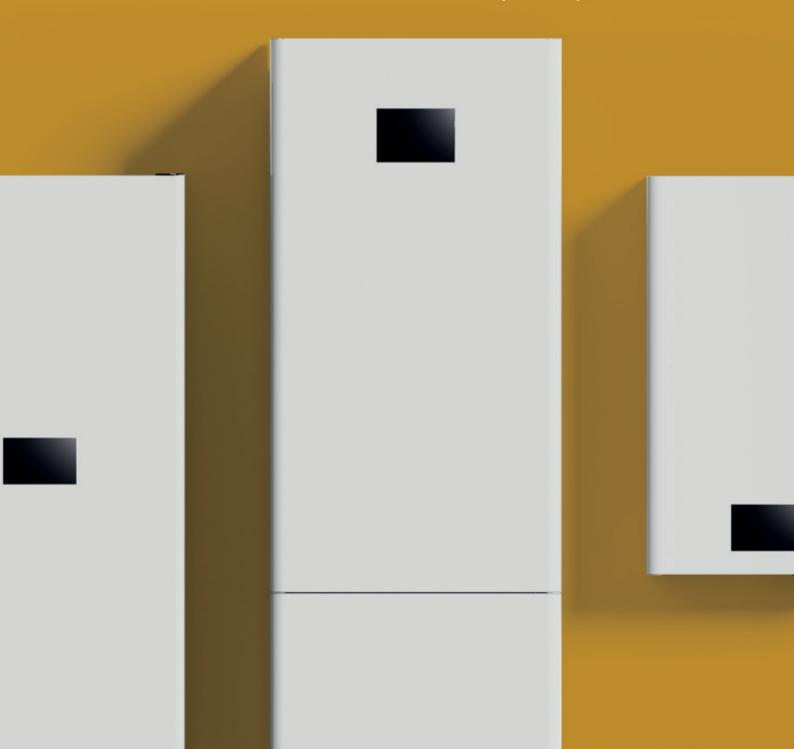
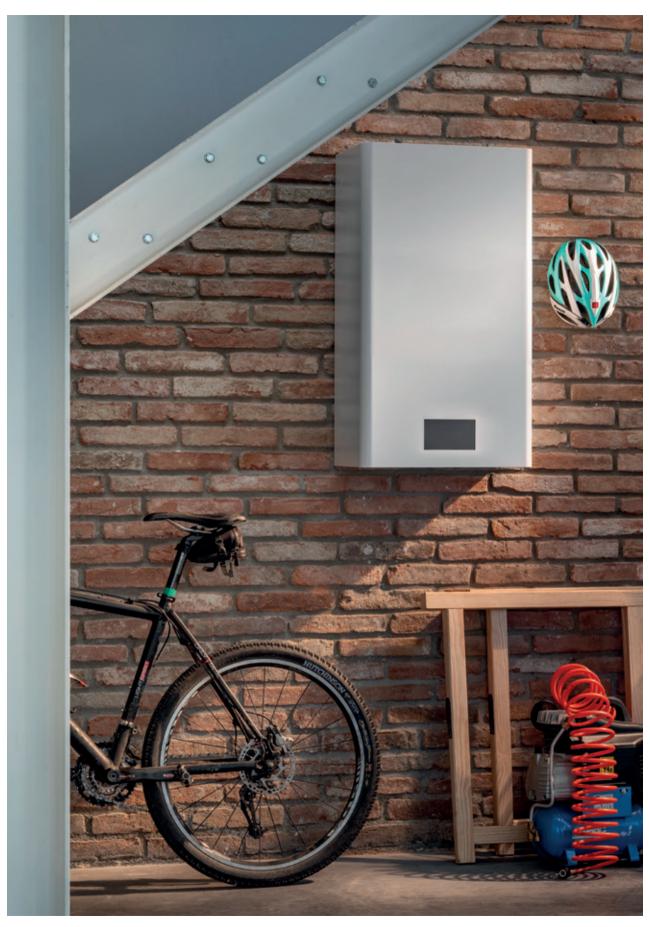


eHPoca
3in1
3in1 built-in
3in1 Mono
Heat pumps



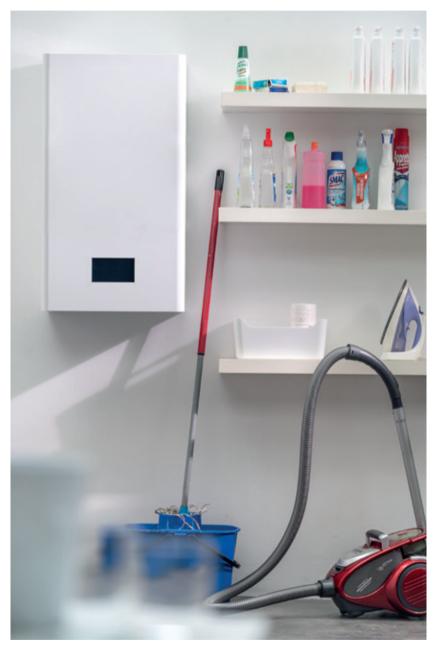
Taking free heat from nature to warm up your home.







3in1



eHPoca



3in1





3in1 Mono SV



eHPoca



3in1 built-in



3in1 built-in





eHPoca



### 3in1 Mono

**NEW** 

Ducted monobloc air/water heat pump composed of heat pump unit and 200 litre DHW module.

Standard heating element 2 kW. Unit complete with: primary circulation pump and DHW diverter valve. Without outdoor unit.

#### Suitable for:



Small and medium-sized ( homes



Apartments



### eHPoca

Internal hydraulic module with circulation pump and heat exchanger connected to the outdoor unit via refrigerant pipes. Flexible solution suitable for implementation of tailor-made systems.

#### Suitable for:



Offices



Centralised systems



Medium and large-sized homes



### 3in1

Tower with 200 litre domestic hot water tank with instantaneous heat exchanger connected to the outdoor unit via refrigerant pipes. Unit complete with instantaneous exchanger, 24 litre expansion vessel, domestic hot water diverter valve, auxiliary boiler connection and safety valves. Complete solution which guarantees reliability and space saving.

#### Suitable for:



Small and medium-sized homes



Apartments



### 3in1 built-in

Separate module unit for installation on site. Built-in cabinet with integrated 170 litre storage tank for DHW diverter, 8 litre expansion tank, safety valve, circulation pump and connected to the outdoor unit via refrigerant pipes.

Ideal for appartments with installation in the perimeter wall.

#### Suitable for:



Small and medium-sized homes



Apartments

## 3in1 Mono



#### **DC INVERTER**

Maximum comfort with the lowest consumption and quietest operation



#### **REFRIGERANT R32**

Refrigerant with low environmental impact



#### WITHOUT OUTDOOR UNIT

The outdoor unit is replaced by 2 grills



#### APP

Remote control via App



## The heat pump without an outdoor unit

3in1 Mono is the air/water heat pump without an outdoor unit, designed for all those situations where there is no space available for housing the outdoor unit, e.g. appartments without balconies or with limited terraces.



#### Single version

Single heat pump module (without tank).





## Version with horizontal combination

Heat pump module plus DHW module with horizontal combination.



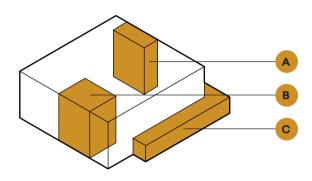


## Version with vertical combination

Heat pump module plus DHW module with vertical combination.



## 3in1 Mono installation



A. Landing access to apartment

B. Laundry

C. Terrace / Balcony

3in1 Mono is the compact and complete indoor solution that includes the functionality of the outdoor unit.

All elements of the system are contained within the unit, providing a reduction in space and greater reliability as everything is installed, adjusted and tested in the factory.



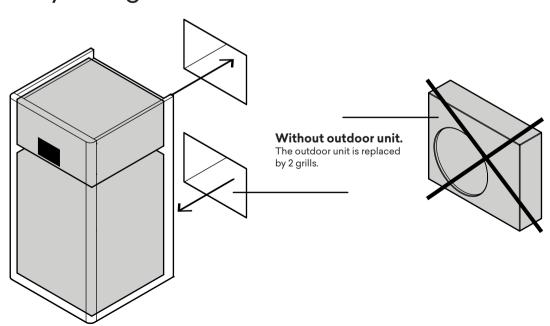
Small and medium-sized homes



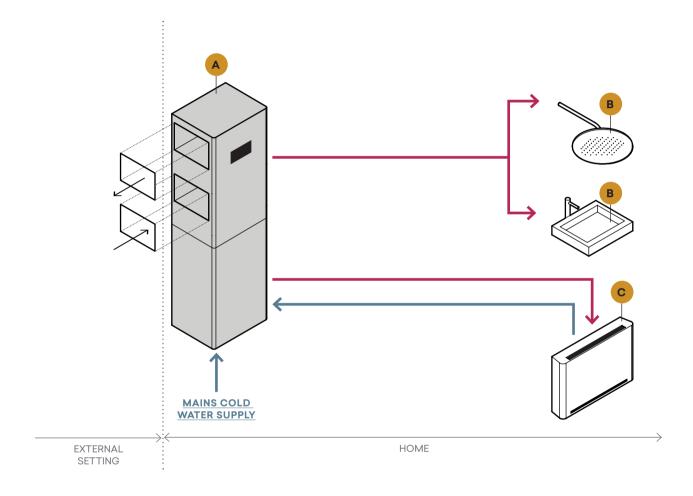
**Apartments** 

The components of the outdoor unit are incorporated in the indoor unit and communication with the outside environment is via fittings provided in the catalogue. On the outside, only two grills are visible. On the inside, however, it remains a compact and elegant unit with the same floor plan dimensions as an appliance.

# No outdoor unit, only two grills



## 3in1 Mono system diagram

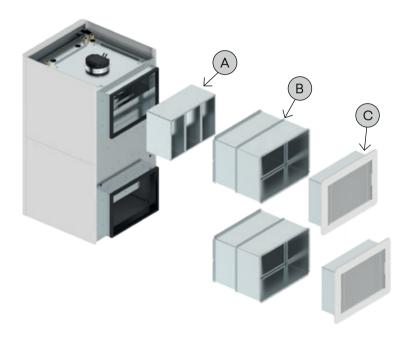


- 3in1 Mono indoor unit Domestic hot water supply
  C. Heating and/or cooling
- system

Domestic hot waterCold water

### Installation Options

### Installation with rectangular duct



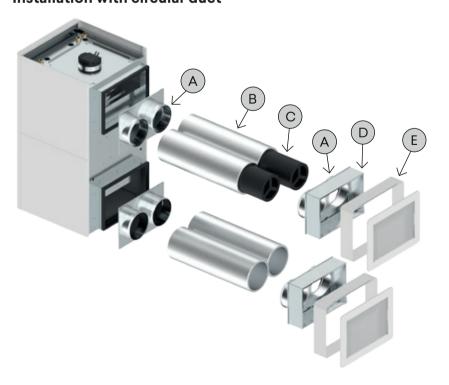
APDC0012II Silencer module 440x292x199 mm

B APDC0011II
Telescopic duct
Length from 200 mm to 400 mm
Unit side bxh 460x313 mm
Outdoor side bxh 470x353 mm

APDC0014II

Kit no. 2 aesthetic grills built-in with plenum
Built-in part 460x313x120 mm
Grill 542x400x16 mm

#### Installation with circular duct



#### APDC0013II

Kit no. 4 rectangular/circular air intake and outlet plenum
DN 200 mm - male connection rectangular dimensions
467x320x87,5 mm

B SCE200001II Ducting pipe DN 200 mm

AHRC0038II

Kit n.2 silencers

DN 200 mm

Lunghezza 500 mm

APDC0014II

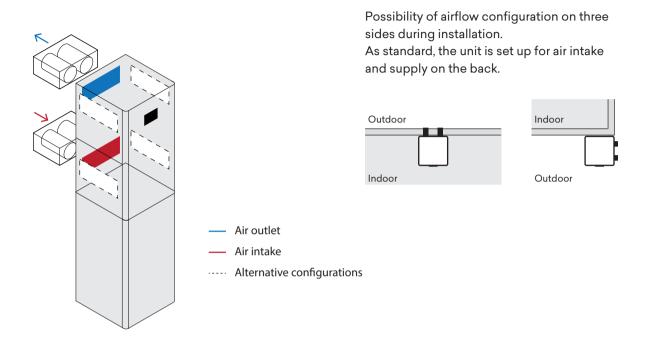
Kit no. 2 aesthetic grills built-in with plenum
Built-in part 460x313x120 mm
Grill 542x400x16 mm

APDC0015II

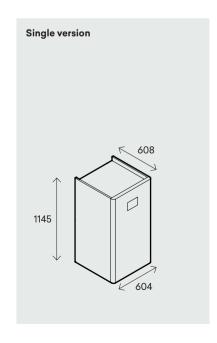
Kit n.2 aesthetic frames for installation of visible aesthetic grills 542x400x109 mm

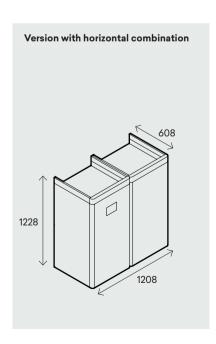
%

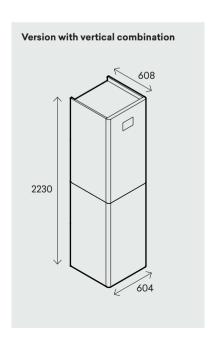
### Configuration flexibility



#### **Dimensions**









3in1 Mono SH



3in1 Mono SV

## eHPoca



#### **DC INVERTER**

Maximum comfort with the lowest consumption and quietest operation



#### HIGH POWER RANGE

Power range up to 31 kW



#### APP

Remote control via App



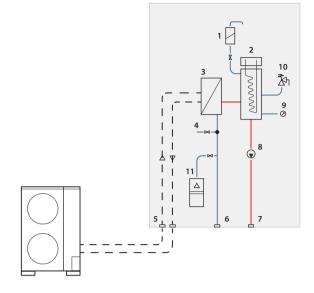
#### **ENERGY CLASS**

Maximum A+++ energy class

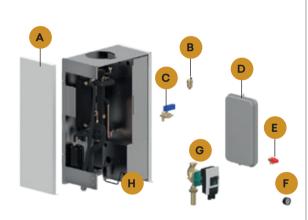


## eHPoca unit diagram

- 1. Automatic vent valve
- 2. Electrical heater (optional)
- 3. Plate heat exchanger
- 4. Differential pressure switch
- 5. Refrigeration connections
- 6. Return system hydraulic connection
- 7. Supply system hydraulic connection
- 8. Primary circulation pump PP1
- 9. Pressure gauge
- 10. Safety valve 3 bar
- 11. Expansion vesse



#### Standard components



#### Standard components

- A. Structure, RAL9003 cover panels and display
- B. Automatic vent valve
- C. Differential pressure switch
- D. Expansion vessel
- E. Safety valve 3 bar
- F. Pressure gauge
- G. Primary circuit circulation pump
- H. Electrical box

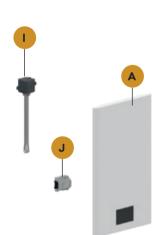
#### Accessories kit (supplied installed in the unit)

- I. 6 kW heating element kit (3 steps of 2 kW). Factory setting 2 kW for single-phase heat pumps
- J. BUTLER PRO

#### Accessories kit (supplied separately)

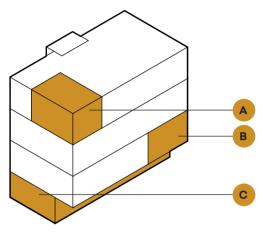
- K. ACS 3-way valve
- L. ACS preparation tank
- M. Inertial DHW tank





### Accessories kit (supplied separately)





- B. Attic
- C. Laundry
- D. Cellar

## Example of centralised system

- 1. eHPoca indoor unit
- 2. Domestic hot water tank
- 3. Outdoor unit
- 4. Refrigerant pipes
  - 5. Domestic hot water / heating

eHPoca is a flexible solution.

Suitable accessories are supplied based on the application. For large homes or apartment blocks, for example, the DHW requirement may be met by choosing the appropriate DHW tank capacity of between 200 and 2000 litres.





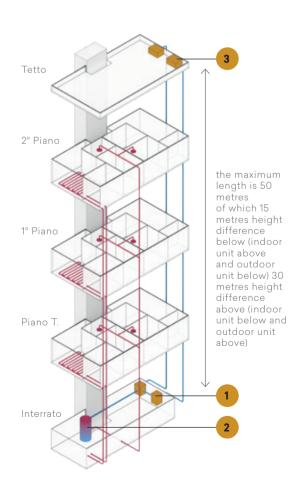


Offices

Medium and large-sized homes

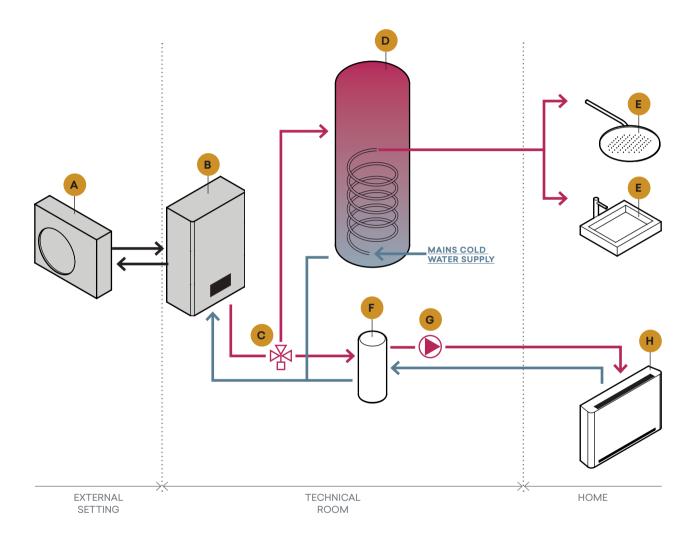
Centralise systems

eHPoca is a heat pump which can be modular and used in sequence to meet high power requirements. The indoor unit must be installed indoors in a suitable room to house all the system components.





### eHPoca system diagram



- Outdoor unit
- B. eHPoca indoor unit
- 3-way valve Thermal storage tank for instant preparation of DHW
- Domestic hot water supply
- Hydraulic separator
- Secondary circuit pump
- Heating and cooling system

Domestic hot water Cold water

## 3in1



#### **DC INVERTER**

Maximum comfort with the lowest consumption and quietest operation



#### **HIGH OPERATING LIMITS**

DHW production even with 40 °C outside air



#### REDUCED SPACE REQUIREMENTS

All components are integrated in the internal module

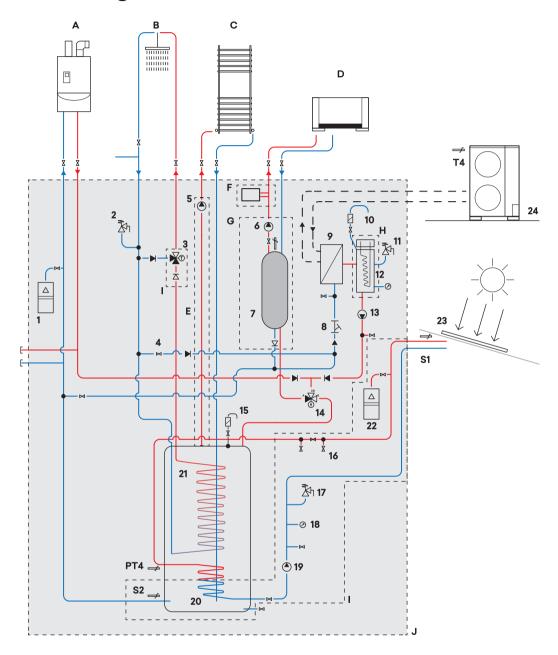


#### **ENERGY CLASS**

Maximum A+++ energy class



## 3in1 unit diagram



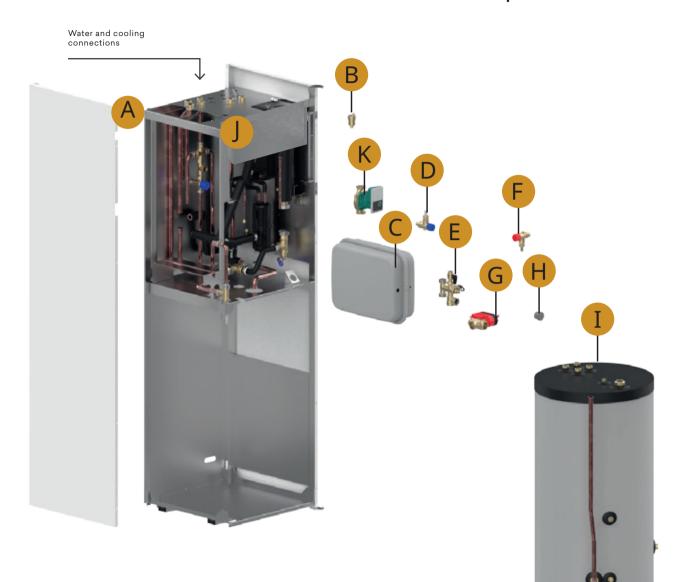
- Boiler
- Domestic hot water utilities
- High temperature utilities C. (decorative radiators)
- D.
- System utilities Heated towel rail kit E. (optional)
- Tank (optional) F.
- Secondary separator kit (optional)
- Heating element kit (optional)
- Solar kit (optional)
- Indoor unit

- System expansion tank 24 litres
- Safety valve 7 bar
- Thermostatic mixing valve (supplied with the solar kit)
- Filling tap
- High-temperature circulation pump PP4
- Secondary circulation pump PP3
- Hydraulic separator

- Net filter
- Plate exchanger
- Automatic vent valve Solar safety valve 3 bar Collettore con resistenza
- 12. Primary circulation pump
- 3-way on/off valve PV1 13.
- Cylinder vent valve
- Solar charging tap 15.
- Solar safety valve 4 bar
- Pressure gauge

- Solar circuit pump PP7
- 19. Solar coil
- 200 litre domestic hot 20. water tank
- 21. Solar expansion tank 24 litres
- Solar panel
- Outdoor unit

## 3in1 standard components

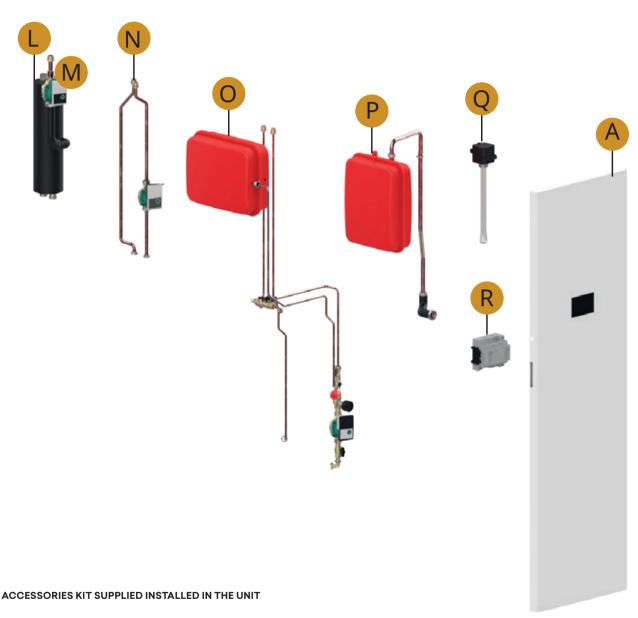


#### STANDARD COMPONENTS

- 3in1 structure and RAL9003 cover panels and display
- B. Automatic vent valve
- C. System expansion vessel 24 litres
- Domestic hot water safety valve System filling unit and Y filter
- D. E.
- F. System safety valve 3 bar G. ACS system 3-way valve
- Pressure gauge
- 200 litre instantaneous domestic hot water preparation tank, standard without solar coil
- Electrical box
- Primary circuit circulation pump

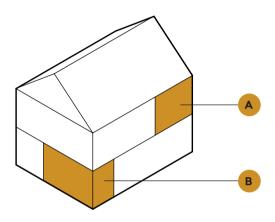


## 3in1 accessories kit supplied installed in the unit



- L. Separator kit with secondary pump for 5-7 kW unit
- M. Separator kit with secondary pump for 5-15 kW unit
- N. Heated towel rail kit
- Solar kit (can be used if there is no inertial tank kit):
   control unit, pump, safety valve, expansion vessel
   24 litres, filling unit, system filling valve
- P. Inertial tank kit 20 litres (as an alternative to the solar kit)
- Q. 6 kW heating element kit (3 steps of 2 kW). Factory setting 2 kW for single-phase heat pumps
- R. BUTLER PRO

### 3in1 installation



The 3in1 is a complete solution.

All the system elements are contained inside the cabinet to save space and provide greater reliability because everything is installed, adjusted and tested in the factory.



Small and medium-sized



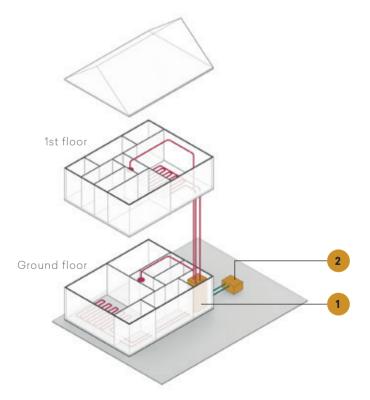
Apartments

The indoor unit can be installed indoors in any room thanks to its compact size and elegant design.

- A. Kitchen / Living room
- B. Laundry / Cellar

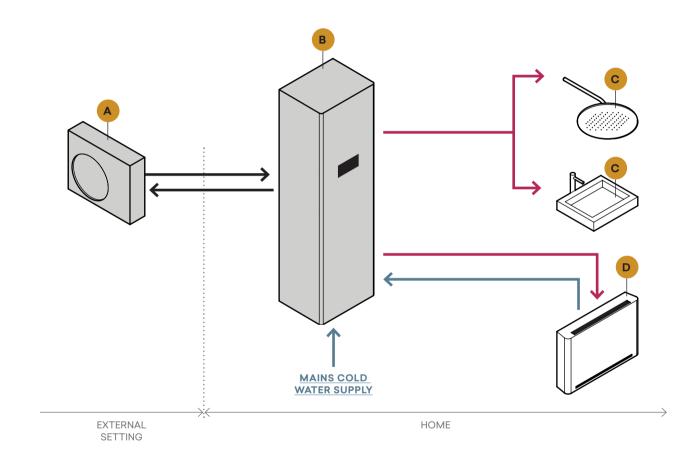
## Example of system

- 3in1 indoor unit
- Outdoor unit
- Refrigerant
- Domestic hot water / heating





3in1 system diagram



- Outdoor unit
   B. 3in1 indoor unit
   Domestic hot water supply
   Heating and cooling system

Domestic hot waterCold water

## 3in1 built-in



#### DC INVERTER

Maximum comfort with the lowest consumption and quietest operation



#### POWER

Power range up to 23 kW



#### REDUCED SPACE REQUIREMENTS

Built-in installation, only 35 cm deep

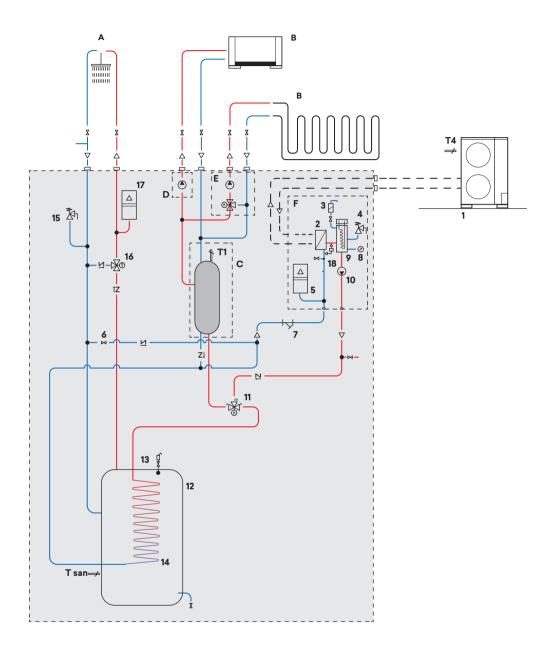


#### MODULARITY

Various optional hydraulic modules to suit all configurations



## 3in1 built-in unit diagram



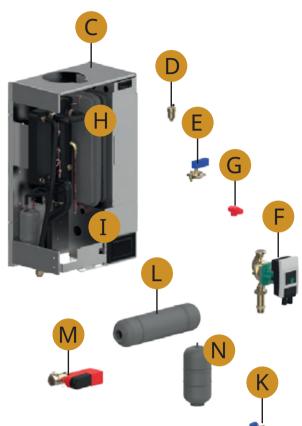
- Domestic hot water utilities
- System utilities Secondary separator kit (optional)
- Secondary circuit pump kit PP5 (optional)
- Secondary circuit pump kit and secondary circuit mixing valve PP6 (optional)
- Heating elements kit

- Outdoor unit
- Plate heat exchanger 2
- Automatic vent valves
- Safety valves 3 bar
- System expansion tank 8 litres
- Charging unit
- Mains filter
- 8. Plant pressure gauge
- Heating element manifold
- Primary circuit pump PP1

- 3-way valve for domestic hot water system
- Domestic hot water storage tank 170 litres
- Cylinder vent valve
- Stainless steel coil
- Safety valve 7 bar
- Thermostatic mixing
- Expansion vessel 8 litres domestic hot water
- Flow switch (differential pressure switch)

### Standard 3in1 built-in components







#### Standard components

- Formwork with front closing doors Domestic hot water tank 170 litres
- Hydronic module

- Automatic vent valve
  Differential pressure switch
  Primary circuit circulation pump
  Safety valve 3 bar

- H. Expansion tank 8 litres
  I. Electrical box with control interface display
  J. System filling unit, Y-filter and thermostatic mixer
  K. DHW safety valve 7 bar
  L. Domestic hot water expansion tank 4 litres
  M. ACS system 3-way valve

- System-side expansion tank



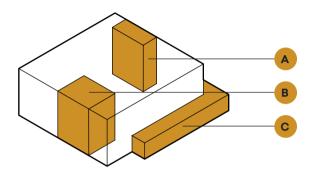
## 3in1 built-in accessories kit



#### Accessories kit

- O. Secondary circuit pump kit
  P. Secondary circuit pump kit+mixing valve
  Q. 6 kW heating elements (3 steps of 2 kW). Factory setting 2 kW for single-phase heat pumps
  R. Inertial storage tank 30 litres
  S. Hydraulic separator kit 30 litres and secondary circuit pumps kit control board
  T. BUTLER PRO

## 3in1 built-in installation



The 3in1 built-in is a flexible solution with various modules which can also be installed at a later stage depending on the system configuration.



Small and medium-sized homes

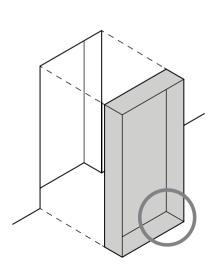


Apartments

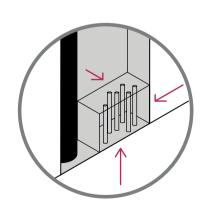
The unit housing is inserted in the wall during the building work. There are hydraulic connections in the housing for connection to the water supply. The various internal modules are installed afterwards when the system has been completed.

- A. Landing access to apartment
- B. Laundry
- C. Terrace / Balcony

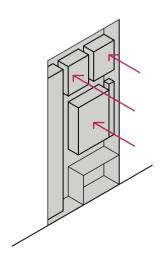
## Installation steps 3in1 built-in



 Positioning of the built-in casing in the wall.



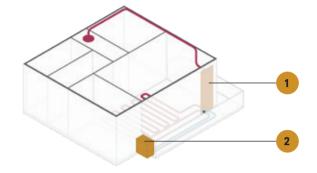
 Connection of the system connections from three different positions: rear, side or bottom.



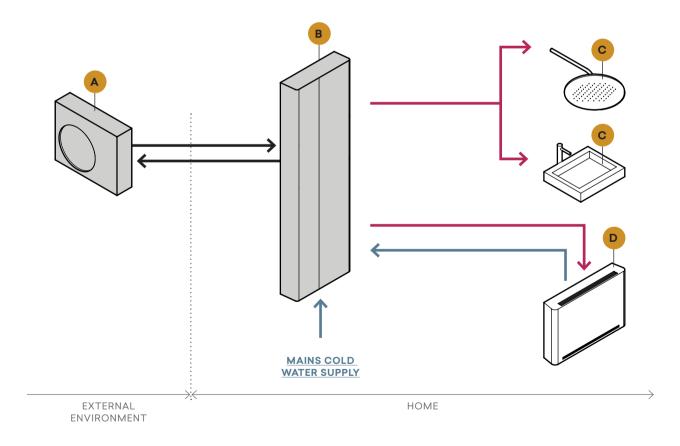
Installing the internal components and relevant connections.

## Example of system

- Heat pump (3in1 built-in)
- 2. Outdoor unit
- 3. Refrigerant
  - 4. Domestic hot water / heating



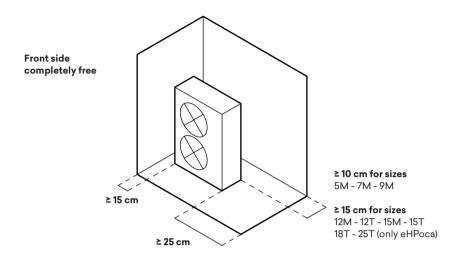
## System diagram of 3in1 built-in

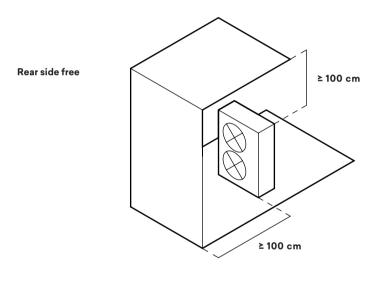


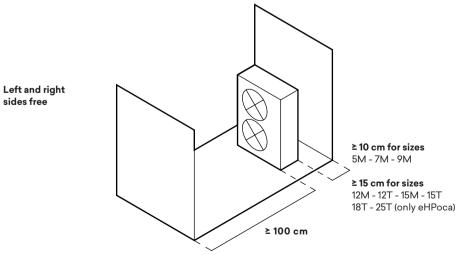
- Outdoor unit
- 3in1 built-in indoor unit
- Domestic hot water supply
  D. Heating system

Domestic hot water Cold water

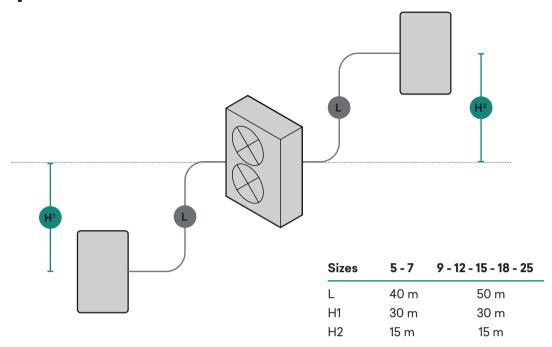
## **Installation distances**







# Distances between components



## **Outdoor units**



Single-fan unit

5M - 7M

MODEL		5M	7M
L	mm	69	95
Р	mm	32	20
Н	mm	87	75
Weight	kg	5	0



Single-fan unit

9M

MODEL		9M
L	mm	940
Р	mm	340
Н	mm	996
Weight	kg	65

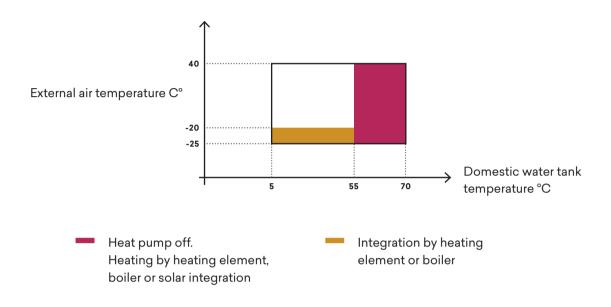


Twin-fan unit

12M-12T-15M-15T 18T-25T (only eHPoca)

MODEL		12M	12T	15M	15T	18T	25T	
L	mm			940			940	
Р	mm		340					
Н	mm		1526					
Weight	kg		98					

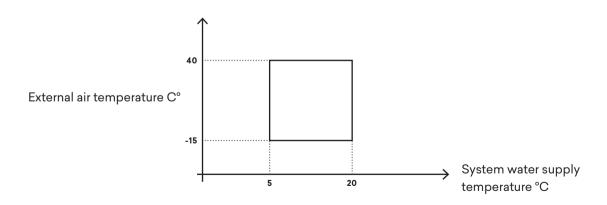
## **Domestic hot water**



Note: The areas represented by the diagram in the integration part are simplified. They may be more advantageous (greater contribution of the heat pump) in relation to operating conditions and internal operating parameters.

Note: For outdoor air temperatures below -15 °C, the unit may reduce the water temperature at the condenser output.

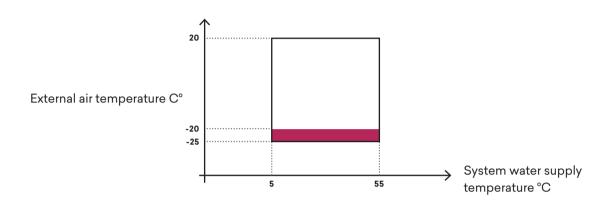
## Cooling



Note: The area shown in the diagram is simplified. It may be more advantageous in relation to outdoor operating conditions.



## Heating



Integration by heating element or boiler

Note: The areas represented by the diagram in the integration part are simplified. They may be more advantageous (greater contribution of the heat pump) in relation to operating conditions and internal operating parameters.

Note: For outdoor air temperatures below -15  $^{\circ}\mathrm{C}$  , the unit may reduce the water temperature at the condenser output.

## **Benefits**



DC Inverter compressor with wide modulation range.



Quiet unit due to continuous modulation of the fan with DC Inverter motor.



Advanced frost prevention algorithms for the finned coil.



Finned coil with hydrophilic treatment and sub-cooling circuit.

## **Technical data sheets**

	3in1	3in1 Mono	
u.m.	5M	7M	
kW	7,50	9,04	
kW	4,49	5,52	
kW	1,02	1,28	
	4,40	4,31	
	4,21	4,13	
	А	++	
kW	5,16	6,24	
kW	1,76	2,40	
	2,93	2,60	
kW	8.11	10,28	
		6,56	
kW		1,67	
	4,01	3,93	
kW	6,25	7,83	
kW	4,04	4,88	
kW	1,38	1,78	
	2,93	2,74	
L/min	15,0	21,0	
kPa	65,0	55,0	
"GAS	1	1	
L	4	4	
L	20	20	
L	200	200	
	Modu	ulating	
m³/h	1850	2200	
m³/h	750	900	
Pa	80	80	
Pa	200	200	
i u			
mm	200	200	
	kW k	L/min	



TECHNICAL SPECIFICATIONS		3in1	Mono
	u.m.	5M	7M
REFRIGERATOR CONNECTIONS			
Compressor		Twin Rotary	DC Inverter
Refrigerant		R	32
Refrigerant charge	kg	1,55	1,55
SOUND SPECIFICATIONS			
Sound pressure nominal (indoor)	dB(A)	42	44
Nominal sound power (indoor)	dB(A)	56,6	58,8
Sound pressure nominal (outdoor) without silencer	dB(A)	57,5	60
Nominal sound power (outdoor) without silencer	dB(A)	72,5	75,4
ELECTRICAL DATA			
Voltage	V/ph/Hz	230/1/50	230/1/50
Maximum power consumption	kW	3,80	4,10
Maximum current consumption	А	14,00	19,00
Maximum power consumption booster	kW	2,00	2,00
Maximum current consumption booster	А	8,60	8,60
Protection rating indoor unit		IP	X2
DIMENSIONS AND WEIGHTS SV UNIT - VERSION WITH HORIZ	ZONTAL COMBINATION	N	
Width	mm	604	604
Height	mm	2230	2230
Depth	mm	608	608
Net weight	kg	240,0	240,0
DIMENSIONS AND WEIGHTS SH UNIT - VERSION WITH VERTI	ICAL COMBINATION		
Width	mm	1208	1208
Height	mm	1228	1228
Depth	mm	608	608
Net weight (7)	kg	125,0 / 115,0	125,0 / 115,0
DIMENSIONS AND WEIGHTS UNIT S - SINGLE VERSION			
Width	mm	604	604
Height	mm	1145	1145
Depth	mm	608	608
Net weight	kg	125,0	125,0

- (1) Water temperature in/out 30/35  $^{\circ}\text{C}$  ; Outside air temperature 7  $^{\circ}\text{C}$  ; R.H. 85%
- (2) Water temperature in/out 30/35 °C; Outside air temperature -7 °C
- (3) Water temperature in/out 23/18 °C; Outside air temperature 35 °C
- (4) Water temperature in/out 12/7  $^{\circ}\text{C}$ ; Outside air temperature 35  $^{\circ}\text{C}$
- (5) To be set during start-up
- (6) Indoor sound pressure measured at a distance of 1 m according to ISO 7779
- (7) Weights refer to separate heat pump/DHW module

## **Technical data sheets**

TECHNICAL SPECIFICATIONS		eHPoca - 3in1 3in1 built-in				еНРоса		
	u.m.	5	7	9	12	15	18	25
HEATING PERFORMANCE (A7°C BS; W35°C)								
Maximum heating capacity (1)	kW	6,80	8,50	13,07	18,32	22,80	26,90	31,07
Nominal heating capacity(1)	kW	5,58	7,10	8,10	11,59	14,61	15,95	24,78
Total absorbed power (1)	kW	1,31	1,64	1,79	2,35	2,95	3,69	5,87
COP (1)		4,26	4,33	4,53	4,93	4,95	4,32	4,22
SCOP (1)(2)		4,90	4,80	4,82	4,89	4,92	4,45	4,11
Energy efficiency class (3)					A+++			
HEATING PERFORMANCE (A-7°C BS; W35°C)	<u> </u>							
Maximum heating capacity (4)	kW	4,59	7,72	8,73	11,70	14,74	17,36	18,37
Total absorbed power (4)	kW	1,25	1,52	1,67	2,11	2,87	3,54	5,12
COP (4)		3,01	2,84	2,91	3,28	3,15	2,83	2,86
COOLING PERFORMANCE (A35°C; W18°C)								
Maximum cooling capacity (5)	kW	6,00	11,01	11,27	16,74	18,56	23,15	32,64
Nominal cooling capacity (5)	kW	4,70	7,40	8,70	12,30	15,60	19,40	27,94
Total absorbed power (5)	kW	1,30	1,80	2,10	3,00	3,90	4,70	6,65
EER (5)		3,66	4,02	4,21	4,09	4,00	4,13	4,20
SEER (5)		6,80	7,30	6,90	7,05	6,62	7,23	7,10
COOLING PERFORMANCE (A35°C; W7°C)								
Maximum cooling capacity (6)	kW	4,11	7,56	8,11	11,79	13,34	16,45	23,24
Nominal cooling capacity (6)	kW	3,50	5,30	6,30	8,90	11,20	13,90	19,90
Total absorbed power (6)	kW	1,40	1,80	1,80	2,80	3,50	4,40	6,31
EER (6)		2,48	3,03	3,18	3,22	3,20	3,19	3,15
SEER (6)		5,78	5,80	5,45	5,50	5,12	5,95	5,81
HYDRAULIC SPECIFICATIONS								
Nominal flow rate in heating	L/min	16,0	20,4	23,2	33,2	41,9	45,7	71,0
Nominal flow rate in cooling	L/min	13,5	21,2	25,0	35,3	44,7	55,5	80,1
Available pressure primary circuit	kPa	65,0	64,0	58,0	31,0	31,0	51,0	40,0
Expansion tank capacity eHPoca	L	8	8	8	8	8	8	8
Expansion tank capacity 3in1 e 3in1 built-in	L	24	24	24	24	24	-	-
Minimum system water content	L	20	30	40	50	65	75	110
Sanitary tank capacity 3in1	L	200	200	200	200	200	-	-
Sanitary tank capacity 3in1 built-in	L	170	170	170	170	170	_	



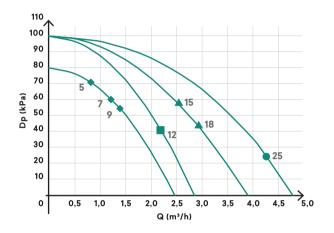
TECHNICAL SPECIFICATIONS			eHPoca - 3in1 3in1 built-in				еНРоса	
	u.m.	5	7	9	12	15	18	25
REFRIGERATOR CONNECTIONS								
Refrigerant				R32			R	32
Refrigerant charge	kg	1,32	1,32	1,80	3,05	3,05	3,05	3,50
Extraction	"SAE	5/8	5/8	5/8	5/8	5/8	5/8	1/2
Liquid	"SAE	1/4	1/4	3/8	3/8	3/8	3/8	3/4
SOUND SPECIFICATIONS								
Sound pressure indoor unit (7)	dB(A)	30	30	30	31	31	32	32
Sound pressure of outdoor unit Heating (8)	dB(A)	50	50	50	52	53	55	58
Sound pressure of outdoor unit Cooling (8)	dB(A)	48	48	48	52	53	54	57
ELECTRICAL DATA								
Voltage	V/ph/Hz	230-1-50	230-1-50	230-1-50	230/1/50	- 400/3/50	400-3-50	400-3-50
Protection rating indoor unit		IPX2	IPX2	IPX2	IPX2	IPX2	IPX2	IPX2
Protection rating outdoor unit		IPX4	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
DIMENSIONS AND WEIGHT (EXTERNAL UNIT	·)							
Width-height-depth (lxhxp)	mm	695 x 875 x 320	695 x 875 x 320	940 x 996 x 340	940 x 1416 x 340	940 x 1416 x 340	940 x 1416 x 340	940 x 1526 x 340
Net weight	kg	50	50	65	98	98	98	128
DIMENSIONI E PESI (UNITÀ INTERNA)								
eHPoca Width-height-depth	mm	501 x 826 x 321	501 x 826 x 321	501 x 826 x 321	501 x 826 x 321	501 x 826 x 321	501 x 826 x 321	501 x 826 x 321
Empty weight	kg	41	41	41	41	43	43	46
3in1 Width-height-depth	mm	600 x 2000 x 600	600 x 2000 x 600	600 x 2000 x 600	600 x 2000 x 600	600 x 2000 x 600	-	-
Empty weight	kg	179	179	179	179	179	-	-
3in1 ad built-in Width-height-depth	mm	950 x 2001 x 358	950 x 2001 x 358	950 x 2001 x 358	950 x 2001 x 358	950 x 2001 x 358	-	-
Empty weight	kg	172	172	172	172	172	-	-

- (1) Water temperature in/out 30/35  $^{\circ}\text{C}$  ; Outside air temperature 7  $^{\circ}\text{C}$  ; R.H. 85%
- (2) Value referred to climate profile Avarage for flow temperature of 35 °C. Values in accordance with Regulation 811/2013
- (3) Seasonal efficiency according to UNI EN 14825. Energy Efficiency Class referred to climate profile Average for flow temperature of 35 °C in compliance with Regulation 811/2013
- (4) Water temperature in/out 30/35 °C; Outside air temperature -7 °C (radiant application)
- (5) Water temperature in/out 23/18 °C; Outside air temperature 35 °C (radiant application)
- (6) Water temperature in/out 12/7 °C; Outside air temperature 35 °C (fancoil application)
- (7) Sound pressure measured at a distance of 1 m according to ISO7779
- (8) Sound pressure measured at a distance of 1 m from the outdoor unit according to ISO7779

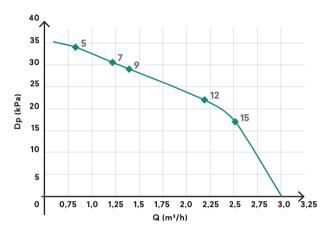
Performance data shown may be subject to change

## Available pressure curves

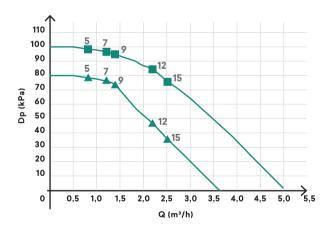
PRIMARY CIRCUIT PUMP eHPoca



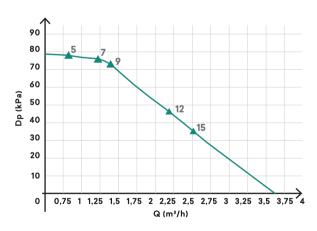
PRIMARY CIRCUIT PUMP 3in1, 3in1 Incasso e 3in1 Mono



SEPARATOR KIT with 3in1 secondary circuit pump (optional)



KIT SEPARATORE con pompa circuito secondario 3in1 built-in (optional)



- Separator kit with secondary circuit pump for 5-7 kW units
- Increased separator kit with secondary circuit pump for 5-15 kW units

**Dp (kPa)**: residual available pressure to unit fittings

Q (m³/h): water flow rate



3in1 built-in

# BUTLER PRO, smart system control

BUTLER PRO web server is the system developed by INNOVA to manage an entire heating and cooling system directly in your home or remotely. BUTLER PRO allows you to connect the heat pump, controlled mechanical ventilation system, fan coils and all the other system elements via a serial connection.

BUTLER PRO is complete, simple and intuitive at the same time. You can configure a weekly calendar with time zones, create specific zones and change the settings so your home is at the right comfort level for your needs.

#### TWO VERSIONS

#### **BUTLER** PRO

settings and visualisation via smartphone / tablet / computer only with internet connection.
Installation on 35 mm DIN rail in the heat pump's electrical box or in the house electrical

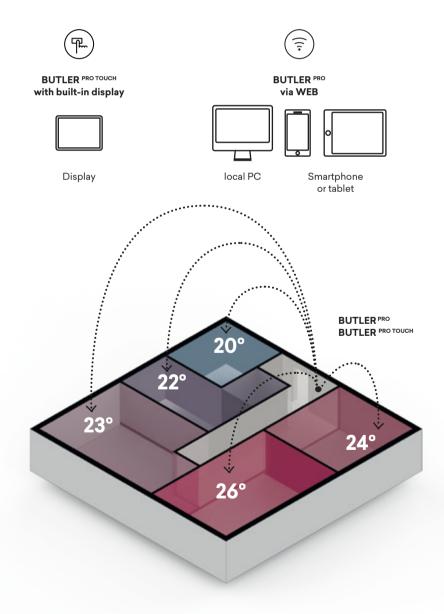
#### BUTLER PRO TOUCH

box.

settings and visualisation via the built-in 10" touch screen display. Remotely connectable to the internet via smartphone/tablet/ computer. Built-in wall installation. Pre-installation box is supplied separately.

#### **ROOM BY ROOM CONTROL**

You can control each room with BUTLER PRO by configuring a weekly calendar with time zones, creating settings for each room or area, modifying the settings so your home is at just the right comfort level for your needs.





#### **MAIN FUNCTIONS**

## Monitoring and control in local network or remotely

The system can be managed by any smartphone, tablet or computer

- Personalised winter and summer programming You can have different programmes for every season
- Three temperature level setting on INNOVA fan coil network

For each room or area, you can select 3 different operating temperatures, which can be modified at any time

#### · Weekly programming schedule

You can set the schedule for the different functions for each room; the same can be done for HRV and fan coils

#### · PC-type network interface

Once the bus network has been set up between the heat pump and the fan coils, the connection to the web server is the same as a standard computer

#### · Remote assistance

With the consent of the user, BUTLER can automatically enter the INNOVA cloud for diagnostics and assistance if it is needed

- A WEEKLY SCHEDULING
- B DOMESTIC HOT WATER SETTINGS

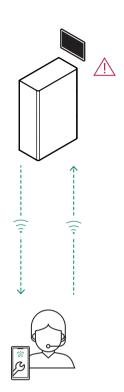






#### Remote assistance

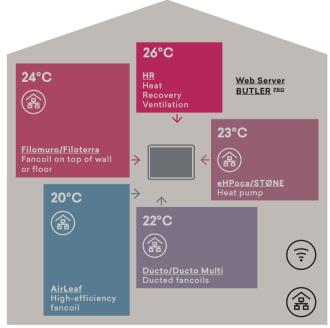
With the consent of the user, BUTLER PRO can automatically enter the INNOVA cloud for diagnostics and assistance, if needed.
Thanks to the internet connection, it is possible to check if the INNOVA products connected to the BUTLER PRO are working correctly. Any malfunctions can be automatically sent to the BUTLER PRO at the support centre which can intervene by modifying the operating parameters or deciding to intervene directly, thus providing a fast and prompt service.



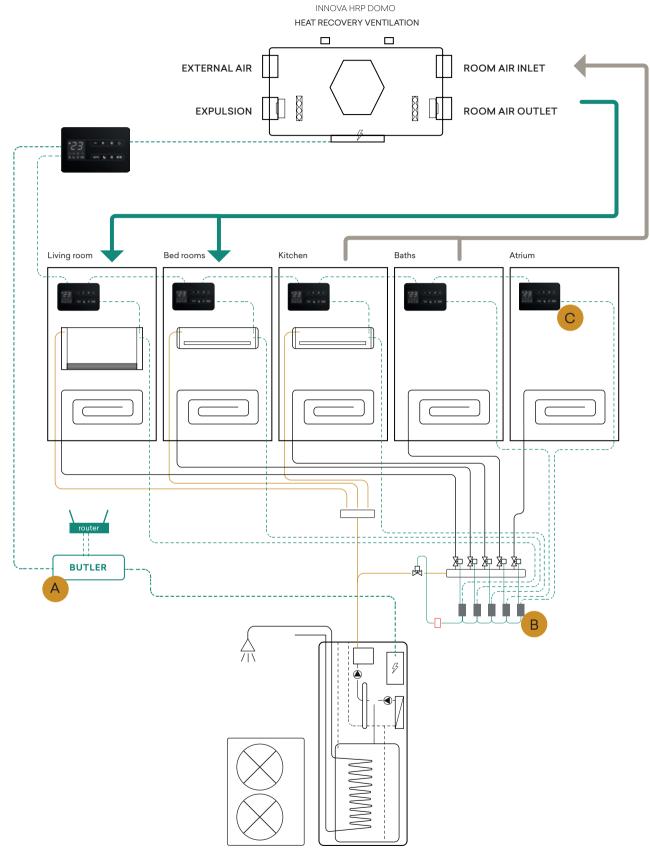


### Total control

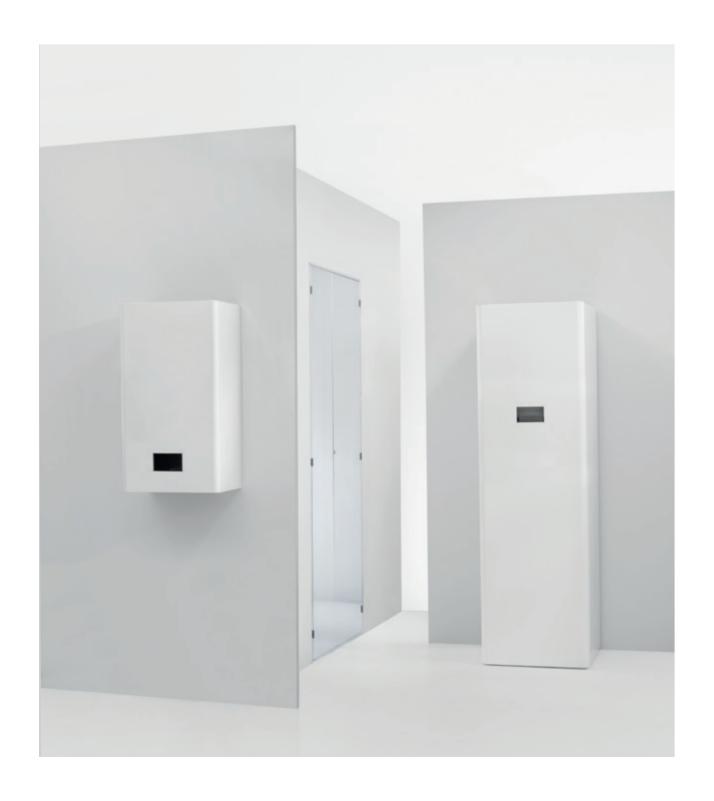
The advantage of choosing a complete INNOVA system is that we are your sole contact point for any requirement, both for programmed maintenance and support. A complete, quality service.







- BUTLER PRO TOUCH
- MZS Single zone module SMART TOUCH Thermostat / M7 Series

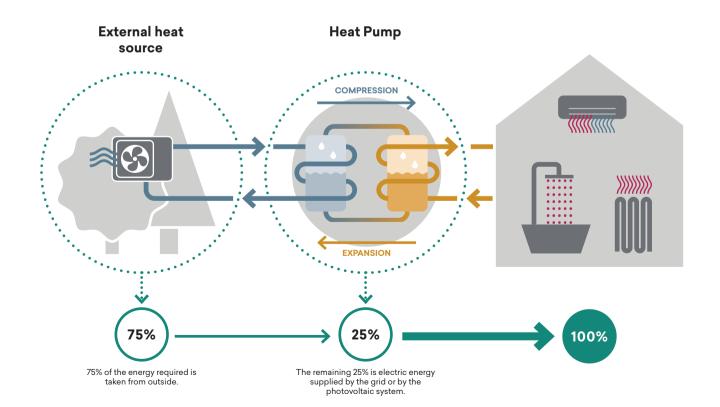


# What is a Heat Pump?

A heat pump is a unit used to heat, cool and produce domestic hot water. The way it works is similar to a fridge: the heat taken from a low-temperature environment is transferred to a higher-temperature one.

So, the heat pump takes heat from a cold outside area and transfers it to another, warmer, indoor area. By inverting the operating cycle, it is possible to cool rooms in summer: with the same principle: the heat extracted from the indoor space is taken outside.

This process uses thermal energy already present in nature (air, water or, in the case of geothermal, the ground). Heat pumps are extremely efficient heat generators that use renewable and free energy.



## Comparison between a gas boiler and a Heat Pump\*

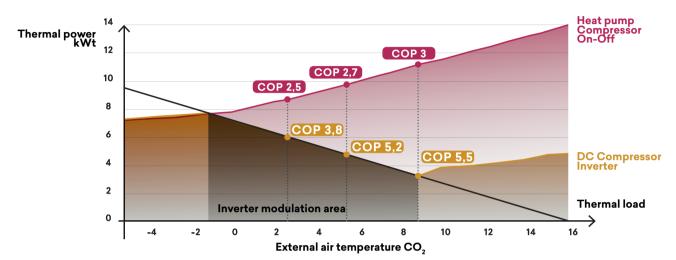
	ENERGY REQUIRED	ENERGY PRODUCED BY A GAS BOILER	ENERGY PRODUCED BY A HEAT PUMP	
HEATING	10 kWh	1,75 €	1,00€	-43 %
DOMESTIC HOT WATER (DHW)	1,3** kWh	0,22 €	0,13 €	-40 %
RENEWABLE ENERGY		0	5,5 kWh	100 %
EMISSIONS		2,68 kg	1,25 kg*** co <sub>2</sub>	-50 %

<sup>\*</sup> Considerations with high-efficiency boiler and natural gas cost 1.2  $\in$ /m³ - electricity 0.4  $\in$ /

<sup>\*\*</sup> Daily energy requirement of one individual = 50 litres of hot water at 40° C
\*\*\* CO2 emissions indirectly produced by national power grid 1kWhe = 0.4332 Kg CO2



## Efficiency of a Heat pump Inverter <u>vs</u> on/off



COP: Represents the power produced and the power absorbed

The requirement of a building is maximum at the design temperature and decreases linearly as the outside temperature increases. The heat pump with inverter compressor modulates the power supplied based on the building requirement. As the external temperature increases, the power supplied decreases and so, increases efficiency.

The heat pump with on/off compressor always works at 100% and, as the external temperature increases, the power generated increases, in contrast to the building requirement. In these conditions, in order to meet the requested load, the compressor works by repeatedly turning off and on which significantly reduces efficiency.



## **Energy savings**

INNOVA DC Inverter heat pumps guarantee significant energy savings both in heating and in the production of domestic hot water thanks to the high levels of SCOP (seasonal coefficient of performance). Compared to a conventional heating system (e.g. boiler), the cost of energy, used for an entire winter, can be between 30% and 50% less.





Next Village, 50 apartments Independent systems with 3in1 heat pumps Viterbo, Italy

Integrated design for a detached house eHPoca + AirLeaf + HRP DOMO 30 H Remote control via BUTLER PRO Madruzzo (TN), Italy

#### CREDITS

Product Designer Luca Papini Art Direction & Graphic Osmo design Photography Ottavio Tomasini Special thanks to: Akira Nishikawa

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We turn ideas into reality.





