

Domestic Hot Water Heat Pump

Circulating & Instant Type

Circulating type of Domestic Hot Water Heat Pump adopts high efficiency tube-in-shell water heat exchanger and incorporates a built-in water pump for easy installation work. The unit is capable of producing high hot water with a maximum temperature up to 60°C. It can be retrofitted to existing geyser to replace electric water heater, saving more than 2/3 energy.

Instant type of Domestic Hot Water Heat Pump adopts advanced variable flow rate control technology, keeping a constant water temperature in the cold climate and hot climate. Unlike Circulating Models, the outlet water temperature from Instant Models directly reaches the setting temperature. The fast defrosting technology enables the system work well in the low temperature, moist ambient conditions.



Features & Highlights



- ◆ Famous brand high efficiency compressor
- ◆ High efficiency eco-friendly refrigerant, without ozone depletion
- ◆ Built-in circulation water pump
- ◆ Intelligent control: micro processor based digital controller with LCD display
- ◆ Adjustable water temp. setting: 25°C - 60°C
- ◆ Water heat exchanger: tube-in- shell for cycle type, tube-in-tube for direct type
- ◆ Automatic defrosting function included
- ◆ Anti- legionella function on regular intervals
- ◆ Can be retrofitted to existing geyser and used in conjunction with solar geyser
- ◆ On-off & inverter type is optional

Key Components

Water Heat Exchanger

1) High efficiency tube-in-shell heat exchanger for Circulating Heat Pumps

◆ High working pressure

The copper pipe is of 0.8-1.2 mm thickness, no welding inside. With its extraordinary pressure resistance property, the copper pipe is without any leakage under 5Mpa pressure test.

	Working Conditions	
	Refrigerant Side	Water Side
Max. Working Pressure	5.2Mpa	3.2Mpa
Working Temp. Range	-50~150°C	-50~150°C (above freezing point)

- ◆ The internal spiral surface of the copper tube ensures effectiveness of heat exchange and prevents from lubricant accumulation.
- ◆ Grooved external surface of the copper tube increases also the heat transfer area which is 3.7 times of the smooth surface.



2) High efficiency tube-in-tube heat exchanger for Instant Heating Heat Pumps



- ◆ Spiral tube used to increase heat transfer area for high efficiency
- ◆ Specially designed to provide excellent efficiency, reliability, and reduce fouling.

Compressor

- ◆ Famous brand rotary compressor for Domestic Heat Pumps
- ◆ Copeland, Danfoss or Panasonic scroll compressor for Commercial Heat Pumps





Domestic Hot Water Heat Pump (Circulating)

Technical Specifications

Model		DHW-3.5C	DHW-5C	DHW-7C	DHW-10C	DHW-14C	DHW-18C	
Power supply	V/Hz/Ph	220-240/50/1					380-415/50/3	
Heating Performance	Heating capacity	kWh	3.5	5.2	7.2	9.8	14	18
	Power input	kW	0.74	1.05	1.48	2.00	2.97	3.83
	Running current	A	3.3	4.8	6.7	9.1	13.5	6.8
	COP	-	4.75	4.95	4.85	4.91	4.72	4.70
	Hot water production: 15/55°C	L/h	75	112	155	211	301	387
Suggested tank connection (capacity range)	Liter	100-300	150-350	200-500	300-600	400-800	500-1000	
Ambient temp. range	°C	-10~43						
Rated/Max.outlet water temp.	°C	55/60						
Rated water flow rate	m³/h	0.60	0.89	1.24	1.69	2.41	3.10	
Controller	-	Micro processor based digital wire controller with LCD display						
External cabinet	-	Galvanized steel with powder coating						
Compressor	Type	-	Rotary			Rotary/Scroll	Scroll	
	Qty.	Nos.	1					
	Refrigerant	-	R22/R407c/R417a					
Heat exchanger (water side)	-	High efficiency tube-in-shell						
Bill-in water pump	Brand	-	Wilo/Shinwoo					
Water connection	Inlet&Outlet	inch	3/4"	3/4"	3/4"	3/4"	1-1/4"	
Noise level	dB(A)	52	52	52	55	55	55	
Net dimension (W*D*H)	mm	770*300*490	930*280*580	1000*300*650	1000*300*650	750*340*1240	900*420*1390	
Net weight	kg	38	50	59	65	95	140	

The above data is based on the following testing condition: ambient temp.(DB/WB) = 20°C/15°C, inlet/outlet water temp. = 15°C/55°C. Blueway reserves the rights to modify the above specifications without notice for product improvement. Please contact us for updated information.

Domestic Hot Water Heat Pump (Instant)

Technical Specifications

Model		DHW-3.5I	DHW-5I	DHW-7I	DHW-10I	DHW-14I	DHW-18I	
Power supply	V/Hz/Ph	220-240/50/1					380-415/50/3	
Heating Performance	Heating capacity	kWh	3.5	5.2	7.2	9.8	14	18
	Power input	kW	0.80	1.18	1.63	2.24	3.18	4.12
	Running current	A	3.6	5.4	7.4	10.2	14.5	7.4
	COP	-	4.39	4.41	4.42	4.38	4.40	4.37
	Hot water production: 15/55°C	L/h	75	112	155	211	301	387
Suggested tank connection (capacity range)	Liter	100-300	150-350	200-500	300-600	400-800	500-1000	
Ambient temp. range	°C	-10~43						
Rated/Max.outlet water temp.	°C	55/60						
Rated water flow rate	m³/h	0.60	0.89	1.24	1.69	2.41	3.10	
Controller	-	Micro processor based digital wire controller with LCD display						
External cabinet	-	Galvanized steel with powder coating						
Compressor	Type	-	Rotary			Rotary/Scroll	Scroll	
	Qty.	Nos.	1					
	Refrigerant	-	R22/R407c/R417a					
Heat exchanger (water side)	-	High efficiency tube-in-tube						
Bill-in water pump	Brand	-	Wilo/Shinwoo					
Water connection	Inlet&Outlet	inch	3/4"	3/4"	3/4"	3/4"	1-1/4"	
Noise level	dB(A)	52	52	52	55	55	55	
Net dimension (W*D*H)	mm	930*280*580	930*280*580	1000*300*650	1000*300*650	750*340*1240	900*420*1390	
Net weight	kg	40	50	59	65	95	140	

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Commercial Hot Water Heat Pump

Cycle Heating & Direct Heating Type



Blueway Commercial Hot Water Heat Pump is designed to offer hot water for commercial and (or) industrial application. In order to achieve the required water temperature, large heat pump units apply unique "V" style evaporator design, which enlarges the heat exchange surface and increases efficiency.

Features & Highlights



- ◆ World famous scroll compressor for reliability and superior performance
- ◆ High efficiency eco-friendly refrigerant, without ozone depletion
- ◆ Intelligent control: micro processor based digital controller with LCD display
- ◆ Water heat exchanger: tube-in-shell for cycle type, tube-in-tube for direct type
- ◆ Heavy gauge galvanized steel cabinet with epoxy powder coating, weather resistant for long lasting outdoor life span
- ◆ Adjustable water temperature setting: 25°C -60°C

Options:

- ◆ Circulating Heating / Instant Heating
- ◆ Electrical boosting element



Commercial Heat Pump (Circulating)

Technical Specifications

Model	CHW-005C	CHW-006C	CHW-007C	CHW-010C	CHW-012C	CHW-015C	CHW-018C	CHW-020C	CHW-025C	CHW-030C	CHW-040C	CHW-050C		
HP	5	6	7	10	12	15	18	20	25	30	40	50		
Power supply	V/Hz/Ph 380-415/50/3													
Heating Performance	Heating capacity	kWh	18	21	24.6	36.0	42	49	60	74	90	100	148	180
	Power input	kW	4.30	4.90	5.65	8.60	9.80	11.80	14.30	17.40	21.00	23.70	35.00	42.00
	Running current	A	7.7	8.8	10.5	15.4	17.6	21.1	25.6	31.1	37.5	42.4	62.6	75.1
	COP	-	4.23	4.29	4.21	4.19	4.29	4.15	4.20	4.25	4.29	4.22	4.23	4.29
Hot water Production: 15/55°C	L/h	391	451	529	774	903	1053	1290	1591	1905	2150	3181	3869	
Ambient temp. range	°C	-10~43												
Rated/Max outlet water temp.	°C	55/60												
Rated water flow rate	m³/h	3.13	3.61	4.23	6.19	7.22	8.43	10.32	12.73	15.48	17.20	25.45	30.95	
Rated pressure drop	kPa	50	50	50	50	50	50	50	50	50	50	50	50	
Controller	-	Micro processor based digital wire controller with LCD display												
External cabinet	-	Heavy gauge galvanized steel with powder coating												
Compressor	Type	Scroll												
	Qty	No.	1	1	1	2	2	2	2	2	2	4	4	4
	Refrigerant	-	R22/R407c/R417a											
Water heat exchanger	-	High efficiency tube-in-shell												
Water connection	Inlet/Outlet	inch	1"	1"	1"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2-1/2"	2-1/2"	3"	3"
Noise level	dB(A)	56	56	57	59	59	63	69	69	71	72	73	74	
Net dimension	W	mm	740	740	740	1470	1470	2000	2000	2000	2000	2000	2000	
	D	mm	740	740	740	840	840	840	950	950	950	1100	1900	
	H	mm	835	835	835	950	950	950	2000	2000	2100	2050	2000	
Net weight	kg	130	135	140	230	235	253	350	350	400	740	1075	1180	

The above data is based on the following testing condition: ambient temp.(DB/WB) = 20°/15°℃, inlet/outlet water temp. = 15°/55°℃. Blueway reserves the rights to modify the above specifications without notice for product improvement. Please contact us for updated information.

Commercial Heat Pump (Instant)

Technical Specifications

Model	CHW-005I	CHW-010I	CHW-013I	CHW-015I	CHW-020I	CHW-025I	CHW-030I	CHW-040I	CHW-050I		
Power supply	V/Hz/Ph 380-415/50/3										
Heating Performance	Heating capacity	kWh	19	37.5	45	55	75	90	110	150	180
	Power input	kW	4.34	8.43	10.20	12.22	17.24	19.87	24.61	33.28	40.72
	Running current	A	7.8	15.1	18.2	21.8	30.8	35.5	44.0	59.5	72.8
	COP	-	4.36	4.45	4.41	4.50	4.35	4.53	4.47	4.51	4.42
	Hot water Production: 15/55°C	L/h	408	808	967	1160	1612	1935	2365	3224	3869
Ambient temp. range	°C	-10~43									
Rated/Max outlet water temp.	°C	55/60									
Rated water flow rate	m³/h	3.27	6.45	7.74	9.46	12.90	15.48	18.92	25.80	30.95	
Rated pressure drop	kPa	50	50	50	50	50	50	50	50	50	
Controller	-	Micro processor based digital wire controller with LCD display									
External cabinet	-	Heavy gauge galvanized steel with powder coating									
Compressor	Type	Scroll									
	Qty	No.	1	1	1	1	2	2	3	4	4
	Refrigerant	-	R22/R407c/R417a								
Water heat exchanger	-	High efficiency tube-in-tube									
Water connection	Inlet/Outlet	inch	1-1/4"	1-1/4"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3"	
Noise level	dB(A)	56	59	59	63	69	72	72	72	72	
Net dimension	W	mm	800*780*975	1470*840*950	1470*840*950	1470*840*950	2000*950*2000	2000*950*2100	2000*1900*2050	2000*1900*2000	2000*1900*2000
	D	mm	800	380	380	380	500	570	600	1140	1200
	H	mm	130	380	380	380	500	570	600	1140	1200

The above data is based on the following testing condition: ambient temp.(DB/WB) = 20°/15°℃, inlet/outlet water temp. = 15°/55°℃. Blueway reserves the rights to modify the above specifications without notice for product improvement. Please contact us for updated information.

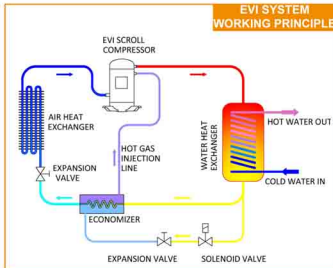


High Temperature Heat Pump

On-off & Inverter Type



Blueway High Temperature Heat Pump adopts EVI (Enhanced Vapor Injection) scroll compressor and the unit is capable of producing hot water with a maximum temperature up to 80°C, which is ideal for both commercial and industrial applications to kill legionella and some other bacteria. It uses R134A refrigerant, which is not only eco-friendly but reliable and stable especially for the system producing high temperature hot water.



Features & Highlights



- ◆ EVI Scroll compressor specially designed for high water temperature heat pump
- ◆ Adjustable water temp. setting: 25°C - 80°C
- ◆ Intelligent LCD wired controller
- ◆ Automatic defrosting function included
- ◆ Anti-legionella function on regular intervals
- ◆ Adopt R134a eco-friendly refrigerant is reliable for system producing high water temperature
- ◆ High efficiency tube-in-shell water heat exchanger
- ◆ Inner grooved copper tube for higher efficiency
- ◆ Blue hydrophilic aluminum fins to resist corrosion
- ◆ Back-up heating element for emergency (optional)



High Temp. Heat Pump (Cycle Heating) 50Hz

Technical Specifications

Model		HTHP-05SC	HTHP-01SC	HTHP-015SC	HTHP-020SC	HTHP-025SC	HTHP-030SC	HTHP-040SC	HTHP-050SC	
Power supply		V/Hz/Ph		380-415/50/3						
A20 / W65 °C	Heating capacity	kWh	13	26	39	52	65	78	104	130
	Power input	kW	4.27	8.52	12.66	17.05	21.24	25.91	34.21	43.05
	Running current	A	7.6	15.2	22.6	30.5	38.0	46.3	61.2	76.9
	COP	-	3.07	3.05	3.08	3.05	3.06	3.01	3.04	3.02
	Heating capacity	kWh	12.71	25.22	37.83	50.44	63.05	75.66	100.88	126.1
A20 / W70 °C	Power input	kW	4.50	8.99	13.35	17.96	22.40	27.32	36.07	45.39
	Running current	A	8.0	16.1	23.9	32.1	40.0	49.8	64.5	81.1
	COP	-	2.82	2.81	2.83	2.81	2.82	2.77	2.80	2.78
	Ambient temp. range	°C	-5~43							
Rated/Max outlet water temp.	°C	75/80								
Rated water flow rate	m³/h	2.25	4.47	6.71	8.94	11.18	13.41	17.88	22.36	
Rated pressure drop	kPa	50	50	50	50	50	50	50	50	
Controller	-	Micro processor based digital wire controller with LCD display								
External cabinet	-	Heavy gauge galvanized steel with powder coating								
Compressor	Type	Scroll								
	Qty	Nos.	1	2	2	2	2	4	4	
Refrigerant	-	R134a								
Water heat exchanger	-	High Efficiency Tube-in-Sheet								
Water connection	Inlet&Outlet	inch	1-1/4"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	4"
Noise level	dB(A)	56	59	63	69	72	72	72	72	
Net dimension (W*D*H)	mm	85	380	500	570	600	1200	1200	1200	
Net weight	kg	800*760*975	1470*840*950	1470*840*950	2000*950*2000	2000*950*2100	2000*1100*2050	2600*1100*1960	2600*1100*1960	

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High Temp. Heat Pump (Cycle Heating) 60Hz

Technical Specifications

Model		HTHP-05SC	HTHP-01SC	HTHP-015SC	HTHP-020SC	HTHP-025SC	HTHP-030SC	HTHP-040SC	HTHP-050SC	
Power supply		V/Hz/Ph		380-415/60/3						
A20 / W65 °C	Heating capacity	kWh	15.70	31.20	46.00	62.00	78.00	90.00	120.00	150.00
	Power input	kW	5.11	10.23	14.94	20.33	25.49	29.90	39.47	49.67
	Running current	A	9.1	18.3	26.7	36.3	45.6	53.4	70.6	88.8
	COP	-	3.07	3.05	3.08	3.05	3.06	3.01	3.04	3.02
	Heating capacity	kWh	15.23	30.26	44.62	60.14	75.66	87.30	116.40	145.50
A20 / W70 °C	Power input	kW	5.39	10.79	15.75	21.43	26.88	31.53	41.62	52.37
	Running current	A	9.6	19.3	28.1	38.3	48.0	56.4	74.4	93.6
	COP	-	2.82	2.81	2.83	2.81	2.82	2.77	2.80	2.78
	Ambient temp. range	°C	-5~43							
Rated/Max outlet water temp.	°C	75/80								
Rated water flow rate	m³/h	2.70	5.37	7.91	10.66	13.41	15.48	20.64	25.80	
Rated pressure drop	kPa	50	50	50	50	50	50	50	50	
Controller	-	Micro processor based digital wire controller with LCD display								
External cabinet	-	Heavy gauge galvanized steel with powder coating								
Compressor	Type	Scroll								
	Qty	Nos.	1	2	2	2	2	4	4	
Refrigerant	-	R134a								
Water heat exchanger	-	High Efficiency Tube-in-Sheet								
Water connection	Inlet&Outlet	inch	1-1/4"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	4"
Noise level	dB(A)	56	59	63	69	72	72	72	72	
Net dimension (W*D*H)	mm	85	380	500	570	600	1200	1200	1200	
Net weight	kg	800*760*975	1470*840*950	1470*840*950	2000*950*2000	2000*950*2100	2000*1100*2050	2600*1100*1960	2600*1100*1960	

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