Hi Swimming Pool Heat Pump

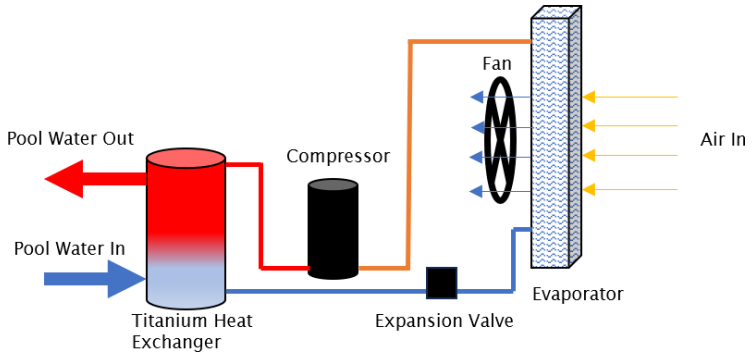
CONTINUOUS INVERTER TECHNOLOGY

Insnrg Hi Inverter heat pumps use advanced technology to regulate the heating process, adjusting their output based on the pool's temperature needs. This results in significant energy savings compared to traditional pool heaters, as they don't need to constantly cycle on and off. Additionally, they harness the ambient air temperature, making them an eco-friendly choice by reducing reliance on fossil fuels. When correctly sized, Insnrg Hi heat pumps provide consistent and precise temperature control, ensuring your pool remains at the desired warmth year-round. Their quiet operation also enhances the overall poolside experience, allowing you to enjoy a serene and tranquil environment while still enjoying comfortable water temperatures. All these benefits combined make the Insnrg Hi Inverter Heat Pump a smart and sustainable choice for heating your pool or spa.

WHY CHOOSE AN INSNRG HEAT PUMP?

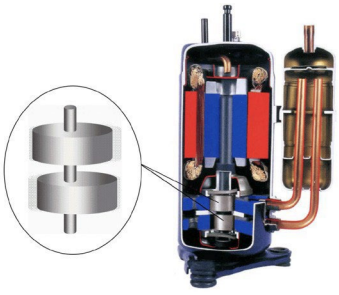
INVERTER TECHNOLOGY

All Insnrg Hi Heat Pumps incorporate the latest Inverter Technology to maximise energy efficiency and minimise heating costs. Inverter technology operates similar to climate control on your home or vehicle air-conditioning units. Insnrg's heat pump will operate at maximum output when the water is cold but, as swimming temperature is approached, Inverter Technology slows the compressor and fan down to increase efficiency and reduce heating costs. The sophisticated electronic controller matches the heating capacity with the heat loss from your pool, eliminating overshooting and undershooting of the pool temperature experienced by conventional heat pumps.



TWIN-ROTARY DC INVERTER COMPRESSOR

Twin-rotary compressors balance each other's vibration to create a smooth, vibration free compressor, reducing noise. DC power supply maintains torque at the lowest speed to allow increased efficiency.

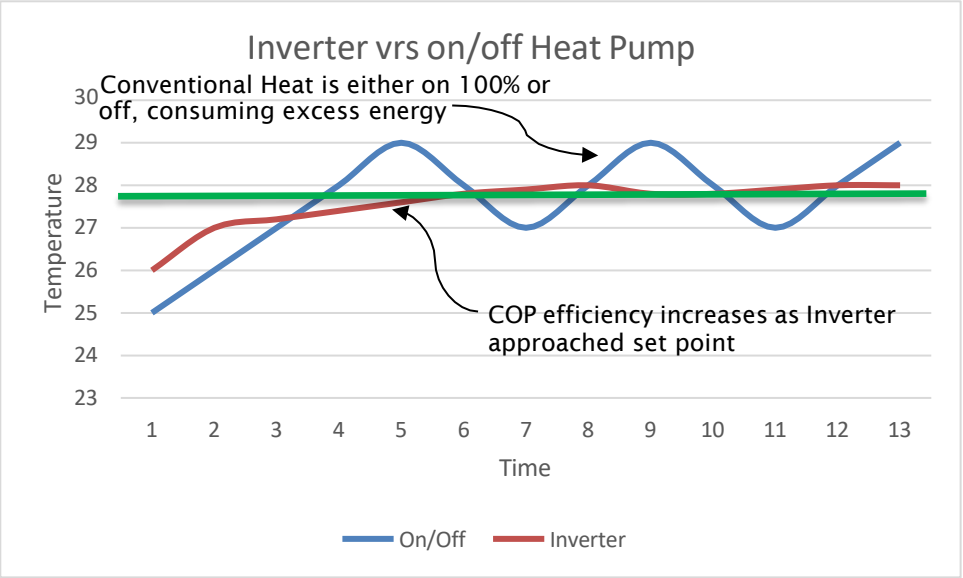


HIGH EFFICIENCY (PEAK COP of 17+)

Heat Pumps are one of the most efficient ways to heat your swimming water. In fact, the only energy heat pumps use is to collect heat from the air, even when the air temperature is as low as 3 degrees. The large evaporator coils in the heat pump absorb any temperature or humidity from the outside air and then transfer this heat through a titanium heat exchanger into your pool water. Heat Pump efficiency is known as Co-efficient of Performance (COP). In optimum conditions, your Insnrg heat pump operates at a COP of 18, which means it transfers 18 times the energy that it uses into your pool water.

STABLE TEMPERATURE EQUALS ENERGY SAVINGS

Advanced electronics and DC inverter technology change the speed of the compressor and fan to match the heat losses of your pool as the set temperature is neared. As the speed of the compressor and fan are reduced, the efficiency (COP) increases, reducing your energy consumption and emissions.



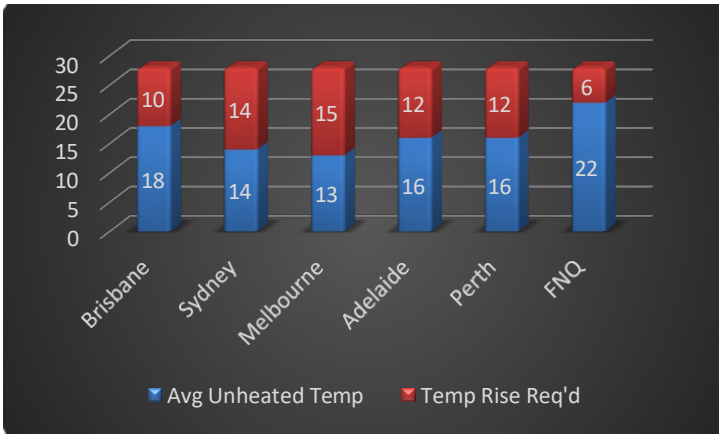
The Hi Inverter heat pump matches pool heat losses by slowing the compressor and fan as the desired water temperature is reached. This has two distinct advantages:

1. By reducing the speed of the compressor and fan, the Hi Inverter attempts to match the heat losses of your pool and minimising the over and undershoot of the set point pool water temperature. This results in the LC operating at a very low output once set point is reached to dramatically reduce power consumption, noise levels and increase efficiency up to a COP of 18.

2. The heat pump operating noise is even further reduced. Quiet at even full output, as the pool temperature is maintained, the slower rotation of the compressor and fan makes the heat pump barely distinguishable from ambient background noise on a quiet night.

CHOOSING THE RIGHT SIZE HEAT PUMP FOR YOUR POOL

Even in the warmer climates in Australia, unheated pool water is rarely warm enough to swim in comfortably for long periods. So, it's wise to understand the type of temperature rise required to make your pool an oasis and then choose the heat pump that will achieve your goals.



When choosing the right size heat pump, it's important to consider your lifestyle and how you intend to use your pool. You may wish to extend the swimming season or use the pool year-round. To obtain satisfactory performance Insnrg recommend a minimum 0.25 temperature rise per hour when used to extend' the swimming season, and a 0.5-degree temperature if the pool is to be used Spring or late Autumn. For year-round pool heating please consult Insnrg for sizing guidance.

MULTI-FUNCTION FULL COLOUR TOUCH SCREEN

The multi-function touch screen is intuitive to use and records pool temperature statistics, power consumption graphs, error codes and explanations. You can download a heat pump App and connect to wi-fi for remote control of your heat pump.

SPECIFICATIONS COMPACT HEAT PUMPS

Model		Hi35	Hi55	Hi72	Hi 85
Ambient Temperature: (DB/WB) 27°C/24.3°C; Water Inlet/Outlet Temperature: 26°C/28°C.					
Heating Capacity (kW)		1.8~9.48	3.48~15.3	4.34~18.1	4.7~23.0
Consumed Power (kW)		0.11~1.44	0.22~2.35	0.27~2.81	0.30~3.21
EER		16.4~6.6	15.9~6.5	16.1~6.4	16.2~6.5
Boost Mode	Heating Capacity (kW)	9.48	15.3	18.1	22.10
	COP	6.6	6.5	6.4	6.5
Smart Mode	Heating Capacity (kW)	7.8	11.55	14.01	18.3
	COP	9.02	9.18	9	8.9
Silent Mode	Heating Capacity (kW)	3.5	7.35	8.7	10.9
	COP	16.1	17.1	17.3	17.5
Ambient Temperature: (DB/WB) 15°C/12°C; Water Inlet Temperature: 26°C.					
Heating Capacity (kW)		1.51~7.89	2.96~11.14	3.44~13.35	3.64~15.26
Consumed Power (kW)		0.18~1.52	0.36~2.19	0.41~2.61	0.43~3.25
EER		8.3~5.2	8.3~5.1	8.3~5.1	8~5.1
Boost Mode	Heating Capacity (kW)	7.89	11.14	13.35	15.10
	COP	5.2	5.1	4.7	4.7
Smart Mode	Heating Capacity (kW)	6.1	8.65	10.55	11.9
	COP	6.22	6.2	6.16	6.21
Silent Mode	Heating Capacity (kW)	2.5	5.55	6.72	7.6
	COP	7.58	7.55	7.54	7.31
Ambient Temperature: (DB/WB) 35°C/32°; Water Inlet/Outlet Temperature: 30°C/28°C.					
Cooling Capacity (kW)		1.92~5.13	3.41~8	4.15~9.88	4.35~10.76
Consumed Power (kW)		0.24~1.06	0.43~1.65	0.53~2.03	0.55~2.13
EER		7.86~4.85	7.91~4.85	7.9~4.87	7.9~4.87
Power Supply		220V-240V 50 Hz			
Max Power Input (kW)		1.75	3.2	3.9	4.3
Heater Water Temperature Range		10 to 40 degrees C			
Operating Range Ambient Temperature		5 to 40 degrees C			
Recommended Pool Size		Up to 25 m3	25 to 35 m3	30 to 40m3	40 to 50m3
Refrigerant		R32			
Compressor		Mitsubushi Electric (DC Inverter)			
Evaporator Coil		Hydrophilic fin exchanger			
Water Heat Exchanger		Spiral Wound Titanium Tube in non corrosive PVC Housing			
Recommended Water Flow (lpm)		70	110	125	150
Dimensions LxWxH (mm)		910x 355x620	1000 x 400 x 600		1130x445x775
Water Connection Size		40mm High Pressure PVC			
Weight		37	46	46	68
Noise Level db(A)		33 to 46	34 to 48	34 to 52	35 to 55
Min/Max Water Pressure (kPa)		20/150			
RCD		10 amp 250V	16 amp 250 V	20 amp 250 V	25 amp 250 V

SPECIFICATIONS HIGH POWER HEAT PUMPS

Model		HI 85 Top Flow	Hi96	Hi 110 Top Flow	Hi120	Hi140 Top Flow
Ambient Temperature: (DB/WB) 27°C/24.3°C; Water Inlet/Outlet Temperature: 26°C/28°C.						
Heating Capacity (kW)		4.77~21.6	5.05~25.28	7.06 - 30.8	5.4~28.06	11.56~39.8
Consumed Power (kW)		0.30~3.21	0.31~3.89	0.48-5.06	0.33~4.32	0.737~5.387
EER		15.0~6.8	16.2~6.5	15.0-6.8	16.3~6.51	17.6~6.45
Boost Mode	Heating Capacity (kW)	22.10	25.28	32.00	30.02	39.80
	COP	6.5	6.5	6.5	6.51	5.80
Smart Mode	Heating Capacity (kW)	18.3	20.4	24.0	22.61	34.80
	COP	8.9	8.9	8.9	8.92	7.20
Silent Mode	Heating Capacity (kW)	10.9	12.3	12.3	13.91	18.48
	COP	16.9	17.6	17.3	16.8	16.7
Ambient Temperature: (DB/WB) 15°C/12°C; Water Inlet Temperature: 26°C.						
Heating Capacity (kW)		3.43~15.04	3.81- 17.08	5.08-20.94	4.04~18.49	4.9~24.6
Consumed Power (kW)		0.48-2.85	0.48~3.35	0.71-4.4	0.49~3.56	0.622~5.15
EER		7.15-5.26	8~5.1	7.9-5.0~5.1	8.2~5.2	8.1~5.0
Boost Mode	Heating Capacity (kW)	15.10	17.08	19.20	19.30	32.00
	COP	4.7	4.7	4.6	4.6	4.6
Smart Mode	Heating Capacity (kW)	11.9	13.5	15.2	14.0	17.4
	COP	6.21	6.21	6.10	6.21	6.21
Silent Mode	Heating Capacity (kW)	7.6	8.3	9.9	8.9	10.2
	COP	7.31	7.20	7.10	7.00	7.00
Ambient Temperature: (DB/WB) 35°C/32°; Water Inlet/Outlet Temperature: 30°C/28°C.						
Cooling Capacity (kW)		4.32~10.78	4.60~11.40	4.5-14.4	4.65~13.6	5.15~16.2
Consumed Power (kW)		0.55~2.13	0.59~2.38	0.7-2.7	0.59~2.8	0.72~3.7
EER		7.9~4.87	7.81~4.88	7.9-5.3	7.82~4.86	7.71~5.50
Power Supply		220V-240V 50 Hz			380 - 415V 3 Phase	
Max Power Input (kW)		4.1	5.8	6.2	5.8	9.8
Heater Water Temperature Range		10 to 40 degrees C				
Operating Range Ambient Temperature		5 to 40 degrees C				
Recommended Pool Size		40 to 50m3	40 to 60m3	50 to 70m3	50 to 70m3	70 to 100m3
Refrigerant		R32				
Compressor		Mitsubushi Electric (DC Inverter)				
Evaporator Coil		Hydrophilic fin exchanger				
Water Heat Exchanger		Spiral Wound Titanium Tube in non corrosive PVC Housing				
Recommended Water Flow (lpm)		150	160	170	190	220
Dimensions LxWxH (mm)		800x742x965	1130x445x775	800x742x965	1130x445x775	1052x907x842
Water Connection Size		40mm High Pressure PVC				
Weight		94	85	108	90	141
Noise Level db(A)		40 to 58	40 to 58	41 to 59	46 to 57	45 to 63
Min/Max Water Pressure (kPa)		20/150				
RCD		25 amp 250 V		35 amp 250V	30 amp 415V	44 amp 415V

WARRANTY

Your Hi Heat Pump is covered by a 25 year titanium heat exchanger warranty,3 years on the compressor, 2 years on parts and 1 year labour. (See Operating Manual for full details).

SUPPORT

Want more information on Insnrg's range of automation, energy efficient filtration and heating solutions? We're simply a phone call or email away.

Phone: 1800 467 674
Email: sales@insnrg.com
Web: www.insnrg.com

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