

Create World- Class Products

Smeta

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Air Source Heat Pump



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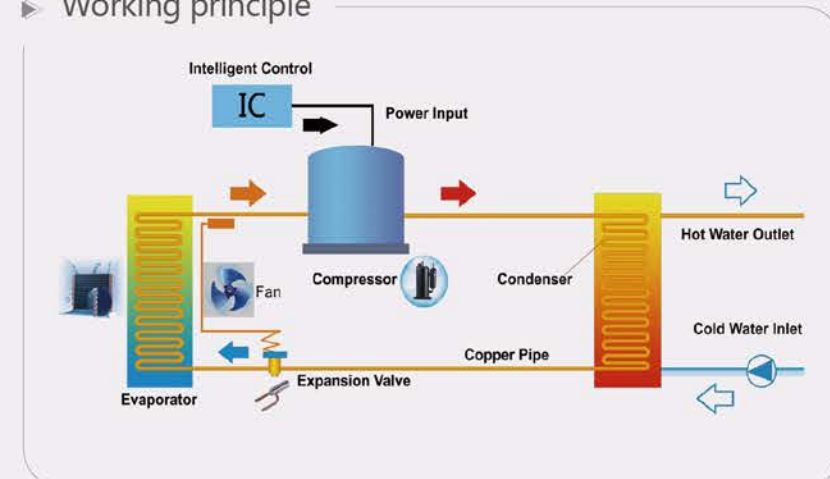
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Air Source Heat Pump

An air source heat pump heater (ASHP) is a system which transfers heat from air to water. Under the principles of vapor compression refrigeration, an ASHP uses a refrigerant system involving a compressor and a condenser to absorb heat at one place and release it at another place. It can be used as a space heater or cooler, and sometimes it is called "reverse-cycle air conditioner", it is a new hot water equipment with the features of safety, efficiency, power-saving and environment protection. Usually, it use 1 unit of electricity to produce 4 units of heat energy, so its COP (Coefficient Of Performance) is four times higher than common electricity heater.



Working principle



Content

PART 1 : COMPANY PROFILE

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PART 2 : PRODUCT

/ P07

PART 3 : PROJECTS

/ P30

Advanced production equipment



Automatic high pressure

Automatic stamping lathe

Advanced laboratory



1. More than USD 2 million investment.
2. Ultra-low temperature laboratory, Enthalpy difference laboratory, data monitoring center, long-term operation laboratory.
3. Simulate - 30°C~55°C environmental conditions
4. Maximum heat pump can be tested up to 60HP

Advanced laboratory



Product

Sanitary Hot Water Series

Combo Type / All In One Heat Pump / Top Air In&Out / Round Type / Square Type (P09-P13)



200L 250L 300L 120L 180L 120L 150L

Heat Pump Water Heater / Sanitary Hot Water / Metal Case / Residential Type (P14-P16)



3.6KW / 5.4KW 7.6KW 10.8KW / 13.2KW 18.8KW

Heat Pump Water Heater / Sanitary Hot Water / Metal Case / Commercial Type (P17-P19)



18KW (-15°C) 36KW (-15°C) 50KW (-25°C) 100KW (-25°C) 190KW (-25°C)

Swimming Pool Heat Pump Series

Swimming Pool Heat Pump / Metal Case / Plastic Case / Residential Type / Commercial Type (P20-P23)



Swimming Pool Heat Pump / Metal Case / Commercial Type (P24-P25)



Heating & Cooling Series

Multi-function Heat Pump / Heating & Cooling / DC Inverter/Residential Type (P26-P27)



Inverter 18KW (-30°C)

Multi-function Heat Pump / Heating & Cooling / Commercial Type (P28-P29)

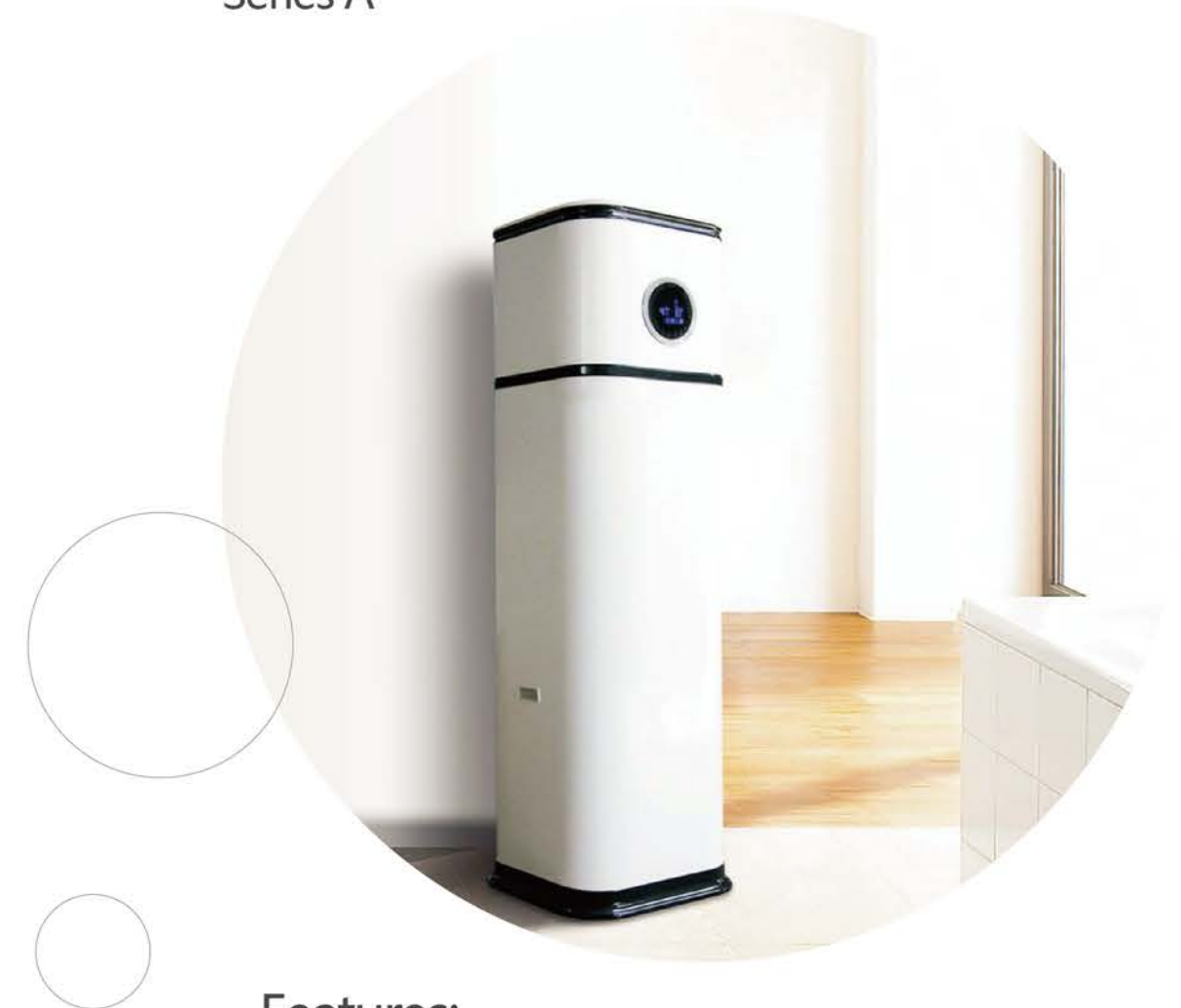


45KW (-25°C)

90KW (-25°C)

170KW (-25°C)

All In One Heat Pump / With Air Duct Series A



Features:

- R134A refrigerant, environmentally friendly.
- Higher water temperature output up to 75°C.
- External condenser coil, more safe & reliable.
- Adopt enamel inner tank.
- High pressure protection.
- Defrost automatically.
- With sterilization function.
- Full automatically operation.
- With auxiliary electric heater.
- Top air in/out with duct, free of cool air.
- Simple style, modern square appearance.
- Large screen, touch button.



Series B

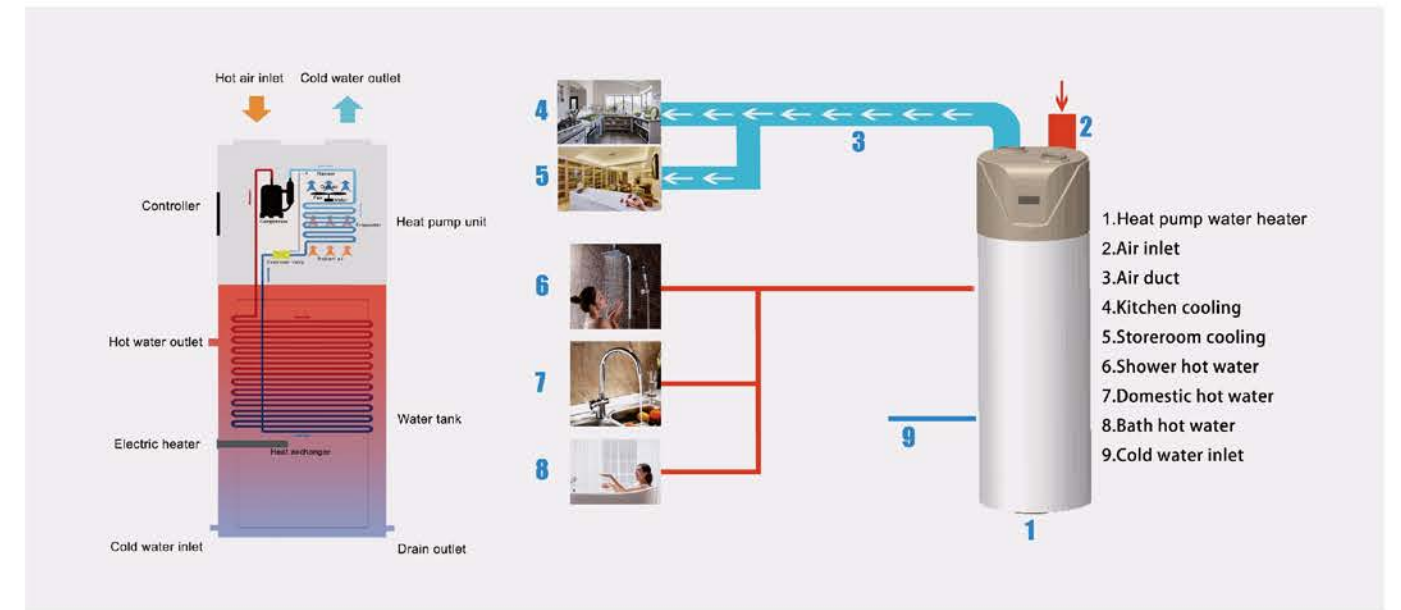


Features:

- R134A refrigerant, environmental friendly.
- Higher water temperature output up to 75°C.
- External condenser coil, more safe & reliable.
- Adopt enamel inner tank.
- High pressure protection.
- Defrost automatically.
- With sterilization function.
- MODBUS communication.
- Full automatically operation.
- With auxiliary electric heater.
- Top air in/out with duct, free of cool air.



Application



Technical Data

Photos					
Type	series A		series B		
Model No.	YT-120TA1	YT-180TA1	YT-200TB1	YT-250TB1	YT-300TB1
Testing condition: * Heating Capacity at Air temp. 20 °C / 15 °C, Water Temperature from 15 °C to 55 °C					
Heating Capacity (kW)	2.5	2.5	2.5	2.5	2.5
Power Input (kW)	0.6	0.6	0.6	0.6	0.6
COP	4.16	4.16	4.16	4.16	4.16
Max Power Input (kW)	2.4	2.4	3	3	3
Rated Current (A)	2.7	2.7	2.7	2.7	2.7
Max Current (A)	12.2	12.2	15	15	15
Power Supply	220V/1/50Hz	220V/1/50Hz	220V/1/50Hz	220V/1/50Hz	220V/1/50Hz
Backup Electric Heater (W)	1500	1500	2000	2000	2000
Refrigerant	R134a	R134a	R134a	R134a	R134a
Net Dimension(mm)	500x500x1628	500x500x1848	Φ620×1638	Φ620×1868	Φ620×2038
Package Dimension(mm)	680x680x1805	680x680x2025	700×700×1830	700×700×2060	700×700×2230
Net Weight(Kg)	80	93	88	95	102
Gross Weight(Kg)	98	111	106	113	120
Noise (dB)	48	48	48	48	48
Water tank volume(L)	120	180	200	250	300
Working temperature range (°C)	-7 ~ 43	-7 ~ 43	-7 ~ 43	-7 ~ 43	-7 ~ 43
Loading quantity(20ft container)	24	24	24	24	24
Loading quantity(40ft container)	51	51	51	51	51

Series C

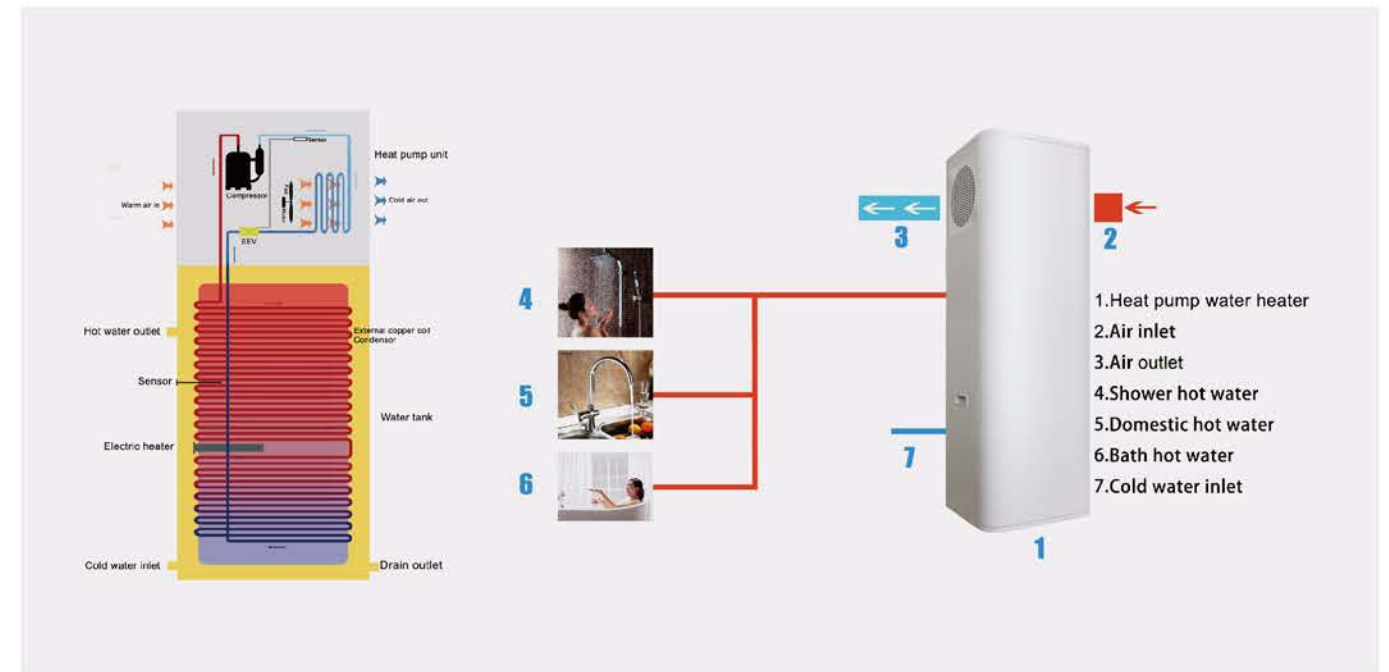


Features:



- R134A refrigerant, environmental friendly.
- Higher water temperature output up to 75°C.
- External condenser coil, more safe & reliable.
- Adopt enamel inner tank.
- High pressure protection.
- Defrost automatically.
- With sterilization function.
- MODBUS communication.
- Full automatically operation.
- With auxiliary electric heater.



Application



Technical Data

Photos		
Type	series C	
Model No.	YT-120TC1	YT-150TC1
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C		
Heating Capacity (kW)	2.5	2.5
Power Input (kW)	0.6	0.6
COP	4.16	4.16
Max Power Input (kW)	3	3
Rated Current (A)	2.7	2.7
Max Current (A)	15	15
Power Supply	220V/1/50Hz	220V/1/50Hz
Backup Electric Heater (W)	2000	2000
Refrigerant	R134a	R134a
Net Dimension(mm)	500x500x1550	500x500x1670
Package Dimension(mm)	640x640x1720	640x640x1840
Net Weight(Kg)	89	92
Noise (dB)	48	48
Water tank volume(L)	120	150
Working temperature range (°C)	-7 ~ 43	-7 ~ 43

Heat Pump Water Heater / Sanitary hot water / Residential type

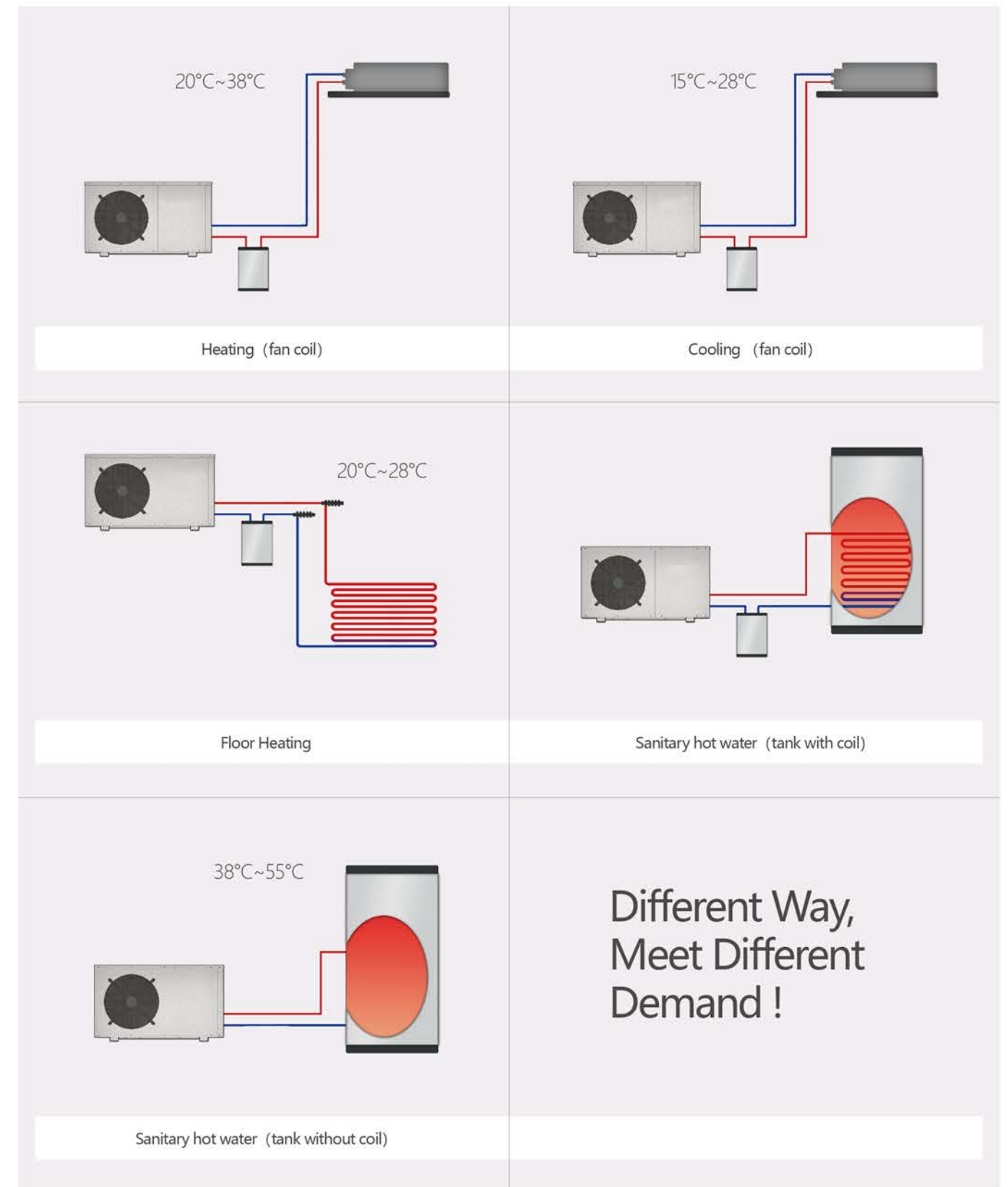


Features:

- R410A refrigerant, environmental friendly.
- Higher water temperature output up to 60°C.
- Tube in shell heat ex-changer, Hi-COP & safety.
- With sterilization function (tank with electric heater)
- High pressure protection.
- Defrost automatically.
- MODBUS communication.
- Full automatically operation.
- Through different installation, the system can be used for cooling, heating and providing sanitary hot water.



Application





Heat Pump Water Heater / Commercial Type



Technical Data

Photos						
Model No.	RS-004TA1	RS-006TA1	RS-008TA1	RS-010TA1	RS-012TA1	RS-018TA1
Power Supply	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	220V/50Hz	380V/50Hz
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C						
Heating Capacity (kW)	3.6	5.4	7.6	10.8	13.2	18.8
Power Input (kW)	0.86	1.26	1.81	2.54	3.17	4.56
COP	4.18	4.29	4.20	4.25	4.16	4.12
Max Power Input (kW)	1.45	2.01	2.75	3.02	4.51	6.02
Max Current(A)	6.5	9.0	12.0	15.2	23.0	11.0
Rated Hot Water(L/h)	80	120	165	230	285	400
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Expansion Valve	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic
Air Flow Direction	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Water Pump inside	Yes	Yes	Yes	Yes	Yes	NO
Water Pressure Drop (kPa)	35	35	40	45	45	45
Net Dimensions(LxWxH) (mm)	936x385x550	936x385x550	1011x420x614	986x420x798	986x420x798	1003x374x1318
Package Dimensions(LxWxH) (mm)	1030x445x592	1030x445x592	1105x480x657	1158x560x1017	1158x560x1017	1090x460x1474
Working temperature range (°C)	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43
Noise (dB)	47	49	52	52	53	54
Net Weight (kg)	50	54	64	78	85	149
Water connection(mm)	20	20	20	20	20	25

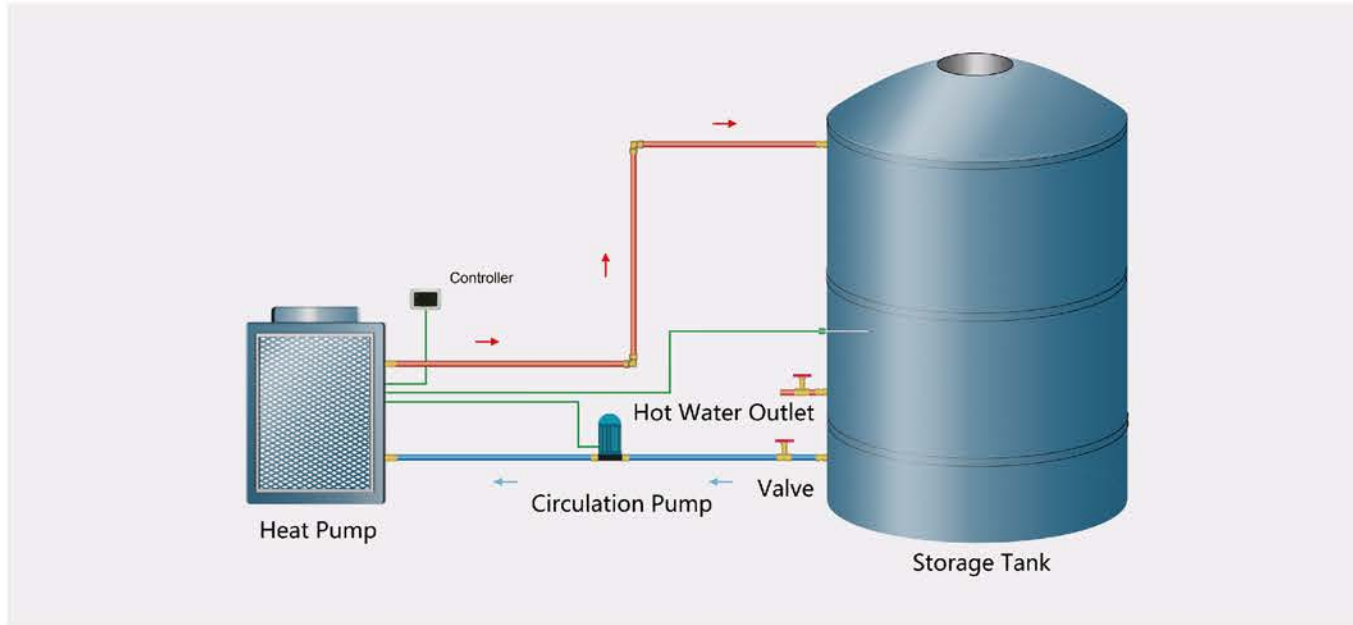
Features:

- Adopt R410A refrigerant, environmental friendly.
- Higher water temperature output up to 60°C.
- Adopt tube in tube heat ex-changer and circulating heating method, has higher COP.
- Defrost automatically, intelligent and fast.
- High pressure protection function.
- With MODBUS communication.
- Full automatically operation.
- Low operation ambient temperature-15°C/-25°C
- The system can be used for cooling, but it is not the main function.





MODBUS

Application



We also provide hot water solutions or heating solution for hotels,schools,hospitals,restaurant !

Technical Data

Photos					
Model No.	RS-019TA1	RS-038TA1	RS-050TA1	RS-100TA1	RS-190TA1
Power Supply	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C					
Heating Capacity (kW)	18	36	50	100	190
Power Input (kW)	4.2	8.3	11.5	22.6	44.4
COP	4.29	4.34	4.36	4.42	4.28
Max Power Input (kW)	6.9	13.2	16.8	36.5	66
Max Current(A)	12.3	23.5	31.5	68.1	110
Rated Hot Water(L/h)	380	770	1050	2100	4000
Refrigerant	R410a	R410a	R410a	R410a	R410a
Compressor	Rotary	Rotary	Scroll	Scroll	Scroll
Expansion Valve	Electronic	Electronic	Electronic	Electronic	Electronic
Air Flow Direction	Vertical	Vertical	Vertical	Vertical	Vertical
Water Flow Volume (m³/h)	4	8	10	18	33
Water Pressure Drop (kPa)	50	50	55	55	55
Dimensions(LxWxH) (mm)	695x755x1000	1417x755x1000	1252x1076x1865	2148x1076x2176	2248x2148x2176
Working temperature range (°C)	-15 ~ 43	-15 ~ 43	-25 ~ 43	-25 ~ 43	-25 ~ 43
Noise (dB)	≤60	≤65	≤65	≤70	≤76
Net Weight (kg)	160	259	450	800	1600
Water connection(mm)	25	32	40	50	80



Heat Pump Water Heater / Commercial Type

Swimming Pool Heat Pump / Metal Case / Residential type

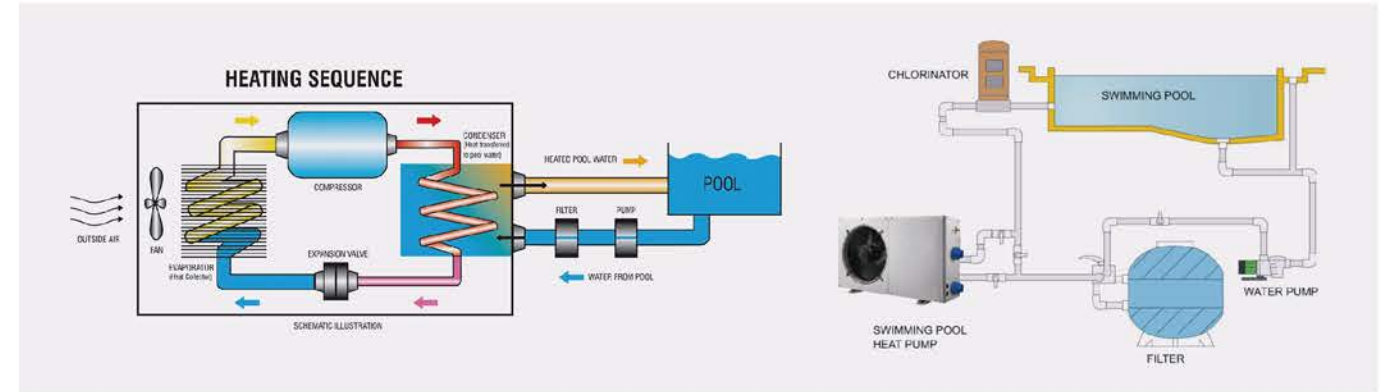


Features:

- R410A refrigerant, environmental friendly.
- Titanium heat ex-changer, corrosion resistance.
- High pressure protection.
- Defrost automatically.
- With water flow switch.
- MODBUS communication.
- Full automatically operation.
- The heat pump can heat and cool the swimming pool.



Application



Technical Data

Photos						
Model No.	YC-005TA1	YC-006TA1	YC-008TA1	YC-012TA1	YC-016TA1	YC-030TA1
Power Supply	220V/1/50Hz					380V/3/50Hz
Heating Capacity at Air 27°C/24°C, Water 27°C in, 29°C out						
Heating Capacity (kW)	5.0	7.2	9.5	13.0	16.1	30.0
Power Input (kW)	0.86	1.24	1.62	2.25	2.75	4.95
COP	5.84	5.81	5.88	5.79	5.85	6.06
Heating Capacity at Air 15°C/12°C, Water 26°C in, 28°C out						
Heating Capacity (kW)	3.6	5.5	7.0	10.0	12.5	23.5
Power Input (kW)	0.73	1.12	1.41	2.05	2.54	4.69
COP	4.94	4.92	4.95	4.88	4.93	5.01
Cooling Capacity at Air 35°C/24°C, Water 29°C in, 27°C out						
Cooling Capacity (kW)	3.2	5.1	6.5	9.2	11.3	20.0
Power Input (kW)	0.94	1.51	1.90	2.69	3.36	5.78
EER	3.41	3.38	3.43	3.42	3.36	3.46
Max Power Input (kW)	1.16	1.68	2.24	3.24	3.72	6.35
Max Current(A)	5.8	8.5	11.3	16.4	18.8	11.4
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Heat Exchanger	Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Air Flow Direction	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Water Flow Volume (m³/h)	2.0	3.0	3.5	5.5	6.0	12.0
Net Dimensions(LxWxH) (mm)	936×385×550	936×385×550	1011×420×614	986×420×798	986×420×798	1003×374×1318
Package Dimensions(LxWxH) (mm)	1055×460×620	1055×460×620	1110×480×670	1115×490×930	1115×490×930	1090×460×1474
Working temperature range (°C)	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43
Noise (dB)	48	48	50	52	52	54
Net Weight (kg)	42	46	58	72	85	135
Gross Weight (kg)	48	52	65	87	100	153
Water connection(mm)	50	50	50	50	50	50

Swimming Pool Heat Pump / Plastic Case / Residential type

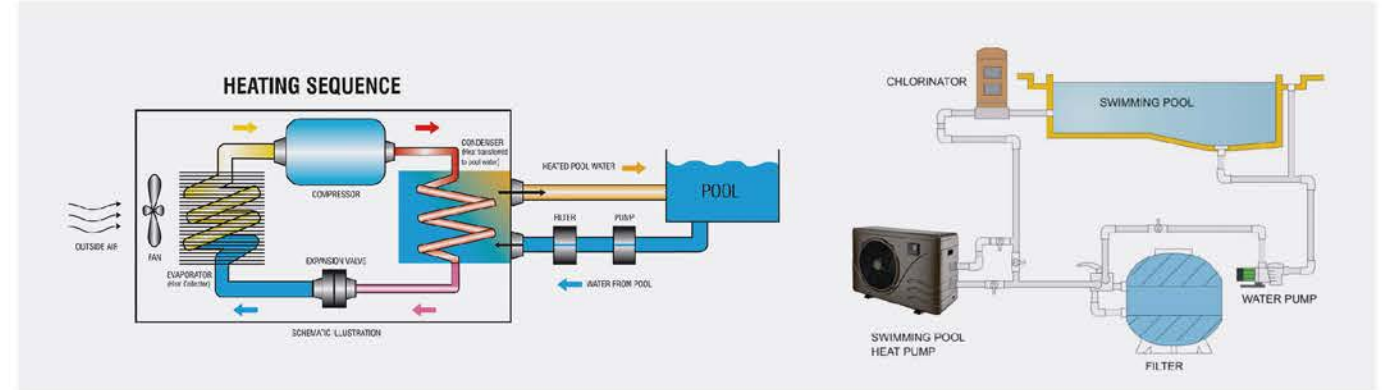


Features:

- R410A refrigerant, environmental friendly.
- Titanium heat exchanger, corrosion resistance.
- High pressure protection.
- Defrost automatically.
- With water flow switch.
- MODBUS communication.
- Full automatically operation.
- The heat pump can heat and cool the pool water.
- ABS plastic outer shell, corrosion resistance.



Application



Technical Data

Photos					
Model No.	YC-007TB1	YC-010TB1	YC-012TB1	YC-015TB1	YC-019TB1
Heating Capacity at Air 27°C/24°C, Water 27°C in, 29°C out					
Heating Capacity (kW)	7.2	10.0	12.5	15.0	18.8
Power Input (kW)	1.19	1.63	2.05	2.45	3.13
COP	6.05	6.13	6.10	6.12	6.01
Heating Capacity at Air 15°C/12°C, Water 26°C in, 28°C out					
Heating Capacity (kW)	5.1	7.2	9.5	12.5	15.5
Power Input (kW)	1.00	1.40	1.86	2.44	3.06
COP	5.10	5.14	5.11	5.12	5.06
Cooling Capacity at Air 35°C/24°C, Water 29°C in, 27°C out					
Cooling Capacity (kW)	4.5	6.5	8.5	11.2	14.0
Power Input (kW)	1.30	1.80	2.39	3.22	4.11
EER	3.46	3.62	3.56	3.48	3.41
Power supply	230V / 1/ 50 Hz	230V / 1/ 50 Hz	230V / 1/ 50 Hz	230V / 1/ 50 Hz	230V / 1/ 50 Hz
Max Power Input (kW)	1.8	2.5	3	3.6	4.7
Max Current(A)	9.1	12.6	15.2	18.2	24.5
Refrigerant	R410a or R32	R410a or R32	R410a or R32	R410a or R32	R410a or R32
Heat Exchanger	Titanium	Titanium	Titanium	Titanium	Titanium
Air Flow Direction	Horizontal	Horizontal	Horizontal	Horizontal	Horizontal
Water Flow Volume (m³/h)	3	4	5	6.5	8
Kind of defrost	by 4 way valve	by 4 way valve	by 4 way valve	by 4 way valve	by 4 way valve
Working temperature range (°C)	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43
Noise level (dBa)	≤ 48	≤ 48	≤ 49	≤ 51	≤ 51
Casing Material	ABS plastic	ABS plastic	ABS plastic	ABS plastic	ABS plastic
Net Dimensions (mm)(LxW xH)	972x430x653	972x430x653	972x430x653	1083x448x704	1083x448x704
Package Dimensions (mm)(LxWxH)	1022x460x788	1022x460x788	1022x460x788	1130x460x830	1130x460x830
Net Weight	46 kg	51 kg	58 kg	72 kg	85 kg
Gross Weight	59 kg	65 kg	73 kg	88 kg	102 kg

Swimming Pool Heat Pump / Commercial Type

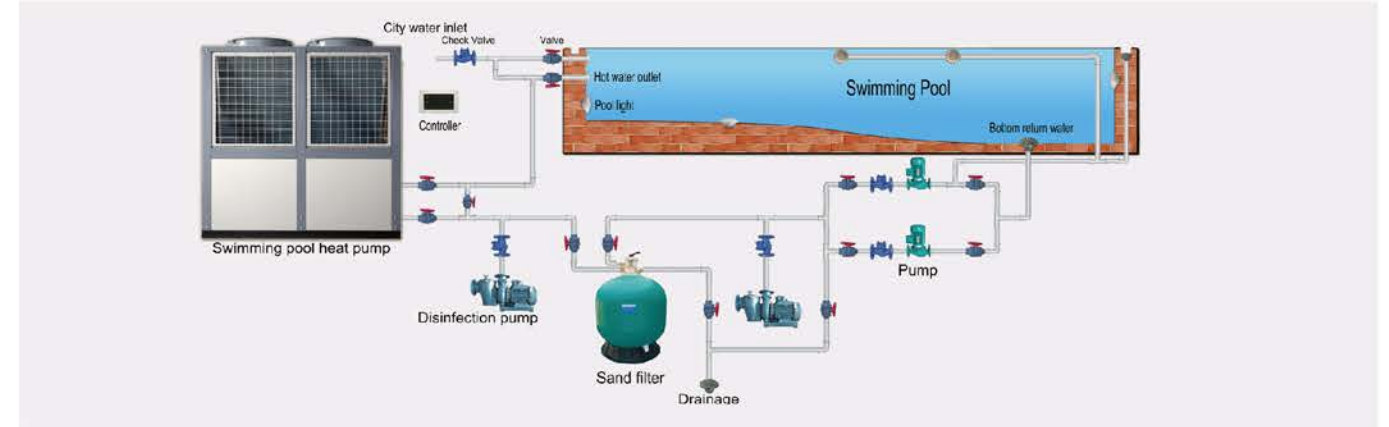


Features:

- R410A refrigerant, environmental friendly.
- Higher water temperature output up to 40°C.
- Titanium heat ex-changer, corrosion resistance.
- High pressure protection.
- Defrost automatically.
- With MODBUS communication.
- Full automatically operation.



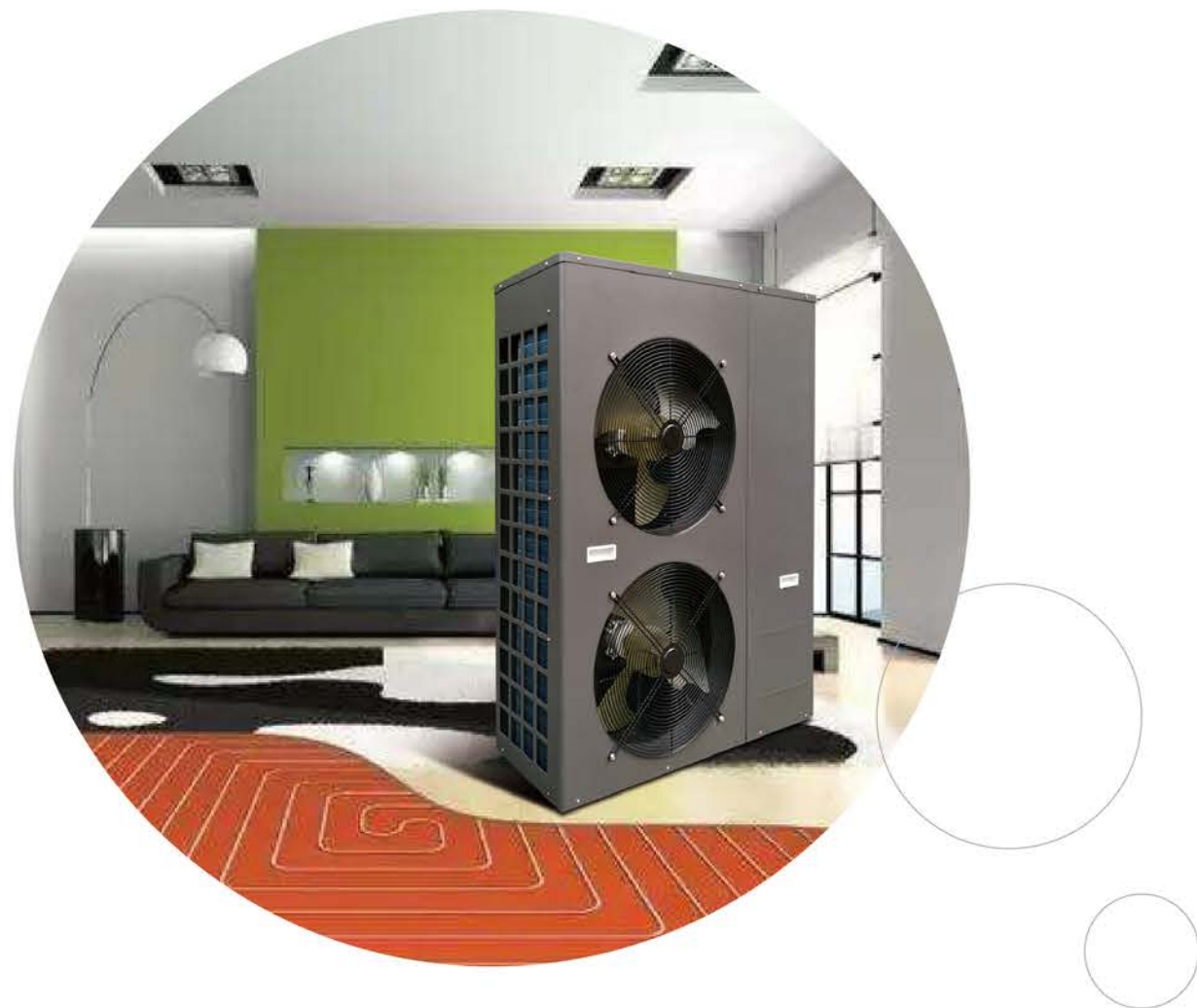
Application



Technical Data

Photos						
Model No.	YC-025TA1	YC-050TA1	YC-075TA1	YC-120TA1	YC-170TA1	YC-220TA1
Power Supply	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz
Heating Capacity at Air 27°C/24°C, Water 27°C in, 29°C out						
Heating Capacity (kW)	25	50	75	120	170	220
Power Input (kW)	4.2	8.4	12.8	20.1	28.6	37.6
COP	5.91	5.95	5.86	5.98	5.95	5.85
Heating Capacity at Air 15°C/12°C, Water 26°C in, 28°C out						
Heating Capacity (kW)	20	42	65	100	140	185
Power Input (kW)	4.1	8.6	13.5	20.4	28.9	38.6
COP	4.86	4.88	4.81	4.89	4.85	4.79
Cooling Capacity at Air 35°C/24°C, Water 29°C in, 27°C out						
Cooling Capacity (kW)	18	36	56	85	120	160
Power Input (kW)	5.3	10.5	16.6	24.6	35.2	47.6
EER	3.39	3.42	3.38	3.45	3.41	3.36
Max Power Input (kW)	6.9	13.2	20.1	29.1	48.5	67.2
Max Current(A)	12.3	23.5	35.9	52.2	87.0	121.1
Refrigerant	R410a	R410a	R410a	R410a	R410a	R410a
Compressor Type	Rotary	Rotary	Scroll	Scroll	Scroll	Scroll
Heat Exchanger	Titanium	Titanium	Titanium	Titanium	Titanium	Titanium
Expansion Valve	Electronic	Electronic	Electronic	Electronic	Electronic	Electronic
Air Flow Direction	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
Water Flow Volume (m³/h)	10	20	30	50	70	85
Net Dimensions(LxWxH) (mm)	695x755x1000	1417x755x1000	1590x850x1500	2150x1078x2258	2150x1078x2258	2150x1078x2258
Working temperature range (°C)	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43	-15 ~ 43
Noise (dB)	≤60	≤65	≤68	≤70	≤70	≤75
Net Weight (kg)	120	250	460	760	900	1200
Water connection(mm)	50	63	63	75	90	110

Multi-function Heat Pump / Heating & Cooling / DC Inverter / Residential Type

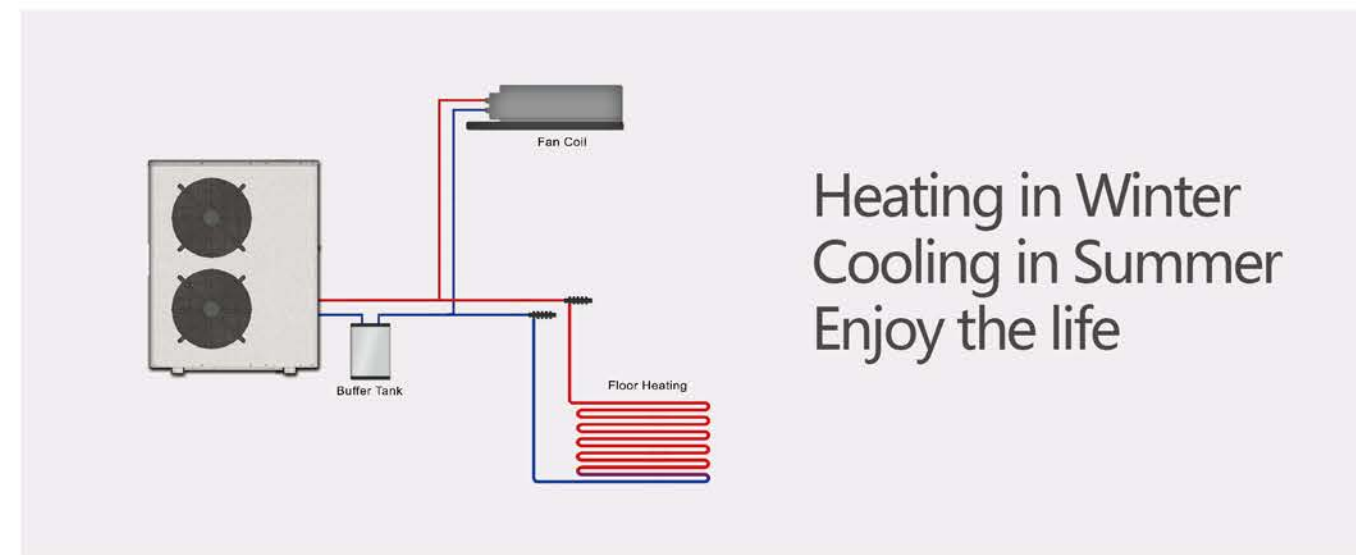


Features:

- R410A refrigerant, environmental friendly.
- Higher water temperature output up to 55 °C.
- Adopt DC inverter technology, with high efficiency.
- High pressure protection.
- Defrost automatically.
- With MODBUS communication.
- Adapt intelligent controller, full automatically operation.
- Operation ambient temperature can be -30 °C
- Through different installation, the system can be used for cooling or heating.



Application



Technical Data

Model No.	BLN-018TA1
Power Supply	220V-240V/1/50Hz
Heating Capacity at Air 7°C/6°C, Water 30°C in, 35°C out	
Heating Capacity (kW)	18(5.2~20.5)
Power Input (kW)	3.81
COP	4.72
Heating Capacity at Air 7°C/6°C, Water 50°C in, 55°C out	
Heating Capacity (kW)	15(4.6~18.5)
Power Input (kW)	4.08
COP	3.68
Cooling Capacity at Air 35°C/24°C, Water 12°C in, 7°C out	
Cooling Capacity (kW)	14(4.2-16.8)
Power Input (kW)	3.87
EER	3.62
Max Power Input (kW)	6.80
Max Current(A)	32.0
Refrigerant	R410a
Net Weight (kg)	147
Dimensions(L*W*H) (mm)	1077×377×1460
Working temperature range (°C)	-30~48
Compressor	Panasonic

Multi-function Heat Pump / Heating & Cooling / Commercial Type

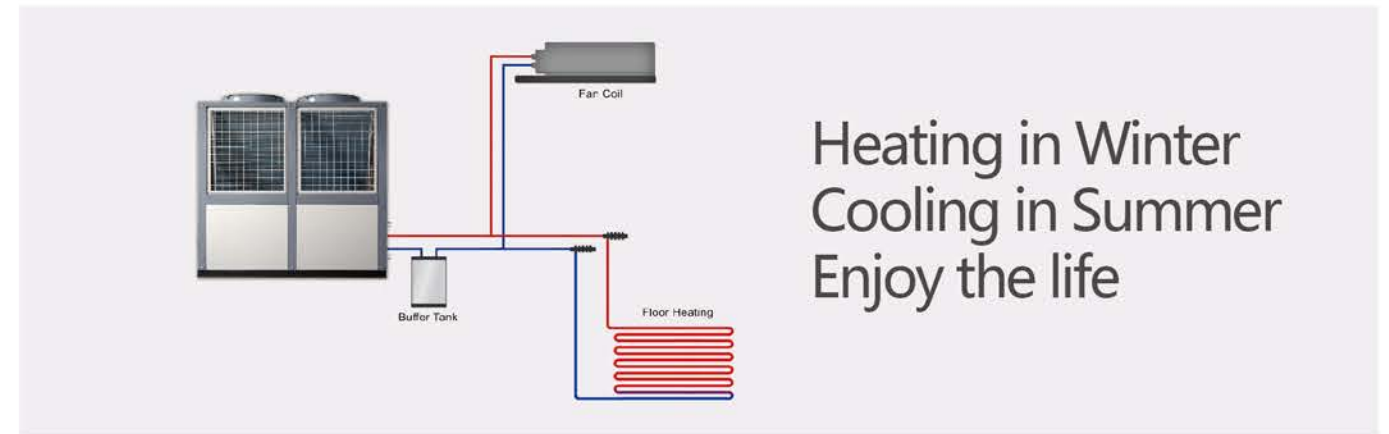


Features:

- R410A refrigerant, environmental friendly.
- Higher water temperature output up to 55 °C.
- Adopt EVI technology, the operation ambient temperature can reach at -25 °C.
- High pressure protection.
- Defrost automatically.
- With MODBUS communication.
- Adapt intelligent controller, full automatically operation.
- Through different installation, the system can be used for cooling or heating.



Application



Technical Data

Photos			
Model No.	DLN-050TA1	DLN-100TA1	DLN-200TA1
Power Supply	380V/3/50Hz	380V/3/50Hz	380V/3/50Hz
Heating Capacity at Air 7°C/6°C, Water 30°C in, 35°C out			
Heating Capacity (kW)	45	90	170
Power Input (kW)	10.3	20.8	39.7
COP	4.36	4.32	4.28
Heating Capacity at Air -12°C/-14°C, Water 30°C in, 35°C out			
Heating Capacity (kW)	30	60	110
Power Input (kW)	10.1	20.3	37.7
COP	2.98	2.95	2.92
Cooling Capacity at Air 35°C/24°C, Water 12°C in, 7°C out			
Cooling Capacity (kW)	32	64	125
Power Input (kW)	13.1	24.9	50.6
EER	2.45	2.57	2.47
Max Power Input (kW)	16.8	36.5	77.8
Max Current(A)	31.5	63.3	137.5
Refrigerant	R410a	R410a	R410a
Compressor	EVI Scroll	EVI Scroll	EVI Scroll
Expansion Valve	Electronic	Electronic	Electronic
Air Flow Direction	Vertical	Vertical	Vertical
Water Flow Volume (m3/h)	8	16	30
Water Pressure Drop (kPa)	55	55	55
Dimensions(L*W*H) (mm)	1252×1076×1865	2148×1076×2176	2248×2148×2176
Working temperature range (°C)	-25~43	-25~43	-25~43
Noise (dB)	≤65	≤70	≤76
Net Weight (kg)	450	800	1600
Water connection (mm)	40	50	80

Projects





Smeteta