POLYTROPIC

Master 290

The intelligent pool heat pump, designed for your comfort



Remote control. Secure monitoring.

4G

FULL INVERTER | QUIET PERFORMANCE | POLYSOLAR MODE | REVERSIBLE | ALL SEASONS | AI INTELLIGENCE



PREMIUM FINISH
Corrosion-resistant aluminium casing
Matt epoxy paint for a premium finish. Cataphoresis treatment of the chassis and interior.



SCOP 8+

Master 290

-20°C | WARRANTY 5 YEARS POLYTROPIC | A B C D E F

The **premium range** designed for **year-round** pool enjoyment. **MASTER 290** combines cutting-edge technology with outstanding comfort: **intelligent control, intuitive operation and exceptionally quiet performance.**



XS | S | S+ M | XM L | XL



Peace of mind

Screens

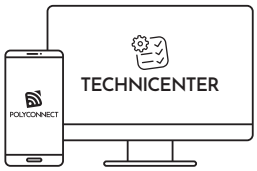


4” COLOUR TFT TOUCHSCREEN

Intuitive high-definition controls
Highly responsive interface for smooth navigation.
Waterproof housing and reinforced protective cover against weather and UV exposure.

Warranties

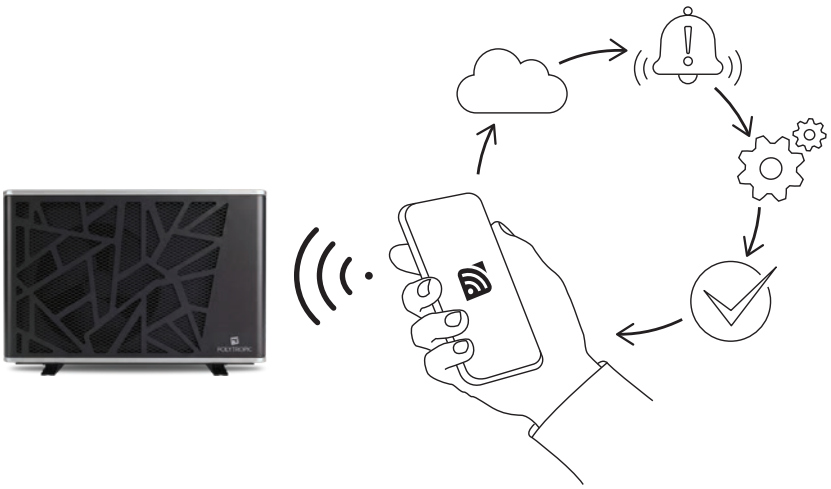
The **MASTER 290** range comes with a **5-year warranty**: 3 years covering parts, labour and travel costs, plus a 2-year extended warranty covering parts only.
It also benefits from a **15-year warranty against corrosion** of the titanium heat exchanger and a **7-year compressor warranty** (subject to technical assessment).



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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www.polytropic.com
4 Chemin des Eclapons - 69390 VOURLES - FRANCE
+33 (0)4 78 56 93 90 - polytropic@polytropic.com

Intelligence that looks after you

MASTER 290 continuously adjusts its output to maintain the desired pool water temperature while keeping noise levels under control.

Automatically adjusted output
Greater precision
Less intervention
More enjoyment



PRESSURE SENSOR

- Optimisation: the built-in sensor measures refrigerant pressure in real time and indicates the ideal water flow rate to optimise COP and reduce energy consumption.
- Precision: fine adjustment of the water flow rate.
- Home automation: compatible with major control systems.
- Maintenance: faults are reported in real time via PolyConnect for easier after-sales diagnostics.



PolySmart AI NEW

AI-powered dynamic heat pump control*

By analysing usage patterns, weather conditions and data from installed heat pumps in real time, AI automatically adjusts heat pump operation parameters to deliver **optimal comfort** while significantly reducing energy consumption – **up to 30% energy savings.**

Higher COP = Lower electricity BILLS

+

Lower noise LEVELS = Greater COMFORT



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 condenser

NEW

AI INTELLIGENCE
PolySmart AI

Dynamic AI-powered heat pump control. Operation is optimised in real time using usage patterns, weather conditions and installed fleet data to anticipate demand, improve performance and maximise energy savings.

OPTIONAL: Automatic bypass
Ensures the correct water flow rate for optimal SCOP all year round

SIMPLE AND INTUITIVE CONTROLS
Colour TFT touchscreen

Operating modes: heating, cooling or Auto (maintains the set temperature)
4 control modes:

- Smart
- Eco Silent
- NEW Power Boost: increased output at the start of the season for 20% faster heating
- PolySolar

ALL-WEATHER PERFORMANCE

- Reverse-cycle defrosting
- Compressor crankcase preheating
- Condensate anti-freeze system
- Automatic control of the low-temperature system
- Reliable operation down to -20°C

ULTRA-QUIET OPERATION
Enhanced sound insulation

Variable compressor and fan speeds ensure extremely low noise levels.

CONNECTED SOLUTION
PolyConnect inside

Wi-Fi module and 4G dongle included for remote control via smartphone and continuous monitoring by the TechniCenter.

MASTER 290 Single-phase models | Technical specifications

SINGLE-PHASE models	XS	S	S+	M	XM	L	XL
SCOP according to EN 17645	8,5	8,4	8,2	8,3	8,8	8,4	8,2
Classification according to EN 17645	A	A	A	A	A	A	A
Recommended pool size*	15-45 m³	45-55 m³	55-70 m³	70-85 m³	85-105 m³	105-140 m³	140-180 m³
Air 26 °C / Water 26 °C / 80% Humidity							
Energy Output POWER BOOST mode	11,1 kW	12,9 kW	15,4 kW	17,8 kW	22,1 kW	28,3 kW	36,3 kW
Energy Output SMART mode	9,3 ~ 3,0 kW	11,4 ~ 3,4 kW	14,1 ~ 4,8 kW	16,4 ~ 5,0 kW	20,5 ~ 6,4 kW	26,9 ~ 7,6 kW	34,5 ~ 10,8 kW
COP SMART mode	12,7 ~ 6,3	12,9 ~ 5,4	12,3 ~ 5,4	12,6 ~ 5,5	13,6 ~ 5,8	12,9 ~ 5,7	12,5 ~ 5,4
Air 15 °C / Water 26 °C / 70% Humidity							
Energy Output POWER BOOST mode	8,7 kW	9,9 kW	12,3 kW	14,2 kW	16,3 kW	22,1 kW	27,9 kW
Energy Output SMART mode	7,2 ~ 2,4 kW	8,2 ~ 2,6 kW	10,6 ~ 3,3 kW	12,2 ~ 3,7 kW	15,1 ~ 4,4 kW	20,7 ~ 5,7 kW	26,0 ~ 7,9 kW
COP SMART mode	7,9 ~ 5,0	6,9 ~ 4,6	7,6 ~ 4,6	7,9 ~ 4,5	7,9 ~ 4,6	8,0 ~ 4,6	7,4 ~ 4,3
Air 7 °C / Water 26 °C / 90% Humidity							
Energy Output POWER BOOST mode	6,3 kW	7,4 kW	10,0 kW	11,4 kW	13,0 kW	16,0 kW	22,0 kW
Energy Output SMART mode	5,3 ~ 1,6 kW	6,8 ~ 2,0 kW	9,0 ~ 2,6 kW	10,0 ~ 3,0 kW	12,6 ~ 3,8 kW	15,1 ~ 4,5 kW	20,5 ~ 6,1 kW
COP SMART mode	7,1 ~ 4,3	7,3 ~ 4,1	7,5~ 4,2	7,2 ~ 4,3	7,2 ~ 4,2	6,7 ~ 3,7	6,9 ~ 3,8
Air -7 °C / Water 26 °C / 0% Humidity							
Energy Output POWER BOOST mode	4,5 kW	5,8 kW	7,9 kW	8,7 kW	10,5 kW	14,2 kW	18,3 kW
Energy Output SMART mode	3,5~1,0 kW	4,7 ~ 1,2 kW	5,5 ~1,7 kW	6,9~ 2,1 kW	8,3~ 2,5 kW	12,7 ~ 3,7 kW	16,0 ~ 4,8 kW
COP SMART mode	6,1 ~3,0	6,2 ~3	6,1~2,9	6,0 ~ 3,0	6,1~3,0	5,8 ~2,8	6,0 ~3,0
Noise level min-max (at 10m) According to EN ISO 3741:2010	21 ~ 29 dB(A)	21 ~ 29 dB(A)	24 ~ 30 dB(A)	26 ~ 33 dB(A)	28 ~ 37 dB(A)	30 ~ 40 dB(A)	30 ~ 41 dB(A)
Noise level min-max (at 10m) According to EN ISO 3744:2010	18 ~ 26 dB(A)	18 ~ 26 dB(A)	21 ~ 27 dB(A)	22 ~ 30 dB(A)	24 ~ 34 dB(A)	26 ~ 37 dB(A)	26 ~ 38 dB(A)
Temperature working range	-20 °C → +43 °C						

INSTALLATION

Hydraulic connections	1,5'' / 50 mm						
Power	230 V / 1~+N / 50 Hz						
Circuit breaker and cable size (for 20 m)	C 10 A (3G 2,5 mm²)	C 10 A (3G 2,5 mm²)	C 16 A (3G 2,5 mm²)	C 20 A (3G 4 mm²)	C 20 A (3G 4 mm²)	C 35 A (3G 10 mm²)	C 35 A (3G 10 mm²)
Power Input Max	2,1 kW	2,2 kW	2,8 kW	4,0 kW	4,5 kW	6,0 kW	7,0 kW
Minimum water flow	3,0 m³/h	3,3 m³/h	4,4 m³/h	5,0 m³/h	6,2 m³/h	8,6 m³/h	10,7 m³/h
Dimensions in mm (L x W x H)	981 × 476 × 670			1142 × 491 × 768		1292 × 501 × 914	
Weight net (gross)	49kg (64kg)	56kg (71kg)	57kg (72kg)	78kg (86kg)	80kg (88kg)	135kg (145kg)	145kg (155kg)

* May to September with a pool cover.

MASTER 290 3-phase models | Technical specifications

3-PHASE models	M 3-phase	XM 3-phase	L 3-phase	XL 3-phase
SCOP according to EN 17645	8,3	8,8	8,4	8,2
Classification according to EN 17645	A	A	A	A
Recommended pool size*	70-85 m³	85-105 m³	105-140 m³	140-180 m³
Air 26 °C / Water 26 °C / 80% Humidity				
Energy Output POWER BOOST mode	17,8 kW	22,1 kW	28,3 kW	36,3 kW
Energy Output SMART mode	16,4 ~ 5,0 kW	20,5 ~ 6,4 kW	26,9 ~ 7,6 kW	34,5 ~ 10,8 kW
COP SMART mode	12,6 ~ 5,5	13,6 ~ 5,8	12,9 ~ 5,7	12,5 ~ 5,4
Air 15 °C / Water 26 °C / 70% Humidity				
Energy Output POWER BOOST mode	14,2 kW	16,3 kW	22,1 kW	27,9 kW
Energy Output SMART mode	**12,2 ~ 3,7 kW**	**15,1 ~ 4,4 kW**	**20,7 ~ 5,7 kW**	**26,0 ~ 7,9 kW**
COP SMART mode	**7,9 ~ 4,5**	**7,9 ~ 4,6**	**8,0 ~ 4,6**	**7,4 ~ 4,3**
Air 7 °C / Water 26 °C / 90% Humidity				
Energy Output POWER BOOST mode	11,4 kW	13,0 kW	16,0 kW	22,0 kW
Energy Output SMART mode	10,0 ~ 3,0 kW	12,6 ~ 3,8 kW	15,1 ~ 4,5 kW	20,5 ~ 6,1 kW
COP SMART mode	7,2 ~ 4,3	7,2 ~ 4,2	6,7 ~ 3,7	6,9 ~ 3,8
Air -7 °C / Water 26 °C / 0% Humidity				
Energy Output POWER BOOST mode	8,7 kW	10,5 kW	14,2 kW	18,3 kW
Energy Output SMART mode	6,9~ 2,1 kW	8,3~ 2,5 kW	12,7 ~ 3,7 kW	16,0 ~ 4,8 kW
COP SMART mode	6,0 ~ 3,0	6,1~3,0	5,8 ~2,8	6,0 ~3,0
Noise level min-max (at 10m) According to EN ISO 3741:2010	**26 ~ 33 dB(A)**	**28 ~ 37 dB(A)**	**30 ~ 40 dB(A)**	**30 ~ 41 dB(A)**
Noise level min-max (at 10m) According to EN ISO 3744:2010	**22 ~ 30 dB(A)**	**24 ~ 34 dB(A)**	**26 ~ 37 dB(A)**	**26 ~ 38 dB(A)**
Temperature working range	-20 °C → +43 °C			

INSTALLATION

Hydraulic connections	1,5'' / 50 mm			
Power	400 V / 3~+N / 50 Hz			
Circuit breaker and cable size (for 20 m)	3P+N C 16 (5G 2,5 mm²)	3P+N C 16 (5G 2,5 mm²)	3P+N C 20 (5G 2,5 mm²)	3P+N C 20 (5G 2,5 mm²)
Power Input Max	4,0 kW	4,5 kW	6,0 kW	7,0 kW
Minimum water flow	5,0 m³/h	6,2 m³/h	8,6 m³/h	10,7 m³/h
Dimensions in mm (L x W x H)	1142 × 491 × 768		1292 × 501 × 914	
Weight net (gross)	78kg (86kg)	80kg (88kg)	135kg (145kg)	145kg (155kg)

* May to September with a pool cover.