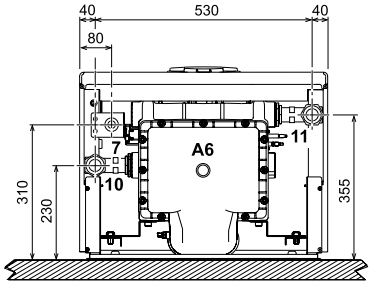
7 Ø 1" gas inlet
10 Ø 1" ½ System flow
11 Ø 1" ½ System return
A6 Condensate discharge
A1 Flue gas outlet Ø 100 mm



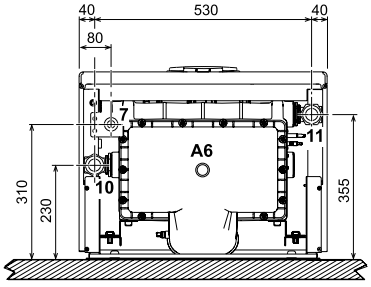
VIEW FROM ABOVE



VIEW FROM BELOW mod. FORCE W 60 AND 80

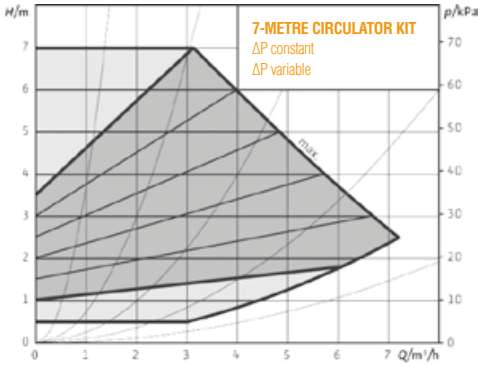


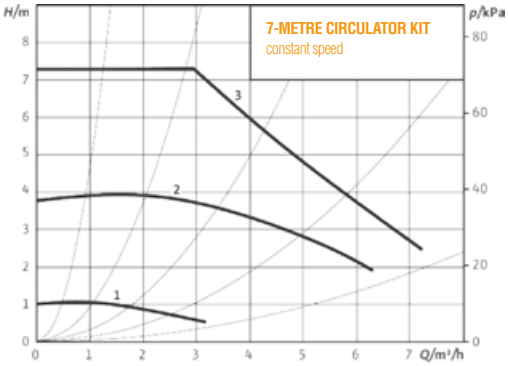
VIEW FROM BELOW mod. FORCE W 99 AND 120



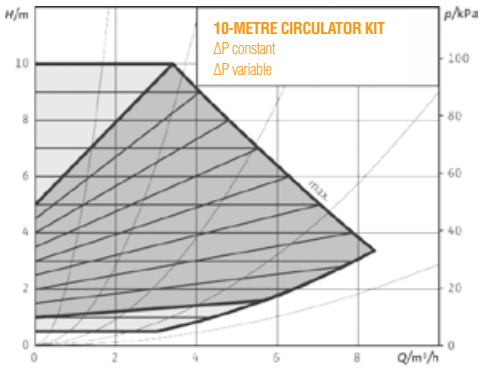
VIEW FROM BELOW mod. FORCE W 150

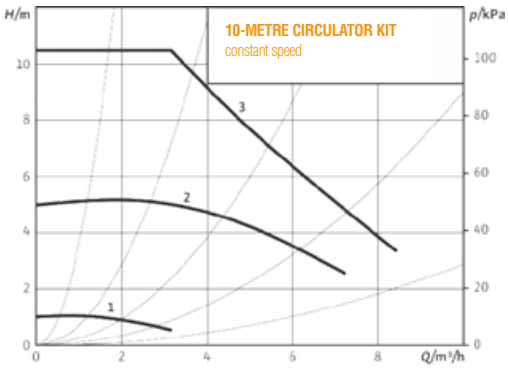
CIRCULATOR KIT 7 m



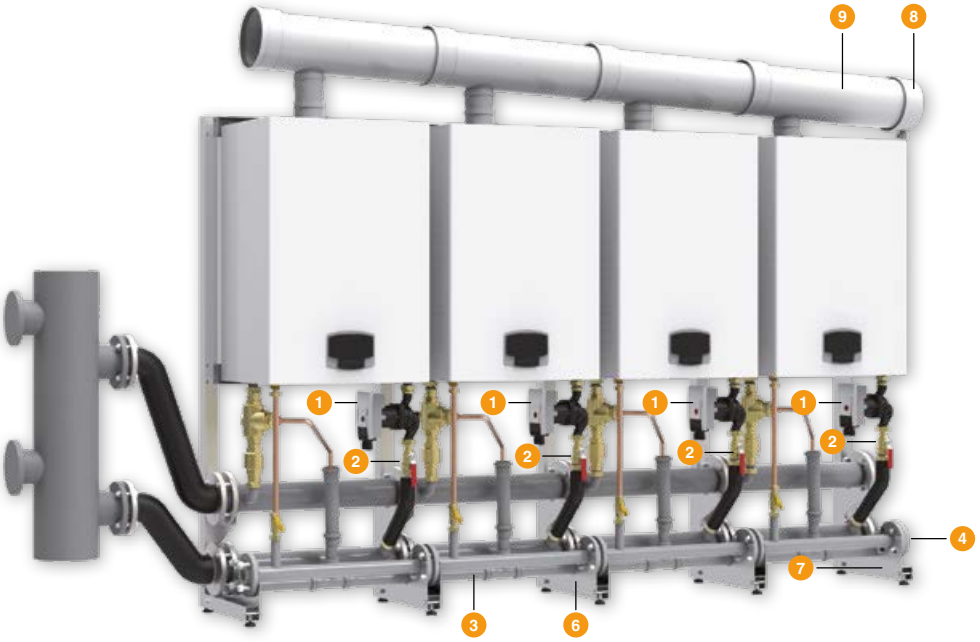


CIRCULATOR KIT 10 m





FORCE W CASCADE INSTALLATION



ACCESSORIES
NECESSARY TO CORRECTLY INSTALL FORCE W GENERATORS IN A BANK

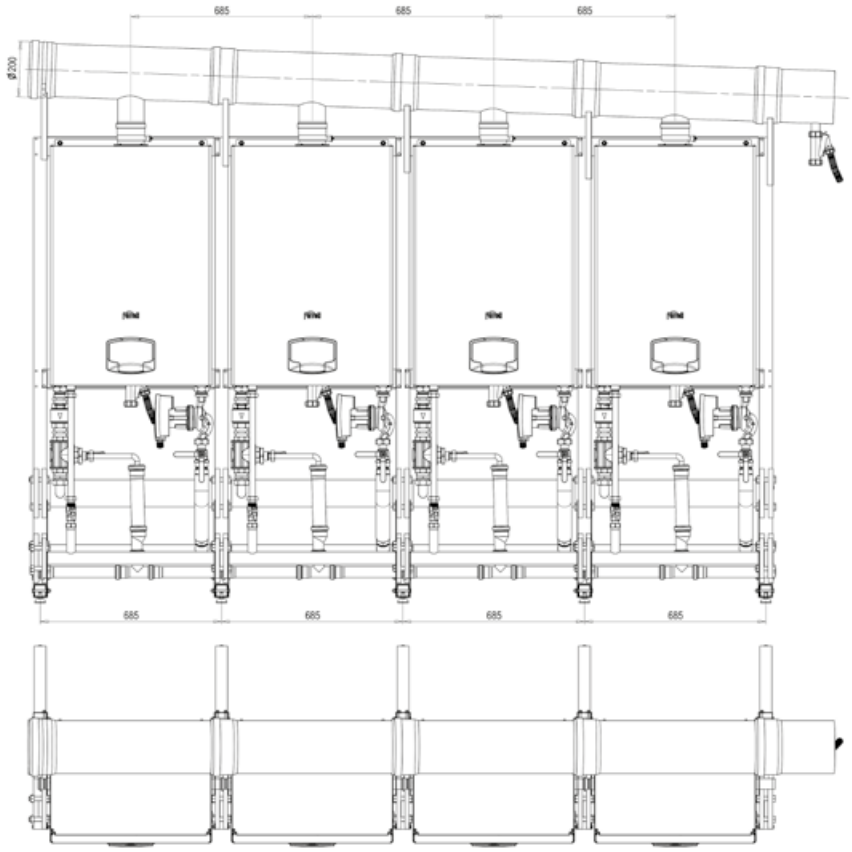
							6	7	1		2	3	4	8	9
							Self-standing frame (start) *	Self-standing frame (extension)	7-m modulating circulator	10-m modulating circulator	FORCE W hydraulic kit (3-way 1"1/2 cock - 2-way 1" 1/2 cock, 1" 1/2 check valve)	hydraulic (DN65 delivery and return), gas (DN40) manifolds kit for bank installation	Blind flange kit DN65	Flue gas manifold starter kit (Ø 200 mm) *	Flue gas manifold extension kit (Ø 200 mm) *
P_{ad} (50/30°C)	MODULES FORCE W					Tot. modules									
	60	80	99	120	150		042076X0	042077X0	042070X0	042071X0	042072X0	042074X0	042073X0	041091X0	041092X0
62	1					1	1	-	1	1	1	1	1	-	-
77		1				1	1	-	1	1	1	1	1	-	-
98			1			1	1	-	1	1	1	1	1	-	-
117				1		1	1	-	1	1	1	1	1	-	-
148					1	1	1	-	1	1	1	1	1	-	-
124	2					2	1	1	2	2	2	2	1	1	2
139	1	1				2	1	1	2	2	2	2	1	1	2
154		2				2	1	1	2	2	2	2	1	1	2
179	1			1		2	1	1	2	2	2	2	1	1	2
194		1		1		2	1	1	2	2	2	2	1	1	2
215			1	1		2	1	1	2	2	2	2	1	1	2
234				2		2	1	1	2	2	2	2	1	1	2
265				1	1	2	1	1	2	2	2	2	1	1	2
296					2	2	1	1	2	2	2	2	1	1	2
332			1	2		3	1	2	3	3	3	3	1	1	3
351				3		3	1	2	3	3	3	3	1	1	3
373		1			2	3	1	2	3	3	3	3	1	1	3
394			1		2	3	1	2	3	3	3	3	1	1	3
413				1	2	3	1	2	3	3	3	3	1	1	3
444					3	3	1	2	3	3	3	3	1	1	3
468				4		4	1	3	4	4	4	4	1	1	4
530				2	2	4	1	3	4	4	4	4	1	1	4
561				1	3	4	1	3	4	4	4	4	1	1	4
592					4	4	1	3	4	4	4	4	1	1	4

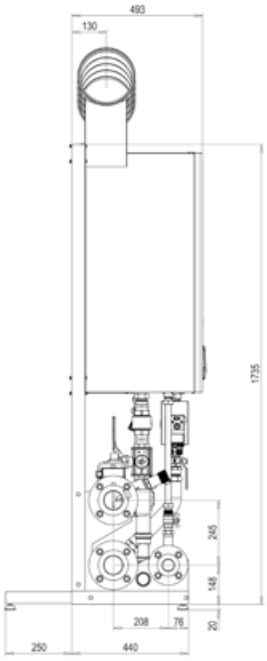
* * Flue gas accessories certified for installation in a utility room or in a protected place

ACCESSORIES
UPON REQUEST FOR CONFIGURATION ACCORDING TO PROJECT SPECIFICATIONS

	DESCRIPTION		CODE
	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator	cable 2 m	1KWMA11W
		cable 5 m	043005X0
	outdoor probe		013018X0
	hydraulic separator DN 32 For installation until 150 kW. The installer is responsible for the connection with the generator		042086X0
	hydraulic separator DN 65 For installation from 151 kW to 300 kW		042078X0
	installation kit for hydraulic separator. For installation from 151 kW to 300 kW		042079X0
	hydraulic separator DN 65 For installation from 301 kW to 600 kW		042080X0
	installation kit for hydraulic separator. For installation from 301 kW to 600 kW		042081X0
	gasketed plates heat exchanger. The hydraulic connection between the generator and the exchanger is the responsibility of the installer.		
	**Temperature controls** in chapter on **SYSTEM COMPONENTS**		
	neutralisers (see chapter on condensation neutralisers for condensing boilers)		

FORCE W DIMENSIONS AND CONNECTIONS





CASCADE KIT FITTINGS

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

Ferroli offers a full range of plate heat exchangers made of braze-welded steel for small and medium systems and a type that can be inspected for systems up to approximately 1 MW.

PHE HEAT EXCHANGERS WITH INSPECTABLE STEEL PLATES

- Stainless steel plate inspectable heat exchangers (AISI 316L), for medium and small power systems
- Single-pass circuit in counter-current with four threaded stainless steel connections (AISI 316)
- Plug-in NBR gaskets (installed without glue or silicones)
- The optional kits of ground support brackets and insulation are available for the entire range
- Ideal for replacing a heat generator in an existing system or to combine it with systems with high flow rates

- Maximum operating pressure: 10 bar
- Max operating temperature: 100°C

SHE HEAT EXCHANGERS WITH BRAZE-WELDED STEEL PLATES

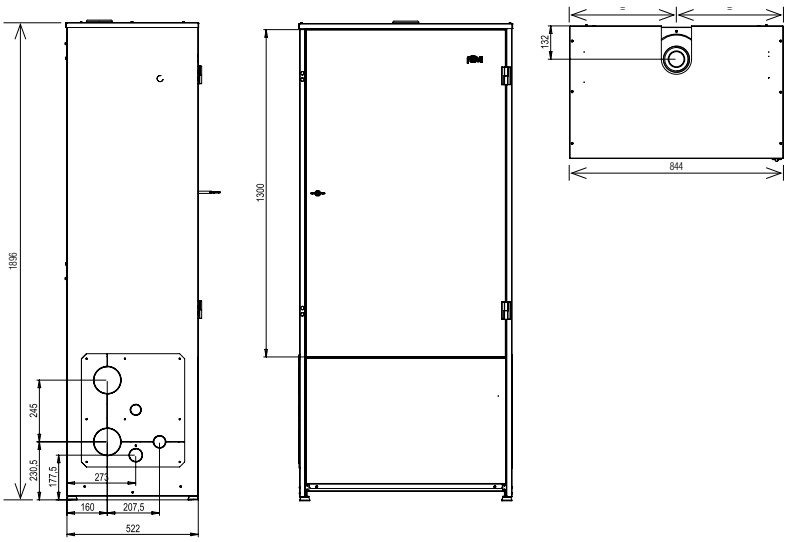
- Stainless steel plate heat exchangers (AISI 316L), copper brazed, for medium and small power systems
- Single-pass circuit in counter-current with four threaded stainless steel connections (AISI 304)
- Ideal for replacing a heat generator in an existing system or to combine it with systems with high flow rates

- Maximum operating pressure: 16 bar
- Max operating temperature: 200°C

FORCE W OUTDOOR INSTALLATION KIT

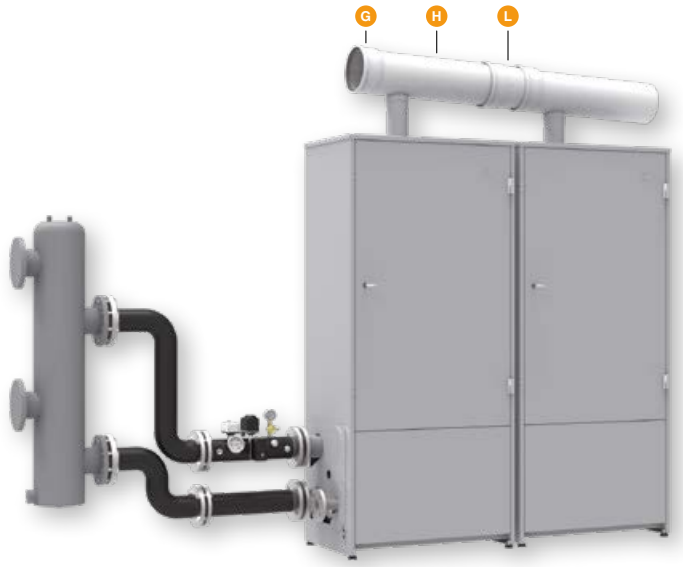
ERP

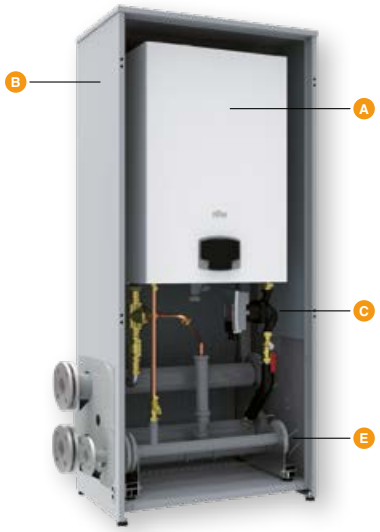
- Cabinet equipped for installing of the FORCE W boilers outdoors in a single or bank configuration up to 600 kW
- The cabinet can be combined with one of five models from the FORCE W range and one of the two circulators (7 m and 10 m head)
- Standard equipment includes:
  * Support frame for the FORCE W thermal generator
  * DN 65 system delivery and return manifolds
  * DN 40 gas manifold
  * Flanged system fittings kit
  * Condensate collection and drain manifold
  * Three-way shut-off valve with discharge into the atmosphere
  * Two-way shut-off valve
  * Check valve
  * Gas connection pipe between boilers and manifold with shut-off valve
- All optional kits are available for single or bank installation up to four modules in line.
- The generator combined with the cabinet kit can be installed without any protection against bad weather (IPX5D) and down to temperatures of -5°C



MODEL			W60		W80		W99		W120		W150	
ERP class		(Class G - A++)	A		-		-		-		-	
Nominal power input	Max/Min	kW	58.0 / 15.0		74.4 / 15.0		96.6 / 19.0		113.0 / 19.0		143.0 / 24.0	
Nominal power output 80°C-60°C	Max/Min	kW	57 / 14.7		72.9 / 14.7		94.7 / 18.7		110.5 / 18.7		140.0 / 23.6	
Nominal power output 50°C-30°C	Max/Min	kW	60.8 / 16.3		77.0 / 16.3		100.0 / 20.5		117.0 / 20.5		148.0 / 25.9	
Thermal module FORCE W			0MDLAAWA		0MDLCAWA		0MDLDAWA		0MDLEAWA		0MDLFAWA	
Technical external cabinet			046051X0		046051X0		046051X0		046051X0		046051X0	
High performance modulating pump (7 mt)			042070X0	-	042070X0	-	042070X0	-	042070X0	-	042070X0	-
High performance modulating pump (10 mt)			-	042071X0	-	042071X0	-	042071X0	-	042071X0	-	042071X0

FORCE W CASCADE INSTALLATION FOR OUTDOORS





ACCESSORIES
NECESSARY TO CORRECTLY INSTALL FORCE W GENERATORS IN A BANK

	A						B	C		E	G	H	L	
							Technical cabinet equipped for outdoors	7-m modulating circulator	10-m modulating circulator	Blind flange kit DN65	Flue gas manifold starter kit (Ø 200 mm) *	Flue gas manifold extension kit (Ø 200 mm) *	Flue manifold adapter F 200 mm	Smoke chimney F 100 mm (for unprotected roof installations)
P_{ut} (50/30°C)	MODULES FORCE W					Tot. modules								
	60	80	99	120	150		046051X0	042070X0	042071X0	042073X0	041091X0	041092X0	041093X0	041094X0
62	1					1	1	1	1	1	-	-	-	1
77		1				1	1	1	1	1	-	-	-	1
98			1			1	1	1	1	1	-	-	-	1
117				1		1	1	1	1	1	-	-	-	1
148					1	1	1	1	1	1	-	-	-	1
124	2					2	2	2	2	1	1	2	1	2
139	1	1				2	2	2	2	1	1	2	1	2
154		2				2	2	2	2	1	1	2	1	2
179	1			1		2	2	2	2	1	1	2	1	2
194		1		1		2	2	2	2	1	1	2	1	2
215			1	1		2	2	2	2	1	1	2	1	2
234				2		2	2	2	2	1	1	2	1	2
265				1	1	2	2	2	2	1	1	2	1	2
296					2	2	2	2	2	1	1	2	1	2
332			1	2		3	3	3	3	1	1	3	2	3
351				3		3	3	3	3	1	1	3	2	3
373		1			2	3	3	3	3	1	1	3	2	3
394			1		2	3	3	3	3	1	1	3	2	3
413				1	2	3	3	3	3	1	1	3	2	3
444					3	3	3	3	3	1	1	3	2	3
468				4		4	4	4	4	1	1	4	3	4
530				2	2	4	4	4	4	1	1	4	3	4
561				1	3	4	4	4	4	1	1	4	3	4
592					4	4	4	4	4	1	1	4	3	4

* Flue gas accessories certified for installation in a utility room or in a protected place

ACCESSORIES
UPON REQUEST FOR CONFIGURATION ACCORDING TO PROJECT SPECIFICATIONS

	DESCRIPTION		CODE
	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator	cable 2 m	1KWMA11W
		cable 5 m	043005X0
	outdoor probe		013018X0
	Single empty cabinet for outdoors		046055X0
	Double empty cabinet for outdoors		046056X0
	hydraulic separator DN 32. For installation until 150 kW. The installer is responsible for the connection with the generator		042086X0
	hydraulic separator DN 65 For installation from 151 kW to 300 kW		042078X0
	installation kit for hydraulic separator. For installation from 151 kW to 300 kW		042079X0
	hydraulic separator DN 65 For installation from 301 kW to 600 kW		042080X0
	installation kit for hydraulic separator. For installation from 301 kW to 600 kW		042081X0
	gasketed plates heat exchanger. The hydraulic connection between the generator and the exchanger is the responsibility of the installer.		
	**Temperature controls** in chapter on **SYSTEM COMPONENTS**		
	neutralisers (see chapter on condensation neutralisers for condensing boilers)		

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			m^3/h	m^3H_2O	m^3/h	m^3H_2O
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
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			m^3/h	m^3H_2O	m^3/h	m^3H_2O
62	1					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
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

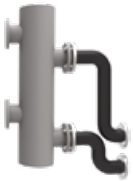
The hydraulic separator guarantees the independence between the primary circuit (generator) and the secondary circuit (system) without any disturbance or interference between them.
The separator is proposed complete with deaerator, sludge separator and is fully insulated.

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

HYDRAULIC SEPARATOR FOR INSTALLATION UP TO 150 KW

	DESCRIPTION	CODE
	Hydraulic separator DN 32 The installer is responsible for the connection with the generator	042086X0

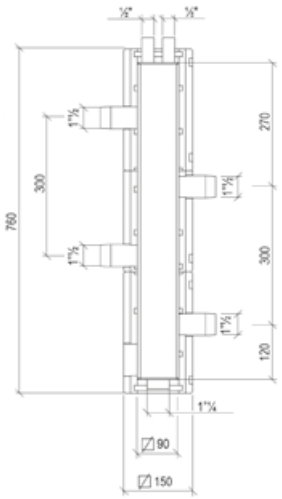
HYDRAULIC SEPARATOR FOR INSTALLATION FROM 151 TO 300 KW

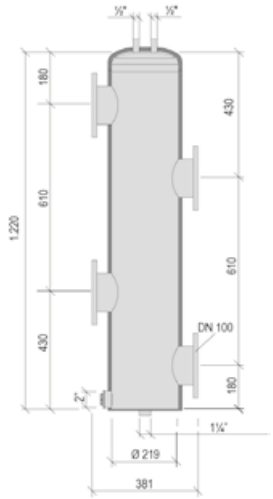
	DESCRIPTION	CODE
	Hydraulic separator DN 65	042078X0
	Kit for hydraulic separator installation	042079X0

HYDRAULIC SEPARATOR FOR INSTALLATION FROM 301 TO 600 KW

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

DIMENSION AND TECHNICAL DATA





MODEL		DN 32	DN 65	DN 100
Flow rate	m^3/h	6.5	18	30
Water content	lt	4.8	21	46
Max temperature	°C	100	100	100
Max pressure	bar	6	6	6
Material	-	ST37.1 stainless	ST37.1 stainless	ST37.1 stainless
Insulation	-	Black EPP - 40 g/l	Black EPP - 40 g/l	Black EPP - 40 g/l

DIVATECH D LN

INSTANT COMBI DOUBLE EXCHANGER WALL-HUNG BOILERS OPEN FLUE NATURAL DRAUGHT - LOW NOx

ERP

> STRENGTHS:

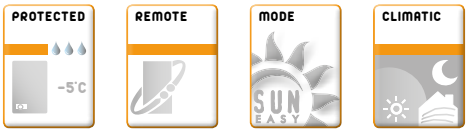
- **Primary heat exchanger with compact geometry made** entirely of copper
- **Instantaneous production** of domestic hot water with **a dedicated DHW plate exchanger**
- **By-pass** with standard supply
- Boiler with a open chamber and natural draught, with **low NOx emissions atmospheric burner**, stainless steel
- **High efficiency and low consumption circulator** (ErP - Class A) with block protection system by being activated for a few seconds every 24 hours of inactivity
- **Can be combined** with the modulating remote control
- **Outer casing** coated with white anaphoresis epoxy powders
- Simple and complete control panel, user interface with **display** and setting **keys**
- **Compact size and reduced weight**

> ADVANTAGES OF DIVATECH D LN:

- **Modulating heat input** during both heating and production of DHW, managed by a microprocessor electronic card
- **ECO/COMFORT system** for fast production of DHW
- **Adjustable post-circulation** after the heating phase
- **Solar system set up**: set up for the production of domestic hot water combined with solar panel systems

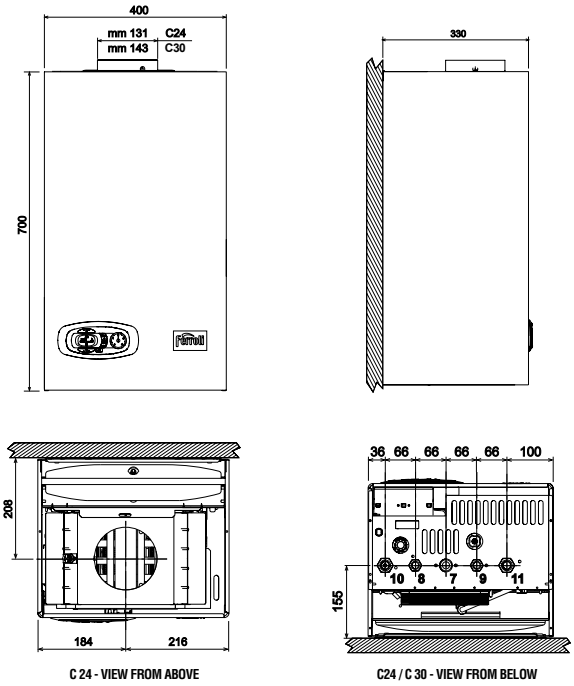
REPLACEMENT OF BOILERS INSTALLED IN COLLECTIVE CHIMNEYS

In the EU the ***new*** (redesigned) **DIVATECH D C 24/30 LN "ErP Compliant"** can ONLY be installed as replacement for open flues boilers evacuating through collective chimneys, **provided that such installation is also permitted by local laws.** In that sense the ***new*** DIVATECH D C 24/30 LN are deemed to be compliant with ErP, which explicitely allows only for that exception.



MODEL			C 24	C 30
ERP Class		(Class G - A++)	C	C
	XL	(Class G - A)	A	A
Nominal heat output in heating (Pn)	Min / Max	kW	7.0 / 23.5	9.7 / 30.0
Heat input	Min / Max	kW	8.3 / 25.8	11.5 / 33.3
Useful DHW heat output		kW	23.5	30.0
Efficiency (Pn)		%	91.0	91.0
Maximum DHW production	Δt 30°C Δt 25°C	l/min l/min	11.2 13.4	14.3 17.2
Empty weight		kg	27	30
No. of pieces/pallet		**no.**	**10**	**10**
CODE		**NAT. GAS**	**0DCC4YWA**	**0DCC6YWA**

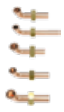
DIVATECH D LN



> KEY

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

> HYDRAULIC AND CONTROL 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

	DESCRIPTION	CODE
	outdoor probe	013018X0
	thermostatic mixer kit 1/2" connections	013002X0

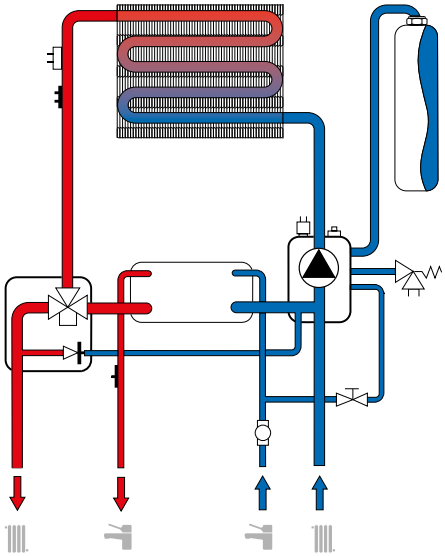
DIVATECH D

INSTANT COMBI
WALL HUNG GAS BOILER

- Traditional compact wall hung boiler for central heating and domestic hot water
- **Monothermic CH exchanger** plus **DHW stainless steel plates exchanger** fed by diverting valve
- Complete and intuitive control board, with autodiagnostic function, featuring backlit display and setting buttons
- Can be connected to **outdoor probe** and **remote control**, as optionals
- Modulating operation both in heating and domestic hot water mode, with adjustable temperature increase slope
- Hydraulic bypass as a standard
- Antifrost function, if gas and power supplied
- Ready for connection to **solar systems**: integrated management of combined DHW production through boiler and solar system
- Compact dimensions thus enabling installation, also in place where limited space is available
- Available in the LPG version

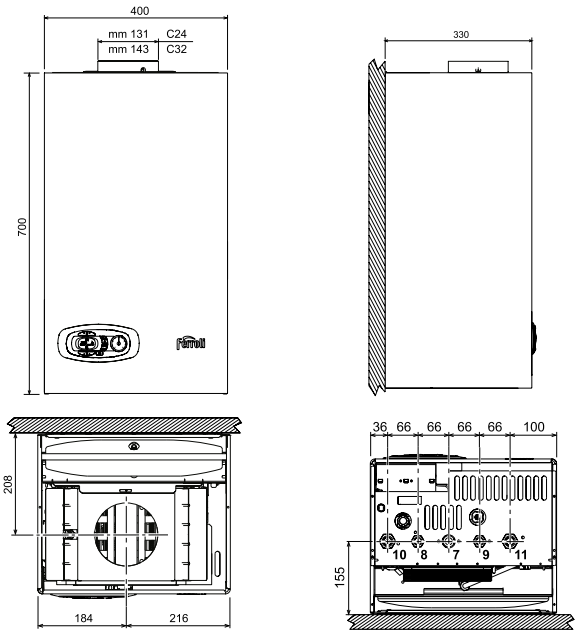
MOD C: OPEN FLUE
MOD F: ROOM SEALED

WATER SCHEME



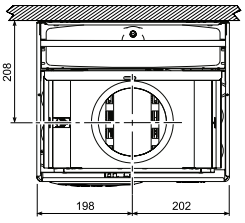
MODEL			C 24	C 32	F 24	F 32	F 37
Heat input	Max Min	kW kW	25,8 8,3	34,4 11,5	25,8 8,3	34,4 11,5	39,7 14,0
Heat output	Max Min	kW kW	23,5 7,0	31,3 9,7	24,0 7,2	32,0 9,9	37,0 12,9
Efficiency	80°C - 60°C 30% load	Pmax % %	91,0 89,6	91,0 89,8	93,0 90,5	93,1 91	93,2 91
DHW production	Δt 25°C Δt 30°C	l/min l/min	13,4 11,2	17,9 14,9	13,7 11,4	18,3 15,2	21,1 17,6
Heating operating pressure	Max	bar	3	3	3	3	3
Empty weight		kg	27	30	32	35	37
Dimensions	WxHxD	mm	400x700x330	400x700x330	400x700x330	400x700x330	450x700x330
CODE			**0DAC4YYA**	**0DAC7YYA**	**0DAF4YYA**	**0DAF7YYA**	**0DAF8YYA**

DIVATECH C D



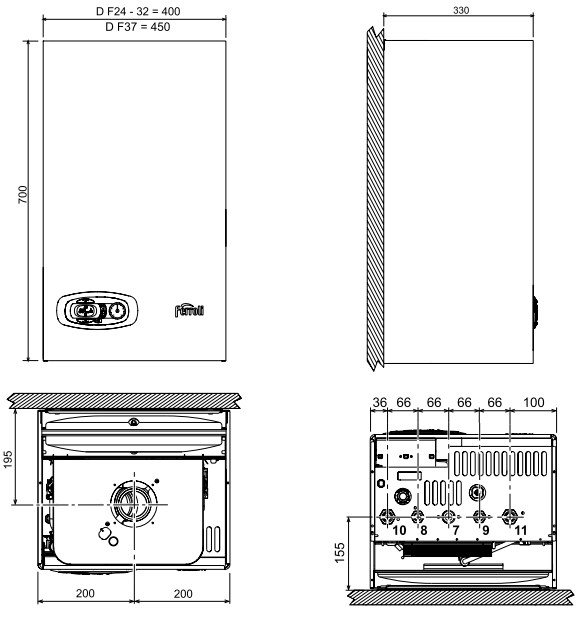
C 24 - VIEW FROM ABOVE

C 24/32 - VIEW FROM BELOW



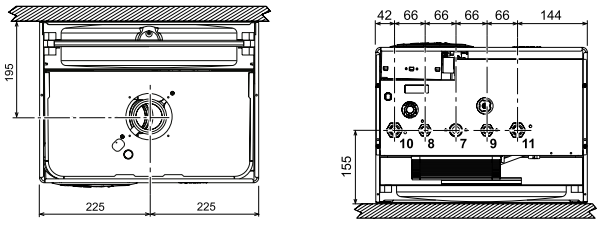
C 32 - VIEW FROM ABOVE

DIVATECH F D



F 24/32 - VIEW FROM ABOVE

F 24/32 - VIEW FROM BELOW



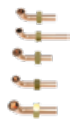
F 37 - VIEW FROM ABOVE

F 37 - VIEW FROM BELOW

> KEY

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

> HYDRAULIC AND CONTROL ACCESSORIES

	DESCRIPTION	CODE
	universal kit for replacement of wall-hung boilers	012025X0
	electric heating elements kit for auxiliary antifrost down to -15°C	013009X0
	Concentric kit 01007X0 + 1KWMA56A (made by: 90°bend, 1mt terminal pipe, Ø 60/100 mm)	010012X0
	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

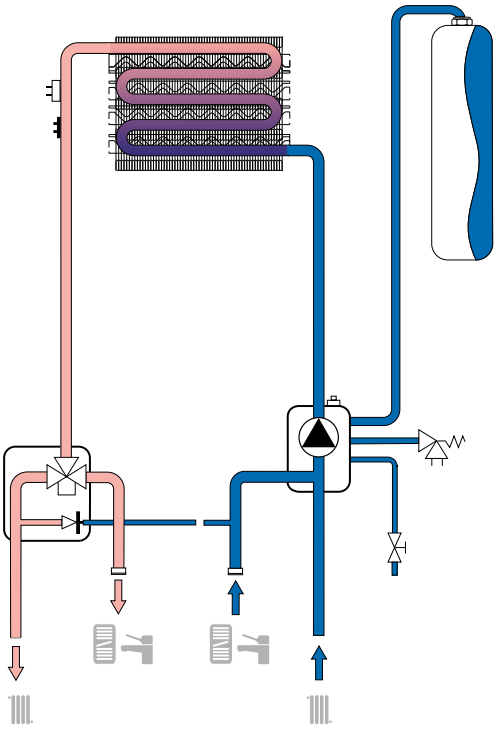
	DESCRIPTION	CODE
	outdoor probe	013018X0
	thermostatic mixer kit 1/2" connections	013002X0
	Vertical concentric connection, Ø 60/100 mm, external PVC internal aluminium	010006X0
	90° flanged concentric bend - 360° adjustable by 45° steps - Ø 60/100 mm, external PVC internal aluminium	010007X0
	Vertical concentric connection, Ø 80/125 mm, with test point, aluminium	010018X0
	Twin pipes adaptor Ø 80/80 mm	010031X0

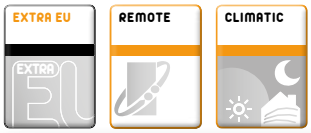
DIVATECH D HF

ONLY HEATING
WALL HUNG BOILER

- Traditional compact wall hung boiler for central heating and verical external DHW cylinder
- **CH exchanger** plus **DHW stainless steel plates exchanger** fed by diverting valve
- Built-in electronic management of an **eventual external DHW cylinder**, fed by the onboard diverter valve
- Can be connected to **outdoor probe** and **remote control**, as optionals
- Complete and intuitive **backlit graphic display** for easy and correct setting of the parameters
- Antifrost function, if gas and power supplied
- Timed antiseize program for pump and diverter valve
- Automatic bypass as standard
- Protection index **IPX5D**, which means excellent electrical protection of the appliance

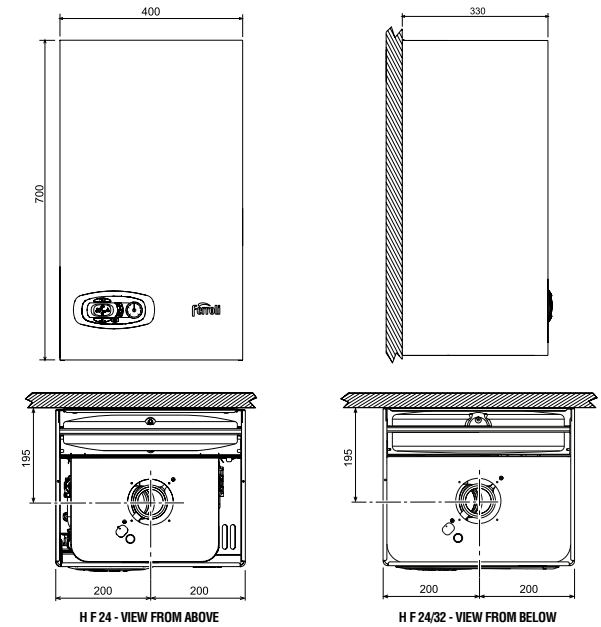
WATER SCHEME



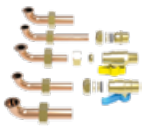
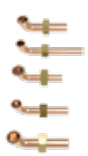


MODEL			H F 24	H F 32
Heat input	Max Heating Min	kW kW	25,8 8,3	34,4 11,5
Heat output	Max Heating Min	kW kW	24,0 7,2	32,0 9,9
Heating operating pressure	Max	bar	3	3
Heating water content		litres	1	1,5
Empty weight		kg	31	35
Dimensions	WxHxD	mm	400x700x330	450x700x330
CODE (see page 5)			**0DA04ZYA**	**0DA07ZYA**

DIVATECH H F D



> HYDRAULIC AND CONTROL ACCESSORIES

	DESCRIPTION	CODE
	galvanised template	016074X0
	universal kit for replacement of wall-hung boilers	012025X0
	electric heating elements kit for auxiliary antifrost down to -15°C	013009X0
	Concentric kit 01007X0 + 1KWMA56A (made by: 90°bend, 1mt terminal pipe, Ø 60/100 mm)	010012X0
	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

	DESCRIPTION		CODE
	outdoor probe		013018X0
	thermostatic mixer kit 1/2" connections		013002X0
	Vertical concentric connection, Ø 60/100 mm, external PVC internal aluminium		010006X0
	90° flanged concentric bend - 360° adjustable by 45° steps - Ø 60/100 mm, external PVC internal aluminium		010007X0
	Vertical concentric connection, Ø 80/125 mm, with test point, aluminium		010018X0
	Twin pipes adaptor Ø 80/80 mm		010031X0
	additional sensor for managing any external storage tank	cable 2 m	1KWMA11W
		cable 5 m	043005X0

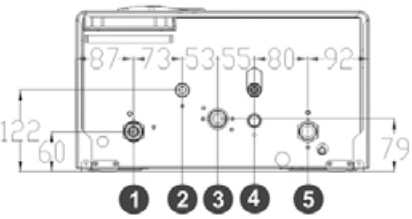
FORTUNA

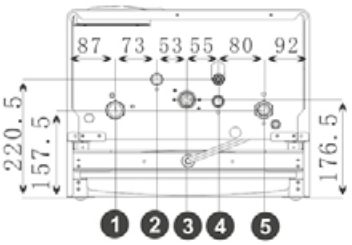
INSTANT COMBI
WALL HUNG GAS BOILER

EXTRA EU

> STRENGTHS:

- Traditional wall-hung boiler, Instant combi via double exchanger
- Electronic display with buttons and front pressure gauge
- Forced flue. Open flue available
- Large availability of models, themal capacities from 10 to 40 kW
- Main functions:
  * Anti-seize routine for pump
  * 2 levels frost protection
  * Power ignition regulation
  * Protection heating slope
  * IP protection IPX5D





> KEY

1 G3/4" CH water inlet
2 G1/2" DHW outlet
3 G1/2" - (DC) 3/4" Gas inlet (AC)
4 G1/2" Tap water inlet
5 G3/4" CH water return

MODEL		10 kW		13 kW		16 kW		18 kW		20 kW		24 kW		30 kW		32 kW		35 kW		40 kW	
Power		Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min
Rated heat input	kW	12.3	9.2	15.3	9.2	18.4	9.2	20.0	9.2	22.3	9.2	26.3	9.2	32.6	12.8	34.7	12.8	38.1	13.3	44.1	14.3
Rated heat output 80°C-60°C	kW	10.0	8.3	13.0	8.3	16.0	8.3	18.0	8.3	20.0	8.3	24.0	8.3	30.0	11.9	32.0	11.9	35.0	12.2	40.0	13.0
Rated heat input of sanitary hot water	kW	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	26.3	9.2	32.6	12.8	34.7	12.8	38.1	13.3	44.1	14.3
Rated heat output of sanitary hot water	kW	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	24.0	8.3	30.0	11.9	32.0	11.9	35.0	12.2	40.0	13.0
Efficiency Pmax (80–60°C)	%	89		89		89		89		89		89		89		89		89		89	
Efficiency Pmin (30%Pmax)	%	85		85		85		85		85		85		85		85		85		85	
Natural gas nozzle (G20)	mm	12x1.28		12x1.28		12x1.28		12x1.28		12x1.28		12x1.28		15x1.30		15x1.30		18x1.30		21x1.30	
Natural gas supply pressure (G20)	Pa	2000		2000		2000		2000		2000		2000		2000		2000		2000		2000	
Pressure at the burner (gas G20)	mbar	3.1	1.5	4.3	1.5	6.0	1.5	7.0	1.5	9.0	1.5	12.0	1.5	12.5	1.0	13.5	1.0	12.0	1.0	11.0	1.0
LPG nozzle (G30)	mm	12x0.79		12x0.79		12x0.79		12x0.79		12x0.79		12x0.79		15x0.82		15x0.82		18x0.82		21x0.82	
LPG supply pressure (G30)	Pa	2800		2800		2800		2800		2800		2800		2800		2800		2800		2800	
Pressure at the burner (gas G30)	mbar	4.5	2.5	8.0	2.5	11.0	2.5	13.5	2.5	16.0	2.5	21.0	2.5	20.0	2.5	21.0	2.5	20.0	2.5	20.0	2.5
Max working temperature	°C	90		90		90		90		90		90		90		90		90		90	
Max working pressure	MPa	0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3	
Safety valve release pressure	MPa	0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3		0.3	
Min heating pressure	MPa	0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08		0.08	
Volume of expansion water tank	l	6		6		6		6		6		6		8		8		8		10	
Initial pressure of expansion water tank	MPa	0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1	
Volume of wall-hung boiler	l	1.0		1.0		1.0		1.0		1.0		1.0		1.2		1.2		1.2		1.5	
Max. hot water production rate Δt=25k)	kg/min	13.6		13.6		13.6		13.6		13.6		13.6		16.2		17.2		18.4		20.6	
Max hot water production rate (Δt=30k)	kg/min	11.3		11.3		11.3		11.3		11.3		11.3		12.3		14.3		15.5		17.6	
Max working pressure of hot water	MPa	0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8		0.8	
Min working pressure of hot water	MPa	0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025		0.025	
Sanitary hot water volume	l	0.40		0.40		0.40		0.40		0.40		0.40		0.50		0.50		0.60		0.80	
Max system performance DHW	l/min	12		12		12		12		12		12		14		14		16		18	
Height / Width	mm	740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 440		740 / 500	
Depth	mm	235		235		235		235		235		235		340		340		340		340	
Net weight	kg	28.8		28.8		28.8		28.8		28.8		28.8		36.7		36.7		37.5		40.3	
Gas supply joint	inches	1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"	
Heating pipe joint	inches	3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"		3/4"	
Sanitary hot water joint	inches	1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"		1/2"	
Max electric power	W	110		110		110		110		110		110		110		110		110		110	
Voltage/frequency	V/Hz	230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50		230/50	
Protection class	IP	X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D		X5D	

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

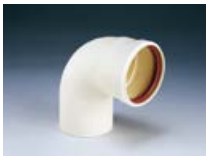
1KWMA64W

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

1KWMA89W

1m M-F pipe,
ø 60 mm

041085X0

90° M-F bend,
ø 50 mm

041087X0

Reduction,
ø 80/50 mm

041086X0

1m extension,
ø 50 mm

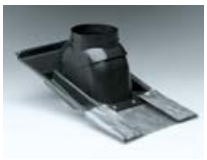
1KWMA81U

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

* 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

010012X0

Concentric kit 01007X0 + 1KWMA56A
(made by: 90°bend, 1mt terminal pipe, Ø 60/100 mm)

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

1KWMA03K

45° M-F bend, Ø 100 mm, aluminium

1KWMA02K

90° F-F bend, Ø 80 mm, aluminium

1KWMA01K

45° F-F bend, Ø 80 mm, aluminium

1KWMA19K

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

1KWMA16U

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

1KWMA03U

M-F reduction, Ø 80-100 mm, aluminium

ZB90160540

Flue kit (90° bend and 1 mt pipe) for FORTUNA series

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

LEB

ERP

WALL-HUNG ELECTRIC BOILER
HEATING ONLY

- **One or three phases** operation
- Output modulation on 6 stages for models 6 ÷ 9, on 12 steps for bigger models
- **Flow temperature compensation** through (optional) outdoor probe
- Heating planning through **internal timer** or optional programmable thermostat
- 2 levels antifrost function
- Modular operation through optional cascade controller
- Includes high efficiency pump with anti-seize function, expansion vessel, bypass
- Can manage an **external DHW tank**
- Wifi/internet control by CONNECT remote control, available as optional
- Available with high efficiency pump (in compliance with Erp regulation) or standard pump for extra-UE countries

1 ON-OFF
2 Winter/Summer mode switch
3 Reset switch
4 Timing and set switch
5 Setting switch
6 Floor heating mode
7 Setting switch
8 Confirm switch
9 Heating temperature adjustment
10 Hot water temperature adjustment
11 Water pressure gauge
12 LCD display

MOD. 9.0

MODEL			6.0 TS	7.5 TS	9.0 TS	12.0 TS	18.0 TS	24.0 TS
Erp Class		(G - A++ Class)	D	D	D	D	D	D
Input power		kW	6	7,5	9	12	18	24
Voltage			1x230V/50Hz or 3x230V/400V/50Hz			3x230V/400V/50Hz		
Current	max	A	41	41	41	3x43	3x43	3x43
Operating temperature in CH	max	°C	80	80	80	80	80	80
Expansion water tank		litres	10	10	10	10	10	10
Operating pressure	max min	bar bar	0,8 3	0,8 3	0,8 3	0,8 3	0,8 3	0,8 3
Flow / return connection		G	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Water filling / drain hole		G	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Protection class		IP	40	40	40	40	40	40
Empty weight		kg	29,5	29,5	29,5	40	40	40
Dimensions	WxHxD	mm	440x740x265	440x740x265	440x740x265	740x440x340	740x440x340	740x440x340

FLOOR STANDING BOILERS

ERP

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

CONDENSING
TRADITIONAL

BLUEHELIX B FLOOR STANDING CONDENSING BOILER, FOR HEATING ONLY

ERP

A+ SYSTEM scale G - A+++

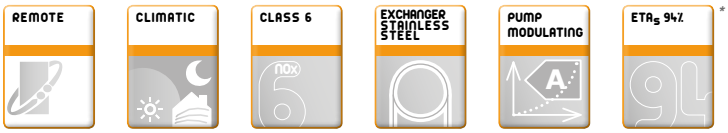
> STRENGTHS:

- 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+++) (only mod. 35)
- **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:

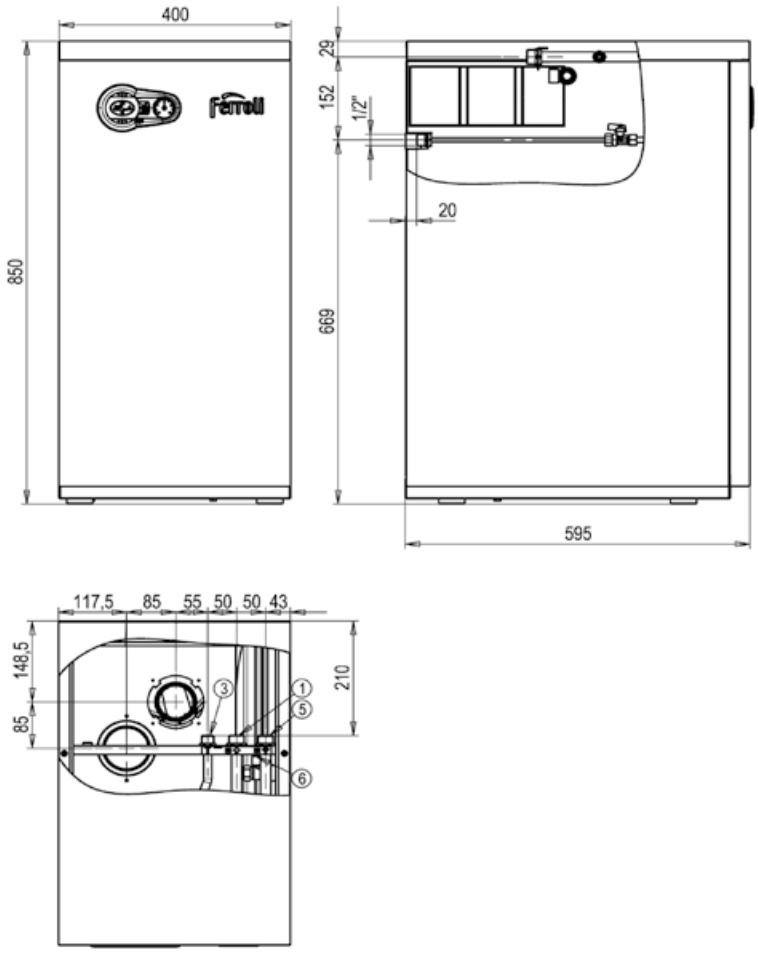
- **Minimum polluting emissions** (class 6 according to EN 15502-1)
- **Sliding temperature operating mode** in combination with the optional outdoor probe
- **Exchanger protection function** with Δt control
- **Timed circulator block protection**
- **Digital flame control** with three reignition tries 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
	additional sensor for DHW storage tank	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

BLUEHELIX B K 50 FLOOR STANDING CONDENSING BOILER, STAINLESS STEEL DHW STORAGE

ERP

A+ SYSTEM scale G - A+++

> STRENGTHS:

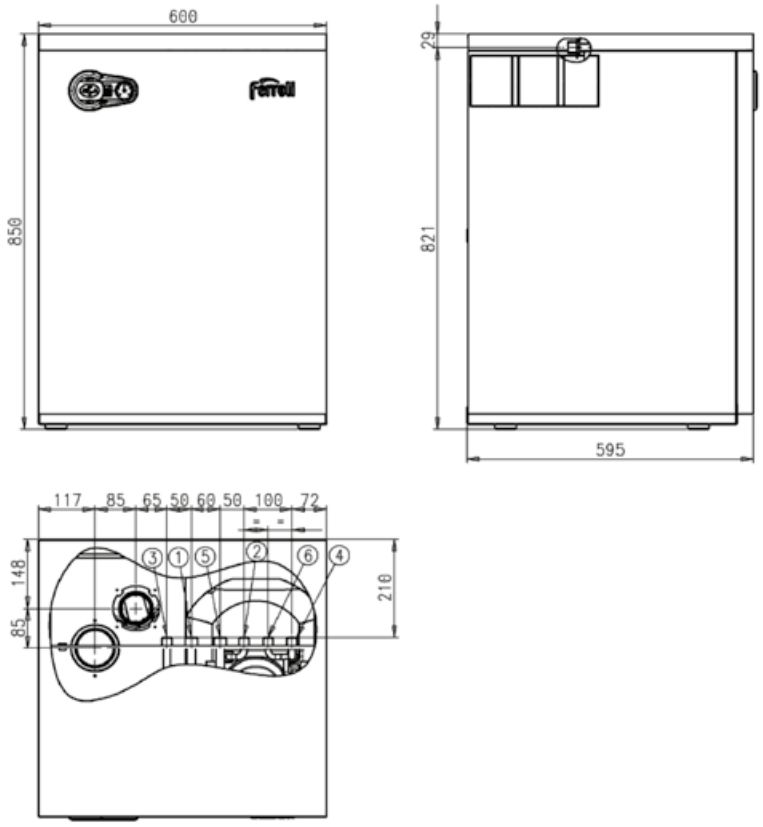
- It reaches **one of the highest seasonal space heating efficiencies** in its category: η_s **94%**
- A+ SYSTEM: combined with the modulating remote control and the outdoor probe (optional) it reaches the top efficiency class **A+** (scale from G to A+++)
- **Stainless steel** primary heat exchanger
- **Production of domestic hot water** with 50-litre stainless steel storage with fitting for recirculation
- **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 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
- **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			B 32 K 50
ERP Class		(Class G - A++)	A
	XXL	(Class G - A)	A
Heat input (L.C.V.)	Heating Min / Max DHW Max	kW kW	6.7 / 29.5 32.0
Heat output 80°C-60°C 50°C-30°C	Heating Min / Max DHW Max Heating Min / Max	kW kW kW	6.6 / 28.9 31.4 7.2 / 31.3
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.0 / 97.8 106.1 / 107.5 108.8
Nox emissions class		class	6
Storage tank capacity		litres	50
Domestic hot water production	Δt 30°C Δt 30°C	l/10 min l/h	195 945
Heating operating pressure	Max	bar	3
Domestic operating pressure	Max	bar	9
Empty weight		kg	61
CODE		**NATURAL GAS**	**0TAS3AWA**

BLUEHELIX B K 50



> KEY

1 3/4" system flow
2 1/2" domestic hot water outlet
3 1/2" gas inlet
4 1/2" domestic cold water inlet
5 3/4" system return
6 1/2" recirculation

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

	DESCRIPTION	CODE
	outdoor probe	013018X0

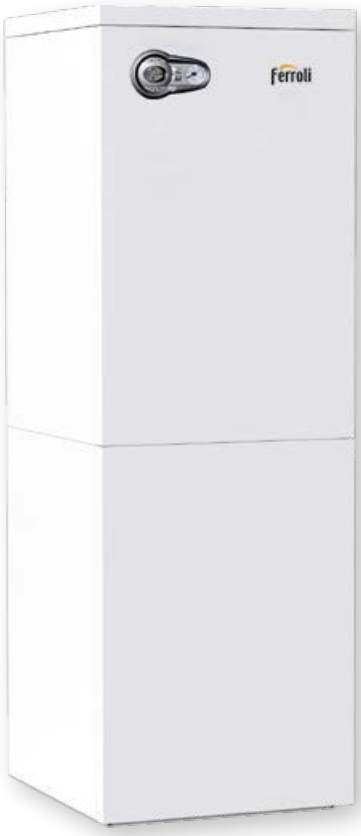
	DESCRIPTION	CODE
	90° coaxial bend, 360° swivel with 45° pitch ø 100/60 mm for condensing boilers	041001X0
	discharge kit twin pipes 80/80 complete with test point	041065X0

BLUEHELIX B S K 100

FLOOR STANDING CONDENSING BOILER, STAINLESS STEEL DHW STORAGE

ERP

SYSTEM scale G - A+++



> STRENGTHS:

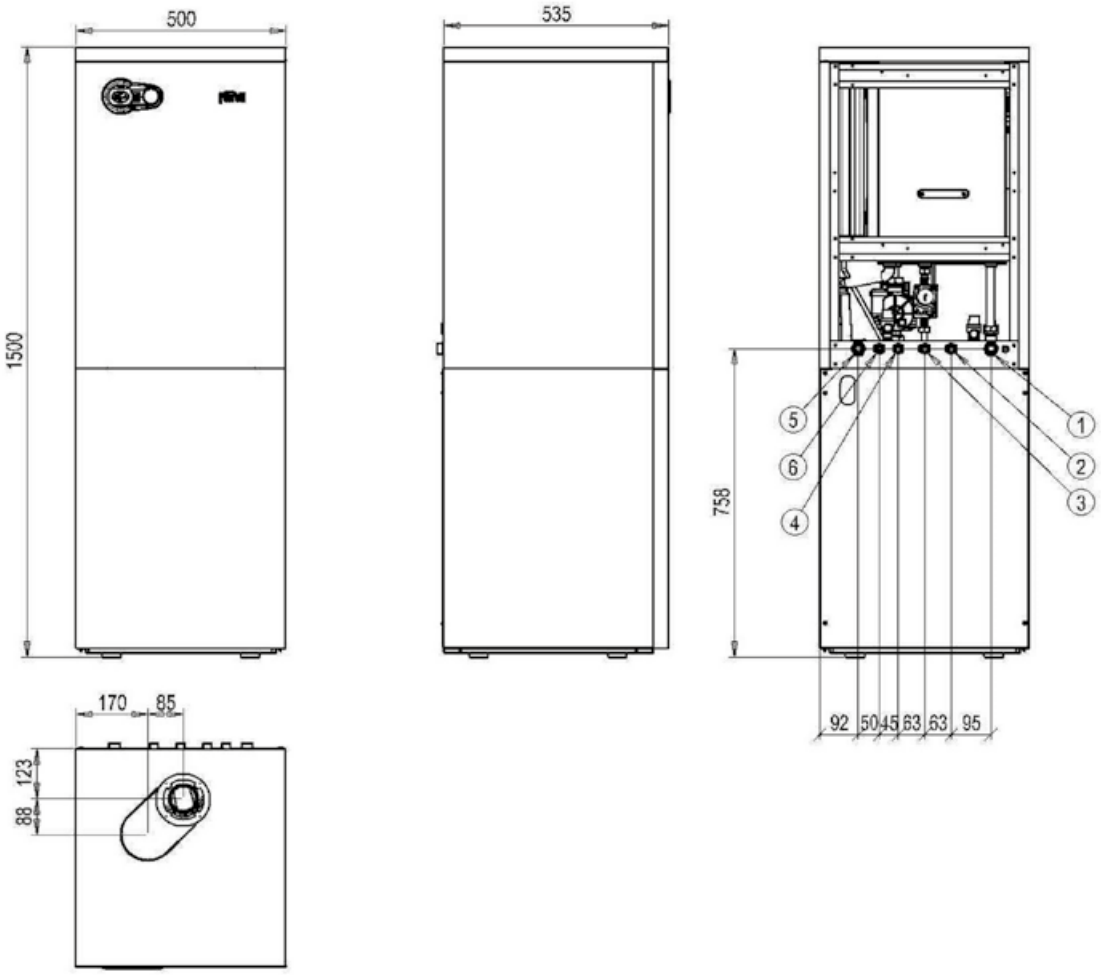
- It reaches **one of the highest seasonal space heating efficiencies** in its category: η_s **94%**
- SYSTEM: combined with the modulating remote control and the outdoor probe (optional) it reaches the top efficiency class **A+** (scale from G to A+++)
- **Stainless steel** primary heat exchanger
- **Production of domestic hot water** with 100-litre stainless steel storage with fitting for recirculation and front flange for inspection and maintenance
- **Stainless steel full pre-mixing burner** with broad modulating range
- **low consumption high efficiency modulating circulator** (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 exhaust with split or coaxial pipes**

> ADVANTAGES OF BLUEHELIX B S K 100:

- **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
- **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			B S 32 K 100
ERP Class		(Class G - A+++)	A
	XXL	(Class G - A)	A
Nominal heat input (LCV)	Min / Max heating DHW Max / Min	kW kW	6.7 / 29.5 6.7 / 32.0
Heating heat output 80°C-60°C	Min / Max heating DHW Max	kW kW	6.6 / 28.9 31.4
50°C-30°C	Min / Max heating	kW	7.2 / 31.3
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%	Pmax % / Pmin % Pmax % / Pmin % Pmax %	98.1 / 97.8 106.1 / 107.5 109.8
Storage tank capacity		litres	100
Domestic hot water production	Δt 30°C Δt 30°C	l/h l/10min	1000 270
Heating operating pressure Domestic operating pressure	Max Heating / DHW Min Heating / DHW	bar bar	6 / 9 0.8 / 0.3
Empty weight		kg	110
CODE		**NATURAL GAS**	**0TAV3PWA**

BLUEHELIX B S K 100



> KEY

1 3/4" system flow
2 1/2" DHW outlet
3 1/2" gas inlet
4 1/2" DHW inlet
5 3/4" system return
6 1/2" recirculation

> HYDRAULIC AND CONTROL ACCESSORIES - STARTING FLUE ACCESSORIES

	DESCRIPTION	CODE
	outdoor probe	013018X0
	coupling for vertical coaxial pipe ø 100/60 mm for condensing boilers	041002X0

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

OPERA CONDENSING THERMAL GENERATOR FOR LARGE VOLUME OF WATER

ERP

A+ SYSTEM scala G ÷ A+++

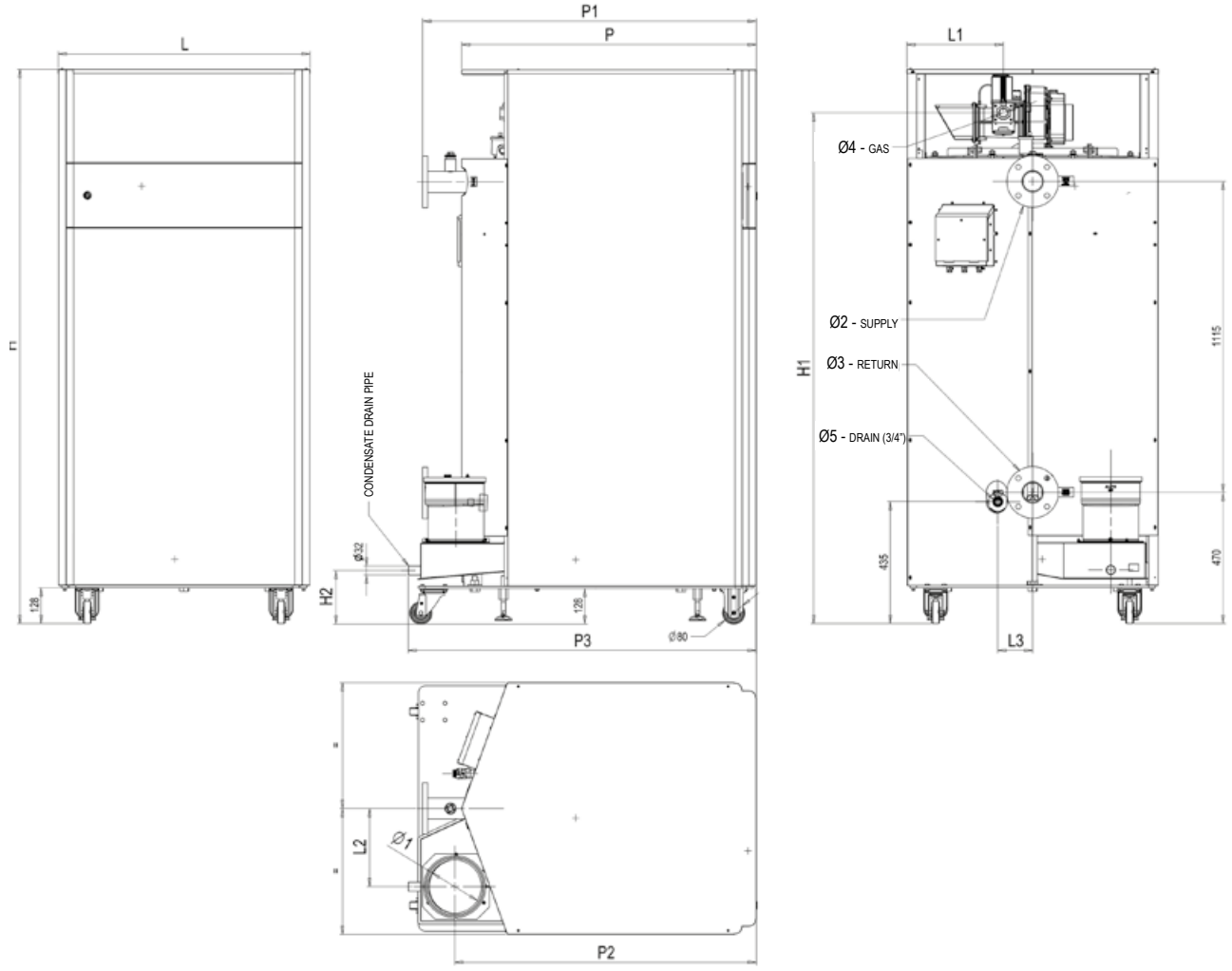
> STRENGTHS:

- **High power condensing thermal module** with **large water content,** designed for single or cascade installations, in combination with a complete range of water, gas and flue gas accessories, up to 960 kW
- Hydraulic, gas and flue gas accessories for cascade installation with 2 and 3 modules
- Flue gas tube heat exchanger, made with **AISI 316 Ti** stainless steel, with vertical configuration, helical cross-section, set up perpendicularly to the flue gas chamber
- Full pre-mixing combustion unit with metal fibre front combustion burner with very low emissions **(CLASS 6 according to EN 15502-1)**. The modules can run on natural gas and LPG
- The combustion chamber has an extremely contained overall vertical dimension so that the exchange of water/flue gases can take place over the entire extension of the exchanger
- **Generator protection systems:** Double sensor (delivery and return) system for operation at **ΔT constant** (adjustable up to 60°C) / Flue gas safety sensor / Water pressure switch with minimum threshold at 0.8 bar
- Air / Flue gas circuit with intake in the installation site and **check valve integrated on the intake unit** to size the pressurised flue gas manifold
- Control panel protected by a door built into the outer casing with **key lock**
- **Four heavy-duty floating wheels** fitted per standard to facilitate unloading and mobility inside the thermal power plant. Adjustable feet for positioning

> ADVANTAGES OF OPERA:

- 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+++)
- The **large volume of water** of the generator allows the boiler to be connected to the system without the need for separating devices and allows for a **very high design Δt**
- Management of the modules in cascade set-up with self-configuring **MASTER / SLAVE system**
- Setting of **switching on and off of generators** (which can be switched on and off in **sequence** or work simultaneously in **parallel**) through the control panel of the MASTER generator
- 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: Regulation of power or temperature with **0 - 10V signal** / Signalling of block alarm for safety and restoration of operation / **OPENTHERM (OT) and MODBUS** parameterisable communication protocols
- Electronic control of microprocessor combustion allows **1/5 modulation on the single generator and of the 1/15 for the maximum configuration** (3 x 320 modules in cascade set-up)

MODEL			70	125	160	220	320
ERP Class		(Class G - A++)	A	ENERGY LABELLING NOT RELEVANT			
Heating heat input	Max / Min	kW	65,5 / 14,0	116,0 / 23,0	150,0 / 41,0	207,0 / 41,0	299,0 / 62,0
Heat output (80°C / 60°C)	Max / Min	kW	64,4 / 13,7	114,0 / 22,5	147,0 / 40,2	204,0 / 40,2	294,5 / 60,8
Heat output (50°C / 30°C)	Max / min	kW	69,9 / 15,0	125,0 / 24,8	160,0 / 44,2	220,0 / 44,2	320,0 / 66,8
Efficiency (80°C / 60°C)	PMax / PMin	%	98,3 / 98,0	98,3 / 98,0	98,4 / 98,0	98,5 / 98,0	98,5 / 98,0
Efficiency (50°C / 30°C)	PMax / PMin	%	106,8 / 107,7	106,8 / 107,7	106,8 / 107,7	106,8 / 107,7	106,8 / 107,7
Efficiency	30% partial load	%	109,6	109,6	109,5	109,6	109,6
NOx emissions class			6	6	6	6	6
CO (o_2= 0%) weighted		mg / kWh	5,5	6	3	8	20
NOx (o_2= 0%) weighted		mg / kWh	18	17	22	22	20
Max operating pressure	Max / Min	bar	6 / 0,5	6 / 0,5	6 / 0,5	6 / 0,5	6 / 0,5
Water content of the generator		litres	160	265	380	380	530
Empty weight		Kg	180	280	400	400	500
CODE	**NATURAL GAS**		**0RBM4AWA**	**0RBM7AWA**	**0RBM8AWA**	**0RBMAAWA**	**0RBMDAWA**



> HYDRAULIC, GAS FITTINGS AND FLUE GAS OUTLETS

MODEL		70	125	160	220	320
Ø 1	Flue gas outlet Ø (mm)	80	100	160	160	200
Ø 2	System flow	1' 1/4	1' 1/4	2'	2'	DN 65
Ø 3	System Return	1' 1/4	1' 1/4	2'	2'	DN 65
Ø 4	Gas inlet	3/4'	1'	1'	1'	1'
Ø 5	Boiler discharge	3/4'	3/4'	3/4'	3/4'	3/4'

> HEIGHTS AND DIMENSIONS

ITEMS	L	L1	L2	L3	H	H1	H2	P	P1	P2	P3
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
OPERA 70	540	305	160	100	1885	1800	200	680	765	685	785
OPERA 125	660	385	210	100	1905	1810	195	800	895	815	935
OPERA 160 - 220	780	295	240	125	1935	1770	185	925	1055	955	1105
OPERA 320	900	345	280	125	1965	1810	170	1055	1200	1080	1250

> ACCESSORIES FOR SINGLE INSTALLATIONS

	DESCRIZIONE		CODICE
	motorised valve, 230V - 50Hz powered DN 50 **for model 70 and 125**		052000X0
	motorised valve, 230V - 50Hz powered DN 65 **for model 160, 220 and 320**		052001X0
	outdoor probe		013018X0
	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator	cable 2 mt	1KWMA11W
		cable 5 m	043005X0

	DESCRIZIONE		CODICE
	500 mm PPS M/F flue gas pipe	100 mm	041072X0
		160 mm	041074X0
		200 mm	041076X0
	1000 mm PPS M/F flue gas pipe	100 mm	041073X0
		160 mm	041018X0
		200 mm	041062X0
	PPS M/F 90° bend	100mm	041077X0
		160 mm	041015X0
		200 mm	041060X0
	neutralisers (see chapter on condensation neutralisers for condensing boilers)		
	**Temperature control** in chapter **SYSTEM COMPONENTS**		

OPERA INSTALLATION IN A BANK

It is possible to connect in cascade a minimum of two 70 kW generators to a maximum of three 320 kW generators, in the combinations shown in the table.

Every detail of the OPERA range has been designed to simplify cascade installations.

- The hydraulic connections have been positioned at the same heights to simplify connection to the system delivery and return manifolds.
- The satellite flue gas outlet with respect to the generator body and the backflow prevention damper positioned directly on the fan facilitate sizing and implementation of the flue gas manifold (pressurised).
- Coupled with a complete series of accessories for several two or three-generator bank combinations, reaching a maximum output of 960 kW.
- The electronics fitted as per standard was designed to autonomously manage the dynamics of several generators in cascade, with MASTER-SLAVE logic, up to a max. of 6.
- By setting the parameters of the cascade MASTER board, the ignition and shutdown sequence of the various modules can be set and rotated so as to evenly divide the number of operating hours.

> CASCADE INSTALLATIONS THAT COME WITH ALL OF THE ACCESSORIES

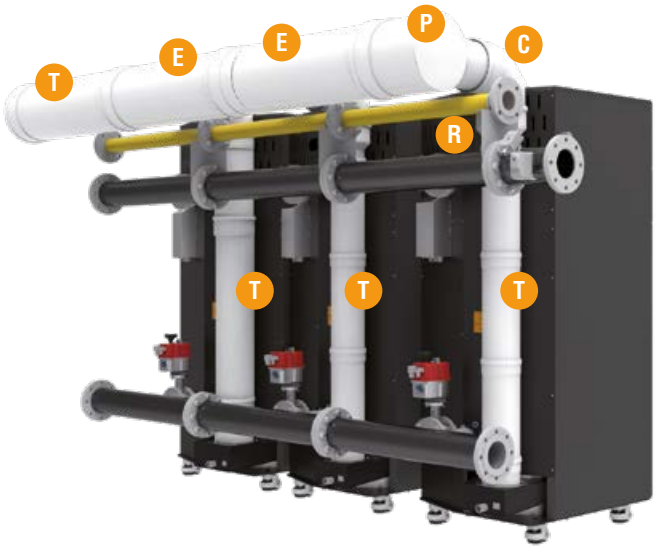
HEAT INPUT	HEAT OUTPUT (1)		CASCADE MODULATION Pmin/Pmax 50/30°C	NR. OF MODULES	COMBINATION OF MODELS		
	80/60°C	50/30°C			1	2	3
kW	kW	kW	kW				
131.0	128.8	139.8	15.0/139.8	2	70	70	-
181.5	178.4	194.9	15.0/194.9	2	70	125	-
232.0	228.0	250.0	24.8/250.0	2	125	125	-
247.0	242.8	264.8	15.0/264.8	3	70	70	125
297.5	292.4	319.9	15.0/319.9	3	70	125	125
323.0	318.0	345.0	24.8/345.0	2	125	220	-
348.0	342.0	375.0	24.8/375.0	3	125	125	125
414.0	408.0	440.0	44.2/440.0	2	220	220	-
439.0	432.0	470.0	24.8/470.0	3	125	125	220
506.0	498.5	540.0	44.2/540.0	2	-	220	320
530.0	522.0	565.0	24.8/565.0	3	125	220	220
598.0	589.0	640.0	66.8/640.0	2	320	320	-
621.0	612.0	660.0	44.2/660.0	3	220	220	220
713.0	702.5	760.0	44.2/760.0	3	220	220	320
805.0	793.0	860.0	44.2/860.0	3	220	320	320
897.0	883.5	960.0	66.8/960.0	3	320	320	320

Note: the Company does not provide the accessories for other configurations not shown in the table

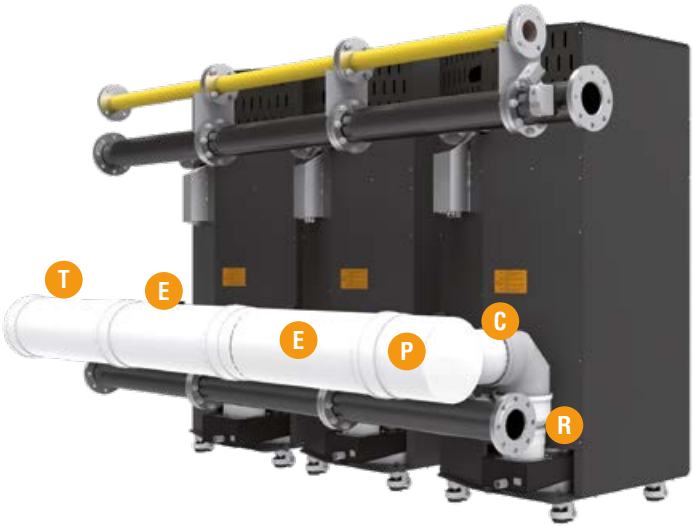
OPERA INSTALLATION IN A BANK

FLUE GAS MANIFOLD HIGH OUTLET

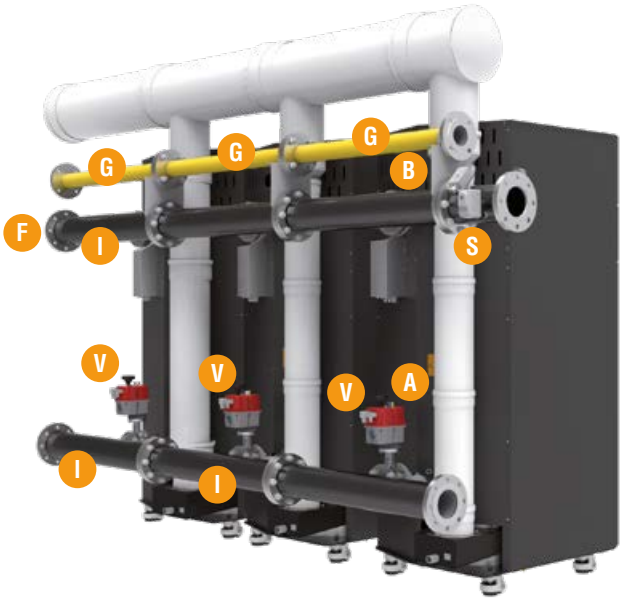
FLUE GAS MANIFOLD MEDIUM OUTLET



FLUE GAS MANIFOLD LOW OUTLET



GAS LINE AND SYSTEM DELIVERY/RETURN MANIFOLDS



> ACCESSORIES ON DEMAND FOR BANK INSTALLATIONS

	DESCRIPTION	CODE
	motorised valve, 230V - 50Hz powered DN 50 **for model 70 and 125**	052000X0
	motorised valve, 230V - 50Hz powered DN 65 **for model 160, 220 and 320**	052001X0
	**Temperature control** in chapter **SYSTEM COMPONENTS**	

	DESCRIPTION		CODE
	outdoor probe		013018X0
	additional sensor for storage tank and/or system flow for cascade configurations with and without hydraulic separator	cable 2 m	1KWMA11W
		cable 5 m	043005X0
	neutralisers (see chapter on condensation neutralisers for condensing boilers)		

HYDRAULIC AND GAS ACCESSORIES
NECESSARY TO CORRECTLY INSTALL OPERA GENERATORS IN A BANK

					G	G	G	I	I	I	F	F	F	B	B	A	A	A
					1" 1/2 - 1" gas manifold	2" - 1" gas manifold	2" 1/2 - 1" gas manifold	DN50 - 2" hydraulic manifold	DN65 - 2" hydraulic manifold	DN100 - DN65 hydraulic manifold	DN50 flange kit	DN65 flange kit	DN100 flange kit	F-F 1"1/4 coupling	F-F 2" coupling	2" - 1"1/2 M-F reduction nipple	Flange DN50 - sleeve 1"1/4	Flange DN65 - sleeve 2"
																		
CALORIFIC VALUE kW	MODULES OPERA			COLLECTOR	042050X0	042051X0	042052X0	042053X0	042054X0	042055X0	042059X0	042060X0	042061X0	042062X0	042063X0	042064X0	042065X0	042066X0
	1	2	3		no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.
131,0	70	70	-	Gas	2													
				Flow				2			1			2				
				Return				2			1						4	
181,5	70	125	-	Gas	2													
				Flow				2			1			2				
				Return				2			1						4	
232,0	125	125	-	Gas	2													
				Flow				2			1			2				
				Return				2			1						4	
247,0	70	70	125	Gas	3													
				Flow				3			1			3				
				Return				3			1						6	
297,0	70	125	125	Gas	3													
				Flow				3			1			3				
				Return				3			1						6	
323,0	125	220	-	Gas		2												
				Flow					2			1			2	1		
				Return					2			1				1		4
348,0	125	125	125	Gas		3												
				Flow					3			1			3	3		
				Return					3			1				3		6
414,0	220	220	-	Gas		2												
				Flow					2			1			2			
				Return					2			1						4
439,0	125	125	220	Gas		3												
				Flow					3			1			3	2		
				Return					3			1				2		6
506,0	220	320	-	Gas			2					1						
				Flow						2			1					1
				Return						2			1					1
530,0	125	220	220	Gas		3												
				Flow					3			1			3	1		
				Return					3			1				1		6
598,0	320	320	-	Gas			2					1						
				Flow						2			1					
				Return						2			1					
621,0	220	220	220	Gas			3					1						
				Flow						3			1					3
				Return						3			1					3
713,0	320	220	220	Gas			3					1						
				Flow						3			1					2
				Return						3			1					2
805,0	320	320	220	Gas			3					1						
				Flow						3			1					1
				Return						3			1					1
897,0	320	320	320	Gas			3					1						
				Flow						3			1					
				Return						3			1					

FLUE GAS ACCESSORIES
NECESSARY TO CORRECTLY INSTALL OPERA GENERATORS IN A BANK

					P	P	P	E	E	E	T	T	T	T	T	T	C	C	C	R	R	R
					Starting flue gas manifold F 300 mm	Starting flue gas manifold F 200 mm	Starting flue gas manifold F 160 mm	Flue gas manifold F 300 mm	Flue gas manifold F 200 mm	Flue gas manifold F 160 mm	Pipe f 200 M-F L 1000 mm PPS	Pipe f 200 M-F L 500 mm PPS	Pipe f 160 M-F L 1000 mm PPS	Pipe f 160 M-F L 500 mm PPS	Pipe f 100 M-F L 1000 mm PPS	Pipe f 100 M-F L 500 mm PPS	Bend 90° F 200 M-F PPS	Bend 90° F 160 M-F PPS	Bend 90° F 100 M-F PPS	Reduction F 160-200 mm M-F PPS	Reduction F 100-160 mm M-F PPS	Reduction F 80-100 mm M-F PPS
																						
CALORIFIC VALUE kW	MODULES OPERA			FLUE GAS EJECTION	041070X0	041068X0	041066X0	041071X0	041069X0	041067X0	041062X0	041076X0	041018X0	041074X0	041073X0	041072X0	041060X0	041015X0	041077X0	041080X0	041079X0	041078X0
	1	2	3		no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	no.
131,0	70	70	-	Low			1			1									2			2
				Medium			1			1					2	2			2			2
				High			1			1					2	2						2
181,5	70	125	-	Low			1			1									2			1
				Medium			1			1					2	2			2			1
				High			1			1					2	2						1
232,0	125	125	-	Low			1			1									2			
				Medium			1			1					2	2			2			
				High			1			1					2	2						
247,0	70	70	125	Low			1			2									3			2
				Medium			1			2					3	3			3			2
				High			1			2					3	3						2
297,0	70	125	125	Low			1			2									3			1
				Medium			1			2					3	3			3			1
				High			1			2					3	3						1
323,0	125	220	-	Low		1			1									2			1	
				Medium		1			1				1	2	1	1		2			1	
				High		1			1				1	2	1	1					1	
348,0	125	125	125	Low		1			2									3			3	
				Medium		1			2						3	3		3			3	
				High		1			2						3	3					3	
414,0	220	220	-	Low		1			1									2				
				Medium		1			1				2	2				2				
				High		1			1				2	2								
439,0	125	125	220	Low		1			2					1				3			2	
				Medium		1			2				1	2	2	2		3			2	
				High		1			2				1	2	2	2					2	
506,0	220	320	-	Low	1			1									2			1		
				Medium	1			1			1	1		3			2			1		
				High	1			1			1	1		3						1		
530,0	125	220	220	Low		1			2					2				3			1	
				Medium		1			2				2	4	1	1		3			1	
				High		1			2				2	4	1	1					1	
598,0	320	320	-	Low	1			1									2					
				Medium	1			1			2	2					2					
				High	1			1			2	2										
621,0	220	220	220	Low	1			2									3			3		
				Medium	1			2						9			3			3		
				High	1			2						9						3		
713,0	320	220	220	Low	1			2									3			2		
				Medium	1			2			1	1		6			3			2		
				High	1			2			1	1		6						2		
805,0	320	320	220	Low	1			2									3			1		
				Medium	1			2			2	2		3			3			1		
				High	1			2			2	2		3						1		
897,0	320	320	320	Low	1			2									3					
				Medium	1			2			3	3					3					
				High	1			2			3	3										

TP3 COND

ERP

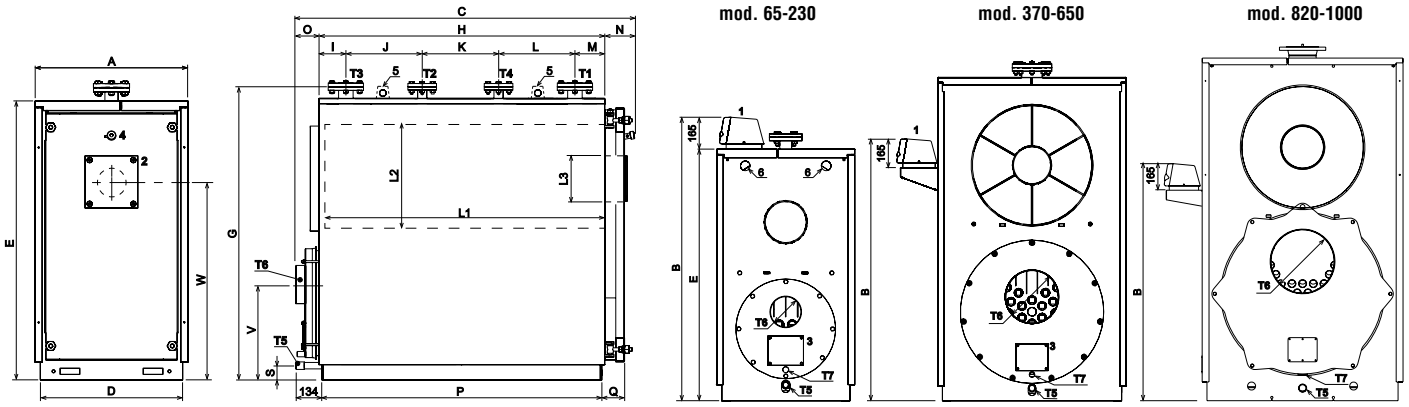
THREE PASS FLUE CONDENSING GENERATOR

> STRENGTHS:

- **Steel, condensing heat generator** with **high water content**, designed to work in conjunction with **gas or oil** jet burners.
- **Boiler with three flue gas passes**, with return pipe from the bottom of the combustion chamber
- **Floating combustion chamber with wet bottom,** low volumetric heat load and **standard turbulators** on the last flue gas pass.
- **Front single-piece door** equipped with blind flange for securing the burner. All the parts in contact with the flue gases are coated with refractory material offering high resistance and thermal insulation. **Reversible opening (right and left)** and closing system and micro-metric adjustment on four points.
- **Double return fitting** for low and high temperature systems.
- **Contained front overall dimensions** to fit the generator through the accessways of thermal power plants.
- **High energy** efficiency
- **Maximum** operating **pressure 6 bar**
- **Heat transfer fluid circulation** control system inside the body to improve exchange and avoid thermal shock
- **"Satellite" control panel** available in thermostatic version

MODEL			65	100	150	230	370	500	650	820	1000
ERP Class		(Class G - A++)	A	ENERGY LABELLING NOT RELEVANT							
Heat input (kW)		Max	61.3	94.3	141.5	217	349.1	471.7	613.2	767	935
		Min	18.4	28.3	42.5	65.1	104.7	141.5	184	498	608
Useful nominal power (80/60°C) (kW)		Max	59.5	91.5	137.3	210.5	338.6	457.5	594.8	752	916
		Min	18	27.7	41.6	63.8	102.6	138.7	180.3	489	595
Useful nominal power (50/30°C) (kW)	Gas	Max	65	100	150	230	370	500	650	820	1000
		Min	19.7	30.3	45.4	69.7	112	151.4	196.8	533	650
	Oil	Max	62.9	96.7	145	222.4	357.8	483.5	628.5	793.5	967.7
		Min	19.1	29.4	44.2	67.7	108.9	147.2	191.3	516.7	630
Efficiency (50/30°C) (%)	Gas	Max	106	106	106	106	106	106	106	106	106
		Min	107	107	107	107	107	107	107	107	107
	Oil	Max	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5	102.5
		Min	104	104	104	104	104	104	104	104	104
Efficiency 30%	Gas	Max	107.5	107.5	107.5	107.5	107.5	107.5	107.5	107.5	107.5
	Oil	Min	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
Max operating pressure		bar	6	6	6	6	6	6	6	6	6
Pressure drop on flue gas side		mbar	0.4	0.65	1.7	1.7	2	3.5	4.2	6	6.4
Protection rating			IPX0D								
Electric power supply		V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Empty weight		Kg	377	436	490	645	1035	1338	1451	2050	2150
CODE			**0RGZ3AXA**	**0RGZ4AXA**	**0RGZ5AXA**	**0RGZ8AXA**	**0RGZBAXA**	**0RGZDAXA**	**0RGZGAXA**	**0RGE00XA**	**0RGF00XA**
THERMOSTATIC CONTROL PANEL CODE			**0Q2K10XA**								

DIMENSIONS



> KEY

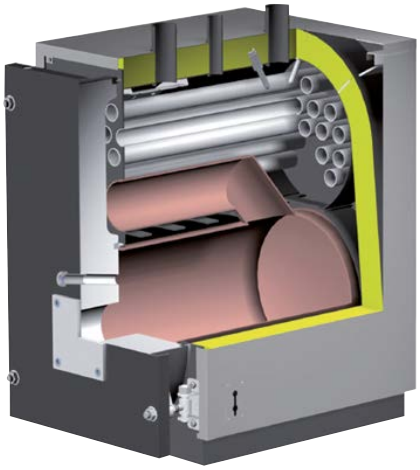
T1 Heating delivery
T2 High temperature return
T3 Low temperature return
T4 Safety fitting
T5 Boiler discharge connection
T6 Chimney connection
T7 Condensate discharge connection
1 Tool panel
2 Burner connection flange
3 Flue gas chamber cleaning door
4 Flame control light

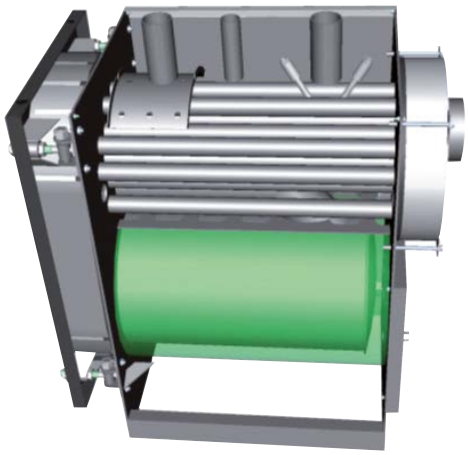
MODEL			65	100	150	230	370	500	650	820	1000
Measurements	A	mm	700	700	700	800	950	1050	1050	1180	1180
	B	mm	1437	1437	1437	1637	1462	1462	1462	1424	1424
	C	mm	1157	1377	1577	1777	1987	2187	2387	2620	2620
	D	mm	650	650	650	750	900	1000	1000	1120	1120
	E	mm	1275	1275	1275	1475	1655	1805	1805	2006	2006
	G	mm	1335	1335	1335	1535	1715	1860	1860	2075	2075
	H	mm	878	1098	1298	1498	1698	1900	2100	2094	2094
	I	mm	123	123	123	142	172	179	179	224	224
	J	mm	200	260	350	400	450	500	600	650	650
	K	mm	200	300	320	400	450	500	600	300	450
	L	mm	200	260	350	400	450	500	500	600	600
	M	mm	155	155	155	156	176	221	221	320	320
	N	mm	157	157	157	157	167	167	167	278	273
	O	mm	122	122	122	122	122	120	120	262	262
	P	mm	846	1066	1266	1467	1667	1867	2067	2068	2216
	Q	mm	134	134	134	134	144	144	144	226	226
	S	mm	80	80	80	80	70	70	70	78	78
	V	mm	450	443	435	500	550	587	580	830	830
	W	mm	905	905	905	1055	1200	1315	1315	1480	1480
System flow	T1		DN 50	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
High temperature system return	T2		DN 40	DN 40	DN 40	DN 40	DN 50	DN 65	DN 65	DN 65	DN 65
Low temperature system return	T3		DN 50	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
Safety fitting	T4		DN 40	DN 40	DN 40	DN 40	DN 50	DN 65	DN 65	DN 80	DN 80
Boiler discharge	T5		1”	1”	1”	1”	1”	1”	1”	1" 1/2	1" 1/2
Flue gas outlet	T6	ØE mm	160	160	160	200	250	300	300	350	350
Hearth length	L1	mm	686	906	1106	1308	1473	1672	1872	1980	2130
Internal diameter of the hearth	L2	Ø mm	420	420	420	500	550	610	610	700	700
Max nozzle diameter	L3	Ø mm	155	155	155	155	190	190	190	270	270
Nozzle length min / max		mm	160/230	160/230	160/230	160/230	160/230	160/230	160/230	320/390	320/390

TP3 LN

3-PASS FLUES
STEEL BOILER

- Monobloc generator, **3-pass flues**, **small thermal load**, vertical layout and extremely compact front dimensions. Homologated for systems untill 100°C
- Ready for coupling with jet burners, operating with gas or oil and with low polluting emissions
- Large combustion chamber with **floating cooled back**
- Flues bundle for second and third flue-pass is situated in the top side of the combustion chamber. Flues tubes protudes from the plate, in order to **avoid condensation**
- **Steel turbolators**, increasing thermal efficiency of the generator. They have been carefully designed not to worsen flues pressure drop
- **High efficiency**. Ranges between 94,7% and 96,3% on LCV (t_{avg} 70°C)
- **Max operating pressure: 6 bars**. Higher pressure specifications upon demand
- Vertical connection are threaded until model 240 and flanged until model 600
- Completely insulated front door and **reversible opening** (right and left), thanks to an innovating mechanism on boiler body, with micrometric adjustment. Equipped with flame inspection hole and test point for combustion chamber back pressure





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*** FOR MODELS 70÷399, IN EUROPEAN COMMUNITY CAN BE SOLD ONLY AS A REPLACEMENT OF AN IDENTICAL MODEL**

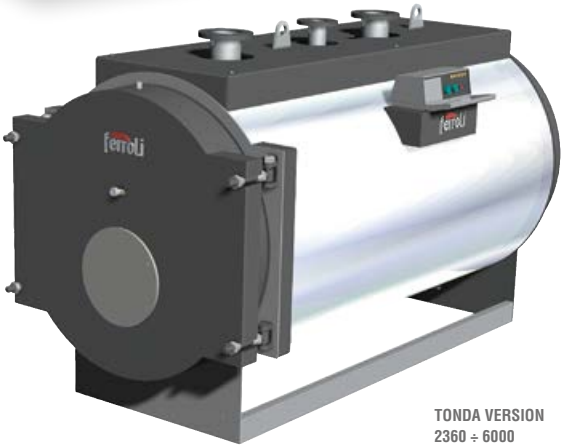
MODEL	HEAT OUTPUT	HEAT INPUT	PRESSURE DROP FLUE GAS SIDE	EMPTY WEIGHT	WIDTH	HEIGHT	DEPTH	CODE
	kW	kW	mbar	kg	mm	mm	mm	(see page 3)
70	70	73,9	0,8	236	670	1185	1130	**0RE099XA**
92	92	97,1	1,4	236	670	1185	1130	**0RE000XA**
107	107	112,9	2,4	332	670	1185	1555	**0RE100XA**
152	152	160,5	3,6	332	670	1185	1555	**0RE200XA**
190	190	200,8	3,4	460	760	1340	1570	**0RE300XA**
240	240	252,9	6,1	524	760	1340	1770	**0RE400XA**
320	320	335,7	3,9	833	820	1525	1990	**0RE600XA**
399	399	417,4	6,2	833	820	1525	1990	**0RE800XA**
500	500	522,8	4,3	1146	850	1615	2390	**0REB00XA**
600	600	627,2	6,3	1146	850	1615	2390	**0RED00XA**

PREXTHERM RSW

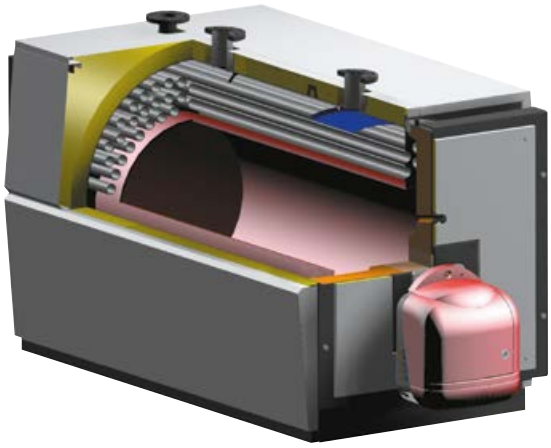
PRESSURISED STEEL BOILER

- Pressurised steel boiler, fit for installation of a jet burner, operating with gas or liquid fuel
- **Reverse flame** boiler body, fully insulated with a 80 mm thick layer of glass wool
- Front door with double layer of insulation and **reversible opening** (right and left) and door centering in a unique mechanism
- Carefully designed with a system optimising fluid circulation inside the boiler, thus improving thermal exchange and minimising stress on the materials
- **Max operating pressure: 6 bar**. Higher pressure specifications upon demand
- Models 92 N ÷ 401 N are available with a standard kit of connection flanges in the supply

QUADRA VERSION
92 ÷ 1890



TONDA VERSION
2360 ÷ 6000



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REG. 812/2013

*** FOR MODELS 92÷350, IN EUROPEAN COMMUNITY CAN BE SOLD ONLY AS A REPLACEMENT OF AN IDENTICAL MODEL**

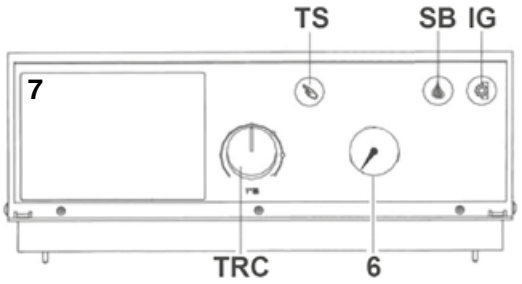
MODEL	HEAT OUTPUT		HEAT INPUT		PRESSURE DROP FLUE GAS SIDE	BODY EMPTY WEIGHT	WIDTH	HEIGHT**	DEPTH	CODE
	min kW	max kW	min kW	max kW	mbar	kg	mm	mm	mm	(see page 3)
92 N	60	92	64,3	99,5	0,5	260	800	925	1087	**0QIJ3AXA**
107 N	70	107	75	116	0,7	260	800	925	1087	**0QIJ4AXA**
152 N	100	152	107,3	165	1,2	350	800	980	1337	**0QIJ6AXA**
190 N	137	190	147,4	206	1,2	350	800	980	1337	**0QIJ7AXA**
240 N	160	240	170,9	261	2,3	440	800	980	1587	**0QIJ8AXA**
300 N	196	300	209,5	326	3,3	480	940	1100	1607	**0QIJ9AXA**
350 N	228	350	277,5	378	3,5	590	940	1100	1857	**0QIJAAXA**
401 N	260	401	364,5	432	4,4	590	940	1100	1857	**0QIJBAXA**
525 N	341	525	417	567	4,3	860	1050	1250	1859	**0QIJEAXA**
600 N	390	600	495	648	4,8	970	1050	1250	2219	**0QIJFAXA**
720 N	468	720	502	777	4,5	1250	1250	1400	2219	**0QIJHBXA**
820 N	533	820	566	881	5,6	1250	1250	1400	2219	**0QIJIBXA**
940 N	611	940	651	1011	5,4	1420	1250	1400	2455	**0QIJJBXA**
1060 N	689	1060	731	1140	6,0	1580	1430	1580	2482	**0QIJKBXA**
1250	813	1250	884	1359	6,5	1953	1450	1580	2420	**0QCJ00XA**
1480	962	1480	1046	1608	6,5	2400	1530	1730	2722	**0QCL00XA**
1600	1040	1600	1158	1736	6,8	2500	1530	1730	2722	**0QCN00XA**
1890	1229	1890	1336	2054	7,0	2650	1530	1730	2722	**0QCP00XA**
2360	1535	2360	1668	2565	7,2	3550	1610	1950	3232	**0QCS00XA**
3000	1950	3000	2113	3250	7,5	4490	1800	2140	3446	**0QCU00XA**
3600	2340	3600	2536	3900	8,2	4900	1800	2140	3816	**0QCV00XA**
4000	2600	4000	2819	4334	9,5	6780	1980	2325	4086	**0QCW00XA**
4500	2926	4500	3165	4868	10,5	7380	1980	2325	4436	**0QCX00XA**
5000	3251	5000	3515	5407	10,8	9600	2180	2525	4458	**0QCY00XA**
6000	3902	6000	4215	6483	12,0	11500	2180	2525	4958	**0QCZ00XA**

** Including water connections

THERMOSTATIC CONTROL BOARD FOR STEEL PRESSURISED GENERATORS

> THE ADVANTAGES:

- Can be combined with single-stage and two-stage jet burners
- Double contact regulation thermostat
- Anticondensation function with minimum threshold for starting the adjustable pump
- Set-up for the installation of a temperature control



> KEY

IG Main switch
SB Blocked burner light
TRC Adjustment thermostat
TS Safety Reset / Thermostat
6 Thermometer
7 Temperature control set-up (not supplied)

CODE	DESCRIPTION
0Q2K10XA	THERMOSTATIC CONTROL BOARD

ATLAS D ECO COND UNIT CONDENSING LOW NOx OIL BOILER

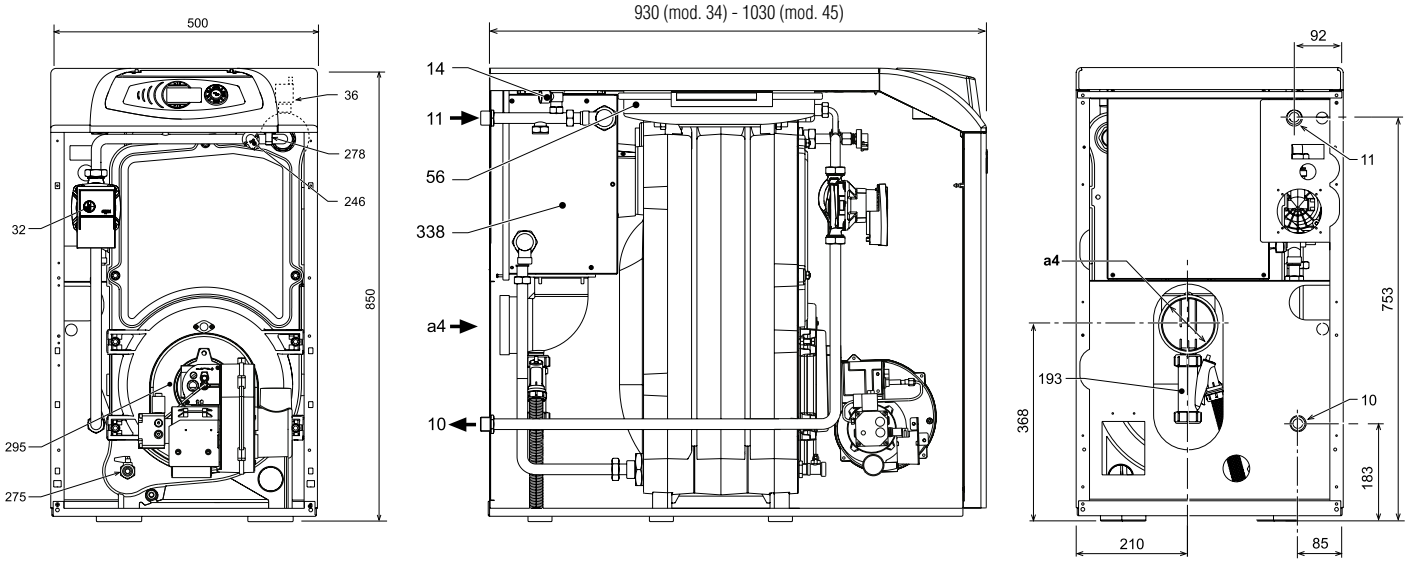
ERP

> STRENGTHS:

- **Boiler body** in cast iron G20 and preassembled elements with steel double cones and tie rods
- **High efficiency flue gas post condenser** in stainless steel AISI 2205
- Completely wet **combustion chamber**
- **Complete with single stage light oil burner** with low pollutant emissions
- **Control panel** with large interface display and easy and intuitive parameter setting keys
- **Including** heating pump, expansion vessel, 3 bar pressure relief valve and water pressure switch
- **Outer casing** in painted steel by epoxy powder anaphoresis and kiln fired at 180°C
- **Supplied** in a single parcel packed in a wooden box complete with filter and oil line connection hoses

> ADVANTAGES OF ATLAS D ECO COND UNIT:

- **Sliding temperature operating mode** with outdoor probe (optional)
- External domestic hot water storage tank managed by control electronics
- **Can be combined** with the remote control timer
- **Antifrost system** with triggering threshold at 6°C
- **Easy access** to stainless steel condenser for cleaning and inspection



REMOTE | CLIMATIC | LOW EMISSIONS (LOW NOx)

MODEL		34	45
ERP Class	(Class G - A++)	A	A
Max heat input	kW	33.0	43.5
Max heating heat output (80-60°C)	kW	32.0	42.0
Max heating heat output (50-30°C)	kW	33.8	44.5
Pmax efficiency (80-60°C)	%	97.0	96.6
Pmax efficiency (50-30°C)	%	102.6	102.3
Efficiency 30% Pn	%	103.5	102.8
Max heating operating pressure	bar	3	3
Number of elements	no.	3	4
Empty weight	Kg	180	216
CODE		**0JHW3YWA**	**0JHW4YWA**

NOTE1: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS
NOTE2: For the neutralisers, see chapter CONDENSING NEUTRALISERS

> KEY

a4 Flue Ø 100
10 System delivery - Ø 3/4"
11 System return - Ø 3/4"
14 Heating safety valve
32 Heating circulating pump
36 Automatic air vent
56 Expansion tank
193 Trap
246 Pressure transducer
275 Drain - Ø 1/2"
278 Double sensor (Safety + heating)
295 Burner
338 Fumes recuperator

> ACCESSORIES

CODE	DESCRIPTION
1KWMA11W	ADDITIONAL 2-METRE STORAGE TANK SENSOR
043005X0	ADDITIONAL 5-METRE STORAGE TANK SENSOR
013017X0	KIT FOR MANAGEMENT WITH THERMOSTAT (not supplied) OF A DHW STORAGE TANK
013018X0	OUTDOOR PROBE

ATLAS D ECO COND SI UNIT

CONDENSING LOW NOx OIL BOILER INSTANT COMBI

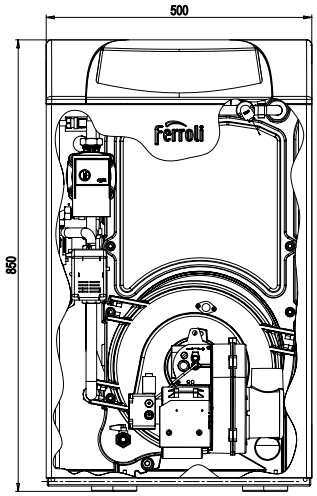
ERP

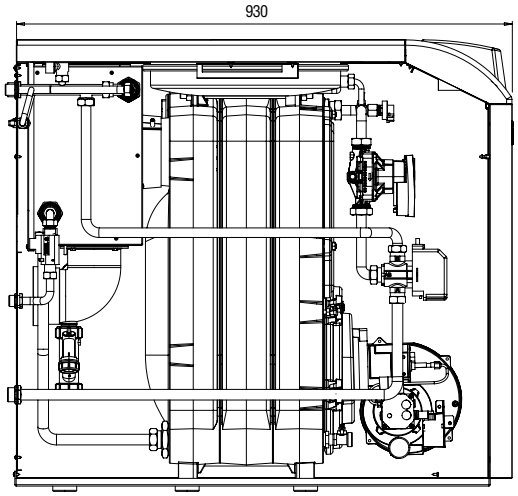
> STRENGTHS:

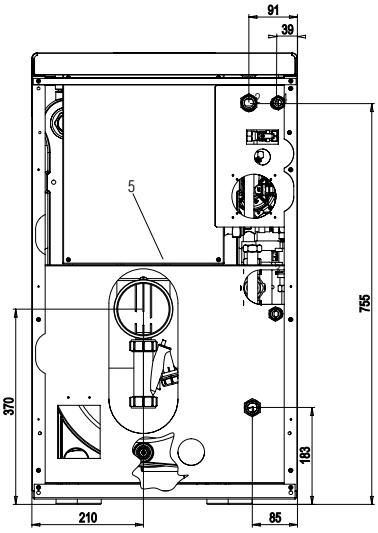
- **Boiler body** in cast iron G20 and preassembled elements with steel double cones and tie rods
- **High efficiency flue gas post condenser** in stainless steel AISI 2205 with integrated instantaneous domestic hot water production
- **Integrated domestic hot water circuit** in post condenser complete with flow switch. The system favours condensation even in the domestic hot water production phase, providing the generator with a high degree of efficiency
- Completely wet **combustion chamber**
- **Complete with single stage oil burner** with low pollutant emissions
- Control panel with large interface display and easy and intuitive parameter setting keys
- **Heating circuit** including pump, expansion vessel, 3 bar pressure relief valve and water pressure switch
- **Outer casing** in painted steel by epoxy powder anaphoresis and kiln fired at 180°C
- **Supplied** in a single parcel packed in a wooden box complete with filter and oil line connection hoses

> ADVANTAGES OF ATLAS D ECO COND SI UNIT:

- **Sliding temperature operating mode** with outdoor probe (optional)
- **Can be combined** with the remote control timer
- **Antifrost system** with triggering threshold at 6°C
- **Easy access** to stainless steel condenser for cleaning and inspection







REMOTE | CLIMATIC | LOW EMISSIONS (LOW NOx)

MODEL			34
ERP Class		(Class G - A++)	A
	XL	(Class G - A)	A
Max heat input	kW		33.0
Max heating heat output (80-60°C) Max heating heat output (50-30°C)	kW kW		32.0 33.8
Useful thermal efficiency	80°C-60°C 50°C-30°C Reduced load 30%		97.0 102.6 -
Δt 30°C Domestic hot water production	l/min		15.8
Max heating operating pressure	bar		0.8
Empty weight	kg		180
CODE			**0LHW3YWA**

> KEY

1 System flow Ø 3/4"
2 System return Ø 3/4"
3 DHW inlet Ø 1/2
4 DHW return Ø 1/2
5 Flue gas outlet Ø 100 mm

> ACCESSORIES

CODE	DESCRIPTION
013018X0	OUTDOOR PROBE

NOTE1: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS
NOTE2: For the neutralisers, see chapter CONDENSING NEUTRALISERS
NOTE3: The flue gas ducts must be made by the installer in stainless steel

ATLAS D ECO COND K UNIT

CONDENSING LOW NOx OIL BOILER STORAGE COMBI

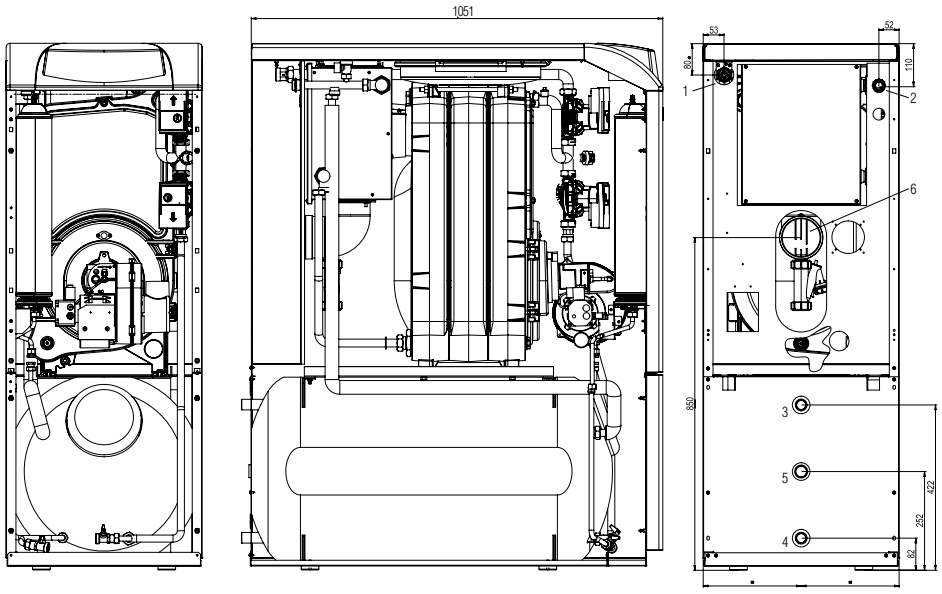
ERP

> STRENGTHS:

- **Boiler body** in cast iron G20 and preassembled elements with steel double cones and tie rods
- **130 l storage tank** in enamelled steel complete with protection anode
- **High efficiency flue gas post condenser** in stainless steel AISI 2205
- Completely wet cooled **combustion chamber**
- **Complete with single stage oil burner** with low pollutant emissions
- **Control panel** with large interface display and easy and intuitive parameter setting keys
- **Complete** with heating and DHW pumps, expansion vessels for heating (10 l) and DHW (3 l), 3 bar pressure relief valve and water pressure switch
- **Outer casing** in painted steel by epoxy powder anaphoresis and kiln fired at 180°C
- **Supplied** in a single parcel packed in a wooden box complete with filter and oil line connection hoses

> ADVANTAGES OF ATLAS D ECO COND K UNIT:

- **Sliding flow temperature compensation** with outdoor probe (optional)
- **Can be combined** with the remote control timer
- **Antifrost system** with triggering threshold at 6°C
- **Easy access** to stainless steel condenser for cleaning and inspection



REMOTE | CLIMATIC | LOW EMISSIONS (LOW NOx)

MODEL			34
ERP Class		(Class G - A++)	A
	XXL	(Class G - A)	B
Max heat input	kW		33.0
Max heating heat output (80-60°C)	kW		32.0
Max heating heat output (50-30°C)	kW		33.8
Pmax efficiency (80-60°C)	%		97.0
Pmax efficiency (50-30°C)	%		102.6
Efficiency 30% Pn	%		103.5
DHW storage volume	l		130
DHW flow rate Δt 30°C	l/h		850
DHW flow rate Δt 30°C	l/10 min		250
Max heating operating pressure	bar		3
Number of elements	no.		3
Empty weight	Kg		250
CODE			**0LHX3YWA**

> KEY

1 system flow Ø 3/4"
2 system return Ø 3/4"
3 storage tank delivery Ø 1/2"
4 storage tank return Ø 1/2"
5 recirculation
6 flue gas outlet Ø 100 mm

> ACCESSORIES

CODE	DESCRIPTION
013018X0	OUTDOOR PROBE

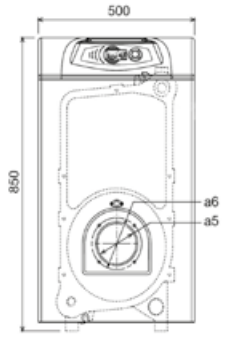
NOTE1: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS
NOTE2: For the neutralisers, see chapter CONDENSING NEUTRALISERS
NOTE3: The flue gas ducts must be made by the installer in stainless steel

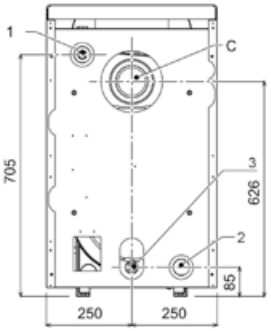
ATLAS D CAST IRON FLOORING STANDING BOILERS, FOR OIL

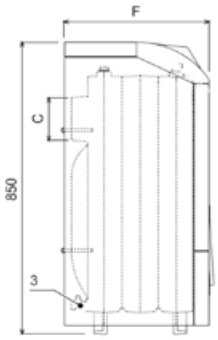
ERP

> STRENGTHS:

- **Heating device** designed to operate with jet burners with electric absorption ≤180 W for models 25-37 and ≤200 W for models 50-63-75 or for replacement with identical devices according to current regulations
- **Cast iron body**, with preassembled elements with steel double cones and tie rods, of the **three flue gas pass type** with completely wet combustion chamber
- **The standard electronics** can manage the heating system circulator, the remote timer control or room thermostat, the outdoor probe for flow temperature compensation, the circulator (3-way valve) and storage tank probe for DHW production with external storage
- **Key controls** and **LCD display interface**







> KEY

1 1" 1/2" system flow
2 1" 1/2" system return
3 Heating system drain valve
a5 Burner hole
a6 Burner connection
C Flue gas outlet

MODEL	C ø mm	F mm	a5 ø mm	a6 ø mm
ATLAS D 25	120 - 130	400	115	150
ATLAS D 37	120 - 130	500	115	150
ATLAS D 50	120 - 130	600	115	150
ATLAS D 63	120 - 130	700	115	150
ATLAS D 75	120 - 130	800	115	150

INDOORS REMOTE CLIMATIC

MODEL			25	37	50	63	75
ERP Class*		(Class G - A++)	B	B	B	B	-
Heat Input	kW		28.3	41.9	56.6	71.3	84.6
Max heat output	kW		25.0	37.0	50.0	63.0	75.0
Pmax efficiency (80/60°C)	%		88.2	88.3	88.4	88.4	88.7
Efficiency 30% Pmax	%		92.2	91.7	91.4	91.0	90.5
Pressure drop on flue gas side	mbar		0.1	0.4	0.4	0.5	0.6
Min/Max operating pressure	bar		0.8 / 6	0.8 / 6	0.8 / 6	0.8 / 6	0.8 / 6
Elements	No.		3	4	5	6	7
Empty weight	Kg		127	166	205	244	283
CODE			**0IHJ3PWA**	**0IHJ4PWA**	**0IHJ5PWA**	**0IHJ6PWA**	**0IHJ7PWA**

** The ErP class is certified if the boilers are combined with oil burners with electric absorption ≤180 W for models ATLAS D 25 - 37 and ≤200 W for models ATLAS D 50 - 63 - 75*

> ACCESSORIES

CODE	DESCRIPTION
1KWMA11W	ADDITIONAL 2-METRE STORAGE TANK SENSOR
043005X0	ADDITIONAL 5-METRE STORAGE TANK SENSOR
013017X0	KIT FOR MANAGEMENT WITH THERMOSTAT (not supplied) OF A DHW STORAGE TANK (for heating only boilers)
013018X0	OUTDOOR PROBE

NOTE: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS

ATLAS D ECO UNIT

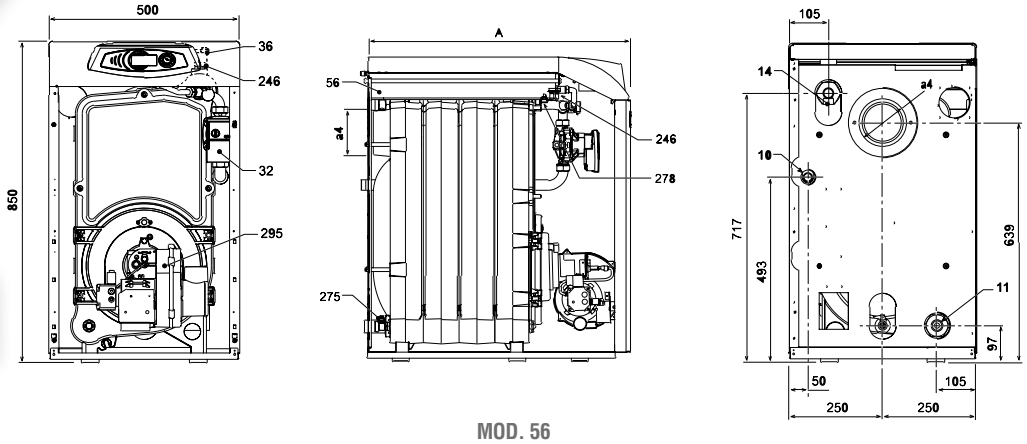
LOW NOx OIL BOILER
HEATING ONLY

ERP

> STRENGTHS:

- **Floor-standing boiler** for heating, complete with low pollutant emissions oil burner
- **Cast iron body**, with preassembled **three-pass** elements with completely wet combustion chamber
- **The standard electronics** can manage, in addition to the heating pump in the boiler:
  pump (or 3-way valve) and storage tank probe for DHW production with an external storage tank
  the remote control timer or room thermostat the outdoor probe for operation in sliding temperature
- **Key-operated controls** and interface with a large **LCD screen**
- **Standard supply including** pump and expansion vessel for heating system
- **Preassembled oil burner** supplied with filter and oil line connection hoses
- **Supplied in a single parcel** packed in a wooden box

MOD. 30 - 42

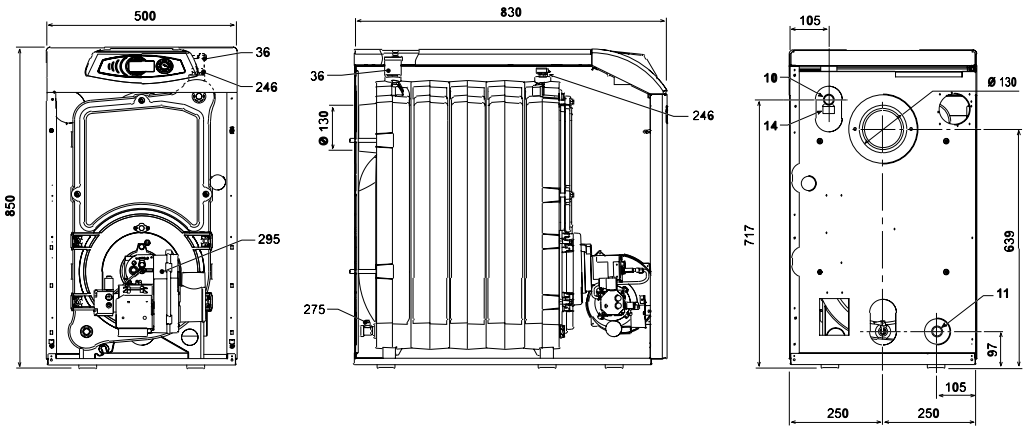


MODEL	A ø mm	B mm	a4 ø mm
ATLAS D ECO 30 UNIT	630	590	120 - 130
ATLAS D ECO 42 UNIT	730	690	120 - 130

> KEY

10 System delivery 3/4"
11 System return 1"
14 Safety valve
32 Heating circulating pump
36 Automatic air vent
56 Expansion tank
246 Pressure transducer
275 Heating system drain cock
278 Double sensor (Heating + Safety)
295 Burner

MOD. 56



REMOTE | CLIMATIC | LOW EMISSIONS (LOW NOx)

MODEL		30	42	56
ERP Class	(Class G - A++)	B	B	B
Max heat input	kW	26.6	39.4	53.2
Max heating heat output	kW	25.0	37.0	50.0
Pmax efficiency (80-60°C)	%	93.9	95.0	94.0
Efficiency 30% Pn	%	98.2	97.4	97.3
Max heating operating pressure	bar	3	3	6
Number of elements	no.	3	4	5
Empty weight	Kg	157	196	232
CODE		**0JHL3YWA**	**0JHL4YWA**	**0JHL5YWA**

> ACCESSORIES

CODE	DESCRIPTION
1KWMA11W	ADDITIONAL 2-METRE STORAGE TANK SENSOR
043005X0	ADDITIONAL 5-METRE STORAGE TANK SENSOR
013017X0	KIT FOR MANAGEMENT WITH THERMOSTAT (not supplied) OF A DHW STORAGE TANK (for heating only boilers)
013018X0	OUTDOOR PROBE

NOTE: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS

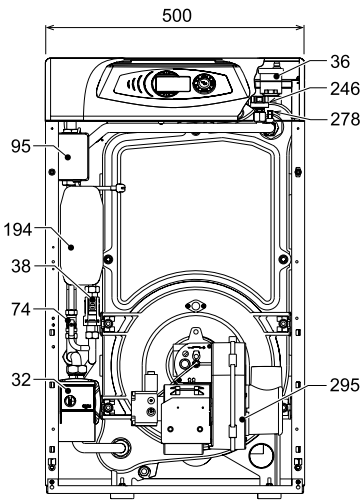
ATLAS D ECO SI UNIT

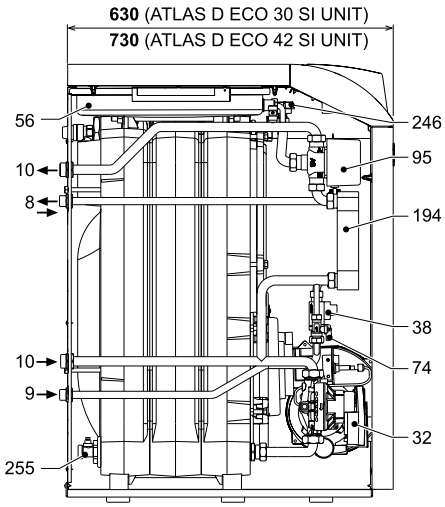
LOW NOx OIL BOILER
INSTANT COMBI

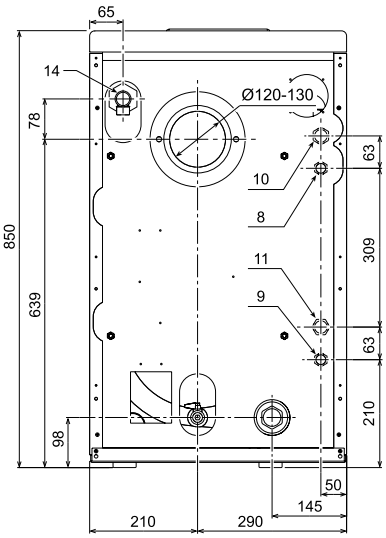
ERP

> STRENGTHS:

- Floor-standing boiler for heating and instantaneous domestic hot water production, complete with low pollutant emissions oil burner
- **Cast iron body**, with preassembled **three-pass** elements with completely wet combustion chamber
- Standard **supply**:
  Pump and expansion vessel for heating circuit
  Motorised three way valve and steel plate heat exchanger for instantaneous DHW production
- **The standard electronics** can manage:
  Remote control timer or room thermostat
  Outdoor probe for sliding temperature operating mode
  Key-operated controls and interface with a large **LCD screen**
  Preassembled oil burner supplied with filter and oil line connection hoses
- Supplied in a **single parcel** packed in a wooden box







REMOTE | CLIMATIC | LOW EMISSIONS

MODEL			30	42
ERP Class		(Class G - A++)	B	B
	XL	(Class G - A)	B	B
Max heat input	kW		26.6	39.4
Max heating heat output	kW		25.0	37.0
Pmax efficiency (80-60°C)	%		93.9	94.0
Efficiency 30% Pn	%		98.2	97.4
Max heating operating pressure	bar		3	6
DHW flow rate Δt30°C	l/min		14.3	21.2
Number of elements	no.		3	4
Empty weight	Kg		160	200
CODE			**0LHC3YWA**	**0LHC4YWA**

> KEY

10	System delivery	**95**	Diverter valve
11	System return	**194**	DHW exchanger
14	Safety valve	**209**	DHW outlet
32	Heating circulating pump	**210**	Cold water inlet
36	Automatic air vent	**246**	Pressure transducer
38	Flow switch	**255**	System water drain
56	Expansion tank	**278**	Double sensor (Safety + heating)
74	System filling cock	**295**	Burner

> ACCESSORIES

CODE	DESCRIPTION
013018X0	OUTDOOR PROBE

NOTE: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS

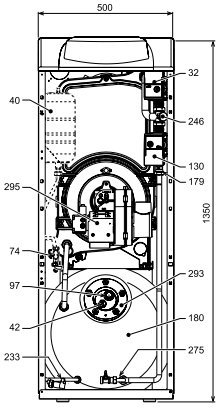
ATLAS D ECO K UNIT

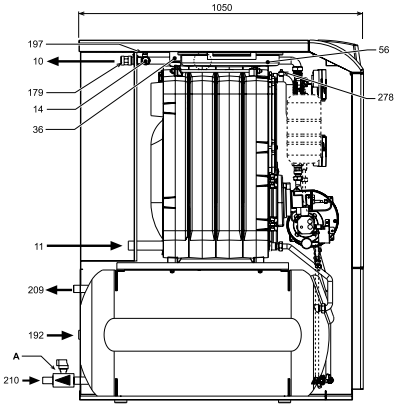
THERMAL UNIT WITH LOW NOx OIL BURNER FOR HEATING AND DOMESTIC HOT WATER PRODUCTION

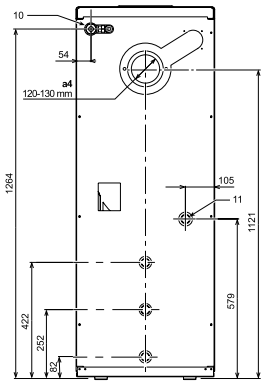
ERP

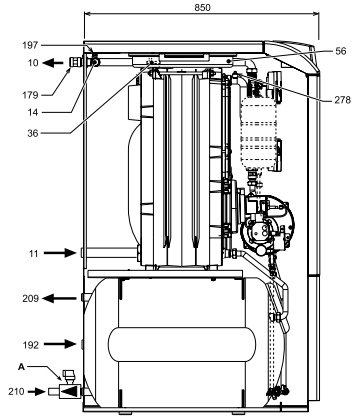
> STRENGTHS:

- **Floor-standing boiler** for heating and domestic hot water production with storage tank complete with low pollutant emissions oil burner
- **Cast iron body**, with preassembled **three-pass** elements with completely wet combustion chamber
- Storage tank in steel and glass-porcelain complete with magnesium protection anode
- **Standard supply:**
  Pump and expansion vessel for heating circuit, circulator for DHW circuit
- DHW expansion vessel and system filling valve supplied in optional kit
- **The standard electronics** can manage the remote control timer or room thermostat and the outdoor probe for sliding temperature operating mode
- **Recirculation** circuit connection
- Heating system and storage tank **drain valves**
- **Key-operated controls** and interface with a large **LCD screen**
- **Preassembled oil burner** supplied with filter and oil line connection hoses
- **Supplied in a single parcel** packed in a wooden box









> KEY

A Safety and non-return valve
A4 Fume outlet
10 System delivery - Ø 3/4"
11 System return - Ø 1"
14 Heating safety valve
32 Heating circulating pump
36 Automatic air vent
40 DHW expansion vessel
56 Expansion vessel
74 System filling cock
97 Magnesium anode
130 Hot water tank circulating pump
143 Hot water tank control thermostat
154 Condensate drain pipe
178 Hot water tank thermometer bulb
179 Non-return valve
180 Hot water tank
192 Recirculation - Ø 3/4"
197 Manual air vent
209 Hot water tank delivery - Ø 3/4"
210 Hot water tank return - Ø 3/4"
233 Hot water tank drain cock
246 Pressure transducer
275 Heating system drain cock
278 Double sensor (Heating + Safety)
293 Hot water tank inspection flange
295 Burner

REMOTE | CLIMATIC | LOW EMISSIONS (LOW NOx)

MODEL			30 K 100	42 K 130
ERP Class		(Class G - A++)	B	B
	XL	(Class G - A)	B	B
Max heat input		kW	26.6	39.4
Max heating heat output		kW	25.0	37.0
Pmax efficiency (80-60°C)		%	93.9	94.0
Efficiency 30% Pn		%	98.2	97.4
Max operating pressure heating		bar	6	6
DHW storage volume		l	90	117
DHW flow rate	Δt 30°C Δt 30°C	l/h l/10 min	750 195	850 250
Number of elements		no.	3	3
Empty weight		Kg	225	265
CODE			**0LHU3YWA**	**0LHU4YWA**

* GENERATOR SUPPLIED AS PER STANDARD WITHOUT FILLING VALVE AND DHW EXPANSION VESSEL (available with optional kit)

> ACCESSORIES

CODE	DESCRIPTION
013018X0	OUTDOOR PROBE
032007X0	DHW VESSEL KIT AND FILLING VALVE

NOTE: FOR TEMPERATURE ADJUSTMENTS / PLATES / WATER TREATMENT / SLUDGE SEPARATOR SEE CHAPTER ON SYSTEM COMPONENTS

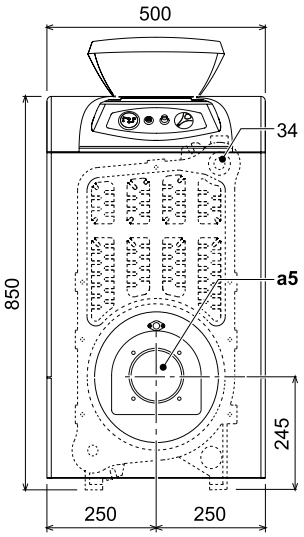
ATLAS

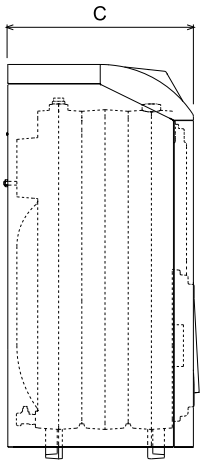
3 PASS-FLUES BOILER, FOR OIL OR GAS JET BURNER, HEATING ONLY

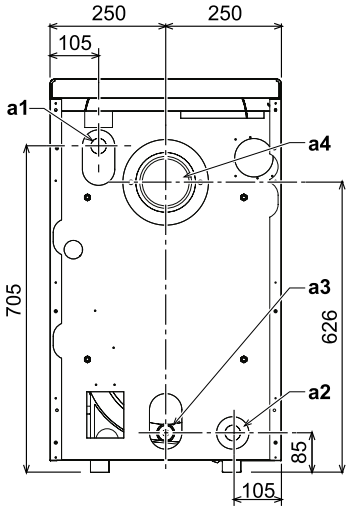
- High efficiency cast iron boiler body, featuring **3 pass** technology, insulated with high density rockwool
- **Silent** operation thanks to low flues turbulence
- Widely copes with requirements for **2 stars** efficiency according to directive 92/42 EEC, emended by Reg. 812/2013
- **Conic chimney stack**, in order to easily adapt to different tolerances of flue pipes diameters
- **Analogue** control panel with elegant fume cover
- Control board includes thermometer, ignition switch, safety thermostat with manual reset and temperature setting knob
- Stylish steel jacket painted by anaphoresis with epoxy powder

> KEY

a1 System delivery - 1" 1/2"
a2 System return - 1" 1/2"
a3 Heating system drain - 1/2"
a4 Flue connection
a5 Burner connection
34 Safety and heating temperature bulb







MODEL	C mm	a4 ø mm	a5 ø mm
ATLAS 32	400	120÷130	115
ATLAS 47	500	120÷130	115
ATLAS 62	600	120÷130	115
ATLAS 78	700	120÷130	115
ATLAS 95	800	120÷130	115

MODEL			32	47	62	78	95
Heat input	Max Heating	kW	34,9	51,6	67,7	85,6	103,2
Heat output	Max Heating	kW	32,0	47,0	62,0	78,0	95,0
Efficiency	80°C - 60°C 30% load	Pmax % %	91,7 94,3	91,1 93,5	91,5 94,0	91,1 93,5	92,0 93,8
Number of element		no.	3	4	5	6	7
Heating water content		litres	18	23	28	33	38
Heating operating pressure	Max	bar	6	6	6	6	6
Flues pressure drop		mbar	0,2	0,27	0,4	0,4	0,63
Empty weight		kg	127	166	205	244	283
Dimensions	WxHxD	mm	500x850x400	500x850x500	500x850x600	500x850x700	500x850x800
CODE			**0IHJ3AWA**	**0IHJ4AWA**	**0IHJ5AWA**	**0IHJ6AWA**	**0IHJ7AWA**

GN2 N

CAST-IRON BOILER, SUITABLE FOR INSTALLATION OF AN OIL OR GAS JET BURNER

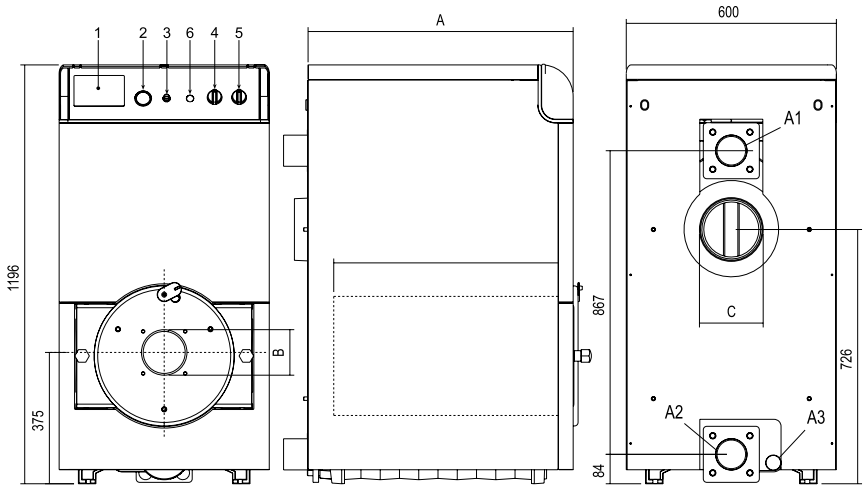
> STRENGTHS:

- High efficiency floor-standing heat generator fitted for jet burners on liquid and/or gas fuel, with **partial flame reversal** and one flue pass, cooled combustion chamber, for the production of hot water for central heating
- G20 cast-iron boiler body made from pre-assembled elements (6÷14) with steel cone inserts and boiler studs, insulated by a layer of rock wool lined by special tear-proof material.
- Control board includes: temperature and pressure gauge, overheat cut-off thermostat, switch on/off test, presetting led for the burner lockout, 2 stages regulation thermostat, lodging for an electronic controller
- Supplied in **three boxes**:
  1) boiler body in a wooden crate
  2) jacket packaged in a cardboard box
  3) instrument panel packaged in a cardboard box
- **Fitted for two-stage burners**

> KEY

1 Ready for electronic control unit
2 Thermohydrometer
3 Safety thermostat
4 Control thermostat, 2nd Stage
5 Line switch
6 Burner lockout indicator light
a1 Central heating flow outlet DN80 - 3”
a2 Central heating return inlet DN80 - 3”
a3 Boiler drain 3/4”

MODEL	A mm	B mm	C ø mm
GN2 N 05	647	130	180
GN2 N 06	757	130	180
GN2 N 07	867	130	180
GN2 N 08	977	154	200
GN2 N 09	1087	154	200
GN2 N 10	1197	154	200
GN2 N 11	1307	154	200
GN2 N 12	1417	154	200
GN2 N 13	1527	154	200
GN2 N 14	1637	154	200



REG. 812/2013

MODEL			GN 2 N 06	GN 2 N 07	GN 2 N 08	GN 2 N 09	GN 2 N 10	GN 2 N 11	GN 2 N 12	GN 2 N 13	GN 2 N 14
Heat input	Max Min	kW kW	116.0 95.0	136.9 110.0	156.5 125.0	176.0 140.0	195.6 155.0	215.2 170.0	234.7 185.0	254.3 200.0	273.9 215.0
Heat output	Max Min	kW kW	107.0 87.0	126.0 101.0	144.0 115.0	162.0 129.0	180.0 143.0	198.0 157.0	216.0 171.0	234.0 185.0	252.0 199.0
Number of elements		no.	6	7	8	9	10	11	12	13	14
Water content		dm³	57	65	73	81	89	97	105	113	121
Combustion chamber	volume	dm³	77.0	91.0	104.0	118.0	132.0	146.0	160.0	174.0	187.0
Heating operating pressure	Max	bar	6	6	6	6	6	6	6	6	6
Pressure drop: combustion chamber hydraulic		 Δp mbar ΔT 20°C	 0.4 -	 0.4 0.5	 0.4 0.8	 0.4 1.8	 0.4 2.2	 0.4 2.6	 0.4 3.2	 0.4 4.0	 0.4 4.5
Boiler body weight		kg	361	412	463	514	565	616	670	725	780
Dimensions	A4	mm	180		200						
	WxHxD	mm	600x1196x757	600x1196x867	600x1196x977	600x1196x1087	600x1196x1197	600x1196x1307	600x1196x1417	600x1196x1527	600x1196x1637
CODE			**0I7J6BWA**	**0I7J7BWA**	**0I7J8BWA**	**0I7J9BWA**	**0I7JABWA**	**0I7JBBWA**	**0I7JCBWA**	**0I7JDBWA**	**0I7JEBWA**

GN4 N

CAST-IRON 3 PASS-FLUES BOILER, SUITABLE FOR INSTALLATION OF AN OIL OR GAS JET BURNER

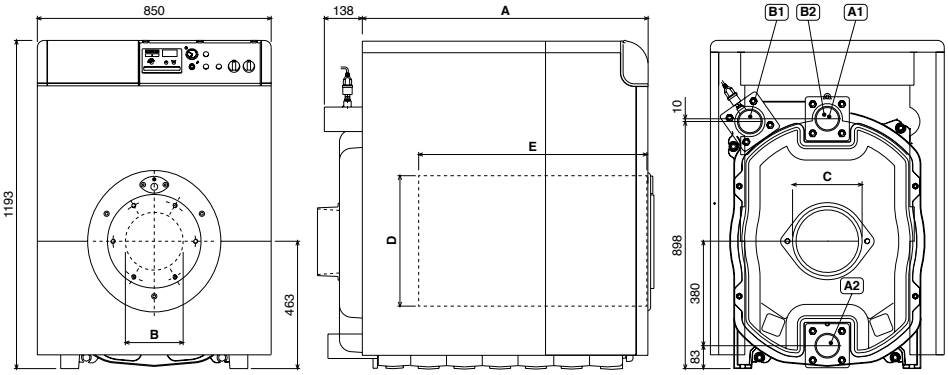
> STRENGTHS:

- High efficiency heat generator for liquid or gas fuel, **three flue passes**, cooled combustion chamber, for the production of hot water for central heating, suitable for operation either connected to a **traditional system** or connected to a **low temperature heating system**, with a minimum return temperature of 35°C
- G20 cast-iron boiler body made of sections to be assembled when installing the generator in the boiler room
- **Fitted for two-stage burners**
- Control board includes: thermometer, safety thermostat, 2 stages thermostat with presetting for indication leds, boiler switch, lodging for eventual flues thermostat and electronic controller

> KEY

a1 Central heating flow outlet DN80 - 3"
a2 Central heating return inlet DN80 - 3"
B1 Central heating flow outlet DN80 - 3" (Low temperature)
B2 Central heating flow outlet DN80 - 3" (Low temperature)

MODEL	A mm	B ø mm	C ø mm	D ø mm	E mm
GN4 N 07	1040	210	180	500	880
GN4 N 08	1170	210	180	500	1010
GN4 N 09	1300	210	250	500	1140
GN4 N 10	1430	210	250	500	1270
GN4 N 11	1560	210	250	500	1400
GN4 N 12	1690	210	250	500	1530
GN4 N 13	1820	210	250	500	1660
GN4 N 14	1950	210	250	500	1790



SPECIFIC OPTION: 037000X0 section assembling tool for cast iron boilers

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REG. 812/2013

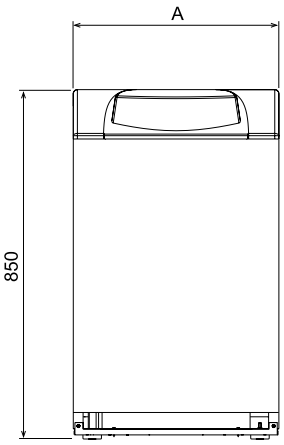
*** FOR GN4 N 07÷10, IN EUROPEAN COMMUNITY CAN BE SOLD ONLY AS A REPLACEMENT OF AN IDENTICAL MODEL**

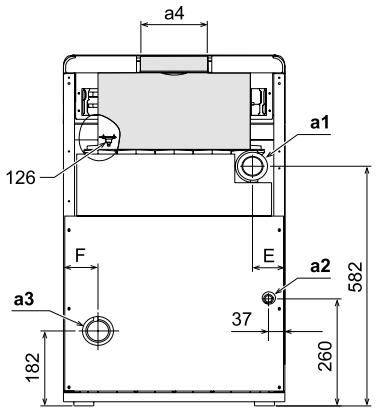
MODEL			GN 4 N 07	GN 4 N 08	GN 4 N 09	GN 4 N 10	GN 4 N 11	GN 4 N 12	GN 4 N 13	GN 4 N 14
Heat input	Max Min	kW kW	217 128	270 170	324 192	388 229	452 266	516 309	600 352	695 416
Heat output	Max Min	kW kW	200 120	250 150	300 180	360 215	420 250	480 290	560 330	650 390
Efficiency	 30%	Pmax % %	92.2 95.4	92.9 96.0	92.6 96.5	92.8 97.1	92.9 97.1	93.0 97.2	93.3 97.3	93.5 97.3
Number of elements		no.	7	8	9	10	11	12	13	14
Water content		dm^3	143	163	183	203	223	243	263	283
Combustion chamber	volume	dm^3	161.3	185.1	208.9	232.8	256.6	280.4	304.3	328.1
Heating operating pressure	Max	bar	6	6	6	6	6	6	6	6
Pressure drop: combustion chamber hydraulic	 	Δp mbar ΔT 20°C	0.5 20	0.8 30	0.7 42	1.0 54	1.4 65	1.7 77	2.6 88	3.5 100
Boiler body weight		kg	940	1050	1170	1270	1400	1510	1630	1740
Dimensions	WxHxD	mm	850x1193x1040	850x1193x1170	850x1193x1300	850x1193x1430	850x1193x1560	850x1193x1690	850x1193x1820	850x1193x1950
CODE			**0I9J7CWA**	**0I9J8CWA**	**0I9J9CWA**	**0I9JACWA**	**0I9JBCWA**	**0I9JCCWA**	**0I9JDCWA**	**0I9JECWA**

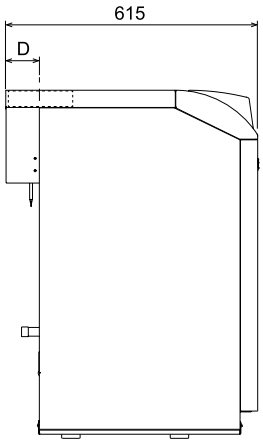
PEGASUS 23 - 32 - 45

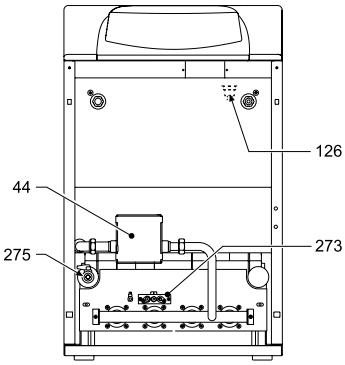
CAST IRON ATMOSPHERIC GAS BOILER, HEATING ONLY

- Boiler body made of assembled **G 20 cast iron sections,** generously insulated by a rockwool layer externally lined with tearproof material
- Atmospheric burner in stainless steel with electronic ignition and ionization control
- **Analogue control panel** protected with a flip cover
- Control board includes temperature and pressure gauge, ignition switch, safety thermostat with manual reset and temperature setting knob
- **Oversize 1" ½ F system flow and return connections**
- Steel casing painted white by anaphoresis using epoxy powder paint
- Boiler is supplied packed inside a robust wooden crate









> KEY

44 Gas valve
126 Fume thermostat
273 Pilot burner assembly
275 Heating system drain cock

MODEL	A mm	D mm	E mm	F mm	a1 delivery	a2 heating delivery	a4 flue	a5 gas inlet
PEGASUS 23	400	70	109	112	1" 1/2	1" 1/2	130	1/2"
PEGASUS 32	500	70	116	119	1" 1/2	1" 1/2	130	1/2"
PEGASUS 45	500	80	73	76	1" 1/2	1" 1/2	150	1/2"

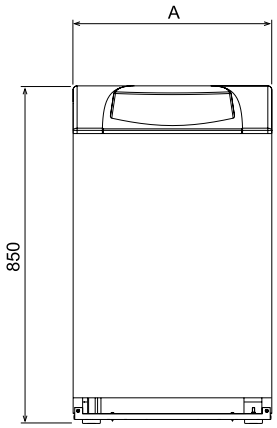
EXTRA EU

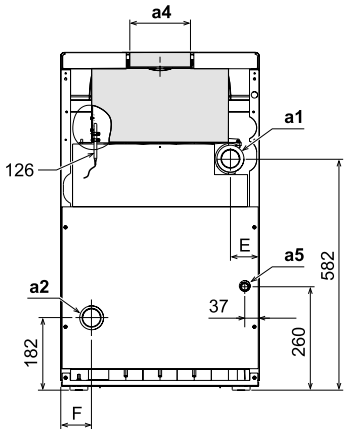
MODEL			23	32	45
Heat input	Max Heating Min	kW kW	25.3 10.1	34.9 14.9	49.5 19.7
Heat output	Max Heating Min	kW kW	23.0 8.8	32.0 13.0	45.0 17.2
Efficiency	80°C - 60°C 30%	Pmax % %	90.9 91.3	91.7 91.5	90.9 91.6
Number of elements		no.	3	4	5
Heating water content		litres	9.1	11.6	14.1
Heating operating pressure	Max	bar	6	6	6
Empty weight		kg	106	136	164
Dimensions	WxHxD	mm	400x850x615	500x850x615	500x850x615
CODE			**0E4L3MWA**	**0E4L4MWA**	**0E4L5MWA**

PEGASUS T

CAST IRON ATMOSPHERIC GAS BOILER, HEATING ONLY, PILOT IGNITION

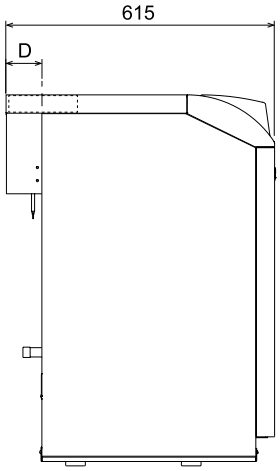
- Boiler body made of assembled **G 20 cast iron sections**, generously insulated by a rockwool layer externally lined with tearproof material
- Atmospheric burner in stainless steel with **pilot ignition and termocouple**
- **Analogue control panel** protected with a flip cover
- Control board includes thermometer, pressure gauge, ignition switch, safety thermostat with manual reset and temperature setting knob
- **Oversize 1" ½ F system flow and return connections**
- Steel casing painted white by anaphoresis using epoxy powder paint
- Easy access to combustion assembly and stack, simply removing casing (fixed with quick pressure clips) and respective insulation
- Boiler is supplied packed inside a robust wooden crate

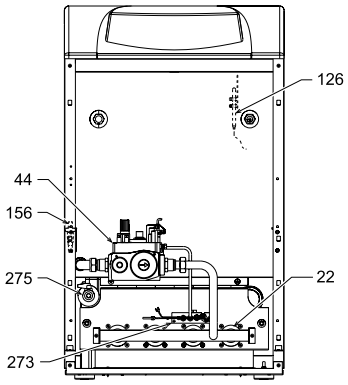




> KEY

22 Main burner
44 Gas valve
126 Fume thermostat
156 Piezoelectric igniter
273 Pilot burner assembly
275 Heating system drain cock





MODEL	A mm	D mm	E mm	F mm	a1 flow	a2 return	a4 flue	a5 gas inlet
PEGASUS 23 T	400	70	109	112	1" 1/2	1" 1/2	130	1/2"
PEGASUS 35 T	500	70	116	119	1" 1/2	1" 1/2	130	1/2"
PEGASUS 45 T	500	80	73	76	1" 1/2	1" 1/2	150	1/2"

EXTRA EU

MODEL			T 23	T 35	T 45
Heat input	Max Heating Min	kW kW	25,3 10,1	38,8 14,9	49,5 19,7
Heat output	Max Heating Min	kW kW	23,0 8,8	35,0 13,0	45,0 17,2
Efficiency	80°C - 60°C 30%	Pmax % %	90,9 91,3	90,9 91,5	90,9 91,6
Number of elements		no.	3	4	5
Heating water content		litres	9,1	11,6	14,1
Heating operating pressure	Max	bar	6	6	6
Empty weight		kg	106	136	164
Dimensions	WxHxD	mm	400x850x615	500x850x615	500x850x615
CODE			**0E4K3MWA**	**0E4K4RWA**	**0E4K5MWA**

PEGASUS D 23 - 32 - 45

CAST IRON ATMOSPHERIC GAS BOILER, HEATING ONLY

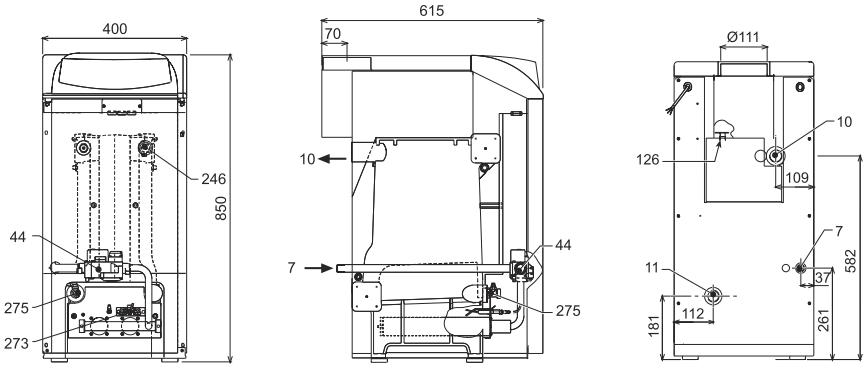
- Stainless steel atmospheric burner and gas valve with adjustable output according to the installation's requirement
- Management of optional external storage cylinder, with legionella protection
- System **flow temperature compensation** (with installation of optional outdoor probe)
- Wide backlit **LCD** interface with button control
- Can be connected with **remote control** (optional)
- **Frost protection** system
- Available as optional pump and expansion vessel kit

> KEY

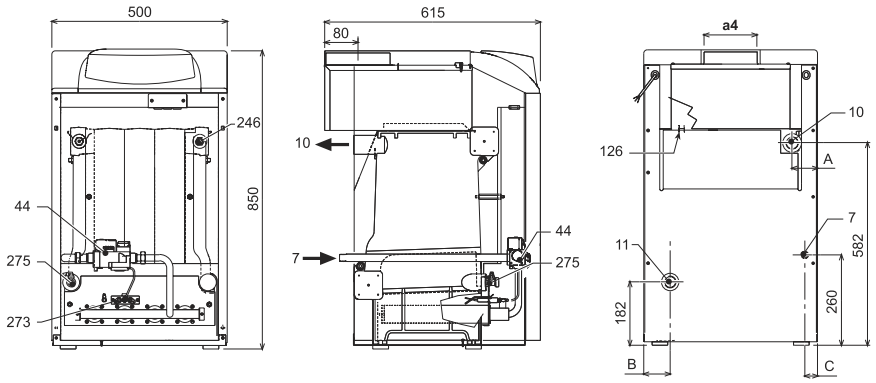
7 Gas inlet - Ø 1/2"
10 System delivery - Ø 1" 1/2
11 System return - Ø 1" 1/2
44 Gas valve
126 Fume thermostat
246 Pressure transducer
273 Pilot light unit
275 Heating system drain cock

SPECIFIC ACCESSORIES		CODE
Kit including: pump, 14 lts. CH expansion vessel, 1/2" F-F 3 bar safety valve		022002X0
Probe for DHW tank	2 mts	KWMA11W
	5 mts	043005X0
Kit for handling DHW storage by means of a (not supplied) thermostat		013017X0

PEGASUS D 23



PEGASUS D 32 - 45



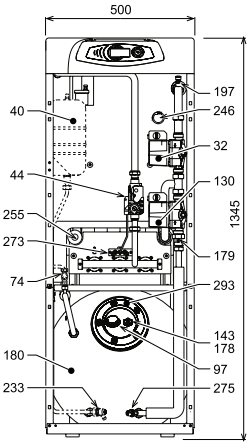
MODEL	A	B	C	a4
PEGASUS 32 D	116	119	47	Ø 131
PEGASUS 45 D	73	73	36	Ø 151

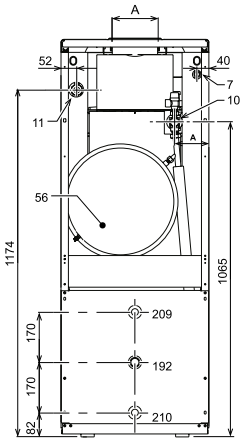
MODEL			D 23	D 32	D 45
Heat input	Max Heating Min	kW kW	25,3 10,1	34,9 14,9	49,5 19,7
Heat output	Max Heating Min	kW kW	23,0 8,8	32,0 13,0	45,0 17,2
Efficiency	80°C - 60°C 30%	Pmax % %	90,9 91,3	91,7 91,5	90,9 91,6
Number of elements		no.	3	4	5
Heating water content		litres	9,1	11,6	14,1
Heating operating pressure	Max	bar	6	6	6
Empty weight		kg	106	136	164
Dimensions	WxHxD	mm	400x850x615	500x850x615	500x850x615
CODE			**0E4L3AWA**	**0E4L4AWA**	**0E4L5AWA**

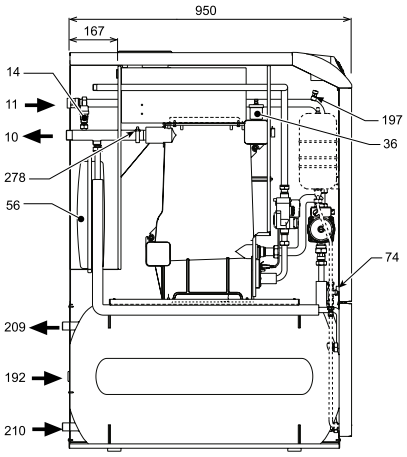
PEGASUS D K 130

CAST IRON ATMOSPHERIC GAS BOILER, INCLUDING DOMESTIC HOT WATER ENAMELLED STORAGE TANK

- **3 stars** efficiency according to 92/42 EEC emended by Reg. 812/2013 for 30 and 40 models
- **130 ltrs** enamelled steel hot water **storage**
- Digital control panel suitable for connection to opentherm **modulating remote control** and **outdoor probe** (optionals)
- Evolved **digital** interface for planning and monitoring of CH-DHW temperatures and advanced features (economy, legionella protection, troubleshooting ect)
- Stainless steel AISI 304 atmospheric gas burner
- Gas valve with adjustable output according to the installation's requirement, thus allowing unchanged combustion quality and excellent performances
- DHW expansion vassel and filling valve are not supplied
- Central Heating **frost protection** system
- DHW storage tanks are equipped with connection for a recirculation loop, for immediate availability of hot water to the user







> KEY

7	Gas inlet - 1/2"		thermostat
10	System delivery - 1"	**178**	Hot water tank thermometer bulb
11	System return - 1"	**179**	Non-return valve
14	Heating safety valve	**180**	Hot water tank
32	Heating circulating pump	**192**	Recirculation
		197	Manual air vent
36	Automatic air vent	**209**	Hot water tank delivery
40	DHW expansion tank (preventing water hammer)	**210**	Hot water tank return
		233	Hot water tank drain cock
44	Gas valve	**246**	Pressure transducer
56	Expansion tank	**255**	Boiler water circuit drain
74	System filling cock	**273**	Pilot burner assembly
97	Magnesium anode	**275**	Heating system drain cock
130	Hot water tank circulating pump	**293**	Hot water tank inspection flange
143	Hot water tank control		

MODEL	A (ø mm)
PEGASUS D 30 K 130	131
PEGASUS D 40 K 130	151

ATTENTION:
DHW expansion vessel and filling valve are not supplied.
The drawing represents a possible lodging of a generic expansion vessel

MODEL			D 30 K 130	D 40 K 130	D 45 K 130
Heat input	Max Heating Min	kW kW	32,2 14,9	42,9 19,7	49,5 19,7
Heat output	Max Heating Min	kW kW	30,2 13,5	40,1 17,7	45,0 17,2
Efficiency	80°C - 60°C 30% partial load	Pmax % %	93,7 91,8	93,5 92,5	90,9 91,6
Section		Quantity	4	5	5
DHW content		litres	130	130	130
DHW production	Δt 30°C Δt 30°C	l/10min l/h	250 850	250 850	250 850
Heating operating pressure	Max	bar	6	6	6
Empty weight		kg	250	275	275
Dimensions	WxHxD	mm	500x1345x950	500x1345x950	500x1345x950
CODE			**0F4U4TWA**	**0F4U5TWA**	**0F4U5DWA**

PEGASUS

CAST-IRON ATMOSPHERIC GAS BOILER, HEATING ONLY

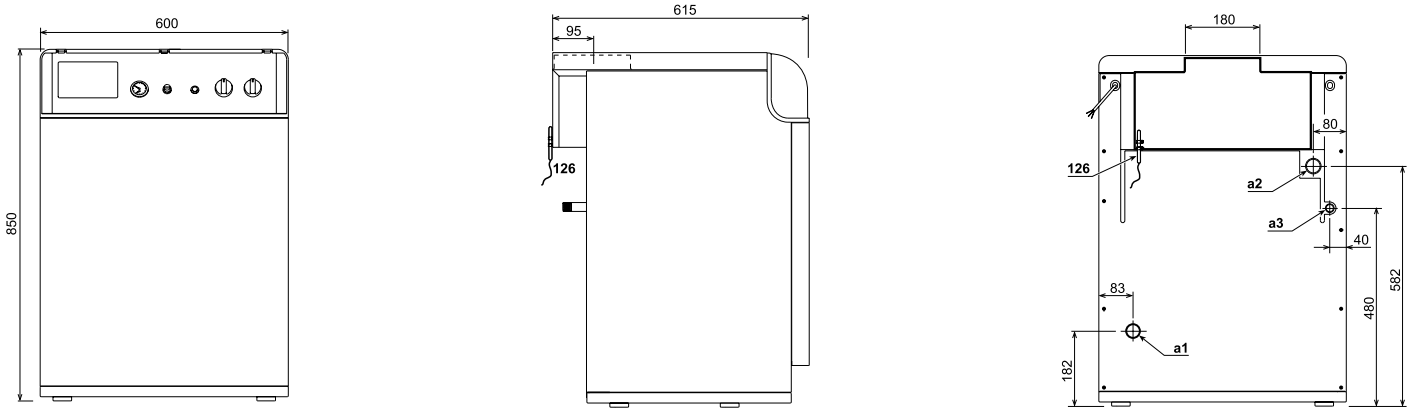
- Boiler body made of assembled **G20 cast iron sections**, generously insulated by a rockwool layer externally lined with tearproof material
- Atmospheric burner with AISI 304 steel heads, electronic ignition with intermittent pilot flame and safety device detecting the ionisation current produced by the flame
- Variable heat input, with **two-stages** operation (except model 56)
- Flues collector with semi-integrated antirefouleur and flues test point
- For smaller boilers (56÷107 kW) element with factory name "B.A.G. 21" is used, whereas for higher outputs (119÷289 kW) a bigger element (namely "LS3") is used
- Efficient operation thanks to the **large heat exchange surface** of the cast-iron section, and the generous insulation of the boiler body
- Possibility to install the modules in cascade with a side-by-side or back-to-back layout
- Steel casing painted white by anaphoresis using epoxy powder paint
- Control board is **preset** for integration of an electronic controller

Element
mod. 119÷289
Type LS3

EXTRA EU

MODEL			56	67	77	87	97	107	119	136	153	170	187	221	255	289
Heat input	Max	kW	61,6	73,3	84,2	95,2	106,0	117,0	131,0	149,0	168,0	187,0	206,0	243,0	280,0	317,0
	Min	kW	24,5	31,0	35,7	40,3	45,0	49,0	77,0	89,0	100,0	110,0	122,0	144,0	166,0	188,0
Heat output	Max	kW	56,0	67,0	77,0	87,0	97,0	107,0	119,0	136,0	153,0	170,0	187,0	221,0	255,0	289,0
	Min	kW	21,6	27,3	31,4	35,5	39,6	43,0	71,0	82,0	92,0	102,0	112,0	133,0	153,0	173,0
Efficiency	80-60°C	Pmax %	90,9	91,4	91,5	91,4	91,5	91,5	91,2	91,3	91,4	91,5	91,6	91,7	91,9	92,0
Number of elements		no.	6	7	8	9	10	11	8	9	10	11	12	14	16	18
Operating temperature	Max	°C	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Heating operating pressure	Max	bar	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Heating water content		litres	16,6	19,1	21,6	24,1	26,6	29,1	38	42	46	50	54	62	70	78
Depth		mm	83	760	760	760	760	760	760	1050	1050	1050	1050	1050	1050	1050
Height		mm	600	760	850	930	1020	1100	930	1020	1100	1190	1270	1440	1610	1780
Width		mm	850	970	970	970	970	970	1050	1050	1050	1050	1050	1050	1050	1050
CODE			0E4L6AWA	0E4L7AWA	0E4L8AWA	0E4L9AWA	0E4LAAWA	0E4LBAWA	0E2L8AWA	0E2L9AWA	0E2LAAWA	0E2LBAWA	0E2LCAWA	0E2LEAWA	0E2LGAWA	0E2LIAWA

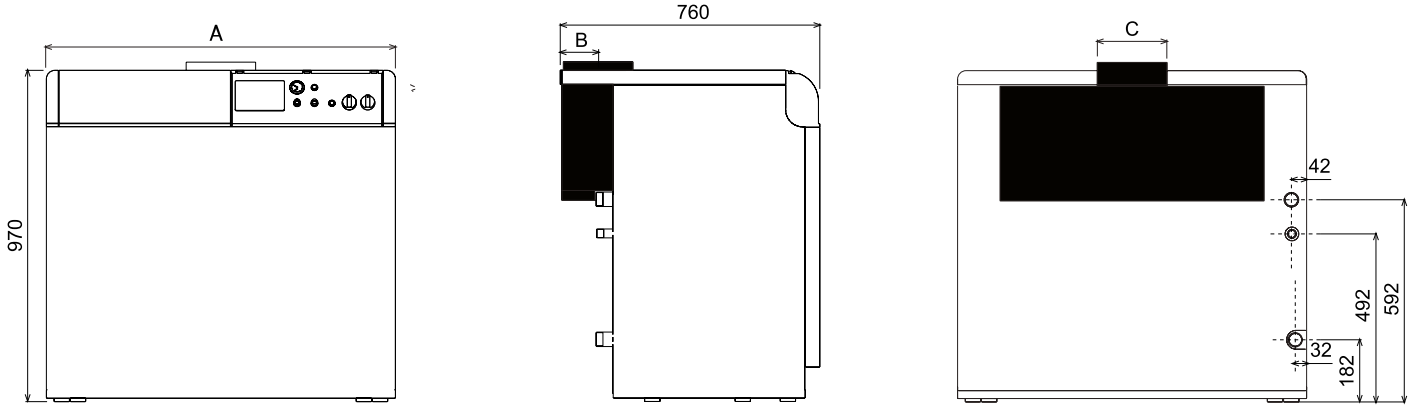
PEGASUS 56



> KEY

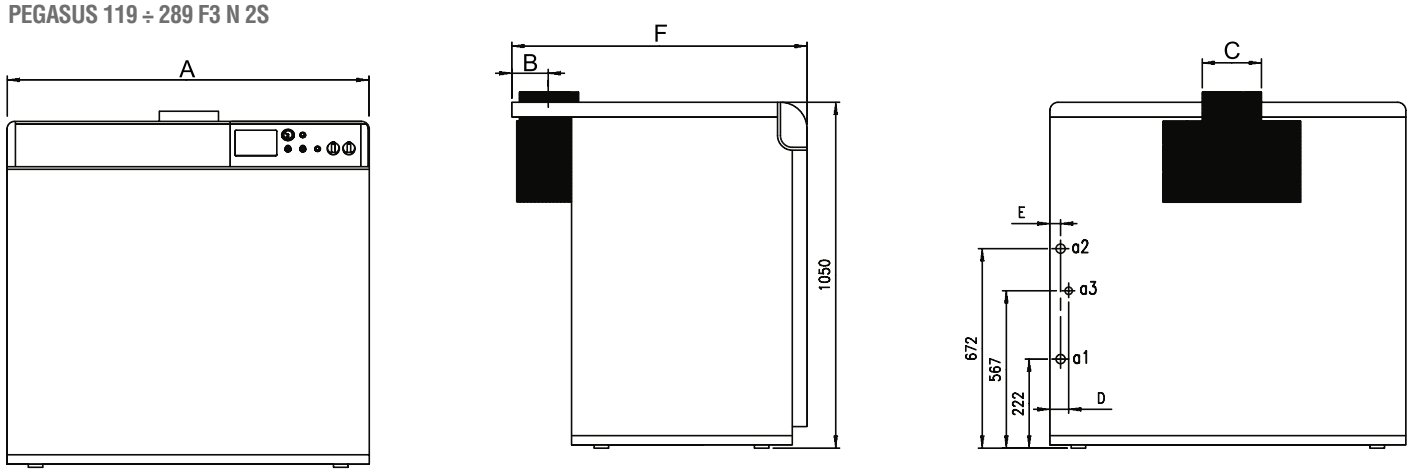
1 System delivery - Ø 1"1/2
a2 System return - Ø 1"1/2
a3 Gas inlet

PEGASUS 67 ÷ 107 2S



MODEL	A mm	B mm	C mm	a1 heating return	a2 heating delivery	a3 gas inlet
PEGASUS 67 2S	760	100	180	1" 1/4	1" 1/4	3/4"
PEGASUS 77 2S	850	110	200	1" 1/4	1" 1/4	3/4"
PEGASUS 87 2S	930	110	200	1" 1/4	1" 1/4	3/4"
PEGASUS 97 2S	1020	110	200	1" 1/4	1" 1/4	3/4"
PEGASUS 107 2S	1100	120	220	1" 1/4	1" 1/4	3/4"

PEGASUS 119 ÷ 289 F3 N 2S

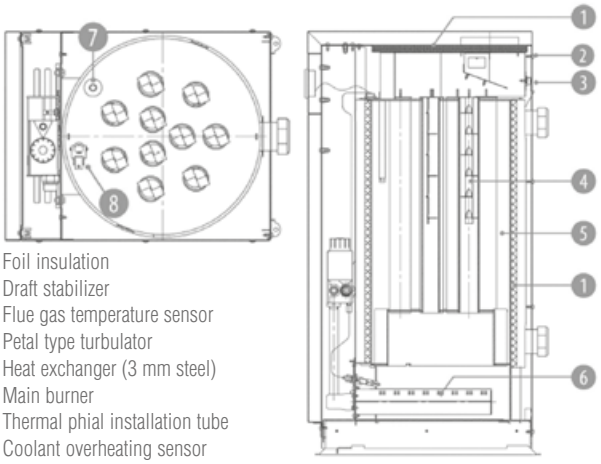


MODEL	A mm	B mm	C mm	D mm	E mm	F mm	a1 heating return	a2 heating delivery	a3 gas inlet
PEGASUS F3 N 119 2S	930	133	220	50	42	1050	2"	2"	1"
PEGASUS F3 N 136 2S	1020	148	250	53	45	1050	2"	2"	1"
PEGASUS F3 N 153 2S	1100	148	250	58	43	1050	2"	2"	1" 1/2
PEGASUS F3 N 170 2S	1190	173	300	60	46	1050	2"	2"	1" 1/2
PEGASUS F3 N 187 2S	1270	173	300	58	44	1050	2"	2"	1" 1/2
PEGASUS F3 N 221 2S	1440	173	300	57	45	1050	2"	2"	1" 1/2
PEGASUS F3 N 255 2S	1610	198	350	62	46	1100	2"	2"	1" 1/2
PEGASUS F3 N 289 2S	1780	198	350	66	49	1100	2"	2"	1" 1/2

TORINO

FLOOR-STANDING GAS BOILER WITH STEEL HEAT-EXCHANGER

- Non-volatile boiler. **Does not require external electricity connection**
- Heat carrier max working pressure - 3 bar
- Designed for operation in open and closed heating systems. and for use with forced or natural circulation
- High efficiency
- Completed with SIT gas blocks: 7.5-16 kW (SIT 630); 20-30 kW (SIT 710); 35-100 (SIT 820)
- Tube heat exchanger made of an alloy of high-quality cold-rolled steel with a thickness of 3 mm
- IMIT thermometer
- SIT pilot burner
- Gas supply tube for pilot burner with an increased bore of D = 6 mm
- RUSIT burners made of heat-resistant stainless steel with improved combustion properties;
- Convenient installation due to bilateral gas supply. Convenient maintenance due to quick-detachable facing panels, special fastening of smoke collector for convenient maintenance of the boiler gas duct
- Possibility to function on liquefied gas. Operation: 15 years
- All the boilers are equipped with a safety system



1 Foil insulation
2 Draft stabilizer
3 Flue gas temperature sensor
4 Petal type turbulator
5 Heat exchanger (3 mm steel)
6 Main burner
7 Thermal phial installation tube
8 Coolant overheating sensor

EXTRA EU

MODEL		7.5	10	12.5	16	20	25	30	35	40	50	60	80	100
Rated heat output	kW	7.5	10	12.5	16	20	25	30	35	40	50	60	80	99
Approximate area of heated space, with height of 2.7 m	m²	≤ 70	≤ 100	≤ 120	≤ 160	≤ 200	≤ 250	≤ 300	< 350	< 400	< 500	< 600	< 800	< 1000
Efficiency, not less than	%	90												
Max consumption of natural gas	m³/h	0.81	1.16	1.44	1.78	2.3	2.8	3.4	3.9	4.5	536	6.7	9.0	10.9
Max thermal output of gas burner	kW	8	11.4	14.2	17.6	22.7	27.7	33.6	38	44	55	66	88	107
Temperature regulation range of heat carrier	°C	40 - 90												
Max coolant temperature at the boiler outlet °C, within	°C	95												
Maximum working pressure of heat carrier in heating system, within	MPa (KGF/cm²)	0.3 (3)												
Nom pressure of natural gas	Pa	1300												
Max pressure of natural gas	Pa	3000												
Min pressure of natural gas	Pa	600												
Discharge behind the boiler	Pa	5 - 40												
Connecting thread of heat-carrier connections	inches	G 1/2				G 2								
Connecting thread of gas supply fittings	inches	G 1/2						G 3/4						G 2
Diameter of smoke collector outlet pipe	mm	95	95	115	115	135	135	155	155	155	215	215	235	235
Heat carrier volume within boiler	lt	28	27	30	28	41	39	37	56	55	76	75	128	134
Weight	kg	45	46	55	57	74	79	81	107	110	133	137	205	260
Chimney recommended height	m	5												
Chimney recommended diameter	mm	100	100	120	120	140	140	160	160	160	220	220	240	240
CODE		**0QN004YA**	**0QN005YA**	**0QN006YA**	**0QN007YA**	**0QN008YA**	**0QN009YA**	**0QN010YA**	**0QN011YA**	**0QN012YA**	**0QN013YA**	**0QN014YA**	**0QN015YA**	**0QN016YA**

BIOMASS

EASYFIRE

PELLET
BOILER

ERP

> STRENGTHS:

- **Very compact pellet boiler** for central heating, including automatic burner
- Steel combustion chamber, fully thermal insulated
- **Completely cooled flue pass.** Large volumes of the reversal collectors for the best control of the temperature and speed of flues, incorporating steel turbolators
- **Fully inspectable:** in addition to the two doors, the flue gas collectors can also be inspected at the bottom (through the side and center plugs) and at the top (removing the cover panel)
- Firebox with cast iron grate, designed for optimum distribution of primary and secondary air. **Double post-combustion of fumes**
- Control panel with a complete interface display and a set of keys for a very easy boiler setting
- Large capacity of the pellet daily stock: 70 kg for models 29 - 35 - 39 and 50 kg for models 17 - 24

BURNER

4 combustion levels

TURBOLATORS AND CLEANING SYSTEM

EASYFIRE			17	24	29	35	39
ErP Class		(G - A++ Class)	A+	A+	A+	A+	A+
Heat input	Min	kW	4.4	4.4	6.4	6.4	6.4
	Max	kW	17.0	23.2	29.0	34.4	38.3
Heat output	Min	kW	4.2	4.2	5.8	5.8	5.8
	Max	kW	16.2	22.0	27.4	32.4	34.9
Efficlency	Pmax	%	95.7	94.5	94.5	94.2	91.3
	Pmin	%	95.1	95.1	90.1	90.1	90.1
Boiler class (EN 303-5 2012)			5	5	5	5	5
Fuel consumption	Pmax	Kg/h	3.5	4.8	6.0	7.1	7.9
	Pmin	Kg/h	0.9	0.9	1.3	1.3	1.3
Set temperature of water	Max	°C	80				
Operating pressure	Max	bar	3				
Electrical power		V/Hz	230/50				
Rated input power		W	Start 440 W - Stand-by 3 W - Nominal output 85 W - Reduced output 30 W				
Dimensions	HxWxD	mm	1306x580x698		1300x700x700		
CODE			**L40DB30A**	**L40EB30A**	**L40FB30A**	**L40GB30A**	**L40LB30A**

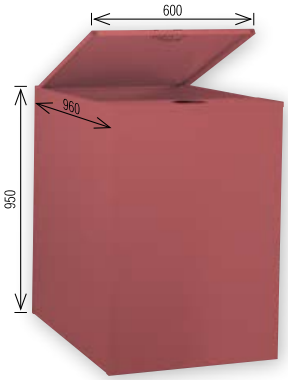
SUN PELLET

PELLET THERMAL GENERATOR

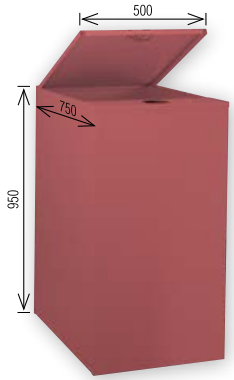
ERP

> STRENGTHS:

- Boiler body with cast iron elements combined with a blown air burner, complete with an auger for loading and a storage container for pellets (180 kg for mod. 3 and 4 and 280 kg for models 5, 6 and 7)
- Cast iron boiler with pre-assembled elements
- **Large combustion chamber** to guarantee maximum efficiency and the best thermal exchange
- **Removable drawer** for easy access to ash collection
- **Ultra compact blown air pellet burner** supplied complete with an automatic loading system consisting of a motor and auger, safety thermostat and system delivery probe.
- The **electronic board on the machine** can control the boiler/burner system, pellet loading and the main elements of a domestic heating system (system circulator, circulator and/or three-way DHW valve, system delivery sensor and storage tank, room thermostat or remote programmable thermostat).
- The **user interface** is characterised by a large display with adjustment keys on the top back of the cover hood, for easy reading and/or adjusting.
- The burner can be adjusted to operate in **single-stage** or with two type of **flame modulation** with 5 power levels

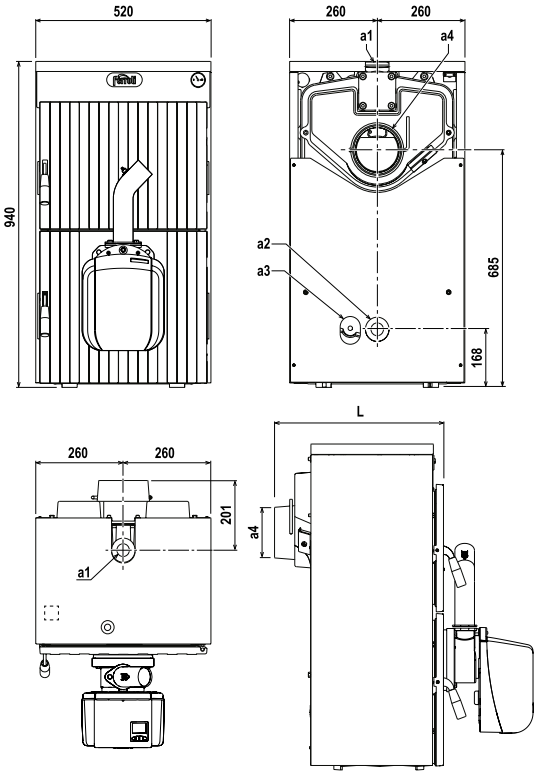


code 096004X0
pellet container of
350 dm³ - approx 280 kg
(provided as a kit requiring assembly)



code 096002X0
pellet container of
195 dm³ - approx. 180 kg
(provided as a kit requiring assembly)

Heat generator consisting of several parts, to be assembled in the installation site. Cast iron boiler / Burner / Burner holder plate / Loading unit / Pellet tank



INDOORS

CLASS 5

KEY

a1 System delivery - Ø 1" 1/2
a2 System return - Ø 1" 1/2
a3 System discharge - Ø 1/2"
a4 Chimney

MOD.	L - mm	a4 - ø mm
3	510	150
4	620	150
5	730	150
6	840	180
7	950	180

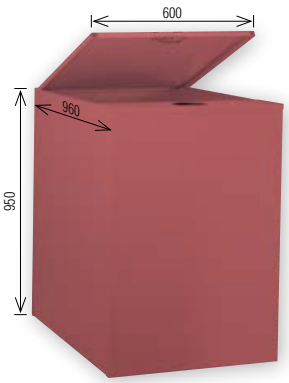
MODEL		3	4	5	6	7
ErP Class	(Class G - A++)	A+	A+	A+	A+	A+
Emission class EN303-5		5	5	5	5	5
Heat input (max / min)	kW	24.9 / 6.7	33.9 / 9.0	40.6 / 11.3	47.2 / 13.0	54.7 / 14.7
Heat output (max / min)	kW	22.0 / 6.4	30.0 / 8.6	36.0 / 10.7	42.0 / 12.4	48.0 / 14.0
Efficiency (Pmax)	%	88.48	88.66	88.7	89.02	89.3
Max working pressure	bar	4	4	4	4	4
Water content	l	26	30	34	38	42
Chamber volume	dm³	48	68	88	108	128
Minimum chimney draught	Pa	23	25	28	30	32
Empty weight	Kg	193	241	289	337	385
CODE		**0JCL3UWA**	**0JCL4UWA**	**0JCL5UWA**	**0JCL6UWA**	**0JCL7UWA**

SUN P N PELLET BURNER

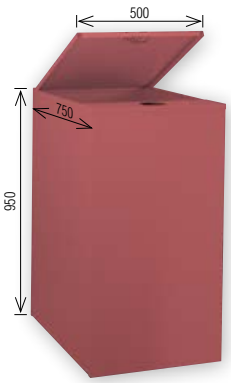
> STRENGTHS:

- **Ultra-compact pellet burner** supplied complete with automatic loading system consisting of motor and feed screw
- **The electronic board on the machine** offers perfect control of the boiler/burner system, pellet loading and the main elements of a domestic heating system (system circulator, circulator and/or three-way DHW valve, system flow sensor and storage tank, room thermostat or remote programmable thermostat)
- The card's microprocessor recognises what system elements are connected and **configures automatically**
- **The user interface** is characterised by a large display with adjustment keys on the top back of the cover hood, for easy reading and/or adjusting.
- The burner can be adjusted to operate in **single-stage** or with two type of **flame modulation** with 5 power levels.
- As per standard it comes with a flame return safety thermostat calibrated at 85°C
- **Flame ignition** with electrical heating element and **detection** with photo-resistor
- Two different types of optional storage boxes are available: **180 kg and 280 kg**

STORAGE BOX

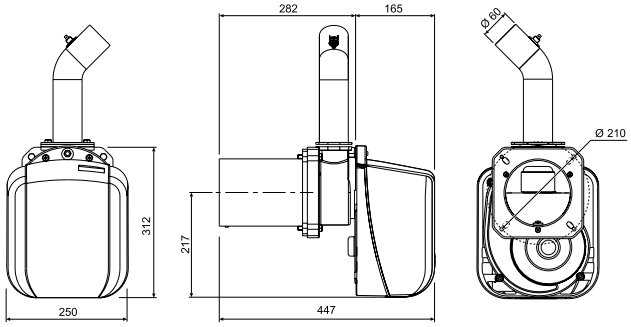


code 096004X0
pellet container of
350 dm³ - approx 280 kg
(provided as a kit requiring assembly)

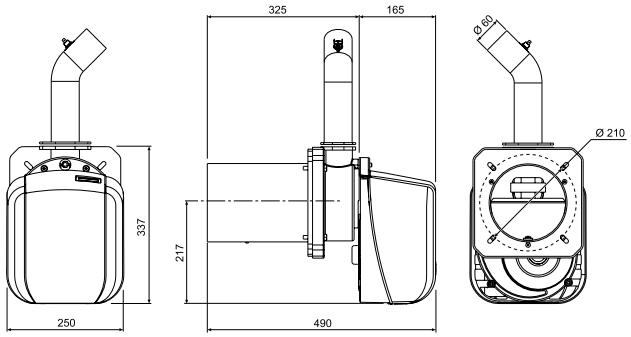


code 096002X0
pellet container of
195 dm³ - approx. 180 kg
(provided as a kit requiring assembly)

SUN P7 N



SUN P12 N



MODEL			7 N	12 N
Heat input	Max Min	kW kW	34.1 13.7	55.0 30.0
Combustible capacity	Max Min	kg/h kg/h	7.2 2.9	11.6 6.3
Max pellet dimension	diameter length	mm mm	6 35	6 35
Power supply		V/Hz	230/50	230/50
CODE			**0U2F6DXA** *	**0U2F8DXA** *

> TABLE OF BOILER/BURNER COMBINATIONS

GENERATOR		BURNER	
MODEL	CODE	MODEL	CODE
SFL 3	0ICJ3TWA	**SUN P7 N**	0U2F6DXA
SFL 4	0ICJ4TWA		
SFL 5	0ICJ5TWA	**SUN P12 N**	0U2F8DXA
SFL 6	0ICJ6TWA		
SFL 7	0ICJ7TWA		

* CODE REFERRING ONLY TO THE BURNER, THE FEED SCREW AND THE MOTOR FOR PELLET LOADING

> ACCESSORIES

CODE	DESCRIPTION
096002X0	PELLET STORAGE BOX (UNASSEMBLED) UP TO 195 dm³
096004X0	PELLET STORAGE BOX (UNASSEMBLED) UP TO 350 dm³

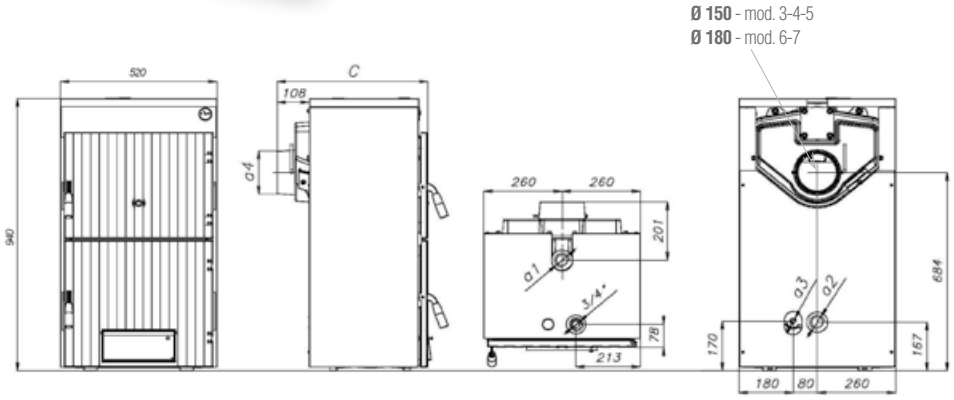
SFL SOLID FUEL GENERATORS

> STRENGTHS:

- **Cast iron floor-standing heat generator** for wood or coke combustion in the basic or pellet version with conversion kit
- **G20 cast iron body** with preassembled elements, insulated with a layer of fibre glass covered on the outside with tear-proof aluminium film
- **Large loading door** with front access
- **Front ash unloading door** and removable collection tray
- **Manual adjustment damper** on the rear flue gas exhaust
- **Safety kit for** no circulation, set at 95°C (optional)
- **Thermostatic adjustment device** (adjustable 30°C - 90°C) as per standard

> ADVANTAGES OF SFL:

- **High thermal efficiency** guaranteed by the large exchange surface of the cast iron elements and the completely wet combustion chamber
- **Combustion quality** is guaranteed by the air flap opening system controlled by the thermostatic valve



> TABLE OF COMBINATIONS

GENERATOR		PELLET BURNER		
MODEL	CODE	MODEL	TYPE	CODE
SFL 3	0U2F6DXA	SUN P7 N	Modulating	0U2F6DXA
SFL 4	0U2F6DXA	SUN P7 N	Modulating	0U2F6DXA
SFL 5	0U2F8DXA	SUN P12 N	Modulating	0U2F8DXA
SFL 6	0U2F8DXA	SUN P12 N	Modulating	0U2F8DXA
SFL 7	0U2F8DXA	SUN P12 N	Modulating	0U2F8DXA

MOD.	C mm	a4 mm
3	510	150
4	620	150
5	730	150
6	840	180
7	950	180

> KEY

a1 1" ½ system flow
a2 1" ½ system return
a3 ½" boiler discharge
a4 Flue gas outlet
a5 3/4" thermostatic adjustment fitting

EXTRA EU

MODEL		3	4	5	6	7
Efficiency of heat output (wood)	kW	19	27	36	43	50
Efficiency of heat output (coke)	kW	22.5	32.5	42.5	52.5	63.5
Efficiency of heat output (pellet)	kW	22	30	36	42	48
Efficiency class of directive EN 303-5 wood/coke		3	3	3	3	3
Efficiency class of directive EN 303-5 pellet		5	5	5	5	5
Number of elements	no.	3	4	5	6	7
Max operating pressure	bar	4	4	4	4	4
Empty weight	Kg	193	241	289	337	385
CODE		**0ICJ3TWA**	**0ICJ4TWA**	**0ICJ5TWA**	**0ICJ6TWA**	**0ICJ7TWA**

CODE	DESCRIPTION
032010X0	SAFETY COIL KIT COMPLETE WITH THERMOSTATIC VALVE FOR 3-ELEMENTS MODEL
032011X0	SAFETY COIL KIT COMPLETE WITH THERMOSTATIC VALVE FOR 4-ELEMENTS MODEL
032012X0	SAFETY COIL KIT COMPLETE WITH THERMOSTATIC VALVE FOR 5-ELEMENTS MODEL
032013X0	SAFETY COIL KIT COMPLETE WITH THERMOSTATIC VALVE FOR 6-ELEMENTS MODEL
032014X0	SAFETY COIL KIT COMPLETE WITH THERMOSTATIC VALVE FOR 7-ELEMENTS MODEL
035003X1	CONVERSION KIT FOR PERMANENT OPERATION WITH PELLET BURNER SUN P7 N (3-4 ELEMENTS)*
035005X0	CONVERSION KIT FOR PERMANENT OPERATION WITH PELLET BURNER SUN P12 N (5-6-7 ELEMENTS)*
035004X0	CONVERSION KIT FOR WOOD/PELLET BURNER REVERSIBLE OPERATION SUN P7 N (3-4 ELEMENTS)**
035006X0	CONVERSION KIT FOR WOOD/PELLET BURNER REVERSIBLE OPERATION SUN P12 N (5-6-7 ELEMENTS)**
033001X0	SAFETY THERMOSTAT KIT FOR OPERATION WITH PELLET BURNER

NB The "safety coil kit" is mandatory if the boiler runs on wood or coke. The "safety thermostat kit" is mandatory if the boiler runs on pellets

(*) Kit composed of the perforated door and the insulating panel

(**) Kit composed of the perforated door complete with insulation and safety micro-switch

(***) Referring to wood burning

T PELLET HEATING STOVE

ERP

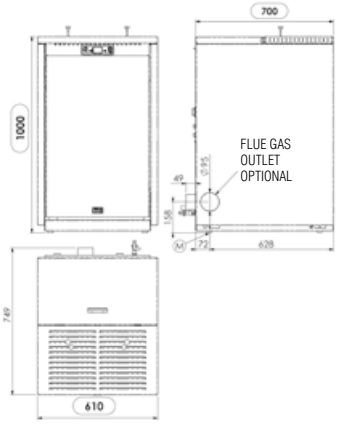
> STRENGTHS:

- Pellet heating stove for combination with domestic heating system
- Heating circuit complete with: high efficiency pump, 8-litre expansion valve, system discharging system and 3-bar safety valve
- Flue gas air intake circuit with variable rpm fan downstream of the burner. Set up to channel air extraction outdoors. Three possible flue gas outlets: top, rear or side.
- Equipped with automatic cleaning system of the brazier system/brazier holder. Steel flue gas turbulators with manual cleaning mechanism
- Explosion-proof valve as per standard on the combustion chamber, flame non-return thermostat and pallet level signal sensor. Removable ash collection tray
- In addition to the standard functions of the stove, the standard electronics can manage the main components of a thermal system
- Radio control, for remote control, supplied as per standard.

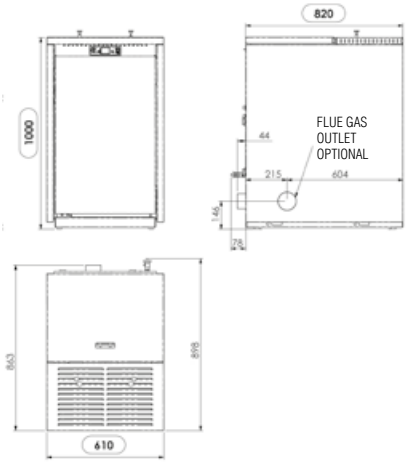
> APPROVALS:

- Designed according to standard EN 14785
- ErP A++ class

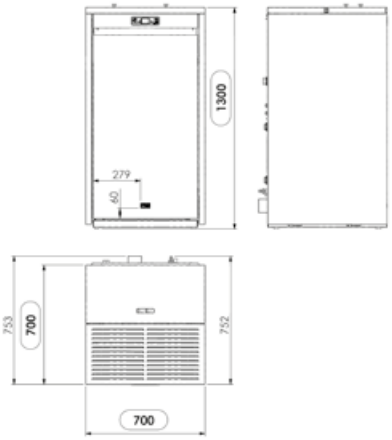
T 18



T 23



T 29



REMOTE

T		18	23	29
ErP Class	(Class G - A++)	A++	A++	A++
Heat input	kW	20.4 - 5.8	24.6 - 7.2	27.7 - 8.5
Nominal power	kW	19.0 - 5.5	23.0 - 6.8	25.7 - 7.9
Heat output to water	kW	17.3 - 4.8	21.1 - 6.0	24.5 - 7.1
Heat output to air	kW	1.7 - 0.7	1.9 - 0.9	1.2 - 0.8
Efficiency	%	93.1 - 95.3	93.4 - 94.7	92.6 - 92.7
Heatable volume *	m^3	495	604	700
Flue gas outlet	Ø mm	80	80	80
Air intake	Ø mm	50	50	50
Pellet Consumption	Kg/h	4.2 - 1.2	5.1 - 1.5	5.75 - 1.75
Pellet tank capacity	Kg	30	40	60
Electric power supply	-	230V - 50Hz - 2A	230V - 50Hz - 2A	230V - 50Hz - 2A
Empty weight	kg	155	175	206
CODE	**Bordeaux**	**LS6MA30A**	**LS6NA30A**	**LS6PS30A**

* Based on the insulation status of the home and calculated with 35 W/m^3

> ACCESSORIES

CODE	DESCRIPTION
L90F800B	TOUCH SCREEN "UTILITY" CONTROL TIMER

AT PELLET HEATING STOVE WITH DHW STORAGE

ERP

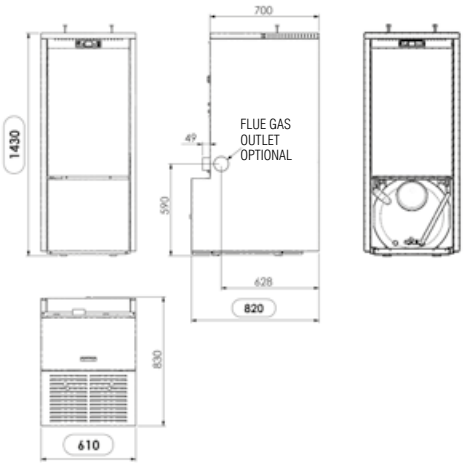
> STRENGTHS:

- Pellet heating stove for heating and domestic hot water production with 100-litre stainless steel storage tank
- Heating circuit complete with: high efficiency pump, 8-litre expansion valve, system discharging system and 3-bar safety valve
- Flue gas air intake circuit with variable rpm fan downstream of the burner.
  Set up to channel air extraction outdoors. Three possible flue gas outlets: top, rear or side
- Equipped with automatic cleaning system of the brazier system/brazier holder with manual cleaning mechanism
- Explosion-proof valve as per standard on the combustion chamber, flame non-return thermostat. Removable ash collection tray
- Radio control, for remote control, supplied as per standard.

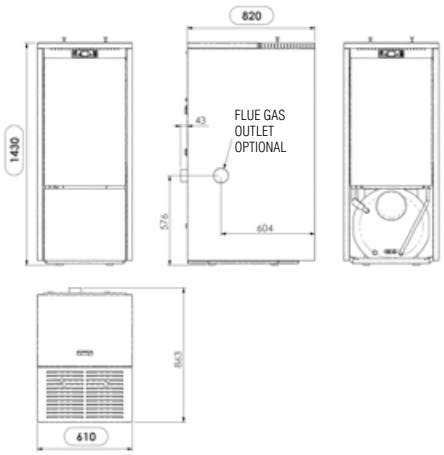
> APPROVALS:

- Designed according to standard EN 14785
- ErP class A++

AT 18



AT 23



REMOTE

AT		18	23
ErP Class	(Class G - A++)	A++	A++
Heat input	kW	20.4 - 5.8	24.6 - 7.2
Nominal power	kW	19.0 - 5.5	23.0 - 6.8
Heat output to water	kW	17.3 - 4.8	21.1 - 6.0
Heat output to air	kW	1.7 - 0.7	1.9 - 0.9
Efficiency	%	93.1 - 95.3	93.4 - 94.7
Heatable volume *	m^3	495	604
Flue gas outlet	Ø mm	80	80
Air intake	Ø mm	50	50
DHW storage tank capacity	lt	100	100
Pellet Consumption	Kg/h	4.2 - 1.2	5.1 - 1.5
Pellet tank capacity	Kg	30	40
Electric power supply		230V - 50Hz - 2A	230V - 50Hz - 2A
Empty weight	kg	190	210
CODE	**Bordeaux**	**LS6VA30A**	**LS6WA30A**

* Based on the insulation status of the home and calculated with 35 W/m^3

> ACCESSORIES

CODE	DESCRIPTION
L90F800B	TOUCH SCREEN "UTILITY" CONTROL TIMER

LOW NOx BURNERS

COMPACT ECO

LOW NOx LIGHT OIL BURNERS
SINGLE-STAGE

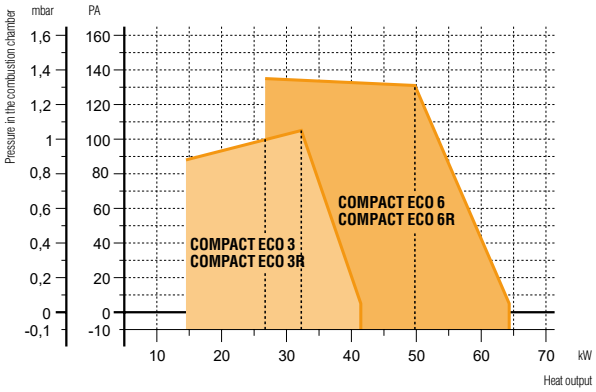
ERP

- Very low polluting emissions (lower than required by Class 3 - EN 267 <120 mg/kWh)
- Supplied complete with nozzle, hoses, light oil line filter and 7-pin plug and connection flange
- R version complete with light oil preheater
- Easy access to the air damper adjustments
- Ductable air intake

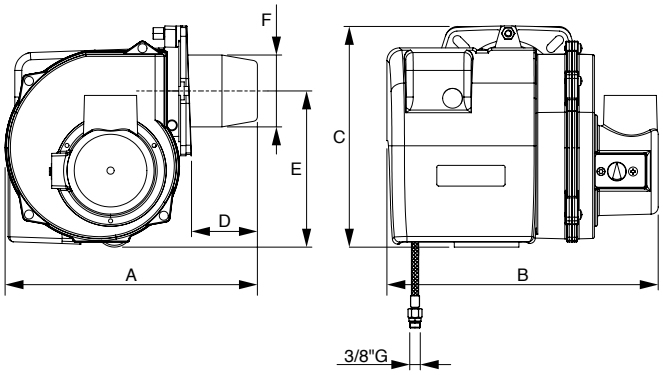
Range

COMPACT ECO single-stage burners
COMPACT ECO single-stage burners with light oil preheater

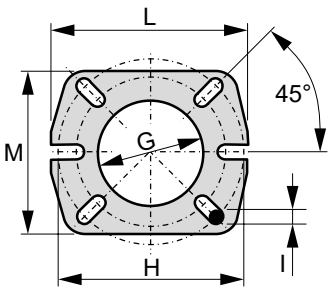
OPERATION FIELD



DIMENSIONS



COUPLING FLANGE



MODEL	A	B	C	D	E	F	G	H (min)	H (max)	I	L	M	WEIGHT
	mm	mm	mm	mm	mm	mm	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	cm	kg
COMPACT ECO 3	280	305	245	75	175	80	85	135	160	M8	170	144	10
COMPACT ECO 3R	280	305	245	75	175	80	85	135	160	M8	170	144	10.1
COMPACT ECO 6	280	305	245	75	175	80	85	135	160	M8	170	144	10
COMPACT ECO 6R	280	305	245	75	175	80	85	135	160	M8	170	144	10.1

MODEL	CALORIFIC	HEAT OUTPUT	MOTOR	CODE
	kg/h	kW	230V ~ 50Hz	
COMPACT ECO 3	1.2 - 3.5	14.5 - 41.5	100 W single	0U3T6AXA
COMPACT ECO 3R	1.2 - 3.5	14.5 - 41.5	100 W single	0U3T6RXA
COMPACT ECO 6	2.2 - 5.4	26.2 - 64.3	100 W single	0U3T8AXA
COMPACT ECO 6R	2.2 - 5.4	26.2 - 64.3	100 W single	0U3T8RXA

SUN G/2 PRO

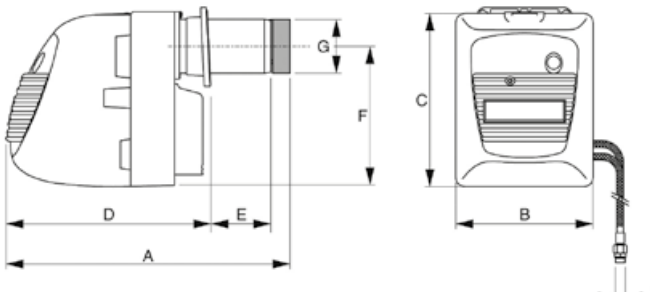
LOW NOx LIGHT OIL BURNERS TWO-STAGE

ERP

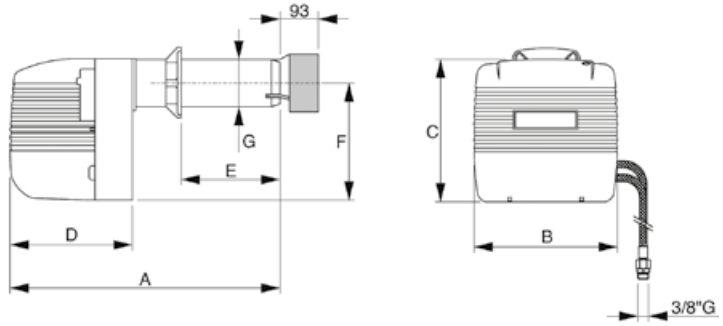
- Very low polluting emissions (lower than required by Class 3 - EN 267 - < 120 mg/kWh)
- Two-stage operation with pressure interval
- Electric servo control on the air damper
- The entire series is fitted with sliding flange

DIMENSIONS

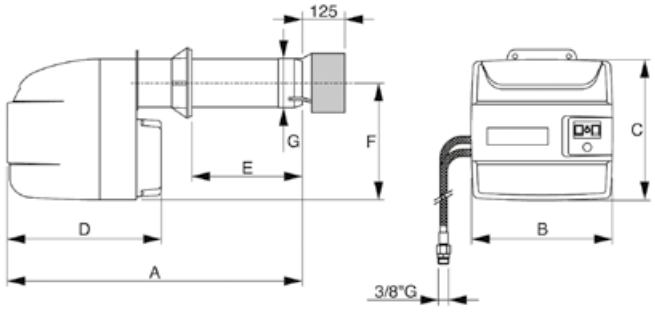
SUN G 9/2 - 14/2 PRO



SUN G 20/2 PRO



SUN G 30/2 PRO

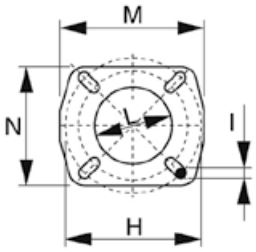


MODEL	A	B	C	D	E	F	G
	mm	mm	mm	mm	mm	mm	Ø mm
SUN G 9/2 PRO	515	275	340	358	130	274	90
SUN G 14/2 PRO	605	275	340	358	130	274	100
SUN G 20/2 PRO	660	360	356	320	280	275	120
SUN G 30/2 PRO	765	420	423	460	290	350	144

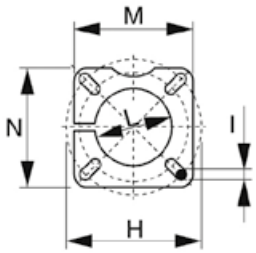
MODEL	CALORIFIC	HEAT OUTPUT	MOTOR	CODE
	kg/h	kW	230V ~ 50Hz	
SUN G 9/2 PRO	2.92 - 9.72	34.8 - 115	100 W single	0U3SCAXA
SUN G 14/2 PRO	5.5 - 13.0	65.5 - 155	185 W single	0U3SEAXA
SUN G 20/2 PRO	8.5 - 21.8	101 - 260	250 W single	0U3SFAXA
SUN G 30/2 PRO	12.3 - 31.9	147 - 379	370 W single	0U3SGAXA

COUPLING FLANGE AND WEIGHT

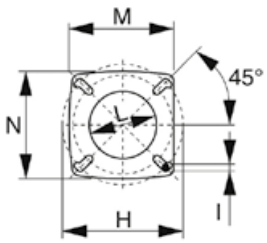
SUN G 9/2 PRO



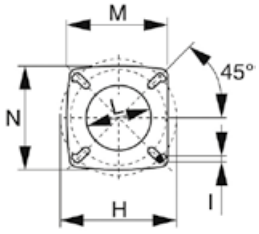
SUN G 14/2 PRO



SUN G 30/2 PRO



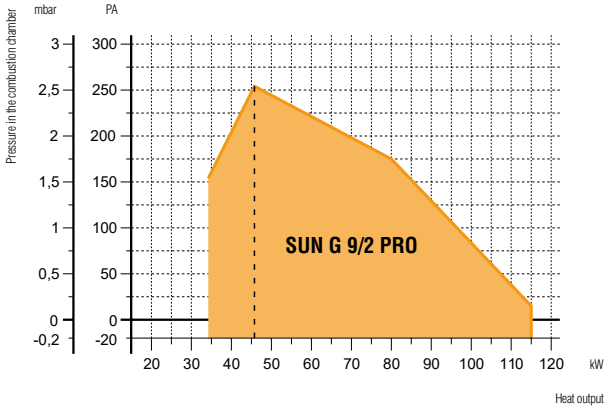
SUN G 20/2 PRO



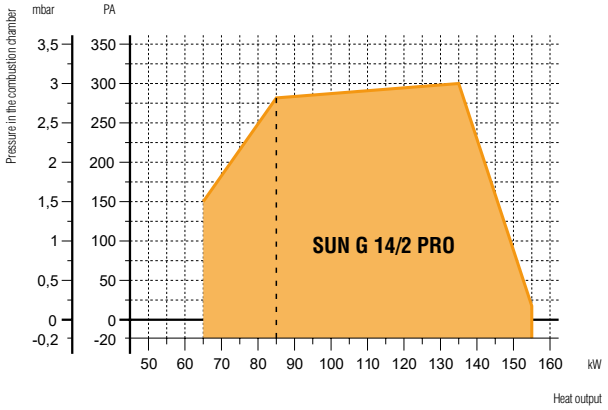
MODEL	H	L	M	N	WEIGHT
	Ø mm	Ø mm	Ø mm	Ø mm	kg
SUN G 9/2 PRO	140 - 180	95	180	154	11.5
SUN G 14/2 PRO	150 - 200	105	166	166	15
SUN G 20/2 PRO	160 - 226	135	214	205	21
SUN G 30/2 PRO	172 - 225	160	214	205	28

OPERATION FIELD

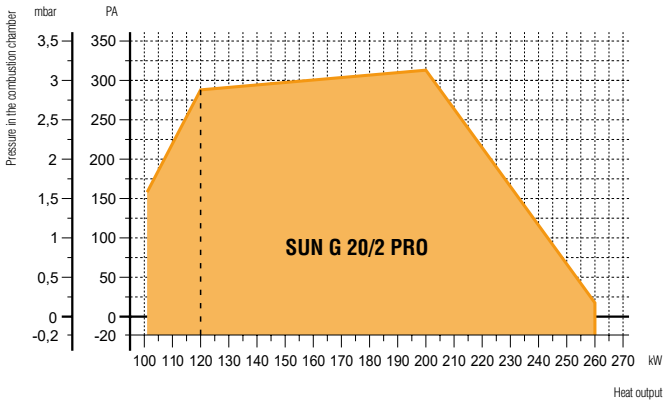
SUN G 9/2 PRO



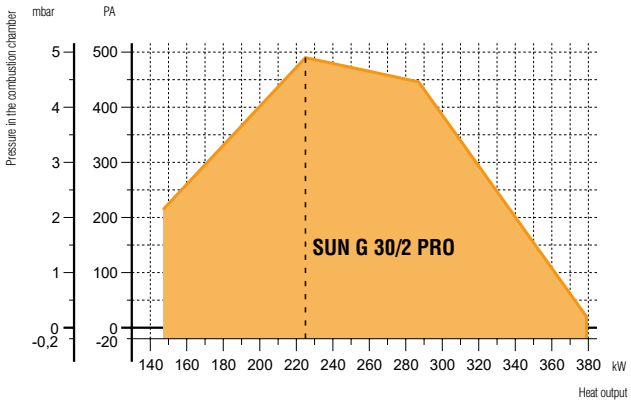
SUN G 14/2 PRO



SUN G 20/2 PRO



SUN G 30/2 PRO

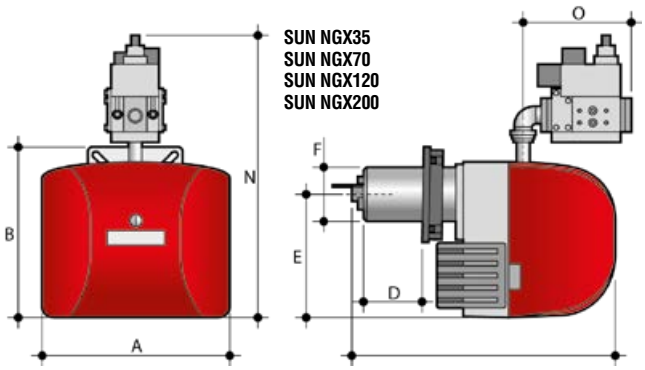


SUN NGX LOW NOx GAS BURNERS SINGLE-STAGE

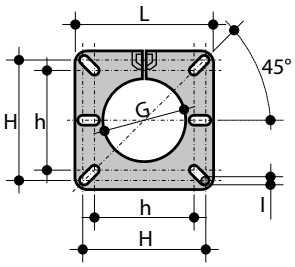
ERP

- Single-stage burners. Very low nox emissions (class 3 ≤ 80 mg/kwh) achieved with a special combustion head
- Operating with natural gas
- Gas train with stabiliser, double valve and filter
- Adjustable combustion head
- External combustion air regulator (mod. SUN NGX35 - SUN NGX70), or internal (mod. SUN NGX120 - SUN NGX200)
- Air damper with gravity closure when stopped
- Stabilised ventilation
- Accessories assembly kit and valve sealing control kit

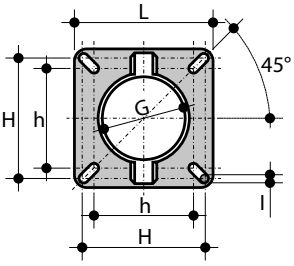
DIMENSIONS



COUPLING FLANGE



SUN NGX35 - SUN NGX70



SUN NGX120 - SUN NGX200

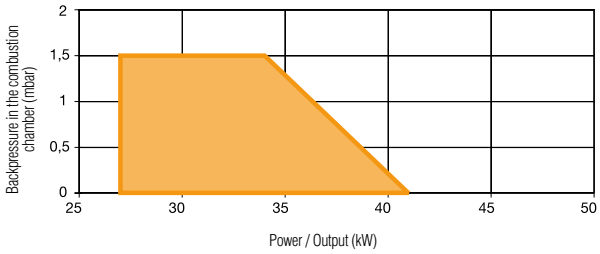
MODEL	A	B	C	D (min-max)	E	F	N	O	G	h - H	I	L
	mm	mm	mm	mm	mm	Ø mm	mm	mm	Ø mm	Ø mm	mm	mm
SUN NGX35 (S-15)	269	266	338	58 - 98	194	80	400	168	95	96 - 120	M8	145
SUN NGX35 (L-15)	269	266	418	58 - 178	194	80	400	168	95	96 - 120	M8	145
SUN NGX70 (S-15)	304	291	393	76	218	80	438	168	95	96 - 120	M8	145
SUN NGX70 (L-15)	304	291	461	76 - 149	218	80	438	168	95	96 - 120	M8	145
SUN NGX70 (S-20)	304	291	393	76	218	80	438	168	95	96 - 120	M8	145
SUN NGX70 (L-20)	304	291	461	76 - 149	218	80	438	168	95	96 - 120	M8	145
SUN NGX120 (S-20)	373	340	581	85 - 170	245	108	560	220	128	108 - 158	M8	188
SUN NGX120 (L-20)	373	340	681	85 - 270	245	108	560	220	128	108 - 158	M8	188
SUN NGX200 (S-20)	373	340	581	85 - 170	245	115	560	220	134	108 - 158	M8	188
SUN NGX200 (L-20)	373	340	681	85 - 270	245	115	560	220	134	108 - 158	M8	188
SUN NGX200 (S-25)	373	340	581	85 - 170	245	115	560	220	134	108 - 158	M8	188
SUN NGX200 (L-25)	373	340	681	85 - 270	245	115	560	220	134	108 - 158	M8	188

MODEL	NATURAL GAS FLOW RATE	MIN. PRESSURE NATURAL GAS	HEAT OUTPUT	MOTOR	FAN MOTOR ABSORPTION	GAS TRAIN CONNECTION	CODE
	m^3/h	mbar*	kW		W	Ø	
SUN NGX35 (S-15)	2.72 - 4.12	10	27 - 41	230 V/ 50 Hz / single-phase	75	1/2"	0U3C7CXA
SUN NGX35 (L-15)	2.72 - 4.12	10	27 - 41	230 V/ 50 Hz / single-phase	75	1/2"	0U3C7DXA
SUN NGX70 (S-15)	4.02 - 6.54	23	40 - 65	230 V/ 50 Hz / single-phase	100	1/2"	0U3C9AXA
SUN NGX70 (L-15)	4.02 - 6.54	23	40 - 65	230 V/ 50 Hz / single-phase	100	1/2"	0U3C9BXA
SUN NGX70 (S-20)	4.02 - 6.54	20	40 - 65	230 V/ 50 Hz / single-phase	100	3/4"	0U3C9CXA
SUN NGX70 (L-20)	4.02 - 6.54	20	40 - 65	230 V/ 50 Hz / single-phase	100	3/4"	0U3C9DXA
SUN NGX120 (S-20)	7.54 - 12.07	13.5	75 - 120	230 V/ 50 Hz / single-phase	180	3/4"	0U3CCAXA
SUN NGX120 (L-20)	7.54 - 12.07	13.5	75 - 120	230 V/ 50 Hz / single-phase	180	3/4"	0U3CCBXA
SUN NGX200 (S-20)	8.55 - 15.09	15	85 - 150	230 V/ 50 Hz / single-phase	180	3/4"	0U3CDAXA
SUN NGX200 (L-20)	8.55 - 15.09	15	85 - 150	230 V/ 50 Hz / single-phase	180	3/4"	0U3CDBXA
SUN NGX200 (S-25)	8.55 - 15.09	11	85 - 150	230 V/ 50 Hz / single-phase	180	1"	0U3CDCXA
SUN NGX200 (L-25)	8.55 - 15.09	11	85 - 150	230 V/ 50 Hz / single-phase	180	1"	0U3CDDXA

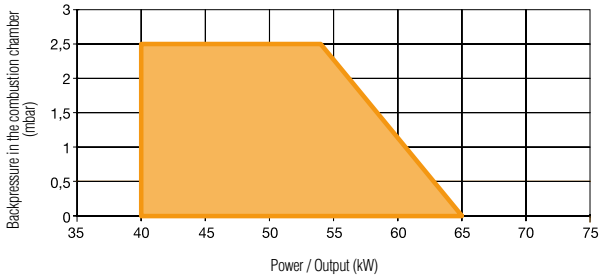
** Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in the combustion chamber*

OPERATION FIELD

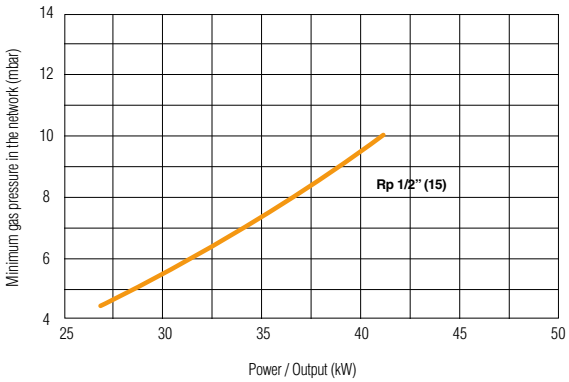
SUN NGX35



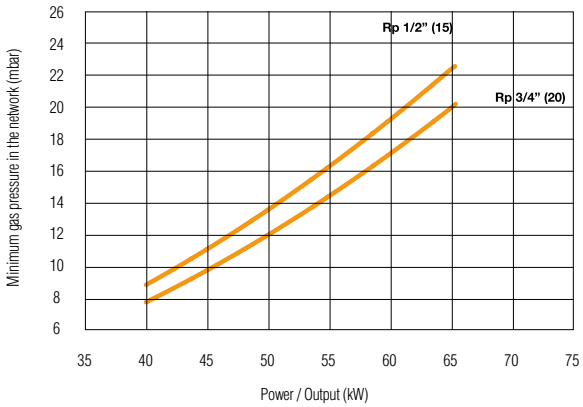
SUN NGX70



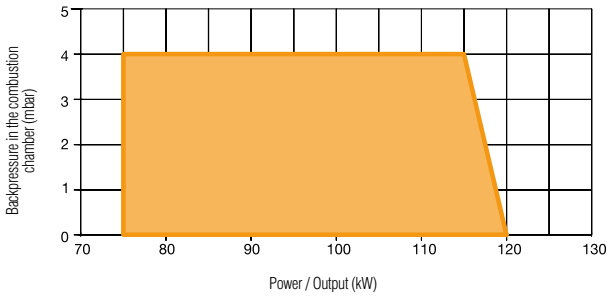
SUN NGX35



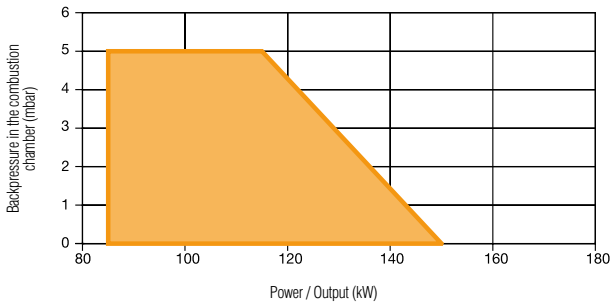
SUN NGX70



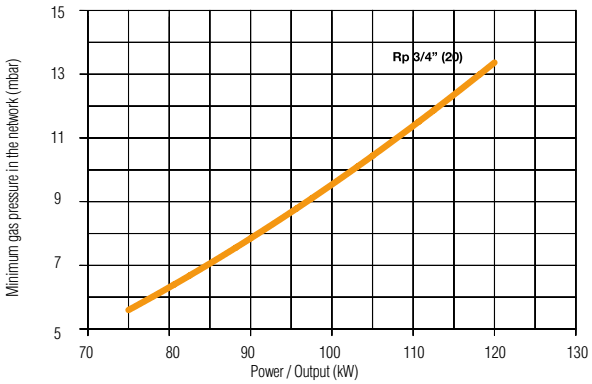
SUN NGX120



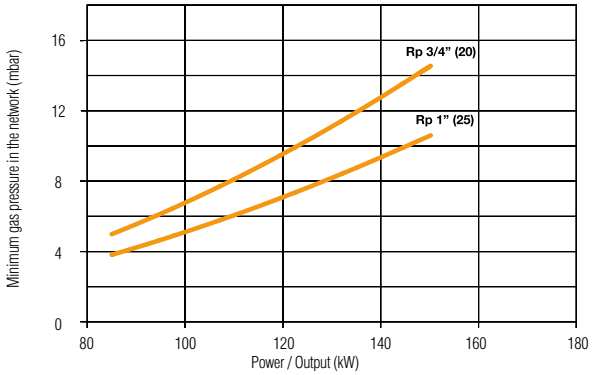
SUN NGX200



SUN NGX120



SUN NGX200



SUN NGX LOW NOx GAS BURNERS TWO-STAGE

ERP

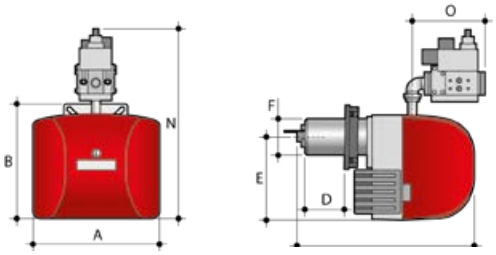
- Progressive two-stage burners (mod. 120 two-stage). very low NOx emissions (class 3 ≤ 80 mg/kwh) achieved with a special combustion head
- Optional continuous modulation operation by applying the module kit (on request)
- Operating with natural gas
- Gas train with stabiliser, double valve and filter
- Adjustable combustion head
- Electric servo control on the air damper and stabilised ventilation
- Adjustment of the gas flow rate through the variable profile cam controlled by the electric servo control
- Accessories assembly kit and valve sealing control kit
- Modulation kit (temperature/pressure) available as optional

MODEL	CALORIFIC	MIN. PRESSURE NATURAL GAS	POWER	ELECTRIC POWER SUPPLY	FAN MOTOR ABSORPTION	GAS TRAIN CONNECTION	CODE
	m^3/h	mbar*	kW				
SUN NGX120 (AB S-20)	3.52 - 12.07	13.5	35 - 120	230 V/ 50 Hz / single-phase	0.18 kW	3/4"	**0U3BCAXA**
SUN NGX120 (AB L-20)	3.52 - 12.07	13.5	35 - 120	230 V/ 50 Hz / single-phase	0.18 kW	3/4"	**0U3BCBXA**
SUN NGX200 (PR S-25)	4.02 - 15.09	11	40 - 150	230 V/ 50 Hz / single-phase	0.18 kW	1"	**0U3BDAXA**
SUN NGX200 (PR L-25)	4.02 - 15.09	11	40 - 150	230 V/ 50 Hz / single-phase	0.18 kW	1"	**0U3BDBXA**
SUN NGX280 (PR S-25)	6.04 - 19.11	16.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1"	**0U3BEAXA**
SUN NGX280 (PR L-25)	6.04 - 19.11	16.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1"	**0U3BEBXA**
SUN NGX280 (PR S-32)	6.04 - 19.11	15.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/4	**0U3BECXA**
SUN NGX280 (PR L-32)	6.04 - 19.11	15.5	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/4	**0U3BEDXA**
SUN NGX280 (PR S-40)	6.04 - 19.11	15	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/2	**0U3BEEXA**
SUN NGX280 (PR L-40)	6.04 - 19.11	15	60 - 190	230 V/ 50 Hz / single-phase	0.25 kW	1" 1/2	**0U3BEFXA**
SUN NGX350 (PR M-25)	6.54 - 26.15	24	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1"	**0U3BFAXA**
SUN NGX350 (PR M-32)	6.54 - 26.15	19	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/4	**0U3BFCXA**
SUN NGX350 (PR M-40)	6.54 - 26.15	17.5	65 - 260	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/2	**0U3BFEXA**
SUN NGX400 (PR M-25)	9.05 - 35.20	25	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1"	**0U3BGAXA**
SUN NGX400 (PR M-32)	9.05 - 35.20	15	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/4	**0U3BGCXA**
SUN NGX400 (PR M-40)	9.05 - 35.20	12	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	1" 1/2	**0U3BGEXA**
SUN NGX400 (PR M-50)	9.05 - 35.20	11.5	90 - 350	230 V/ 50 Hz / single-phase	0.37 kW	2"	**0U3BGGXA**
SUN NGX550 (PR S-32)	13.22 - 49.29	30	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/4	**0U3BHAXA**
SUN NGX550 (PR L-32)	13.22 - 49.29	30	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/4	**0U3BHBXA**
SUN NGX550 (PR S-40)	13.22 - 49.29	20	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/2	**0U3BHCXA**
SUN NGX550 (PR L-40)	13.22 - 49.29	20	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	1" 1/2	**0U3BHDXA**
SUN NGX550 (PR S-50)	13.22 - 49.29	14	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	2"	**0U3BHEXA**
SUN NGX550 (PR L-50)	13.22 - 49.29	14	132 - 490	230 V/ 50 Hz / single-phase	0.62 kW	2"	**0U3BHFXA**

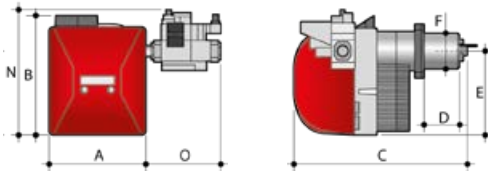
** Minimum gas pressure to obtain maximum burner output with 0 mbar pressure in the combustion chamber*
***AB:** Two-stage - **PR:** Progressive two-stage*

DIMENSIONS

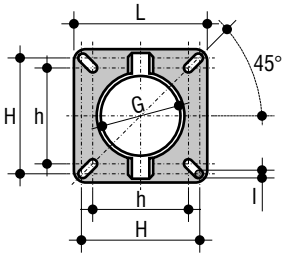
SUN NGX120 (AB)
SUN NGX200 (PR)



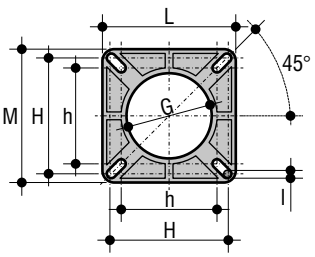
SUN NGX280 (PR)
SUN NGX350 (PR)
SUN NGX400 (PR)
SUN NGX550 (PR)



COUPLING FLANGE



SUN NGX120 (AB)
SUN NGX200 (PR)



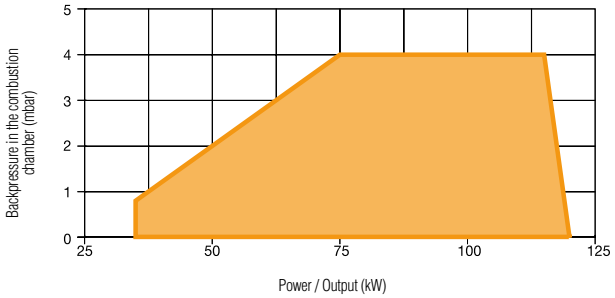
SUN NGX280 (PR) - SUN NGX350 (PR)
SUN NGX400 (PR) - SUN NGX550 (PR)

MODEL	A	B	C	D (min-max)	E	F	N	O	G	h - H	I	L	M
	mm	mm	mm	mm	mm	Ø mm	mm	mm	Ø mm	Ø mm	mm	mm	mm
SUN NGX120 (AB S-20)	373	340	581	85-170	245	108	560	-	128	108-158	M8	188	-
SUN NGX120 (AB L-20)	373	340	681	85-270	245	108	560	-	128	108-158	M8	188	-
SUN NGX200 (PR S-25)	373	340	581	85-170	245	115	560	-	134	108-158	M8	188	-
SUN NGX200 (PR L-25)	373	340	681	85-270	245	115	560	-	134	108-158	M8	188	-
SUN NGX280 (PR S-25)	396	491	754	163	-	113	508	200	164	131-179	M10	215	223
SUN NGX280 (PR L-25)	396	491	899	308	-	113	508	200	164	131-179	M10	215	223
SUN NGX280 (PR S-32)	396	491	754	163	-	113	508	200	164	131-179	M10	215	223
SUN NGX280 (PR L-32)	396	491	899	308	-	113	508	200	164	131-179	M10	215	223
SUN NGX280 (PR S-40)	396	491	754	163	-	113	517	330	164	131-179	M10	215	223
SUN NGX280 (PR L-40)	396	491	899	308	-	113	517	330	164	131-179	M10	215	223
SUN NGX350 (PR M-25)	396	491	778	178 or 308*	-	131	508	200	164	131-179	M10	215	223
SUN NGX350 (PR M-32)	396	491	908	178 or 308*	-	131	508	200	164	131-179	M10	215	223
SUN NGX350 (PR M-40)	396	491	778	178 or 308*	-	131	517	330	164	131-179	M10	215	223
SUN NGX400 (PR M-25)	396	491	798 + 19	198 or 308*	-	148	508	200	168	131-179	M10	215	223
SUN NGX400 (PR M-32)	396	491	798 + 19	198 or 308*	-	148	508	200	168	131-179	M10	215	223
SUN NGX400 (PR M-40)	396	491	798 + 19	198 or 308*	-	148	517	330	168	131-179	M10	215	223
SUN NGX400 (PR M-50)	396	491	798 + 19	198 or 308*	-	148	567	330	168	131-179	M10	215	223
SUN NGX550 (PR S-32)	426	533	874	253	384	168	543	245	198	157-192	M10	241	241
SUN NGX550 (PR L-32)	426	533	974	353	384	168	543	245	198	157-192	M10	241	241
SUN NGX550 (PR S-40)	426	533	874	253	384	168	553	318	198	157-192	M10	241	241
SUN NGX550 (PR L-40)	426	533	974	353	384	168	553	318	198	157-192	M10	241	241
SUN NGX550 (PR S-50)	426	533	874	253	384	168	603	318	198	157-192	M10	241	241
SUN NGX550 (PR L-50)	426	533	974	353	384	168	603	318	198	157-192	M10	241	241

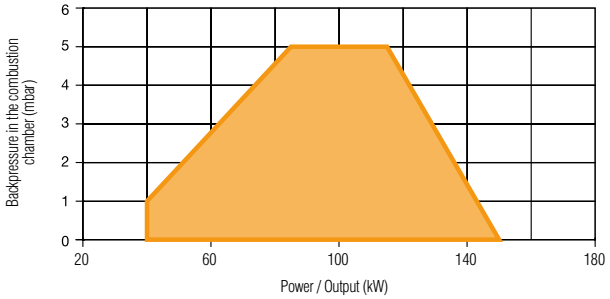
** Nozzle adjustable to 2 lengths*

OPERATION FIELD

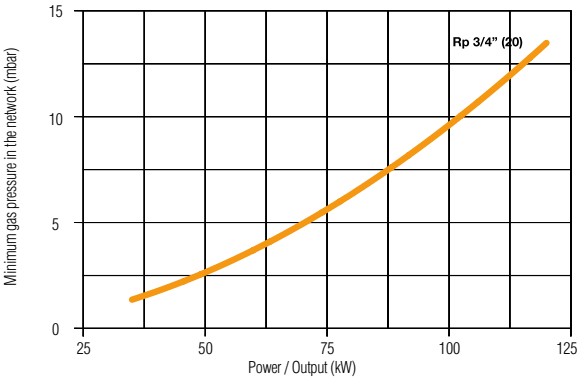
SUN NGX120 (AB)



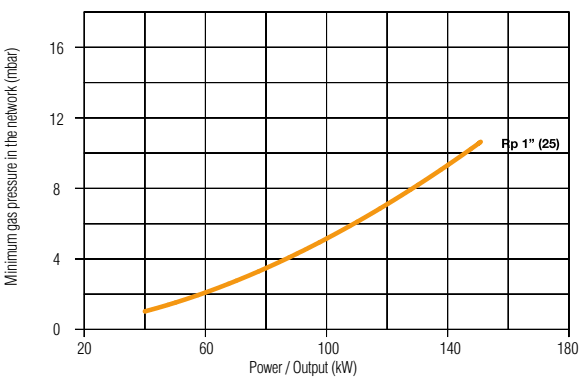
SUN NGX200 (PR)



SUN NGX120 (AB)

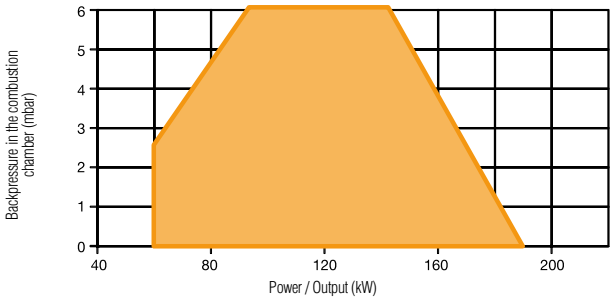


SUN NGX200 (PR)

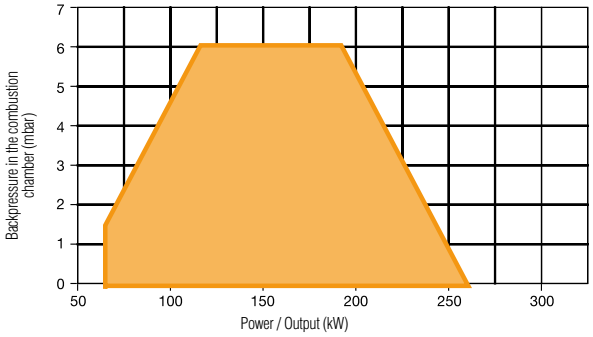


OPERATION FIELD

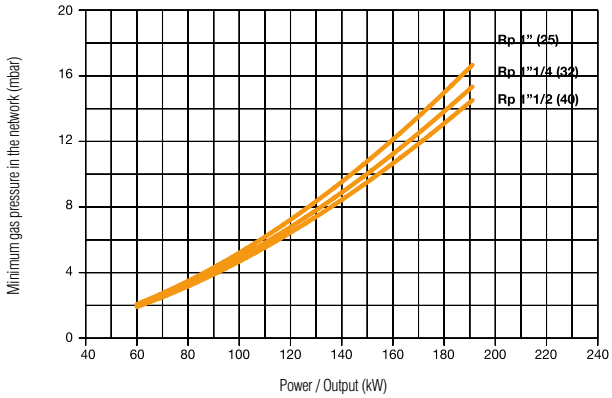
SUN NGX280 (PR)



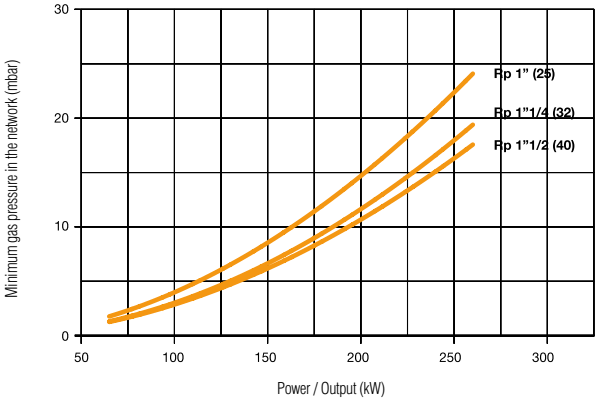
SUN NGX350 (PR)



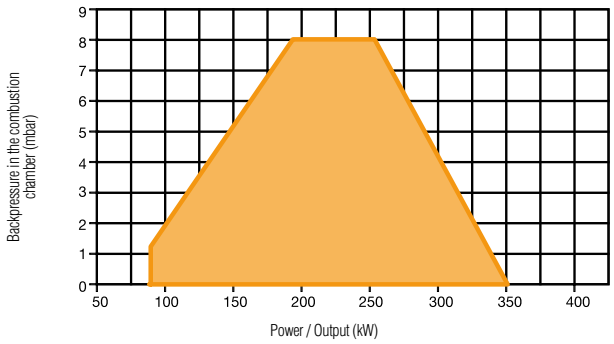
SUN NGX280 (PR)



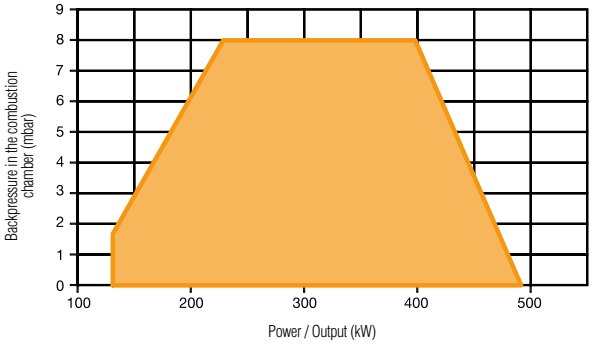
SUN NGX350 (PR)



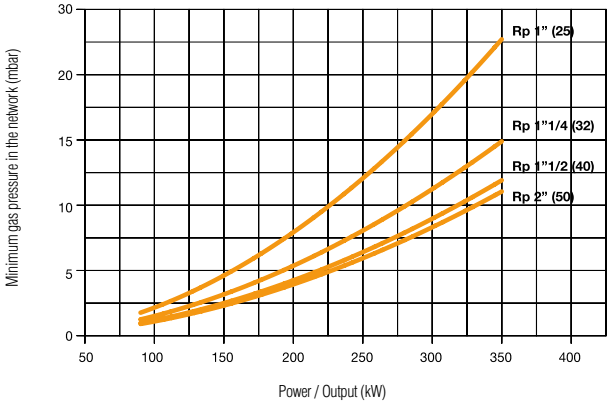
SUN NGX400 (PR)



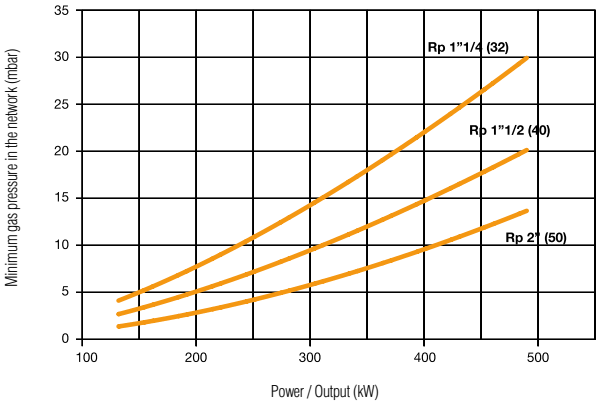
SUN NGX550 (PR)



SUN NGX400 (PR)



SUN NGX550 (PR)



SUN NGX ACCESSORIES

> MODULATION KIT

The regulator converts the progressive two-stage operation of the burner into modulating mode.
KIT COMPOSED OF: regulator, immersion temperature probe (0°C - 130°C), connection cables to the burner

CODE	DESCRIPTION
094002X0	TEMPERATURE REGULATOR AND PROBE

> SEALING CONTROL KIT

Compact valve sealing control system. The device operates according to the principle of pressure creation. The programmer starts up with heat request.
TECHNICAL CHARACTERISTICS: max operating pressure of 500 mbar, 230V - 50 Hz power supply, room temperature of -15°C to +70°C, consent time 10 - 26 sec, can be combined with models SUN EM 20-30-50-70

CODE	DESCRIPTION
094007X0	SEALING CONTROL KIT

WATER HEATERS

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

ZEFIRO ECO

LOW NOx GAS INSTANTANEOUS WATER HEATER
NATURAL DRAUGHT - OPEN FLUE

ERP

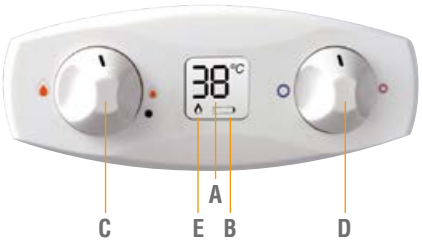
Gas water heater with open chamber and natural draught, with modulating heat power with emission of **LOW NOx flue gas - Class 6**

> 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

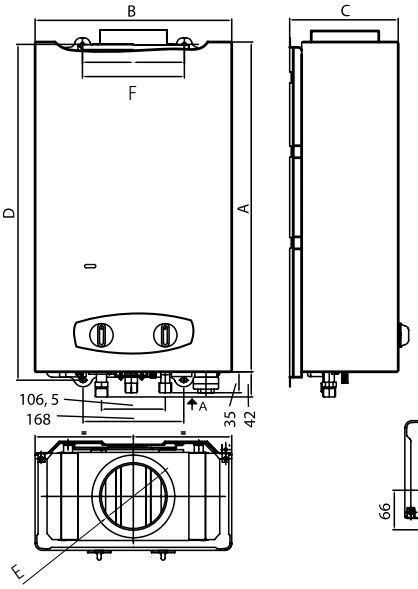
> ADVANTAGES OF ZEFIRO ECO:

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

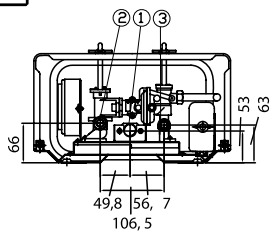


> KEY

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



VIEW FROM ABOVE

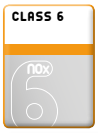


VIEW FROM BELOW

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"



MODEL			ECO 11	ECO 14
ERP Class		(Class G - A)	A	A
Declared load profile			M	M
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 Δt 30°C	l/min l/min	11.0 9.1	13.9 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

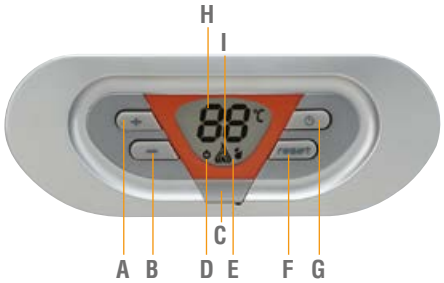
Gas water heater with sealed chamber, modulating heat power and electronic control of combustion with emission of **LOW NOx flue gas - Class 6**

> 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

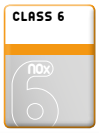
> ADVANTAGES OF SKY ECO F:

- 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



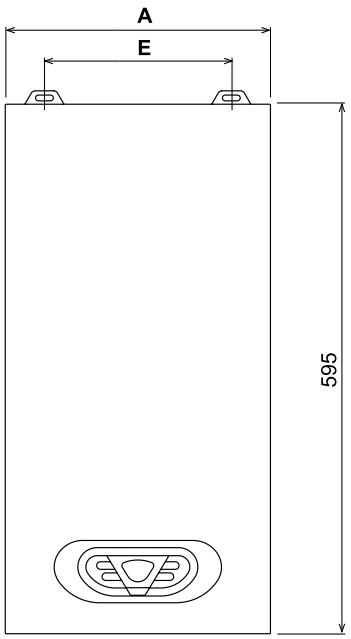
> KEY

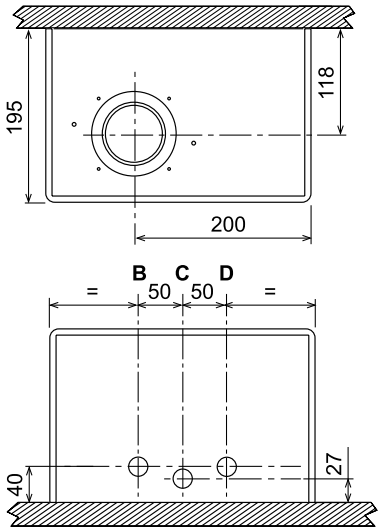
A Key to increase the domestic hot water temperature
B Key to decrease the domestic hot water temperature
C Service Tool connection
D OFF symbol
E DHW operation symbol
F Reset key
G Device on/off key
H Multifunction symbol
I Burner on symbol and current power level (Flashing during faulty combustion)



MODEL			ECO F 7	ECO F 10	ECO F 11	ECO F 12	ECO F 14	ECO F 17
ERP Class		(Class G - A)	A+	A+	A	A	A	A
Declared load profile			S	S	M	XL	XL	XL
Sound power level		dB	54	53	54	55	54	55
NOx emission		mg/kWh	43	33	34	28	36	39
Nominal heat flow rate	Max	kW	13.8	19.7	21.7	23.3	26.9	32.9
Output power	Max / Min	kW	12.4 / 4.9	17.8 / 7.6	19.5 / 5.5	20.9 / 7.6	24.2 / 9.5	29.6 / 11.6
Operating pressure	Max / Min	bar	10 / 0.2	10 / 0.2	10 / 0.2	10 / 0.2	10 / 0.2	10 / 0.2
Maximum DHW production	Δt 25°C / Δt 30°C	l/min	7.1 - 5.9	10.2 - 8.5	11.2 / 9.3	12.0 - 10.0	13.9 / 11.6	17.0 / 14.2
Range of temperature	Min / Max	°C	40 / 65	40 / 65	40 / 65	40 / 65	40 / 65	40 / 65
Empty weight		Kg	13.5	14	14	14	15	18
Electric power supply		V/Hz	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50	230 / 50
CODE		**NAT. GAS LPG**	**0DF92IAA 0DF92KAA**	**0DF93IAA 0DF93KAA**	**0DF94IAA 0DF94KAA**	**0DF96KAA 0DF96KAA**	**0DF95IAA 0DF95KAA**	**0DF97IAA 0DF97KAA**

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

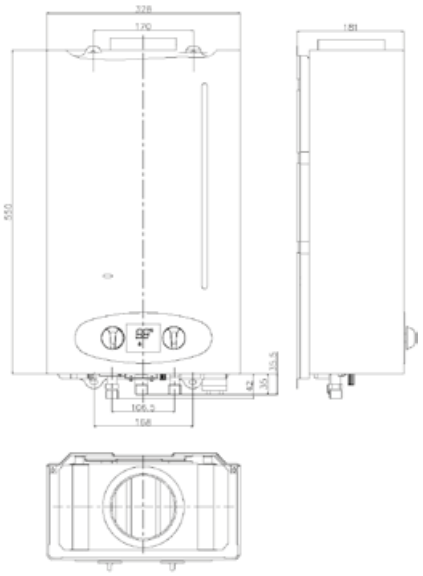
ZEFIRO D

INSTANTANEOUS GAS WATER HEATER, OPEN FLUE, ELECTRONIC IGNITION

- Hot water outlet: 11 Lt
- Gas type: LPG / NG
- Control: mechanic knobs
- Display: LCD

> MAIN FEATURES:

- Natural flue type
- Power and temperature selector
- LCD display to adjust temperature accurate
- Efficient combustion system
- Flue gas discharge control device
- Electronic ignition with flame detection by ionization
- Output regulation from 40% to 100%
- SOFT START device for progressive and silent ignition
- Safety device to protect against insufficient water pressure
- Also certified for operation on propane-air max gas (50% air - 50% G31)
- Startup with low water supply pressure
- Anti-freezing drain device / valve



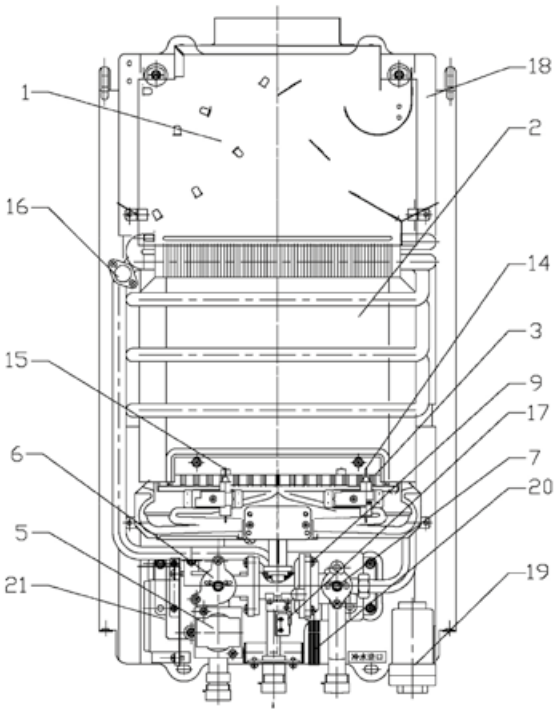
EXTRA EU

MODEL		11 D
Gas type		NG / LPG
Input power rating	kW	22
Output power rating (thermal load)	kW	18.9
Thermal efficiency	%	74.5
Power supply	v/Hz	3 Phase / 230 Volt
Height x Width x Depth	mm	550 x 328 x 181
Net weight	kg	9
Hot water yield Δt=25°C	kg/min	10.8
Water applicable pressure	bar	0.1-10
IP rating		IPX 5
Installation		Indoor wall mounted
Range of hot water regulation (±3°C)	°C	Δt=50°C
Minimum start-up flow	l/min	2.5
Gas rated pressure	pa	2800
Cold water inlet	Ø	G 1/2"
Hot water outlet	Ø	G 1/2"
Gas inlet	Ø	G 1/2"
CODE	**NAT. GAS**	**GCV1MBEA**

ZEFIRO

INSTANTANEOUS GAS WATER HEATER, OPEN FLUE, ELECTRONIC IGNITION

- Power and temperature selector
- Flue gas evacuation control device
- Electronic ignition with flame detection by **ionisation**
- Electronic, **battery** powered, ignition
- **Modulating** gas valve, activation upon double signal
- Output regulation from 40% to 100%
- SOFT START device for **progressive and silent ignition**
- Extremely easy installation and maintenance
- Safety device for protection against insufficient water
- Certified also for operation with **butane** (G30) or **LPG** (G31)



KEY

1 draugh diverter
2 heat exchanger
3 burner
5 gas valve
6 power adjustment knob
7 temperature selector
14 ionisation electrode
15 ignition electrode
16 limit thermostat
17 ignition microswitch
18 flue gas control device
19 battery box
20 water relief valve
21 control board

EXTRA EU

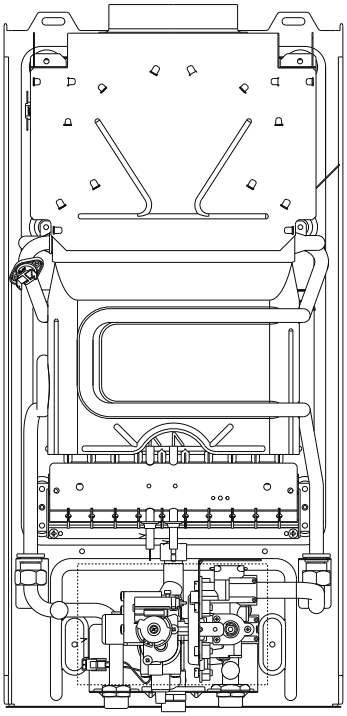
MODEL			5	11
Heat input	Max	kW	10,1	21,1
Heat output	Min	kW	3,6	7,1
	Max	kW	8,9	18,9
Operating pressure	Max	bar	10	10
DHW flow rate	Δt 25°C	l/min	5,1	10,8
	Δt 50°C	l/min	2,6	5,4
DHW set point	Min	°C	40	40
	Max	°C	65	65
Dimensions	WxHxD	mm	280x455x130	328x550x130
CODE	**NAT. GAS**		**GCI1GCKF**	**GCT1MBAA-01**

ARGOS C 11 B

WALL-HUNG INSTANTANEOUS GAS WATER HEATER, OPEN FLUE, BATTERY IGNITION

- Very **compact** dimensions
- Compact heat exchanger made completely of copper, protected by an atoxic aluminium coating, inside a cooled combustion chamber
- Wide range of temperature regulation
- Certified also for operation with **butane** (G30) or **LPG** (G31)
- **Graphic display** indicating temperature, battery charge level, burner status
- **Operated by 2 X 1,5V, type «A» batteries**, located in a box easily accessible from the bottom of the water heater
- Double knob for **output selection and temperature setting**
- Burner in stainless steel, specially shaped for silent operation
- Ready for domestic hot water production **in combination with solar collectors systems**

SCHEME



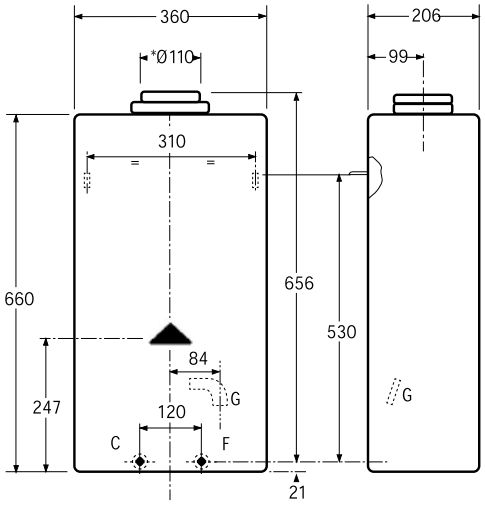
EXTRA EU

FUNCTION SUN EASY

MODEL			C 11 B
Heat input	Max	kW	21,7
Heat output	Min	kW	7,1
	Max	kW	19,2
Working pressure	Max	bar	10
DHW flow rate	Δt 25°C	l/min	11
	Δt 50°C	l/min	5,5
DHW set point	Min	°C	40
	Max	°C	65
Empty weight		kg	11
Dimensions	WxHxD	mm	295x595x195
CODE	**NAT. GAS**		**0AF64IJA**

ARGOS INSTANTANEOUS GAS WATER HEATER, OPEN FLUE, WITH PILOT FLAME

- **Burner.** To adapt it to different gases, it is sufficient to exchange the injectors. (With stainless steel heads specially designed for the combustion of butane/propane and natural gases)
- Piezoelectric front igniter
- Temperature and power selector switch
- **Special hydraulic arrangement.** It automatically activates the water heating mechanisms whenever a hot water tap is opened. It is also SAFE, since it opens the passage of gas to the burner only when water flows through the heat exchanger.
- **Built-in flue draught extractor.** It ensures a correct combustion, whatever the variation of the draught in the exhaust duct (chimney). A safety device stops the unit in the event of abnormal flue evacuation.
- **Ignition safety valve.** Thermo-electric system, which allows the gas to flow in the burner only when the pilot flame is ignited.
- Automatic water flow regulator
- Flexible hot water connection



C Hot water outlet: R 1/2".
F Cold water inlet: R 1/2".
G1 Butane/propane inlet: Ø 12 mm ext.
G2 Natural gas inlet: Ø 12 mm ext.
***** **Ø** Interior Ø

EXTRA EU

MODEL			5	10
Nominal consumption	Nominal	kW	10	20,7
Useful power	Nominal	kW	8.29	17,4
Water flow and temperature	40°C (ΔT = 25°C) 65°C (ΔT = 50°C)	l/min l/min	4.8 2.4	10 5
Maximum water pressure		bar	10	10
Dimensions	LxHxP	mm	248x588x206	360x660x206
CODE	**NAT. GAS**		**0AF61IJA**	**0AF63IJA**

TITANO SMART BF

ERP

MID CAPACITY ELECTRIC WATER HEATERS
ENERGY SAVER

Electrical water heaters with extremely high efficiency storage, vertical and horizontal configuration with **50 to 150-litre capacity.**

> EQUIPPED WITH:

- **''SMART''** electronic control able to optimise consumption according to user requirements
- Control panel with **LED lights** for reading the operating temperatures and operating status and convenient **keys** for managing the water heater
- Ultra high performing **"Blue Forever"** electrical heating elements featuring a special surface treatment that almost entirely reduces limescale build-up on the element for optimal operation over time
- Magnesium anode tank protection
- **5-bolt** flange to guarantee sturdiness and easy periodic maintenance
- Safety valve calibrated to 8 bar
- Supplied with three-pole electric cable without plug

VERSIONS:
***VE** - vertical, **HO** - horizontal*
CABLE / PLUG as option
Elements: 0.8 - 2 kW

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.

> KEY

1. Status signal LED:
   Green LED: Electrically powered storage tank
   Red LED: Storage tank in DHW production
   Flashing green LED: Antilegionella
2. On /Off switch
3. Parameter decrease key
4. DHW temperature indicator LED
5. Parameter increase key
6. SMART mode activation key
7. SMART mode indicator LED (red)

BLUE FOREVER

MODEL		50 SVE BF	80 SVE BF	100 SVE BF	120 SVE BF	150 SVE BF	50 SHO BF	80 SHO BF	100 SHO BF	120 SHO BF	150 SHO BF
Load profile		M	M	M	L	L	M	M	M	L	L
ERP Class	(Class G - A)	B	B	B	C	C	B	B	B	C	C
Tank capacity	l	50	78	100	120	130	50	78	100	120	130
Electrical power	W	1500	1500	1500	1500	1500	1200	1200	1500	1500	1500
Heating time	20+55°C	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
Mixed water at 40°C (V40)	l	65	120	160	235	240	68	120	160	220	230
Height VE / Width HO	mm	555	755	995	1130	1175	565	640	755	995	1130
Max diameter	mm	438	438	438	438	438	438	438	438	438	438
Empty weight	Kg	14	19	22	35	35	14	19	22	35	35

TITANO BF

MID CAPACITY ELECTRIC WATER HEATER

ERP

- Temperature control by mechanical thermostat
- High-concentration magnesium anode to protect the tank
- **Five bolt flange** to ensure sturdiness and easy periodical maintenance
- Unbreakable thermometer in ABS
- On/off light
- Pressure relief valve set to 8 bars
- Manual outside **temperature adjustment** (vertical model)
- **"Blue Forever" heating** element. Its surface is treated through a special patented process, which permits drastical reduction of limestone deposits

BLUE FOREVER

THE SCALING ENEMY

The element is enameled with Bluesilicon, a unique patented treatment, offering extra qualities such as:
- Drastically reducing the limestone deposit, which substantially shortens the life span of the element
- Top efficiency of the element for a longer period
- Maintaining the high performance throughout the life span of the element
- Extended Ferroli warranty on the element

VERSIONS:
VE *- vertical,* ***HO*** *- horizontal*
CABLE / PLUG *as option*
Elements: *0.8 - 2 kW*

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.

LONG TERM TEST

Standard element

BLUE FOREVER element

FERROLI PATENT

BLUE FOREVER

VERTICAL EXECUTION			50 VE/RE	80 VE/RE	100 VE/RE	120 VE/RE	150 VE/RE
DHW tapping profile			M	L	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35°C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45°C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

HORIZONTAL EXECUTION			50 HO	80 HO	100 HO	120 HO	150 HO
DHW tapping profile			M	M	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35°C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45°C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

CALYPSO

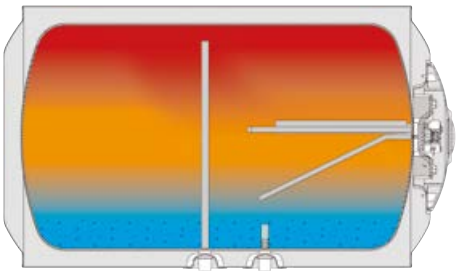
ERP

MID CAPACITY
ELECTRIC WATER HEATER

- **Five bolt flange** of wide diameter, to ensure sturdiness and easy periodical maintenance
- Various models with capacity from 50 to 150 litres, both vertical and horizontal
- Five bolts flange element
- Temperature control through mechanical thermostat with probe
- Magnesium anode to protect the tank
- Temperature level indicator
- On/off light indicator
- Pressure relief valve set to 8 bar
- Manual external **temperature adjustment** (vertical model)

VERSIONS:
***VE** - vertical, **HO** - horizontal*
***CABLE / PLUG** as option*
***Elements:** 0.8 - 4 kW - copper/stainless steel*

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.



HORIZONTAL
Recommended in confined spaces like false ceilings

VERTICAL
Maximum stratification. Withdrawal of hot water from the warmest point in the tank

VERTICAL EXECUTION			50 VE/RE	80 VE/RE	100 VE/RE	120 VE/RE	150 VE/RE
DHW tapping profile			M	L	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35° C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45° C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

HORIZONTAL EXECUTION			50 HO	80 HO	100 HO	120 HO	150 HO
DHW tapping profile			M	M	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35° C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45° C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

CALYPSO ECO

ERP

MID CAPACITY
ELECTRIC WATER HEATER

- The element is **screw-fixed** together with the magnesium anode, to the tank
- Various models with capacity from 50 to 150 litres, both vertical and horizontal
- Container internally enameled with Titanium Bluesilicon process
- Temperature level indicator
- On/off light indicator
- Pressure relief valve set to 8 bar

VERSIONS:
VE *- vertical,* ***HO*** *- horizontal*
CABLE / PLUG *as option*
Elements: *0.8 - 4 kW - copper/stainless steel*

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.

REGULATION

INTERNALThrough the internal knob, removing the plastic cover. It is however factory pre-set in order to get maximum possible efficiency (EU regulation 812/2013). A proper setting ensures a high water flow at mixed 40°C temperature. Factory adjustment depends on volume and execution of the heater. 60°C preset on VG 100÷150 and HO 80, 70°C on the others.

VERTICAL EXECUTION			50 VG	80 VG	100 VG	120 VG	150 VG
DHW tapping profile			M	L	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35° C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45° C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

HORIZONTAL EXECUTION			50 HO	80 HO	100 HO	120 HO	150 HO
DHW tapping profile			M	M	L	L	L
ERP Class	(G - A Class)		C	C	C	C	C
Capacity		litres	50	80	100	120	150
Power		W	1500	1500	1500	1500	1500
Heating time	ΔT 35° C	minutes	1 h 26'	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	ΔT 45° C	minutes	1 h 51'	2 h 58'	3 h 42'	4 h 27'	5 h 34'
Weight		Kg	16	20,5	25	28,5	29,5

CALYPSO MT

ERP

MID CAPACITY ELECTRIC WATER HEATER WITH AUXILIARY COIL

- **Multi-energy** water heater: includes a **copper** electric heating element and **coil** for indirect heating from a external source
- Electric or auxiliary heating can operate individually or simultaneously
- Horizontal execution or vertical one, the latter available with 2 or 6 coils exchanger
- High-concentration magnesium anode to protect the tank
- **Five bolt flange to ensure sturdiness and easy periodical maintenance**
- Pressure relief valve set to 8 bar
- Manual outside temperature adjustment (vertical model)
- Hydraulic connections for auxiliary heating can be on the right on left side of the appliance
- Combined heating system through electric heater and auxiliary coil represent the quickest solution to heat DHW
- Mixed water heater is a flexible solution, which permits the user to choose, in **winter period, between quick combined operation, or economic mode exploiting only the auxiliary coil, fed by an external heating source**

VERSIONS:
VE *- vertical,* ***HO*** *- horizontal*
CABLE / PLUG *as option*
Elements: *0.8 - 4 kW - copper/stainless steel*

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.

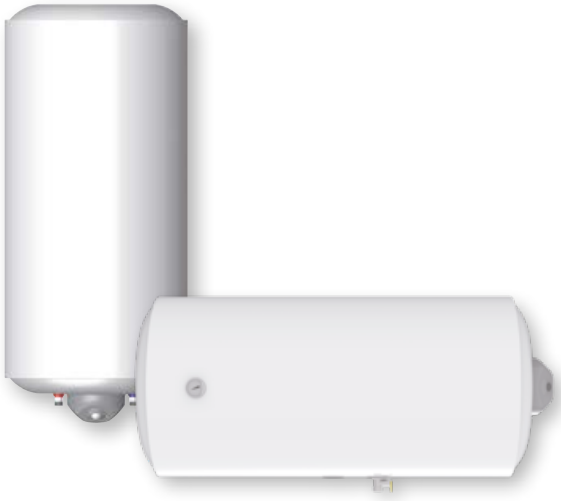
CALYPSO MT	Mod.	VERTICAL 2 COILS				VERTICAL 6 COILS EXCHANGER			
		80	100	120	150	80	100	120	150
DHW tapping profile		M	L	L	L	L	M	M	L
ERP Class	(G - A Class)	C	C	C	C	C	C	C	C
Capacity	litres	80	100	120	150	80	100	120	150
Coil surface	m^2	0,15	0,15	0,15	0,15	0,4	0,4	0,4	0,4
Electric power	W	1500	1500	1500	1500	1500	1500	1500	1500
Heating time ΔT 35°C	electric	2 h 18'	2 h 53'	3 h 28'	4 h 19'	2 h 18'	2 h 53'	3 h 28'	4 h 02'
	thermic	59'	1 h 14'	1 h 29'	2 h 10'	21'	26'	31'	39'
Weight	kg	24	28,5	32	33	26,5	31	34,5	35,5

CALYPSO MT	Mod.	HORIZONTAL 2 COILS EXCHANGER			
		80	100	120	150
DHW tapping profile		M	L	L	L
ERP Class	(G - A Class)	C	C	C	C
Capacity	litres	80	100	120	150
Coil surface	m^2	0,15	0,15	0,15	0,15
Electric power	W	1500	1500	1500	1500
Heating time ΔT 35°C	electric	2 h 18'	2 h 53'	3 h 28'	4 h 19'
	thermic	59'	1 h 14'	1 h 29'	2 h 10'
Weight	kg	20,5	25	28,5	29,5

CALYPSO XL

ERP

ELECTRICAL WATER HEATERS
COMMERCIAL RANGE

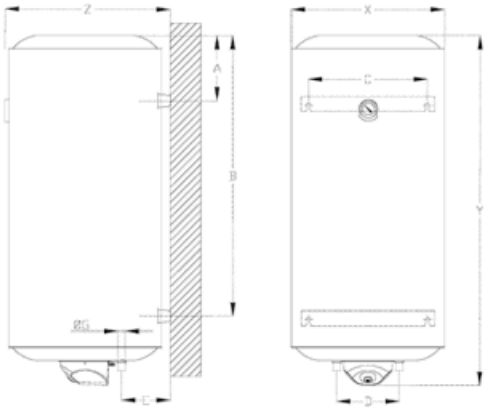


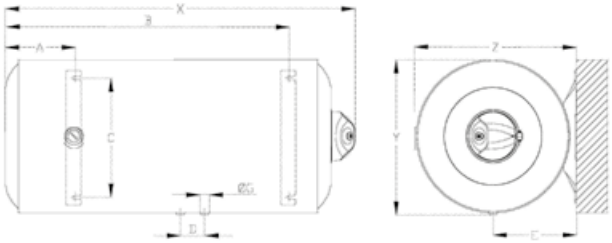
CALYPSO XL covers the needs of big residential plants or commercial applications for collective leisure, restauration, lodging facilities.

- Copper element
- Range: Model 200 litres - vertical / horizontal
- Internal regulation
- Setpoint temperature can be modified through the internal knob, removing the plastic cover.
- It is however factory pre-set in order to get maximum possible efficiency according to European regulation 812/2013.
- A proper setting ensures a high water flow at mixed 40°C temperature.
- Vertical model is adjusted at 70°C whereas the horizontal one at 60°C
- Oversize thermal insulation (33 mm)
- 5 bolts flange

VERSIONS:
VE *- vertical,* ***HO*** *- horizontal*
CABLE / PLUG *as option*

For all the models some customized version might be available on request, subject to minimum order quantity, for this refer to your sales representative.





WALL-HUNG EXECUTION			200 V	200 H
Dimensions	X	mm	565	1253
	Y	mm	1253	565
	Z	mm	592	592
	A	mm	195	195
	B	mm	1035	1035
	C	mm	440	265
	D	mm	230	140
	E	mm	175	310
	F	mm	-	595
	G	inches	3/4"	3/4"
Capacity		litres	200	200
Power (standard element)		W	2400	2400
Heating time	ΔT 35°C	minutes	3 h 36'	3 h 36'
	ΔT 45°C	minutes	4 h 38'	4 h 38'
Weight		Kg	51	51

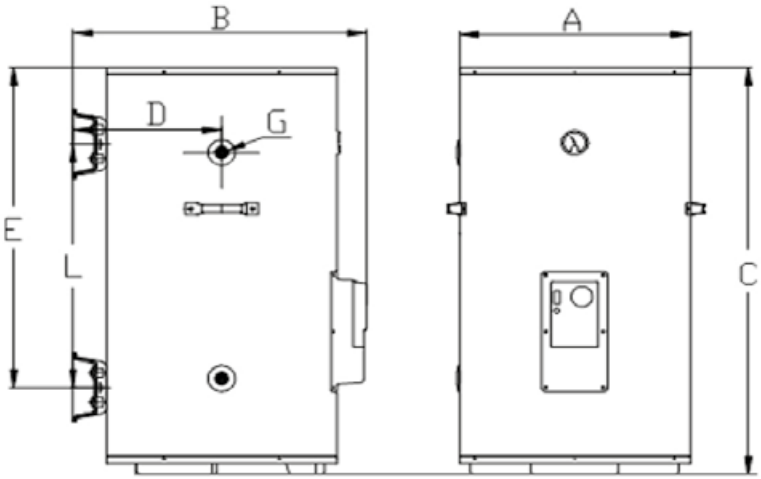
HE 150-300

BIG CAPACITY EHW
SINGLE TANK FLOOR STANDING 1 SERIES

- Capacity: 150, 200, 300L
- Power
  150L (1.5 kW) (Floor standing)
  200L (3 kW) (Floor standing)
  300L (4 kW) (Floor standing)
- Interface: thermometer
- Control: product body control

MAIN FEATURES

- High efficiency stainless steel heating element
- Health blue silicon coating
- Glasslined tank
- Large and double magnesium anode
- Unique design of Mg installation
- Drain pipe
- Extra TP valve (optional)
- Power indicate led
- Temperature setting



MODELS	Litres	Product dimensions (mm)								Net weight	Gross weight	Carton box dimension	20 GP	40 GP
	lt	A	B	C	D	E	F	G	H	kg	kg	mm	PCS	PCS
HE-150	150	ø 581	664	875	258	220	385	G 3/4"	-	52	58	684 x 684 x 925	68	180
HE-200	200	ø 581	664	1095	258	220	605	G 3/4"	-	60	68.0	684 x 684 x 1145	48	119
HE-300	300	ø 581	664	1525	258	220	1035	G 3/4"	-	76	86.0	684 x 684 x 1574	35	75

EXTRA EU

MODEL		HE-150	HE-200	HE-300
Capacity	lt	150	200	300
Heating element	W	3000	3000	5000
	material	stainless steel		
Thermostat	-	capillary		
Power cable	-	no		
CODE		**GRA3000A**	**GRA4300A**	**GRA6300A**

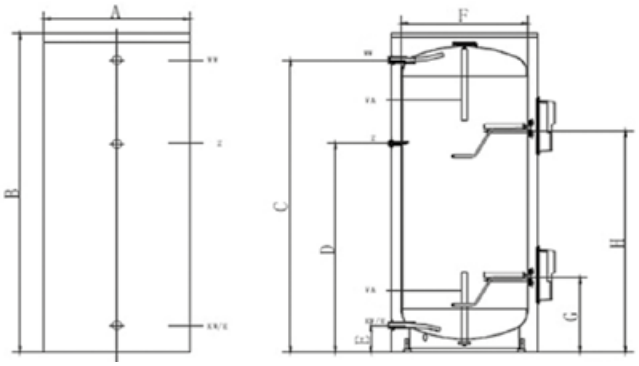
HE 400-500

BIG CAPACITY EHW
HALF AND FULL TANK HEATING

- Capacity: 400, 500L (Floor standing)
- Power: 3 kW + 3 kW
- Interface: thermometer
- Control: product body control

MAIN FEATURES

- Half and full tank heating, via single or double element operation
- 50 mm insulating layer
- High efficiency stainless steel heating element
- Health blue silicon coating
- Glasslined tank
- Large and double magnesium anode
- Unique design of mg installation
- Drain pipe
- Extra TP valve (optional)
- Power indicate led
- Temperature setting



MODELS	Litres	Product dimensions (mm)								Net weight	Gross weight	Carton box dimension	20 GP	40 GP
	lt	A	B	C	D	E	F	G	H	kg	kg	mm	PCS	PCS
HE-400	400	ø 750	1469	1319	930	148	650	410	930	81	145.0	833 x 833 x 1590	14	28
HE-500	500	ø 750	1769	1619	1236	148	650	410	1236	102	169.0	833 x 833 x 1890	14	28

EXTRA EU

MODEL		HE-400	HE-500
Capacity	lt	400	500
Heating element	W	3000	3000
	material	stainless steel	
Thermostat	-	capillary	
Power cable	-	no	
CODE		**GRA7400A**	**GRA8400A**

BRAVO

ELECTRICAL WATER HEATERS
SMALL LITRE CAPACITY

ERP

- Range of 5 models with 10, 15 and 30 litre capacities
- 10 and 15-litre models available in versions for installation over and under the sink

> EQUIPPED WITH:

- Stainless steel electrical heating elements
- Glass-porcelain storage tank
- High concentration magnesium anode
- External temperature regulator
- Plastic external casing
- Capillary temperature-control thermostat

**** UNDER SINK***

MODEL		SN 10	SN 10 S*	SN 15	SN 15 S*	SN 30
Load profile		XXS	XXS	XXS	XXS	S
ERP Class	(Class G - A)	B	B	B	B	C
Tank capacity	l	10	10	15	15	30
Electrical power	W	1500	1500	1500	1500	1500
Heating time	20+55°C	24min	25min	35min	35min	68min
Protection rating	IP	24	24	24	24	24
Empty weight	Kg	6.5	6.5	7.8	7.8	11.5

NOVO

ELECTRICAL WATER HEATERS
SMALL LITRE CAPACITY

ERP

- Range composed of 2 models with 5 and 10-litre capacity both available in versions over and under-sink

> EQUIPPED WITH:

- Stainless steel electrical heating elements
- Glass-porcelain storage tank
- HIgh concentration magnesium anode
- External temperature regulator with LED reporting when the set-point is reached
- Capillary temperature-control thermostat

**** UNDER SINK***

MODEL		5	5 S*	10	10 S*
Load profile		XXS	XXS	XXS	XXS
ERP Class	(Class G - A)	B	B	B	B
Tank capacity	l	5	5	10	10
Electrical power	W	2000	2000	2000	2000
Heating time	20+55°C	10min	10min	19min	19min
Empty weight	Kg	4.5	4.5	6.5	6.5

RITA FS DE

INSTANTANEOUS ELECTRIC WATER HEATER

EXTRA EU

- Red copper heating element, inside glassfiber box
- Power level automatically managed by temperature sensor and PCB
- Lcd indicates shower duration, advises flow reduction need, advises shower head cleaning
- Overheating protection
- Self diagnosis
- Hidden electric installation
- Range: 3,0 kW / 5,0 kW / 7,5 kW / 8,5 kW / 10,0 kW / 12,0 kW

MODEL	RITA FS DE
Power	220 ~ 240 Vac, 50/60 Hz
Protection	IP24
Min. water flow rate	1,6 - 1,8 lts/min
Water pressure	0,3 - 8 bar
Max temperature	52°C
Plumbing connections	1/2”
Product dimension H x W x D	280 x 177 x 95 mm

MITO SMD

INSTANTANEOUS ELECTRIC WATER HEATER

EXTRA EU

- Copper heating element
- Seven work mode
- Color screen LED display
- ELCB device for extra electric protection (optional)
- Self diagnosis
- Low water pressure starting
- Hidden electric installation
- Range: 5,0 kW / 6,5 kW / 7,7 kW / 8,5 kW

MODEL	MITO SMD
Power	220 ~ 240 Vac, 50/60 Hz
Protection	IP24
Min. water flow rate	1,8 lts/min
Water pressure	0,3 - 6 bar
Plumbing connections	1/2”
Product dimension H x W x D	280 x 177 x 94,5 mm
Weight	1,85 kg

AMORE

INSTANTANEOUS SLIM ELECTRIC WATER HEATER

MOD. GSN

MOD. GSP

MOD. GDP

- Luxury black glass
- Elcb (Earth Leakage Circuit Breaker)
- Energy saving
- Multiple protections
- WxHxD = 240 x 360 x 75mm
- Power: 4500 w - 220-240v/50hz

AMORE MOD. GSN
- Control: power selector
- Temperature stabilizer
- Flow switch sensor
- Splash proof
- Thermal safety cut-out

AMORE MOD. GSP
- Control: power selector
- Temperature stabilizer
- Flow switch sensor
- Splash proof
- Thermal safety cut-out
- Super silent pump
- Booster pump

AMORE MOD. GDP
- Control: touch button
- Electronic control 4 memory setting
- Colorful led display
- Temperature dtabilizer
- Splash proof
- Thermal safety cut-out
- Super silent pump
- Booster pump

MINI

INSTANTANEOUS ELECTRIC WATER HEATER

- Compact tankless electric water heater, 220~240 Vac, 50/60 Hz
- Instant production of DHW. Supplied flow depends on ΔT required (cold water temperature) and viceversa
- Power settable in 3 steps
- Simple analogue, mechanichal operation, via regulation/safety thermostat, pressure/flow switch, ignition microswitches

MODEL		DFF-KAM 3.0S	DFF-KAM 5.0S	DFF-KAM 5.5S
Load profile		XS	XS	XS
ERP Class	(Class G - A)	B	B	B
Power	kW	3 kW (1+2)	5 kW (2+3)	5.5 kW (2.5+3)
Min waterflow rate	l/min	1.8		
Water pressure min/max	bar	0.8 ÷ 6		
Water connection	Ø mm	15 mm (1/2" BSP)		
Weight	kg	1.5		

SYSTEM COMPONENTS

Products in this chapter are not involved at all in ERP regulation, or are marginally involved. As a consequence they can be freely installed in EU, upon respect of local laws.

TEMPERATURE CONTROLS BASIC FOR ALL MODELS OF BOILERS

BRIDGE *
Receiver for Wireless version

> OSCAR W (ON/OFF PROGRAMMABLE THERMOSTAT)

- **Weekly** programming, max 6 periods a day
- Preset standard program, which can be completely customised
- Manual mode available
- Relay with voltage-free contact (24 to 230 V)
- Operated by 2xAA type batteries
- Extra functions for all models: **pump anti-seize, pre-heating, holiday**, **week-end**, **party**
- Phone contact input, for remote boiler switch on/off
- Model **RF** features **wireless** transmission to boiler's control board

COMPATIBILITY
Opentherm-ready boilers /
ON-OFF operated boilers / SUN P N

CODE	DESCRIPTION
013110XA	**OSCAR W - WIRED PROGRAMMABLE THERMOSTAT** WEEKLY PROGRAMMING
013111XA	**OSCAR W RF - WIRELESS PROGRAMMABLE THERMOSTAT** WEEKLY PROGRAMMING

TEMPERATURE CONTROLS EVOLVED ONLY FOR BOILERS THAT CAN BE COMBINED WITH REMOTE CONTROL

AX5200SQ

> CASCADE CONTROLLER

- this can manage a cascade of one to five boilers
- the request to switch on the individual modules is made through a direct communication bus with the individual boilers
- the operating power of each boiler is managed directly by the regulator according to the load required by the system
- through the outdoor probe it can manage the flow temperature compensation of the heating system
- the kit consists of a regulator, an external temperature probe and a probe for the system flow temperature

CODE	DESCRIPTION
1KWMH18A	**CASCADE MODULE CONTROL UNIT**

FZ4 B

> FZ4 B ZONING CONTROLLER

- board for systems with zones (max 3) two of which are mixed and one is direct, operating in combination with both modulating control timers and ON/OFF programmable thermostats
- it manages delivery temperatures that are sliding and differentiated between the zones

CODE	DESCRIPTION
013013X0	**FZ4 B BOARD FOR SYSTEMS WITH ZONES**

TEMPERATURE CONTROLS EVOLVED

ONLY FOR BOILERS THAT CAN BE COMBINED WITH REMOTE CONTROL

Control

RF/Wifi receiver

> CONNECT wifi modulating remote control with programmable thermostat function

- Remote control to **manage comfort in the home even from Smartphone** .
- Connection to the home WiFi network for internet access through the supplied RF/WiFi receiver.
- **CONNECT APP** available for switching the boiler on and off and managing home comfort for heating/DHW via remote control from Smartphone (iOS and Android)
- With the APP it is possible to remotely control boilers in «evolved» mode via the OpenTherm connection and in «basic» mode through the ON/OFF connection.
- Modulating regulation of the delivery temperature with ambient climatic compensation, for boilers connected via OpenTherm («evolved»).
- Modulating regulation of the delivery temperature with climatic compensation through external temperature (detected by the internet or by an optional outdoor probe), for boilers connected via OpenTherm («evolved»).
- **It improves the average seasonal efficiency in room heating by +4%** if combined with boilers via the OpenTherm connection.
- Room regulation with ON/OFF programmable thermostat operation, for boilers connected via on/off («basic»)
- Weekly hourly programming in 30-minute intervals (via APP CONNECT).
- **Reading of the external temperature from the internet** (via APP CONNECT) or from an optional outdoor probe (if installed)
- Alarm display also through CONNECT APP
- Operating mode: Off, Holiday, Automatic, Manual.
- Three modifiable temperature levels: Comfort, Economy, Antifrost
- Battery status indicator (also from APP CONNECT)
- Supplied material: 2 x 1.5V AAA batteries, table stand, 230 Vac power supply unit, boiler connection USB cable, set of wall fixing screws, user manual.

CODE	DESCRIPTION
013010XA	**WIFI MODULATING REMOTE CONTROL WITH PROGRAMMABLE THERMOSTAT FUNCTION**

BRIDGE *

Receiver for Wireless version

> ROMEO W (MODULATING REMOTE CONTROL)

- **weekly** programming, max 6 periods per day
- heating delivery and domestic hot water temperature settings
- external temperature display and possibility of working at sliding temperature with outdoor probe (optional)
- modulation of the delivery temperature according to the room temperature
- boiler on - off - reset
- phone contact input
- Models: **W** wired - **W RF** with Wireless transmitter
- A+ SYSTEM: **Romeo** and the **outdoor probe**, combined with a **Ferroli boiler** with seasonal efficiency η_s 94%, constitute a heating system with **labelling A+** (scale from G to A +++)

CODE	DESCRIPTION
013100XA	**ROMEO W - WIRED REMOTE CONTROL** WEEKLY PROGRAMMING
013101XA	**ROMEO W RF - WIRELESS REMOTE CONTROL** WEEKLY PROGRAMMING

Ferroli Boiler	Connect / Romeo	Outdoor probe	System energy class A+

RADIATORS

Products in this chapter are not involved at all in ERP regulation, or are marginally involved. As a consequence they can be freely installed in EU, upon respect of local laws.

PROTEO - PROTEO HP

PRE-CAST ALUMINIUM RADIATORS

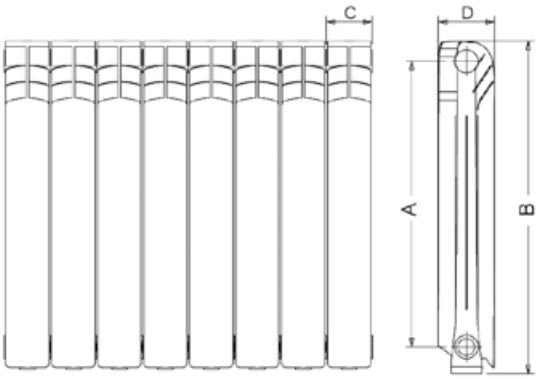
PROTEO

PROTEO HP

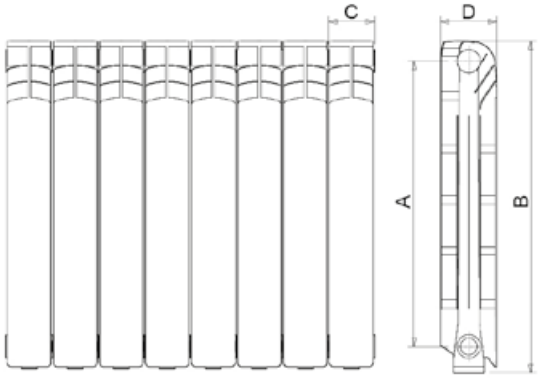
> PRODUCT FEATURES

- Pre-cast aluminium radiators assembled with nipples and gaskets in sets of 4 to 10 elements
- Painted white (RAL 9010)
- A careful study of the shapes has made it possible to obtain particularly effective convective exchange fins, with one of the highest thermal efficiencies on the market.
- The packaging consists of four corner pieces in thick cardboard, protected by a heat-shrinkable nylon cover. IT was designed to be able to install the radiator without removing the cardboard corners in order to protect it until the work is completed.
- The HP models (600 and 700) are built with a reinforced structure capable of running at high operating pressures, up to a maximum of 16 bar.

PROTEO



PROTEO HP



** only mod. HP*

PRESSURE MAX 16 BAR *

MOD.	HEAT OUTPUT			EXPONENT	CONSTANT	MAX OPERATING PRESS.	WATER CONTENT	CONNECTION CENTRE DISTANCE	HEIGHT	WIDTH	DEPTH	CONNEC-TIONS
	Δt 30K	Δt 40K	Δt 50K					A	B	C	D	
	Watt/el	Watt/el	Watt/el	n	k_m	bar	litres/el.	mm	mm	mm	mm	inches
PROTEO 450	47.4	69.0	92.0	1.30565	0.558700	6	0.310	350	431.0	80	100	1
PROTEO HP 600	55.8	81.1	106.6	1.29670	0.678240	16	0.320	500	581.5	80	100	1
PROTEO HP 700	64.9	94.2	125.7	1.29403	0.795932	16	0.354	600	681.5	80	100	1
PROTEO 800	81.0	119.6	161.0	1.35387	0.810530	6	0.500	700	781.0	80	100	1
PROTEO 900	86.9	126.8	170.0	1.31409	0.995242	10	0.520	800	881.0	80	98	1

NB: For the chemical-physical characteristics of the water in the thermal circuit, strictly observe standard UNI 8065
Thermal missions in WATT (according to standard EN 442 with ΔT=50°C) - Characteristic equation of the model: $\varnothing = K_m \times (\Delta T)^n$

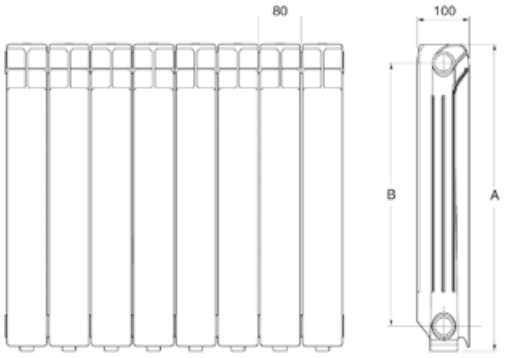
> ACCESSORIES ON REQUEST

CODE	DESCRIPTION
ZE19993000	1" RH-LH NIPPLE
ZE19993010	1" GASKET

XIAN

DIE-CAST ALUMINIUM RADIATORS

- Die-cast aluminium radiator with 2 front convective fins
- Elegant design of the rounded top head. Besides aesthetic appearance of the rounded edge and along with the gradual curve of the convective fins alloy a uniform distribution of warmed air, without turbulences and air flows towards the wall
- 6 bar as maximum operating pressure
- Blocks are assembled in factory in units from 2 to 12 sections
- Sections are assembled each other in the factory via an inorganic elastic joint, with unbeatable resistance to high temperature and pressures, dilatations, circuit additives, chemical gaseous reactions in the heating system. This results in the maximum watertightness of the radiator itself.



MODEL			450 N	600 N	700 N	800 N
Thermal emission EN 442	Δt 50°C	W	90,8	122,9	142,2	160,2
	Δt 60°C	W	115,1	156,2	181,4	204,3
Exponent index n			1,30483	1,31423	1,334	1,33487
Constant Km			0,5508	0,719	0,7702	0,86447
Water content		Liters	0,31	0,39	0,45	0,5
Dimensions	Total height (A)	mm	431	581	681	781
	Tapping center (B)	mm	350	500	600	700
Connections	Diameter	inches	1"	1"	1"	1"

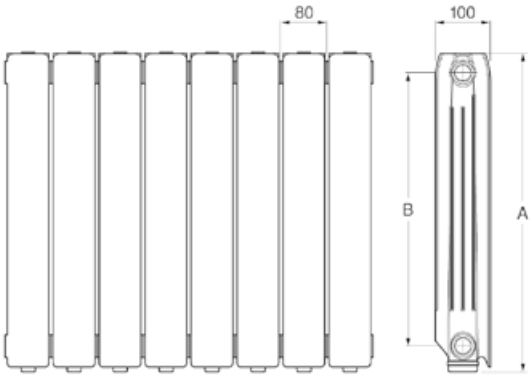
> ACCESSORIES ON REQUEST

CODE	DESCRIPTION
ZE19993000	1" RH-LH NIPPLE
ZE19993010	1" GASKET

EUROPA C

DIE-CAST
ALUMINIUM RADIATOR

- Die-cast aluminium radiator with flat surface
- It is is the ideal smart solution which fits perfectly with any style of furniture, thanks to its sober and elegant design
- 6 bar as maximum operating pressure
- Blocks are assembled in factory in units from 2 to 12 sections
- Each section is painted individually through expoxy powder coating: this results in a brilliant surface, resistant to heat throughout the years
- Sections are assembled each other in the factoy via an inorganic elastic joint, with unbeatable resistance to high temperature and pressures, dilatations, circuit additives, chemical gaseous reactions in the heating system. This results in the maximum watertightness of the radiator itself.



MODEL			450 C	600 C	700 C	800 C
Thermal emission EN 442	Δt 50°C	W	89,2	119,8	137,1	158,0
	Δt 60°C	W	112,7	152,3	174,3	200,9
Exponent index n			1,27784	1,31869	1,31598	1,32052
Constant Km			0,601947	0,688627	0,796525	0,901564
Water content		Liters	0,31	0,39	0,45	0,50
Dimensions	Total height (A)	mm	431	581	681	781
	Tapping center (B)	mm	350	500	600	700
Connections	Diameter	inches	1”	1”	1”	1”

> ACCESSORIES ON REQUEST

CODE	DESCRIPTION
ZE19993000	1” RH-LH NIPPLE
ZE19993010	1” GASKET

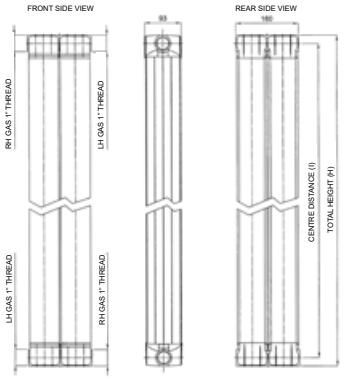
TAL EXTRUDED ALUMINIUM DESIGN RADIATOR

> PRODUCT FEATURES

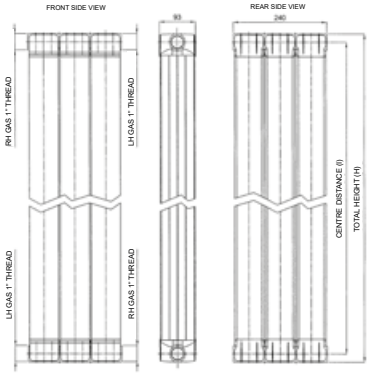
TAL is an aluminium design radiator, consisting of vertical extruded bars and die cast heads. The modern design gives it wide flexibility of use while the accuracy and careful construction guarantee high quality and durability.

- Consisting of aluminium die cast heads and extruded bars
- Exclusively supplied in inseparable modules of 2 or 3 elements
- Using nipples and OR gasket (optional), the modules can be assembled in groups tailored to your needs
- Reversible up/down (not front/rear). Used both in traditional and single-pipe installations
- Maximum operating pressure 10 bar
- 1" gas connections
- Painted white RAL 9010

TAL 2 (2-ELEMENT MODULE)



TAL 3 (3-ELEMENT MODULE)



TAL	WIDTH (ELEMENT) L mm	HEIGHT H mm	DEPTH mm	CENTRE DISTANCE I mm	HEAT OUTPUT FOR RADIATOR Watt ΔT=30°C	ΔT=40°C	ΔT=50°C	EXPONENT n	CONSTANT K_m	CODE
2 - 1000	80	1043	93.3	1000	190.6	281.4	380.6	1.35402	0.95279	**16501020**
2 - 1200	80	1243	93.3	1200	218.6	323.0	437.0	1.35582	1.08633	**16502020**
2 - 1400	80	1443	93.3	1400	245.2	362.4	490.6	1.35761	1.21104	**16503020**
2 - 1600	80	1643	93.3	1600	271.0	400.2	541.8	1.35691	1.34110	**16504020**
2 - 1800	80	1843	93.3	1800	295.6	436.6	590.8	1.35621	1.46639	**16505020**
2 - 2000	80	2043	93.3	2000	319.2	471.4	638.0	1.35551	1.58789	**16506020**
3 - 1000	80	1043	93.3	1000	285.9	422.1	570.9	1.35402	0.95279	**16501030**
3 - 1200	80	1243	93.3	1200	327.9	484.5	655.5	1.35582	1.08633	**16502030**
3 - 1400	80	1443	93.3	1400	367.8	543.6	735.9	1.35761	1.21104	**16503030**
3 - 1600	80	1643	93.3	1600	406.5	600.3	812.7	1.35691	1.34110	**16504030**
3 - 1800	80	1843	93.3	1800	443.4	654.9	866.2	1.35621	1.46639	**16505030**
3 - 2000	80	2043	93.3	2000	478.8	707.1	957.0	1.35551	1.58789	**16506030**

NB: For the chemical-physical characteristics of the water in the thermal circuit, strictly observe standard UNI 8065

> ACCESSORIES ON REQUEST

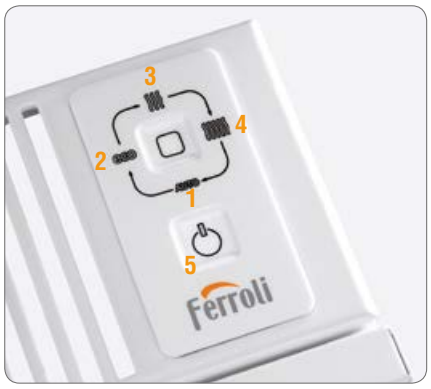
CODE	DESCRIPTION
19991334	TAL ASSEMBLY KIT 2-3 ELEMENTS AND SINGLE-PIPE DIAPHRAGM
19999932	PACK. OF 2 ADJUSTABLE SHELVES 2xT3

VARESE HIGH EFFICIENCY RADIATOR

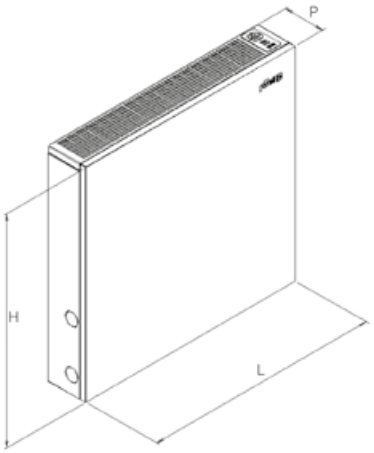
> PRODUCT FEATURES (version HE)

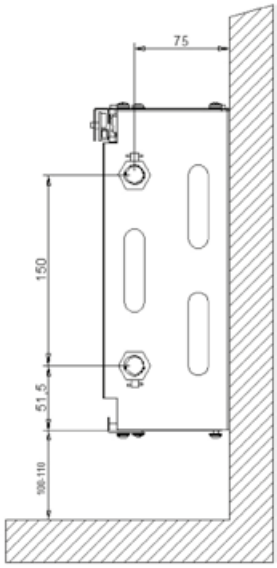
- High performance radiator particularly suitable for low temperature systems in combination with condensing boilers
- Finned copper/aluminium heat exchanger with low water content, sized to optimise forced air draught with particularly silent brushless fans, each mounted with four silent blocks
- 4 operating modes, “Automatic”, “Eco”, “Comfort” and “High emission”, through a control panel with easy-to-read backlit buttons
- Reversible RH / LH single-pipe and two-pipe connection outlets
- Depth of 119 mm completely flush with the wall on two heights, respectively 635 mm and 350 mm
- Pained RAL 9016 with removable front panel for cleaning and maintenance
- Compact and elegant design (especially mod. LP - under-window)

(Also available in non HE version, without fans)



1 Auto Mod.: automatic fan speed selection
2 Eco Mod.: Fan at minimum speed
3 Comfort Mod.: Fan at medium speed
4 High Emission Mod.: Fan at maximum speed
5 Stand-by





> TABLE OF EFFICIENCIES - DIMENSIONAL DATA - CODE - PRICE

MODEL VARESE	HEAT OUTPUT Watt			MAX WORKING PRESSURE	WATER CONTENT	SOUND POWER	DIMENSIONS			CODE
	ΔT=30°C	ΔT=40°C	ΔT=50°C			dB	H / L / D	Connection centre distance	Idro connections	
500 HE	569.6	823.3	1067.4	10	0.48	29	635/545/119	150	1/2	**ZE17VH105A**
600 HE	767.2	1074.4	1402.3	10	0.62	30.2	635/654/119	150	1/2	**ZE17VH106A**
800 HE	1112.6	1479.1	1981.4	10	0.84	32	635/879/119	150	1/2	**ZE17VH108A**
1000 HE	1517.0	1995.3	2637.2	10	1.1	33.2	635/1094/119	150	1/2	**ZE17VH110A**
LP 500 HE	484.0	753.5	997.7	10	0.48	29	350/545/119	150	1/2	**ZE17VH205A**
LP 600 HE	710.0	1032.6	1325.6	10	0.62	30.2	350/654/119	150	1/2	**ZE17VH206A**
LP 800 HE	1087.6	1395.3	1855.8	10	0.84	32	350/879/119	150	1/2	**ZE17VH208A**
LP 1000 HE	1493.3	1939.5	2581.4	10	1.1	33.2	350/1094/119	150	1/2	**ZE17VH210A**
500	195.3	265.1	376.7	10	0.48	-	635/545/119	150	1/2	**ZE17VV105A**
600	244.2	390.7	523.3	10	0.62	-	635/654/119	150	1/2	**ZE17VV106A**
800	348.8	607	795.3	10	0.84	-	635/879/119	150	1/2	**ZE17VV108A**
1000	509.3	795.3	1060.5	10	1.1	-	635/1094/119	150	1/2	**ZE17VV110A**
LP 500	153.5	237.2	334.9	10	0.48	-	350/545/119	150	1/2	**ZE17VV205A**
LP 600	209.3	334.9	439.5	10	0.62	-	350/654/119	150	1/2	**ZE17VV206A**
LP 800	293	537.2	676.7	10	0.84	-	350/879/119	150	1/2	**ZE17VV208A**
LP 1000	348.8	600	837.2	10	1.1	-	350/1094/119	150	1/2	**ZE17VV210A**

FERROLI STEEL PANEL RADIATOR 4 OR 6 CONNECTIONS

EN 442 EURONORM

- 5 types, 5 heights
- 20 different lenghts between 400 - 3000 mm
- 4 or 6 connections radiators for a total choice of 1000 models
- Optionally equipped with compact plug or insert regulation valve
- Easy-to-clean thanks to removable top grills and side covers
- Convectors are directly welded on the wet ducts of the radiator to minimize thermal losses and get maximum performance
- Protected against damages during transport and storage by strong packaging system
- Ferroli steel panel radiators are equipped as a standard in the package with wall brackets, fischer screws, one blind pug and one air vent. For 6-connection-radiators, such accessories are available upon request

ACCESSORIES

	DESCRIPTION
	4 connection models: package includes wall brackets, fischer screws, one blind plug, one air vent
	6 connection models: abovementioned accessories supplied as an option

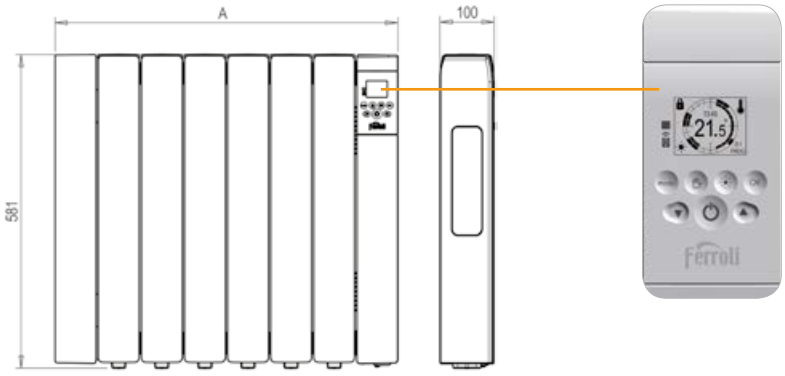
TYPE	DESCRIPTION	HEIGHT				
		300	400	500	600	900
11	Output Δt 50°C	451	606	755	895	1248
	Exponent n	1,31042	1,30793	1,30542	1,30291	1,30915
	Constant Km	2,67558	3,63458	4,57361	5,47064	7,44692
	Water content (lts)	1,7	2,1	2,6	3,0	1,2
20	Output Δt 50°C	555	706	850	990	1394
	Exponent n	1,3116	1,30977	1,30794	1,30611	1,31338
	Constant Km	3,28268	4,20054	5,09711	5,98081	8,18149
	Water content (lts)	3,3	4,2	5,1	5,9	8,2
21	Output Δt 50°C	722	927	1122	1307	1803
	Exponent n	1,31467	1,31913	1,32363	1,32809	1,34125
	Constant Km	4,21563	5,31835	6,32695	7,23965	9,49006
	Water content (lts)	3,3	4,2	5,1	5,9	8,2
22	Output Δt 50°C	930	1195	1449	1694	2384
	Exponent n	1,30076	1,315	1,32925	1,34349	1,32728
	Constant Km	5,73718	6,97149	7,99442	8,83753	13,2531
	Water content (lts)	3,3	4,2	5,1	5,9	8,2
33	Output Δt 50°C	1340	1723	2083	2424	3314
	Exponent n	1,30515	1,30686	1,30856	1,31027	1,33485
	Constant Km	8,11901	10,37419	12,45639	14,39815	17,88446
	Water content (lts)	4,4	5,8	7,2	8,6	12,7

RIMINI ELECTRIC OIL RADIATOR

> PRODUCT FEATURES

- Electric oil radiator and aluminium closed-plate elements
- Delivered complete with wall mounting kit
- PID regulation control with TRIAC cutting system, for improved temperature stability
- Large high-resolution LCD screen (FTF) for easier parameter reading
- Settable operating modes: Stand-by, Comfort, Economy, Antifrost, Programming, Manual
- Daily and weekly programming in Comfort, Economy and Antifrost mode, in ½ hour time slots
- Keyboard blocking system (child safety)
- Open windows function: automatic shutdown in case of sudden drop of 4°C over a period of 20 minutes
- Optional remote control

Remote control



RIMINI	HEAT OUTPUT	NO. ELEMENTS	POWER SUPPLY	WEIGHT	MEASUREMENTS (mm)			CODE
	W		V/Hz	Kg	Height	Width (A)	Depth	
RIMINI DP 500	500	3	230 / 50	6.4	581	396	100	**17EY5035**
RIMINI DP 750	750	5	230 / 50	9	581	556	100	**17EY5055**
RIMINI DP 1000	1000	6	230 / 50	10.5	581	636	100	**17EY5065**
Remote Control								**19992030**

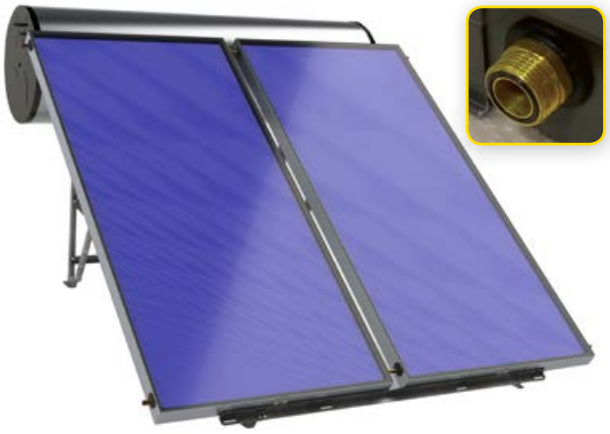
SOLAR THERMAL

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

ECOTECH HD SYSTEM

THERMOSYPHON SYSTEM (NATURAL CIRCULATION) FOR TERRACE INSTALLATION

ERP



mod. HD 300

> PRODUCT SPECIFICATIONS

- Complete system: flat collector, tank, hydraulic fittings, collector connection pipes, 8 bar pressure safety valves with non-return valve on cold water inlet; safety valve 1,7 bar solar primary circuit

COLLECTOR FEATURES

- Flat collectors with high efficiency
- Structure of the tub collector in dark painted aluminum
- Highly selective aluminum absorber with titanium oxide treatment
- Tempered glass, prismatic with high transparency

TANK FEATURES

- Storage tank for domestic hot water, with external cavity on the primary circuit side.
- Enamel surface on water side. Rigid insulation of 40 mm thickness and external finish in painted sheet steel.
- Supplied in standard configuration with magnesium anode and electrical integration resistance

TANK FEATURES			150	200	300	300 H
Water volume		l	145	190	273	273
Primary circuit volume		l	8.6	11.2	15.9	15.9
Magnesium anode		diam \ length	22 \ 500 mm	22 \ 650 mm	22 \ 790 mm	22 \ 790 mm
Overall dimensions	Diameter	mm	560	560	560	560
	Length	mm	1070	1315	1765	1765
Collector type and quantity (*)			1 x mod. VHM-N 2.1	1 x mod. VHM-N 2.1	2 x mod. VHM-N 2.1	2 x mod. VHM-N 2.7
Net weight		kg	53	72	83	83
Max working pressure	Water side	bar	8	8	8	8
	Heating side	bar	2.0	2.0	2.0	2.0
Electric backup capacity		kW	2.0	2.0	3.0	3.0
Connection	Water side	type	G 1/2" female			
	Heating side	type	G 1/2" female			
	Elect Heaters	type	G 1 1/4" female			
SYSTEM CODE			**0XDC1AXA**	**0XDC1BXA**	**0XDC2BXA**	**0XDC2KXA**

IMPORTANT NOTES: *It is mandatory to install an expansion vessel on the hydraulic line of domestic hot water (at the inlet point before the storage tank) to protect the tank and the circuit in the house from pressure shocks, and to compensate overpressure in the solar storage tank which may damage or hamper the durability of flexible connection pipes into the house.*

> THE COLLECTOR (*)

MODEL		VHM-N 2.1	VHM-N 2.7
Dimensions	mm	1017 x 2022 x 90	1294 x 2022 x 90
Gross area of the collector	m^2	2.06	2.62
Net useful area (absorber)	m^2	1.93	2.47
Total weight	kg	33.7	41.8
Stagnation temperature	°C	201.2	201.2
Solar absorption	%	95	95
Thermal emission	%	5	5
Solar collector insulation		40 mm high density mineral wool with ventilation openings	

> ACCESSORIES

	DESCRIPTION		CODE
	Premixed solar fluid PROSUN TP -15°C	2 x 5 kg	Z308904000
	PREMIXED SOLAR FLUID PROSUN -15°C	25 kg	Z308904010
	Premixed solar fluid PROSUN PLUS -27°C	25 kg	0YDI0KX0
	Thermostatic mixing valve ½"		013002X0
	Safety temperature valve (opening temperature: 95°C)		36903300

ECOTECH G SYSTEM

ERP

THERMOSYPHON SYSTEM (NATURAL CIRCULATION) FOR TERRACE INSTALLATION

mod. G 300

> PRODUCT SPECIFICATIONS

- Complete system: flat collector, tank, hydraulic fittings, collector connection pipes, antifreeze liquid (pure glycol to be mixed), 10 bar pressure safety valves with non-return valve on cold water inlet; safety valve 1,7 bar solar primary circuit

COLLECTOR FEATURES

- Flat collectors with high efficiency, natural circulation
- Structure of the tub collector in dark painted aluminum
- Highly selective aluminum absorber with titanium oxide treatment
- Tempered glass, prismatic with high transparency
- 22 mm connection / interconnection connections on the four corners of the panel

TANK FEATURES

- Storage tank for domestic hot water, with external cavity on the primary circuit side.
- Enamel surface on water side. Rigid insulation of 40 mm thickness and external finish in painted sheet steel.
- Supplied in standard configuration with magnesium anode and electrical integration resistance

TANK FEATURES			150	200	300	300 H
Water volume		l	144	199	295	295
Primary circuit volume		l	8	9	19	19
Magnesium anode		diam \ length	22 \ 400 mm	22 \ 450 mm	32 \ 500 mm	32 \ 500 mm
Overall dimensions	Diameter	mm	500	580	580	580
	Length	mm	1290	1290	1790	1790
Collector type and quantity (**)			1 x mod. 2.0	1 x mod. 2.0	2 x mod. 2.0	2 x mod. 2.4
Net weight		kg	54	68	100	100
Max working pressure	Water side	bar	10	10	10	10
	Heating side	bar	2.0	2.0	2.0	2.0
Electric backup capacity		kW	2.0	2.0	3.5	3.5
Connection	Water side	type	G 1/2" female			
	Heating side	type	G 1/2" female			
	Elect Heaters	type	G 1 1/4" female			
SYSTEM CODE			**0XED11XA**	**0XED12XA**	**0XED23XA**	**0XED33XA**

IMPORTANT NOTES: *It is mandatory to install an expansion vessel on the hydraulic line of domestic hot water (at the inlet point before the storage tank) to protect the tank and the circuit in the house from pressure shocks, and to compensate overpressure in the solar storage tank which may damage or hamper the durability of flexible connection pipes into the house.*

> THE COLLECTOR (**)

MODEL		2.0	2.4
Dimensions	mm	1960 x 960 x 80	1960 x 1210 x 80
Gross area of the collector	m^2	1.88	2.37
Net useful area (absorber)	m^2	1.83	2.33
Total weight	kg	32.5	42
Stagnation temperature	°C	170	170
Solar absorption	%	95	95
Thermal emission	%	5	5
Solar collector insulation		40 mm high density mineral wool with ventilation openings	

SOLAR COMPACT KIT

PRE-ASSEMBLED SOLAR PACKAGE

ERP

SINGLE-BLOCK KIT COMPOSED OF

- **Pre-assembled circulation unit** with: 1/2" safety valve, flow meter with flow regulator, system fill and drain valves, shut-off valve and pressure gauge set, solar circulator, shut-off valve, solar control unit, expansion tank for 18-lt solar circuit
- **Solar control unit** integrated with self-diagnosis function and reading of solar circuit temperature with probes (1 PT1000 probe + 1 NTC)
- **Double coil** storage tank
- **ECOTOP VHM-N 2.1** flat solar collector with non-reflective prismatic glass (vertical and horizontal installation)
- 3/4" M threaded connecting / interconnecting fittings
- Set-up for electrical heating element, 1" 1/2 fitting
- Only the monoblock can be purchased: storage tank, pump unit, control unit, vessel, **model BL 200 / 300**

MODEL		ST 200 H	BL 200	ST 300 H	BL 300
Storage tank: ERP Class		C	C	C	C
Storage tank: double coil	lt	200	200	300	300
Storage tank: thermal dispersion	W	67	67	85	85
Solar control unit ECOTRONIC TECH	n	1	1	1	1
Collector: ECOTOP VHM-N mod. 2.1	n	1	not provided	2	not provided
Collector: overall gross surface	m^2	2.06	0	4.12	0
Collector: overall effective surface	m^2	1.93	0	3.86	0
CODE		**0XDU1AXA**	**0XDT0AXA**	**0XDU2BXA**	**0XDT0BXA**

CHOICE OF PRE-MIXED FLUID		ST 200 H / BL 200			ST 300 H / BL 300		
Linear set up of the pipes (delivery + return)	m	10	20	30	10	20	30
Premix system/fluid content (DN 15 STAINLESS STEEL pipes)	l	17	19	22	20	22	25

NB: To protect the system against frost, stagnation and corrosion, it is recommended to use only the pre-mixed FERSOL LT solar fluid (-12 ° C)

> ACCESSORIES FOR COMPLETION

ASSEMBLY FRAMES WITH VERTICAL COLLECTOR		CODE
BASE KIT (for all roof types) mod. 2.1 *Order the same number as collectors*		076224X0
BASE KIT (for all roof types) mod. 2.7 *Order the same number as collectors*		076225X0
ADDITIONAL KIT FOR FLAT ROOFS *Order the same number as collectors* *For a single collector, order nr. 2 kits*		076226X0

FASTENING BRACKETS FOR SLOPED ROOFS	CODE
Set of flexible universal under-tile stainless steel brackets for each collector (4 pcs.)	076218X0
Set of stainless steel brackets for sheet metal roofs (threaded bar) - 1st collector	076172X0
Set of stainless steel brackets for sheet metal roofs (threaded bar) - coll. ADDITIONAL	076176X0
Set of stainless steel brackets for sheet metal roofs (self-tapping for wood) - 1st collector	076197X0
Set of stainless steel brackets for sheet metal roofs (self-tapping for wood) - coll. ADDITIONAL	076198X0
Set of galvanised steel brackets for flat-tiled roofs - 1st collector	076173X0
Set of galvanised steel brackets for flat tiled roofs - ADDITIONAL collector	076175X0
Set of galvanised steel brackets for round-tiled roofs - 1st collector	076174X0
Set of galvanised steel brackets for round-tiled roofs - ADDITIONAL collector	076177X0
Set of galvanised steel brackets for slate roofs - 1st collector	076195X0
Set of galvanised steel brackets for slate roofs - ADDITIONAL collector	076196X0

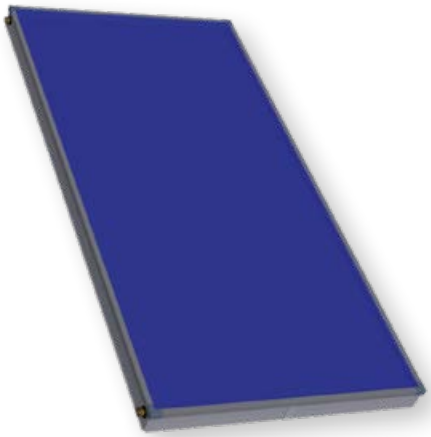
ASSEMBLY FRAMES WITH HORIZONTAL COLLECTOR		CODE
BASE KIT (for all roof types) mod. 2.1 *Order the same number as collectors*		076224X0
BASE KIT (for all roof types) mod. 2.7 *Order the same number as collectors*		076225X0
ADAPTATION PLATES FOR VHM-N HORIZONTALLY ON SLOPED ROOFS		076228X0
KIT OF LEGS FOR FLAT ROOFS 2.1 / 2.7 VHM-N HORIZONTAL *Order the same number as collectors* *For a single collector, order nr. 2 kits*		076227X0
INTERCONNECTION KIT VHM-N 2.1 / 2.7 HORIZONTAL *(nr. collectors-1)*		072243X0

DESCRIPTION			CODE
	PROSUN TP -15°C solar fluid	2 x 5 kg	Z308904000
	PROSUN -15°C solar fluid	25 kg	Z308904010
	PROSUN PLUS -27°C solar fluid	25 kg	0YDI0KX0
	thermostatic mixer 1/2" connections		013002X0
	kit for automatic air relief valve with cock, ø 3/8"		072237X0
	2 kW electrical heating element protected by the over-temperature thermostat		073107X0

ECOTOP VHM-N

FORCED CIRCULATION FLAT SOLAR COLLECTOR
VERTICAL AND HORIZONTAL INSTALLATION

ERP



> PRODUCT FEATURES

- High efficiency flat manifolds with forced circulation
- Tank collector structure in dark painted aluminium
- Frames available for **flat roof** and **sloped roof** (optional)
- **Highly selective aluminium absorber** with titanium oxide treatment
- High transparency, prismatic tempered glass
- Compliant with standard EN 12975 with "Keymark" quality certification
- **ø 3/4" M threaded connecting/interconnecting fittings**

MODEL		VHM-N 2.1	VHM-N 2.7
Dimensions (LxHxD)	mm	1017 x 2022 x 90	1294 x 2022 x 90
Gross surface area	m^2	2.06	2.62
Effective surface area	m^2	1.93	2.47
Empty weight	kg	33.7	41.8
Closed circuit volume	l	0.87	1.1
Stagnation temperature	°C	201.2	201.2
Absorption factor	%	95	
Emission factor	%	5	
Thermal collector insulation		40 mm HD mineral wool	
Heat transfer circuit fittings	Ø	3/4"	
Maximum primary circuit operating pressure	bar	10	
Fittings for collector	no.	4	
Maximum collectors directly connectible in cascade configuration	no.	8	6
No. of pieces/pallet	no.	8	8
CODE		**0XDP1KXA**	**0XDP2KXA**

> ACCESSORIES FOR COMPLETION

ASSEMBLY FRAMES WITH VERTICAL COLLECTOR		CODE
BASE KIT (for all roof types) mod. 2.1 *Order the same number as collectors*		076224X0
BASE KIT (for all roof types) mod. 2.7 *Order the same number as collectors*		076225X0
ADDITIONAL KIT FOR FLAT ROOFS *Order the same number as collectors* *For a single collector, order 2 kits* *For 2 collectors order 3 kits*		076226X0

FASTENING BRACKETS FOR SLOPED ROOFS	CODE
Set of flexible universal under-tile stainless steel brackets for each collector (4 pcs.)	076218X0
Set of stainless steel brackets for sheet metal roofs (threaded bar) - 1st collector	076172X0
Set of stainless steel brackets for sheet metal roofs (threaded bar) - coll. ADDITIONAL	076176X0
Set of stainless steel brackets for sheet metal roofs (self-tapping for wood) - 1st collector	076197X0
Set of stainless steel brackets for sheet metal roofs (self-tapping for wood) - coll. ADDITIONAL	076198X0
Set of galvanised steel brackets for flat-tiled roofs - 1st collector	076173X0
Set of galvanised steel brackets for flat tiled roofs - ADDITIONAL collector	076175X0
Set of galvanised steel brackets for round-tiled roofs - 1st collector	076174X0
Set of galvanised steel brackets for round-tiled roofs - ADDITIONAL collector	076177X0
Set of galvanised steel brackets for slate roofs - 1st collector	076195X0
Set of galvanised steel brackets for slate roofs - ADDITIONAL collector	076196X0

ASSEMBLY FRAMES WITH HORIZONTAL COLLECTOR		CODE
BASE KIT (for all roof types) mod. 2.1 *Order the same number as collectors*		076224X0
BASE KIT (for all roof types) mod. 2.7 *Order the same number as collectors*		076225X0
KIT OF ADAPTATION PLATES FOR VHM-N HORIZONTALLY ON SLOPED ROOFS *Order the same number as collectors*		076228X0
KIT OF LEGS FOR FLAT ROOFS 2.1 / 2.7 VHM-N HORIZONTAL *Order the same number as collectors*		076227X0
INTERCONNECTION KIT VHM-N 2.1 / 2.7 HORIZONTAL *(nr. collectors-1)*		072243X0

	DESCRIPTION		CODE
	PROSUN TP -15°C solar fluid	2 x 5 kg	Z308904000
	PROSUN -15°C solar fluid	25 kg	Z308904010
	PROSUN PLUS -27°C solar fluid	25 kg	0YDI0KX0
	thermostatic mixer 1/2" connections		013002X0
	threaded base hydraulic connection kit: "T" with probe pit, bend, 2 caps		072235X0
	F-F interconnection fittings kit		072236X0
	kit for automatic air relief valve with cock, ø 3/8"		072237X0

VERTICAL SOLAR CABINET

PRE-ASSEMBLED VERTICAL CABINET FOR FORCED SOLAR SYSTEMS

ERP

Multi-functional solar vertical cabinet pre-assembled with:
24-lt solar circuit expansion vessel, 1/2"safety valve, 18-lt DHW circuit expansion vessel, flowmeter with flow regulator, system fill and drain valves, shut-off valve and pressure gauge set, high efficiency ErP solar circulator, shut-off valve, solar control unit with self-diagnosis function and set-up for solar energy metering and reading of solar circuit temperatures with probes.
Dimensions of the solar vertical cabinet: (L x H x D= 400x1085x330).
External connection pipes not supplied

MODEL	VERTICAL SOLAR CABINET
CODE	0X2030XA

SYSTEM ACCESSORIES

ERP

> IDRO - circulation unit

IDRO 6-E

IDRO 12-E / 30-E

IDRO 70-E

- High Efficiency ErP Circulator
- Set-up for housing the Ecotronic Tech regulating control unit (optional) with digital probe temperature reading function
- System filling and draining valve (excluding mod. 70)
- Needle thermometers for system flow and return provided as per standard
- Kit for wall-hung brackets
- Expanded polypropylene insulation
- Expansion vessel fitting
- Safety unit with safety valve and pressure gauge
- Flow regulator valve with read-out
- Safety valve calibration pressure 6 bar
- Check valve provided as per standard
- Complete with manual air vent (excluding Idro 6-E) (it is advisable to install a air vent with a shut-off valve on the solar field)

MODEL *		6-E	12-E	30-E	70-E
Dimensions (LxHxD)	mm	155x425x150	308x434x169	308x434x169	285x500x170
Fittings nominal diameter		3/4"M	1"M	1"M	1"1/4 M
Min/max flow rate	l/min	1 - 6	2 - 12	8 - 28	20 - 70
Max operating pressure	bar	8	8	8	8
CODE		**0X2022XA**	**0X2021XA**	**0X2023XA**	**0X2027XA**

** to select the IDRO unit, the maximum number of connectable collectors (after checking the pressure drops) will be calculated with the following formula:*
Coll. No. = [l/min. idro unit x 60 min. / nominal coll. flow rate / effective coll. surf.] *where the nominal flow rate is:* ***45 l/h/m²*** *for small d.h.w. domestic hot water production systems with flat collectors (High Flow);* ***30 l/h/m²*** *for small d.h.w. domestic hot water production systems with vacuum pipe collectors;* ***15 l/h/m²*** *for large surface systems (Low Flow)*
EXAMPLE: *IDRO 12-E and ECOTOP VHM-N flat collectors mod. 2.1 (1.83 m² effective surf.), the calculation is:* ***12 x 60 / 45 / 1.83 = 8.74 collectors***

> EXPANSION VESSEL

- For high temperatures
- Resistant to high pressures
- Membrane for anti-freeze liquid
- Models 50 and 80 equipped with floor-standing feet

> IMPORTANT

never close expansion vessels with shut-off valves

MODEL	12	18	24	35	50	80
CODE	**072101X0**	**072102X0**	**072103X0**	**072117X0**	**072118X0**	**072119X0**

> ACCESSORIES FOR COMPLETION

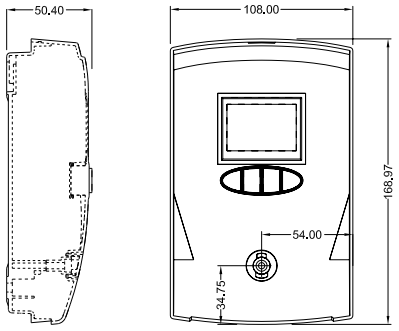
	DESCRIPTION	CODE
	connecting hose with fastening bracket for the vessel (excluding mod. 50 and 80)	072120X0

SYSTEM ACCESSORIES

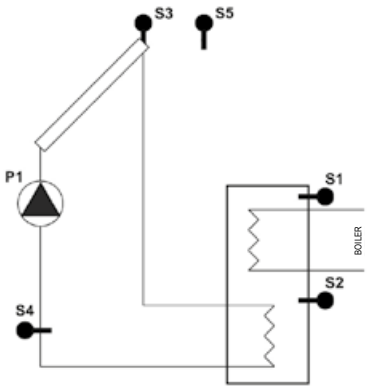
ERP

> ECOTRONIC TECH regulating control unit

- Control unit for solar thermal systems for domestic hot water production with management of solar fields with **single exposure** or **double exposure**, the latter by means of a double pump or single pump/hydro and double two-way valve but with external double-input relay (not supplied) that controls the pump when the control unit opens either of the valves
- Self-diagnosis function and set-up for solar energy metering
- Polyvalent luminous display screen with system graphic symbols
- Supplied complete with 3 temperature probes as per standard (2 x PT1000 - 1 x NTC)
- Power supply range: 210-250 Volt
- Management of integrative heating (boiler) with temperature probe
- Output for the control of any collector-covering shutter (anti-stagnation)



MODEL	ECOTRONIC TECH
CODE	0X3002XA



ECOTRONIC TECH WIRING DIAGRAM

S1 (storage tank high temperature: ex. managing integration from boiler)
PT 1000 (supplied with ECOTRONIC TECH * : 2.5 m cable; 40 mm head) to manage integration with boiler directly from the solar control unit
NTC (if the probe is cabled in the boiler) Note: if integration is managed at the top of the storage tank by wiring the probe in the boiler, it is necessary to use the optional NTC probe: art. 1KWMA11W
** not included in the standard supply of the "solar vertical cabinet kit" - in this case to manage the integration it is necessary to purchase a PT 1000 probe separately (art. 043007X0) and connect it to the ECOTRONIC TECH control unit or an NTC probe (art. 1KWMA11W) and connect it to the boiler*

S2 (storage tank low temperature: solar differential probe)
NTC (supplied with ECOTRONIC TECH, 2.5 m cable; 32 mm head)

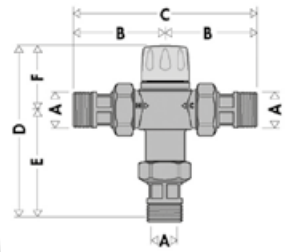
S3 (delivery from the solar field)
PT 1000 (supplied with ECOTRONIC TECH, 2.5 m cable; 40 mm head)

S4 Solar energy metering **
NTC (optional *** : art. 1KWMA11W; 2 m cable, 32 mm head)
*** only with flow meter accessory (not supplied) - function not implemented in the "solar vertical cabinet" kit*
**** except for the "solar vertical cabinet" KIT where it is provided as per standard and already wired with variable flow management function*

S5 (double exposure/double solar field management)
PT 1000 (supplied) Note: this option is not compatible with the S1 probe wiring on Electronic Tech (in fact that PT 1000 probe is used as S5 instead of S1) and it is not compatible with the use of S4 (in fact this option is not feasible with the "forced solar vertical cabinet" where there is already S4)

> THERMOSTATIC MIXER

- Adjustment range: 30-65°C
- Limescale thermostatic mixer, adjustable
- 1/2" diameter, chrome-plated
- Compliant with EN 12165
- **Max inlet temperature: 100°C**
- Maximum operating pressure: 5 bar
- Two check valves included



DIMENSIONS (mm)					
A	B	C	D	E	F
1/2"	67	134	152	86.5	65.5

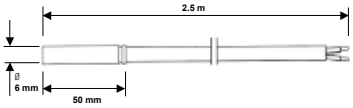
MODEL	THERMOSTATIC MIXER
CODE	013002X0

SYSTEM ACCESSORIES

ERP

> SOLAR PROBE: PT1000

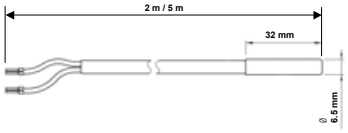
- AISI 304 Ø 6x50 mm pipe (1 knurling)
- PT1000 probe Ω at 0°C according to IEC 751 class B
- Silicone two-pole cable 22 AWG; L=2500 mm
- Operating temperature: -20 - +180°C
- Maximum temperature: 200°C (2 min.)



MODEL	PT 1000
CODE	043007X0

> STORAGE TANK PROBE: NTC

- Material: copper
- Insulation voltage: 1500 V
- Resistance at 25°C: 10000 Ω



MODEL	NTC 2 m	NTC 5 m
CODE	1KWMA11W	043005X0

> PROSUN / PROSUN PLUS Premixed solar fluid

Specific heat transfer fluid ready for use for solar systems with high summer temperatures and moderate risk of frost. Specific **premixed** product based on demineralised water, non-toxic propylene glycol with antifreeze function and thermostable corrosion inhibitors at the stagnation temperatures typical of solar collectors. When the colour of the fluid changes from blue to yellow, it means it needs to be changed.

PROSUN / PROSUN TP: Antifreeze function up to -15°C
PROSUN PLUS: Antifreeze function up to -27°C

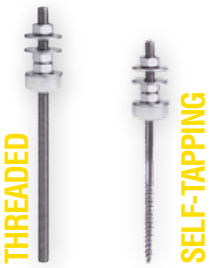
MODEL	PROSUN TP - 2 x 5 KG	PROSUN - 25 KG	PROSUN PLUS - 25 KG
CODE	Z308904000	Z308904010	0YDI0KX0

FASTENINGS FOR SLOPED ROOFS

ERP

> UNIVERSAL CAPTIVE BARS

Stainless steel fastening system with captive bar (M12x250 mm) for ECOTECH N/G (all models)*, ECOTOP.
Stainless steel fastening system with self-tapping bar for wood (M12x120 mm) for ECOTECH N/G (mod. 150 and 200), ECOTOP.
Specific kit for fastening on concrete tiles, bituminous tiles, flat or corrugated metal roofing; can also be used for all other types of roofing and tiles with a captive (lock nut required under-roof) or self-tapping bolt for wood (requires fischer plug).
* For installation on roof pitch, purchase 1 kit code 076172X0 plus 1 kit for additional collector code 076176X0 (mod. 250)



THREADED	1ST COLLECTOR	ADDITIONAL COLLECTOR
CODE	076172X0	076176X0

SELF-TAPPING	1ST COLLECTOR	ADDITIONAL COLLECTOR
CODE	076197X0	076198X0

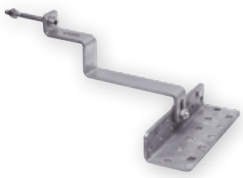
> UNIVERSAL BRACKETS FOR UNDER-TILE

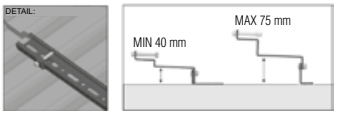
Flexible stainless steel under-tile universal fastening system (set of 4 pieces) for ECOTOP. Kit suitable for all types of roofs with tiles

MODEL	EACH COLLECTOR
CODE	076218X0

> BRACKETS FOR FLAT TILES

Galvanised steel fastening system for ECOTOP.
Kit suitable for roofs with flat tiles (“Marseille” type)

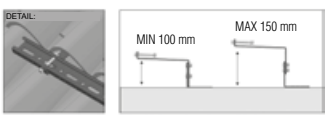




MODEL	1ST COLLECTOR	ADDITIONAL COLLECTOR
CODE	076173X0	076175X0

> BRACKETS FOR CURVED TILES

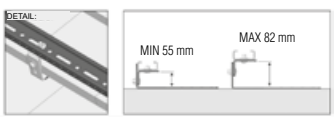
Adjustable galvanised steel fastening system for ECOTOP.
Kit suitable for roofs with curved tiles (round tiles)



MODEL	1ST COLLECTOR	ADDITIONAL COLLECTOR
CODE	076174X0	076177X0

> BRACKETS FOR SLATE TILES

Adjustable galvanised steel fastening system for ECOTOP.
Kit suitable for roofs with slate tiles



MODEL	1ST COLLECTOR	ADDITIONAL COLLECTOR
CODE	076195X0	076196X0

PUFFERS AND STORAGE

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

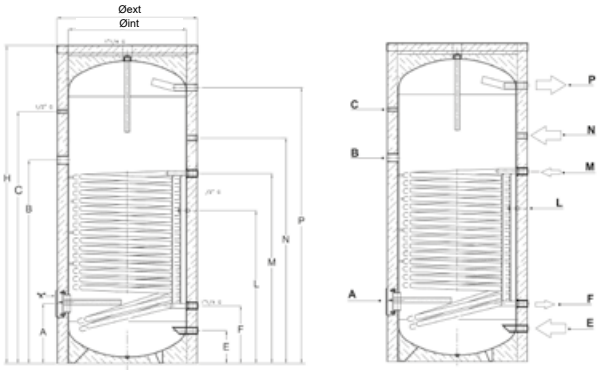
ECOGEO H-1 P

INTEGRATED DHW STORAGE TANK FOR HEAT PUMP

ERP

> PRODUCT FEATURES

ECOGEO H-1 P is a vertical hot water storage tank.
This unit is designed to heat domestic hot water in combination with a heat pump.
The units can be equipped with a series of electric heaters as an additional source of heating.
Steel tanks (S235JR) manufactured with glazed steel, which can be inspected through a flange installed at the top of the tank and featuring fixed single heat exchanger.
The tank is protected by a layer of porcelain glaze that guarantees a long service life.
The glazing and magnesium anode sizing processes (provided as standard) observe DIN 4753
50 mm expanded polyurethane insulation and external ABS grey RAL 9006
Hygienic certificate WRAS



TYPE OF FITTING			200-1	300-1	500-1
A	Flange	mm	257	270	360
B	Connection for electrical heating element	mm	940	1150	1335
		type	1"1/2 G		
C	Pit for thermometer	mm	1040	1430	1475
		type	1/2" G		
E	Cold water inlet	mm	67	67	175
		type	1"1/2 G		1"1/4 G
F	HP Return	mm	210	230	295
		type	1"1/4 G		
L	Probe pit	mm	593	653	825
		type	1/2" G		
M	HP inlet	mm	890	1080	1235
		type	1"1/4 G		
N	Recirculation connection	mm	990	1200	1375
		type	3/4" G		1" G
P	Hot water output	mm	1164	1609	1595
		type	1"1/2 G		

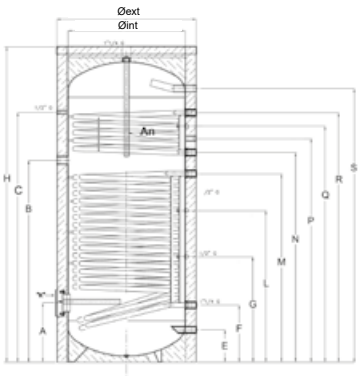
GENERAL DATA		200-1	300-1	500-1
ERP Class	(Class F - A+)	C	C	C
Total volume	l	192	276	473
Thermal dispersion	W	66	81	102
External diameter	mm	605	605	750
Total height	mm	1265	1710	1785
Coil surface	m^2	3.0	3.8	5.9
Coil water content	l	18.5	23.1	36.3
Exchangeable coil power	kW	47	59	92
Coil domestic hot water production	m3/h	1.1	1.4	2.2
Necessary flow rate to the coil	m3/h	4.1	5.1	7.9
Coil pressure drops	kPa	0.74	0.94	1.42
Maximum pressure in the tank	bar		10	
Maximum pressure in the coil	bar		10	
Maximum temperature in the tank	°C		95	
Maximum temperature in the coil	°C		110	
Empty weight	Kg	105	130	230
CODE		**20Z14A00**	**20Z14A10**	**20Z14A20**

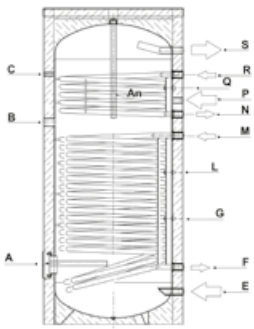
ECOGEO H-2 PC INTEGRATED DHW STORAGE TANK FOR HEAT PUMP AND BOILER

ERP

> PRODUCT FEATURES

ECOGEO H-2 PC is a vertical hot water storage tank.
This unit is designed to produce domestic hot water in combination with a heat pump and a traditional gas boiler.
The units can be equipped with a series of electric heaters as an additional source of heating.
Steel tanks (S235JR) manufactured with glazed steel, which can be inspected through a flange installed at the top of the tank and featuring fixed double heat exchanger.
The tank is protected by a layer of porcelain glaze that guarantees a long service life.
The glazing and magnesium anode sizing processes (provided as standard) observe DIN 4753.
50 mm expanded polyurethane insulation and external ABS grey RAL 9006
Hygienic certificate WRAS





TYPE OF FITTING			350-2	500-2
A	Flange	mm	360	380
B	Connection for electrical heating element	mm	950	1205
		type	1"1/2 G	
C	Pit for thermometer	mm	1295	1495
		type	1/2" G	
E	Cold water inlet	mm	175	175
		type	1"1/4 G	
F	HP Return	mm	295	295
		type	1"1/4 G	
G	Probe pit	mm	490	575
		type	1/2" G	
L	Probe pit	mm	690	865
		type	1/2" G	
M	HP delivery	mm	885	1130
		type	1"1/4 G	
N	Auxiliary Source Return	mm	1035	1265
		type	1"1/4 G	
P	Recirculation connection	mm	1140	1420
		type	1" G	
Q	Probe pit	mm	1175	1405
		type	1/2" G	
R	Auxiliary Source Delivery	mm	1245	1475
		type	1"1/4 G	
S	Hot water output	mm	1395	1595
		type	1"1/4 G	

GENERAL DATA		350-2	500-2
ERP Class	(Class F - A+)	C	C
Total volume	l	350	500
Thermal dispersion	W	96	104
External diameter	mm	750	750
Total height	mm	1580	1780
Lower coil surface	m^2	4.6	5.5
Lower coil water content	l	24.7	35
Low coil exchangeable power	kW	82	115
Lower coil domestic hot water production	m^3/h	2	2.8
Necessary flow rate to lower coil	m^3/h	14	19.8
Lower coil pressure drops	kPa	0.97	1.38
Upper coil surface	m^2	0.9	0.9
Upper coil water content	l	5.3	5.3
Upper coil exchangeable power	kW	27	27
Upper coil domestic hot water production	m^3/h	0.7	0.7
Necessary flow rate to upper coil	m^3/h	1.1	1.1
Upper coil pressure drops	kPa	0.68	0.68
Maximum pressure in the tank	bar	10	
Maximum pressure in the coil	bar	10	
Maximum temperature in the tank	°C	95	
Maximum temperature in the coil	°C	110	
Empty weight	Kg	175	210
CODE		**20Z14A30**	**20Z14A40**

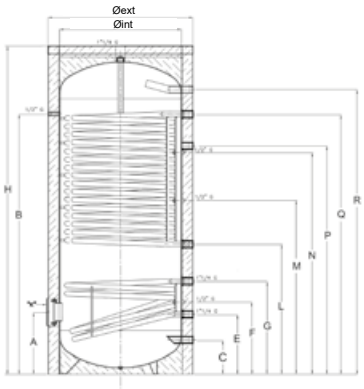
ECOGEO H-2 SP

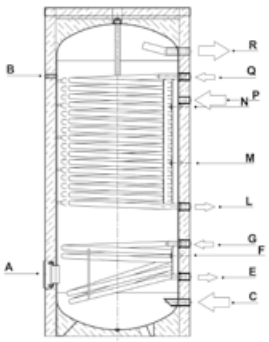
DHW STORAGE TANK FOR USE WITH HEAT PUMPS AND SOLAR THERMAL SYSTEMS

ERP

> PRODUCT FEATURES

ECOGEO H-2 SP is a vertical hot water storage tank.
This unit is designed to produce domestic hot water in combination with a heat pump and a solar circuit.
The units can be equipped with a series of electric heaters as an additional source of heating.
Steel tanks (S235JR) manufactured with glazed steel, which can be inspected through a flange installed at the top of the tank and featuring fixed double heat exchanger.
The tank is protected by a layer of porcelain glaze that guarantees a long service life.
The glazing and magnesium anode sizing processes (provided as standard) observe DIN 4753.
50 mm expanded polyurethane insulation and external ABS grey RAL 9006
Hygienic certificate WRAS





TYPE OF FITTING			350-2	500-2
A	Flange + Connection for electrical heating element	mm	565	565
		type	1"1/2 G	
B	Pit for thermometer	mm	1295	1495
		type	1/2" G	
C	Cold water inlet	mm	175	175
		type	1"1/4 G	
E	Solar circuit return	mm	295	295
		type	1"1/4 G	
F	Solar probe pit	mm	395	395
		type	1/2" G	
G	Solar circuit delivery	mm	505	505
		type	1"1/4 G	
L	HP Return	mm	625	625
		type	1"1/4 G	
P	Recirculation connection	mm	1036	1235
		type	1" G	
M	Heating probe pit	mm	845	910
		type	1/2" G	
N	Pit for thermometer	mm	1065	1195
		type	1/2" G	
Q	HP delivery	mm	1275	1475
		type	1"1/4 G	
S	Hot water output	mm	1395	1595
		type	1"1/4 G	

GENERAL DATA		350-2	500-2
ERP Class	(Class F - A+)	C	C
Total volume	l	350	500
Thermal dispersion	W	94	103
External diameter	mm	760	760
Total height	mm	1580	1780
Lower coil surface	m^2	0.9	0.9
Lower coil water content	l	5.3	5.3
Low coil exchangeable power	kW	27	27
Lower coil domestic hot water production	m^3/h	0.7	0.7
Necessary flow rate to lower coil	m^3/h	1.1	1.1
Lower coil pressure drops	kPa	0.68	0.68
Upper coil surface	m^2	4.6	5.5
Upper coil water content	l	25	34
Upper coil exchangeable power	kW	72	86
Upper coil domestic hot water production	m^3/h	1.7	2.1
Necessary flow rate to upper coil	m^3/h	6.2	7.4
Upper coil pressure drops	kPa	0.97	1.33
Maximum pressure in the tank	bar	10	
Maximum pressure in the coil	bar	10	
Maximum temperature in the tank	°C	95	
Maximum temperature in the coil	°C	110	
Empty weight	Kg	177	215
CODE		**20Z14980**	**20Z14990**

ECOUNIT F SINGLE/DOUBLE COIL STORAGE TANKS

ERP

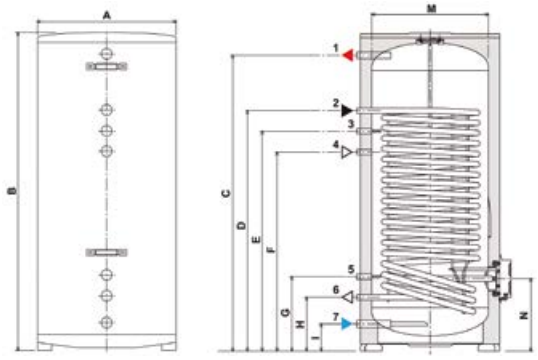
> PRODUCT FEATURES

- Vertical storage tanks for DHW, with single coil **(version 1C)** or with double coil **(version 2C)**, in enamelled steel.
- Glass-porcelain steel storage tank, 50mm rigid insulation and external finish of grey painted steel sheeting
- Supplied in standard configuration with magnesium anode and integrating electrical heating element of 1500W and adjustable from 15°C to 75°C
- Fitting for recirculation

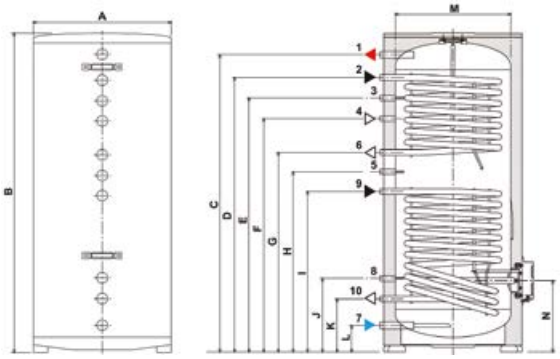
DIMENSIONS (mm)										
	100-1C	150-1C	200-1C	300-1C	400-1C	500-1C	200-2C	300-2C	400-2C	500-2C
A	500	500	540	620	750	750	540	620	750	750
B	978	1325	1453	1535	1469	1769	1453	1535	1469	1769
C	870	1216	1344	1431	1326	1626	1344	1431	1326	1626
D	736	1088	1084	1161	985	1261	1234	1311	1174	1474
E	636	988	984	1061	885	1161	1134	1211	1074	1374
F	536	888	884	961	785	1061	1034	1111	974	1274
G	336	336	334	361	441	441	934	961	852	1152
H	236	236	234	261	341	341	834	861	752	1052
I	126	126	124	131	155	155	734	761	661	898
J	-	-	-	-	-	-	234	261	391	398
K	-	-	-	-	-	-	124	131	291	298
L	-	-	-	-	-	-	324	351	155	155
M	400	400	440	520	650	650	440	520	650	650
N	326	326	324	351	418	418	324	351	418	418

TYPE OF FITTING										
	100-1C	150-1C	200-1C	300-1C	400-1C	500-1C	200-2C	300-2C	400-2C	500-2C
DHW	3/4"	3/4"	3/4"	1"	1"	1"	3/4"	1"	1"	1"
coil/s	3/4"	3/4"	3/4"	1"	1"	1"	3/4"	3/4"	1"	1"
recirculation	3/4"	3/4"	3/4"	1"	1"	1"	3/4"	3/4"	3/4"	3/4"

ECOUNIT F VERSION 1C



ECOUNIT F VERSION 2C



> KEY

1 Hot water outlet
2 Boiler inlet
3 Probe
4 Recirculation
5 Probe
6 Boiler outlet
7 Cold water inlet
8 Probe
9 Solar inlet
10 Solar outlet

MODEL		SINGLE COIL						DOUBLE COIL			
		100-1C	150-1C	200-1C	300-1C	400-1C	500-1C	200-2C	300-2C	400-2C	500-2C
ERP Class	(Class F - A+)	C	C	C	C	C	C	C	C	C	C
Capacity	l	89	129	173	261	335	460	174	262	356	461
Exchange surface (upp/low)	m^2	0.74	1.25	1.4	1.83	2.37	3.39	0.5/0.83	0.72/1	1.19/1.52	1.19/2.2
Power (Δt 35°C - upp/low)	KW	18.5	31.25	35	45.75	59.25	84.75	12.5/20.75	18/25	29.6/38.1	29.6/55
Pressure drops (upp/low)	mbar	228	386	432	565	118	167	155/254	220/308	58/75	58/109
Thermal dispersion 65°C	kWh/24h	1.6	1.8	2.2	2.7	2.9	3.5	2.2	2.7	2.9	3.5
Max operating temperature	°C	95	95	95	95	95	95	95	95	95	95
Primary flow rate	m^3/h	2	2	2	2	2	2	2	2	3	3
Max operating pressure	bar	8	8	8	8	8	8	8	8	8	8
Empty weight	kg	45	64	73	103	126	155	73	102	126	155
CODE		**GRZ1010A**	**GRZ3010A**	**GRZ4110A**	**GRZ6310A**	**GRZ7410A**	**GRZ8410A**	**GRZ4120A**	**GRZ6320A**	**GRZ7420A**	**GRZ8420A**

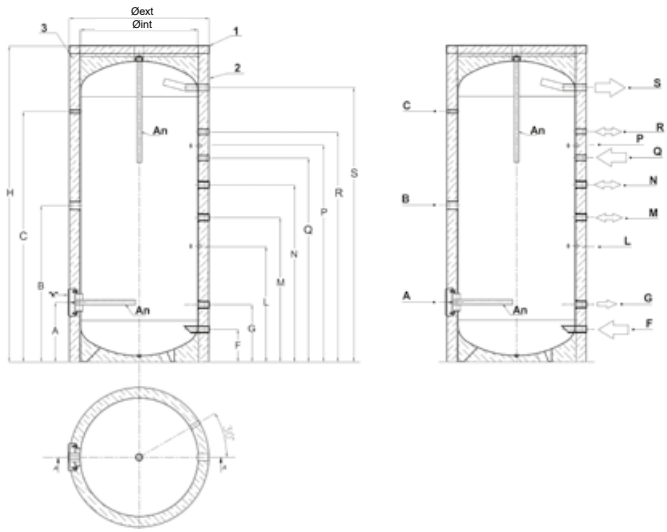
ECOUNIT H

ERP

STORAGE TANKS FOR STORAGE OF DHW

> PRODUCT FEATURES

ECOUNIT H is a vertical hot water storage tank designed for domestic hot water heating.
The units can be equipped with a series of electric heaters as a source of heating.
Enamelled steel tank (S235JR) with 200 to 3000-litre capacity which can be inspected through a flange installed at the bottom of the tank.
The tank is protected by a layer of porcelain glaze that guarantees a long service life.
The magnesium anode sizing process (provided as per standard) observes DIN 4753 P.3.
Thermal insulation is achieved through PU direct foam for models up to 500 litres.
Hard PU jackets for the 750 and 1000 lt models and polyester fibre for the 1500 to 3000 lt models.
The outer casing is made with coupled PVC.
Hygienic certificate WRAS



TYPE OF FITTING			200	300	400	500	750	1000	1500	2000	2500	3000
A	Flange	mm	257	257	268	335	400	400	520	550	640	640
B	Connection for electrical heating element	mm	629	914	891	949	890	890	1255	1310	1400	1400
		type	1"1/2 G									
C	Pit for thermometer	mm	929	1384	1411	1480	1460	1680	1825	2090	2130	2430
		type	1/2" G									
F	Cold water inlet	mm	110	110	120	175	220	220	315	340	430	430
		type	1"1/2 G							2" G		
G	Free connection	mm	264	264	286	305	385	385	470	460	550	550
		type	1"1/4 G									
L	Probe pit	mm	474	654	660	685	685	685	945	985	1075	1075
		type	1/2" G									
M	Free connection	mm	579	849	846	865	835	835	1180	1160	1250	1300
		type	1"1/4 G									
N	Free connection	mm	679	979	1011	985	990	990	1330	1450	1540	1790
		type	1"1/4 G									
Q	Recirculation connection	mm	884	1141	1163	1235	1235	1235	1460	1650	1740	2040
		type	3/4" G						1" G			
P	Heating probe pit	mm	914	1214	1245	1285	1340	1340	1600	1825	1905	2205
		type	1/2" G									
R	Free connection	mm	994	1294	1361	1335	1440	1440	1735	2000	2040	2340
		type	1"1/4 G									
S	Hot water output	mm	1120	1565	1540	1595	1590	1840	1935	2210	2250	2550
		type	1"1/2 G							2" G		

MODEL		200	300	400	500	750	1000	1500	2000	2500	3000
ERP Class	(Class F - A+)	C	C	C	C	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Capacity	l	212	297	420	513	763	885	1494	2013	2408	2841
Diameter with thermal insulation	ø mm	600	600	700	750	950	950	1200	1300	1400	1400
Total height with insulation	mm	1265	1710	1655	1785	1845	2095	2285	2550	2680	2980
Empty weight	kg	58	76	91	103	173	194	322	396	524	579
Thermal dispersion	W	74	88	105	116	115	125	146	172	330	354
Max storage tank pressure	bar	10									
Max boiler operating temperature	°C	95									
CODE		0YHA3AXA	0YHA4AXA	0YHA5AXA	0YHA6AXA	0YHA8AXA	0YHA9AXA	0YHABAXA	0YHACAXA	0YHAEAXA	0YHADAXA

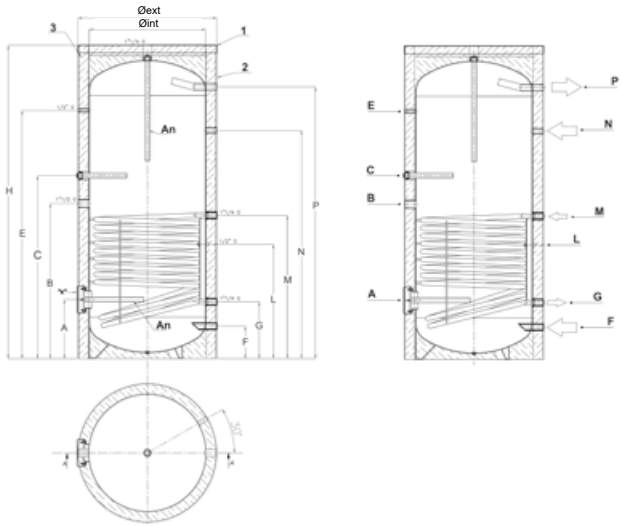
ECOUNIT H-1

ERP

STORAGE TANKS WITH SINGLE COIL

> PRODUCT FEATURES

ECOUNIT H-1 is a vertical single-coil hot water storage tank.
This unit is designed for heating domestic hot water with one energy source and a DHW system, compatibly with the performance and power characteristics.
Enamelled steel tanks (S235JR) with 750 to 3000-litre capacity which can be inspected through a flange installed at the bottom of the tank and featuring one fixed heat exchanger.
These models are used for the production of domestic hot water with a source of solar energy or boiler.
The tank is protected by a layer of porcelain glaze that guarantees a long service life.
The glazing and magnesium anode sizing processes (provided as standard) observe DIN 4753 P.3.
Hard PU jackets for the 750 and 1000 lt models and polyester fibre for the 1500 to 3000 lt models.
The outer casing is coupled PVC.
Hygienic certificate WRAS



TYPE OF FITTING			750	1000	1500	2000	2500	3000
A	Flange	mm	400	400	520	550	640	640
B	Connection for electrical heating element	mm	1050	1050	1255	1310	1500	1400
		type	1-1/2" G					
C	Connection for anode	mm	\	\	\	\	\	1640
E	Pit for thermometer	mm	1430	1680	1825	2090	2130	2430
		type	1/2" G					
F	Cold water inlet	mm	220	220	315	340	430	430
		type	1-1/4" G		2" G			
G	Heating return	mm	385	385	470	460	550	550
		type	1-1/4" G					
L	Heating probe pit	mm	775	870	943	985	1075	1075
		type	1/2" G					
M	Heating delivery	mm	970	970	1180	1160	1250	1300
		type	1-1/4" G					
N	Recirculation connection	mm	1350	1545	1460	1650	1740	2040
		type	1" G					
P	Hot water output	mm	1590	1840	1935	2210	2250	2550
		mm	1-1/4" G		2" G			

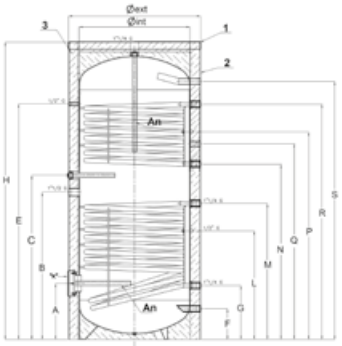
MODEL		750-1	1000-1	1500-1	2000-1	2500-1	3000-1
ERP Class	(Class F - A+)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Capacity	l	748	868	1466	1977	2479	2809
Diameter with thermal insulation	ø mm	950	950	1200	1300	1400	1400
Total height with insulation	mm	1845	2095	2285	2550	2680	2980
Exchange surface	m^2	2.5	2.5	4.2	4.5	4.8	5.2
Coil water content	l	15.0	15.0	25.4	28.0	29.5	31.6
Absorbed power	kW	74.1	74.1	124.5	133.4	142.3	154.2
Necessary flow rate to the coil	m^3/h	1.8	1.8	3.06	3.3	3.5	3.8
DHW production 80/60°C - 10/45°C	m^3/h	3.2	3.2	5.4	5.7	6.1	6.6
Pressure drops	kPa	1.90	1.90	3.23	3.56	3.76	4.03
Empty weight	kg	206	227	380	458	593	653
Thermal dispersion	W	113	121	153	180	282	304
DHW max operating pressure	bar	10					
Exchanger max operating pressure	bar	10					
Max coil temperature	°C	110					
Max boiler operating temperature	°C	95					
CODE		**0YH08AXA**	**0YH09AXA**	**0YH0BAXA**	**0YH0CAXA**	**0YH0EAXA**	**0YH0DAXA**

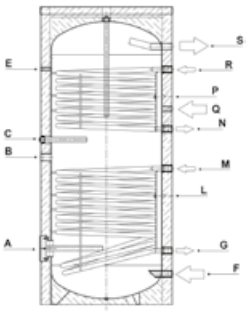
ECOUNIT H-2 VERTICAL HOT WATER STORAGE TANK WITH DOUBLE COIL

ERP

> GENERAL CHARACTERISTICS

ECOUNIT H-2 is a vertical DHW storage tank with double coil.
This unit is designed for heating domestic hot water to a temperature below boiling point at atmospheric pressure. Indirect heating by two energy sources.
Enemelled steel (S235JR) tanks, with capacities from 200 to 3000 liters. It can be inspected through a flange placed on the lower part of the tank.
These models are used for the production of domestic hot water through solar thermal and a boiler.
The tank is protected by a layer of porcelain enamel that guarantees a long life.
The enamel process and sizing of magnesium anodes (supplied as standard) are made according to DIN 4753 p.3.
The thermal insulation is obtained by direct foamed PU for models up to 500 lt.
Rigid PU shells are used for the 750 and 1000 lt models and polyester fiber for models from 1500 to 3000 lt.
The exterior jacket is made of coupled PVC
Hygienic certificate WRAS





CONNECTIONS			200	300	400	500	750	1000	1500	2000	2500	3000
A	Flange	mm	257	257	268	335	400	400	520	550	640	640
B	Electrical heaters connection	mm	629	914	891	949	890	890	1255	1310	1400	1400
		type	1"1/2 G									
C	Anode connection	mm	\	\	\	\	\	\	\	\	\	1640
E	Probe pocket	mm	929	1384	1411	1480	1460	1680	1825	2090	2130	2430
		type	1/2" G									
F	Water IN	mm	67	67	79	175	220	220	315	340	430	430
		type	1" G			1"1/4 G			2" G			
G	Solar circuit OUT	mm	264	264	286	305	385	385	470	460	550	550
		type	1"1/4 G									
L	Sensor position for Solar	mm	474	654	660	685	685	685	945	985	1075	1075
		type	1/2" G									
M	Solar circuit IN	mm	579	849	846	865	835	835	1180	1160	1250	1300
		type	1"1/4 G									
N	Heating circuit OUT	mm	679	979	1011	985	990	990	1330	1450	1540	1790
		type	1"1/4 G									
Q	Recirculation	mm	884	1141	1163	1235	1235	1235	1460	1650	1740	2040
		type	3/4" G						1" G			
P	Sensor position for heating	mm	914	1214	1245	1285	1340	1340	1600	1825	1905	2205
		type	1/2" G									
R	Heating circuit IN	mm	994	1294	1361	1335	1440	1440	1735	2000	2040	2340
		type	1"1/4 G									
S	Water OUT	mm	1164	1609	1541	1595	1590	1840	1935	2210	2250	2550
		type	1" G			1"1/4 G			2" G			

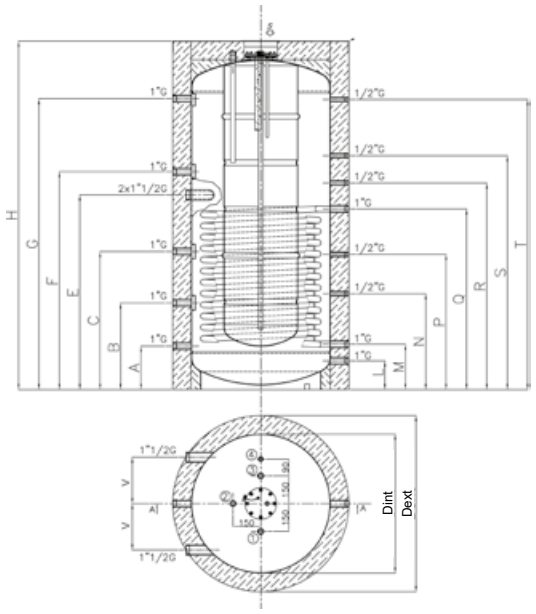
MODEL		200-2	300-2	400-2	500-2	750-2	1000-2	1500-2	2000-2	2500-2	3000-2
ERP Class	(F - A+ Class)	C	C	C	C	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total volume	l	201	282	401	495	734	853	1451	1959	2458	2786
Heat loss	W	67	81	96	102	113	121	153	180	284	305
External diameter	mm	610	610	710	760	950	950	1200	1300	1400	1400
Total height	mm	1265	1710	1655	1785	1845	2095	2285	2550	2680	2980
Lower heat exchanger surface	m^2	0,8	1,5	1,9	1,9	2,4	2,5	4,2	4,5	4,8	5,2
Lower heat exchanger volume	l	4,9	8,8	11,2	11,6	15,0	15,0	25,4	28,0	29,5	31,6
Lower coil heating capacity transfer	kW	32,6	44,5	53,4	59,3	74,1	74,1	124,5	133,4	142,3	154,2
Lower coil DHW production	m^3/h	0,8	1,09	1,3	1,46	1,8	1,8	3,06	3,3	3,5	3,8
Water flow at lower heat exchanger	m^3/h	1,4	1,9	2,3	2,6	3,2	3,2	5,4	5,7	6,1	6,6
Water pressure drop at lower heat exchanger	kPa	0,63	0,63	0,78	0,78	1,90	1,90	1,94	2,37	2,68	2,95
Upper heat exchanger surface	m^2	0,8	0,9	0,9	0,9	2,4	2,5	2,5	3,0	3,5	3,8
Upper heat exchanger volume	l	4,9	4,9	6,1	6,1	15,0	15,0	15,2	18,7	21,1	23,2
Upper coil heating capacity transfer	kW	23,7	23,7	26,7	56,3	71,2	71,2	71,2	89,0	103,8	112,7
Upper coil DHW production	m^3/h	0,58	0,58	0,66	1,38	1,75	1,75	1,75	2,2	2,55	2,77
Water flow at upper heat exchanger	m^3/h	1,0	1,0	1,1	2,4	3,1	3,1	3,1	3,8	4,5	4,8
Water pressure drop at upper heat exchanger	kPa	0,63	1,12	1,42	1,47	1,90	1,90	3,23	3,56	3,76	40,3
Max tank/coil pressure	bar	10 / 10									
Max tank/coil temperature	°C	95 / 110									
Weight	Kg	75	97	118	135	206	227	380	458	593	653
CODE		**0YH53AXA**	**0YH54AXA**	**0YH55AXA**	**0YH56AXA**	**0YH58AXA**	**0YH59AXA**	**0YH5BAXA**	**0YH5CAXA**	**0YH5EAXA**	**0YH5DAXA**

ECOTANK H CARBON STEEL STORAGE TANKS TANK-IN-TANK

ERP

> PRODUCT FEATURES

Tank-in-tank carbon steel tanks with 800/200, 1500/300 capacity equipped with a single fixed exchanger, with a second internal vitrified carbon steel tank, according to DIN 4753 P.3.
They are externally insulated by the application of an outer casing of soft polyurethane th. 100 mm.
This type of storage tank is used for the production of domestic hot water and heating.



TYPE OF FITTING		800/1500
A	Heating return	1" G
B	Free connection	1" G
C	Free connection	1" G
E	Electr.heat. element. fittings	1 ½" G
F	Free connection	1" G
G	Heating delivery	1" G
L	Discharge	1" G
M	Solar circuit return	1" G
N	Solar probe fitting	½" G
P	Solar probe fitting	½" G
Q	Solar circuit delivery	1" G
R	Probe fitting	½" G
S	Probe fitting	½" G
T	Thermometer	½" G
V	Electrical heating element fitting	1"½G
1	Cold water (external thread)	1" G
2	Recirculation (external thread)	1" G
3	Hot water (external thread)	1" G
4	Vent (internal thread)	½" G

DIMENSIONS (mm)	800	1500
A	235	390
B	468	665
C	745	940
D ext	950	1200
D int	750	1000
E	1050	1200
F	1050	1500
G	1570	1710
Total H	1880	2100
L	155	205
M	245	380
N	--	630
P	730	875
Q	975	1125
R	1115	1310
S	1262	1500
T	1565	1710
V	250	300

MODEL		800	1500
Capacity	l	750	1500
DHW capacity	l	200	300
Heating water capacity	l	550	1200
Solar coil exchanger	m^2	2.5	3.9
Solar coil water content	l	15.9	24.7
Solar coil absorbed power	KW	74	116
Necessary flow rate to solar coil	m^3/h	3.2	5
Heating water production 80/60°C	m^3/h	1.8	2.8
Solar coil pressure drops	kPa	3.55	5.17
Empty weight	kg	217	307
Thermal dispersion	W	116	149
Maximum dhw operating pressure	bar	10	10
Maximum exchanger operating pressure	bar	10	10
Maximum heating operating pressure	bar	3	3
Maximum storage tank operating temperature	°C	95	95
CODE		**0YH28AXA**	**0YH2BAXA**

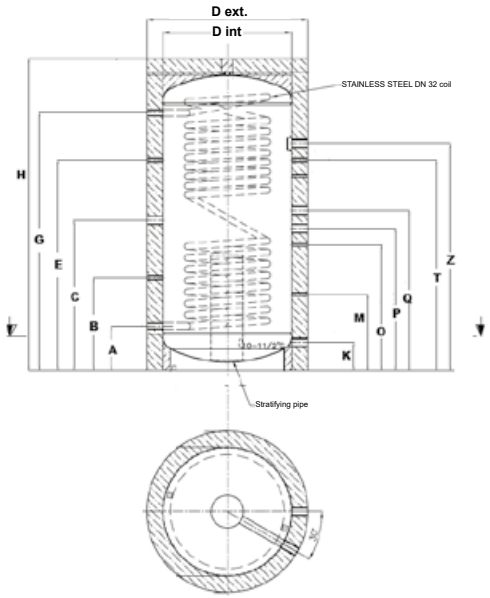
ECOMULTI H

MULTI-ENERGY PUFFER WITH STAINLESS STEEL EXCHANGER ONLY

ERP

> PRODUCT FEATURES

- Possibility of using the system as a multi-energy "puffer" with the parallel connection of several sources (ex. boiler + solar + heat pump or thermo-fireplace)
- Corrugated AISI 316L STAINLESS STEEL semi-rapid exchanger for the production of domestic hot water
- 6 probe pits + 1 for electrical heating element
- 100 mm soft PU insulation
- Double low speed controlled stratification system for the connection of the low and medium temperature system return
- No galvanic anode required (d.h.w. production is obtained with the AISI 316 stainless steel semi-rapid internal exchanger) and relative maintenance



TYPE OF FITTING		500-800	1000
1. (A)	Domestic cold water inlet	1" G	1" G
2. (B)	Probe	1/2" G	1/2" G
3. (C)	Electrical heating element	1" ½ G	1" ½ G
4.(E)	Boiler probe	1/2" G	1/2" G
6. (G)	Domestic hot water delivery	1" G	1" G
7. (K)	Boiler return	1" ¼ G	1" ½ G
8. (K)	Boiler delivery	1" ¼ G	1" ½ G
11. (N)	Solar energy delivery	1" G	1" G
12. (O)	Thermal Probe	1/2" G	1/2" G
13. (P)	Connections	1" ½ G	1" ½ G
14. (Q)	Connection	1" ½ G	1" ½ G
17. (T)	Thermometer	1/2" G	1/2" G
20. (Z)	Boiler delivery	1" ½ G	1" ½ G

DIMENSIONS (mm)	500	800	1000
A	240	270	270
B	440	570	580
C	820	920	1130
D ext	850	990	990
D int	650	790	790
E	1150	1290	1500
G	1420	1580	1760
H tot	1720	1910	2090
K	150	170	170
N	640	670	730
O	--	770	840
P	810	870	950
Q	--	870	950
T	1170	1190	1330
Z	1400	1390	1520

MODEL		500	800	1000
ERP Class	(Class F - A+)	C	N.A.	N.A.
Capacity	l	500	800	1000
DHW pipe surface	m^2	5.64	5.64	5.64
DHW volume	l	35	35	35
DHW production	m^3/h	0.417	0.660	1.230
80/60°C - 10/45°C	KW	17	27	50
Empty weight	kg	113	159	171
Thermal dispersion	W	88	115	122
Maximum dhw operating pressure	bar	6	6	6
Maximum exchanger operating pressure	bar	10	10	10
Maximum heating operating pressure	bar	3	3	3
Maximum storage tank operating temperature	°C	95	95	95
CODE		**0YH76AXA**	**0YH78AXA**	**0YH79AXA**

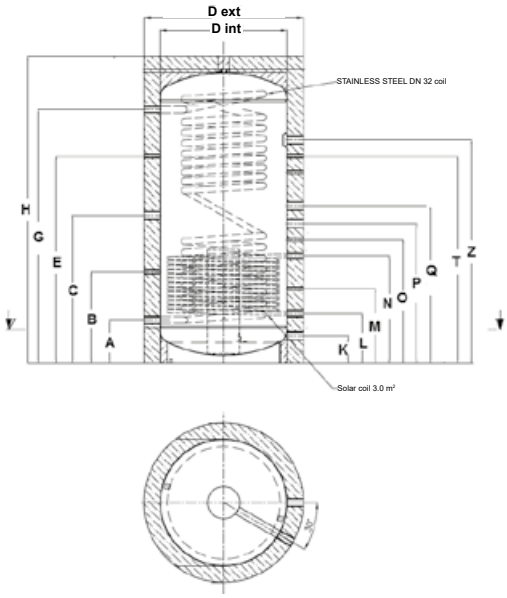
ECOMULTI H-1

MULTI-ENERGY PUFFER WITH STAINLESS STEEL EXCHANGER AND ONE FIXED EXCHANGER

ERP

> PRODUCT FEATURES

- Possibility of stratified loading from the solar circuit to optimise seasonal efficiency through a coil, or alternatively to use the system as a multi-energy "puffer" with the parallel connection of several sources (ex. boiler + solar + heat pump or thermo-fireplace)
- Corrugated AISI 316L STAINLESS STEEL semi-rapid exchanger for the production of domestic hot water
- 6 probe pits + 1 for electrical heating element
- 100 mm soft PU insulation
- Double low speed controlled stratification system for the connection of the low and medium temperature system return
- No galvanic anode required (d.h.w. production is obtained with the AISI 316 stainless steel semi-rapid internal exchanger) and relative maintenance



TYPE OF FITTING		500-1 / 800-1	1000-1
1. (A)	Domestic cold water inlet	1" G	1" G
2. (B)	Probe	1/2" G	1/2" G
3. (C)	Electrical heating element	1" ½ G	1" ½ G
4. (E)	Boiler probe	1/2" G	1/2" G
6. (G)	Domestic hot water delivery	1" G	1" G
7. (K)	Boiler return	1" ¼ G	1" ½ G
8. (K)	Boiler delivery	1" ¼ G	1" ½ G
9. (L)	Solar energy return	1" G	1" G
10. (M)	Solar probe	1/2" G	1/2" G
11. (N)	Solar energy delivery	1" G	1" G
12. (O)	Thermal Probe	1/2" G	1/2" G
13. (P)	Connections	1" ½ G	1" ½ G
14. (Q)	Connection	1" ½ G	1" ½ G
17. (T)	Thermometer	1/2" G	1/2" G
18. (Z)	Connection	1" ½ G	1" ½ G

DIMENSIONS (mm)	500-1	800-1	1000-1
A	240	270	270
B	440	570	580
C	820	920	1130
D ext	850	990	990
D int	650	790	790
E	1150	1290	1500
G	1420	1580	1760
H tot	1720	1910	2090
K	150	170	170
L	280	310	310
M	490	465	495
N	640	670	730
O	--	770	840
P	810	870	950
Q	--	870	950
T	1170	1190	1330
Z	1400	1390	1520

MODEL		500-1	800-1	1000-1
ERP Class	(Class F - A+)	C	N.A.	N.A.
Capacity	l	500	800	1000
DHW pipe surface	m^2	5.64	5.64	5.64
DHW volume	l	35	35	35
Exchanger (low)	m^2	2.3	3.0	3.0
Coil water content (low)	l	12.4	14.9	14.9
Absorbed power (low)	KW	68	89	89
Necessary flow rate to the coil (low)	m^3/h	2.9	3.8	3.8
Heating water production 80/60°C (low)	m^3/h	1.7	2.2	2.2
Low. pressure drops with flow rate of 1m^3/h	kPa	1.71	2.14	2.14
DHW production 80/60°C - 10/45°C	m^3/h KW	0.417 17	0.660 27	1.230 50
Empty weight	kg	141	194	206
Thermal dispersion	W	90	116	122
Maximum dhw operating pressure	bar	6	6	6
Maximum exchanger operating pressure	bar	10	10	10
Maximum heating operating pressure	bar	3	3	3
Maximum storage tank operating temperature	°C	95	95	95
CODE		**0YH86AXA**	**0YH88AXA**	**0YH89AXA**

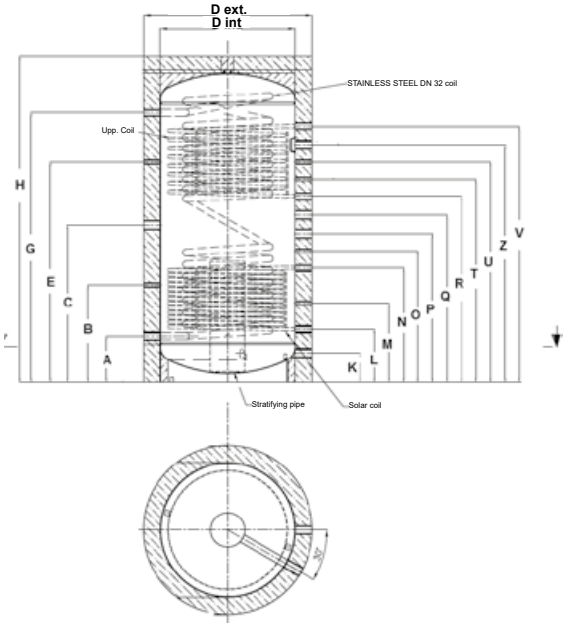
ECOMULTI H-2

ERP

MULTI-ENERGY PUFFER WITH STAINLESS STEEL EXCHANGER AND 2 FIXED EXCHANGERS

> PRODUCT FEATURES

- Possibility of stratified loading from the solar circuit to optimise seasonal efficiency through a coil, or alternatively to use the system as a multi-energy "puffer" with the parallel connection of several sources (ex. boiler + solar + heat pump or thermo-fireplace)
- Corrugated AISI 316L STAINLESS STEEL semi-rapid exchanger for the production of domestic hot water
- 6 probe pits + 1 for electrical heating element
- 100 mm soft PU insulation
- Double low speed controlled stratification system for the connection of the low and medium temperature system return
- No galvanic anode required (DHW production is obtained with the AISI 316 stainless steel semi-rapid internal exchanger) and relative maintenance



TYPE OF FITTING		500-2/800-2	1000-2
1. (A)	Domestic cold water inlet	1" G	1" G
2. (B)	Probe	1/2" G	1/2" G
3 (C)	Electrical heating element	1" ½ G	1" ½ G
4. (E)	Boiler probe	1/2" G	1/2" G
6. (G)	Domestic hot water delivery	1" G	1" G
7. (K)	Boiler return	1" ¼ G	1" ½ G
8. (K)	Boiler delivery	1" ¼ G	1" ½ G
9. (L)	Solar energy return	1" G	1" G
10. (M)	Solar probe	1/2" G	1/2" G
11. (N)	Solar energy delivery	1" G	1" G
12. (O)	Thermal Probe	1/2" G	1/2" G
13. (P)	Connections	1" ½ G	1" ½ G
14. (Q)	Connection	1" ½ G	1" ½ G
15. (R)	Alternative energy return	1" G	1" G
17. (T)	Thermometer	1/2" G	1/2" G
19. (V)	Alternative energy delivery	1" G	1" G
20. (Z)	Boiler delivery	1" ½ G	1" ½ G

DIMENSIONS (mm)	500-2	800-2	1000-2
A	240	270	270
B	440	570	580
C	820	920	1130
D ext	850	990	990
D int	650	790	790
E	1150	1290	1500
G	1420	1580	1760
H tot	1720	1910	2090
K	150	170	170
L	280	310	310
M	490	465	495
N	640	670	730
O	--	770	840
P	810	870	950
Q	--	980	1060
R	930	1090	1210
S	1050	--	--
T	1170	1190	1330
U	-	1290	1450
V	1290	1500	1680
Z	1400	1390	1520

MODEL		500-2	800-2	1000-2
ERP Class	(Class F - A+)	C	N.A.	N.A.
Capacity	l	500	800	1000
DHW pipe surface	m^2	5.64	5.64	5.64
DHW volume	l	35	35	35
Exchanger (upp/low)	m^2	2.3 / 2.3	2.0 / 3	3.0 / 3.0
Coil water content (upp/low)	l	12.4 / 12.4	14.9 / 14.9	14.9 / 14.9
Absorbed power (upp/low)	kW	68 / 68	60 / 89	89 / 89
Necessary flow rate to coil (upp/low)	m^3/h	2.9 / 2.9	2.6 / 3.8	3.8 / 3.8
Heating water production 80/60°C (upp/low)	m^3/h	1.7 / 1.7	1.5 / 2.2	2.2 / 2.2
Upp/Low. pressure drops with flow rate of $1m^3/h$	kPa	1.71 / 1.71	1.34 / 2.14	2.14 / 2.14
DHW production 80/60°C - 10/45°C	m^3/h kW	0.417 17	0.660 27	1.230 50
Empty weight	kg	169	217	250
Thermal dispersion	W	90	117	123
Maximum dhw operating pressure	bar	6	6	6
Maximum exchanger operating pressure	bar	10	10	10
Maximum heating operating pressure	bar	3	3	3
Maximum storage tank operating temperature	°C	95	95	95
CODE		**0YH96AXA**	**0YH98AXA**	**0YH99AXA**

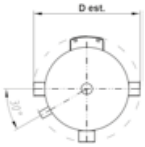
ECOPUFFER HY

INERTIAL TANK WITH THERMAL FLYWHEEL FUNCTION FOR ALTERNATIVE ENERGIES

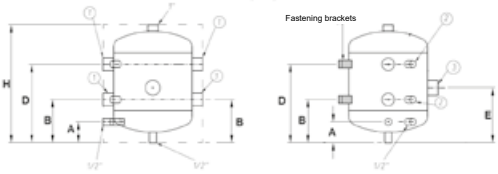
ERP

> PRODUCT FEATURES

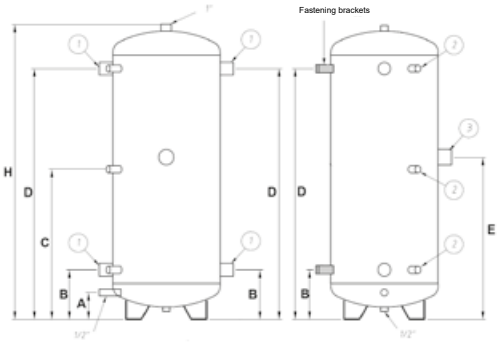
- Raw carbon steel tanks S235JR with capacity 25-50-100 l, for the storage of technical water for heating and/or cooling
- Insulated externally by a casing in rigid PU 50 mm
- Energy class B
- Outside cladding in PVC
- 3 probe thermowells



Dimensions for puffer 25 l



Dimensions for puffer 50-100 l



DIMENSIONS (mm)	25	50	100
A	80	100	100
B	165	180	185
C	-	485	560
D	300	785	935
E	210	530	605
H	450	935	1095
External diameter	400	400	500

TYPE OF FITTING		25 / 50 / 100	
1	Connection 1	1" 1/4	n° 4
2	Connection 2	1/2"	n° 3
3	Connection 3	1" 1/2	n° 1

MODEL		25	50	100
ERP Class	(Class F - A+)	B	B	B
Total volume	l	24	57	123
Heat loss	W	19	34	50
External diameter (soft insulation)	mm	400	400	500
Total height (with insulation)	mm	450	935	1095
Maximum pressure in the tank	bar		6	
Maximum temperature in the tank	°C		95	
Empty weight	kg	12	25	35
CODE		**0Y11LCX0**	**0Y11MCX0**	**0Y111CX0**

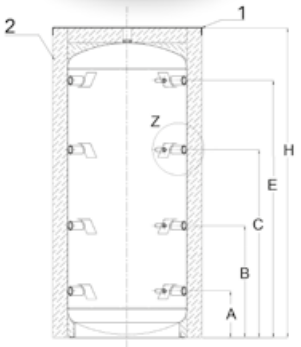
ECOPUFFER H

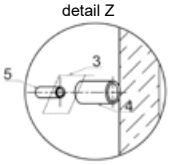
ERP

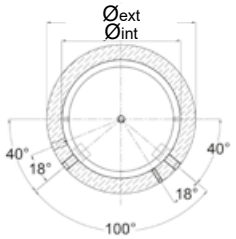
TANK FOR THE STORAGE OF TECHNICAL WATER

> PRODUCT FEATURES

- Raw carbon steel tanks S235JR without exchanger with capacity from 500 lt up to 5000 lt, for the storage of technical water
- Insulated externally with a 100 mm-thick polyester spunbond non-woven fabric (VLIES) outer casing
- Energy class C up to and including 500-litre capacity
- External anti-corrosion coating
- 3 probe pits







TYPE OF FITTING		500 / 2000	3000 - 5000
A	Connection 1	1" ½ G	2" G
B	Connection 2	1" ½ G	2" G
C	Connection 3	1" ½ G	2" G
E	Connection 4	1" ½ G	2" G
	Sensors	½" G	½" G

DIMENSIONS (mm)	500	800	1000	1500	2000	3000	5000
A (Soft insulat.)	210	260	310	372	328	390	495
B (Soft insulat.)	605	630	745	817	885	1950	1120
C (Soft insulat.)	995	1030	1250	1342	1441	1510	1745
E (Soft insulat.)	1345	1430	1710	1752	1998	1070	2375
A (Stiff insulat.)	235	-	-	-	-	-	-
B (Stiff insulat.)	630	-	-	-	-	-	-
C (Stiff insulat.)	1020	-	-	-	-	-	-
E (Stiff insulat.)	1370	-	-	-	-	-	-

MODEL		500	800	1000	1500	2000	3000	5000
ERP Class	(Class F - A+)	C	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total volume	l	471	736	888	1474	2012	2673	4978
Thermal dispersion	W	88	111	123	163	173	284	418
External diameter (soft insulation)	mm	850	990	990	1200	1300	1450	1800
Total height (soft insulation)	mm	1640	1750	2050	2150	2480	2515	2895
Maximum pressure in the tank	bar	3						
Maximum temperature in the tank	°C	95						
Empty weight	Kg	88	106	133	180	250	320	630
CODE		**0YH16AXA**	**0YH18AXA**	**0YH19AXA**	**0YH1BAXA**	**0YH1CAXA**	**0YH1DAXA**	**0YH1GAXA**

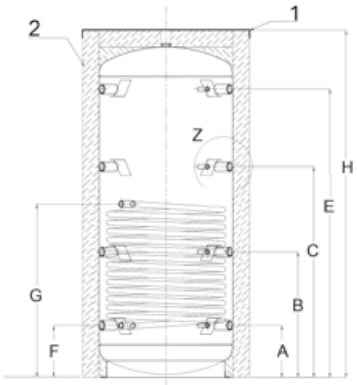
ECOPUFFER H-1

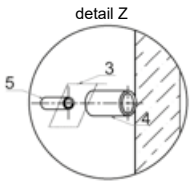
TANK FOR THE STORAGE OF TECHNICAL WATER WITH FIXED EXCHANGER

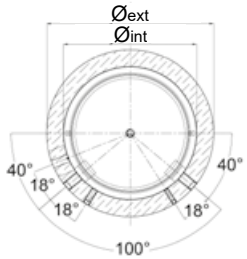
ERP

> PRODUCT FEATURES

- Raw carbon steel tanks S235JR with exchanger with capacity from 500 lt up to 5000 lt, for the storage of technical water
- Insulated externally with a 100 mm-thick polyester spunbond non-woven fabric (VLIES) outer casing
- Energy class C up to and including 500-litre capacity
- External anti-corrosion coating







TYPE OF FITTING		500 / 2000	3000 - 5000
A	Connection	1" ½ G	2" G
B	Connection	1" ½ G	2" G
C	Connection	1" ½ G	2" G
E	Connection	1" ½ G	2" G
F	Exchanger inlet	1" G	1" G
G	Exchanger outlet	1" G	1" G
	Sensors	½" G	½" G

DIMENSIONS (mm)	500	800	1000	1500	2000	3000	5000
A (Soft insulat.)	210	260	310	372	328	390	495
B (Soft insulat.)	605	630	745	817	885	1950	1120
C (Soft insulat.)	995	1030	1250	1342	1441	1510	1745
E (Soft insulat.)	1345	1430	1710	1752	1998	1070	2375
F Exchanger inlet	210	260	310	372	328	390	495
G Exchanger outlet	1105	930	1030	1172	1131	1140	1265
A (Stiff insulat.)	235	-	-	-	-	-	-
B (Stiff insulat.)	630	-	-	-	-	-	-
C (Stiff insulat.)	1020	-	-	-	-	-	-
E (Stiff insulat.)	1370	-	-	-	-	-	-

MODEL		500-1	800-1	1000-1	1500-1	2000-1	3000-1	5000-1
ERP Class	(Class F - A+)	C	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total volume	l	471	736	888	1474	2012	2673	4978
Thermal dispersion	W	88	111	123	163	173	284	418
External diameter	mm	850	990	990	1200	1300	1450	1800
Total height	mm	650	790	790	1000	1100	1250	1600
Coil surface	m^2	1.8	2.4	3.0	3.6	4.2	5.0	5.0
Coil water content	l	11.4	15.2	19.0	22.8	26.6	31.1	31.1
Exchangeable coil power	kW	53	72	89	107	125	148	148
Coil domestic hot water production	m^3/h	1.3	1.8	2.2	2.6	3.1	3.6	3.6
Necessary flow rate to the coil	m^3/h	2.3	3.1	3.8	4.6	5.4	6.4	6.4
Coil pressure drops	kPa	1.48	1.88	2.38	2.88	3.37	3.99	3.85
Maximum pressure in the tank	bar				3			
Maximum pressure in the coil	bar				3			
Maximum temperature in the tank	°C				95			
Maximum temperature in the coil	°C				110			
Empty weight	Kg	88	106	133	180	250	320	630
CODE		**0YH66AXA**	**0YH68AXA**	**0YH69AXA**	**0YH6BAXA**	**0YH6CAXA**	**0YH6DAXA**	**0YH6GAXA**

HEAT PUMPS

PRODUCT COMPLIANT WITH ERP (ECODESIGN - LABELLING) REGULATIONS
- Minimum efficiency for DHW/heating (of 26/09/2015)
- Minimum efficiency for pump (of 01/08/2015)

EGEA HT

WATER HEATER WITH HEAT PUMP FOR FLOOR STANDING INSTALLATION WITH POSITIVE AIR TEMPERATURES

ERP

> GENERAL CHARACTERISTICS:

- Air heat pump and integrated storage tank for the production of domestic hot water with inlet air temperature range not lower than 4°C
- Possibility of ducting exhaust air
- Floor-standing installation
- Available operating modes: **Eco, Auto, Boost, Electric, Fan**
- **Wi-Fi board** installed as standard and smartphone control via the **"Egea Smart"** App
- 1500 W **Electrical heater fitted in**
- Simple and intuitive **touch control panel** on board the machine
- Enamelled steel water storage tank with 50 mm polyurethane insulation
- Main aluminium heat exchanger outside of the tank
- Anti-corrosion protection with magnesium anode
- Programmable **anti legionella cycle**
- Set-up (digital input) for **activation with availability of photovoltaic energy**
- Set-up (digital input) for **activation with preferential electricity tariffs**
- Ecological gas **R134a**

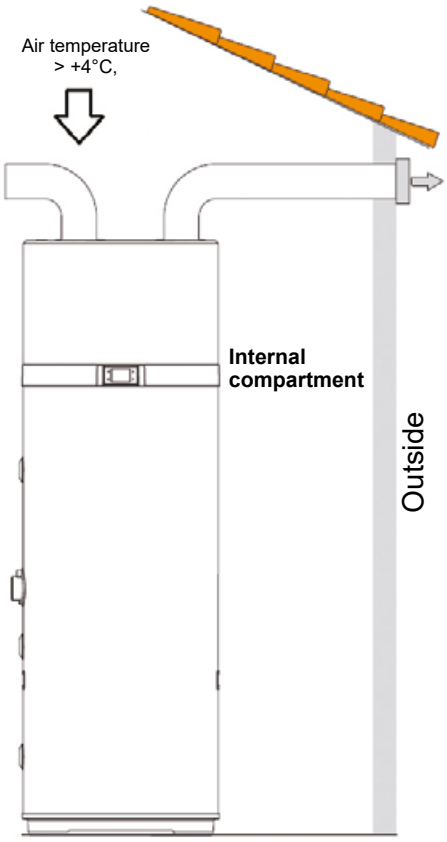
The simple and intuitive programmable control system on the machine allows you to select between different Operating Modes: **Eco:** only the heat pump (Max setpoint 62°C) / **Auto:** heat pump with electrical heater as possible support (Max setpoint 62°C) / **Boost:** heat pump and electrical heater in simultaneous mode (Max setpoint 75°C) / **Electric:** only electrical heater (Max setpoint 75°C) / **Fan:** only active ventilation.

The electronics of **EGEA are able to optimise** the integration of energy from other sources, thereby exploiting the possible availability of photovoltaic electricity.
The electronics of EGEA are able to optimise the integration of energy coming from other sources: it starts and exploits any over-production of **photovoltaic electrical energy** and raises the temperature of the water in the storage tank to the value set by the user (max 75°C).

APPLICATIONS

The air can be ducted to direct the flow appropriately for the various situations.

Use of energy that already exists in theenvironment (POWER PLANT OR LAUNDRY ROOM)



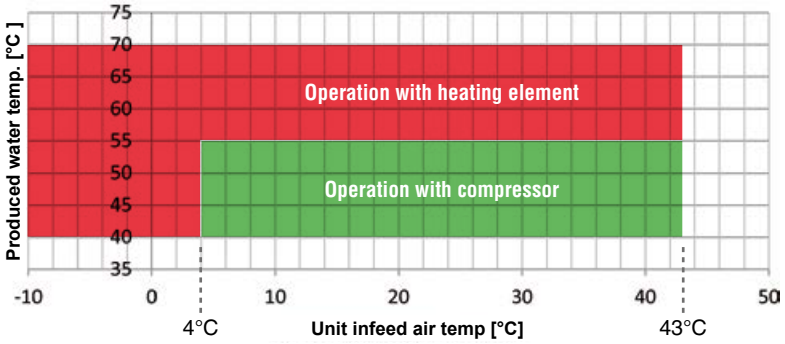
CONNECTIVITY

Thanks to the **"Egea Smart"** App, which can be downloaded to the smartphone, Egea can be fully managed by modifying its parameters and operating modes.

Egea Smart

LIMITS OF USE

Temperature range. The graph below indicates the temperature range of the produced air and water, which guarantees correct operation.



POWER SUPPLY VOLTAGE RANGE

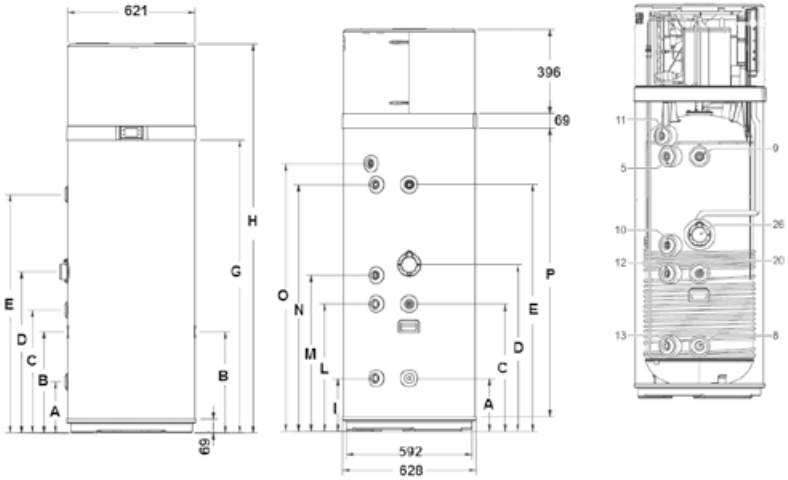
The table below provides the admissible variation conditions for the electrical power supply

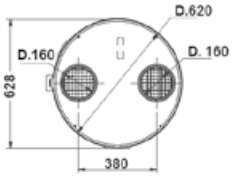
Standard power supply	230-1-50	V-ph-Hz
Admissible voltage range	207 - 254	V

GENERAL TECHNICAL DATA

EGEA		200 HT	260 HT
Rated storage capacity	l	192	250
Maximum capacity of hot water at 40°C	l	260	358
Storage loss	W	60	70
Power of integrated heating element	Wel	1500	
Electric power absorbed on average	Wel	370	
Heat output efficiency to pump	Wth	1600	
Dimensions (Ø x H)	mm	621 x 1607	621 x 1892
Empty weight	kg	80	95
Maximum water pressure	bar	7	
Maximum air temperature	°C	43	
Minimum air temperature	°C	4	
Rated airflow	m^3/h	350	
Required room cubic volume	m^3	>20	
Electric power supply parameters	V-Hz	230V - 50Hz	
Protection rating		IP24	
Internal sound power Lw(A)	dB(A)	52	
Legionella control system		Automatic	
Anti-corrosion system		no. 2 Mg Anodes	
Operating mode		Auto, Eco, Boost, Electric, Fan	
Photovoltaic connection		Yes	
Solar Thermal connection		-	
App/Wi-Fi		Yes	
Type of gas		R134a	
Loading capacity	g	1000	
Heating time at 20°C* in ECO mod.	hh:mm	07:16	09:44
Heating time at 14°C** in ECO mod.	hh:mm	09:01	11:38
Heating time in mod. BOOST*	hh:mm	03:48	04:57
COP DHW 20°C*		2.8	3.1
COP DHW 14°C*		2.5	2.6
Water heating energy efficiency class in average weather conditions		A+	A+
Water heating energy efficiency as a % in average weather conditions	%	116	127
Average energy consumption in average weather conditions	kW/h	883	1315
Declared load profile		L	XL
CODE		**2COBA02F**	**2COBA03F**

* Test in accordance with regulation EN16147-2017 with air inlet temperature of 20°C (15°C), boiler storage room temperature of 20°C, water heating from 10°C to 55°C.
** Test in accordance with regulation EN16147-2017 with air inlet temperature of 14°C (13°C), boiler storage room temperature of 20°C, water heating from 10°C to 55°C.





mod. HT	
8	Cold water inlet fitting
9	Hot water outlet fitting
10	Set-up for recirculation
11	Condensate discharge
23	Pipe for safety thermostat bulb
26	Compartment for accessing the electrical heater and safety thermostat bulb

* Plastic fitting at the outlet

MOD.	A mm	B mm	C mm	D mm	E mm	G mm	H mm	I mm	L mm	M mm	N mm	O* mm	P mm
Ø	1"G	-	1/2"G	-	1"G	-	-	3/4"G	3/4"G	3/4"G	3/4"G	1/2"G	-
200 HT	250	-	600	705	876,5	1142	1607	-	-	705	877	976	1073
260 HT	250	-	600	785	1162	1427	1892	-	-	735	1162	1261	1358

EGEA LT

WATER HEATER WITH HEAT PUMP FOR HUNG AND FLOOR STANDING INSTALLATION WITH NEGATIVE AIR TEMPERATURES

ERP

R290

R134A

> GENERAL CHARACTERISTICS:

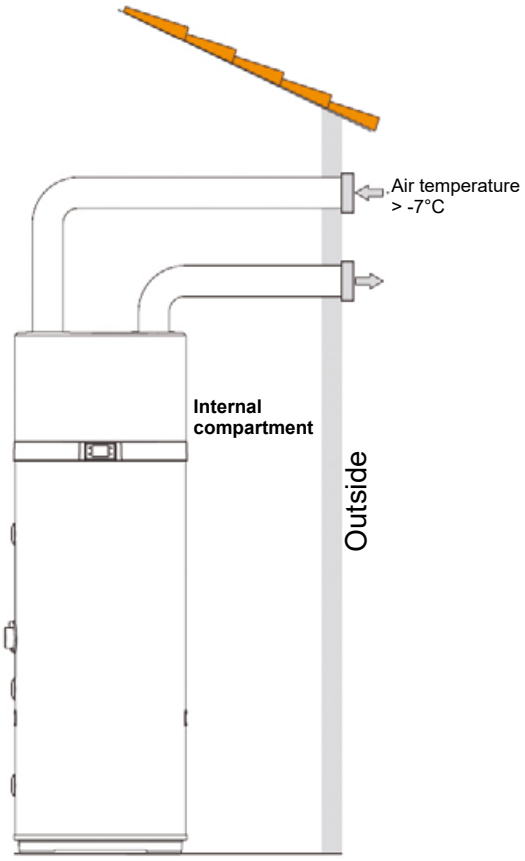
- Air heat pump and integrated storage tank for the production of domestic hot water
- Active defrosting system to function correctly down to an air temperature of -7°C
- Ecological gas **R290** for mod. 90-120 and **R134a** for mod. 200-260
- Possibility of ducting exhaust air
- Hung (mod. 90-120) and floor-standing installation (mod. 200-260
- **Electrical heater fitted in** (1500 W base - 1200 W wall hung)
- Available operating modes: **Eco, Auto, Boost, Electric, Fan**
- **Wi-Fi board** installed as standard and smartphone control via the "**Egea Smart"** App
- Simple and intuitive **touch control panel** on board the machine
- Enamelled steel water storage tank with 50 mm polyurethane insulation
- Main aluminium heat exchanger outside of the tank
- Set-up with **solar coil** ("LT-S" version).
- Double anti-corrosion magnesium anode (mod. 200-260)
- Programmable **anti legionella cycle**
- Set-up (digital input) for **activation with availability of photovoltaic energy**
- Set-up (digital input) for **activation with preferential electricity tariffs**
- Set-up (digital input) for **combination with solar thermal systems** ("LT-S" models).
- **Integrated management of solar thermal system** with forced circulation ("LT-S" models).

The simple and intuitive programmable control system on the machine allows you to select between different Operating Modes: **Eco:** only the heat pump (Max setpoint 62°C) / **Auto:** heat pump with electrical heater as possible support (Max setpoint 62°C) / **Boost:** heat pump and electrical heater in simultaneous mode (Max setpoint 75°C) / **Electric:** only electrical heater (Max setpoint 75°C) / **Fan:** only active ventilation. The electronics of EGEA are able to manage and optimise the integration of energy coming from other sources: it stops the heat pump when **solar thermal energy** (LT-S models) is available, it starts and exploits any over-production of **photovoltaic electrical energy** and raises the temperature of the water in the storage tank to the value set by the user (max 75°C). The LT-S models can be combined with a solar thermal system, regardless if it is managed by its own control unit or if the electronics of EGEA can manage the components of the solar circuit directly.

APPLICATIONS

The inlet or outlet air can be ducted to direct the flow appropriately for the various situations.

Use of energy that already exists outside



CONNECTIVITY

Thanks to the **"Egea Smart"** App, which can be downloaded to the smartphone, Egea can be fully managed by modifying its parameters and operating modes.

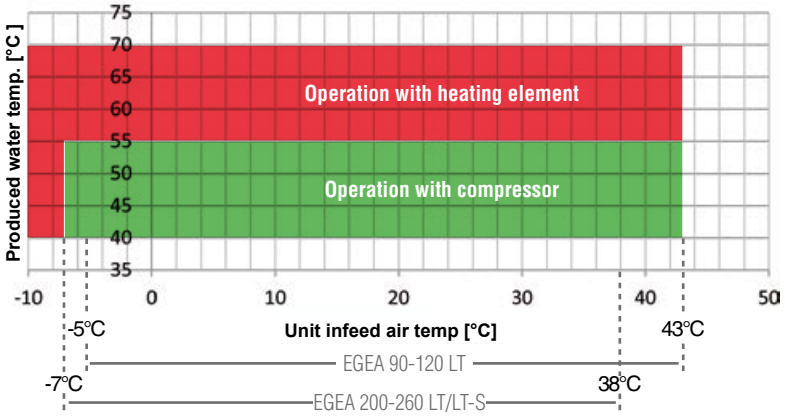
Egea Smart

Google Play

App Store

LIMITS OF USE

Temperature range. The graph below indicates the temperature range of the produced air and water, which guarantees correct operation.



POWER SUPPLY VOLTAGE RANGE

The table below provides the admissible variation conditions for the electrical power supply

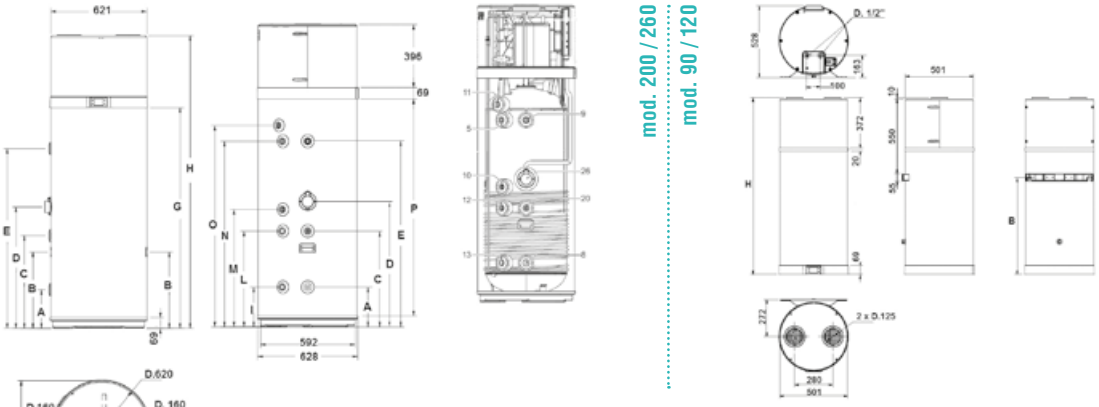
Standard power supply	230-1-50	V-ph-Hz
Admissible voltage range	207 - 254	V

GENERAL TECHNICAL DATA

EGEA		90 L	120 L	200 LT	260 LT	200 LT-S	260 LT-S
Rated storage capacity	l	89	118	192	250	187	247
Maximum capacity of hot water at 40°C	l	98	128	273	338	270	333
Storage loss	W	40	46	63	71	63	71
Power of integrated heating element	Wel	1200		1500		1500	
Electric power absorbed on average	Wel	270	270	430		430	
Heat output efficiency to pump	Wth	833		1820		1820	
Dimensions (Ø x H)	mm	510 x 1380	510 x 1530	621 x 1607	621 x 1892	621 x 1607	621 x 1892
Empty weight	kg	60	70	77	97	80	100
Maximum water pressure	bar	7		7		7	
Maximum / minimum air temperature	°C	43 / -5		43 / -7		43 / -7	
Rated airflow	m^3/h	190		350 / 500		350 / 500	
Required room cubic volume	m^3	15		> 20		> 20	
Electric power supply parameters	V-Hz	230V - 50Hz		230V - 50Hz		230V - 50Hz	
Protection rating		IP24					
Internal sound power Lw(A)	dB(A)	52		50		50	
Legionella control system		Automatic					
Anti-corrosion system		no. 1 Mg Anode		no. 2 Mg Anodes			
Operating mode		Auto, Eco, Boost, Electric, Fan					
Photovoltaic connection		Yes		Yes		Yes	
Solar Thermal connection		-		No		Yes	
App/Wi-Fi		Yes		Yes		Yes	
Type of gas		R290		R134a			
Loading capacity	g	150		1000		1000	
Heating time at 7°C in ECO mod.	hh:mm	05:52*	08:15**	08:17	10:14	08:17	10:14
Heating time at 14°C in ECO mod.	hh:mm	04:02**	06:26**	06:01	07:39	06:01	07:39
Heating time in mod. BOOST	hh:mm	02:30*	04:30*	03:58	05:06	03:58	05:06
COP DHW 7°C		2.6*	2.7**	3.23	3.38	3.23	3.38
COP DHW 14°C		2.7**	2.8**	3.49	3.59	3.49	3.59
Internal coil for solar heating		-	-	-	-	0.72	0.72
Water heating energy efficiency class in average weather conditions		A+	A+	A+	A+	A+	A+
Water heating energy efficiency as a % in average weather conditions	%	107	112	135	139	135	139
Average energy consumption in average weather conditions	kW/h	479	458	758	1203	758	1203
Declared load profile		M	M	L	XL	L	XL
CODE		**2COBA00F**	**2COBA01F**	**2COBA04F**	**2COBA05F**	**2COBA06F**	**2COBA07F**

- Test in accordance with regulation EN16147-2017 with air inlet temperature of 7°C (6°C), boiler storage room temperature of 20°C, water heating from 10°C to 53°C. **(*)**
- Test in accordance with regulation EN16147-2017 with air inlet temperature of 14°C (13°C), boiler storage room temperature of 20°C, water heating from 10°C to 53°C. **(**)**

ACCESSORIES	DESCRIPTION
043007X0	**ONLY FOR LT-S VERSIONS** solar manifold probe (see solar thermal)



mod. LT	
8	Cold water inlet fitting
9	Hot water outlet fitting
10	Set-up for recirculation
11	Condensate discharge
12	Set-up for inlet thermal coil (only mod. LT-S)
13	Set-up for outlet thermal coil (only mod. LT-S)
20	Probe thermowell for solar (only mod. LT-S)
23	Pipe for safety thermostat bulb
26	Compartment for accessing the electrical heater and safety thermostat bulb

MOD.	A mm	B mm	C mm	D mm	E mm	G mm	H mm	I mm	L mm	M mm	N mm	O* mm	P mm
Ø	1"G	-	1/2"G	-	1"G	-	-	3/4"G	3/4"G	3/4"G	3/4"G	1/2"G	-
90 LT	-	711	-	-	-	-	1303	-	-	-	-	-	-
120 LT	-	963	-	-	-	-	1555	-	-	-	-	-	-
200 LT-S	250	490	600	705	876,5	1142	1607	250	599	705	877	976	1073
260 LT-S	250	493	600	785	1162	1427	1892	250	600	735	1162	1261	1358
200 LT	250	-	600	705	876,5	1142	1607	-	-	705	877	976	1073
260 LT	250	-	600	785	1162	1427	1892	-	-	735	1162	1261	1358

* Plastic fitting at the outlet

OMNIA HYBRID C

REVERSIBLE HYBRID AIR-WATER HEAT PUMPS FOR SPLIT INSTALLATION WITH INSTANTANEOUS DHW PRODUCTION

ERP

R410A

DC

COLLECTIVE PRESSURISED

MULTI COMB. CONTROL

MODE

FLUE GAS Ø 50mm

METHANE LPG READY

> GENERAL CHARACTERISTICS:

- The family of **OMNIA HYBRID C hybrid heat pumps** integrates the technology of the **heat pump** and the **condensing boiler** with instantaneous dhw production in a single compact product.
- This represents the **ideal solution for replacing old** existing **boilers, also on high temperature system with radiators**.
- The **compact dimensions**, similar to those of a wall-hung boiler, make it easier to replace without losing significant space or requiring significant restructuring work.
- **Internal electronics**, by running the boiler or the heat pump as the climatic conditions vary, **optimise the output of the system** by always working **in the most economic consumption-related modes possible**.
- **During heat pump operation** in heating or conditioning mode, **the boiler can produce dhw at the same time** without interfering on heat pump operation, **thereby maximising the comfort of** both services.
- If the **heat pump is partially or fully blocked, the boiler can operate separately in heating and dhw production.**
- IT IS composed of an **external inverter unit** available in 3 power sizes associated with an **internal condensation unit with integrated** hydronic module for cooling circuit control.
- A highly versatile system **that can operate in particularly cold climatic conditions** (outdoor air down to -20°C).
- **The split cooling circuit avoids the risk of freezing** in particularly cold outdoor applications.
- **The user interface** is composed of a **digital remote controller** equipped with a large display and simple setting controls.

> CHARACTERISTICS OF EXTERNAL UNIT:

- Approved for **outdoor operation in completely exposed site.**
- **Breakaway starting current** thanks to Inverter technology.
- **Compressor** with **twin rotary DC INVERTER motor** on vibration damping supports and wrapped in double layer of soundproofing material to reduce vibrations and noise to a minimum.
- The compressor is also equipped with **casing oil heating element.**
- Two-flow electronic expansion vessel, cycle inversion valve.
- **Axial fans** with **brushless DC** motor complete with protective grids.
- **Outdoor air temperature probe already installed on the unit.**

> CHARACTERISTICS OF INTERNAL UNIT:

- A particularly sturdy boiler, **suitable for replacements even in particularly critical and resistant systems.**
- **Combustion module with high modulation range (1:10) with high thickness stainless steel primary exchanger, with larger** passes maintaining high efficiency even on old systems with oxidation and soiling
- **M.G.R: M**ethane, **L**PG, Propane air **R**eady, with a simple configuration the internal unit can run on natural gas, lpg without the use of any additional conversion kits.
- **MC²: M**ulti **C**ombustion **C**ontrol, combustion system with **gas-adaptive patented technology** for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- **F.P.S: F**lue gas **P**rotection **S**ystem. The standard flue gas check valve offers easy connection to pressurised collective flue systems
- **Particularly suitable for operation in flues requiring "heavy duty" pipes** thanks to approval for operation with **flue gas exhaust with a diameter of 50mm.**
- **Can be combined with preheating systems for the domestic hot water.**
- **Place of installation:** also for outdoor use in a partially protected place that is up to -5°C, as standard

> THE CONTROL SYSTEM

- Comprised of a wired-remote digital controller (max 50 m from the I.U).
- **Heating and cooling system:** for single-zone systems it is possible to use the control unit as a room thermostat.
- **Energy sources:** the boiler can be started in Integration or Replacement of the heat pump and also if the heat pump is not working.
- **Silenced mode:** according to a programmed schedule, this reduces the maximum frequency of the compressor and the fan speed, to reduce the generated noise and the power absorbed by the unit.
- **Eco Mode:** possibility of defining a time slot in hot mode where the heat pump runs with a sliding setpoint defined by the chosen climatic curve. There are 8 climatic curves for low temperature systems (radiant floor) and 8 climatic curves for fan coil or radiator systems).
- **Weekly programming:** this makes it possible to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT) and the work setpoint.

GENERAL DATA		OMNIA HY 04E 28 C		OMNIA HY 06E 28 C		OMNIA HY 08E 28 C	
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)	(Class G - A++)	A++	127	A++	133	A++	126
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)	(Class G - A++)	A+++	183	A+++	187	A++	171
Electric power supply	V-ph-Hz	220-240V ~ 50 Hz					
Type of compressor	-	Twin Rotary					
No. of compressors / No. of cooling circuits	No.	1/1					
Type of exchanger system side	-	brazed stainless steel plates					
Type of exchanger source side	-	finned coil					
Type of fans	-	brushless DC					
No. of fans	No.	1					
Cooler fittings - liquid line	ø	9.52					
Cooler fittings - gas line	ø	15.88					
Internal unit expansion vessel volume	l	8					
SWL - External unit sound power level*	dB(A)	62		66		69	
SWL - Internal unit sound power level*	dB(A)	43					
External unit weight	kg	60		60		76	
Internal unit weight	kg	28					

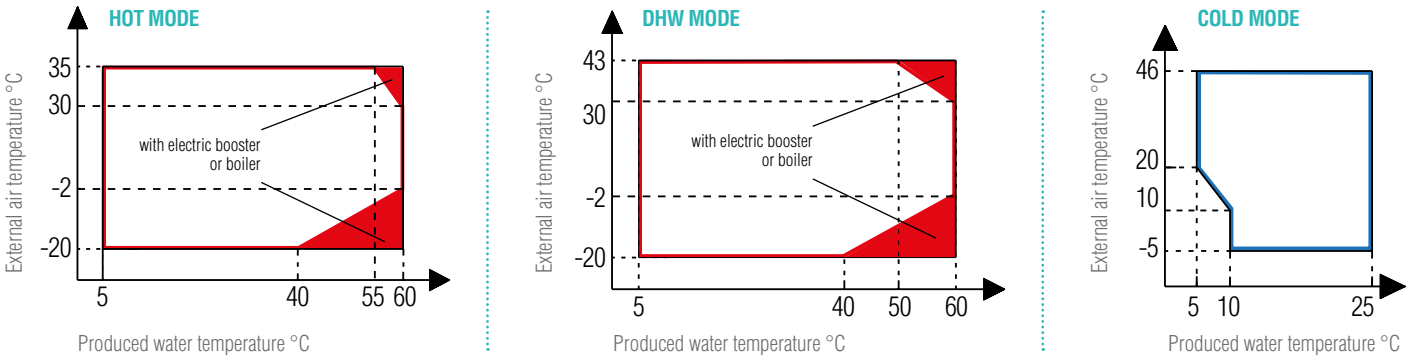
NOTE: Efficiency class calculated according to European regulation 811/2013. The values refer to units without any optional features or accessories.
*** SWL =** Sound power levels, referring to $1x10^{-12}$ W with unit operating in **A7W55** conditions
The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is therefore the only binding sound data.
The sound pressure levels are values calculated from the sound power level (SWL) by applying the relations of ISO-3744.

HEAT PUMP PERFORMANCE			OMNIA HY 04E 28 C	OMNIA HY 06E 28 C	OMNIA HY 08E 28 C
A7W35	Heat output	kW	4.10	6.10	8.00
	Absorbed power	kW	0.82	1.29	1.73
	COP	kW/kW	5.00	4.73	4.62
A7W45	Heat output	kW	4.01	5.96	7.34
	Absorbed power	kW	1.13	1.68	2.13
	COP	kW/kW	3.55	3.55	3.45
A35W18	Cooling capacity	kW	4.10	6.20	8.00
	Absorbed power	kW	0.84	1.43	1.93
	EER	kW/kW	4.88	4.34	4.15
A35W7	Cooling capacity	kW	4.12	6.15	6.44
	Absorbed power	kW	1.30	2.08	2.24
	EER	kW/kW	3.17	2.96	2.88

The values refer to units without any optional features or accessories.
Data declared according to **EN 14511**:
EER (Energy Efficiency Ratio) = ratio of cooling capacity in relation to absorbed power
COP (Coefficient Of Performance) = ratio of heat output in relation to absorbed power
A7W35 = source : air in 7°C D.B. 6°C W.B. / system : water in 30°C out 35°C
A7W45 = source : air in 7°C D.B. 6°C W.B. / system : water in 40°C out 45°C
A35W18 = source : air in 35°C D.B. / system : water in 23°C out 18°C
A35W7 = source : air in 35°C D.B. / system : water in 12°C out 7°C
NOTE: Efficiency class calculated according to European regulation **811/2013**. The values refer to units without any optional features or accessories.

THERMAL GENERATOR PERFORMANCE		OMNIA HY 04E 28 C	OMNIA HY 06E 28 C	OMNIA HY 08E 28 C
Heating max /min heat input (Hs)	kW	27.2 / 3.2		
Heating max /min heat output (80/60°C)	kW	24 / 2.8		
Heating max /min heat output (50/30°C)	kW	26 / 3.1		
DHW max / min heat input (Hi)	kW	28.5 / 2.9		
DHW max / min heat output	kW	28.0 / 2.8		
Efficiency Pmax / Pmin (80-60°C) (Hi)	%	98.1 / 98		
Efficiency Pmax / Pmin (50-30°C) (Hi)	%	106.1 / 107.5		
Efficiency 30% (Hi)	%	109.7		
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	16.1		
DHW flow rate Δt 30°C	l/min	13.4		
CODE EU + IU		**0XH04GWA**	**0XH06GWA**	**0XH08GWA**

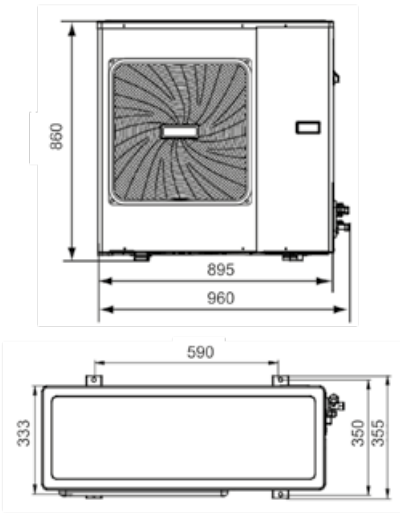
OPERATING LIMITS



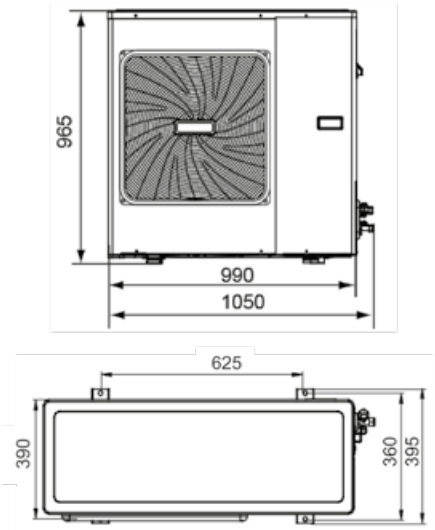
NOTE ON DHW MODE: Produced water temperature means the water temperature produced by the unit and not the DHW temperature available to the user which is a function of this parameter and of the surface of the coil of the DHW tank.

OVERALL DIMENSIONS OF EXTERNAL UNIT

mod. 4 - 6

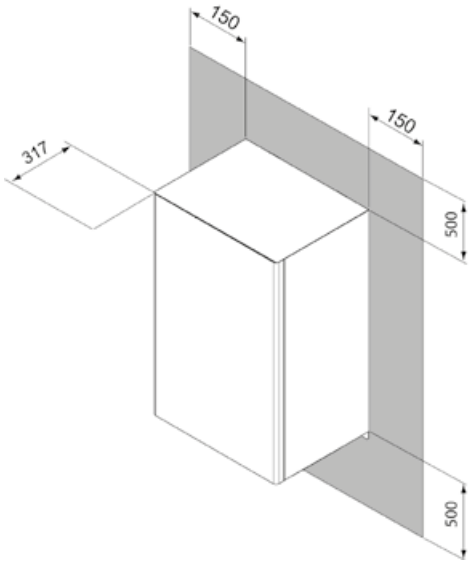


mod. 8

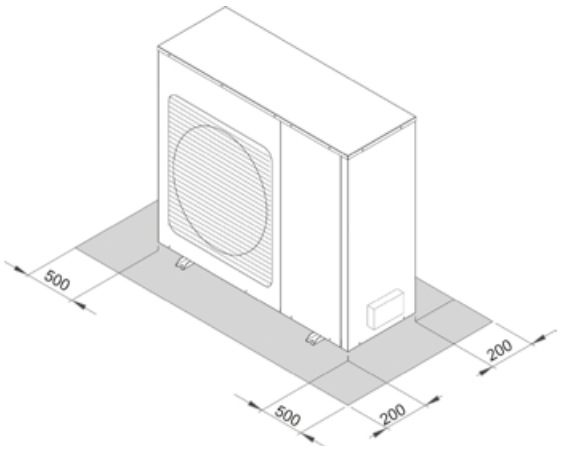


MINIMUM OPERATING SPACES

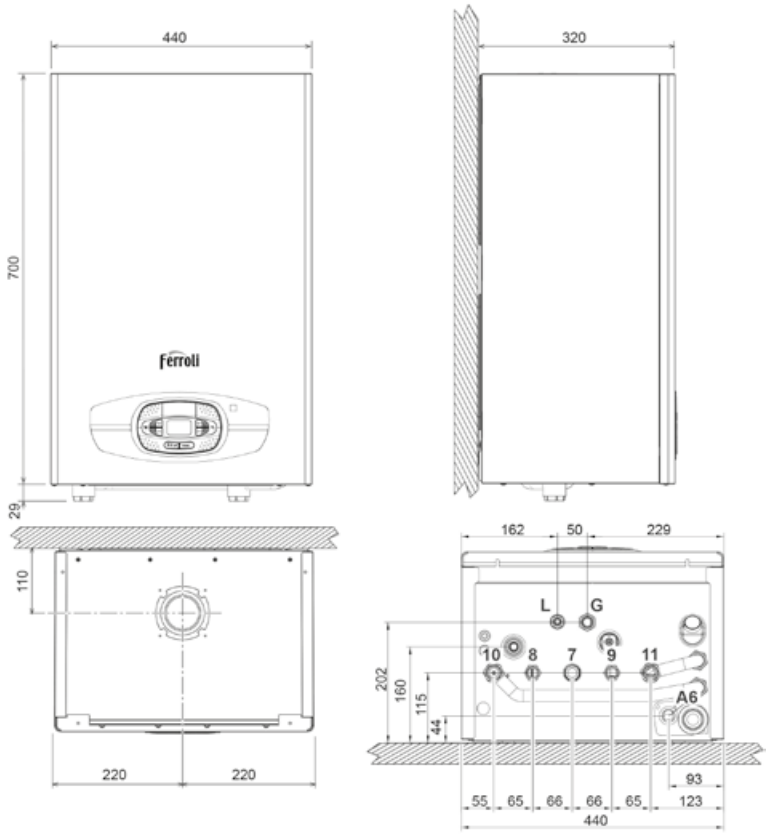
INTERNAL UNIT



EXTERNAL UNIT



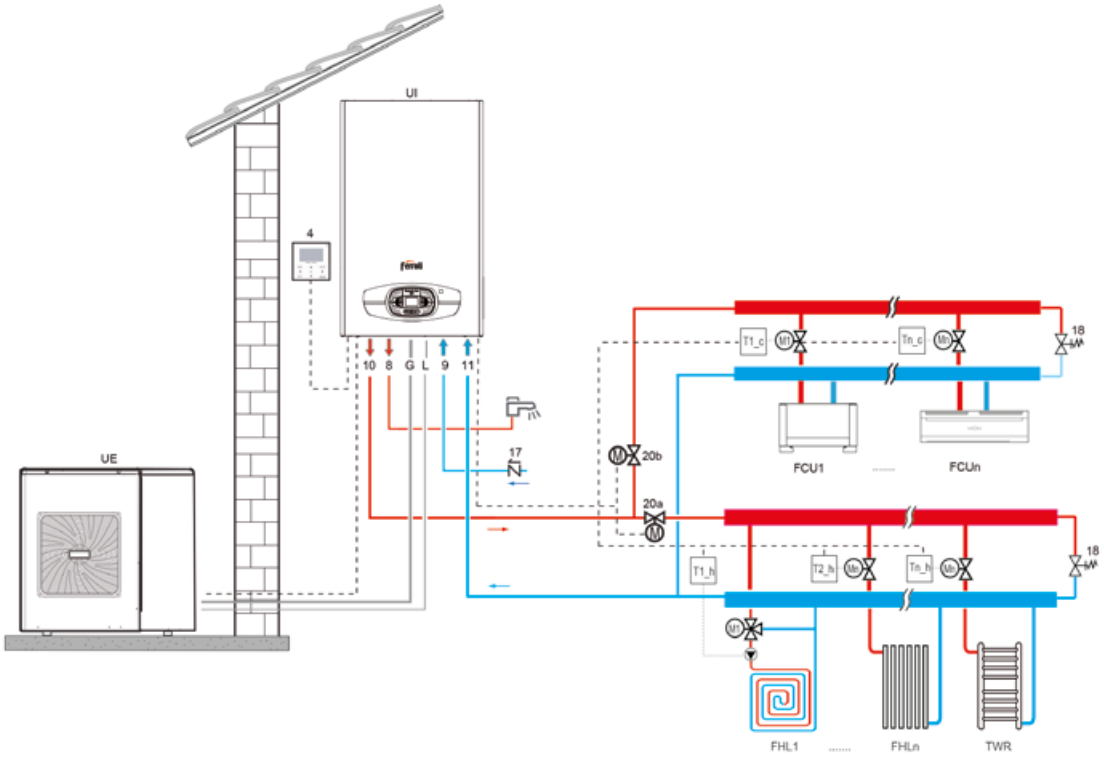
OVERALL DIMENSIONS OF INTERNAL UNIT



> KEY

7	Gas inlet - Ø 3/4"
8	DHW water outlet - Ø 1/2"
9	DHW inlet - Ø 1/2"
10	System flow - Ø 3/4"
11	System return - Ø 3/4"
A6	Condensate discharge connection
L	Liquid line
G	Gas line

EXAMPLE OF SYSTEM DIAGRAM



> KEY **IU** Internal unit **EU** External unit **4** Wired remote control (provided per standard with the heat pump) **8** DHW outlet - Ø 1/2" **9** DHW inlet - Ø 1/2" **10** System flow - Ø 3/4" **11** System return - Ø 3/4" **17** Check valve (not supplied) **18** Bypass valve (not supplied) **20a** Two-way valve (not supplied), controlled by SV2 **20b** Two-way valve (not supplied), controlled by SV2 in denied logic **G** Gas Line **I** Liquid Line **T1_c - Tn_c** Cold request room thermostat (not supplied) **T1_h - Tn_h** Hot request room thermostat (not supplied) **FCU 1...n** Air terminal: it can only be used for cooling with radiant floor heating or for cooling and heating without radiant floor **FHL 1...n** Radiant floor / radiator only heating in zones **TWR** Integration of towel warmer in bathroom: if connected to the heating system it must be integrated with an electrical resistor (R) actuated by the control (C) which closes the valve at the same time (M); if not connected to the system, heating is provided by the resistor only (R) actuated by the control (C) **- - - -** Electrical connections

OMNIA HYBRID H

AIR-WATER REVERSIBLE HYBRID HEAT PUMPS FOR SPLIT INSTALLATION, COMBINABLE WITH EXTERNAL DHW STORAGE TANK

ERP

R410A

DC

COLLECTIVE PRESSURISED

F P S

MULTI COMB. CONTROL

m C²

FLUE GAS Ø 50mm

50

METHANE LPG READY

M G R

> GENERAL CHARACTERISTICS:

- The family of **OMNIA HYBRID H hybrid heat pumps** integrates the technology of the **heat pump** and the **heating-only condensing boiler** in a single compact product
- **It is the ideal solution for new builds and «major» renovations**
- The **compact dimensions**, similar to those of a wall-hung boiler, make it easier to replace without losing significant space or requiring significant restructuring work.
- **The internal electronics**, by turning on the boiler or heat pump as the climatic conditions vary, **optimise the efficiency of the system** by always running in the **most economically convenient modes in terms of consumption.**
- **During heat pump operation** in heating or in conditioning, **the boiler can simultaneously produce DHW in the external DHW storage** without interfering on the operation of the heat pump, **thereby maximising the comfort** of both services.
- If the **heat pump is partially or fully blocked, the boiler can operate separately in heating and dhw production.**
- IT IS comprised of an **inverter external unit** available in 3 power sizes associated to an **internal condensation unit with integrated** hydronic module to control the cooling circuit.
- A highly versatile system **that operates in particularly cold climatic conditions** (outdoor air down to -20°C).
- **The split cooling circuit avoids the risk of freezing** in particularly cold outdoor applications.
- **The user interface** is comprised of a **digital remote controller** equipped with a large screen and simple settings controls.

> CHARACTERISTICS OF THE EXTERNAL UNIT:

- Approved for **outdoor operation in completely exposed site.**
- **Breakaway starting current** thanks to Inverter technology.
- **Compressor** with **twin rotary DC INVERTER motor** on vibration damping supports and wrapped in double layer of soundproofing material to reduce vibrations and noise to a minimum.
- The compressor is also equipped with **casing oil heating element.**
- Two-flow electronic expansion vessel, cycle inversion valve.
- **Axial fans** with **brushless DC** motor complete with protective grids.
- **Outdoor air temperature probe already installed on the unit.**

> CHARACTERISTICS OF INTERNAL UNIT:

- **Combustion module with high modulation range with high thickness stainless steel primary exchanger with larger passes that maintains** high efficiency even on old systems with oxidation and fouling.
- **M.G.R: M**ethane, **L**PG, Propane air **R**eady, with a simple configuration the internal unit can run on natural gas, lpg without the use of any additional conversion kits.
- **MC²: M**ulti **C**ombustion **C**ontrol, combustion system with **gas-adaptive patented technology** for better adaptability of use to the varying gas network conditions (ex. pressure fluctuations or drops)
- **F.P.S: F**lue gas **P**rotection **S**ystem. The standard flue gas check valve offers easy connection to pressurised collective flue systems
- **Particularly suitable for operation in flues requiring "heavy duty" pipes** thanks to approval for operation with **flue gas exhaust with a diameter of 50mm.**
- **Place of installation:** also for outdoor use in a partially protected place that is up to -5°C, as standard

> THE CONTROL SYSTEM

- Comprised of a wired-remote digital controller (max 50 m from the I.U).
- **Heating and cooling system:** for single-zone systems it is possible to use the control unit as a room thermostat.
- **Energy sources:** the boiler can be started in Integration or Replacement of the heat pump and also if the heat pump is not working.
- **Silenced mode:** according to a programmed schedule, this reduces the maximum frequency of the compressor and the fan speed, to reduce the generated noise and the power absorbed by the unit.
- **Eco Mode:** possibility of defining a time slot in hot mode where the heat pump **runs with a sliding setpoint defined by the chosen climatic curve.** There are 8 climatic curves for low temperature systems (radiant floor) and 8 climatic curves for fan coil or radiator systems).
- **Weekly programming:** this makes it possible to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT) and the work setpoint.

GENERAL DATA		OMNIA HY 04E 24 H		OMNIA HY 06E 24 H		OMNIA HY 08E 24 H	
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)	(Class G - A++)	A++	127	A++	133	A++	126
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)	(Class G - A++)	A+++	183	A+++	187	A++	171
Electric power supply	V-ph-Hz	220-240V ~ 50 Hz					
Type of compressor	-	Twin Rotary					
No. of compressors / No. of cooling circuits	No.	1/1					
Type of exchanger system side	-	brazed stainless steel plates					
Type of exchanger source side	-	finned coil					
Type of fans	-	brushless DC					
No. of fans	No.	1					
Cooler fittings - liquid line	ø	9.52					
Cooler fittings - gas line	ø	15.88					
Internal unit expansion vessel volume	l	8					
SWL - External unit sound power level*	dB(A)	62		66		69	
SWL - Internal unit sound power level*	dB(A)	43					
External unit weight	kg	60		60		76	
Internal unit weight	kg	28					

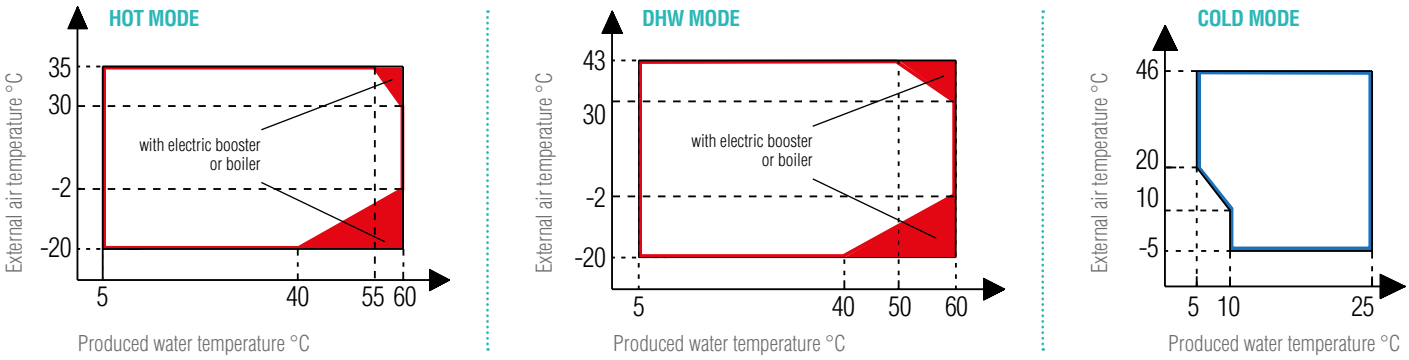
NOTE: Efficiency class calculated according to European regulation 811/2013. The values refer to units without any optional features or accessories.
* **SWL =** Sound power levels, referring to $1x10^{-12}$ W with unit operating in **A7W55** conditions
The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is therefore the only binding sound data.
The sound pressure levels are values calculated from the sound power level (SWL) by applying the relations of ISO-3744.

HEAT PUMP PERFORMANCE			OMNIA HY 04E 24 H	OMNIA HY 06E 24 H	OMNIA HY 08E 24 H
A7W35	Heat output	kW	4.10	6.10	8.00
	Absorbed power	kW	0.82	1.29	1.73
	COP	kW/kW	5.00	4.73	4.62
A7W45	Heat output	kW	4.01	5.96	7.34
	Absorbed power	kW	1.13	1.68	2.13
	COP	kW/kW	3.55	3.55	3.45
A35W18	Cooling capacity	kW	4.10	6.20	8.00
	Absorbed power	kW	0.84	1.43	1.93
	EER	kW/kW	4.88	4.34	4.15
A35W7	Cooling capacity	kW	4.12	6.15	6.44
	Absorbed power	kW	1.30	2.08	2.24
	EER	kW/kW	3.17	2.96	2.88

The values refer to units without any optional features or accessories.
Data declared according to **EN 14511**:
EER (Energy Efficiency Ratio) = ratio of cooling capacity in relation to absorbed power
COP (Coefficient Of Performance) = ratio of heat output in relation to absorbed power
A7W35 = source : air in 7°C D.B. 6°C W.B. / system : water in 30°C out 35°C
A7W45 = source : air in 7°C D.B. 6°C W.B. / system : water in 40°C out 45°C
A35W18 = source : air in 35°C D.B. / system : water in 23°C out 18°C
A35W7 = source : air in 35°C D.B. / system : water in 12°C out 7°C
NOTE: Efficiency class calculated according to European regulation **811/2013**. The values refer to units without any optional features or accessories.

THERMAL GENERATOR PERFORMANCE		OMNIA HY 04E 24 H	OMNIA HY 06E 24 H	OMNIA HY 08E 24 H
Heating max /min heat input (Hs)	kW	24.2 / 3.2		
Heating max /min heat output (80/60°C)	kW	24 / 2.8		
Heating max /min heat output (50/30°C)	kW	26 / 3.1		
Efficiency Pmax / Pmin (80-60°C) (Hi)	%	98.1 / 98		
Efficiency Pmax / Pmin (50-30°C) (Hi)	%	106.1 / 107.5		
Efficiency 30% (Hi)	%	109.7		
Max / min heating operating pressure	bar	3 / 0.8		
CODE EU + IU		**0XH04IWA**	**0XH06IWA**	**0XH08IWA**

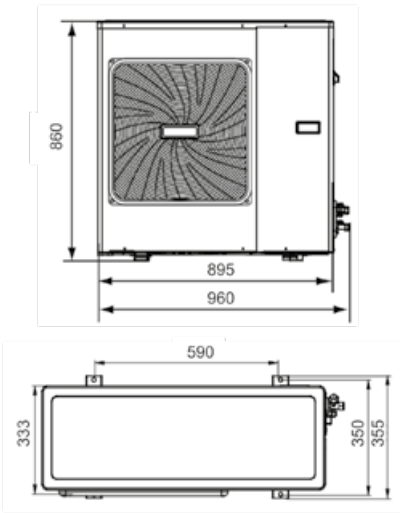
OPERATING LIMITS



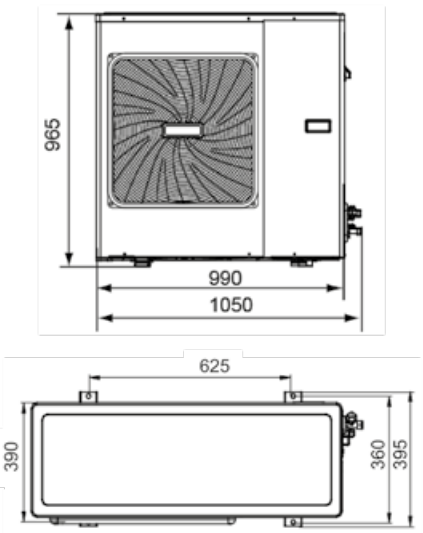
NOTE ON DHW MODE: Produced water temperature means the water temperature produced by the unit and not the DHW temperature available to the user which is a function of this parameter and of the surface of the coil of the DHW tank.

OVERALL DIMENSIONS OF EXTERNAL UNIT

mod. 4 - 6

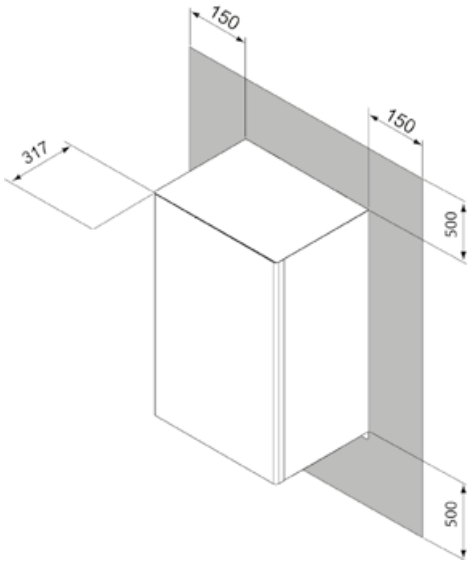


mod. 8

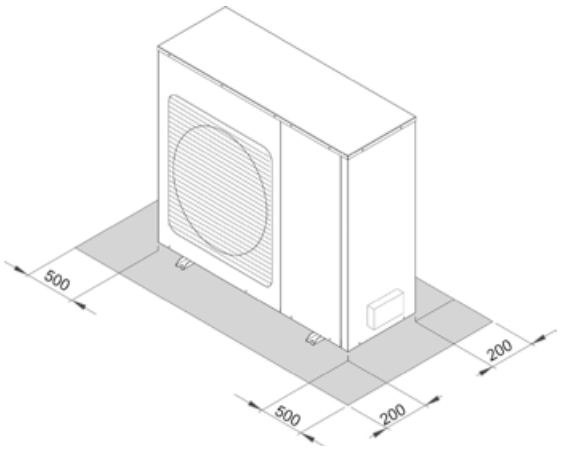


MINIMUM OPERATING SPACES

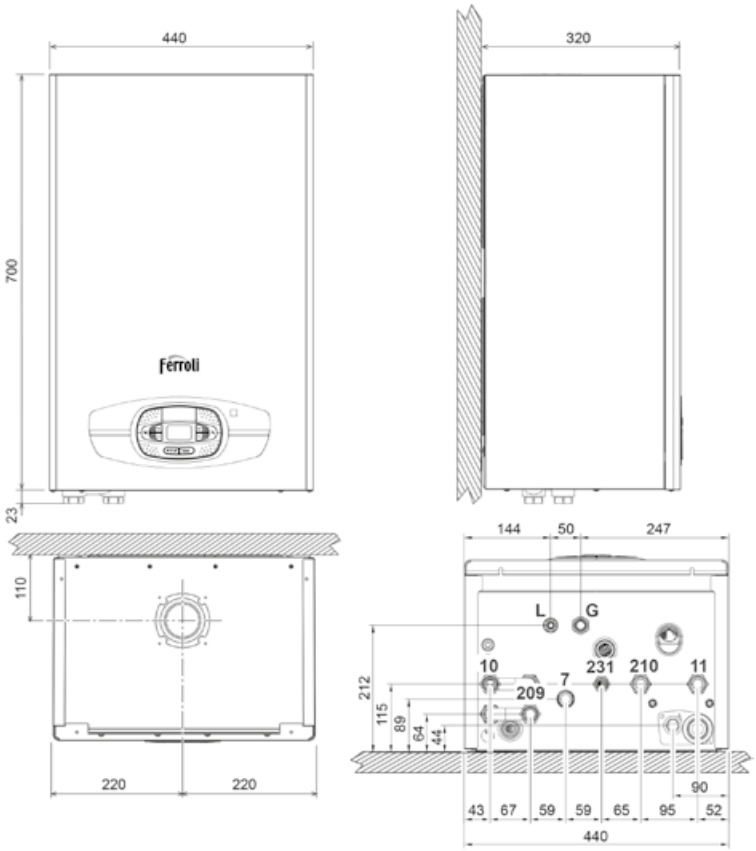
INTERNAL UNIT



EXTERNAL UNIT



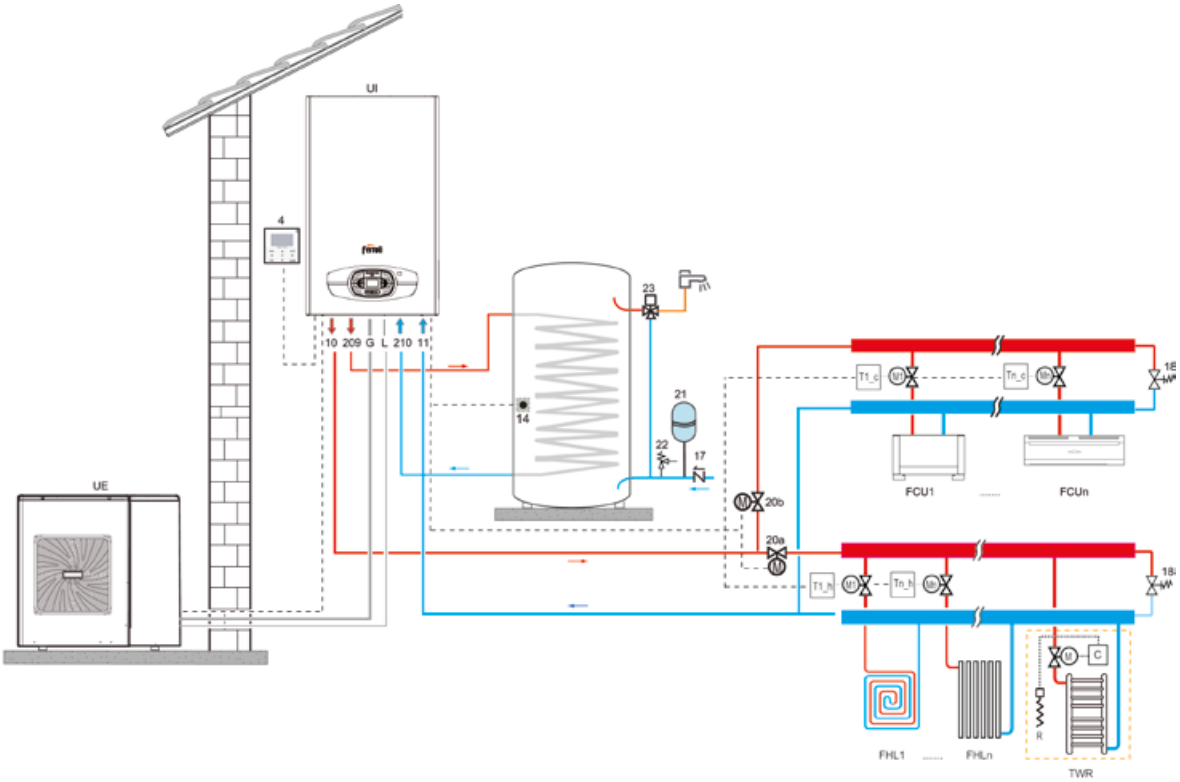
OVERALL DIMENSIONS OF INTERNAL UNIT



> KEY

7 Gas inlet - Ø 3/4"
10 System flow - Ø 3/4"
11 System return - Ø 3/4"
209 Storage tank delivery - Ø 3/4"
210 Storage tank return - Ø 3/4"
231 Filling fitting - Ø 1/2"
A6 Condensate discharge connection
L Liquid line
G Gas line

EXAMPLES OF SYSTEM DIAGRAM



> KEY **IU** Internal unit **EU** External unit **4** Wired remote control (provided per standard with the heat pump) **10** System flow - Ø 3/4" **11** System return - Ø 3/4" **14** T5 temperature probe (supplied, installed by the installation technician) **17** Check valve (not supplied) **18** Bypass valve (not supplied) **20a** Two-way valve (not supplied), controlled by SV2 **20b** Two-way valve (not supplied), controlled by SV2 in denied logic **21** DHW expansion vessel (not supplied) **22** DHW safety valve (not supplied) **23** Thermostatic mixing valve (not supplied) **209** Storage tank delivery - Ø 1/2" **210** Storage tank return - Ø 1/2" **G** Gas Line **I** Liquid Line **T1_c - Tn_c** Cold request room thermostat (not supplied) **T1_h - Tn_h** Hot request room thermostat (not supplied) **FCU 1...n** Air terminal: it can only be used for cooling with radiant floor heating or for cooling and heating without radiant floor **FHL 1...n** Radiant floor / radiator only heating in zones **TWR** Integration of towel warmer in bathroom: if connected to the heating system it must be integrated with an electrical resistor (R) actuated by the control (C) which closes the valve at the same time (M); if not connected to the system, heating is provided by the resistor only (R) actuated by the control (C) **- - - -** Electrical connections

OMNIA H

AIR-WATER REVERSIBLE HEAT PUMPS FOR SPLIT INSTALLATION

ERP

R410A

DC

> GENERAL CHARACTERISTICS:

- The OMNIA H family of heat pumps meets the needs of **winter and summer air-conditioning** and the production of **domestic hot water** of small and medium power residential and commercial installations.
- IT IS comprised of an **external inverter unit** available in various power sizes associated with an internal hydronic unit available in two variants **with or without electrical integration** of 3kW **two-stage** (1.5 + 1.5), or 6 kW (models 12T and 16T) both equipped as per standard with **integrated three-way valve for the production of domestic hot water** via external storage tank.
- **The system is very versatile** and able to work at outdoor air temperatures of -20°C and to produce **hot water up to 60°C** with the aid of electrical integration.
- Particularly suitable for use in radiant systems, fan coils, radiators and for the indirect production of domestic hot water (DHW) through an external storage tank (not supplied).
- **The split cooling circuit** avoids the risk of freezing in particularly cold outdoor applications.
- **The user interface** is comprised of a **digital remote controller** (with a max length of wire of 50 m from the internal unit) equipped with a large screen and simple settings controls.

> CHARACTERISTICS OF OMNIA H-UE EXTERNAL UNIT:

- **Reduced breakaway starting current** thanks to Inverter technology
- **Compressor** with **twin rotary DC INVERTER motor** on rubber vibration damping supports and wrapped in double layer of soundproofing material to reduce vibrations and noise to a minimum.
- The compressor is also equipped with casing oil heating element.
- Two-flow electronic expansion vessel
- Cycle inversion valve
- **Axial fans** with brushless DC motor complete with **protective accident prevention grids**
- Finned coil made with copper pipes and aluminium fins
- **Outdoor air temperature probe already installed on the unit**
- **DHW storage tank water temperature probe supplied as per standard** (installation by the installation technician)

> CHARACTERISTICS OF OMNIA H-UI INTERNAL UNIT:

- Available **with electrical integration** from 3kw (OMNIA HI-UI) **or without integration** (OMNIA H-UI)
- Hydraulic unit with **3-way diverter valve for DHW production supplied as per standard**
- **Water/gas exchanger** with brazed stainless steel plates
- **Low consumption plant circulator** with **brushless DC motor**
- Automatic air vent
- Water differential pressure gauge
- Water pressure gauge
- Expansion vessel
- Safety valve
- **Y water filter supplied as per standard** (installation by the installation technician)

> THE CONTROL SYSTEM

- Comprised of a wired-remote digital controller (max 50 m from the I.U).
- **HEATING AND COOLING SYSTEM:** the compressor frequency is modulated to keep the temperature of the produced water at the established setpoint value. For single-zone systems the control unit can operate as a room thermostat.
- **DOMESTIC HOT WATER PRODUCTION (DHW):** upon request of the DHW temperature probe (supplied as per standard), operation is activated in hot mode to maintain the temperature of the DHW tank at the established setpoint value.
- **ADDITIONAL ENERGY SOURCES:** any electrical integration boiler or booster can be started in Integration or Replacement of the heat pump and also if the heat pump is not working.
- **ANTILEGIONELLA FUNCTION:** weekly antilegionella cycles can be set The heat pump must be integrated with DHW boiler or boiler electrical heating element.
- **FAST DHW:** this function prioritises DHW by activating all the energy sources available to bring the DHW tank to the established setpoint in the shortest possible amount of time.
- **SILENCED MODE:** according to a programmed schedule, this reduces the maximum frequency of the compressor and the fan speed, to reduce the generated noise and the power absorbed by the unit.
- **ON/OFF REQUEST:** the unit can be switched on and off by an external contact.
- **HOT/COLD REQUEST:** the unit can be started and stopped in cold or hot mode by 2 external contacts (ex the thermostat for the zone that manages the request for hot and cold / remote switch).
- **ECO:** possibility of defining a time slot in hot mode where the heat pump runs with a sliding setpoint defined by the chosen climatic curve. There are 8 climatic curves for low temperature systems (radiant floor) and 8 climatic curves for fan coil or radiator systems)
- **WEEKLY SCHEDULE PROGRAMMING:** this makes it possible to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT/DHW) and the work setpoint.
- Antifrost protection. Guaranteed down to -20°C outdoor air temperature thanks to the heat pump itself
- Working in hot mode, for the electric antifrost heating element (as per standard) and the electric booster (if installed).

GENERAL DATA		4	6	8	10	12	16	12T	16T
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)	(Class G - A⁺⁺)	A⁺⁺ 127	A⁺⁺ 130	A⁺⁺ 125	A⁺⁺ 127	A⁺⁺ 127	A⁺⁺ 128	A⁺⁺ 128	A⁺⁺ 130
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)	(Class G - A⁺⁺)	A⁺⁺⁺ 183	A⁺⁺⁺ 185	A⁺⁺ 170	A⁺⁺⁺ 177	A⁺⁺⁺ 175	A⁺⁺ 158	A⁺⁺⁺ 184	A⁺⁺ 172
Electric power supply	V-ph-Hz	220-240V ~ 50 Hz						380-400V - 3N ~ 50 Hz	
Type of compressor	-	Twin Rotary							
No. of compressors / No. of cooling circuits	No.	1/1							
Type of exchanger system side	-	brazed stainless steel plates							
Type of exchanger source side	-	finned coil							
Type of fans	-	brushless DC							
No. of fans	No.	1			2				
Cooler fittings - liquid line	ø	9.52							
Cooler fittings - gas line	ø	15.88							
Internal unit expansion vessel volume	l	10							
Internal unit safety valve calibration	bar	3							
Two-stage integrative electrical heating elements *	kW	3 (1.5 + 1.5)						6 (4 + 2)	
SWL - Sound power level*	dB(A)	62	66	69	67	68	72	70	72
SWL - Internal unit sound power level*	dB(A)	43					45		
External unit weight	kg	60	60	76	99	99	99	115	115
Internal unit weight of base unit	kg	31.5					33.5		
Internal unit weight of unit with integrative electrical heating elements	kg	33			35			36	

NOTE: Efficiency class calculated according to European regulation 811/2013. The values refer to units without any optional features or accessories.
*** SWL =** Sound power levels, referring to $1x10^{-12}$ W with unit operating in **A7W55** conditions
The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is therefore the only binding sound data.
The sound pressure levels are values calculated from the sound power level (SWL) by applying the relations of ISO-3744.

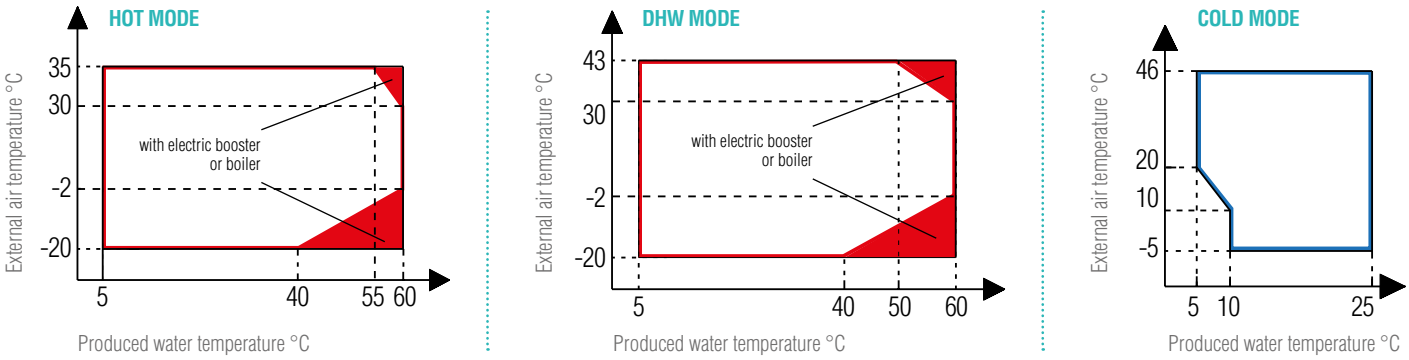
PERFORMANCE DATA			4	6	8	10	12	16	12T	16T
A7W35	Heat output	kW	4.10	6.10	8.00	10.00	12.10	15.50	12.00	15.50
	Absorbed power	kW	0.82	1.29	1.73	2.17	2.74	3.82	2.66	3.79
	COP	kW/kW	5.00	4.73	4.62	4.61	4.42	4.06	4.51	4.09
	Water flow rate	l/h	705	1049	1376	1720	2081	2666	2064	2666
	Effective head	kPa	79	68	53	42	21	0	22	0
A7W45	Heat output	kW	4.01	5.96	7.34	10.12	11.85	16.05	11.97	15.48
	Absorbed power	kW	1.13	1.68	2.13	2.93	3.48	5.03	3.5	4.87
	COP	kW/kW	3.55	3.55	3.45	3.45	3.41	3.19	3.42	3.18
	Water flow rate	l/h	690	1025	1262	1741	2038	2761	2059	2663
	Effective head	kPa	79	69	58	41	24	0	23	0
A35W18	Cooling capacity	kW	4.10	6.20	8.00	10.50	11.70	13.80	12.00	14.50
	Absorbed power	kW	0.84	1.43	1.93	2.30	2.79	3.77	2.8	3.94
	EER	kW/kW	4.88	4.34	4.15	4.57	4.19	3.66	4.29	3.68
	Water flow rate	l/h	705	1066	1376	1806	2012	2374	2064	2494
	Effective head	kPa	79	67	53	37	26	3	22	0
A35W7	Cooling capacity	kW	4.12	6.15	6.44	9.39	11.02	12.85	11.7	12.91
	Absorbed power	kW	1.30	2.08	2.24	3.26	4.17	5.39	4.65	5.52
	EER	kW/kW	3.17	2.96	2.88	2.88	2.64	2.38	2.52	2.34
	Water flow rate	l/h	709	1058	1108	1615	1895	2210	2012	2221
	Effective head	kPa	79	67	65	47	32	13	26	13

BASE SYSTEM	OMNIA H 04	OMNIA H 06	OMNIA H 08	OMNIA H 10	OMNIA H 12	OMNIA H 16	OMNIA H 12T	OMNIA H 16T
CODE EU + IU	0XHO4AWA	0XHO6AWA	0XHO8AWA	0XHOAAWA	0XHOCAWA	0XHOGAWA	0XHPCAWA	0XHPGAWA

SYSTEM WITH ELECTRICAL INTEGRATION	OMNIA HI 04	OMNIA HI 06	OMNIA HI 08	OMNIA HI 10	OMNIA HI 12	OMNIA HI 16	OMNIA HI 12T	OMNIA HI 16T
	3 kW						6 kW	
CODE EU + IU	0XHO4BWA	0XHO6BWA	0XHO8BWA	0XHOABWA	0XHOCBWA	0XHOGBWA	0XHPCBWA	0XHPGBWA

The values refer to units without any optional features or accessories.
Data declared according to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of cooling output in relation to absorbed power **COP** (Coefficient Of Performance) = ratio of heating capacity in relation to absorbed power **A7W35** = source : air in 7°C D.B. 6°C W.B. / system : water in 30°C out 35°C **A7W45** = source : air in 7°C D.B. 6°C W.B. / system : water in 40°C out 45°C **A35W18** = source : air in 35°C D.B. / system : water in 23°C out 18°C **A35W7** = source : air in 35°C D.B. / system : water in 12°C out 7°C
NOTE: Efficiency class calculated according to European regulation **811/2013**. The values refer to units without any optional features or accessories.

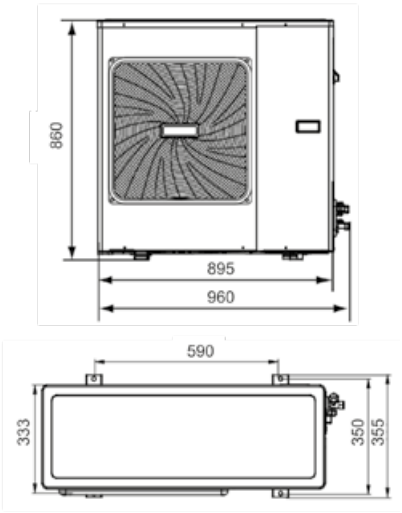
OPERATING LIMITS



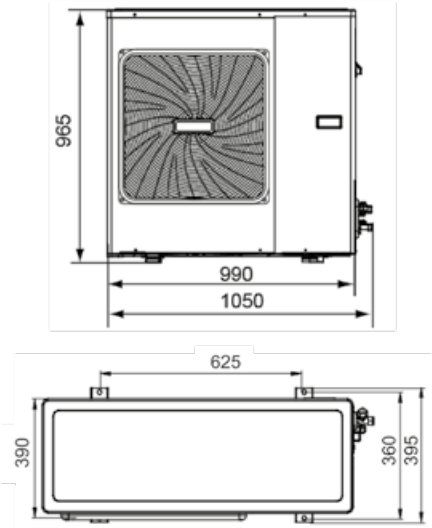
NOTE ON DHW MODE: Produced water temperature means the water temperature produced by the unit and not the DHW temperature available to the user which is a function of this parameter and of the surface of the coil of the DHW tank.

OVERALL DIMENSIONS OF EXTERNAL UNIT

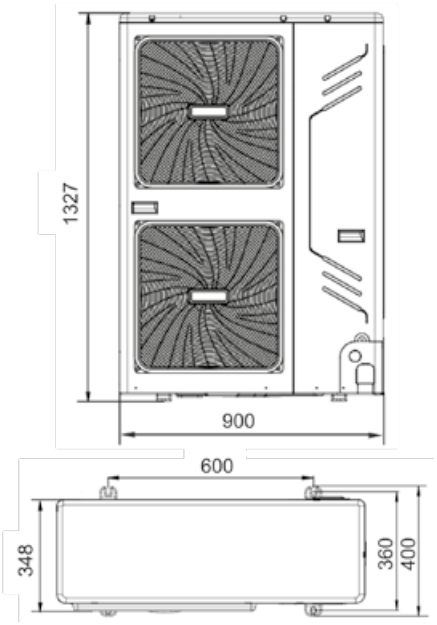
mod. 4 - 6



mod. 8

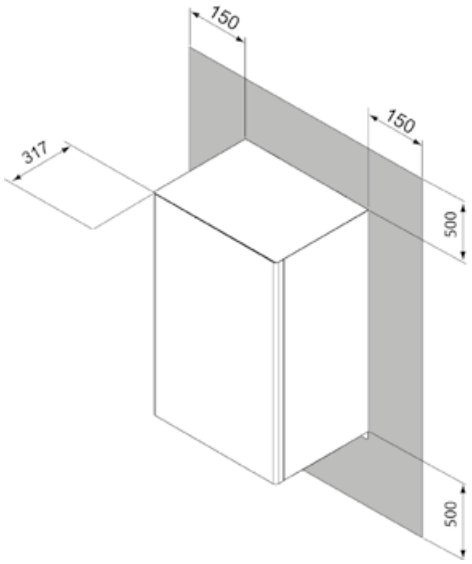


mod. 10 - 12 - 16 - 12T - 16T

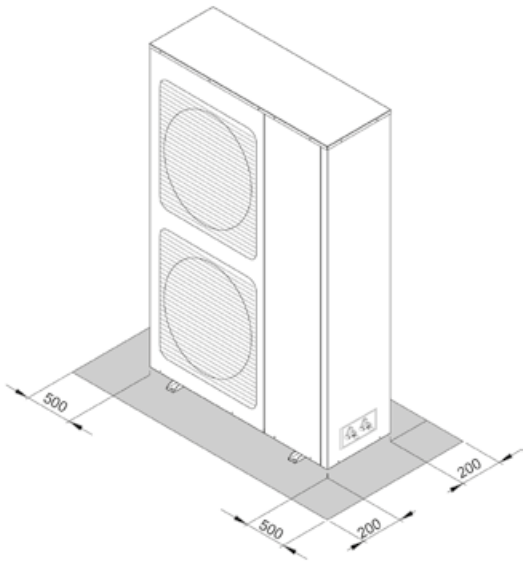


MINIMUM OPERATING SPACES

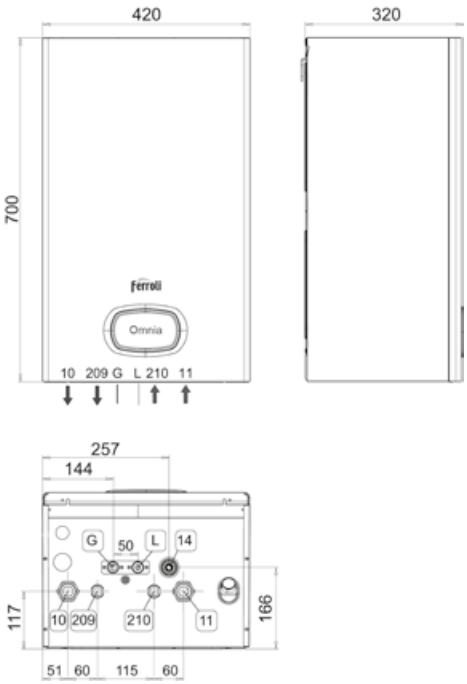
INTERNAL UNIT



EXTERNAL UNIT



OVERALL DIMENSIONS OF INTERNAL UNIT

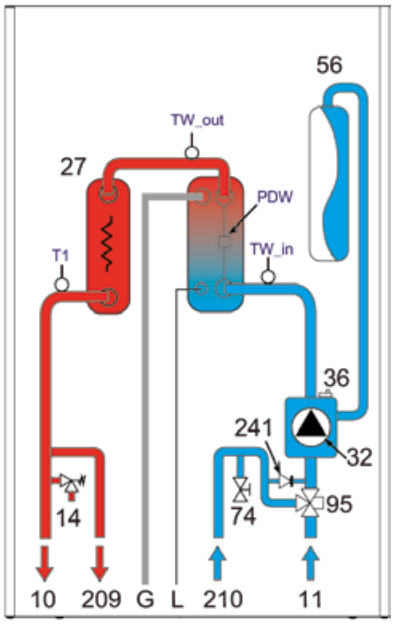


> KEY

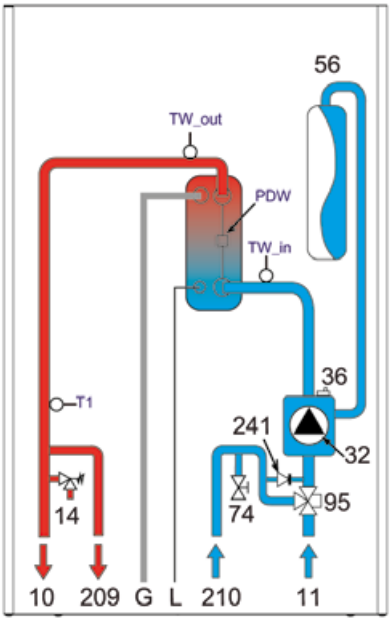
10	1" system flow
11	1" system return
14	Safety valve
209	3/4" storage tank delivery
210	Storage tank return 3/4"
L	Liquid line
G	Gas line

HYDRAULIC DIAGRAM

INTERNAL UNIT WITH ELECTRICAL INTEGRATION (3 kW)



INTERNAL UNIT WITHOUT ELECTRICAL INTEGRATION



OMNIA M 3.2 REVERSIBLE HEAT PUMP FOR OUTDOOR INSTALLATION WITH DC INVERTER COMPRESSOR

NEW

CASCADE

Can be installed in multiple "cascade" configuration with a **"MASTER"** unit (directly managed by the controller) **up to 5 "SLAVE" units**, also different in their output power

R32

DC

> GENERAL CHARACTERISTICS:

This series of air-water heat pumps meets the needs of winter and summer air-conditioning of small and medium power residential and commercial installations. All the units are suitable for outdoor installation and being able to produce water up to 65°C they can be used in radiant systems, fan coils, radiators and for the indirect production of domestic hot water (DHW) via an external boiler. The units are characterized by the use of a DC inverter compressor that modulates the supplied power and come complete with a hydronic kit composed of all the essential components for quick and safe installation. The units are characterised by high energy efficiency and reduced sound levels allowing them to be used as a single generator for the plant or integrated with other energy sources such as additional electric heating elements or boiler. All units are supplied as standard with a DHW water storage tank temperature probe (to be installed by the installer) and with an outdoor air temperature probe (already installed on the unit), to achieve climatic adjustment in heating and cooling.
For specific applications, the units can be installed in multiple "cascade" configuration with a **"MASTER"** unit (directly managed by the controller) **up to 5 "SLAVE" units**, also different in their output power. The preparation of the domestic hot water is left to the master unit, while in the event of a failure of one of the slave units the remaining ones may continue to work in a normal way.
All units are carefully built and individually tested in factory. Installation only requires electrical and hydraulic connections.

> THE CONTROL SYSTEM

The user interface consists of a remote wired controller (5 wires, max 50 mt length from the unit) that manages:
- HEATING AND COOLING SYSTEM Where the unit is the only heater. If the unit is running in hot or cold mode, it works by modulating the compressor frequency to maintain the temperature of the produced water at the established setpoint value. By mean of a parametrization value, it is possible to use the remote controller (e.g. for single zone heating circuits) as a room thermostat.
- DOMESTIC HOT WATER PRODUCTION (DHW) The unit starts in hot mode to maintain the temperature of a DHW storage tank at the established setpoint value. A 3-way diverter valve (not supplied) and a temperature probe (probe T5, supplied with cable length 10mt) are required to be inserted in a pit of the DHW tank.
- ADDITIONAL ENERGY SOURCES (boiler or electric heating element) Depending from the set values of the parametrization, these sources can be started in integration or replacement of the heat pump during operation in heating or for DHW production and if the heat pump does not work.
- CASCADING FUNCTION of multiple units. The master unit can control in cascade mode up to 6 different units (1 master, 5 slaves, also with different output power) with a single controller connected to the master unit. It is possible to assign the function of production of DHW to the master unit, while in the event of a failure of one of the 5 slave units, the remaining ones may continue to work normally.
- MANAGEMENT UP TO 2 HEATING CIRCUITS (1 DIRECT AND 1 MIXED). The unit is able to manage the circulation pumps (not supplied) of both 2 heating circuits and, only for the mixed circuit, the mixing valve (not supplied) and the water supply line temperature probe (not supplied).
- PHOTOVOLTAIC INPUT AND SMART GRID. The unit is equipped with 2 digital inputs to be connected with the signal coming from the photovoltaic system and from the electrical grid.
The logic of the management is the following:
-if the digital PV input is closed, the unit starts the DHW mode with DHW setpoint = 70°C and (if available) will start the electrical heating element of the DHW storage tank. The unit is running in cooling/heating mode with the normal logic.
-if the digital PV input is open and the smart grid input is closed, the unit runs normally
-if the digital PV input is open and the smart grid input is open, the unit deactivates the DHW mode and may run in cooling/heating mode for a limited period (set by a parameter), then will stop running
- REMOTE CONTROL OF THE UNIT VIA APP. (available for IOS and Android systems).
- DHW STORAGE TANK ELECTRIC HEATING ELEMENT In the DHW mode it is possible to manage an integration electric heating element in the DHW storage tank as integration of the heat pump, as antilegionella function, or as total backup in case of failure of the heat pump.
- FAST DHW This function can be started manually to prioritize DHW by bringing the DHW storage tank to the setpoint in the quickest possible time, by the use of all available energy sources (heat pump, electrical backup resistors, boiler).
- ANTILEGIONELLA FUNCTION Weekly anti-legionella cycles can be set. The heat pump must be integrated with DHW boiler or boiler electrical heating element.
- SILENCED MODE When on, according to a programmed schedule, it reduces the maximum frequency of the compressor and the fan speed, to reduce the noise generated and the power absorbed by the unit.
- ON/OFF with an external contact. The unit can be switched on and off by an external contact (e.g. by a room thermostat / remote switch). In this circumstance, the unit will run in the mode set by the control keyboard.
- HOT/COLD with 2 external contacts. The unit can be started and stopped in cold or hot mode by 2 external contacts (e.g. by a room thermostat / remote switch which manages the hot/cold request).
- ECO/COMFORT Possibility of defining time slots in hot and cold and relative setpoints for ECO and COMFORT modes
- WEEKLY SCHEDULE PROGRAMMING allows to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT/DHW) and the working setpoint.
- ANTIFROST PROTECTION. Guaranteed down to -20°C outdoor air temperature thanks to the heat pump itself working in hot mode, to the electric antifrost heating element (as per standard) and the electric booster (if installed).

CONTROL THROUGH CLIMA CONTROL DISPLAY (REM CC)
SUPPLIED AS PER STANDARD

> COOLING CIRCUIT

This is contained inside the unit to facilitate maintenance operations, it is equipped with **COMPRESSOR** with twin rotary **DC INVERTER** motor to guarantee greater dynamic balancing and reduce vibrations.
It is positioned on rubber antivibration supports and wrapped in a double layer of sound-absorbing material to reduce noise. The compressor is also equipped with oil casing heating element.
The circuit is completed with **BRAZE-WELDED STAINLESS STEEL PLATE HEAT EXCHANGER** complete with antifrost heating element, A**XIAL FANS WITH BRUSHLESS DC MOTOR** complete with accident prevention safety grilles, finned coil made of copper tubes and aluminium fins. All units are equipped with variable fan speed control which allows operation at low outdoor temperatures in cooling and high outdoor temperatures in heating.

> HYDRAULIC CIRCUIT

Contained inside the unit to facilitate maintenance operations, it is fitted as per standard with LOW CONSUMPTION CIRCULATOR with brushless DC motor, water flow switch, automatic air vent, water pressure gauge, expansion vessel, safety valve, Y water filter (installation by the installation technician).
The plate heat exchanger and all the hydraulic circuit pipes are thermally insulated to prevent condensation and reduce heat loss.

> STANDARD ACCESSORIES

- **PROBE** for the integration of a supplementary heat source
- **REMOTE CONTROLLER**
- **Y FILTER**

TECHNICAL DATA

GENERAL DATA			4	6	8	10	12	14	16	12T	14T	16T
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)		(Class G - A++)	A++ 129	A++ 138	A++ 131	A++ 136	A++ 135	A++ 135	A++ 133	A++ 135	A++ 135	A++ 133
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)		(Class G - A++)	A+++ 191	A+++ 195	A+++ 205	A+++ 204	A+++ 189	A+++ 185	A+++ 181	A+++ 189	A+++ 185	A+++ 182
Electric power supply		V-ph-Hz	220/240-1-50							380/415-3-50		
SCOP low temperature (water temp. 35°C)		W/W	4,85	4,95	5,21	5,19	4,81	4,72	4,62	4,81	4,72	4,62
SCOP medium temperature (water temp. 55°C)		W/W	3,31	3,52	3,36	3,49	3,45	3,47	3,41	3,45	3,47	3,41
SEER water temp 7°C		W/W	4,99	5,34	5,83	5,98	4,89	4,86	4,69	4,86	4,83	4,67
SEER water temp 18°C		W/W	7,77	8,21	8,95	8,78	7,10	6,90	6,75	7,04	6,85	6,71
Type of compressor		-	Twin Rotary DC									
No. of compressors		no	1									
No. of cooling circuits		no	1									
Type of exchanger system side		-	brazed stainless steel plates									
Type of exchanger source side			finned coil									
Type of fans		-	DC axial									
No. of fans		no	1									
Expansion vessel volume		l	2		5							
Setup of the water pressure safety valve		bar	3									
Hydraulic fittings		"	1"		1-1/4"							
Minimum water content onf the system		l	15		25							
DHW boiler - minimum surface of the coil (min / recommended)	steel	m^2	1,4 / 2,5		1,75 / 4,0							
	enamel	m^2	1,7 / 3,0		2,5 / 5,6							
Refrigerant type		type	R32									
GWP			675									
Refrigerant charge		kg	1,4				1,75					
Control type		-	with remote wire									
SWL - Sound power level Cooling *	A7W35	dB(A)	55	58	59	60	65	65	69	65	65	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1	dB(A)	56	56	57	58	62	62	63	62	62	63
	Sil. 2	dB(A)	53	53	55	55	56	56	56	56	56	56
SWL - Sound power level Heating *	A35W18	dB(A)	56	58	60	60	64	64	69	64	64	69
	Max	dB(A)	60	61	61	62	65	65	69	65	65	69
	Sil. 1	dB(A)	55	57	57	58	62	62	63	62	62	63
	Sil. 2	dB(A)	52	54	54	54	56	56	56	56	56	56
Max current input		A	12	14	16	17	25	26	27	10	11	12

*** : SWL** = Sound power levels, with reference to 1x10-12 W with unit operating in conditions:
A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C
A35W18 = source : air in 35°C d.b. / plant : water in 23°C out 18°C
Max = at maximum conditions in heating / cooling mode
Sil. 1 = if silent level 1 active in heating / cooling mode
Sil. 2 = if silent level 2 active in heating / cooling mode
The Total sound power level in dB(A) measured in compliance with ISO 9614 standards.

TECHNICAL DATA

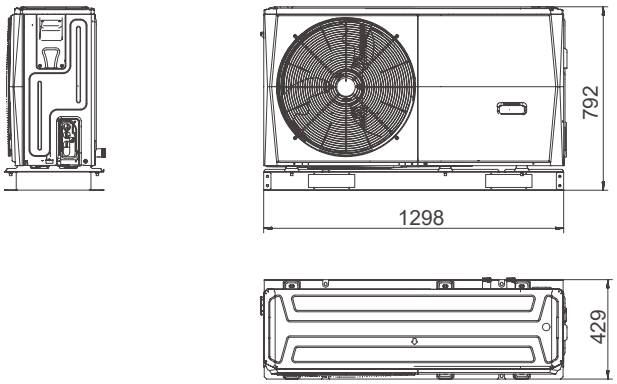
PERFORMANCE DATA				4	6	8	10	12	14	16	12T	14T	16T
A7W35	Heating capacity	kW	nom	4.20	6.35	8.40	10.0	12.1	14.5	15.9	12.1	14.5	15.9
	Power input	W	nom	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP	W/W		5.10	4.95	5.15	4.95	4.95	4.60	4.50	4.95	4.60	4.50
	Water flow rate	l/h		722	1092	1445	1720	2081	2494	2735	2081	2494	2735
	Available static pressure	kPa		85	84	79	71	61	46	40	61	46	40
A7W45	Heating capacity	kW	nom	4.30	6.30	8.30	10.0	12.3	14.1	16.0	12.3	14.1	16.0
	Power input	W	nom	1.13	1.70	2.16	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP	W/W		3.80	3.70	3.85	3.75	3.70	3.60	3.50	3.70	3.60	3.50
	Water flow rate	l/h		740	1084	1428	1720	2116	2425	2752	2116	2425	2752
	Available static pressure	kPa		85	84	79	71	60	47	40	60	47	40
A7W55	Heating capacity	kW	nom	4.40	6.00	7.50	9.50	11.9	13.8	16.0	11.9	13.8	16.0
	Power input	W	nom	1.49	2.03	2.36	3.06	3.90	4.68	5.61	3.90	4.68	5.61
	COP	W/W		2.95	2.95	3.18	3.10	3.05	2.95	2.85	3.05	2.95	2.85
	Water flow rate	l/h		473	645	806	1021	1279	1484	1720	1279	1484	1720
	Available static pressure	kPa		85	85	85	84	84	80	71	84	80	71
A35W18	Heating capacity	kW	nom	4.50	6.50	8.30	9.90	12.0	12.9	13.6	12.0	12.9	13.6
	Power input	W	nom	0.82	1.35	1.64	2.18	3.04	3.49	3.77	3.04	3.49	3.77
	EER	W/W		5.50	4.80	5.05	4.55	3.95	3.70	3.61	3.95	3.70	3.61
	Water flow rate	l/h		774	1118	1428	1703	2064	2219	2339	2064	2219	2339
	Available static pressure	kPa		85	84	79	71	61	56	52	61	56	52
A35W7	Heating capacity	kW	nom	4.70	6.50	7.45	8.20	11.5	12.4	14.0	11.5	12.4	14.0
	Power input	W	nom	1.36	2.17	2.22	2.52	4.18	4.96	5.60	4.18	4.96	5.60
	EER	W/W		3.45	3.00	3.35	3.25	2.75	2.50	2.50	2.75	2.50	2.50
	Water flow rate	l/h		808	1118	1281	1410	1978	2133	2408	1978	2133	2408
	Available static pressure	kPa		85	84	81	79	63	60	49	63	60	49
CODE				2CP000AF	2CP000BF	2CP000CF	2CP000DF	2CP000EF	2CP000FF	2CP000GF	2CP000HF	2CP000IF	2CP000JF

The values are referred to units without options and accessories. Data declared according to EN 14511:
EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit
COP (Coefficient Of Performance) = ratio of the total heating capacity to the effective power input of the unit
A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C
A7W45 = source : air in 7°C d.b. 6°C w.b. / plant : water in 40°C out 45°C
A7W55 = source : air in 7°C d.b. 6°C w.b. / plant : water in 47°C out 55°C
A35W18 = source : air in 35°C d.b. / plant : water in 23°C out 18°C
A35W7 = source : air in 35°C d.b. / plant : water in 12°C out 7°C

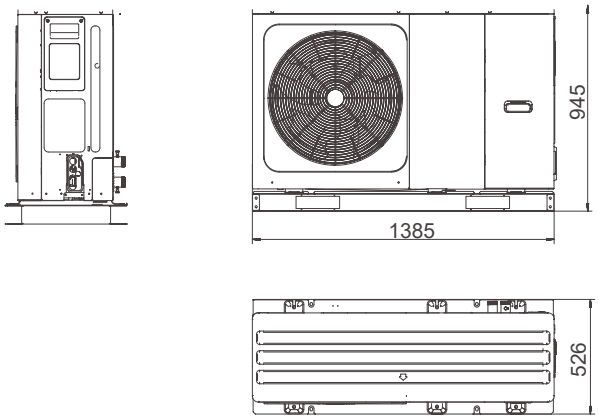
ACCESSORIES	DESCRIPTION
2C0970AF	3kW 230-1-50 electric heating booster for internal installation - OMNIA M mod. 4 - 6
2CP000KF	3kW 230-1-50 electric heating booster for internal installation - OMNIA M mod. 8 - 10 - 12 - 14 - 16
2CP000MF	4,5 kW 400-3-50 electric heating booster for internal installation - OMNIA M mod. 12T - 14T - 16T
2CP000NF	System flow temperature sensor
2CP000TF	OMNIA M 3.2 rubber vibration damping kit
2CP000UF	OMNIA M 3.2 KFI inertial tank 60 lt

DIMENSIONS

mod. 4-6



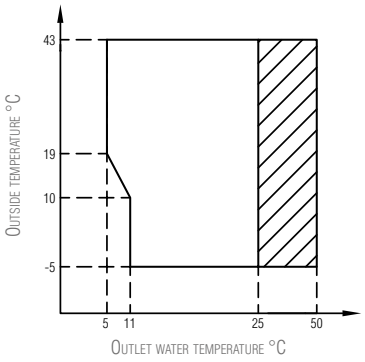
mod. 8 - 10 - 12 - 12T - 14 - 14T - 16 - 16T



MODEL	4	6	8	10	12	14	16	12T	14T	16T
Packaging (W×H×D)	1384x945x526		1470x1115x565							
Weight Net \ Gross (kg)	98 / 121		121 / 148		144 / 170			160 / 188		

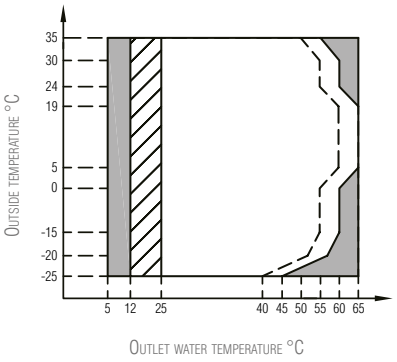
OPERATING LIMITS

COOLING MODE



Operation range by heat pump with possible limitation and protection

HEATING MODE

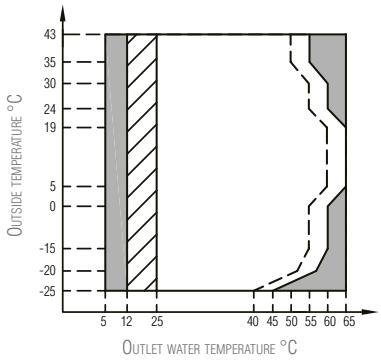


Operation range by heat pump with possible limitation and protection

If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on
If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

DHW MODE



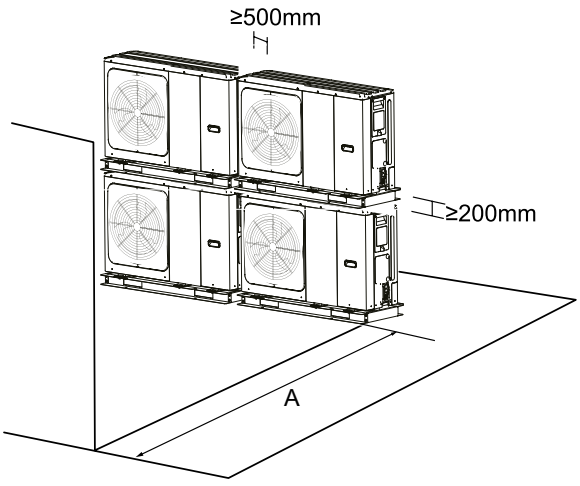
Operation range by heat pump with possible limitation and protection

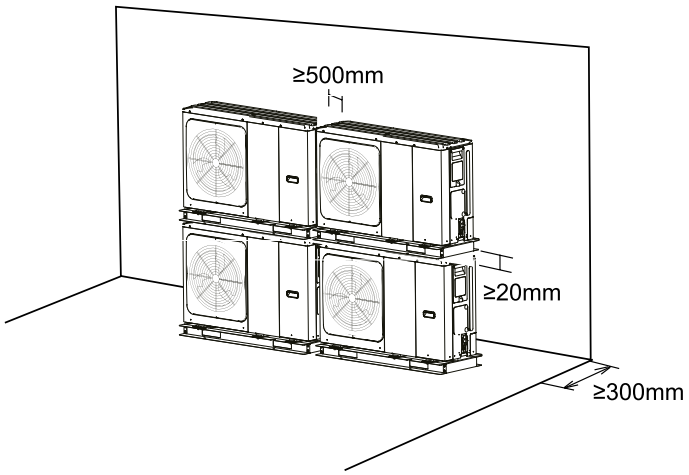
If IBH (backup heater) /AHS (boiler) setting is valid, only IBH/AHS turns on
If IBH/AHS setting is invalid, only heat pump turns on

Maximum inlet water temperature line for heat pump operation

NOTE FOR DHW MODE: outlet water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user; the DHW temperature is in fact a function of this parameter and of the coil surface of the DHW boiler.

MINIMUM OPERATING AREA





MODEL	4	6	8	10	12	14	16	12T	14T	16T
A (mm)	1000		1500							

RVL-I PLUS REVERSIBLE HEAT PUMPS FOR EXTERNAL INSTALLATION WITH DC INVERTER COMPRESSOR

R410A

DC

PHASED OUT

> GENERAL CHARACTERISTICS:

This series of air-water heat pumps meets the needs of winter and summer air-conditioning of small and medium power residential and commercial installations.
All the units are suitable for outdoor installation and being able to produce water up to 60°C they can be used in radiant systems, fan coils, radiators and for the indirect production of domestic hot water (DHW) via an external boiler.
The units are characterised by the use of a DC inverter compressor that modulates the supplied power and come complete with a hydronic kit composed of all the essential components for quick and safe installation. The units are characterised by high energy efficiency and contained sound levels allowing them to be used as a single generator for the plant or integrated with other energy sources such as additional electric heating elements or boiler.
All units are supplied as standard with a DHW water storage tank temperature probe (to be installed by the installer) and with an outdoor air temperature probe (already installed on the unit), to achieve climatic adjustment in heating and cooling.
All units are carefully built and individually tested in factory. Installation only requires electrical and hydraulic connections.

> COOLING CIRCUIT

This is contained inside the unit to facilitate maintenance operations, it is equipped with **COMPRESSOR** with twin rotary DC INVERTER motor to guarantee greater dynamic balancing and reduce vibrations. It is positioned on rubber antivibration supports and wrapped in a double layer of sound-absorbing material to reduce noise. The compressor is also equipped with oil casing heating element. The circuit is completed with **BRAZE-WELDED STAINLESS STEEL PLATE HEAT EXCHANGER** complete with antifrost heating element, **AXIAL FANS WITH BRUSHLESS DC MOTOR** complete with accident prevention safety grilles, finned coil made of copper tubes and aluminium fins.
All units are equipped with variable fan speed control which allows operation at low outdoor temperatures in cooling and high outdoor temperatures in heating.

> HYDRAULIC CIRCUIT

contained inside the unit to facilitate maintenance operations, it is fitted as per standard with **LOW CONSUMPTION CIRCULATOR** with brushless DC motor, water flow switch, automatic air vent, water pressure gauge, expansion vessel, safety valve, Y water filter (installation by the installation technician). The plate heat exchanger and all the hydraulic circuit pipes are thermally insulated to prevent condensation and reduce heat loss.

> ACCESSORIES

- **ELECTRIC BOOSTER** Suitable for indoor installation, it consists of a power electric resistor = 3kW (230V-1-50) inserted inside a painted metal sheet box and complete with electrical command and control panel.
- **RUBBER VIBRATION DAMPERS**
- **60-LIT HORIZONTAL INERTIAL TANK**

> THE CONTROL SYSTEM

The general control system monitors all the functions of the inverter system and correct compressor operation. It also incorporates regulation algorithms with predefined climatic curves that can be selected by the customer, the management of a DHW circuit, the setting of time slots for noise reduction at night, alarm signalling, pump block prevention and integration with external heat generators. The user interface consists of a remote wired controller that manages:

- **HEATING AND COOLING SYSTEM** If the unit is running in hot or cold mode, it works by modulating the compressor frequency to maintain the temperature of the produced water at the established setpoint value.
- **DOMESTIC HOT WATER PRODUCTION (DHW)** The unit starts in hot mode to maintain the temperature of a DHW storage tank at the established setpoint value. A 3-way diverter valve (not supplied) and a temperature probe (probe supplied) are required to be inserted in a pit of the DHW tank.
- **ADDITIONAL ENERGY SOURCES** (boiler or electric heating element) These sources can be started in Integration or replacement of the heat pump during operation in heating or for DHW production and if the heat pump does not work.
- **DHW STORAGE TANK ELECTRIC HEATING ELEMENT** IT IS possible to manage an integrating electric heating element and for the antilegionella function
- **FAST DHW** This function can be started manually to prioritise DHW by bringing the DHW storage tank to the setpoint in the quickest possible amount of time.
- **ANTILEGIONELLA FUNCTION** Weekly anti-legionella cycles can be set. The heat pump must be integrated with DHW boiler or boiler electrical heating element.
- **SILENCED MODE** When on, according to a programmed schedule, it reduces the maximum frequency of the compressor and the fan speed, to reduce the noise generated and the power absorbed by the unit.
- **ON/OFF** with an external contact. The unit can be switched on and off by an external contact.
- **HOT/COLD** with external contacts. The unit can be started and stopped in cold or hot mode by 2 external contacts (ex the thermostat for the zone that manages the request for hot and cold / remote switch).
- **ECO/COMFORT** Possibility of defining time slots in hot and cold and relative setpoints for ECO and COMFORT modes **WEEKLY SCHEDULE PROGRAMMING** this makes it possible to set a different schedule for each day of the week defining the operating mode for each time slot (COLD/HOT/DHW) and the work setpoint.
- **ANTIFROST PROTECTION.** Guaranteed down to -20°C outdoor air temperature thanks to the heat pump itself working in hot mode, to the electric antifrost heating element (as per standard) and the electric booster (if installed).

CONTROL THROUGH CLIMA CONTROL DISPLAY (REM CC)
SUPPLIED AS PER STANDARD

TECHNICAL DATA

GENERAL DATA		5		7		9		12		12T		14T		16T	
ERP class in heating / Seasonal efficiency medium temperature (produced water 55°C)	(Class G - A+++)	A++	126	A++	126	A++	127	A++	129	A++	131	A++	128	A++	126
ERP class in heating / Seasonal efficiency low temperature (produced water 35°C)	(Class G - A+++)	A+++	176	A+++	178	A++	163	A++	166	A++	175	A++	168	A++	164
Electric power supply	V-ph-Hz	230-1-50								400-3-50		400-3-50			
Type of compressor	-	Twin Rotary DC													
No. of compressors / No. of cooling circuits	No.	1/1													
Type of exchanger system side	-	brazed stainless steel plates													
Type of exchanger source side	-	finned coil													
Type of fans	-	DC axial													
No. of fans	No.	1						2							
Expansion vessel volume	l	2						5							
Safety valve calibration	bar	3						3							
Connections	"	1"						1-1/4"							
Minimum system water content	l	20						20							
Minimum coil surf. for any DHW storage tank	m^2	1.4						1.7							
Type of coolant	type	R410A						R410A							
Coolant load	kg	2.40						3.60							
Type of control	-	with remote wire													
SWL - Sound power level*	dB(A)	61		65		68		70		70		71		72	
SPL - Sound pressure level at 1 metre**	dB(A)	46		50		53		55		55		56		57	
Maximum absorbed current	A	16		16		20		32		16		16		16	

* **SWL =** Sound power levels, referring to $1x10^{-12}$ W with the unit operating in **A7W35** conditions = source : air in 7°C D.B. 6°C W.B. / system : water in 30°C out 35°C. The Total sound power level in dB(A) is measured in accordance with standard ISO 9614. The Total Sound Power in dB(A) which is therefore the only binding sound data.
** **SPL** = Sound pressure levels, referring to $2x10^{-5}$ Pa. The sound pressure levels are values calculated from the sound power level (SWL) by applying the relations of ISO-3744.

PERFORMANCE DATA				5	7	9	12	12T	14T	16T
A7W35	Heat output	W	nom	4600	6600	8600	12170	12370	14100	16300
		W	min-max	1341-5800	1909-7574	2507-9500	3529-12657	3606-14651	4110-16700	4751-19306
	Absorbed power	W	nom	970	1460	2000	2730	2760	3260	3880
		W	min-max	283-1280	420-1957	580-2561	792-3000	799-3876	944-4578	1124-5449
	COP	W/W		4.72	4.52	4.3	4.46	4.48	4.33	4.20
	Water flow rate	l/h		791	1135	1474	2093	2128	2425	2804
A7W45	Heat output	W	nom	4700	6700	9200	12580	12020	14100	16060
		W	min-max	1370-5500	1953-7700	2682-9200	3663-13321	3504-12958	4110-15200	4681-17313
	Absorbed power	W	nom	1440	2055	2640	3860	3720	4460	5230
		W	min-max	417-1833	595-2628	764-2636	1118-4451	1078-4371	1293-5241	1516-6146
	COP	W/W		3.27	3.26	3.49	3.26	3.23	3.16	3.07
	Water flow rate	l/h		808	1152	1577	2164	2067	2425	2762
A35W18	Cooling capacity	W	nom	4550	6450	8350	12190	12640	14000	15100
		W	min-max	1320-4921	1872-7000	2423-9100	3538-12357	3668-13362	4063-14800	4382-15963
	Absorbed power	W	nom	1000	1470	2100	2650	2750	3260	3780
		W	min-max	304-1158	445-1719	632-2364	805-2806	837-3038	992-3601	1150-4175
	EER	W/W		4.55	4.39	3.97	4.6	4.6	4.29	4.00
	Water flow rate	l/h		783	1109	1431	2097	2174	2408	2597
A35W7	Cooling capacity	W	nom	4600	6700	8100	12210	12580	13800	15260
		W	min-max	1479-5430	1947-7000	2351-8300	3544-12210	3654-12580	4005-13800	4432-15260
	Absorbed power	W	nom	1560	2570	3520	4170	4320	5150	6410
		W	min-max	527-2011	773-2857	1058-3756	1270-4165	1313-4319	1565-5149	1948-6409
	EER	W/W		2.95	2.61	2.3	2.93	2.91	2.68	2.38
	Water flow rate	l/h		791	1152	1389	2100	2164	2374	2625
CODE				**2C09700F**	**2C09701F**	**2C09705F**	**2C09706F**	**2C09707F**	**2C09704F**	**2C09709F**

The values refer to units without any optional features or accessories.
Data declared according to **EN 14511**:
EER (Energy Efficiency Ratio) = ratio of cooling capacity in relation to absorbed power
COP (Coefficient Of Performance) = ratio of heat output in relation to absorbed power

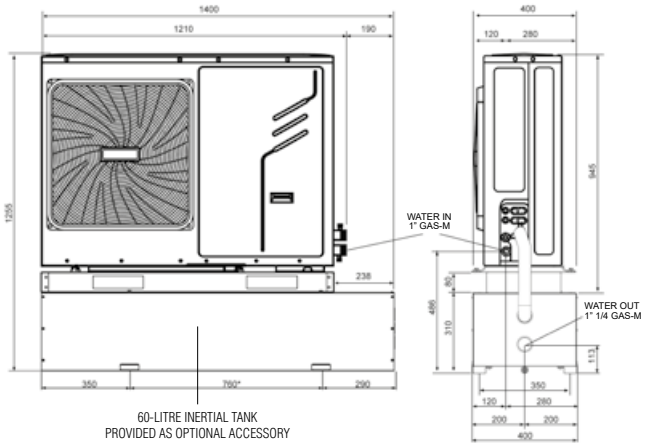
A7W35 = source : air in 7°C D.B. 6°C W.B. / system : water in 30°C out 35°C
A7W45 = source : air in 7°C D.B. 6°C W.B. / system : water in 40°C out 45°C
A35W18 = source : air in 35°C D.B. / system : water in 23°C out 18°C
A35W7 = source : air in 35°C D.B. / system : water in 12°C out 7°C

NOTE: Efficiency class calculated according to European regulation **811/2013**. The values refer to units without any optional features or accessories.

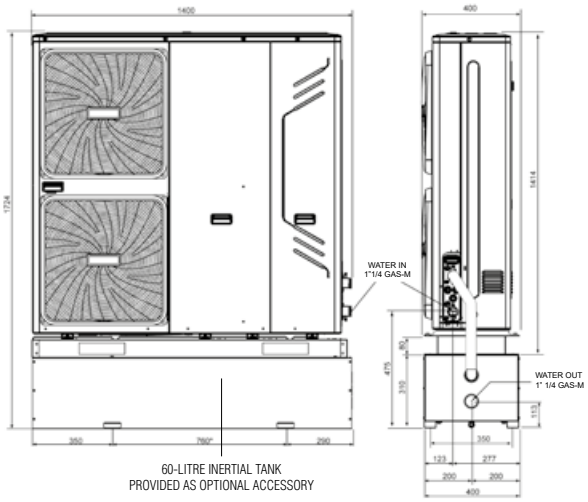
ACCESSORIES	DESCRIPTION
2C0970AF	3kW 230-1-50 electric heating booster for internal installation
2C0970BF	System flow temperature sensor L=10000
2C0970CF	RVL-I PLUS rubber vibration damping kit
2C0970DF	KFI inertial tank 60 lt RVL-I PLUS

OVERALL DIMENSIONS

mod. 5 - 7 - 9



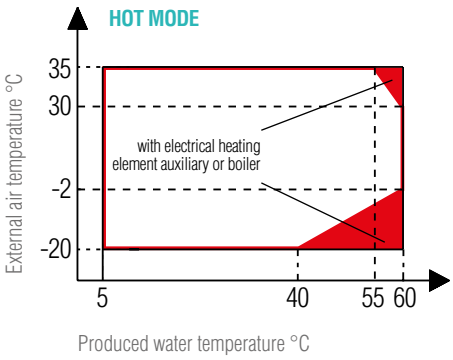
mod. 12 - 12T - 14T - 16T



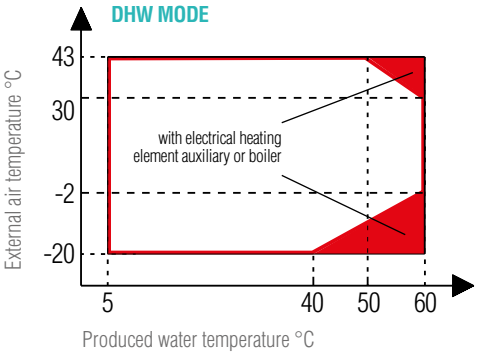
MODEL	5	7	9	12	12T	14T	16T
Packaging dimensions (mm)	1500x1140x450			1475x1580x440			
Net \ Gross unit weight (kg)	99 / 117			162 / 178	177 / 193	177 / 193	177 / 193

OPERATING LIMITS

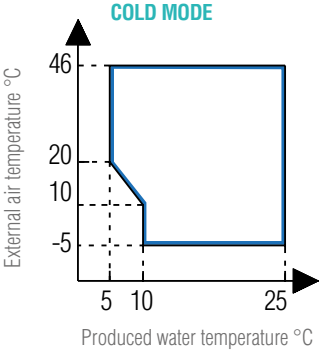
HOT MODE



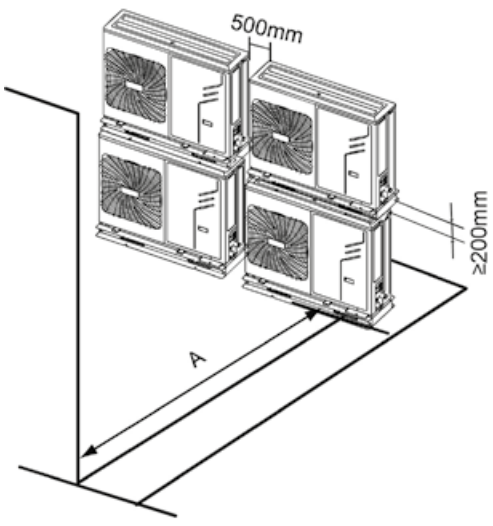
DHW MODE

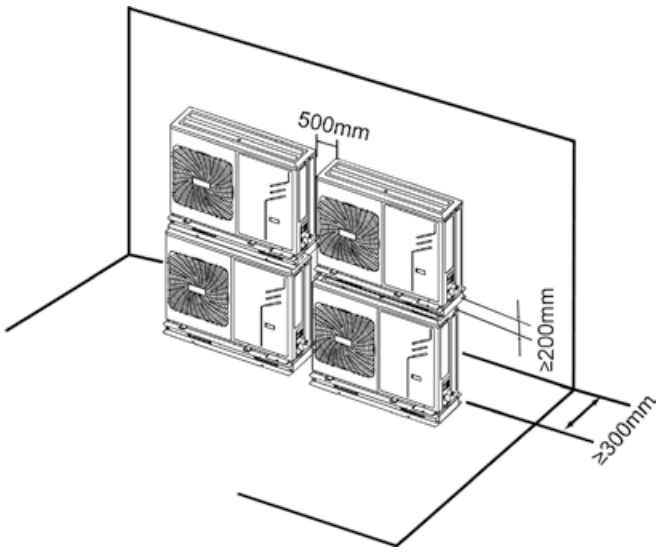


COLD MODE



MINIMUM OPERATING SPACES





MODEL	5	7	9	12	12T	14T	16T
A (mm)	1000			1500			

TERMINAL UNITS

Products in this chapter are not involved at all in ERP regulation, or are marginally involved. As a consequence they can be freely installed in EU, upon respect of local laws.

JOLLY TOP I

FAN COIL
WITH CENTRIFUGAL FAN

VM version

VN version

> GENERAL CHARACTERISTICS:

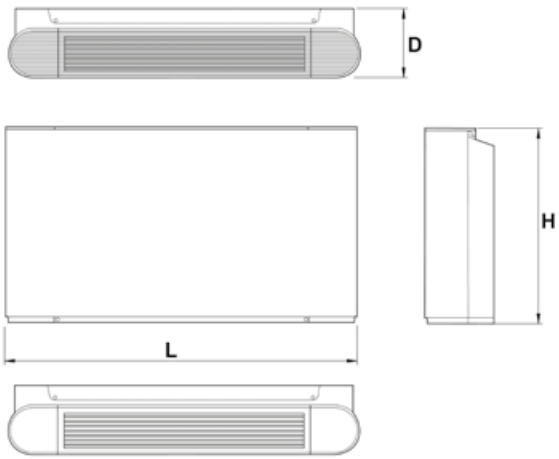
New series of fan coil units with centrifugal fan with high efficiency DC brushless motor. Characterised by a maximum depth of 200 mm in the cased models and a particularly attractive aesthetic line, they are intended for residential heating and air conditioning applications.
Available in 5 sizes with cooling capacities from 1.50 to 5.60 kW and air flow rates from 255 to 1190 m^3/h. In the standard version they are proposed with a single 3-row coil to which can be combined as an accessory, in the case of 4-pipe systems, an additional 1-row coil.
Available in the two versions, VM with casing and VN without shell for recessed applications. The units can be installed in both vertical and horizontal positions.

The range of centrifugal fan coil units includes two versions; each of them is available in different capacities.
VM - Fan coil unit with suction casing from below
Composed of a sheet metal casing, a supply grille with doors to access the control, if required, in thermoplastic material and a regenerable e air filter, placed on a metal frame housed on guides cut out in the lower part of the frame.
VN - Fan coil unit without casing for recessed applications
Without cover casing with regenerable air filter, placed on a metal frame housed on guides cut out in the lower part of the frame.

> UNIT SPECIFICATIONS

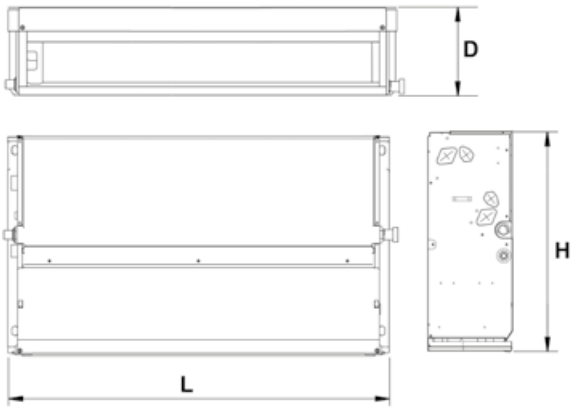
BEARING STRUCTURE It is made of galvanized sheet metal of adequate thickness.
There are slots at the rear to fix the unit. For models without a cover casing, there is a front mounted fan unit closing panel.
HEAT EXCHANGE COIL 3-row copper tube coil with aluminium fins blocked by mechanical expansion of the tubes. The manifolds in the upper part of the coil are equipped with air vents, while the lower part has a water drain tap*. * *The default hydraulic connection for the coil is on the LEFT. HoweverIT IS POSSIBLE TO turn the coil and modify it to the RIGHT (see Installation Manual).*
CONDENSATE DRIP TRAY Made of thermoplastic material to avoid corrosion it allows the machine to be installed in either vertical or horizontal positions. In particular, in the horizontal installation, its shape makes it possible to collect the drops of condensate that form on the collectors during cold operation. The drain hole is made directly from the condensate drip tray and allows it to be removed during cold operation. It is present on both sides of the machine to facilitate the rotation of the coil.
FAN MOTOR The electric motor is a DC brushless type with continuous speed regulation at high efficiency and is directly coupled to the fans and cushioned by elastic supports.
CENTRIFUGAL FAN The fan unit consists of double inlet centrifugal fans with blades developed in length to obtain high flow rate at low speed.
AIR FILTER Easily removable and regenerable by simply washing with water.
COVER CASING (VM only) Made of steel sheet part painted with epoxy powder to ensure high resistance to corrosion and part in anti-UV thermoplastic material to ensure resistance to ultraviolet rays. The air diffusion grilles and the door to access the control panel, both made of anti-UV thermoplastic material are inserted in the upper part.
HYDRAULIC CONNECTIONS The connections, located on the left side, are of ¾" gas female type. It is possible to rotate the coil, which is supplied as standard with left side connections, by moving the hydraulic connections to the right side.

VM VERSION



Mod.	150	250	350	500	700
L (mm)	790	1020	1240		1360
H (mm)	495				
D (mm)	200				

VN VERSION

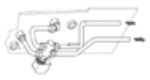


Mod.	150	250	350	500	700
L (mm)	637	867	1087		1207
H (mm)	455				
D (mm)	200				

MODEL			150	250	350	500	700
Power supply		V-ph-Hz	230-1-50				
WATER: IN 7° - OUT 12°C - ROOM AIR: 27°C D.B 19°C W.B.							
Total cooling capacity	max	kW	1.50	2.35	3.50	4.30	5.60
	med	kW	1.06	1.94	2.89	3.48	4.47
	min	kW	0.92	1.19	2.22	2.71	3.14
Sensible cooling capacity	max	kW	1.14	1.79	2.65	3.25	4.62
	med	kW	0.77	1.44	2.14	2.56	3.6
	min	kW	0.66	0.86	1.57	1.91	2.43
Water flow rate	max	l/h	258	404	602	740	963
	med	l/h	182	334	497	599	769
	min	l/h	158	205	382	466	540
Water side pressure drops	max	kPa	14	13	34	54	51
	med	kPa	8	10	25	36	33
	min	kPa	6	5	15	23	18
WATER: IN 45° - OUT 40°C - ROOM AIR: 20°C							
Heat output	max	kW	1.57	2.60	3.80	4.70	6.00
	med	kW	1.07	2.11	3.10	3.70	4.77
	min	kW	0.92	1.34	2.35	2.81	3.36
Water flow rate	max	l/h	270	447	654	808	1032
	med	l/h	184	363	533	636	820
	min	l/h	158	230	404	483	578
Water side pressure drops	max	kPa	15	14	35	54	55
	med	kPa	8	10	24	37	38
	min	kPa	6	5	15	22	19
WATER: IN 65° - OUT 55°C - AMBIENT AIR: 20°C							
Auxiliary coil heat output	max	kW	1.40	2.30	2.88	3.35	4.60
	med	kW	1.23	1.78	2.49	2.88	3.95
	min	kW	0.95	1.22	2.00	2.36	3.02
Auxiliary coil water flow rate	max	l/h	120	200	250	290	390
	med	l/h	110	150	210	250	340
	min	l/h	80	100	170	200	260
Water side pressure drops auxiliary coil	max	kPa	11	28	55	70	132
	med	kPa	9	18	43	55	104
	min	kPa	5	10	29	38	64
GENERAL DATA							
Air flow rate	max	m³/h	255	400	595	790	1190
	med	m³/h	170	315	470	580	855
	min	m³/h	150	190	340	410	505
Air flow with main coil only for static pressure available 0/12/30 Pa	max	m³/h	333 / 280 / 146	489 / 392 / 32	683 / 570 / 261	893 / 812 / 656	1350 / 1258 / 1091
	med	m³/h	276 / 210 / 43	345 / 128 / 24	538 / 367 / 31	666 / 552 / 237	1029 / 899 / 630
	min	m³/h	192 / 77 / 24	232 / 19 / 19	397 / 197 / 25	475 / 258 / 28	677 / 451 / 31
Air flow rates with main and auxiliary coils for static pressure available 0/12/30 Pa	max	m³/h	318 / 264 / 131	465 / 373 / 47	641 / 527 / 258	845 / 764 / 606	1198 / 1112 / 949
	med	m³/h	265 / 198 / 31	327 / 164 / 25	508 / 339 / 31	631 / 516 / 229	897 / 774 / 554
	min	m³/h	186 / 76 / 24	222 / 20 / 20	357 / 95 / 24	452 / 251 / 228	574 / 386 / 32
Absorbed power	max / med / min	W	15 / 9 / 8	17 / 12 / 7	26 / 17 / 10	50 / 25 / 14	96 / 44 / 17
Maximum current consumption	max	A	0.18	0.20	0.26	0.49	0.85
Sound power	max / med / min	dB(A)	47 / 36 / 34	43 / 37 / 29	52 / 44 / 36	59 / 51 / 43	64 / 56 / 45
Sound pressure (measured at 1 m distance in reverberation chamber)	max / med / min	dB(A)	34 / 24 / 21	29 / 24 / 18	38 / 32 / 23	46 / 38 / 30	50 / 42 / 31
Motor		type	DC brushless				
No. of fans (centrifugal)		No°	1	2	2	2	3
Maximum operating pressure		bar	16				
Main 3R coil water content		l	0.46	0.68	0.90	0.90	1.02
Auxiliary 1R coil water content		l	0.15	0.23	0.30	0.30	0.34
Main 3R coil connections	F	"	3/4" G	3/4" G	3/4" G	3/4" G	3/4" G
Auxiliary 1R coil connections	F	"	1/2" G	1/2" G	1/2" G	1/2" G	1/2" G
Condensate discharge connections		mm	18.5				
Gross/net weight VM version		kg	23.5 / 18	27.5 / 21.5	32.5 / 25.5	32.5 / 25.5	36 / 28.5
Gross/net weight VN version		kg	19.5 / 14	22.5 / 16.5	26.5 / 19.5	26.5 / 19.5	29.5 / 22
CODE	**VM**		**2CO9A3AF**	**2CO9A3BF**	**2CO9A3CF**	**2CO9A3DF**	**2CO9A3EF**
CODE	**VN**		**2CO9A3F0**	**2CO9A3G0**	**2CO9A3H0**	**2CO9A3I0**	**2CO9A3J0**

TABLE OF ACCESSORIES

CONTROL ACCESSORIES								
MODEL		**DESCRIPTION**	**150**	**250**	**350**	**500**	**700**	**CODE**
TE / TER		**Thermostat with display for on board unit or remote wall-hung installation. Allows to:** 1. Turn the unit on or off 2. Choose Hot-Cool-Airing-Dehumidification mode of operation 3. Display the room temperature and set the setpoint 4. Select the fan speed	•	•	•	•	•	**2CO9A3K0**
502-503		**Wall adapter for boxes** Adapter kit for wall installation of the TE/TER thermostat in case you want to use it on a recessed box mod. 503 (fixing centre distance 83.5 mm)	•	•	•	•	•	**2CO9A3W0**
GC01		**Central unit module** - Allows to connect in serial network up to 16 fan coils that will be controlled as a single unit with a single TE/TER thermostat.	•	•	•	•	•	**2CO9A3N0**
GCM09		**Wall-hung centralized control** It allows to connect up to 64 fan coils in a serial network and therefore allows, in unit or singularly for all connected fan coils, to: 1. Turn the units on or off 2. Choose the Hot-Cold mode of operation 3. Display the room temperature and set the setpoint 4. Select the fan speed 5. Weekly schedule	•	•	•	•	•	**2CO9A3Q0**

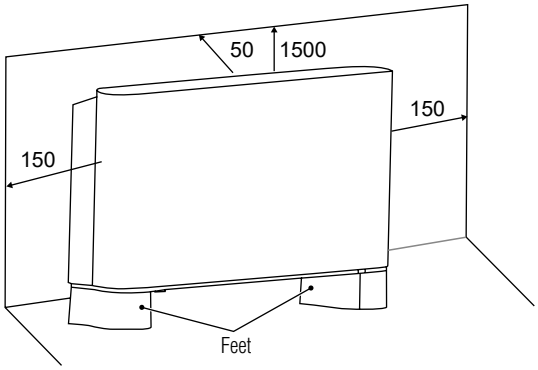
COMMON ACCESSORIES FOR INSTALLATION AND HYDRAULIC CONNECTIONS								
MODEL		**DESCRIPTION**	**150**	**250**	**350**	**500**	**700**	**CODE**
FCPW		**Support feet** in case the unit rests on the floor	•	•	•	•	•	**2CO9A3R0**
BATT 1R FC150		**Auxiliary 1-row coil**	•					**2CO9A3S0**
BATT 1R FC250				•				**2CO9A3T0**
BATT 1R FC350-500					•	•		**2CO9A3U0**
BATT 1R FC700							•	**2CO9A3V0**
FC BATT 3R		**3-way valve kit 3-way main coil**	•	•	•	•	•	**2CO9A3Y0**
FC BATT 1R		**3-way valve kit auxiliary 1-row coil**	•	•	•	•	•	**2CO9A3Z0**
FC		**Condensate drip tray** for the installation of the 3-way valve auxiliary kit	•	•	•	•	•	**2CO9A3X0**

> INSTALLATION EXAMPLES

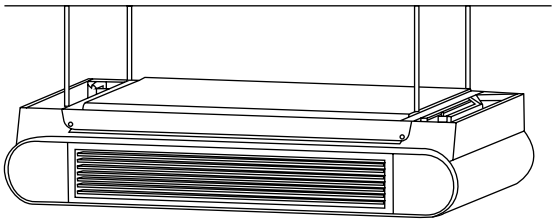
These new units are characterized by an elegant aesthetic design and multiple insertion possibilities in different types of installations.

The cased models can be wall-hung or recessed (raised or supported by feet), or suspended horizontally from the ceiling.

WALL-HUNG OR RECESSED INSTALLATION

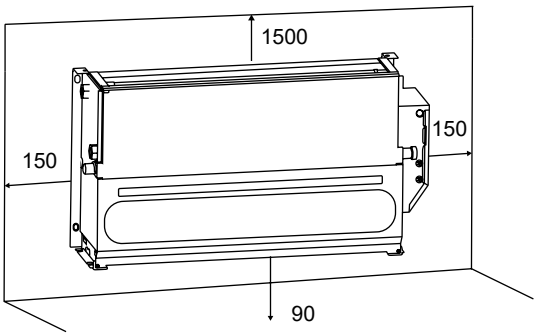


SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION

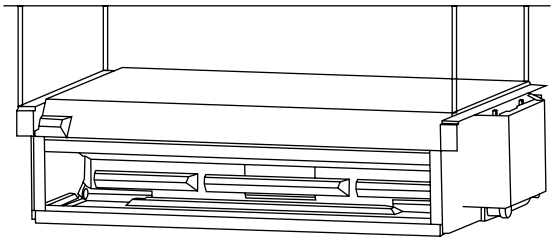


The models without casing are particularly suitable for vanishing solutions in recessed or in false ceilings.

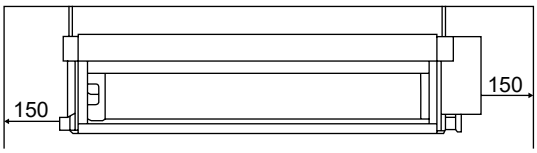
RECESSED INSTALLATION



SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION



CEILING-HUNG HORIZONTAL INSTALLATION



JOLLY TOP 3V

FAN COIL
WITH CENTRIFUGAL FAN

VM version

VN version

> GENERAL CHARACTERISTICS:

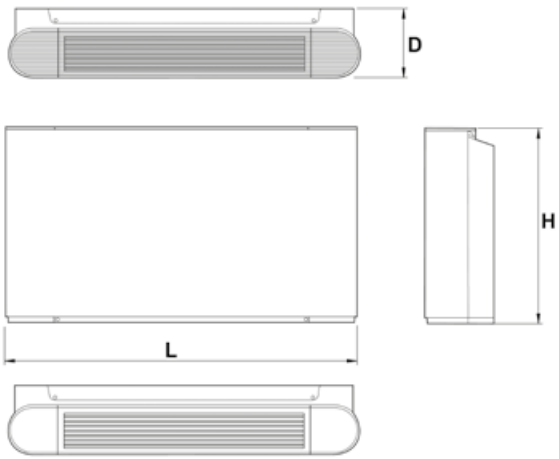
New series of fan coil units with centrifugal fan with high efficiency DC brushless motor. Characterised by a maximum depth of 200 mm in the cased models and a particularly attractive aesthetic line, they are intended for residential heating and air conditioning applications.
Available in 5 sizes with cooling capacities from 1.50 to 5.60 kW and air flow rates from 255 to 1190 m^3/h. In the standard version they are proposed with a single 3-row coil to which can be combined as an accessory, in the case of 4-pipe systems, an additional 1-row coil.
Available in the two versions, VM with casing and VN without shell for recessed applications. The units can be installed in both vertical and horizontal positions.

The range of centrifugal fan coil units includes two versions; each of them is available in different capacities.
VM - Fan coil unit with suction casing from below
Composed of a sheet metal casing, a supply grille with doors to access the control, if required, in thermoplastic material and a regenerable e air filter, placed on a metal frame housed on guides cut out in the lower part of the frame.
VN - Fan coil unit without casing for recessed applications
Without cover casing with regenerable air filter, placed on a metal frame housed on guides cut out in the lower part of the frame.

> UNIT SPECIFICATIONS

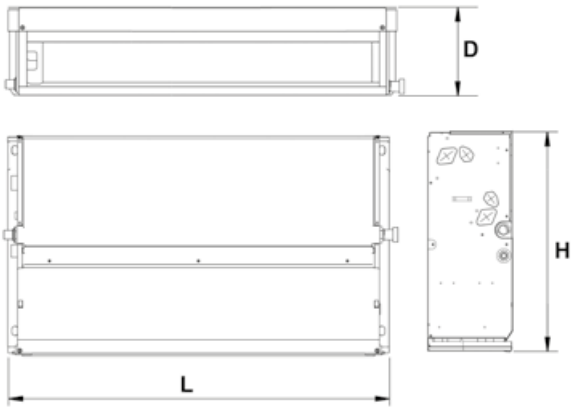
BEARING STRUCTURE It is made of galvanized sheet metal of adequate thickness.
There are slots at the rear to fix the unit. For models without a cover casing, there is a front mounted fan unit closing panel.
HEAT EXCHANGE COIL 3-row copper tube coil with aluminium fins blocked by mechanical expansion of the tubes. The manifolds in the upper part of the coil are equipped with air vents, while the lower part has a water drain tap*. * *The default hydraulic connection for the coil is on the LEFT. HoweverIT IS POSSIBLE TO turn the coil and modify it to the RIGHT (see Installation Manual).*
CONDENSATE DRIP TRAY Made of thermoplastic material to avoid corrosion it allows the machine to be installed in either vertical or horizontal positions. In particular, in the horizontal installation, its shape makes it possible to collect the drops of condensate that form on the collectors during cold operation. The drain hole is made directly from the condensate drip tray and allows it to be removed during cold operation. It is present on both sides of the machine to facilitate the rotation of the coil.
FAN MOTOR The electric motor, protected from possible overloads, has three speeds with running capacitor always on, directly coupled to the fans and cushioned by elastic supports.
CENTRIFUGAL FAN The fan unit consists of double inlet centrifugal fans with blades developed in length to obtain high flow rate at low speed.
AIR FILTER Easily removable and regenerable by simply washing with water.
COVER CASING (VM only) Made of steel sheet part painted with epoxy powder to ensure high resistance to corrosion and part in anti-UV thermoplastic material to ensure resistance to ultraviolet rays. The air diffusion grilles and the door to access the control panel, both made of anti-UV thermoplastic material are inserted in the upper part.
HYDRAULIC CONNECTIONS The connections, located on the left side, are of ¾" gas female type. It is possible to rotate the coil, which is supplied as standard with left side connections, by moving the hydraulic connections to the right side.

VM VERSION



Mod.	150	250	350	500	700
L (mm)	790	1020	1240		1360
H (mm)	495				
D (mm)	200				

VN VERSION

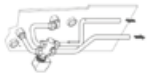


Mod.	150	250	350	500	700
L (mm)	637	867	1087		1207
H (mm)	455				
D (mm)	200				

MODEL			150	250	350	500	700
Power supply		[V-ph-Hz			230-1-50		
WATER: IN 7° - OUT 12°C - ROOM AIR: 27°C D.B 19°C W.B.							
Total cooling capacity	max	kW	1.65	2.65	3.85	4.65	6
	med	kW	1.22	2.02	3.19	3.8	5.03
	min	kW	1.09	1.4	2.46	2.92	3.71
Sensible cooling capacity	max	kW	1.25	2.05	2.91	3.58	4.83
	med	kW	0.88	1.5	2.36	2.85	3.99
	min	kW	0.78	1.02	1.77	2.09	2.85
Water flow rate	max	l/h	284	456	662	800	1032
	med	l/h	210	347	549	654	865
	min	l/h	187	241	423	502	638
Water side pressure drops	max	kPa	16	18	38	57	54
	med	kPa	9	11	27	40	37
	min	kPa	7	5	17	25	21
WATER: IN 45° - OUT 40°C - ROOM AIR: 20°C							
Heat output	max	kW	1.85	3.05	4.1	5.2	6.15
	med	kW	1.29	2.24	3.3	3.95	5.1
	min	kW	1.13	1.52	2.48	3	3.8
Water flow rate	max	l/h	318	525	705	894	1058
	med	l/h	222	385	568	679	877
	min	l/h	194	261	427	516	654
Water side pressure drops	max	kPa	15	18	36	57	58
	med	kPa	8	10	25	37	39
	min	kPa	7	5	15	23	21
WATER: IN 65° - OUT 55°C - AMBIENT AIR: 20°C							
Auxiliary coil heat output	max	kW	1.69	2.45	2.95	3.64	4.65
	med	kW	1.4	1.7	2.5	3.05	4.09
	min	kW	1.15	1.19	2	2.5	3.19
Auxiliary coil water flow rate	max	l/h	140	210	250	310	400
	med	l/h	120	150	210	260	350
	min	l/h	100	100	170	210	270
Water side pressure drops auxiliary coil	max	kPa	16	32	58	82	135
	med	kPa	11	17	43	61	112
	min	kPa	8	10	29	43	71
GENERAL DATA							
Air flow rate	max	m³/h	255	400	595	790	1190
	med	m³/h	165	273	447	560	855
	min	m³/h	142	180	319	392	555
Air flow with main coil only for static pressure available 0/12/30 Pa	max	m³/h	358 / 331 / 286	446 / 413 / 352	636 / 595 / 513	852 / 808 / 731	1265 / 1190 / 1045
	med	m³/h	269 / 243 / 201	307 / 267 / 177	472 / 421 / 337	806 / 767 / 690	909 / 884 / 820
	min	m³/h	186 / 152 / 111	203 / 136 / 58	337 / 266 / 181	621 / 582 / 500	638 / 615 / 567
Air flow rates with main and auxiliary coils for static pressure available 0/12/30 Pa	max	m³/h	377 / 352 / 309	447 / 414 / 355	635 / 593 / 494	837 / 790 / 710	1208 / 1132 / 987
	med	m³/h	287 / 264 / 215	307 / 266 / 185	477 / 423 / 327	796 / 752 / 676	911 / 881 / 781
	min	m³/h	210 / 176 / 130	203 / 139 / 60	342 / 268 / 180	612 / 573 / 478	623 / 591 / 549
Absorbed power	max / med / min	W	35 / 17 / 14	47 / 26 / 14	51 / 32 / 19	91 / 54 / 34	123 / 98 / 68
Maximum current consumption	max / med / min	A	0.15 / 0.07 / 0.06	0.20 / 0.11 / 0.06	0.22 / 0.14 / 0.08	0.40 / 0.23 / 0.15	0.53 / 0.43 / 0.30
Sound power	max / med / min	dB(A)	47 / 35 / 34	46 / 37 / 31	52 / 44 / 36	59 / 51 / 43	64 / 56 / 45
Sound pressure (measured at 1 m distance in reverberation chamber)	max / med / min	dB(A)	35 / 24 / 21	34 / 24 / 18	39 / 32 / 23	48 / 39 / 31	50 / 43 / 33
Motor		type			AC 3 velocità		
No. of fans (centrifugal)		No°	1	2	2	2	3
Maximum operating pressure		bar			16		
Main 3R coil water content		l	0.46	0.68	0.9	0.9	1.02
Auxiliary 1R coil water content		l	0.15	0.23	0.3	0.3	0.34
Main 3R coil connections	F	"	3/4" G	3/4" G	3/4" G	3/4" G	3/4" G
Auxiliary 1R coil connections	F	"	1/2" G	1/2" G	1/2" G	1/2" G	1/2" G
Condensate discharge connections		mm			18.5		
Gross/net weight VM version		kg	21.8 / 16.3	26 / 20	31 / 24	31 / 24	34.8 / 27.3
Gross/net weight VN version		kg	15.9 / 11.6	19.4 / 13.9	24 / 17.3	24.6 / 17.9	27.3 / 20.5
CODE	**VM**		**2C09A30F**	**2C09A31F**	**2C09A32F**	**2C09A33F**	**2C09A34F**
CODE	**VN**		**2C09A350**	**2C09A360**	**2C09A370**	**2C09A380**	**2C09A390**

TABLE OF ACCESSORIES

CONTROL ACCESSORIES								
MODEL		DESCRIPTION	150	250	350	500	700	CODE
CMR-N		**Switch for remote wall installation** Comes with: - Selector for Summer / Off / Winter function - Selector for Min / Med / Max fan speed	•	•	•	•	•	**2CO9A3P0**
CM FC 3V		**On-board unit switches** They allow to: 1. Turn the unit on or off by selecting Hot-Cold mode 2. Select the fan speed	•	•	•	•	•	**2CO9A3M0**
TE FC 3V		**Thermostat with display for on-board installation** Allows to: 1. Turn the unit on or off 2. Choose the hot-cold operating mode 3. Display the room temperature and set the setpoint 4. Select the fan speed 5. Set a timed on or off 6. Setting an ECO feature 7. Connect the unit to the modbus network for management via BMS 8. Obtain a "chiller call" or a "boiler call" via 1A/230 Vac clean contact	•	•	•	•	•	**2CO9A3L0**
TERN-N		**Advanced thermostat for remote wall installation** Comes with: - Selector for Off/Summer/Winter/Auto function - Selector for Min/Med/Max/Auto fan speed - Knob to set the required temperature Note: The selected temperature refers to a value indicated on the knob and not to an offset in relation to a predetermined value. For the wall-hung version: - yellow LED: on when the thermostat is powered - green LED: on when the cooling function is on - red LED: on when the heating function is on	•	•	•	•	•	**2CO9A400**
TC		**Consent thermostat** (only for switch **CMR** and **CM**)	•	•	•	•	•	**2CO9A420**
MP		**Wall-hung master control** By means of the remote terminal, which can be installed on the wall and connected with three wires to the power module, it is possible to set all the operating parameters of the units. The display shows the room temperature (via an air probe integrated in the terminal) and the set-point, and features icons for indicating the state (on/off), operating mode (heating/cooling/auto), fan speed (1/2/3/auto). Through the 4 keys, it is therefore possible to change the state, the operating mode, the set-point, and the fan speed. The display also shows any operating errors. The terminal is used to control a single fan coil while, through a serial connection, it acts as a master terminal and is able to manage a zone of fan coils (maximum 16).	•	•	•	•	•	**20Z04440**
3V		**Power Module** Module to be installed on each unit, it is able to activate the three fan speeds as well as any hot and cold valves. Through a micro-switch, it is able to manage different system configurations, 2 or 4 pipes or solutions with electric resistance integration. It manages heating and cooling and accepts presence status inputs of the place to be air-conditioned. It receives the settings directly from Master controller or from a serial connection with other units belonging to a single group of terminals with Master Slave setting.	•	•	•	•	•	**2CO9A410**

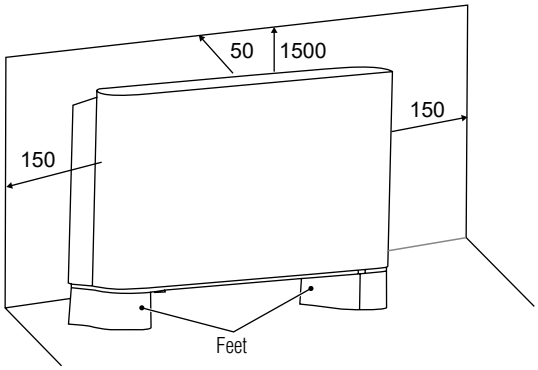
COMMON ACCESSORIES FOR INSTALLATION AND HYDRAULIC CONNECTIONS								
MODEL		DESCRIPTION	150	250	350	500	700	CODE
FCPW		**Support feet** in case the unit rests on the floor	•	•	•	•	•	**2CO9A3R0**
BATT 1R FC150		**Auxiliary 1-row coil**	•					**2CO9A3S0**
BATT 1R FC250				•				**2CO9A3T0**
BATT 1R FC350-500					•	•		**2CO9A3U0**
BATT 1R FC700							•	**2CO9A3V0**
FC BATT 3R		**3-way valve kit 3-way main coil**	•	•	•	•	•	**2CO9A3Y0**
FC BATT 1R		**3-way valve kit auxiliary 1-row coil**	•	•	•	•	•	**2CO9A3Z0**
FC		**Condensate drip tray** for the installation of the 3-way valve auxiliary kit	•	•	•	•	•	**2CO9A3X0**

> INSTALLATION EXAMPLES

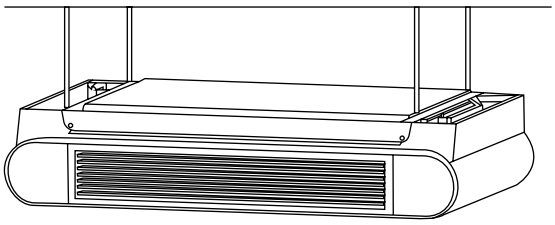
These new units are characterized by an elegant aesthetic design and multiple insertion possibilities in different types of installations.

The cased models can be wall-hung or recessed (raised or supported by feet), or suspended horizontally from the ceiling.

WALL-HUNG OR RECESSED INSTALLATION

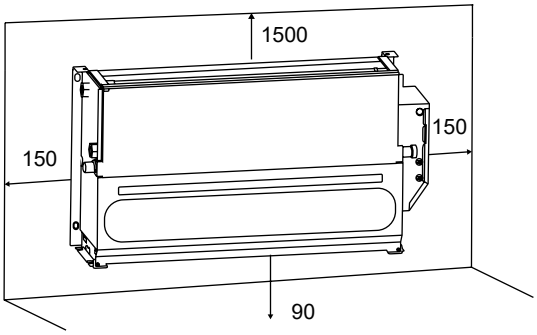


SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION

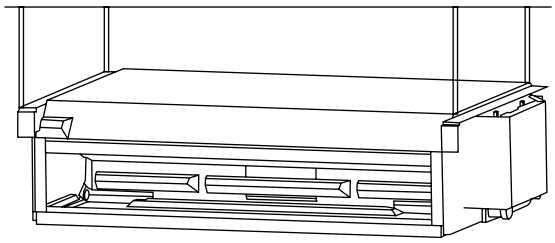


The models without casing are particularly suitable for vanishing solutions in recessed or in false ceilings.

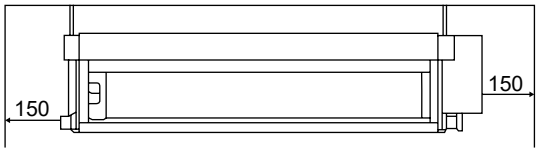
RECESSED INSTALLATION



SUSPENDED HORIZONTALLY FROM THE CEILING INSTALLATION



CEILING-HUNG HORIZONTALINSTALLATION



JOLLY PLUS 2 TANGENTIAL FAN COILS WITH BRUSHLESS MOTOR

> GENERAL CHARACTERISTICS:

Jolly tangential fan coils with high efficiency brushless motors. Characterised by a maximum depth of 131 mm and a particularly attractive aesthetic line, they are intended for residential heating and air conditioning applications. The range comes in three versions:
VM-F with outer casing for automatic opening of the intake section, **VM-G** with casing and fixed intake grid and **VN** without casing for recessed applications and are **four** sizes available with **cooling capacity from 0.83 kW to 3.34 kW.**
The careful design of the main components, the refined design and the versatility of the product make it suitable for any type of installation in residential, commercial or industrial environments. Installation therefore only requires electrical and hydraulic connections.

> CONSTRUCTION FEATURES:

BEARING STRUCTURE: built with high thickness galvanised sheet metal, it integrates structural and functional plastic elements such as the condensate collection tray and the fan volute.
THERMAL EXCHANGE BATTERY: copper tube arranged in staggered rows to increase heat exchange and 2-row aluminium fins locked by the mechanical expansion of the tubes. The manifolds are equipped with air vents, holes for water drainage.
CONDENSATE COLLECTION TRAY: made of thermoplastic material to avoid corrosion, for the VN version (supplied as per standard) it allows the machine to be installed in either vertical or horizontal positions.
FAN MOTOR: the motor is high efficiency brushless type with rpm control. IT IS mounted on rubber supports to reduce noise transmission on the frame. The adjustment allows both continuous and discrete speed control depending on the selected control model. With the use of an accessory it is possible to discretize the speeds and make them steady so that they can then be guided by standard thermoregulators.
FAN: tangential fan coupled directly to the motor, in turn incorporated into an anti-vibration support.
AIR FILTER: regenerated through simple washing with water, easily removable, built with polypropylene honeycomb mesh.
COVERING CABINET (only VM-F and VM-G): made entirely of epoxy powder-coated steel sheet to ensure high resistance to corrosion. The air diffusion grids are inserted in the upper part. The sides are easily removable for easy installation or access to all internal components. Available in the colour RAL 9003.
AIR DELIVERY GRILL (only VM-F and VM-G): built with painted aluminium in the same colour as the casing, it can be turned to allow the air to be directed towards the room or towards the wall.
AIR INTAKE GRID
(VM-F version): made of extruded aluminium, it is characterised by the two thermo-actuators that open it in parallel with fan start-up. It includes a micro switch that blocks the fan if the grid is removed for the normal filter cleaning procedure.
(VM-G version): also in extruded aluminium, it is fastened in the intake section and has fixed fins. It can be taken down to clean the filter.
HYDRAULIC CONNECTIONS: The units are equipped with ¾" EUROKONUS hydraulic connections that offer easy and safe connection. The units are fitted with standard LH connections, with an accessory the connections can be moved to the RH side.

> CONTROLS

The available controls are divided into:

CONTINUOUS CONTROLS

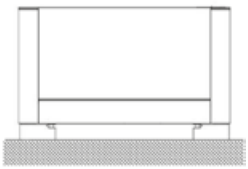
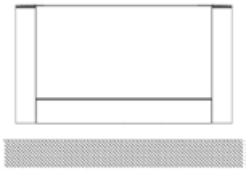
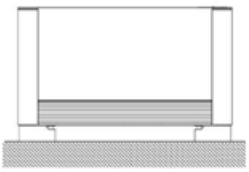
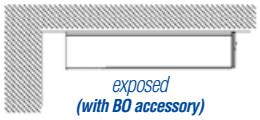
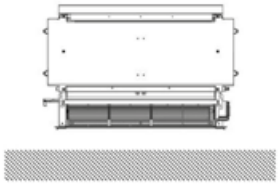
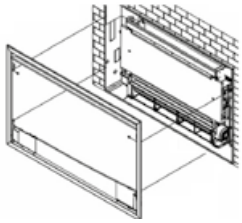
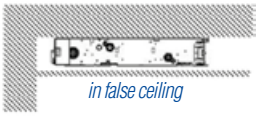
To exploit the potential of the unit, special user terminals have been developed, equipped with continuous adjustment algorithms. This offers stability of the comfort conditions as well as savings linked to fan modulation, as well as a positive impact on the noise level of the unit itself. The terminals, **to be ordered separately as accessories**, are available in **on-board machine version TC Plus** or in **remote wall version TC-R Plus**.
Only for the **TC-R Plus** version, the possibility was developed to connect **up to 31 fan coil units** capable of operating in parallel. This solution is particularly suitable in medium to large sized environments with multiple units installed.
Associated Functions Setting the desired temperature / AUTO function on the fan / SILENT function. (limits max. fan speed) / NIGHT TIME function. (limits the max fan speed and changes the set point) / MAX function (forces the maximum fan speed)
Other features Outputs for the control of the ON-OFF 230V valves / Independent dry contacts, for the control of a chiller and a boiler according to the room request / Dry presence contact (window contact or hotel room presence badge)

DISCRETE CONTROLS

If you want to use fixed speed control, either an actual command can be installed that can be installed on **TS Plus** to control the room temperature and start the unit, or a board module for interfacing with electric fan motor **K3V Plus** which can be controlled by wall-mounted remote user terminal **TD-3R, to be ordered separately as an accessory**, or by a commercial thermostat equipped with three-speed output.

INSTALLATIONS

Depending on the version, the following installations are possible:

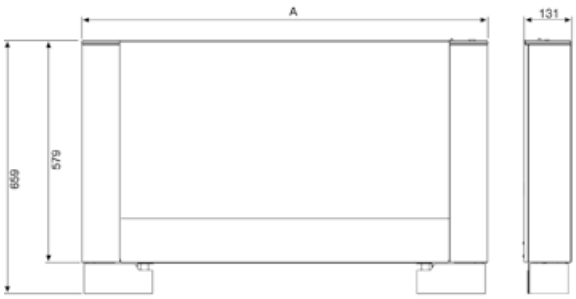
	Wall-hung vertical or centre of the room on feet*	*Wall-hung vertical*	*Vertical in recessed installation*	*Ceiling-hung horizontal*
Version VM-F				
Version VM-G				 *exposed* ***(with BO accessory)***
Version VN				 *in false ceiling*

TECHNICAL DATA

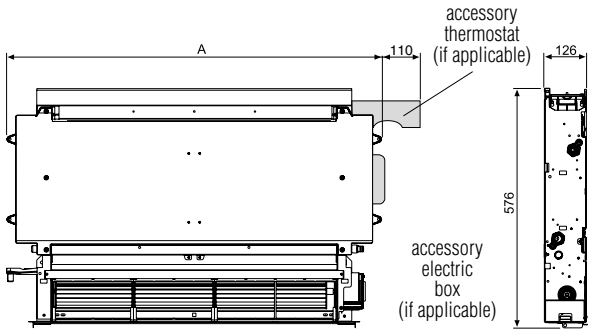
MODELS		20	40	60	80
PERFORMANCE					
Total efficiency / Sensitive efficiency in cooling	W	830 / 620	1760 / 1270	2650 / 1960	3340 / 2650
Water flow rate	l/h	143	303	456	574
Water pressure drop	kPa	7.2	8.4	22.5	18.6
Efficiency in heating with 50°C water intake	W	1090	2350	3190	4100
Water flow rate (50°C water intake)	l/h	142	302	453	573
Water pressure drop (50°C water intake)	KPa	5.7	6.6	16.3	14.0
Efficiency in heating without ventilation (50°C)	W	210	247	291	366
Efficiency in heating with 70°C water intake ΔT 10	W	1890	3990	5470	6980
Water flow rate (70°C ΔT 10)	l/h	162	343	471	600
Water pressure drop (70°C ΔT 10)	kPa	6.7	7.6	16.1	14.0
Efficiency in heating without ventilation (70°C)	W	322	379	447	563
HYDRAULIC CHARACTERISTICS					
Coil water content	litres	0.47	0.8	1.13	1.46
Maximum operating pressure	bar	10	10	10	10
Hydraulic connections	inches	Eurokonus 3/4	Eurokonus 3/4	Eurokonus 3/4	Eurokonus 3/4
AERAULIC DATA					
Air flow rate maximum / medium (AUTO mode) / minimum ventilation speed	m^3/h	162 / 113 / 55	320 / 252 / 155	461 / 367 / 248	576 / 453 / 370
Available static maximum pressure	Pa	10	10	13	13
ELECTRICAL DATA					
Supply voltage	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50
Absorbed maximum electric power	W	12	18	20	26
Maximum absorbed current	A	0.11	0.16	0.18	0.26
Electric power absorbed at minimum speed	W	4	5	5	6
SOUND LEVEL					
Sound pressure at maximum / medium / minimum air flow rate	dB(A)	39.4 / 33.2 / 24.2	40.2 / 34.1 / 25.3	42.2 / 34.4 / 25.6	42.5 / 35 / 26.3
WEIGHTS					
Net weight of units VM-F / VM-G / VN	Kg	17 / 17 / 9	20 / 20 / 12	23 / 23 / 15	26 / 26 / 18
CODE	**VM-G**	**2C027M5F**	**2C027W5F**	**2C027Y5F**	**2C027I5F**
CODE	**VM-F**	**2C02725F**	**2C02785F**	**2C027E5F**	**2C027L5F**
CODE	**VN**	**2C02705F**	**2C02765F**	**2C027C5F**	**2C027J5F**

> DIMENSIONS

version VM-F and VM-G



version VN



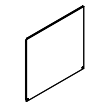
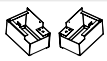
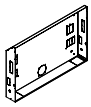
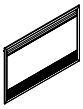
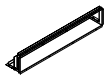
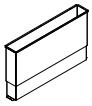
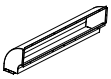
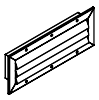
MODEL	20	40	60	80
VM-F/VM-G (mm)	735	935	1135	1335
VN (mm)	479	679	879	1079

> TABLE OF ACCESSORIES

REMOTE CONTROLS							
MODEL		**DESCRIPTION**	**20**	**40**	**60**	**80**	**CODE**
MODULATING							
TC PLUS		Control for modulating variable speed operation to be installed on the machine. Provided with its own interface card module to install inside the machine	•	•	•	•	**2C0276YF**
CC-R PLUS B		Interface card module to install inside the machine mandatorily combined with TC-R PLUS B	•	•	•	•	**2C0A74YF**
TC-R PLUS B		Wall-hung remote continuous thermostat user terminal for modulating variable speed operation, supplied with closing cover for the top side casing of the fan coil. Mandatorily combined with CC-R PLUS B	•	•	•	•	**2C0A75YF**
3-SPEED							
TS PLUS		Control for fixed speed operation to be installed on the machine. Provided with its own interface card module to install inside the machine	•	•	•	•	**2C027BYF**
K3V PLUS		Interface card module, supplied with closing cover for the top side casing of the fan coil. To be installed inside the machine, it can be combined with the TD-3R terminal or with a commercial thermostat with 3-speed output	•	•	•	•	**2C0277YF**
TM-3R		3-speed wall-hung manual thermostat. It has: selector for Summer/Winter function, Min/Med/Max fan speed selector, selector for turning on/off, knob for setting desired temperature	•	•	•	•	**2C027CYF**

HYDRAULIC ACCESSORIES							
MODEL		**DESCRIPTION**	**20**	**40**	**60**	**80**	**CODE**
VB 2		2-way valve kit	•	•	•	•	**2C0212YF**
VB 3		3-way valve kit	•	•	•	•	**2C0213YF**
KRE 3/4"	-	3/4" F Eurokonus fitting conversion kit	•	•	•	•	**2C0219YF**
KRE 1/2"	-	1/2" F Eurokonus fitting conversion kit	•	•	•	•	**2C021AYF**
KLR PLUS	-	"Lh" to "Rh" hydraulic fitting conversion kit	•	•	•	•	**2C0238YF**

> TABLE OF ACCESSORIES

ACCESSORIES FOR INSTALLATION							
Version VM-F / VM-G							
MODEL		**DESCRIPTION**	**20**	**40**	**60**	**80**	**CODE**
PC 20		Rear closing mod VM-F / VM-G 20	•				2C0270XF
PC 40		Rear closing mod VM-F / VM-G 40		•			2C0271XF
PC 60		Rear closing mod VM-F / VM-G 60			•		2C0272XF
PC 80		Rear closing mod VM-F / VM-G 80				•	2C0273XF
PE		Aesthetic feet (to be ordered only with fan coil attached to the wall)	•	•	•	•	2C0278XF
PA		Supporting feet	•	•	•	•	2C0279XF
ACCESSORY FOR HORIZONTAL INSTALLATION OF VM-G							
BO 20	-	Horizontal installation tray mod. VM-G 20	•				2C0214XF
BO 40		Horizontal installation tray mod. VM-G 40		•			2C0215XF
BO 60		Horizontal installation tray mod. VM-G 60			•		2C0216XF
BO 80		Horizontal installation tray mod. VM-G 80				•	2C0217XF
Version VN							
MODEL		**DESCRIPTION**	**20**	**40**	**60**	**80**	**CODE**
CF 20		Recessed fan coil mod VN 20	•				2C021LWF
CF 40		Recessed fan coil mod VN 40		•			2C021MWF
CF 60		Recessed fan coil mod VN 60			•		2C021NWF
CF 80		Recessed fan coil mod VN 80				•	2C021PWF
PCF 20		Aesthetic panel mod VN 20	•				2C021QWF
PCF 40		Aesthetic panel mod VN 40		•			2C021RWF
PCF 60		Aesthetic panel mod VN 60			•		2C021SWF
PCF 80		Aesthetic panel mod VN 80				•	2C021TWF
RA 20		Intake fitting mod VN 20	•				2C0210WF
RA 40		Intake fitting mod VN 40		•			2C0211WF
RA 60		Intake fitting mod VN 60			•		2C0212WF
RA 80		Intake fitting mod VN 80				•	2C0213WF
PMT 20		Telescopic delivery plenum mod VN 20	•				2C0214WF
PMT 40		Telescopic delivery plenum mod VN 40		•			2C0215WF
PMT 60		Telescopic delivery plenum mod VN 60			•		2C0216WF
PMT 80		Telescopic delivery plenum mod VN 80				•	2C0217WF
PMP 20		Perpendicular delivery plenum mod VN 20	•				2C0218WF
PMP 40		Perpendicular delivery plenum mod VN 40		•			2C0219WF
PMP 60		Perpendicular delivery plenum mod VN 60			•		2C021AWF
PMP 80		Perpendicular delivery plenum mod VN 80				•	2C021BWF
GM 20		Curved fin delivery grid mod VN 20	•				2C021CWF
GM 40		Curved fin delivery grid mod VN 40		•			2C021DWF
GM 60		Curved fin delivery grid mod VN 60			•		2C021EWF
GM 80		Curved fin delivery grid mod VN 80				•	2C021FWF
GA 20		Curved fin intake grid mod VN 20	•				2C021GWF
GA 40		Curved fin intake grid mod VN 40		•			2C021HWF
GA 60		Curved fin intake grid mod VN 60			•		2C021JWF
GA 80		Curved fin intake grid mod VN 80				•	2C021KWF

SUPER FAN FAN COIL WALL-HUNG

> GENERAL CHARACTERISTICS

New series of wall-hung recessed fan coils.
Terminal units for air handling which, in combination with a chiller, a heat pump or a boiler, can be used either in the winter or in the summer.
Particularly flexible, they are suitable for satisfying air climatisation and air conditioning requirements for both hotel applications and a wide range of commercial and residential uses.

> CONSTRUCTION FEATURES

Available in 4 models with **nominal cooling capacity from 0.99 to 4.38 kW and nominal heat output from 1.48 to 5.25 kW** , they are suitable for wall installation. The compact dimensions provide a pleasant visual impact. The covering cabinet built with **ABS** guarantees high mechanical characteristics and resistance to aging, and also acts as the supporting structure of the unit. The fan unit consists of a tangential fan with **low consumption EC motor**.
The units are equipped with a display showing the selected operating mode and the set room temperature.
To allow easy installation, all units in the series are equipped with flexible hydraulic hoses; they are also equipped with valves inserted inside the unit and easily accessible from the front panel.
The use of the three-way valve prevents excessive cooling of the unit when the fan stops, and the unpleasant formation of condensation on the casing of the machine.
The units are designed to be connected in **Master-Slave system** to control multiple units through a single controller.

Master-Slave system

EC motor

Valve 3-way

REM-I

REM2-W

AVAILABLE CONTROLS

There are two options available for unit control. It is necessary to select at least one of the two. With Master-Slave control, at least one of the two controls must be selected for each installed group of units.

Infrared remote control REM-I

This sets all of the unit's essential functions. Equipped with an LCD display for easy and immediate display of all the active functions and the various parameters necessary for correct use.
The control comes with a support that fixes it in the most easily accessible position. It offers control up to a distance of 7 m

Wired control for wall application REM2-W

This offers control over all machine parameters and measures the local temperature. With a Master-Slave system, this allows the individual control of each unit. It also acts as a receiver for the infrared remote control.
IT IS equipped with a specific extension that allows installation up to 7 m away from the unit.

CODE	DESCRIPTION
2C0730AF	REM-I
2C09710F	REM2-W

MODEL	A mm	B mm	C mm	WEIGHT kg
15	876	300	228	11
25				12
35				13
45				14

MODEL			15	25	35	45
Total cooling capacity(1) (E)	max	W	990	2050	3010	3710
	med	W	830	1630	2470	3260
	min	W	670	1360	1860	2660
Sensible cooling capacity(1) (E)	max	W	850	1520	2220	2740
	med	W	710	1200	1810	2400
	min	W	570	995	1350	1940
Dehumidification at the maximum speed(1)		g/h	400	700	1050	1330
Water flow rate(1)		l/h	170	356	521	643
Water side pressure drops(E)		kPa	22.8	28.8	38.5	50
Heat output(2) (E)	max	W	1480	2640	3850	4770
	med	W	1230	2080	3140	4170
	min	W	990	1720	2340	3370
Water flow rate(2)		l/h	170	356	521	643
Water side pressure drops(2) (E)		kPa	18.4	22.4	35.0	45.0
Heat output(3) (E)	max	W	2606	4355	6351	7868
	med	W	2175	3440	5190	6860
	min	W	1740	2845	3880	5550
Water flow rate(3)		l/h	224	375	546	677
Water side pressure drops(3) (E)		kPa	18.1	22.0	34.0	44.1
Power supply		V-F-Hz	230-1-50			
Air flow rate	max	m³/h	370	500	645	880
	med	m³/h	290	370	500	740
	min	m³/h	220	290	370	570
Sound power(E)	max	dB(A)	42	48	54	58
	med	dB(A)	38	40	43	53
	min	dB(A)	33	35	40	46
Sound power(4)	max	dB(A)	32	38	44	48
	med	dB(A)	28	30	33	43
	min	dB(A)	23	25	30	36
Absorption(E)	max	W	13	18	22	30
	med	W	10	13	15	20
	min	W	6	10	10	13
Apparent absorption	max	W	22	41	52	94
Motor absorption	max	A	0.104	0.19	0.242	0.44
Coil water content		l	0.26	0.38	0.72	0.93
Hydraulic connections	Ø	"	1/2" F	1/2" F	1/2" F	1/2" F
Condensate discharge connection	Ø	mm	16	16	16	16
Valve	Type	-	3-way ON-OFF			
	Connection	"	1/2"	1/2"	1/2"	1/2"
CODE			**2C07300F**	**2C07301F**	**2C07302F**	**2C07303F**

NOTES:
(1) Water 7°C IN- 12°C OUT - Air 27°BS 19°C BU
(2) Water 50°C IN - Same flow rate in cold operation - Air 20°C BS
(3) Water 70°C IN - OUT 60°C - Air 20°C BS
(4) Sound pressure at 1 meter from the unit
(E) Eurovent certified data
Water side pressure drops are included in the valve drops.

FCM

FAN COIL
CASSETTE

INFRARED REMOTE CONTROLLER (standard)

WIRED CONTROLLER (optional)

GENERAL SPECIFICATION

- 2 versions - for 2 pipes plant and for 4 pipes plant
- 4 model available for 2 pipes type and 2 model for 4 pipes type
- New EC motor with low consumptions up to 30% respect to a standard motor
- Controlled by infrared remote controller (standard) and a wired controller (optional)
- Timer setting
- Available function: Heating, Cooling, Dehumidification, Automatic

CONTROLLER

INFRARED REMOTE CONTROLLER (Standard)

This controller is very easy to use and all parameters are under control. The limit trasmitting distance of this remote controller is 10 m. Already supplied with the unit.

WIRED CONTROLLER (Optional)

This controller is very easy to use and all parameters are under control. In this case, the panel is fixed to the wall and connected to the unit by a wire.

OPTIONAL ACCESSORIES

The following accessories are available for this category:

3-WAY VALVE KIT(obligatory for operation in the cooling mode)

The three-way valve is not only required to control the ambient temperature, but also to block the flow of chilled water to the coil should the level of condensed water in the tray rise in an abnormal way.
It is obligatory to install this valve if the unit is used for operation in the cooling mode. It avoids excessive cooling when fan is idle, thus preventing the unpleasant formation of condensation inside the machine.
The kit includes copper pipe connections and 3-way valve with ON/OFF electrothermic actuator, suitable for 230V power input. The valve is controlled by main board of the unit.

DRIP TRAY

This PVC tray collects and conveys outside condensation from pipe connections and 3-way valve kit (if present).

MODELS			400	600	850	1500	400-4T	750-4T
Version			2 pipes				4 pipes	
Power supply		V-f-Hz	230-1-50					
Air Flow	Max	m³/h	717	1133	1441	1850	717	1233
	Med	m³/h	502	793	1009	1295	502	863
	Min	m³/h	359	567	721	925	359	617
Cooling capacity (1)	Max	W	3930	5580	6840	10640	2880	5180
	Med	W	3070	4350	5330	8090	2190	3940
	Min	W	2480	3520	4300	6600	1800	3260
Water flow		l/h	676	960	1176	1830	495	891
Cooling water pressure drop		kPa	12	21	27	34	14,5	12
Heating Capacity (2)	Max	W	5340	7720	9370	14380	-	-
	Med	W	4000	5920	7250	11290	-	-
	Min	W	3150	4500	5500	8440	-	-
Heating Capacity (3)	Max	W	-	-	-	-	4730	7410
	Med	W	-	-	-	-	3600	5640
	Min	W	-	-	-	-	2980	4670
Water flow (2)		m³/h	676	960	1176	1830	-	-
Water flow (3)		m³/h	-	-	-	-	407	637
Heating water pressure drop		kPa	10,6	22	23	34	29,1	42
Power input		W	27	42	70	124	27	50
Sound pressure level	Max-Med-Min	dB(A)	40 - 36 - 28	42 - 33 - 26	46 - 36 - 28	50 - 40 - 33	40 - 36 - 28	42 - 34 - 26
Pipe connection		"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Pipe connection auxiliary		"	-	-	-	-	1/2"	1/2"
Net \ Gross weight Body		Kg	16,5/21,5	23/28	27/33	29/34,5	17/23	28/34
Net \ Gross weight Panel		Kg	2,5/4,5	6/9	6/9	6/9	2,5/4,5	6/9
CODE	**FCM**		**2C097A0F**	**2C097A1F**	**2C097A2F**	**2C097A3F**	**2C097B0F**	**2C097B1F**
	Cover grille (small)		**2C097AAF**	-			**2C097AAF**	-
	Cover grille (big)		-	**2C097BAF**			-	**2C097BAF**

NOTE: (1) (1) Air T=27°C D.B. / 19°C W.B. , Water IN/OUT 7°/12°C, design air flow; For medium and low fan speed, water flow as in maximum fan speed mode. **(2)** Air T=20°C D.B., water inlet temperature 50°C, water flow as in cooling mode. **(3)** Air T=20°C D.B., water IN/OUT 70°/60°C, design air flow; For medium and low fan speed, water flow as in maximum fan speed mode. **(4)** Sound pressure level in 100m² room with 0.5sec of reverberation time

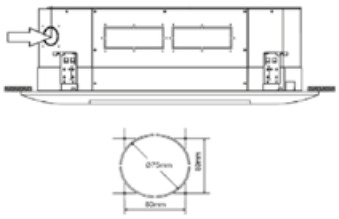
ACCESSORIES

MODELS	400	600	850	1500	400-4T	750-4T
VT1 - 3 way valve for main exchanger	20Z19000	-			20Z19000	-
VT2 - 3 way valve for main exchanger	-	20Z19340			-	
VT3 - 3 way valve for main exchanger	-					20Z19350
VT4 - 3 way valve for additional exchanger	-				20Z19020	-
VT5 - 3 way valve for additional exchanger	-					20Z19360
Drip tray	2C097FAF	-			2C097FAF	-
Drip tray	-	2C097GAF	-			2C097GAF
Wired control	2C097DAF					
Centralised control	2C097EAF					

OPTION INSTALLATION

Fresh air flow input

For fresh air flow input there is a pre-cut hole to connect the unit to a circular duct. It is possible to control fresh air flow by an external fan (not included). This fan can be controlled by main board of the unit.

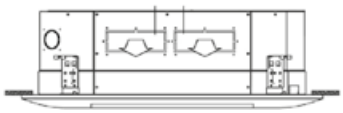


4 PIPES MODEL	400-4	750-4
2 PIPES MODEL	400	600 - 850 - 1500
Ø	65	75

Air delivery into an adjacent room

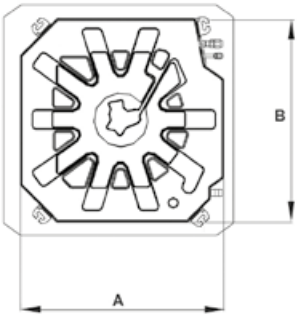
On all sides there are pre-cut hole to connect the unit to adjacent rooms by some ducts.

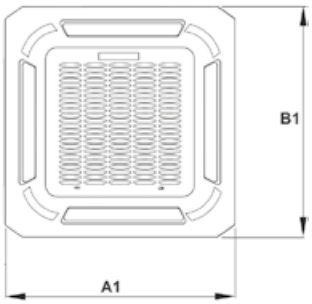
4 PIPES MODEL	2 PIPES MODEL	A (mm)	B (mm)	Ø (mm)
400-4	400	-	-	150
-	600	75	160	-
750-4	850 - 1500	95	160	-

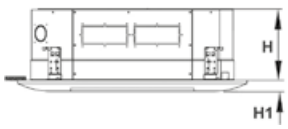


DIMENSION

4 PIPES MODEL		400-4	-	750-4	
2 PIPES MODEL		400	600	850	1500
Body	A (mm)	575	840	840	
	B (mm)	575	840	840	
	H (mm)	260	230	300	
Panel	A1 (mm)	647	950	950	
	B1 (mm)	647	950	950	
	H1 (mm)	50	45	45	







AIR CONDITIONING

KEY OF SYMBOLS

Infrared remote control
to control all of the functions
of the DC air

Activated charcoal
electrostatic filters provided

Anti-bacterial filters

SWING function
(motorised deflecting fin)

Timer

Maintaining the memory
and automatic restart-up
n case of power outages

AUTO operating mode, enables Cool/Heat operation
automatically based on room temperature and Set Point

DRY operating mode, it accentuates summer
dehumidification phenomenon

FAN operating mode,starts the
internal unit in ventilation only

Automatic fan
speed regulation

Night operation (SLEEP). This increases night-time
comfort by automatically adjusting fan speed and the
set temperature

TURBO function brings operation to maximum load to
reach the SET POINT quickly

Condensing drain pump
on board the internal unit

Air ionisation

Can be connected with wall panel

Universal internal units combinable
with external mono or multi split units

Frost Protection function, sets a minimum antifrost
safety set point of 8°C

I FEEL function for local reading of the room
temperature

Direct current (DC) INVERTER technology
The direct current compressor installed on these units guarantees an
electromechanical efficiency of 30% more than TRADITIONAL INVERTER (AC) compressors.

The products marked with this symbol are EUROVENT
certified

R410A Eco Coolant. It observes the Montreal protocol,
it does not damage the ozone because it is HCFC-free

R134A Eco Coolant. It observes the Montreal protocol,
it does not damage the ozone because it is HCFC-free

R32 Eco Coolant. It observes the Montreal protocol, it
does not damage the ozone because it is HCFC-free

The products are all ROHS-compatible
according to Directive 2002/95/EC

Max temperature
of produced water

Operating Mode in Cooling

Operating Mode in Healing

Auto Clean function, dries the internal battery after cold
operation or dehumidification to avoid the formation of
unpleasant odours

This guarantees cold operation also with outdoor
temperature of -15°C

Coolant leak signalling system

Self-diagnosis System
and description of any anomalies

Remote control with dedicated smartphone App

Cold Catalyst" and "Biohepa" double filtered system

DIAMANT PLUS S

WALL-HUNG MONOSPLIT DC INVERTER IN HEAT PUMP

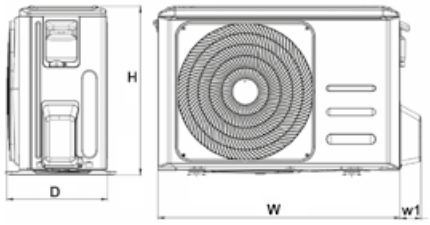
> GENERAL CHARACTERISTICS:

- R32 Eco Coolant
- Efficiency Class A++ / A+
- **Cold Catalyst" and "Biohepa" double filtered system**
- Remote control with dedicated smartphone App
- Temperature display on board the machine
- Featuring direct current inverter technology
- Indoor unit with particularly appealing and modern design
- Outdoor unit equipped with fitting covers and sound-absorbent jacket
- Easily removable intake grille and filters for quick cleaning
- Automatic restart in case of a power outage
- Night operating mode / "AUTOMATIC" mode / Timer function
- Outdoor unit treated with protective anti-rust substances

INDOOR UNIT

MODEL	W mm	H mm	D mm
9	805	285	194
12	805	285	194
18	957	302	213
24	1040	327	220

OUTDOOR UNIT



MODEL	W mm	W1 mm	H mm	D mm
9	700	73	550	275
12	700	73	550	275
18	800	70	554	333
24	845	69	702	363

GENERAL

STANDARD SUPPLY

STANDARD FUNCTIONS

SPECIAL FUNCTIONS

MODEL			9	12	18	24
Power supply		V-f-Hz	230-1-50			
Cooling capacity (1)	Nom	W	2640	3520	5280	7040
	Min-Max	W	910-3400	1115-4160	1820-6130	2080-7950
Total power absorbed in cooling (1)	Nom	W	710	1237	1539	2345
	Min-Max	W	100-1240	130-1580	140-2360	160-2690
Rated current in cooling (1)		A	3,1	5,4	6,9	10,2
Dehumidification (1)		l/h	0,8	1,4	1,8	2,4
EER ref. Standard EN14511 (nominal) (1)		W/W	3,72	2,85	3,43	3,00
SEER ref. Standard EN14825		W/W	6,20	6,10	7,10	6,10
PdesignC		kW	2,6	3,5	5,2	7,0
Heat output (2)	Nom	W	2930	3810	5570	7330
	Min-Max	W	820-3370	1085-4220	1380-6745	1610-8800
Total absorbed power in heating (2)	Nom	W	739	964	1480	2035
	Min-Max	W	120-1200	100-1580	200-2410	260-3140
Rated current in heating (2)		A	3,3	4,2	6,6	9,2
COP ref. Standard EN14511 (nominal) (2)		W/W	3,96	3,95	3,76	3,60
Reference climatic zone ref. Standard EN14825		type	A (moderate)			
SCOP ref. Standard EN14825		W/W	4,00	4,00	4,00	4,00
PdesigH		kW	2,1	2,3	4,1	4,8
Temp balance	Tbiv	°C	-7	-7	-7	-7
Temp use limit	Tol	°C	-15	-15	-15	-15
ERP Class	Cooling		A++	A++	A++	A++
	Heating		A+	A+	A+	A+
Reference climatic zone ref. Standard EN14825		type	B (warmer)			
SCOP rif. Standard EN14825		W/W	4,80	4,80	5,20	5,00
PdesignH		kW	A++	A++	A+++	A++
Temp balance	Tbiv	°C	2	2	2	2
Temp use limit	Tol	°C	2	2	2	2
ERP Class	Heating		A++	A++	A+++	A++
Stand-by mode power consumption		W	0,5	0,5	0,5	0,5
Flow rate of indoor unit	Max-Med-Min	m³/h	520 / 460 / 360	600 / 500 / 360	840 / 680 / 540	980 / 817 / 662
Sound pressure of indoor unit (3)	Max-Med-Min-Slo	dB(A)	40 / 30 / 26 / 21	40 / 34 / 26 / 22	43 / 37 / 30 / 25	44,5 / 42 / 34,5 / 28
Sound power level		dB(A)	53	53	55	59
Outdoor unit air flow		m³/h	1700	1700	2500	3000
Sound pressure of outdoor unit (3)		dB(A)	55,5	56	56	59,5
Sound power level outdoor unit		dB(A)	61	65	61	67
Refrigerant		Tipo	R32			
GWP		tCO_2 eq.	675			
Charge		Kg	0,5	0,5	1,0	1,6
Liquid connection		“	1/4	1/4	1/4	3/8
Gas connection		“	3/8	3/8	1/2	5/8
Maximum cooling lines length		m	25	25	30	50
Max height differenxe		m	10	10	20	25
Indoor unit net weight		Kg	7,5	7,5	10	12,3
Outdoor unit net weight		Kg	22,7	22,7	34	51,5
Packaging dimension indoor unit	W	mm	870	870	1035	1120
	H	mm	270	270	295	310
	D	mm	360	360	380	405
Packaging dimension outdoor unit	W	mm	815	815	920	965
	H	mm	615	615	615	765
	D	mm	325	325	390	395
CODE	**INDOOR UNIT**		**2CO9B01F**	**2CO9B02F**	**2CO9B03F**	**2CO9B04F**
	OUTDOOR UNIT		**2CO9A20F**	**2CO9A21F**	**2CO9A22F**	**2CO9A23F**

(1) Outdoor air temperature = 35°CDB • Room air temperature = 27°CDB / 19°CWB - (2) Outdoor air temperature = 7°CDB / 6°CWB • Room air temperature = 20°CDB - (3) Sound pressure measured at distance of 1 m: E.U. in open field, I.U. in a space of 100 m³ with a reverberation time of 0.5 seconds

DIAMANT PLUS M

WALL-HUNG MULTISPLIT DC INVERTER IN HEAT PUMP

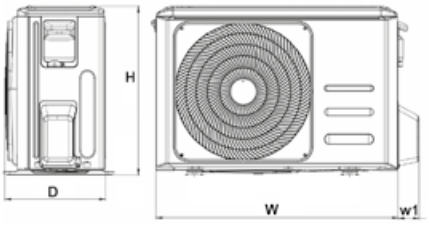
> GENERAL CHARACTERISTICS:

- R32 Eco Coolant
- Efficiency Class A++ / A+
- **Cold Catalyst" and "Biohepa" double filtered system**
- Remote control with dedicated smartphone App
- Temperature display on board the machine
- Featuring direct current inverter technology
- Indoor unit with particularly appealing and modern design
- Outdoor unit equipped with fitting covers and sound-absorbent jacket
- Easily removable intake grille and filters for quick cleaning
- Automatic restart in case of a power outage
- Night operating mode / "AUTOMATIC" mode / Timer function
- Outdoor unit treated with protective anti-rust substances

INDOOR UNIT

MODEL	W mm	H mm	D mm
9	805	285	194
12	805	285	194
18	957	302	213
24	1040	327	220

OUTDOOR UNIT



MODEL	W mm	W1 mm	H mm	D mm
14-2	800	70	554	333
18-2	800	70	554	333
21-3	845	69	702	363
27-3	845	69	702	363
28-4	946	84	810	420

GENERAL

STANDARD SUPPLY

STANDARD FUNCTIONS

SPECIAL FUNCTIONS

OUTDOOR UNIT			14-2	18-2	21-3	27-3	28-4
Nominal combination			**7 + 7**	**9 + 9**	**7 + 7 + 7**	**9 + 9 + 9**	**7 + 7 + 7 + 7**
Power supply		V-Ph-Hz	230/1/50				
Cooling capacity*	Nom	W	4105	5280	6155	7920	8200
	Min-Max	W	1820-4810	1130-5570	1940-6860	2960-8500	2050-9850
Total power absorbed in cooling*	Nom	W	1270	1630	1905	2450	2540
	Min-Max	W	168-1714	150-2000	180-2240	235-3220	890-3180
Rated current in cooling*	Nom	A	5.65	7.10	8.28	13.70	11.3
EER ref. Standard EN14511 (nominal) *		W\W	3.23	3.24	3.23	3.23	3.23
SEER ref. Standard EN14825		W\W	5.60	6.10	6.10	6.10	6.10
PdesignC		kW	4.71	5.3	6.1	7.9	8.2
Heat Output	Nom	W	4400	5570	6594	8210	8800
	Min-Max	W	1620-5100	1795-5865	1729-7251	2040-9380	2345-10560
Total absorbed power in heating	Nom	W	1185	1390	1775	2100	2200
	Min-Max	W	265-1707	600-1670	325-1920	310-2890	770-2750
Rated current in heating*	Nom	A	5.3	6.1	7.72	12.5	9.8
COP ref. Standard EN14511 (nominal) *		W\W	3.71	4.01	3.72	3.91	4.00
Reference climatic zone			A (tempered)				
SCOP * ref. Standard EN14825		W\W	3.80	3.80	4.00	4.00	3.80
PdesignH		kW	3.7	4.8	5.6	5.6	6.5
Balance temp	Tbiv	°C	-7.0	-7.0	-7.0	-7.0	-7.0
Limit use temp	Tol	°C	-15.0	-15.0	-15.0	-15.0	-15.0
ERP Class	cooling		A+	A++	A++	A++	A++
	heating		A	A	A+	A+	A
Reference climatic zone			B (warmer)				
SCOP * ref. Standard EN14825		W\W	4.60	4.80	4.80	5.10	4.60
PdesignH		kW	3.8	4.9	5.6	6.1	6.9
Balance temp	Tbiv	°C	2.0	2.0	2.0	2.0	2.0
Limit use temp	Tol	°C	2.0	2.0	2.0	2.0	2.0
ERP Class	cooling		A+	A++	A++	A++	A++
	heating		A++	A++	A++	A+++	A++
Air flow rate		m^3/h	2200	2200	3000	2700	3800
Sound pressure **		dB(A)	57	56	57.5	54	61.5
Sound power **		dB(A)	64	65	65	67	67
Refrigerant		Type	R32				
GWP		tCO_2 eq.	675				
Refrigerant charge		kg	1.1	1.25	1.4	1.72	2.10
Liquid / Gas line fittings (Q.ty x Diameter)		mm (inch)	2x1/4" - 2x3/8"	2x1/4"- 2x3/8"	3x1/4" - 3x3/8"	3x1/4" - 3x3/8"	4x1/4" - 3x3/8"+1x1/2"
Packaging dimension	W	mm	920	920	965	965	1090
	H	mm	615	615	775	775	875
	D	mm	390	390	395	395	500
Net weight		kg	31.6	38.5	51.1	51.5	62.1
CODE			**2CO9AA3F**	**2CO9AA0F**	**2CO9AA4F**	**2CO9AA1F**	**2CO9AA2F**

Notes: In cooling: Room air temperature 27°CDB 19°CWB Outdoor temperature 35°CDB - **In heating:** Room air temperature 20°C B.S Outdoor temperature 7°C B.S 6°C B.U
*: Data referring to the stated nominal combination **: Data referring to 1 m of distance from the unit

INDOOR UNIT			7	9	12	18
Power supply		V-F-Hz	230/1/50	230/1/50	230/1/50	230/1/50
Cooling Capacity		W	2050	2640	3520	5280
Heat Output		W	2350	2930	3810	5570
Maximum electrical absorption		W	20	20	20	34
Flow rate of indoor unit (Max-med-min)		m^3/h	520/460/340	520/460/340	600/500/360	840/680/540
Internal unit sound pressure* (Max-med-min)		dB(A)	40/30/26/21	40/30/26/21	40/34/26/22	44/37/30/25
Indoor unit sound power (Max)		dB(A)	54	54	53	55
Net weight		kg	7,5	7,5	7,5	10
Liquid line fittings		mm (inch)	Ø 6 (1/4")	Ø 6 (1/4")	Ø 6 (1/4")	Ø 6 (1/4")
Gas line fittings		mm (inch)	Ø 9.52 (3/8")	Ø 9.52 (3/8")	Ø 9.52 (3/8")	Ø 12.7 (1/2")
Packaging dimension	W	mm	870	870	870	1035
	H	mm	270	270	270	295
	D	mm	360	360	360	380
CODE			**2CO9B00F**	**2CO9B01F**	**2CO9B02F**	**2CO9B03F**

Notes: In cooling Room air temperature 27°C B.S 19°C B.U Outdoor temperature 35°C B.S - **In heating** Room air temperature 20°C B.S Outdoor temperature 7°C B.S 6°C B.U
***: Sound pressure measures at 1 meter of distance:** in a space of 100m^3 with reverberation time of 0.5 seconds.

COLD PERFORMANCE

	N	Combination	Partial capacity (kW) Room A	B	C	D	Output Total (kW) Min	Nom	Max	Absorption Total (kW) Min	Nom	Max	Total absorption (A) 230V Min	Nom	Max	EER (W/W) Nom	SEER (W/W)	Energy Class
14-2	1	7K	2.00	—	—	—	1.27	2.00	2.84	0.11	0.62	0.83	0.52	2.82	3.80	3.25	—	—
		9K	2.50	—	—	—	1.27	2.50	3.13	0.11	0.77	1.04	0.52	3.52	4.75	3.25	—	—
		12K	3.50	—	—	—	1.27	3.50	3.81	0.11	1.08	1.45	0.52	4.93	6.66	3.25	—	—
	2	**7K+7K**	**2.05**	**2.05**	**—**	**—**	**1.82**	**4.11**	**4.81**	**0.17**	**1.27**	**1.71**	**0.77**	**5.65**	**7.84**	**3.23**	**5.6**	**A+**
		7K+9K	1.79	2.31	—	—	1.82	4.11	4.81	0.17	1.27	1.71	0.77	5.81	7.84	3.23	5.6	A+
		7K+12K	1.51	2.59	—	—	1.82	4.11	4.81	0.17	1.27	1.71	0.77	5.81	7.84	3.23	5.6	A+
		9K+9K	2.05	2.05	—	—	1.82	4.11	4.81	0.17	1.27	1.71	0.77	7.10	7.84	3.23	5.6	A+
		9K+12K	1.76	2.34	—	—	1.82	4.11	4.81	0.17	1.27	1.71	0.77	5.81	7.84	3.23	5.6	A+
18-2	1	7K	2.00	—	—	—	0.76	1.99	2.51	0.10	0.60	0.73	0.45	2.73	3.34	3.35	—	—
		9K	2.50	—	—	—	0.76	2.49	2.77	0.10	0.74	0.91	0.45	3.41	4.18	3.35	—	—
		12K	3.50	—	—	—	0.76	3.49	3.38	0.10	1.07	1.27	0.45	4.92	5.79	3.25	—	—
	2	7K+7K	2.10	2.10	—	—	1.13	4.18	4.86	0.15	1.23	2.00	0.69	5.62	9.15	3.41	6.1	A++
		7K+9K	2.06	2.64	—	—	1.13	4.68	5.05	0.15	1.45	2.00	0.69	6.64	9.15	3.23	6.1	A++
		7K+12K	1.92	3.28	—	—	1.13	5.18	5.55	0.15	1.61	2.00	0.69	7.35	9.15	3.23	6.1	A++
		9K+9K	**2.65**	**2.65**	**—**	**—**	**1.13**	**5.28**	**5.55**	**0.15**	**1.63**	**2.00**	**0.69**	**7.10**	**9.15**	**3.24**	**6.1**	**A++**
		9K+12K	2.27	3.03	—	—	1.13	5.28	5.55	0.15	1.63	2.00	0.69	7.46	9.15	3.24	6.1	A++
		12K+12K	2.65	2.65	—	—	1.13	5.28	5.55	0.15	1.63	2.00	0.69	7.46	9.15	3.24	6.1	A++
21-3	2	7K+7K	2.12	2.12	—	—	1.60	4.24	5.23	0.15	1.31	1.78	0.69	6.00	8.14	3.23	5.6	A+
		7K+9K	2.07	2.67	—	—	1.60	4.74	5.52	0.15	1.47	1.87	0.69	6.72	8.55	3.23	5.6	A+
		7K+12K	1.97	3.38	—	—	1.60	5.35	5.81	0.15	1.66	1.96	0.69	7.58	8.96	3.23	5.6	A+
		7K+18	1.78	4.58	—	—	1.60	6.36	6.51	0.15	1.97	2.05	0.69	9.00	9.36	3.23	5.6	A+
		9K+9K	2.67	2.67	—	—	1.60	5.35	6.10	0.15	1.66	1.96	0.69	7.58	8.96	3.23	5.6	A+
		9K+12K	2.59	3.46	—	—	1.60	6.05	6.28	0.15	1.87	1.99	0.69	8.58	9.12	3.23	5.6	A+
		9K+18	2.12	4.24	—	—	1.60	6.36	6.51	0.15	1.96	2.05	0.69	8.98	9.36	3.24	5.6	A+
		12K+12K	3.13	3.13	—	—	1.60	6.26	6.51	0.15	1.94	2.05	0.69	8.86	9.36	3.23	5.6	A+
	3	**7K+7K+7K**	**2.05**	**2.05**	**2.05**	**—**	**1.94**	**6.16**	**6.86**	**0.18**	**1.91**	**2.22**	**0.82**	**8.30**	**10.18**	**3.23**	**6.1**	**A++**
		7K+7K+9K	1.93	1.93	2.49	—	1.94	6.36	6.92	0.18	1.97	2.22	0.82	9.00	10.18	3.23	6.1	A++
		7K+7K+12K	1.71	1.71	2.93	—	1.94	6.36	6.98	0.18	1.96	2.22	0.82	8.98	10.18	3.24	6.1	A++
		7K+9K+9K	1.78	2.29	2.29	—	1.94	6.36	6.98	0.18	1.96	2.22	0.82	8.98	10.18	3.24	6.1	A++
		7K+9K+12K	1.59	2.04	2.72	—	1.94	6.36	6.98	0.18	1.96	2.22	0.82	8.98	10.18	3.24	6.1	A++
		9K+9K+9K	2.12	2.12	2.12	—	1.94	6.36	6.98	0.18	1.96	2.22	0.82	8.98	10.18	3.24	6.1	A++
		9K+9K+12K	1.91	1.91	2.54	—	1.94	6.36	6.98	0.18	1.96	2.22	0.82	8.98	10.18	3.24	6.1	A++
27-3	2	7K+7K	2.11	2.11	—	—	2.37	4.21	6.18	0.20	1.30	2.30	0.90	5.96	10.53	3.23	5.6	A+
		7K+9K	2.06	2.65	—	—	2.37	4.71	6.57	0.20	1.46	2.44	0.90	6.67	11.15	3.23	5.6	A+
		7K+12K	1.96	3.36	—	—	2.37	5.31	6.95	0.20	1.64	2.71	0.90	7.52	12.38	3.23	5.6	A+
		7K+18K	1.82	4.69	—	—	2.37	6.52	7.73	0.20	2.02	2.98	0.90	9.23	13.62	3.23	5.6	A+
		9K+9K	2.66	2.66	—	—	2.37	5.31	6.95	0.20	1.64	2.71	0.90	7.52	12.38	3.23	5.6	A+
		9K+12K	2.58	3.44	—	—	2.37	6.02	7.34	0.20	1.86	2.84	0.90	8.52	13.00	3.23	5.6	A+
		9K+18K	2.27	4.54	—	—	2.37	6.82	7.73	0.20	2.10	2.98	0.90	9.59	13.62	3.25	5.6	A+
		12K+12K	3.16	3.16	—	—	2.37	6.32	7.50	0.20	1.95	2.92	0.90	8.91	13.37	3.24	5.6	A+
		12K+18K	2.73	4.09	—	—	2.37	6.82	7.73	0.20	2.10	2.98	0.90	9.59	13.62	3.25	5.6	A+
	3	7K+7K+7K	2.44	2.44	2.44	—	2.96	7.32	8.50	0.24	2.26	3.22	1.08	10.36	14.74	3.23	6.1	A++
		7K+7K+9K	2.26	2.26	2.90	—	2.96	7.42	8.50	0.24	2.29	3.22	1.08	10.50	14.74	3.23	6.1	A++
		7K+7K+12K	2.13	2.13	3.66	—	2.96	7.92	8.50	0.24	2.45	3.22	1.08	11.21	14.74	3.23	6.1	A++
		7K+7K+18K	1.73	1.73	4.46	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
		7K+9K+9K	2.13	2.74	2.74	—	2.96	7.62	8.50	0.24	2.36	3.22	1.08	10.79	14.74	3.23	6.1	A++
		7K+9K+12K	1.98	2.55	3.39	—	2.96	7.92	8.50	0.24	2.45	3.22	1.08	11.21	14.74	3.23	6.1	A++
		7K+9K+18K	1.63	2.10	4.19	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
		7K+12K+12K	1.79	3.07	3.07	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
		9K+9K+9K	**2.64**	**2.64**	**2.64**	**—**	**2.96**	**7.92**	**8.50**	**0.24**	**2.45**	**3.22**	**1.08**	**13.70**	**14.74**	**3.23**	**6.1**	**A++**
		9K+9K+12K	2.38	2.38	3.17	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
		9K+12K+12K	2.16	2.88	2.88	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
		12K+12K+12K	2.64	2.64	2.64	—	2.96	7.92	8.50	0.24	2.43	3.22	1.08	11.14	14.74	3.25	6.1	A++
28-4	2	7K+7K	2.10	2.10	—	—	1.46	4.19	6.02	0.65	1.30	2.04	3.00	5.95	9.31	3.23	5.1	A
		7K+9K	2.06	2.64	—	—	1.46	4.69	6.35	0.65	1.45	2.16	3.00	6.65	9.90	3.23	5.1	A
		7K+12K	1.95	3.35	—	—	1.46	5.29	6.76	0.65	1.64	2.29	3.00	7.50	10.48	3.23	5.1	A
		7K+18K	1.96	5.04	—	—	1.46	6.99	7.49	0.65	2.17	2.80	3.00	9.91	12.81	3.23	5.1	A
		9K+9K	2.65	2.65	—	—	1.46	5.29	6.76	0.65	1.64	2.29	3.00	7.50	10.48	3.23	5.1	A
		9K+12K	2.57	3.43	—	—	1.46	5.99	6.92	0.65	1.86	2.42	3.00	8.50	11.06	3.23	5.1	A
		9K+18K	2.43	4.87	—	—	1.46	7.29	7.49	0.65	2.26	2.80	3.00	10.34	12.81	3.23	5.1	A
		12K+12K	3.25	3.25	—	—	1.46	6.49	7.33	0.65	2.01	2.49	3.00	9.20	11.41	3.23	5.1	A
		12K+18K	2.92	4.38	—	—	1.46	7.29	7.49	0.65	2.26	2.80	3.00	10.34	12.81	3.23	5.1	A
		18K+18K	3.75	3.75	—	—	1.46	7.49	7.49	0.65	2.32	2.80	3.00	10.62	12.81	3.23	5.1	A
	3	7K+7K+7K	2.00	2.00	2.00	—	1.87	5.99	8.38	0.79	1.86	2.95	3.59	8.50	13.51	3.23	5.6	A+
		7K+7K+9K	1.98	1.98	2.54	—	1.87	6.49	8.38	0.79	2.01	2.95	3.59	9.20	13.51	3.23	5.6	A+
		7K+7K+12K	1.91	1.91	3.28	—	1.87	7.09	8.38	0.79	2.20	2.95	3.59	10.05	13.51	3.23	5.6	A+
		7K+7K+18K	1.71	1.71	4.39	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		7K+9K+9K	1.90	2.45	2.68	—	1.87	6.79	8.38	0.79	2.10	2.95	3.59	9.63	13.51	3.23	5.6	A+
		7K+9K+12K	1.88	2.41	3.21	—	1.87	7.49	8.38	0.79	2.32	2.95	3.59	10.62	13.51	3.23	5.6	A+
		7K+9K+18K	1.61	2.06	4.13	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		7K+12K+12K	1.76	3.02	3.02	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		7K+12K+18K	1.48	2.53	3.79	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		9K+9K+9K	2.37	2.37	2.37	—	1.87	7.09	8.38	0.79	2.20	2.95	3.59	10.05	13.51	3.23	5.6	A+
		9K+9K+12K	2.34	2.34	3.12	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		9K+9K+18K	1.95	1.95	3.90	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		9K+12K+12K	2.13	2.84	2.84	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		9K+12K+18K	1.80	2.40	3.60	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
		12K+12K+12K	2.60	2.60	2.60	—	1.87	7.79	8.38	0.79	2.41	2.95	3.59	11.04	13.51	3.23	5.6	A+
	4	**7K+7K+7K+7K**	**2.05**	**2.05**	**2.05**	**-2.05**	**2.05**	**8.20**	**9.85**	**0.89**	**2.54**	**3.18**	**4.07**	**11.30**	**14.55**	**3.23**	**6.1**	**A++**
		7K+7K+7K+9K	1.92	1.92	1.92	2.46	2.05	8.20	9.85	0.89	2.54	3.18	4.07	11.62	14.55	3.23	6.1	A++
		7K+7K+7K+12K	1.74	1.74	1.74	2.99	2.05	8.20	9.85	0.89	2.54	3.18	4.07	11.62	14.55	3.23	6.1	A++
		7K+7K+7K+18K	1.47	1.47	1.47	3.79	2.05	8.20	9.85	0.89	2.52	3.18	4.07	11.55	14.55	3.25	6.1	A++
		7K+7K+9K+9K	1.80	1.80	2.31	2.31	2.05	8.20	9.85	0.89	2.54	3.18	4.07	11.62	14.55	3.23	6.1	A++
		7K+7K+9K+12K	1.64	1.64	2.11	2.81	2.05	8.20	9.85	0.89	2.54	3.18	4.07	11.62	14.55	3.23	6.1	A++
		7K+7K+12K+12K	1.51	1.51	2.59	2.59	2.05	8.20	9.85	0.89	2.53	3.18	4.07	11.59	14.55	3.24	6.1	A++
		7K+9K+9K+9K	1.69	2.17	2.17	2.17	2.05	8.20	9.85	0.89	2.54	3.18	4.07	11.62	14.55	3.23	6.1	A++
		7K+9K+9K+12K	1.55	2.00	2.00	2.66	2.05	8.20	9.85	0.89	2.53	3.18	4.07	11.59	14.55	3.24	6.1	A++
		7K+9K+12K+12K	1.44	1.85	2.46	2.46	2.05	8.20	9.85	0.89	2.52	3.18	4.07	11.55	14.55	3.25	6.1	A++
		9K+9K+9K+9K	2.05	2.05	2.05	2.05	2.05	8.20	9.85	0.89	2.53	3.18	4.07	11.59	14.55	3.24	6.1	A++
		9K+9K+9K+12K	1.89	1.89	1.89	2.53	2.05	8.20	9.85	0.89	2.52	3.18	4.07	11.55	14.55	3.25	6.1	A++

NB: The nominal combinations of reference are highlighted.

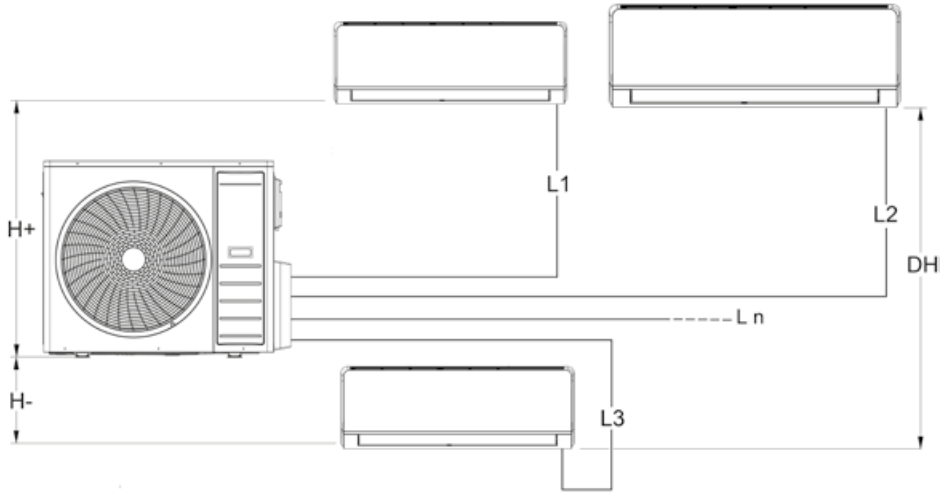
HOT PERFORMANCE

NB: The nominal combinations of reference are highlighted.

	N	Combination	Partial capacity (kW) Room A	B	C	D	Total Output (kW) Min	Nom	Max	Total absorption (kW) Min	Nom	Max	Total absorption (A) 230V Min	Nom	Max	COP (W/W) Nom	SCOP (W/W)	Energy Class
14-2	1	7K	2.45	—	—	—	1.13	2.50	2.72	0.18	0.67	0.96	0.82	3.05	4.39	3.75	—	—
		9K	2.92	—	—	—	1.13	2.90	3.25	0.18	0.78	1.12	0.82	3.56	5.12	3.73	—	—
		12K	3.75	—	—	—	1.13	3.80	4.16	0.18	1.02	1.47	0.82	4.67	6.73	3.72	—	—
	2	7K+7K	2.20	2.20	—	—	1.62	4.40	5.10	0.27	1.19	1.71	1.21	5.30	7.81	3.71	3.8	A
		7K+9K	1.93	2.48	—	—	1.62	4.40	5.10	0.27	1.19	1.71	1.21	5.42	7.81	3.71	3.8	A
		7K+12K	1.62	2.78	—	—	1.62	4.40	5.10	0.27	1.19	1.71	1.21	5.42	7.81	3.71	3.8	A
		9K+9K	2.20	2.20	—	—	1.62	4.40	5.10	0.27	1.19	1.71	1.21	6.10	7.81	3.71	3.8	A
		9K+12K	1.89	2.51	—	—	1.62	4.40	5.10	0.27	1.19	1.71	1.21	5.42	7.81	3.71	3.8	A
18-2	1	7K	2.50	—	—	—	1.26	2.50	2.65	0.41	0.67	0.80	1.86	3.05	3.67	3.75	—	—
		9K	3.00	—	—	—	1.26	3.00	3.19	0.41	0.80	0.96	1.86	3.66	4.40	3.75	—	—
		12K	3.80	—	—	—	1.26	3.80	4.03	0.41	1.00	1.15	1.86	4.57	5.27	3.81	—	—
	2	7K+7K	2.50	2.50	—	—	1.80	5.00	5.30	0.60	1.24	1.67	2.75	5.68	7.64	4.03	4.0	A
		7K+9K	2.32	2.98	—	—	1.80	5.30	5.38	0.60	1.34	1.67	2.75	6.15	7.64	3.95	4.0	A
		7K+12K	2.03	3.47	—	—	1.80	5.50	5.58	0.60	1.37	1.67	2.75	6.28	7.64	4.01	4.0	A
		9K+9K	2.79	2.79	—	—	1.80	5.57	5.87	0.60	1.39	1.67	2.75	6.10	7.64	4.01	4.0	A
		9K+12K	2.40	3.20	—	—	1.80	5.60	5.87	0.60	1.40	1.67	2.75	6.40	7.64	4.01	4.0	A
		12K+12K	2.80	2.80	—	—	1.80	5.60	6.11	0.60	1.40	1.67	2.75	6.40	7.64	4.01	4.0	A
21-3	2	7K+7K	2.67	2.67	—	—	1.63	5.00	5.53	0.27	1.34	1.54	1.24	6.15	7.03	3.71	3.8	A
		7K+9K	2.62	3.36	—	—	1.63	5.59	5.84	0.27	1.51	1.61	1.24	6.89	7.38	3.71	3.8	A
		7K+12K	2.32	3.98	—	—	1.63	5.89	6.14	0.27	1.59	1.69	1.24	7.26	7.73	3.71	3.8	A
		7K+18	1.94	5.00	—	—	1.63	6.49	6.88	0.27	1.75	1.77	1.24	8.00	8.08	3.71	3.8	A+
		9K+9K	3.15	3.15	—	—	1.63	5.89	6.45	0.27	1.59	1.69	1.24	7.26	7.73	3.71	3.8	A
		9K+12K	2.88	3.85	—	—	1.63	6.29	6.64	0.27	1.69	1.72	1.24	7.75	7.87	3.71	3.8	A+
		9K+18	2.35	4.70	—	—	1.63	6.59	6.88	0.27	1.78	1.77	1.24	8.12	8.08	3.71	3.8	A+
		12K+12K	3.36	3.36	—	—	1.63	6.29	6.88	0.27	1.69	1.77	1.24	7.75	8.08	3.71	3.8	A+
	3	7K+7K+7K	2.35	2.35	2.35	—	1.73	6.59	7.25	0.33	1.78	1.92	1.49	7.72	8.79	3.71	4.0	A+
		7K+7K+9K	2.16	2.16	2.78	—	1.73	6.65	7.25	0.33	1.78	1.92	1.49	8.16	8.79	3.73	4.0	A+
		7K+7K+12K	1.93	1.93	3.30	—	1.73	6.70	7.37	0.33	1.80	1.92	1.49	8.22	8.79	3.73	4.0	A+
		7K+9K+9K	2.00	2.58	2.58	—	1.73	6.70	7.37	0.33	1.80	1.92	1.49	8.22	8.79	3.73	4.0	A+
		7K+9K+12K	1.79	2.30	3.07	—	1.73	6.70	7.37	0.33	1.80	1.92	1.49	8.22	8.79	3.73	4.0	A+
		9K+9K+9K	2.39	2.39	2.39	—	1.73	6.70	7.37	0.33	1.80	1.92	1.49	8.25	8.79	3.72	4.0	A+
		9K+9K+12K	2.15	2.15	2.86	—	1.73	6.70	7.37	0.33	1.80	1.92	1.49	8.22	8.79	3.73	4.0	A+
27-3	2	7K+7K	2.51	2.50	—	—	1.63	5.01	6.25	0.26	1.31	1.97	1.19	6.01	8.99	3.81	3.8	A
		7K+9K	2.46	3.15	—	—	1.63	5.61	6.64	0.26	1.47	2.08	1.19	6.74	9.52	3.81	3.8	A
		7K+12K	2.22	3.79	—	—	1.63	6.01	7.04	0.26	1.58	2.31	1.19	7.22	10.58	3.81	3.8	A
		7K+18K	1.96	5.04	—	—	1.63	7.01	7.82	0.26	1.84	2.54	1.19	8.42	11.64	3.81	3.8	A
		9K+9K	3.01	3.00	—	—	1.63	6.01	7.04	0.26	1.58	2.31	1.19	7.22	10.58	3.81	3.8	A
		9K+12K	2.71	3.60	—	—	1.63	6.31	7.43	0.26	1.66	2.43	1.19	7.58	11.11	3.81	3.8	A
		9K+18K	2.34	4.67	—	—	1.63	7.01	7.82	0.26	1.84	2.54	1.19	8.42	11.64	3.81	3.8	A
		12K+12K	3.26	3.25	—	—	1.63	6.51	7.58	0.26	1.71	2.50	1.19	7.82	11.43	3.81	3.8	A
		12K+18K	2.81	4.20	—	—	1.63	7.01	7.82	0.26	1.84	2.54	1.19	8.42	11.64	3.81	3.8	A
	3	7K+7K+7K	2.27	2.27	2.27	—	2.04	6.81	9.38	0.31	1.75	2.89	1.42	8.03	13.23	3.88	4.0	A+
		7K+7K+9K	2.14	2.13	2.74	—	2.04	7.01	9.38	0.31	1.81	2.89	1.42	8.27	13.23	3.88	4.0	A+
		7K+7K+12K	2.13	2.13	3.65	—	2.04	7.91	9.38	0.31	2.03	2.89	1.42	9.28	13.23	3.90	4.0	A+
		7K+7K+18K	1.82	1.82	4.67	—	2.04	8.31	9.38	0.31	2.13	2.89	1.42	9.73	13.23	3.91	4.0	A+
		7K+9K+9K	2.22	2.85	2.85	—	2.04	7.91	9.38	0.31	2.03	2.89	1.42	9.28	13.23	3.90	4.0	A+
		7K+9K+12K	2.06	2.64	3.52	—	2.04	8.21	9.38	0.31	2.10	2.89	1.42	9.61	13.23	3.91	4.0	A+
		7K+9K+18K	1.71	2.20	4.40	—	2.04	8.31	9.38	0.31	2.12	2.89	1.42	9.70	13.23	3.92	4.0	A+
		7K+12K+12K	1.88	3.22	3.22	—	2.04	8.31	9.38	0.31	2.12	2.89	1.42	9.70	13.23	3.92	4.0	A+
		9K+9K+9K	2.74	2.74	2.74	—	2.04	8.21	9.38	0.31	2.10	2.89	1.42	12.50	13.23	3.91	4.0	A+
		9K+9K+12K	2.50	2.49	3.32	—	2.04	8.31	9.38	0.31	2.13	2.89	1.42	9.73	13.23	3.91	4.0	A+
		9K+12K+12K	2.27	3.02	3.02	—	2.04	8.31	9.38	0.31	2.12	2.89	1.42	9.70	13.23	3.92	4.0	A+
		12K+12K+12K	2.77	2.77	2.77	—	2.04	8.31	9.38	0.31	2.12	2.89	1.42	9.70	13.23	3.92	4.0	A+
28-4	2	7K+7K	2.50	2.50	—	—	1.68	5.00	6.46	0.57	1.31	1.76	2.59	6.01	8.05	3.81	3.4	A
		7K+9K	2.45	3.15	—	—	1.68	5.60	6.81	0.57	1.47	1.87	2.59	6.73	8.56	3.81	3.4	A
		7K+12K	2.21	3.79	—	—	1.68	6.00	7.24	0.57	1.57	1.98	2.59	7.21	9.06	3.81	3.4	A
		7K+18K	2.18	5.62	—	—	1.68	7.80	8.03	0.57	2.03	2.42	2.59	9.27	11.08	3.85	3.4	A
		9K+9K	3.00	3.00	—	—	1.68	6.00	7.24	0.57	1.57	1.98	2.59	7.21	9.06	3.81	3.4	A
		9K+12K	3.00	4.00	—	—	1.68	7.00	7.42	0.57	1.84	2.09	2.59	8.41	9.57	3.81	3.4	A
		9K+18K	2.63	5.27	—	—	1.68	7.90	8.03	0.57	2.05	2.42	2.59	9.39	11.08	3.85	3.4	A
		12K+12K	3.75	3.75	—	—	1.68	7.50	7.85	0.57	1.97	2.16	2.59	9.01	9.87	3.81	3.4	A
		12K+18K	3.20	4.80	—	—	1.68	8.00	8.03	0.57	2.08	2.42	2.59	9.51	11.08	3.85	3.4	A
		18K+18K	4.00	4.00	—	—	1.68	8.00	8.03	0.57	2.08	2.42	2.59	9.51	11.08	3.85	3.4	A
	3	7K+7K+7K	2.33	2.33	2.33	—	2.14	7.00	8.99	0.68	1.79	2.55	3.11	8.21	11.68	3.90	3.5	A
		7K+7K+9K	2.37	2.37	3.05	—	2.14	7.80	8.99	0.68	2.00	2.55	3.11	9.15	11.68	3.90	3.5	A
		7K+7K+12K	2.26	2.26	3.88	—	2.14	8.40	8.99	0.68	2.14	2.55	3.11	9.81	11.68	3.92	3.5	A
		7K+7K+18K	1.88	1.88	4.84	—	2.14	8.60	8.99	0.68	2.19	2.55	3.11	10.04	11.68	3.92	3.5	A
		7K+9K+9K	2.35	3.02	2.68	—	2.14	8.40	8.99	0.68	2.14	2.55	3.11	9.81	11.68	3.92	3.5	A
		7K+9K+12K	2.13	2.73	3.64	—	2.14	8.50	8.99	0.68	2.17	2.55	3.11	9.92	11.68	3.92	3.5	A
		7K+9K+18K	1.77	2.28	4.55	—	2.14	8.60	8.99	0.68	2.18	2.55	3.11	9.96	11.68	3.95	3.5	A
		7K+12K+12K	1.94	3.33	3.33	—	2.14	8.60	8.99	0.68	2.19	2.55	3.11	10.04	11.68	3.92	3.5	A
		7K+12K+18K	1.63	2.79	4.18	—	2.14	8.60	8.99	0.68	2.18	2.55	3.11	9.96	11.68	3.95	3.5	A
		9K+9K+9K	2.87	2.87	2.87	—	2.14	8.60	8.99	0.68	2.19	2.55	3.11	10.04	11.68	3.92	3.5	A
		9K+9K+12K	2.58	2.58	3.44	—	2.14	8.60	8.99	0.68	2.19	2.55	3.11	10.04	11.68	3.92	3.5	A
		9K+9K+18K	2.15	2.15	4.30	—	2.14	8.60	8.99	0.68	2.18	2.55	3.11	9.96	11.68	3.95	3.5	A
		9K+12K+12K	2.35	3.13	3.13	—	2.14	8.60	8.99	0.68	2.19	2.55	3.11	10.04	11.68	3.92	3.5	A
		9K+12K+18K	1.98	2.65	3.97	—	2.14	8.60	8.99	0.68	2.18	2.55	3.11	9.96	11.68	3.95	3.5	A
		12K+12K+12K	2.87	2.87	2.87	—	2.14	8.60	8.99	0.68	2.18	2.55	3.11	9.96	11.68	3.95	3.5	A
	4	7K+7K+7K+7K	2.20	2.20	2.20	2.20	2.35	8.80	10.56	0.77	2.20	2.75	3.52	9.80	12.59	4.00	3.8	A
		7K+7K+7K+9K	2.08	2.08	2.08	2.67	2.35	8.90	10.56	0.77	2.22	2.75	3.52	10.16	12.59	4.01	3.8	A
		7K+7K+7K+12K	1.91	1.91	1.91	3.27	2.35	9.00	10.56	0.77	2.24	2.75	3.52	10.27	12.59	4.01	3.8	A
		7K+7K+7K+18K	1.63	1.63	1.63	4.20	2.35	9.10	10.56	0.77	2.27	2.75	3.52	10.39	12.59	4.01	3.8	A
		7K+7K+9K+9K	1.95	1.95	2.50	2.50	2.35	8.90	10.56	0.77	2.22	2.75	3.52	10.16	12.59	4.01	3.8	A
		7K+7K+9K+12K	1.80	1.80	2.31	3.09	2.35	9.00	10.56	0.77	2.24	2.75	3.52	10.27	12.59	4.01	3.8	A
		7K+7K+12K+12K	1.68	1.68	2.87	2.87	2.35	9.10	10.56	0.77	2.27	2.75	3.52	10.39	12.59	4.01	3.8	A
		7K+9K+9K+9K	1.83	2.36	2.36	2.36	2.35	8.90	10.56	0.77	2.23	2.75	3.52	10.18	12.59	4.00	3.8	A
		7K+9K+9K+12K	1.70	2.19	2.19	2.92	2.35	9.00	10.56	0.77	2.24	2.75	3.52	10.27	12.59	4.01	3.8	A
		7K+9K+12K+12K	1.59	2.05	2.73	2.73	2.35	9.10	10.56	0.77	2.27	2.75	3.52	10.39	12.59	4.01	3.8	A
		9K+9K+9K+9K	2.23	2.23	2.23	2.23	2.35	8.90	10.56	0.77	2.22	2.75	3.52	10.16	12.59	4.01	3.8	A
		9K+9K+9K+12K	2.10	2.10	2.10	2.80	2.35	9.10	10.56	0.77	2.27	2.75	3.52	10.39	12.59	4.01	3.8	A

LIMITS ON LENGTH AND GRADIENT OF COOLANT PIPES

The length of the coolant pipes between the indoor and outdoor units must be as short as possible, and is, in any case, limited by observing the maximum gradient between the units. As the difference in height between the units (H1, H2) and the length of the pipes (L) decrease, the pressure drops will decrease, thereby increasing the overall efficiency of the machine. Observe the limitations provided in the following tables



OUTDOOR UNIT			14-2 / 18-2		21-3			27-3			28-4			
Diameter	Liquid	"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
	Gas	"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"
Total maximum length		m	40		60			60			80			
Maximum length of single unit		m	25		30			30			35			
Maximum height difference	H+	m	15		15			15			15			
	H-	m	15		15			15			15			
	DH	m	10		10			10			10			
Total maximum length of pipes with standard load		m	7,5		7,5			7,5			7,5			
Additional amount of refrigerant per meter		g/m	12	12	12	12	12	12	12	12	12	12	12	24

FIELD OF APPLICATION

OPERATING MODE	PARAMETER		INTERNAL SIDE		EXTERNAL SIDE	
			DB	WB	DB	WB
Cooling	Max /min inlet air temperature	°C	32 / 17	23 / 16	50 / -15	- / -
Heating	Max /min inlet air temperature	°C	30 / 0	- / -	24 / -15	20 / -13
All	Power voltage / frequency	V	230±10% / 50±2			

TABLE OF POSSIBLE COMBINATIONS

OUTDOOR UNIT	CONNECTED INTERNAL UNITS						
	1	2		3			4	
14-2	7K	**7K+7K**	7K+9K	not included			not included	
	9K	7K+12K	9K+9K					
	12K	9K+12K	-					
18-2	7K	7K+7K	7K+9K	not included			not included	
	9K	7K+12K	**9K+9K**					
	12K	9K+12K	12K+12K					
21-3	not included	7K+7K	7K+9K	**7K+7K+7K**	7K+7K+9K	7K+7K+12K	not included	
		7K+12K	7K+18K	7K+9K+9K	7K+9K+12K	9K+9K+9K		
		9K+9K	9K+12K	9K+9K+12K	-	-		
		9K+18K	12K+12K	-	-	-		
27-3	not included	7K+7K	7K+9K	7K+7K+7K	7K+7K+9K	7K+7K+12K	not included	
		7K+12K	7K+18K	7K+7K+18K	7K+9K+9K	7K+9K+12K		
		9K+9K	9K+12K	7K+9K+18K	7K+12K+12K	**9K+9K+9K**		
		9K+18K	12K+12K	9K+9K+12K	9K+12K+12K	12K+12K+12K		
		12K+18K	-	-	-	-		
28-4	not included	7K+7K	7K+9K	7K+7K+7K	7K+7K+9K	7K+7K+12K	**7K+7K+7K+7K**	7K+7K+7K+9K
		7K+12K	7K+18K	7K+7K+18K	7K+9K+9K	7K+9K+12K	7K+7K+7K+12K	7K+7K+7K+18K
		9K+9K	9K+12K	7K+9K+18K	7K+12K+12K	7K+12K+18K	7K+7K+9K+9K	7K+7K+9K+12K
		9K+18K	12K+12K	9K+9K+9K	9K+9K+12K	9K+9K+18K	7K+7K+12K+12K	7K+9K+9K+9K
		12K+18K	18K + 18K	9K+12K+12K	9K+12K+18K	12K+12K+12K	7K+9K+9K+12K	7K+9K+12K+12K
		-	-	-	-	-	9K+9K+9K+9K	9K+9K+9K+12K

NOTE: • combinations where the total power required by the indoor units is compatible with the rated output of the outdoor unit.
• combinations where the total power required by the indoor units is greater than the rated output of the outdoor unit. When there is a simultaneous request of power by all the connected units, the power available for the single units will be in line with the contents of the previous table.
• THE NOMINAL COMBINATIONS OF REFERENCE ARE HIGHLIGHTED IN BLUE.

COMMERCIAL 3.2

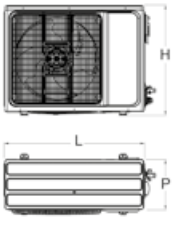
COMMERCIAL MONOSPLIT SERIES
DC INVERTER IN HEAT PUMP

> GENERAL CHARACTERISTICS:

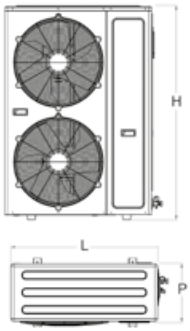
New range of Mono split units for Commercial applications able to cover the different types of installation, both in the centre of the room with circular air diffusion, NCS cassettes, in recessed version with low average useful heads up to 160 Pa, ducted MIDAS, and exposed in vertical floor standing installation or horizontal hung, AIR floor\ceiling.
The units are available in the heat pump version with external units equipped with DC Inverter technology with low environmental impact coolant R32.

EXTERNAL UNIT

mod. 18-24-36-42

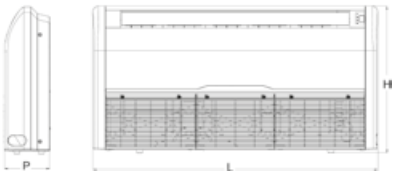


mod. 48-60



U.E.	L mm	P mm	H mm
18	800	315	545
24	900	350	700
36	970	395	808
42	970	395	808
48	940	370	1325
60	940	370	1325

AIR FLOOR STANDING/CEILING INSTALLED INTERNAL UNIT

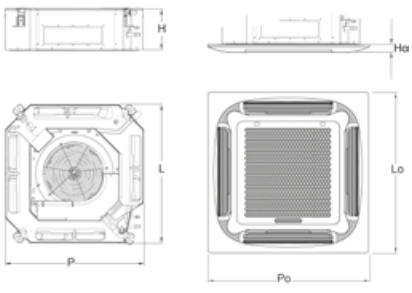


U.I.	L mm	H mm	P mm
18	929	660	205
24	929		
36	1280		
42	1280		
48	1631		
60	1631		

MIDAS DUCTED INTERNAL UNIT

DUCTED	L mm	H mm	P mm
18	1000	245	700
24	1000		
36	1400		
42	1400		
48	1400		
60	1400		

INTERNAL UNIT NCS CASSETTES



CASSETTE	L mm	P mm	H mm	Lo mm	Po mm	Ho mm
18	570	570	260	650	650	55
24	835	835	250	950	950	
36	835	835	290	950	950	
42	835	835	290	950	950	
48	835	835	290	950	950	
60	835	835	290	950	950	

GENERAL

STANDARD SUPPLY

STANDARD FUNCTIONS

SPECIAL FUNCTIONS

EXTERNAL UNITS

- Use of Inverter technology for greater energy savings and environmental comfort. Use of R-32 coolant which reduces the environmental impact by 68% compared to R-410A. Coolant flow control with electronic expansion valve.
- Single-phase (mod. 18, 24, 36 and 42) and three-phase (mod.48 and 60) power supply. Lighter and more compact outdoor units, mono-fan for powers up to 12 Kw, for easy installation on site. Coolant lines up to 30m (mod.18), up to 50m (mod.24) up to 65m (mod.36 - 60).

EXTERNALUNIT		18	24	36	42	48	60
Power supply	V-Ph-Hz	230/1/50				400/3/50	
Coolant	Type	R32					
	Load kg	1.16	1.4	2.54	2.54	3.6	3.6
Equivalent CO_2 tonnes	tCO_2 eq	0.78	0.95	1.71	1.71	2.43	2.43
Air flow rate	m^3/h	2600	3750	4000	4200	7200	7200
Sound pressure	dB(A)	55	58	57	57	60	60
Sound power	dB(A)	64	67	66	66	70	70
Liquid line fittings	mm (inch)	6.35 (1/4)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)
Gas line fittings	mm (inch)	12.7 (1/2)	15.88 (5/8)	15.88 (5/8)	15.88 (5/8)	19.05 (3/4)	19.05 (3/4)
Maximum line length	m	30	50	65	65	65	65
Maximum gradient	m	20	25	30	30	30	30
Field of application outdoor air (cold/hot)	°C	-15~52 / -15~24					
Packaging dimensions L x D x H	mm	920x400x620	1020×430×770	1105×495×895	1105×495×895	1080×430×1440	1080×430×1440
Net weight	kg	37	51	72	72	100	100
Gross weight	kg	40	55	76	76	108	108
CODE		**2C04900F**	**2C04901F**	**2C04902F**	**2C04903F**	**2C04904F**	**2C04905F**

AIR FLOOR STANDING\CEILING INSTALLED INTERNAL UNITS

- Available in 6 different capacities. Compact unit with a thickness of only 205 mm
- Possibility of horizontal ceiling or vertical wall installation.
- Infrared remote control provided by standard with generous display for complete control of the unit.

INTERNALUNIT				18	24	36	42	48	60
ERP Class	(Class E - A++)	when cold		A++	A++	A++	-	-	-
	(Class E - A++)	when hot		A+	A+	A+	-	-	-
Cold Operation	Capacity	Nom	W	5000	7000	10550	12100	14000	16000
		Min-Max	W	1530 - 5600	2160 - 8200	2900 - 13000	2900 - 13500	4760 - 16500	4760 - 17500
	Absorption	Nom	W	1630	2250	3400	4500	5300	6110
		Min-Max	W	470 - 2300	670 - 3560	710 - 4710	710 - 5100	1710 - 6700	1710 - 6800
	Current	Nom	A	7.16	9.88	15	19.5	23	26.5
		Min-Max	A	2.25 - 10.1	3.21 - 15.63	3.2 - 21.5	3.2 - 22.3	7.4 - 28.6	7.4 - 29.1
Dehumidification	Nom		l/h	2.1	2.5	3.6	4.6	5.6	7
EER ref. Standard EN14511	Nom		W|W	3.07	3.11	3.1	2.69	2.64	2.62
SEER ref. Standard EN14825	Nom		W|W	6.1	6.3	6.1	6.1	6.1	6.1
PdesigC			kW	5	7	10.55	11.5	-	-
Hot Operation	Capacity	Nom	W	5600	8000	11150	13500	16000	17000
		Min-Max	W	1400 - 6200	1980 - 9300	2600 - 13500	2600 - 15000	4780 - 16150	4780 - 18500
	Absorption	Nom	W	1730	2100	3450	4600	5500	5900
		Min-Max	W	460 - 2250	650 - 3620	470 - 4130	470 - 4530	1710 - 6800	1710 - 7100
	Current	Nom	A	7.6	9.22	15.5	20	23.9	25.6
		Min-Max	A	2.2 - 9.88	3.11 - 15.9	2.43 - 18	2.43 - 19.7	7.4 - 29.1	7.4 - 29.5
COP ref. Standard EN14511	Nom		W|W	3.24	3.81	3.23	2.93	2.91	2.88
SCOP ref. Standard EN14825	Nom		W|W	4.1	4.1	4	4	4	4
PdesigH			kW	5	6.8	10	10	-	-
Reference climatic zone ref. Standard EN14825			Type	A (temperate)					
Equilibrium temp Tbiv			°C	-7					
Maximum time for use Tol			°C	-10					
Air flow rate			m^3/h	900-730-650	1300-1050-920	1800-1550-1350	1800-1550-1350	1900-1600-1400	1900-1600-1400
Sound pressure			dB(A)	45-40-34	47-43-38	53-50-47	53-50-47	54-51-48	54-51-48
Max sound power			dB(A)	56	57	63	63	64	64
Net / Gross weight			kg	25 - 28	32 - 38	44 - 50	44 - 50	44 - 50	44 - 50
CODE				**2C04930F**	**2C04931F**	**2C04932F**	**2C04933F**	**2C04934F**	**2C04935F**

INTERNAL UNIT NCS CASSETTES

- Available in 6 different capacities.
- 360° air delivery for better distribution of the temperature in the room
- Integrated condensation discharge pump
- Set-up for fresh air intake or delivery into adjacent room through ducts
- Infrared remote control provided by standard with generous display for complete control of the unit.

INTERNALUNIT				18	24	36	42	48	60
ERP Class	(Class E - A++)	when cold		A++	A++	A++	-	-	-
	(Class E - A++)	when hot		A+	A+	A+	-	-	-
Cold Operation	Capacity	Nom	W	5000	7000	10550	12100	14000	16000
		Min-Max	W	1530 - 5600	2160 - 8200	2900 - 13000	2900 - 13500	4760 - 16500	4760 - 17500
	Absorption	Nom	W	1630	2180	3400	4500	5200	6100
		Min-Max	W	470 - 2300	670 - 3560	710 - 4710	710 - 5100	1710 - 6700	1710 - 6800
	Current	Nom	A	7.16	9.57	15	19.5	22.6	26.5
		Min-Max	A	2.25 - 10.1	3.21 - 15.63	3.2 - 21.5	3.2 - 22.3	7.4 - 28.6	7.4 - 29.1
Dehumidification	Nom		l/h	2.1	2.5	3.6	4.6	5.6	7
EER ref. Standard EN14511	Nom		W|W	3.07	3.21	3.1	2.69	2.69	2.62
SEER ref. Standard EN14825	Nom		W|W	6.3	6.5	6.1	6.1	6.1	6.1
PdesigC			kW	5	7	10.5	11.5	-	-
Hot Operation	Capacity	Nom	W	5600	8000	11150	13500	16000	17000
		Min-Max	W	1400 - 6200	1980 - 9300	2600 - 13500	2600 - 15000	4780 - 16150	4780 - 18500
	Absorption	Nom	W	1730	2100	3450	4600	5400	5800
		Min-Max	W	460 - 2250	650 - 3620	470 - 4130	470 - 4530	1710 - 6800	1710 - 7100
	Current	Nom	A	7.6	9.22	15.5	20	23.4	25.2
		Min-Max	A	2.2 - 9.88	3.11 - 15.9	2.43 - 18	2.43 - 19.7	7.4 - 29.1	7.4 - 29.5
COP ref. Standard EN14511	Nom		W|W	3.24	3.81	3.23	2.93	2.96	2.93
SCOP ref. Standard EN14825	Nom		W|W	4	4.2	4	4	4	4
PdesigH			kW	5	6.8	10	10	-	-
Reference climatic zone ref. Standard EN14825			Type	A (temperate)					
Equilibrium temp Tbiv			°C	-7					
Maximum time for use Tol			°C	-10					
Air flow rate	Max-Med-Min		m³/h	700 - 600 - 530	1300 - 1050 -950	1800 - 1550 - 1350	1800 - 1550 - 1350	1950 -1750 -1500	1950 -1750 -1500
Sound pressure	Max-Med-Min		dB(A)	45 -44 -36	47 - 43 -38	51 - 48 -45	51 - 48 -45	52 - 50 - 48	52 - 50 - 48
Max sound power			dB(A)	56	57	62	62	65	65
Unit net / gross weight			kg	17 / 20	24 / 27.5	26.5 / 30.5	26.5 / 30.5	31 / 35	31 / 35
Grid net / gross weight			kg	2.2 / 3.7	5.3 / 7.8	5.3 / 7.8	5.3 / 7.8	5.3 / 7.8	5.3 / 7.8
CODE				**2C04910F**	**2C04911F**	**2C04912F**	**2C04913F**	**2C04914F**	**2C04915F**
 **Universal grid to be associated**				**S**			**L**		
CODE				**2C0491AF**			**2C0491BF**		

DUCTABLE MIDAS INTERNAL UNITS

- Available in 6 different capacities.
- Compact unit with a thickness of only 245 mm
- The head available up to 160 Pa makes it possible to use the unit with flexible ducting systems of various lengths.
- Possibility of setting a different useful head through wired control to optimise the flow rate of the air delivered into the room.
- Flexible installation: the direction of air intake can be changed from the rear side to the bottom.
- Wall-hung panel provided by standard with generous display for complete control of the unit.

INTERNALUNIT				18	24	36	42	48	60
ERP Class	(Class E - A++)	when cold		A++	A++	A++	-	-	-
	(Class E - A++)	when hot		A+	A+	A+	-	-	-
Cold Operation	Capacity	Nom	W	5000	7000	10550	12100	14000	16000
		Min-Max	W	1530-5600	2160-8200	2900-13000	2900-13500	4760-16500	4760-17500
	Absorption	Nom	W	1550	2120	3400	4430	5000	5880
		Min-Max	W	470-2300	670-3560	710-4710	710-5100	1710-6600	1710-6700
	Current	Nom	A	6.73	9.22	15	19	21.7	26
		Min-Max	A	2.25-10.1	3.21-15.63	3.2-21.5	3.2-22.3	7.4-28.6	7.4-29.1
Dehumidification	Nom		l/h	2	2.7	3.9	4.7	7	8
EER ref. Standard EN14511	Nom		W|W	3.23	3.3	3.1	2.73	2.8	2.72
SEER ref. Standard EN14825	Nom		W|W	6.2	6.1	6.1	6.1	6.1	6.1
PdesigC			kW	5.2	7	10.3	10.5	\	\
Hot Operation	Capacity	Nom	W	5600	8000	11150	13500	16000	17000
		Min-Max	W	1400-6200	1980-9300	2600-13500	2600-15000	4780-16150	4780-18500
	Absorption	Nom	W	1490	2120	3450	4600	5000	5600
		Min-Max	W	460-2250	650-3620	470-4130	470-4530	1710-6700	1710-6800
	Current	Nom	A	6.5	9.23	15.5	20	21.7	24.4
		Min-Max	A	2.2-9.88	3.11-15.90	2.43-18.00	2.43-19.70	7.4-29.10	7.4-29.50
COP ref. Standard EN14511	Nom		W|W	3.76	3.77	3.23	2.93	3.2	3.04
SCOP ref. Standard EN14825	Nom		W|W	4	4	4.1	4.1	4	4
PdesigH			kW	4.7	7	8.6	8.6	\	\
Reference climatic zone ref. Standard EN14825			Type	A (temperate)					
Equilibrium temp Tbiv			°C	-7					
Maximum time for use Tol			°C	-10					
Air flow rate	Max-Med-Min		m³/h	1150-960-840	1400-1190-980	1900-1600-1400	1900-1600-1400	2300-2000-1700	2300-2000-1700
Standard useful pressure (available)			Pa	25(0~160)	25(0~160)	37(0~160)	37(0~160)	50(0~160)	50(0~160)
Sound pressure	Max-Med-Min		dB(A)	43 -41-40	44-41-39	44-41-39	44-41-39	52-49-47	52-49-47
Sound power		Max	dB(A)	53	55	55	55	69	69
Net / Gross weight			kg	31 / 37	32 / 38	42 / 48	42 / 48	46 / 52	46 / 52
CODE				**2C04920F**	**2C04921F**	**2C04922F**	**2C04923F**	**2C04924F**	**2C04925F**

CONTROLS

There are two types of controls: wired and infrared. Depending on the units, one of the two is provided as standard. Using the controllers in addition to setting all of the typical functions which are generally run by the user, through specific functions, you can configure procedures that make machine installation easier (useful head available for ductable units) or functions for cleaning the units, or more.

THE WIRED CONTROL IS STANDARD WITH:
- ducted MIDAS units

THE REMOTE CONTROL IS STANDARD WITH:
- NCS cassette units
- AIR floor standing\ceiling installed units

FIELD OF APPLICATION

The units can operate in the following temperature ranges:

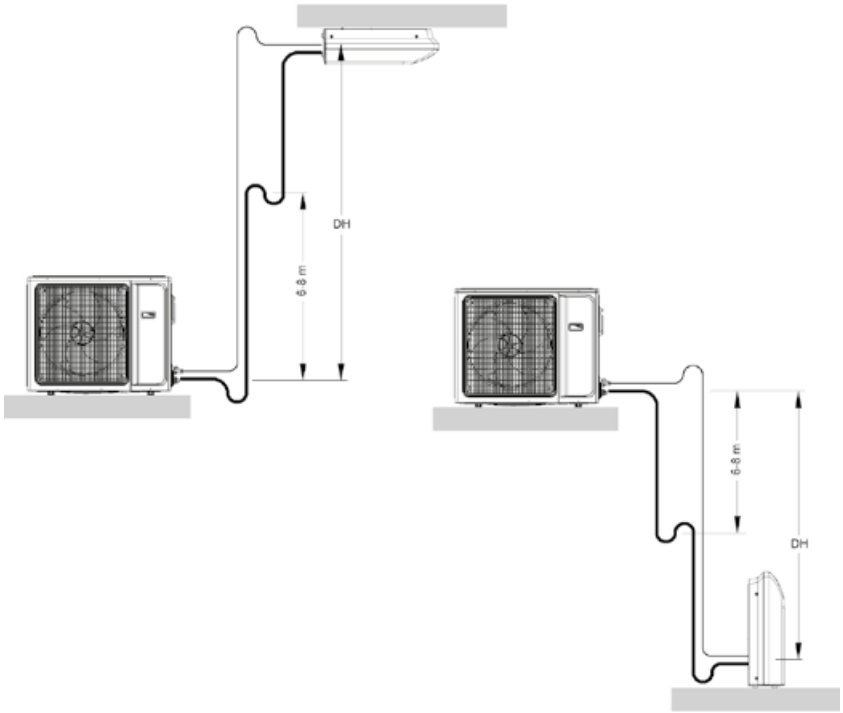
OPERATING MODE	PARAMETER		INTERNAL SIDE		EXTERNAL SIDE	
			B.S	B.U	B.S	B.U
Cooling	Maximum intake air temperature	(°C)	32	23	52	\
	Minimum intake air temperature	(°C)	16	15	-15	\
Heating	Maximum intake air temperature	(°C)	32	\	24	18
	Minimum intake air temperature	(°C)	16	\	-15	-14

TABLE OF COMBINATIONS

REQUIRED INTERNAL UNITS				
SIZE	POWER SUPPLY	TYPE		
		Cassettes	Floor standing\Ceiling	Ducted
18	230-1-50	x	x	x
24		x	x	x
36		x	x	x
42		x	x	x
48	400-3-50	x	x	x
60		x	x	x

COOLING CONNECTION LIMITS

Cooling connections to the units are allowed within the limits stated below:



MODEL			18	24	36	42	48	60
Diameter	Liquid line fittings	“	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas line fittings	“	1/2"	5/8"	5/8"	5/8"	3/4"	3/4"
Maximum line length		m	30	50	65	65	65	65
Maximum gradient DH		m	20	25	30	30	30	30
Length with standard load		m	5	5	5	5	5	5
Coolant	Type		R32					
	Load	Kg	1.16	1.4	2.54	2.54	3.6	3.6
Additional amount of coolant per meter		g/m	20	50	50	50	50	50

NOTES

NOTES

FERROLI
PRODUCT CATALOGUE

In accordance with the constant efforts to improve its range of products and thus raise the level of customer satisfaction, the Company stresses that the appearance and/or size, technical specifications and accessories may be subject to variation.

cod. 89CG0014/02 - 02.2021

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