

PEARL INVERTER HEAT PUMPS

Front Discharge Heat Pumps

PROVIDES AN EFFORTLESS ENERGY EFFICIENT HEATING SOLUTION



For You and Planet Blue.

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.



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

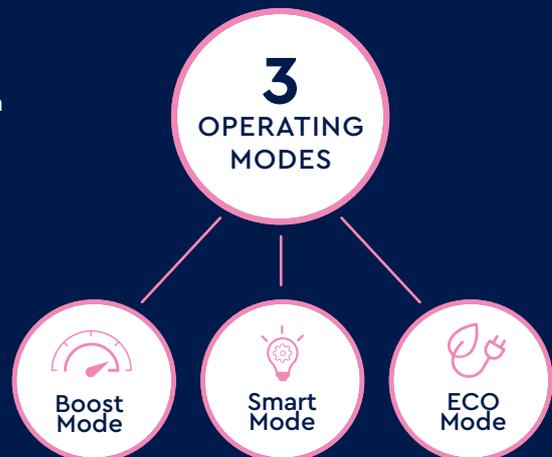
- Reverse-cycle defrosting.
- Preheating of the compressor housing.
- Antifreeze system for the evaporators condensation.
- Automatic piloting of the 'low temperature' system.



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.



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

Cold air & cold water
Cold air & warm water
Warm air & warm water

Power

High
Average
Minimum

COP

Standard
Average
Maximum

Noise Levels

Standard
Low
Minimum

Optimal Performances



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



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



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.



Comfort

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



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!")



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.

Intuitive user interface

THE MULTILINGUAL CONTROL INTERFACE

Clear operations and intuitive navigation:



Access the 3 intuitive operating modes in a single touch.



Alarm messages, diagnostics and problem resolutions, hotline contact.



Access to the last 50 log-book events.



25 Year Warranty*



-15° Temp



Quiet Operation



Full Inverter



Built For Australia



Heating + Cooling



R32 Refrigerant

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

	BWT PEARL HPF 10	BWT PEARL HPF 13	BWT PEARL HPF 16	BWT PEARL HPF 20	BWT PEARL HPF 24	BWT PEARL HPF 27
Recommended pool size <small>(Nov to March with a cover)</small>	45–55 m³	55–70 m³	70–85 m³	85–105 m³	105–130 m³	130–160 m³
PERFORMANCE						
Capacity in MAX Mode	10.6 kW	13.1 kW	16.1 kW	20.4 kW	24.2 kW	27.8 kW
COP MAX Mode	5.4	5.6	5.1	5.2	5.4	5.2
Capacity in ECO Mode	10.6 ~ 3.9 kW	13.1 ~ 4.2 kW	16.1 ~ 5.5 kW	20.4 ~ 6.5 kW	24.2 ~ 7.8 kW	27.8 ~ 10.5 kW
COP ECO Mode	10.8 ~ 5.4	11.2 ~ 5.6	10.8 ~ 5.1	10.1 ~ 5.2	10.8 ~ 5.4	10.1 ~ 5.2
Capacity in SILENT	3.9 kW	4.2 kW	5.5 kW	6.5 kW	7.8 kW	10.5 kW
COP SILENT	10.8	11.2	10.8	10.1	10.8	10.1
Capacity in MAX Mode	7.8 kW	9.8 kW	11.5 Kw	14.8 kW	18.2 kW	22.8 kW
COP MAX Mode	5.2	4.7	4.4	4.5	4.4	4.2
Capacity in ECO Mode	7.8 ~ 3.5 kW	9.8 ~ 3.7 kW	11.5 ~ 4.2 kW	14.8 ~ 4.9 kW	18.2 ~ 6.8 kW	22.8 ~ 8.1 kW
COP ECO Mode	7.1 ~ 5.2	7.0 ~ 4.7	6.7 ~ 4.4	6.6 ~ 4.5	6.7 ~ 4.4	6.5 ~ 4.2
Capacity in SILENT	3.5 kW	3.7 kW	4.2 kW	4.9 kW	6.8 kW	8.1 kW
COP SILENT	7.1	7.0	6.7	6.6	6.7	6.5
Noise level mini-maxi (at 10m) <small>according to EN ISO 3744:2010</small>	23 ~ 26 dB(a)	23 ~ 28 dB(a)	25 ~ 30 dB(a)	25 ~ 30 dB(a)	26 ~ 31 dB(a)	26 ~ 32 dB(a)
Operating temperature	-15°C -> 38°C					
COMPONENTS						
Compressor type	2D Technology Full DC					
Expansion valve	Electronic					
Heat Exchanger	Optimal Twist					
Casing	ABS treated against UV					
Refrigerant	R32					
INSTALLATION						
Water connection	1.5" / 40 m m					
Power	230V / 1~+N / 50 Hz					
Nominal Current (Maximum Current)	6.4 A (8.8 A)	8.3 A (12 A)	11.5 A (15.3 A)	14.3 A (16 A)	23.0 A (25.0 A)	28.0 A (30.0 A)
Protection and cable size (20m)	C 16 A (3G2.5mm ²)	C 16 A (3G2.5mm ²)	C 20 A (3G4mm ²)	C 20 A (3G4mm ²)	C25 A (3G4mm ²)	C 32 A (3G4mm ²)
Max power input (Air 26°C)	2.0 kW	2.3 kW	3.2 kW	3.9 kW	4.5 kW	5.3 kW
Cooling Capacity	8.6 kW	10.8 kW	13.0 kW	16.5 kW	19.7 kW	22.5 kW
Water flow	3 m ³ /h	4 m ³ /h	5 m ³ /h	6 m ³ /h	8 m ³ /h	10 m ³ /h
Water pressure drop	64 kPa			66 kPa	77 kPa	
Dimensions	980 × 419 × 584 mm		1080 × 479 × 707 mm		1178 × 525 × 569 mm	
Weight net (gross)	46 kg (58 kg)	48 kg (59 kg)	62 kg (72 kg)	63 kg (80 kg)	93 kg (111 kg)	94 kg (111 kg)

INCLUDED WITH THE HEAT PUMP

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





**Rear Discharge
Heat Pumps**



**Top Discharge
Heat Pumps**



**Front Discharge
Heat Pumps**

BWT

Pool Products

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**BWT – Best
Water Home**



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