







**BLUEWAY EVI** Air to Water Heat Pump is especially designed for extremely cold climate. With its innovative technology, the system is able to retrieve heat from the air down to -25°C 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 utilizes EVI Scroll compressors which are equipped with a vapour injection connection for Economizer Operation. Effectiveness enhancement is accomplished by utilizing a sub-cooling circuit, it also increases heating capacity.

### **Features**



















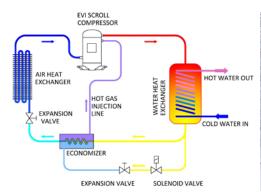
- ◆ Extended working range down to -25 oC ambient
- ♦ High COP at low ambient temperature (up to 2.5 even at -15 oC ambient)
- ◆ EVI scroll compressor
- Using electronic expansion valve, achieving accurate, stable and high efficiency throttling
- Stainless steel plate heat exchanger as condenser
- ◆ Built-in WILO circulation pump and water flow switch
- 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



# Comparison Between EVI system and conventional system

### **EVI HEAT PUMP SYSTEM**



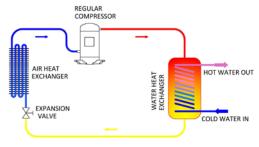




The maximum output water temperature for EVI heat pump system is up to 65  $^{\circ}$ C and it can work safely at ambient temperature down to -25  $^{\circ}$ C

### **REGULAR HEAT PUMP SYSTEM**







The maximum output water temperature for regular heat pump system is only 55 °C, and its heating capacity decrease substantially under -5 °C, it can not work safely at -25 °C



Blueway EVI heat pump system can work securely and stably at extremely cold climate and normally produce hot water



## SPLIT TYPE

BLUEWAY Split Type EVI 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.









Wall Mounted Indoor Unit

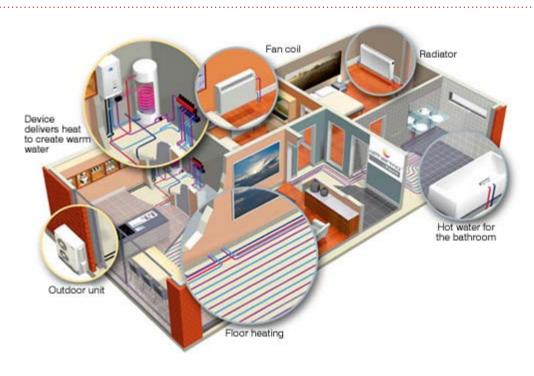


**Outdoor Unit** 

### **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

### **APPLICATION**





### **SPECIFICATION DATAS**

## **Split EVI Low Ambient Heat Pump**

- Model			EHP-10ST EHP-13ST EHP-16ST EHP-22ST EHP-30ST						
					EHP-16ST				
HP			4 5 6 8 10						
Power supply		V/Ph/Hz							
A7 / W35°C	Heating capacity	kW	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	Α	4.6	6.1	7.6	10.5	13.3		
	COP	-	4.0	3.9	3.9	3.8	4.1		
A7 / W45°C	Heating capacity	kW	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	Α	5.5	7.2	9.1	12.4	15.9		
	COP	-	3.30	3.21	3.17	3.15	3.30		
A35 / W7°C	Cooling capacity	kW	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	Α	5.0	6.4	8.1	10.7	13.7		
	EER	-	2.80	2.80	2.75	2.75	2.80		
Noise level		DB(A)	60	64	65	65	65		
Rated outlet water temp.		°C	55						
Max outlet water temp.		°C	60						
Ambient temperature range		°C	-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						
	Make	-	Hitachi Danfoss						
Compressor	Туре	-	EVI Scroll						
Compressor	Nos.	-	1	1	1	1	1		
	Refrigerant	-	R410A						
Water heat	Type	-	Brazed plate heat exchanger						
exchanger	Materials	-	SUS 316						
Built in electric heater		KW	optional	optional	optional	optional	optional		
Built in 3-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	1200x650x115 0	1200x650x1150		
	Indoor Unit (Wall Mounted Type)	mm	508*406*947	508*406*947	508*406*947	508*406*1000	508*406*1000		

#### 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.





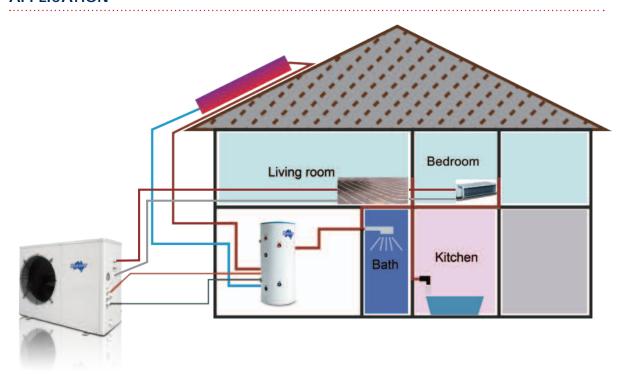
# Monobloc TYPE



### **FEATURES**

- ◆ Compact, weather-resistant and easy to install
- ◆ The outdoor unit is designed for anti-snow
- ♦ The indoor unit is designed for substituting traditional boilers easily, with luxurious façade
- Built in electric heating element

### **APPLICATION**





### **SPECIFICATION DATAS**

# **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					
	Heating capacity	kW	10.3	13.2	16.5	22.3		
A7 / W35°C	Power input	kW	2.58	3.38	4.23	5.87		
A7 / W35 C	Running current	Α	4.6	6.1	7.6	10.5		
<u> </u>	COP	-	4.0	3.9	3.9	3.8		
A7 / W45°C	Heating capacity	kW	10.1	12.9	16.2	21.9		
	Power input	kW	3.06	4.03	5.10	6.94		
	Running current	Α	5.5	7.2	9.1	12.4		
	COP	-	3.30	3.21	3.17	3.15		
A-15 / W45 °C	Heating capacity	kW	5.0	6.5	8.1	10.9		
	Power input	kW	2.80	3.68	4.62	6.35		
	Running current	Α	5.0	6.6	8.3	11.4		
	COP	-	1.80	1.76	1.75	1.72		
Noise level		DB(A)	60	64	65	65		
Rated outlet water temp.		°C	55					
Ambient temperature range		°C	-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	Refrigerant	Bar	44	44	44	44		
Pressure	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	-	Hitachi					
	Type	-	EVI Scroll					
	Nos.	-	1	1	1	1		
	Refrigerant	-	R410A					
Water heat	Type	-	Brazed plate heat exchanger					
exchanger	Materials	-	SUS 316					
Built in electric heater		-	Optional					
Built in pump		-	Yes					
Bottom plate heater		-	Yes					
Defrost		-	Hot gas + heating element in evaporator coil					
Dimension (W*D*H)	Outdoor Unit	mm	830*310*1260	830*310*1260	930*930*1270	990x440x1600		

Test condition: Ambient temp.(DB/WB) =  $7^{\circ}$ C/6 $^{\circ}$ C, inlet/outlet water temp. =  $30^{\circ}$ C/35 $^{\circ}$ C





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