



Trane Leaf Air-to-Water Heat Pump

Cooling capacity: 6-52 kW

Heating capacity: 8-63 kW



At a Glance:

- 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: Operates down to -20°C ambient. Delivers hot water up to 78°C.
- 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

Trane Leaf is an advanced and highly sustainable alternative to traditional gas boilers, designed for both residential and light commercial buildings.

Exceptional Performance in Winter:

- Operates efficiently in outdoor temperatures as low as -20°C.
- Models 002-008 can produce hot water up to 75°C at 0°C outdoor temperature.
- Models 010-019 extend this capability, producing hot water up to 78°C at -5°C outdoor temperature.

Reliable Summer Operation:

- Advanced EC fan speed management and smart unit control ensure optimal performance.
- Capable of producing hot water up to 60°C even in outdoor temperatures as high as +43°C.



Superior sound performance and ultra-quiet operation

Experience exceptionally quiet performance with our product, meticulously engineered with a strong focus on acoustics. It incorporates cutting-edge low-noise technologies, including:

- Scroll Compressor: Designed for minimal noise output.
- EC Axial Fans: Featuring an aerodynamic blade design for quieter operation.



High energy efficiency in all operating conditions

Trane Leaf offers exceptional energy efficiency in both heating and cooling modes:

- Full load and seasonal efficiencies: Achieves SCOP up to 4.4 and SEER up to 4.8.
- Eligibility for subsidies: Meets criteria for regional subsidy programs due to its high efficiency.

Additionally, the Trane Leaf significantly reduces both indirect carbon emissions and annual running costs, making it a sustainable and cost-effective choice.



Comprehensive safety engineering

Safety is our top priority, and the Trane Leaf is meticulously designed to meet the highest safety standards. Key safety features include:

- **Strict Compliance:** Accurate unit design adheres to current safety standards.
- **Hermetically Sealed Refrigeration Circuit:** Models 002/004 feature a sealed circuit to prevent refrigerant leakage.
- **Protected Electrical Components:** Models 006/019 have all electrical components housed in a fully separate, ventilated electrical box (IP54), equipped with an ATEX-certified leakage detection and ventilation system.
- **Immediate Response to Leaks:** If a refrigerant leak is detected, the heat pump stops immediately, and the extraction fan ensures safe dispersion of the refrigerant.

Range description

- Leaf heat pumps are available in eleven models, from 8 to 63 kW heating capacity. The unit fits every application, thanks to the integrated hydronic module (option) and other available options.

Technical specifications

Unit type	Air-to-water
Operating mode	Heat pump
Cooling capacity	6-52 kW
Heating capacity	8-63 kW
Eurovent certification	●
ErP Certification	●
Refrigerants	R290
Energy saving	Adaptive Frequency™ Drive

Compressor

Scroll

Data protocols

Modbus

LEAF

	Pc (1) kW	EER (1)	Ph (2) kW	COP (2)	Ph (3)	COP (3)	SCOP (4)	ηsh (4) %	LwO (5) dB(A)	Refr.	Main power supply	L (6) mm	W (6) mm	H (6) mm	OW (6) kg
LEAF 002	6,5	2,66	8,0	3,35	8,4	4,09	4,19	164,5	61	-	-	650	1253	1066	182
LEAF 004 (230V)	11,2	2,80	13,5	3,49	14,1	4,15	3,99	156,7	63	-	-	650	1253	1365	218
LEAF 004	11,2	2,83	13,4	3,52	14,0	4,18	4,02	157,7	63	-	-	650	1253	1365	218
LEAF 006	16,7	2,82	19,6	3,44	20,8	4,20	4,12	162,0	68	-	-	900	1887	1816	385
LEAF 008	23,0	2,83	27,6	3,47	28,9	4,16	4,23	166,2	70	-	-	900	1887	1816	425
LEAF 010	27,8	2,94	34,1	3,59	36,5	4,36	4,40	173,0	80	-	-	2145	1120	1805	-
LEAF 012	32,2	2,76	39,8	3,39	42,4	4,09	4,29	168,4	81	-	-	2145	1120	1805	-
LEAF 014	37,4	2,77	45,7	3,39	48,5	4,12	4,33	170,2	83	-	-	2145	1120	1805	-
LEAF 016	45,5	3,14	54,3	3,52	56,9	4,25	4,38	172,0	83	-	-	2895	1120	1805	-
LEAF 019	51,8	2,96	63,3	3,26	66,3	3,87	4,18	164,0	85	-	-	2895	1120	1805	-

Pc: Cooling capacity

COP: Coefficient Of Performance

ηsh: Seasonal space heating energy efficiency

Main power supply: V / Phase (50Hz)

H: Height

EER: Energy Efficiency Ratio (cooling)

COP: Coefficient Of Performance (heating)

LwO: A-weighted sound power level outside

L: Length

OW : Operating Weight

Ph: Heating capacity

SCOP: Seasonal Coefficient Of Performance

Refr.: Refrigerant type

W: Width

(1): Cooling: Outdoor air temperature 35°C and chilled water temperature 12°C/7°C. (EN 14511:2022)

(2): Outdoor air temperature 7°C - hot water temperature in/out 40/45°C. (EN 14511:2022)

(3): Outdoor air temperature 7°C - hot water temperature in/out 30/35°C. (EN 14511:2022)

(4): 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

(5): According to ISO 9614:2009. Eurovent conditions, with 1pW reference sound power (without accessories)

(6): Basic unit without accessories

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Our mission is to get it right for our customers and the climate.

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For all commercial and industrial applications, we offer a broad portfolio of HVAC solutions including heat pumps, chillers, multi-pipe units, packaged rooftops, air handling units and water terminals.

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Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.



TRANE

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