

**SOLUTIONS |**

**COLLECTIVE SOLUTIONS**

**MONOBLOC**

190 R32 Monobloc 51 kW

**CASCADE SOLUTION**

200 Cascade Control Unit



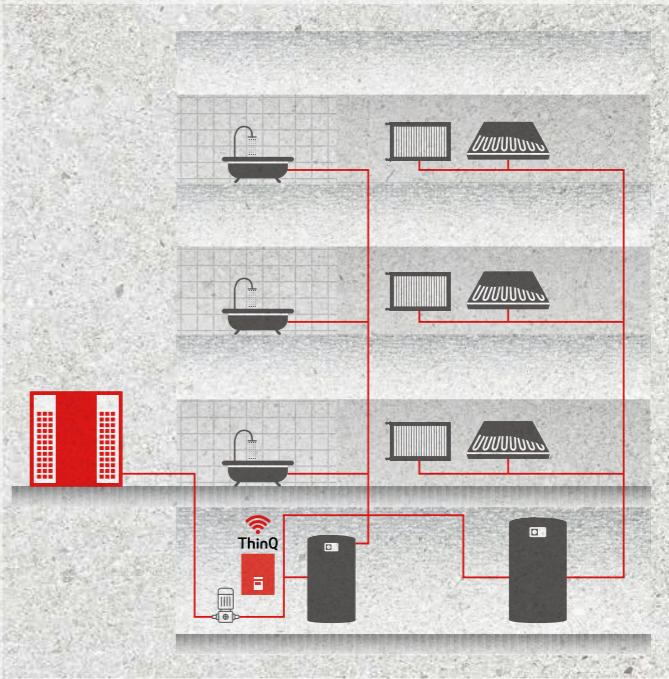


### Compact Yet Powerful

The innovative Collective Solution R32 Monobloc 51 kW delivers efficient performance for large residential spaces with easy installation and inherently safe operation. Compact and lightweight, yet with high capacity and high efficiency, it is ideal for multi-family homes and light commercials.

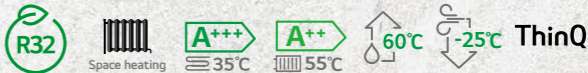
### What is R32 Monobloc 51 kW

The LG R32 Monobloc 51 kW is a large capacity heat pump that provides a collective central heating solution for multi-family houses or light commercial buildings. Ideal for locations that require reliable heating and cooling year-round, this air to water heat pump offers a versatile solution. Operating efficiently as a single system, it is well-suited for various commercial spaces including multi family house, office buildings, schools and universities.



### Key Features

- Fits to Multi-family homes (MFH) or light commercial buildings
- ErP Energy Labeling A++ / A++ for space heating (Average Climate 35°C / 55°C LWT)
- 100% Heating capacity at -10°C outdoor temperature
- Maximum flow temperature up to 60°C
- Operation range down to -25°C
- Compact size and light weight
- Easy installation with no refrigerant piping work
- Convenient wiring with Control Unit installed indoor
- Enhanced control connectivity aligned with THERMA V lineup



### Product Range

Description		Indoor Unit	Outdoor Unit
		Control Unit	
3 Ø	51 kW	PHCSL0 ENCXLEU	HM513MR UXC0

# HIGHLIGHT OF R32 MONOBLOC 51 kW

## Large Capacity THERMA V

### Just Simply Install a Large Capacity Heat Pump Instead of Multiple Small Heat Pumps

Installing a high-capacity heat pump system provides efficient and powerful heating while handling high thermal loads. The R32 Monobloc 51 kW ensures centralized heat production, simplify installation, and optimize space utilization. Perfect suitable solution for buildings with high & variable thermal loads (commercial, multi-residential, industrial).

- Well-suited large capacity heat pump for multi family house and various commercial spaces including office buildings, schools and universities
- Centralized solution for both new built and renovation projects
- No refrigerant work require (Plug and play concept)



**THERMA V**  **Monobloc 51 kW**

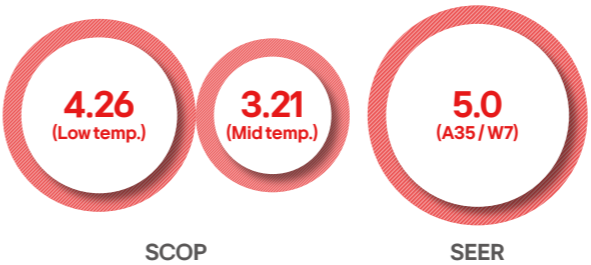


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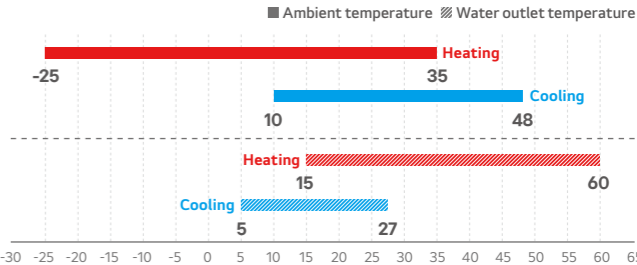
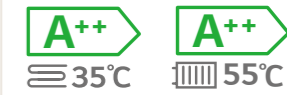
## Excellent Performance

### High Energy Efficiency

- High heating efficiency SCOP 4.26 / 3.21 (Low / Mid temp.)
- High cooling efficiency SEER 5.0 (A35 / W7)
- 100% Heating capacity at -10°C outdoor temperature



Achieving the highest ErP energy grade A++ / A++ for space heating



## Space Optimization

### Handy Installation with Small Size and Weight

- Light weight and small size, easy to install
- Ideal for buildings with limited space or where compact installation is required.



## Simplified and Centralized Solution

- Easy to design and manage the entire system, with fewer points of failure and simpler hydraulic and electrical connections.
- Easy and cost effective to monitor and maintain with only one unit



INTRODUCTION

INDIVIDUAL SOLUTIONS

COLLECTIVE SOLUTIONS

ACCESSORIES

THERMA V R32
MONOBLOC 51 kW

Outdoor unit

HM513MR UXCO

Indoor unit

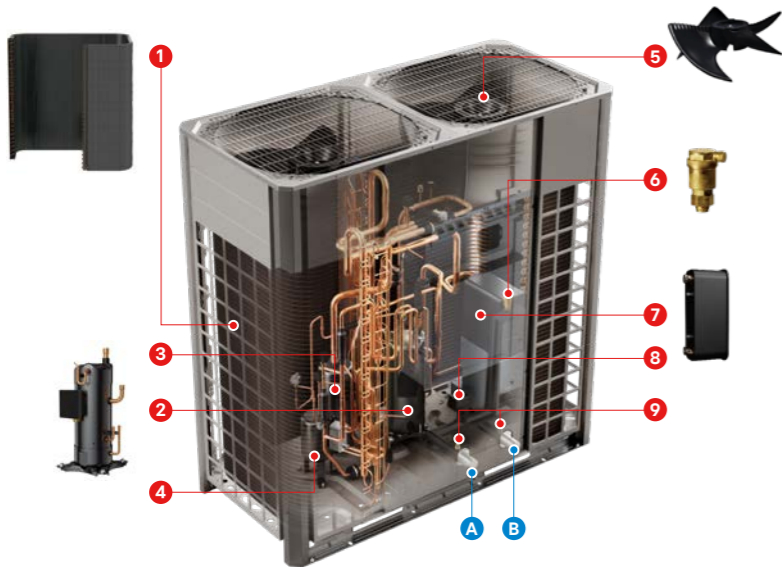
PHCSLO ENCXLEU



Energy efficiency and certification logos including Eurovent, A++ ratings, and ThinQ technology.

Key Components

Outdoor Unit



Components

- 1 Black Fin heat exchanger (air / ref.)
- 2 Compressor
- 3 Accumulator
- 4 Receiver
- 5 Biomimetic fan
- 6 Air vent
- 7 Plate heat exchanger
- 8 Flow Switch
- 9 Inlet / Outlet Temp. sensor

Connections

- A Leaving water pipe (male PT 1-1/2")
- B Entering water pipe (male PT 1-1/2")

Indoor Unit (Control Unit)



Components

- 1 Standard III remote controller

1) Temperature control class (ERP class) : V

Product Specification

Efficiency Data		Unit	51 kW (3 Ø)
Seasonal space heating eff. class (35°C / 55°C)		-	A++ / A++
Seasonal space heating efficiency (ηs) (35°C / 55°C)		%	167 / 125
SCOP (35°C / 55°C)		-	4.26 / 3.21
Sound power level	Rated / low noise mode (heating)	dB(A)	82 / 75
Sound pressure level at 10m	Rated / low noise mode (heating)	dB(A)	54 / 47
Nominal Capacity and COP/EER			
Air +7°C / water +35°C	Heating capacity / COP	kW / -	51.0 / 4.30
Air +2°C / water +35°C	Heating capacity / COP	kW / -	51.0 / 3.40
Air -7°C / water +35°C	Heating capacity / COP	kW / -	5.10 / 2.50
Air +7°C / water +55°C	Heating capacity / COP	kW / -	51.0 / 2.80
Air -7°C / water +55°C	Heating capacity / COP	kW / -	40.0 / 1.67
Air +35°C / water +18°C	Cooling capacity / EER	kW / -	51.0 / 4.50
Air +35°C / water +7°C	Cooling capacity / EER	kW / -	51.0 / 3.10
Outdoor Units		Unit	HM513MR UXCO
Operation range (outdoor air temperature)	Heating & DHW (Min. ~ Max.)	°C	-25 ~ 35
	Cooling (Min. ~ Max.)	°C	10 ~ 48
Refrigerant	Type	-	R32
	GWP	-	675
	Precharged amount	kg	10
Piping connections (water)	Inlet / outlet diameter	inch	Male PT 1-1/2" according to ISO 7-1 (tapered pipe threads)
Plate heat exchanger	Rated water flow rate	LPM	146
	Minimum flow rate (flow switch trigger point)	LPM	100
Dimension	H x W x D	mm	1,690 x 1,640 x 825
Weight	Net	kg	335
Exterior	Color of chassis / RAL code	-	Morning gray & dawn gray / RAL 7038 & RAL 7037
Power supply	Voltage, phase, frequency	V, Ø, Hz	380 ~ 415, 3, 50
	Standby power consumption	W	20
	Recommended circuit breaker	A	50
Indoor Units		Unit	PHCSLO ENCXLEU
Operation range (leaving water temperature)	Heating (Min. ~ Max.)	°C	25 ~ 60 (65) <sup>7)</sup>
	Cooling (Min. ~ Max.)	°C	5 ~ 27
	DHW (Min. ~ Max.)	°C	25 ~ 80
Dimension	H x W x D	mm	490 x 420 x 141
Weight	Net	kg	6.8
Exterior	Color / RAL code	-	Essence white / RAL 9003
Power supply	Voltage, phase, frequency	V, Ø, Hz	220 ~ 240, 1, 50
	Recommended circuit breaker	A	10

Note
1. Due to our policy of innovation, some specifications may be changed without notification.
2. Wiring cable size must comply with the applicable local and national codes. Especially the power cable and circuit breaker should be selected in accordance with that.
3. Sound power level is measured on the rated condition in accordance with EN 12102-1 and ISO 9614. Sound pressure level is not a value declared on Eurovent Program and is converted from sound power level based on a tonality penalty of 0 dB and installation in free-field. The directivity index (Q) is assumed as 2. Therefore, these values can be increased owing to ambient conditions during operation. Rated sound power level is in accordance with EN12102-1 under condition of EN14825.
4. Performances are in accordance with EN14511 and reflect ErP testing conditions. Above gives the declared values at rated conditions according to ErP regulation.
5. This product contains fluorinated greenhouse gases.
6. All installation sites must be equipped with an earth leakage circuit breaker (ELCB).
7. The leaving water temperature of 65°C is possible only when a backup heater is installed.
8. DHW 55-80°C Operating is available only when the booster heater is operating.

# THERMA V R32

## MONOBLOC 51 kW

### Performance Table for Heating Operation

Maximum heating capacity (including defrost effect)

#### HM513MR UXC0

Outdoor Temp. [°C DB]	LWT 30 °C	LWT 35 °C	LWT 40 °C	LWT 45 °C	LWT 50 °C	LWT 55 °C	LWT 60 °C
	Capacity (kW)						
-25	30.3	29.3	25.3	19.2	-	-	-
-22	34.0	32.0	27.0	23.0	-	-	-
-20	37.1	36.8	35.3	32.8	29.6	-	-
-17	43.2	42.5	41.8	40.6	39.0	-	-
-15	47.3	46.4	46.1	45.8	45.3	40.0	-
-12	49.5	49.2	47.9	47.8	46.3	41.9	-
-10	51.0	51.0	49.2	49.1	47.0	43.1	36.0
-7	51.0	51.0	51.0	51.0	48.0	45.0	42.0
-2	51.0	51.0	51.0	51.0	51.0	51.0	47.5
2	51.0	51.0	51.0	51.0	51.0	51.0	51.0
7	51.0	51.0	51.0	51.0	51.0	51.0	51.0
10	51.0	51.0	51.0	51.0	51.0	51.0	51.0
15	51.0	51.0	51.0	51.0	51.0	51.0	51.0
20	51.0	51.0	51.0	51.0	51.0	51.0	51.0
25	51.0	51.0	51.0	51.0	51.0	51.0	51.0
30	-	51.0	51.0	51.0	51.0	51.0	51.0
35	-	-	51.0	51.0	51.0	51.0	51.0

Note

1. DB : Dry Bulb Temperature (°C), LWT : Leaving Water Temperature (°C), LPM : Liters Per Minute (ℓ/min), TC : Total Capacity (kW)

2. Direct interpolation is permissible. Do not extrapolate.

3. Measuring procedure follows EN-14511.

- Rated values are based on standard conditions and it can be found on specifications.
- Above table values may not be matched according to installation condition. Except for rated value, the performance is not guaranteed.
- In accordance with the test standard (or nations), the rating will vary slightly.

4. The shaded areas are not guaranteed continuous operation.

### Performance Table for Cooling Operation

Maximum cooling capacity

#### HM513MR UXC0

Outdoor Temp. [°C DB]	LWT 5 °C	LWT 7 °C	LWT 10 °C	LWT 13 °C	LWT 15 °C	LWT 18 °C	LWT 20 °C	LWT 22 °C	LWT 27 °C
	Capacity (kW)								
10	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
20	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
30	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
35	48.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0
40	46.5	48.8	51.0	51.0	51.0	51.0	51.0	51.0	51.0
45	44.0	48.5	50.5	51.0	51.0	51.0	51.0	51.0	51.0
48	42.5	43.8	45.8	48.3	51.0	51.0	51.0	51.0	51.0

Note

1. DB : Dry Bulb Temperature (°C), LWT : Leaving Water Temperature (°C), LPM : Liters Per Minute (ℓ/min), TC : Total Capacity (kW)

2. Direct interpolation is permissible. Do not extrapolate.

3. Measuring procedure follows EN-14511.

- Rated values are based on standard conditions and it can be found on specifications.
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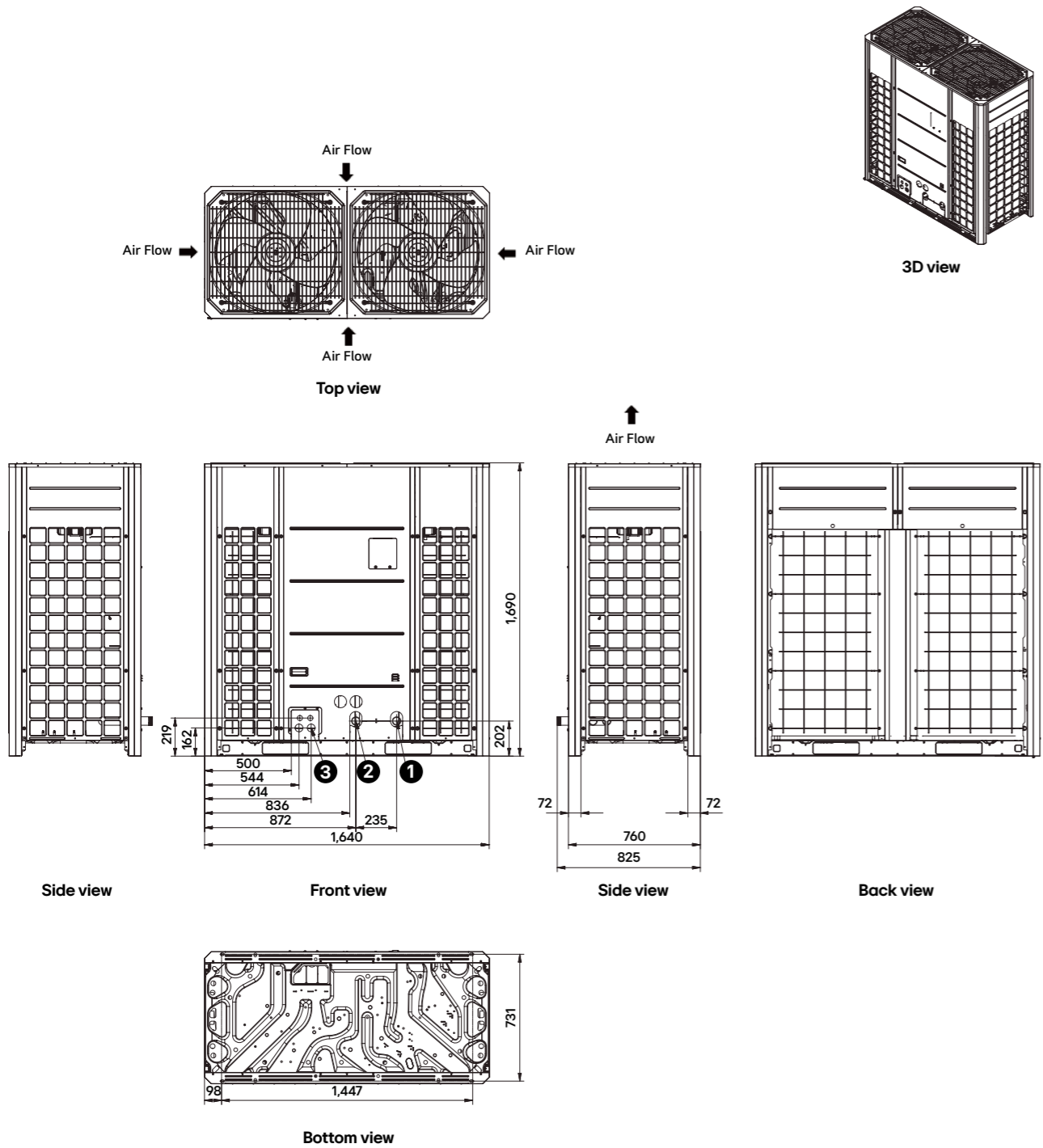
4. The shaded areas are not guaranteed continuous operation.

# THERMA V R32 MONOBLOC 51 kW

## Drawings

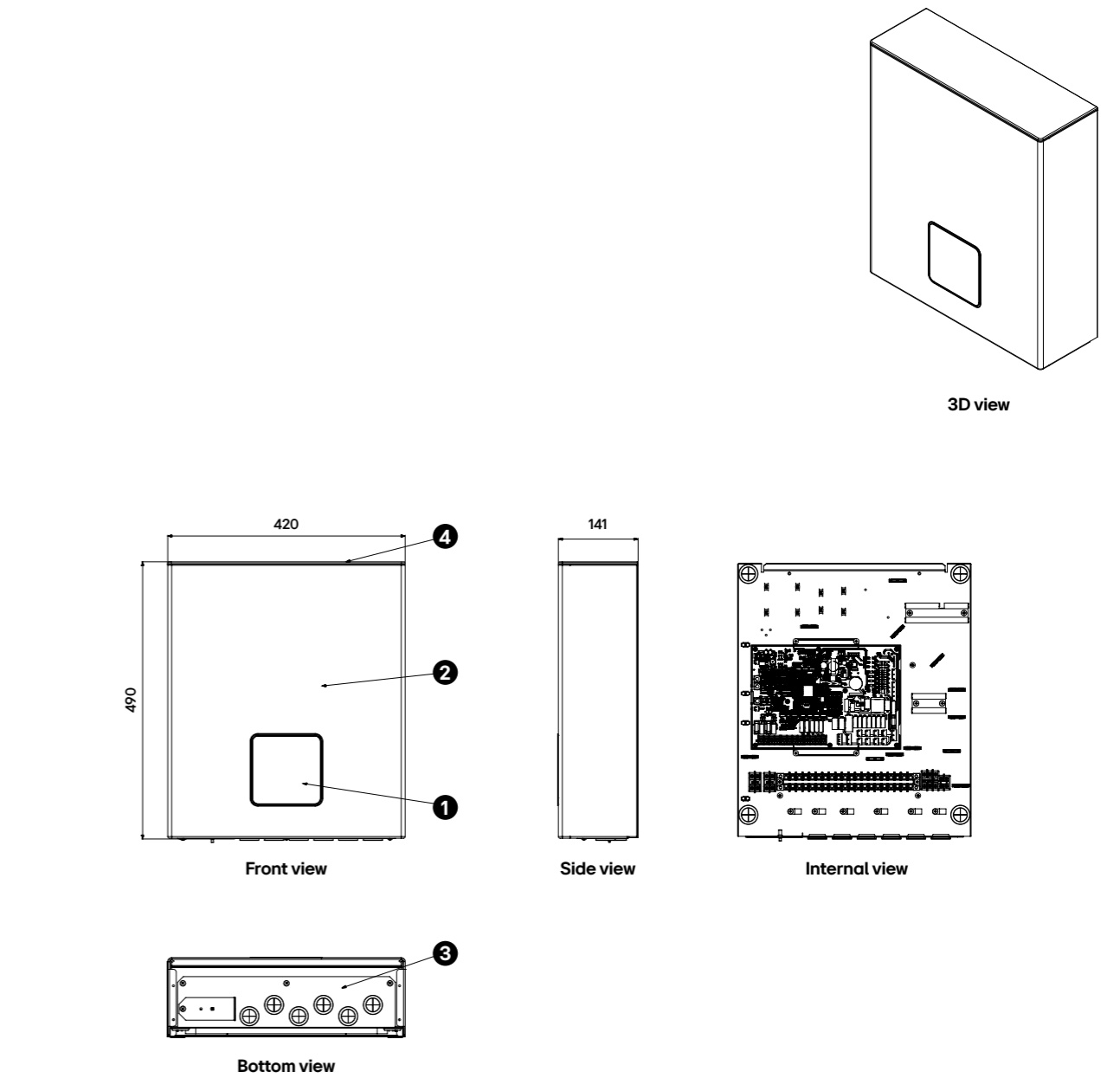
[Unit: mm]

HM513MR UXC0



No.	Part Name	Description
1	Entering Water Pipe	Male PT 1-1/2" according to ISO 7-1 (Tapered pipe threads)
2	Leaving Water Pipe	Male PT 1-1/2" according to ISO 7-1 (Tapered pipe threads)
3	Access to Electrical Terminals	Power, Communication cables

PHCSL0 ENCXLEU



No.	Part Name	Description
1	Remote Controller Assembly	Built-in Remote Controller
2	Panel Assembly,Front	SGMCD1 M08 ESSENCE WHITE PCM
3	Panel Assembly,Indoor	PCB and Terminal Blocks
4	Cover	MOLD ABS