A Benefit Guide for LG THERMA V™

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Discover the Highlights of LG THERMA V

1

Say Yes to a Warm and Cozy Home
The perfect replacement for your old boiler.

2

Experience Peace and Quiet
Relax in tranquil home environment with our low-noise unit.

3

Save on Your Heating Costs
Enjoy excellent heating and efficiency, all at once.

4

Embrace Future-ready Solutions
Choose a heating system that is designed with tomorrow in mind.

5

Total Home Comfort with One System
Our all-in-one solution meets your heating, cooling, and hot water needs seamlessly.

6

Smarter Control for Your Comfort
Easily manage your heat pump with advanced, intuitive controls for maximum convenience.

ThinQ™

7

Sleek and Modern Design
Enhance your home's aesthetic with our stylish and contemporary heat pump design.

8

Trust in Brand Reliability
Count on LG's proven track record of quality for peace of mind.

Life's Good.

9

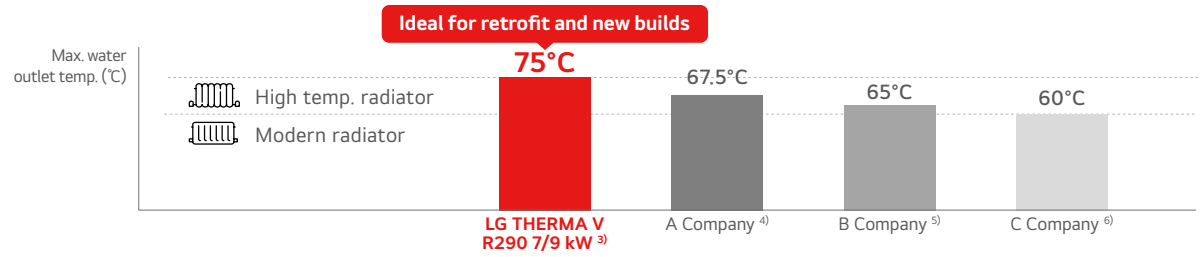
Quick and Easy Service
Benefit from timely service and maintenance, supporting your system runs smoothly year-round.

1. Say Yes to a Warm and Cozy Home

The perfect replacement for your old boiler.

Stable Heating Solution

Comparison of Maximum Water Temperature at -15℃ outdoor Temperature 2)



Key Benefits

Stay Warm Inside, Even When Freezing Outside

THERMA V can operate at temperatures as low as -28℃ outside, providing hot water is always available. With an leaving water temperature of up to 75℃, it is compatible with pretty much any existing radiator, making it suitable for both refurbishments and new builds.

1) The ambient temperature that guarantees the highest water outlet temperature is up to -15℃, and the highest water outlet temperature that can be achieved at the lowest operational ambient temperature is 55℃.
2) The comparison is based on information from each company's catalogue or technical data book. Please note that the details may vary depending on updates made after the publication date of these resources.
3) The unit is currently being developed and is scheduled for launch in November 2024.
4) A Company: Nibe S-2125 (R290)
5) B Company: Viessmann Vitocal 250-A & 252-A (R290)
6) C Company: Vaillant arotherm plus (R290)

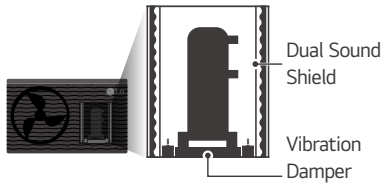
2. Experience Peace and Quiet

Relax in tranquility with our low-noise units that maintain a serene home environment.

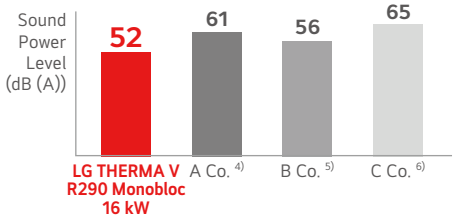
Concerned about noise from heat pump outdoor units? The THERMA V features a low-noise design that has earned the Quiet Mark certification, providing a quieter operation.

Low-noise Design, Low-noise Certification

Soundproofing and Vibration Proofing Technologies 2)



Comparison of Sound Power Level 3)



Acquisition of Certification 7)

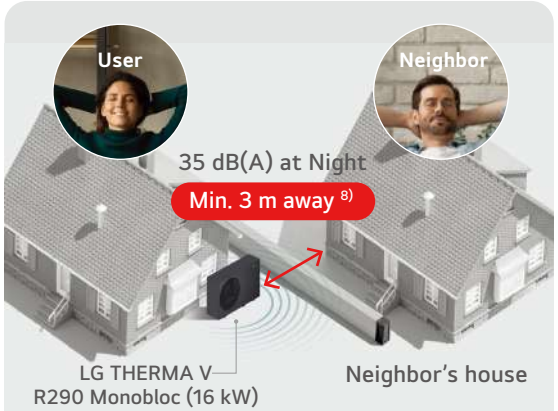
Received as the quietest product by the UK Noise Abatement Society

QUIET MARK

Key Benefits

Minimize Noise Stress for Users and Neighbors Alike

The low noise level of the THERMA V allows for more flexible installation options. It can be easily installed just 3 m from the home next door without the need for an acoustic hood.



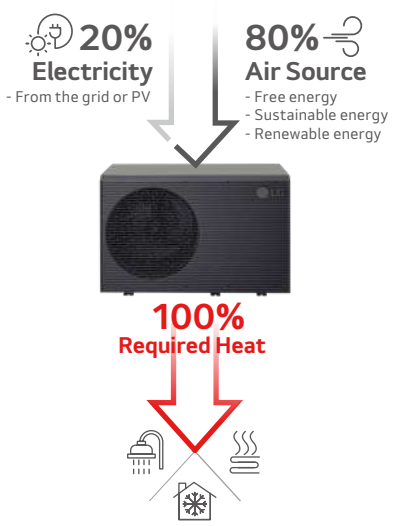
※ This image is intended to help you understand, and there may be some differences in actual use.

8) The noise level is determined by converting the rated sound power level to sound pressure level. The required distance between your installation and neighboring houses can change based on local noise rules and the specific setup conditions. Make sure to check the regulations in your area to ensure compliance.

1) Sound pressure level based on 3 m away from THERMA V R290 Monobloc 16 kW under rated condition. Sound level can be vary owing to ambient conditions in actual use.
2) Based on THERMA V R290 Monobloc 12 / 14 / 16 kW.
3) The comparison is based on information from each company's catalogue or technical data book. Please note that the details may vary depending on updates made after the publication date of these resources.
4) A Co.: Vaillant arotherm plus VWL 155/6 A S3 (R290)
5) B Co.: Viessmann Vitocal 151 A16 (R290)
6) C Co.: Samsung EHS Mono 16 (R290)
7) Applied Model : THERMA V R32 Monobloc S 5 / 7 / 9 / 12 kW, THERMA V R290 Monobloc

3. Save on Your Heating Costs

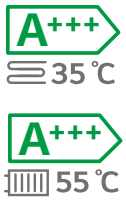
Enjoy excellent heating and efficiency, all at once.



Excellent Efficiency

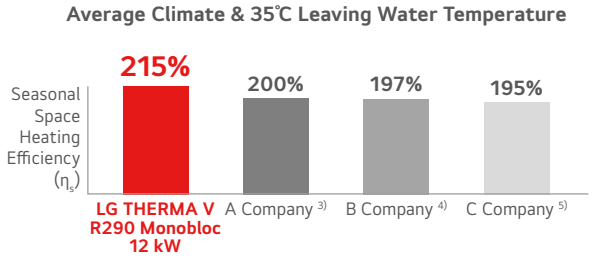
SCOP > 5 [1)]

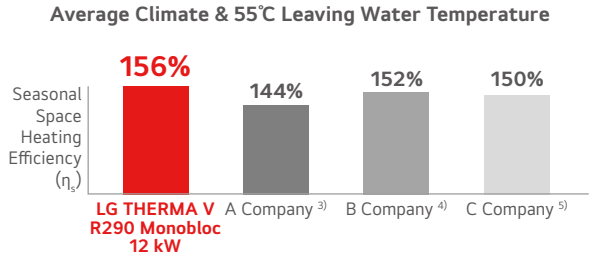
Achieving the highest ErP Energy grade A+++ / A+++ for **space heating**



LG THERMA V R290 Monobloc (12 / 14 / 16 kW)

Comparison of Seasonal Space Heating Efficiency [2)]





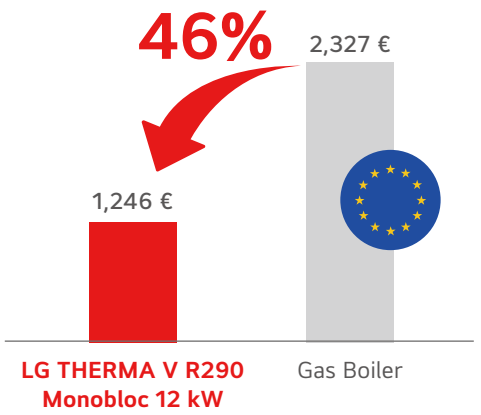
Key Benefits

You can save your annual heating costs up to 46% per year with this highly efficient heat pump system, on average in Europe.

Estimated Annual Energy Costs *

• **EU Average (EU 27)**

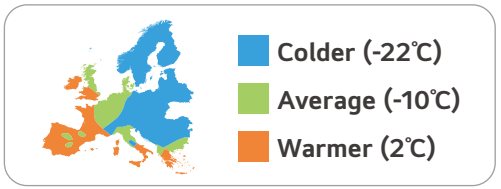
As of April, 2024



* This is simulation result based on conditions under average climate & Medium temperature (55℃) and it may differ from actual value since there are many assumptions used. The conditions and assumptions used during the simulation are indicated on the next page.

1) Based on LG THERMA V R290 Monobloc under Average Climate and Low Temperature (35℃) conditions.
2) The comparison is based on information from each company's catalogue or technical data book. Please note that the details may vary depending on updates made after the publication date of these resources.
3) A Company: Vaillant arotherm plus VWL 125/6 A S3 (R290)
4) B Company: Viessmann Vitocal 251 A10 (R290)
5) C Company: Nibe S2125-12 (R290)

Annual Energy Costs Simulation [1)]



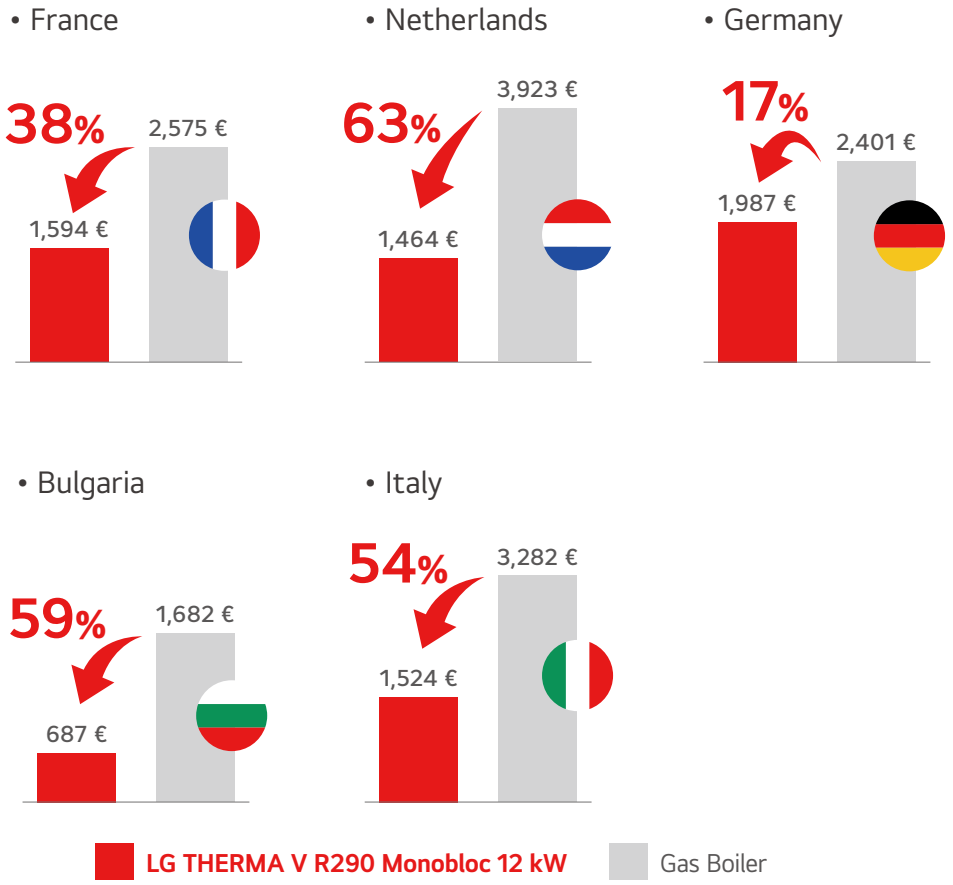
Average Climate [2)] - Medium Temperature (55℃ LWT)

Description	Gas Boiler	LG THERMA V R290 Monobloc 12 kW
Prated (kW)	10	
Annual Heating Demand (kWh)	20,658 [3)]	
SCOP	N / A	3.97
η_s	90% [4)]	156%
Annual Energy Consumption (kWh)	22,953 [4)]	5,211 [3)]

Estimated Annual Energy Costs [5)]

As of April, 2024

Description	Gas Boiler	LG R290 Monobloc 12 kW	Reduction Rate (vs. Gas Boiler)
EU Average (EU27) [7)]	2,327 € (10.14 c€/kWh [6)])	1,246 € (23.92 c€/kWh [6)])	46%
France	2,575 € (11.22 c€/kWh [6)])	1,594 € (30.58 c€/kWh [6)])	38%
Netherlands	3,923 € (17.09 c€/kWh [6)])	1,464 € (28.10 c€/kWh [6)])	63%
Germany	2,401 € (10.46 c€/kWh [6)])	1,987 € (38.13 c€/kWh [6)])	17%
Bulgaria	1,682 € (7.33 c€/kWh [6)])	687 € (13.18 c€/kWh [6)])	59%
Italy	3,282 € (14.30 c€/kWh [6)])	1,524 € (29.24 c€/kWh [6)])	54%



1) Space Heating only (DHW operation is not considered)
2) Based on climate bin data of EN14825 and annual operating hours are 4,910 hours for average climate.
3) Annual energy consumption is a value declared together with ErP energy efficiency, and the annual heating demand assumed when calculating ErP Energy efficiency depends on the declared prated value.
4) Efficiency is based on general condensing boiler irrelevant specific brand and Annual Energy Consumption is assumed to cover same annual heating demand with LG THERMA V R290 Monobloc 12 kW.
5) This cost was simulated based on national gas and electricity prices as of April of 2024 and may differ from the actual cost paid by customers depending on energy price changes and individual energy use patterns.
6) Based on the Electricity End User Price and Natural Gas End User Price for April of 2024 provided on the Household Energy Price Index webpage **(https://www.energypriceindex.com/price-data), but price information may change depending on the time, as corrections may be made to some past data.**
7) EU Average is the average of EU member countries (27 countries).

Annual Energy Costs Simulation [1)]

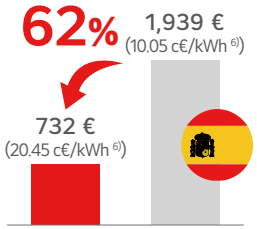
Warmer Climate [2)] - Medium Temperature (55℃ LWT)

Description	Gas Boiler	LG THERMA V R290 Monobloc 12 kW
Prated (kW)	13	
Annual Heating Demand (kWh)	17,365 [3)]	
SCOP	N / A	4.85
η_s	90% [4)]	191%
Annual Energy Consumption (kWh)	19,294 [4)]	3,578 [3)]

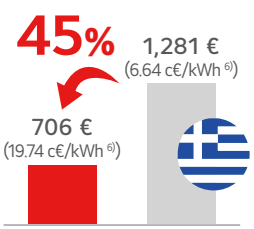
Estimated Annual Energy Costs [5)]

As of April, 2024

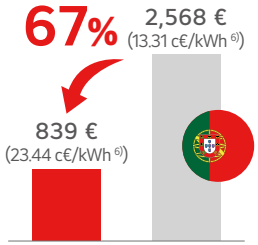
- Spain



- Greece



- Portugal



LG THERMA V R290 Monobloc 12 kW Gas Boiler

1) Space Heating only (DHW operation is not considered)
2) Based on climate bin data of EN14825, and the annual operating hours are 3,590 hours for warmer climates and 6,446 hours for colder climates, respectively.
3) Annual energy consumption is a value declared together with ErP energy efficiency, and the annual heating demand assumed when calculating ErP Energy efficiency depends on the declared prated value.
4) Efficiency is based on general condensing boiler irrelevant specific brand and Annual Energy Consumption is assumed to cover same annual heating demand with LG THERMA V R290 Monobloc 12 kW.

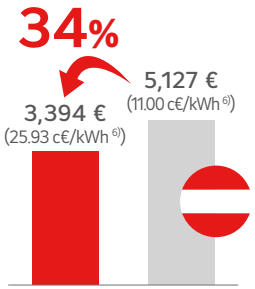
Colder Climate [2)] - Medium Temperature (55℃ LWT)

Description	Gas Boiler	LG THERMA V R290 Monobloc 12 kW
Prated (kW)	17	
Annual Heating Demand (kWh)	41,948 [3)]	
SCOP	N / A	3.20
η_s	90% [4)]	125%
Annual Energy Consumption (kWh)	46,609 [4)]	13,091 [3)]

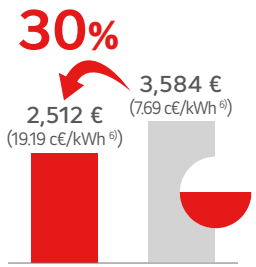
Estimated Annual Energy Costs [5)]

As of April, 2024

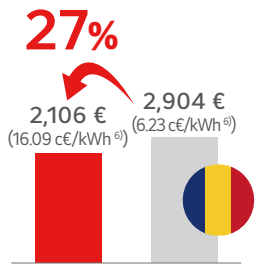
- Austria



- Poland



- Romania



LG THERMA V R290 Monobloc 12 kW Gas Boiler

5) This cost was simulated based on national gas and electricity prices as of April of 2024 and may differ from the actual cost paid by customers depending on energy price changes and individual energy use patterns.
6) Based on the Electricity End User Price and Natural Gas End User Price for April of 2024 provided on the Household Energy Price Index webpage **(https://www.energypriceindex.com/price-data), but price information may change depending on the time, as corrections may be made to some past data.**

Payback Reference_Italy Case

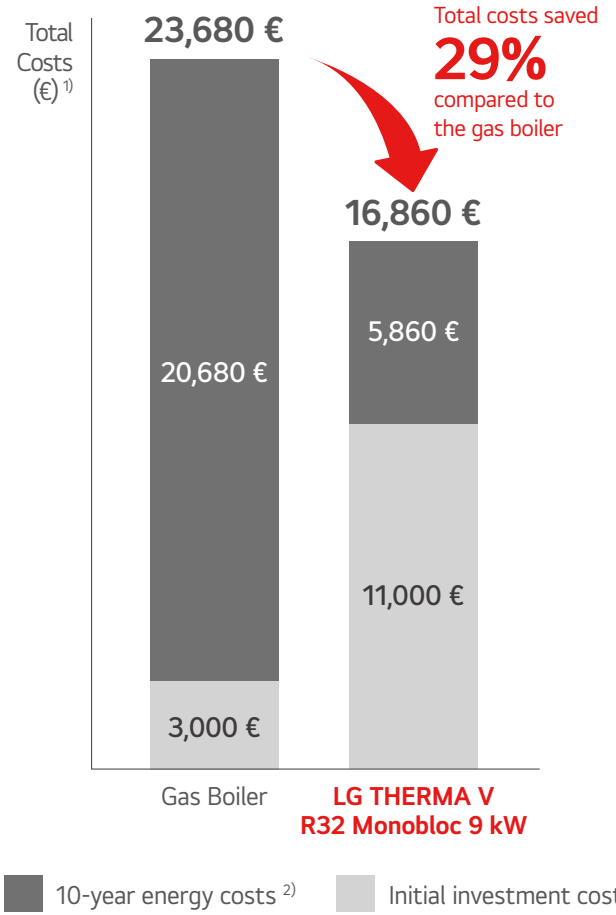
Understanding Your Return on Investment for Heating Systems in Italy (LG THERMA V R32 Monobloc 9 kW vs. Gas Boiler)

As of April, 2024

Description		Unit	Gas Boiler	LG THERMA V R32 Monobloc 9 kW	Remarks
Usage Conditions	Annual Heating Demand	kWh	14,244		Based on Average Climate
	Required Outlet Temperature	℃	55℃		Based on Radiator Usage
	Electricity Unit Rate	€/kWh	0.2924		Based on the Electricity End User Price and Natural Gas End User Price for April of 2024 provided on the Household Energy Price Index webpage **(https://www.energypriceindex.com/price-data)**
	Gas Unit Rate	€/kWh	0.143		
Initial Investment Costs	System Price	€	2,000	7,000	Online product price of 4,500 € + peripherals and miscellaneous items of 2,500 €
	Installation Costs	€	1,000	4,000	Estimated values
	Initial Subsidy	€	-	-	N / A
		€	**3,000**	**11,000**	
Annual Operating Costs	Annual Energy Consumption	kWh	15,827	4,448	Assuming condensing gas boiler efficiency of 0.9, while LG THERMA V R32 Monobloc 9kW has SCOP of 3.2 under average climate & 55℃ LWT.
	Annual Energy Costs	€	2,263	1,301	Simulated based on annual energy consumption and national gas & electricity prices as of April of 2024
	Annual Subsidy	€	-195	-715	Program Name: Ecobonus 65% (Tax Deduction for 65% of Purchase Costs Over 10 Years)
		€	**2,068**	**586**	
Payback Period	Initial Investment Cost Difference	€	**8,000**		
	Annual Operating Cost Difference	€	**1,483**		Applying Same Electricity and Gas Tariffs
		Year	**5.4 Years**		

※ This is simulation result based on conditions under average climate & Medium temperature (55℃) and it may differ from actual value since there are many assumptions used. Also, it may differ by customers depending on energy price changes and individual energy use patterns.

Comparing Total Heating Costs Over 10 Years



1) It is purely an arithmetic sum of the initial investment costs and 10-year energy costs, and other maintenance costs and interest rates are not taken into consideration.
2) Energy costs for 10 years were calculated assuming that the same electricity and gas prices were applied.

4. Embrace Future-ready Solutions

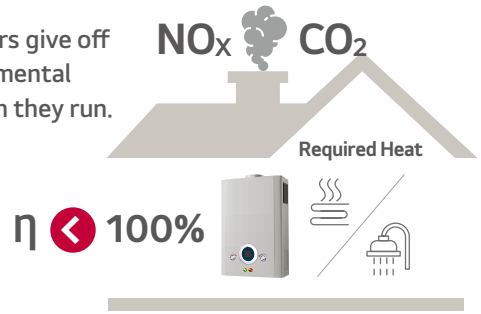
Choose a heating system that is designed with tomorrow in mind.

LG THERMA V™

The LG THERMA V system uses electricity, significantly reducing direct pollutant emissions. While electricity production can result in some indirect emissions, it still emits far less CO_2 compared to gas boilers.

Gas / Oil Boiler

Gas and oil boilers give off harmful environmental substances when they run.



Key Benefits

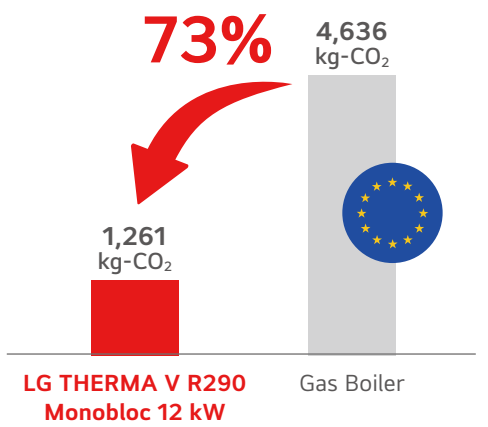
A Low Carbon Heating System

By switching from old fossil fuel boilers, you can cut down your carbon emissions by up to 73% on average in Europe.

Estimated Annual CO_2 Emission *

• EU Average

As of 2023



* This is simulation result based on conditions under average climate & Medium temperature (55℃) and it may differ from actual values since there are many assumptions used. The conditions and assumptions used during the simulation are indicated on the next page.

1) A heat pump device transforms air source energy into a usable heat source using the electricity. With heat pump technology about 80% of the energy needed to provide heating and hot water comes from a natural air source.

Annual CO_2 Emission Simulation [1)]

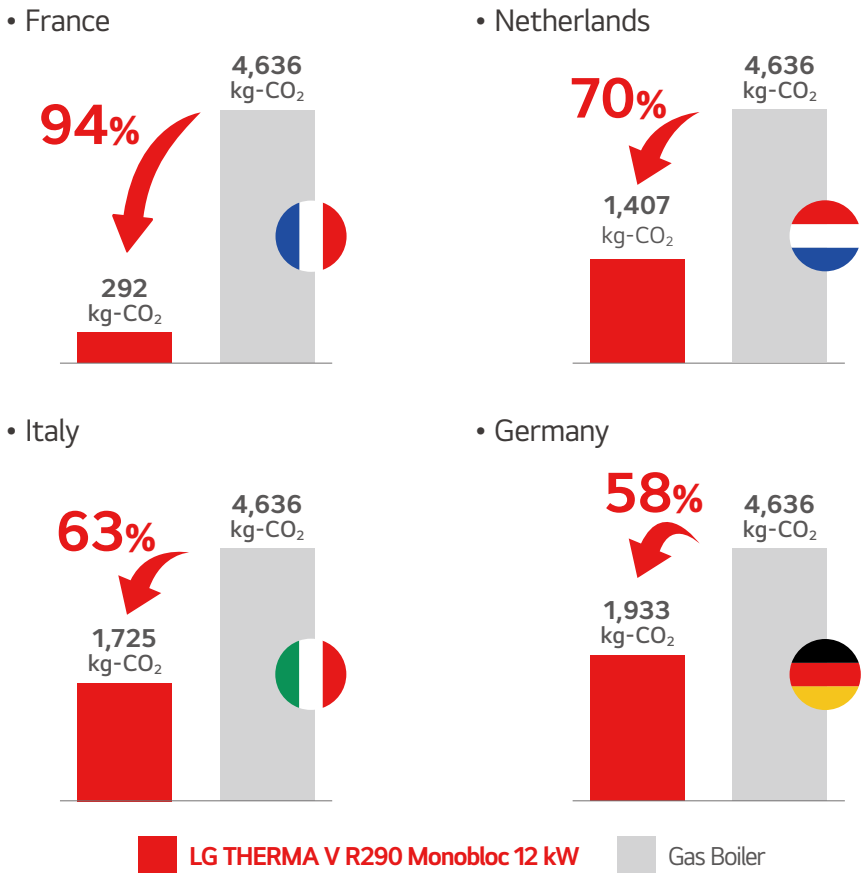
Average Climate [2)] - Medium Temperature (55℃ LWT)

Description	Gas Boiler	LG THERMA V R290 Monobloc 12 kW
Prated (kW)	10	**10**
Annual Heating Demand (kWh)	20,658 [3)]	**20,658 [3)]**
SCOP	N / A	**3.97**
η_s	90% [4)]	**156%**
Annual Energy Consumption (kWh)	22,953 [4)]	**5,211 [3)]**
Annual CO_2 Emission	4,636 kg-CO_2	**Varies by country**

Estimated Annual CO_2 Emission [5)]

As of 2023

Description	Emissions Intensity [6)] (gCO_2/kWh)	Gas Boiler (kg-CO_2)	LG R290 Monobloc 12 kW (kg-CO_2)	Reduction Rate (vs. Gas Boiler)
EU Average [7)]	242	4,636	**1,261**	**73%**
France	56	4,636	**292**	**94%**
Netherlands	270	4,636	**1,407**	**70%**
Germany	371	4,636	**1,933**	**58%**
Italy	331	4,636	**1,725**	**63%**



1) Space Heating only (DHW operation is not considered)
2) Based on climate bin data of EN14825 and annual operating hours are 4,910 hours for average climate.
3) Annual energy consumption is a value declared together with ErP energy efficiency, but the annual heating demand assumed when calculating ErP Energy efficiency may vary according to the declared prated value for each model.
4) Efficiency is based on general condensing boiler irrelevant specific brand and Annual Energy Consumption is assumed to cover same annual heating demand with LG THERMA V R290 Monobloc 12 kW.
5) Annual CO_2 emission was simulated based on Annual Energy consumption and the Carbon intensity of the power sector in the EU in 2023 and 56.1 t-CO_2/TJ is considered for calculation of CO_2 emission of gas boiler.
6) Based on the Annual electricity data in 2023, Ember (https://ember-climate.org/insights/research/european-electricity-review-2024/)
7) EU Average is the average of EU member countries.

5. Total Home Comfort with One System

Our all-in-one solution meets your heating, cooling, and hot water needs seamlessly.

Space Heating

Gas / Oil Boiler

+

Space Cooling

Air Conditioner

+

Domestic Hot Water

DHW Tank

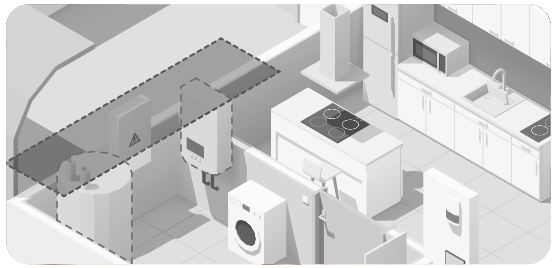
All in One Solution

THERMA V™

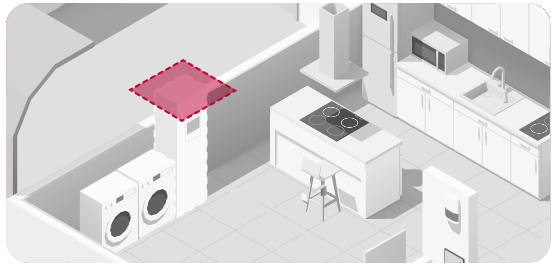
Key Benefits

Your Space-saving Solution

Designed to streamline your home's heating, cooling, and hot water systems, this all-in-one solution offers a seamless integration that saves your home's space.



Conventional



LG THERMA V (Less installation space required)

※ This image is intended to help you understand, and there may be some differences in actual use.

6. Smarter Control for Your Comfort

Easily manage your heat pump with advanced, intuitive controls for maximum convenience.

Operate Your Heating System from Anywhere [1)]

Connect and control from anywhere, anytime

Simple control with voice assistant

Efficient energy monitoring

GET IT ON Google Play

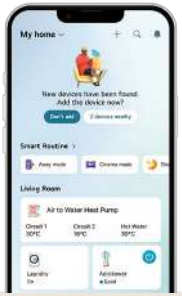
Download now

Download on the App Store

Download now

Manage All Your LG Home Appliances in One App

The ThinQ platform allows you to control not only the THERMA V but also other LG products, all from one single app.



Key Benefits

Effortless Home Heating Control and Energy Monitoring

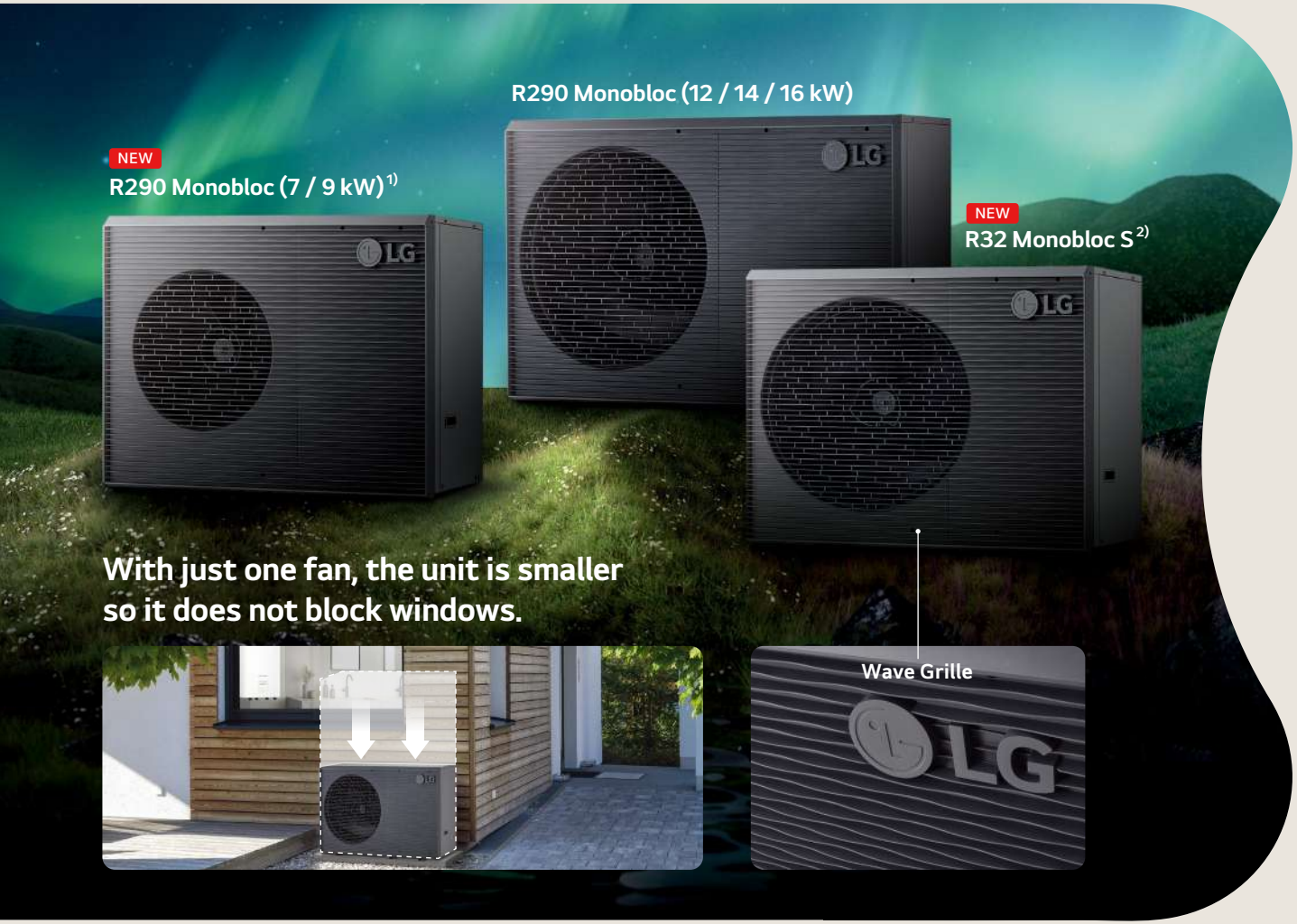
Control your heat pump from your mobile to ensure every day's home comfort. Monitor and optimize your home's energy use easily through ThinQ. You can also use voice commands with Google Assistant to control your THERMA V easily.

※ This image is intended to help you understand, and there may be some differences in actual use.

1) Mandatory accessory:
PWFMDD200 (LG Wi-Fi Modem) / PWYREW000 (10 m extension connect cable in between THERMA V indoor and LG Wi-Fi Modem) could be required depending on installation conditions.
- Search "LG ThinQ" on Google Play or App Store, then download the app.
- Google assistant voice control may be restricted in use and language in some countries.
- Google and Google Home are trademarks of Google LLC.
- Voice-enabled smart speaker device is not included.

7. Sleek and Modern Design

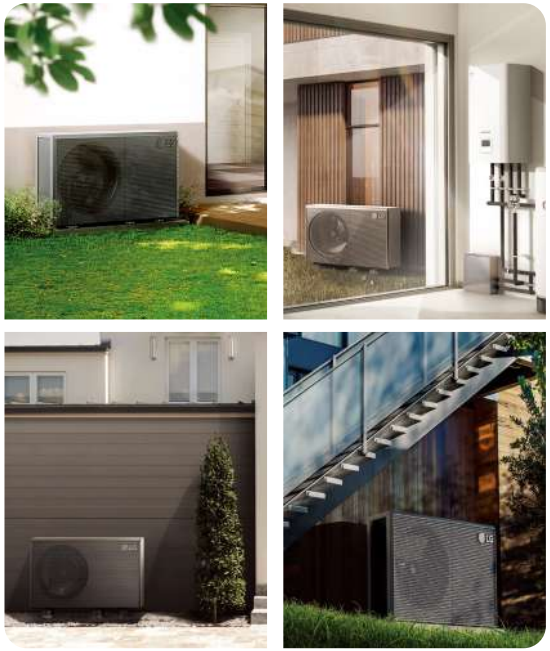
Enhance your space's aesthetic with our stylish and contemporary heat pump design.



Key Benefits

Enhance Your Home's Aesthetic

Refined black and grey design and a wavy grille will blend in well with any environment without compromising your home's aesthetics.



※ This image is intended to help you understand, and there may be some differences in actual use.

1) The unit is currently being developed and is scheduled for launch in November 2024.
2) The unit is currently being developed and is scheduled for launch in 2025.

8. Trust in Brand Reliability

Count on LG's proven track record of quality for peace of mind.

Life's Good.

Utmost Home Comfort

LG is a global leader in home appliances, committed to enhancing life and health. With our comprehensive range of smart lifestyle solutions, including home heating, LG understands the value of home and strives to provide optimized comfort in every way possible.

Excellence in Reliability

LG offers better experiences beyond high energy efficiency and LG has been recognized at numbers of various credible certification programs [1].

Key Benefits

Enhancing Your Home with Trusted Solutions

From home heating systems to integrated smart technologies, LG prioritizes your well-being and convenience. Choose LG for a seamless and better living experience, where comfort and peace of mind are guaranteed.

1) For detailed registration models, please refer to the link below.
- Keymark: https://keymark.eu/en/products/heatpumps/certified-products
- Eurovent: https://www.eurovent-certification.com/en/
- MCS: https://mcscertified.com/product-directory/
- EHPA: https://www.ehpa.org/quality/quality-label/
- Quite mark: https://www.quietmark.com/products/awarded-products/centralheating/heatpumps
- SG ready: https://www.waermepumpe.de/normen-technik/sg-ready/sg-ready-datenbank/

9. Quick Service and Maintenance

Benefit from timely service and maintenance, supporting your system runs smoothly year-round.

Approximately 400 Service Partner Companies [1] Throughout Europe

Example - Italy

1) Based on number of service partner company and the actual number of branches is more than this number.

Remote Monitoring Service by LG BECON cloud

- Management at a glance
- Energy monitoring
- Monitoring with visualized schematic
- Operation and error history
- Remote control via cloud
- Error notification by e-mail

Key Benefits

Enjoy Peace of Mind with Fast and Accurate Service

If an issue arises, installers receive an immediate email alert. Many problems can be resolved remotely, ensuring that one trip is often all it takes.

BECON cloud service

Fast Service | High Quality of Service | Convenient Remote Control

1. Remote error detection
2. Online check-up
3. Parts delivery
4. **1st visit (repair)**

- ☑ **Enjoy peace of mind**
- ☑ **Less constraints**

※ The availability of LG BECON cloud service varies depending on the country, and travel and service expenses may be charged.


LG