POLYTROPIC

RAK inverter

The heat pump built for large pools



Remote control. Secure monitoring.

4G

FULL INVERTER

QUIET PERFORMANCE

REVERSIBLE





SCOP 7+

RAK Inverter

-15°C

WARRANTY 3 YEARS POLYTROPIC

A B C D E F

Designed for **commercial and large pools**, **RAK Inverter** continuously adjusts its operation to maintain the ideal swimming temperature, **optimise performance and keep noise levels under control.**



RAK35 IVT



RAK50 IVT



RAK100 IVT



RAK Inverter | Technical specifications

MODELS	RAK35 IVT	RAK50 IVT	RAK100 IVT
SCOP acc. to EN 17645	7,5	7,1	7,2
Classification acc. to EN 17645	A	A	A
Air 26 °C / Water 26 °C / 80 % Humidity			
Energy Output SMART mode	46,6 ~ 24,3 kW	62,2 ~ 30,7 kW	123,2 ~ 68 kW
COP SMART mode	10,9 ~ 6	10,6 ~ 5,5	8,9 ~ 5,2
Air 15 °C / Water 26 °C / 70 % Humidity			
Energy Output SMART mode	35,6 ~ 18,3 kW	51,5 ~ 23,7 kW	101,2 ~ 51,4 kW
COP SMART mode	7,5 ~ 4,6	7,2 ~ 4,4	5,3 ~ 4,1
Air 7 °C / Water 26 °C / 90 % Humidity			
Energy Output SMART mode	31,1 kW	37,8 kW	74,0 kW
COP SMART mode	3,9	3,6	3,3
Air -7 °C / Water 26 °C / 0 % Humidity			
Energy Output SMART mode	20,0 kW	27,6 kW	48,3 kW
COP SMART mode	2,7	2,9	2,7
Noise level min-max (at 10m) acc. to EN ISO 3741 :2010	46 ~ 49 dB(A)	46 ~ 51 dB(A)	46 ~ 55 dB(A)
Maximum noise level (at 10m) acc. to EN ISO 3744 :2010	39 dB(A)	44 dB(A)	49 dB(A)
Temperature working range	-15 °C → +43 °C		

INSTALLATION

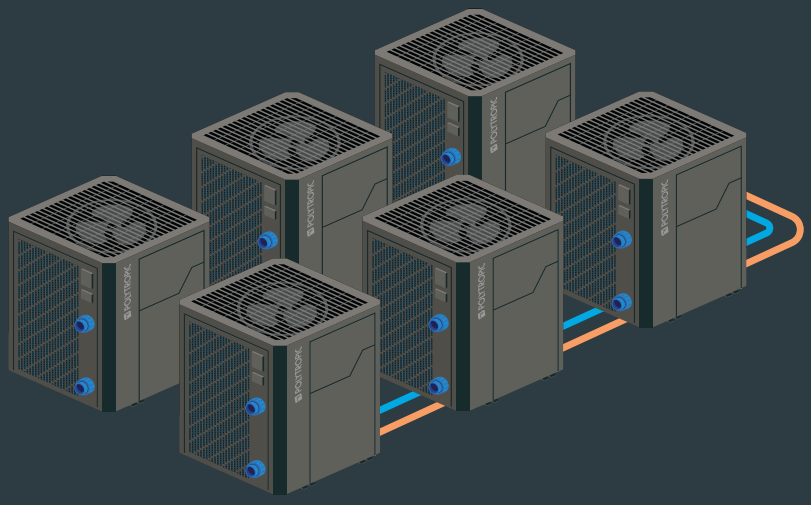
Hydraulic connections	Threaded connection 63 mm		Flanges + counter-flanges 90 mm
Power	400 V / 3~+N / 50 Hz		
Circuit breaker and cable size (for 20 m)	3P +N C 25 A (5G*4 mm²)	3P +N C 32 A (5G*6 mm²)	3P +N C 50 A (5G*16 mm²)
Power Input Max	8,2 kW	10,8 kW	25,0 kW
Minimum water flow	15 m³/h	15 m³/h	35 m³/h
Dimensions in mm (L x W x H)	1073 × 1073 × 1090	1050 × 1050 × 1260	2144 × 1113 × 1260
Weight net (gross)	218kg (266kg)	234kg (284kg)	410kg (450kg)

A tailored connected solution

EXCLUSIVE SYSTEM

Several units can be **installed in** parallel.

Multi-unit **control via** PolyConnect **optimises** performance and the operating time of each unit. Wi-Fi or **4G connectivity enables** smartphone **control** via the PolyConnect app and continuous monitoring by the TechniCenter.





FULL INVERTER

OPTIMISED PERFORMANCE
Full Inverter Technology

- 2D Technology: INVERTER compressor with hertz-by-hertz variable speed control
- DC Brushless: variable-speed fan for optimal performance
- Optimal Twist: corrosion-resistant spiral PVC/titanium heat exchanger

INTELLIGENT OPERATION
PolySmart Control

The heat pump automatically adjusts its output to meet your pool's heating needs, according to the water and ambient temperatures.

SIMPLE AND INTUITIVE CONTROLS
Colour TFT touchscreen

Operating modes: Heating, Cooling or Auto (maintains the set temperature).

ALL-WEATHER PERFORMANCE

- Reverse-cycle defrosting
- Compressor crankcase preheating
- Condensate anti-freeze system.
- Automatic control of the low-temperature system

CONNECTED SOLUTION
PolyConnect inside

Built-in Wi-Fi and 4G module for remote control via smartphone and continuous monitoring by our Technicenter.

COMMISSIONING AND WINTERING

Technical commissioning and 1st wintering of the machine can be carried out on request by dedicated POLYTROPIC technicians.



Performance on a grand scale

Screen



4” COLOUR TFT TOUCHSCREEN

Intuitive high-definition controls

Highly responsive interface for smooth navigation.

Waterproof housing and reinforced protective cover against weather and UV exposure.

Warranty

WARRANTY ★3 YEARS★ POLYTROPIC

The RAK Inverter range comes with a **3-year warranty** covering parts, labour and travel costs. It also benefits from a **15-year warranty against corrosion of the titanium heat exchanger** and a **7-year compressor warranty** (subject to technical assessment).

PolySmart Control

Intelligent control for greater energy savings.

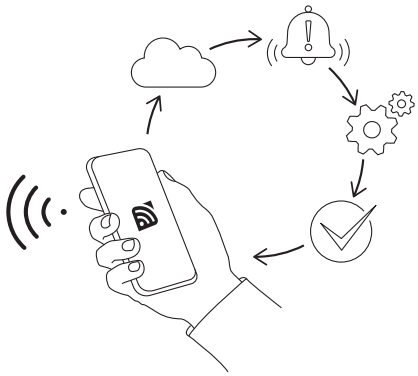
By continuously adjusting heat pump output to the pool’s needs based on ambient and water temperatures, our exclusive control system **PolySmart Control optimises the SCOP, reduces electricity consumption and keeps noise levels down** for maximum comfort.

Higher COP = **Lower electricity BILLS**

+

Lower noise LEVELS = **Greater COMFORT**





PolyConnect

Intelligent connected maintenance

PolyConnect is a **smart, connected ecosystem** that enables secure remote management of heat pumps via the TechniCenter.

With intelligent AI-powered features, it facilitates remote monitoring and preventive maintenance, simplifies servicing and enhances the user experience.

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