



THERMATEC

PLUS **S** LINE

SMART SOLUTIONS



R290

CLEAN HEAT THANKS TO **TECHNOLOGY**

THERMATEC - clean, affordable, and technological heat in your home or company



ultra-environmentally friendly refrigerant **R290**



energy **efficiency**



inverter technology



stable operation at **-25°C**



super silent



quality guarantee



SG READY function





Heat pumps for your home

Our main goal is to satisfy our customers, which is why we are introducing devices made of components from renowned global manufacturers and materials that ensure long and trouble-free operation.

From the beginning of our company's operations, we have attached great importance to the appearance of our products. We believe that devices such as heat pumps, hydraulic cabinet units, or even domestic hot water tanks should be an element of good design. To meet these expectations, our devices look perfect in the context of our customers' dream homes and offices.

We attach great importance to the usefulness, quality of workmanship, and durability of our products, thanks to which we provide our customers with devices prepared for years of trouble-free and efficient operation.

Table of contents

Ultra-environmentally friendly refrigerant R290	04
The highest energy efficiency class A+++	07
Technology & Design	08
Full DC inverter technology	10
Application and internet platform	11
Heat pump TH-R290-S06-1P	12
Heat pump TH-R290-S10-3P	13
Heat pump TH-R290-S16-3P	14

ECOLOGY

Ultra-environmentally friendly refrigerant **R290**



With the goal of reducing carbon dioxide emissions to the environment and limiting global warming, as THERMATEC, we use the R290 working fluid in our devices.

R290 is recognized as the working fluid with the greatest development potential in the industry. It will be the target working fluid used in the European Union.

R290 helps achieve the global goal of carbon dioxide emissions neutrality due to its ultra-low GWP level.

Advantages of **R290** refrigerant:



It is **environmentally friendly**



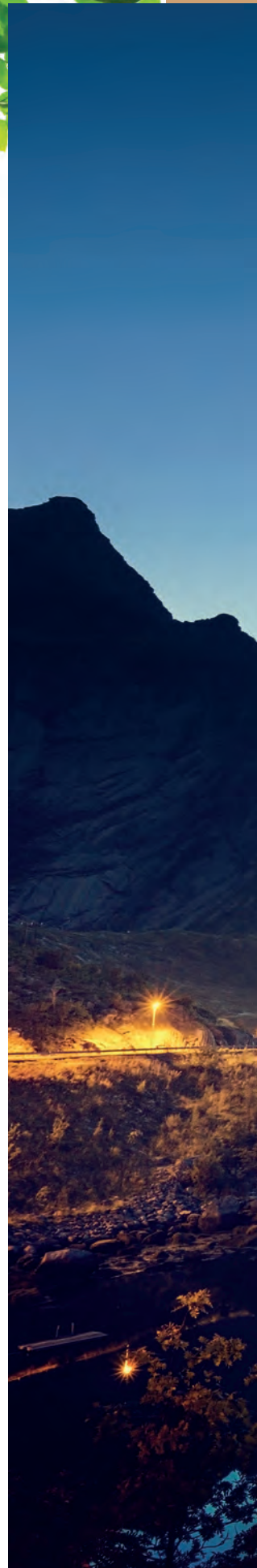
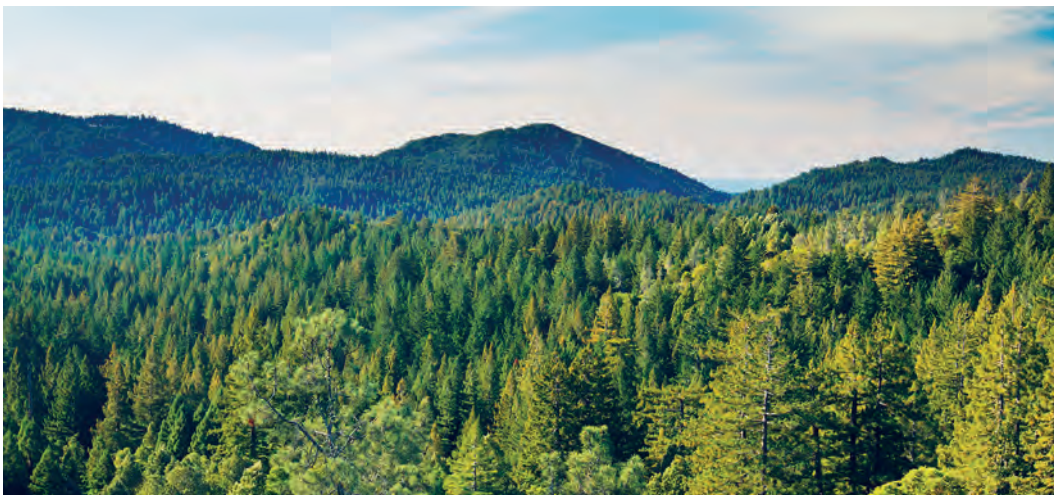
It does not deplete the Earth's ozone layer (**ODP = 0**)



It does not cause the greenhouse effect (**GWP = 3**)



It has very good **thermodynamic properties**





Comparison of working fluids in terms of their potential for creating the greenhouse effect GWP (Global Warming Potential).

FLUID	GWP
CO ₂	1
R290	3
R32	675
R134A	1430
R410A	2088

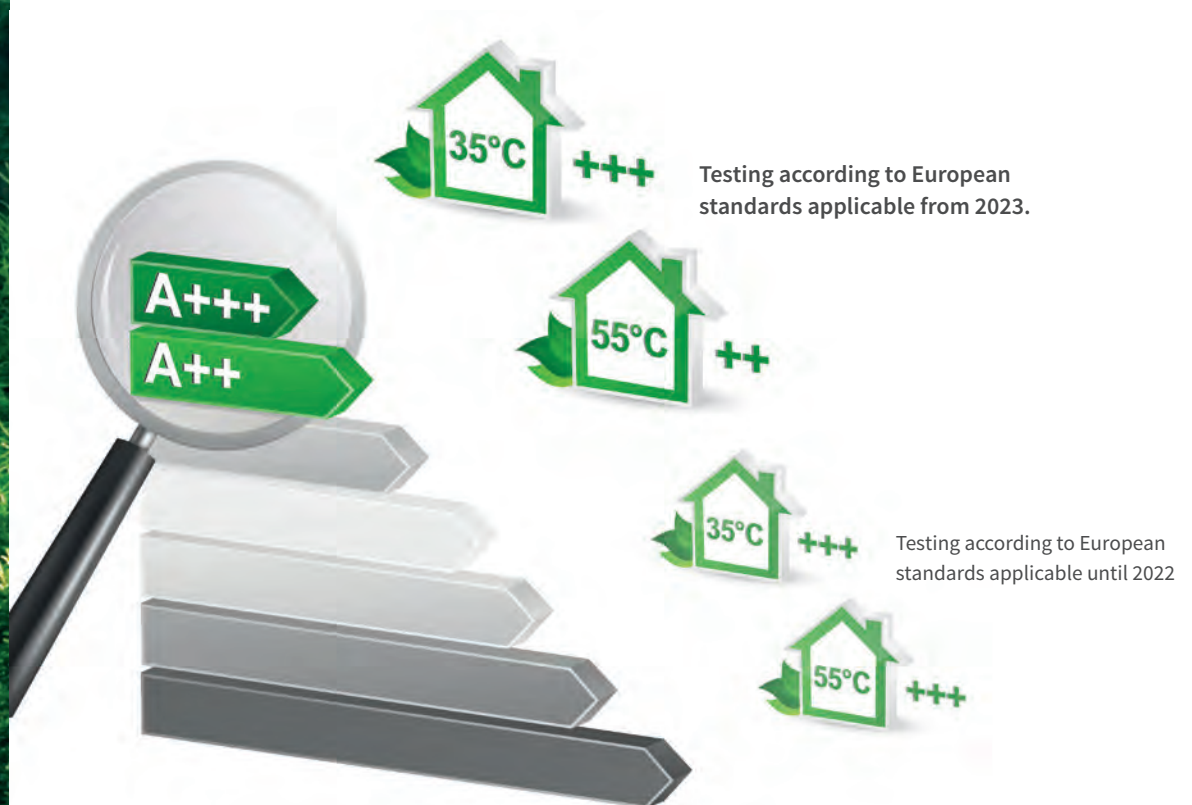


THE HIGHEST

energy efficiency class **A+++**

Excellent energy efficiency parameters of our heat pumps.

THERMATEC heat pumps have the highest energy efficiency class A+++ (for water temperatures at supply of 35°C) and A++ (for water temperatures at supply of 55°C).



SG READY function

The SG READY function is one of the features that is built into all PLUS S LINE heat pumps. SG READY means that the pump is ready to operate in „Smart Grid” mode, which is an intelligent network.

TECHNOLOGY & DESIGN

The THERMATEC inverter heat pump is a combination of all modern elements. The environmentally friendly refrigerant R290, full DC inverter, quiet technology, modern design, are just some of the advantages of this powerful heat pump.



Smart Grid function

Thanks to this function, it is possible to configure the heat pump settings in such a way as to maximize the use of excess electricity from the photovoltaic installation. An additional advantage is the option to take advantage of cheaper tariffs offered by energy suppliers.



Control of heating zones

The ability to control two independent heating zones in the building, thanks to full control over circulation pumps and smooth regulation of the mixing valve.



Heating curve function

The ability to set eight heating curves based on the external ambient temperature with the possibility of modifying the heating curve.



Integrated bracket with the heat pump

The system of integrating the bracket with the heat pump excludes the need to purchase separate mounting systems. It also allows for the use of a full enclosure, which creates a modern design.



Smart Touch display

The Smart Touch intelligent touch controller allows you to monitor and intuitively set the parameters of your heat pump's operation in real-time. The high-quality 5-inch display with high resolution makes setting adjustments very easy.



Unique housing design

Our engineers have designed a unique housing construction that limits the unit's frosting process while making the heat pump defrosting process easier. This ensures the efficient and economical operation of the unit.



Super silent

Low noise level



Sleep peacefully, our heat pumps create a super quiet environment for the user. THERMATEC uses many noise reduction technologies, and each product has been tested and optimized.



Stable operation

at ambient temperature of -25°C

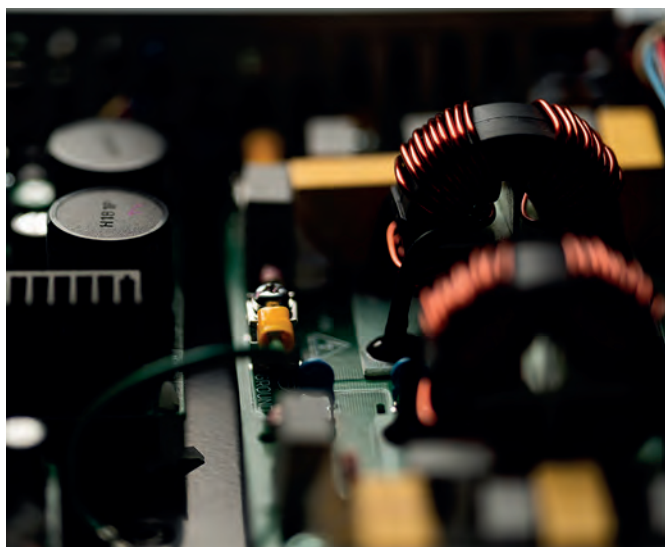


THERMATEC heat pumps are characterized by an exceptionally wide operating range for heating, especially at low and very low temperatures.



Highest quality

components



Our device contains the highest quality components from renowned brands such as HIGHLY HITACHI, GRUNDFOS, DANFOSS.



Heat pump

cascade

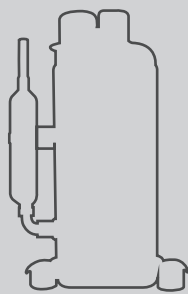
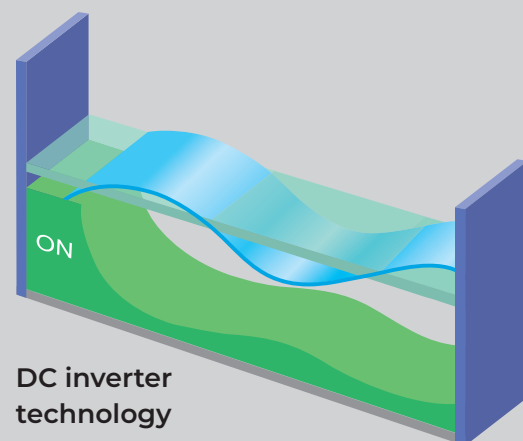
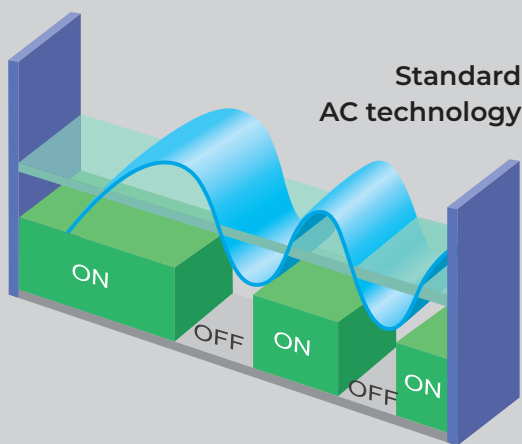


The software allows heat pumps to be connected in a cascade of up to eight devices of the same type. This design provides full freedom in building a system with the appropriate power.

Full DC inverter technology

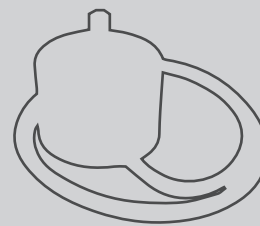


THERMATEC heat pumps are based on full inverter technology. The basic benefits we get from this solution are stable and efficient operation. Additionally, combining inverter technology with R290 refrigerant allows us to achieve exceptionally favorable operating parameters for our heat pumps.



DC inverter compressor

Compared to AC drive technology, DC technology more precisely modulates the compressor control process, which improves the efficiency of transferring power and reduces compressor noise and energy consumption.



DC inverter motor

Thanks to better dynamic balance and reduced turbulent flow noise, the efficiency of heat pump operation is significantly improved.



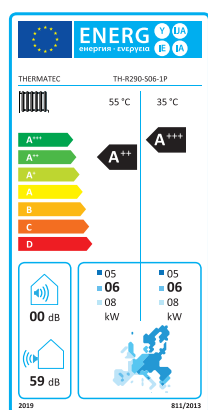
Mobile application and internet platform for installer and service technician

For even easier and remote management of the heat pump, you can use a dedicated application for IOS and Android devices.

Thanks to the built-in DTU module, in case of disruptions in the operation of the heat pump, your service technician can diagnose the device without the need for a visit and in most cases restore the proper operation of the heat pump.

Thanks to the DTU module, there is no need for connection to the home WiFi network. In areas where the internet is not available, it provides the possibility of remote service and support for the heat pump.



Heat pump **TH-R290-S06-1P**

Energy label according to testing methods in line with the latest guidelines of the European Union directive from 11/2022:
PN-EN 14511: 2022
PN-EN 14825: 2022

R290
SECOND GENERATION

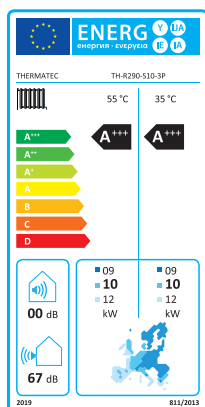


MODEL		TH-R290-S06-1P	
Power supply		220-240V / 1N~ / 50Hz	
Input power		kW	6
Heating (A7/W35)	heating capacity range	kW	2.94 – 9.00
	input power	kW	0.61 – 2.11
	input current	A	2.80 – 9.25
	COP	kW/kW	4.27 – 4.82
Heating (A7/W55)	heating capacity range	kW	3.10 – 8.12
	input power	kW	1.03 – 2.92
	input current	A	4.57 – 12.79
	COP	kW/kW	2.78 – 3.01
Cooling (A35/W12)	cooling capacity range	kW	1.42 – 5.69
	input power	kW	0.67 – 2.44
	input current	A	3.06 – 10.27
SCOP average (THW* at 35°C)		kWh/kWh	4.80
SCOP average (THW* at 55°C)		kWh/kWh	3.67
Rated input power		kW	3.50
Rated input current		A	15
Refrigerant TYPE / CHARGE / GWP		- / kg / -	R290 / 0.55 / 3
CO ₂ equivalent		TCO ₂ eq	0.0017
Operation pressure (low side)		MPa	0.8
Operation pressure (high side)		MPa	3.0
Maximum allowable pressure		MPa	3.2
Electrical shockproof		Class	I
Ingress protection		IP	IPX4
Maximum outlet water temperature		°C	75
Operating ambient temperature		°C	-25 ~ 45
Water piping connections		cal	G1
Rated water flow		m ³ /h	1.0
Water pressure drop		kPa	20
Water pressure (min. – max.)		MPa	0.1 – 0.3
Sound pressure (1 m)		dB(A)	44
Net dimensions (L x W x H)		mm	1287 x 529 x 1054
Net weight		kg	150
Bracket		YES	integrated

NOMINAL TEST CONDITIONS

Heating (A7/W35): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 30°C/35°C
 Heating (A7/W55): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 47°C/55°C
 Cooling (A35/W12): Outdoor temperature 35°C/24°C (DB/WB) Water inlet/outlet 12°C/7°C

*THW - water outlet temperature

Heat pump **TH-R290-S10-3P**

Energy label according to testing methods in line with the latest guidelines of the European Union directive from 11/2022:

PN-EN 14511: 2022

PN-EN 14825: 2022

R290
**SECOND
GENERATION**



MODEL		TH-R290-S10-3P	
Power supply		380-415V / 3N~ / 50Hz	
Input power		kW	10
Heating (A7/W35)	heating capacity range	kW	4.32 – 15.00
	input power	kW	0.87 – 3.73
	input current	A	1.78 – 6.04
	COP	kW/kW	4.02 – 4.97
Heating (A7/W55)	heating capacity range	kW	4.23 – 14.53
	input power	kW	1.45 – 4.28
	input current	A	2.84 – 6.78
	COP	kW/kW	2.92 – 3.39
Cooling (A35/W12)	cooling capacity range	kW	3.66 – 11.01
	input power	kW	1.12 – 3.97
	input current	A	1.97 – 6.30
SCOP average (THW* at 35°C)		kWh/kWh	5.14
SCOP average (THW* at 55°C)		kWh/kWh	3.92
Rated input power		kW	5.85
Rated input current		A	10
Refrigerant TYPE / CHARGE / GWP		- / kg /-	R290 / 1.05 / 3
CO ₂ equivalent		TCO ₂ eq	0.0032
Operation pressure (low side)		MPa	0.8
Operation pressure (high side)		MPa	3.0
Maximum allowable pressure		MPa	3.2
Electrical shockproof		Class	I
Ingress protection		IP	IPX4
Maximum outlet water temperature		°C	75
Operating ambient temperature		°C	-25 ~ 45
Water piping connections		cal	G1
Rated water flow		m ³ /h	1.72
Water pressure drop		kPa	20
Water pressure (min. – max.)		MPa	0.1 – 0.3
Sound pressure (1 m)		dB(A)	46
Net dimensions (L x W x H)		mm	1387 x 549 x 1154
Net weight		kg	170
Bracket		YES	integrated

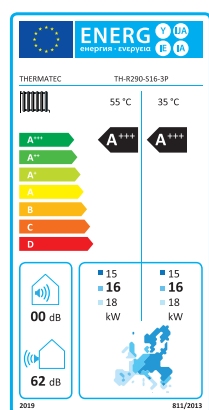
NOMINAL TEST CONDITIONS

Heating (A7/W35): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 30°C/35°C

Heating (A7/W55): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 47°C/55°C

Cooling (A35/W12): Outdoor temperature 35°C/24°C (DB/WB) Water inlet/outlet 12°C/7°C

*THW - water outlet temperature

Heat pump **TH-R290-S16-3P**

Energy label according to testing methods in line with the latest guidelines of the European Union directive from 11/2022:

PN-EN 14511: 2022

PN-EN 14825: 2022

R290
SECOND
GENERATION



MODEL		TH-R290-S16-3P	
Power supply		380-415V / 3N~ / 50Hz	
Input power		kW	16
Heating (A7/W35)	heating capacity range	kW	7.25 – 21.70
	input power	kW	1.50 – 5.88
	input current	A	2.82 – 9.16
	COP	kW/kW	3.69 – 4.83
Heating (A7/W55)	heating capacity range	kW	6.36 – 19.43
	input power	kW	2.15 – 6.85
	input current	A	3.71 – 10.60
	COP	kW/kW	2.84 – 2.96
Cooling (A35/W12)	cooling capacity range	kW	4.56 – 17.00
	input power	kW	1.85 – 7.31
	input current	A	2.99 – 11.26
SCOP average (THW* at 35°C)		kWh/kWh	4.81
SCOP average (THW* at 55°C)		kWh/kWh	3.83
Rated input power		kW	10.50
Rated input current		A	17
Refrigerant TYPE / CHARGE / GWP		- / kg / -	R290 / 1.4 / 3
CO ₂ equivalent		TCO ₂ eq	0.0042
Operation pressure (low side)		MPa	0.8
Operation pressure (high side)		MPa	3.0
Maximum allowable pressure		MPa	3.2
Electrical shockproof		Class	I
Ingress protection		IP	IPX4
Maximum outlet water temperature		°C	75
Operating ambient temperature		°C	-25 ~ 45
Water piping connections		cal	G1 ¼
Rated water flow		m ³ /h	2.75
Water pressure drop		kPa	55
Water pressure (min. – max.)		MPa	0.1 – 0.3
Sound pressure (1 m)		dB(A)	52
Net dimensions (L x W x H)		mm	1287 x 599 x 1704
Net weight		kg	265
Bracket		YES	integrated

NOMINAL TEST CONDITIONS

Heating (A7/W35): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 30°C/35°C

Heating (A7/W55): Outdoor temperature 7°C/6°C (DB/WB) Water inlet/outlet 47°C/55°C

Cooling (A35/W12): Outdoor temperature 35°C/24°C (DB/WB) Water inlet/outlet 12°C/7°C

*THW - water outlet temperature

CONTACT US

Ultra-efficient heat pump system
with high power from **50 kW** to **800 kW**

PLUS  LINE
COMMERCIAL SOLUTIONS



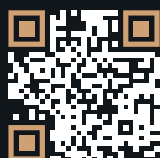
Universal
HYDRAULIC CABINETS



STAINLESS STEEL
HOT WATER TANKS
and BUFFER TANKS



DISTRIBUTOR'S STAMP



THERMATEC | Home Star sp. z o.o.
Misjonarzy Oblatów MN 20A
40-129 Katowice, Polska [Poland]

Office: (+48) 32 722 02 03
Mobile Phone: (+48) 533 222 223
biuro@thermatec.pl

www.thermatec.eu | www.thermatec.pl | www.thermatec.cz | www.thermatec.fi | www.thermatec.nl