Heiztechnik

CATALOGUE 04.2022









Heiztechnik Production Company is a modern factory that produces heating devices with capacity from 3.9 kW to 7 MW. Production takes place in modern production facilities using high-tech machine park - laser steel cutting devices, numerically controlled press brakes and robotic welding posts. Our products are characterized by very high energy efficiency, as well as simple and easy operation. The design office continuously modernizes and prepares new heating devices for production. The company's success is the creation of a series of eco-friendly GreenLine boilers with capacity up to 480kW. The boilers of this series meet the highest requirements for environmental protection and energy efficiency set for **class 5** and **ECO DESIGN.**

The first **CALLA** 10kW heat pumps were manufactured in 2011 and were intended for heating residential buildings. Over the following years, a team of engineers worked on the development of heat pumps in order to obtain the best technical and operational parameters. Parameters of the devices in use were analyzed, information from users and installers was collected. The result was a series of high-tech **CALLA VERDE** inverter heat pumps with capacity of 5-20 kW. **CALLA VERDE** pumps use the latest refrigerant **R452B**, which has been manufactured for high-performance heat pumps and is the answer to increasingly stringent environmental requirements. The use of **R452B** and modern components has resulted in the heat pumps achieving very high COP (7.3) and SCOP (4.65) ratios. Moreover, the devices are very quiet. The operating parameters are confirmed by tests in an independent accredited laboratory.

Heiztechnik products constitute probably the widest range of heating devices in Poland and are appreciated in both domestic foreign markets.





CALLA VERDE M - Monoblock

Heat pump designed for **heating and cooling of confined spaces** and production of domestic hot water in an external or integrated tank. A refrigeration system made of state-of-the-art components guarantees very high performance.







CALLA VERDE M 5 - 12 kW











CALLA VERDE M 14 - 20 kW

CALLA VERDE M is a modern, inverter air heat pump, which is designed as the primary heat source for residential buildings with a cooling function during the summer. The **CALLA VERDE M** heat pumps are the first certified devices on the domestic market to use the refrigerant **R452B**, which was manufactured for high-performance heat pumps and meets strict environmental requirements.

The use of an inverter compressor, with the latest **R452B** refrigerant and modern components, made it possible to achieve high **COP** (up to 7.32) and SCOP (up to 4.65) as well as high heating water temperatures up to 65°C (without using an electric heater).

The **CALLA VERDE M** heat pump is a unit prepared as an independent, complete heat source for newly built but also for modernized buildings with underfloor and radiator heating systems. The use of a modulated capacity inverter compressor eliminated the need for a buffer tank, which significantly reduces the cost of installing the heat source and saves space.

The **CALLA VERDE M** pump with its hydraulic modules is a ready-made heating solution for buildings.

The operating parameters of the pump are confirmed by tests at a certified research institute.

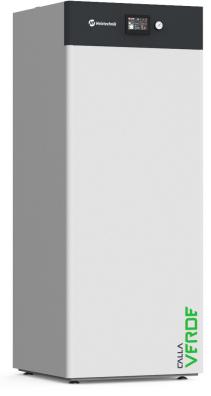
INTERNAL UNITS



BASIC
HANGING AUTOMATION MODULE



STYLE HANGING AUTOMATION MODULE WITH HYDROBOX



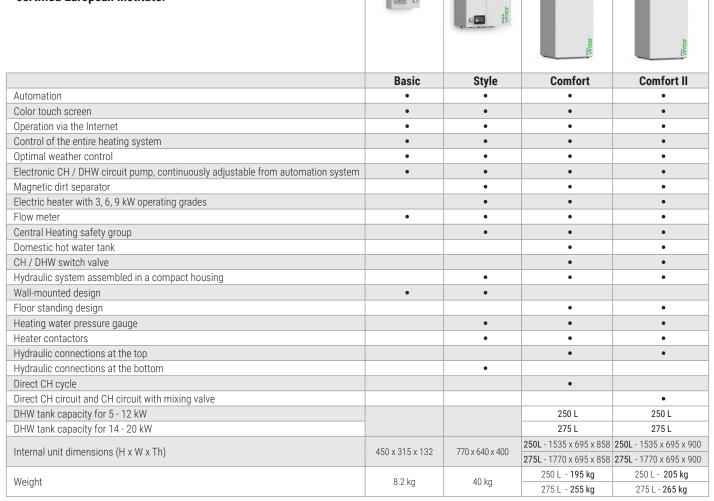
COMFORT / COMFORT II
UPRIGHT HYDROBOX
WITH DHW TANK
AND HYDRAULIC MODULE



Characteristics of the CALLA VERDE M heat pump unit with internal modules:

- The pump is equipped with a modern Copeland Scroll™ inverter compressor with variable speed and high modulation of heating power.
- · Large, color touch screen.
- · Operation via the Internet.
- · The entire heating system can be controlled.
- · Optimal weather control.
- · Cooperation with photovoltaic system.
- · Wide operating temperature range.
- The electronic water circuit pump is continuously adjustable.
- Magnetic dirt separator.
- Electric heater with 3, 6, 9 kW operating grades.
- · Heating water flow meter.
- · Central Heating safety group.
- · Very high COP values.
- · Very quiet operation through the use of a large modern EC fan.
- · Heat recovery from the inverter.
- Lower part of the evaporator heated with refrigerant prevents the drip tray from freezing.
- Full diagnostics in automation of individual heat pump components.
- · Possibility to work at a very low heating water temperature.
- · Modern design.
- Internal unit made of galvanized steel, powder coated housing.
- External unit made of aluminum, powder coated housing.
- The operating parameters of the heat pump are confirmed by a certified European institute.





Calla Verde M	5	7	9	12	14	16	18	20
Heating power [kW]	5	7	9	12	14	16	18	20
Dimensions of external unit (W x H x Th) [mm]	1120 x 860 x 485	1120 x 860 x 485	1360 x 860 x 560	1360 x 860 x 560	1350 x 1505 x 585			
Height of the ext. unit stand [mm]	400	400	400	400	-	-	-	-
Weight of external unit [kg]	129	129	148	148	210	212	212	212
Refrigerant	R452B	R452B	R452B	R452B	R452B	R452B	R452B	R452B
Operating range	-25°C ÷ 40°C	-25°C ÷ 40°C	-25°C ÷ 40°C	-25°C ÷ 40°C				
Refrigerant quantity [kg]	2,5	2,5	2,5	2,7	4,7	5,85	5,85	5,85
Global Warming Potential [GWP]	676	676	676	676	676	676	676	676
CO ₂ equivalent [t]	1,69	1,69	1,69	1,82	3,18	3,95	3,95	3,95
Maximum current [A]	15	15	15	3 x 12	3 x 12	3 x 12	3 x 12	3 x 12
Flow temperature [°C]	65	65	65	65	65	65	65	65
Supply voltage	230V 50Hz	230V 50Hz	230V 50Hz	3 x 400V 50 Hz	3 x 400V 50 Hz	3 x 400V 50 Hz	3 x 400V 50 Hz	3 x 400V 50 Hz

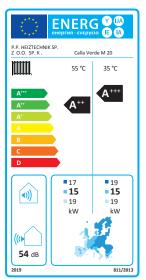
COP								
A-7/W35 ¹	2,75	2,67	2,57	2,68	2,84	2,87	2,75	2,70
A2/W35 ¹	4,12	4,19	4,22	4,16	4,37	4,39	4,37	4,30
A7/W35 ¹	5,40	5,51	5,86	5,76	6,20	6,26	6,34	6,40
A12/W35 ¹	6,12	6,21	6,46	6,65	7,32	7,14	7,19	7,24
A-7/W55 ¹	1,78	1,74	1,89	2,06	2,24	2,03	2,16	2,11
A2/W55 ¹	3,15	3,17	3,16	3,17	3,37	3,43	3,40	3,38
A7/W55 ¹	4,27	4,30	4,37	4,85	4,96	5,05	4,94	4,91
A12/W55 ¹	5,53	5,59	5,63	6,10	6,25	5,90	5,94	5,96

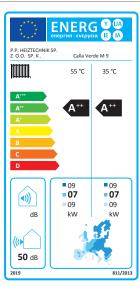
SCOP for 35 °C (underfloor heating) moderate climate (A) ³	4,25	4,28	4,38	4,35	4,63	4,65	4,63	4,58
Seasonal energy efficiency [%] ⁴	167	168	172	171	182	183	182	180
Class	A++	A++	A++	A++	A+++	A+++	A+++	A+++
Rated thermal power [kW]	5	6	7	8	10	13	14	15
Max. power acc. to EN 14511 at A7/W35	5	7	9	12	14	16	18	20
TBIVALENT [°C]	-7	-7	-7	-7	-7	-7	-7	-7

SCOP for 55 °C(underfloor heating) moderate climate (A) 2/4	3,25	3,25	3,33	3,48	3,68	3,65	3,65	3,63
Efficiency [%] ⁴	127	127	130	136	144	143	143	142
Class	A++							
Rated thermal power [kW]	5	6	7	8	10	13	14	15
Max. power acc. to EN 14511 at A7/W55	5	7	9	12	14	16	18	20
TBIVALENT [°C]	-7	-7	-7	-7	-7	-7	-7	-7

Sound power level LWA ³								
Normal operation dB(A)	56	56	50	52	53	54	54	54
Night-time reduction dB(A)	55	55	49	51	52	53	53	53

¹ For nominal loads according to PN-EN 14511







² SCOP according to 14825:2019

³ According to PN-EN 12102-1

⁴ Class IV controller



CALLA VERDE M monoblock heat pump with hanging automation module - Basic

The pump is designed for **heating and cooling of** confined spaces and production of DWH in an external tank.

The compressor and refrigeration system are located in teh external unit

The internal unit contains an automation system that controls the heat pump and hydraulic system.

The scope of delivery includes: room temperature sensor, flow meter and a 3/4" differential discharge valve (to be installed by the installer).





CALLA VERDE M (5 - 12 kW)



CALLA VERDE M ON A STAND - OPTION (5 - 12 kW)



CALLA VERDE M (14 - 20 kW)





Copeland Scroll™ inverter compressor operating in wide power modulation



Refrigerant R452B with low GWP



Color touch display



Cooperation with photovoltaic system



Efficient operation at -25°C



Up to 65°C of heating water can be obtained



Ability to work at low heating water temperatures

CALLA VERDE M with hanging automation module Basic				
Model	Index			
CALLA VERDE M 5 + Basic	CVM050B10			
CALLA VERDE M 7 + Basic	CVM070B10			
CALLA VERDE M 9 + Basic	CVM090B10			
CALLA VERDE M 12 + Basic	CVM120B10			
CALLA VERDE M 14 + Basic	CVM140B10			
CALLA VERDE M 16 + Basic	CVM160B10			
CALLA VERDE M 18 + Basic	CVM180B10			
CALLA VERDE M 20 + Basic	CVM200B10			

Accessories	
	Index
NTC external temperature sensor	CVA301
KTY external temperature sensor	CVA302
Internal temperature sensor	CVA303
DHW temperature sensor (5 lm)	CVA304
KTY81 clip-on sensor	CVA310
External unit stand 5 - 7 kW	CVA102
External unit stand 9 - 12 kW	CVA101
1' 230V CH/DHW switching valve	CVA202
Freeze protection valve	CVA201
Zone valve (7 KVS = 7 m ³)	CVA210
Automatic inlet valve 0.3 - 4 bar 1/2" with pressure gauge	CVA205
Silicone heating cable - 2 lm	CVA306
Silicone heating cable - 3 lm	CVA307
Silicone heating cable - 4 lm	CVA308
Silicone heating cable - 6 lm	CVA309



CALLA VERDE M monoblock heat pump with hanging hydrobox - Style

The pump is designed for **heating and cooling of** confined spaces and production of DWH in an external tank. The compressor and refrigeration system are located in teh external unit.

The internal unit contains an automation system that controls the pump and hydraulic system.

The hydraulic part includes: electronic circulation pump, heating water flow meter, heater contactors, 3-9 kW heater set, magnetic dirt separator, CH safety group (3bar safety valve, 12L diaphragm vessel, CH pressure gauge).

The scope of delivery includes: room temperature sensor and a 3/4" differential discharge valve (to be installed by the installer).





CALLA VERDE M (5 - 12 kW)



CALLA VERDE M ON A STAND - OPTION (5 - 12 kW)



CALLA VERDE M (14 - 20 kW)





Copeland Scroll™ inverter compressor operating in wide power modulation



Refrigerant R452B with low GWP



Color touch display



Cooperation with photovoltaic system



Efficient operation at -25°C



Up to 65°C of heating water can be obtained



Ability to work at low heating water temperatures



Heater 3 - 6 - 9 kW with automatic power gradation



Magnetic dirt separator

CALLA VERDE M with hanging hydrobox Style				
Model	Index			
CALLA VERDE M 5 + Style	CVM050S11			
CALLA VERDE M 7 + Style	CVM070S11			
CALLA VERDE M 9 + Style	CVM090S11			
CALLA VERDE M 12 + Style	CVM120S12			
CALLA VERDE M 14 + Style	CVM140S12			
CALLA VERDE M 16 + Style	CVM160S12			
CALLA VERDE M 18 + Style	CVM180S12			
CALLA VERDE M 20 + Style	CVM200S12			

Accessories	
	Index
NTC external temperature sensor	CVA301
KTY external temperature sensor	CVA302
Internal temperature sensor	CVA303
DHW temperature sensor (5 lm)	CVA304
KTY81 clip-on sensor	CVA310
External unit stand 5 - 7 kW	CVA102
External unit stand 9 - 12 kW	CVA101
1' 230V CH/DHW switching valve	CVA202
Freeze protection valve	CVA201
Zone valve (7 KVS = 7 m ³)	CVA210
Automatic inlet valve 0.3 - 4 bar 1/2" with pressure gauge	CVA205
Silicone heating cable - 2 lm	CVA306
Silicone heating cable - 3 lm	CVA307
Silicone heating cable - 4 lm	CVA308
Silicone heating cable - 6 lm	CVA309



CALLA VERDE M monoblock heat pump - Comfort

The pump is designed for **heating and cooling of** confined spaces and production of DWH in an integrated tank. The compressor and refrigeration system are located in teh external unit.

The internal unit contains an automation system that controls the pump and hydraulic system.

The hydraulic part includes: 1 direct CH circuit, 1 DHW circuit with 250/275L tank, electronic circulation pump, CH/DHW switching valve, heating water flow meter, heater contactors, 3-9 kW heater set, magnetic dirt separator, CH safety group (3bar safety valve, 12L diaphragm vessel, CH pressure gauge).

The scope of delivery includes: room temperature sensor and a 3/4" differential discharge valve (to be installed by the installer).







Copeland Scroll™ inverter compressor operating in wide power modulation



Refrigerant R452B with low GWP



Color touch display



Cooperation with photovoltaic system



Efficient operation at -25°C



Up to 65°C of heating water can be obtained



Ability to work at low heating water temperatures



Heater 3 - 6 - 9 kW with automatic power gradation



Magnetic dirt separator



DHW tank



CALLA VERDE M with standing hydrobox Comfort				
Model	Index			
CALLA VERDE M 5 + Comfort	CVM050C11			
CALLA VERDE M 7 + Comfort	CVM070C11			
CALLA VERDE M 9 + Comfort	CVM090C11			
CALLA VERDE M 12 + Comfort	CVM120C11			
CALLA VERDE M 14 + Comfort	CVM140C12			
CALLA VERDE M 16 + Comfort	CVM160C12			
CALLA VERDE M 18 + Comfort	CVM180C12			
CALLA VERDE M 20 + Comfort	CVM200C12			

Accessories	
	Index
NTC external temperature sensor	CVA301
KTY external temperature sensor	CVA302
Internal temperature sensor	CVA303
KTY81 clip-on sensor	CVA310
External unit stand 5 - 7 kW	CVA102
External unit stand 9 - 12 kW	CVA101
Upper assembly for Comfort	CVA103
Magnesium anode - comfort S (250I)	CVA206
Magnesium anode - comfort M (275I)	CVA207
Titanium anode	CVA209
Freeze protection valve	CVA201
Zone valve (7 KVS = 7 m ³)	CVA210
Automatic inlet valve 0.3 - 4 bar 1/2" with pressure gauge	CVA205
Silicone heating cable - 2 lm	CVA306
Silicone heating cable - 3 lm	CVA307
Silicone heating cable - 4 lm	CVA308
Silicone heating cable - 6 lm	CVA309
Angle screw-in union	CVA211



CALLA VERDE M monoblock heat pump - Comfort II

The pump is designed for **heating and cooling of** confined spaces and production of DWH in an integrated tank. The compressor and refrigeration system are located in teh external unit.

The internal unit contains an automation system that controls the pump and hydraulic system.

The hydraulic part includes: 1 direct CH circuit, 1 circuit with mixing valve, 1 DHW circuit with 250/275L tank, electronic circulation pump, CH/DHW switching valve, heating water flow meter, heater contactors, 3-9 kW heater set, magnetic dirt separator, CH safety group (3bar safety valve, 12L diaphragm vessel, CH pressure gauge).

The scope of delivery includes: room temperature sensor and a 3/4" differential discharge valve (to be installed by the installer).







Copeland Scroll™ inverter compressor operating in wide power modulation



Refrigerant R452B with low GWP



Color touch display



Cooperation with photovoltaic system



Efficient operation at -25°C



Up to 65°C of heating water can be obtained



Ability to work at low heating water temperatures



Heater 3 - 6 - 9 kW with automatic power gradation



Magnetic dirt separator



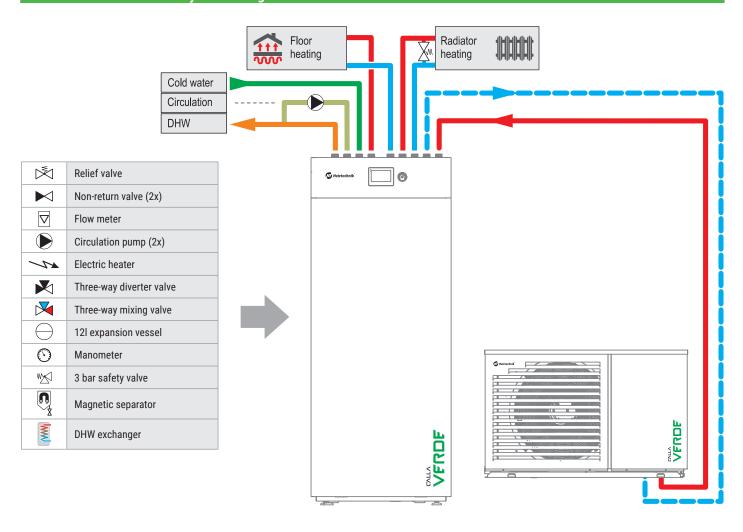
DHW tank



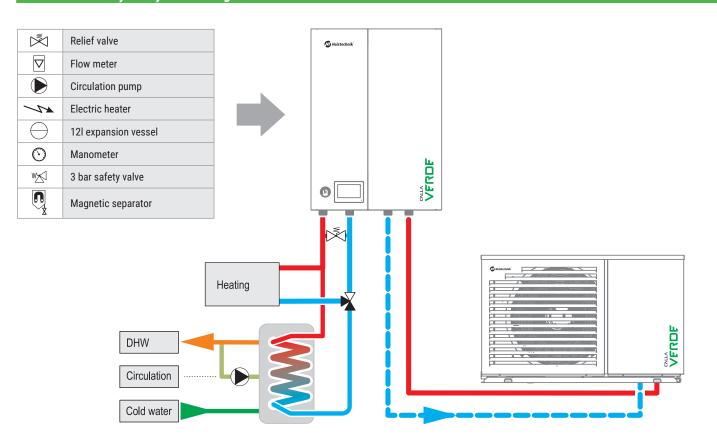
CALLA VERDE M with standing hydrobox Comfort II				
Model	Indeks			
CALLA VERDE M 5 + Comfort II	CVM050C21			
CALLA VERDE M 7 + Comfort II	CVM070C21			
CALLA VERDE M 9 + Comfort II	CVM090C21			
CALLA VERDE M 12 + Comfort II	CVM120C21			
CALLA VERDE M 14 + Comfort II	CVM140C22			
CALLA VERDE M 16 + Comfort II	CVM160C22			
CALLA VERDE M 18 + Comfort II	CVM180C22			
CALLA VERDE M 20 + Comfort II	CVM200C22			

	Index
NTC external temperature sensor	CVA301
KTY external temperature sensor	CVA302
Internal temperature sensor	CVA303
KTY81 clip-on sensor	CVA310
External unit stand 5 - 7 kW	CVA102
External unit stand 9 - 12 kW	CVA101
Upper assembly for Comfort	CVA103
Magnesium anode - comfort S (250I)	CVA206
Magnesium anode - comfort M (275l)	CVA207
Titanium anode	CVA209
Freeze protection valve	CVA201
Zone valve (7 KVS = 7 m³)	CVA210
Automatic inlet valve 0.3 - 4 bar 1/2" with pressure gauge	CVA205
Silicone heating cable - 2 lm	CVA306
Silicone heating cable - 3 lm	CVA307
Silicone heating cable - 4 lm	CVA308
Silicone heating cable - 6 lm	CVA309
Angle screw-in union	CVA211

CALLA VERDE Comfort II - hydraulic diagram



CALLA VERDE Style - hydraulic diagram

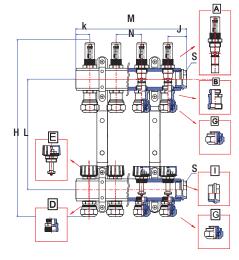


Distributor on the profile 1" for underfloor heating

The 70E distributor includes:

- supply beam
 - A rotameters with maximum flow 2,4L/min
 - **B** eurocones 1/2" x 3/4" with 0-ring
 - **G** clamps for the pipe pex/all/pex
- return beam
- **E** thermostatic valves adopted to the mounting of thermic motors with M30X1,5 thread
- **D** eurocones 1/2" x 3/4" with O-ring
- **G** clamps for the pipe pex/all/pex
- 2 mounting fittings with shock-absorbers
- I 2 plugs 1" with O-ring for a key





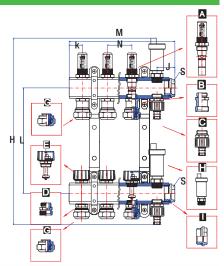
Circuits	G	L	Н	М	N	K	S	J	Package	Palette	kg	Index
2	1/2"	235	338	110	50	25	30	35	1	120	2,26	CVA416
3	1/2"	235	338	160	50	25	30	35	1	120	3,08	CVA417
4	1/2"	235	338	210	50	25	30	35	1	120	3,90	CVA418
5	1/2"	235	338	260	50	25	30	35	1	72	4,72	CVA419
6	1/2"	235	338	310	50	25	30	35	1	72	5,54	CVA420
7	1/2"	235	338	360	50	25	30	35	1	72	6,37	CVA421
8	1/2"	235	338	410	50	25	30	35	1	48	7,19	CVA422
9	1/2"	235	338	460	50	25	30	35	1	48	8,01	CVA423
10	1/2"	235	338	510	50	25	30	35	1	48	8,83	CVA424
11	1/2"	235	338	560	50	25	30	35	1	36	9,65	CVA425
12	1/2"	235	338	610	50	25	30	35	1	36	10,48	CVA426
13	1/2"	235	338	660	50	25	30	35	1	36	11,30	CVA427
14	1/2"	235	338	710	50	25	30	35	1	36	12,12	CVA428
15	1/2"	235	338	760	50	25	30	35	1	36	12,94	CVA429

Distributor on the profile 1" for underfloor heating with venting and filling valves

The 71E distributor includes:

- supply beam with additional section
- **C** drain valves for hose
- **H** automatic air vent with stop valve
- A rotameters with maximum flow 2,4L/min
- B eurocones 1/2" x 3/4" with O-ring
- **G** clamps for the pipe pex/all/pex
- return beam with additional section
- **C** drain valves for hose
- H automatic air vent with stop valve
- **E** thermostatic valves adopted to the mounting of thermic motors with M30X1,5 thread
- **D** eurocones 1/2" x 3/4" with O-ring
- **G** clamps for the pipe pex/all/pex
- 2 mounting fittings with shock-absorbers
 - I 2 plugs 1" with O-ting for a key





Circuits	G	L	Н	М	N	K	S	J	Package	Palette	kg	Index
2	1/2"	235	400	160	50	25	30	35	1	120	3,13	CVA402
3	1/2"	235	400	210	50	25	30	35	1	120	3,96	CVA403
4	1/2"	235	400	260	50	25	30	35	1	120	4,78	CVA404
5	1/2"	235	400	310	50	25	30	35	1	72	5,60	CVA405
6	1/2"	235	400	360	50	25	30	35	1	72	6,42	CVA406
7	1/2"	235	400	410	50	25	30	35	1	72	7,24	CVA407
8	1/2"	235	400	460	50	25	30	35	1	48	8,07	CVA408
9	1/2"	235	400	510	50	25	30	35	1	48	8,89	CVA409
10	1/2"	235	400	560	50	25	30	35	1	48	9,71	CVA410
11	1/2"	235	400	610	50	25	30	35	1	36	10,53	CVA411
12	1/2"	235	400	660	50	25	30	35	1	36	11,35	CVA412
13	1/2"	235	400	710	50	25	30	35	1	36	12,18	CVA413
14	1/2"	235	400	760	50	25	30	35	1	36	13,00	CVA414
15	1/2"	235	400	810	50	25	30	35	1	36	13,82	CVA415



HEAT PUMPS

Technical service for heat pumps

+48 515 415 513

TECHNICAL AND TRADE CONSULTING

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South - East Poland	+48	784	051	574

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TECHNICAL SERVICE

+48 664 784 500 +48 664 784 600 +48 664 784 700



Distributor