

High Temperature Inverter Heat Pumps

A+++
ErP

70°C
Hot water

Low
Noise

Green
R290



This Series units use natural refrigerant R290 (GWP=3) that offers many advantages over refrigerants traditionally used in heat pumps. With improved efficiency, as well as higher flow temperatures (70 degrees), is perfect for new and existing heating systems (including hybrid).

Energy efficiency class of A+++ reduce the energy consumption of the outdoor unit. Using smart grids (SG ready), you can also take advantage of variable electricity prices and make additional savings.

Works all the way down to minus 25 degrees, so you are guaranteed good and stable heat, even on the coldest days of the year.

Frequency controlled: The heat pump can run with different services. When the desired temperature is achieved, running it with a lower one; frequency/performance to reduce energy consumption.

With DC Inverter brushless fan motor that can be controlled so that the sound from the device reaches a satisfactory low level.

Intelligent defrosting technology that minimizes energy consumption.



R290 Units Advantage

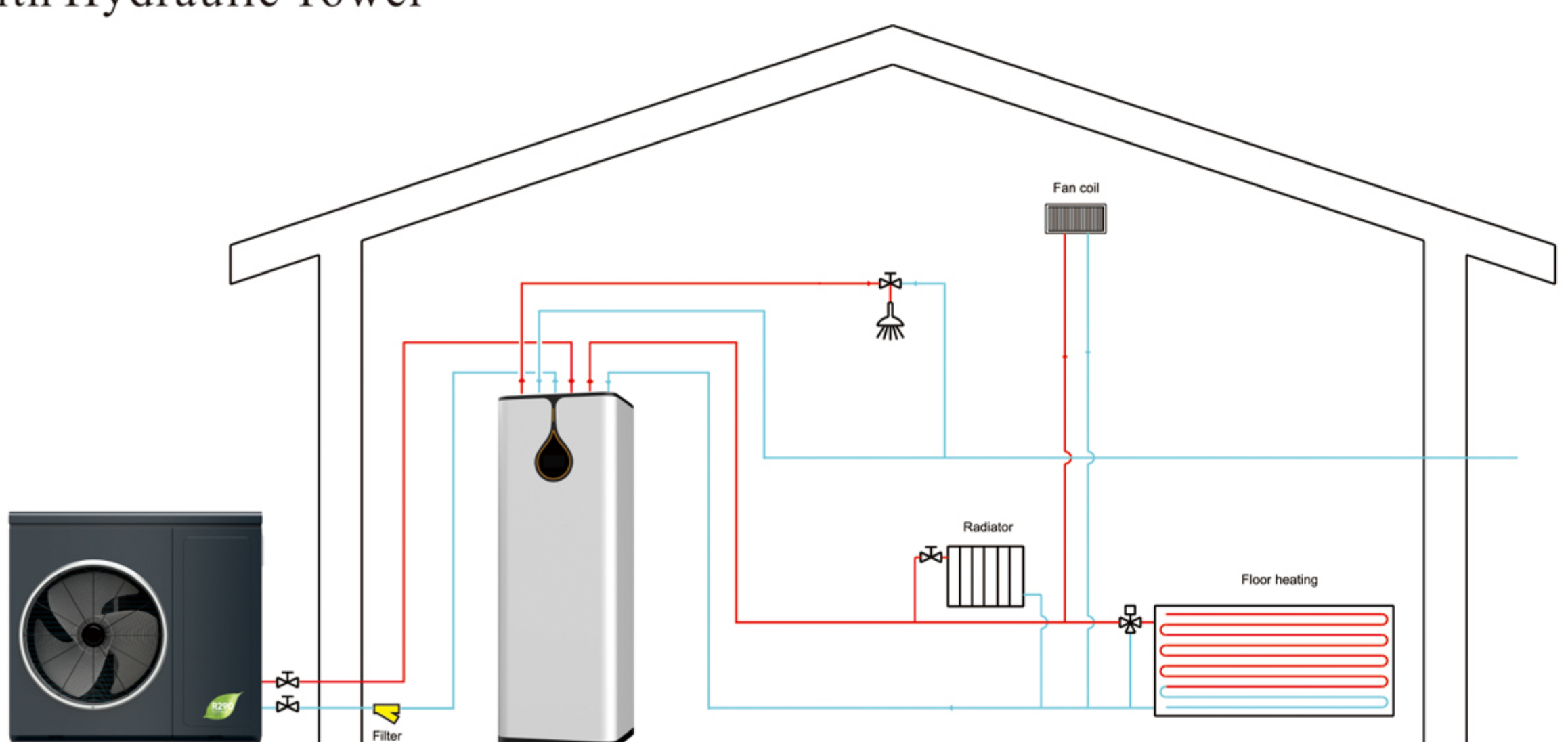
R290 is a natural refrigerant with a very low GWP. Its advantages comparing with R32 and R410A:

- Future-proof, as not affected by the F-Gas Regulation
- Higher flow temperature of up to 70 degree.
- Higher hot water comfort and protection against legionella without electric heater
- Wider performance envelope with operating temperature ranging between -25°C and +46°C
- Reduced refrigerant charge compared to R410a and R32

Refrigerant	GWP
R290	3
R32	675
R410A	2088

Typical application

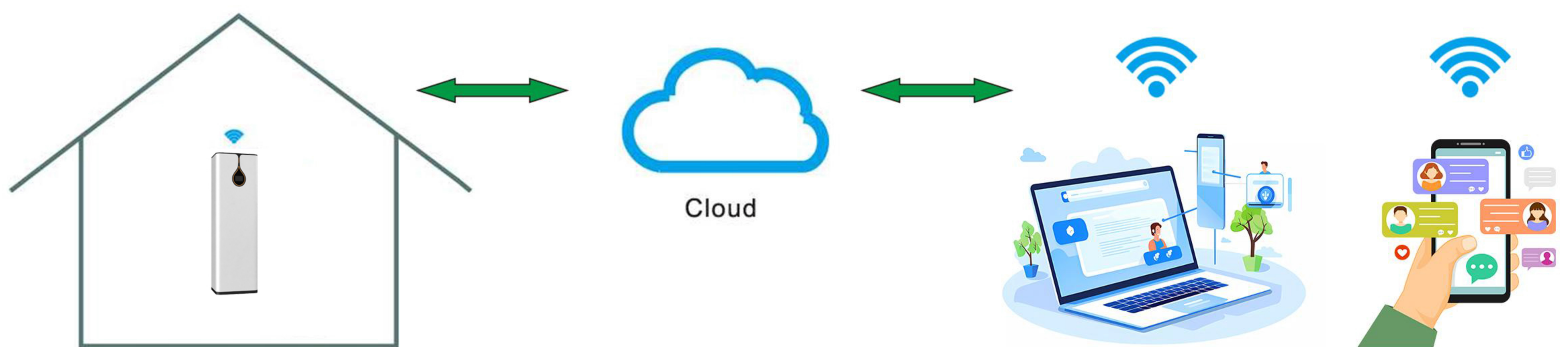
With Hydraulic Tower





Wifi App. and Web platform

Control your heat pump with your smart phone anywhere, anytime



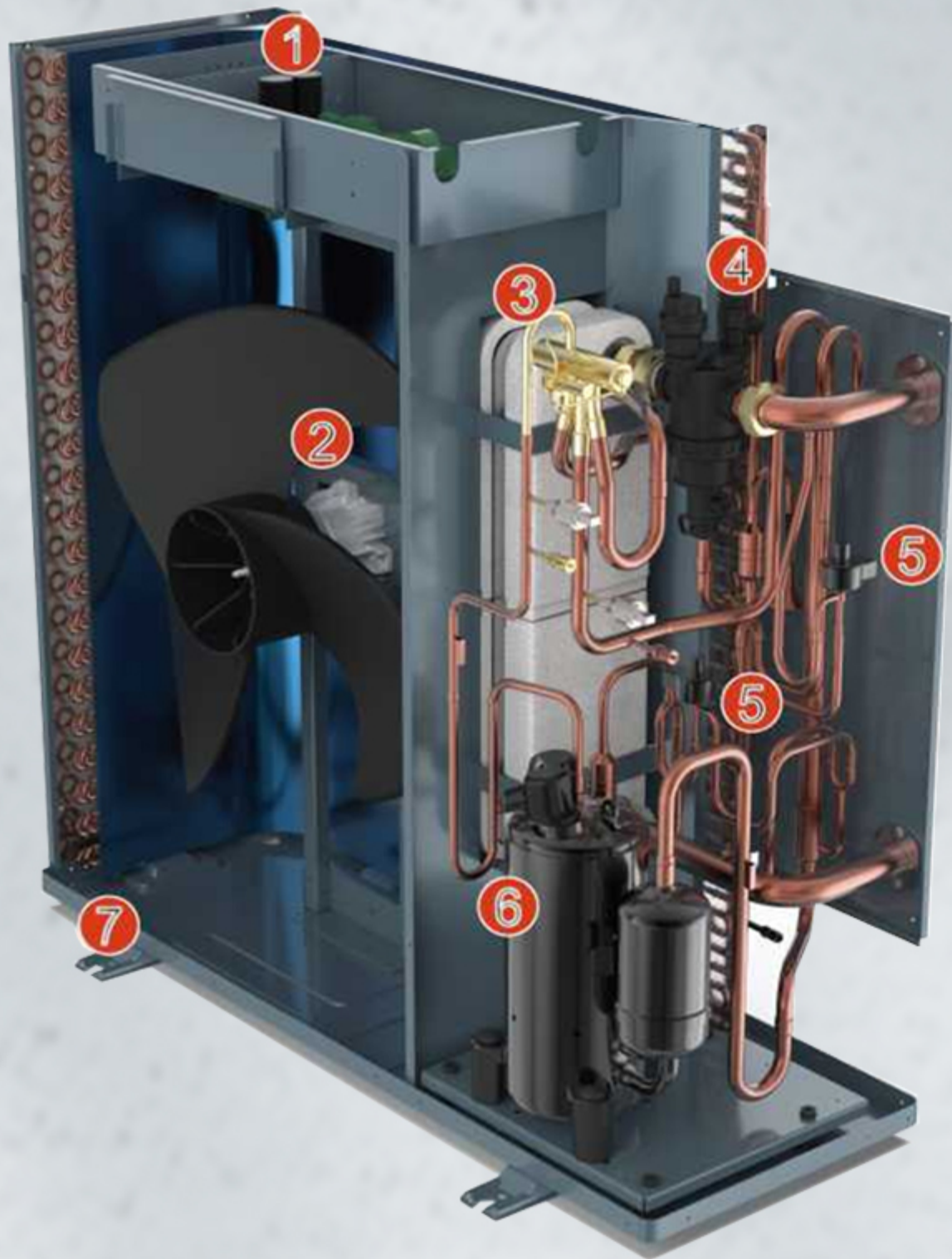
Unit App. control function:

- Unit on/off control
- Energy monitor
- Heating/cooling mode change
- Heating/cooling/domestic hot water temp, setup
- Weather compensation function enable/disable
- Back-up heater setup
- Heating/cooling schedule on/off
- Fault alert

Computer web monitoring system:

- Unit running monitoring
- Running data record and trend
- Alarm and fault alert
- Fault analysis

Main Components



Outdoor unit

- 1 Inverter / control board
- 2 DC fan motor
- 3 Plate heat exchanger
- 4 Micro bubble separator
- 5 Heating/cooling separate EEV
- 6 Dual rotary compressor
- 7 Integration tray and tray heater



Hydraulic Tower

- 1 8L expansion tank
- 2 26L buffer tank
- 3 Back-up heater
- 4 Primary pump
- 5 Secondary pump
- 6 3 way valve
- 7 200L DHW tank

Heat pump outdoor unit

Model Number		HS06V-Q	HS08V-Q	HS10V-Q	HS12V-Q	HS12V-D	HS15V-Q	HS15V-D	HS22V-D
Heat output at A7/W35°C	kW	6.20	6.44	6.92	9.87	8.60	11.07	12.26	14.64
Power consumption A7/W35°C	kW	1.29	1.30	1.45	2.06	1.77	2.30	2.50	3.26
COP at A7/W35°C		4.80	4.95	4.77	4.79	4.86	4.81	4.90	4.49
Heat output range A7/35°C		2.30~6.46	2.90~8.20	2.90~9.50	3.80~12.20	3.80~12.20	4.95~15.20	4.95~15.20	6.85~22.10
Heat output at A2/W35°C	kW	5.10	6.60	7.00	8.40	8.40	12.30	12.30	19.86
Power consumption A2/W35°C	kW	1.20	1.60	1.70	2.10	2.10	3.10	3.10	4.94
COP at A2/W35°C		4.25	4.13	4.12	4.00	4.00	3.97	3.97	4.02
Heat output at A-7/W35°C	kW	4.90	6.30	6.70	8.20	8.20	11.60	11.60	16.88
Power consumption A-7/W35°C	kW	1.30	1.80	2.00	2.50	2.50	3.30	3.30	5.12
COP at A-7/W35°C		3.77	3.50	3.35	3.28	3.28	3.52	3.52	3.30
Heat output at A7/W55°C	kW	5.76	5.05	5.37	8.80	8.29	10.78	11.69	13.84
Power consumption at A7/W55°C	kW	1.74	1.74	2.00	2.58	2.59	3.47	3.39	4.45
COP at A7/W55°C		3.31	2.90	2.69	3.41	3.20	3.11	3.45	3.11
Heat output range A7/55°C		1.82~5.8	2.47~6.6	2.57~7.6	3.48~11.0	3.48~11.0	4.65~14.3	4.65~14.3	6.10~19.10
Heat output at A-7/W55°C	kW	4.30	5.90	6.20	7.80	7.80	10.80	10.80	14.85
Power consumption at A-7/W55°C	kW	1.60	2.10	2.60	3.10	3.10	4.30	4.30	6.37
COP at A-7/W55°C		2.69	2.81	2.38	2.52	2.52	2.51	2.51	2.33
Cool output at A35/W7°C	kW	4.30	5.20	5.9	7.80	7.80	12.20	12.20	16.3
Power consumption at A35/W7°C	kW	1.50	1.80	2.30	2.80	2.80	4.16	4.16	5.8
EER at A35/W7°C		2.87	2.89	2.61	2.79	2.79	2.93	2.93	2.81
Cool output range A35/W7°C	KW	1.50~4.32	1.90~5.35	1.9~5.9	2.7~7.8	2.7~7.8	3.65~12.20	3.65~12.20	5.75~16.30
Cool output at A35/W18°C	kW	5.20	6.20	7.10	10.60	10.60	14.70	14.70	19.33
Power consumption at A35/W18°C	kW	1.60	1.90	2.40	3.30	3.30	4.30	4.30	6.19
EER at A35/W18°C		3.25	3.26	2.96	3.21	3.21	3.42	3.42	3.12
Cool output range A35/18°C	KW	1.8~5.2	2.22~6.2	2.29~7.1	3.87~10.6	3.87~10.6	5.45~14.7	5.45~14.7	8.70~19.33
Power Supply		220-240V/50Hz			380-415V/3N~/50Hz		220-240V/50Hz	380-415V/3N~/50Hz	
Compressor		TWIN ROTARY							
Starting current	A	<15	<15	<15	<15	<15	<15	<15	<15
Rated operating current	A	9.40	12.50	14.00	18.00	10.50	32.00	11.50	16
Rated power consumption	KW	2.16	2.86	3.22	4.15	4.50	7.10	6.50	9
Condenser		Plate heat exchanger							
Heating medium flow range	m ³ /h	0.60~1.15	0.55~1.6	0.6~1.8	0.9~2.12	0.9~2.12	1.25~2.62	1.25~2.62	1.45~3.80
Internal pressure drop at nominal flow	kPa	16	21	23	25	25	25	25	35
Min. flow (defrosting)	m ³ /h	1.0	1.4	1.4	1.7	1.7	2.5	2.5	3.2
Nominal air flow	m ³ /h	2700	2900	3000	3350	3350	5500	5500	8000
Nominal fan output	W	70	70	75	80	80	150	150	220
Max outlet heating medium temperature	°C	70							
Refrigerant R290 filling weight	kg	0.55	0.72	0.72	0.80	0.80	1.10	1.10	1.38
GWP R290		3							
CO2 equivalent		0.0017	0.0022	0.0022	0.0024	0.0024	0.0033	0.0033	0.0041
Anti electric shock grade		I	I	I	I	I	I	I	I
Water proof grade		IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4	IP X4
Max.Operation pressure of low side	Mpa	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Max.Operation pressure of high side	Mpa	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Max allowable pressure	Mpa	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Dimensions (WxDxH)	mm	1060×420×846	1060×420×1015			1060×420×1350		1060×420×1565	
Pipe connector		G1"							
Net Weight	kg	88	106	106	108	108	132	132	162
ErP Level (35°C)		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
ErP Level (55°C)		A++	A++	A++	A++	A++	A++	A++	A++
Energy efficiency ns (35°C)		181%	186%	186%	184%	185%	186%	186%	185%
Rated heat output Prated (35°C)		5	6	7	8	8	12	12	15
Energy efficiency ns (55°C)		137%	144%	138%	144%	145%	143%	144%	142%
Rated heat output Prated (55°C)		5	6	6	9	9	12	12	17
Operating ambient temp. range	°C	Heating: -25~46							
		DHW: -25~46							
		Cooling: 10~45							
Sound power level L _{WA} (ErP)	dB(A)	59	56	58	60	59	63	58	64
Sound power level L _{WA} (night mode)	dB(A)	53	54	55	59	59	57	57	62

The above data is tested by EN14511. A7/W35°C means air temp. 7°C, outlet water temp. 35°C

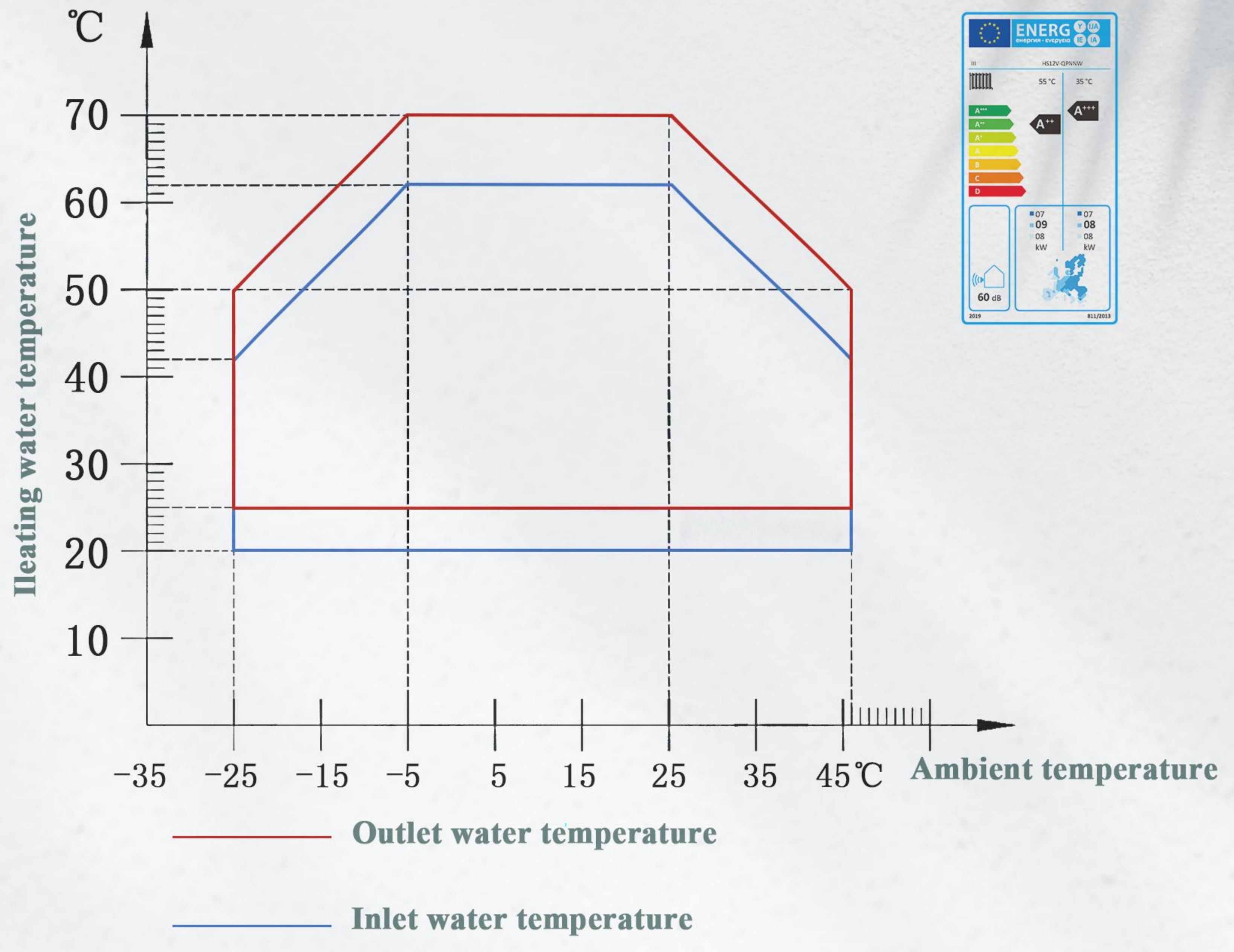
The Sound power level is tested by EN12102

Hydraulic tower

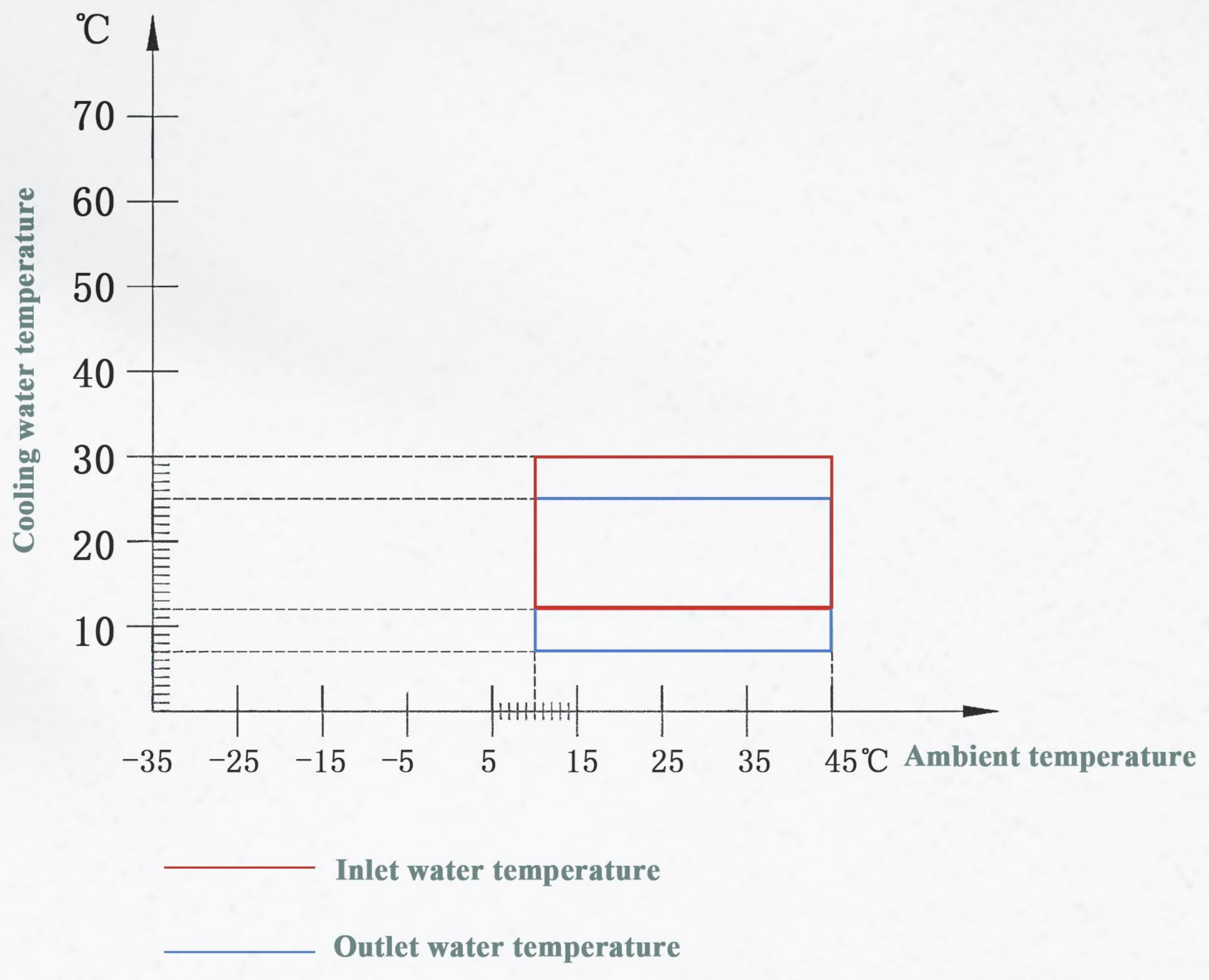
Model	DSK03-QPVTSL200	DSK09-DPVTSL200	DSK09B-DPVTSL200
DHW inner tank material	Duplex stainless steel	Duplex stainless steel	Duplex stainless steel
DHW tank volume	200L	200L	200L
DHW tank Max. allowable pressure	6.5bar	6.5bar	6.5bar
Max DHW temperature	70°C	70°C	70°C
Diameter and length of heat exchanger in DHW tank	ø28mm x 20m	ø28mm x 20m	ø28mm x 20m
material of the heat exchanger in DHW tank	SUS316L	SUS316L	SUS316L
Surface area of the heat exchanger in DHW tank	1.23m ²	1.23m ²	1.23m ²
buffer tank volume	26L	26L	26L
expansion tank volume	8L	8L	8L
expansion tank pre-charged pressure	1.0bar	1.0bar	1.0bar
Minimum operating pressure heating circuit	0.5bar	0.5bar	0.5bar
Maximum operating pressure heating circuit	3bar	3bar	3bar
Power supply X2:Heating auxiliary electric heater			
-power supply	220-240V /50Hz	380-415V/3N/50Hz	380-415V/3N/50Hz
-rated capacity	3.1kW	9.0kW	9.0kW
-rated current	13.5A	13.0A	13.0A
-recommended fuse	16A	16A	16A
-recommended cable size	3X4mm ²	4X4mm ²	4X4mm ²
Power supply X1:DHW tank heater and others			
-power supply	220-240V /50Hz	220-240V /50Hz	220-240V /50Hz
-DHW tank heater rated capacity	3.1KW	3.1KW	3.1KW
-Rated power	3.4KW	3.4KW	3.4KW
-rated current	14.8A	14.8A	14.8A
-recommended fuse	16A	16A	16A
-recommended cable size	3X4mm ²	3X4mm ²	3X4mm ²
primary pump	Shimge APF25-8-130E FPWM1	Shimge APF25-8-130E FPWM1	Shimge APF25-10-130E FPWM1
secondary pump	Shimge APF25-8-130A	Shimge APF25-8-130A	Shimge APF25-12-130A
3 way valve	standard delivery	standard delivery	standard delivery
wifi App. + web platform	available	available	available
user interface	6" touch screen	6" touch screen	6" touch screen
heating water connection	G1"	G1"	G1"
DHW connection	G3/4"	G3/4"	G3/4"
Anti electric shock grade	I	I	I
Water proof grade	IPX4	IPX4	IPX4
N.W	163kg	163kg	163kg
dimension WXD _X H	665×665×1880mm	665×665×1880mm	665×665×1880mm
Compatible outdoor units	HS06V-HS15V		HS22V

🔥 Workable Range

Heating mode

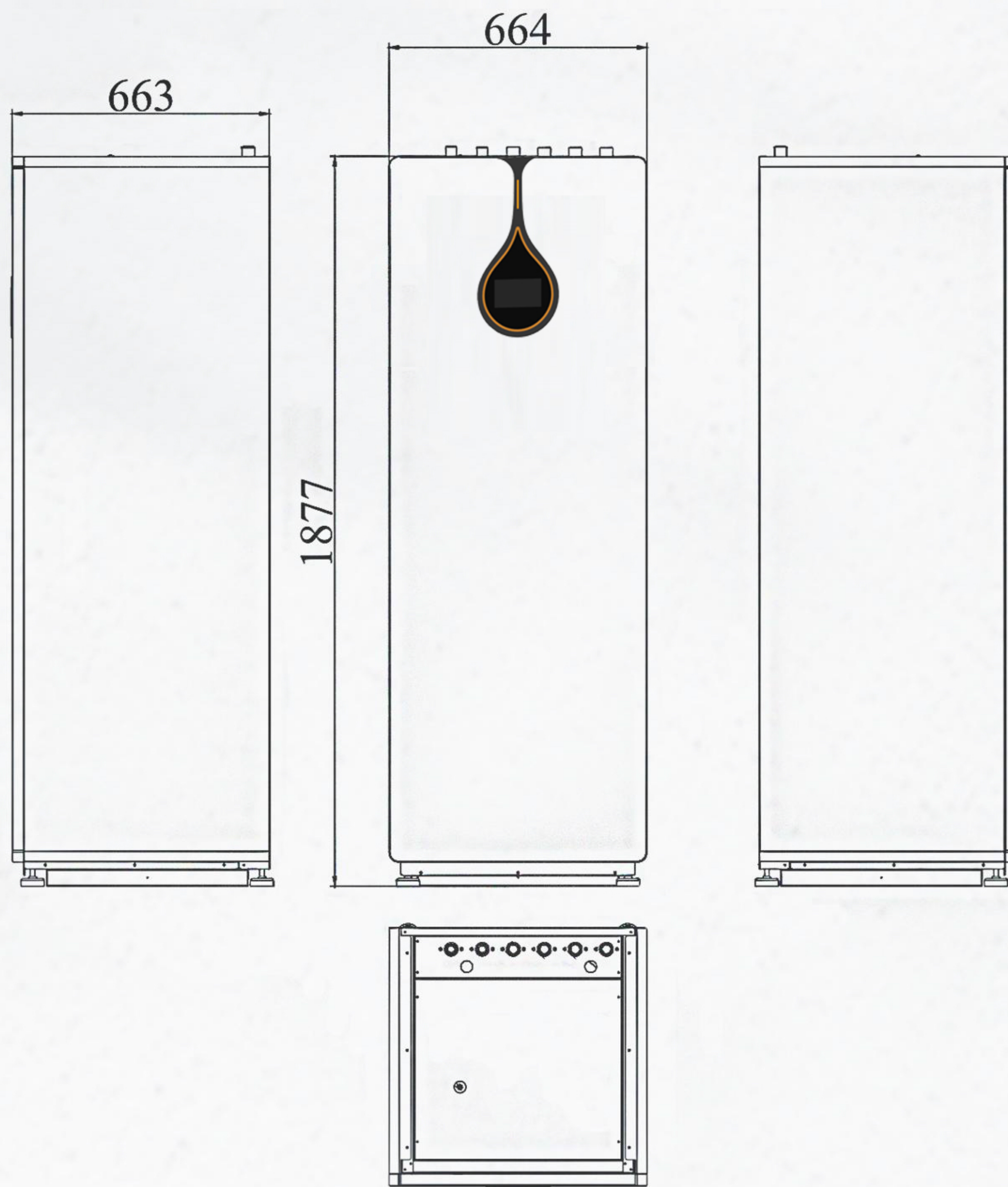


Cooling mode



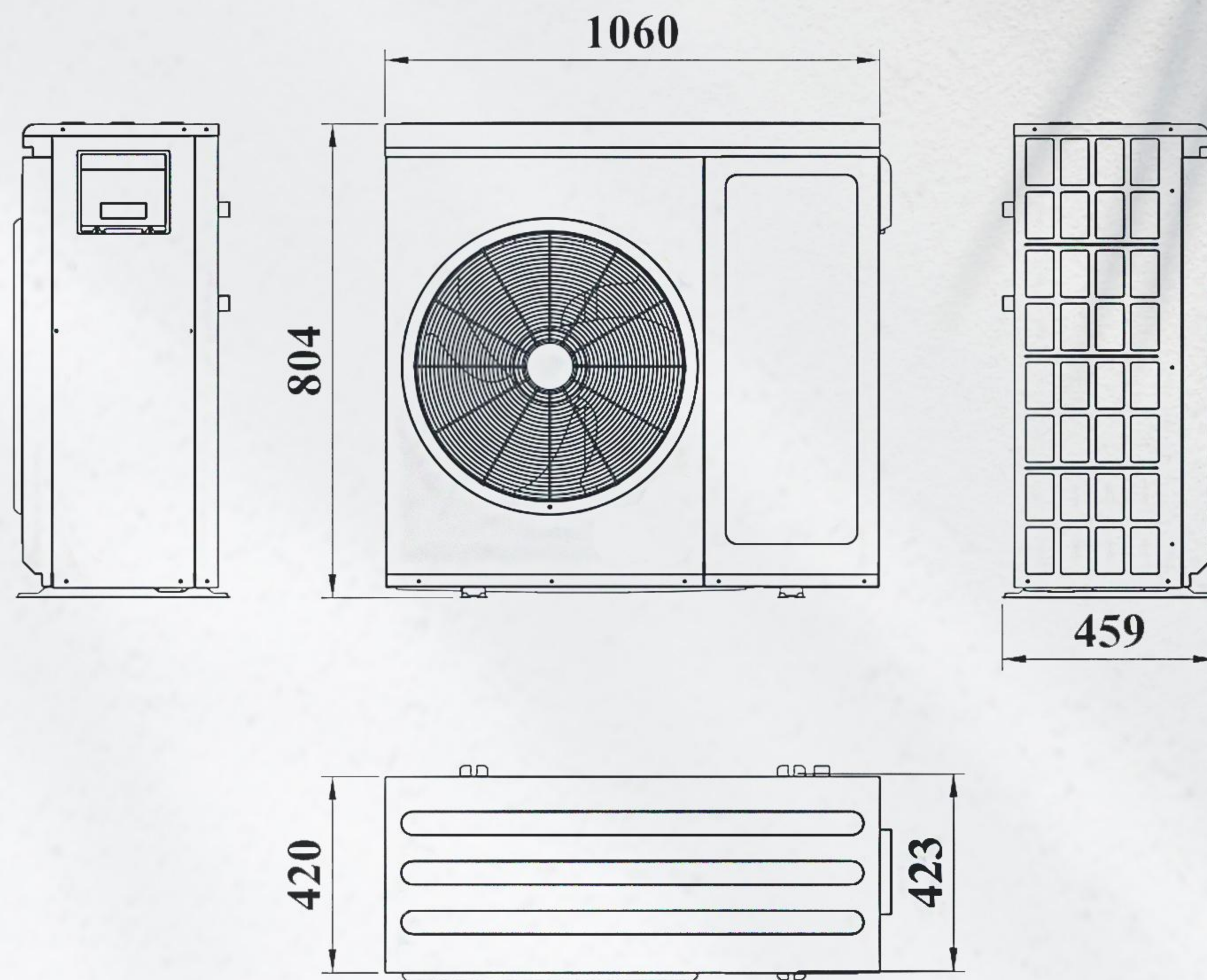
Dimension

Hydraulic Tower

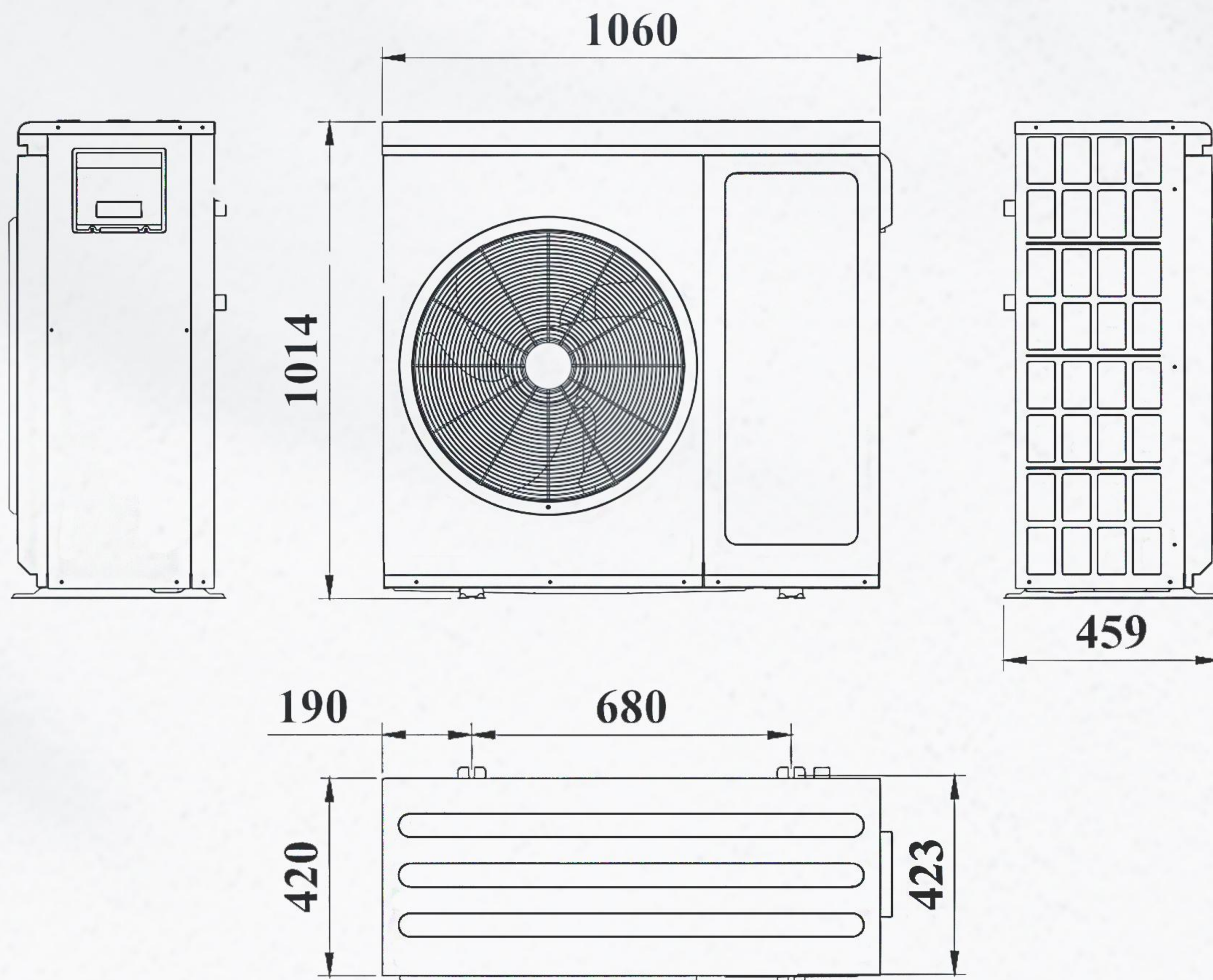


Dimension

HS06V

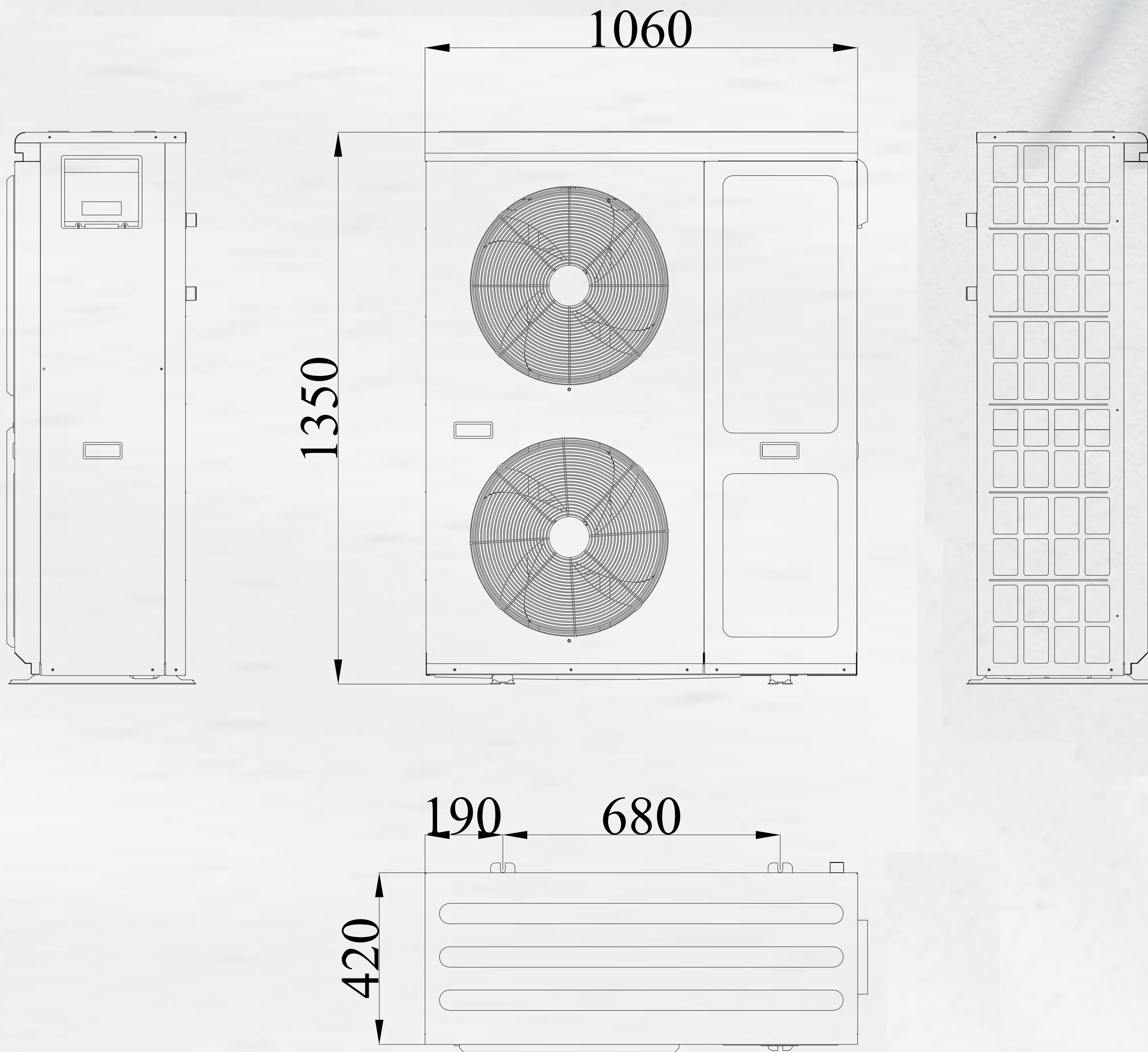


HS08V HS10V HS12V



Dimension

HS15V



HS22V

