



Alfa Laval Blue BC & BN

Air-cooled condensers

General information & application

The Alfa Laval Blue series is a wide range of heavy-duty air cooled condensers for air conditioning and refrigeration applications. Alfa Laval Blue condensers are available for both horizontal and vertical air direction. Available both in single (M) or dual (D) fan row: separate connections in the dual fan row (D) models provide the opportunity for independent operation of both condenser coils. Dedicated serie for R290 (BCP) and R410A (BCH).

Refrigerants	all HFO and HFC (BC) or ammonia (BN)
Capacities BC*	56 up to 1069 kW
Capacities BN*	50 up to 960 kW

*Nominal capacities (T_{air} = 25°C, T_{cond} = 40°C, T_{subcool} < 3K, T_{superheating} = 25K).

Finned coil

An innovative coil design provides excellent heat transfer at minimal refrigerant charge. Depending on the application, condensers are fitted with cross-fin copper (BC) or smooth stainless steel tubing (BN). Available with two Alu-fin types:

Turbo fins	maximized capacity
Industrial power fins (IF)	long lasting performance

Available in different fin thicknesses and fin spacings.

Construction

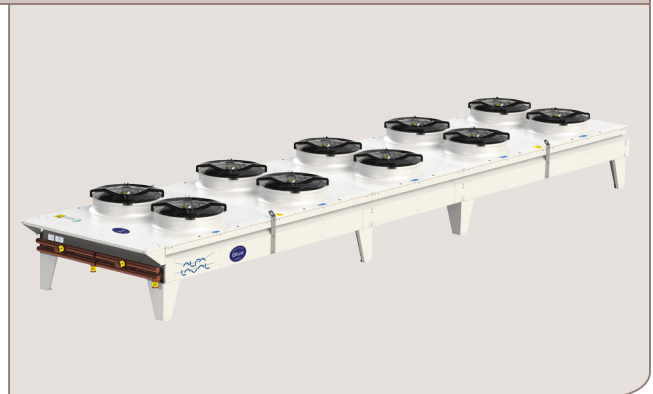
Frame construction provides high rigidity for protection against vibration and thermal expansion. Casing and frame made of corrosion resistant pre-galvanized sheet steel, epoxy coated white RAL 9002 on both sides. Separated fan sections.

Fan motors

High efficiency AC or EC fan motors, available in different fan diameters (800, 910 & 1000 mm) and noise levels, power supply 400/50/3. Motors with external rotor, protection class IP 54 according to DIN 40050. Integrated thermo contacts provide reliable protection against thermal overload.

Options

- Mounting feet for vertical airflow available in 3 heights: 500, 850, 1200 mm
- Sub-cooling circuit (SC)
- Spray water kit (KW)
- Vibration dampers (VD)
- Hinged fan panels (HF)



Alfa Laval Blue condensers

- Upon request fan motor options
 - 400V/3ph/60Hz
 - 480V/3ph/60Hz (IP54)
 - Protection class IP55
 - High-temperature motors
- Coil corrosion protection
 - Fins epoxy coated (EP)
 - Fins seawater resistant (SWR)
 - Blygold treatment (BY)
 - F-coat treatment (FC)
 - Copper fins (CU)
- Packing options
 - Pallet (P)
 - Protection pallet (PP) *for dual fan row models*
 - Crate (CR) *for single fan row models*

Benefits

- Heavy duty design with high corrosion resistance
- Reduced refrigerant charge
- Available with easily cleanable industrial power fins
- Excellent sound characteristics, suitable for residential applications
- Reliable performance, Eurovent certified (only for models included in Eurovent scope)
- Easy installation & maintenance.
- Energy efficient: low total cost of ownership.
- Two-year product guarantee.
- Easy access to additional on-line product information (QR code)



Dimensions

type	L*	W	H
B*M 801s	1880	1450	1270
B*M 802s	3280	1450	1270
B*M 803s	4680	1450	1270
B*M 804s	6080	1450	1270
B*M 805s	7480	1450	1270
B*M 801	2230	1450	1270
B*M 802	3980	1450	1270
B*M 803	5730	1450	1270
B*M 804	7480	1450	1270
B*M 805	9230	1450	1270
B*M 901	2580	1450	1314
B*M 902	4680	1450	1314
B*M 903	6780	1450	1314
B*M 904	8880	1450	1314
B*M 1001	2580	1450	1320
B*M 1002	4680	1450	1320
B*M 1003	6780	1450	1320
B*M 1004	8880	1450	1320
B*D 802	3980	2250	1270
B*D 803	5730	2250	1270
B*D 804	7480	2250	1270
B*D 805	9230	2250	1270
B*D 806	10980	2250	1270
B*D 902	4680	2250	1314
B*D 903	6780	2250	1314
B*D 904	8880	2250	1314
B*D 905	10980	2250	1314
B*D 1002	4680	2250	1320
B*D 1003	6780	2250	1320
B*D 1004	8880	2250	1320
B*D 1005	10980	2250	1320

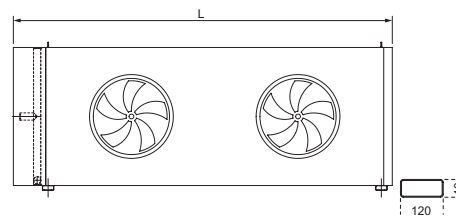
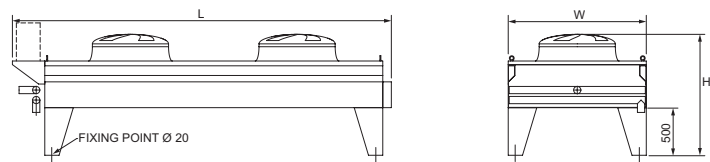
*: +60 mm for BN models

Code description

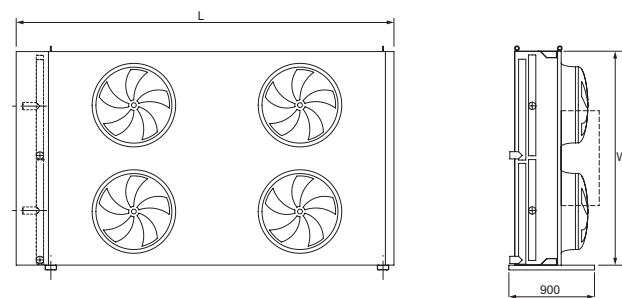
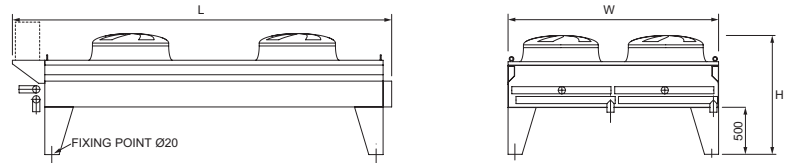
BC	MH	SE	80	4	s	-	A	-	DCR	Feet	-	*	AL	2.1	CU	*	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

- Alfa Laval Blue condenser
- Refrigerant: C=HFO/HFC, N=ammonia
- Number fan rows: M=1, D=2
- Dedicated series: blank=default, P=propane (R290), H=R410A,
- Sound level/fan code: T=turbo, S=standard, L=low, Q=quiet, R=residential
- EC fan: blank=AC fan, E=EC fan
- Fan diameter: 80=800 mm, 90=910 mm, 100=1000 mm
- Number of fans per row: 1 to 6
- Short coil module: blank=default, s= short coil module
- Tube rows code: A, B,C
- Fan motor connection: D=delta, Y=star
- Packing: P=pallet, PP=pallet with protection for headers and coil, CR=crate
- Feet=mounting feet supplied mounted (type of feet according to airflow selected); Blank=mounting feet supplied loose
- Electrical accessories
- Fin material/coating: AL=aluminium, IF=industrial fins, SWR=seawater resistant fins, EP=epoxy coated alu, FC=F-coat, BY=Blygold
- Fin spacing: 2.1, 2.3, 2.5, 3.0 and 3.2 mm
- Tube material: CU=copper, SS=stainless steel
- Options

Dimensions B*M



Dimensions B*D



Electrical accessories

- Switch on/off (SW)
- Connection box: for AC fans (CB), for EC fans (CBP), for EC fans including master controller and pressure probe (CBMP)
- Basic switchboard for AC fans (BS)
- Basic switchboard for AC fans and step controller (BSP)
- Basic switchboard for EC fans (ECCB)
- Basic switchboard for EC fans and master controller (ECCBM)
- EC fans full management system (ICM)

Certifications

The Alfa Laval quality system is in accordance with ISO 9001. All products are manufactured according to PED rules. Eurovent certified performance for models included in the scope of the programme.

Design pressure

Design pressure 33 bar for BC and BCP, 30 bar for BN and 45 bar for BCH. Each heat exchanger is leak tested with dry air and finally supplied with a nitrogen pre-charge.

Selection

Selection and pricing is to be performed with our Alfa Laval air heat exchanger selection software. Selection output includes all relevant technical data and dimensional drawings.

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com