BLUEWAY

ErP

New Energy Efficiency Standard

HIGH-EFFICIENCY HEAT PUMP

Heating & Cooling Solutions

Blueway offers inverter type and constant type air to water heat pump of space heater (split/ Monobloc) and combination heaters (split DHW integrated).
The heat pump is able to retrieve heat from the air down to -25 ℃ outdoor temperature,its core philosophy is to solve user’ s home heating during winter and cooling during summer,as well as domestic hot water.It can work with solar,boiler or electric heater according to practical condition of the heating system.

Features

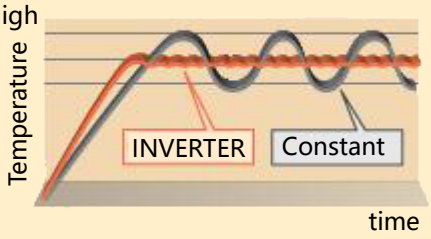
- Extended working range down to -25℃ ambient
- High COP at low ambient temperature (up to 2.5 even at -15℃ ambient)
- EVI or compressor (constant type) ; DC inventer compressor （Inventer type）
- Using electronic expansion valve, achieving accurate, stable and high efficiency throttling
- Stainless steel plate heat exchanger as condenser
- Intelligent LCD touch key wire controller
- Four-way valve for automatic defrosting (cooling function optional)
- Built in water pump
- Bottom heater included
- Built in electric heating element
- 5 modes: heating only, heating+hot water, hot water only, cooling only, cooling+hot water
- With control output for three-way valve

Blueway General Solutions

High energy saving and High power technology

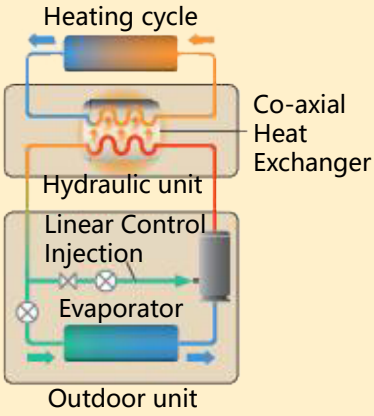
Accurate temperature control by DC inverter technology

Blue drive inverter technology

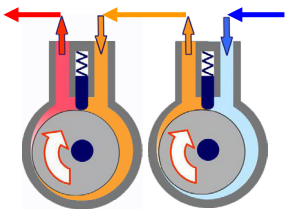


TWIN ROTARY COMPRESSOR with Linear Control Injection port

Injection port



It realizes the high condensing temperature without overheating discharge gas temperature by Linear Control Injection process during compression. Therefore,the condensing temperature rises up higher than normal circuit.A higher hot water temperature is realized by controlling the injection amount according to the usage state.



Two-stage Enthalpy-increasing Compressor Technology (Only for some DC inverter and constant model)

- Such compressor is with high volume efficiency and low leakage volume, which is more obvious as the increase of pressure ratio.
- Increase heating capacity in low-temp. environment and cooling capacity in high-temp. environment by vapor-injected method.

High durability

Plate Heat Exchanger

High efficiency more compact

High Efficiency Class A Pump

Energy saving pump with constant volume or pressure adjustment function

SPLIT TYPE

BLUEWAY Split Type Air to Water Heat Pump has an outdoor unit and an indoor unit. The compressor is located in the outdoor unit and the hydronic components are located in the indoor unit. It supply heating, cooling and domestic hot water.

Free Standing Indoor Unit

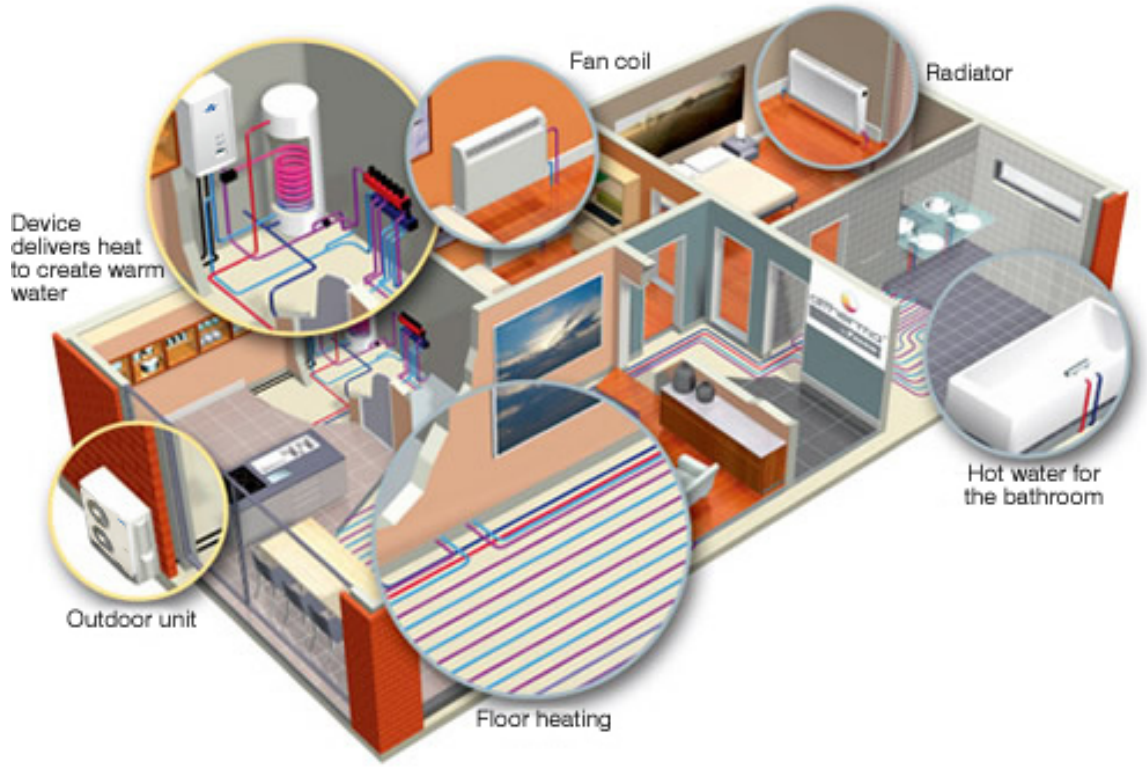
Wall Mounted Indoor Unit

Outdoor Unit

FEATURES

- No water freezing problem with split design (water system inside the house)
- The outdoor unit is designed for anti-snow
- The indoor unit is designed for substituting traditional boilers easily, with luxurious façade

APPLICATIONS



SPLIT TYPE

KEY COMPONENTS

INDOOR UNIT

Standard Unit Composition

- Sus 316 of brazed plate heat exchanger
- Motorized 3-way valve(optional)
- Circulation water pump
- Expansion vessel
- Buffer tank with electric back up heater element
- safety valve
- Air purge valve
- Full sealed control box with water proof level IPX5
- Intelligent user interface
- Water pressure guage
- Rerigerant pressure guage
- Flow switch for water flow protection
- Base frame and external frame made of powder coadted steel

OUTDOOR UNIT

Standard Unit Composition

- Inverter or constant compressor with crankcase heater and thermal protection
- Eco-friendly high efficiency R410A refrigerant
- Air heat exchanger made of inner grooved copper tubes and blue hydraulic coated alluminum fins,for high efficiency and corrosion resistance
- Factory wired ambient air temperature sensor
- Heavy guage galvanized steel cabient with epoxy powder painting for long lasting outdoor life span
- Electric expansion valve
- Air purge valve
- Automatic intelligent defrosting
- Bottom plate heater to keep the base free of ice and the drain holes open
- High pressure and low pressure protection

SPECIFICATION DATAS

EVI Low Ambint Heat Pump - Split

Model			EHP-10S	EHP-13S	EHP-16S	EHP-22S	EHP-30S
HP			4	5	6	8	10
Power supply		V/Ph/Hz	380-415V/3Ph/50Hz				
A7/W35℃	Heating capacity	kW/h	10.3	13.2	16.5	22.3	30.5
	Power input	kW	2.58	3.38	4.23	5.87	7.44
	Running current	A	4.6	6.1	7.6	10.5	13.3
	COP	-	4.0	3.9	3.9	3.8	4.1
A7/W45℃	Heating capacity	kW/h	10.1	12.9	16.2	21.9	29.3
	Power input	kW	3.06	4.03	5.10	6.94	8.88
	Running current	A	5.5	7.2	9.1	12.4	15.9
	COP	-	3.30	3.21	3.17	3.15	3.30
A35/W7℃	Cooling capacity	kW/h	7.9	10.0	12.5	16.4	21.5
	Power input	kW	2.81	3.56	4.53	5.96	7.68
	Running current	A	5.0	6.4	8.1	10.7	13.7
	EER	-	2.80	2.80	2.75	2.75	2.80
Energy Efficiency Class at 35℃			A++	A++	A++	A++	A++
Energy Efficiency Class at 55℃			A++	A++	A++	A++	A++
Noise level		DB(A)	60	64	65	65	65
Rated outlet water temp.		℃	55				
Max outlet water temp.		℃	60				
Ambient temperature range		℃	-20~43				
Rated water flow rate		L/S	0.49	0.63	0.79	1.07	1.46
Rated pressure drop		kPa	50	50	50	50	50
Max. Working Pressure	Refrigerant	Bar	44	44	44	44	44
	Water	Bar	7	7	7	7	7
Water connection ø		mm	28	28	28	28	32
Controller		-	Micro processor based digital wire controller with LCD display				
External cabinet		-	Galvanized steel with powder coating				
Compressor	Make	-	Copeland/Hitachi				Danfoss
	Type	-	EVI Scroll				
	Nos.	-	1	1	1	1	1
	Refrigerant	-	R410A				
Water heat exchanger	Type	-	Brazed plate heat exchanger				
	Materials	-	SUS 316				
Built in electric heater		-	optional	optional	optional	optional	optional
Built in four-way valve		-	yes	yes	yes	yes	yes
Built in pump		-	Wilo/Xinhu	Wilo/Xinhu	Wilo/Xinhu	Wilo/Xinhu	Wilo/Xinhu
Dimension (W*D*H)	Indoor Unit (Free Standing Type)	mm	660*650*1150	660*650*1150	660*650*1150	1200×650×1150	1200×650×1150
	Indoor Unit (Wall Mounted Type)	mm	1020*455*330	1020*455*330	1020*455*330	1020*455*330	1020*455*330
	Outdoor Unit	mm	970*450*830	970*400*1260	970*400*1260	1105×515×1500	1105×515×1500

Note:
For free standing type, the compressor is located in the indoor unit;
while for wall mounted type, the compressor is located in the outdoor unit.

SPECIFICATION DATAS

DC Inverter Heat Pump - Split

Model			DHP-09S	DHP-12S	DHP-15S	DHP-15ST	DHP-18S	DHP-24S	DHP-30S
HP			3	4	5	5	6	8	10
Power supply		V/Ph/Hz	200-240V/1Ph/50Hz			380-415V/3Ph/50Hz			
+7℃ /35℃ floor heating	Heating capacity	kW/h	9	12.0	15.0	15.0	18.0	24.0	30.0
	Power input	kW	2.1	2.70	3.50	3.40	4.30	5.60	7.30
	COP	-	4.2	4.4	4.3	4.4	4.2	4.3	4.1
+2℃ /35℃ floor heating	Heating capacity	kW/h	6.8	11.3	12.7	12.7	15.3	21.7	25.6
	Power input	kW	2.1	3.40	3.85	3.80	4.60	6.60	8.20
	COP	-	3.2	3.30	3.30	3.30	3.30	3.30	3.10
-7℃ /35℃ floor heating	Cooling capacity	kW/h	6	10.0	11.0	11.0	13.3	18.9	22.3
	Power input	kW	2.4	3.85	4.40	4.40	5.40	7.60	9.20
	EER	-	2.5	2.60	2.50	2.50	2.45	2.50	2.40
+7℃ /45℃ radiators	Heating capacity	kW/h	7.8	10.3	13.0	13.0	15.3	20.6	25.5
	Power input	kW	2.4	3.30	4.00	4.00	4.80	6.30	8.20
	COP	-	3.2	3.10	3.30	3.30	3.20	3.30	3.10
-7℃ /45℃ radiators	Heating capacity	kW/h	7.6	10.1	13.0	13.0	15.2	20.6	25.3
	Power input	kW	3.4	5.00	6.20	6.20	7.20	9.80	12.60
	COP	-	2.2	2.00	2.10	2.10	2.10	2.10	2.00
+35℃ /7℃ fan coil	Cooling capacity	kW/h	7	10.0	11.8	11.8	14.5	20.0	25.0
	Power input	kW	2.6	3.60	4.50	4.50	5.80	7.10	10.00
	EER	-	2.7	2.80	2.60	2.60	2.50	2.80	2.50
Energy Efficiency Class at 35℃			A++	A++	A++	A++	A++	A++	A++
Energy Efficiency Class at 55℃			A++	A++	A++	A++	A++	A++	A++
Noise level		DB(A)	52	53	55	55	55	56	56
Rated outlet water temp.		℃	7~55						
Max outlet water temp.		℃	60						
Ambient temperature range		℃	-20~43						
Rated water flow rate		L/S	0.43	0.57	0.72	0.72	0.86	1.15	1.43
Rated pressure drop		kPa	30	40	45	45	45	40	47
Max. Working Pressure	Refrigerant	Bar	44	44	44	44	44	44	44
	Water	Bar	7	7	7	7	7	7	7
Water connection		inch	1"	1"	1"	1"	1"	1-1/4"	1-1/4"
Controller		-	Micro processor based digital wire controller with LCD display						
External cabinet		-	Galvanized steel with powder coating						
Compressor	Make	-	Mitsubishi				Hitachi		
	Type	-	Rotary				Scroll		
	Nos.	-	1	1	1	1	1	1	1
	Refrigerant		R410A						
	Refrigerant amount	Kg	1.45	1.9	2.5	2.5	2.6	4.2	4.5
Water heat exchanger	Type	-	Brazed plate heat exchanger						
	Materials	-	SUS 316						
Copper pipe Diameter	Gas/Liquid	inch	5/8"/1/4"	5/8"/3/8"			3/4"/3/8"	7/8"/1/2"	
Built in electric heater		-	optional	optional	optional	optional	optional	optional	optional
Built in four-way valve		-	yes	yes	yes	yes	yes	yes	yes
Built in pump		-	Wilo/Xinhu						
Dimension (W*D*H)	Indoor Unit (Free Standing Type)	mm	660*650*1150	660*650*1150	660*650*1150	660*650*1150	660*650*1150	660*650*1250	660×650×1150
	Indoor Unit (Wall Mounted Type)	mm	508*406*947	508*406*947	508*406*947	508*406*947	508*406*947	508*406*1000	508*406*1000
	Outdoor Unit	mm	970*450*830	935*450*1365	935*450*1365	935*450*1365	935*450*1365	1105×515×1500	1105×515×1500

Note:

1.The values of heating (cooling) capacity/power input/COP (EER) are based on measurement of EN14511 standard. Usage environment, such as operation of the heating equipment, room temperature and controller adjustments, may cause disparities between practically determined and these values;

2.Sound pressure level measured at distance of 1m from the devices;

3.For free standing type, the compressor is located in the indoor unit; while for wall mounted type, the compressor is located in the outdoor unit.

Monobloc type

BLUEWAY Monobloc Type Inverter Air to Water Heat Pump adopts inverter technology, supplying heating, cooling and hot water.

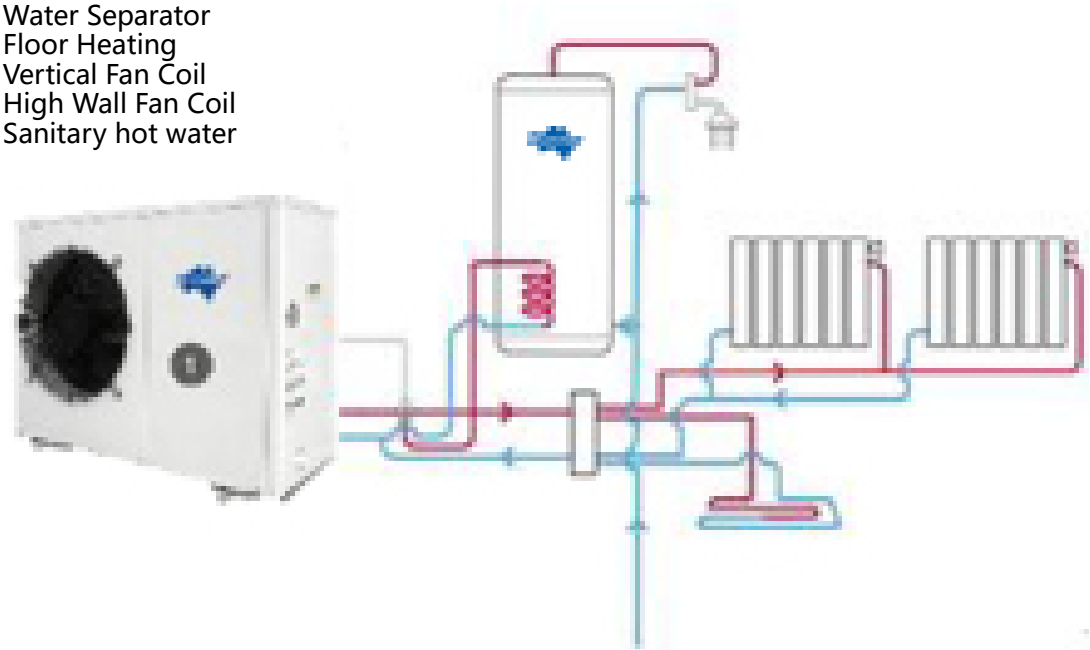
FEATURES

- Compact, weather-resistant and easy to install
- Built in water pump (optional)
- Bottom heater included
- Built in electric heating element

APPLICATIONS

NOTE:

1. Heat Pump
2. Storage Tank
3. Water Collector
4. Water Separator
5. Floor Heating
6. Vertical Fan Coil
7. High Wall Fan Coil
8. Sanitary hot water



EVI Low Ambient Heat Pump - Monoblock

Model			EHP-10M	EHP-13M	EHP-16M	EHP-22M
HP			4	5	6	8
Power supply		V/Ph/Hz	380-415V/3Ph/50Hz			
A7/W35℃	Heating capacity	kW/h	10.3	13.2	16.5	22.3
	Power input	kW	2.58	3.38	4.23	5.87
	Running current	A	4.6	6.1	7.6	10.5
	COP	-	4.0	3.9	3.9	3.8
A7/W45℃	Heating capacity	kW/h	10.1	12.9	16.2	21.9
	Power input	kW	3.06	4.03	5.10	6.94
	Running current	A	5.5	7.2	9.1	12.4
	COP	-	3.30	3.21	3.17	3.15
A-15/W45℃	Heating capacity	kW/h	5.0	6.5	8.1	10.9
	Power input	kW	2.80	3.68	4.62	6.35
	Running current	A	5.0	6.6	8.3	11.4
	COP	-	1.80	1.76	1.75	1.72
Energy Efficiency Class at 35℃			A++	A++	A++	A++
Energy Efficiency Class at 55℃			A++	A++	A++	A++
Noise level		DB(A)	60	64	65	65
Rated outlet water temp.		℃	55			
Ambient temperature range		℃	-20~43			
Rated water flow rate		L/S	0.49	0.63	0.79	1.07
Rated pressure drop		kPa	50	50	50	50
Max. Working Pressure	Refrigerant	Bar	44	44	44	44
	Water	Bar	7	7	7	7
Water connection ø		mm	28	28	28	28
Controller		-	Micro processor based digital wire controller with LCD display			
External cabinet		-	Galvanized steel with powder coating			
Compressor	Make	-	Copeland/Hitachi			
	Type	-	EVI Scroll			
	Nos.	-	1	1	1	1
	Refrigerant	-	R410A			
Water heat exchanger	Type	-	Brazed plate heat exchanger			
	Materials	-	SUS 316			
Built in electric heater		-	optional	optional	optional	optional
Built in pump		-	optional	optional	optional	optional
Bottom plate heater		-	yes	yes	yes	yes
Defrost		-	Hot gas + heating element in evaporator coil			
Dimension (W*D*H)	Outdoor Unit	mm	830*310*1260	970*400*1260	970*400*1260	970*400*1260

Note: **test condition: ambient temp. (DB/WB)=7℃ /6℃ , inlet/outlet water temp.=30℃ /35℃ .**

SPECIFICATION DATAS

DC Inverter Heat Pump - Monoblock

Model			DHP-09M	DHP-12M	DHP-15M	DHP-15MC	DHP-18M	DHP-24M	DHP-30M
HP			3	4	5	5	6	8	10
Power supply		V/Ph/Hz	200-240V/1Ph/50Hz			380-415V/3Ph/50Hz			
+7℃ /35℃ floor heating	Heating capacity	kW/h	9	12.0	15.0	15.0	18.0	24.0	30.0
	Power input	kW	2.1	2.70	3.50	3.40	4.30	5.60	7.30
	COP	-	4.2	4.4	4.3	4.4	4.2	4.3	4.1
+2℃ /35℃ floor heating	Heating capacity	kW/h	6.8	11.3	12.7	12.7	15.3	21.7	25.6
	Power input	kW	2.1	3.40	3.85	3.80	4.60	6.60	8.20
	COP	-	3.2	3.30	3.30	3.30	3.30	3.30	3.10
-7℃ /35℃ floor heating	Cooling capacity	kW/h	6	10.0	11.0	11.0	13.3	18.9	22.3
	Power input	kW	2.4	3.85	4.40	4.40	5.40	7.60	9.20
	EER	-	2.5	2.60	2.50	2.50	2.45	2.50	2.40
+7℃ /45℃ radiators	Heating capacity	kW/h	7.8	10.3	13.0	13.0	15.3	20.6	25.5
	Power input	kW	2.4	3.30	4.00	4.00	4.80	6.30	8.20
	COP	-	3.2	3.10	3.30	3.30	3.20	3.30	3.10
-7℃ /45℃ radiators	Heating capacity	kW/h	7.6	10.1	13.0	13.0	15.2	20.6	25.3
	Power input	kW	3.4	5.00	6.20	6.20	7.20	9.80	12.60
	COP	-	2.2	2.00	2.10	2.10	2.10	2.10	2.00
+35℃ /7℃ fan coil	Cooling capacity	kW/h	7	10.0	11.8	11.8	14.5	20.0	25.0
	Power input	kW	2.6	3.60	4.50	4.50	5.80	7.10	10.00
	EER	-	2.7	2.80	2.60	2.60	2.50	2.80	2.50
Energy Efficiency Class at 35℃			A++	A++	A++	A++	A++	A++	A++
Energy Efficiency Class at 55℃			A++	A++	A++	A++	A++	A++	A++
Noise level		DB(A)	52	53	55	55	55	56	56
Rated outlet water temp.		℃	7~55						
Max outlet water temp.		℃	60						
Ambient temperature range		℃	-20~43						
Rated water flow rate		L/S	0.43	0.57	0.72	0.72	0.86	1.15	1.43
Rated pressure drop		kPa	30	40	45	45	45	40	47
Max. Working Pressure	Refrigerant	Bar	44	44	44	44	44	44	44
	Water	Bar	7	7	7	7	7	7	7
Water connection		inch	1"	1"	1"	1"	1"	1-1/4"	1-1/4"
Controller		-	Micro processor based digital wire controller with LCD display						
External cabinet		-	Galvanized steel with powder coating						
Compressor	Make	-	Mitsubishi				Hitachi		
	Type	-	Rotary				Scroll		
	Nos.	-	1	1	1	1	1	1	1
	Refrigerant		R410A						
	Refrigerant amount	Kg	1.45	1.9	2.5	2.5	2.6	4.2	4.5
Water heat exchanger	Type	-	Brazed plate heat exchanger						
	Materials	-	SUS 316						
Built in electric heater		KW	optional	optional	optional	optional	optional	optional	optional
Built in four-way valve		-	yes	yes	yes	yes	yes	yes	yes
Built in pump		-	optional						
Dimension (W*D*H)	Outdoor Unit	mm	970*450*830	1105*470*1230	1105*470*1260	1105*470*1230	1105*470*1260	1405×515×1500	1405×515×1500

Note:

1.The values of heating (cooling) capacity/power input/COP (EER) are based on measurement of EN14511 standard. Usage environment, such as operation of the heating equipment, room temperature and controller adjustments, may cause disparities between practically determined and these values;

2.Sound pressure level measured at distance of 1m from the devices.

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