



PEARL INVERTER HEAT PUMPS

# Rear Discharge Heat Pumps

INNOVATIVE DESIGN WITH LOW  
SPACE REQUIREMENT



For You and Planet Blue.

 **BWT**  
BEST WATER TECHNOLOGY

# Features And Benefits



## Simple And Intuitive Operation

Colour digital touch screen.  
Modes: Heating, Cooling and Automatic



## Intelligent Operating Mode

The heat pump autoregulates its output depending on the water and air temperature.



## Rear Discharge

Due to the exclusive design and construction, the cooled exhaust air is not recycled. The air passing over the exchanger is better distributed and thus increases the efficiency of the machine.



## Low Noise Levels

Noise reduction insulation on all panels and rotation speed of the compressor and fan automatically adjusts to reduce noise to the minimum.



## Connected Solution

BWT Connect inside:  
WiFi included.  
Remote management with a smartphone and supervision by our TechniCenter.



## Exclusive Low Temperature System

- Reverse-cycle defrosting.
- Preheating of the compressor housing.
- Antifreeze system for the evaporators condensation.
- Automatic piloting of the 'low temperature' system.

## BWT Smart Control: A Sizeable Asset

### EXCLUSIVE REGULATION AND ENERGY SAVINGS

- Optimization of the power required for maintaining the temperature of the pool by cross-referencing air temperature with water temperature data.
- Anticipation of the pool's energy needs thanks to an advanced double-entry regulation.
- An overall higher COP during the season and lower noise levels.
- Inverter compressor with «oversized» exchangers = higher COP.
- Brushless variable speed fan = lower noise levels.
- Combination of the Inverter compressor and the brushless fan motor = automatic regulation of the power when the pool does not require full power.

**3**  
OPERATING MODES



Boost Mode



Smart Mode



ECO Mode

HIGHER COP



LOWER electricity bill

LOWER noise levels



BETTER user comfort

## Intelligent Operations

The exclusive intelligent system integrated into the Pearl Inverter heat pump regulates the output in relation to the water temperature but also takes into consideration the outside air temperature. This guarantees heating performance at the best COP level and lowest noise level!

### The BWT Inverter Heat Pumps Have 3 Operating Modes:



**Boost Mode**

Between 85% and 100% of the capacity in order to ensure quick heating of your pool.



**Smart Mode**

Capacity and noise level are adjusted automatically depending on the ambient temperature and pool water temperature.



**ECO Mode**

This mode uses 25% to 60% of the pump's capacity, the fan works at the minimum necessary speed to minimise noise level and the compressor prioritises the COP.\*

\* Depending on your pools heating needs, the Pearl will adapt its capacity automatically.

### Simplified Operation Of The Pearl Inverter Heat Pump In Eco Mode

	<b>Power</b>	<b>COP</b>	<b>Noise Levels</b>
Cold air & cold water	High	Standard	Standard
Cold air & warm water	Average	Average	Low
Warm air & warm water	Minimum	Maximum	Minimum

 Optimal Twist: Titanium exchanger in PVC housing, efficient and corrosion resistant.

### Optimal Performances



2D Technology: Inverter compressor, higher COP thanks to the Hz by Hz variable speed motor.



DC Brushless: Variable speed fan motor ensures optimal performances.



### AQUAVARIATION SOFTWARE

Choosing the right power for your heat pump means, above all, optimising your energy consumption, controlling your budget and maximising your enjoyment.

We have developed thermodynamic calculation software based on heat transfer equations to precisely determine the pool's thermal losses. This allows us to compare and choose the most suitable heat pump for your customer's pool.

Thanks to our Aquavariation software, we can also estimate the energy consumption of the selected heat pump.

Available only to approved dealers.



## The connected solution from BWT for Professionals as well as private individuals.

More than just an ordinary heat pump management tool, BWT Connect allows for a direct link to the BWT Technicenter and enables SECURE REMOTE MANAGEMENT of our heat pumps: monitoring, preventative maintenance, and easy servicing.



## The app in detail

### BWT connect is a secure, free, and User-friendly application

Thanks to an intuitive interface, it enables remote control of the heat pump via a smartphone or tablet: machine status, water temperature, external temperature, filter pump operation, heating temperature set point, operating mode selection, alarms, programming of operating ranges...

Temperature setpoint adjustment, temperature limit notification, warning message

# Benefits for pool professionals



## Remote management

A true preventative maintenance tool the information is transmitted to our TechniCenter, which can then remotely anticipate problems, access the settings and adjust, optimise or even update the heat pump accordingly. The connection via Modbus enables access to all the heat pump settings and allows for their modification in "direct mode".



## Simplified installation

 A WiFi device is fitted as standard inside all our Inverter heat pumps and is easily accessible through a side panel. Simply connect the heat pump to the customer's WiFi network by scanning the QR code on the machine, entering the network security code and pressing the button on the WiFi device to pair.

## Proactivity

 Thanks to error code feedback, the TechniCenter can remotely initiate an appropriate After Sales service procedure immediately, even before the pool user becomes aware of a possible issue or its consequences.

## Expert advice

The TechniCenter will be happy to advise you on the efficient management of your swimming pools along with all the possible energy savings for your customer.



## Efficiency

BWT Connect is linked to the BWT TechniCenter and provides our technicians with an overview of the line of connected systems as well as their individual status. In the event of an error code, they can access the device settings via their secure interface to resolve the fault. There is no longer any need to send a technician to the installation to check on the problem, collect basic information or make adjustments to the equipment.

# Advantages for your customer

Thanks to the smartphone remote management application, your customer will have access to:

## Easy to use

 Access to technical documentation, video tutorials, operating manuals.

## Energy savings

 Possibility of real-time monitoring, correct operation and receipt of advice/scenario notifications. (e.g.: "Don't forget to switch on your heat pump to benefit from this sunny weekend!")

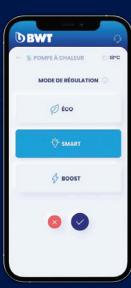
## Comfort

 Access to all settings at any time. (e.g.: heating your pool or changing the temperature while away from home)

## Serenity

 Thanks to our BWT customer service specialists who monitor and provide real time remote technical diagnosis and intervention.

**Conclusion:** a functional and well-maintained pool at all times!



Mode selection



List of connected equipment

## A must for your connected customers Who want full control of their devices!

In order to ensure a complete follow-up, all the data collected from the systems connected with BWT Connect, is stored for five years:

- all alarm history
- internal temperature sensor probes
- the operating time of compressors, pumps, etc...
- user settings

BWT Connect was developed by our internal departments.

The application can be downloaded from the Apple Store or Google Play





## Colour touch screen

### A large and highly responsive colour Touch screen

- High capacitive TFT touch screen and large size for good readability: L 72 x H 68 mm, 10.5 cm diagonal.
- Protected by a layer of thermal toughened glass to ensure maximum resistance.
- The transparent protective door protects the display from weather, dust and scratches. The screen and internal components are protected from damage.

## An exclusive operation

Due to the exclusive design and construction, the cooled exhaust air is not recycled. The air passing over the exchanger is better distributed and thus increases the efficiency of the machine



### Warranty

25 Year heat exchanger\* – this warranty is only on the titanium components of the heat exchanger  
 • 10 Year compressor\*      • 5 Year parts      • 1 Year on site labour.

### Temperature

The Pearl rear discharge inverter units have an operating range as low as minus 3 degrees.

### Super Quiet

The BWT Pearl Inverter Heat Pump allows you to control your pool heating in silence. The heat pump guarantees you a high COP for a minimal noise level. BWT's inverter technology automatically adjusts the speed of the compressor and fan to your pool heating requirements and the weather conditions. BWT's Pearl Inverter heat pumps give you the best of all worlds with the finest performance levels and the lowest noise levels. Sizing to meet all domestic requirements.

### Benefits of a heat pump

A BWT Pearl Inverter heat pump will extend your swimming time and maximise your pool usage. In parts of Australia, it may allow you to swim all year round. A BWT Inverter Heat Pump will enable your pool to stay at a consistent temperature to ensure it is comfortable to swim in. Our Inverter Technology gives the Pearl units increased efficiency reducing energy bills and are environmentally friendly.

### Built For Australia

The BWT Pearl Inverter heat pump is built for Australian conditions with our titanium heat exchanger installed in purpose-built PVC housing making it resistant to corrosion. Irrespective of the location from the tropical north to the outback the BWT Pearl Heat Pump casing guarantees maximum life.

### Heating and cooling options

The Pearl Inverter series can also cool your pool water, ideal for tropical regions as your pool water can be cooled to the ideal temperature for swimming as well.

### Commitment to environmental sustainability

One of the biggest milestones in refrigeration has been the development of R32. This refrigerant has a global warming impact that is 1/3 lower than previous mainstream refrigerants.

\*Any damage to the heat exchanger caused by incorrect water chemistry is not covered by warranty. 25-year warranty for the heat exchanger & 10-year warranty for the compressor is for the original purchaser only. Standard heat exchanger and compressor warranty is 5 years.



# Specifications

MODEL	HPB9	HPB12	HPB14	HPB20
Recommended pool size* (Nov to March with a cover)	35-45 m <sup>3</sup>	45-60 m <sup>3</sup>	60-85 m <sup>3</sup>	85-105 m <sup>3</sup>
Air 26°C / Water 26°C / Humidity 80%				
Energy Output BOOST mode	9.5 kW	12.9 kW	14.8 kW	20.3 kW
COP BOOST mode	6.5	6.4	6.5	6.4
Energy Output SMART mode	9.5 ~ 2.3 kW	12.9 ~ 2.4 kW	14.8 ~ 2.6 kW	20.3 ~ 2.8 kW
COP SMART mode	14.4 ~ 6.5	16.7 ~ 6.4	16.9 ~ 6.5	16.9 ~ 6.4
Energy Output ECO-Silent mode	2.3 kW	2.4 kW	2.6 kW	2.8 kW
COP ECO-Silent mode	14.4	16.7	16.9	16.9
Air 15°C / Water 26°C / Humidity 70%**				
Energy Output BOOST mode	7.1 kW	8.8 kW	10.9 kW	14.8 kW
COP BOOST mode	4.9	4.8	4.9	4.9
Energy Output SMART mode	7.1 ~ 1.5 kW	8.8 ~ 1.7 kW	10.9 ~ 1.9 kW	14.8 ~ 2.1 kW
COP SMART mode	7.0 ~ 4.9	7.9 ~ 4.8	8.0 ~ 4.9	7.9 ~ 4.9
Energy Output ECO-Silent mode	1.5 kW	1.7 kW	1.9 kW	2.1 kW
COP ECO-Silent mode	7.0	7.9	8.0	7.9
Noise level min-max (10 m) CTTM certified***	23~39 dB(a)	25~38 dB(a)	26~37 dB(a)	29~39 dB(a)
Noise level min-max (10 m) acc. EN ISO 3744 : 2010	20~35 dB(a)	21~35 dB(a)	23~35 dB(a)	25~36 dB(a)
Temperature working range	-3°C minimum operating temperature			
COMPONENTS				
Compressor	2D Technology Full DC			
Expansion valve	Electronic			
Exchanger	Optimal Twist			
Housing	Housing is a mix of ABS and Metal			
Refrigerant	R32			
INSTALLATION				
Hydraulic connections	1.5" / 50 mm			
Power	230 V / 1~+N / 50 Hz			
Circuit breaker and cable size (for 20m)	C 10 A (3G2.5 mm <sup>2</sup> )	C 10 A (3G2.5 mm <sup>2</sup> )	C 16 A (3G2.5 mm <sup>2</sup> )	C 20 A (3G4 mm <sup>2</sup> )
Power Input Max (air 28°C)	1.6 kW	1.8 kW	2.8 kW	3.4 kW
Minimum water flow	3 m <sup>3</sup> /h		4 m <sup>3</sup> /h	5 m <sup>3</sup> /h
Dimensions in mm (L x l x h)	981 x 409 x 607mm		1051 x 433 x 770mm	
Weight (net)	55 kg	57 kg	72 kg	73 kg

## INCLUDED WITH THE HEAT PUMP

- Connector for condensate water evacuation
- Hydraulic connectors
- Winter cover





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