Green Comfort

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

RHOSS

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 propane R290, 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 gained 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 (A3 category) 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 pumps < 12 kW	GWP 150		Natural gas
Heat pumps between 12 and 50 kW	GWP 150		
Heat pumps > 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 CO_2 equivalent released until zero emissions are achieved in 2050.

The regulation imposes 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

MidiPACK-PI High-temperature heat pumps and inverter chillers

Chillers **from 35 to 61kW**, reversible heat pumps for multi-family/light commercial applications **from 20 to 65kW** in **inverter** set-up, for hot water production up to **80°C** with high seasonal efficiency, low noise and simplified installation of up to 4 units in parallel also with SYS-TO system.

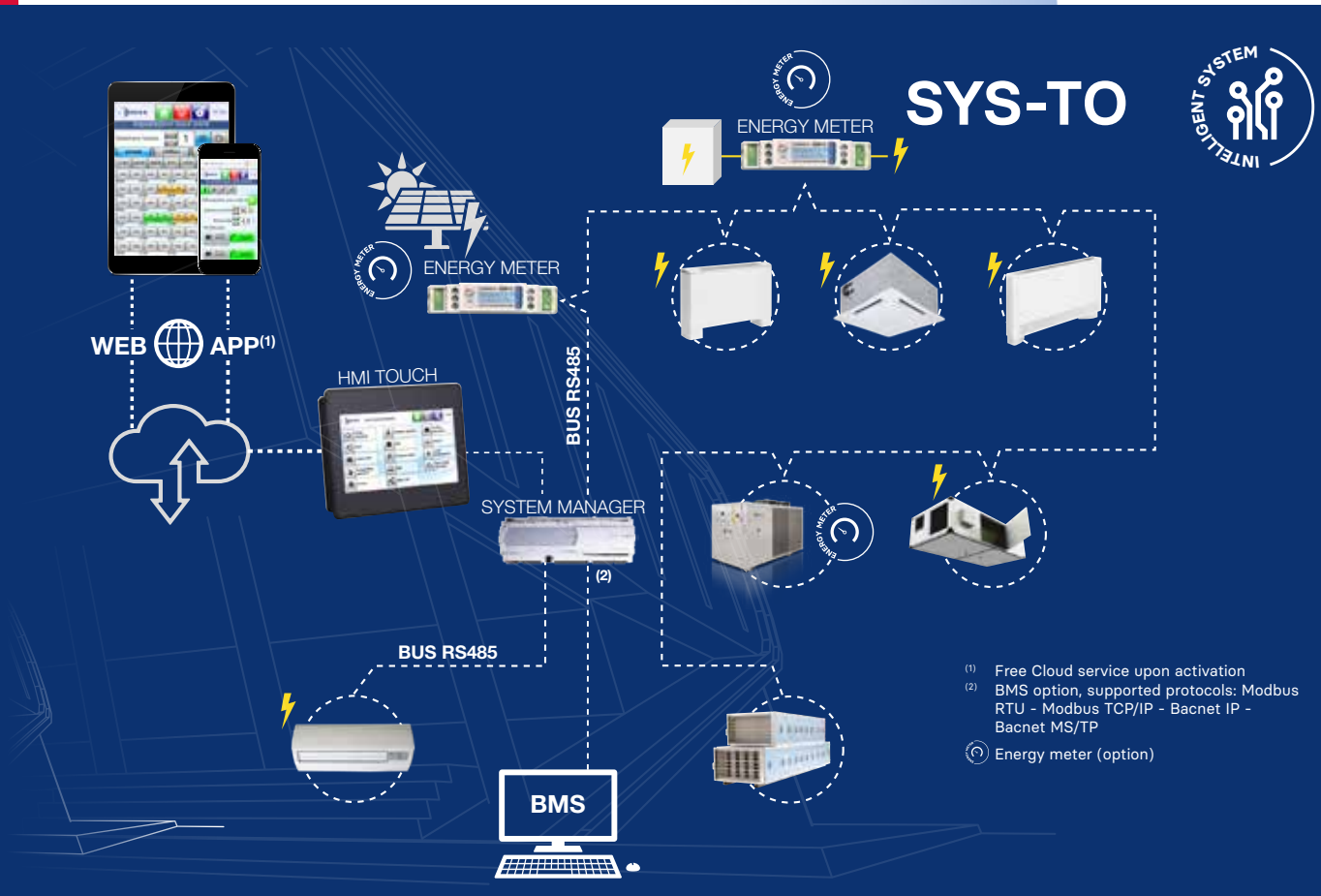
A smart solution

Optimised components for maximum efficiency

Latest-generation scroll inverter compressor, advanced electronics, brushless EC fans and exchangers designed to guarantee maximum performance with R290-propane gas. The units can monitor performance via the dedicated accessory.

Customised set-ups for every application requirement

3-way valve for domestic hot water production in summer/winter operation, antifreeze heaters, integrative source management, contacts for Smart Grid and photovoltaic system integration, possibility of producing chilled water up to -10°C for process applications.



MidiPack-PI 120-135

Integrated ease of installation

Reduced gas load for installation without any limitations on use and access, integrated deareator to simplify the system, reduced surface area occupied on the floor plan for better positioning of the heat pump, coils with hydrophilic treatment to facilitate defrosting operations and inertial thermal tank (accessory) under the unit to optimise the space occupied.

MidiPack-PI 139-165

NEW

Designed for modern systems

Optimised chillers and heat pumps with minimal gas charge to allow installation without any limitations on use and access. Compact units with the possibility of being equipped with numerous integrated hydraulic solutions to meet every plant requirement.

The units can be customised with numerous accessories, including overpressure fans, touch screen user interface (on-board or remote) and partial heat recovery to produce hot water in a dedicated system circuit in both winter and summer modes.

The Rhoss propane offer meets all the requirements:

- GAS R290 — Natural gas, no F-gas requirements
- LOW GWP — GWP 0.02 without contributing to the greenhouse effect
- HIGH EFFICIENCY — Extended operating limits
- SMART DEFROST — SMART DEFROST thawing logic
- Integrated anti-legionnaires' disease cycle management
- INVERTER — Inverter Technology

DISCOVER ALL THE PROPANE PRODUCTS

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

- HOTELS
- INDUSTRY
- RESIDENTIAL
- TRADE
- HOSPITAL
- ENTERTAINMENT

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 up to -20°C with outdoor air

A modular, noiseless, efficient, reliable 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 or access, for example in hotels, restaurants, supermarkets, theatres, universities, hospitals and nursing homes, etc.

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.

Partial heat recovery through a desuperheater.

Management of additional heat source, if any

Centralised unit management via touch screen (optional)

UniPACK-P
UniPACK-P EXP
heat pumps and EXP multi-purpose 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.

UniPACK-PI
heat pumps and chillers

NEW

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

Technical data

	MidiPACK-PI		120	125	130	135
❶	Nominal cooling capacity	kW	18.7	22.3	25.8	28.9
❷	Nominal heating capacity	kW	20.8	25.1	30.5	34.9
❹	Sound power	dB(A)	72	73.5	74.5	75.5
①	SCOP (EN 14825)		3.67	3.61	3.8	3.78
	Energy class		A++	A++	A++	A++
	L - Width	mm	1635	1635	1635	1635
	H - Height	mm	1290	1290	1670	1670
	P - Depth	mm	600	600	600	600

	MidiPACK-PI		139	147	156	165
❶	Nominal cooling capacity -TCAITP	kW	35.6	48	52.5	60.3
❷	Nominal heating capacity	kW	38.1	49	56	64.5
❹	Sound power	dB(A)	79	79	80	81
①	SCOP (EN 14825)		3.4	3.5	3.45	3.34
	Energy class		A++	A++	A++	A++
	L - Width	mm	1715	2320	2320	2320
	H - Height	mm	1550	1550	1550	1550
	P - Depth	mm	1000	1000	1000	1000

			POKER-P 250	POKER-PI 150
❶	Nominal cooling capacity	kW	44.8	41.8
❷	Nominal heating capacity	kW	47.4	47.5
❹	Sound power	dB(A)	76	79
①	SCOP (EN 14825)		3.2	3.4
	Energy class		A++	A++
	L - Width	mm	1224	1224
	H - Height	mm	2335	2335
	P - Depth	mm	1320	1320

	UniPACK-PI		175	290	2100	3110	3120	3130	3140	3150
❶	Nominal cooling capacity -TCAITP	kW	74.9	89.9	99.9	109.9	119.9	129.9	140.9	153.9
❷	Nominal heating capacity	kW	79.1	90.1	101.1	110.1	122.1	132.1	144.1	159.2
❹	Sound power TCAITP-THAITP	dB(A)	87	86	87	87	87	87	88	89
❹	Sound power TCAIQP-THAIQP	dB(A)	82	81	82	82	82	82	83	84
	SCOP (EN 14825)		3.56	3.22	3.23	3.4	3.39	3.36	3.39	3.38
	Energy class		A++	A++	-	-	-	-	-	-
	L - Width	mm	3250	3250	3250	3250	3250	3930	3930	3930
	H - Height	mm	2260	2260	2260	2260	2260	2260	2260	2260
	P - Depth	mm	1270	1970	1970	1970	1970	1970	1970	1970

	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	148.9	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	155.1	163.7
❹	Sound power THAETP	dB(A)	82	82	83	84	85	85	86	87	87	87	88
❹	Sound power THAEQP	dB(A)	76	77	78	79	80	80	81	82	82	82	83
①	SCOP (EN 14825)		3.17	3.16	3.2	3.2	3.21	3.19	3.16	3.26	3.21	3.2	3.2
	Energy class		A++	A++	A++	A++	-	-	-	-	-	-	-
	L - Width	mm	2550	2550	3250	3250	3250	3250	3250	3930	3930	3930	3930
	H - Height	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
	P - Depth	mm	1270	1270	1270	1270	1970	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	147.9	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	194.8	208.9
❸	T.E.R.		7.57	7.67	7.5	7.67	7.57	7.52	7.7	7.53	7.49	7.56	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	153.1	161.1
❹	Sound power TXAETP	dB(A)	81	81	83	84	85	85	86	87	87	87	88
❹	Sound power TXAEQP	dB(A)	76	76	78	79	80	80	81	82	82	82	83
①	SCOP (EN 14825)		3.15	3.11	3.12	3.14	3.22	3.19	3.16	3.23	3.2	3.18	3.18
	Energy class		A+	A+	A+	A+	-	-	-	-	-	-	-
	L - Width	mm	2550	2550	3250	3250	3250	3250	3250	3930	3930	3930	3930
	H - Height	mm	2210	2210	2210	2210	2260	2260	2260	2260	2260	2260	2260
	P - Depth	mm	1570	1570	1570	1570	1970	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.

① In Average climatic conditions, application at medium temperature 55°C.

Sustainability, efficiency and high performance

Future-oriented choices

BIELEFELD UNI
(Bielefeld) - GERMANY

Cooling capacity:
280 kW

Heating capacity:
300 kW

Units installed:
8 THAETP 250

COPFS, Edinburgh Post
(Edinburgh) - SCOTLAND

Cooling capacity:
400 kW

Heating capacity:
425 kW

Units installed:
9 THAETP 250

FITNESS CENTER
(Stuttgart) - GERMANY

Heating capacity/DHW:
100 kW

Units installed:
3 THAETP 250

MULTIFAMILY BUILDING
(Enschede) - NETHERLANDS

Cooling capacity:
133,5 kW

Heating capacity:
97,3 kW

Units installed:
3 THAETP 250

CIAF
(Forlì) - ITALY

Cooling capacity:
89 kW

Heating capacity:
95 kW

Units installed:
2 THAETP 250

MØLLER GRUPPEN
(Bergen) – NORWAY

Cooling capacity:
67 kW

Heating capacity:
69,8 kW

Units installed:
1 THAETP 270

OFFICES
(Den Bosch) - NETHERLANDS

Cooling capacity:
120 kW

Heating capacity:
65 kW

Units installed:
2 THAETP 250

CLAPGATE PS
(Leeds) - ENGLAND

Heating capacity:
380 kW

Units installed:
8 THAETP 250

ENGBERINK TECHNISCHE INSTALLATIES BV
(Almelo) – NETHERLANDS

Cooling capacity:
66,5 kW

Heating capacity:
70,0 kW

Heat recovery capacity:
90,0 kW

Units installed:
1 TXAEQP 270

BUILDING "NIEUWE PASTORIE"
(Warnsveld) - NETHERLANDS

Cooling capacity:
44,5 kW

Heating capacity:
47,7 kW

Units installed:
1 THAETP 250

New air
for the future.

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