

Green Comfort

GAS

R290



Efficient, eco-friendly hydronic units
with maximum installation flexibility.



PART OF **NIBE** GROUP

R290 Green Comfort

The sustainable
solution for the
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 naturally occurring 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.



Green technology and safety

Non-toxic, flammable natural fluid (category A3) with zero impact on the ozone layer. Design with the highest safety standards and careful risk assessment are the key points for the customer's peace of mind.



Efficiency and sustainability

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



MONOBLOC UNITS	2027	2030	2032
Chillers< 12 kW	GWP 150		Natural gas
Chillers > 12 kW	GWP 750		
Heat pump < 12 kW	GWP 150		Natural gas
Heat pump between 12 and 50 kW	GWP 150		
Heat pump > 50 kW		GWP 150	

F-Gas Regulation (EU 2024/573)

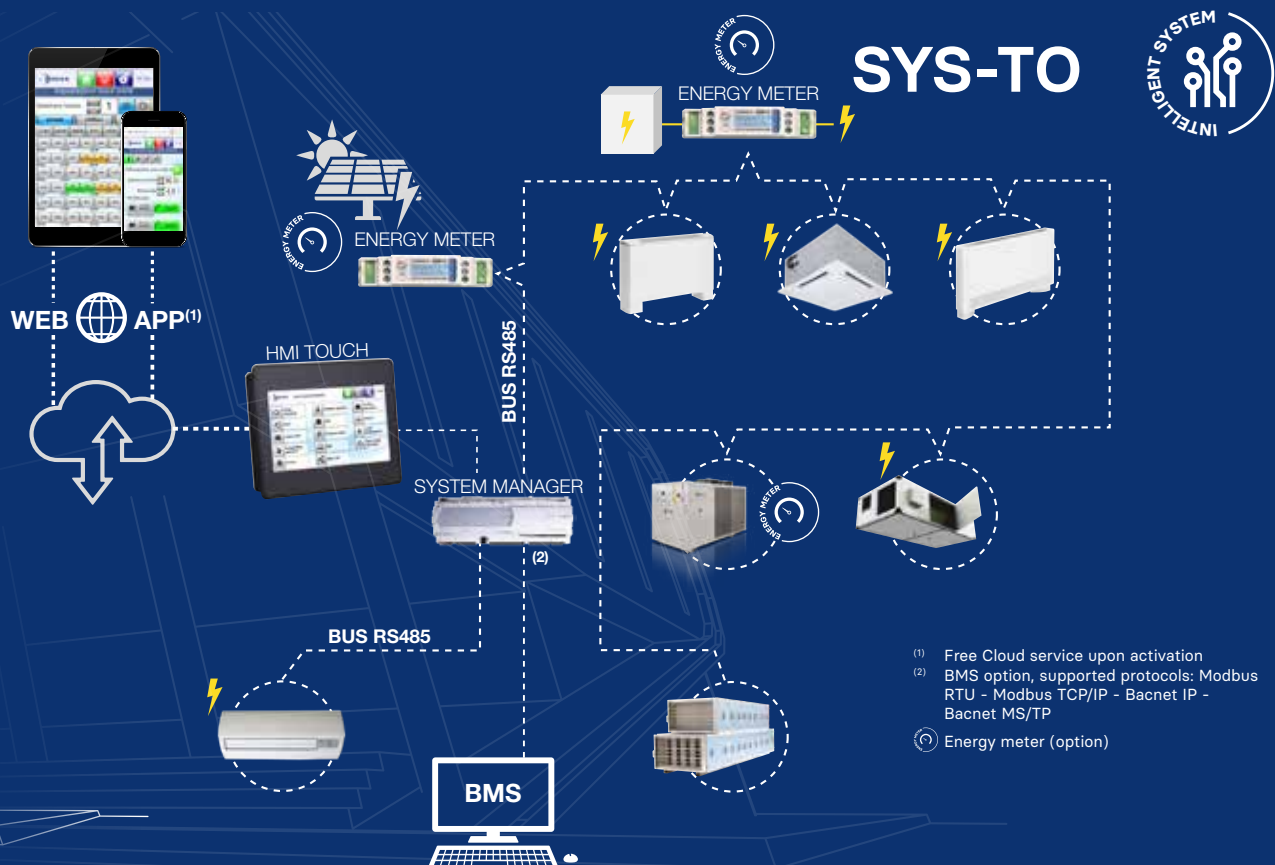
The goal is to limit greenhouse gas emissions (HFCs) into the atmosphere by progressively reducing the amount of CO2 equivalent released until zero emissions are achieved in 2050.

The regulation provides for bans, within the European community, on the use of gases with high GWP (global warning potential) values.

Refrigerants	GWP
R134a	1430
R410A	2088
R513A	629.5
R454C	146
R744	1
R1234ze	1.37
R32	675
R454B	465
R515B	288
R290	0.02

NEW

Reduced gas charge for installation without any restrictions on use and access, integrated deaerator, reduced footprint and inertial thermal storage (accessory) under the unit.



POKER-P&PI modular high temperature heat pumps

POKER **modular** reversible heat pumps with **on/off** or **inverter** compressors. 47.7 kW class A unit with high SCOP value, simplified (electrical and hydraulic) connection for up to 4 units, integrated thermal load management to perfectly modulate the power of the individual heat pumps.



Water production up to
80 °C and operation with
outdoor air as low as **-20 °C**



A **modular**, silent, **efficient**, reliable and flexible solution

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 makes for outdoor installation without any restrictions with regard to use

A **smart** solution

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

Interfaceable with the SYS-TO

system for the full management of fan coil, air handling unit and auxiliary sources.

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

or access, for example in hotels, restaurants, supermarkets, theatres, universities, hospitals and nursing homes, etc.

Partial heat recovery through a desuperheater.

Management of additional heat source, if any

Centralised unit management via touch screen (optional)



Natural gas, no F-gas requirements



GWP 0.02 without contributing to the greenhouse effect



Extended operating limits



SMART DEFROST thawing logic



Integrated **anti-legionnaires' disease** cycle management



Inverter Technology

UniPACK-P UniPACK-P EXP heat pumps and EXP multipurpose units

Units with 2-4 compressors ON/OFF and 1-2 circuits from 50 to 160 kW

Available in 11 sizes with optimised configurations and structures, they are offered in **High efficiency** and **Super Silenced** versions, with hot water production up to **72°C**

The integrated sequencer for the management of several units in parallel and a wide range of accessories ensure easy installation with a **Plug&Play** perspective.



Natural gas, no F-gas requirements



GWP 0.02 without contributing to the greenhouse effect



Extended operating limits



SMART DEFROST thawing logic



Integrated **anti-legionnaires' disease** cycle management



Inverter Technology

UniPACK-PI heat pumps and chillers

COMING
SOON

Unit with ON/OFF & inverter technology from 75 to 150 kW and supplied continuous power modulation.

Available in 8 sizes, they are offered in **High efficiency** and **Supersilenced** versions with a variety of accessories that make them versatile.

Heat pumps allow hot water production up to **78°C** depending on the models.

The chiller is designed to produce cold water **down to -10°C** and work with **up to 50°C** outdoor air.



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

MIDIPACK PI		120	125	130	135
❶	Nominal cooling capacity	kW	18,7	22,3	28,9
❷	Nominal heating capacity	kW	20,8	25	34,8
❹	Sound power	dB(A)	72	73,5	75,5
❶	SCOP (EN 14825)		3,67	3,61	3,78
	Energy class		A++	A++	A++
	W - Width	mm	1635	1635	1635
	H - Height	mm	1290	1290	1670
	D - Depth	mm	600	600	600

		POKER-P 250	POKER-PI 150
❶	Nominal cooling capacity	kW	44,8
❷	Nominal heating capacity	kW	47,4
❹	Sound power	dB(A)	76
❶	SCOP (EN 14825)		3,2
	Energy class		A++
	W - Width	mm	1224
	H - Height	mm	2335
	D - Depth	mm	1320

UNIPACK-P		251	260	270	280	4100	4110	4120	4130	4140	4150	4160
❶	Nominal cooling capacity	kW	48,9	58,9	68,9	79,9	96,9	105,9	117,9	127,9	135,9	158,8
❷	Nominal heating capacity	kW	51,6	61,1	73,1	82,1	103,1	111,1	121,1	136,7	145,2	163,7
❹	THAETP sound power	dB(A)	82	82	83	84	85	85	86	87	87	88
❹	THAETQP sound power	dB(A)	76	77	78	79	80	80	81	82	82	83
❶	SCOP (EN 14825)		3,17	3,16	3,2	3,2	3,21	3,19	3,16	3,26	3,21	3,2
	Energy class		A++	A++	A++	A++	-	-	-	-	-	-
	W - Width	mm	2550	2550	3250	3250	3250	3250	3250	3930	3930	3930
	H - Height	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
	D - Depth	mm	1270	1270	1270	1270	1970	1970	1970	1970	1970	1970

UNIPACK-P EXP		251	260	270	280	4100	4110	4120	4130	4140	4150	4160
❶	Nominal cooling capacity	kW	48,5	58,4	68,4	79,4	95,9	104,9	117,9	126,9	135,9	158,8
❸	Recovery heating capacity	kW	63,2	76,3	90,3	104,4	126,5	138,5	155,7	166,6	178,6	208,9
❹	T.E.R.		7,57	7,67	7,5	7,67	7,57	7,52	7,7	7,53	7,49	7,67
❷	Nominal heating capacity	kW	50,1	59,1	71,1	80,1	102,1	110,1	120,1	134,1	143,2	161,1
❹	TXAETP sound power	dB(A)	81	81	83	84	85	85	86	87	87	88
❹	TXAEQP sound power	dB(A)	76	76	78	79	80	80	81	82	82	83
❶	SCOP (EN 14825)		3,15	3,11	3,12	3,14	3,22	3,19	3,16	3,23	3,2	3,18
	Energy class		A+	A+	A+	A+	-	-	-	-	-	-
	W - Width	mm	2550	2550	3250	3250	3250	3250	3930	3930	3930	3930
	H - Height	mm	2210	2210	2210	2210	2260	2260	2260	2260	2260	2260
	D - Depth	mm	1570	1570	1570	1570	1970	1970	1970	1970	1970	1970

Data at the following conditions:

- ❶ Air: 35°C - Water: 12/7°C.
 - ❷ Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.
 - ❸ Evaporator outlet water: 7°C, nominal flow rate. Recovery output water: 45°C, nominal flow rate.
 - ❹ Total sound power level in dB(A) based on measurements carried out in accordance with standard UNI EN-ISO 9614.
- Performance according to EN 14511.
T.E.R.: Total efficiency ratio.
Poker-P&PI: performance data with pump P1.
- ❶ In Average climatic conditions, application at medium temperature 55°C.



New air for the future.

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