

# Heat Pumps BWT Fairland Inverter Plus



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# Comprehensive range

The BWT Fairland Inverter Plus heat range offers a selection of models to suit pools of all types and sizes.



## INVERTER SYSTEM

On the contrary to a conventional On/Off heat pump that run at a constant speed (100%), the Inverter heat pump compressor can run at between 20% and 100% of its full power to adapt to the machine's operating conditions. In fact, while the outside temperature is low, or while the heating demand is high, the compressor will run at high speed (between 50% and 100%). Inversely, while the heating demand is low, notably around the set point, the Inverter compressor will run at low speeds (between 25% and 50% of full power). The Fairland Inverter Plus heat pump automatically adapts the compressor speed to suit the operating conditions and the outdoor temperature. There is no need for any manual intervention to select the compressor operating mode. Running at low speeds, Inverter compressors are almost noiseless, provide optimal yield and enjoy a longer service life.



## TECHNICAL DATA

Air 26°C – Water 26°C Humidity 80%		IPHCR15	IPHCR20	IPHCR26	IPHCR33	IPHCR40	IPHCR45	IPHCR55	IPHCR70	IPHCR70T	IPHCR100T
20 % capacity	COP	14.7	14.8	15.0	15.4	15.5	15.8	15.3	15.4	15.3	15.6
100 % capacity	COP	6.0	7.4	7.4	7.3	6.7	6.2	6.0	6.5	6.5	5.8

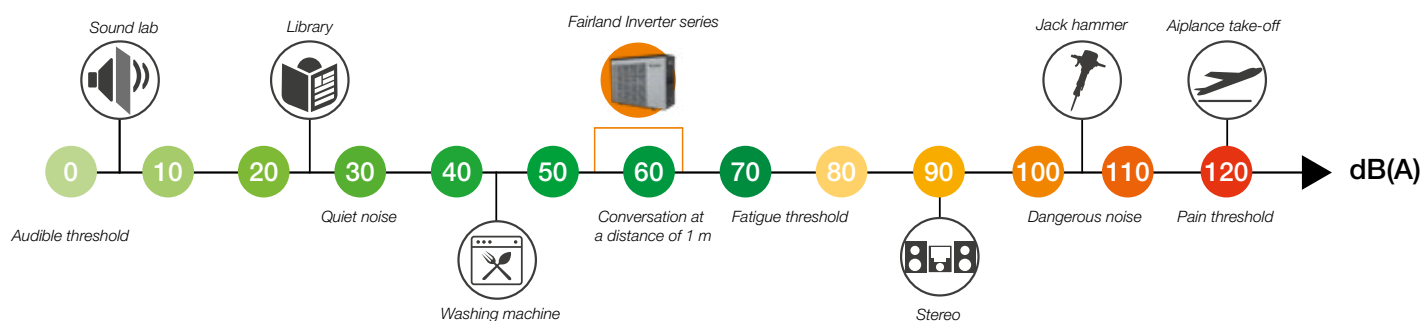
Air 15°C – Water 26°C Humidity 70%		IPHCR15	IPHCR20	IPHCR26	IPHCR33	IPHCR40	IPHCR45	IPHCR55	IPHCR70	IPHCR70T	IPHCR100T
20 % capacity	COP	7.3	7.4	7.7	7.7	7.8	7.8	7.7	8.1	8.1	8.0
	Acoustic pressure level at 10 m. in dB (Lp)	17.8	18.8	18.6	22.1	21.3	23.1	20.9	23.5	23.5	22.6
	Acoustic power at 1 m, in dB (Lp)	51.6	52.6	52.4	55.9	55.1	56.9	55.7	58.3	43.5	57.4
100 % capacity	COP	4.5	5.0	4.8	4.8	4.6	4.5	4.4	4.8	4.8	4.7
	Acoustic pressure level at 10 m. in dB (Lp)	27.2	28.2	29.9	30.7	35	33.8	34.2	34.9	34.9	34.7
	Acoustic power at 1 m, in dB (Lp)	61	62	63.7	64.5	68.8	67.6	69	69.7	54.9	69.5

The table above shows examples of the Fairland Inverter Plus performance levels in 3 operating modes. Fairland Inverter Plus heat pumps will automatically select the operating mode best suited for the pool's demands based on climatic conditions and operating conditions. The compressor speed is altered in steps of 1Hz between 20 Hz and 80 Hz.

## SILENCE

Conventional On/Off heat pumps generate a constant sound power, even when water temperature is around the set point. On the other hand, Fairland heat pump compressors slow significantly around the set point so that they run much more quietly than a conventional On/Off machine. This feature is particularly appreciated in situations where the heat pump must be installed at a short distance from

the neighbours. Installers should consider the provisions set out in the French Decree no. 2006-1099 dated August 31<sup>st</sup> 2006 concerning neighbourhood noise abatement and modifying the French Public health Code.



The scale above, provided by Thereco, compares the acoustic power of Climixel dehumidifiers with familiar events.

## TECHNICAL DATA

	IPHCR15	IPHCR20	IPHCR26	IPHCR33	IPHCR40	IPHCR45	IPHCR55	IPHCR70	IPHCR70T	IPHCR100T
Certified heating power, Water temp 26° C, Water temp 26° C	6.5 kW	8.5 kW	10.5 kW	13 kW	15 kW	17.5 kW	20.5 kW	27.5 kW	27.3 kW	35.8 kW
Certified heating power, Water temp 15° C, Water temp 26° C	4.8 kW	6.3 kW	7.3 kW	8.7 kW	10.5 kW	11.5 kW	14 kW	18 kW	18 kW	24.5 kW
Certified cooling power, Water temp 35° C, Water temp 28° C	3.0 kW	4.0 kW	4.6 kW	5.6 kW	6.8 kW	7.8 kW	10.0 kW	12.2 kW	12.2 kW	16.5 kW
Maw power consumed (kW)	0.12~0.94	0.16~1.2	0.20~1.5	0.24~1.8	0.27~2.2	0.3~2.6	0.36~3.3	0.53~3.8	0.53~3.9	0.6~5.2
Recommended pool water volume ••	15~30 m <sup>3</sup>	20~40 m <sup>3</sup>	25~45 m <sup>3</sup>	30~55 m <sup>3</sup>	35~65 m <sup>3</sup>	40~75 m <sup>3</sup>	50~95 m <sup>3</sup>	65~120 m <sup>3</sup>	65~120 m <sup>3</sup>	90~160 m <sup>3</sup>
Type of refrigerant	R 32									
Recommended water flow rate 2	2~4 m <sup>3</sup> /h	2~4 m <sup>3</sup> /h	3~4 m <sup>3</sup> /h	4~6 m <sup>3</sup> /h	5~7 m <sup>3</sup> /h	6.5~8.5 m <sup>3</sup> /h	8~10 m <sup>3</sup> /h	10~12 m <sup>3</sup> /h	10~12 m <sup>3</sup> /h	10~18 m <sup>3</sup> /h
Maximum current consumed	6.5 A	7.5 A	8.5 A	10.5 A	11 A	13 A	17 A	20 A	7 A	9.5 A
Power supply	230 V 1 ph							400 V 3 ph		
Power cable cross section	3×1.5 mm <sup>2</sup>		3×2.5 mm <sup>2</sup>				3×4 mm <sup>2</sup>	3×6 mm <sup>2</sup>	5×2.5 mm <sup>2</sup>	
Electrical protection	8 A	9 A	10.5 A	13 A	13.5 A	16 A	21 A	24 A	9 A	12 A
Exchanger model	Twisted. titanium coil									
Compressor	Rotary									
Number of fans	1									
Inlet/ Outlet unions	50 mm female. solvent									
Cabinet	Aluminium									
Dimension L x D x H (mm)	894×349×648			954×349×648		954×429×648	954×429×755	1084×429×948		1154×539×948
Weight	42 kg	45 kg	49 kg	50 kg	52 kg	63 kg	68 kg	90 kg	93 kg	120 kg

• : The power output and the COP at 15°C were measured and certified by the TUV Rheinland (the German standardisation body) in accordance with the European standard EN 15411-2011 and DTP 10 issued by the «Fédération de Professionnels de la Piscine, F.P.P.» (French federation of pool professionals). The acoustic power was measured and certified by the CVC, in accordance with the European standard EN 12102 dated 2008 and also DTP no. 10 issued by the «Fédération de Professionnels de la Piscine, F.P.P.» (French federation of pool professionals). The acoustic power and heating power test reports are available for each of the Fairland Inverter Plus heat pumps on our internet site [procopi.com](http://procopi.com).

•• : The values shown are valid under the following conditions: Ambient air temperature 15°C. Water temperature 26°C, pool covered with an isothermal cover at night, filtration system running at least 15 hours per day during the heating season.

• Both DTP 10 issued by the «Fédération de Professionnels de la Piscine, F.P.P.» (French federation of pool professionals) and the test standards developed by CERTITA, in the scope of «NF Pool-Heat pump» certification, recommend that the heating power with an outdoor temperature of 15°C be quoted.



Twisted, titanium coil fitted in the heat pump exchanger.



Touch screen control

## REVERSIBLE HEAT PUMPS

All Fairland Inverter Plus heat pump are reversible as standard.

A Fairland Inverter Plus heat pump can be used to heat or cool pool water.

This feature is particularly appreciated in very hot regions where it can be used to hold swimming pool water at a comfortable temperature or even to lower or maintain the water temperature in aquaculture tanks used to rear and store fish.

## START-UP OVERCURRENTS

Fairland heat pumps feature acceleration ramps that exploit frequency variation technology to avoid overcurrents on start-up along with their inherent negative impact on electrical and electronic devices in the home.

## COMPLETELY AUTOMATED

Fairland Inverter Plus heat pumps are designed to be easy to install and simple to maintain.

## SYSTEMATIC QUALITY CONTROL

To guarantee complete reliability, all Fairland Inverter Plus heat pumps are tested before being shipped.

## ACCESSORY FREE OF CHARGE

Protective winterizing jacket.

Dealer's stamp :

