

smart INVERTER HEAT PUMPS & DEHUMIDIFIER



BATHE IN
TEMPERED
POOL WATER



Think BIGGER

When integrating a heat pump in a pool area we recommend a stronger model. Why?

- An operation at a lower speed is possible
- Avoidance of exceeding the performance limit
- Audibly quieter sound level and more silent swimming pool surrounding
- Higher energy savings due to less required power intake



CARIBBEAN AND THE NORTH SEA FEELING AT THE TOUCH OF A BUTTON

The High-quality inverter heat pumps with heating and cooling function and titanium heat exchanger extend the bathing season in the own garden and provide convenient tempered pool water with an over-average energy saving due to inverter technology.

Smart heat pumps from Peraqua® are air-water heat pumps. The refrigerant R32 is heated by the sucked-in air from the environment. Afterwards the gas is compacted by a compressor, the arising heat energy is discharged to the pool water by a heat exchanger.

TECHNOLOGY

EFFECTIVITY OF R32

The new Smart heat pumps run with Inverter Technology and contain R32. This is a newer refrigerant that transports the heat produced even more effectively and, above all, has less impact on the Global Warming Potential (GWP).

As R32 transports thermal energy much more effectively, it is used in smaller quantities and protects energy consumption.

For you, this innovative technology means maximum comfort with minimum energy consumption.

PRINCIPAL OF THE EEV TECHNOLOGY

EEV technology with electronic expansion valve for precise and flexible regulation of gas flow to respond to changing ambient temperatures. The gas flow regulation range of EEV is ten times of conventional Tx valves / capillary constructions: 15 to 20 percent improvement.

UNIQUE SILVER WELDING

Silver in the welding solder guarantees a high reliability of gas piping system and prevents gas leakage.

TITANIUM HEAT EXCHANGER

Heat exchanger made of high-quality titanium tube, a stable and non-reactive material that is compatible with water treatment by salt electrolysis. The specific configuration design guarantees high efficiency of the heat pump.

HOT GAS DEFROSTING

The SAGINOMIYA 4-way valve provides automatic defrosting and operation above 0 °C.



EIGHT UNIQUE ADVANTAGES

- Heating and cooling
- Filled with environmentally friendly R32 gas
- Outstanding performance, 15 – 20% energy saving
- High-end and durable ABS/V2A casing
- Compatible with salt water treatment
- Operation above air 0 °C
- Digital LED display (Wifi compatible)
- Auto defrost for the entire product range



HEAT PUMPS

The predominant type of heat pump used for swimming pools is an air-to-water heat pump. This type of heat pump heats the refrigerant with intake air. A compressor (supply of electrical energy) compresses the refrigerant and raises the temperature.

The amount of heat contained in the refrigerant is released in a condenser to the flowing pool water. Subsequently, the liquid refrigerant is drained, so that the process can start from the beginning.

The effectiveness of a heat pump is characterized by the coefficient of performance COP. This is defined as the quotient of the heat released to the pool water and the required electrical power.

WHY FULL-INVERTER TECHNOLOGY?

| | |
|----------|--------------------|
| A | COP ≤ 5 |
| B | 4,5 ≤ C.O.P. < 5 |
| C | 3,5 ≤ C.O.P. < 4,5 |
| D | C.O.P. < 3,5 |

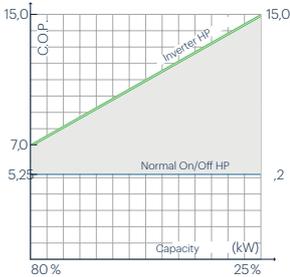
- **65% higher COP than standard ON/OFF HP**
- **50% higher COP than standard Inverter HP**

Smart Inverter is an innovative leading technology in the industry. With this technology, you can enjoy an exceptional swimming experience with efficiency 65% higher than on/o heat pumps.

Inverter HP versus standard On/Off HP (maintaining pool temperature)

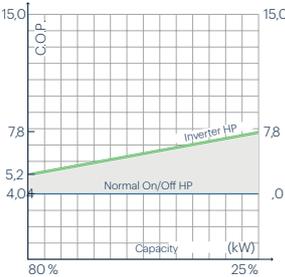
Performance condition:

Air 26 °C | Water 26 °C
Humidity 80%



Performance condition:

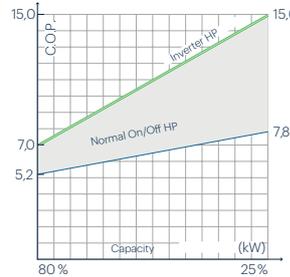
Air 15 °C | Water 26 °C
Humidity 70%



Inverter HP versus standard Inverter HP (maintaining pool temperature)

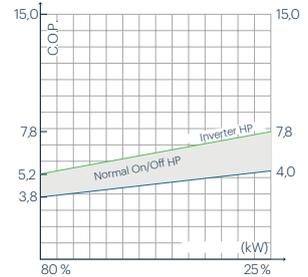
Performance condition:

Air 26 °C | Water 26 °C
Humidity 80%



Performance condition:

Air 15 °C | Water 26 °C
Humidity 70%

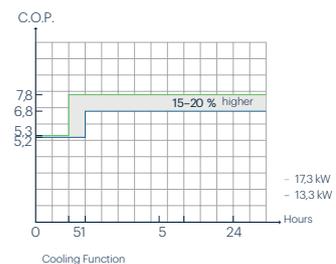
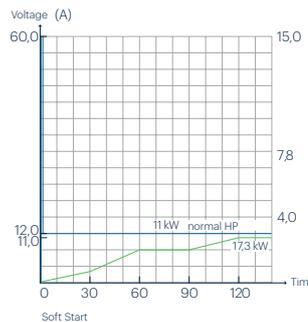


→ 10× times quieter

By integrating super quiet Mitsubishi inverter Compressor and variable speed ventilation system, Smart Inverter ensures an operation 10 times quieter than normal heat pumps when maintaining the pool temperature. It's the quietest running heat pump you can find in the market.

→ Soft Start

When Smart Inverter HP turns on, the current will start from 0 A and slowly reach rated current in 2 minutes. Household electricity system will not be affected with a gentle increased current.



→ Designed for air from -7 °C

Smart Inverter HP is designed for air -7°C, which can maximize your pool season.

SMART CHOICE: When choosing a Smart Inverter, a bigger model is recommended so that the heat pump runs at low speed for a longer time with more benefits::

- faster heating
- safe more energy
- enjoy longer silent running time

Performance condition:

Air 15 °C | Water 26 °C | Humidity 70%
Maintains 26 °C water temperature for 45 m³ pool

smart

FULL INVERTER

iQ INVER SILENCE

Heat pump



Guarantee on compressor



Guarantee on heat exchanger



STEPLESS
FULL-INVERTER

NON-CORROSIVE
**ALUMINIUM
HOUSING**

MODBUS**R32**

Integrated WIFI connection for smart control via mobile device, free Loxone App

TECHNICAL DATA

| Product | 7301031 | 7301032 | 7301033 | 7301034 | 7301035 | 7301037 | 7301038 |
|---|----------------|-------------|-------------|-------------|----------------|--------------|--------------|
| Recommended pool size (m ³)* | 20-40 | 25-50 | 30-60 | 40-75 | 55-100 | 65-120 | 90-160 |
| Operation temperature (°C) | -15-43 | | | | | | |
| Operation conditions: Air 26°C, Water 26°C, Humidity 80% | | | | | | | |
| Heat capacity (kW) Smart Mode | 8,5 | 11,0 | 13,8 | 17,5 | 21,5 | 27,0 | 35,0 |
| Heat capacity (kW) Turbo Mode | 10,2 | 13,2 | 16,8 | 21,0 | 25,5 | 31,5 | 40,0 |
| C.O.P in Smart Mode | 7,8 | 8,2 | 7,5 | 7,3 | 7,8 | 7,4 | 7,3 |
| C.O.P | 15.1-7.1 | 15.0-7.3 | 15.5-6.4 | 15.0-6.3 | 16.0-6.8 | 15.8-6.3 | 15.8-6.4 |
| COP at 50% speed | 11,4 | 11,6 | 11,2 | 11,2 | 11,3 | 11,2 | 11,1 |
| Operation conditions: Air 15°C, Water 26°C, Humidity 70% | | | | | | | |
| Heat capacity (kW) Smart Mode | 6,3 | 7,3 | 9,4 | 11,8 | 14,8 | 18,0 | 24,0 |
| Heat capacity (kW) Turbo Mode | 7,5 | 8,8 | 11,3 | 14,3 | 17,5 | 21,5 | 28,0 |
| C.O.P in Smart Mode | 5,2 | 5,3 | 5,0 | 5,0 | 5,4 | 5,3 | 5,1 |
| C.O.P | 6.9-4.8 | 6.8-4.9 | 7.3-4.4 | 7.8-4.6 | 7.8-4.9 | 7.8-4.9 | 7.9-4.7 |
| COP at 50% speed | 6,5 | 6,5 | 6,6 | 6,8 | 6,8 | 6,8 | 6,7 |
| Operation conditions: Air 35°C, Water 28°C, Humidity 80% | | | | | | | |
| Cooling capacity (kW) | 4,4 | 5,6 | 6,5 | 8,0 | 11,6 | 13,6 | 16,0 |
| Sound level 1m dB(A) | 38.5-45.5 | 38.6-46.9 | 42.0-47.7 | 42.9-50.8 | 40.8-51.2 | 43.3-51.9 | 42.5-51.7 |
| Sound level at 10m dB(A) | 18.5-25.5 | 18.6-26.9 | 22.0-27.7 | 22.9-30.8 | 20.8-31.2 | 23.3-31.9 | 22.5-31.7 |
| Sound level at 50% speed 1m dB(A) | 39,5 | 41,3 | 43,7 | 44,5 | 44,4 | 46,4 | 43,8 |
| Heat Exchanger | Titanium | | | | | | |
| Housing | Aluminium | | | | | | |
| Power supply | 230V/1 Ph/50Hz | | | | 400V/3 Ph/50Hz | | |
| Rated input power at 15°C (kW) | 0.18-1.53 | 0.22-1.8 | 0.26-2.56 | 0.31-3.08 | 0.38-3.53 | 0.46-4.4 | 0.60-5.94 |
| Rated current at 15°C (A) | 0.78-6.65 | 0.96-7.82 | 1.14-11.3 | 1.35-13.4 | 1.65-15.3 | 0.66-6.35 | 0.87-8.57 |
| Recommended flow (m ³ /h) | 2-4 | 3-4 | 4-6 | 6.5-8.5 | 8-10 | 10-12 | 12-18 |
| Water pipe specification in-out (mm) | 50 | | | | | | |
| Net dimensions LxWxH (mm) | 799×432×650 | 893×432×650 | 939×432×650 | 995×432×750 | 1125×429×952 | 1074×539×947 | 1260×539×947 |
| Net Weight | 59 | 61 | 65 | 70 | 98 | 111 | 126 |

* The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day
Minor deviations of the technical specifications are system specific possible and subject to technical changes.

smart

FULL-INVERTER PLUS

Heat pump



Guarantee on compressor and heat exchanger

| | |
|----------------------------------|---|
| STEPLESS FULL-INVERTER | NON-CORROSIVE PLASTIC HOUSING |
| MODBUS | R32 |



Controllable via Smart Phone App



TECHNICAL DATA

| Product | 7300714 | 7300715 | 7300772 | 7300716 |
|---|------------------------|-------------|-------------|-------------|
| Recommended pool size (m ³)* | 25-45 | 30-55 | 35-65 | 40-75 |
| Operation temperature (°C) | -7-43 | | | |
| Operation conditions: Air 35°C, Water 26°C, Humidity 70% | | | | |
| Heat capacity (kW) | 10,3 | 12,8 | 15,0 | 17,3 |
| C.O.P | 14.5-6.9 | 15.0-7.4 | 15.5-6.7 | 14.8-5.9 |
| COP at 50% speed | 10,4 | 11,0 | 10,9 | 10,5 |
| Operation conditions: Air 15°C, Water 26°C, Humidity 70% | | | | |
| Heat capacity (kW) | 7,1 | 8,3 | 10,5 | 11,4 |
| C.O.P | 7.3-4.6 | 7.7-4.8 | 7.8-4.6 | 7.5-4.3 |
| COP at 50% speed | 6,4 | 6,8 | 6,6 | 6,1 |
| Operation conditions: Air 35°C, Water 28°C, Humidity 80% | | | | |
| Cooling capacity (kW) | 4,5 | 5,5 | 6,8 | 7,7 |
| Sound level 1m dB(A) | 38.6-49.9 | 42.1-50.7 | 41.3-54.0 | 43.1-53.8 |
| Sound level at 10m dB(A) | 18.6-29.9 | 22.1-30.7 | 21.3-34.0 | 23.1-33.8 |
| Sound level at 50% speed 1m dB(A) | 43,3 | 45,7 | 46,0 | 46,5 |
| Compressor | Mitsubishi DC Inverter | | | |
| Heat Exchanger | Titanium | | | |
| Housing | ABS | | | |
| Power supply | 230V/1 Ph/50Hz | | | |
| Rated input power at 15°C (kW) | 0.19-1.5 | 0.22-1.73 | 0.27-2.2 | 0.3-2.6 |
| Rated current at 15°C (A) | 0.83-6.5 | 0.96-7.52 | 1.17-9.6 | 1.3-11.3 |
| Recommended flow (m ³ /h) | 3-4 | 4-6 | 5-7 | 6.5-8.5 |
| Water pipe specification in-out (mm) | 50 | | | |
| Net dimension LxWxH (mm) | 961×340×658 | 961×340×658 | 961×340×658 | 961×420×658 |
| Net weight | 49 | 50 | 52 | 63 |
| Gas (g) | 750 | 800 | 900 | 1000 |
| GWP | 675 | | | |
| CO2 Equivalent (tonne) | 0,506 | 0,540 | 0,608 | 0,675 |

* The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day
Minor deviations of the technical specifications are system specific possible and subject to technical changes.

smart

SMART INVERTER ECO

Heat pump



Guarantee on
heat exchanger

ANODIZED
METAL
HOUSING

3-STEPS
ECO-INVERTER

R32

Optionally with WLAN connection for control via mobile devices for retrofitting, free APP



TECHNICAL DATA

| Product | 7300704 | 7300706 | 7300707 | 7300708 | 7300709 |
|---|----------------|-------------|-------------|-------------|-------------|
| Recommended pool size (m³)* | 15-30 | 20-35 | 30-50 | 35-65 | 45-80 |
| Operation temperature (°C) | 0-43 | | | | |
| Operation conditions: Air 35°C, Water 26°C, Humidity 70% | | | | | |
| Heat capacity (kW) | 6,5 | 9,0 | 12,5 | 16,0 | 20,0 |
| C.O.P | 10.3-6.6 | 10.6-6.8 | 11.6-7.0 | 11.2-7.1 | 11.8-6.5 |
| COP at 50% speed | 9,3 | 9,6 | 10,1 | 9,7 | 10,2 |
| Operation conditions: Air 15°C, Water 26°C, Humidity 70% | | | | | |
| Heat capacity (kW) | 5,0 | 6,3 | 8,5 | 11,0 | 14,0 |
| C.O.P | 6.0-4.8 | 6.1-4.5 | 6.3-4.8 | 6.4-4.7 | 6.5-4.6 |
| COP at 50% speed | 5,8 | 5,7 | 6,1 | 5,9 | 6,1 |
| Operation conditions: Air 35°C, Water 28°C, Humidity 80% | | | | | |
| Cooling capacity (kW) | 2,5 | 3,1 | 4,6 | 5,6 | 7,8 |
| Sound level 1m dB(A) | 38.8-50.2 | 40.6-52.5 | 42.9-53.0 | 45.2-56.3 | 45.3-57.1 |
| Sound level at 10m dB(A) | 18.8-30.2 | 20.6-32.5 | 22.9-33.0 | 25.2-36.3 | 25.3-37.1 |
| Sound level at 50% speed 1m dB(A) | 42,8 | 45,8 | 48,5 | 48,7 | 49,6 |
| Heat Exchanger | Titanium | | | | |
| Housing | Anodized metal | | | | |
| Power supply | 230V/1 Ph/50Hz | | | | |
| Rated input power at 15°C (kW) | 0.29-1.04 | 0.36-1.40 | 0.47-1.78 | 0.59-2.34 | 0.75-3.04 |
| Rated current at 15°C (A) | 1.26-4.52 | 1.57-6.09 | 2.02-7.74 | 2.52-10.17 | 3.26-13.21 |
| Recommended flow (m³/h) | 2-4 | 3-4 | 4-6 | 6.5-8.5 | 8-10 |
| Water pipe specification in-out (mm) | 50 | | | | |
| Net dimension LxWxH (mm) | 744×359×648 | 864×359×648 | 864×359×648 | 954×359×648 | 954×359×748 |
| Net weight (kg) | 42 | 46 | 49 | 60 | 68 |

* The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day
Minor deviations of the technical specifications are system specific possible and subject to technical changes.

smart

FULL-INVERTER IQ INVER SILCENCE VERTICAL Heat pump



Guarantee on compressor and heat exchanger

VARNISHED ALUMINIUM HOUSING

BOOST FUNCTION

STEPLESS FULL-INVERTER



Controllable via smart phone app



TECHNICAL DATA

| Product | 7301269 | 7301270 | 7301271 | 7301272 |
|---|----------------|-------------|-------------|-------------|
| Recommended pool size (m³)* | 25-50 | 30-60 | 40-75 | 50-100 |
| Operation temperature (°C) | -15-43 | | | |
| Operation conditions: Air 26°C, Water 26°C, Humidity 80% | | | | |
| Heat capacity (kW) Smart Modus | 11 | 14 | 17,5 | 22 |
| Heat capacity (kW) Turbo Modus | 13,2 | 17,2 | 21 | 26 |
| C.O.P in Smart Modus | 7,7 | 7,8 | 7,3 | 7,8 |
| C.O.P | 15,0-6,8 | 15,6-6,5 | 15,5-6,3 | 14,9-6,8 |
| COP at 50% speed | 11,5 | 11,7 | 11,6 | 11,3 |
| Operation conditions: Air 15°C, Water 26°C, Humidity 70% | | | | |
| Heat capacity (kW) Smart Modus | 7,3 | 9,8 | 11,6 | 14,5 |
| Heat capacity (kW) Turbo Modus | 8,8 | 11,6 | 14,3 | 17,5 |
| C.O.P in Smart Modus | 5,0 | 4,9 | 4,9 | 5,0 |
| C.O.P | 7,3-4,5 | 7,8-4,5 | 7,4-4,4 | 7,3-4,8 |
| COP at 50% speed | 6,5 | 6,7 | 6,8 | 6,3 |
| Operation conditions: Air 35°C, Water 28°C, Humidity 80% | | | | |
| Cooling capacity (kW) | 5,8 | 7,1 | 8,2 | 12,0 |
| Sound level 1m dB(A) | 38,8-47,9 | 42,2-48,6 | 43,1-52,1 | 41,0-52,9 |
| Sound level at 50% speed 1m dB(A) | 41,9 | 44,3 | 45,2 | 45,3 |
| Sound level 10m dB(A) | 18,8-27,9 | 22,2-28,6 | 23,1-32,1 | 21,0-32,9 |
| Heat Exchanger | Titanium | | | |
| Housing | Aluminium | | | |
| Power supply | 230V/1 Ph/50Hz | | | |
| Rated input power at 15°C (kW) | 0,21-1,95 | 0,26-2,51 | 0,33-3,08 | 0,42-3,67 |
| Rated current at 15°C (A) | 0,91-8,48 | 1,14-10,9 | 1,43-13,4 | 1,82-15,9 |
| Recommended flow (m³/h) | 3-4 | 4-6 | 6,5-8,5 | 8-10 |
| Water pipe specification in-out (mm) | 50 | | | |
| Net dimension LxWxH (mm) | 710x753x668 | 710x775x668 | 710x775x668 | 710x775x743 |
| Net weight (kg) | 66 | 71 | 78 | 102 |
| Gas (g) | 700 | 1000 | 1200 | 2000 |
| GWP | 675 | | | |
| CO2 Equivalent (tonne) | 0,473 | 0,675 | 0,810 | 1,350 |

* The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day. Minor deviations of the technical specifications are system specific possible and subject to technical changes.

smart

FULL-INVERTER PLUS

Heat pump commercial

VARNISHED
ALUMINIUM
HOUSING

STEPLESS
FULL-INVERTER

HEATING
AND
COOLING



TECHNICAL DATA

| Product | 7300720 | 7300721 |
|---|----------------|----------------|
| Recommended pool size (m³)* | 130-260 | 260-520 |
| Operation temperature (°C) | -7-43 | |
| Operation conditions: Air 35°C, Water 26°C, Humidity 70% | | |
| Heat capacity (kW) | 59,6 | 109,0 |
| COP at 50% speed | 10,0 | 9,8 |
| Operation conditions: Air 15°C, Water 26°C, Humidity 70% | | |
| Heat capacity (kW) | 39,4 | 80,5 |
| COP at 50% speed | 6,7 | 6,6 |
| Operation conditions: Air 35°C, Water 28°C, Humidity 80% | | |
| Cooling capacity (kW) | 26,2 | 53,7 |
| Sound level 1m dB(A) | 54.0-62.0 | 56.0-65.0 |
| Sound level at 10m dB(A) | 34.0-42.0 | 36.0-45.0 |
| Sound level at 50% speed 1m dB(A) | 56,0 | 58,0 |
| Compressor | DC-Inverter | |
| Heat Exchanger | Titanium | |
| Housing | Aluminium | |
| Power supply | 230V/1 Ph/50Hz | |
| Rated input power at 15°C (kW) | 2.20-8.03 | 4.69-17.9 |
| Rated current at 15°C (A) | 3.17-11.59 | 6.77-25.8 |
| Max. input current (A) | 20 | 40 |
| Circuit breaker (A) | 25,0 | 48,0 |
| Recommended flow (m³/h) | 20-25 | 40-50 |
| Water pipe specification in-out (mm) | 75 | 110 |
| Net dimension LxWxH (mm) | 1000x1110x1260 | 2100x1090x1280 |
| Net weight (kg) | 212 | 459 |
| Gas (g) | 5500 | 11000 |
| GWP | 2088 | |
| CO2 Equivalent (tonne) | 11,48 | 22,97 |

* The specified values apply under ideal conditions: the pool is covered with an isothermal cover, the filter system runs at least 15 hours a day
Minor deviations of the technical specifications are system specific possible and subject to technical changes.

smart

SMART INVERTER PLUS

Entfeuchter

FULL INVERTER TECHNOLOGY EVEN FOR DEHUMIDIFIER

- Extremely low noise operation
- Flexible installation
- Capacity: 48, 72, 96l/24h
- Classy design
- high energy-saving potential due to inverter technology

INSTALLATION

- Installation in technical rooms, more than 2m from the pool
- Installation on floor or wall
- 230V Power source required
- Condensation water must be diverted

**ENERGY
SAVING**

STEPLESS
FULL-INVERTER

**EXTREMELY
QUIET**

V2A-FRONT &
PLASTIC HOUSING



TECHNICAL DATA

| Product | 7300728 | 7300729 |
|--|---------------|--------------|
| Recommended pool surface (m ²) | <40 | <50 |
| Operation temperature (Air) °C | 10-38 | |
| Capacity (l/h) (Air 30 °C /Humidity 80%) | 4,0 | 5,0 |
| DER (l/h.kW) (Air 30°C / Humidity 80%) | 4,53-4,05 | 4,50-3,68 |
| Capacity (l/h) (Air 30 °C /Humidity 70%) | 4,0 | 5,0 |
| DER (l/h.kW) (Air 30°C / Humidity 70%) | 4,00-3,50 | 3,86-3,25 |
| Heat recovered (kW) | 3,3 | 4,4 |
| Optional electric heating (kW) | 2,1 | 2,1 |
| Rated input power (kW, at 80% H) | 0,17-0,99 | 0,22-1,36 |
| Rated current (A, at 80% H) | 0,74-4,30 | 0,96-5,91 |
| Power supply | 230V/1Ph/50Hz | |
| Sound level 1m dB(A) | 40,3-45,8 | 39,9-46,4 |
| Sound level at 50% capacity 1m dB(A) | 40,1 | 40,3 |
| Air flow (m ³ /H) | 800 | 1000 |
| Net dimension LxWxH (mm) | 1120×291×770 | 1120×291×770 |
| Net weight (kg) | 68 | 72 |

FAMILY, SPORT, RELAXATION – THERE IS LIFE IN A POOL.



PERAQUA®

A POOL FULL OF LIFE

It is our highest permission to enrich every pool with creative, perfect fitting, affordable and durable pool technology. Our focus is on the maximum ease of use, safety, cleanliness and sustainability of the selected technology for your pool projects.

Tailored to the digital age, you can choose between fully automatic pool control systems based on WIFI connection or manual control systems in **Peraqua® Quality**.

Our mission is to implement Peraqua® & Praher Top Quality in all areas of sales, marketing, service, logistics, training, repair, and after-sales services with the best dedication.

PERAQUA®

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Water Products GmbH**

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