HYDRABLOCK COMPACT HEAT PUMPS & HYBRID SYSTEMS

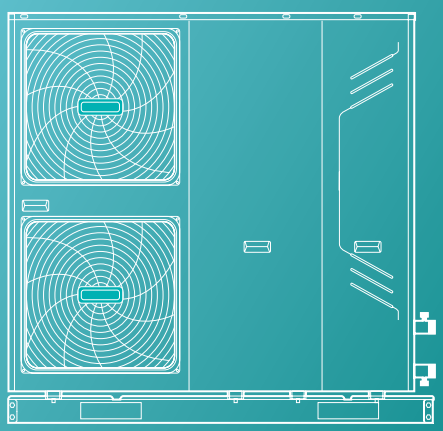
ITALTHERM
HEAT PUMP SOLUTIONS

INNOVATION FOR THE INSTALLER

HYDRABLOCK COMPACT,
the new heat pump by Italtherm

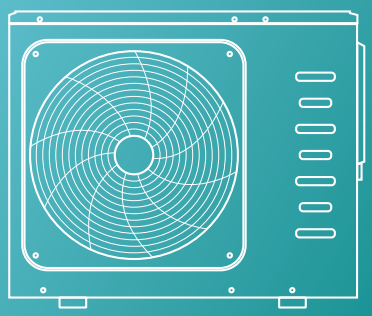
- ***More compact***
- ***Lighter***
- ***More efficient***

HYDRABLOCK 16 M/T



Dimensions: 1414x1404x405 mm
Weight: 172 Kg

NUOVA HYDRABLOCK COMPACT 16 M/T



Dimensions: 1040x865x410 mm
Weight: 120 Kg

HYDRABLOCK COMPACT available in 8 models from 5kW to 16kW singlephase and threephase

EN.**ITALTHERM.IT/HPS**

HYDRABLOCK COMPACT

Suitable for new buildings

The new range of Hydrablock COMPACT air to water (ATW) heat pumps are specifically designed for domestic application and, with just one outdoor unit, Hydrablock covers heating, cooling and the domestic hot water needs.

A+++ efficiency

-25°C antifreeze

5.3 COP

65°C DHW

HYDRABLOCK COMPACT HYBRID

Suitable for retrofit

Italtherm factory made hybrid products are designed to fit any existing heating systems (low and high temperature) and perform their best thanks to the integration between heat pump technology (optimal in temperate climates) and condensing boiler technology (optimal in cold and humid climates).

A+++ efficiency

1:20 modulation

5.3 COP

20°-80°C heating

HYDRABLOCK COMPACT RANGE

Suitable for new buildings

MODEL	POWER		DHW	PHOTOVOLTAIC	SOLAR THERMAL
	Heating[1]	Cooling[2]	Remote tank		
SINGLE PHASE					
HYDRABLOCK C 5M	6,5 kW	5,5 kW	✓	✓	✓
HYDRABLOCK C 7M	8,4 kW	7,4 kW	✓	✓	✓
HYDRABLOCK C 9M	10,0 kW	9,0 kW	✓	✓	✓
HYDRABLOCK C 12M	12,2 kW	11,6 kW	✓	✓	✓
HYDRABLOCK C 14M	14,1 kW	13,4 kW	✓	✓	✓
HYDRABLOCK C 16M	16,0 kW	14,0 kW	✓	✓	✓
THREE PHASE					
HYDRABLOCK C 12T	12,2 kW	11,6 kW	✓	✓	✓
HYDRABLOCK C 14T	14,1 kW	13,4 kW	✓	✓	✓
HYDRABLOCK C 16T	16,0 kW	14,0 kW	✓	✓	✓

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)

HYDRABLOCK COMPACT HYBRID RANGE

Suitable for retrofit

FOR INDOOR INSTALLATION

MODEL	MODULAT.	POWER			DHW	PHOTOVOLTAIC
	(Boiler)	Heating (kW) (Boiler)	Heating Hp (kW) (55°)	Cooling (kW)	Instantaneous	
HYDRABLOCK C HYBRID TOP 25K/5M	192.5	25	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID TOP 25K/7M	01:16	25	7,45	7,4	✓	✓
HYDRABLOCK C HYBRID TOP 25K/9M	01:16	25	8,25	9,0	✓	✓
HYDRABLOCK C HYBRID TOP 35K/5M	01:10	33	7,98	5,5	✓	✓
HYDRABLOCK C HYBRID TOP 35K/7M	01:20	33	6,55	7,4	✓	✓
HYDRABLOCK C HYBRID TOP 35K/9M	01:20	33	7,45	9,0	✓	✓
HYDRABLOCK C HYBRID TOP 35K/12M	01:20	33	8,25	11,6	✓	✓
HYDRABLOCK C HYBRID TOP 35K/14M	01:20	33	12,85	13,4	✓	✓

HYDRABLOCK C HYBRID CLASS 25K/5M	01:10	20	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID CLASS 25K/7M	01:10	20	7,45	7,4	✓	✓
HYDRABLOCK C HYBRID CLASS 25K/9M	01:10	20	8,25	9,0	✓	✓
HYDRABLOCK C HYBRID CLASS 30K/5M	01:10	24	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID CLASS 30K/7M	01:10	24	7,45	7,4	✓	✓
HYDRABLOCK C HYBRID CLASS 30K/9M	01:10	24	8,25	9,0	✓	✓

					Remote tank	PHOTOVOLTAIC
HYDRABLOCK C HYBRID CLASS 25KR/5M	1:10	21	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID CLASS 25KR/7M	1:10	21	7,45	7,4	✓	✓
HYDRABLOCK C HYBRID CLASS 25KR/9M	1:10	21	8,25	9,0	✓	✓
HYDRABLOCK C HYBRID CLASS 35KR/9M	1:10	28	8,25	9,0	✓	✓
HYDRABLOCK C HYBRID CLASS 35KR/12M	1:10	28	12,85	11,6	✓	✓

					Built in tank (L)	PHOTOVOLTAIC
HYDRABLOCK C HYBRID MAX 35K/12M	1:10	33	12,85	11,6	60	✓

					Built in tank (L)	PHOTOVOLTAIC
HYDRABLOCK C HYBRID COMPACT 27K/7M	1:10	33	7,45	7,4	120	✓

					Built in tank (L)	SOLAR THERMAL AND PHOTOVOLTAIC
HYDRABLOCK C HYBRID SOLAR 18K/7M	1:10	17,8	7,45	7,4	200	✓
HYDRABLOCK C HYBRID SOLAR 35K/7M	1:10	33	7,45	7,4	200	✓
HYDRABLOCK C HYBRID SOLAR 35K/9M	1:10	33	8,25	9,0	200	✓
HYDRABLOCK C HYBRID SOLAR 35K/12M	1:10	33	12,85	11,6	200	✓

FOR OUTDOOR INSTALLATION

					Instantaneous	PHOTOVOLTAIC
HYDRABLOCK C HYBRID OPEN 25K/5M	1:10	21	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID OPEN 25K/7M	1:10	21	7,45	7,4	✓	✓
HYDRABLOCK C HYBRID OPEN 25K/9M	1:10	21	8,25	9,0	✓	✓

HYDRABLOCK C HYBRID BOX 25K/5M	1:10	21	6,55	5,5	✓	✓
HYDRABLOCK C HYBRID BOX 25K/7M	1:10	21	7,45	7,4	✓	✓
HYDRABLOC C HYBRID BOX 25K/9M	1:10	21	8,25	9,0	✓	✓

INTELLIGENT HEAT PUMP AND HYBRID PUMPS

The whole Italtherm Heat Pump Solution range is equipped with advanced electronics able to manage and control each heating system components, thus allowing a customized configuration based on your needs. Thanks to the outdoor air termperature sensor, the heating outlet probe and the DHW probe (if the tank is present), the Italtherm Hybrid System decides which energy source is the most efficient: heat pump - condensing gas boiler boiler - heat pump + condensing gas boiler, boiler.

MULTIFUNCTION REMOTE CONTROL

WHAT IT MANAGES:

- Heat pump
- Gas boiler
- Possible auxiliary generator
- Circulators pumps (up to 2 central heating side + 1 for DHW recirculation)
- 2-way valves (heating and cooling)
- 3-way valves (diverter for DHW, mix for the heating and cooling plant)
- DHW tank
- Photovoltaic

FUNCTIONS:

The Multifunction Remote Control has 2 user profiles with different menus: one for the end user and one for the technician/installer. The technician/installer menu access to all parameters allowing the customized set for each plant appliances.

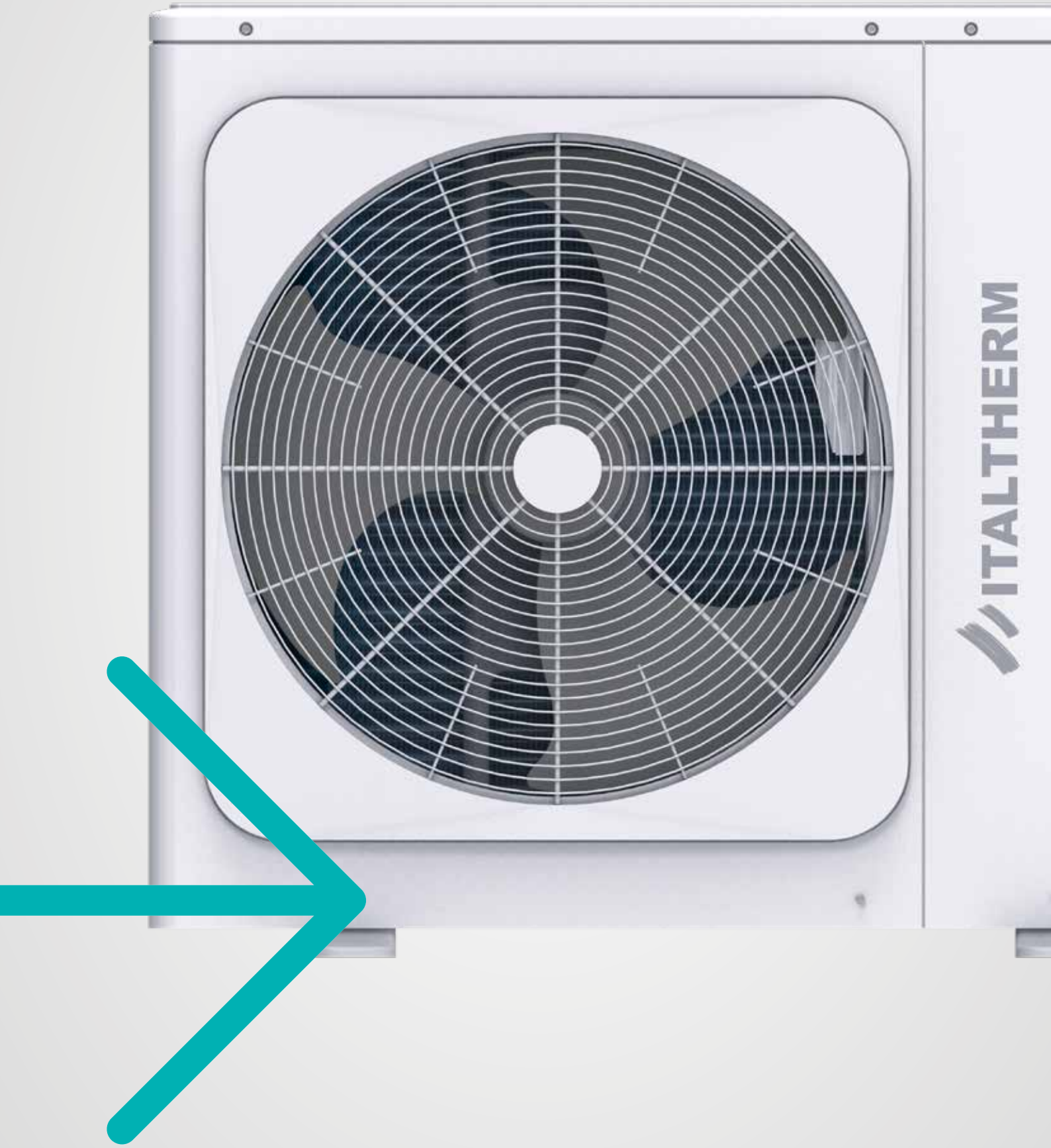
The multifunction remote control is by default in "Comfort" mode where the algorithm favors comfort over efficiency. By intervening on the menu, different operating modes are possible:

- Auto - the algorithm independently manages heating and cooling
- Eco - the algorithm favors efficiency over comfort
- Silent - the algorithm maximizes the silence of the outdoor unit (2 levels)
- Anti-legionella - the electronics intervene on the DHW temperature
- Smart grid / photovoltaic - based on the 3 operating modes, the system stores heat using photovoltaics or electricity
- Climatic curves - based on the 32 available climatic curves, the algorithm independently regulates the entire system
- Heating and cooling management with 16 different climatic curves for each mode
- DHW tank management, solar integration, boiler and DHW recirculation pump management
- Management of boiler integration or backup electric resistance
- Eco mode with settable double setpoint
- Holiday mode: antifreeze and DHW management with dedicated set points and anti-legionella treatment on DHW at the end of the set mode

01-01-2018
23:59
13°
08:00
ON
23 °C
38 °C
E01
COMFORT CONTROLS
MENU
ON/OFF
BACK
UNLOCK
(LONG PRESS)

HYDRABLOCK COMPACT

MONOBLOCK AIR TO WATER HEAT PUMP FOR HEATING, COOLING AND DHW


ITALTHERM

HYDRABLOCK COMPACT

Suitable for new buildings

A+++ efficiency | -25°C antifreeze | 5.3 COP | 65°C DHW

Specifically designed for domestic applications, with just one outdoor unit outside the building with a compact design and easy handling, Hydrablock covers heating, cooling and the domestic hot water needs.

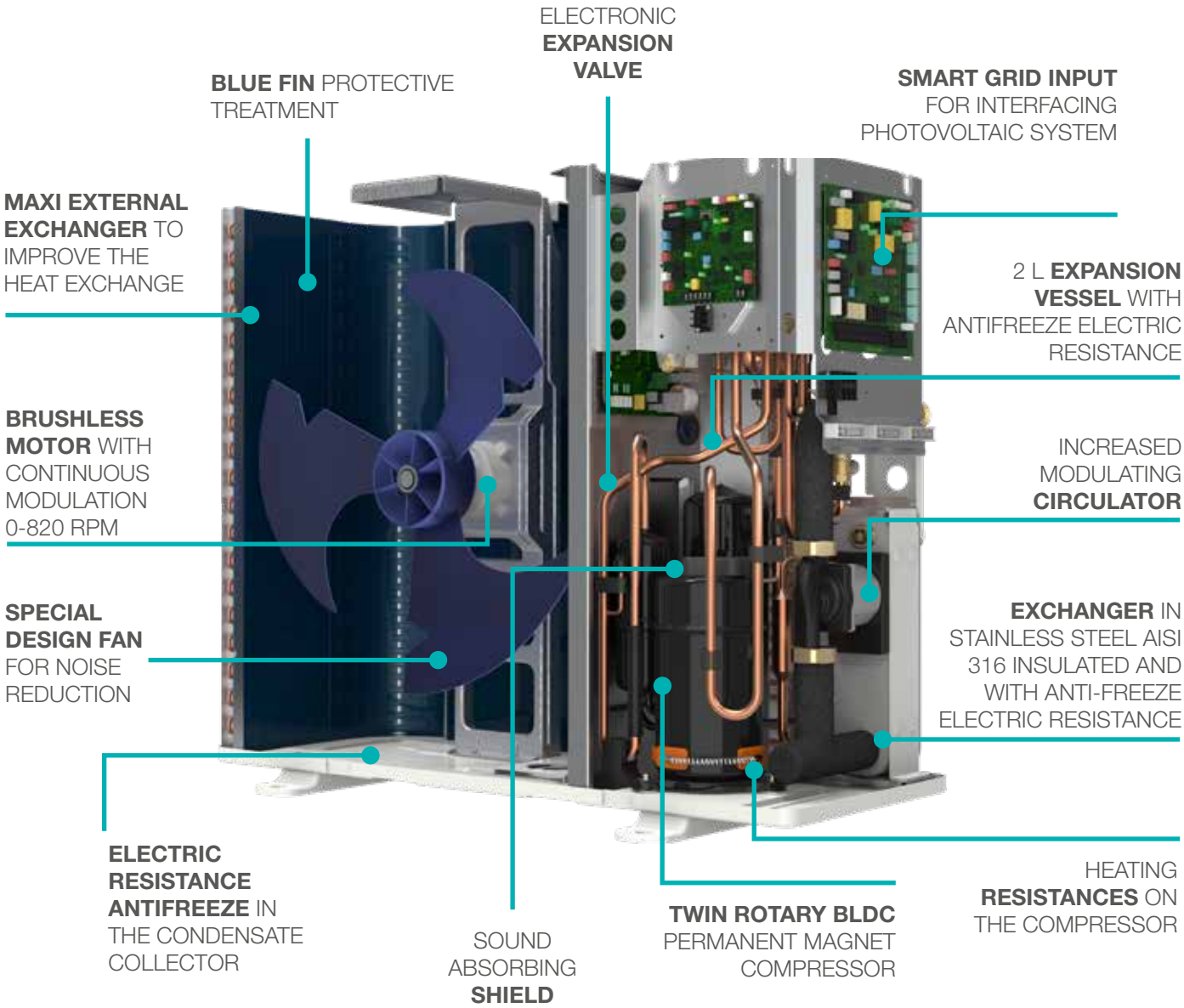
- **Suitable for new buildings**
  All in one: heating, cooling and DHW
- **Easy handling**
  Thanks to compact design
- **High efficiency**
  A+++ e COP 5.3
- **Antifreeze**
  Works down to -25°C
- **Maximum silence**
  Only 60 dB (mod. Hydrablock 5 M)
- **Eco-friendly**
  R32 gas + electricity + integration with photovoltaic system

HYDRABLOCK COMPACT 5M/7M/9M/12M/14M/16M/12T/14T/16T

The all-in one solution for new houses, thanks to the full electric (no gas) heat pump heating system. The monobloc air to water heat pump is able to cool, heat and produce DHW up to 65°, respecting the environment thanks to the R-32 gas, an ecological refrigerant with low environmental impact, ensuring maximum energy efficiency (class A +++) and guaranteeing a wide operating range down to -25°C.
Available in 6 single-phase models e 3 three-phase models up to 16 kW

Model		Heating Power [1] (kW)	Cooling Power[2] (kW)	EER/COP (2) (1)	Energy efficiency class (ERP - EN14825) 35° C	55° C	
HYDRABLOCK COMPACT 5M	SINGLE PHASE	6,5	5,5	5,10/5,30	A+++	A++	XL-A
HYDRABLOCK COMPACT 7M	SINGLE PHASE	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK COMPACT 9M	SINGLE PHASE	10,0	9,0	4,30/4,70	A+++	A++	XL-A
HYDRABLOCK COMPACT 12M	SINGLE PHASE	12,2	11,6	4,60/4,90	A+++	A++	XL-A
HYDRABLOCK COMPACT 14M	SINGLE PHASE	14,1	13,4	4,40/4,70	A+++	A++	XL-A
HYDRABLOCK COMPACT 16M	SINGLE PHASE	16,0	14,0	4,20/4,50	A+++	A++	XL-A
HYDRABLOCK COMPACT 12T	THREE PHASE	12,2	11,6	4,60/4,90	A+++	A++	XL-A
HYDRABLOCK COMPACT 14T	THREE PHASE	14,1	13,4	4,40/4,70	A++	A++	XL-A
HYDRABLOCK COMPACT 16T	THREE PHASE	16,0	14,0	4,20/4,50	A++	A++	XL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)

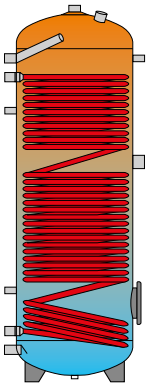

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

Tanks for DHW production

High energy efficiency tanks (70mm of insulation), essential for domestic hot water production. The coils have been Declared load profiled according to the type of generator used.

SINGLE COIL (HEAT PUMP)

COIL FOR HEAT PUMP

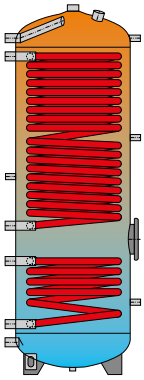


Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
MONO HP tank 200 for Heat Pump 5/7/9	B	190	3 (HP)	1215 x 640
MONO HP tank 300	B	263	4 (HP)	1615 x 640

DOUBLE COIL (HEAT PUMP AND SOLAR)

COIL FOR HEAT PUMP

COIL FOR SOLAR



Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
HP SOLAR DUAL tank 300	B	260	3,7 sup. (HP) 1,2 inf.(SOLAR)	1615 x 640
HP SOLAR DUAL tank 500	B	455	5,2 sup. (HP) 1,8 inf.(SOLAR)	1705 x 790

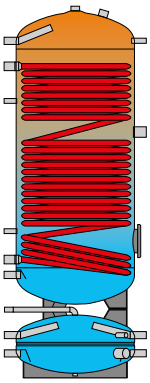
DHW production boilers with integrated inertial storage for central heating

Thanks to the built-in inertial storage tank, these boilers for domestic hot water ensure the correct operation of the heat pump in heating mode, avoiding the addition of further storage tanks and thus reducing the overall dimensions.

SINGLE COIL

COIL FOR HEAT PUMP

80 L
BUILT-IN INERTIAL STORAGE



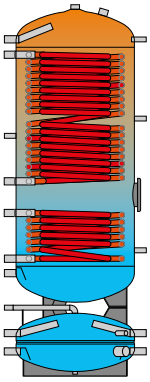
Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
MONO HP tank 300-80	B	270	3,3	1925 x 690

DOUBLE COIL

COIL FOR HEAT PUMP

COIL FOR SOLAR

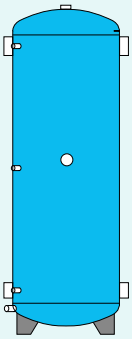
80 L
BUILT-IN INERTIAL STORAGE



Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
HP SOLAR DUPLEX tank 300-80	B	270	2,8 sup. (HP) 0,9 inf.(SOLAR	1925 x 690

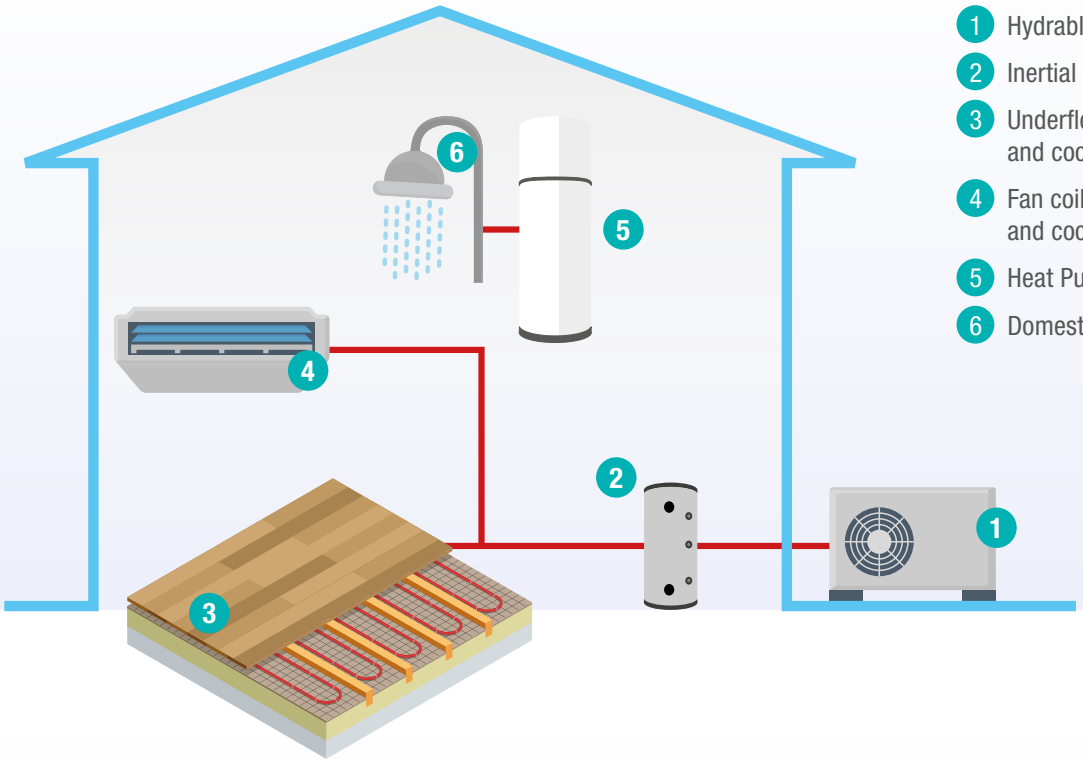
Inertial storage tanks for technical water

These tanks ensure the correct operation during heating and cooling mode, guaranteeing the right water quantity always available thus reducing the on-off heat pump cycles. The amount of water required depends on the power of the HP (about 5-10 l x kW depending on the system).



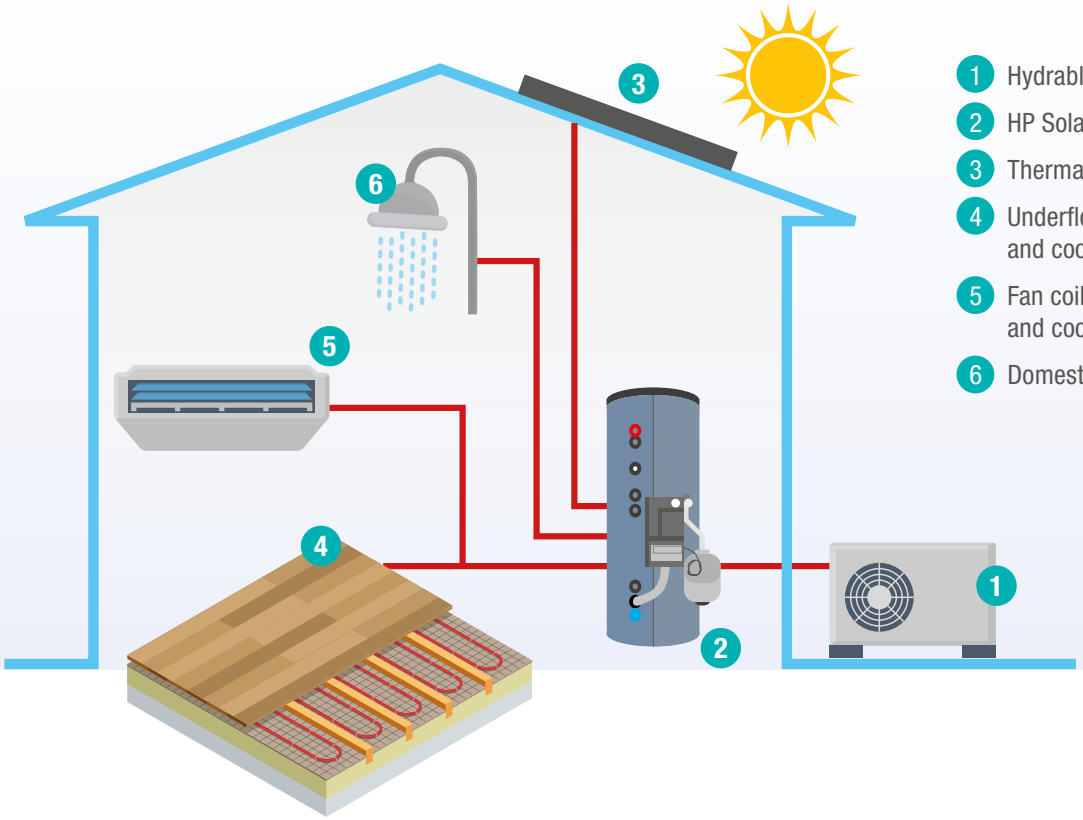
Model	Energy efficiency class	Dimensions h x Ø (mm)
25 L Inertial storage	A	451x 380
50 L Inertial storage	B	935 x400
100 L Inertial storage	B	1095 x 500

Heat pump with water heater



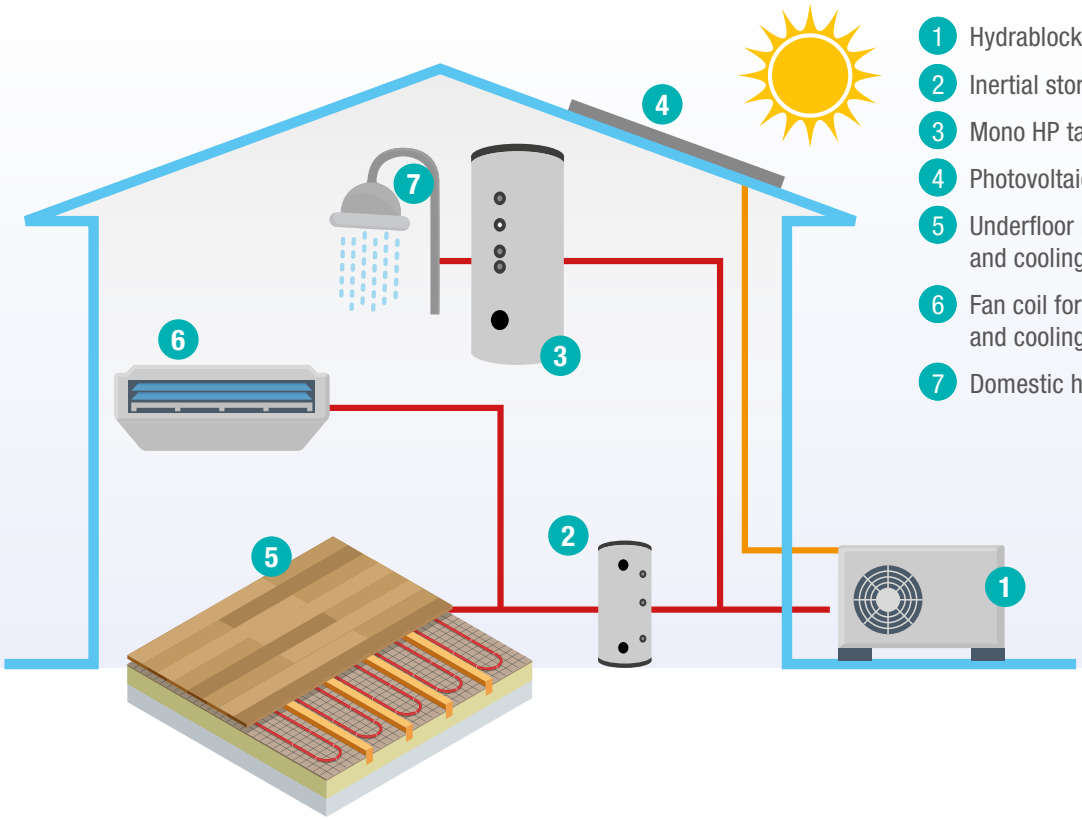
1. Hydrablock C Heat Pump
2. Inertial storage
3. Underfloor heating and cooling
4. Fan coil for heating and cooling
5. Heat Pump water heater
6. Domestic hot water

Heat pump with solar thermal



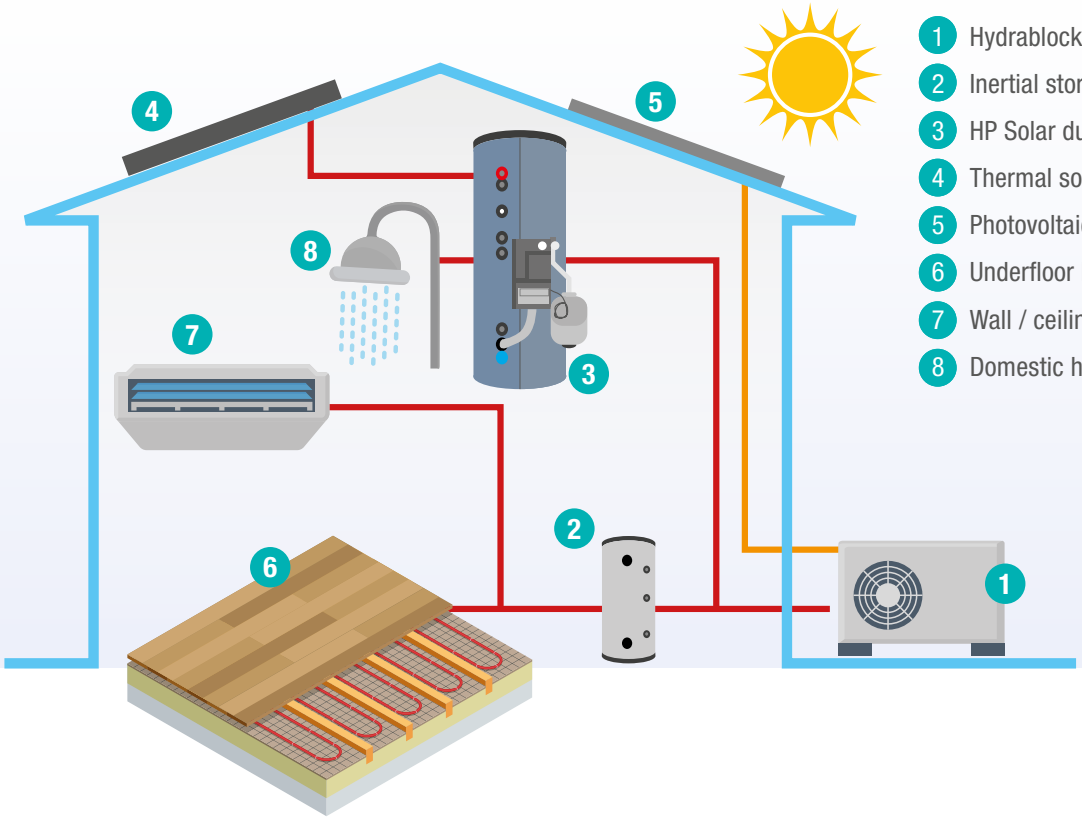
1. Hydrablock C Heat Pump
2. HP Solar Duplex Tank
3. Thermal solar panels
4. Underfloor heating and cooling
5. Fan coil for heating and cooling
6. Domestic hot water

Heat pump with photovoltaic



1. Hydrablock C Heat Pump
2. Inertial storage
3. Mono HP tank
4. Photovoltaic panels
5. Underfloor heating and cooling
6. Fan coil for heating and cooling
7. Domestic hot water

Heat pump with photovoltaic and solar thermal



1. Hydrablock C Heat Pump
2. Inertial storage
3. HP Solar dual tank
4. Thermal solar panels
5. Photovoltaic panels
6. Underfloor heating
7. Wall / ceiling fan coil
8. Domestic hot water

HYDRABLOCK COMPACT HYBRID

FACTORY MADE HYBRID WITH AIR TO WATER MONOBLOCK HEAT PUMP AND CONDENSING BOILER FOR HEATING, COOLING AND DHW

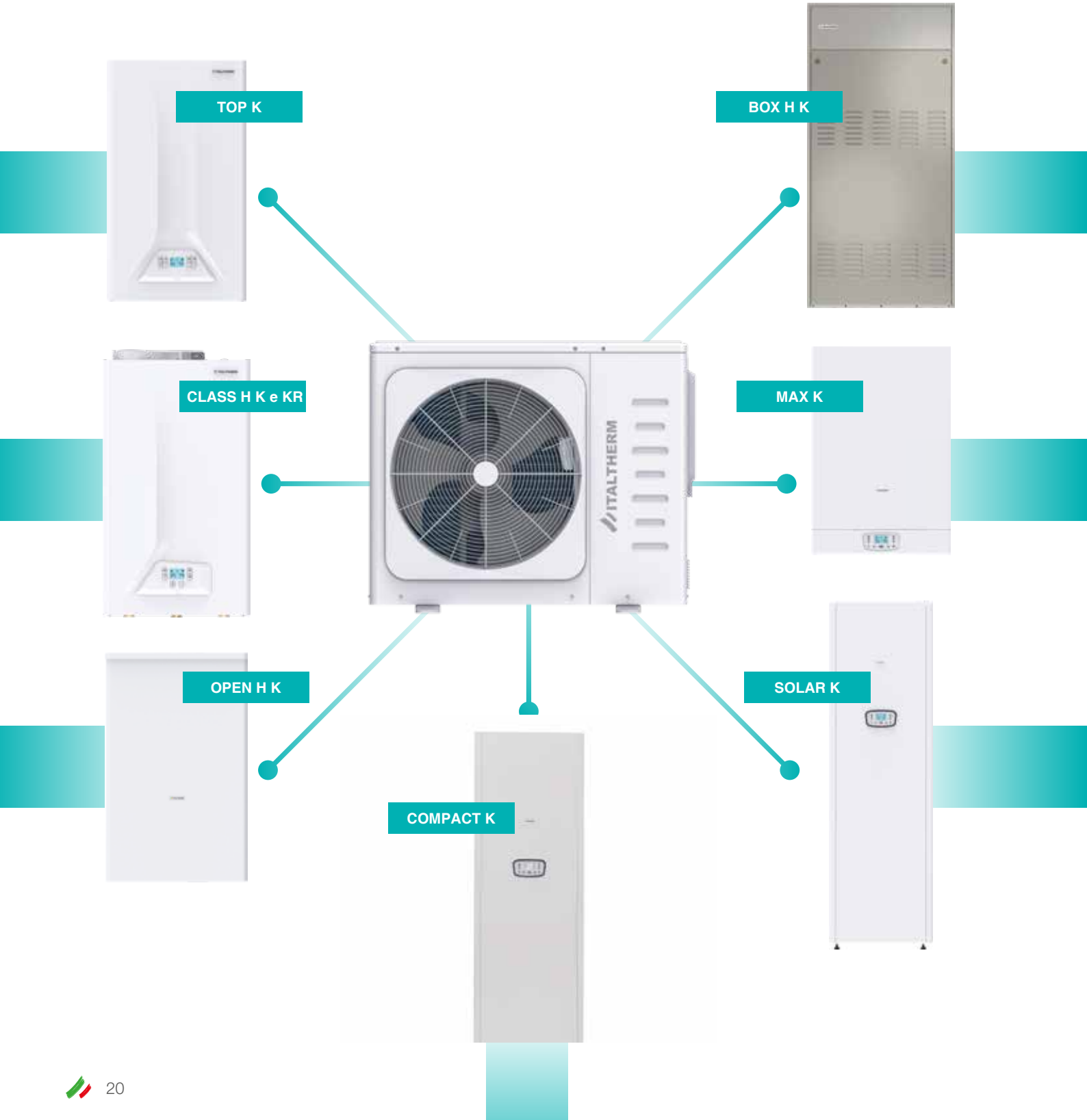
ITALTHERM

ITALTHERM

HYDRABLOCK COMPACT HYBRID

The tailor-made solution for retrofit

A+++ efficiency | 1:20 modulation | 5.3 COP | 20°-80°C heating



Italtherm factory made hybrid products are designed to adapt to any existing heating system (low and high temperature) and perform at their best thanks to the integration between the heat pump technology (optimal in temperate climates) and the boiler condensing technology (optimal in cold and humid climates).

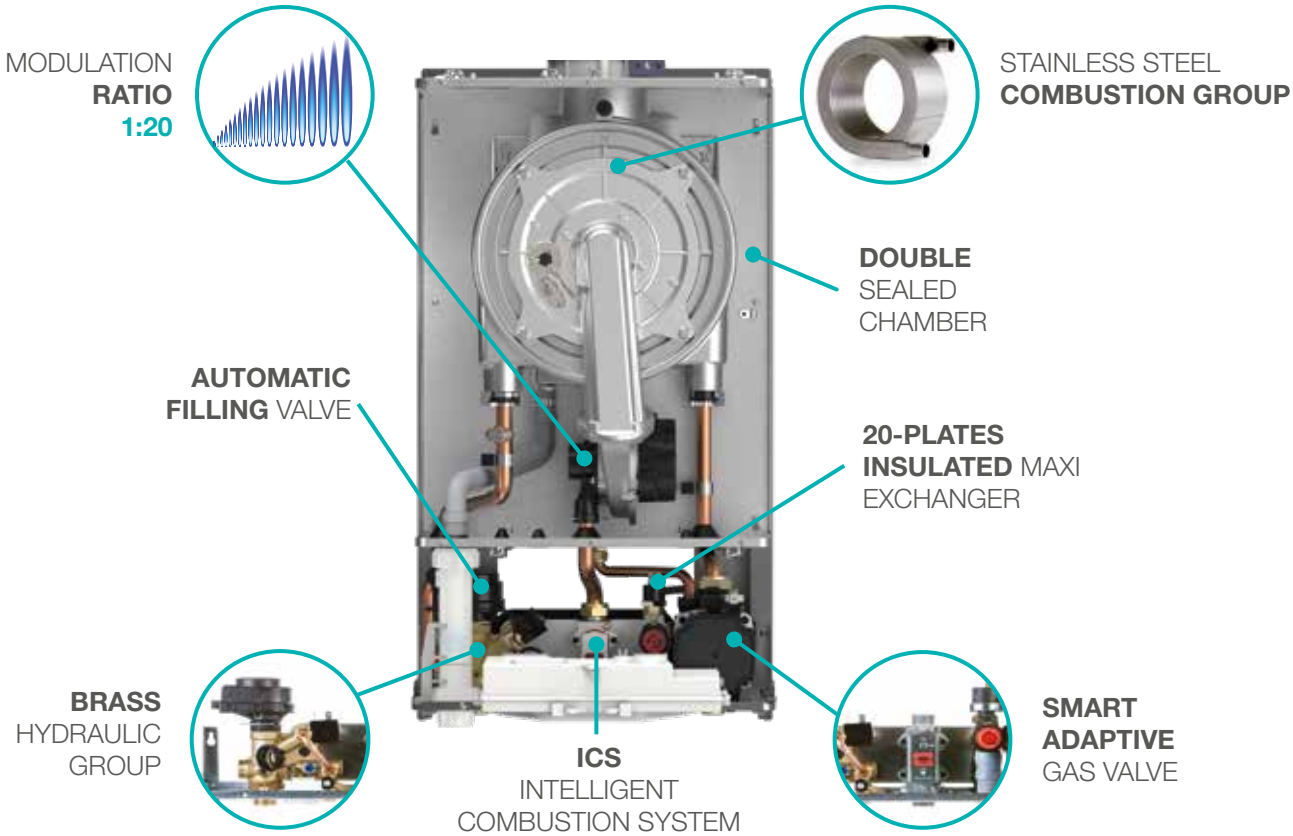
- **Suitable for retrofit**
  Condensing boiler + heat pump
- **Wide range**
  Indoor, built-in and outdoor
- **Maximum Comfort**
  Heating, cooling and DHW
- **High Efficiency**
  A +++ and modulation up to 1:20
- **Eco-friendly**
  Gas R32 + heat pump + integration with photovoltaics and solar thermal

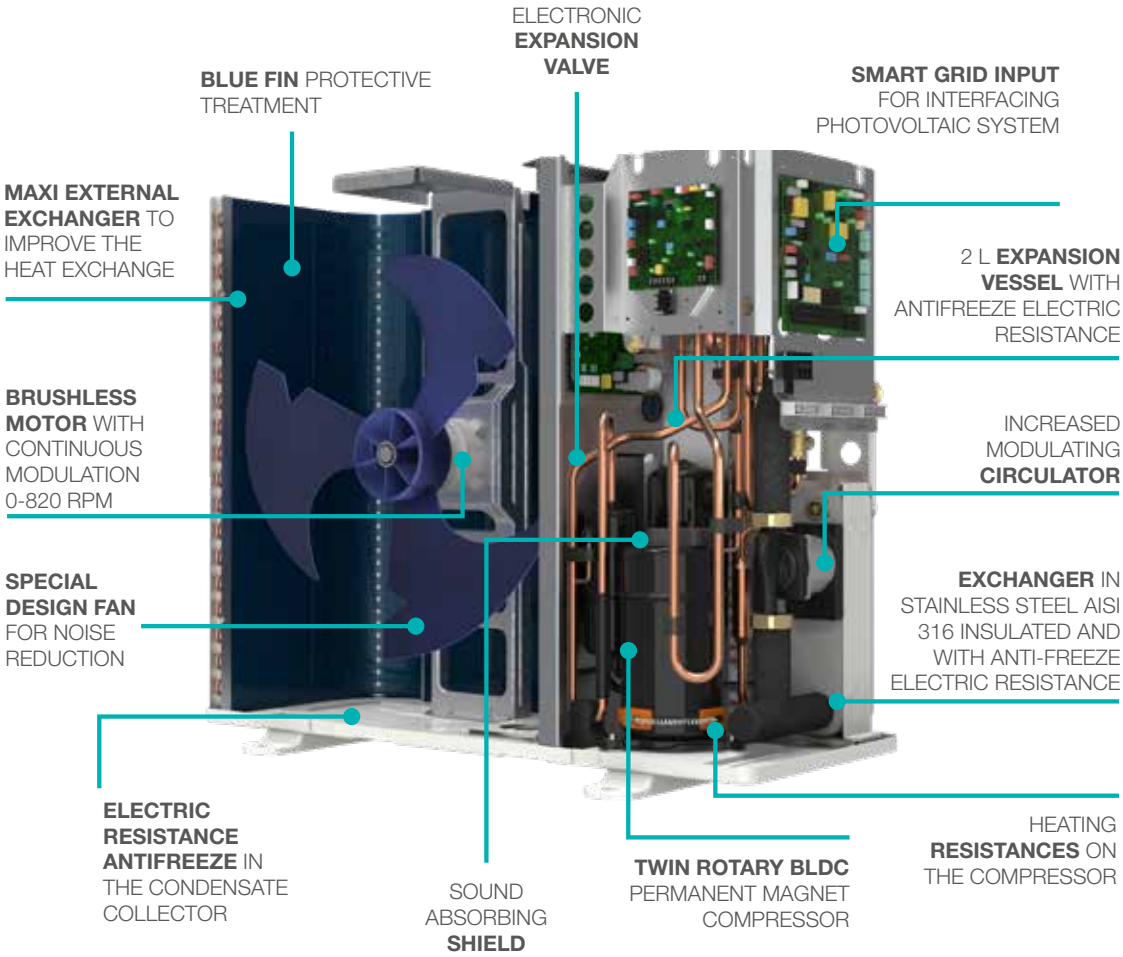
HYDRABLOCK COMPACT HYBRID TOP K

The Hi End solution for replacing existing systems, guarantees maximum efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:20 modulation. The integration of the two generators allows constant efficiency in all climatic conditions and furthermore there is no need for remote storage for domestic hot water thanks to the instant boiler.
Hydrablock Compact Hybrid Top is available in 8 versions with powers up to 35 K / 14 M.

Model			Qn/Qmin boiler (kW)	Heating [1] (kW)	Cooling[2] (kW)	EER/COP (2) (1)	Efficiency energy class (ERP - EN14825) 35° C	55° C	
HYDRABLOCK C HYBRID TOP 25K / 5M	SINGLE PHASE	1:16	25/1,6	6,5	5,5	5,1/5,3	A+++	A++	XL-A
HYDRABLOCK C HYBRID TOP 25K / 7M	SINGLE PHASE	1:16	25/1,6	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK C HYBRID TOP 25K / 9M	SINGLE PHASE	1:16	25/1,6	10	9	4,3/4,7	A+++	A++	XL-A
HYDRABLOCK C HYBRID TOP 35K / 5M	SINGLE PHASE	1:20	33/1,6	6,5	5,5	5,10/5,30	A+++	A++	XXL-A
HYDRABLOCK C HYBRID TOP 35K / 7M	SINGLE PHASE	1:20	33/1,6	8,4	7,4	4,85/5,05	A+++	A++	XXL-A
HYDRABLOCK C HYBRID TOP 35K / 9M	SINGLE PHASE	1:20	33/1,6	10	9	4,3/4,7	A+++	A++	XXL-A
HYDRABLOCK C HYBRID TOP 35K / 12M	SINGLE PHASE	1:20	33/1,6	12,2	11,6	4,6/4,9	A++	A++	XL-A
HYDRABLOCK C HYBRID TOP 35K / 14M	SINGLE PHASE	1:20	33/1,6	14,1	13,4	4,4/4,7	A++	A++	XL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


MODULATION
RATIO
1:20
STAINLESS STEEL
COMBUSTION GROUP
DOUBLE
SEALED
CHAMBER
AUTOMATIC
FILLING VALVE
20-PLATES
INSULATED MAXI
EXCHANGER
BRASS
HYDRAULIC
GROUP
ICS
INTELLIGENT
COMBUSTION SYSTEM
SMART
ADAPTIVE
GAS VALVE


ELECTRONIC
EXPANSION
VALVE
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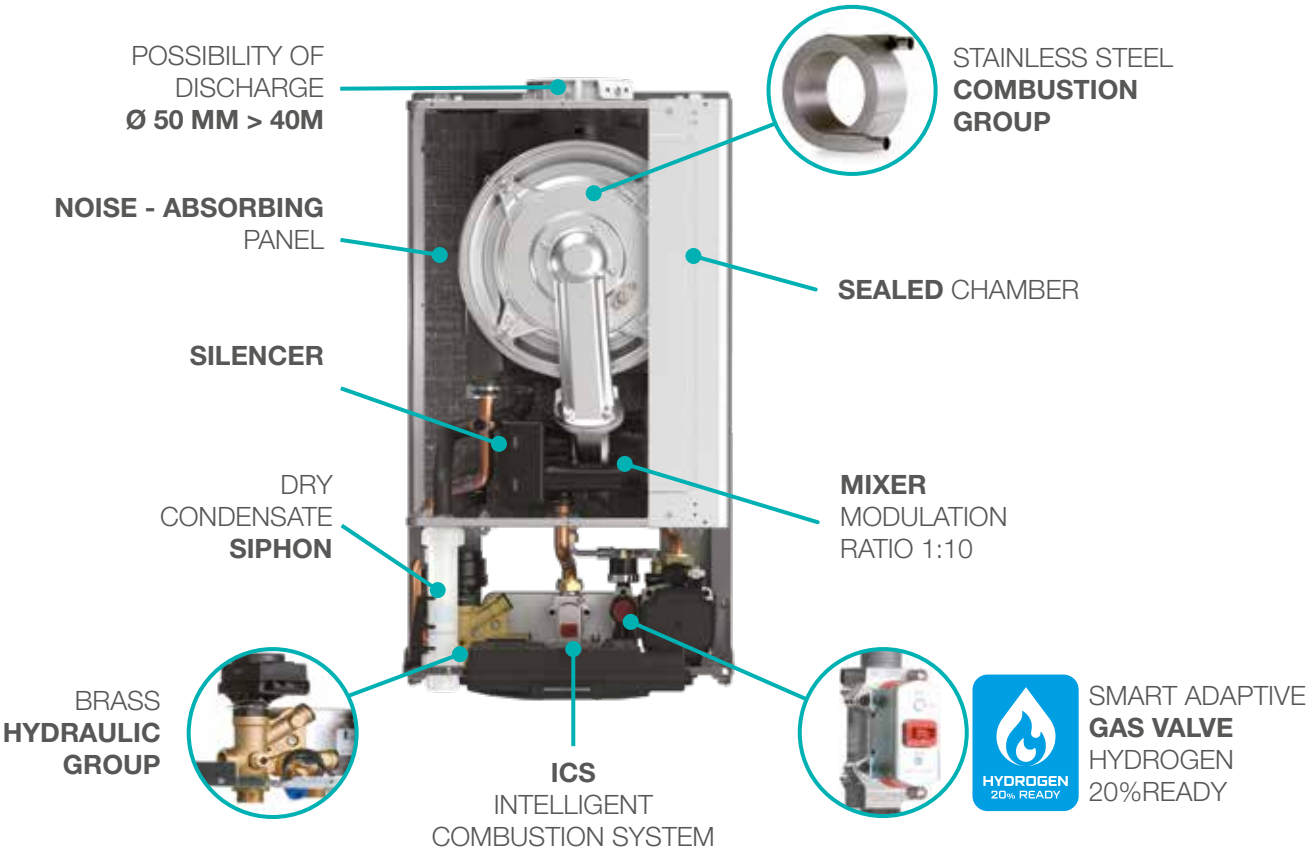
TREATMENT
SMART GRID INPUT
FOR INTERFACING
PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL
EXCHANGER TO
IMPROVE THE
HEAT EXCHANGE
2 L **EXPANSION**
VESSEL WITH
ANTIFREEZE ELECTRIC
RESISTANCE
BRUSHLESS
MOTOR WITH
CONTINUOUS
MODULATION
0-820 RPM
INCREASED
MODULATING
CIRCULATOR
SPECIAL
DESIGN FAN
FOR NOISE
REDUCTION
EXCHANGER IN
STAINLESS STEEL AISI
316 INSULATED AND
WITH ANTI-FREEZE
ELECTRIC RESISTANCE
ELECTRIC
RESISTANCE
ANTIFREEZE IN
THE CONDENSATE
COLLECTOR
SOUND
ABSORBING
SHIELD
TWIN ROTARY BLDC
PERMANENT MAGNET
COMPRESSOR
HEATING
RESISTANCES ON
THE COMPRESSOR

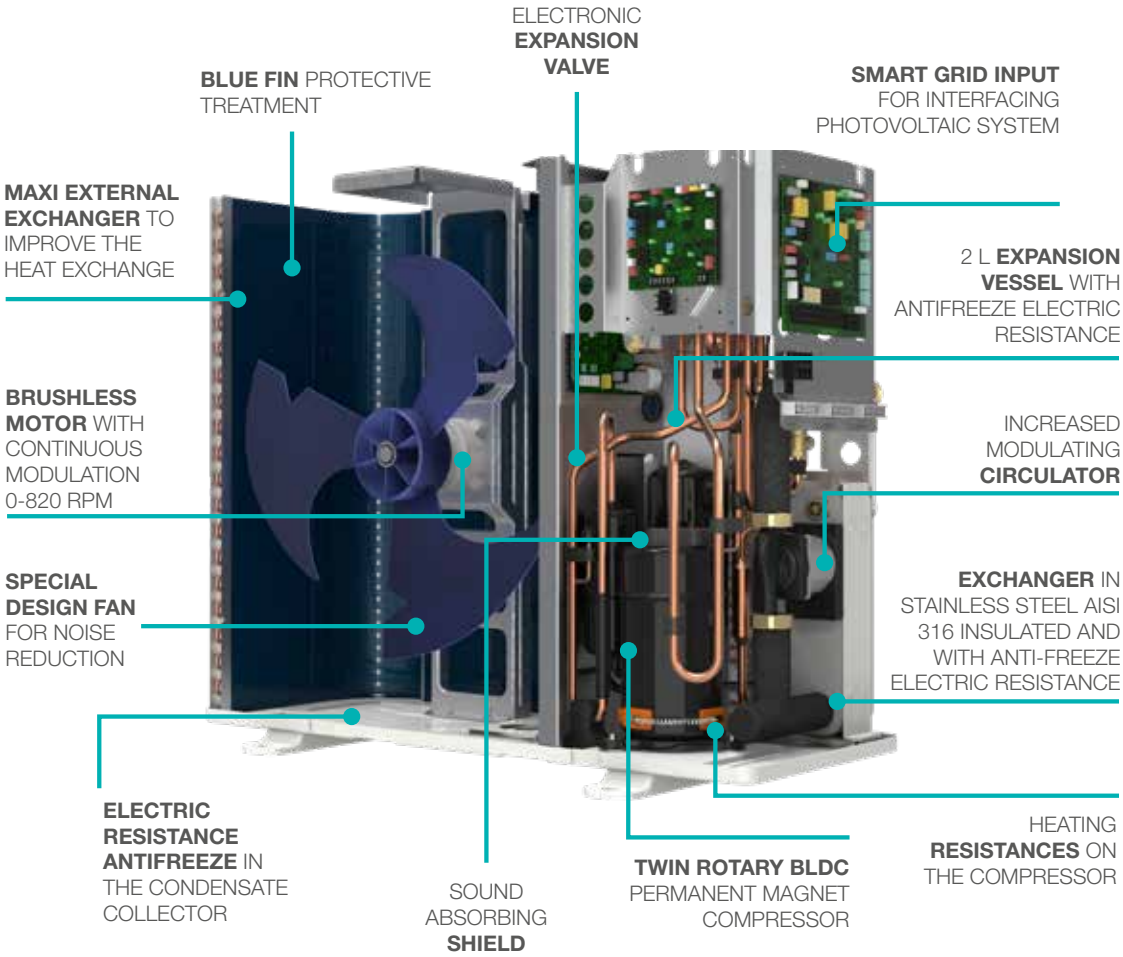
HYDRABLOCK COMPACT HYBRID CLASS K

The cost-effective solution for replacing existing systems, guarantees maximum efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:10 modulation. The integration of the two generators allows constant efficiency in all climatic conditions and does not require DHW remote storage thanks to the combi-boiler. Hydrablock Compact Hybrid Class K is available in 6 versions with powers up to 30 K / 9 M.

Model			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class* *(ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID CLASS 25K / 5M	SINGLE PHASE	1:10	21/2,6	6,5	5,5	5,1/5,3	A+++	A++	XL-A
HYDRABLOCK C HYBRID CLASS 25K / 7M	SINGLE PHASE	1:10	21/2,6	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK C HYBRID CLASS 25K / 9M	SINGLE PHASE	1:10	21/2,6	10	9	4,3/4,7	A+++	A++	XL-A
HYDRABLOCK C HYBRID CLASS 30K / 5M	SINGLE PHASE	1:10	28/3,5	6,5	5,5	5,1/5,3	A+++	A++	XL-A
HYDRABLOCK C HYBRID CLASS 30K / 7M	SINGLE PHASE	1:10	28/3,5	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK C HYBRID CLASS 30K / 9M	SINGLE PHASE	1:10	28/3,5	10	9	4,3/4,7	A+++	A++	XL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


POSSIBILITY OF DISCHARGE **Ø 50 MM > 40M**
NOISE - ABSORBING PANEL
SILENCER
DRY CONDENSATE **SIPHON**
BRASS **HYDRAULIC GROUP**
ICS INTELLIGENT COMBUSTION SYSTEM
STAINLESS STEEL **COMBUSTION GROUP**
SEALED CHAMBER
MIXER MODULATION RATIO 1:10
HYDROGEN 20% READY
SMART ADAPTIVE **GAS VALVE** HYDROGEN 20%READY

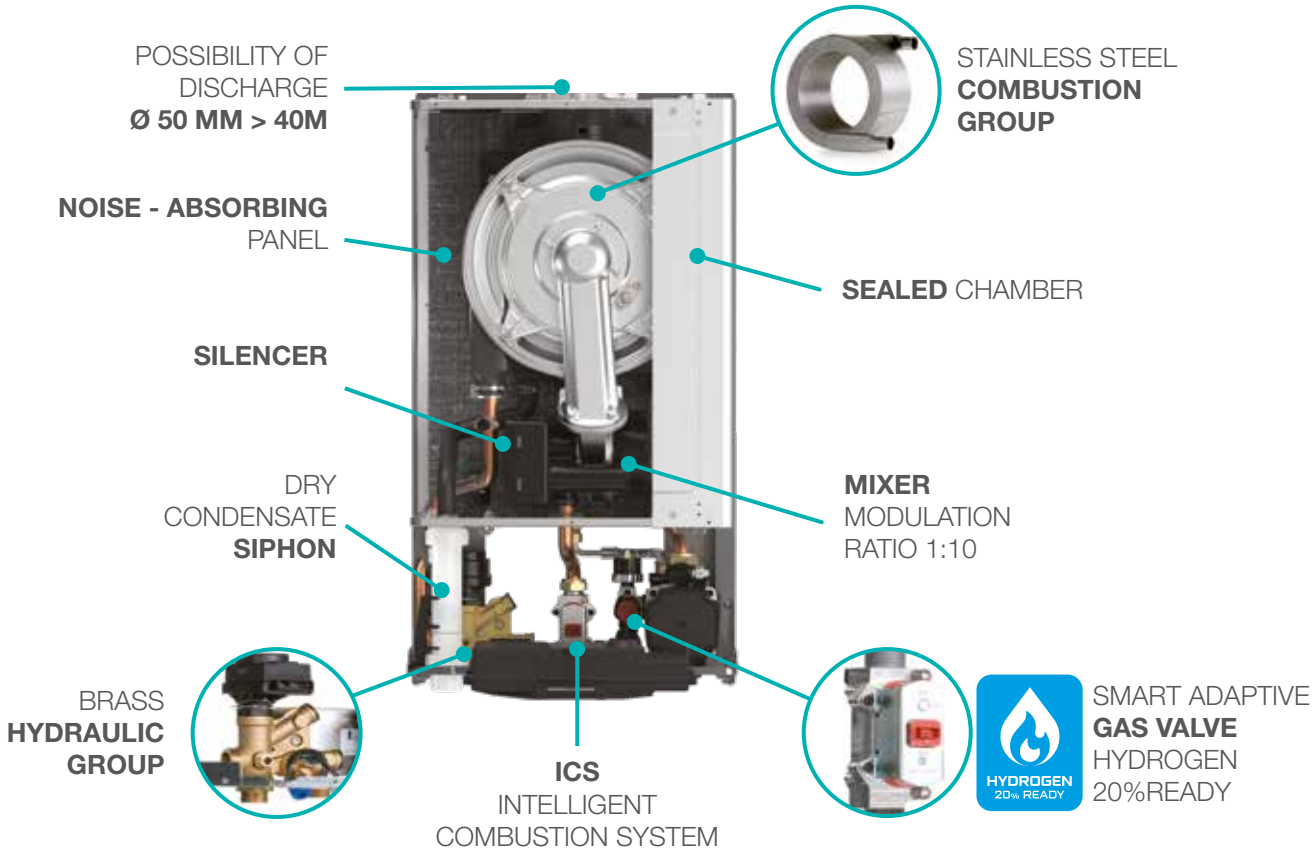

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

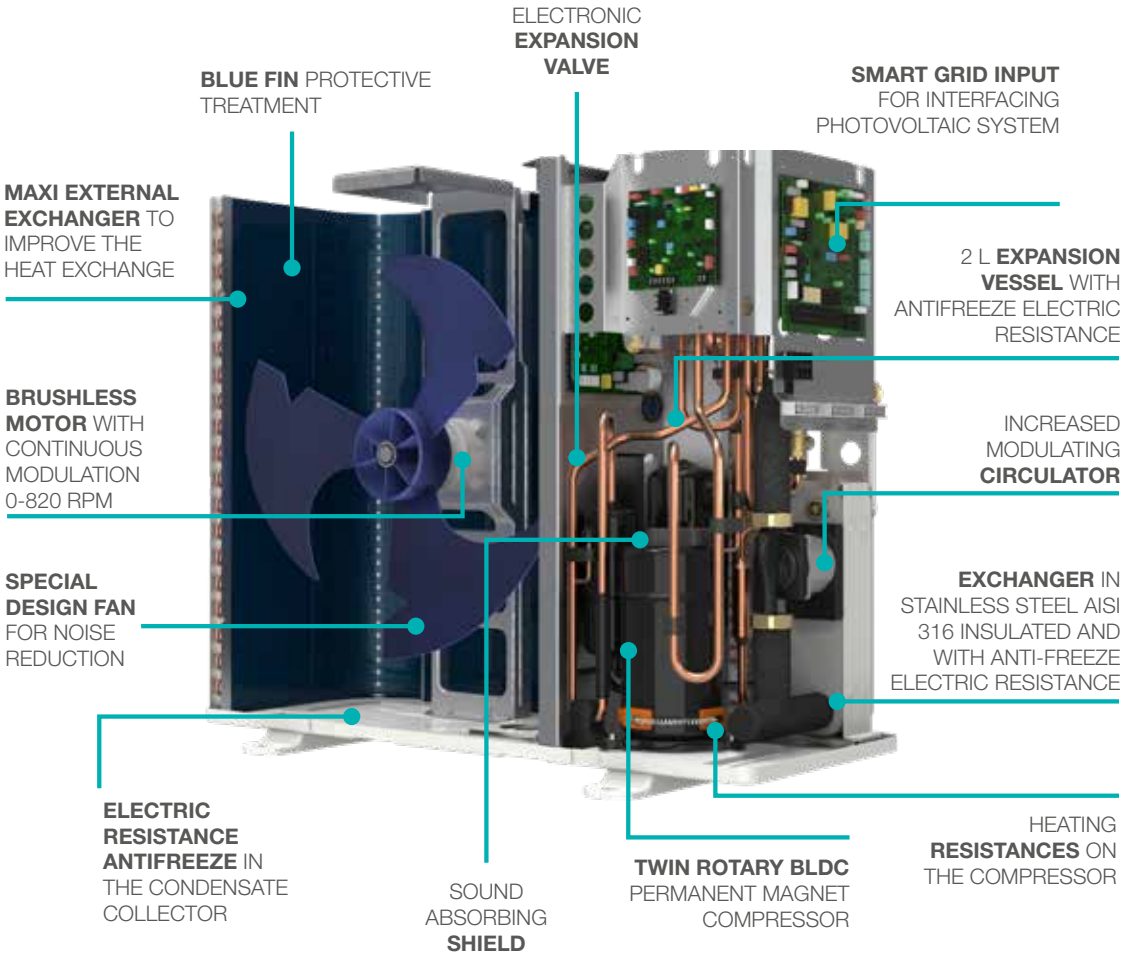
HYDRABLOCK COMPACT HYBRID CLASS KR

The solution for replacing existing systems where DHW remote storage is required, guarantees maximum efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:10 modulation. The integration of the two generators allows a constant performance in all climatic conditions.
Hydrablock Compact Hybrid Class KR is available in 5 versions with powers up to 35 K / 12 M.

Model			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class* *(ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID CLASS 25KR / 5M	SINGLE PHASE	1:10	21/2,5	6,5	5,5	5,1/5,3	A+++	A++	-
HYDRABLOCK C HYBRID CLASS 25KR / 7M	SINGLE PHASE	1:10	21/2,5	8,4	7,4	4,85/5,05	A+++	A++	-
HYDRABLOCK C HYBRID CLASS 25KR / 9M	SINGLE PHASE	1:10	21/2,5	10	9	4,3/4,7	A+++	A++	-
HYDRABLOCK C HYBRID CLASS 35KR / 9M	SINGLE PHASE	1:10	28/3,5	10	9	4,3/4,7	A+++	A++	-
HYDRABLOCK C HYBRID CLASS 35KR / 12M	SINGLE PHASE	1:10	28/3,5	12,2	11,6	4,6/4,9	A++	A++	-

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


POSSIBILITY OF DISCHARGE **Ø 50 MM > 40M**
STAINLESS STEEL **COMBUSTION GROUP**
NOISE - ABSORBING PANEL
SEALED CHAMBER
SILENCER
DRY CONDENSATE **SIPHON**
MIXER MODULATION RATIO 1:10
BRASS **HYDRAULIC GROUP**
ICS INTELLIGENT COMBUSTION SYSTEM
HYDROGEN 20% READY
SMART ADAPTIVE **GAS VALVE** HYDROGEN 20%READY

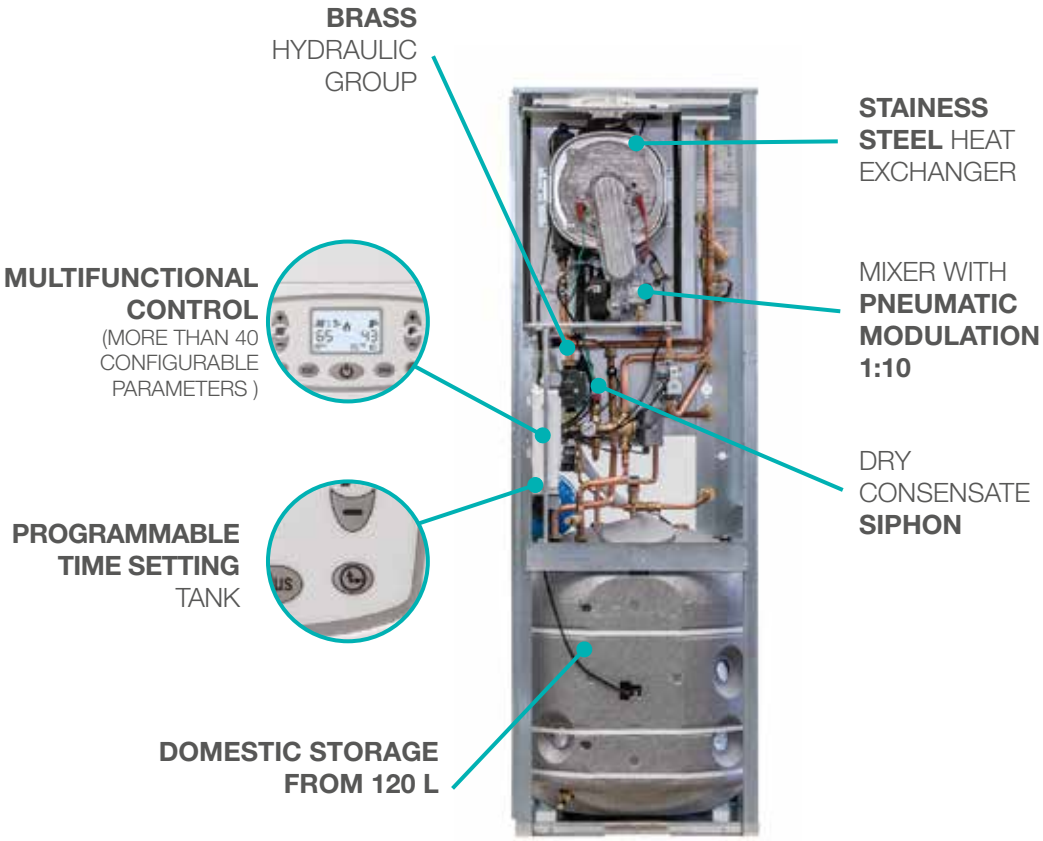

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

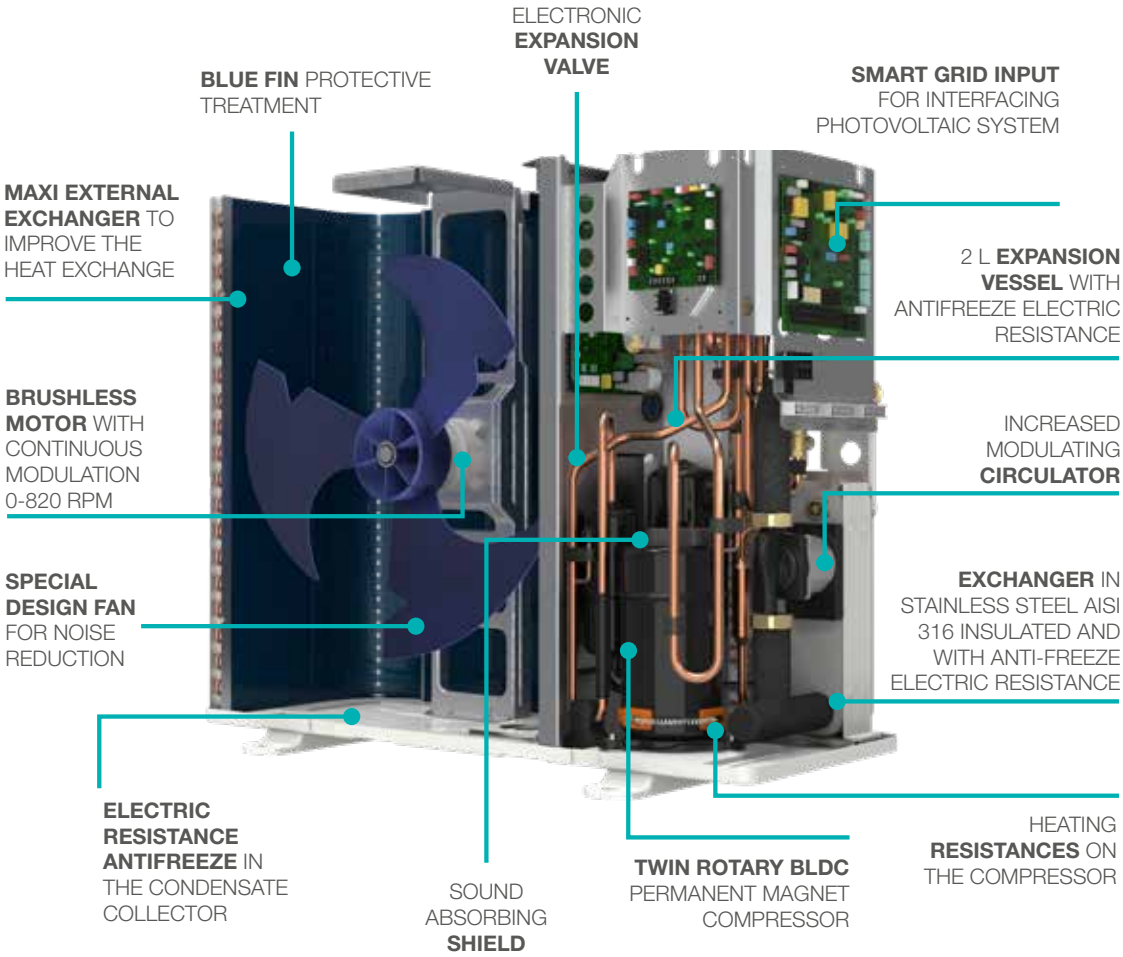
HYDRABLOCK COMPACT HYBRID COMPACT K

The solution for replacing existing systems where DHW remote storage is required, guarantees maximum efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:10 modulation. Integration of the two generators allows a constant performance in all climatic conditions, and moreover, thanks to the boiler with integrated 120 l storage tank, there is no need for remote storage tanks for domestic hot water.
The Hydrablock Compac tHybrid COMPACT K is available in a single version with power up to 35 K / 12 M.

Model			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class (ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID COMPACT 35K / 12M	SINGLE PHASE	1:10	33/3,4	12,2	11,6	4,6/4,9	A+++	A++	XXL-B

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


BRASS HYDRAULIC GROUP
STAINESS STEEL HEAT EXCHANGER
MULTIFUNCTIONAL CONTROL (MORE THAN 40 CONFIGURABLE PARAMETERS)
MIXER WITH **PNEUMATIC MODULATION 1:10**
DRY CONSENSATE **SIPHON**
PROGRAMMABLE TIME SETTING TANK
DOMESTIC STORAGE FROM 120 L

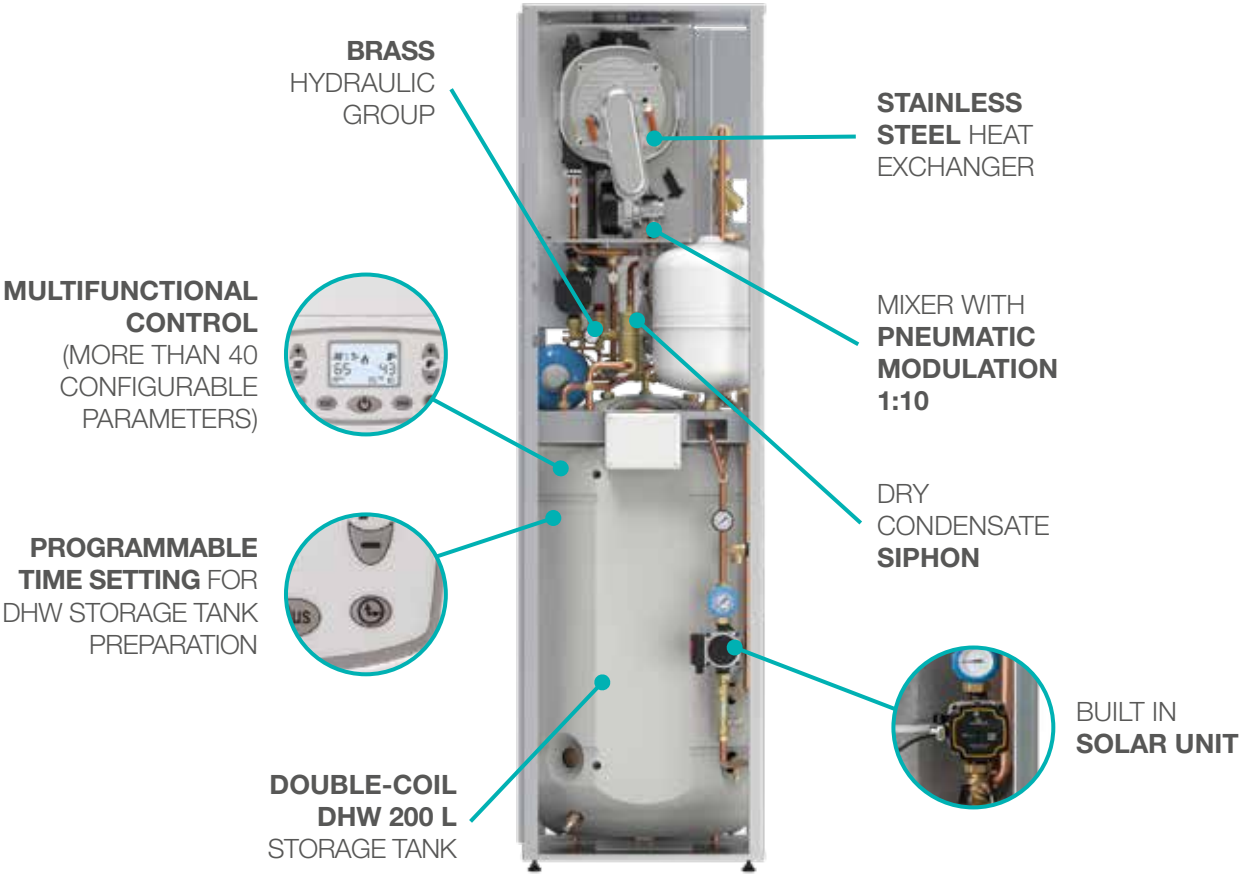

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

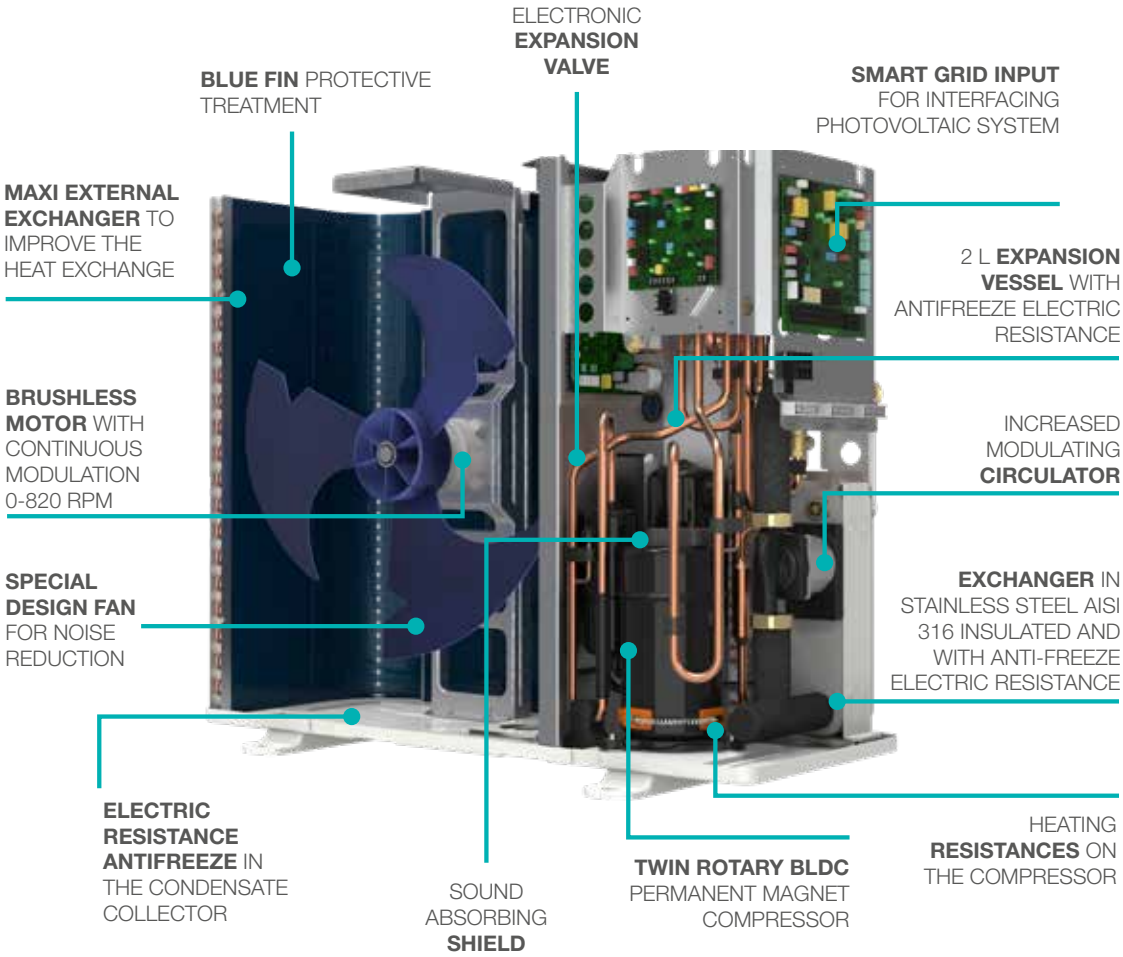
HYDRABLOCK COMPACT HYBRID SOLAR K

The all-in-one solution for replacing existing systems guarantees maximum efficiency thanks to the A +++ hydronic heat pump combined with condensing boiler with modulation range 1:10 and solar thermal for DHW production. The integration of three energy sources allows constant performance in all climatic conditions and also, thanks to the built-in 200l tank guaranties a large DHW amount.
Hydrablock Compact Hybrid Class KR is available in 4 versions with powers up to 35 kW /12 M.

Modello			*Qn/Qmin boiler* (kW)	*Heating* [1] (kW)	*Cooling*[2] (kW)	*EER/COP* (2) (1)	*Efficiency energy class* (ERP - EN14825) 35° C	55° C	
HYDRABLOCK C HYBRID SOLAR 18K / 7M	SINGLE PHASE	1:10	17,8/1,7	8,4	7,4	4,85/5,05	A+++	A++	XXL-B
HYDRABLOCK C HYBRID SOLAR 35K / 7M	SINGLE PHASE	1:10	33/3,4	8,4	7,4	4,85/5,05	A+++	A++	XXL-B
HYDRABLOCK C HYBRID SOLAR 35K / 9M	SINGLE PHASE	1:10	33/3,4	10	9	4,3/4,7	A+++	A++	XXL-B
HYDRABLOCK C HYBRID SOLAR 35K / 12M	SINGLE PHASE	1:10	33/3,4	12,2	11,6	4,6/4,9	A+++	A++	XXL-B

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


BRASS HYDRAULIC GROUP
STAINLESS STEEL HEAT EXCHANGER
MULTIFUNCTIONAL CONTROL (MORE THAN 40 CONFIGURABLE PARAMETERS)
MIXER WITH **PNEUMATIC MODULATION 1:10**
DRY CONDENSATE **SIPHON**
PROGRAMMABLE TIME SETTING FOR DHW STORAGE TANK PREPARATION
BUILT IN **SOLAR UNIT**
DOUBLE-COIL DHW 200 L STORAGE TANK

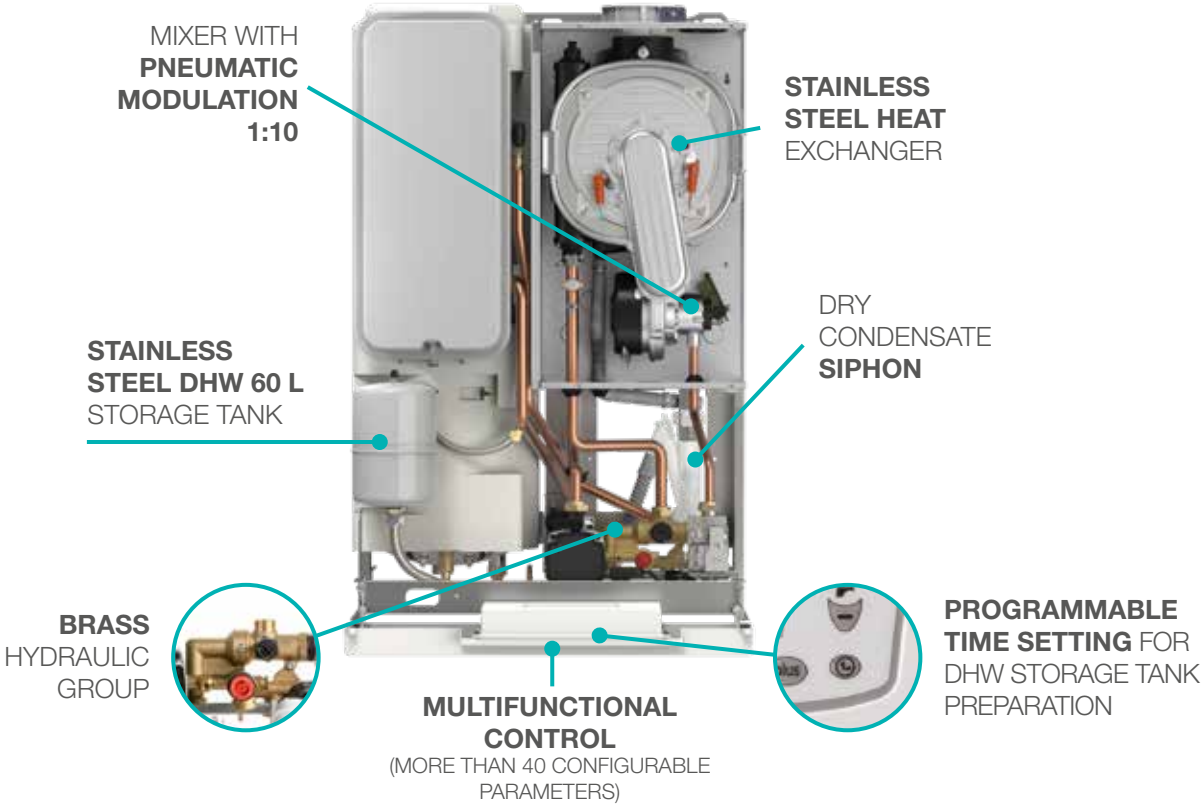

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

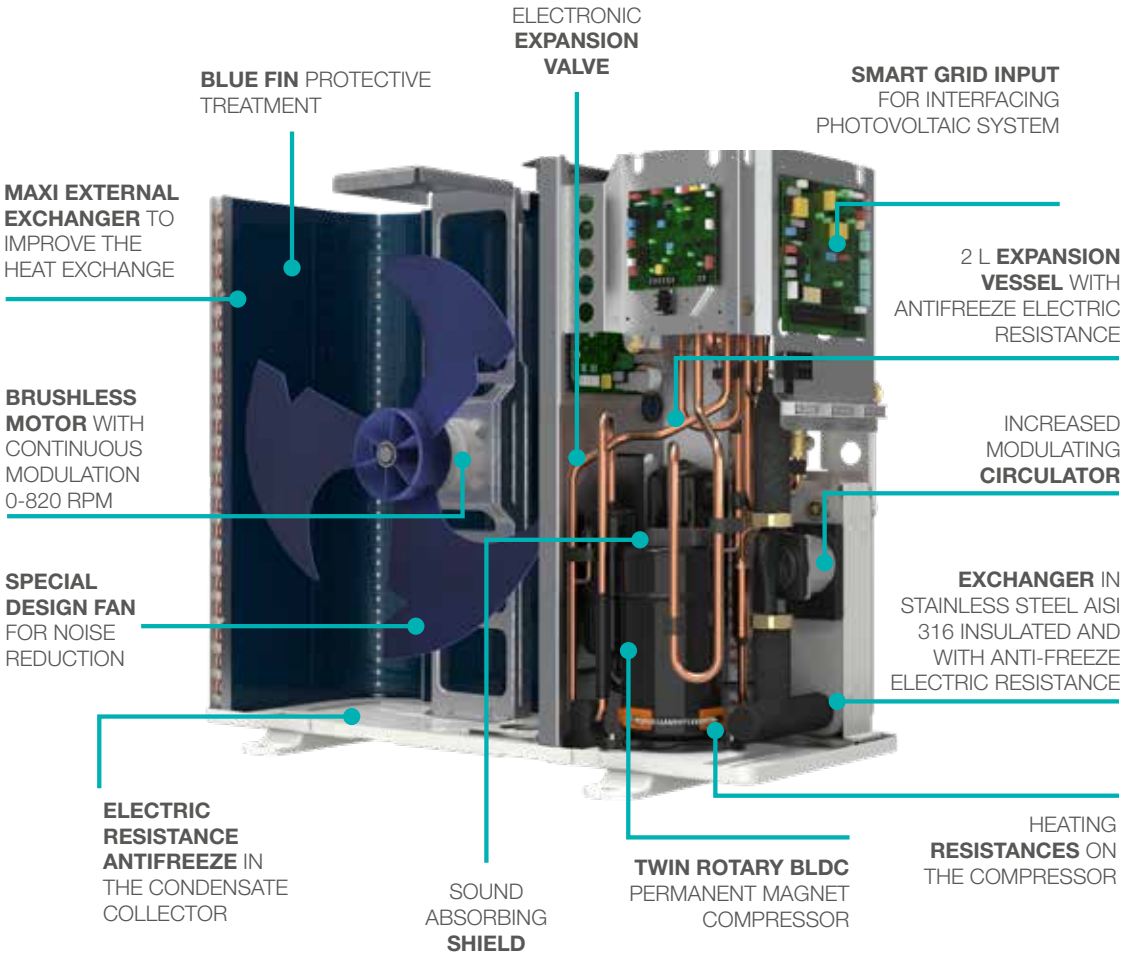
HYDRABLOCK COMPACT HYBRID MAX K

The solution that aims at maximum comfort in replacing existing systems guarantees great efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with modulation range 1:10. The integration of the two generators allows constant performance in all climatic conditions and also, thanks to the **boiler with built-in 60 l DHW tank,** there is no need for remote storage for domestic hot water.
Hydrablock Compact Hybrid Max K is available in a single version 27kW / 7 M .

Modello			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class* *(ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID MAX 27K / 7M	SINGLE PHASE	1:10	26/2,6	8,4	7,4	4,85/5,05	A+++	A++	XXL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


MIXER WITH **PNEUMATIC MODULATION 1:10**
STAINLESS STEEL HEAT EXCHANGER
DRY CONDENSATE **SIPHON**
STAINLESS STEEL DHW 60 L STORAGE TANK
BRASS HYDRAULIC GROUP
PROGRAMMABLE TIME SETTING FOR DHW STORAGE TANK PREPARATION
MULTIFUNCTIONAL CONTROL
(MORE THAN 40 CONFIGURABLE PARAMETERS)

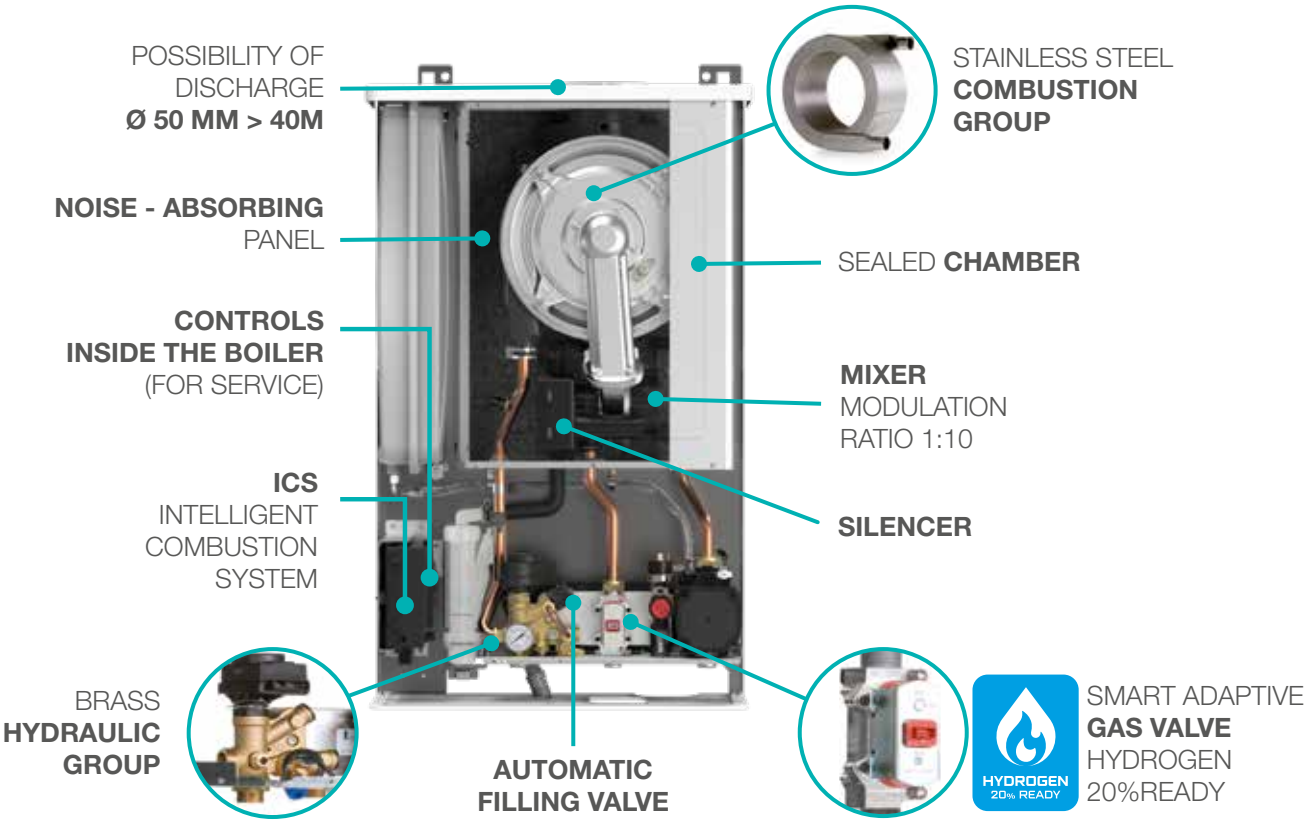

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

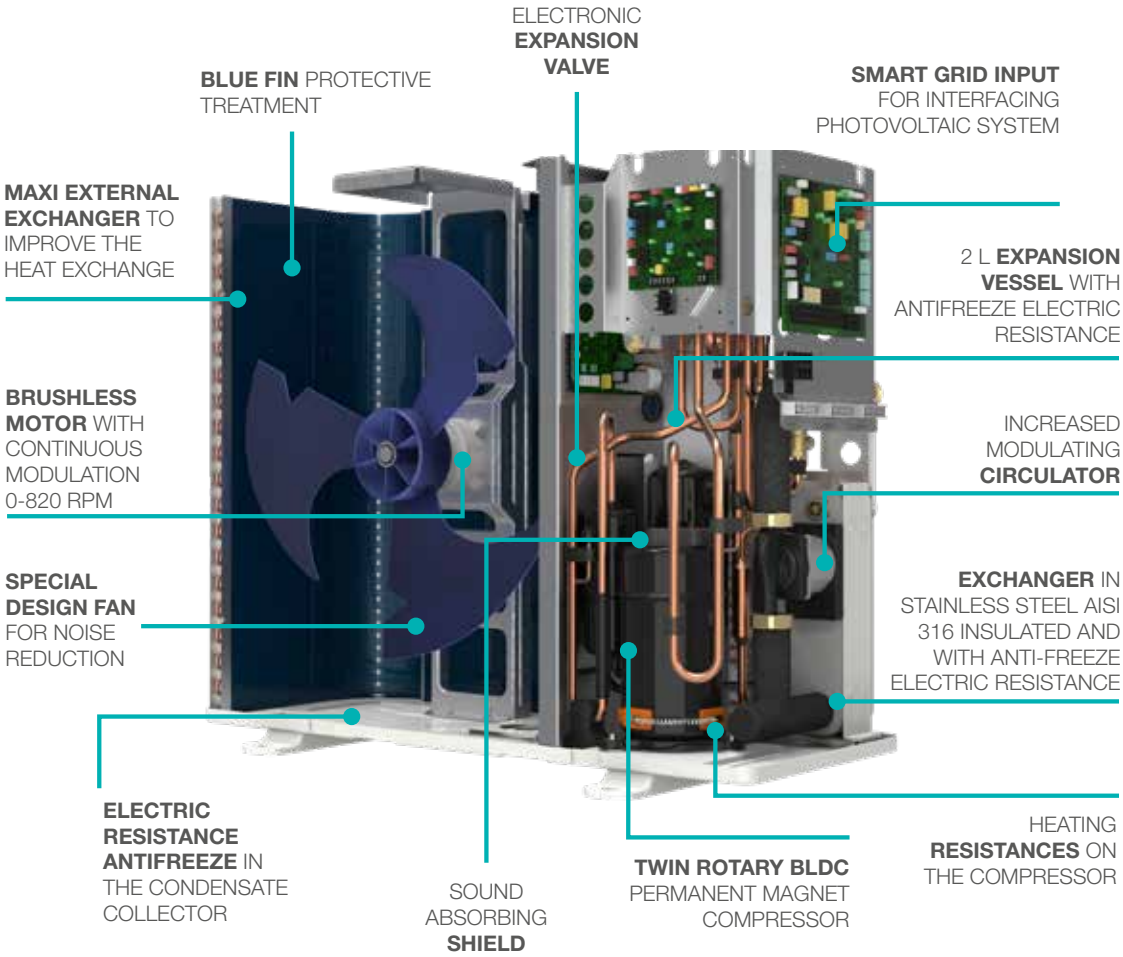
HYDRABLOCK COMPACT HYBRID OPEN K

The outdoor solution for replacing existing systems guarantees great efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:10 modulation. The integration of the two generators allows constant performance in all climatic conditions and also does not require remote storage for domestic hot water thanks to the instant boiler equipped with antifreeze heater and remote control as standard.
Hydrablock Compact Hybrid Open K is available in 3 versions with powers up to 25 K / 9 M.

Modello			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class (ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID OPEN 25K / 5M	SINGLE PHASE	1:10	21/2,6	6,5	5,5	5,1/5,3	A+++	A++	XL-A
HYDRABLOCK CHYBRID OPEN 25K / 7M	SINGLE PHASE	1:10	21/2,6	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK C HYBRID OPEN 25K / 9M	SINGLE PHASE	1:10	21/2,6	10	9	4,3/4,7	A+++	A++	XL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


POSSIBILITY OF DISCHARGE **Ø 50 MM > 40M**
NOISE - ABSORBING PANEL
CONTROLS INSIDE THE BOILER (FOR SERVICE)
ICS INTELLIGENT COMBUSTION SYSTEM
BRASS **HYDRAULIC GROUP**
AUTOMATIC FILLING VALVE
STAINLESS STEEL **COMBUSTION GROUP**
SEALED **CHAMBER**
MIXER MODULATION RATIO 1:10
SILENCER
HYDROGEN 20% READY
SMART ADAPTIVE **GAS VALVE** HYDROGEN 20%READY

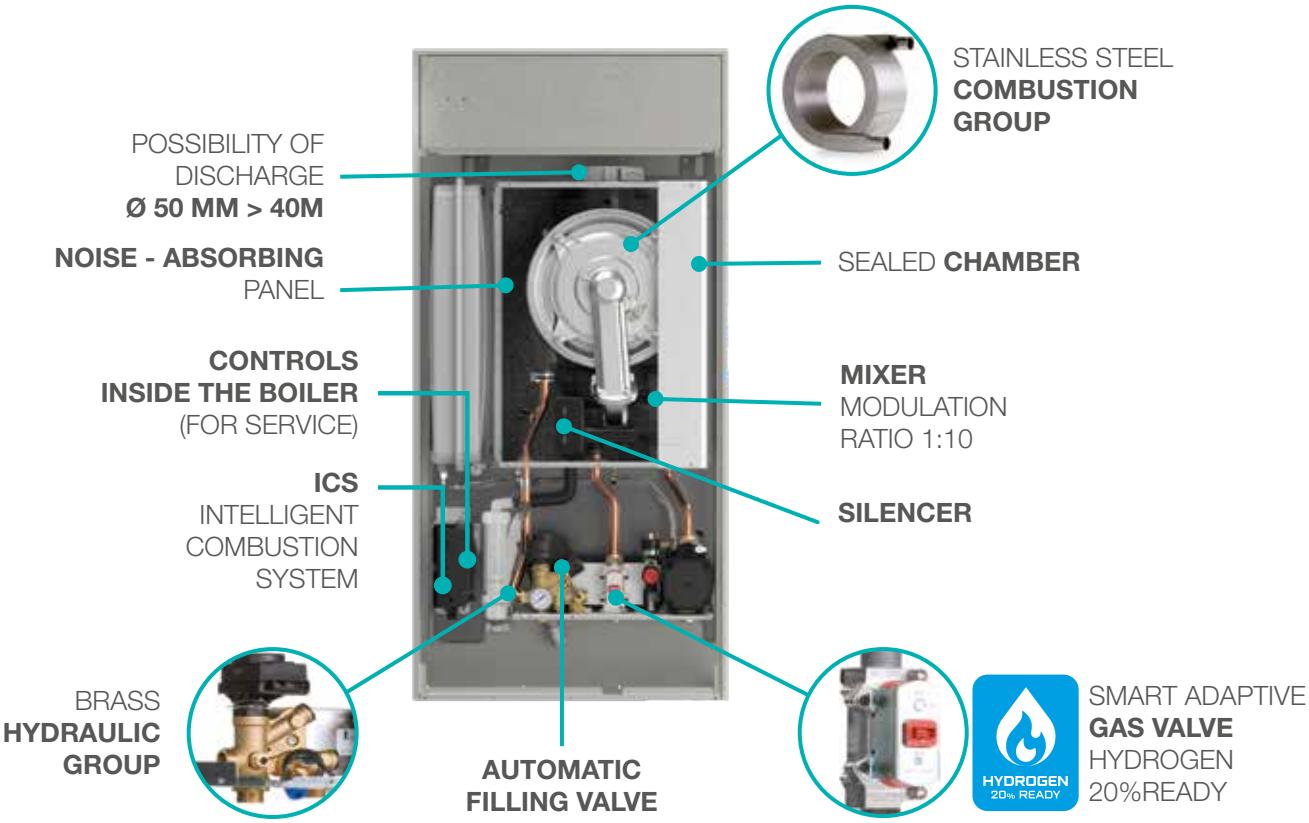

ELECTRONIC **EXPANSION VALVE**
BLUE FIN PROTECTIVE TREATMENT
SMART GRID INPUT FOR INTERFACING PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL EXCHANGER TO IMPROVE THE HEAT EXCHANGE
2 L **EXPANSION VESSEL** WITH ANTIFREEZE ELECTRIC RESISTANCE
BRUSHLESS MOTOR WITH CONTINUOUS MODULATION 0-820 RPM
INCREASED MODULATING **CIRCULATOR**
SPECIAL DESIGN FAN FOR NOISE REDUCTION
EXCHANGER IN STAINLESS STEEL AISI 316 INSULATED AND WITH ANTI-FREEZE ELECTRIC RESISTANCE
ELECTRIC RESISTANCE ANTIFREEZE IN THE CONDENSATE COLLECTOR
SOUND ABSORBING **SHIELD**
TWIN ROTARY BLDC PERMANENT MAGNET COMPRESSOR
HEATING **RESISTANCES** ON THE COMPRESSOR

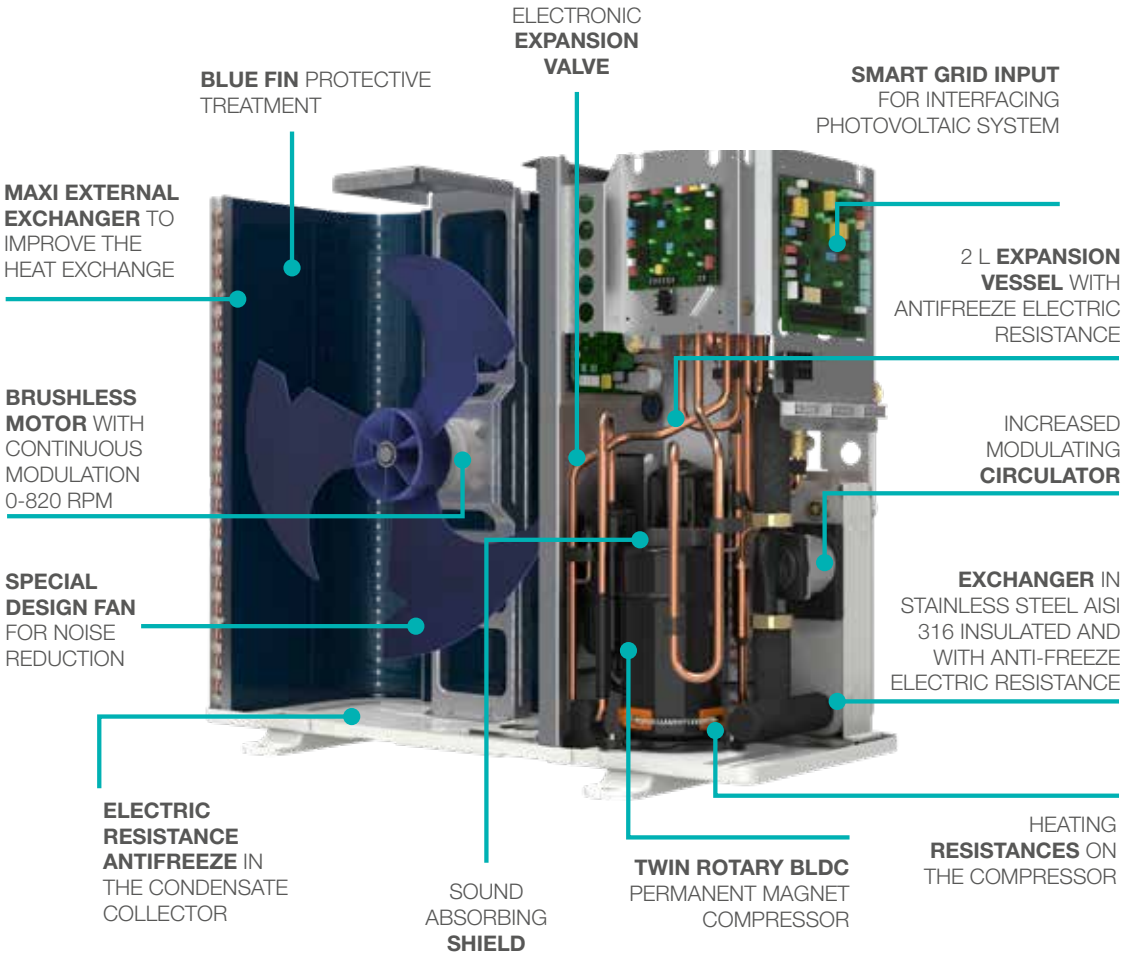
HYDRABLOCK COMPACT HYBRID BOX K

The built-in solution for replacing existing systems guarantees great efficiency thanks to the A +++ hydronic heat pump combined with the condensing boiler with 1:10 modulation. The integration of the two generators allows constant performance in all climatic conditions and also does not require remote storage for domestic hot water thanks to the instant boiler equipped with antifreeze heater and remote control as standard.
Hydrablock Compact Hybrid Box K is available in 3 versions with powers up to 25 K / 9 M.

Modello			*Qn/Qmin boiler* *(kW)*	*Heating [1]* *(kW)*	*Cooling[2]* *(kW)*	*EER/COP* (2) (1)	*Efficiency energy class (ERP - EN14825)* *35° C*	*55° C*	
HYDRABLOCK C HYBRID BOX 25K / 5M	SINGLE PHASE	1:10	21/2,6	6,5	5,5	5,1/5,3	A+++	A++	XL-A
HYDRABLOCK C HYBRID BOX 25K / 7M	SINGLE PHASE	1:10	21/2,6	8,4	7,4	4,85/5,05	A+++	A++	XL-A
HYDRABLOCK C HYBRID BOX 25K / 9M	SINGLE PHASE	1:10	21/2,6	10	9	4,3/4,7	A+++	A++	XL-A

[1] Water temp. 35/30°C - Air temp. 7°C (d.b.), U.R. 85% [2] Water temp. 18/23°C - Air temp. 35°C (d.b.)


STAINLESS STEEL
COMBUSTION
GROUP
POSSIBILITY OF
DISCHARGE
Ø 50 MM > 40M
NOISE - ABSORBING
PANEL
SEALED CHAMBER
CONTROLS
INSIDE THE BOILER
(FOR SERVICE)
MIXER
MODULATION
RATIO 1:10
ICS
INTELLIGENT
COMBUSTION
SYSTEM
SILENCER
BRASS
HYDRAULIC
GROUP
AUTOMATIC
FILLING VALVE
HYDROGEN
20% READY
SMART ADAPTIVE
GAS VALVE
HYDROGEN
20%READY

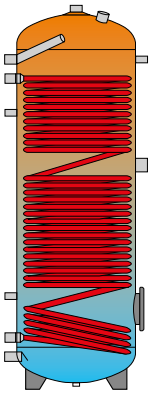

ELECTRONIC
EXPANSION
VALVE
BLUE FIN PROTECTIVE
TREATMENT
SMART GRID INPUT
FOR INTERFACING
PHOTOVOLTAIC SYSTEM
MAXI EXTERNAL
EXCHANGER TO
IMPROVE THE
HEAT EXCHANGE
2 L EXPANSION
VESSEL WITH
ANTIFREEZE ELECTRIC
RESISTANCE
BRUSHLESS
MOTOR WITH
CONTINUOUS
MODULATION
0-820 RPM
INCREASED
MODULATING
CIRCULATOR
SPECIAL
DESIGN FAN
FOR NOISE
REDUCTION
EXCHANGER IN
STAINLESS STEEL AISI
316 INSULATED AND
WITH ANTI-FREEZE
ELECTRIC RESISTANCE
ELECTRIC
RESISTANCE
ANTIFREEZE IN
THE CONDENSATE
COLLECTOR
SOUND
ABSORBING
SHIELD
TWIN ROTARY BLDC
PERMANENT MAGNET
COMPRESSOR
HEATING
RESISTANCES ON
THE COMPRESSOR

Tanks for DHW production (Class KR excluded)

The boilers of these hybrid appliances do not require tanks for domestic hot water production. The tanks below can be installed to pre-heat the domestic hot water with other heat sources (heat pump and / or solar).

SINGLE COIL (PREHEAT WITH HEAT PUMP)

COIL FOR HEAT PUMP

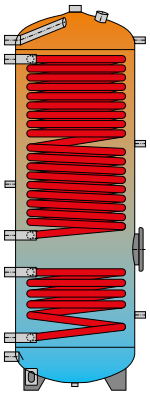


Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
MONO HP tank 200 for Heat Pump 5/7/9	B	190	3 (HP)	1215 x 640
MONO HP tank 300	B	263	4 (HP)	1615 x 640

DOUBLE COIL (PREHEAT WITH HEAT PUMP / SOLAR)

COIL FOR HEAT PUMP

COIL FOR SOLAR

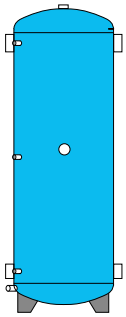


Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
HP SOLAR DUAL tank 300	B	260	3,7 sup. (HP) 1,2 inf.(SOLAR)	1615 x 640
HP SOLAR DUAL tank 500	B	455	5,2 sup. (HP) 1,8 inf.(SOLAR)	1705 x 790

Inertial storage tanks

The inertial storage tanks ensure the heat pump correctly operates in heating mode by keeping water enough in the system, ensuring the circulation as well as avoiding continuous switching on and off.

mod.50-100 l



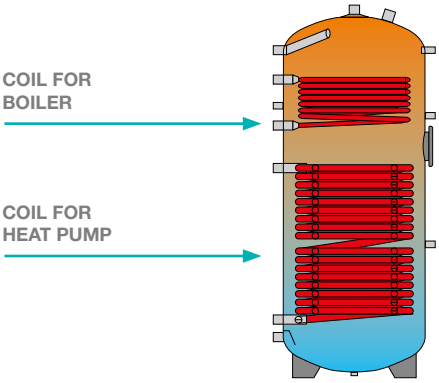
mod.50 l

Model	Energy efficiency class	Dimensions (mm)
50 L Inertial storage	B	h x Ø 935 x 400
100 L Inertial storage	B	1095 x 500
50 L Compact inertial storage with: - air separator - two-zone distribution manifold - micro-perforated diaphragm for correct fluid stratification	B	L x H x P 520 x 860 x 240

Tank for DHW production (only for Class KR)

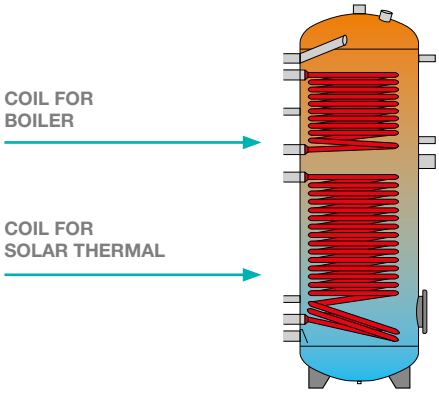
High energy efficiency tanks (70mm of insulation), essential for domestic hot water production. The coils have been Declared load profiled according to the type of generator used.

DOUBLE COIL (BOILER AND HEAT PUMP)



Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
Tank Dual Heat Pump Boiler 300	B	280	0,7 sup. (BOILER) 3,7 inf. (HP)	1615 x 640

DOUBLE COIL (BOILER AND SOLAR THERMAL)



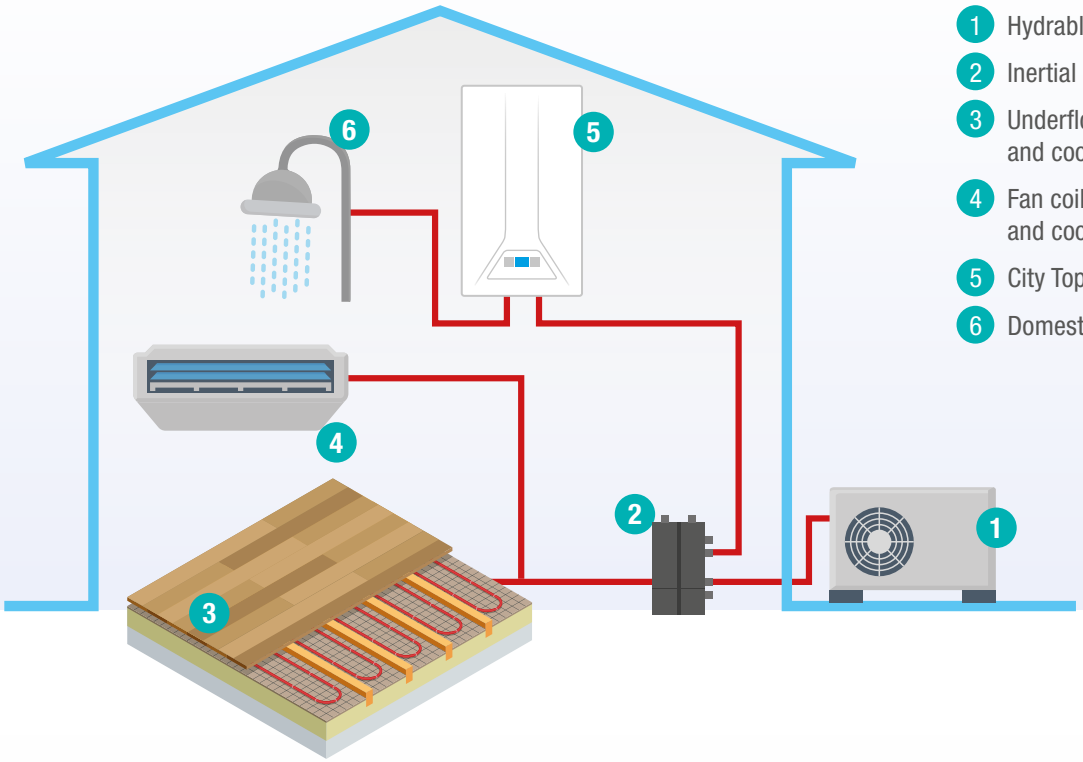
Model	Energy efficiency class	Volume (l)	Coil Surface (m^2)	Dimensions h x Ø (mm)
DUAL C 200	C	95	0,5 sup. (BOILER) 1,5 inf. (SOLAR)	1215 x 600
DUAL C 300	C	130	1,1 sup. (BOILER) 1,8 inf. (SOLAR)	1615 x 600
DUAL C 500	C	150	0,9 sup. (BOILER) 1,8 inf. (SOLAR)	1690x750

for technical water

The amount of the required water depends on the output of the Heat Pump (approx. 5-10 lt x kW according to the plant). The tank has also the function of storing energy which can be supplied by several generators.

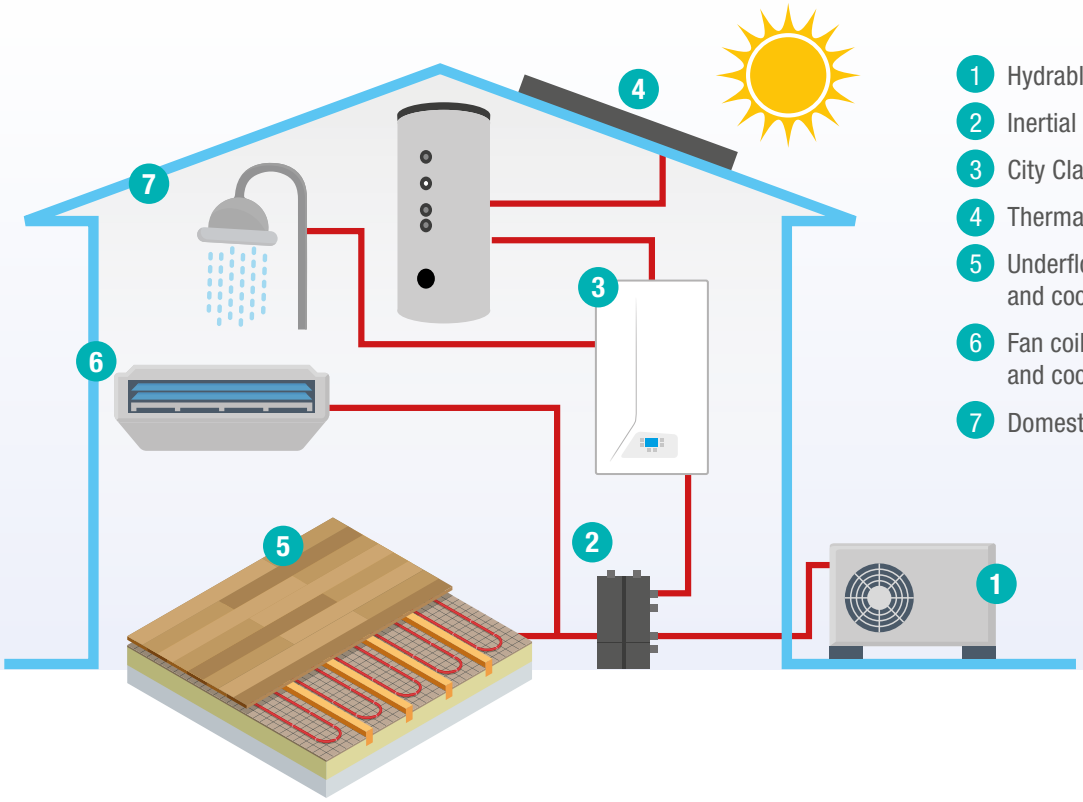
Model	Energy efficiency class	Dimensions (mm)
Built-in inertial storage tank for 5/7 kW heat pump with - built-in box **20 L inertial storage kit with** - magnetic circulators - magnetic dirt separator - sectioning taps - electrical connection panel	B	L x H x P 550x1140x250

Hydrablock Compact Hybrid Top K



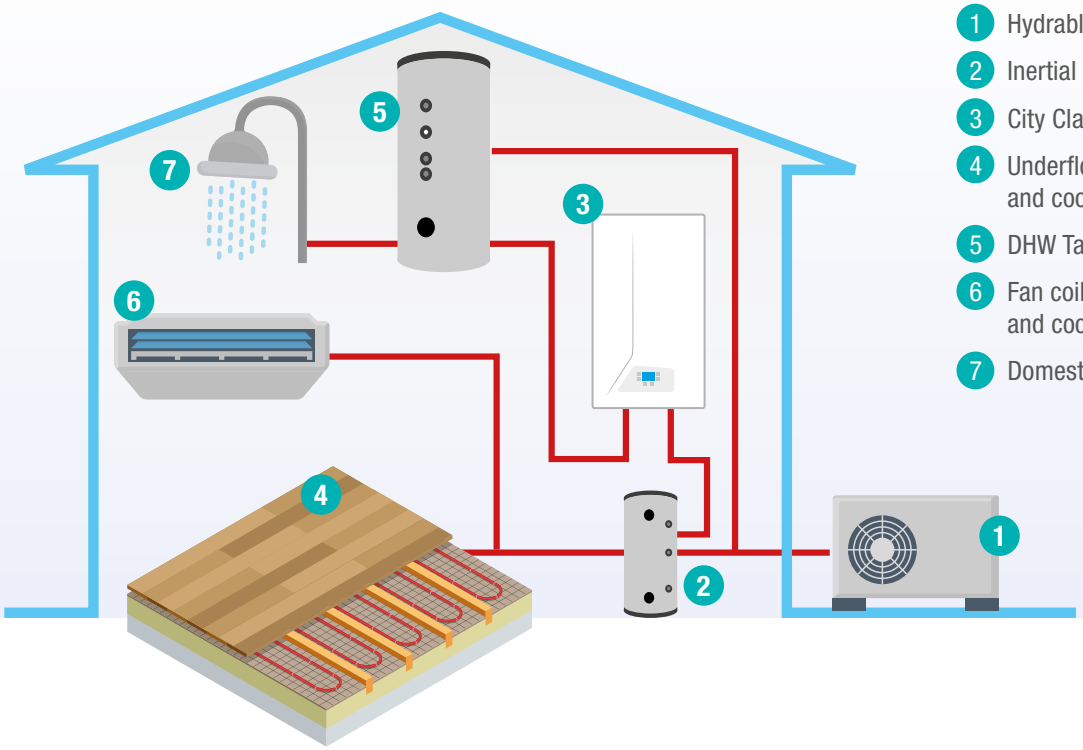
1. Hydrablock C Heat Pump
2. Inertial storage
3. Underfloor heating and cooling
4. Fan coil for heating and cooling
5. City Top K Boiler
6. Domestic hot water

Hydrablock Compact Hybrid Class K



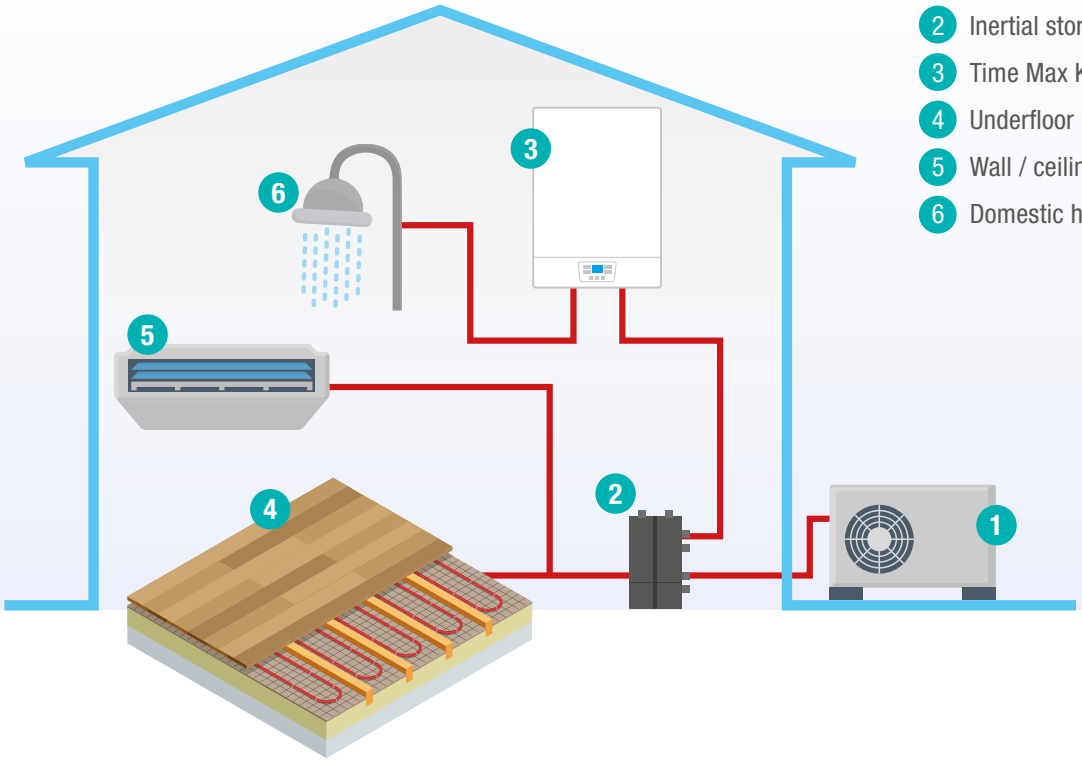
1. Hydrablock C Heat Pump
2. Inertial storage
3. City Class H K boiler
4. Thermal solar panels
5. Underfloor heating and cooling
6. Fan coil for heating and cooling
7. Domestic hot water

Hydrablock Compact Hybrid Class KR



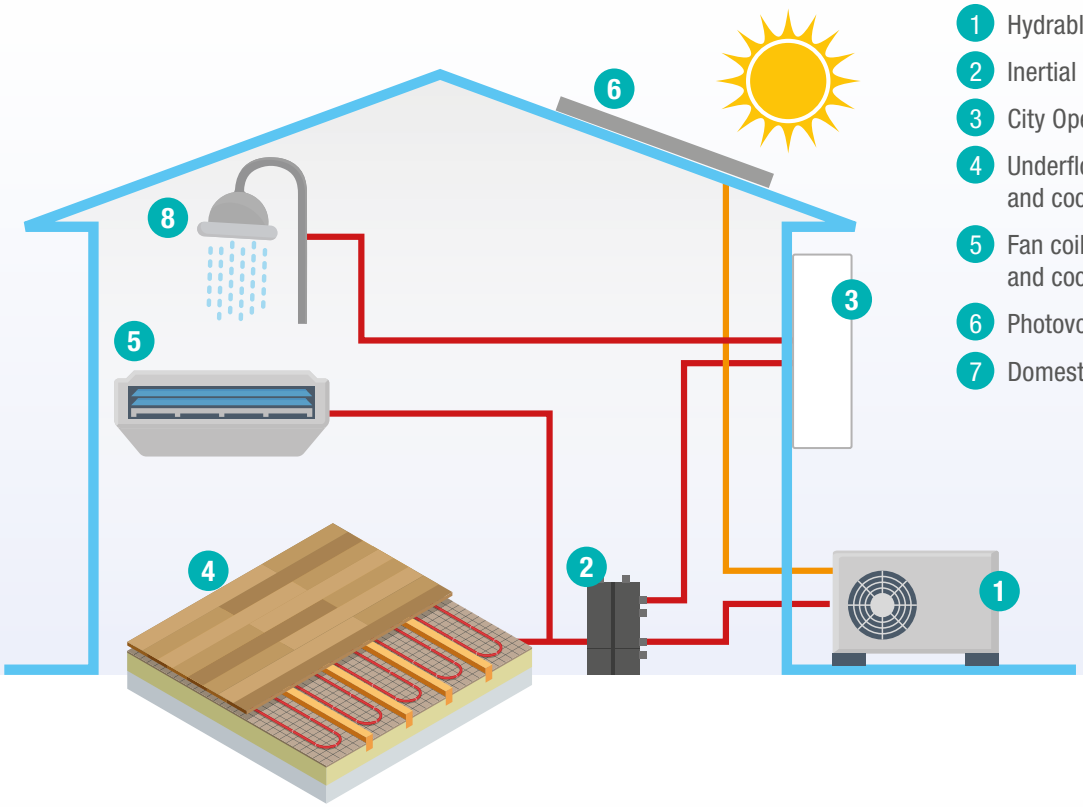
1. Hydrablock C Heat Pump
2. Inertial storage
3. City Class H KR boiler
4. Underfloor heating and cooling
5. DHW Tank
6. Fan coil for heating and cooling
7. Domestic hot water

Hydrablock Compact Hybrid Max K



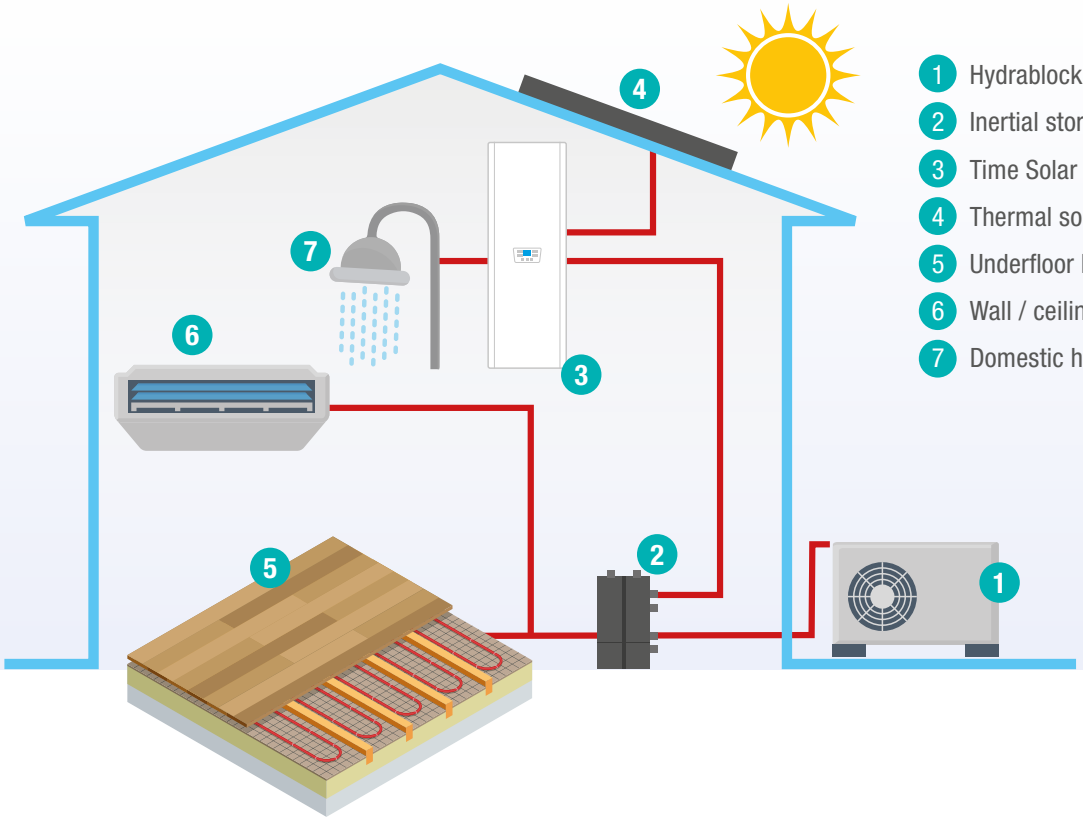
1. Hydrablock C Heat Pump
2. Inertial storage
3. Time Max K Boiler
4. Underfloor heating
5. Wall / ceiling fan coil
6. Domestic hot water

Hydrablock Compact Hybrid Open K / Box K



1. Hydrablock Heat Pump
2. Inertial storage
3. City Open H K / City Box H K Boiler
4. Underfloor heating and cooling
5. Fan coil for heating and cooling
6. Photovoltaic panels
7. Domestic hot water

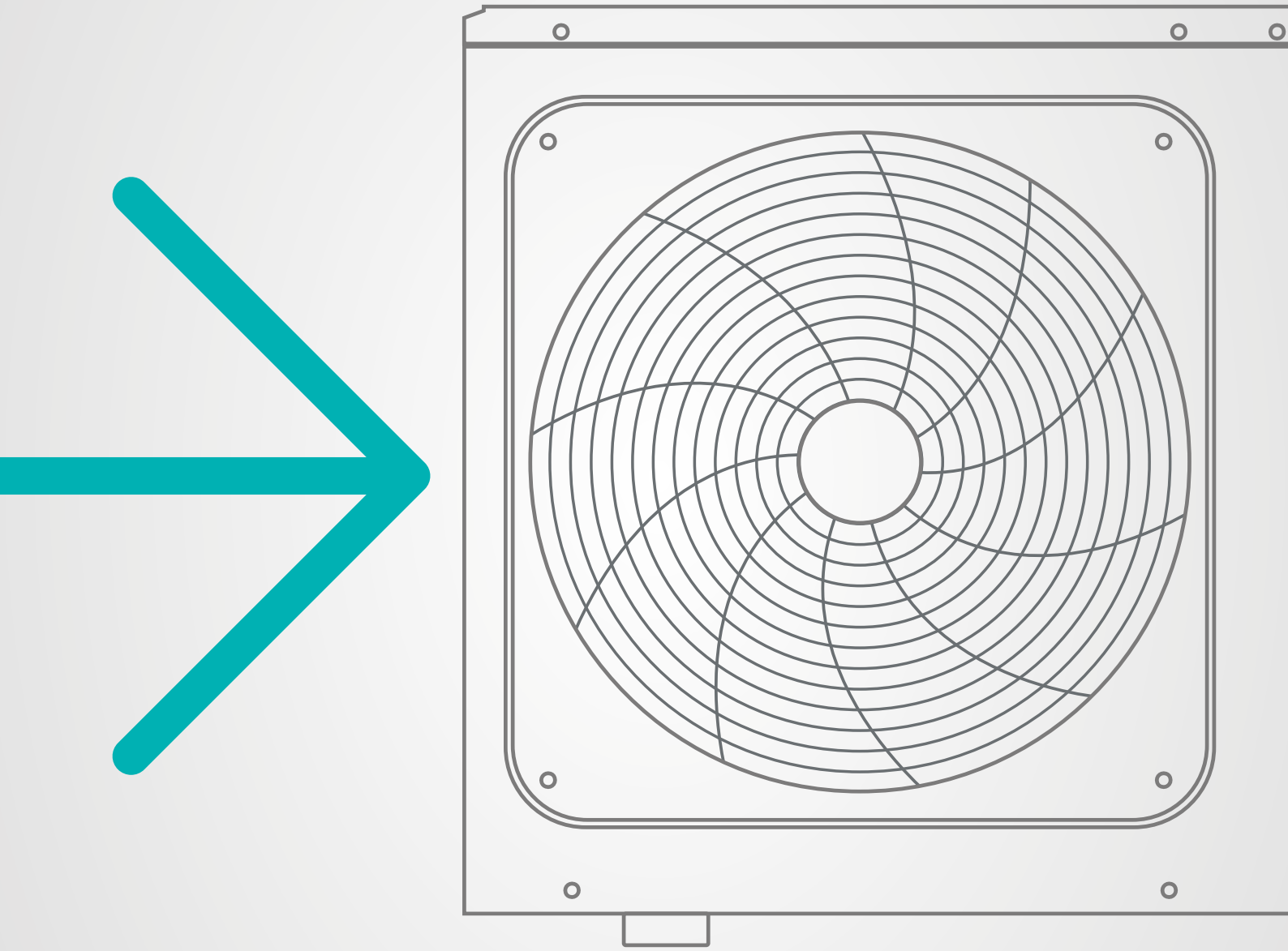
Hydrablock Compact Hybrid Solar K



1. Hydrablock Heat Pump
2. Inertial storage
3. Time Solar K boiler
4. Thermal solar panels
5. Underfloor heating
6. Wall / ceiling fan coil
7. Domestic hot water

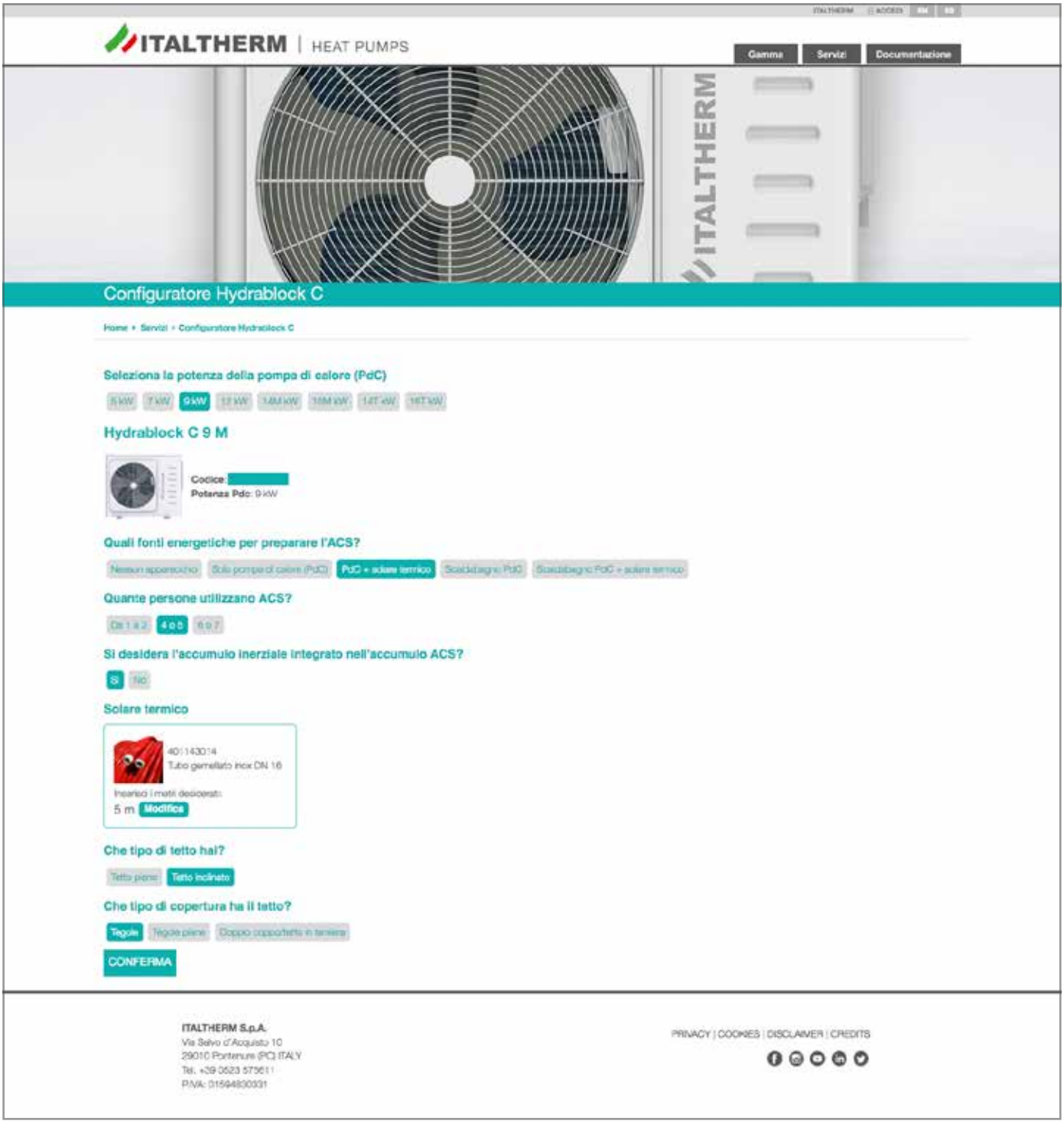
- CONFIGURATOR
- DIMENSIONS
- PLANT DIAGRAMS

- CIRCULATORS HEADS
- TECHNICAL DATA



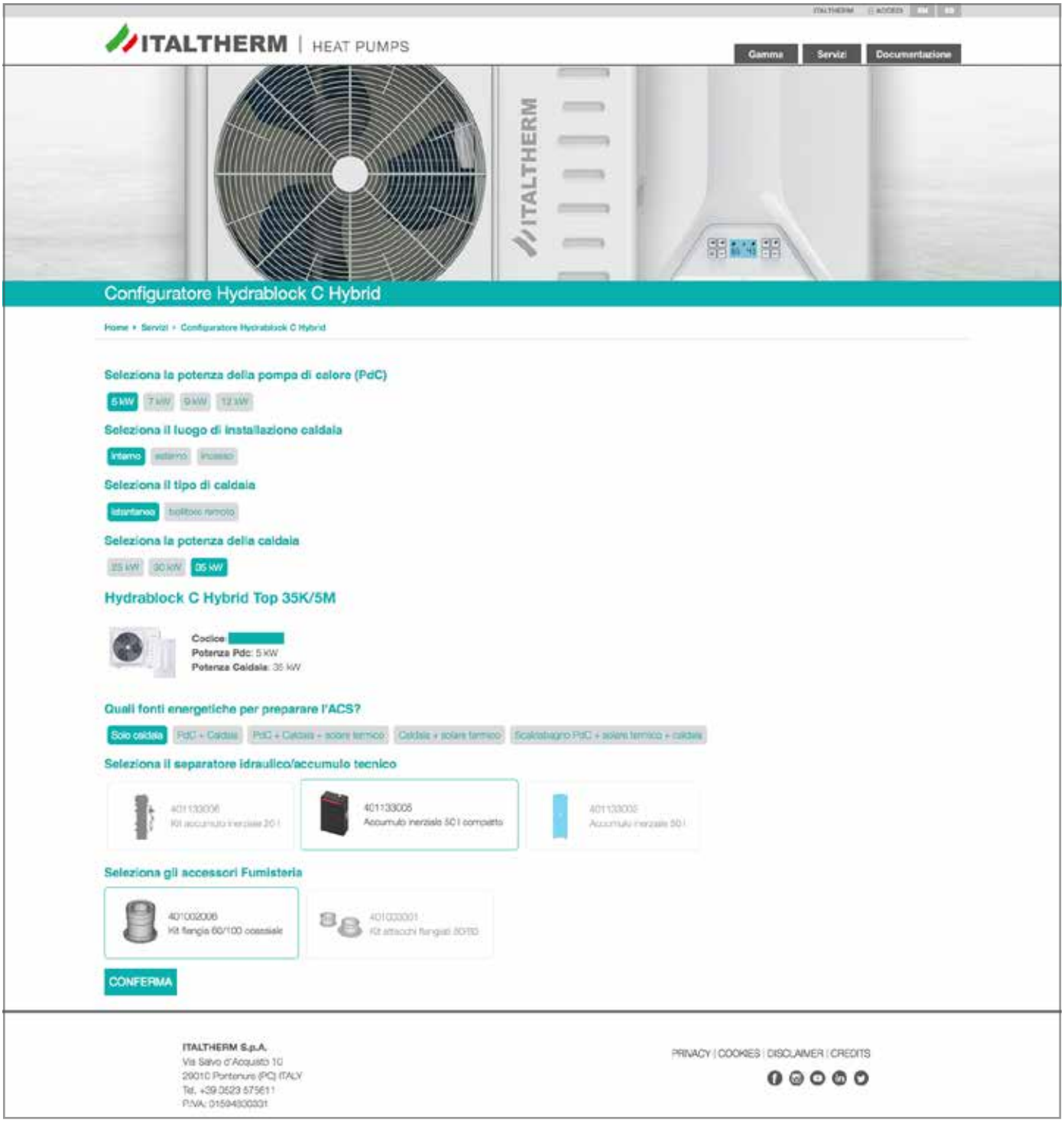
Italtherm has developed a configurator to assist dealers, designers and installers in the sizing and design phases of heat pump systems **Hydrablock Compact** e **Hydrablock Compact Hybrid**.

HYDRABLOCK COMPACT

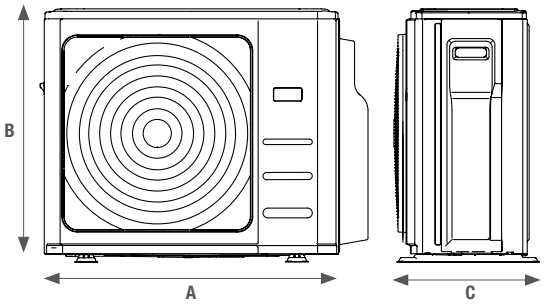


This tool allows the professional to easily identify the possible combinations between the thermal module and the heat pump, the ITALTHERM components and accessories required to correctly realize the system, view hydraulic diagrams, create and send quotations and download the specification items.

HYDRABLOCK COMPACT HYBRID

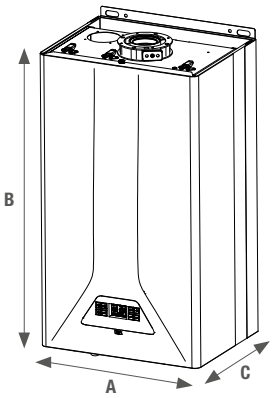


HYDRABLOCK COMPACT 5M/7M/9M/12M/14M/16M/14T/16T



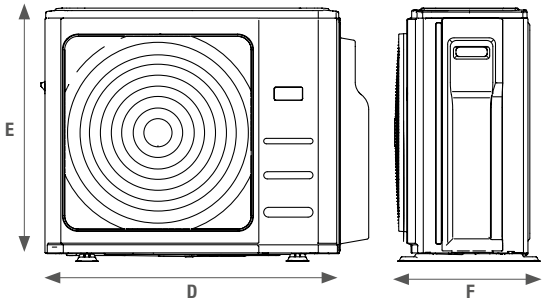
A	B	C
1040	865	410

HYDRABLOCK COMPACT HYBRID TOP K

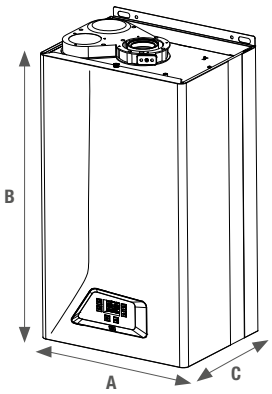


Models	A	B	C
25K	400	700	324
35K			

D	E	F
1040	865	410

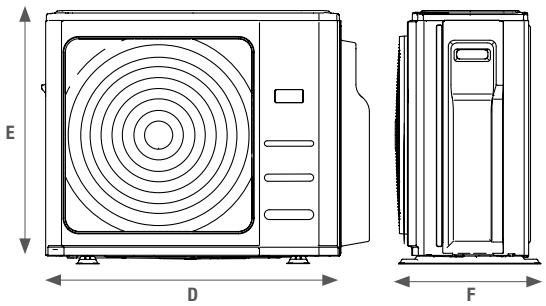


HYDRABLOCK COMPACT HYBRID CLASS K

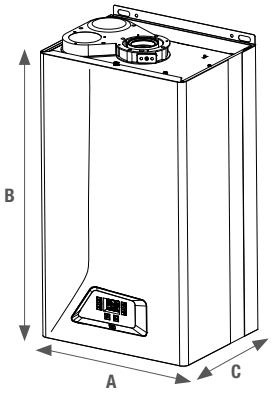


Models	A	B	C
25K	400	324	700
30K			

D	E	F
1040	865	410

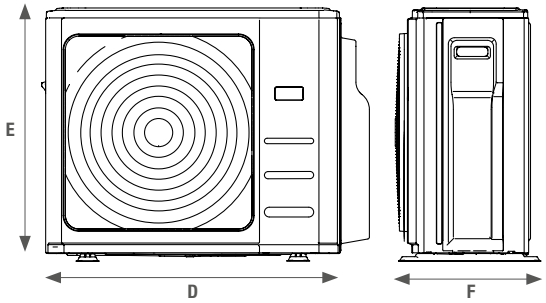


HYDRABLOCK COMPACT HYBRID CLASS KR

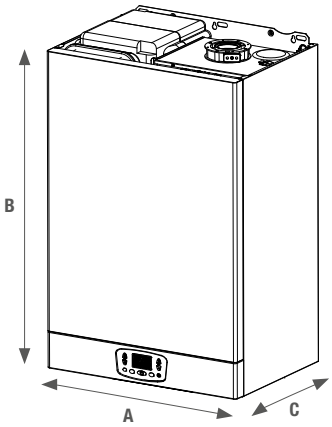


Models	A	B	C
25KR	400	324	700
35KR			

D	E	F
1040	865	410

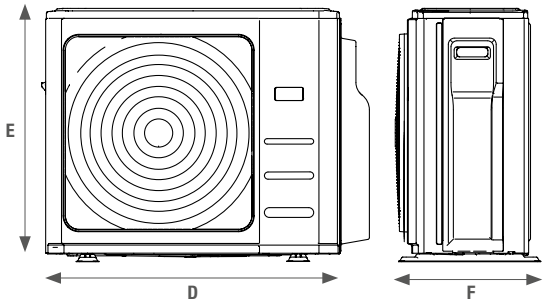


HYDRABLOCK COMPACT HYBRID MAX K

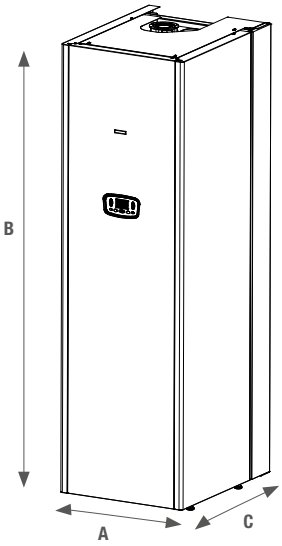


Models	A	B	C
27K	600	900	425

D	E	F
1040	865	410

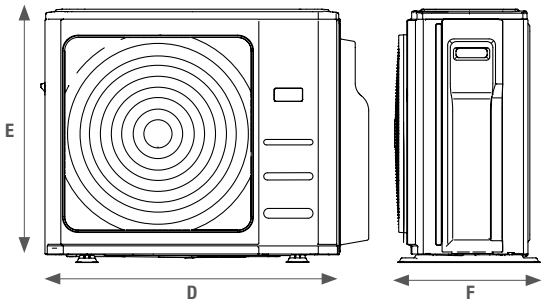


HYDRABLOCK COMPACT HYBRID COMPACT K

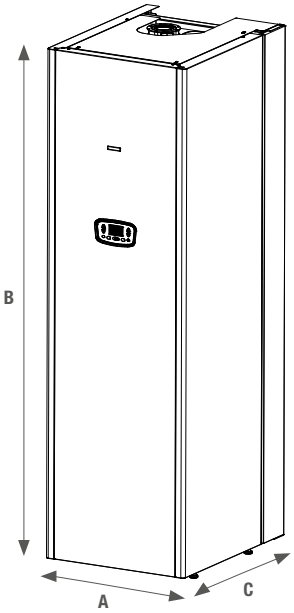


Models	A	B	C
35K	600	1765	600

D	E	F
1040	865	410

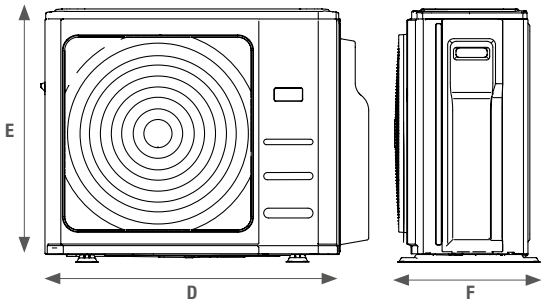


HYDRABLOCK COMPACT HYBRID SOLAR K

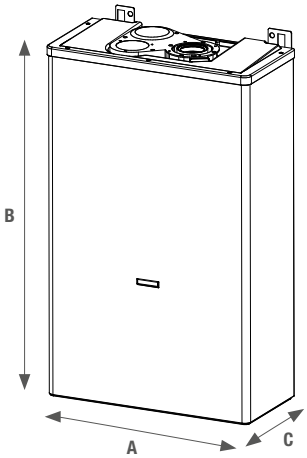


Models	A	B	C
18K	600	1980	750
35K	600	1980	750

D	E	F
1040	865	410

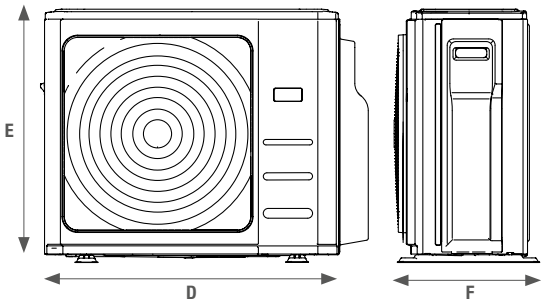


HYDRABLOCK COMPACT HYBRID OPEN K

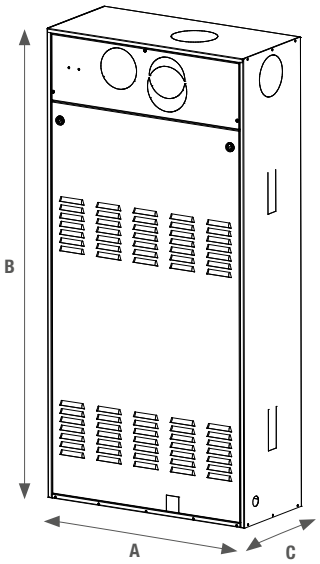


Models	A	B	C
25K	520	850	240

D	E	F
1040	865	410

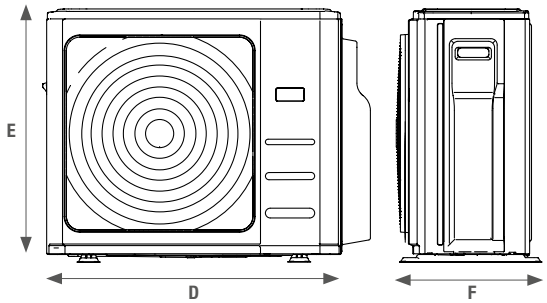


HYDRABLOCK COMPACT HYBRID BOX K

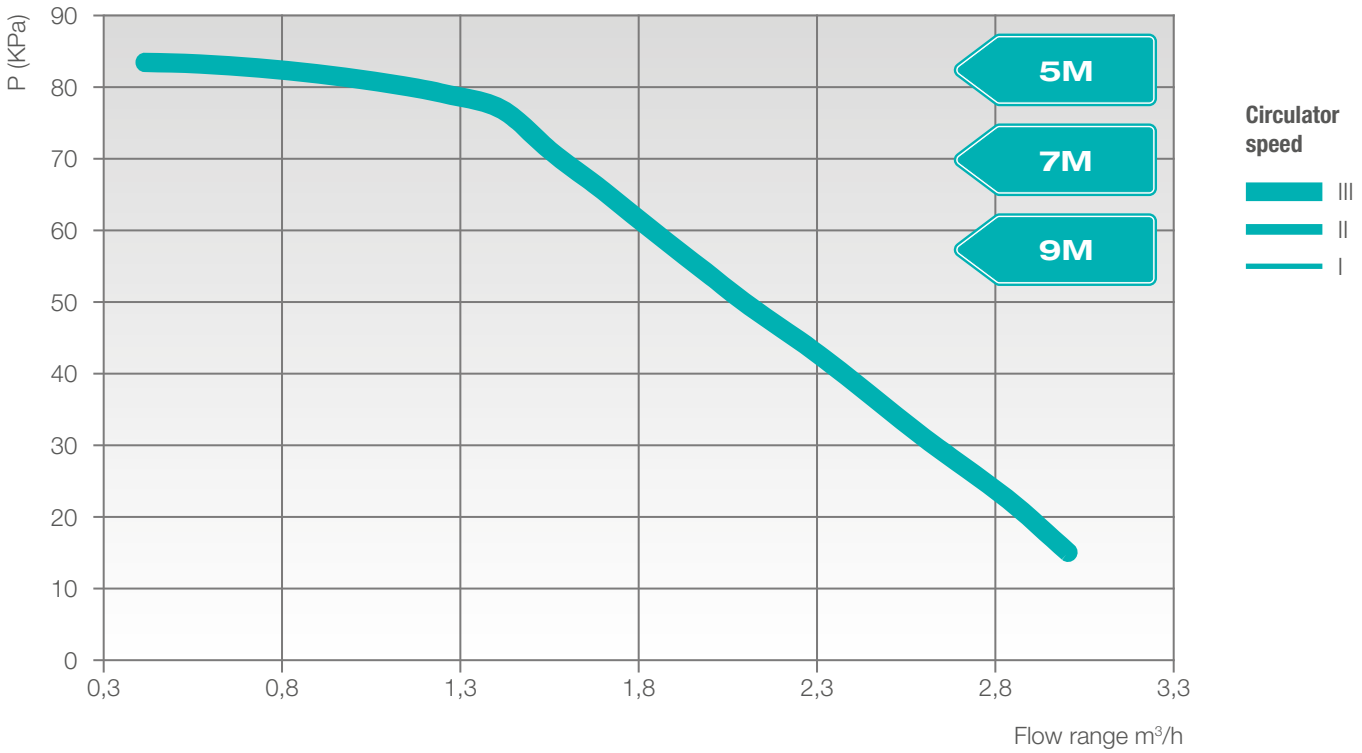


Models	A	B	C
25K	520	1140	250

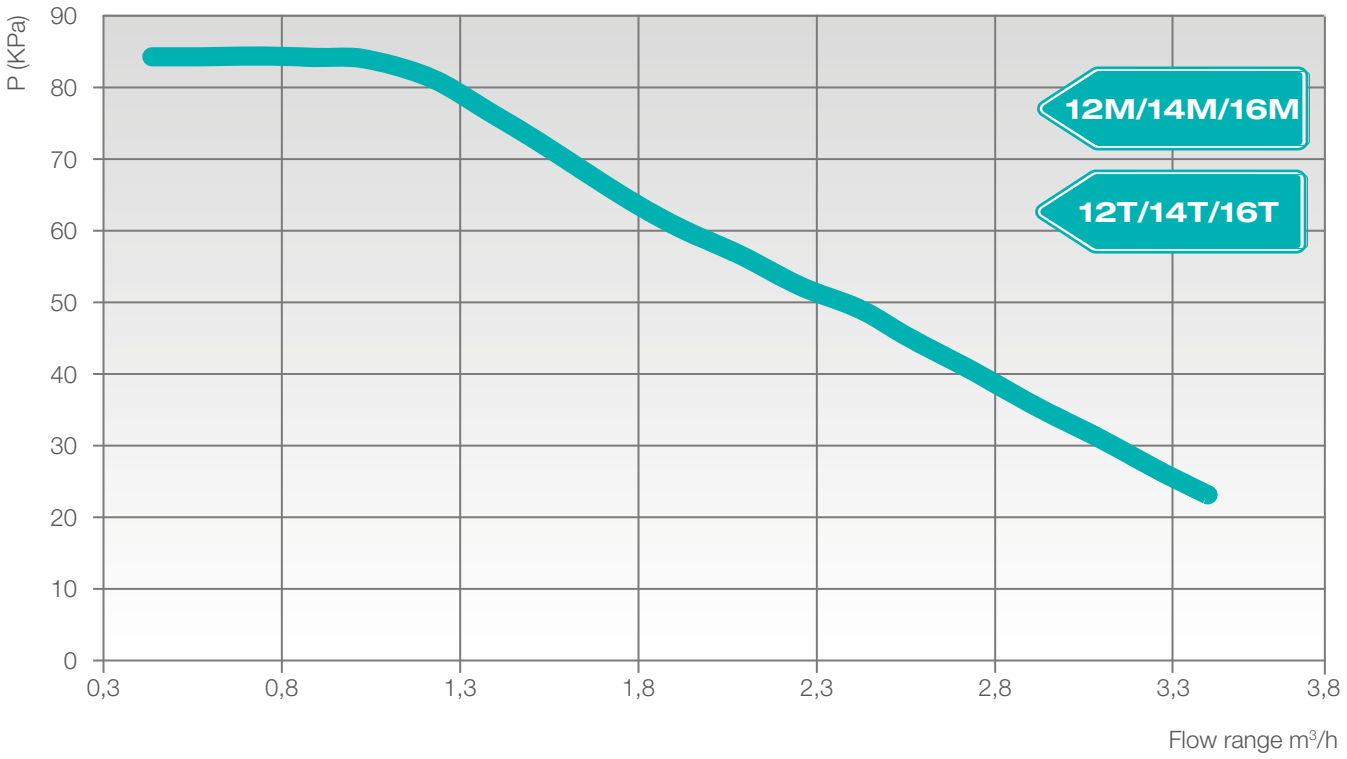
D	E	F
1040	865	410



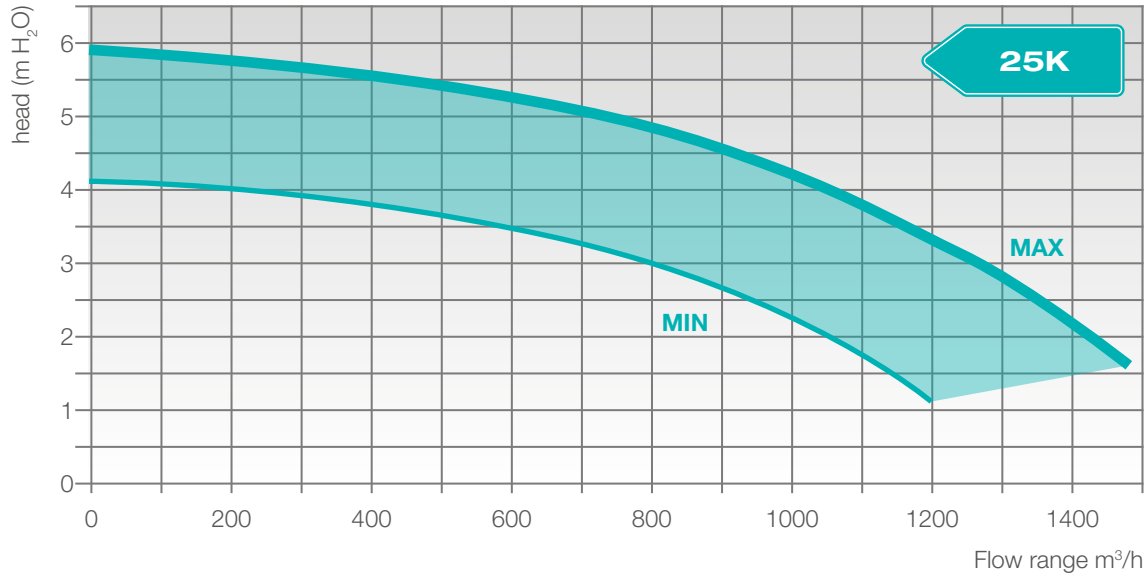
Available head/flow rate of circulators
HYDRABLOCK Compact 5M / 7M / 9M

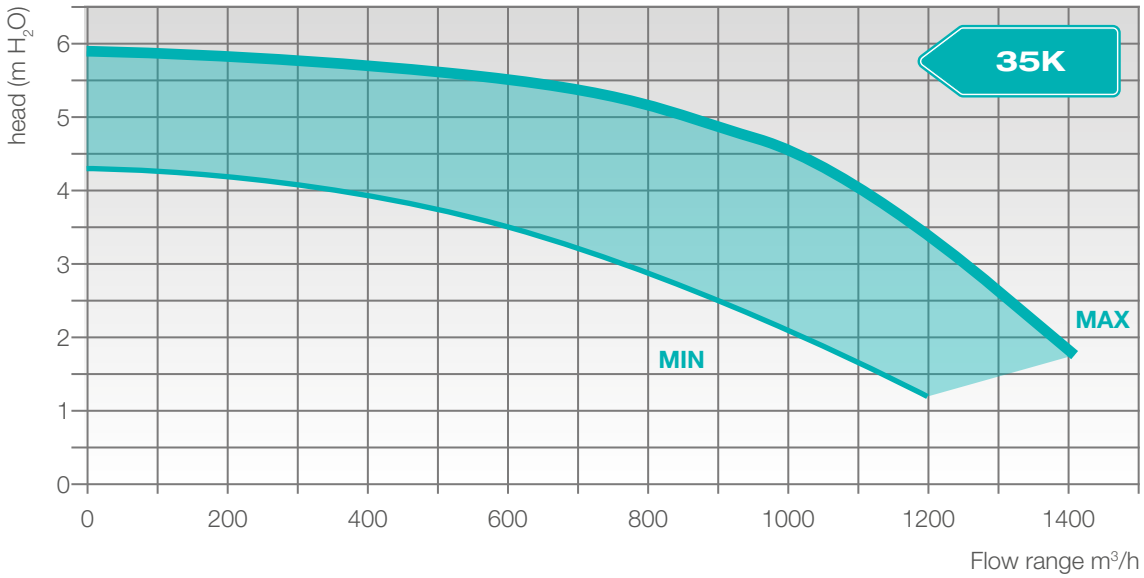


Available head/flow rate of circulators
HYDRABLOCK C 12M / 14M / 16M / 12T / 14T / 16T

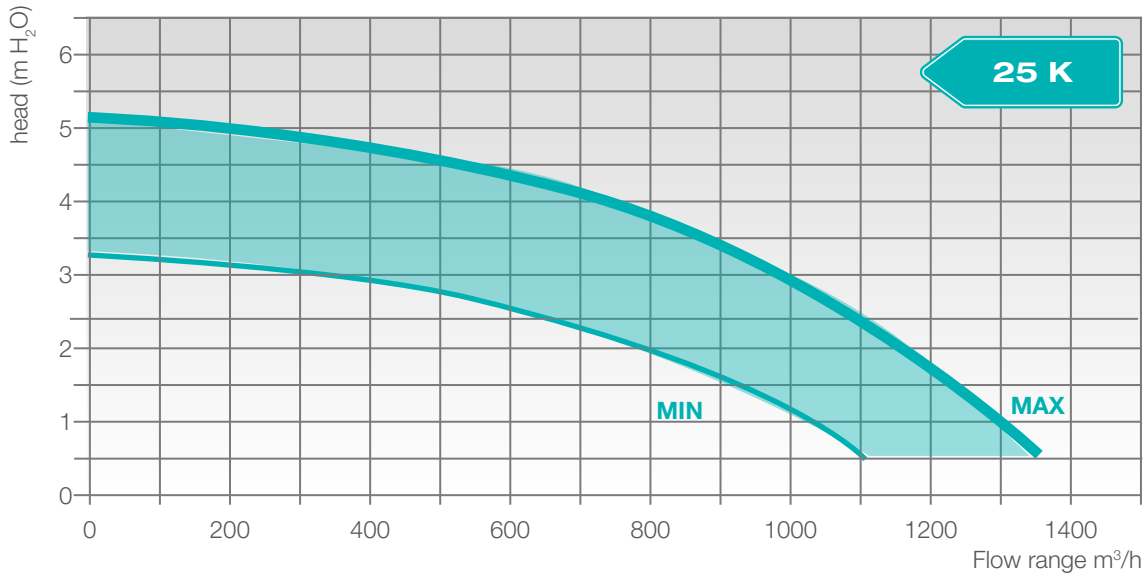


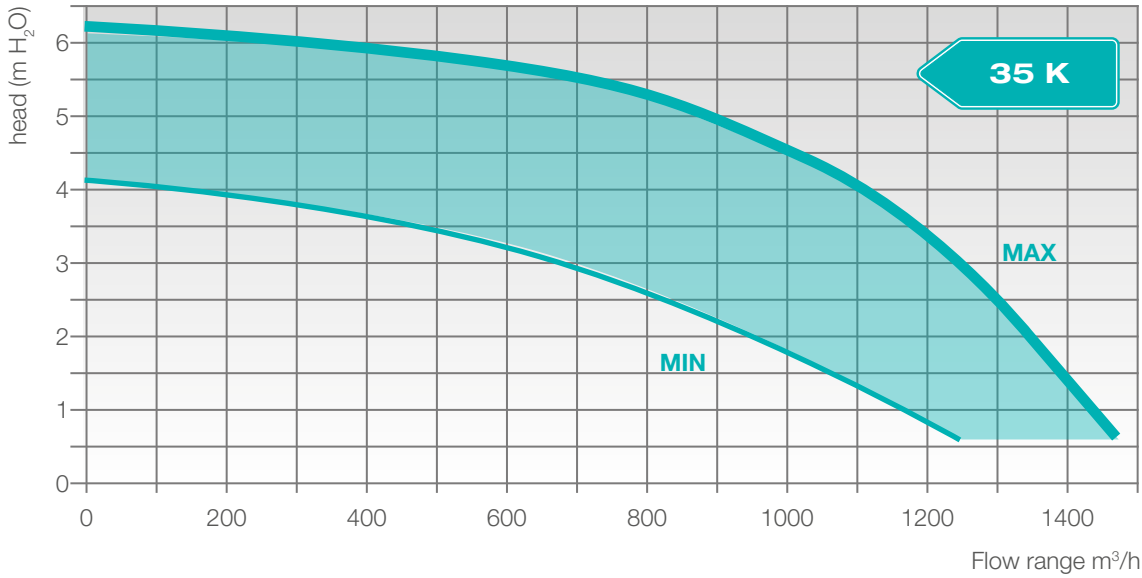
Head available at the plant CITY TOP K



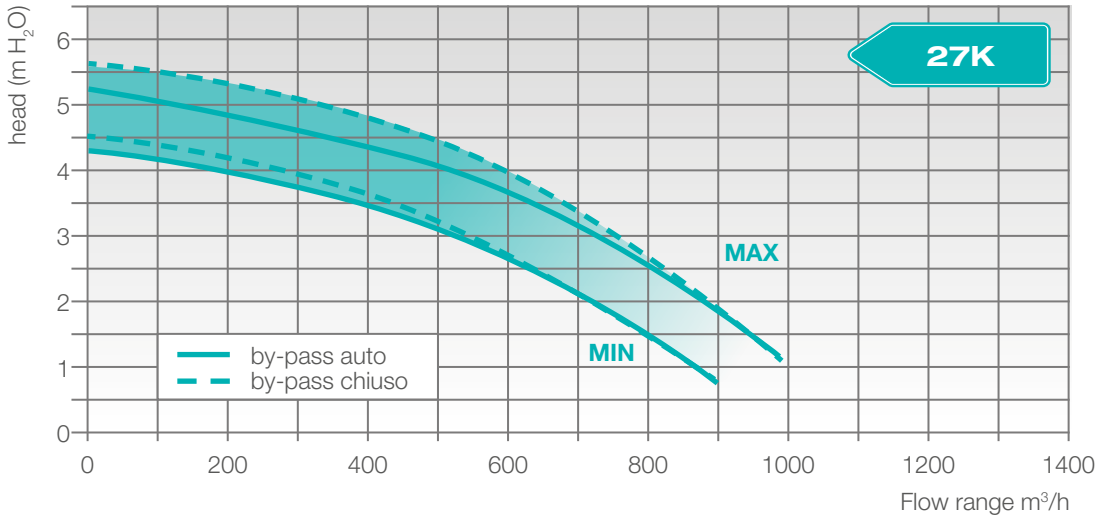


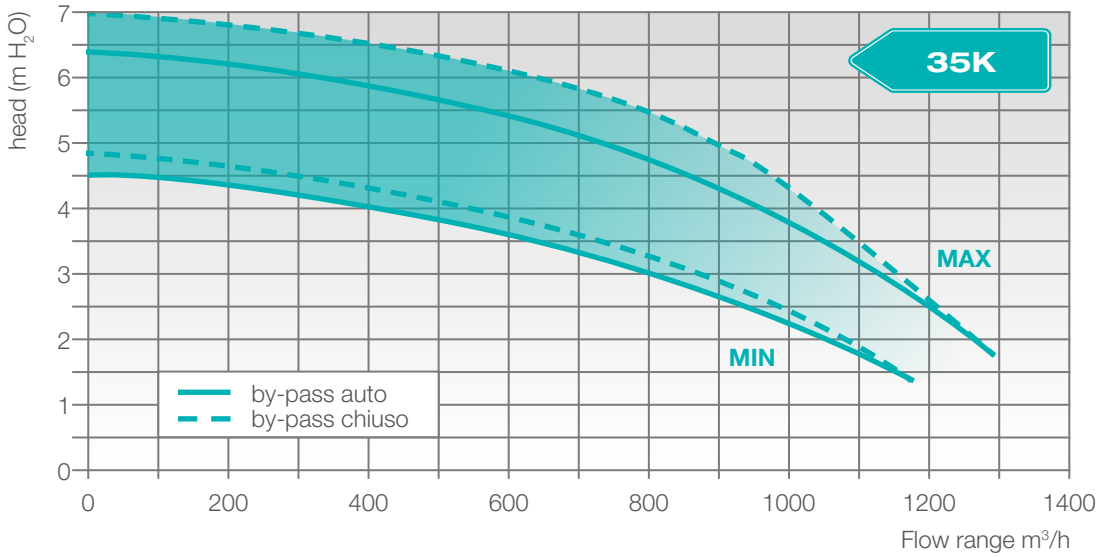
Head available at the plant CITY CLASS H K



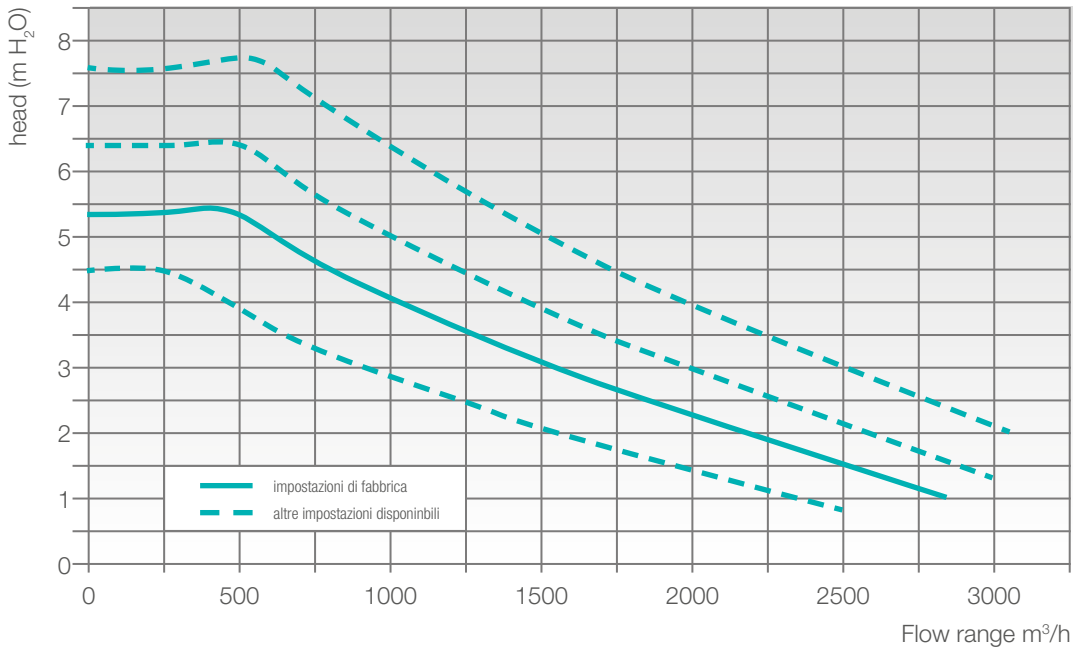


Head available at the plant SOLAR K

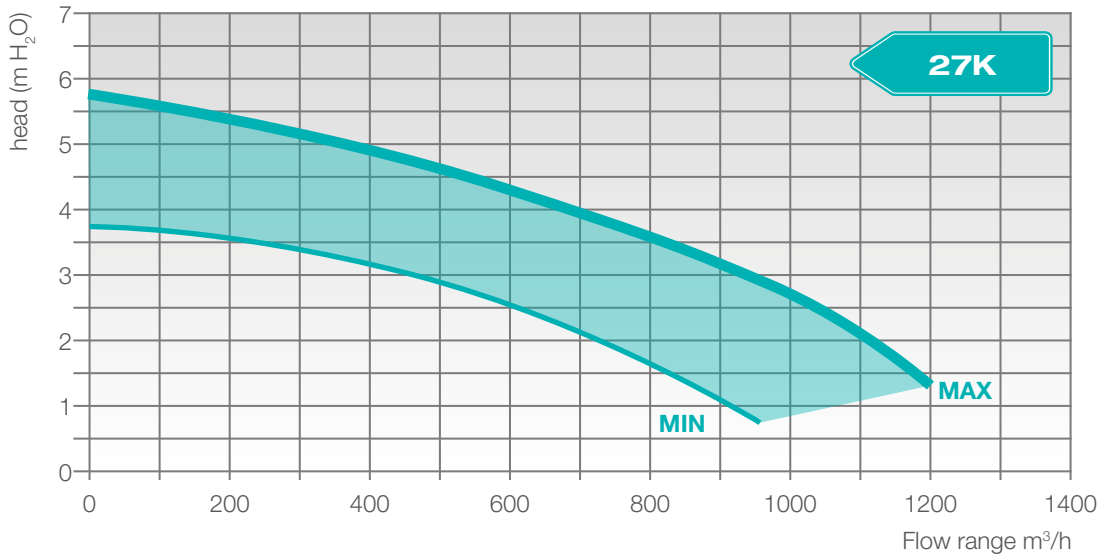




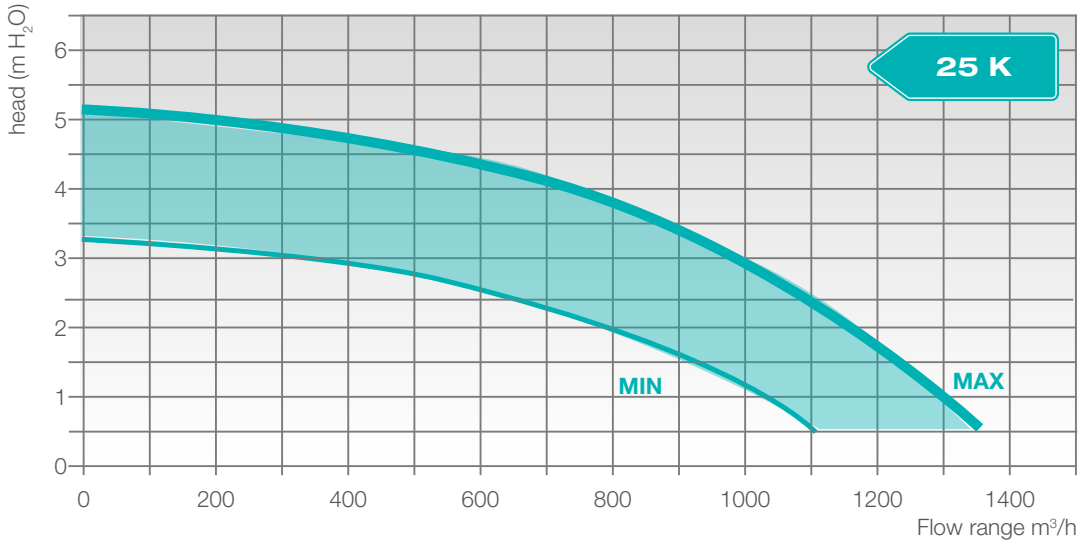
Solar circulator head



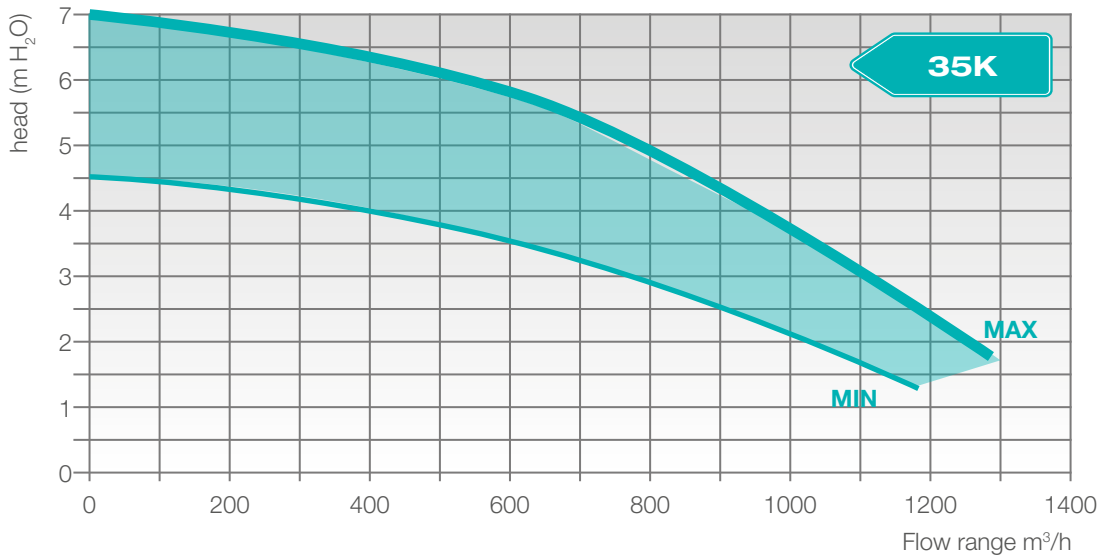
Head available at the plant MAX K



Head available at the plant OPEN H K and BOX H K



Head available at the plant COMPACT K



TECHNICAL DATA Model		U.M.	HYDRABLOCK COMPACT								
			5M	7M	9M	12M	14M	16M	12T	14T	16T
HEATING PERFORMANCE (EN 14511)											
External temp. 7°C (d.b.), R.H. 85%, Water temp. 35/30°C	Heat output	kW	6,5	8,4	10	12,2	14,1	16	12,2	14,1	16
	Electrical power	kW	1,22	1,66	2,12	2,49	3	3,55	2,49	3	3,55
	COP	W/W	5,3	5,05	4,7	4,9	4,7	4,5	4,9	4,7	4,5
External temp. 7° C bs, R.H. 85%, Water temp. 45 / 40° C	Heat output	kW	6,6	8,5	10,2	12,5	14,5	16,2	12,5	14,5	16,2
	Electrical power	kW	1,65	2,23	2,79	3,37	4,08	4,69	3,37	4,08	4,69
	COP	W/W	4	3,8	3,65	3,7	3,55	3,45	3,7	3,55	3,45
External temp. 7° C bs, R.H. 85%, Water temp. 55 / 47° C	Heat output	kW	6,3	8,2	9,4	12	14	16	12	14	16
	Electrical power	kW	1,96	2,60	3,03	4	4,74	5,61	4	4,74	5,61
	COP	W/W	3,20	3,15	3,10	3	2,95	2,85	3	2,95	2,85
COOLING PERFORMANCE (EN 14511)											
External temp. 35° C bs, Water temp. 18 / 23° C	Cooling power	kW	6,5	8,3	10	12,2	13,9	15,4	12,2	13,9	15,4
	Electrical power	kW	1,27	1,71	2,32	2,65	3,15	3,66	2,65	3,15	3,66
	EER	W/W	5,1	4,85	4,30	4,60	4,40	4,20	4,60	4,40	4,20
External temp. 35° C bs, Water temp. 7 / 12° C	Cooling power	kW	5,5	7,4	9	11,6	13,4	14	11,6	13,4	14
	Electrical power	kW	1,69	2,34	3,1	3,74	4,57	4,82	3,74	4,57	4,82
	EER	W/W	3,25	3,15	2,90	3,1	2,93	2,9	3,1	2,93	2,9
DIMENSIONS AND WEIGHT											
Dimensions (w x h x d)		mm	1040 x 865 x 410								
Weight		kg	87			106			120		
REFRIGERANT CIRCUIT											
Compressor			Twin rotary DC inverter								
Air exchanger			Stainless steel plates								
Gas type			R32								
GWP			675								
Gas content		kg	1,25			1,8					
FAN											
Number of fans			1								
Air flow		m^3/h	3900	4500		5200					
Fan Motor type			Brushless DC inverter								
HYDRAULIC CIRCUIT											
Safety valve intervention pressure		bar	3								
Expansion vessel		l	5								
Safety flow switch activation		m^3/h	0,36			0,6					
Hydraulic connections			1”			1” 1/4					
SOUND POWER AND PRESSURE [1]											
Sound power[2]		dB(A)	60	63	65	70	72	72	70	72	72
ELECTRICAL DATA											
Power supply		V/Ph/Hz	230 - 1 - 50						400 - 3 - 50		
Rated operating curren		A	13	14,5	16	25	26,5	28	9,5	10,5	11,5
Min. Power cable section		nr x mm^2	3 x 4			3 X 6			5 x 2,5		
Differential switch			Type F						Type B		

1. *The data refer according to the directives: EN14511; EN14825; EN50564; EN12102; (EU) No:811/2013; (EU)No:813/2013; OJ 2014/C 207/02.*
2. *The acoustic test according to EN12102-1*

ErP Data

DATI ERP (Reg. 811/2013 - EN 14825)		HYDRABLOCK COMPACT								
		5M	7M	9M	12M	14M	16M	12T	14T	16T
Energy efficiency class in heating at 35°C (average climate)		A+++								
Energy efficiency class in heating at 55°C (average climate)		A++								
η_s seasonal efficiency in heating at 35°C (average climate)	%	201.8	204	201.9	200.1	192.5	190.5	200.2	192.5	190.5
η_s seasonal efficiency in heating at 55°C (average climate)	%	140.7	143.6	145.5	141.6	141.8	140.6	141.6	141.8	140.6
SCOP at 35°C		5,12	5,18	5,12	5,08	4,89	4,84	5,08	4,89	4,84
SCOP at 55°C		3,59	3,67	3,71	3,62	3,62	3,59	3,62	3,62	3,59
SEER at 7°C		5,09	5,19	5,08	5,07	5,09	5,11	5,07	5,12	5,14
SEER at 18°C		7,81	8,09	8,31	7,79	7,59	7,49	7,79	7,65	7,54

Data according to UNI EN 14511 and UNI EN 14825

Hydrablock Compact Hybrid TOP K hybrid device (indoor instant boiler)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Top 25K / 5M	City Top 25 K	1:16	25	Hydrablock C 5M	6,5	5,30	5,5	5,1
Top 25K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Top 25K / 9M				Hydrablock C 9M	10	4,70	9	4,3
Top 35K / 5M	City Top 35 K	1:20	33	Hydrablock C 5M	6,5	5,30	5,5	5,1
Top 35K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Top 35K / 9M				Hydrablock C 9M	10	4,70	9	4,3
Top 35K / 12M				Hydrablock C 12M	12,2	4,90	11,6	4,6
Top 35K / 14M				Hydrablock C 14M	14,1	4,70	13,4	4,4

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Top 25K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	86	A	XL
Top 25K / 7M	7,45	3,68	144%	A++	8,15	5,16	203%	A+++	86	A	XL
Top 25K / 9M	8,25	3,73	146%	A++	9,25	5,13	202%	A+++	86	A	XL
Top 35K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	85	A	XXL
Top 35K / 7M	7,45	3,68	144%	A++	8,15	5,16	203%	A+++	85	A	XXL
Top 35K / 9M	8,25	3,73	146%	A++	9,25	5,14	203%	A+++	85	A	XXL
Top 35K / 12M	12,85	3,64	143%	A++	12,55	5,07	200%	A+++	85	A	XXL
Top 35K / 14M	14,35	3,64	143%	A++	14,65	4,87	192%	A+++	85	A	XXL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid CLASS K hybrid device (instant DHW indoor boiler)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Class 25K / 5M	City Class 25 K	1:10	21	Hydrablock C 5M	6,5	5,30	5,5	5,1
Class 25K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Class 25K / 9M				Hydrablock C 9M	10	4,70	9	4,3
Class 30K / 5M	City Class 30 K	1:10	25	Hydrablock C 5M	6,5	5,30	5,5	5,1
Class 30K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Class 30K / 9M				Hydrablock C 9M	10	4,70	9	4,3

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Class 25K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	83	A	XL
Class 25K / 7M	7,45	3,67	144%	A++	8,15	5,16	203%	A+++	83	A	XL
Class 25K / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++	83	A	XL
Class 30K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	82	A	XXL
Class 30K / 7M	7,45	3,67	144%	A++	8,15	5,16	203%	A+++	82	A	XXL
Class 30K / 9M	8,25	3,73	146%	A++	9,25	5,14	203%	A+++	82	A	XXL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid CLASS KR hybrid device (indoor boiler with remote storage)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Class 25KR / 5M	City Class 25 KR	1:10	20	Hydrablock C 5M	6,5	5,30	5,5	5,1
Class 25KR / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Class 25KR / 9M				Hydrablock C 9M	10	4,70	9	4,3
Class 35KR / 9M	City Class 35 KR	1:10	28	Hydrablock C 9M	10	4,70	9	4,3
Class 35KR / 12M				Hydrablock C 12M	12,2	4,90	11,6	4,6

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Class 25KR / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++			
Class 25KR / 7M	7,45	3,67	144%	A++	8,15	5,16	203%	A+++			
Class 25KR / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++			
Class 35KR / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++			
Class 35KR / 12M	12,85	3,64	143%	A++	12,55	5,07	200%	A+++			

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid BOX K hybrid device (built-in instant boiler)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Box 25K / 5M	City Box 25 K	1:10	21	Hydrablock C 5M	6,5	5,30	5,5	5,1
Box 25K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Box 25K / 9M				Hydrablock C 9M	10	4,70	9	4,3

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Box 25K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	83	A	XL
Box 25K / 7M	7,45	3,67	144%	A++	8,15	5,16	203%	A+++	83	A	XL
Box 25K / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++	83	A	XL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid OPEN K hybrid device (instant DHW outdoor boiler)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Open 25K / 5M	City Open 25 K	1:10	21	Hydrablock C 5M	6,5	5,30	5,5	5,1
Open 25K / 7M				Hydrablock C 7M	8,4	5,05	7,4	4,85
Open 25K / 9M				Hydrablock C 9M	10	4,70	9	4,3

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Box 25K / 5M	6,55	3,59	141%	A++	6,75	5,1	201%	A+++	83	A	XL
Box 25K / 7M	7,45	3,67	144%	A++	8,15	5,16	203%	A+++	83	A	XL
Box 25K / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++	83	A	XL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid COMPACT K hybrid device (boiler with 120 liters solar tank)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Compact 35k / 12M	Time Compact 35 K	1:10	33	Hydrablock C 12M	12,2	4,90	11,6	4,6

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Compact 35k / 12M	12,95	3,64	143%	A++	12,55	5,07	200%	A+++	77	B	XXL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid SOLAR K hybrid device (boiler with 200 liters solar tank)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Solar 18K / 7M	Time Solar 18 K	1:10	17,8	Hydrablock C 7M	8,4	5,05	7,4	4,85
Solar 35K / 7M	Time Solar 35 K	1:10	33	Hydrablock C 7M	8,4	5,05	7,4	4,85
Solar 35K / 9M				Hydrablock C 9M	10	4,70	9	4,3
Solar 35K / 12M				Hydrablock C 12M	12,2	4,90	11,6	4,6

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Solar 18K / 7M	7,45	3,68	144%	A++	8,15	5,17	204%	A+++	76	B	XXL
Solar 35K / 7M	7,45	3,68	144%	A++	8,15	5,17	204%	A+++	77	B	XXL
Solar 35K / 9M	8,25	3,74	147%	A++	9,25	5,14	203%	A+++	77	B	XXL
Solar 35K / 12M	12,95	3,64	143%	A++	12,55	5,07	200%	A+++	77	B	XXL

3) *Data calculated according to UNI EN 14825 - average climate*

Hydrablock Compact Hybrid MAX K hybrid device (boiler with 60 liters tank)

HYBRID DEVICE	BOILER			HEAT PUMP				
Version	Description	Modulation ratio	Max. Heat input Qn (kW)	Description	Heat output (kW)[1]	COP[1]	Heating (kW)[2]	EER[2]
Max 27K / 7M	Time Max 27 K	1:10	26	Hydrablock C 7M	8,4	5,05	7,4	4,85

1) *Water T. 35/30°C - Air T. 7°C (d.b.) R.H. 85% /* ***2)*** *Water T. 18/23°C - Air T.35°C (d.b.) - performance obtained in compliance with the UNI EN 14511 standard*

For complete technical data of heat pump and boilers see the following sections

HYBRID DEVICE	DATA ERP[3]										
	HEATING TO 55°C				HEATING TO 35°C				DOMESTIC HOT WATER		
Version	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Pdesignh	SCOP	Eta s	Energy Efficiency Class	Eta wh	Energy Efficiency Class	Declared load profile
Max 27K / 7M	7,45	3,68	144%	A++	8,15	5,17	204%	A+++	87	A	XXL

3) *Data calculated according to UNI EN 14825 - average climate*

MODEL		Top 25 K	Top 35 K
Gas type		G20	G20
Max. Heat input Qn	kW	25	34.9
Max. Heat input Heating	kW	25	33
Min. Heat input Qr	kW	1.6	1.6
Max. Heat output 60°/80°C *	kW	24.1	32.2
Min. Heat output 60°/80°C *	kW	1.5	1.5
Max. Heat output 30°/50°C *	kW	26.7	35.3
Min. Heat output 30°/50°C *	kW	1.7	1.7
NOx Class		6	6
EFFICIENCY			
Nominal efficiency (NCV) at 60°/80°C*	%	96.2	97.1
Nominal efficiency (NCV) at 30°/50°C *	%	104.4	105.1
Efficiency at 30% Qa (NCV) at 30°C*	%	105.3	105.6
* return temperature / flow temperature; NCV = Lower Calorific Value (= Hi) • Note: the data were measured with horizontal coaxial flue kit = 1 meter			
HEATING			
Temperature ranges (min÷max) • main zone	°C	35÷80	
Temperature range (min÷max) • secondary zone	°C	20÷45	
Expansion vessel	l	10	10
Expansion vessel pre-load pressure	bar	1	1
Loss of water switch pressure on / off	bar	0.5 / 1.0	0.5 / 1.0
Max working pressure	bar	3	3
Max temperature	°C	90	90
Antifreeze function temperature on / off	°C	5÷30	5÷30
DOMESTIC HOT WATER DATA			
Flow rate at ΔT 25°C	l/min	15	19.5
Flow rate at ΔT 30°C	l/min	12.3	16.1
Min DHW flow (for DHW activation)	l/min	2.8	2.8
Min DHW pressure (for DHW activation)	bar	0.2	0.2
Max DHW pressure inlet	bar	6	6
DHW range temperature (min÷max)	°C	30÷55	
ELECTRICAL FEATURES			
Voltage / Frequency (rated voltage)	V / Hz	230V / 50	
Power consumption	W	87	110
Protection level		IPX5D	
DIMENSIONS			
Width - height - depth	mm	400 x 700 x 324	
Weight	kg	36.8	36.8
MAXIMUM FLUE SYSTEM LENGTH			
Concentric flue system inlet + outlet ø 60/100 mm	m	see the data sheet on en.italtherm.it/documentation	
Split flue system ø 80 mm	m		
Split flue system ø 60 mm	m		
Split flue system ø 50 mm	m		
GAS PRESSURE INLET			
Nominal pressure	mbar	20	
Inlet pressure (min÷max)	mbar	17-25	
PRODUCT SHEET (ErP)			
DHW declared load profile		XL	XXL
Seasonal heating energy efficiency class		A	A
DHW energy efficiency class		A	A
Seasonal Space Heating Energy Efficiency (GCV)	(η_s) %	90	

MODEL		Class H 25 K	Class H 30 K	Class H 25 KR	Class H 35 KR
Gas type		G20	G20	G20	G20
Max. Heat input Qn	kW	25,0	30,0	25,0	33,2
Max. Heat input Heating	kW	21,0	25,0	21,0	28,0
Min. Heat input Qr	kW	2,6	2,6	2,6	3,5
Max. Heat output 60°/80°C *	kW	20,3	24,0	20,3	26,3
Min. Heat output 60°/80°C *	kW	2,4	2,4	2,4	3,2
Max. Heat output 30°/50°C *	kW	22,1	26,1	22,1	29,0
Min. Heat output 30°/50°C *	kW	2,7	2,7	2,7	3,7
NOx Class		6	6	6	6
EFFICIENCY					
Nominal efficiency (NCV) at 60°/80°C*	%	95.9	95,9	95.9	95,2
Nominal efficiency (NCV) at 30°/50°C *	%	105,8	105,4	105,8	105,1
Efficiency at 30% Qa (NCV) at 30°C*	%	106,2	106,0	106,2	106,9
* return temperature / flow temperature; NCV = Lower Calorific Value (= Hi) • Note: the data were measured with horizontal coaxial flue kit = 1 meter					
HEATING					
Temperature ranges (min÷max) • main zone	°C	35 ÷ 80 / 20 ÷ 45			
Temperature range (min÷max) • secondary zone	°C	20 ÷ 80			
Expansion vessel	l	8	8	8	10
Expansion vessel pre-load pressure	bar	1	1	1	1
Pressione off / on del pressostato • min. system pressure	bar	0,4 / 0,9 (±0,2)	0,4 / 0,9 (±0,2)	0,4 / 0,9 (±0,2)	0,4 / 0,9 (±0,2)
Max working pressure	bar	3	3	3	3
Max temperature	°C	90	90	90	90
Antifreeze function temperature on / off	°C	5/30	5/30	5/30	5/30
DOMESTIC HOT WATER					
Flow rate at ΔT 25°C	l/min	15,1	18,1	-	-
Flow rate at ΔT 30°C	l/min	12,6	15,1	-	-
Min DHW flow (for DHW activation)	l/min	2,0	2,0	-	-
Min DHW pressure (for DHW activation)	bar	0,2	0,2	-	-
Max DHW pressure inlet	bar	6	6	-	-
DHW range temperature (min÷max)	°C	35 ÷ 55	35 ÷ 55	30 ÷ 55	35 ÷ 55
ELECTRICAL FEATURES					
Voltage / Frequency (rated voltage)	V/Hz	220 ÷ 240 / 50 (230V)	220 ÷ 240 / 50 (230V)	220 ÷ 240 / 50 (230V)	220 ÷ 240 / 50 (230V)
Power consumption	W	75	90	75	90
Protection level		IP X5D	IP X5D	IP X5D	IP X5D
DIMENSIONS					
Width - height - depth	mm	400 X 700 X 324			
Weight	kg	28,5	28,7	28,5	34,0
CONNECTIONS					
Concentric flue system inlet + outlet ø 60/100 mm	m	see the data sheet on en.italtherm.it/documentation			
Split flue system ø 80 mm	m				
Split flue system ø 60 mm	m				
Split flue system ø 50 mm	m				
PRODUCT SHEET (ErP)					
DHW declared load profile		XL	XL	-	-
Seasonal heating energy efficiency class		A	A	A	A
DHW energy efficiency class		A	A	-	-
Seasonal Space Heating Energy Efficiency (GCV)	(η_s) %	91	90	91	91

MODEL		Max 27 K
Gas type		G20
Category		II2H3P
Type		B23 - B23P - C13 - C33 - C43 - C53 C63 - C83 - C93
Working temperature (min-max)	°C	0 ÷ 60
Max. Heat input Qn	kW	26,0
Min. Heat input Qr	kW	2,6
Max. Heat output 60°/80°C *	kW	25,1
Min. Heat output 60°/80°C *	kW	2,5
Max. Heat output 30°/50°C *	kW	27,2
Min. Heat output 30°/50°C *	kW	2,7
NOx Class		6
Correct CO 0% O_2 (at Qn)	ppm	165,3
CO_2 (at Qn)	%	9,2
Condense quantity at Qn (at 30°/50°C *)	l/h	2,74
Condense quantity at Qr (at 30°/50°C *)	l/h	0,17
Condense pH value	pH	2,8
Flue-gas temperature (at Qn)	°C	84,0
Flue-gas flowrate (at 60/80°C and at QN)	kg/h	42,21
EFFICIENCY		
Nominal efficiency (NCV) at 60°/80°C*	%	96,6
Nominal efficiency (NCV) at 30°/50°C *	%	104,7
30% efficiency Qn at 30°/50°C *	%	107,6
Note: the data were detected with horizontal coaxial flue kit = 1 meter.		
HEATING		
Temperature ranges (min÷max) • main zone	°C	35 ÷ 78 / 25 ÷ 45
Temperature range (min÷max) • secondary zone	°C	25 ÷ 78
Expansion vessel	l	8
Max working pressure	bar	3
Max temperature	°C	85
Antifreeze function temperature on / off	°C	5 / 30
DOMESTIC HOT WATER / SOLAR		
Tank capacity	l	60
Specific flow rate ΔT 30°C (EN625)	l/min	16
DHW expansion vessel	l	2
Max DHW pressure inlet (boiler safety valve intervention)	bar	8
DHW Range temperature	° C	30 ÷ 60
ELECTRICAL FEATURES		
Voltage / Frequency (rated voltage)	V/Hz	220 ÷ 240 / 50 (230V -15%... +10%)
Power consumption	W	100
Protection level		IP X5D
DIMENSIONS		
Width - height - depth	mm	600 x 900 x 425
Weight	kg	59,0
CONNECTIONS		
Residual head of fan	Pa	30 ÷ 130
GAS PRESSURE INLET		
Nominal pressure	mbar	20
Inlet pressure (min÷max)	mbar	17 ÷ 25
GAS CONSUMPTION		
Qmax	m³/h	2,75
Qmin	m³/h	0,27
PRODUCT SHEET (ErP)		
DHW declared load profile		XL
Seasonal heating energy efficiency class		A
DHW energy efficiency class		A
Nominal heat	kW	25
Seasonal Space Heating Energy Efficiency (GCV)	(η_s) %	87

MODEL		Time Compact 35K	
Gas type		G20	G31
Category		II_{2H3P}	
Type		B23 - B23P - C13 - C33 - C43 - C53 - C63 - C83 - C93	
Working temperature ((min ÷ max)	°C	0 ÷ +60	
Max. Heat input Qn	kW	33.0	33.0
Min. Heat input Qr	kW	3.4	5.0
Max. Heat output 60°/80°C *	kW	32.0	32.0
Min. Heat output 60°/80°C *	kW	3.2	4.7
Max. Heat output 30°/50°C *	kW	34.7	34.7
Min. Heat output 30°/50°C *	kW	3.6	5.2
NOx Class		6	6
Correct CO 0% O2 (at Qn)	ppm	176.1	175.2
CO_2 (at Qn)	%	9.3	10.4
Condense quantity at Qn (at 30°/50°C *)	l/h	3.30	2.60
Condense quantity at Qr (at 30°/50°C *)	l/h	0.22	0.19
Condense pH value	pH	2.8	2.8
Flue-gas temperature (at Qn)	°C	78.6	79.8
Smoke flow (a 60/80°C ed at Qn)	kg/h	53.02	53.78
EFFICIENCY			
Nominal efficiency (NCV) at 60°/80°C*	%	97.0	
Nominal efficiency (NCV) at 30°/50°C *	%	105.1	
30% efficiency Qn at 30°/50°C *	%	107.6	
* return temperature / flow temperature; NCV = Lower Calorific Value (= Hi) Note: the data were detected with horizontal coaxial flue kit = 1 meter			
HEATING			
DHW range temperature (min÷max) • high - low	°C	35÷78 / 20÷45	
DHW range temperature (min÷max) • sec. zone	°C	20÷78	
Heating system water (or heat transfer fluid) features *(* = if aluminium parts are present in the heating system.)*	°f pH	5 ÷ 15 °f pH 7.5 ÷ 9.5 (7.5 ÷ 8.5 *)	
Expansion vessel	l	12	
Expansion vessel pre-load pressure	bar	1	
Loss of water switch pressure on / off	bar	0.5 / 1.2 (±0.2) *To allow the correct system loading, the DHW pressure should be higher than the ON value of the pressure switch.*	
Max working pressure	bar	3	
Max temperature	°C	85	
Antifreeze function temperature on / off	°C	5 / 30	
DOMESTIC HOT WATER / SOLAR			
Tank capacity	l	120	
Specific flow rate	l/min	22	
DHW expansion vessel	l	5	
DHW expansion tank pre-charge pressure	bar	3	
Max DHW pressure inlet (boiler safety valve intervention)	bar	8	
DHW Range temperature (min÷max)	°C	30÷60	
ELECTRICAL FEATURES			
Voltage / Frequency (rated voltage)	V/Hz	220÷240 / 50 (230V)	
Power consumption	W	100	
Protection level		IP X5D	
DIMENSIONS			
Width - height - depth	mm	600 x 1730 x 600	
Weight	kg	211	
CONNECTIONS			
Residual head of fan	Pa	30 ÷ 130	
GAS PRESSURE INLET			
Nominal pressure	mbar	20	37
Inlet pressure (min÷max)	mbar	17 ÷ 25	35 ÷ 40
GAS CONSUMPTION			
Qmax	m³/h	3.49	
Qmin	m³/h	0.36	

MODEL		Solar 18 K	Solar 35 K
Gas type		G20	G20
Category		II2H3P	II2H3P
Type		B23 - B23P - C13 - C33 - C43 C53 - C63 - C83 - C93	
Working temperature (min-max)		0 ÷ +60	0 ÷ +60
Max. Heat input Qn		17,8	33,0
Min. Heat input Qr		1,7	3,4
Max. Heat output60°/80°C *		17,1	32,0
Min. Heat output 60°/80°C *		1,6	3,2
Max. Heat output 30°/50°C *		18,8	34,7
Min. Heat output 30°/50°C *		1,6	3,6
NOx Class		6	6
Correct CO 0% O2 (at Qn)		176,8	176,1
CO_2 (at Qn)		9,2	9,3
Condense quantity at Qn (at 30°/50°C *)		2,1	3,30
Condense quantity at Qr (at 30°/50°C *)		0,2	0,22
Condense pH value		2,8	2,8
Flue-gas temperature (at Qn)		83,0	78,6
Smoke flow (a 60/80°C ed at Qn)		28,90	53,02
EFFICIENCY			
Nominal efficiency (NCV) at 60°/80°C*		96,2	97,0
Nominal efficiency (NCV) at 30°/50°C *		105,6	105,1
30% efficiency Qn at 30°/50°C *		107,5	107,6
Note: the data were detected with horizontal coaxial flue kit = 1 meter			
HEATING			
DHW range temperature (min÷max) high - low		35 ÷ 78 / 20 ÷ 45	35 ÷ 78 / 20 ÷ 45
DHW range temperature (min÷max) sec. zone		20 ÷ 78	20 ÷ 78
Expansion vessel		12	12
Max working pressure		3	3
Max temperature		85	85
Antifreeze function temperature on / off		5 / 30	5 / 30
DOMESTIC HOT WATER / SOLAR			
Tank capacity	*l*	200	200
Specific flow rate ΔT 30°C (EN625)	*l/min*	22	24
DHW expansion vessel	*l*	18	18
Max DHW pressure inlet (boiler safety valve intervention)	*bar*	8	8
DHW Range temperature	*°C*	30 ÷ 60	30 ÷ 60
ELECTRICAL FEATURES			
Voltage / Frequency (rated voltage)		220 ÷ 240 / 50 (230V)	220 ÷ 240 / 50 (230V)
Power consumption		95	100
Protection level		IP X5D	IP X5D
DIMENSIONS			
Width - height - depth		600 x 1980 x 750	600 x 1980 x 750
Weight		209	211
CONNECTIONS			
Residual head of fan	*Pa*	30 ÷ 130	30 ÷ 130
GAS PRESSURE INLET			
Nominal pressure		20	20
Inlet pressure (min÷max)		17 ÷ 25	17 ÷ 25
GAS CONSUMPTION			
Qmax	*m³/h*	1,88	3,49
Qmin	*m³/h*	0,18	0,36
PRODUCT SHEET (ErP)			
DHW declared load profile		XXL	XXL
Seasonal heating energy efficiency class		A	A
DHW energy efficiency class		B	B
Nominal heat	*kW*	17	32
Seasonal Space Heating Energy Efficiency (GCV)	*(η_s) %*	91	92

MODEL		Open H 25 K
Gas type		G20
Max. Heat input Qn	kW	25,0
Max. Heat input Heating	kW	21,0
Min. Heat input Qr	kW	2,6
Max. Heat output 60°/80°C *	kW	20,3
Min. Heat output 60°/80°C *	kW	2,4
Max. Heat output 30°/50°C *	kW	22,1
Min. Heat output 30°/50°C *	kW	2,7
NOx Class		6
EFFICIENCY		
Nominal efficiency (NCV) at 60°/80°C*	%	95,9
Nominal efficiency (NCV) at 30°/50°C *	%	105,8
Efficiency at 30% Qa (NCV) at 30°C*	%	106,2
* return temperature / flow temperature; NCV = Lower Calorific Value (= Hi) • Note: the data were measured with horizontal coaxial flue kit = 1 meter		
HEATING		
Temperature range (min÷max) • main zone	°C	35 ÷ 80 / 20 ÷ 45
Temperature range (min÷max) • secondary zone	°C	20 ÷ 80
Expansion vessel	l	8
Expansion vessel pre-load pressure	bar	1
Loss of water switch pressure on / off	bar	0.4/0.9(±0,2)
Max working pressure	bar	3
Max temperature	°C	90
Antifreeze function temperature on / off	°C	5/30
Antifreeze heater temperature on / off	°C	5/16
DOMESTIC HOT WATER		
Flow rate at ΔT 25°C	l/min	15,1
Flow rate at ΔT 30°C	l/min	12,6
Min DHW flow (for DHW activation)	l/min	2,0
Min DHW pressure (for DHW activation)	bar	0,2
Max DHW pressure inlet	bar	6
DHW range temperature (min÷max)	°C	35 ÷ 55
ELECTRICAL FEATURES		
Voltage / Frequency (rated voltage)	V/Hz	220 ÷ 240 / 50 (230V)
Power consumption	W	75
Antifreeze resistences power	W	38
Protection level		IP X5D
DIMENSIONS		
Width - height - depth	mm	520 X 850 X 240
Boiler's weight (net-gross)	kg	28,5/31,2
Inwall box's weight (net-gross)	kg	-
CONNECTIONS		
Concentric flue system inlet + outlet ø 60/100 mm	m	see the data sheet on en.italtherm.it/documentation
Split flue system ø 80 mm	m	
Split flue system ø 60 mm	m	
Split flue system ø 50 mm	m	
GAS PRESSURE INLET		
Nominal pressure	mbar	20
Inlet pressure (min÷max)	mbar	17 ÷ 25
PRODUCT SHEET (ErP)		
DHW declared load profile		XL
Seasonal heating energy efficiency class		A
DHW energy efficiency class		A
Seasonal Space Heating Energy Efficiency (GCV)	(η_s) %	91

MODEL		Box H 25 K
Gas type		G20
Max. Heat input Qn	kW	25,0
Max. Heat input Heating	kW	21,0
Min. Heat input Qr	kW	2,6
Max. Heat output 60°/80°C *	kW	20,3
Min. Heat output 60°/80°C *	kW	2,4
Max. Heat output 30°/50°C *	kW	22,1
Min. Heat output 30°/50°C *	kW	2,7
NOx Class		6
EFFICIENCY		
Nominal efficiency (NCV) at 60°/80°C*	%	95,9
Nominal efficiency (NCV) at 30°/50°C*	%	105,8
Efficiency at 30% Qa (NCV) at 30°C*	%	106,2
* return temperature / flow temperature; NCV = Lower Calorific Value (= Hi) • Note: the data were measured with horizontal coaxial flue kit = 1 meter		
HEATING		
Temperature range (min÷max) • main zone	°C	35 ÷ 80 / 20 ÷ 45
Temperature range (min÷max) • secondary zone	°C	20 ÷ 80
Expansion vessel	l	8
Expansion vessel pre-load pressure	bar	1
Loss of water switch pressure on / off	bar	0,4/0,9 (±0,2)
Max working pressure	bar	3
Max temperature	°C	90
Antifreeze function temperature on / off	°C	5/30
Antifreeze heater temperature on / off	°C	5/16
DOMESTIC HOT WATER		
Flow rate at ΔT 25°C	l/min	15,1
Flow rate at ΔT 30°C	l/min	12,6
Min DHW flow (for DHW activation)	l/min	2,0
Min DHW pressure (for DHW activation)	bar	0,2
Max DHW pressure inlet	bar	6
DHW range temperature (min÷max)	°C	35 ÷ 55
ELECTRICAL FEATURES		
Voltage / Frequency (rated voltage)	V/Hz	220 ÷ 240 / 50 (230V)
Power consumption	W	75
Antifreeze resistences power	W	38
Protection level		IP X5D
DIMENSIONS		
Width - height - depth	mm	550 X 1140 X 250
Boiler's weight (net-gross)	kg	27,6/31,1
Inwall box's weight (net-gross)	kg	13,9/14,4
CONNECTIONS		
Concentric flue system inlet + outlet ø 60/100 mm	m	see the data sheet on en.italtherm.it/documentation
Split flue system ø 80 mm	m	
Split flue system ø 60 mm	m	
Split flue system ø 50 mm	m	
GAS PRESSURE INLET		
Nominal pressure	mbar	20
Inlet pressure (min÷max)	mbar	17 ÷ 25
PRODUCT SHEET (ErP)		
DHW declared load profile		XL
Seasonal heating energy efficiency class		A
DHW energy efficiency class		A
Seasonal Space Heating Energy Efficiency (GCV)	(η_s) %	91

Italtherm supports the importer in the various stages that lead to the choice of the most suitable and performing Heat Pump Solutions: from the design of the system to its configuration, offering a series of essential services specifically designed for this type of product.

PRE-SALE

Technical and regulatory consultancy: a team of experts at the professional's disposal to assist him in the design by offering system diagrams, technical data, .dwg drawings and regulatory support.

Configurator: thanks to this innovative tool, the professional can design the heat pump or hybrid system independently, selecting the solution that best suits his needs, completing it with all the accessories and thus immediately obtaining the estimate with the specifications with codes, quantities, accessories, technical drawings both .dwg and .pdf.

3D models for BIM design
The 3D models of the products are available on the site: by accessing the BIM section you can download the drawings of the products to be used in Revit and include them in your project in BIM (.rfa format). BIM design offers extraordinary competitive advantages: more efficiency and productivity, fewer errors, less costs, greater interoperability, maximum sharing of information, more precise and consistent control of the project.

Documentation: on the *italtherm.it/documentation* website it is possible to find everything the professional may need: technical data sheets, BIM, product brochures, system diagrams and certifications to propose Italtherm heat pumps and hybrids.

SALE

International Sale network: over 35 exporters, widely distributed on worldwide basis, able to provide commercial support to professionals and end-users.

Products always available: thanks to its Italy plant, Italtherm has a warehouse always stocked with all the products and accessories able to quickly satisfy any request from any country in the world.

AFTER-SALE

Service: the direct management of this service, not relying on switchboards or external companies, allows Italtherm to guarantee competent and fast answers. A long-experienced team guides the importer in the problem solving phase.

Spare parts: Italtherm has a spare parts warehouse dedicated to Heat Pump Solutions' products to guarantee the availability of all accessories, components and spare parts ready for shipment to any country in the world.

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