

Which is the right air-conditioning system for your boat?



Our large product portfolio from compact air-conditioning systems up to large chiller systems leaves no wish unfulfilled. With our wide power range we provide cooling capacities from 6,000 BTU/h up to 1,000,000 BTU/h.

BlueCool self-contained units



- Perfect solution for vessels with one to three cabins
- Very compact
- Easy to retrofit
- Extremely efficient

or

BlueCool chiller systems



- Large power range to fit any size of boat or superyacht
- Best in marine A/C: Ability to provide adequate cooling wherever it is needed
- Ideal basis for our integrated BlueComfort solutions

+

BlueCool air handlers



- Modular concept enables greatest possible flexibility
- Uses minimal space in cabins since air handlers are smaller than self-contained units
- Three construction forms Compact, Slimline and Low profile feature an especially compact, slim and flat design of the A-Series

How to choose the right air-conditioner

Example: You own a yacht and would like to aircondition a room of 5 m (length) x 5 m (width) x 2 m (height).

Step 1: Define the category of the cabin

Determine the **category of the cabin**. We give an example for a cabin with an average glass area, for example a deck saloon.

Category 2

Step 2: Define the net volume

Determine the **net volume of the room** (5 m x 5 m x 2 m = 50 m³; subtract 20 % for furniture in the room; 50 m³ - 10 m³ = 40 m³; If you want to air condition the whole boat, please calculate the **sum of your rooms**.

40 m³

Step 3: Define your climate region

Determine the **climate region** where you spend most of your time. For example the Mediterrean Sea is a "normal region" in the climate category.

Normal region

Step 4: Identify your cooling requirements

Result: You need an air conditioning system with a 20,000 BTU/h **cooling capacity**.


20,000 BTU/h

Step 5: Decide between a self-contained and chiller system


Depending on the demands you can decide on a **self-contained or chiller system** with a cooling capacity of 20,000 BTU/h.

BlueCool S20

Step 1



Step 2




| | | Category 1 portlights only, cabin(s) all below deck (400 BTU/m ³) | | |
|--|--|---|--------|---------|
| Volume of the rooms L x W x H (m ³) | | region: normal | cold | hot |
| 10 | | 4,000 | 3,000 | 5,000 |
| 20 | | 8,000 | 6,000 | 10,000 |
| 30 | | 12,000 | 9,000 | 15,000 |
| 40 | | 16,000 | 12,000 | 20,000 |
| 50 | | 20,000 | 15,000 | 25,000 |
| 60 | | 24,000 | 18,000 | 30,000 |
| 70 | | 28,000 | 21,000 | 35,000 |
| 80 | | 32,000 | 24,000 | 40,000 |
| 90 | | 36,000 | 27,000 | 45,000 |
| 100 | | 40,000 | 30,000 | 50,000 |
| 110 | | 44,000 | 33,000 | 55,000 |
| 120 | | 48,000 | 36,000 | 60,000 |
| 130 | | 52,000 | 39,000 | 65,000 |
| 140 | | 56,000 | 42,000 | 70,000 |
| 150 | | 60,000 | 45,000 | 75,000 |
| 160 | | 64,000 | 48,000 | 80,000 |
| 170 | | 68,000 | 51,000 | 85,000 |
| 180 | | 72,000 | 54,000 | 90,000 |
| 190 | | 76,000 | 57,000 | 95,000 |
| 200 | | 80,000 | 60,000 | 100,000 |

Step 3


Step 4

For precise BTU calculations, please use our Marine specification and calculation tool, available on the dealer portal at <http://dealers.webasto.com>

The right cooling capacity



| | | Category 1 portlights only, cabin(s) all below deck (400 BTU/m ³) | | |
|--|--|---|--------|---------|
| Volume of the rooms L x W x H (m ³) | | region: normal | cold | hot |
| 10 | | 4,000 | 3,000 | 5,000 |
| 20 | | 8,000 | 6,000 | 10,000 |
| 30 | | 12,000 | 9,000 | 15,000 |
| 40 | | 16,000 | 12,000 | 20,000 |
| 50 | | 20,000 | 15,000 | 25,000 |
| 60 | | 24,000 | 18,000 | 30,000 |
| 70 | | 28,000 | 21,000 | 35,000 |
| 80 | | 32,000 | 24,000 | 40,000 |
| 90 | | 36,000 | 27,000 | 45,000 |
| 100 | | 40,000 | 30,000 | 50,000 |
| 110 | | 44,000 | 33,000 | 55,000 |
| 120 | | 48,000 | 36,000 | 60,000 |
| 130 | | 52,000 | 39,000 | 65,000 |
| 140 | | 56,000 | 42,000 | 70,000 |
| 150 | | 60,000 | 45,000 | 75,000 |
| 160 | | 64,000 | 48,000 | 80,000 |
| 170 | | 68,000 | 51,000 | 85,000 |
| 180 | | 72,000 | 54,000 | 90,000 |
| 190 | | 76,000 | 57,000 | 95,000 |
| 200 | | 80,000 | 60,000 | 100,000 |



| | | Category 2 average glass area, cabins partly below deck (500 BTU/m ³) | | |
|--|--|---|--------|---------|
| Volume of the rooms L x W x H (m ³) | | region: normal | cold | hot |
| 10 | | 5,000 | 3,750 | 6,250 |
| 20 | | 10,000 | 7,500 | 12,500 |
| 30 | | 15,000 | 11,250 | 18,750 |
| 40 | | 20,000 | 15,000 | 25,000 |
| 50 | | 25,000 | 18,750 | 31,250 |
| 60 | | 30,000 | 22,500 | 37,500 |
| 70 | | 35,000 | 26,250 | 43,750 |
| 80 | | 40,000 | 30,000 | 50,000 |
| 90 | | 45,000 | 33,750 | 56,250 |
| 100 | | 50,000 | 37,500 | 62,500 |
| 110 | | 55,000 | 41,250 | 68,750 |
| 120 | | 60,000 | 45,000 | 75,000 |
| 130 | | 65,000 | 48,750 | 81,250 |
| 140 | | 70,000 | 52,500 | 87,500 |
| 150 | | 75,000 | 56,250 | 93,750 |
| 160 | | 80,000 | 60,000 | 100,000 |
| 170 | | 85,000 | 63,750 | 106,250 |
| 180 | | 90,000 | 67,500 | 112,500 |
| 190 | | 95,000 | 71,250 | 118,750 |
| 200 | | 100,000 | 75,000 | 125,000 |



| | | Category 3 glass area above average, saloon above deck (600 BTU/m ³) | | |
|--|--|--|--------|---------|
| Volume of the rooms L x W x H (m ³) | | region: normal | cold | hot |
| 10 | | 6,000 | 4,500 | 7,500 |
| 20 | | 12,000 | 9,000 | 15,000 |
| 30 | | 18,000 | 13,500 | 22,500 |
| 40 | | 24,000 | 18,000 | 30,000 |
| 50 | | 30,000 | 22,500 | 37,500 |
| 60 | | 36,000 | 27,000 | 45,000 |
| 70 | | 42,000 | 31,500 | 52,500 |
| 80 | | 48,000 | 36,000 | 60,000 |
| 90 | | 54,000 | 40,500 | 67,500 |
| 100 | | 60,000 | 45,000 | 75,000 |
| 110 | | 66,000 | 49,500 | 82,500 |
| 120 | | 72,000 | 54,000 | 90,000 |
| 130 | | 78,000 | 58,500 | 97,500 |
| 140 | | 84,000 | 63,000 | 105,000 |
| 150 | | 90,000 | 67,500 | 112,500 |
| 160 | | 96,000 | 72,000 | 120,000 |
| 170 | | 102,000 | 76,500 | 127,500 |
| 180 | | 108,000 | 81,000 | 135,000 |
| 190 | | 114,000 | 85,500 | 142,500 |
| 200 | | 120,000 | 90,000 | 150,000 |

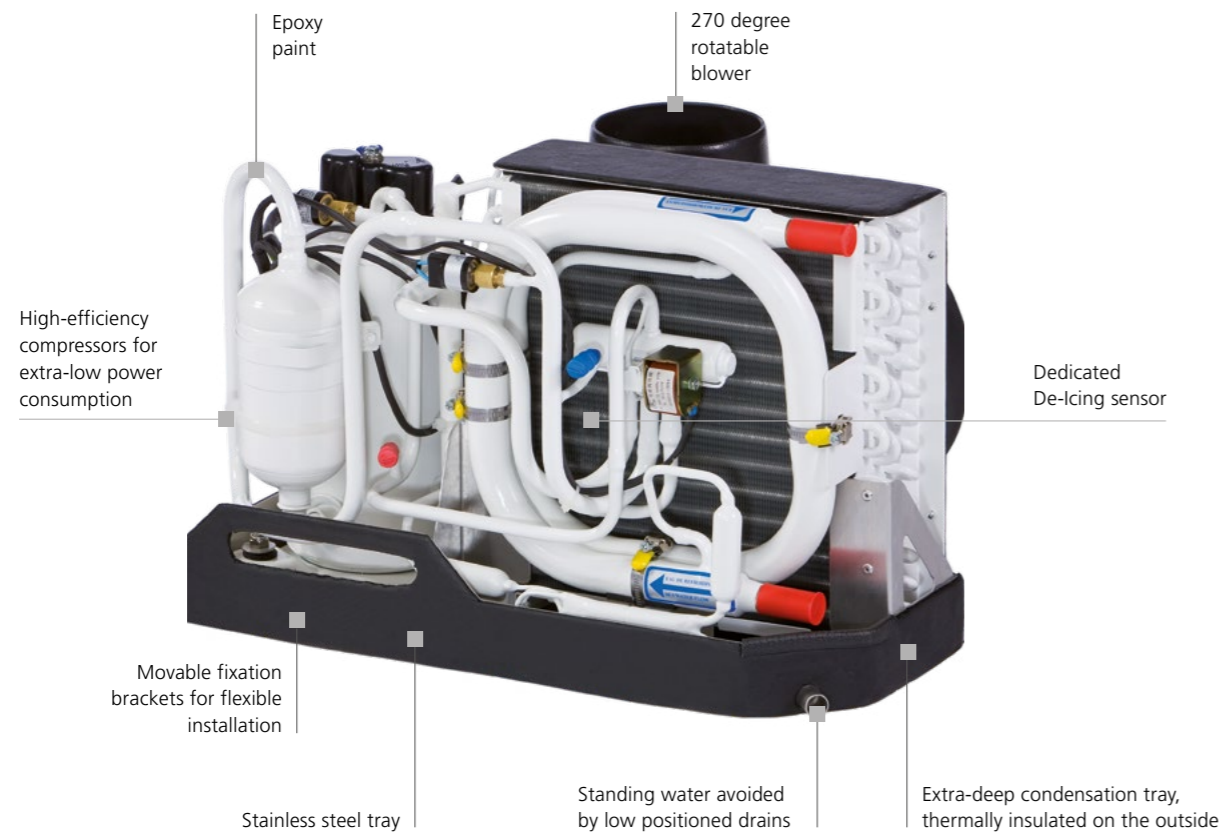


| | | Category 4 very large glass areas, saloon and wheel house above deck (750 BTU/m ³) | | |
|--|--|--|---------|---------|
| Volume of the rooms L x W x H (m ³) | | region: normal | cold | hot |
| 10 | | 7,500 | 5,625 | 9,375 |
| 20 | | 15,000 | 11,250 | 18,750 |
| 30 | | 22,500 | 16,875 | 28,125 |
| 40 | | 30,000 | 22,500 | 37,500 |
| 50 | | 37,500 | 28,125 | 46,875 |
| 60 | | 45,000 | 33,750 | 56,250 |
| 70 | | 52,500 | 39,375 | 65,625 |
| 80 | | 60,000 | 45,000 | 75,000 |
| 90 | | 67,500 | 50,625 | 84,375 |
| 100 | | 75,000 | 56,250 | 93,750 |
| 110 | | 82,500 | 61,875 | 103,125 |
| 120 | | 90,000 | 67,500 | 112,500 |
| 130 | | 97,500 | 73,125 | 121,875 |
| 140 | | 105,000 | 78,750 | 131,250 |
| 150 | | 112,500 | 84,375 | 140,625 |
| 160 | | 120,000 | 90,000 | 150,000 |
| 170 | | 127,500 | 95,625 | 159,375 |
| 180 | | 135,000 | 101,250 | 168,750 |
| 190 | | 142,500 | 106,875 | 178,125 |
| 200 | | 150,000 | 112,500 | 187,500 |

For extreme climatic conditions such as the Persian Gulf with sea-water temperatures of 32 °C and air temperatures of 40 °C, you have to add 25 to 30 % onto the calculated figure. On BlueCool P-Series units it is also recommended that the condenser is increased in size.

BlueCool self-contained units

BlueCool S-Series



The BlueCool S-Series:

- Fully 50/60 Hz compatible (230 V)
- Suitable for worldwide usage
- Very high efficiency, using R410a refrigerant
- Continuous operation even under tropical conditions
- USB diagnosis for easy servicing and parameter setting
- Quiet operation
- Robust design
- Soft start devices available as an option
- Vibration absorber kits available as an option

BlueCool self-contained units

Product overview



BlueCool S-Series
S6 – S27 230 V

See page 94



BlueCool S-Series
S6 – S16 115 V

See page 95

S-Series comes with the new MyTouch display as a standard



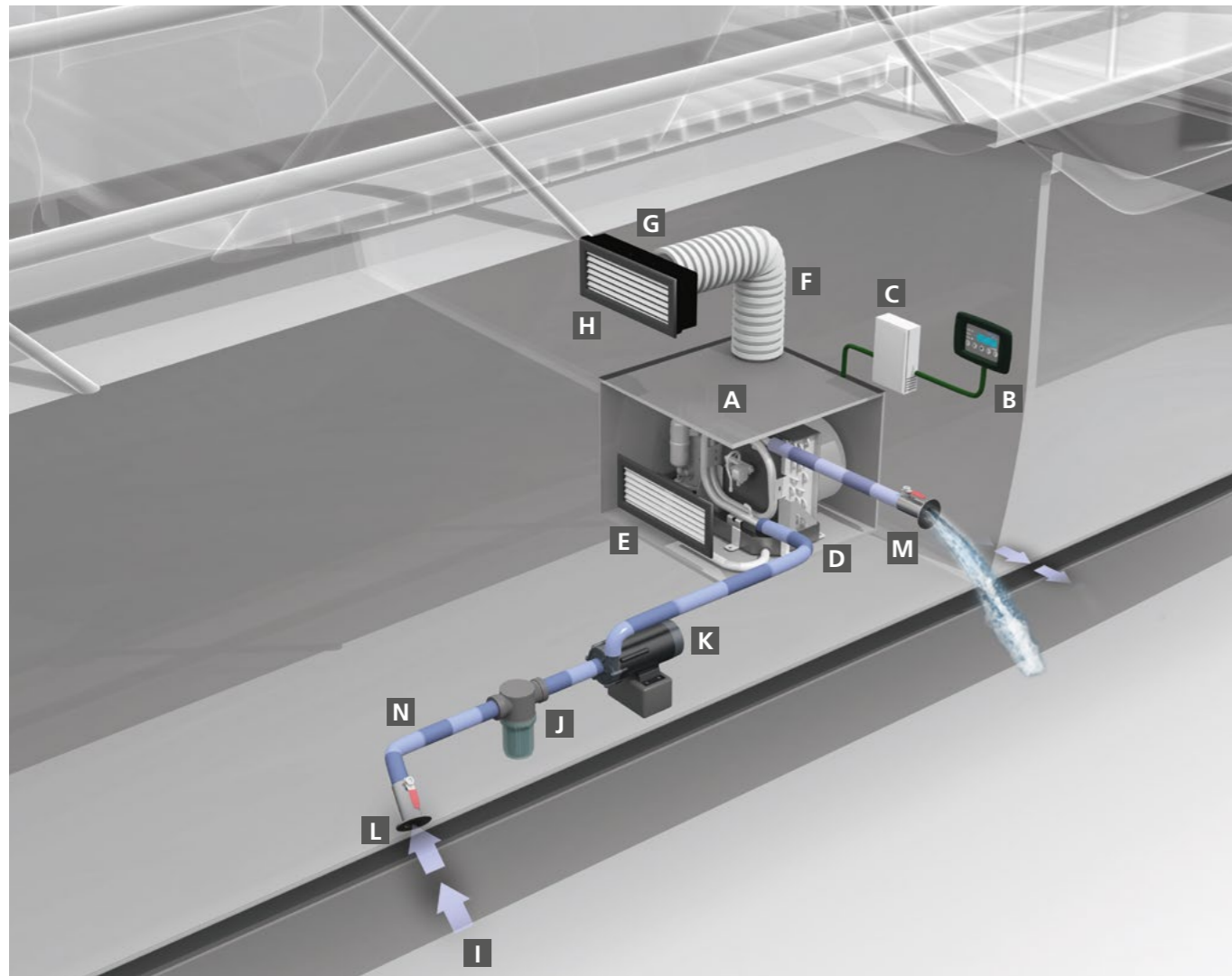
BlueCool MyTouch

Self-contained air-conditioners:

- Stand alone unit
- Heating via reverse cycle integrated
- Extremely compact
- All components on one tray
- Lowest power consumption
- Including electronics, blower and controls
- Evaporator temperature control in real time mode

BlueCool self-contained units

Application concept



Installation of a BlueCool self-contained unit is quite simple:
Each cabin has its own self-contained unit **A** providing cool air to this cabin. It is controlled by an air control unit **B** which is also located in this cabin.
The generated heat is transferred into the sea via the sea water circuit **I** to **N**.

BlueCool self-contained units

Webasto BlueCool self-contained air-conditioning units have one hermetically encapsulated compressor. The refrigerant circuit includes not only the compressor but also a condenser, a throttle element (capillary tube) as well as an evaporator. Self-contained units are extremely compact. All components (compressor, condenser, evaporator and blower) required for cooling a cabin, a salon, a lounge or another room are mounted on a stainless steel tray. Webasto self-contained units are available in different power ratings. This means you are sure to find the ideal system for the specific needs of almost all room sizes requiring cooling in a yacht.

BlueCool self-contained units

Application guidelines

For a complete self-contained unit, please select the following:

Core unit

Please select the core unit according to the required cooling capacity.

- | | | | |
|--------------------------------|-----------------------------|--------------------------|------------------------------|
| A Air-conditioning unit | See page 94 | B MyTouch display | See page 138 |
|--------------------------------|-----------------------------|--------------------------|------------------------------|

Position **A** and **B** as well as the following components are included in the scope of delivery:

- Electric cable and control box
- Installation manual
- Remote cabin temperature sensor 3 m
- Display cable 5 m
- Operating manual

Accessories

Please order separately the accessories for the application consisting of:

- | | | | |
|----------------------|------------------------------|-----------------------------|------------------------------|
| C Soft Starts | See page 156 | D Vibration absorber | See page 156 |
|----------------------|------------------------------|-----------------------------|------------------------------|

Air system

Please order separately the air ducting system for the application consisting of:

- | | | | |
|----------------------------|------------------------------|----------------------------|------------------------------|
| E Return air grille | See page 146 | F Air ducting | See page 147 |
| G Transition box | See page 147 | H Supply air grille | See page 146 |

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

- | | | | |
|------------------------------|------------------------------|-----------------------------|------------------------------|
| I Sea water inlet | See page 154 | J Sea water strainer | See page 154 |
| K Sea water pump | See page 140 | L Closing valve | See page 154 |
| M Overboard discharge | See page 154 | N Water hose | See page 153 |

BlueCool S-Series

Self contained units

Technical data

| Type | BlueCool S-Series 230 V | | | | | | |
|--|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | S6 | S8 | S10 | S13 | S16 | S20 | S27 |
| Order numbers | WBCL120000C | WBCL120001F | WBCL120002F | WBCL120003F | WBCL120004G | WBCL120005F | WBCL120006G |
| Cooling capacity* (BTU/h) | 6,000 | 8,000 | 10,000 | 13,000 | 16,000 | 20,000 | 27,000 |
| Cooling capacity* (kW) | 1.8 | 2.4 | 2.9 | 3.8 | 4.7 | 5.9 | 7.9 |
| Heating via reverse cycle integrated | yes | yes | yes | yes | yes | yes | yes |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Current draw running** (A) 50 Hz | 2 – 2,4 | 2,4 – 3,5 | 2,6 – 4,0 | 3,6 – 6,3 | 4,9 – 7,1 | 5,9 – 8,9 | 7,0 – 10,5 |
| Current draw max. peak (A) 50 Hz | 14 | 28 | 27 | 37 | 54 | 60 | 77 |
| Current draw RMS40**** (A) 50 Hz | 5 | 17 | 17 | 22 | 35 | 39 | 49 |
| Current draw RMS300*** (A) 50 Hz | 3 | 9 | 9 | 11 | 19 | 20 | 32 |
| Current draw max. peak with Soft Start (A) 50 Hz | 11 | 12 | 11 | 13 | 22 | 23 | 34 |
| Current draw RMS40**** with Soft Start (A) 50 Hz | 4 | 7 | 7 | 7 | 12 | 14 | 19 |
| Current draw RMS300*** with Soft Start (A) 50 Hz | 3 | 5 | 5 | 5 | 9 | 10 | 17 |
| Locked rotor amperage LRA (A) | 12 | 19 | 19 | 24 | 37 | 43 | 62 |
| Max. circuit breaker (A) | 16 | 16 | 16 | 16 | 16 | 16 | 20 (comp. only) |
| Air flow (free blowing) (m³/h) | 275 | 275 | 400 | 500 | 625 | 625 | 2 x 550 |
| Air flow (free blowing) (cfm) | 162 | 162 | 235 | 294 | 368 | 368 | 2 x 324 |
| Seawater connection (mm) | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| Seawater connection (inch) | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| Min. seawater flow at 50 Hz (l/min) | 6 | 8 | 10 | 12 | 14 | 17 | 21 |
| Min. seawater flow at 60 Hz (l/min) | 7,5 | 10 | 12 | 14 | 17 | 20 | 25 |
| Recommended seawater pump + | WB250 | WB350 | WB350 | WB350/ WB500G | WB500/ WB500G | WB500/ WB500G | WB1000/ WB1000G |
| Dimensions L x W x H (mm) | 405 x 320 x 305 | 405 x 320 x 305 | 480 x 335 x 315 | 510 x 350 x 325 | 550 x 350 x 370 | 595 x 340 x 370 | 575 x 515 x 410 |
| Dimensions L x W x H (inch) | 15.9 x 12.6 x 12.0 | 15.9 x 12.6 x 12.0 | 18.9 x 13.2 x 12.4 | 20.1 x 13.8 x 12.8 | 21.7 x 13.8 x 14.6 | 23.4 x 13.4 x 14.6 | 22.6 x 20.3 x 16.1 |
| Blower connection (mm) | 100 | 100 | 100 | 125 | 125 | 125 | 2 x 125 |
| Blower connection (inch) | 4 | 4 | 4 | 5 | 5 | 5 | 2 x 5 |
| Weight (kg) | 20 | 20 | 22 | 27 | 31 | 34 | 46 |

General note: Values in this table given for 50 Hz only. 60 Hz data available on request.

* BTU/h are based on 7°C evaporating temperature and 38°C condensing temperature

** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 230 V/50 Hz

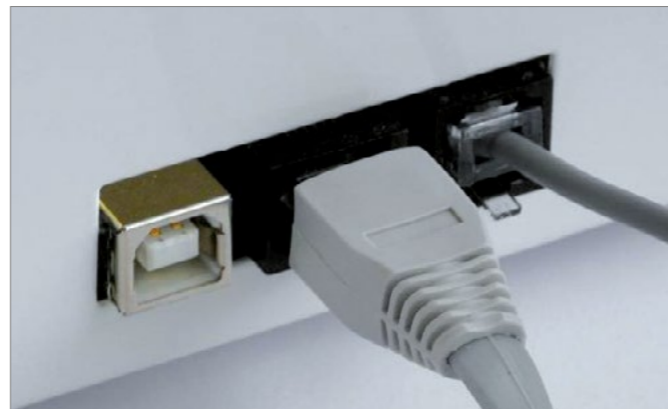
*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms

**** Starting amperage RMS (Root Mean Square) for core unit for first 40 ms

+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.



Soft start device available as an option



BlueCool Expert, Display and Temperature Sensor access from outside

BlueCool S-Series



Technical data

| Type | BlueCool S-Series 115 V | | | | |
|--------------------------------------|-------------------------|--------------------|--------------------|--------------------|----------------------|
| | S6 | S8 | S10 | S13 | S16 |
| Order No. | 2510139C | 2510140C | 2510141C | 2510142C | 2510142C |
| Cooling capacity* (BTU/h) | 6,000 | 8,000 | 10,000 | 13,000 | 16,000 |
| Cooling capacity* (kW) | 1.8 | 2.4 | 2.9 | 3.8 | 4.7 |
| Heating via reverse cycle integrated | Yes | Yes | Yes | Yes | Yes |
| Voltage (V) | 115 (-15%/+10%) | 115 (-15%/+10%) | 115 (-15%/+10%) | 115 (-15%/+10%) | 115 (-15%/+10%) |
| Frequency (Hz) | 60 (+-5%) | 60 (+-5%) | 60 (+-5%) | 60 (+-5%) | 60 (+-5%) |
| Current draw running** (A) 60 Hz | 3.6 – 5.5 | 4.5 – 6.1 | 5.6 – 7.9 | 7.6 – 11 | 8.0 – 15.7 |
| Current draw max. peak (A) 60 Hz | 39 | 54 | 55 | 70 | 89 |
| Current draw RMS40**** (A) 60 Hz | 25 | 35 | 36 | 47 | 59 |
| Current draw RMS300*** (A) 60 Hz | 19 | 20 | 21 | 30 | 35 |
| Locked Rotor Amperage LRA (A) | 27 | 34 | 37 | 57 | 70 |
| Max. circuit breaker (A) | 16 | 16 | 16 | 16 | 25 (compressor only) |
| Air flow (free blowing) (m³/h) | 275 | 275 | 350 | 430 | 650 |
| Air flow (free blowing) (cfm/h) | 162 | 162 | 206 | 253 | 382 |
| Seawater connection (mm) | 19 | 19 | 19 | 19 | 19 |
| Seawater connection (inch) | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| Minimal Seawater flow (l/min) 60 Hz | 6 | 8 | 10 | 12 | 14 |
| Recommended seawater pump 60 Hz + | WB250 | WB350 | WB350 | WB350 WB500G | WB500 WB500G |
| Dimensions L x W x H (mm) | 405 x 320 x 300 | 405 x 320 x 305 | 480 x 335 x 315 | 510 x 345 x 325 | 550 x 340 x 370 |
| Dimensions L x W x H (inch) | 15.9 x 12.6 x 11.8 | 15.9 x 12.6 x 12.0 | 18.9 x 13.2 x 12.4 | 20.1 x 13.6 x 12.8 | 21.7 x 13.4 x 14.6 |
| Blower connection (mm) | 100 | 100 | 100 | 125 | 125 |
| Blower connection (inch) | 4 | 4 | 4 | 5 | 5 |
| Weight (kg) | 18 | 18 | 20 | 25 | 29 |

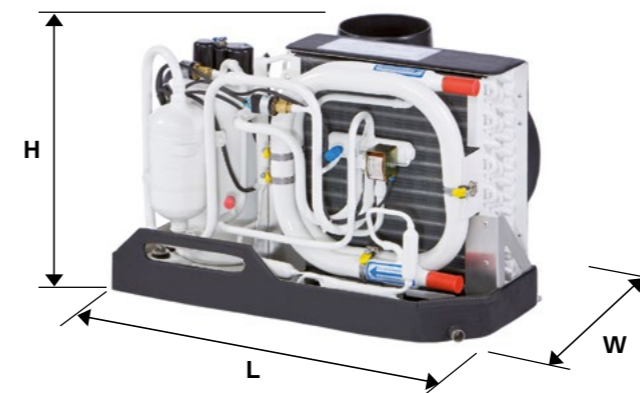
* BTU/h are based on 7°C evaporating temperature and 38°C condensing temperature

** values for core unit depend on compressor load. Max values at tropical conditions at 115 V/60 Hz

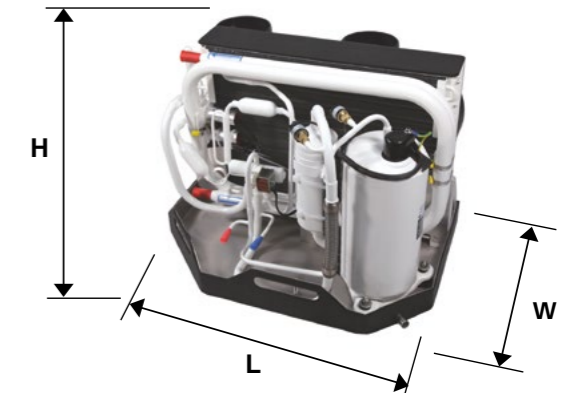
*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms

**** Starting amperage RMS (Root Mean Square) for core unit for first 40 ms

+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.



S6 – S20



S27

BlueCool chiller systems

BlueCool V-Series

The V-Series is offering variable speed compressor technology to the marine market. This innovative technology with inverter driven compressors allows to modulate the cooling output in a wide range but also eliminates the starting peak which permits to downsize the generator. Additionally it has an advanced control system with new comfort features, it automatically adapts to 50/60 Hz and to hot sea water conditions.

BlueCool C-Series

The C-Series stands for standardized chiller units for small to medium boats. The range goes from 16,000 BTU/h to 108,000 BTU/h. Those chillers are the ideal solution for those who demand a high quality product with a short delivery time. The units come in 230 V 50/60 Hz voltage. Customization options are soft starts as well as vibration dampers.

BlueCool V-PRO Series

The V-PRO Series is the new variable speed chiller system to build large chilled water systems with 400 V 3-ph power supply. This chiller system consists of four different modular chiller units which may be flexibly combined to provide up to 1 Mio. BTU/h. The V-PRO system comes with a number of intelligent functions and optional accessories to match your demands.

BlueCool chiller systems

Product overview



BlueCool V-Series
V50 M, V64 T, V77 T

See page 100



BlueCool C-Series
C16 M to C40T

See page 102



BlueCool V-PRO Series
V-PRO 60M to V-PRO 180M

See page 104

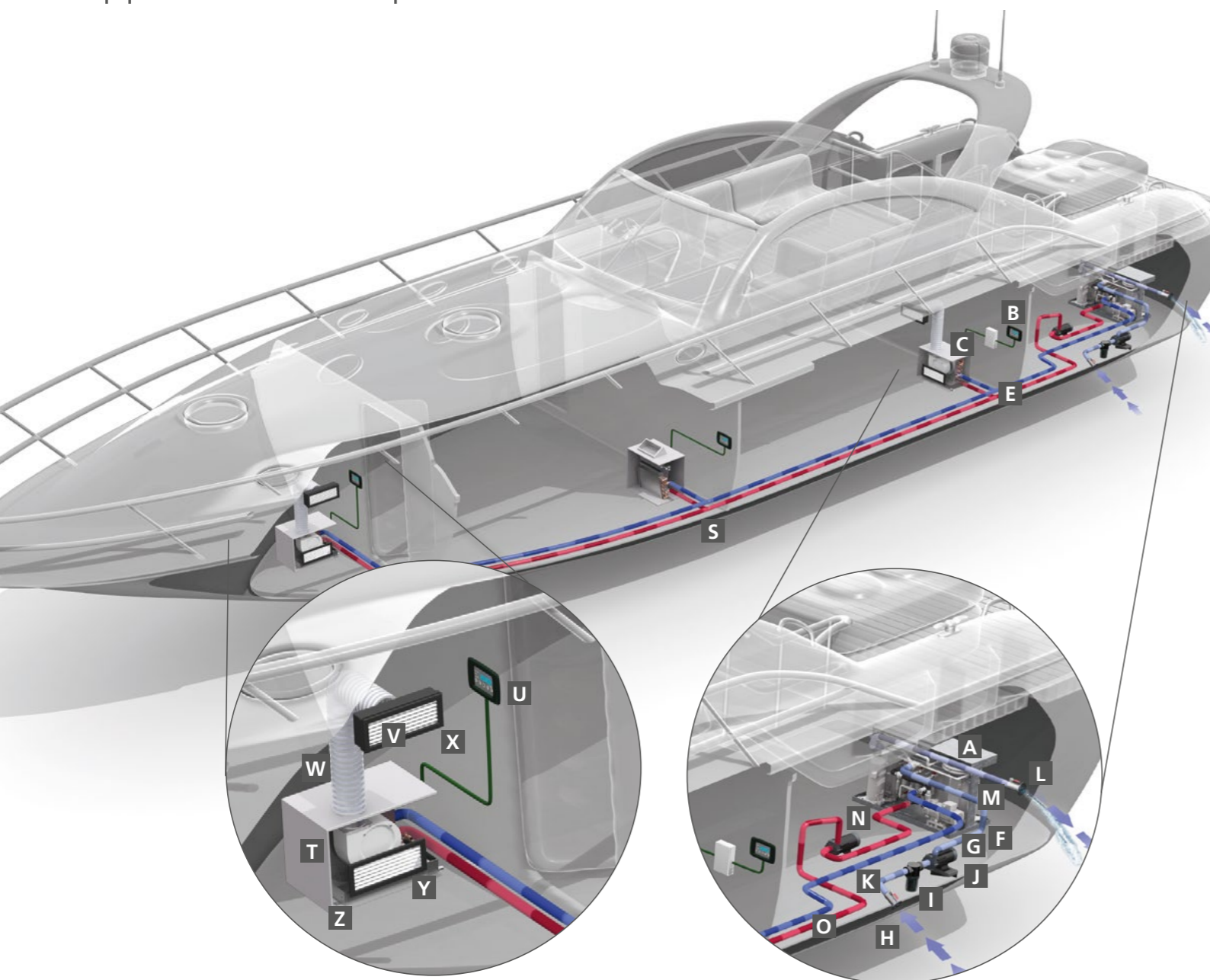
Chiller systems are now compatible with the new MyTouch display



BlueCool MyTouch

BlueCool chiller systems

Application concept



For larger boats with several cabins a chiller system is the best choice. The chiller A/C unit **A** is typically placed in the engine room providing chilled water/glycol to all cabins via the chilled water circuit **N** to **S**. In each cabin one or several air handlers **T** are fitted depending on cooling capacity and space requirements. The Digital Control Panel **B** controls the A/C system itself. For each cabin one Control Panel **U** is needed to individually control the air handler in this cabin. As a result you get full temperature control in each cabin providing maximum comfort on board.

Chiller air-conditioning systems

Whenever three or more independent volumes in a yacht need to be air-conditioned, it becomes worth considering a central chiller system. To distribute cooling capacity over several independently operating air handlers from one single central cooling unit, the most flexible and simple solution is to install a chilled water circulation system between the central unit and the air handlers. This mixed water/glycol circuit is maintained at approx. +4 °C. All Webasto chiller units are equipped with high efficiency multi-plate heat exchangers.

BlueCool chiller systems

Application guidelines V- and C-Series

For a complete chiller system, please select the following:

Core unit

Please select the core unit according to the required cooling capacity, the available voltage and whether cool only or heating via reverse cycle is needed.

A Air-conditioning unit [See page 101–102](#)

Position **A** as well as the following components are included in the scope of delivery:

- Electric cable and control box
- Installation manual
- Operating manual

Control elements for V- and C-Series

Please select the control elements for the core unit separately:

B MyTouch display [See page 138](#) **C** Display cable [See page 138](#)
D Remote air temperature sensor [See page 139](#)

For V-PRO Series the MyTouch display and display cable are already included in the scope of delivery.

Accessories for V- and C-Series

Please order separately the accessories for the V- and C-Series core unit:

E Soft Starts [See page 156](#) **F** Vibration absorber kits [See page 156](#)
G Silent block kits [See page 156](#)

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

H Sea water inlet [See page 154](#) **I** Sea water strainer [See page 154](#)
J Sea water pump [See page 140](#) **K** Closing valve [See page 154](#)
L Overboard discharge [See page 154](#) **M** Water hose [See page 153](#)

Chilled water circuit

Please add the required components for the chilled water circuit consisting of:

N Circulation pump [See page 140](#) **O** Piping or hosing system [See page 150](#)
P 3-way valve (optional) [See page 153](#)
Q Turn ball valve [See page 153](#) **R** Expansion tank [See page 153](#)
S T-pieces [See page 153](#)

Cabin accessories necessary for each single cabin

Please add for every single cabin the following components and accessories:

T Air handler [See page 120](#) **U** Cabin control (Control Panel, [See page 138](#)
V Supply air grille [See page 146](#) display cable, temperature sensor
W Air ducting [See page 147](#) and control box)
X Transition box [See page 147](#) **Y** Return air grille [See page 146](#)
Z Water hoses for [See page 153](#) condensation drain

BlueCool V-Series

Variable speed chiller



BlueCool V-Series

Variable speed chiller



Technical data

| Type | BlueCool V-Series | | |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| | V50 M | V64 T | V77 T |
| Order No. | 2510598A | 2510597A | 2510596A |
| Cooling capacity* (BTU/h) | 8,500 – 50,000 | 8,500 – 64,000 | 8,500 – 77,000 |
| Cooling capacity* (kW) | 2.5 – 14.6 | 2.5 – 18.7 | 2.5 – 22.6 |
| Heating via reverse cycle integrated | yes | yes | yes |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency ++ (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Current draw running** (A) | 2.5 – 19 (max. 21)* | 2.5 – 27.8 (max. 29.8)* | 2.5 – 30.5 (max. 32.5)* |
| Current draw Start (A) | 2.5 | 2.5 | 2.5 |
| Current draw Eco 1 Mode (A) | 2.5 – 10 (max. 14)* | 2.5 – 19 (max. 21)* | 2.5 – 19 (max. 21)* |
| Current draw Eco 2 Mode (A) | 2.5 – 6 (max. 8)* | 2.5 – 10 (max. 14)* | 2.5 – 10 (max. 14)* |
| Current draw Eco 3 Mode (A) | – | 2.5 – 6 (max. 8)* | 2.5 – 6 (max. 8)* |
| Chilled water connection (mm), (Inch) | 25 1" | 32 1 1/4" F BST | 32 1 1/4" F BST |
| Min. chilled water flow (l/min) | 35 | 45 | 52 |
| Seawater connection (mm), (Inch) | 25 1" M BST | 32 1 1/4" F BST | 32 1 1/4" F BST |
| Min. seawater flow (l/min) | 38 | 50 | 57 |
| Dimensions unit L x D x H (mm), (Inch) | 567 x 340 x 510 22.3 x 13.4 x 20.1 | 760 x 560 x 510 29.9 x 22.0 x 20.1 | 760 x 560 x 510 29.9 x 22.0 x 20.1 |
| Dimensions unit incl. silent block L x D x H (mm), (Inch) | 590 x 378 x 548 23.2 x 14.9 x 21.6 | 760 x 560 x 550 29.9 x 22.0 x 21.7 | 760 x 560 x 550 29.9 x 22.0 x 21.7 |
| Dimension electronic box L x D x H (mm), (Inch) | 560 x 190 x 465 22.0 x 7.5 x 18,3 | 560 x 190 x 465 22.0 x 7.5 x 18,3 | 560 x 190 x 465 22.0 x 7.5 x 18.3 |
| Dimension chiller L x D x H (mm), (Inch) | 607 x 530 x 510 23.9 x 20.8 x 20.1 | 760 x 750 x 510 29.9 x 29.5 x 20.1 | 760 x 750 x 510 29.9 x 29.5 x 20.1 |
| Dimensions unit incl. silent block + box L x D x H (mm), (Inch) | 620 x 570 x 548 24.4 x 22.4 x 21.6 | 760 x 750 x 550 29.9 x 29.5 x 21.7 | 760 x 750 x 550 29.9 x 29.5 x 21.7 |
| Ambient temperature limit (°C) | 60 | 60 | 60 |
| Sound level unit (dB/A) (measured) | 49.2 | 48.5 | 48.5 |
| Refrigerant charge R410A (g) | 875 | 875 + 770 | 875 + 770 |
| Weight core unit (kg) | 47 | 90 | 90 |
| Weight electronic box (kg) | 15 | 15 | 15 |
| Min. sea water temp. heating (°C) | 6 | 6 | 6 |
| Max. sea water temp. cooling (°C) | 35 | 35 | 35 |

* Based on 7°C evaporating temperature and 38°C condensing temperature

** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 230 V/50 Hz

++ BlueCool V-Series systems are tested and approved by Webasto for 50/60 Hz operation



V64 T and V77 T



V50 M
without electronic box

Works with the MyTouch display



BlueCool MyTouch

The BlueCool V-Series:

- V64 T and V77 T with innovative hybrid control logic
- Large power modulation range: 8,500 up to 77,000 BTU
- Unique hybrid concept reduces output by 89% during part load operation.
- Variable speed BLDC compressors controlled by inverter technology
- Zero electrical starting peak
- Super quiet operation with little noise variations and sound cover housing
- High system availability via dynamic control of HP/LP boundary conditions
- Light and compact
- Preventive maintenance monitoring system
- Condensate free operation
- Easy installation and maintenance
- Low service and operation costs
- Integrates Webasto's BlueCool Expert diagnosis and set up tool
- Up to 3 ECO modes with adjustable amperage draw
- 230 V 50 Hz or 240 V 60 Hz compatible for worldwide application
- MyTouch as standard user interface with clear text display



BlueCool C-Series

Ultra compact chiller

Technical data

| Type | BlueCool C-Series | | | | |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| | C16 M | C20 M | C27 M | C32 T | C40 T |
| Order numbers | WBCL1205001F | WBCL1205002E | WBCL1205003E | WBCL1207001F | WBCL1207002E |
| Cooling capacity* (BTU/h) | 16,000 | 20,000 | 27,000 | 32,000 | 40,000 |
| Cooling capacity* (kW) | 4.7 | 5.9 | 7.9 | 9.4 | 11.7 |
| Heating via reverse cycle integrated | yes | yes | yes | yes | yes |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency ++ (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Current draw running** (A) | 4.4 – 6.0 | 6.9 – 8.0 | 8.6 – 9.2 | 8.8 – 12.0 | 13.8 – 16.0 |
| Current draw start max. peak (A) 50 Hz | 54 | 60 | 77 | 60 | 68 |
| Current draw RMS40**** (A) 50 Hz | 35 | 39 | 49 | 41 | 47 |
| Current draw RMS300*** (A) 50 Hz | 19 | 20 | 32 | 25 | 28 |
| Current draw start max. peak with soft start (A) 50 Hz | 22 | 22 | 34 | 28 | 30 |
| Current draw RMS40**** with soft start (A) 50 Hz | 12 | 14 | 18 | 18 | 22 |
| Current draw RMS300 with soft start (A) 50 Hz | 9 | 10 | 17 | 15 | 18 |
| Locked rotor amperage LRA (A) (comp. only) | 37 | 43 | 54 | 37 | 43 |
| Max. circuit breaker (A) | 16 | 16 | 20 | 2 x 16 | 2 x 16 |
| Chilled water connection (mm) | 25 | 25 | 25 | 25 | 25 |
| Chilled water connection (inch) | 1 | 1 | 1 | 1 | 1 |
| Minimal chilled water flow (l/min) | 13 | 16 | 19 | 26 | 32 |
| Recommended chilled water pump | WB500 | WB500 | WB1000 | WB1000 | WB1500 |
| Seawater connection (mm) | 19 | 19 | 19 | 19 | 25 |
| Seawater connection (inch) | 3/4 | 3/4 | 3/4 | 3/4 | 1 |
| Minimal seawater flow at 50 Hz (l/min) | 14 | 17 | 21 | 28 | 34 |
| Minimal seawater flow at 60 Hz (l/min) | 17 | 20 | 25 | 34 | 41 |
| Recommended seawater pump | WB500/WB500G | WB500/WB500G | WB1000 | WB1000 | WB1500/WB1000G |
| Dimensions L x W x H (mm) | 390 x 290 x 355 | 440 x 330 x 360 | 440 x 330 x 395 | 590 x 410 x 500 | 590 x 410 x 500 |
| Dimensions L x W x H (inch) | 15.4 x 11.4 x 14.0 | 17.3 x 13.0 x 14.0 | 17.3 x 13.0 x 15.6 | 23.2 x 16.1 x 19.7 | 23.2 x 16.1 x 19.7 |
| Weight (kg) | 34 | 37 | 45 | 65 | 70 |
| Min. sea water temp. heating (°C) | 6 | 6 | 6 | 6 | 6 |
| Max. sea water temp. cooling (°C) | 35 | 35 | 35 | 35 | 35 |

General note: Values in this table given for 50 Hz only. 60 Hz data available on request.

* BTU/h are based on 7 °C evaporating temperature and 38 °C condensing temperature

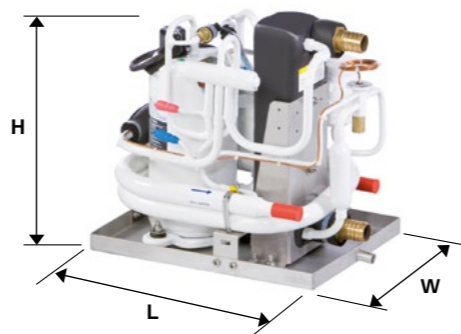
** Amperage values for core unit depend on compressor load. Max values at tropical conditions at 230 V/50 Hz

*** Starting amperage RMS (Root Mean Square) for core unit for first 300 ms

**** Starting amperage RMS (Root Mean Square) for core unit for first 40 ms

+ Recommendation only. Pump size shall be adapted to application constraints in order to always ensure minimal sea water flow.

++ BlueCool C-Series systems are tested and approved by Webasto for 50/60 Hz operation



Mono
C16 M – C27 M

BlueCool C-Series

Ultra compact chiller



Works with the MyTouch display



BlueCool MyTouch

The BlueCool C-Series:

- Improved performance and up to 15 % higher efficiency
- Continuous cooling capacity even in tropical conditions
- Even more compact design
- Improved electronics for easy installation and diagnosis via USB cable
- Optional CAN-Bus for optimized adaptation to boat systems
- Compressor noise is reduced by up to 25 %
- Easy sea water and chilled water connections at one side
- Strong stainless steel tray and condensate drain
- High quality Epoxy paint protection
- Vibration absorber and Silent block available as an option
- Soft start devices available as an option

BlueCool V-PRO Series

Professional variable speed chiller series



Intuitive and powerful user interface

The full color touch-screen user interface which comes with each unit allows full operation, system set-up and parametrization of the A/C unit. Vital system information is available at a glance. For full redundancy, each user interface can show the data of each individual unit as well as overall system data. Customers will enjoy the ease of use, also thanks to full text explanations in multiple languages.

BlueCool V-PRO Series

Professional variable speed chiller series



Four models – two sizes – ONE system

Four modular units of 60, 90, 130 or 180 kBTU/h, providing up to 1 Mio. BTU/h of system cooling capacity.

High system availability

Fully autonomous units continue operation. Redundancy at its best.

Water flow monitoring

Integrated Flow monitoring system of sea and chilled water circuit to ensure safe and reliable operation.

Outstanding corrosion & erosion resistance

Titanium sea water heat exchanger for outstanding corrosion resistance.

Variable speed technology for best efficiency

Highest cooling performance with high efficiency inverter, variable speed scroll compressor and energy saving ECO modes.

Unified hydraulic connection

Layout of hydraulic connection is identical for all four models.

Powerful user interface

Full color touch-screen display. Fully redundant, each shows overall system data. Multiple languages.

Combination of autonomous units

Simple network cable immediately creates overall system control.

BlueCool V-PRO chiller systems

Application guidelines

For a complete chiller system, please select the following:

Core unit

Please select the V-PRO units according to the required cooling capacity and the level of redundancy required. Up to 6 units with different cooling capacities can be combined.

V-PRO unit [See page 109](#)

The chiller unit as well as the following components are included in the scope of delivery:

- Integrated chiller electronics incl. MyTouch display
- Installation manual
- Operating manual

Electronic control box for V-PRO unit

Please order separately one of the control boxes for the V-PRO units.

Minimum requirement is the pump control box.

V-PRO Electronic box [See page 111](#)

Each control box includes the pump control functions. Only one box out of three types to be selected.

Rack for V-PRO unit

Please add one of the racks available for V-PRO. Each rack can be used with any and different cooling capacities.

V-PRO Rack [See page 113](#)

If chiller units shall be installed into a rack, choose the required rack system out of 7 options to stack units side by side or on top of each other. Silent blocks are already included in scope of delivery.

Manifold for V-PRO unit

Please add one of the manifolds available for V-PRO. Predesigned manifolds allow the combination of V-PRO units with different cooling capacities.

V-PRO Manifold [See page 112](#)

Add preconfigured manifold sets to simplify hydraulic connections. Those are equipped with ball valves for each sea and chilled water connection to ensure easy service of chiller units.

Accessories for BlueCool V-PRO

Please order separately the accessories for the V-PRO Series core unit:

V-PRO Silent block kit. Single V-PRO units that are not combined with a rack system can be supplemented with silent blocks. [See page 156](#)

Sea water circuit

Please order separately the components for the sea water circuit consisting of:

| | | | |
|---------------------|------------------------------|--------------------|------------------------------|
| Sea water inlet | See page 154 | Sea water strainer | See page 154 |
| Sea water pump | See page 140 | Closing valve | See page 154 |
| Overboard discharge | See page 154 | Water hose | See page 153 |

Chilled water circuit

Please add the required components for the chilled water circuit consisting of:

| | | | |
|------------------------|------------------------------|---|------------------------------|
| Circulation pump | See page 140 | Piping or hosing system with insulation | See page 150 |
| 3-way valve (optional) | See page 153 | Expansion tank | See page 153 |
| Turn ball valve | See page 153 | T-pieces | See page 153 |

Cabin accessories necessary for each single cabin

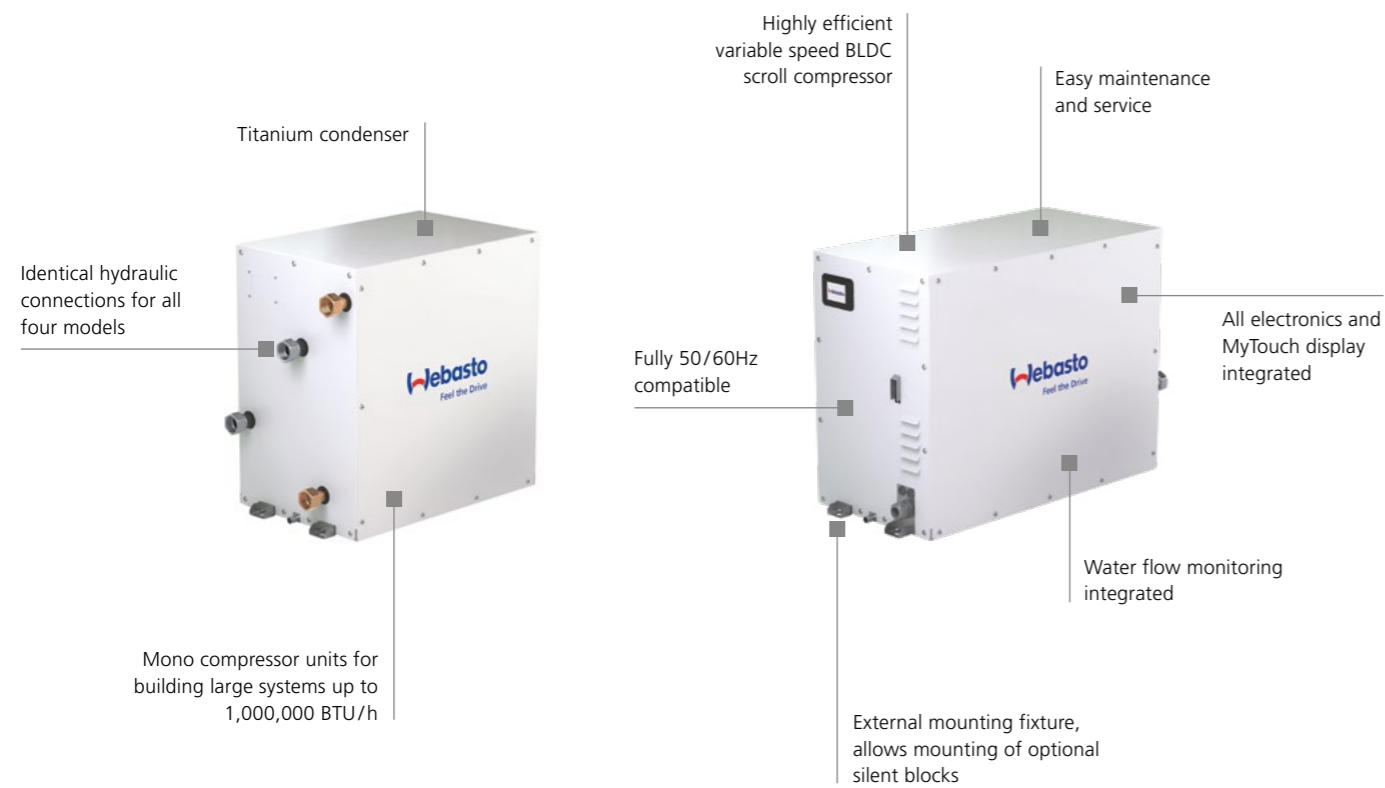
Please add for every single cabin the following components and accessories:

| | | | |
|------------------------------------|------------------------------|--|------------------------------|
| Air handler | See page 120 | Cabin control (control panel, display cable, temperature sensor and control box) | See page 138 |
| Supply air grille | See page 146 | | |
| Air ducting | See page 147 | | |
| Transition box | See page 147 | Return air grille | See page 146 |
| Water hoses for condensation drain | See page 153 | | |

BlueCool V-PRO Series

Professional variable speed chiller series

NEW



- Mono variable speed compressor units for building large systems up to 1,080,000 BTU/h
- Four modular units with 60, 90, 130 and 180 kBTU/h available
- Individual system with up to 6 units in one stack
- Combination of different capacities in one stack
- Individual accessories like manifold and rack available
- Modular concept allows fast availability
- Easy service and maintenance
- 400 V (50 Hz) – 460 V (60 Hz) 3-phase+N system
- Integrated electronics
- Customized Master Control Box available to meet additional requirements of customers or classification societies for larger vessels e.g. Lloyd, DNVGL

BlueCool V-PRO Series

Technical data



| | BlueCool V-PRO Series | | | |
|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| | V-PRO 60M | V-PRO 90M | V-PRO 130M | V-PRO 180M |
| Order No. | 2510228A | 2510229A | 2510230A | 2510231A |
| Cooling capacity* (BTU/h) | 15,000 – 60,000 | 22,500 – 90,000 | 19,500 – 130,000 | 27,000 – 180,000 |
| Cooling capacity* (kW) | 4.4 – 17.6 | 6.6 – 26.4 | 5.7 – 38.1 | 7.9 – 52.8 |
| Heating via reverse cycle integrated | yes | yes | yes | yes |
| Voltage (V) | 360 – 480 (+-10%) | 360 – 480 (+-10%) | 360 – 480 (+-10%) | 360 – 480 (+-10%) |
| Phase | 3-ph + N | 3-ph + N | 3-ph + N | 3-ph + N |
| Frequency ++ (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Current draw running** (A) | 1.5 – 7.5 (max. 10) | 2.9 – 15.5 (max. 18.5) | 4.0 – 20 (max. 23) | 4.6 – 23 (max. 25) |
| Current draw Eco 1 Mode (A) | 1.5 – 5.5 (max. 6.3) | 2.9 – 10.7 (max. 11.3) | 4.0 – 13.6 (max. 14.9) | 4.6 – 16.8 (max. 18) |
| Current draw Eco 2 Mode (A) | 1.5 – 3.9 (max. 4.8) | 2.9 – 7.6 (max. 8.3) | 4.0 – 9.1 (max. 10.4) | 4.6 – 11.6 (max. 12.5) |
| Current draw Eco 3 Mode (A) | 1.5 – 2.9 (max 3.8) | 2.9 – 5.7 (max. 6.5) | 4.0 – 7.1 (max. 8.4) | 4.6 – 9 (max. 10) |
| Chilled water connection (mm), (Inch) | 32 1 1/4" | 32 1 1/4" | 32 1 1/4" | 32 1 1/4" |
| Min. chilled water flow (l/min) | 64 | 95 | 125 | 160 |
| Seawater connection (mm), (Inch) | 32 1 1/4" | 32 1 1/4" | 32 1 1/4" | 32 1 1/4" |
| Min. seawater flow (l/min) | 60 | 92 | 120 | 150 |
| Dimensions unit L x D x H (mm), (Inch) | 630 x 410 x 650 24.8 x 16.1 x 25.6 | 630 x 410 x 650 24.8 x 16.1 x 25.6 | 830 x 410 x 650 32.7 x 16.1 x 25.6 | 830 x 410 x 650 32.7 x 16.1 x 25.6 |
| Dimensions unit incl. silent block L x D x H (mm), (Inch) | 653 x 470 x 700 25.7 x 18.5 x 27.6 | 653 x 470 x 700 25.7 x 18.5 x 27.6 | 853 x 470 x 700 33.6 x 18.5 x 27.6 | 853 x 470 x 700 33.6 x 18.5 x 27.6 |
| Ambient temperature limit (°C) | 70 | 70 | 70 | 70 |
| Weight core unit (kg) | 89 | 97 | 120 | 136 |
| Min. sea water temp. heating (°C) | 5 | 5 | 5 | 5 |
| Max. sea water temp. cooling (°C) | 40 | 40 | 40 | 40 |

* BTU/h are based on 7°C/12°C chilled water temperature and 30°C/35°C sea water temperature.

** Amperage values for core unit at nominal conditions at 50 Hz.

++ BlueCool V-PRO Series are tested and approved for 50/60 Hz operation.

BlueCool V-PRO Series

Electronic control box options

NEW

| Type | Pump Control Box | Remote Connection Box | Master Control Box | | |
|---|------------------|-----------------------|--------------------|-------|-------|
| | | | 1 – 2 | 3 – 4 | 5 – 6 |
| Number of V-PRO modules | 1 – 6 | 1 – 6 | 1 – 2 | 3 – 4 | 5 – 6 |
| Box | | | | | |
| ABS plastic | ■ | - | - | - | - |
| Steel, painted | - | ■ | ■ | ■ | ■ |
| Wall mounted box | - | ■ | ■ | ■ | ■ |
| Door locking mechanism in open position | - | - | ■ | ■ | ■ |
| Features electronic box | | | | | |
| V-PRO Chiller electronic card | - | ■ | ■ | ■ | ■ |
| MyTouch display integrated at the front | - | ■ | ■ | ■ | ■ |
| Pilot lamp for pumps | - | - | ■ | ■ | ■ |
| Relay for chilled water and sea water pump | ■ | ■ | ■ | ■ | ■ |
| ON/OFF button | - | ■ | ■ | ■ | ■ |
| Power ON lamp | - | ■ | ■ | ■ | ■ |
| Only one power supply needed for entire unit | - | - | ■ | ■ | ■ |
| Emergency stop | - | - | ■ | ■ | ■ |
| Chilled water pump: redundancy selector for two pumps | - | - | ■ | ■ | ■ |
| Sea water pump: redundancy selector for two pumps | - | - | ■ | ■ | ■ |
| Motor protection switch for pumps | - | - | ■ | ■ | ■ |
| Main isolator switch | - | - | ■ | ■ | ■ |
| Ability to connect system to 400 V 3-ph power supply without neutral wire | - | - | ■ | ■ | ■ |
| Power supply indicator 400 V | - | - | ■ | ■ | ■ |
| Power supply indicator 230 V from transformer | - | - | ■ | ■ | ■ |
| Circuit breaker V-Pro modules | - | - | ■ | ■ | ■ |
| Circuit breaker pumps | - | - | ■ | ■ | ■ |
| Circuit breaker for chiller electronic card | - | - | ■ | ■ | ■ |
| Halogen free cables | - | ■ | ■ | ■ | ■ |
| Rail-Mount terminal blocks | - | ■ | ■ | ■ | ■ |
| Suitable to connect BlueCool CAN bus module | - | ■ | ■ | ■ | ■ |

BlueCool V-PRO Series

Electronic control box options

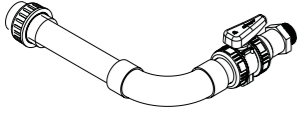
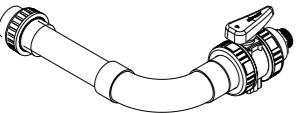
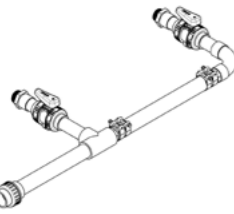
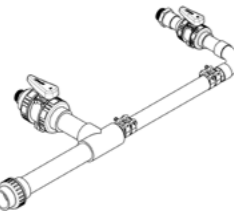
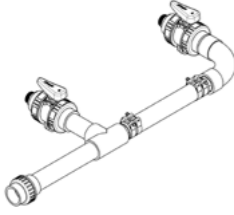
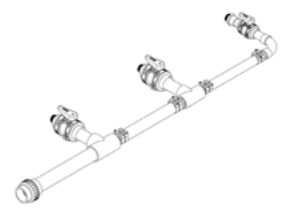
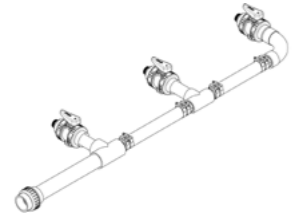
Pump control box for installation of pump relays at remote place, e.g. near the pumps. Easy connection to one of the chiller units via a display/network cable with RJ45 connector.

Remote connection box to monitor and control your V-PRO system from any place on board. It features an additional MyTouch display providing an easy system overview. It contains pump relays, 3 programmable relay outputs and an electronic card with USB interface to connect the BlueCool Expert Tool. Installation possible at remote places to enable central access and operation of the complete system.

Master control box combines functionality of pump control and remote connection box plus providing central power supply with power indicator, central ON/OFF and emergency stop, circuit breaker for V-PRO units, PCB and pump selector switch. It also features a transformer which allows to use a central power supply of 400 V 3-ph without neutral wire.

| Type | V-PRO control boxes | Order number |
|---|--|--------------|
| V-PRO Pump Control Box | External pump control box for easy remote connection via network cable | 2510581A |
| V-PRO Remote Connection Box | Connect and control your V-PRO system from any place on board. With additional MyTouch display, PCB with 3 relay output, relays for chilled and sea water pump, USB connector. | 2510699A |
| V-PRO Master Control Box | Central power supply with power indicator, central ON/OFF and emergency stop, circuit breakers for V-PRO units, PCB and pump selector switch, relays for two sea water and chilled water pumps | |
| V-PRO Master Control Box Mono-Twin | For 1 or 2 V-PRO units | 2113266A |
| V-PRO Master Control Box Triple Quattro | For 3 – 4 V-PRO units | 2113267A |
| V-PRO Master Control Box Quinta-Hexa | For 5 – 6 V-PRO units | 2113268A |

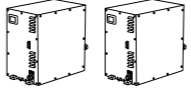
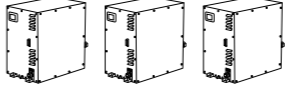
BlueCool V-PRO Series Manifolds

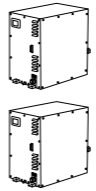
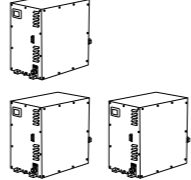
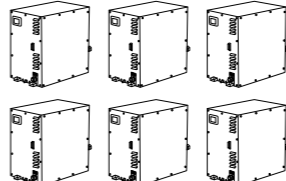
| Manifold single unit | | Order number |
|---|--|--------------|
|  | Manifold V-PRO 1-100 Manifold for single unit V-PRO 60M or V-PRO 90M | 2510456A |
|  | Manifold V-PRO 1-200 Manifold for single unit V-PRO 130M or V-PRO 180M | 2510450A |
| Manifold two units | | Order number |
|  | Manifold V-PRO 2-110 Manifold for 2 units – combination of two units V-PRO 60M or V-PRO 90M | 2510472B |
|  | Manifold V-PRO 2-210 Manifold for 2 units – combination of one unit V-PRO 60M or V-PRO 90M with one unit V-PRO 130M or V-PRO 180M | 2510478B |
|  | Manifold V-PRO 2-220 Manifold for 2 units – combination of one unit V-PRO 130M or V-PRO 180M with one unit V-PRO 130 M or V-PRO 180M | 2510466B |
| Manifold three units | | Order number |
|  | Manifold V-PRO 3-221 Manifold for 3 units – combination of one unit V-PRO 130M or V-PRO 180 M with two units V-PRO 130 M or V-PRO 180 M | 2510484B |
|  | Manifold V-PRO 3-222 Manifold for 3 units – combination of three units V-PRO 130M or V-PRO 180M | 2510490B |

All manifolds include ABS connectors to the unit, ABS ball valves and ABS chilled and sea water connectors in combination with marine grade EPDM flexible hoses for maximum tolerance compensation.

BlueCool V-PRO Series Rack



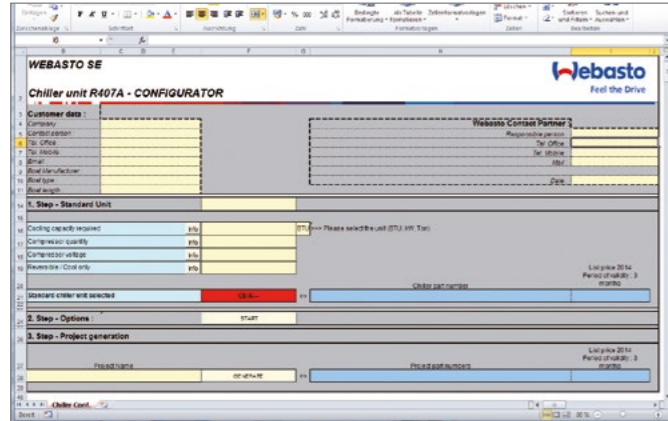
| Number of units | Rack system V-PRO in line | Item description | Order number |
|-----------------|---|----------------------------|--------------|
| 2 |  | Rack 2 x V-PRO 2-1 in line | 2510525A |
| 3 |  | Rack 3 x V-PRO 3-1 in line | 2510526A |

| Number of units | Rack system V-PRO on top | Item description | Order number |
|-----------------|---|---------------------------|--------------|
| 2 |  | Rack 2 x V-PRO 1-2 on top | 2510527A |
| 3 |  | Rack 4 x V-PRO 2-2 on top | 2510528A |
| 4 |  | Rack 4 x V-PRO 2-2 on top | 2510528A |
| 5 |  | Rack 6 x V-PRO 3-2 on top | 2510529A |
| 6 |  | Rack 6 x V-PRO 3-2 on top | 2510529A |

BlueCool chiller systems

Project assistance and support

A chiller system always needs to be customized to each boat in order to meet the demands of shipyards, owners, classification societies and national legislation. We support you in this process with our expertise and the tools we have developed for this.



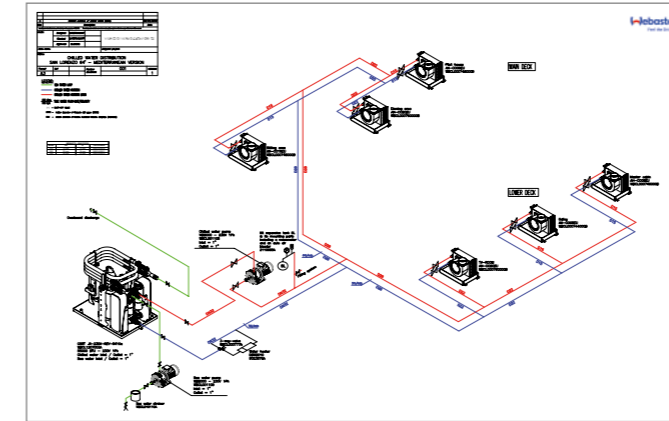
Specification and quotation tool

This tool should be used for all A/C projects to

- Precisely calculate the cooling and heating demand for each cabin depending on boat characteristics, performance requirements and usage conditions
- Determine the fresh air requirements of larger boats
- Select your bill of material from the entire product portfolio
- Summarize technical data of the chosen key components. As a result the chiller and air handlers are correctly sized to the individual demand of each boat.

BlueCool chiller systems

Project assistance and support



Engineering support

Our project engineers support you in various phases of a project delivering to you

- A/C system concepts
- Piping diagrams
- Electrical wiring schematics
- On-site support to understand and determine the optimal A/C configuration



Installation and commissioning support

Our project engineers can support you on demand during the installation and commissioning phase of your project with

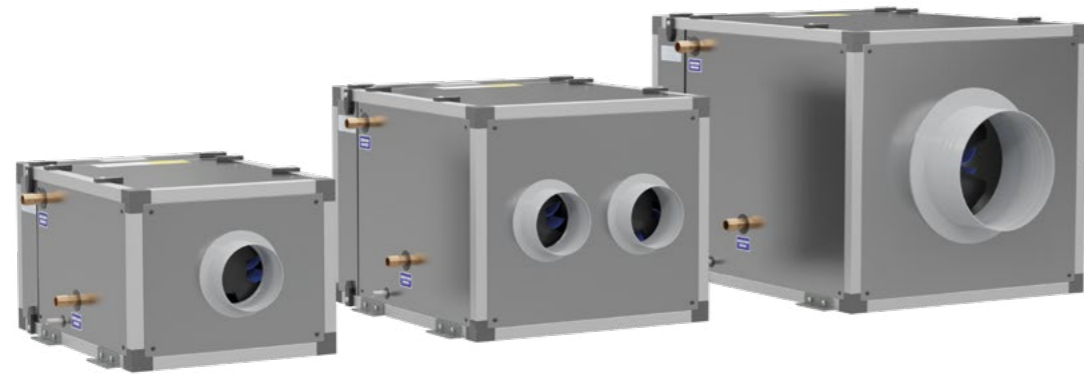
- Technical support to answer your questions
- On-site support and audit
- Check of your installation
- Support during system commissioning

BlueCool F-Series

Fresh air makeup units

Fresh air systems

BlueCool F-Series fresh air systems are the ideal complement to your central chiller system. Fresh outside air is filtered and cooled before it is brought into the cabin at the ideal comfort temperature. Stale air is extracted and transported to the outside. A sophisticated control concept of cooling and heating ensures the ideal condition of temperature and humidity.



The BlueCool F-2000 Fresh Air can also be used as a large, silent air handler in combination with the Cabin Control Kit A-Series.

Higher air flow

3 variants for 500 up to 2,000 m³/h fresh air and extract air. All units are operating with high efficiency EC-blower with high back pressure resistance.

High cooling capacity

Increased cooling capacity by up to 75 % compared to previous fresh air system. Cooling capacity with up to 84 kBTU/h. Ideal solution for larger yachts.

Compact design

Standardized and compact design.

High efficiency air filters

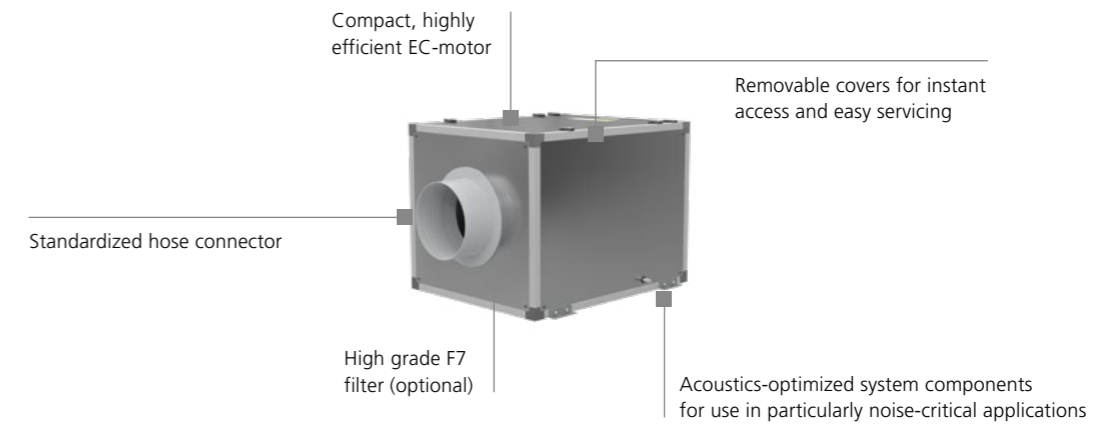
Equipped with standard air filter of category G3. High grade F7 filter available for easy exchange.

Improved climate control logic

Constant supply air temperatures with integrated solenoid proportional valve and up to 20 kBTU/h staged electrical heating. Acoustics – optimized components for use in particularly noise-critical applications.

BlueCool F-Series

Fresh air systems



Control elements for BlueCool F-Series (FreshAir)

Please select the control elements for the core unit separately:

Control Box F-Series F500-F2000

[See page 138](#)

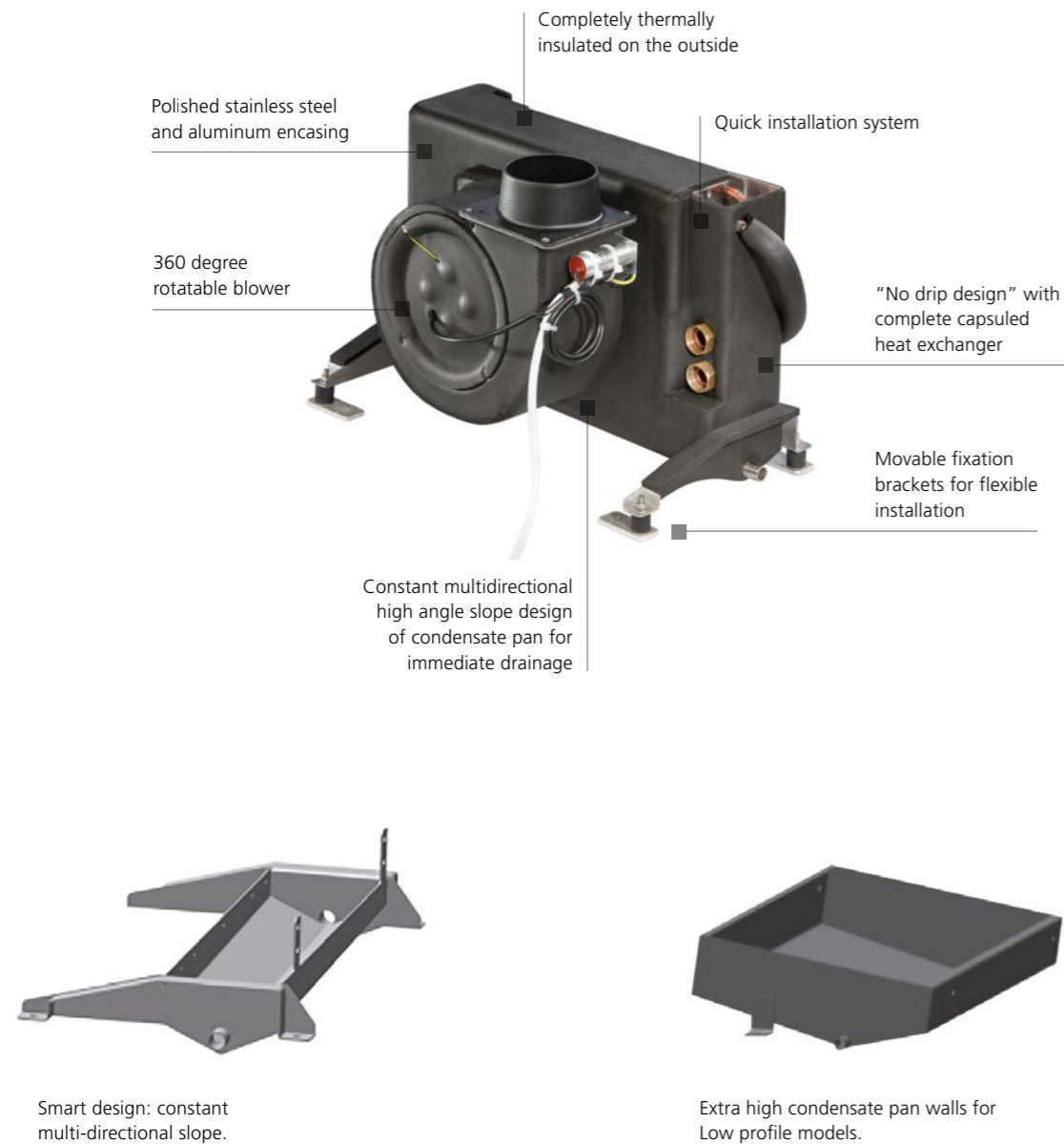
Technical data

| | BlueCool Fresh Air and Extract | | | | | |
|--|--------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | F500 FreshAir | F1000 FreshAir | F2000 FreshAir | F500 Extract | F1000 Extract | F2000 Extract |
| Part No. | 2510265A | 2510266A | 2510267A | 2510268A | 2510269A | 2510270A |
| Air flow (300 Pa) (m ³ /h) | 500 | 1,000 | 2000 | 500 | 1,000 | 2,000 |
| Air flow (300 Pa) (cfm) | 294 | 588 | 1,177 | 294 | 588 | 1,177 |
| Cooling capacity (kBTU/h) | 21 | 42 | 84 | – | – | – |
| Cooling capacity (kW) | 6.0 | 12.0 | 25.0 | – | – | – |
| Heating capacity 'chilled' water (kBTU/h) | 21 | 42 | 84 | – | – | – |
| Heating capacity 'chilled' water (kW) | 6.0 | 12.0 | 25.0 | – | – | – |
| Heating capacity electric (kBTU/h) | 5.0 | 10.0 | 20.0 | – | – | – |
| Heating capacity electric (kW) | 1.5 | 3 | 6 | – | – | – |
| Heating capacity total (kBTU/h) | 26 | 52 | 104 | – | – | – |
| Heating capacity total (kW) | 7.5 | 15 | 31 | – | – | – |
| Voltage (V) | 230 | 230 | 230 | 230 | 230 | 230 |
| Frequency (Hz) | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 | 50/60 |
| Current draw cooling (A) 50 + 60 Hz max. | 9.1 | 16.8 | 32.5 | – | – | – |
| Current draw heating (A) 50 + 60 Hz max. ('chilled' water + electric) | 9.1 | 16.8 | 32.5 | – | – | – |
| Current blower (A) | 0.8 | 1.4 | 2.7 | 0.8 | 1.4 | 2.7 |
| Power consumption heating (kW) | 2.1 | 3.9 | 7.5 | – | – | – |
| Power consumption cooling (kW) | 2.1 | 3.9 | 7.5 | – | – | – |
| Chilled water connection (mm) | DN20 | DN25 | DN32 | – | – | – |
| Chilled water connection (Inch) | 3/4 | 1 | 1 1/4 | – | – | – |
| Minimum chilled water flow (l/min) | 18 | 37 | 73 | – | – | – |
| Dimensions L x H x W (mm) | 720 x 400 x 500 | 760 x 550 x 650 | 930 x 700 x 750 | 320 x 320 x 320 | 450 x 450 x 450 | 600 x 600 x 600 |
| Dimensions Lx H x W (inch) | 28.3 x 15.7 x 19.7 | 29.9 x 21.7 x 25.6 | 36.6 x 27.6 x 29.5 | 12.6 x 12.6 x 12.6 | 17.7 x 17.7 x 17.7 | 23.6 x 23.6 x 23.6 |
| Discharge connection diameter (mm) | 150 | 2x 150 | 315 | 150 | 200 | 315 |
| Discharge connection diameter (inch) | 6 | 7.5 | 12.5 | 6 | 7.5 | 12.5 |
| Suction connection diameter (mm) | 150 | 200 | 315 | 150 | 200 | 315 |
| Suction connection diameter (inch) | 6 | 8 | 12.5 | 6 | 8 | 12.5 |
| Weight Unit (kg) | 42 | 65 | 110 | 25 | 35 | 60 |
| Weight electrical box (kg) | 7 | 7 | 7 | – | – | – |

BlueCool A-Series

Instant Drain systems

BlueCool A-Series



- Exclusive Instant Drain condensate management system
- Constant multidirectional high angle slope design of condensate pan for immediate drainage
- Anti splash condensate management
- "No drip design" with complete capsuled heat exchanger through additional side plates and improved insulation

Air handlers: BlueCool A-Series

Modular system to fit any demand

Webasto offers a range of air handlers to fit any demand on capacity or space limitations. The modular concept makes the A-Series adaptable to individual requirements and the exclusive Webasto Instant Drain condensate management system ensures immediate drainage. Accessories like the Ultimate Cabin Control, MyTouch display, electric heat modules or flow control valves can fine-tune your applications.



BlueCool A-Series

One or more air handler(s) in each cabin are fitted to generate the required cooling capacities individually in each room. Webasto provides a completely new designed air handler portfolio in 3 different layouts with a performance range from 4,000 – 36,000 BTU/h to suit all sizes and space requirements of your boat.

EHM – Electric heat module

The electric heat module EHM ensures cabin heating independent from chiller operation. It is easily installed in-line into the air duct of the A-Series air handlers and provides 600 – 1,800 W capacity to enable heating in selective cabins while chiller is in cooling mode.

Flow Control Valve

The flow control valve allows the chilled water to bypass the heat exchanger of the A-Series when needed. The comfort on boards is increased while directing the chilled water only to those cabins with cooling/heating demand. Continuous blower operation is possible to reduce noise variations in cabins.

Cabin controls

Choose between Ultimate Cabin Control with Ultra silent blower operation and master-slave integration or Standard Cabin Control. Both available as complete kits with all necessary components.

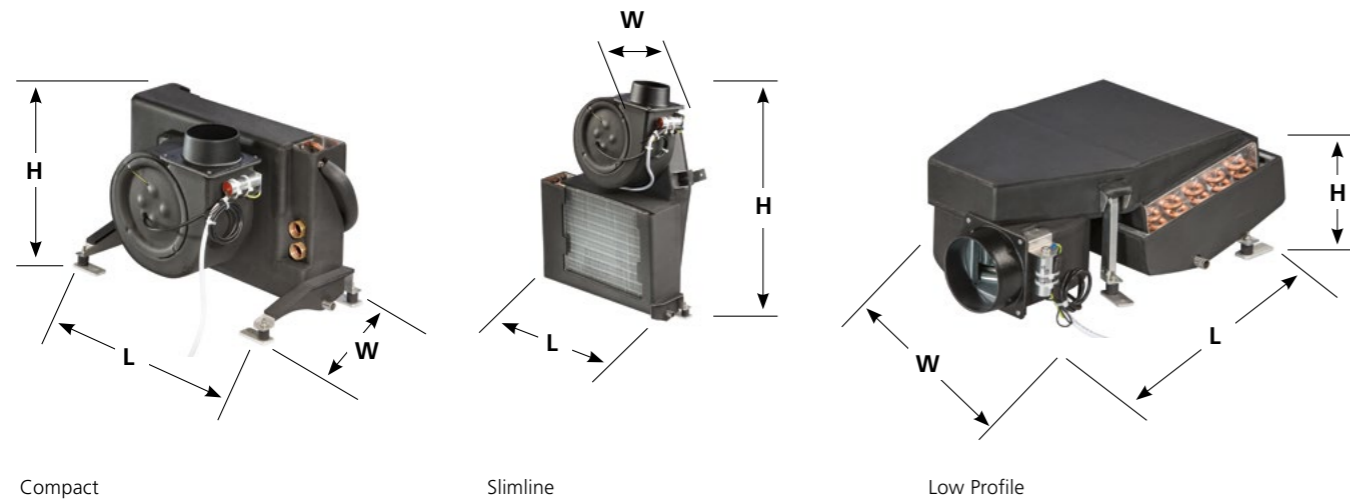
BlueCool A-Series

Modular air handler systems



| Model | Compact | | | | | | |
|--|-----------------|------------------|------------------|------------------|--------------------|------------------|--------------------|
| | A4 Compact | A6 Compact | A9 Compact | A12 Compact | A18 Compact | A24 Compact | A36 Compact |
| Order numbers | WBCL1209009A | WBCL1209010A | WBCL1209011A | WBCL1209012A | WBCL1209013A | WBCL1209014A | WBCL1209015A |
| Capacity (BTU/h) ** | 4,000 | 6,000 | 9,000 | 12,000 | 18,000 | 24,000 | 36,000 |
| Capacity (kW) ** | 1.2 | 1.9 | 2.8 | 3.6 | 5.6 | 7.2 | 10.7 |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Air flow (m³/h) * | 230 | 380 | 420 | 560 | 750 | 1120 | 1550 |
| Air flow (cfm) * | 135 | 224 | 247 | 330 | 441 | 659 | 912 |
| Ø Blower connection (mm) | 100 (round) | 125 (round) | 125 (round) | 150 (oval) | 150 (oval) | 2 x 150 (oval) | 2 x 150 (oval) |
| Ø Blower connection (inch) | 4 (round) | 5 (round) | 5 (round) | 6 (oval) | 6 (oval) | 2 x 6 (oval) | 2 x 6 (oval) |
| Weight (kg) | 6 | 7 | 9 | 10 | 12 | 16 | 21 |
| Weight (lbs) | 13.2 | 15.4 | 18.7 | 22 | 26.5 | 35.3 | 46.3 |
| Current draw running (A) | 0.6 | 0.5 | 0.6 | 0.7 | 1 | 1.3 | 2.1 |
| Ø Chilled water connection | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Dimensions H x W x L (mm) | 287 x 249 x 381 | 287 x 280 x 411 | 312 x 291 x 456 | 312 x 279 x 491 | 362 x 281 x 581 | 362 x 301 x 636 | 487 x 302 x 701 |
| Dimensions H x W x L (inch) | 11.3 x 9.8 x 15 | 11.3 x 11 x 16.2 | 12.3 x 11.5 x 18 | 12.3 x 11 x 19.3 | 14.3 x 11.1 x 22.9 | 14.3 x 11.9 x 25 | 19.2 x 11.9 x 27.6 |
| Dimensions with valve H x W x L (mm) | 287 x 249 x 381 | 287 x 280 x 411 | 312 x 291 x 456 | 312 x 279 x 491 | 362 x 281 x 581 | 362 x 301 x 636 | 487 x 302 x 701 |
| Dimensions with valve H x W x L (inch) | 11.3 x 9.8 x 15 | 11.3 x 11 x 16.2 | 12.3 x 11.5 x 18 | 12.3 x 11 x 19.3 | 14.3 x 11.1 x 22.9 | 14.3 x 11.9 x 25 | 19.2 x 11.9 x 27.6 |
| Minimum chilled water flow (l/min) | 4 | 7 | 10 | 9 | 13 | 21 | 31 |
| Number of blowers | 1 | 1 | 1 | 1 | 1 | 2 | 2 |
| Max. ambient temperature (°C) | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Pressure loss chilled water (bar) | 0.07 | 0.12 | 0.15 | 0.14 | 0.16 | 0.13 | 0.34 |
| Number of condensate drains | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Ø Condensate drain (mm) | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

* With 2 m of air duct, one 90° bend, air outlet grille at 230 V, 50 Hz
 ** Intake air of 32°C/47% rh, water inlet temperature of 5°C and at 230 V, 50 Hz



Compact

Slimline

Low Profile

| Model | Slimline | | | | Low profile | | | |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| | A6 Slimline | A9 Slimline | A12 Slimline | A18 Slimline | A6 Low profile | A9 Low profile | A12 Low profile | A18 Low profile |
| Order numbers | WBCL1209001A | WBCL1209002A | WBCL1209003A | WBCL1209004A | WBCL1209005A | WBCL1209006A | WBCL1209007A | WBCL1209008A |
| Capacity (BTU/h) ** | 6,000 | 9,000 | 12,000 | 18,000 | 6,000 | 9,000 | 12,000 | 18,000 |
| Capacity (kW) ** | 1.9 | 2.8 | 3.6 | 5.6 | 1.9 | 2.8 | 3.6 | 5.6 |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Air flow (m³/h) * | 380 | 420 | 560 | 750 | 380 | 420 | 560 | 750 |
| Air flow (cfm) * | 224 | 247 | 330 | 441 | 224 | 247 | 330 | 441 |
| Ø Blower connection (mm) | 125 (round) | 125 (round) | 150 (oval) | 150 (oval) | 125 (round) | 125 (round) | 150 (oval) | 150 (oval) |
| Ø Blower connection (inch) | 5 (round) | 5 (round) | 6 (oval) | 6 (oval) | 5 (round) | 5 (round) | 6 (oval) | 6 (oval) |
| Weight (kg) | 7 | 9 | 10 | 12 | 10 | 11 | 13 | 16 |
| Weight (lbs) | 15.4 | 19.8 | 22 | 26.5 | 21.6 | 24.3 | 28.7 | 35.3 |
| Current draw running (A) | 0.5 | 0.6 | 0.7 | 1.1 | 0.5 | 0.6 | 0.7 | 1.1 |
| Ø Chilled water connection | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" | 3/4" |
| Dimensions H x W x L (mm) | 588 x 217 x 411 | 611 x 217 x 456 | 619 x 217 x 494 | 666 x 218 x 581 | 205 x 437 x 582 | 205 x 482 x 606 | 205 x 516 x 614 | 205 x 599 x 661 |
| Dimensions H x W x L (inch) | 23.1 x 8.5 x 16.2 | 24.1 x 8.5 x 18 | 24.4 x 8.5 x 19.4 | 26.2 x 8.6 x 22.9 | 8.1 x 17.2 x 22.9 | 8.1 x 19 x 23.9 | 8.1 x 20.3 x 24.2 | 8.1 x 23.6 x 26 |
| Dimensions with valve H x W x L (mm) | 588 x 217 x 479 | 611 x 217 x 524 | 619 x 217 x 559 | 666 x 218 x 649 | 205 x 487 x 582 | 205 x 532 x 606 | 205 x 567 x 614 | 230 x 657 x 661 |
| Dimensions with valve H x W x L (inch) | 23.1 x 8.5 x 18.9 | 24.1 x 8.5 x 20.6 | 24.4 x 8.5 x 22 | 26.2 x 8.6 x 25.6 | 8.1 x 19.2 x 22.9 | 8.1 x 20.9 x 23.9 | 8.1 x 22.3 x 24.2 | 9.1 x 25.9 x 26 |
| Minimum chilled water flow (l/min) | 7 | 10 | 9 | 13 | 7 | 10 | 9 | 13 |
| Number of blowers | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max. ambient temperature (°C) | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Pressure loss chilled water (bar) | 0.12 | 0.15 | 0.14 | 0.16 | 0.12 | 0.15 | 0.14 | 0.16 |
| Number of condensate drains | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Ø Condensate drain (mm) | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

The MyTouch display is included in the A-Series Cabin Control Kit



BlueCool MyTouch

- Three possible shapes to cope with any installation demand: Compact, Slimline and Low profile
- Modular system with various options
- Innovative Webasto Instant Drain system for smart management of condensate
- High quality stainless steel condensate tray
- High performance with high cooling capacity and high air flow
- Super Silent with
 - flexible vibration isolation mounts
 - larger ducts to reduce noise from air speed
- Oversized heat exchanger tested under tropical conditions
- Rotatable blower

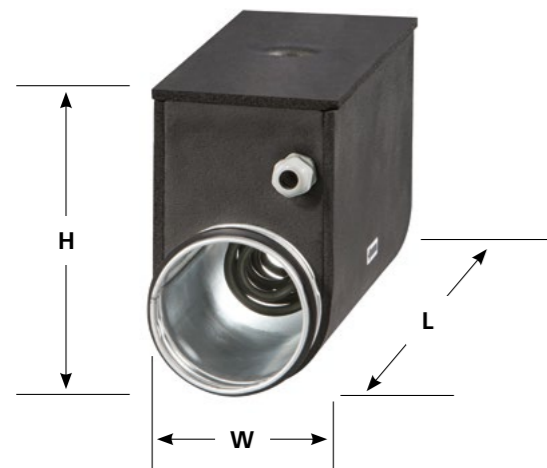
BlueCool A-Series

Electric heat module

| Type | EHM600W -100 mm -230 V -50/60 Hz | EHM900W -125 mm -230 V -50/60 Hz | EHM1200W -150 mm -230 V -50/60 Hz | EHM1800W -150 mm -230 V -50/60 Hz |
|--|---|---|--|--|
| Order numbers | WBCL1209100B | WBCL1209101B | WBCL1209102B | WBCL1209103B |
| Capacity (W) | 600 | 900 | 1,200 | 1,800 |
| Dimensions (L x W x H) (mm) | 370 x 100 x 170 | 370 x 125 x 195 | 370 x 150 x 220 | 370 x 150 x 220 |
| Dimensions (L x W x H) (inch) | 14.6 x 3.9 x 6.7 | 14.6 x 4.9 x 7.7 | 14.6 x 5.9 x 8.7 | 14.6 x 5.9 x 8.7 |
| Ø Hose connection (mm) | 100 | 125 | 150 | 150 |
| Ø Hose connection (inch) | 4 | 5 | 6 | 6 |
| Voltage (V) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) | 230 (-15%/+10%) |
| Frequency (Hz) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) | 50/60 (+-5%) |
| Current draw running (A) | 3 | 4 | 5 | 8 |
| Max. supply air temperature (°C) | 40 | 40 | 40 | 40 |
| Cut off temperature safety switch (°C) | 60 | 60 | 60 | 60 |
| Pressure loss air (Pa) | 60 | 60 | 60 | 60 |
| Min. air flow (m³/h) to ensure full heat output | 60 | 80 | 120 | 180 |
| Weight (kg) | 2.2 | 2.6 | 2.8 | 3 |

| Compatibility | A4 Compact | A6 Compact, Slimline, Low Profile | A9 Compact, Slimline, Low Profile | A12 Compact, Slimline, Low Profile | A18 Compact, Slimline, Low Profile | A24 Compact | A36 Compact |
|---------------|------------|---|---|--|--|-------------|-------------|
| EHM600W | ■ | □ | □ | □ | □ | □ | □ |
| EHM900W | - | ■ | ■ | - | □ | - | □ |
| EHM1200W | - | - | - | ■ | ■ | ■ | ■ |
| EHM1800W | - | - | - | - | ■ | - | ■ |

■ Standard application, check on minimum airflow in technical data. □ Only for secondary ducts with smaller diameter, check on minimum airflow in technical data.



EHM – Electric heat module

- Electric heat modules ensure cabin heating independent of chiller operation
- They are easily installed in-line into air duct of the A-Series air handlers
- EHM is directly connected to A-Series electronics so no separate controls are needed
- EHM further increase the comfort on board by:
 - enabling heating in selective cabins while chiller is in cooling mode
 - enable heating while chiller is switched off
 - increasing the heat output of air handlers if extra high heat demand is needed
- EHM can easily be retrofitted to existing A-Series
- EHM is preinsulated to prevent condensation on the outside. It also comes with 2 stainless steel mounting brackets for wall mounting
- When using EHM a flow control valve also needs to be fitted

BlueCool A-Series

Flow control valve



| Valve with motor actuator | Kit Motor valve Slimline / Low profile A-Series with 90° elbow | Kit Motor valve Compact A-Series |
|---------------------------|--|-------------------------------------|
| Order numbers | WBCL151004B | WBCL151003B |

| Valve with thermal actuator* | Kit Therm valve Slimline / Low profile A-Series with 90° elbow | Kit Therm valve Compact A-Series |
|------------------------------|--|-------------------------------------|
| Order numbers | 2510181A | 2510182A |

* Valves with thermal actuator are suitable for A-Series model from A4 up to A18. Due to their longer activation time they are not suitable to be operated in permanent blower mode.



Flow control valve for Slimline and Low profile



Flow control valve for Compact

- The flow control valve acts as a 3/2-way valve allowing the chilled water to bypass the heat exchanger of the A-Series when needed
- Easy screw connection to all A-Series units, no soldering needed
- Easy electrical connection to A-Series electronics
- 90° elbows in the Slimline/Low profile kit enable an extra flat installation
- The flow control further increases the comfort on board by:
 - directing the chilled water only to those cabins with cooling/heating demand
 - prevent inadvertent heating when air handler is switched off
 - no chimney effect
 - prevents condensate build-up and thus mold on heat exchangers of air handlers which are switched off
 - continuous blower operation is possible thus reducing noise variations in cabins
- Valve needs to be fitted if EHM is installed to prevent simultaneous heating and cooling

BlueCool A-Series

Ultimate cabin control – ultra silent blower operation

Ultimate cabin control – the 2 in 1 solution to provide very silent blower operation and to control a network of BlueCool A-Series air handlers.

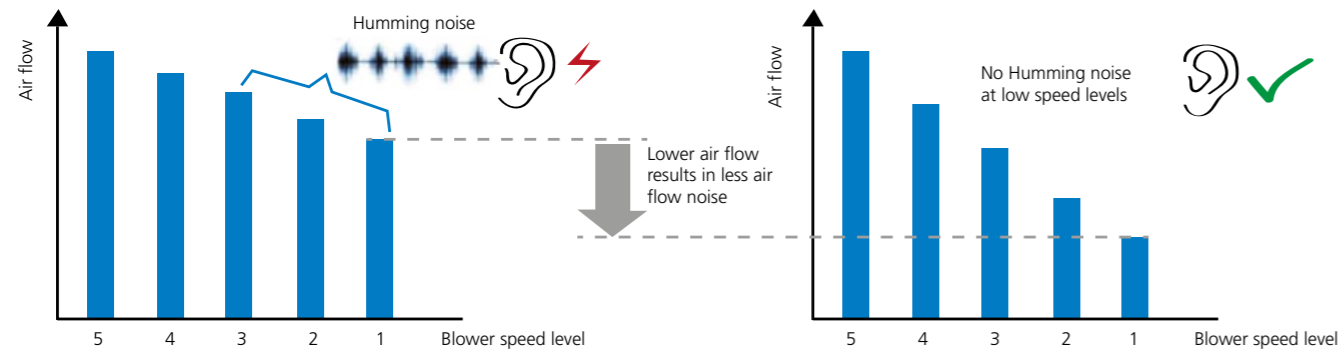
1. High performance Silencer

Standard cabin control: Phase-cutting principle

The standard cabin control kit uses the phase-cutting principle with triacs to control the blower motor speed. This chops the incoming sine wave and thus creates electrical bursts which hit the blower motor and cause mechanical noises such as humming and vibration, particularly in low blower speed levels.

Ultimate cabin control: PWM for blower speed control

The Ultimate cabin control uses pulse width modulation (PWM) to operate the AC-driven blower motor. With such fast pulses in a frequency of 10 to 16 kHz the amperage reaching the blower motor is very smooth and thus does not cause any humming noise or vibrations in low blower speeds. It also allows to run the blower in very low speed levels to marginalize air flow noise. The Ultimate cabin control can be used with all BlueCool A-Series air handlers.



2. Control of a network of air handlers via “Master-Slave integration”

One Ultimate cabin control box is already capable to control several air handlers with a max. total amperage of 3.15 A. For larger cabins requiring more air handlers, one single BlueCool MyTouch user interface can control up to 15 Ultimate cabin control devices networked together in a “Master-Slave integration”.



Ultimate cabin control

- Ultra silent blower operation due to PWM control
- Innovative Master-Slave integration allows to connect multiple units together
- Individually adjustable 5-step fan speed
- Compatible to all BlueCool A-Series air handlers
- Meets the highest EMC requirements of IEC/EN 60945
- One MyTouch display can operate all connected cabin controls

BlueCool A-Series

Cabin control kits



| | Cabin controls for BlueCool A-Series | Order number |
|--|--|--------------|
| | Ultimate cabin control kit Kit includes: Electrical box with controller card, MyTouch display with Webasto cover plate, display cable 5 m, air temperature sensor 3 m. Max. switching current 3.15 A. Will be the “Master” unit in a Master-Slave configuration. | 25101978 |
| | Ultimate cabin control Includes: Electrical box with controller card. Max. switching current 3.15 A. Shall be configured as “Slave” unit in a Master-Slave configuration. | 25101988 |
| | Cabin control kit A-Series Includes: Electrical box with controller card, MyTouch display with Webasto cover plate, display cable 5 m, air temperature sensor 3 m. Max. switching current 2 x 3.15 A. | WBCL151000D |

Cabin control for BlueCool A-Series

- Complete kits available including all necessary components
- Pre-configured for all BlueCool A-Series
- Integrates Webasto’s BlueCool Expert Tool diagnosis and set up tool
- MyTouch as standard user interface with clear text display
- Optional CAN-Bus for optimized adaptations to boat systems