

# POKER-P&PI

A naturally eco-friendly solution



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



PART OF **NIBE** GROUP

# 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



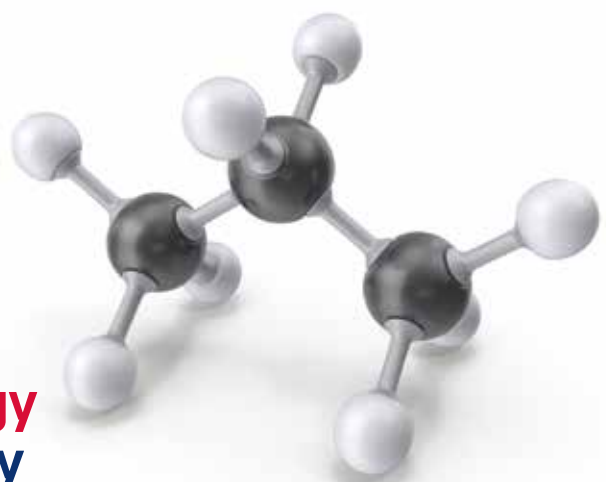
## Modular flexibility

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.

# POKER-P&PI

## 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 0,02** without contributing to the greenhouse effect



Water is produced **up to 80°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.



# A modular, noiseless, efficient, reliable and flexible solution

## A smart solution

Proprietary electronic control, specifically designed for the modular management of up to 4 units with dynamic master logic

3-way valve control for domestic hot water production during summer/winter operation

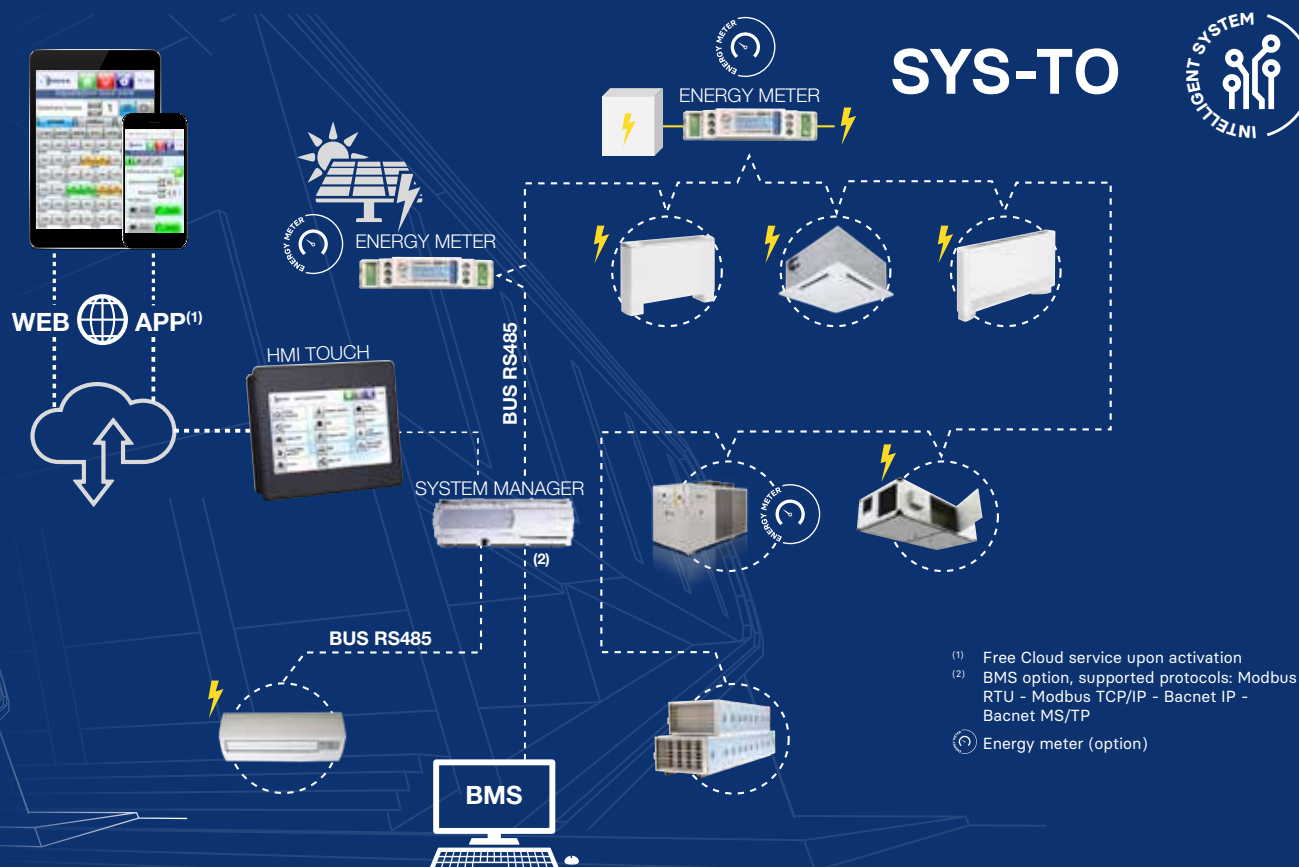
Management of additional heat source, if any

Interfaceable with the SYS-TO system for the full management of fan coils, air handling unit and auxiliary sources

Partial heat recovery through a desuperheater

Centralised unit management via touch screen (option)

Customisable set-point logics



# 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 housing compressors and inverters (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

POKER 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, POKER 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**



MODEL		THAETP 250	THAITP 150	
②	Nominal heating capacity	kW	47,4	47,5
②	Absorbed power	kW	14,8	15,3
②	C.O.P.		3,20	3,10
	SCOP LT Low temperature application 35°C	kW	3,81	4,08
	SCOP MT Medium temperature application 55°C	kW	3,20	3,40
①	Nominal cooling capacity	kW	44,8	41,8
①	E.E.R.		2,82	2,45
③	Sound pressure	dB(A)	44,5	47,5
④	Sound power	dB(A)	76	79
	Scroll compressor/steps	n.	2/2	1 INVERTER
	Standard electric pump nominal available head	kPa	118	118
	Electrical supply	V-ph-Hz	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS		THAETP 250	THAITP 150	
L - Width	mm	1224	1224	
H - Height	mm	2335	2335	
P - Depth	mm	1320	1320	
⑤	Weight	kg	670	635

Data at the following conditions:

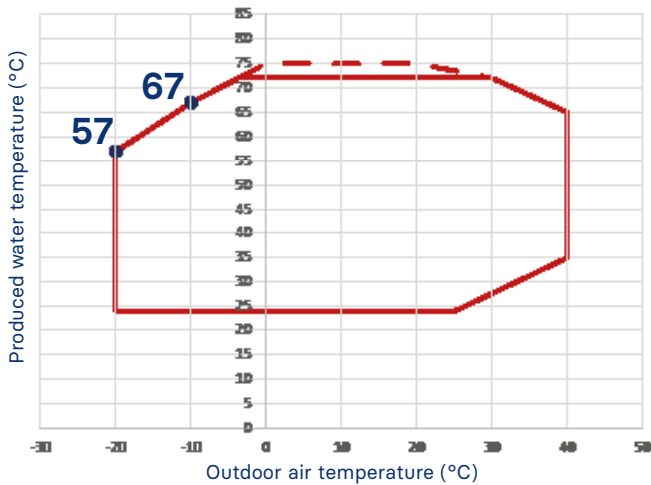
- ① Air: 35°C D.B. - Water: 12/7°C.
- ② Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
- ③ In open field (Q = 2) at 10 m from the unit.
- ④ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ⑤ Weight refers to P1 setup.

Performance according to EN 14511



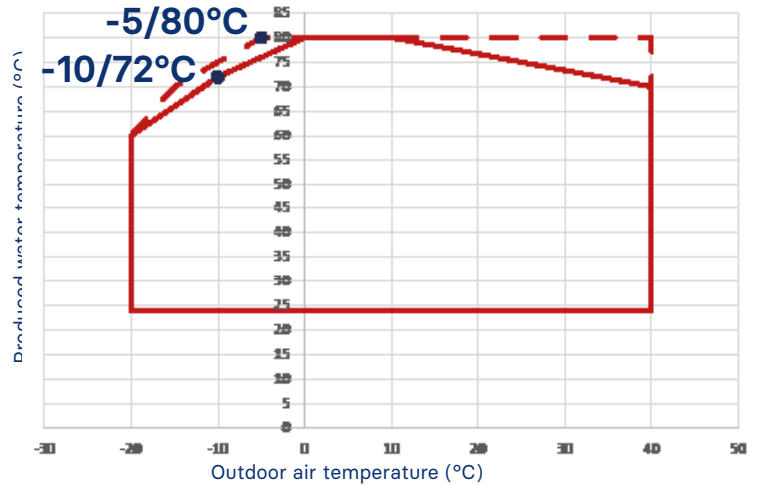
## THAETP 250

### WINTER working range

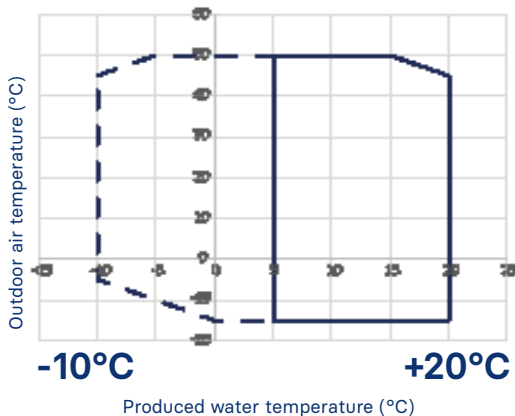


## THAITP 150

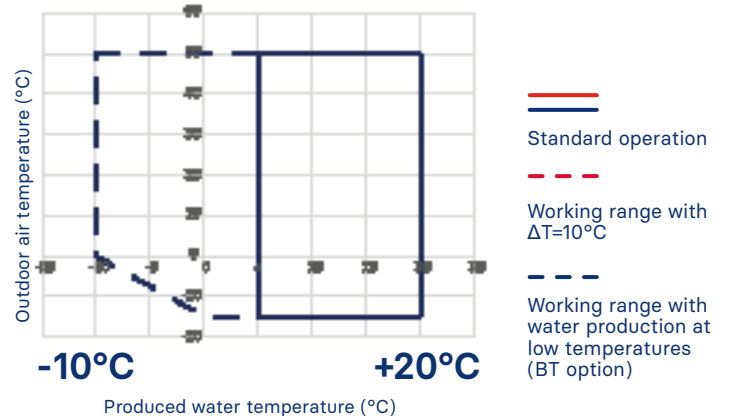
### WINTER working range



### SUMMER working range



### SUMMER working range



- Standard operation
- - - Working range with  $\Delta T=10^\circ\text{C}$
- - - Working range with water production at low temperatures (BT option)



# New air for the future.

## **RHOSS S.P.A.**

Via Oltre Ferrovia, 32  
33033 Codroipo (UD) - Italy  
tel. +39 0432 911611  
rhoss@rhoss.com

## **RHOSS Deutschland GmbH**

Hölzlestraße 23, D  
72336 Balingen, OT Engstlatt - Germany  
tel. +49 (0)7433 260270  
rhossde@rhoss.com

## **RHOSS S.P.A. - France**

39 Chemin Des Peupliers  
9570 Dardilly - France  
tel. +33 (0)4 81 65 14 06  
rhossfr@rhoss.com

## **RHOSS Iberica Climatizacion, S.L.**

Frederic Mompou, 3 - Pta. 6a Dpcho. B 1  
08960 Sant Just Desvern - Barcelona - Spain  
tel. +34 691 498 827  
rhossiberica@rhossiberica.com

## **RHOSS Nederland B.V.**

Nijverheidsweg 9 - 3401 MC IJsselstein - NL  
Nikola Teslastraat 1-14 - 7442 PC Nijverdal - NL  
tel. +31 (0)85 8223 001  
info@rhossnederland.nl

**rhoss.com**

