

COMPACT AND FLEXIBLE DESIGN OF INDOOR UNIT

Compact design, easy to install.
Dimensions (W×D×H) (mm)

460×318×860 mm

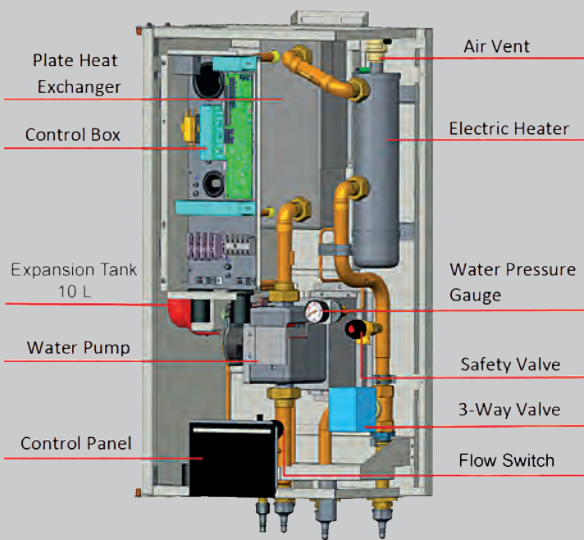
Safety valve, plate heat exchanger, expansion tank, circulation pump and control unit, all in one device.



See the table below regarding the configuration of E-heater for heating and connecting E-heater for domestic hot water.

	E-heater for heating (built-in)	E-heater for DHW (external)
CH-HP6.0SIRK4(I)	1.5 + 1.5 kW	3 kW
CH-HP8.0SIRK4(I) CH-HP10SIRK4(I)	3 + 3 kW	3 kW
CH-HP12SIRK(M)4(I) CH-HP14SIRK(M)4(I) CH-HP16SIRK(M)4(I)	3 + 3 kW	3 kW

INDOOR UNIT (HYDROMODULE): HEATING/COOLING AND DHW



The indoor unit (hydromodule) regulates the supply of heat/cold/DHW to heating floor/convectors/fancoils, etc.
You can manage your comfort:
changing the temperature and water supply, adjust the modes through the central controller installed on the indoor unit (hydromodule).

TECHNICAL PARAMETERS OF UNIT SPLIT SERIES 1 PHASE

			CH-HP6.0SIRK4	CH-HP8.0SIRK4	CH-HP10SIRK4	CH-HP12SIRK4	CH-HP14SIRK4	CH-HP16SIRK4
Capacity *	Cooling	kW	5.80	7.00	8.50	11.00	12.60	13.00
	Heating	kW	6.00	8.00	9.50	12.00	14.00	15.50
Power input*	Cooling	kW	1.32	1.75	2.24	2.50	3.41	3.60
	Heating	kW	1.20	1.70	2.07	2.40	2.98	3.44
EER* ¹			4.40	4.00	3.80	4.40	3.70	3.60
COP* ¹			5.00	4.70	4.60	5.00	4.70	4.50
Capacity **	Cooling	kW	4.09	5.30	6.50	10.59	11.07	11.51
	Heating	kW	5.90	8.00	9.50	12.40	14.48	16.09
Power input**	Cooling	kW	1.28	1.73	2.27	3.79	4.18	4.49
	Heating	kW	1.51	2.14	2.64	3.29	3.93	4.44
EER**			3.20	3.00	2.90	2.79	2.65	2.57
COP **			3.90	3.70	3.60	3.77	3.68	3.62
Refrigerant charge volume		kg	1.00	1.60	1.60	1.84	1.84	1.84
Power supply			-220-240V/50 Hz/1 Ph					
Sound pres-sure level	Colling	dB (A)	52	55		68		
	Heating	dB (A)	52	55		68		
Dimensions (W×D×H)	Indoor unit	mm	460x318x860					
	Outdoor unit	mm	975x396x702	982x427x787		940x460x820		
Net weight	Indoor unit	kg	62					
	Outdoor unit	kg	55	82		110		
Water circulating pipe inlet/outlet, DHW			1" Male BSP					
Diameter of pipe	Liquid	inch (mm)	1/4" (6.35)					
	Gas	inch (mm)	1/2" (12.7)			5/8" (15.6)		

NOTE

«*» capacity and power input are specified under the following conditions:

Cooling Water temperature: +23°C/+18°C; Outdoor temperature: +35°C DB; +24°C WB

Heating Water temperature: +30°C/+35°C; Outdoor temperature: +7°C DB; +6°C WB

«**» capacity and power input are specified under the following conditions:

Cooling Water temperature: +12°C/+7°C; Outdoor temperature: +35°C DB; +24°C WB

Heating Water temperature: +40°C/+45°C; Outdoor temperature: +7°C DB; +6°C WB

TECHNICAL PARAMETERS OF UNIT SPLIT SERIES 3 PHASE

			CH-HP12SIRM4	CH-HP14SIRM4	CH-HP16SIRM4
Capacity *	Cooling	kW	11.00	12.60	13.00
	Heating	kW	12.00	14.00	15.50
Power input*	Cooling	kW	2.50	3.41	3.60
	Heating	kW	2.40	2.98	3.44
EER* ¹			4.40	3.70	3.60
COP* ¹			5.00	4.70	4.51
Capacity **	Cooling	kW	10.65	11.24	11.52
	Heating	kW	12.29	14.44	16.13
Power input**	Cooling	kW	3.74	4.13	4.38
	Heating	kW	3.09	3.63	4.16
EER **			2.85	2.72	2.63
COP **			3.98	3.98	3.88
Refrigerant charge volume		kg	1.84	1.84	1.84
Power supply			-380-415V/50 Hz/3 Ph		
Sound pressure level	Cooling	dB (A)	68	68	68
	Heating	dB (A)	68	68	68
Dimensions (W×D×H)	Indoor unit	mm	460x318x860	460x318x860	460x318x860
	Outdoor unit	mm	940x460x820	940x460x820	940x460x820
Net weight	Indoor unit	kg	62	62	62
	Outdoor unit	kg	110	110	110
Water circulating pipe inlet/outlet, DHW			1" Male BSP	1" Male BSP	1" Male BSP
Diameter of pipe	Liquid	inch (mm)	1/4" (6,35)	1/4" (6,35)	1/4" (6,35)
	Gas	inch (mm)	5/8" (15,9)	5/8" (15,9)	5/8" (15,9)

NOTE

«*» capacity and power input are specified under the following conditions:

Cooling Water temperature: +23°C/+18°C; Outdoor temperature: +35°C DB; +24°C WB

Heating Water temperature: +30°C/+35°C; Outdoor temperature: +7°C DB; +6°C WB

«**» capacity and power input are specified under the following conditions:

Cooling Water temperature: +12°C/+7°C; Outdoor temperature: +35°C DB; +24°C WB

Heating Water temperature: +40°C/+45°C; Outdoor temperature: +7°C DB; +6°C WB

ELECTRICAL PARAMETERS OF UNUTHERM 4 SPLIT

	Power supply	Automatic switch (A)	The minimum cross-sectional area of the grounding wire (mm ²)	The minimum cross-sectional area of the power cable (mm ²)
CH-HP6.0SIRK4(O)	~220-240V/50 Hz/1 Ph	16	15	15
CH-HP6.0SIRK4(I)		20	6	6
CH-HP8.0SIRK4(O)		25	4	4
CH-HP8.0SIRK4(I)		40	6	6
CH-HP10SIRK4(O)		25	4	4
CH-HP10SIRK4(I)		40	6	6
CH-HP12SIRK4(O)		32	6	6
CH-HP12SIRK4(I)		40	6	6
CH-HP14SIRK4(O)		40	6	6
CH-HP14SIRK4(I)		40	6	6
CH-HP16SIRK4(O)		40	6	6
CH-HP16SIRK4(I)		40	6	6
CH-HP12SIRM4(O)	~380-415V/50 Hz/3 Ph	16	25	25
CH-HP12SIRM4(I)		20	4	4
CH-HP14SIRM4(O)		16	25	25
CH-HP14SIRM4(I)		20	4	4
CH-HP16SIRM4(O)		16	25	25
CH-HP16SIRM4(I)		20	4	4

NOTE

- If circuit breakers with leakage protection are used, the trip time should be less than 0.1 second and the leakage current should be 30 mA.
- The diameter of the power cables selected above is determined based on the assumption that the distance from the distribution box to the device is less than 75 m. If the cables are laid at a distance of 75 to 150 m, then the diameter of the power cable must be increased.
- The power source must meet the rated voltage of the device and must be connected to a separate electrical line.
- All electrical work must be performed by professional technicians in accordance with local codes and ordinances.
- Implement safety grounding. The grounding wire must be connected to a special grounding line in the building, the connection must be made by professional technicians.
- The switch and power cord specifications in the table above are based on the maximum power (maximum current) of the device.
- The power cable specifications in the table above refer to a stranded copper cable in a protective sheath (e.g. YJV cross-linked polyethylene insulated power cable) used at +40 °C and resistant to +90 °C (see IEC 60364-5-52). If the requirements are changed, the cables must be replaced according to the relevant standard.
- The switch specifications in the table above refer to the switch with an operating temperature of +40 °C. In the event of a change in conditions, they must be changed in accordance with the current national standard.
- An automatic switch must be installed in the power supply line. Automatic switch with disconnection of all poles. The opening distance between the contacts should be at least 3 mm.

PIPE CONNECTION OF UNITHERM 4 SPLIT

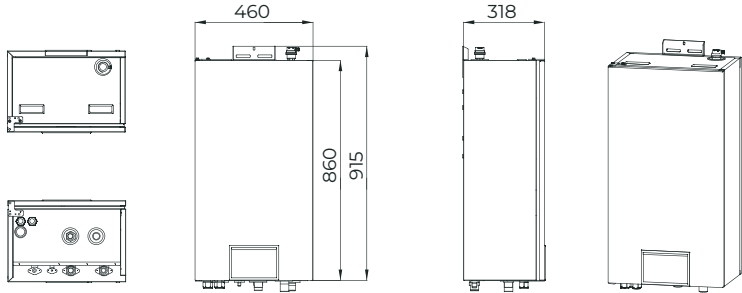
	Diameter tube		Length B		Height A		Additional
	GAS	Liquid	Std	Max	Std	Max	Refrigerant
CH-HP6.0SIRK4	1/2"	1/4"	5 m	20 m	0 m	15 m	16 g/m
CH-HP8.0SIRK4	1/2"	1/4"	5 m	25 m	0 m	15 m	16 g/m
CH-HP10SIRK4	1/2"	1/4"	5 m	25 m	0 m	15 m	16 g/m
CH-HP12SIRM4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m
CH-HP14SIRM4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m
CH-HP16SIRM4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m
CH-HP12SIRK4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m
CH-HP14SIRK4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m
CH-HP16SIRK4	5/8"	1/4"	5 m	15 m *	0 m	15 m	0 g/m

* Under certain conditions, the length can be increased to 25 m.

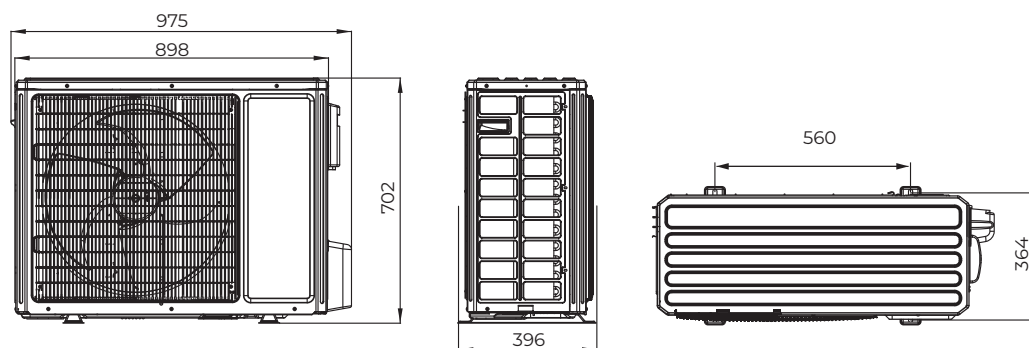
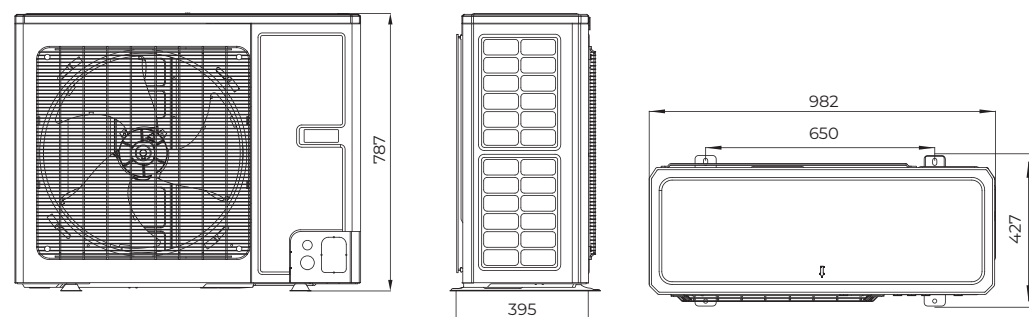
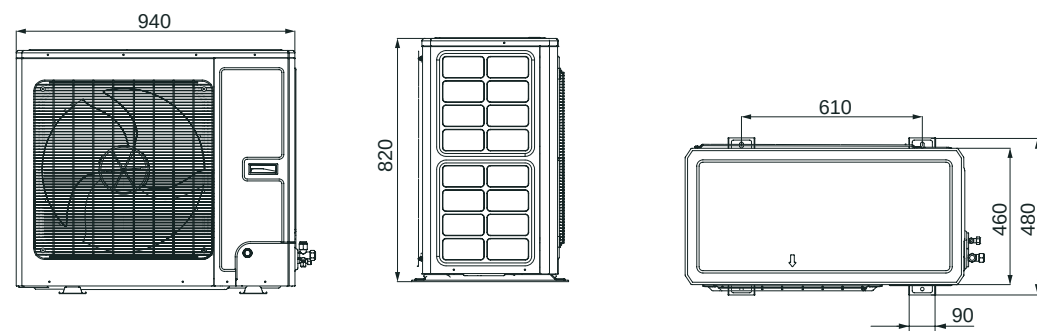
NOTES:

- Additional refrigerant charging is not required if the pipe length is less than 10m, if the pipe length is more than 10m, additional refrigerant charging is required according to the table. For example: if a 10 kW model is installed at a distance of 25 m, you should add $(25-10) \times 16 = 240$ g of refrigerant.
- Rated capacity is based on standard pipe length and maximum allowable length is based on working length. The grease intake loop should be installed every 5-7 meters if the external unit is located above the internal unit (hydro module).
- Each 90° bend is approximately equal to 0.5 meters of pipe length.

OVERALL DIMENSIONS OF THE INDOOR UNIT (HYDROMODULE)

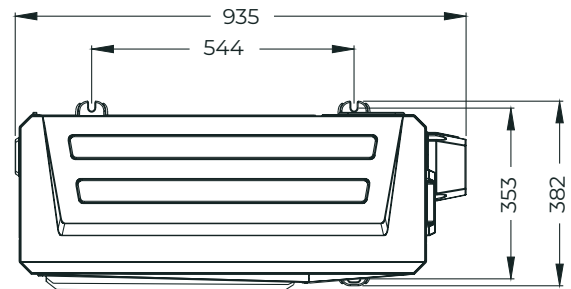
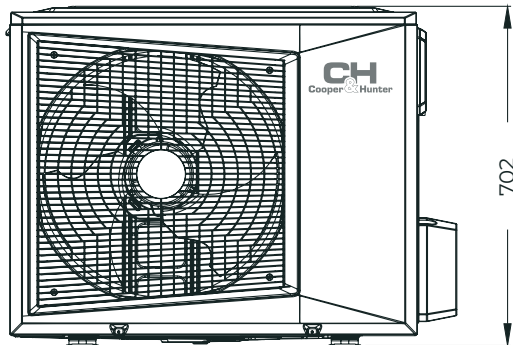
			
№.	Description	Connection thread	
1	Diameter of outlet pipe (water)	1" Male BSP	
2	Diameter of return water flow pipe	1" Male BSP	
3	Liquid pipe	1/4"	CH-HP8.0SIRK4(I), CH-HP10SIRK4(I), CH-HP12SIRM4(I), CH-HP14SIRM4(I), CH-HP16SIRM4(I), CH-HP12SIRK4(I), CH-HP14SIRK4(I), CH-HP16SIRK4(I)
4	Gas pipe	1/2"	CH-HP8.0SIRK4(I), CH-HP10SIRK4(I)
5	Gas pipe	5/8"	CH-HP12SIRM4(I), CH-HP14SIRM4(I), CH-HP16SIRM4(I), CH-HP12SIRK4(I), CH-HP14SIRK4(I), CH-HP16SIRK4(I)

OVERALL DIMENSIONS OF THE OUTDOOR UNIT

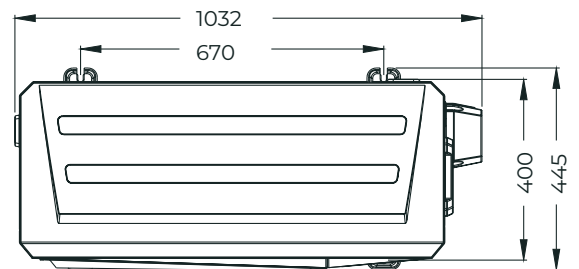
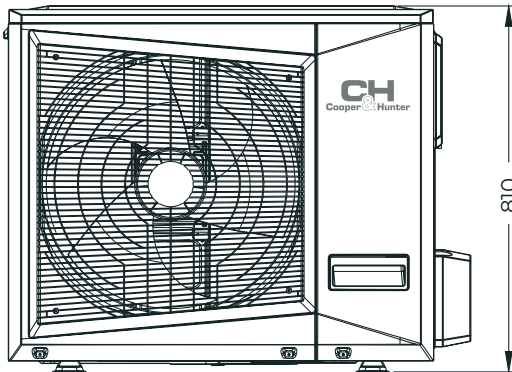
CH-HP6.0SIRK4 (O)

CH-HP8.0SIRK4 (O), CH-HP10SIRK4 (O)

**CH-HP12SIRM4(O) , CH-HP14SIRM4(O), CH-HP16SIRM4(O),
 CH-HP12SIRK4(O) ,CH-HP14SIRK4(O), CH-HP16SIRK4(O)**


OVERALL DIMENSIONS OF OUTDOOR UNIT

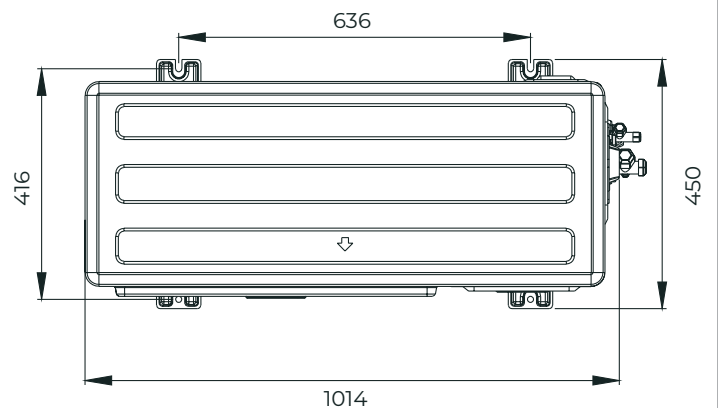
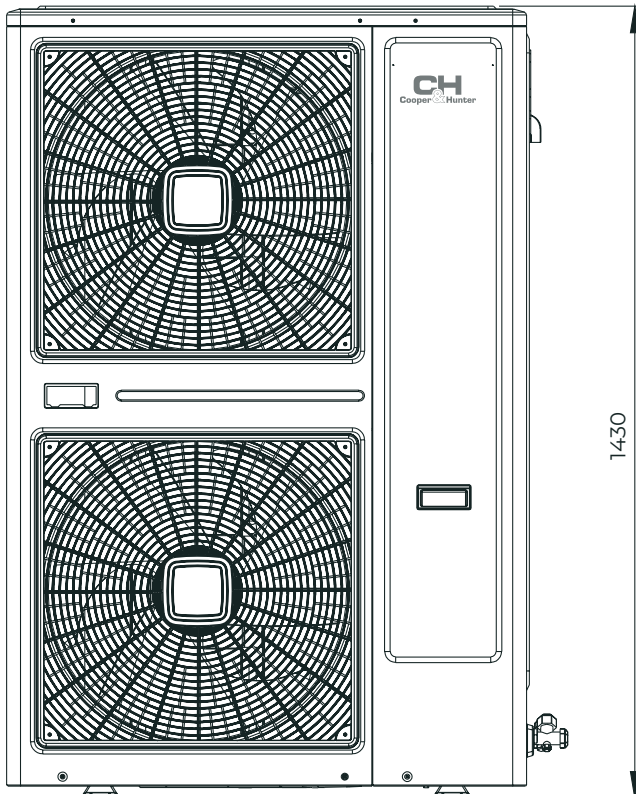
CH-HP5.0SIRK-E(O), CH-HP8.0SIRK-E(O)



CH-HP10SIRK-E(O), CH-HP12SIRK-E(O)



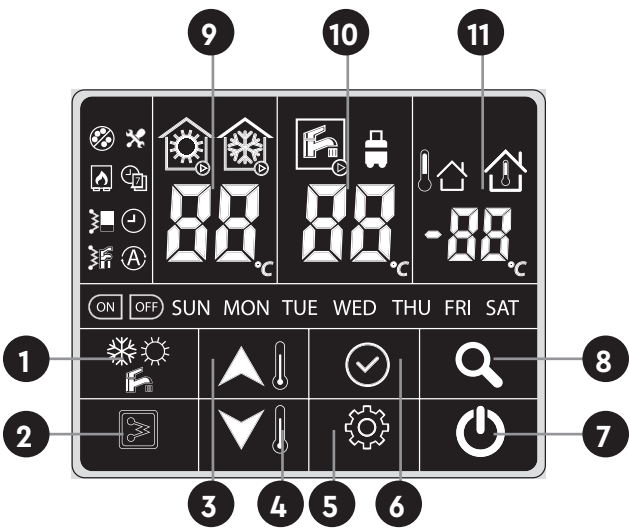
CH-HP14SIRM-E(O), CH-HP16SIRM-E(O)





Monochrome sensor controller is installed at indoor unit. It provides all necessary management functions for end-user and professional maintenance worker. Controller can be installed in another convenient place and the hole is closed with the included cover.

TOUCH SCREEN: OPERATION AND FUNCTIONS



Functions	
1	Mode selection
2	Additional electric heater
3	Increase temperature
4	Decrease temperature
5	Settings
6	OK (conformation)
7	ON/OFF
8	Inquiry
9	Heating/cooling temperature
10	DHW temperature
11	Temperature outdoor / indoor.

	Antifreeze		Malfunction		Cooling mode ON
	Modular water heater		Weekly timer		Heating mode ON
	Tank heater		Clock		DHW mode ON
	Timer ON		Timer OFF		Outdoor temperature
	Cooling mode		Heating mode		Indoor temperature
	Day		Time/Temperature		DHW mode

TECHNICAL PARAMETERS

			CH-HP5.0SIRK-E(O)	CH-HP8.0SIRK-E(O)	CH-HP10SIRK-E(O)	CH-HP12SIRK-E(O)	CH-HP14SIRM-E(O)	CH-HP16SIRM-E(O)
Power supply		V / Hz / Ph	~220-240 V/50 Hz/1 Ph				~380-415 V/50 Hz/3 Ph	
Technical parameters								
Rated heating*	Capacity	kW	5	8	10	12	14	16
	Power input	kW	1.13	1.95	2.22	2.9	3.26	3.75
	COP	kW/kW	4.4	4.1	4.5	4.14	4.29	4.27
Rated cooling*2	Capacity	kW	4.2	6.5	8.5	10	13.8	15.2
	Power input	kW	1.47	2.32	3.04	3.7	4.9	5.4
	EER	kW/kW	2.85	2.8	2.8	2.7	2.82	2.81
Heating*3	Capacity	kW	5	8	10	12	14	16
	Power input	kW	1.56	2.5	2.94	3.53	4.12	4.71
	COP	kW/kW	3.2	3.2	3.4	3.4	3.4	3.4
Cooling*4	Capacity	kW	4.2	6.5	8.5	10	13.8	15.2
	Power input	kW	1.1	1.7	1.77	2.08	2.88	3.17
	EER	kW/kW	3.8	3.8	4.8	4.8	4.8	4.8
SCOP (average climate general) water temperature		outlet 35oC outlet 55oC	A++ A++	A++ A++	A++ A++	A++ A++	A++ A++	A++ A++
Max. power input		kW	2.86	4.2	5	5	5.5	6.4
Max. current input		A	13	19	22	22	10.5	12.1
Sound pressure level		dB (A)	64	66	68	68	68	70
Dimensions (DxHxW)		mm	935×702×382			1032×810×445		1014×1430×450
Dimensions (DxHxW) with packing		mm	975×770×435			1075×875×495		1095×1545×485
Net/gross weight		kg	43/46	55/58	56.3/61	63.5/68	124/138	124/138
Compressor	Brand		Mitsubishi			GMCC		
	Type		Rotary DC-inverter					
	Oil		FW68S/350ml	POE/670ml	POE/1000ml	POE/1000ml	POE/1000ml	POE/1400ml
Piping connections								
Liquid pipe		mm	Ø 9.52	Ø 9.52	Ø 9.52	Ø 9.52	Ø 9.52	Ø 9.52
Gas pipe		mm	Ø 15.88	Ø 15.88	Ø 15.88	Ø 15.88	Ø 15.88	Ø 15.88
Max. piping length		m	20	20	20	50	50	50
Max. height difference	Outdoor unit upside	m	10	10	10	20	20	20
	Outdoor unit downside	m	10	10	10	20	20	20
Refrigerant	Type		R32					
	Volume	kg	1.1	1.4	3	3.1	3.6	3.8
	Throttle type	g	Additional charge of grams (Total length of the pipe - 5) m x 30 g/m					
Indoor unit								
			CH-HP8.0SIRK-E(I)		CH-HP12SIRK-E(I)		CH-HP16SIRK-E(I)	
Power supply		V / Hz / Ph	~220-240 V/50 Hz/1 Ph		~220-240 V/50 Hz/1 Ph		~220-240 V/50 Hz/ 1 Ph	
Max. power input		kW	3.6		3.6		3.6	
Max. current input		A	17		17		17	
Sound pressure level		dB (A)	30		32		32	
Indoor unit dimensions (W×D×H)		mm			490×910×340			
Packing dimensions (W×D×H)		mm			620×1105×425			
Net/gross weight		kg	47/55		48/56		48/56	
Water circuit	Piping connection diameter	Outlet	mm		DN32			
		Inlet	mm		DN32			
	Safety valve		kPa		600			
	Drainage pipe diameter		mm		DN20			
	Expansion tank	Volume	L		2			
		Max. water pressure	kPa		800			
		Pre. pressure	kPa		150			
	Water side heat exchanger	Type	Plate type		Plate type		Plate type	
		Volume	L		0.658		1.22	
	Water pump	Brand	wilo		wilo		wilo	
		Model	Para 25/9		Para 25/9		Para 25/9	
Back-up E-heater	Pump head	m	9		9		9	
	Capacity	kW	3 kW		3 kW		3 kW	
	Step		1		1		1	
	Max. power input	kW	3 kW		3 kW		3 kW	
Max. current input		A	13.6 A		13.6 A		13.6 A	

NOTES

1. Nominal heating conditions: water consumption 0.172 m³/(h·kW), ambient temperature 7 °C DB, inlet/outlet water temperature 30/35 °C.
2. Nominal cooling conditions: water consumption 0.172 m³/(h·kW), ambient temperature 35 °C DB, inlet/outlet water temperature 12/7 °C.
3. Heating conditions: water consumption 0.172 m³/(h·kW), ambient temperature 7 °C, inlet/outlet water temperature 40/45 °C.
4. Cooling conditions: water consumption 0.172 m³/(h·kW), ambient temperature 35 °C, inlet/outlet water temperature 23/18 °C.