



SUSTAINABILITY IS IN OUR NATURE

Heat pumps for an energy-efficient everyday life and a better world

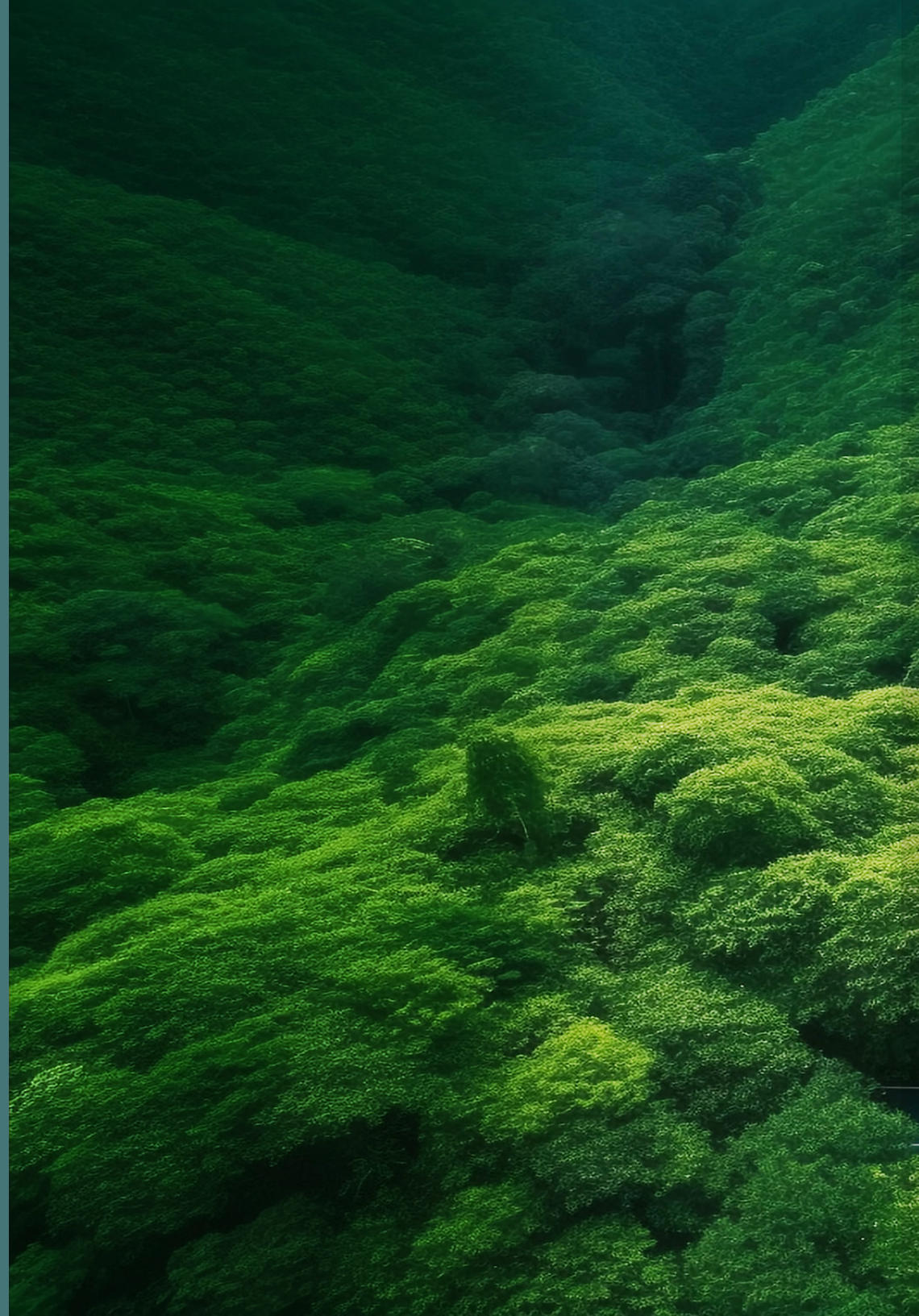


NOAH

Environmental Pioneer

The energy consumed by heating and hot water systems already emits too many carbon oxides into the atmosphere, and we need to replace fossil energy sources such as oil , coal and natural gas with cleaner renewables to reduce damage to the planet.

Combining heat pump technology, renewable energy and smart energy management systems, TICA provides more efficient low-carbon solutions to jointly build a sustainable low-carbon environment that benefits you and me.



LOW-CARBON

Building a sustainable environment

If you have an old house in Germany with a construction area of 180 square meters, a family of three is heated with old radiators:

Replacing a gas-fired boiler with a TICA heat pump will reduce your emissions by an average of 12261kg CO₂ per year

Replacing an oil-fired boiler with a TICA heat pump will reduce your emissions by an average of 17113 kg CO₂ per year

One ton of CO₂ is equivalent to:

Household electricity
consumption for 8 months

380L gasoline

100m² mixed forest

7500km by car

5000km
economical flight

27000km by train



What is GWP?

GWP is a comparative value that indicates the greenhouse effect of a greenhouse gas to be released into the environment. The higher the value, the worse the impact on the climate.

Exemplary GWPs of some refrigerants:

The value indicates the amount of CO₂ which has an equal global warming effect.

To calculate the CO₂ impact of a refrigerant, the amount contained in the heat pump is multiplied by its GWP value.

CO ₂	1
R290	3
R32	645
R410A	2088

Exemplary calculation

R410A

1.8 kg of R410A × 2088 GWP
= 3760 kg CO₂



13-hour flight
from London to
Kuala Lumpur

R290 (Noah)

0.6 kg of R290 × 3 GWP
= 1.8 kg CO₂



15 km
drive by car

R290

brings unbeatable benefits to
our heat pumps:

R290 brings unbeatable benefits to our heat pumps:
Improved SCOP of up to 4.9 for lower running costs
Higher hot water comfort and legionella protection without back-up heater due to a wide working envelope from -25 to $+46$ °C
Low GWP of 3—exceptionally eco-friendly.



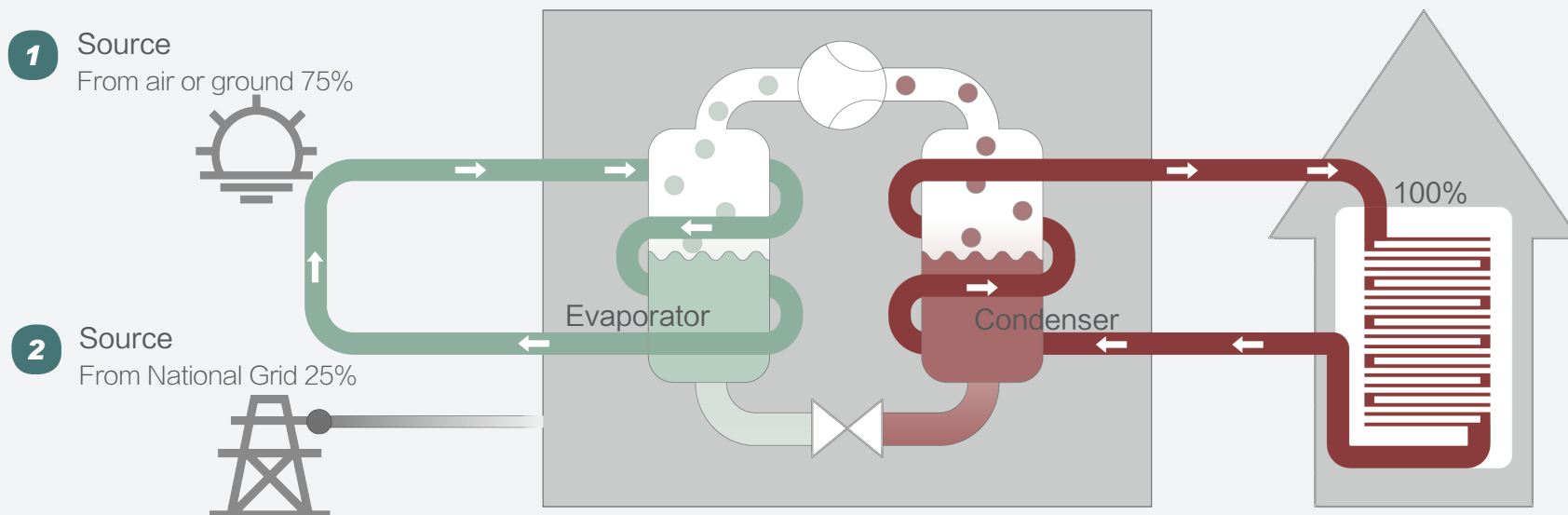
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How Does a Heat Pump Work

Heat pump technology is based on a very simple, well-known principle - the same one used in an ordinary refrigerator. By extracting heat energy from the outside air, even at lower temperatures, a TICA air source heat pump can supply your home with heating and hot water. The process can also be reversed to provide cooling during the summer months.

TICA air source system consists of an outdoor module combined with an indoor or control module. They work together to create a complete climate system that's easy to install, run and maintain.



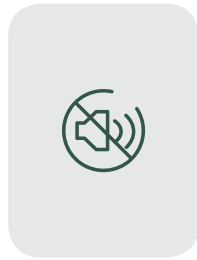
Features that heat pumps can achieve



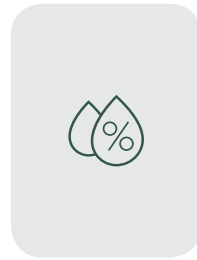
Efficient Operations



Comfort



Tranquillity



Space Saving



Hotter Water



Digital and
connected



Secure



Create a home

energy
Centralized
control
center

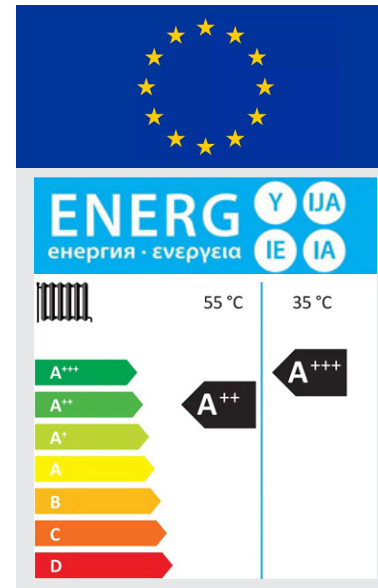
System



01

EFFICIENT OPERATIONS .

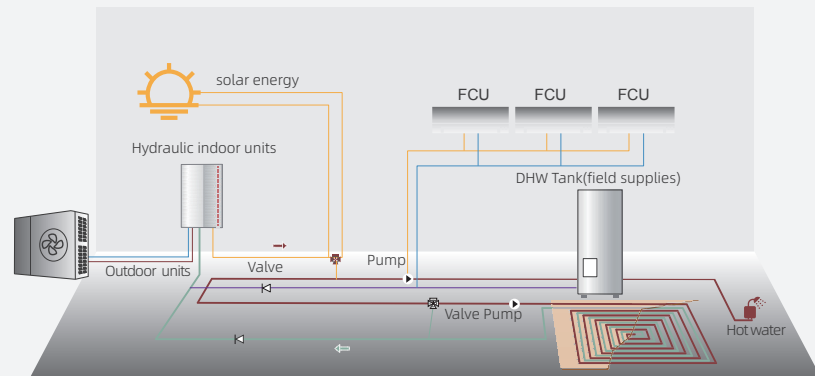
Due to the way in which heat pumps generate their heat, they are incredibly efficient, even in cold temperatures.



Comfort.

Already securely prepared for tomorrow

The Noah combines cooling, heating and hot water in a single solution. It is also equipped with the latest heat pump technology. The natural refrigerant used enables above-average performance; at the same time it has a particularly low global warming potential, which makes Noah extremely climate-friendly. The system can be connected to photovoltaic or solar heating systems, among others, and thus helps you to keep your carbon footprint small.



Comfort

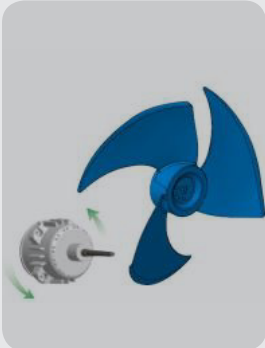




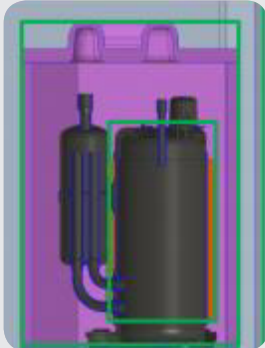
03

Tranquillity.

High-efficiency, low-speed running fans and multiple noise isolation measures reduce the noise of outdoor units to below 30dB (A), and the choice of external unit installation location is no longer a worry, even in densely populated residential areas, it will not affect you or your neighbors have any negative impact. TICA NOAH is therefore particularly well suited to densely built-up areas, such as terraced housing. You can also find detailed information about this in our knowledge section on volume and sound of air source heat pumps.



Low noise



Multilayer sound insulation



Multiple vibration damping



04

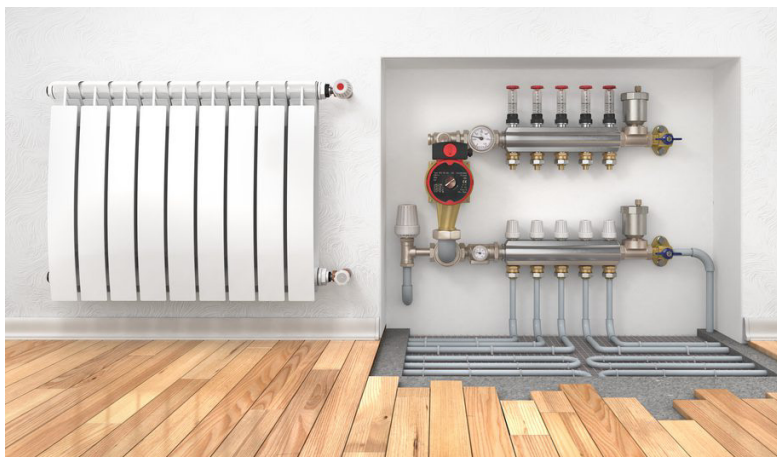
Space Saving.

TICA NOAH ATW features a compact integrated monobloc design that saves you installation space, while using front-mounted overhauls for easy maintenance. The aesthetic design from Italy matches your luxury home perfectly.



Hotter Water.

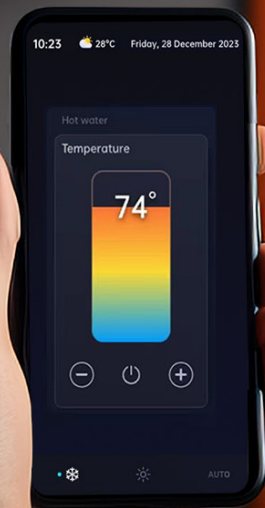
Due to the way in which heat pumps generate their heat. TICA NOAH Heat pump water supply up to 80 °C It can also be used in existing buildings as an alternative to fossil fuel energy sources, as it can also be combined with radiators due to its high flow temperatures of up to 80°C. Even if you use an old radiator, the heating effect is more guaranteed. It also does better in sterilization.



05



SUSTAINABILITY
IS IN OUR
NATURE



Digital
connected

06

Digital and connected .

MORE THAN A HEAT PUMP

We have continuously evolved over the decades and today we are a solution provider for the entire living space. Our climate solutions ensure optimum indoor temperature, hot water, electricity, and good air quality. With TICA's integrated range of solutions, we seamlessly combine our products, digital services, and additional services.



07 Secure .



Certification is being obtained



Five stage protection:

01



Less refrigerant injection

02



Smart sensors

03



Water & gas separator

04



Sealed electric control box

05



Explosion-proof components

Specifications

Model			TUCA040KHLB	TUCA060KHLB	TUCA080KHLB	TUCA100KHLB	TUCA120KHLB	TUCA140KHLB	TUCA160KHLB
Power supply			220~240V-50Hz						
Cooling(A35W18)	Capacity	W	4000	5000	6700	8000	12000	14000	16000
	EER	/	5.45	5.0	4.80	4.35	4.9	4.80	4.70
Cooling(A35W7)	Capacity	W	4000	5000	6500	7500	12000	13500	14500
	EER	/	3.30	2.95	3.20	2.95	3.20	3.10	2.95
Heating(A7W35)	Capacity	W	4500	6000	8000	10000	12000	14000	16000
	COP	/	5.30	5.05	5.15	4.90	5.40	5.30	5.15
Heating(A7W45)	Capacity	W	4500	6000	8000	10000	12000	14000	16000
	COP	/	4.3	4.05	3.9	3.65	4.20	4.00	3.85
Heating(A7W55)	Capacity	W	4600	6000	8000	10000	12000	14000	15000
	COP	/	3.3	3.2	3.3	3.10	3.40	3.30	3.20
Heating(A2W35)	Capacity	W	4400	5600	7100	8200	11500	12500	13600
	COP	/	4.1	3.9	3.85	3.65	4.10	3.95	3.80
Heating(A-7W35)	Capacity	W	4500	5900	7000	8400	11000	12000	13000
	COP	/	3.2	3.1	3.2	3.10	2.95	2.85	2.75
SCOP	Average climate, W35	/	A+++	A+++	A+++	A+++	A+++	A+++	A+++
	Average climate, W55	/	A+++	A+++	A++	A++	A+++	A++	A++
Net weight		kg	107	107	120	120	140	140	140
Gross weight		kg	118	118	131	131	160	160	160
Net dimension(W*H*D)		mm	1100×455×945	1100×455×945	1100×455×945	1100×455×945	1100×458×1535	1100×458×1535	1100×458×1535
Packing dimension(W*H*D)		mm	1175×570×1090	1175×570×1090	1175×570×1090	1175×570×1090	1180×600×1705	1180×600×1705	1180×600×1705
Erp sound power level		dB	54	55	57	59	56	57	59
Refrigerant	Type/GWP	/	R290/3	R290/3	R290/3	R290/3	R290/3	R290/3	R290/3
	Charge	kg	0.51	0.51	0.8	0.8	1.50	1.50	1.50
Operating ambient temperature	Cooling	℃	15~46	15~46	15~46	15~46	15~46	15~46	15~46
	Heating	℃	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
	DHW	℃	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43	-25~43
Water setting temperature	Cooling	℃	5~25	5~25	5~25	5~25	5~25	5~25	5~25
	Heating	℃	22~80	22~80	22~80	22~80	22~80	22~80	22~80
	DHW	℃	20~75	20~75	20~75	20~75	20~75	20~75	20~75

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