



# MONOBLOC R32

Air-to-water heat pump

## OUTDOOR UNITS



5.00 kW	6.00 kW	8.00 kW
1-Phase	1-Phase	1-Phase
<a href="#">MCWNGS 402 Z</a>	<a href="#">MCWNGS 602 Z</a>	<a href="#">MCWNGS 802 Z</a>



10.20 kW	12.00 kW	14.20 kW	15.70 kW
1-Phase	1-Phase	1-Phase	1-Phase
<a href="#">MCWNGS 1002 Z</a>	<a href="#">MCWNGS 1202 Z</a>	<a href="#">MCWNGS 1402 Z</a>	<a href="#">MCWNGS 1602 Z</a>

10.20 kW	12.00 kW	14.20 kW	15.70 kW
3-Phase	3-Phase	3-Phase	3-Phase
<a href="#">MCWSGS 1002 Z</a>	<a href="#">MCWSGS 1202 Z</a>	<a href="#">MCWSGS 1402 Z</a>	<a href="#">MCWSGS 1602 Z</a>

# AIR-TO-WATER HEAT PUMP MONOBLOC R32

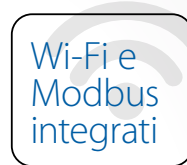
MONOBLOC by MULTIWARM is the reliable and advantageous solution for heating, cooling and producing DHW in micro-condominiums, single homes and apartments.

The latest generation Full DC Inverter technology guarantees top-of-the-class performance and energy savings, with the added guarantee of the MULTIWARM brand.

**65°** Delivery temperature, without integrations



Management via EWPE Smart app



**SMART GRID**  
Reading the trend of the electricity grid, energy savings guaranteed

## Heating via radiant floors, fan coils, radiators

Thanks to MULTIWARM's MONOBLOC it is possible to heat all rooms, powering low-temperature hydronic terminals such as radiant floors, and medium-temperature ones, such as fan-coils and high-efficiency radiators.

## Main operating modes

- > Cooling, heating, DHW production.
- > Cooling + DHW production (with selectable priority).
- > Heating + DHW production (with selectable priority).
- > DHW production.

## Project climate zones for heating

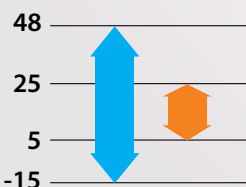
Outside design temp.	Max delivery temp.	Climate zones
+10°C	65°C	WARMER
+5°C	62°C	
+2°C	60°C	
0°	59°C	AVERAGE
-5°C	56°C	
-10°C	53°C	
-15°C	50°C	COLDER
-20°C	47°C	
-25°C	44°C	

## MONOBLOC is the R32 heat pump that operates in the following modes:

### COOLING MODE

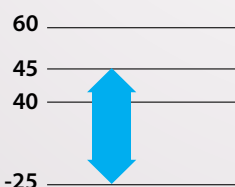
from -15°C to 48°C

from 5°C to 25°C (delivery temp.)



### DHW PRODUCTION

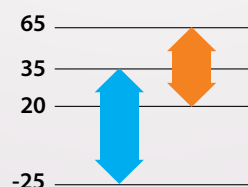
from -25°C to 45°C



### HEATING MODE

from -25°C to 35°C

from 20°C to 65°C (delivery temp.)



### Legend



Outdoor air temperature



Water temperature

# MONOBLOC R32

## Product benefits



### SILENT MODE

*Silent* mode operation reduces the noise of the heat pump compressor and fan.



### CONNECTION WITH OTHER HEAT SOURCES

If the outdoor temperature is lower than the set-point, the external heat source will start operating.



### CLIMATE CURVE

Automatically adjusts the water flow temperature and the room temperature based on the outdoor temperature.



### EMERGENCY MODE

In the event of a heat pump malfunction, the auxiliary electrical resistors are activated.



### ANTI-LEGIONELLA CYCLES

Increase the water temperature up to 70°C using the electric resistance in the DHW storage tank, thus eliminating legionella bacteria and sterilizing the water.

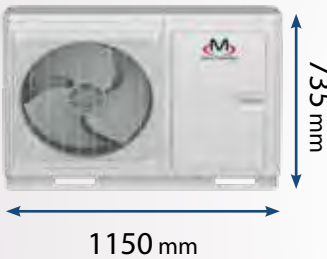


### WEEKLY TIMER

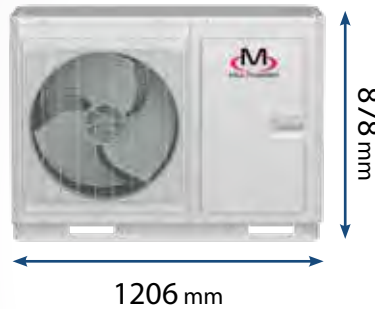
Possibility to set up to three daily operating programs (both in heating and cooling).

## Compact dimensions

5.00~8.00 kW



10.20~15.70 kW



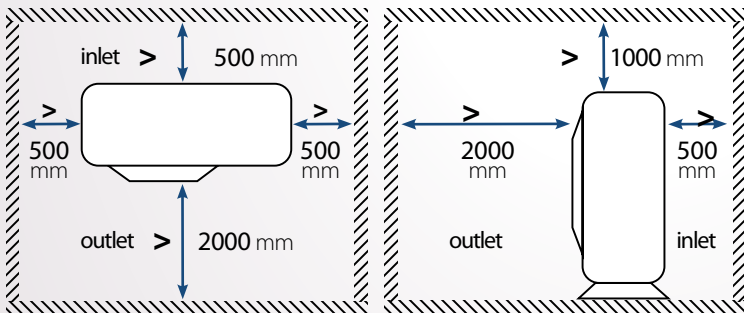
## Aluminum fins with anti-corrosion coating (Gold Fin)

Gold Fin

The fin coating lasts over time and ensures greater resistance to salt corrosion.



## Ease of installation



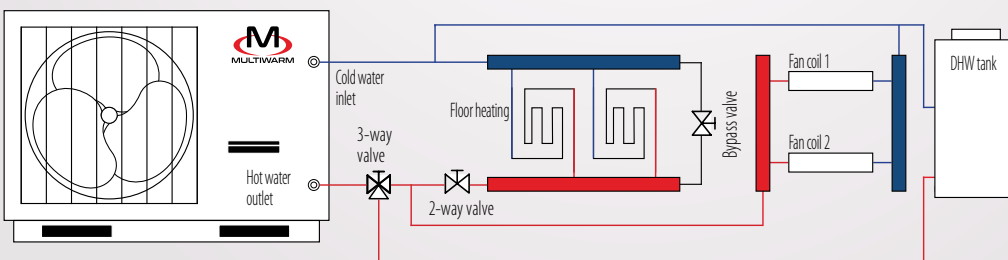
It is not necessary to make any connection to the refrigeration circuit, the hydraulic connections are sufficient.

## DMC-HP-Z control

Group control, connect up to four R32 Monobloc or Split Series units, even combined together. Main functions:

- > Silent mode;
- > fast hot water;
- > Holiday mode;
- > Climate;
- > Child lock;
- > anti-legionella programming via electrical resistance in the tank;
- > Error reset;
- > Weekly timer.

## System diagram



# OUTDOOR UNITS



**MCWNGS 402 - 602 - 802 Z**  
1-Phase

## ENERGY CLASS

**A+++**  
In heating mode with **35°C**  
delivery water temperature.

**A++**  
In heating mode with **55°C**  
delivery water temperature.

Model				MCWNGS 402 Z	MCWNGS 602 Z	MCWNGS 802 Z	
Heating	Rated power	A7//W35	kW	5.00	6.00	8.00	
	Electrical absorption			0.93	1.11	1.63	
	Performance coefficient			5.40	5.40	4.90	
	Rated power	A7//W45	kW	4.90	6.80	8.00	
	Electrical absorption			1.17	1.66	2.11	
	Performance coefficient			4.20	4.10	3.80	
Cooling	Rated power	A35//W18	kW	5.00	6.50	8.00	
	Electrical absorption			0.96	1.27	1.65	
	Energy efficiency			5.20	5.10	4.85	
	Rated power	A35//W7	kW	4.90	5.70	7.20	
	Electrical absorption			1.40	1.75	2.25	
	Energy efficiency			3.50	3.25	3.20	
Seasonal heating data	Prated @ -10°C	35/55	kW	5/5	6/5	7/7	
	Seasonal performance coefficient		SCOP	4.88/3.50	5.05/3.50	4.68/3.70	
	Seasonal energy efficiency (ηs)		%	192/137	199/137	184/145	
	Energy efficiency class		-	A+++/A+++	A+++/A+++	A+++/A+++	
	Annual energy consumption		kWh/y	2306/2882	2386/2882	2979/3996	
Operating range	Outdoor air temperature	Heating	°C	-15~48		10~48	
		Cooling					
	Delivery water temperature	Heating		-25~35			
		Cooling		-25~45			
Refrigerant circuit data	Refrigerant <sup>1</sup>	Type (GWP)	R32 (675)				
	Quantity (tons CO2)	kg (t)	0.95 (0.641)		1.23 (0.830)		
	Control system	Electronic expansion valve					
	Compressor	Type	Rotary - DC Inverter				
Hydraulic data	Heat exchanger	Type	With brazed stainless steel plates				
		Flow rate	m³/h	0.7	1.1	1.4	
	Circulation pump	Brand	Shinhoo				
		Static pressure <sup>2</sup>	kPa	84	76	60	
	Water connections	Type	Threaded				
		Dimension	Inch	1" F BSP			
	Operating pressure Min/Max			0.5/2.5			
Expansion vessel	Volume	L	2				
	Pre-load	bar	1				
Electrical data	Power supply	Ph/V/Hz		1ph-230V-50Hz			
	Maximum current	Heating	A	11.00	11.00	17.00	
		Cooling		8.00	8.00	10.60	
Power cable (recommended)	Type		3x2.5 mm²		3x4 mm²		
Product specifications	Fan	Type	DC Inverter x 1				
		Air flow	3200				
	Sound power level	dB(A)		58		64	
	Sound pressure level	Heating	dB(A)		53		56
		Cooling			52		55
	Dimensions	WxDxH	mm				
Weight	Net	kg		90		95	
Control (supplied)	Wired remote control						

1. Refrigerant leakage contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming when released into the atmosphere than those with a higher GWP. This appliance contains a refrigerant with a GWP of 675. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 675 times greater than 1 kg of CO<sub>2</sub>, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigerant circuit or disassemble the product. If necessary, always contact qualified personnel. 2. Values net of exchanger pressure drops.

**GENERAL NOTE:**

The above data refers to the following standards: EN 14511:2018; EN 14825:2019; EN50564:2011; EN12102-1:2018; EN12102-2:2019; (EU)No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014.

# OUTDOOR UNITS



**MCWNGS 1002 - 1202 - 1402 - 1602 Z**  
1-Phase

**ENERGY CLASS**

**A+++**

In heating mode with **35°C** di delivery water temperature.

**A+++**

In heating mode with **55°C** delivery water temperature.  
**10.20 kW model**

**A++**

In heating mode with **55°C** delivery water temperature.  
**12.00-15.70 kW models**

Model				MCWNGS 1002 Z	MCWNGS 1202 Z	MCWNGS 1402 Z	MCWNGS 1602 Z		
Heating	Rated power	A7//W35	kW	10.20	12.00	14.20	15.70		
	Electrical absorption		2.02	2.43	2.99	3.45			
	Performance coefficient		COP	5.05	4.94	4.75	4.55		
	Rated power	A7//W45	kW	10.20	13.00	14.20	16.20		
	Electrical absorption		2.50	3.45	3.84	4.49			
	Performance coefficient		COP	4.08	3.77	3.70	3.61		
Cooling	Rated power	A35//W18	kW	10.20	12.00	13.70	15.50		
	Electrical absorption		2.00	2.45	3.00	3.60			
	Energy efficiency		EER	5.10	4.90	4.57	4.31		
	Rated power	A35//W7	kW	9.00	11.10	13.30	13.80		
	Electrical absorption		2.65	3.58	4.75	5.09			
	Energy efficiency		EER	3.40	3.10	2.80	2.71		
Seasonal heating data	Prated @ -10°C	35/55	kW	9/10	12/12	13/13	14/14		
	Seasonal performance coefficient		SCOP	4.48/3.88	4.78/3.80	4.70/3.75	4.68/3.73		
	Seasonal energy efficiency (ηs)		%	176/152	188/149	185/147	184/146		
	Energy efficiency class		-	A+++/A+++	A+++/A++	A+++/A++	A+++/A+++		
	Annual energy consumption		kWh/y	4163/5486	5194/6388	5682/7352	6072/7675		
Operating range	Outdoor air temperature	Heating	°C	-25~35					
		Cooling		-15~48					
		DHW		-25~45					
	Delivery water temperature	Heating	°C	20~65					
Cooling	5~25								
Refrigerant circuit data	Refrigerant <sup>1</sup>	Type (GWP)	R32 (675)						
	Quantity (tons CO2)	kg (t)	1.6 (1.080)	2.2 (1.485)					
	Control system	Electronic expansion valve							
Compressor	Type	Rotary - DC Inverter							
Hydraulic data	Heat exchanger	Type	With brazed stainless steel plates						
		Flow rate	m³/h	1.7	2.1	2.4	2.8		
	Circulation pump	Brand	Shinwoo						
		Static pressure <sup>2</sup>	kPa	57	50	36	20		
	Water connections	Type	Threaded						
		Dimension	Inch	1" F BSP					
	Operating pressure Min/Max			0.5/2.5					
Expansion vessel	Volume	L	2	3					
	Pre-load	bar	1						
Electrical data	Power supply	Ph/V/Hz	1ph-230V-50Hz						
	Maximum current	Heating	A	25.00	29.00	30.00	30.00		
		Cooling	A	17.50	17.00	21.00	23.00		
Power cable (recommended)	Type	3x6 mm²							
Product specifications	Fan	Type	DC Inverter x 1						
		Air flow	m³/h	5800	5015				
	Sound power level			68					
		Sound pressure level	Heating	dB(A)	56	58	59	59	
	Cooling		dB(A)	54	55	56	56		
	Dimensions	WxDxH	mm	1206x445x878					
Weight	Net	kg	114	132					
Control (supplied)			Wired remote control						

1. Refrigerant leakage contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming when released into the atmosphere than those with a higher GWP. This appliance contains a refrigerant with a GWP of 675. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 675 times greater than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigerant circuit or disassemble the product. If necessary, always contact qualified personnel. 2. Values net of exchanger pressure drops.

**GENERAL NOTE:**

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# OUTDOOR UNITS



**MCWSGS 1002 - 1202 - 1402 - 1602 Z**  
3-Phase

## ENERGY CLASS

**A+++**

In heating mode with **35°C** di delivery water temperature.

**A+++**

In heating mode with **55°C** delivery water temperature.  
**12.00-15.70 kW models**

**A++**

In heating mode with **55°C** delivery water temperature.  
**10.20 kW model**

Model				MCWSGS 1002 Z	MCWSGS 1202 Z	MCWSGS 1402 Z	MCWSGS 1602 Z
Heating	Rated power	A7//W35	kW	10.20	12.00	14.20	15.70
	Electrical absorption		2.06	2.49	3.09	3.57	
	Performance coefficient		COP	4.95	4.82	4.60	4.40
	Rated power	A7//W45	kW	10.20	13.00	14.20	16.20
	Electrical absorption		2.60	3.45	3.84	4.49	
	Performance coefficient		COP	3.92	3.77	3.70	3.61
Cooling	Rated power	A35//W18	kW	10.20	12.00	13.90	15.40
	Electrical absorption		2.13	2.61	3.32	4.05	
	Energy efficiency		EER	4.79	4.60	4.19	3.80
	Rated power	A35//W7	kW	9.10	11.10	13.30	13.80
	Electrical absorption		2.80	3.58	4.75	5.09	
	Energy efficiency		EER	3.25	3.10	2.80	2.71
Seasonal heating data	Prated @ -10°C	35/55	kW	9/10	12/12	13/13	13/14
	Seasonal performance coefficient		SCOP	4.80/3.58	4.58/3.83	4.55/3.83	4.55/3.83
	Seasonal energy efficiency (ηs)		%	189/140	180/150	179/150	179/150
	Energy efficiency class		-	A+++/A++	A+++/A+++	A+++/A+++	A+++/A+++
	Annual energy consumption		kWh/y	4069/5907	5517/6391	5927/7176	5927/7404
Operating range	Outdoor air temperature	Heating	-25~35				
		Cooling	-15~48				
		DHW	-25~45				
	Delivery water temperature	Heating	20~65				
Cooling		5~25					
Refrigerant circuit data	Refrigerant <sup>1</sup>	Type (GWP)	R32 (675)				
	Quantity (tons CO2)	kg (t)	1.6 (1.080)	2.2 (1.485)			
	Control system	Electronic expansion valve					
	Compressor	Type	Rotary - DC Inverter				
Hydraulic data	Heat exchanger	Type	With brazed stainless steel plates				
		Flow rate	m³/h	1.7	2.1	2.4	2.8
	Circulation pump	Brand	Shinwoo				
		Static pressure <sup>2</sup>	kPa	57	50	36	20
	Water connections	Type	Threaded				
		Dimension	Inch	1" F BSP			
	Operating pressure Min/Max			0.5/2.5			
Expansion vessel	Volume	L	3				
	Pre-load	bar	1				
Electrical data	Power supply	Ph/V/Hz		3ph-400V-50Hz			
	Maximum current	Heating	A	9.00	11.50	12.00	12.50
		Cooling	A	6.00	5.00	8.00	8.50
Power cable (recommended)	Type		5x2.5 mm²				
Product specifications	Fan	Type	DC Inverter x 1				
		Air flow	m³/h	5800	5015		
	Sound power level	dB(A)		68			
	Sound pressure level	Heating	dB(A)	56	58		59
		Cooling	dB(A)	54	55		56
	Dimensions	WxDxH	mm	1206x445x878			
Weight	Net	kg	124	138			
Control (supplied)	Wired remote control						

1. Refrigerant leakage contributes to climate change. Refrigerants with a lower global warming potential (GWP) contribute less to global warming when released into the atmosphere than those with a higher GWP. This appliance contains a refrigerant with a GWP of 675. Therefore, if 1 kg of this refrigerant were released into the atmosphere, the impact on global warming would be 675 times greater than 1 kg of CO2, over a period of 100 years. Under no circumstances should the user attempt to intervene on the refrigerant circuit or disassemble the product. If necessary, always contact qualified personnel. 2. Values net of exchanger pressure drops.

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