parkair
invisible comfort

TECHNICAL DATA SHEET

MCW 2.0 - MONOSPLIT

HEAT PUMP WITHOUT OUTDOOR UNIT

WATER / AIR SYSTEM

THE ART OF INVISIBLE COMFORT

Technical Data Sheet – MCW 2.0 Monosplit – Rev. 01 – [03-06-2026]

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DESCRIPTION

HEAT PUMP WITHOUT OUTDOOR UNIT MCW 2.0 MONOSPLIT

Air/water monosplit heat pump without an outdoor unit and without holes in the facade, water/air system. The unit requires no openings in the perimeter wall and no installation of components on the facade, ensuring full compliance with urban and condominium regulations and the complete invisibility of the system from the outside.

The MCW 2.0 Monosplit range is the most technologically advanced solution in the world of invisible air conditioning without an outdoor unit: a compact water/air monosplit heat pump, designed to ensure maximum quietness, reduced water consumption and compact dimensions, with energy efficiency class A+++/A++.

The unit can be installed in a false ceiling, under the stairs, built into a bathroom or kitchen cabinet, and in a technical room, making it suitable for residential, commercial, tertiary, hospitality and server room applications. The absence of an outdoor unit and holes in the facade also makes it suitable for all those contexts where architectural, urban or condominium restrictions prevent the installation of a traditional split system.

The system adopts Full Inverter technology combining DC Inverter + H2O Inverter: the Panasonic DC Inverter compressor allows continuous modulation of cooling and heating capacity, while the electronic modulating valve precisely regulates water consumption and the automatic control of all operating functions. The refrigerant gas used is R32. The available operating modes are cooling, heating, dehumidification and ventilation.

The unit consists of:

- load-bearing structure of high thickness with internal thermo-acoustic insulation.
- casing in painted galvanised steel sheet, dark grey colour.
- high-efficiency water/gas heat exchanger.
- high-efficiency internal heat exchange coil.
- high-efficiency Panasonic DC Inverter compressor with R32 refrigerant gas
- fan unit with continuously modulating DC Inverter motor, mounted on anti-vibration supports.
- electronic expansion valve for continuous modulation of water flow rate (H2O Inverter system).
- condensate collection tray with integrated drain.
- integrated Wi-Fi module for remote control via app available on Apple Store and Google Store

The unit can be combined with five types of indoor ventilation units:

- wall-mounted Inverter R32 (WI-S series)
- low-pressure ducted Inverter R32 for horizontal false ceiling (DI-E series)
- medium-pressure ducted Inverter R32 for horizontal and vertical false ceiling (VDI-E series)
- 4-way cassette Inverter R32 for ceiling and false ceiling (KI-E series)
- floor-mounted Inverter R32 (FI-E series)

Features

Cooling, Heating, Ventilation and Dehumidification

Main features

- Installation without outdoor unit and without holes in the facade
- Full Inverter System DC Inverter + H2O Inverter
- Panasonic DC Inverter Compressor
- Electronic expansion valve
- Electronic modulating valve for continuous water consumption control
- R32 Refrigerant Gas
- Energy efficiency class A+++/A++
- Single-phase power supply
- Operating modes: cooling, heating, dehumidification, ventilation
- Compliant with urban and condominium regulations
- Wi-Fi connection

Main accessories:

- Anti-vibration feet for bracket mounting - Kit of 4 spring feet - for MCW / ACW Multisplit range - VIBROSTOP-HARD 370091
- Pressure gauge 0-6 Bar to be used with Pressure Reducer - M-H2O 6 BAR
- Water pressure reducer 1/2" FF - RID-H2O-1/2
- 4 anti-vibration feet for bracket mounting and for Monosplit models - VIBROSTOP-SOFT

ENERGY LABELS

Energy consumption representation for each machine model.

MCW 2.0 - MONOSPLIT	
PRK-1MCW-09	A +++ / A ++
PRK-1MCW-12	A +++ / A ++
PRK-1MCW-18	A +++ / A ++
PRK-1MCW-24	A +++ / A ++

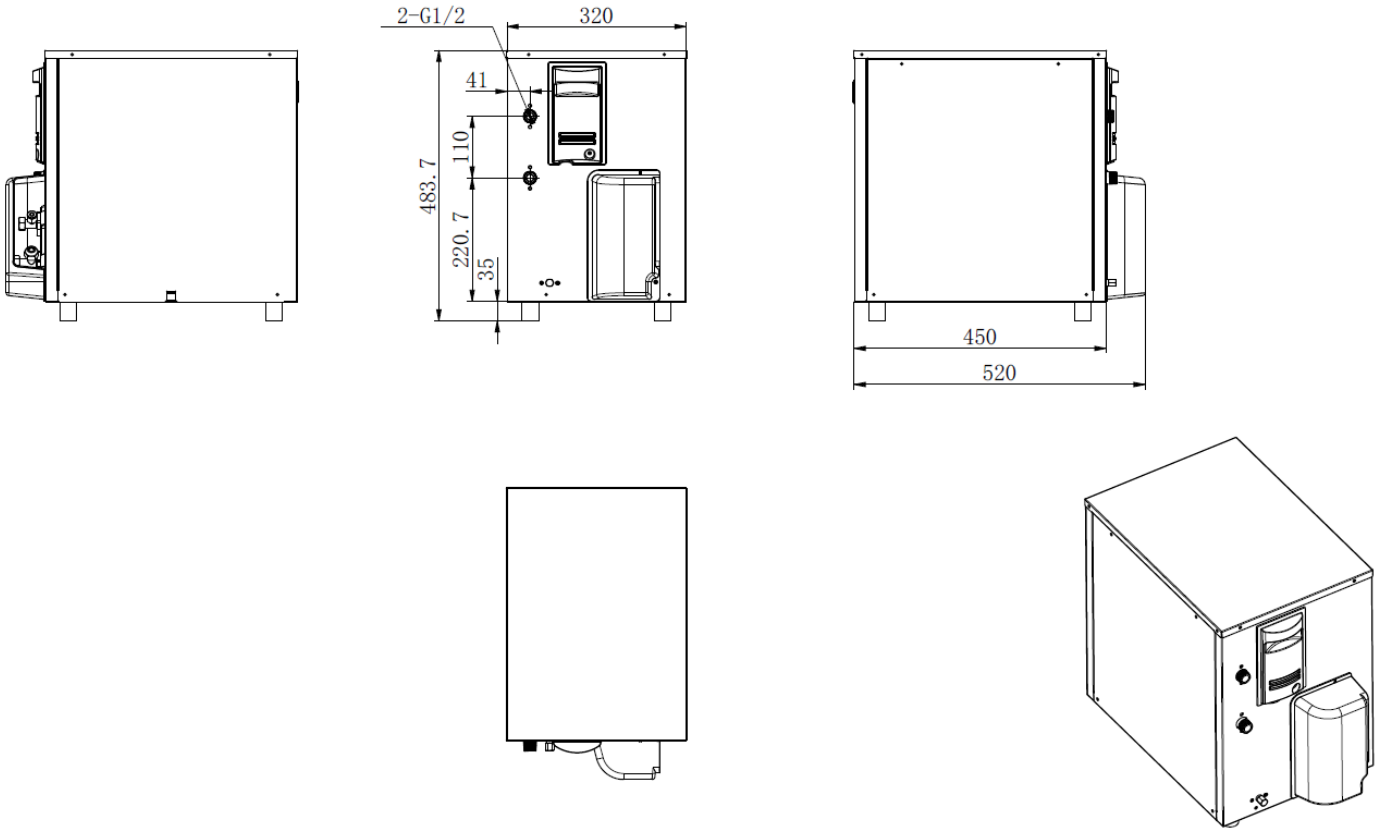
TECHNICAL DATA

Description	Unit	PRK-1MCW-9	PRK-1MCW-12	PRK-1MCW-18	PRK-1MCW-24
Model	-	PRK-1MCW-9	PRK-1MCW-12	PRK-1MCW-18	PRK-1MCW-24
Code	-	114500	114505	114510	114515
CAPACITIES AND PERFORMANCE					
Cooling Capacity	kW	2,60 (1,2~3,3)	3,50 (1,5~4,1)	5,20 (2,1~5,9)	7,32 (2,3~7,8)
Heating Capacity	kW	2,80 (1,2~3,2)	3,85 (1,5~3,9)	5,89 (2,55~5,95)	8,08 (2,3~8,2)
EER	W/W	4,40	4,27	4,33	4,18
COP	W/W	4,47	4,48	4,53	4,49
SEER	-	4,47	4,47	4,47	4,47
SCOOP	-	4,48	4,48	4,48	4,48
Energy Class	-	A+++ / A++	A+++ / A++	A+++ / A++	A+++ / A++
Water Flow Rate in Cooling (Min / Max) *	l/h	65 / 135	65 / 135	75 / 180	75 / 270
Water Flow Rate in Heating (Min / Max) *	l/h	85 / 170	85 / 170	90 / 300	90 / 450
Max. Water Temperature in Cooling	°C	≤ 30	≤ 30	≤ 30	≤ 30
Min. Water Temperature in Heating	°C	≥ 10	≥ 10	≥ 10	≥ 10
Water Pressure (Min / Max)	bar	0,8 / 4,0	0,8 / 4,0	0,8 / 4,0	0,8 / 4,0
Hydraulic Connections	inch	1/2"	1/2"	1/2"	1/2"
Power Supply	V/Hz/ph	220~240 / 50 / 1	220~240 / 50 / 1	220~240 / 50 / 1	220~240 / 50 / 1
Fuse Current	A	10	10	16	25
Cooling Power Input	kW	0,59 (0,25~1,25)	0,82 (0,28~1,31)	1,20 (0,36~1,79)	1,75 (0,65~2,10)
Heating Power Input	kW	0,62 (0,24~1,18)	0,86 (0,29~1,22)	1,30 (0,35~1,82)	1,80 (0,65~2,10)
Compressor Power Input	W	795	795	1260	1645
Nominal Compressor Current (RLA)	A	2,8	2,8	6,7	7,5
Locked Rotor Current (LRA)	A	25	25	23	25
REFRIGERANT CIRCUIT					
Refrigerant	-	R32	R32	R32	R32
Refrigerant Charge	kg	0,70	0,75	1,00	1,10
Not Additional Gas Connection Pipe Length	mt	7,5	7,5	10	10
Connection Pipe Gas Additional Charge	g/m	16	22	22	22
Refrigerant Connections (SAE)	inch	1/4" - 3/8"	1/4" - 3/8"	1/4" - 1/2"	1/4" - 5/8"
Connection Pipe Max. Height Distance	mt	5	5	5	5
Maximum Pipe Line Length	mt	15	15	20	30
ACOUSTICS					
Sound Pressure Level (at 1 m in open field)	dB(A)	40	41	42	42
Sound Power Level	dB(A)	50	51	52	52
DIMENSIONS AND WEIGHT					
Unit Dimension (LxDxH)	mm	450x325x480	450x325x480	460x420x480	460x420x480
Net Weight	kg	29,5	30	35,5	35,5

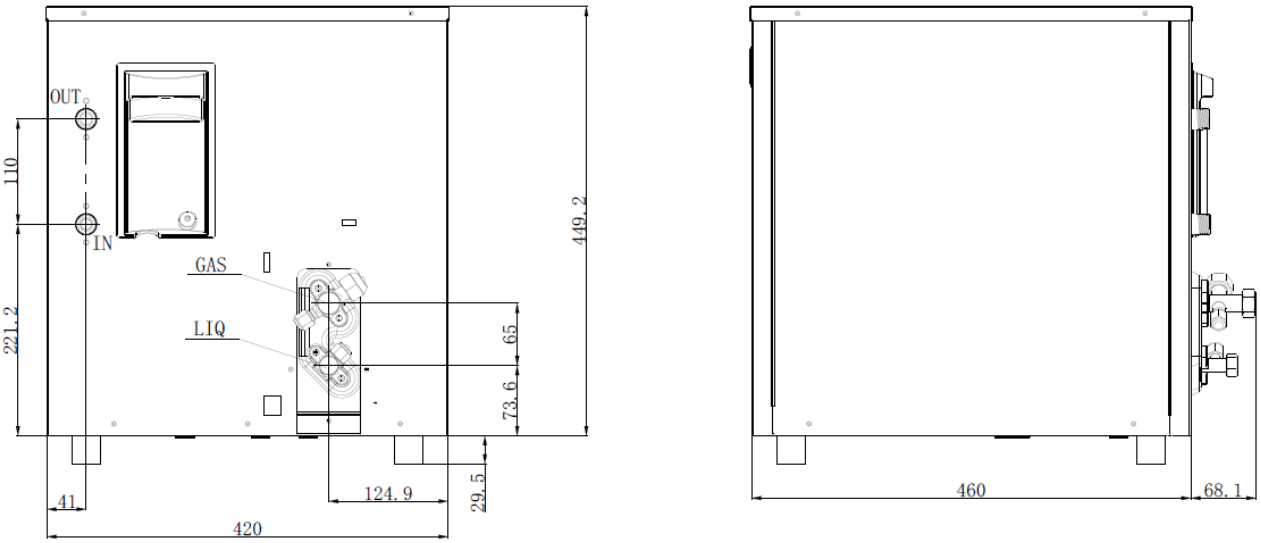
*Performance figures given in the technical data refer to the following conditions: Indoor unit test conditions: Cooling: indoor 27°C B.S. Heating: indoor 20°C B.S. COP: 100% capacity at 15°C inlet / 30°C outlet; EER: 100% capacity at 10°C inlet / 7°C outlet. Water flow rate with mains water at the following temperatures: Summer 15°C inlet / 40°C outlet; Winter 15°C inlet / 4°C outlet. The sound pressure level is measured at a distance of 1 metre from the external surface of the unit operating in an open area. Please note: if the inlet water temperature is below 10°C, thermal performance may vary.

DIMENSIONAL AND EXPLODED VIEWS

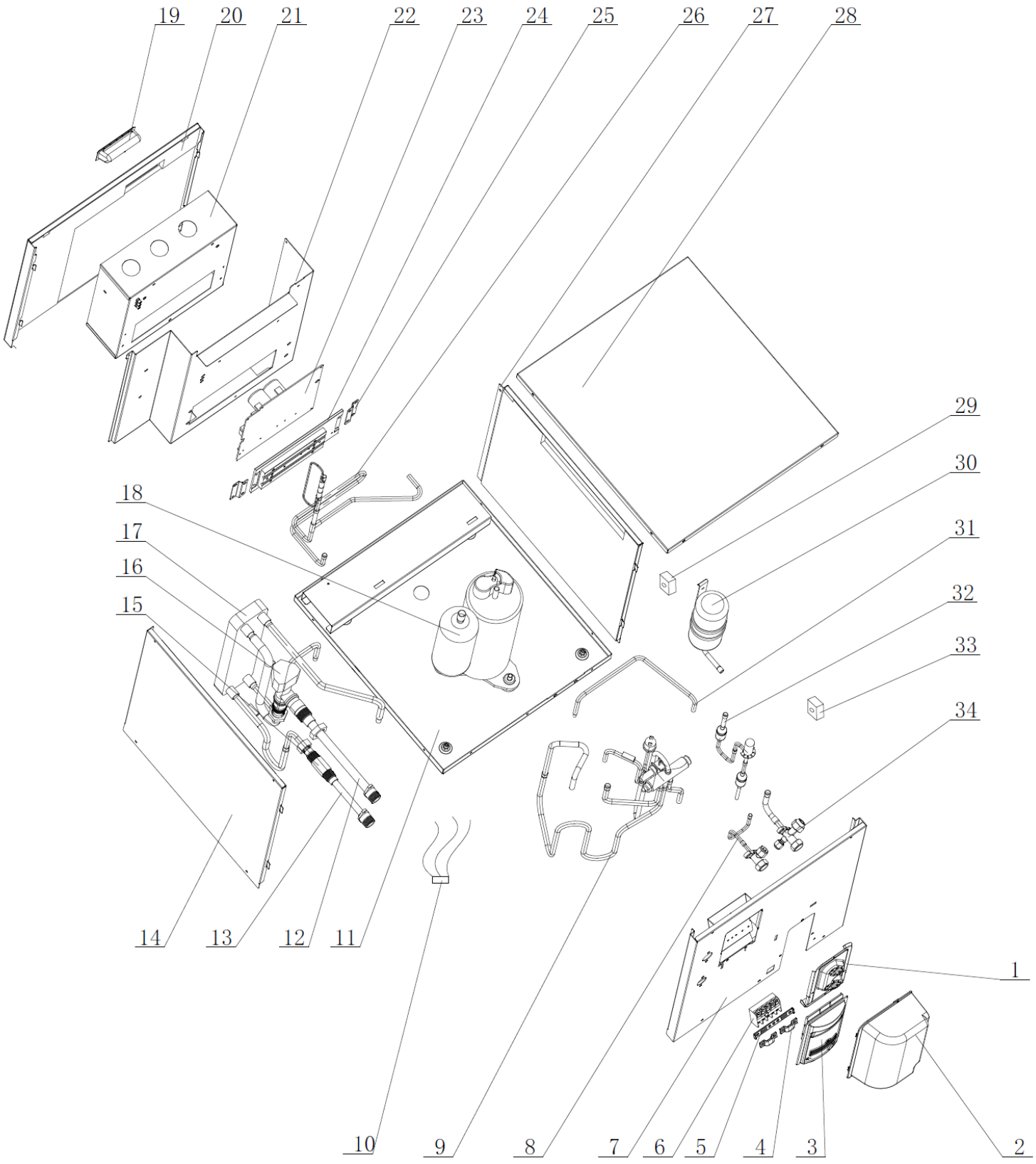
Dimensional drawing of PRK-1MCW-9 and PRK-1MCW-12



Drawing of hydraulic and refrigeration connections for PRK-1MCW-9 and PRK-1MCW-12



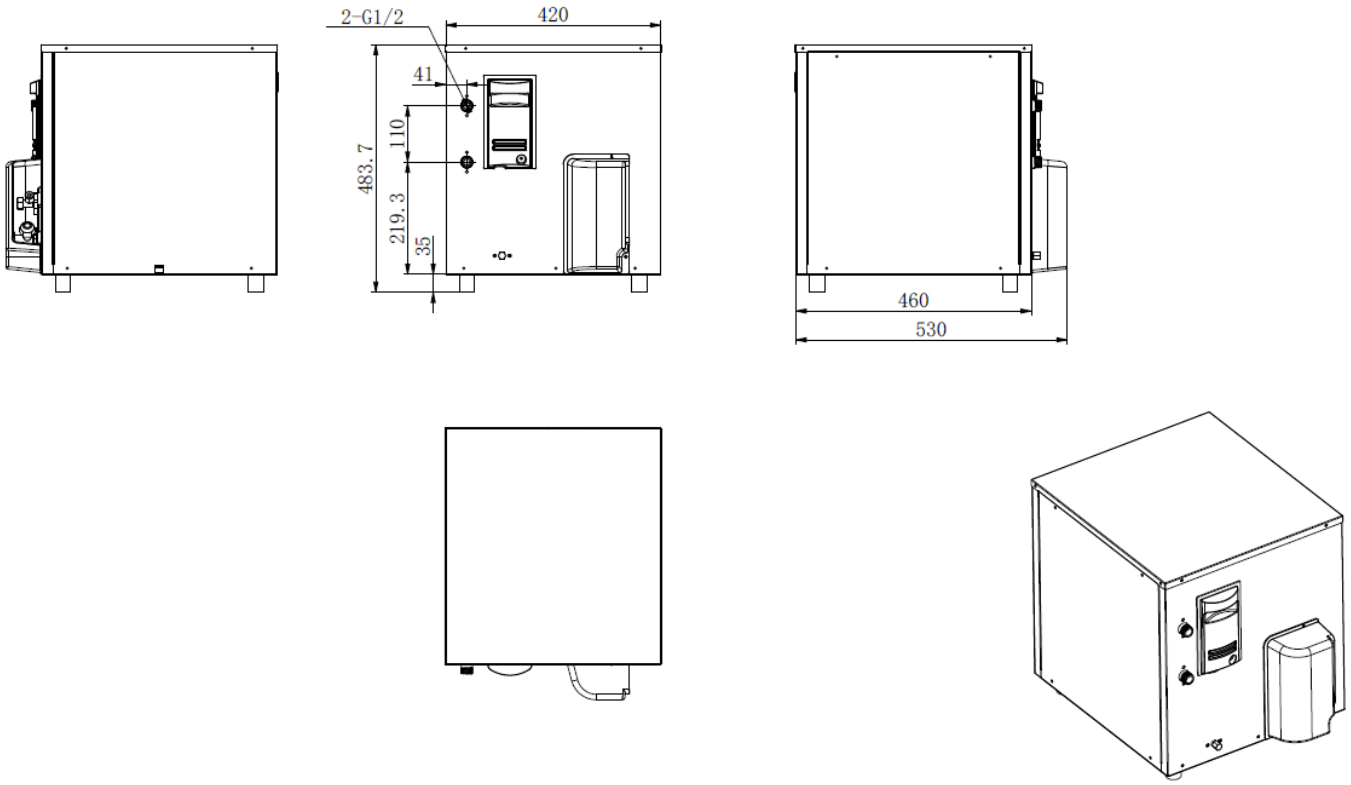
Exploded view of the PRK-1MCW-9 and PRK-1MCW-12



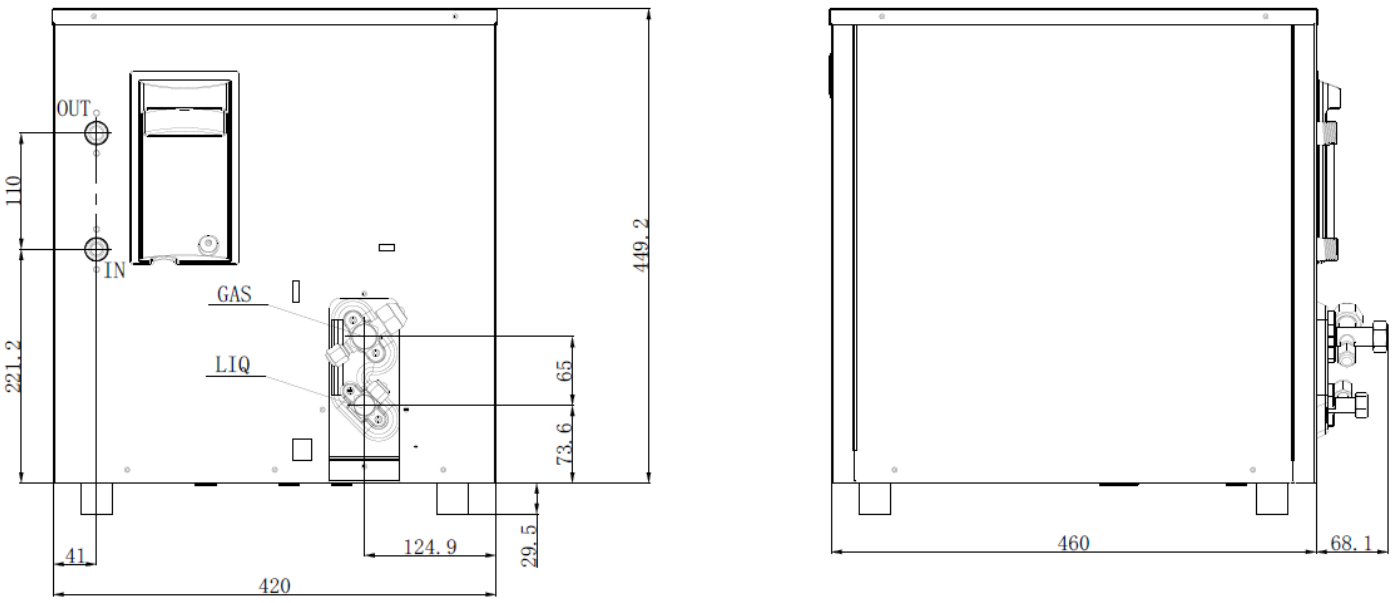
Components legend

No.	Description	Qty
1	Valve support	1
2	Valve cover	1
3	Big handle	1
4	Wire fix clamp	2
5	Insulation gasket	1
6	Wiring board (5 unit)	1
7	Right side panel subassembly	1
8	Liquid valve subassembly	1
9	4-way-valve assembly	1
10	Temp. sensor	1
11	Chassis subassembly	1
12	Water outlet pipe subassembly	1
13	Water inlet pipe subassembly	1
14	Rear panel subassembly	1
15	Water switch	1
16	Electric porportional pater palve	1
17	Heat exchange board subassembly	1
18	Compressor and accessory	1
19	Small handle	1
20	Left side panel subassembly	1
21	Electrical box subassembly	1
22	Electrical box supporter	1
23	Main board	1
24	Small handle	1
25	Installation sheet(Radiator)	2
26	Radiator	1
27	Connection pipe subassembly(Radiator)	1
28	Front panel subassembly	1
29	4-way-valve coil	1
30	High pressure reservoir	1
31	Connection pipe	1
32	Electronic expansion valve assembly	1
33	Electronic expansion valve coil	1
34	Gas valve assembly	1

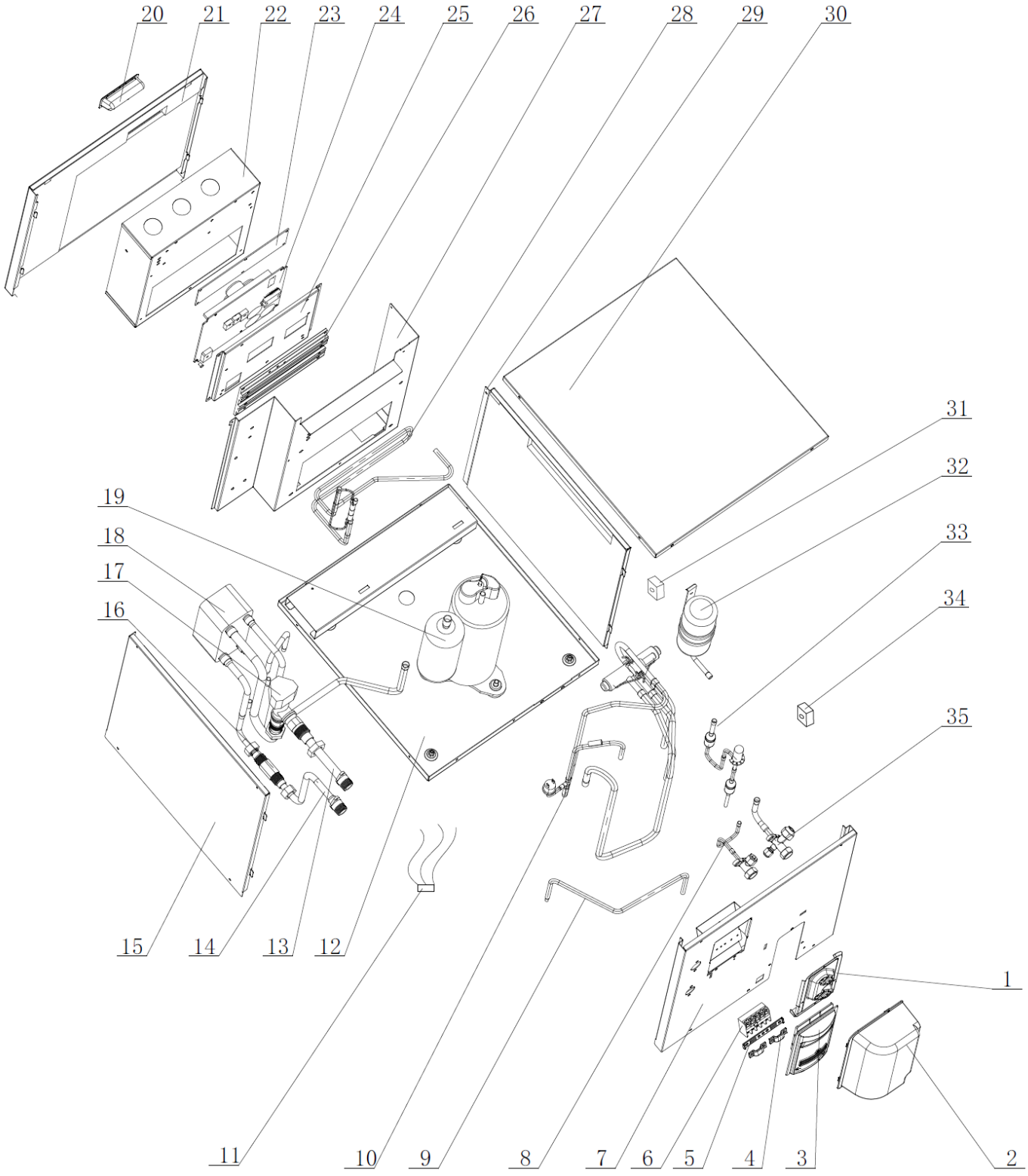
Dimensional drawing for PRK-1MCW-18 and PRK-1MCW-24



Drawing of hydraulic and refrigeration fittings PRK-1MCW-18 and PRK-1MCW-24



Exploded view of the PRK-1MCW-18 and PRK-1MCW-24



Components legend

No.	Description	Qty
1	Valve support	1
2	Valve cover	1
3	Big handle	1
4	Wire fix clamp	2
5	Insulation gasket	1
6	Wiring board (5 unit)	1
7	Right side panel subassembly	1
8	Liquid valve subassembly	1
9	Connection pipe	1
10	4-way-valve assembly	1
11	Temp. sensor	1
12	Chassis subassembly	1
13	Water outlet pipe subassembly	1
14	Water inlet pipe subassembly	1
15	Rear panel subassembly	1
16	Water switch	1
17	Electric porportional pater palve	1
18	Heat exchange board subassembly	1
19	Compressor and accessory	1
20	Small handle	1
21	Left side panel subassembly	1
22	Electrical box subassembly	1
23	Main board	1
24	Drive board	1
25	Installation sheet(Radiator)	1
26	Radiator	1
27	Electrical box supporter	1
28	Connection pipe subassembly(Radiator)	1
29	Front panel subassembly	1
30	Top cover subassembly	1
31	4-way-valve coil	1
32	High pressure reservoir	1
33	Electronic expansion valve assembly	1
34	Electronic expansion valve coil	1
35	Gas valve assembly	1