Thermocold iMEX HP-N Air-to-Water Heat Pump

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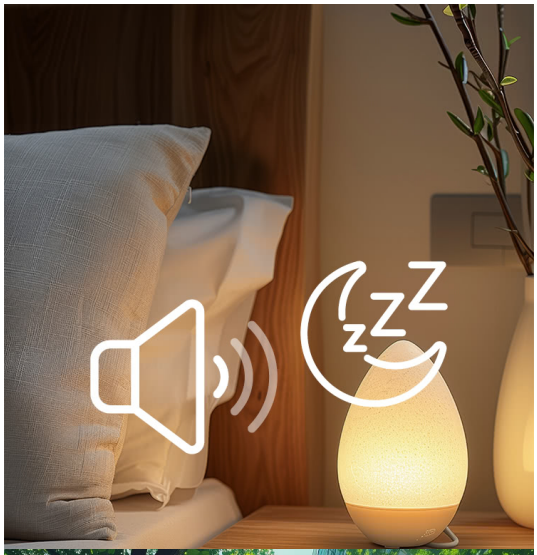
Cooling capacity: 6-22 kW | **Heating capacity: 8-29 kW**

- R290 pure, ultra-low GWP refrigerant: A sustainable long-term solution with negligible environmental impact
- Year-Round Hot Water Supply:Optimized to provide hot water for space heating and sanitary purposes. Also delivers chilled water for air-conditioning, operating at up to 46°C ambient air temperature
- Variable speed driven scroll compressor and EC fans for maximum efficiency and silent operation
- Strong operating map: Down to -20°C ambient. Up to 75°C leaving hot water at 0°C ambient temperature
- Scalable system with possible connection of up to 4 units, increasing the total system capacity
- Smart grid ready (SG Ready) certification. Responds to defined external control signals.

Reversible heat pump for high hot water temperature applications

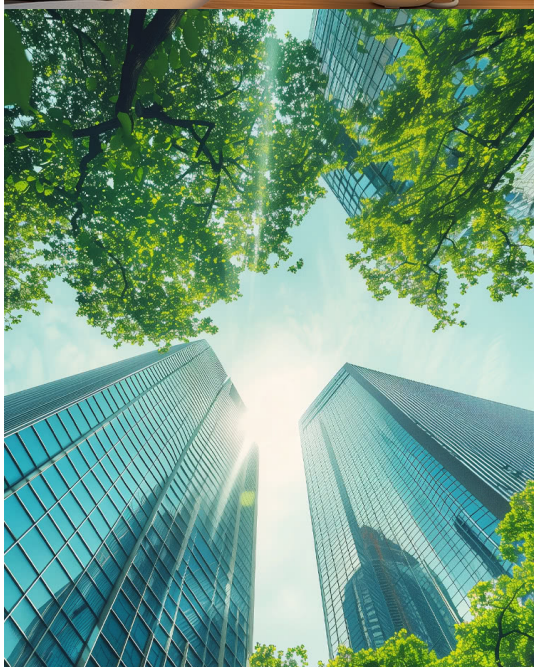
Thermocold iMEX HP-N represents an advanced and highly sustainable alternative for replacing gas boilers in residential or light commercial buildings.

In winter, iMEX HP-N produces leaving hot water up to 75°C at 0°C outdoor air, and can operate down to -20°C outdoor air temperature. In summer, iMEX HP-N is able to deliver hot sanitary water up to 60°C even at 37°C outdoor air temperature.



Excellent sound performance

Extremely quiet operation, designed with strong focus on acoustics, including cutting-edge low-noise technologies on the scroll compressor and EC axial fans featuring an aerodynamic blade design. Sound power levels at full load vary from 61 dB(A) up to 70 dB(A).



High energy efficiency in all operating conditions

Thermocold iMEX HP-N delivers high full load and seasonal efficiencies both in heating and cooling mode, with SCOP up to 4.5 and SEER up to 4.4.

Significant reductions are realized on both indirect carbon emissions and annual running costs.

Comprehensively engineered with focus on safety

Safety always comes first:

- Accurate unit design in strict compliance with actual Safety standards.
- Hermetically sealed refrigeration circuit on models 002/004 avoids any risk of refrigerant leakage.
- All electrical components of models 006/008 are protected in a fully separate and ventilated electrical box (IP54), and have an ATEX certified leakage detection and ventilation system.
- In case a refrigerant leak is detected, the heat pump stops immediately and the extraction fan ensures its safe dispersion.

Range description

- iMEX HP-N hat pumps are availble in four models, from 8 to 29 kW heating capacity. The unit fits every application, thanks to the integrated hydronic module (option) and other available options.

Technical specifications

Cooling capacity	6-22 kW
Heating capacity	8-29 kW
Eurovent certification	●
ErP Certification	●
Refrigerants	R290
Operating mode	Heat pump
Energy saving	Adaptive Frequency™ Drive
Compressor	Scroll

Product data

iMEX HP-N

	Pc (1) kW	Pec (1) kW	EER (1)	Ph (3) kW	Peh (3) kW	COP (3)	Ph (4)	Peh (4) kW	COP (4) kW	SCOP (5)	ηsh (5) %	LwO (6) dB(A)	Refr.	Main power	L (7) mm	W (7) mm	H (7) mm	OW (4) kg
iMEX HP-N 002	6,3	2,3	2,72	8,0	2,3	3,54	8,5	2,0	4,31	4,44	174,5	61	R290	230/1	1253	650	1066	182
iMEX HP-N 004	11,0	3,8	2,92	13,6	3,6	3,73	14,3	3,3	4,40	4,39	172,7	63	R290	230/1	1253	650	1365	218
iMEX HP-N 004	11,0	3,8	2,92	13,6	3,6	3,73	14,3	3,3	4,40	4,39	172,7	63	R290	400/3	1253	650	1365	218
iMEX HP-N 006	16,7	5,7	2,92	20,4	5,6	3,66	21,2	4,8	4,42	4,50	176,5	68	R290	400/3	1887	900	1816	385
iMEX HP-N 008	23,2	7,8	2,97	28,0	7,7	3,64	29,1	6,6	4,42	4,45	175,0	70	R290	400/3	1887	900	1816	425

Pc: Cooling capacity
Pec: Total power input in cooling
EER: Energy Efficiency Ratio (cooling)
Ph: Heating capacity
Peh: Total power input in heating
COP: Coefficient Of Performance
COP: Coefficient Of Performance (heating)
SCOP: Seasonal Coefficient Of Performance
ηsh: Seasonal space heating energy efficiency
LwO: A-weighted sound power level outside
Refr.: Refrigerant type
Main power supply: V / Phase (50Hz)
L: Length
W: Width
H: Height
OW : Operating Weight

(1): Cooling: outdoor air temperature 35°C and chilled water temperature 12°C/7°C. (EN 14511:2022)
(2): Ecodesign rating for comfort chiller - Fan coil application. Outdoor air temperature 35°C and chilled water temperature in/ out: 12°C/7°C. ηs,c/SEER as defined in Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - REGULATION (EU) N° 2016/2281 of 20 December 2016.
(3): Outdoor air temperature 7°C - hot water temperature in/out 40/45°C. (EN 14511:2022)
(4): Outdoor air temperature 7°C - hot water temperature in/out 30/35°C. (EN 14511:2022)
(5): Ecodesign rating at low temperature conditions. Outdoor temperature: 7°C dry bulb/6°C wet bulb and hot water temperature in/out: 30°C/35°C. ηs,h / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Space heaters and combination heaters with Prated < 400kW - COMMISSION REGULATION (EU) N° 813/2013 of 2 August 2013
(6): According ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)
(7): Basic unit without accessories

Product data shown in this document are not binding. Thermocold shall have the right to introduce at any time whatever modifications deemed necessary to the improvement of the product.

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