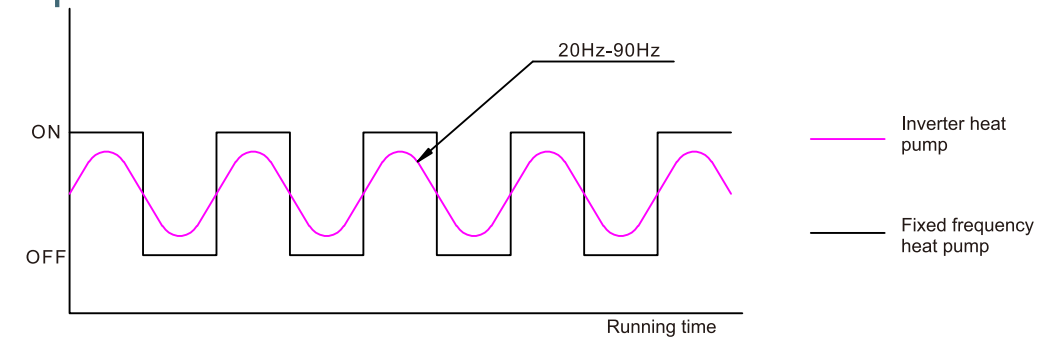
Hiseer Monoblcok DC Inverter Heat Pump

High efficiency
More comfortable
Energy saving
Environment friendly

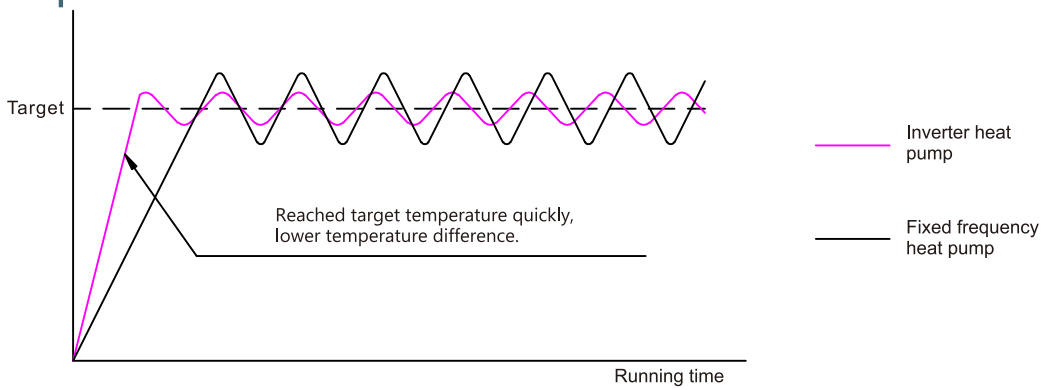
Hiseer DC inverter heat pump offers a wide heat output . It could adjust heat output automatically according to your house heating requirement . In winter , the inverter compressor and fan motor will runs on high speed to provide more heating when ambient temperature is very low ; If your house need less heating , it will drop running frequency down to 20Hz in which condition the heat pump will consume less electric power .

Heat pump is not just a heating system for new buildings , it can also be integrated into existing buildings that already have heating systems easily . Irrespective of whether you have a gas , oil boiler or solar panels , the heat pump switches on the 2nd heat generator according to demand for keeping lowest heating costs.

Compressor Control



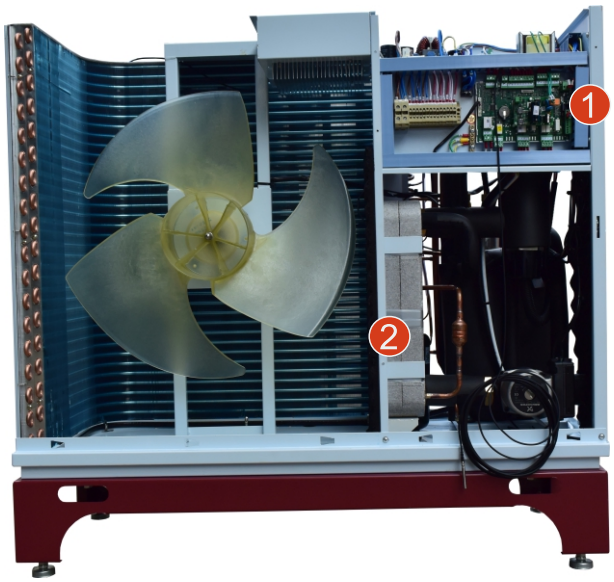
Temperature Control



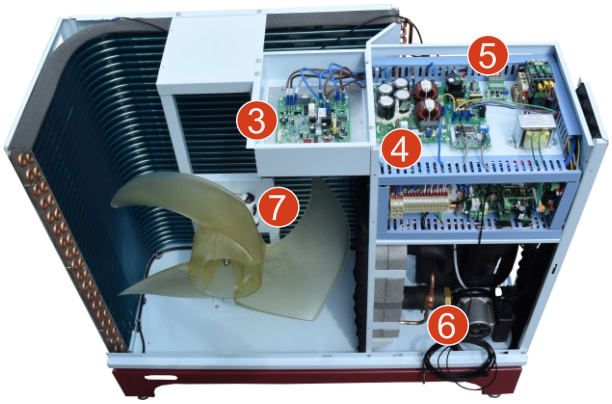
Hiseer DC Inverter Heat Pump Advantages:

1.Save more than 30% energy than fixed frequency heat pump
2.Soft start to protect your electric network
3.Smooth temperature varies curve
4.Wide heating/cooling output range
5.Can be used in combination with heat generators such as gas ,oil or solar that existing in buildings
6.Intelligent defrosting by reverse circulation
7.Weather compensation function: heating / cooling curve
8.Heating, cooling and domestic hot water
9. SG Ready.
10. Flow feedback Grundfos circulation pump ,saving water flow switch.

Main Components



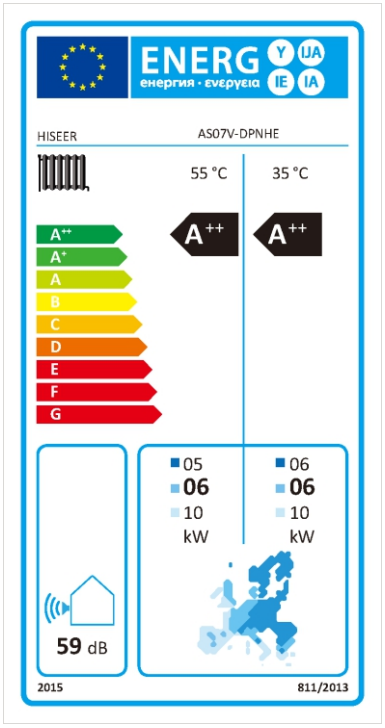
1. Carel Controller UP3B00200S3S
2. GEA / SWEP Plate Heat Exchanger

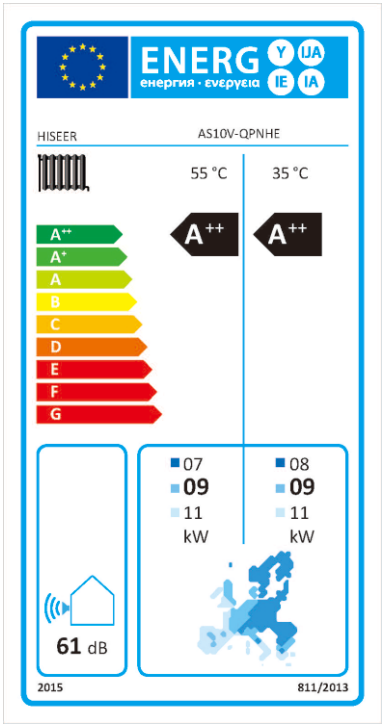


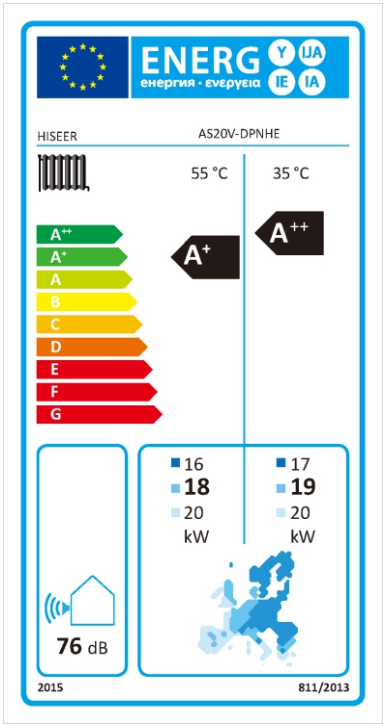
3. Sanhua Inverter
4. Sanhua EMC Filter Board
5. Circulation Pump Flow Feedback Board
6. Grundfos Circulation Pump
7. Panasonic EC Fan Motor

8. Saginomiya 4 Way Valve
9. Sanhua Harmonic Filter
10. Sanhua High/Low Pressure Transducer
11. Carel Electronic Expansion Valve
12. Mitsubishi Twin Rotary Compressor

Energy Labels







AIR SOURCE HEAT PUMP

PRODUCT FICHE

Type		Air to water inverter heatpump		
Model		AS07V	AS10V	AS20V
Temperature application		55°C		
Seasonal space heating energy efficiency classaverage climate		A^{++}	A^{++}	A^{+}
Rated heat output ,average climate	[KW]	6	9	18
Annual energy consumption, average climate *	[KWh]	4015	5478	11450
Seasonal space heating energy efficiency η_s, average climate		130%	139%	124%
SCOP ,average climate		3.32	3.56	3.20
Temperature application		35°C		
Seasonal space heating energy efficiency class, average climate		A^{++}	A^{++}	A^{++}
Rated heat output ,average climate	[KW]	6	9	19
Seasonal space heating energy efficiency η_s, average climate		162%	155%	165%
Annual energy consumption , average climate *	[KWh]	3081	4617	9226
Sound power level LWA, outdoors	[dB(A)]	59	61	76
SCOP ,average climate		4.13	3.96	4.20
Refrigerant type		R410A		
Global Warming Potential (GWP)		2088		
Heating Capacity at standard rating conditions**	[KW]	6.7	9.9	20.0
Power input at standard rating conditions***	[KW]	1.5	2.2	4.9
Dimension (H X W X D)	[mm]	1037X1100X476	1213X1100X476	1482X1100X500
Weight	[kg]	103	109	165
Power source		220-240V/1ph/50Hz		380-415V/3ph/50Hz

* The annual energy consumption kWh per year, based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

** The standard rating conditions: ambient temp. 7℃,heating flow temp. 35℃

Data Sheet

A ++

Model Number		AS07V		
Heating performance		Min.	Nominal	Max.
Heat output/Power consumption/COP at A7/W35℃	kW	1.92/0.43/4.46	6.69/1.47/4.67	8.64/2.02/4.18
Heat output/Power consumption/COP at A2/W35℃	kW	1.39/0.44/3.13	5.54/1.62/3.42	6.32/1.92/3.30
Heat output/Power consumption/COP at A-7/W35℃	kW	3.08/1.16/2.65	4.40/1.39/3.09	5.61/1.83/2.98
Heat output/Power consumption/COP at A-10/W35℃	kW	2.76/1.12/2.46	3.92/1.37/2.86	5.10/1.79/2.85
Heat output/Power consumption/COP at A-15/W35℃	kW	2.33/1.08/2.16	3.02/1.34/2.25	4.42/1.71/2.51
Heat output/Power consumption/COP at A7/W45℃	kW	1.72/0.57/3.02	6.34/1.80/3.52	8.24/2.43/3.39
Heat output/Power consumption/COP at A2/W45℃	kW	1.24/0.53/2.33	5.15/1.92/2.68	5.76/2.20/2.61
Heat output/Power consumption/COP at A-7/W45℃	kW	2.97/1.52/1.95	4.12/1.65/2.50	5.28/2.14/2.39
Heat output/Power consumption/COP at A-10/W45℃	kW	2.64/1.42/1.86	3.87/1.60/2.42	4.96/2.11/2.35
Heat output/Power consumption/COP at A-15/W45℃	kW	2.20/1.11/1.98	2.82/1.36/2.07	4.15/2.15/1.93
Heat output/Power consumption/COP at A7/W55℃	kW	1.58/0.68/2.32	6.19/2.14/2.85	7.84/2.83/2.73
Cool output/Power consumption/EER at A35/W7℃	kW	1.67/0.63/2.65	5.2/1.84/2.82	6.1/2.23/2.73
Nominal running current at A7/W35	A	6.2		
Max operating current	A	16		
Power Supply		230V/50Hz		
Compressor		Mitsubishi Electric twin rotary		
Condenser		Brazed plate heat exchanger		
Nominal flow heating medium	m3/h	1.20		
Internal pressure drop at nominal flow	kPa	11		
Nominal air flow	m^3/h	2000		
Nominal fan output	W	75		
Max outlet heating medium temperature	℃	55		
Refrigerant R410A filling weight	kg	**1.6**		
Dimensions (HxWxD)	mm	1037X1100X476		
Pipe connector		G1'		
Net Weight	kg	110		
Operating ambient temp. range	℃	Heating -20~35		
		DHW -20~43		
		Cooling 10~45		
Sound power level L_{WA}	dB(A)	59		

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

The Sound power level is tested by EN12102

Data Sheet

A ++

Model Number		AS10V		
Heating performance		Min.	Nominal	Max.
Heat output/Power consumption/COP at A7/W35℃	kW	2.72/0.61/4.42	9.90/2.17/4.56	12.38/2.94/4.21
Heat output/Power consumption/COP at A2/W35℃	kW	2.29/0.76/3.01	8.38/2.36/3.54	10.21/3.02/3.38
Heat output/Power consumption/COP at A-7/W35℃	kW	2.53/1.20/2.25	6.56/2.25/2.92	8.24/2.82/2.96
Heat output/Power consumption/COP at A-10/W35℃	kW	2.25/1.16/1.94	5.66/2.25/2.51	7.25/2.86/2.53
Heat output/Power consumption/COP at A-15/W35℃	kW	2.38/1.40/1.71	4.47/2.23/2.01	6.33/2.56/2.47
Heat output/Power consumption/COP at A7/W45℃	kW	2.61/0.76/3.43	9.52/2.61/3.64	11.79/3.45/3.41
Heat output/Power consumption/COP at A2/W45℃	kW	2.20/0.79/2.76	8.06/2.68/3.0	9.66/3.40/2.84
Heat output/Power consumption/COP at A-7/W45℃	kW	2.77/1.43/1.93	6.30/2.53/2.51	7.75/3.37/2.30
Heat output/Power consumption/COP at A-10/W45℃	kW	2.47/1.42/1.74	5.42/2.52/2.15	6.90/3.39/2.03
Heat output/Power consumption/COP at A-15/W45℃	kW	2.62/1.68/1.56	4.29/2.31/1.84	6.0/3.34/1.79
Heat output/Power consumption/COP at A7/W55℃	kW	2.52/0.91/2.75	9.16/3.25/2.82	11.20/4.12/2.71
Cool output/Power consumption/EER at A35/W7℃	kW	2.02/0.72/2.80	7.85/2.60/3.02	8.89/3.12/2.85
Nominal running current at A7/W35	A	9.3		
Max operating current	A	19		
Power Supply		230V/50Hz		
Compressor		Mitsubishi Electric twin rotary		
Condenser		Brazed plate heat exchanger		
Nominal flow heating medium	m3/h	1.72		
Internal pressure drop at nominal flow	kPa	18		
Nominal air flow	m^3/h	3000		
Nominal fan output	W	110		
Max outlet heating medium temperature	℃	55		
Refrigerant R410A filling weight	kg	**3.2**		
Dimensions (HxWxD)	mm	1213X1100X476		
Pipe connector		G1'		
Net Weight	kg	109		
Operating ambient temp. range	℃	Heating -20~35		
		DHW -20~43		
		Cooling 10~45		
Sound power level L_{WA}	dB(A)	61		

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

The Sound power level is tested by EN12102

Data Sheet

A ++

Model Number		AS20V		
Heating performance		Min	Nominal	Max
Heat output/Power consumption/COP at A7/W35℃	kW	9.03/1.91/4.72	20.03/4.89/4.09	24.72/6.76/3.65
Heat output/Power consumption/COP at A2/W35℃	kW	7.58/1.96/3.86	17.63/4.91/3.59	21.7/6.57/3.3
Heat output/Power consumption/COP at A-7/W35℃	kW	5.69/2.2/2.58	13.4/4.72/2.83	16.23/6.25/2.59
Heat output/Power consumption/COP at A-10/W35℃	kW	4.75/1.5/3.16	12.05/4.61/2.61	15.33/6/2.55
Heat output/Power consumption/COP at A-15/W35℃	kW	4.1/2.14/1.91	10.55/4.42/2.38	13.29/5.76/2.3
Heat output/Power consumption/COP at A7/W45℃	kW	8.58/2.37/3.62	19.00/5.58/3.41	23.8/7.06/3.37
Heat output/Power consumption/COP at A2/W45℃	kW	7.2/2.38/3.03	16.98/5.58/3.04	19.68/6.95/2.83
Heat output/Power consumption/COP at A-7/W45℃	kW	7.81/3.86/2.02	13/5.58/2.33	15.92/7.04/2.26
Heat output/Power consumption/COP at A-10/W45℃	kW	6.91/4.08/1.69	11.8/5.50/2.15	13.9/6.98/1.99
Heat output/Power consumption/COP at A-15/W45℃	kW	7.07/3.88/1.82	10.38/5.25/1.98	12.15/7.27/1.67
Heat output/Power consumption/COP at A7/W55℃	kW	6.96/2.63/2.65	17.98/6.56/2.74	23.11/8.82/2.62
Cool output/Power consumption/EER at A35/W7℃	kW	6.23/2.12/2.93	15.08/5.63/2.68	17.44/6.86/2.54
Nominal running current at A7/W35	A	7.9		
Max operating current	A	22		
Power Supply		380~415V/50Hz		
Compressor		Mitsubishi Electric twin rotary		
Condenser		Brazed plate heat exchanger		
Nominal flow heating medium	m3/h	3.45		
Internal pressure drop at nominal flow	kPa	32		
Nominal air flow	m^3/h	6000		
Nominal fan output	W	260		
Max outlet heating medium temperature	℃	55		
Refrigerant R410A filling weight	kg	3.6		
Dimensions (HxWxD)	mm	1482X1100X500		
Pipe connector		G1-1/2"		
Net Weight	kg	172		
Operating ambient temp. range	℃	Heating -20~35		
		DHW -20~43		
		Cooling 10~45		

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

Rated Speed Performance Curve

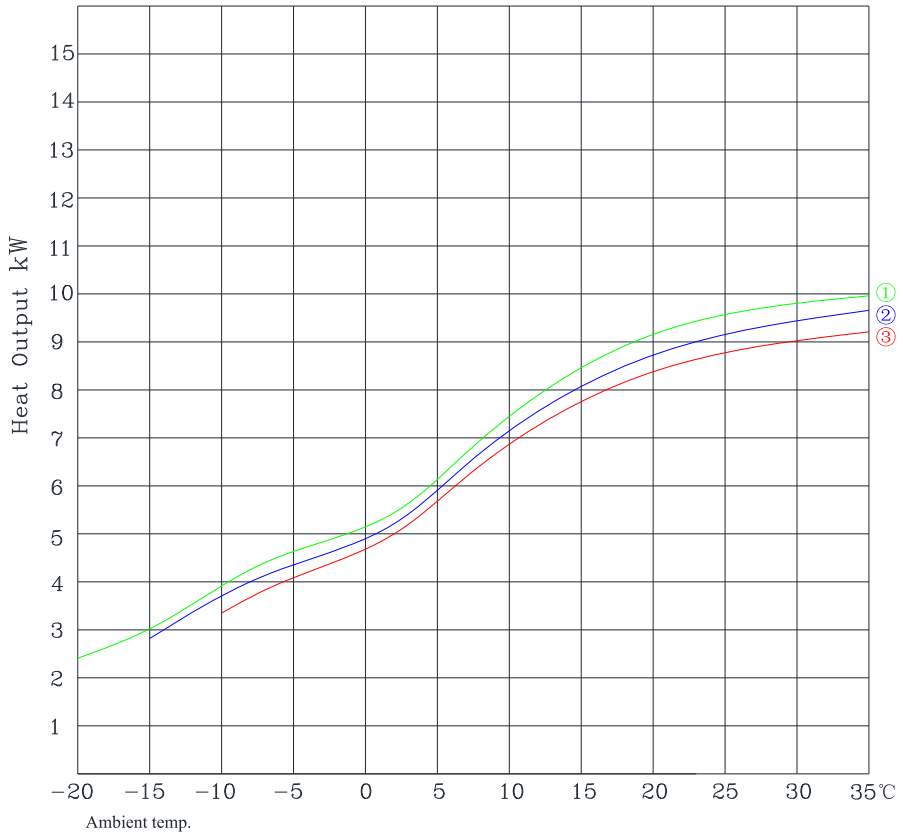
Model:AS07V

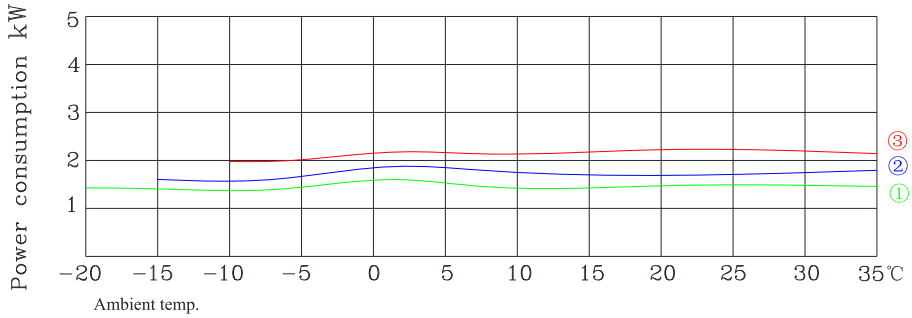
Heating performance curve

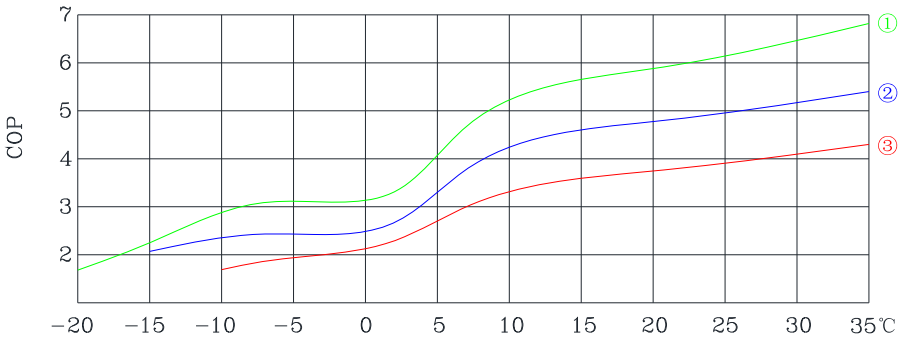
1=Flow temperature 35℃ Full load

2=Flow temperature 45℃ Full load

3=Flow temperature 55℃ Full load







Rated Speed Performance Curve

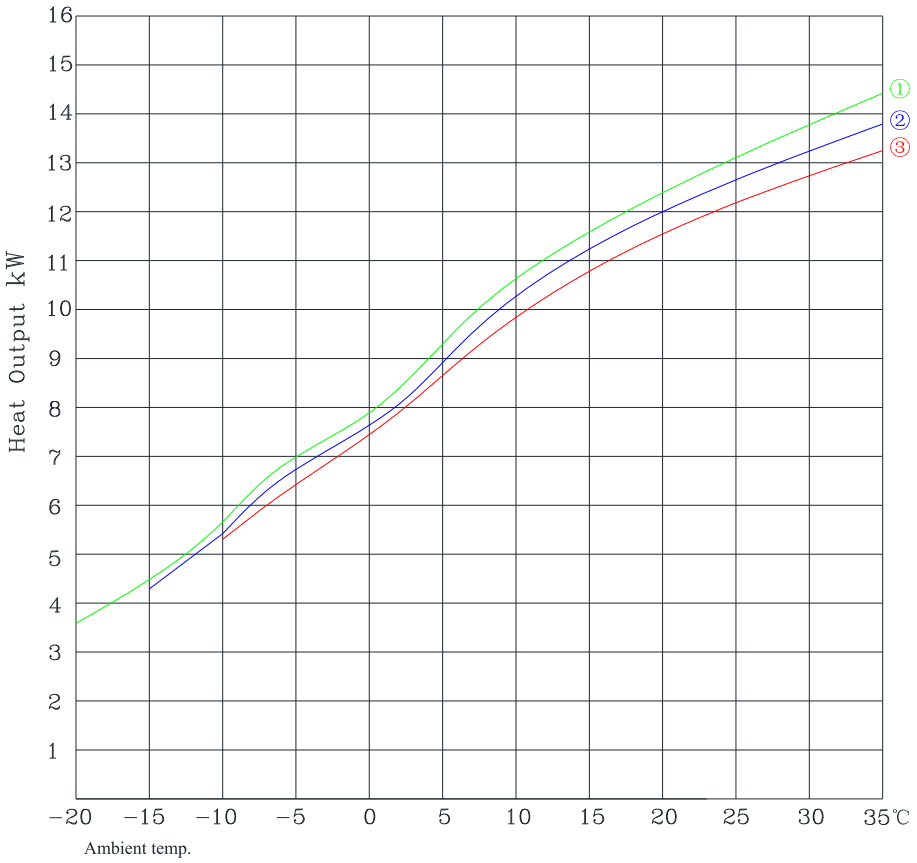
Model:AS10V

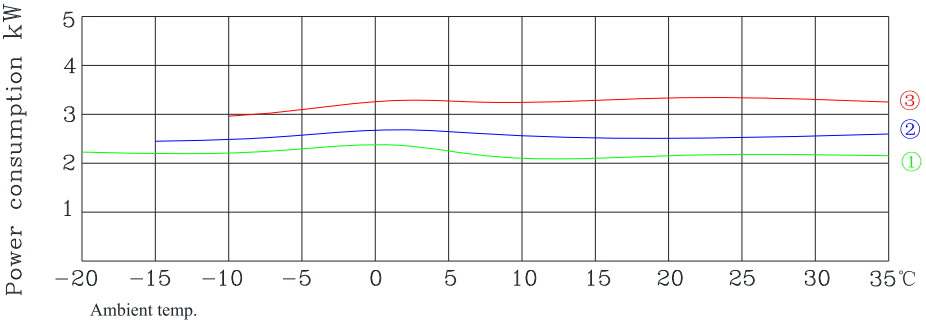
Heating performance curve

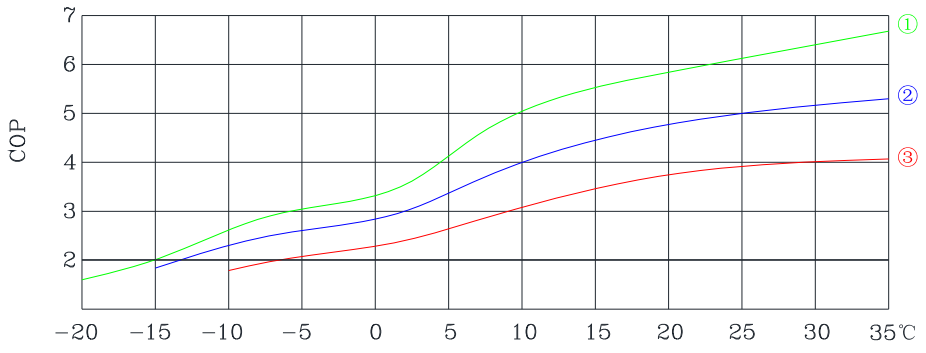
1=Flow temperature 35℃ Full load

2=Flow temperature 45℃ Full load

3=Flow temperature 55℃ Full load





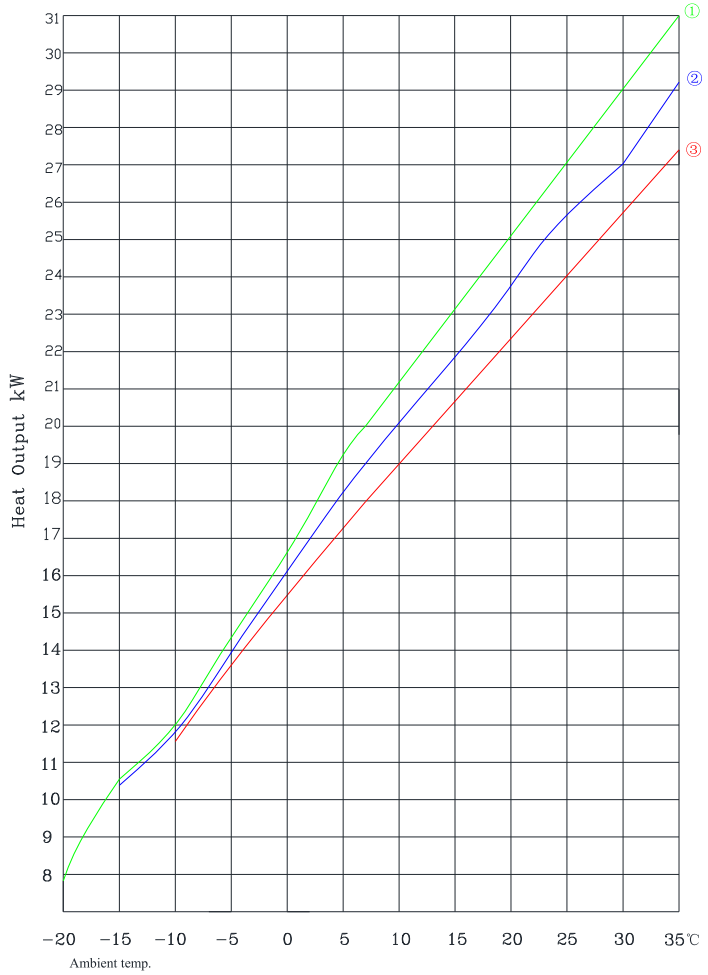


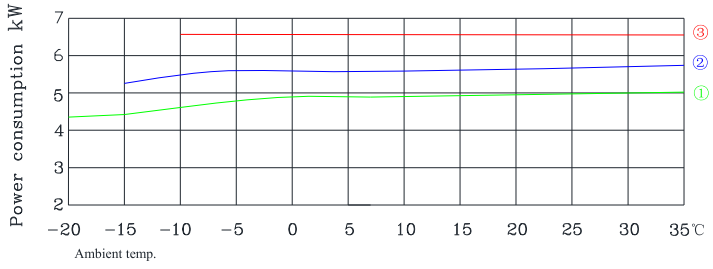
Rated Speed Performance Curve

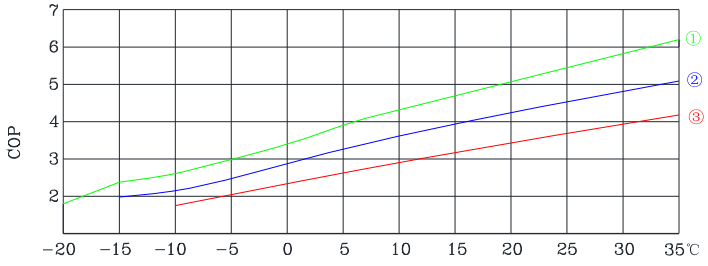
Model:AS20V

Heating performance curve

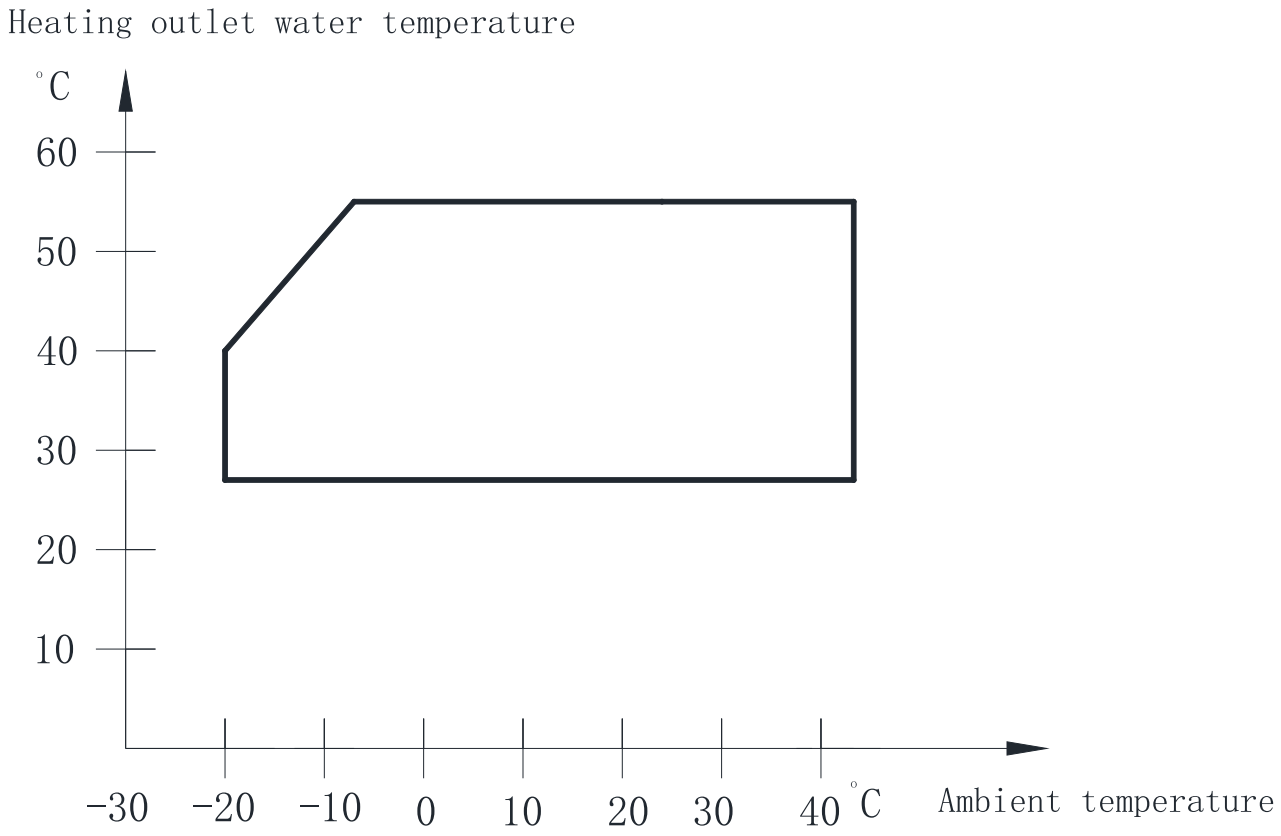
1=Flow temperature 35℃ Full load
2=Flow temperature 45℃ Full load
3=Flow temperature 55℃ Full load



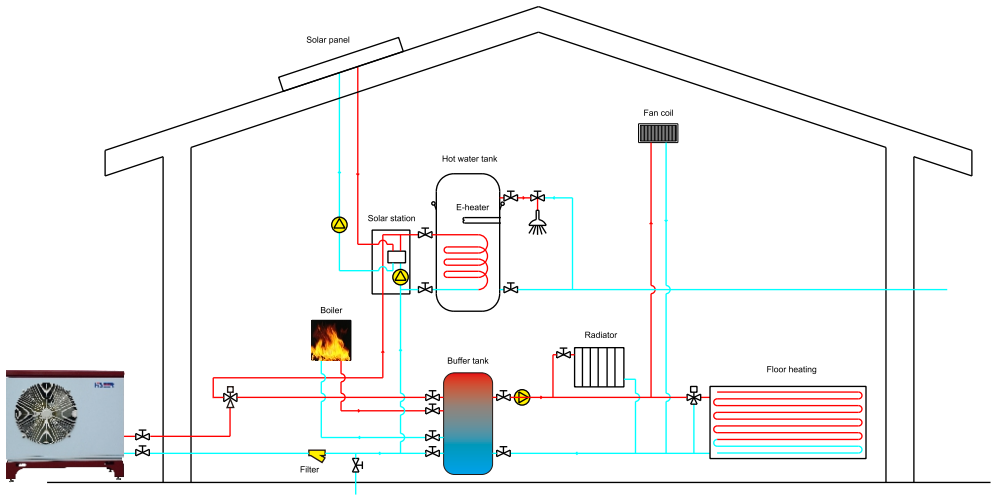




Workable Range

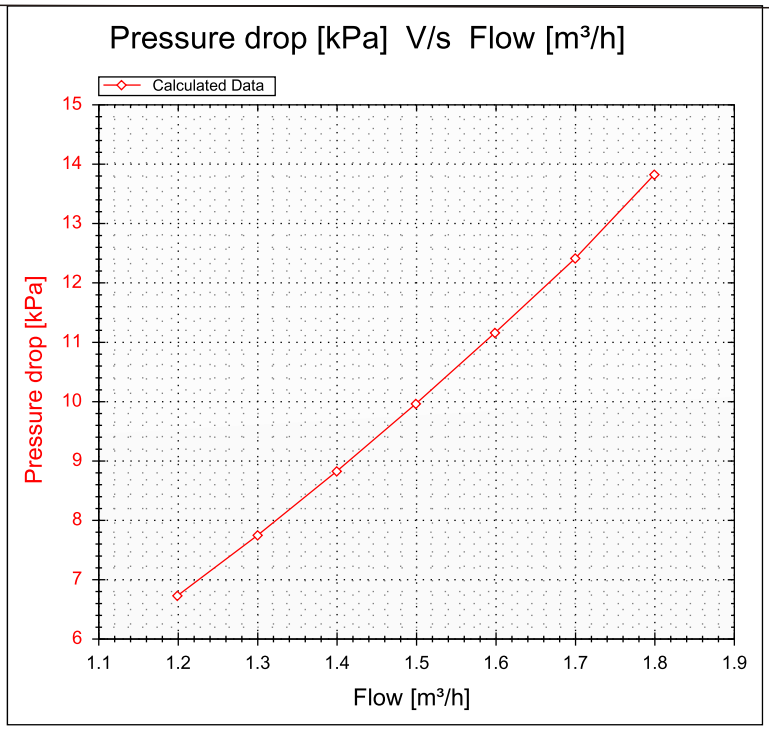


Typical application

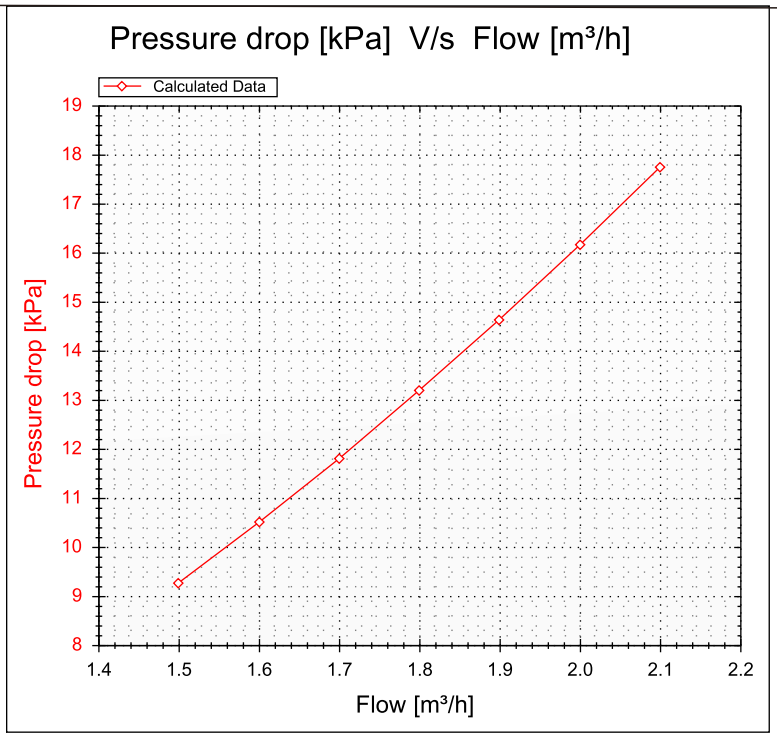


Pressure Drop Curve

AS07V

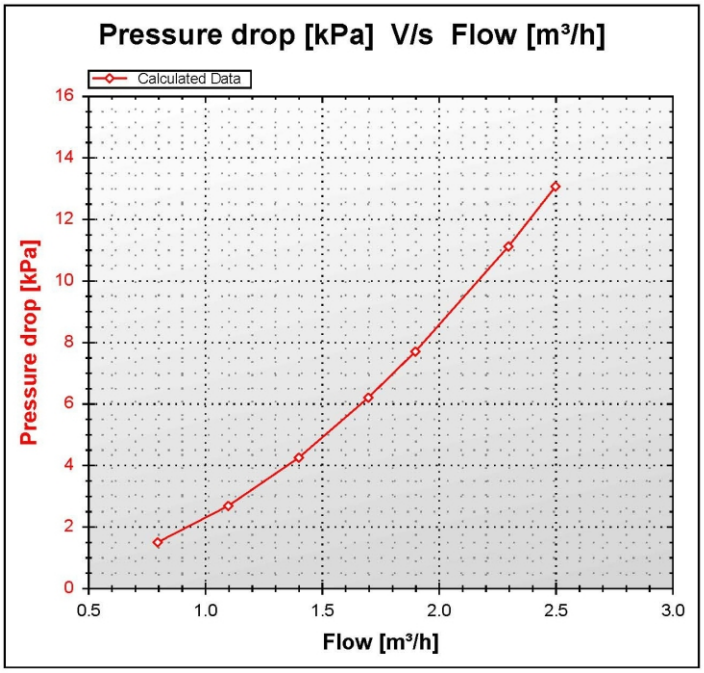


AS10V



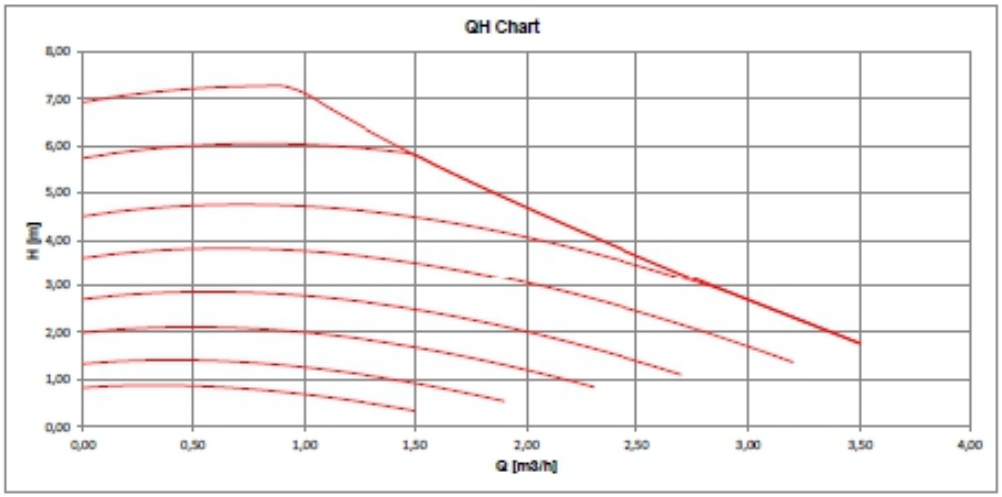
Pressure Drop Curve

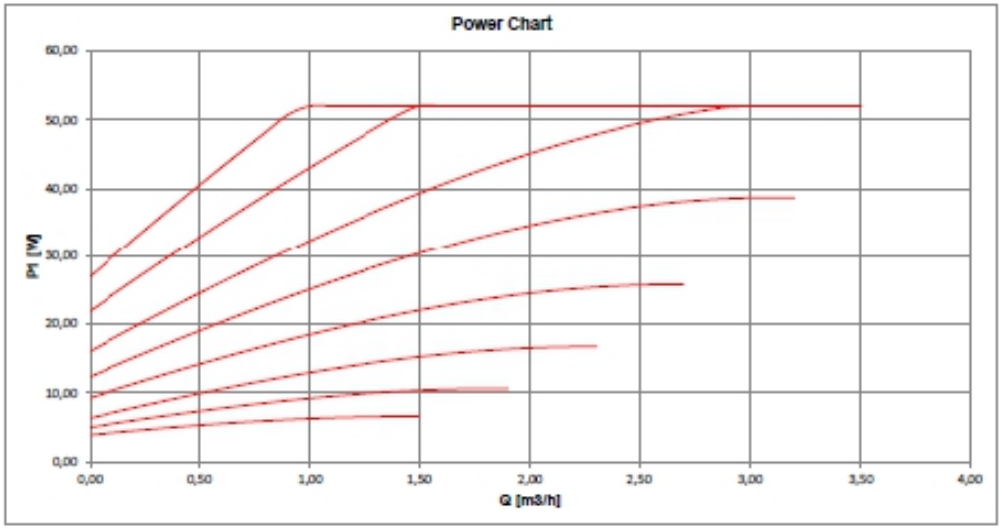
AS20V

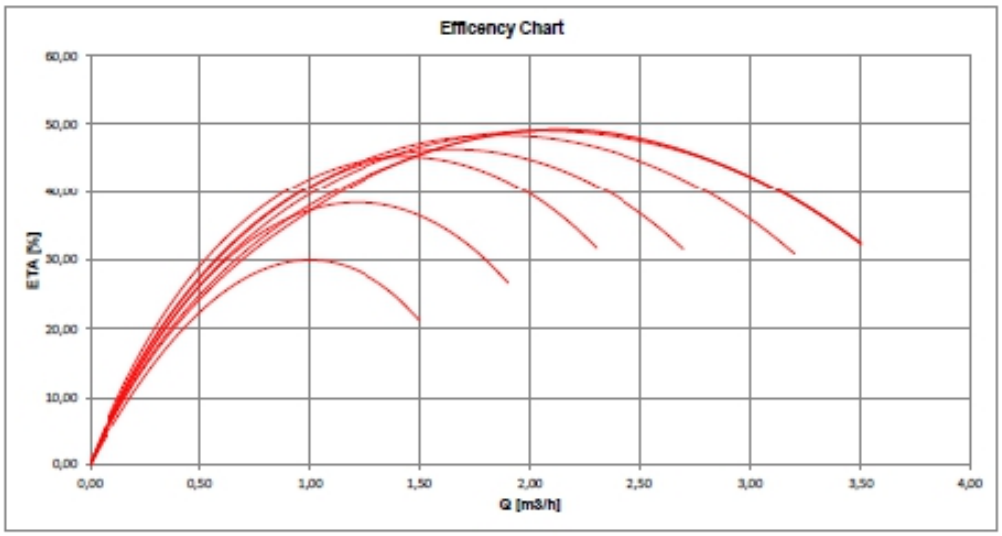


Internal Pump Grundfos UPM3K 25-75 Curve (AS07V AS10V)

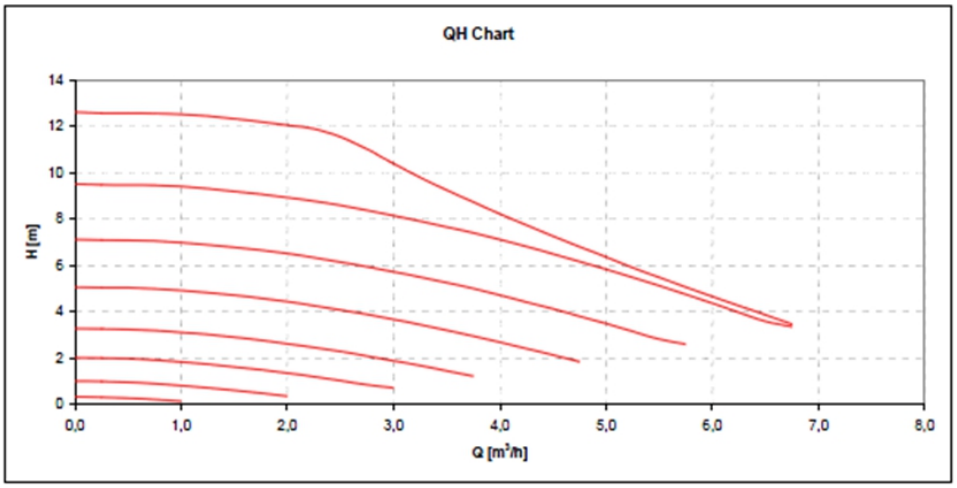
Title Test data UPM3 PWM 7.0m 130
Product no

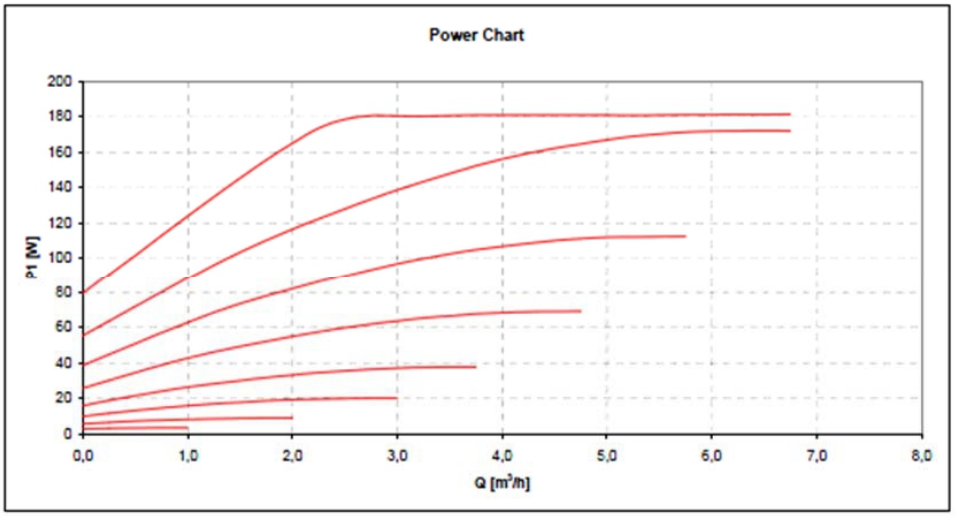


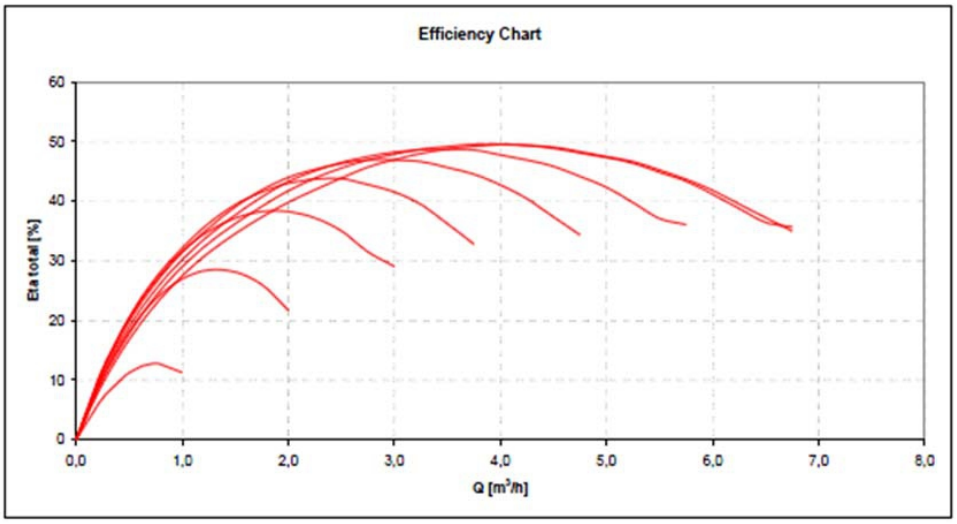




Internal Pump Grundfos UPMXL GEO 25-125 Curve (AS20V)

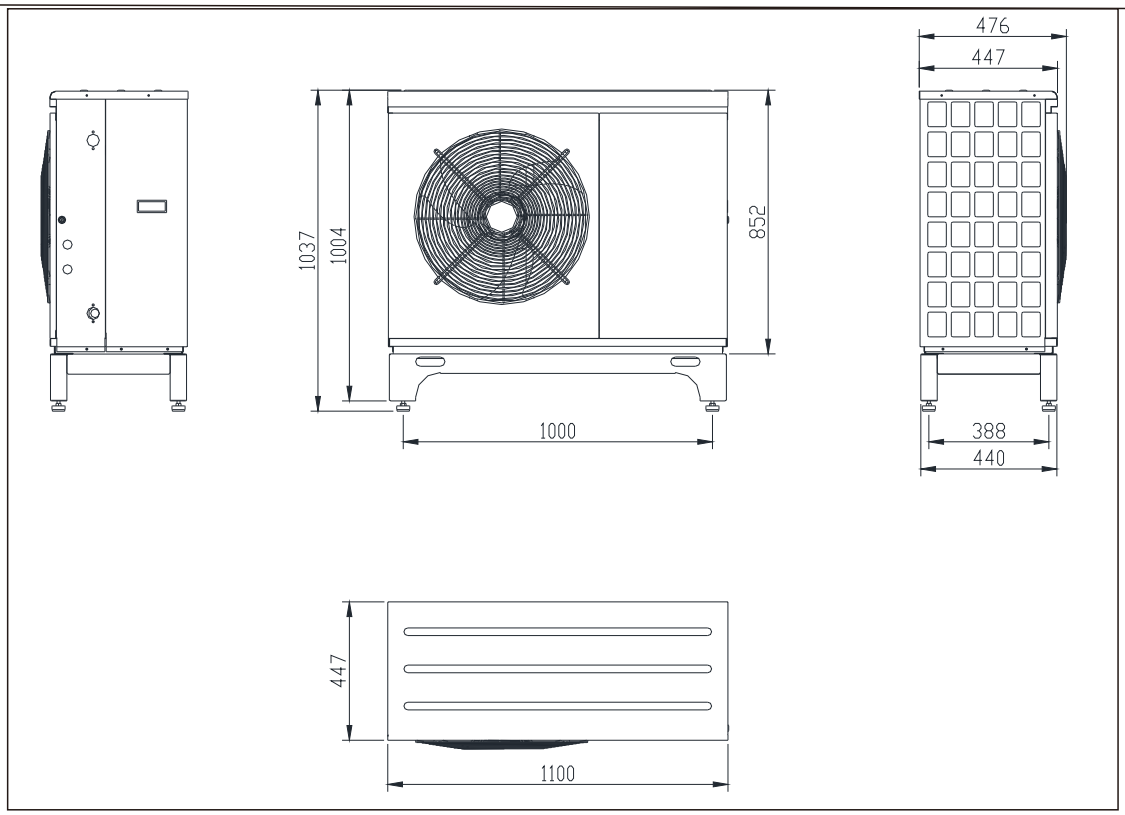




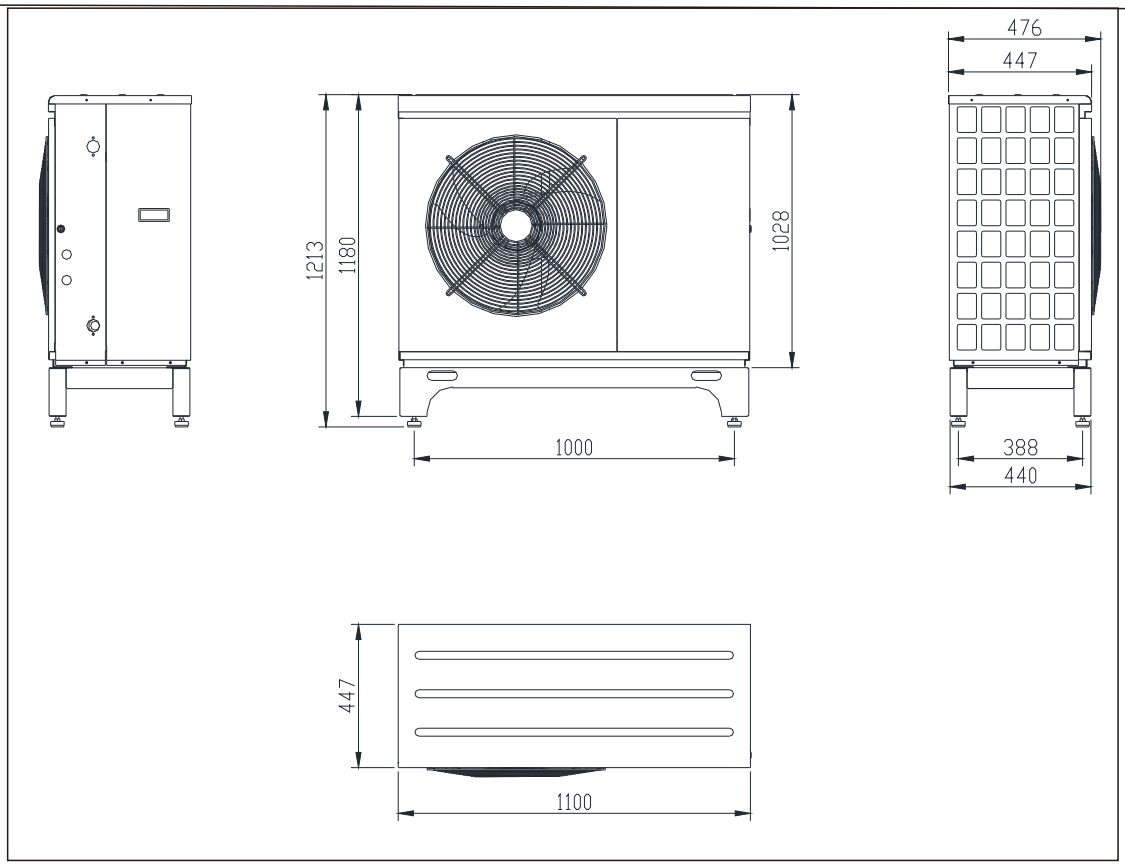


Hiseer DC Inverter Air Source Heat Pump Dimension :

AS07V

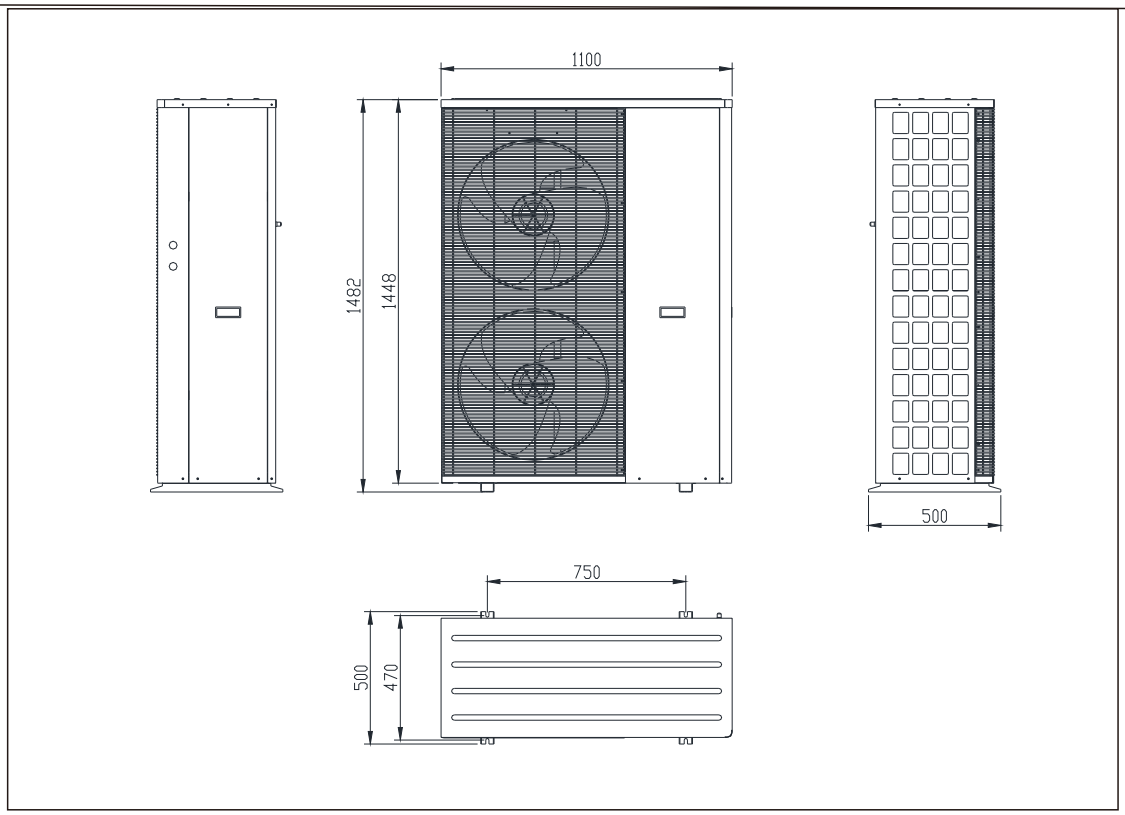


AS10V



Hiseer DC Inverter Air Source Heat Pump Dimension :

AS20V



Hiseer DC Inverter Air Source Heat Pump Ichnography Installation Drawing: