



FOSHAN BLUEWAY ELECTRIC APPLIANCES CO., LTD.

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Air Cooled Water Chiller

Engineered for the harsh weather conditions in the Gulf countries at the Middle East

An ideal solution to Sanitary Chilled Water applications

GENERAL INFORMATION



Blueway **Air Cooled Water Chiller** is specially designed for the need of sanitary chilled water in tropical regions of the gulf areas, where the ambient temperature in summer can even go up to as high as 53°C, causing the rooftop tank water reaches unbearable temperatures. The unit works as a chiller in summer, which chills the rooftop tank water to a comfortable temperature ideal for use in bathroom and kitchen, such as shower, bath, washing, laundry, cooking, drinking and cleaning etc. It adopts a CFC free, eco-friendly refrigerant which is highly efficient and has no depletion to ozone layer.

The system consists of a refrigerant circuit and water circuit. The refrigerant circuit is composed of a compressor, a condenser coil, heat exchanger and a throttling device. The water circuit is composed of a built-in pump, the same water heat exchanger.

The refrigerant absorbs heat from the water passing by the heat exchanger, by which the water temperature is reduced. The whole system is controlled by an intelligent digital controller with a friendly user interface.



WORKING PRICIPLE OF BLUEWAY CHILLER SYSTEM

Key Components

Intelligent Control Condenser Coils

FEATURES & HIGHLIGHTS

- Tropical design for a maximum working ambient temperature of 52°C
- High efficiency compressor, tropical for high ambient conditions
- Eco friendly CFC free refrigerant, without ozone depletion
- Micro processor based digital controller with LCD user interface
- Heat exchanger with high thermal efficiency, high working temperature and low maintenance
- Built in circulation pump





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- Guaranteed water safety, no potential risk of contamination to potable water
- Full safety protection incorporated to the system:
 - high pressure and low pressure protection
 - compressor overload and high discharge temperature protection
 - phase failure protection
 - water flow protection
 - anti-freezing protection
- Heavy gauge galvanized steel cabinet with epoxy powder painting, for long lasting outdoor life span

Application Diagrams

Installation without Buffer Tank (Domestic Type)



Installation without Buffer Tank (Commercial Type)



Installation with Buffer Tank (Single Cooling System)



Domestic Air Cooled Water Chiller (50Hz)

Technical Specifications

| Model | | | DWC-18V | DWC-24V | DWC-36V | DWC-48V | DWC-60V | DWC-84V | | |
|--------------------------------------|-------------------|---------|--|--------------|-------------|--------------|-------------|--------------|--|--|
| Nominal cooling capacity ton/l | | ton/h | 1.5 | 2 | 3 | 4 | 5 | 7 | | |
| Power supply | | V/Hz/Ph | | 220-240/50/1 | | 380-415/50/3 | | | | |
| Cooling (1): A35/24°C W30/25°C | Cooling capacity | btu/h | 20813 | 28490 | 41626 | 54592 | 66875 | 95092 | | |
| | | W/h | 6100 | 8350 | 12200 | 16000 | 19600 | 27870 | | |
| | Power consumption | w | 1540 | 2110 | 3110 | 4160 | 5100 | 7426 | | |
| | EER | | 3.96 | 3.96 | 3.92 | 3.85 | 3.84 | 3.76 | | |
| Cooling (2): A46/24°C W30/25°C | Cooling capacity | btu/h | 17691 | 24217 | 35382 | 46403 | 56844 | 81888 | | |
| | | W/h | 5200 | 7200 | 10600 | 14000 | 17500 | 24000 | | |
| | Power consumption | w | 1770 | 2440 | 3670 | 4950 | 6040 | 8550 | | |
| | EER | | 2.94 | 2.95 | 2.89 | 2.83 | 2.9 | 2.8 | | |
| Ambient temp. range | | °C | 20~53 | | | | | | | |
| Outlet water temp. range | | °C | 15-35 | | | | | | | |
| Rated water flow rate | | m³/h | 0.9 | 1.2 | 1.8 | 2.4 | 3 | 4 | | |
| Controller | | | Micro processor based digital wire controller with LCD display | | | | | | | |
| Fan | | | Aluminum | | | | | | | |
| External cabinet | | | Galvanized steel with powder coating | | | | | | | |
| Compressor | Туре | - | Rotary Scroll | | | | | | | |
| | Qty. | Nos. | 1 | | | | | | | |
| | Refrigerant | - | R410a | | | | | | | |
| Water heat exchanger - | | - | S/S tube-in-tube or titanium tube in PVC Shell | | | | | | | |
| Billt-in water pump (optional) | | ÷ | Wilo/Shinhoo | | | | | | | |
| Water connection | Inlet&Outlet | inch | 1" | 1" | 1" | 1" | 1" | 1-1/4" | | |
| Noise level | | dB(A) | 56 | 57 | 63 | 63 | 63 | 63 | | |
| Net dimension | W*D*H | mm | 610*610*653 | 610*610*653 | 740*740*653 | 740*740*835 | 740*740*835 | 740*740*1050 | | |
| Net weight | | kg | 55 | 60 | 87 | 105 | 120 | 162 | | |

Notes: 1.Conditions of "Cooling (1)": Ambient air temperature DB/WB: 35/24°C, Inlet/Outlet water temperature: W30/25°C; 2.Conditions of "Cooling (2)": Ambient air temperature DB/WB: 46/24°C, Inlet/Outlet water temperature: W30/25°C; Blueway reserves the rights to modify the above specifications without notice for product improvement. Please contact us for updated information.







Commercial Air Cooled Water Chiller (50Hz)

Technical Specifications

| | Model | | BAWC-8 | BAWC-10 | BAWC-12 | BAWC-18 | | |
|--------------------------|-------------------|---------|--|---------------|---------------|--------------|--|--|
| Nominal cooling capac | ton/h | 8 | 10 | 12 | 18 | | | |
| Power Supply | | V/Hz/Ph | 380-415/50/3 | | | | | |
| | | btu/h | 107478 | 133068 | 167188 | 249076 | | |
| Cooling (1): | Cooling capacity | W/h | 31500 | 39000 | 49000 | 73000 | | |
| A35/24°C W30/25°C | Power consumption | w | 8200 | 10200 | 12800 | 19000 | | |
| | EER | | 3.84 | 3.82 | 3.83 | 3.84 | | |
| | | btu/h | 95536 | 119420 | 146716 | 214956 | | |
| Cooling (2): A46/24°C | Cooling capacity | W/h | 28000 | 35000 | 43000 | 63000 | | |
| A46/24°C W30/25°C | Power consumption | w | 10000 | 12000 | 15100 | 21700 | | |
| | EER | ~ | 2.8 | 2.92 | 2.85 | 2.9 | | |
| Ambient temp. range | | °C | 20~53 | | | | | |
| Outlet water temp. rang | ge | °C | 15-35 | | | | | |
| Rated water flow rate | | m³/h | 5 | 6 | 7.4 | 10.8 | | |
| Controller | | - | Micro processor based digital wire controller with LCD display | | | | | |
| Fan | | | Aluminum | | | | | |
| External cabinet | | | Galvanized steel with powder coating | | | | | |
| | Туре | ~ | Scroll | | | | | |
| Compressor | Qty. | Nos. | 2 | | | | | |
| | Refrigerant | - | R410a | | | | | |
| Water heat exchanger | | | Brazed plate heat exchanger | | | | | |
| Water pump (optional) | | - | Wilo/Shinhoo Shinhoo/Yua | | | | | |
| Water connection | Inlet&Outlet | inch | 1-1/2" | 1-1/2" | 1-1/2" | 2" | | |
| Noise level | | dB(A) | 65 | 65 | 67 | 71 | | |
| Net dimension (W*D*H |) | mm | 1432*742*1064 | 1432*742*1064 | 1432*800*1064 | 2000*950*205 | | |
| Net weight | | kg | 290 | 300 | 330 | 380 | | |

Notes:

1.Conditions of "Cooling (1)": Ambient air temperature DB/WB: 35/24°C, Inlet/Outlet water temperature: W30/25°C; 2.Conditions of "Cooling (2)": Ambient air temperature DB/WB: 46/24°C, Inlet/Outlet water temperature: W30/25°C; Blueway reserves the rights to modify the above specifications without notice for product improvement. Please contact us for updated information.

