NEW

Beretta

HARMONY HYBRID

COMBINED HYBRID SYSTEMS

A Carrier Company


HOW THEY DECORATED
ANTONI GAUDI

HARMONY HYBRID: THE FUTURE OF HYBRID, FOR EVERYONE

In a world where **care for the environment is not only dictated by regulations but also a common feeling that unites everyone,** Beretta is constantly searching for innovative solutions that reduce ecological impact without compromising comfort.

It is with this in mind that **HARMONY HYBRID was born, the new factory-made hybrid system that marks a significant step forward for Beretta in its commitment to delivering energy savings and high comfort to every home.**

With HARMONY HYBRID, Beretta offers an **attractive solution for the energy retrofitting of a variety of residential settings, in which it integrates harmoniously, while being cost-effective and eligible for local incentives, where available.** For Beretta, hybrid technology should not remain a privilege for the few — it should be an opportunity for all.

HARMONY HYBRID: SYSTEM COMPONENTS

BERETTA HARMONY HYBRID IS A RESIDENTIAL HYBRID SYSTEM THAT INTEGRATES HEAT PUMP TECHNOLOGY WITH THAT OF A CONDENSING BOILER TO PROVIDE HEATING, COOLING, AND DOMESTIC HOT WATER.

It consists of four main elements to provide comfort all year round:

- A residential split heat pump, consisting of **BERETTA HARMONY**, the compact and quiet outdoor unit with R32 refrigerant, and the **HYBRID HYDRAULIC KIT**, the indoor unit that serves as the core of the synergistic operation between the boiler and heat pump;
- A condensing combi boiler, **CIAO X**, Hydrogen Ready up to a maximum of 20%;
- An Energy Manager **Hi, Comfort T300-Hy**, the brain of the system, to manage energy and control comfort even remotely.

BERETTA HARMONY HYBRID, thanks to its compactness, modularity, and installation flexibility, is ideal for the energy retrofitting of buildings, as well as representing an innovative and interesting solution for replacement.

THE RANGE

HARMONY HYBRID is available in two commercial configurations:

BERETTA HARMONY HYBRID CIAO X 3.5 - 25

consisting of:
- BERETTA HARMONY 3.5
- HYBRID HYDRAULIC KIT
- CIAO X 25C
- Hi, Comfort T300-HY

BERETTA HARMONY HYBRID CIAO X 3.5 - 30

consisting of:
- BERETTA HARMONY 3.5
- HYBRID HYDRAULIC KIT
- CIAO X 30C
- Hi, Comfort T300-HY

The BERETTA HARMONY 5kW model in its respective commercial configurations with the 25 and 30 kW CIAO X combi boiler will be available from the beginning of 2026.

A HYBRID SYSTEM IN PERFECT HARMONY

- **HIGHLY EFFICIENT FACTORY-MADE MULTI-ENERGY SYSTEM**
- **ADVANCED ENERGY MANAGER FOR INTELLIGENT MANAGEMENT OF ENERGY SOURCES**
- **ECONOMIC FUNCTIONALITY FOR LOWER EXPENSES**
- **ENHANCED DOMESTIC HOT WATER COMFORT**
- **SILENT OPERATION FOR MAXIMUM COMFORT**
- **SIGNATURE COMPACT DESIGN OF SYSTEM COMPONENTS**
- **IDEAL FOR REPLACEMENT AND ENERGY RETROFIT**
- **ADD-ON MODULARITY FOR SYSTEM INTEGRATION**

NEX-HY
Next Hybrid Solutions

With HARMONY HYBRID, Beretta launches the new generation of NEX-HY™ residential hybrid systems, designed to support an ever-growing user base in the energy transition towards a more sustainable future.

The new BERETTA HARMONY HYBRID system is designed for energy use that puts the user at the center, thanks to the Energy Manager and its proprietary algorithm, which provides for **the simultaneous operation of gas boiler and heat pump, in an optimal mix depending on the selected comfort profile.**

HARMONY WITH YOUR SAVINGS

HARMONY HYBRID is a system designed to be cost-efective. In addition to potential governmental incentives that might apply in your local area, the system is capable of operating in a way that optimizes running costs by activating the dedicated economy profile.

HARMONY WITH YOUR LIVING SPACE

The compactness of the system components, the installation flexibility and the modularity make HARMONY HYBRID **capable of adapting to a variety of residential settings, even small ones**, in case of replacement or energy retrofit.

HARMONY WITH THE ENVIRONMENT

A hybrid solution that uses energy sources in a conscious way, optimizing energy consumption. By activating the dedicated "ecological-optimization" profile, it is also **able to operate with significantly reduced CO_2 emissions into the environment.**

SG Ready Smart Heat Pumps

HARMONY HYBRID is Smart Grid Ready: designed to work in synergy with modern smart energy distribution networks.

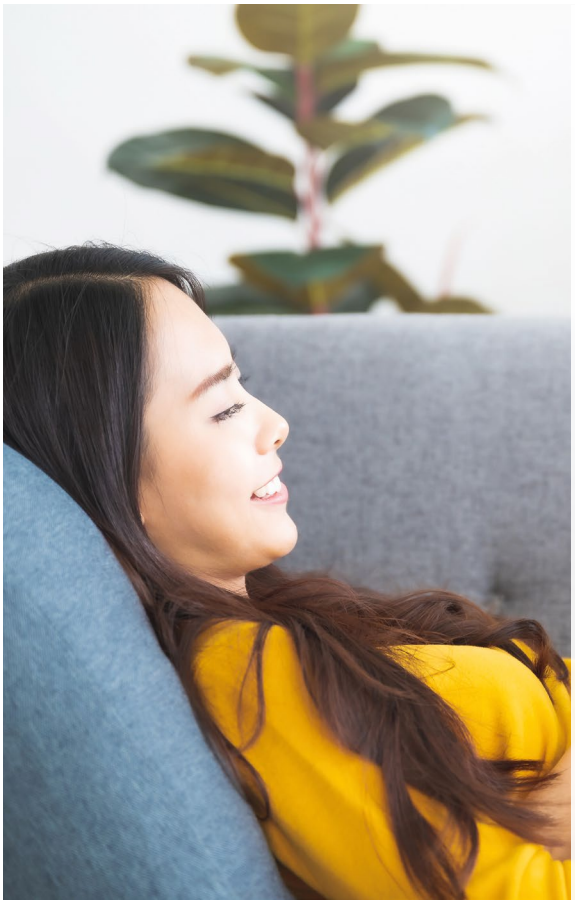
CARE FOR THE ENVIRONMENT

*According to estimates derived from an internal study conducted in our R&D laboratories using a simulator, which takes into account various factors, including the size of the living area, the type of thermal insulation and the geographical area.

Beretta HARMONY HYBRID fully complies with the EU's objectives for decarbonising the residential sector. Hybrid systems, which combine electric heat pumps and high-efficiency boilers to significantly reduce emissions, are one of the **key solutions for the energy retrofitting of existing buildings.**

With HARMONY HYBRID, Beretta also aims to promote hybrid technology, making it more accessible from both an economic and installation point of view. Hybrid systems must increasingly become the norm, both to help protect the environment in which we live and to achieve real energy savings, while providing the same level of comfort as systems with a single condensing generator.

From an environmental point of view, HARMONY HYBRID does even more. Through the Hi, Comfort T300-Hy Energy Manager and its app, **the new system provides a dedicated "ecological-optimization" profile**, with a significant reduction in CO_2 emissions in the environment (up to 70% less* compared to a system with a single gas generator).



THE USER
AT THE CENTER

BERETTA HARMONY HYBRID innovates the concept of energy efficiency, offering the user different operating modes, in which energy sources work in perfect harmony with each other to ensure comfort and efficiency, although with different purposes.

In the new Beretta hybrid system, the heat pump and boiler work simultaneously, using a mix of energy sources that can vary depending on the selected usage profile.

In addition to economic and ecological optimization, the user can also set the system's operating mode to prioritize the heat pump, which will operate at maximum power, like a traditional hybrid system.

To use a musical metaphor, just like an orchestra conductor, **with HARMONY HYBRID it is the user who chooses the symphony they prefer**.

THE ACCESSIBLE HYBRID, WITH **DOUBLE SAVINGS**

Hybrid technology, widely recognized for its environmental and energy-saving benefits, requires a significant initial investment in all sectors, which often discourages purchase, despite the long-term savings.

BERETTA HARMONY HYBRID, on the other hand, has a reasonable price within its segment and might be eligible for government incentives. Please check with a qualified representative in your local area for potential compensations with the replacement of an older model.

The affordable initial investment, together with conscious energy use that optimizes operating costs in the long term, allows users to approach BERETTA HARMONY HYBRID without too many worries.

An internal study* conducted in our R&D laboratories has shown that, **in "economic-optimization" mode, our new system can save up to 35% of annual consumption costs compared to a system with only a condensing boiler.** This makes BERETTA HARMONY HYBRID even more attractive for those who want to respect the environment without impacting their resources.

BERETTA HARMONY HYBRID is also designed for integration with photovoltaic panels, enabling sustainable electricity generation and significant additional energy savings.

* The study was conducted internally during the development of the hybrid system using a simulator that takes into account various factors, including electricity and gas rates, the size of the living area, the type of thermal insulation, and the geographical area.

IDEAL FOR ENERGY RETROFITTING OF ALL TYPES OF HOMES

UNMATCHED COMPACTNESS AND FLEXIBILITY

Among the distinctive features of BERETTA HARMONY HYBRID, the compactness and flexibility of its elements make the system integrable in multiple residential settings, even in small spaces.
The split heat pump consists of **a compact outdoor unit that can be installed either on the floor or on the wall,** thanks to its low weight. The indoor unit **is also compact and lightweight and offers considerable installation flexibility, as it can be placed up to 15 m away from the boiler**, which is essential if there is an existing heat generator or limited space available. The other component of HARMONY HYBRID is **CIAO X**, one of the most successful products in the Beretta range. **Compact and lightweight, in addition to heating the environment together with the heat pump, the boiler provides domestic hot water all year round. The system therefore does not require a domestic hot water tank** , saving even more space than most hybrid systems.

ADD-ON MODULARITY

If the existing heating system is equipped with a Beretta CIAO X combi boiler, the heat pump and Energy Manager can be integrated at a later stage, transforming it into an advanced hybrid system.

WHAT ARE THE BENEFITS

Retrofitting your heating system with a hybrid system such as BERETTA HARMONY HYBRID can improve the efficiency and energy class of your building. This not only optimizes operating costs, but can also increase the economic value of the property, as well as improving living comfort.

BENEFITS FOR THE INSTALLER

The combination of **intelligence and simplicity** of the BERETTA HARMONY HYBRID hybrid system also translates into benefits for the installer:

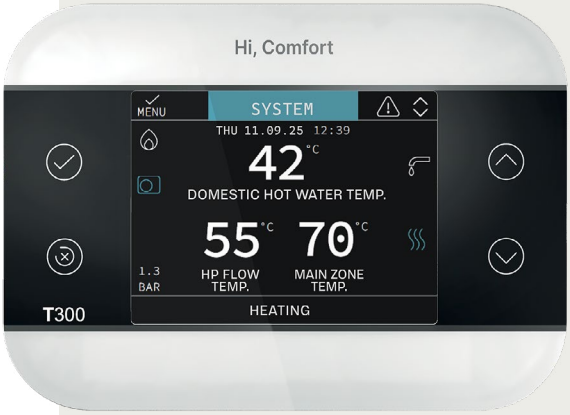
EASY INSTALLATION

The compact size, low weight, and installation flexibility of the system components facilitate installation and shorten installation times.

PROFESSIONAL QUALIFICATION

Installers can enhance their reputation and qualifications by offering an innovative product in line with the latest technologies.

WITH BERETTA HARMONY HYBRID,
CHOOSE THE RIGHT HYBRID FOR YOU



HI, COMFORT T300-HY

The brain of the hybrid system, which allows you to control the comfort of your home while optimizing energy consumption, is Hi, Comfort T300-Hy. One of the distinctive features of this advanced Energy Manager is **that it allows the user to choose between two operating profiles for the hybrid system, depending on their preferences: economic optimization or ecological optimization.**
BERETTA HARMONY HYBRID, thanks **to the proprietary algorithm inside the T300-Hy, provides for the simultaneous operation of the two energy sources and** identifies the setpoint value of the heat pump, aimed at achieving the minimum operating cost or minimum CO_2 emissions, depending on the profile selected.

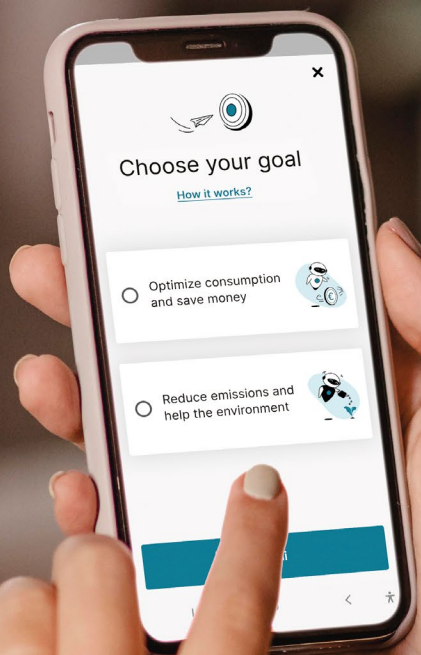
This is an **interesting innovation compared to traditional hybrid systems**, which favor the electric generator, leaving the gas generator to act only as a backup.

With Beretta's new hybrid system, the user is at the center of the system. Using the Energy Manager T300-Hy or conveniently via an app on their smartphone, users can easily choose the setting that best suits their needs.

Hi, Comfort

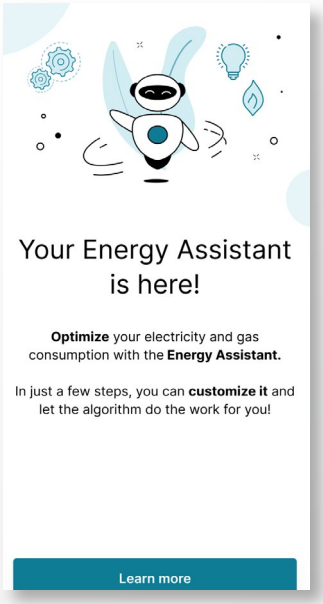
Available on the App Store

GET IT ON Google Play



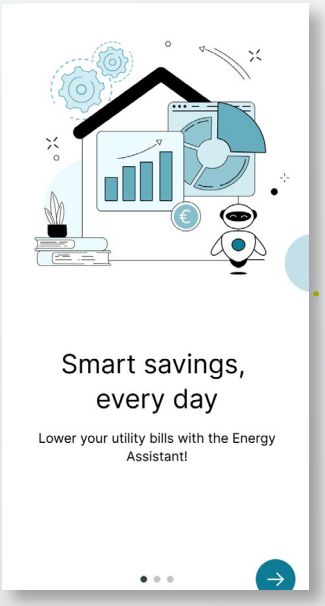
Beretta

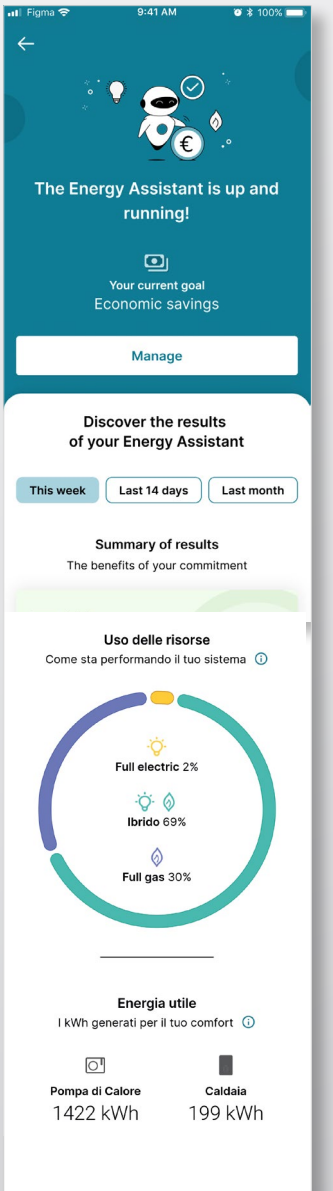
SYSTEM INTELLIGENCE, **SIMPLICITY** OF USE



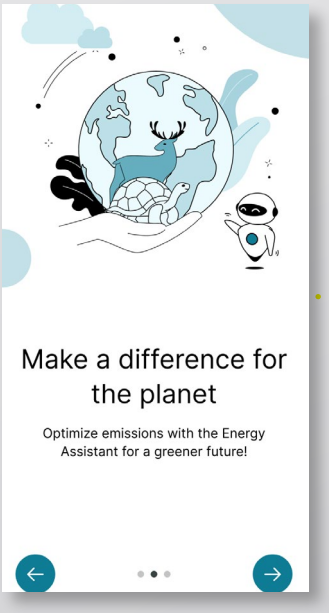
BERETTA HARMONY HYBRID is designed to be accessible to everyone, at all times. **Through the dedicated Hi, Comfort App, the system provides users with a real Energy Assistant that guides them in intelligent energy management in a simple and intuitive way**, supporting them in configuring their desired operating profile.

Two optimizations can be selected: economic or ecological, and in just a few guided steps, the configuration is active.





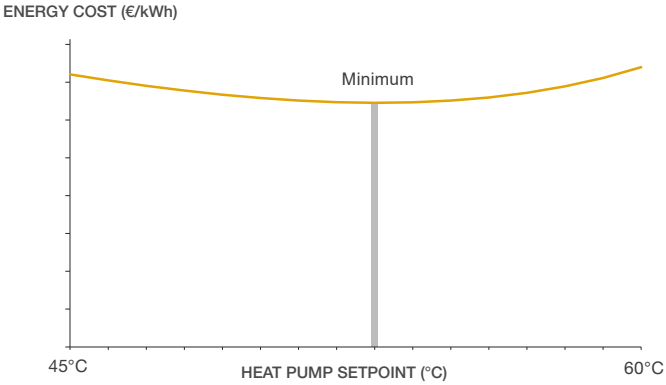
Through the App, **the most demanding users can also monitor the contribution of energy sources to the operation of the system**, checking the percentages of use of each (electric only, hybrid, and gas only), to get an overview of resource use.
It is also **possible to view the energy contribution in kWh of the two generators**, to keep energy consumption under control.



Beretta

ECONOMIC OPTIMIZATION

At a time when energy costs are weighing heavily on household budgets and individual energy sources can sometimes experience sudden spikes, our system offers a truly innovative solution. Thanks to the intelligence of Hi, Comfort T300-Hy, the user can select the "economic-optimization" profile, which calculates the most cost-effective mix of energy sources, offering the desired comfort with optimized consumption.



This snapshot shows an example of how the system works when the system setpoint is set at 60°C and the system return at 45°C. Within this temperature range, considering the efficiency and operating limits of both generators, the heat pump contributes with its own setpoint calculated and optimized based on the minimum point of the total operating cost curve, and the boiler integrates any temperature difference necessary to reach the system setpoint. The cost of the boiler and the heat pump can be configured by the user based on their own supply conditions or using the national averages proposed by the system.

Total cost

HOW IT WORKS

It's simple! Just enter the cost of gas and electricity* and a few other details via the App or directly from the thermostat, and our algorithm will analyze the data and automatically select the energy source mix that offers the greatest savings for the user, without compromising comfort.

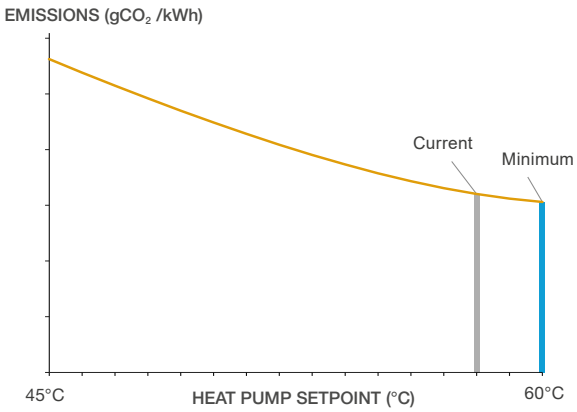
WHAT ARE THE BENEFITS

In addition to the potential economic benefit, visible on your bills, the system also works with an eye on the environment, integrating the electrical source into heating generation and optimizing energy consumption.

*based on your energy supply conditions or through the national averages proposed by the System.

ECOLOGICAL OPTIMIZATION

For those who want a distinctly sustainable approach, regardless of the cost of energy sources, our system allows you to choose ecological optimization.



This snapshot shows an example of how the system works when the system setpoint is set at 60°C and the system return at 45°C. Within this temperature range, considering the efficiency and operating limits of both generators, the heat pump contributes with its own setpoint calculated and optimized based on the minimum point of the total emissions curve, and the boiler integrates any temperature difference necessary to reach the system setpoint. The CO_2 emission factor of the boiler and that of the heat pump are suggested by the system and can also be configured by the user.

Total emissions

HOW IT WORKS

Simply enter a few data via the App or thermostat, including the CO_2 emission factor of the electricity and the CO_2 emission factor of the gas, and the algorithm calculates the most environmentally responsible energy mix with the lowest CO_2 emissions, without compromising on comfort.

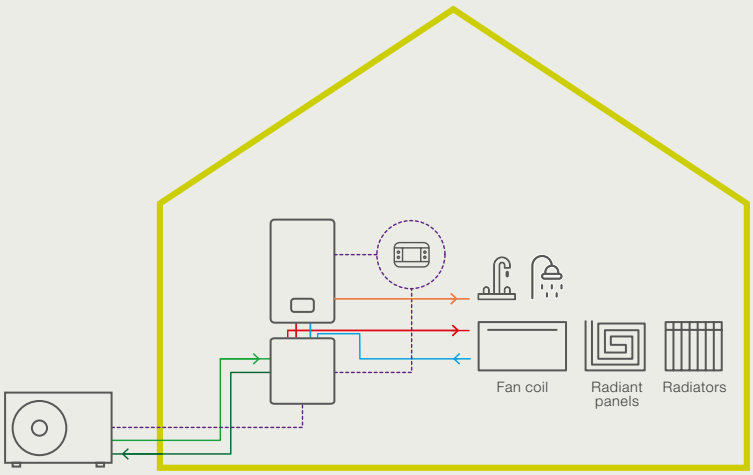
WHAT ARE THE BENEFITS

The system operates with maximum respect for the environment, within the limits of its technology, while offering energy savings compared to a single generator system.

ALL SEASONS COMFORT

In winter and mid-seasons, BERETTA HARMONY HYBRID produces heating and domestic hot water by simultaneously using the boiler and heat pump. BERETTA HARMONY HYBRID can be combined with low-temperature heating systems (underfloor heating with radiant panels), high-temperature systems (radiators), or medium-temperature systems (fan coils).

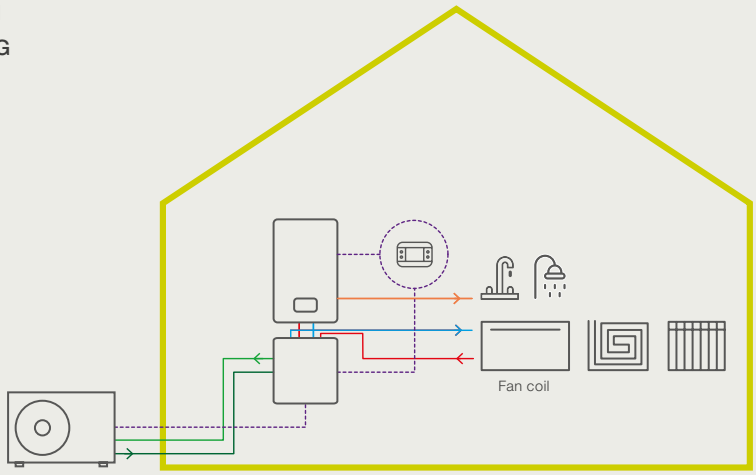
OPERATION
IN **HEATING**



Domestic hot water — Flow — Return — Coolant inlet — Coolant outlet
Electrical and electronic connections

BERETTA HARMONY HYBRID can provide not only heating and domestic hot water, but also cooling. All you need is for your home to be equipped with fan coils, such as Beretta TIVANO or TIVANO WALL, and you're set. During the warmer months, the boiler only works to produce domestic hot water and the heat pump activates for cooling requests.

OPERATION
IN **COOLING**

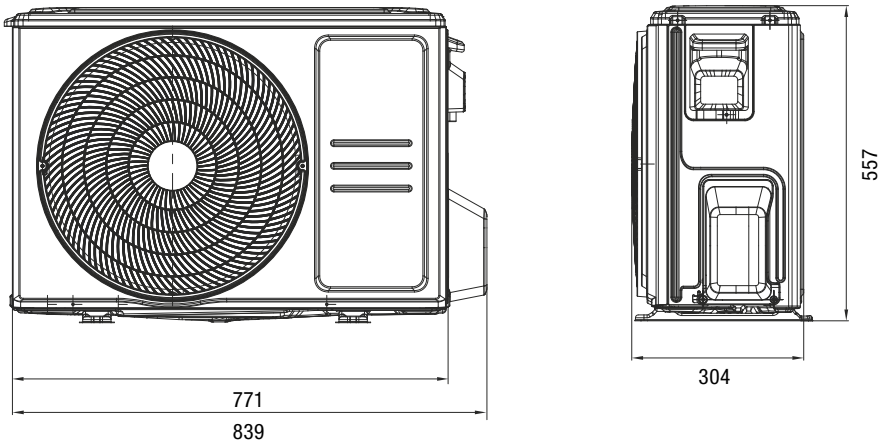


Domestic hot water — Flow — Return — Coolant inlet — Coolant outlet
Electrical and electronic connections

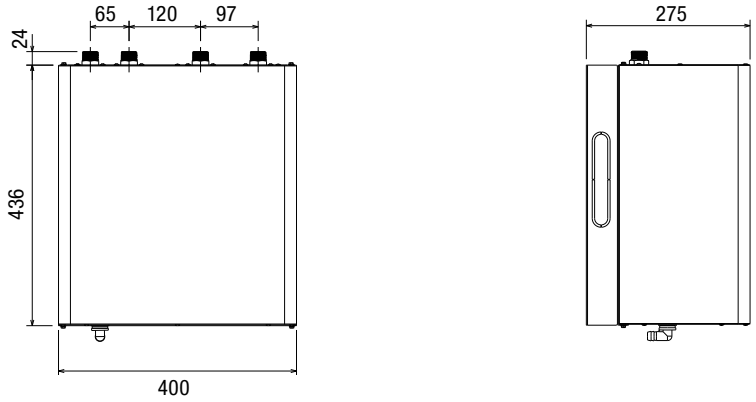
Beretta

TECHNICAL DRAWINGS

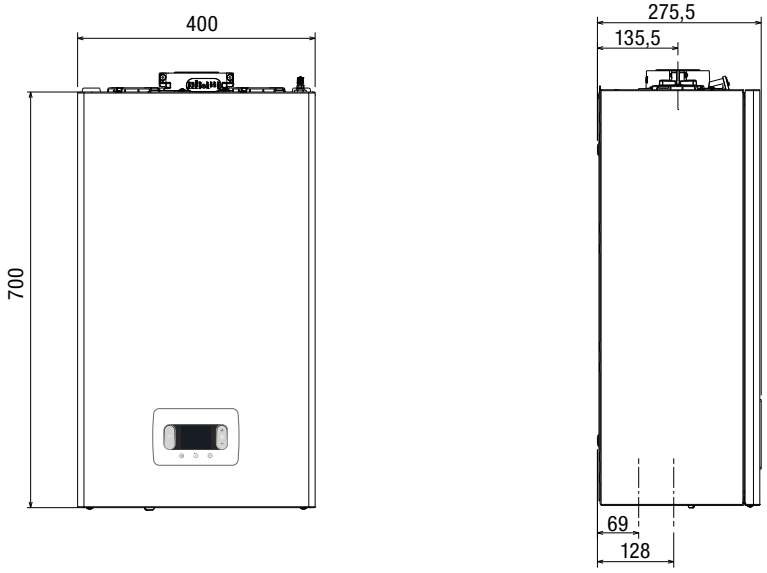
HEAT PUMP - OUTDOOR UNIT: BERETTA HARMONY



HEAT PUMP - INDOOR UNIT: HYBRID HYDRAULIC KIT



WALL-HUNG CONDENSING BOILER: CIAO X



FOR ALL ADDITIONAL DIMENSIONAL DATA AND INSTALLATION INSTRUCTION, REFER TO THE PRODUCT AND SYSTEM MANUALS.

TECHNICAL DATA

OUTDOOR UNIT and INDOOR UNIT	UoM	BERETTA HARMONY 3.5 & HYBRID HYDRAULIC KIT
NOMINAL PERFORMANCE ACCORDING TO EN14511 - HEATING*		
Outlet water temperature: 35°C / 45°C / 55°C		
Capacity	kW	3,5 / 3,5 / 3,5
COP	-	4,0 / 3,4 / 2,5
NOMINAL PERFORMANCE ACCORDING TO EN14511 - COOLING**		
Outlet water temperature: 7°C / 18°C		
Capacity	kW	3,2 / 3,3
EER	-	2,9 / 4,4
REFRIGERANT LINES		
Liquid connections	Ø	1/4" (SAE Flare)
Gas connections	Ø	3/8" (SAE Flare)
Total length (max-min)	m	25 - 3
Max length with precharged gas	m	5
Max height difference between outdoor and indoor units	m	10
ELECTRICAL FEATURES		
Voltage/Frequency (nominal voltage)	V/Ph/Hz	220-240 / 1 / 50
Maximum power consumption (peak)	W	2300
Current consumption (peak)	A	10
REFRIGERANT GAS		
TYPE	-	R32
GWP	-	675
Pre-charged quantity	kg	0,71
Maximum charge	kg	0,95
Gas limit pressure	MPa	4,3
Liquid pressure limit	MPa	1,7
SOUND LEVELS		
Sound pressure	dB(A)	57
Sound power	dB(A)	65
OTHER PARAMETERS		
Outdoor unit air flow rate	m³/h	2200
Air-water unit outdoor air temperature - heating	°C	10-50
Air-water unit outdoor air temperature - cooling	°C	-15 / 24

* Dry bulb air inlet temperature: 7°C
** Dry bulb temperature at air inlet: 35°C

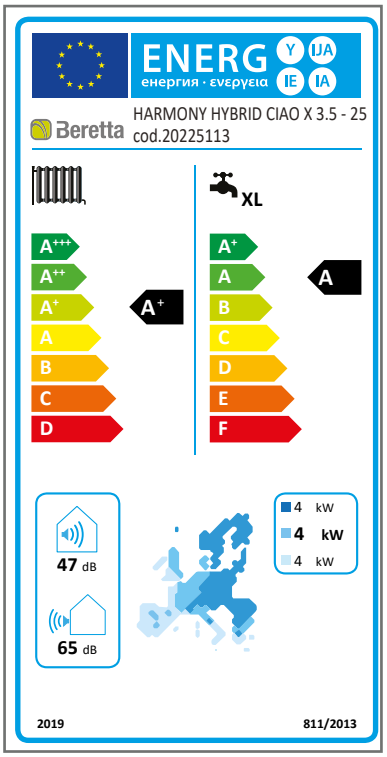
BOILER	UoM	CIAO X 25 C	CIAO X 30 C
NOMINAL PERFORMANCE ACCORDING TO EN14511			
Seasonal heating energy efficiency (ηs)	%	93	93
DOMESTIC HOT WATER			
DHW production at ΔT= 25°C / 30°C / 35°C	l/min	14,3 / 11,9 / 10,2	17,2 / 14,3 / 12,3
HYDRAULIC AND GAS CONNECTIONS			
Heating flow - Return / Gas inlet	Ø	3/4"	3/4"
Inlet - DHW outlet / cylinder flow - Return	Ø	1/2"	1/2"
OTHER TECHNICAL SPECIFICATIONS			
Heating thermal input (max-min)	kW	20,0 - 3,1	25,0 - 3,95
Nominal DHW heat input (max-min)	kW	25,0 - 3,1	30,0 - 3,95
OTHER PARAMETERS			
Indoor sound power level (LWA)	dB(A)	50	53
FLUE GAS SYSTEMS			
Max length for concentric flues (Ø60-100 mm)	m	5,85	4,85
Maximum length for twin flues (Ø80+80 mm)	m	33+33 (A)	27+27 (B)

(A) Up to 52+52 m with adjustable splitter available as accessory
(B) Up to 45+45 m with adjustable splitter available as an accessory

FOR ALL ADDITIONAL TECHNICAL DATA, REFER TO THE PRODUCT MANUALS.

SYSTEM	UoM	BERETTA HARMONY HYBRID CIAO X 3,5 - 25	BERETTA HARMONY HYBRID CIAO X 3,5 - 30
DATA ACCORDING TO EN14825			
HEATING 55°C*			
Pdesignh	kW	3,5	3,5
SCOP	-	2,85	2,85
Eta s	%	111	111
Energy efficiency class	D → A+++**	A+	A+
HEATING 35°C*			
Pdesignh	kW	3,5	3,5
SCOP	-	3,86	3,86
Eta s	%	151	151
Energy efficiency class	D → A+++**	A++	A++
DOMESTIC HOT WATER			
Eta wh	%	84	84
Size		XL	XL
DHW efficiency class	F → A+***	A	A

* Data relating to climatic conditions
** The range of the energy efficiency class for this category of systems is between D and A+++.
*** The range of the sanitary efficiency class for this category of systems is between F and A+.



NB: FOR ALL ADDITIONAL TECHNICAL DATA, REFER TO THE SYSTEM MANUAL SUPPLIED WITH THE HYBRID HYDRAULIC KIT.

Beretta

RIELLO S.p.A.
Via Ing. Pilade Riello, 7
37045 Legnago (VR) - Italy
tel. +39 0442 630111

www.berettaheating.com

SCAN AND DISCOVER
BERETTA
HARMONY
HYBRID

270250001 - EN - rev.00 12/2025

Carrier