

POKER290

A naturally eco-friendly solution



Modular, efficient and eco-friendly hydronic units with maximum installation flexibility.



NIBE GROUP MEMBER

R290 Green Comfort

The sustainable solution for installations of the future

In a changing global climate, the use of natural gases, such as R290 propane, is a zero-impact choice in harmony with the environment in which we live.

R290 gas

Propane is a natural hydrocarbon that finds many uses in a variety of areas, both pure and in mixtures. It is mainly used as a fuel and as a refrigerant (identified with R290) and has enjoyed great success in recent years due to its thermodynamic properties, non-toxicity and very low GWP.



Low impact and high availability

Thanks to its low environmental impact and its abundance, the use of propane has become a reality.



Efficiency and sustainability

Rhoss, always striving to innovate in a sustainable way, has chosen R290 propane gas for its new projects. Increasingly efficient heat pumps capable of producing hot water for a wide variety of applications in cold, temperate or hot climates.





GAS

R290



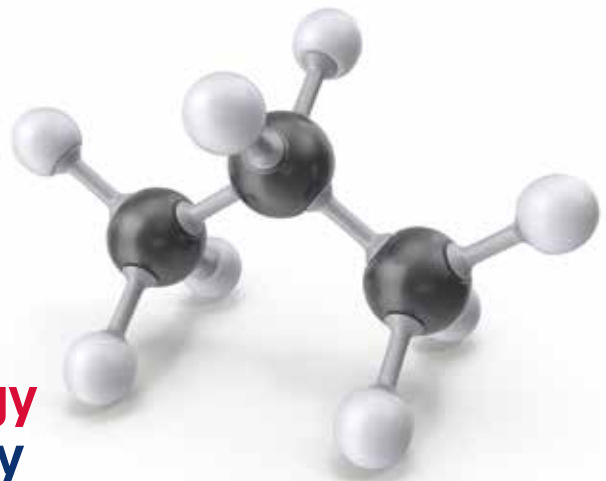
Modular flexibility

The safety solutions adopted and the control with dynamic master SDR allow up to 4 units connected in hydraulic parallel to be installed and managed. Systems can thus be designed taking into account the most diverse installation requirements and possible increases in plant output.



Green technology and safety

Non-toxic, flammable natural fluid (category A3) with zero impact on the ozone layer
Design with the highest safety standards, careful risk assessment with a minimum gas content of less than 5 kg, detection of any leaks with prompt intervention of



evacuation systems, are the key points for customer peace of mind.

POKER₂₉₀ high-temperature, low GWP heat pump

POKER 47.7 kW class A modular reversible heat pumps with high SCOP, simplified connection (electrical and hydraulic connection) up to 4 units, integrated thermal load management for perfect power modulation of individual heat pumps.



Ideal applied to
new carbon-free
systems or to
replace traditional
boiler systems



Natural gas, noF-gas requirements



GWP 3 without contributing to the greenhouse effect



Water is produced **up to 75 °C** operation with outdoor air **as low as -20 °C**



Extended operating limits



SMART DEFROST thawing logic



Integrated **anti-legionella** cycle management

Optimised components

State-of-the-art scroll compressors, advanced electronics, low-noise ERP fans, hydrophilic coils, gas leak detector, and several Atex components to ensure complete safety.

Reduced gas load

The amount of gas does not exceed 5 kg. This allows for outdoor installation without any restrictions with regard to use or access, for example in hotels, restaurants, supermarkets, theatres, universities, hospitals and nursing homes, etc.

POKER of units with naturally eco-friendly technology



EC-Brushless axial fans

Air coil with hydrophilic treatment

Ergonomic 7" touch display and keyboard as an accessory (centralised controls for the group of units)

Compact external easy-to-access electrical panel

Electrical resistance in the condensate drip tray

Pump unit & threaded connections (3-way valve as accessory)

Electronic expansion valve

Technical compartment for compressor housing (in tandem configuration specifically designed for R290 gas)

Dedicated design of a heat pump

- Hot water production at high temperature
- Wide operating limits
- Optimisation for R290 gas
- Safety logic implementation
- Atex devices for safe use of the heat pump

The working conditions for installations in all climates

POKER290 is designed to work at peak efficiency in cold, temperate and hot climates.

By harnessing the potential of propane (R290) and optimising its heat pump operation, the water produced even in the coldest climates can reach high temperatures.

Designed to replace existing boiler systems or for new, more efficient systems, POKER290 always finds the right fit.

Producing hot water at 65°C at temperatures lower than -10°C is therefore a guarantee.

In addition to the large winter operating range, it is possible to make the most of the heat pump in summer mode, producing cold water for air conditioning as well as chilled water at low temperatures (down to -10°C) for industrial processes or wine applications.

Features



THAETP MODEL		250				
		1 mod.	2 mod.	3 mod.	4 mod.	
②	Nominal heating capacity	kW	47,4	95,1	142,8	190,5
②	Absorbed power	kW	14,8	29,7	44,6	59,5
②	C.O.P.		3,20	3,20	3,20	3,20
	SCOP LT Low temperature application 35°C	kW	3,81	3,92	4,11	4,19
	SCOP MT Medium temperature application 55°C	kW	3,20	3,30	3,50	3,57
①	Nominal cooling capacity	kW	44,8	89,3	133,8	178,3
①	E.E.R.		2,82	2,82	2,82	2,82
⑤	Sound pressure	dB(A)	44,5	47	48,5	50
④	Sound power	dB(A)	76	79	81	82
	Scroll compressor/steps	no.	2/2	4/4	6/6	8/8
	Standard electric pump nominal available head	kPa	118	118	118	118
	Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS			1 mod.			
L - Width	mm		1224			
H - Height	mm		2260			
P - Depth	mm		1320			
⑤	Weight	kg	670			

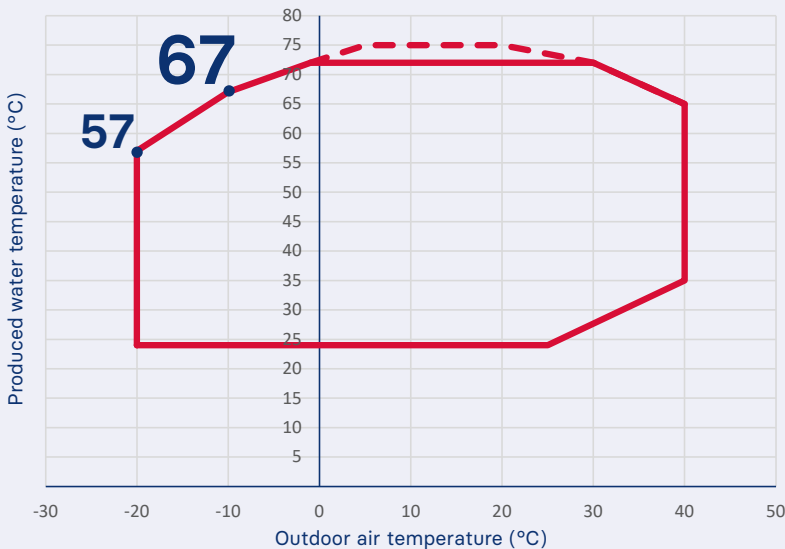
Data at the following conditions:

- ① Air: 35°C D.B. - Water: 12/7°C.
- ② Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
- ③ In open field (Q = 2) at 10 m from the unit.
- ④ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ⑤ Weight refers to P1 setup.

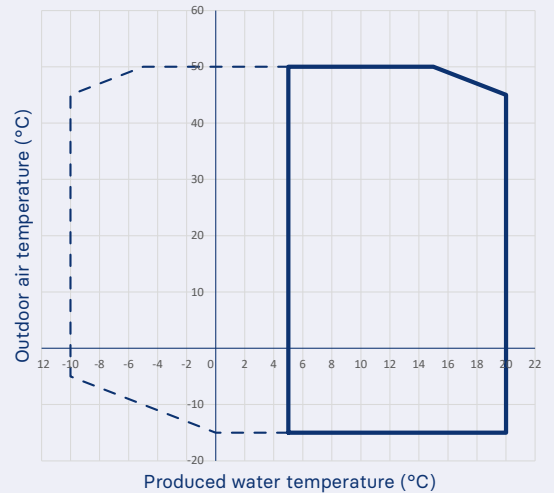
Performance according to EN 14511



WINTER working range



SUMMER working range



- Standard operation
- - - Working range with ΔT=10°C
- - - Working range with water production at low temperatures (BT option)



New air for the future.

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