



## AlfaBlue BDM, BDD/BDD6

### Dry coolers



AlfaBlue, BDM and BDD/BDD6

#### Application

The Alfa Laval dry coolers can be used in refrigeration, air conditioning equipment and in Industrial Cooling (cooling of water or other different fluids), Power, Process and General Industry.

#### Heat exchanger

This innovative heat exchanger provides excellent heat transfer with minimized coolant charge thanks to the new Alfa Laval fin corrugation and two tube sizes, 1/2" (BDM/BDD series) and 5/8" (BDD6 series). BDM is a single fan-row model while the BDD/BDD6 has two fan motor rows.

The standard is to manufacture the heat exchanger from copper tubes and aluminium fins with a 2.1mm spacing. The BDD/BDD6 series have double connections allowing for two independent lines. Each manifold is provided with draining and venting nozzles. Each heat exchanger undergoes a dry air pressure and leakage test at 11 bar.

#### Fan Motor

On the BDM, four different fan diameters are available: 630, 800, 910, 1000 mm; on the BDD and BDD6, 800, 910, 1000 mm with three-phase motor 400V-50Hz. The motors are with external rotor, protection class IP54 according to DIN 40050.

Integrated thermal protection by thermo contacts provides reliable protection against thermal overload.

Five fan motor noise levels, (S) standard, (L) low, (Q) quiet, (R) residential and the new (T) high performance fan, are available for these dry coolers. Dry coolers BDM/BDD/BDD6 800mm fans are available in four fan motor noise levels, (S), (L), (Q) and (R). Dry Coolers BDM/BDD/BDD6 910 are available in five fan motor noise levels, (T), (S), (L), (Q) and (R). Dry Coolers BDM/BDD/BDD& 1000 are available in three fan motor noise levels, (L), (Q) and (R).

New bell mouths optimize the performance of the fan motors and minimize the noise level. Each fan chamber is separated by internal baffle plates which enables optimal capacity control by separate running of the fans.

#### Frame and Casework

Casework made with galvanized steel sheets painted (corrosion resistance class C4). New design frame provides high rigidity also for heavy applications. New system protects perfectly the heat exchanger tubes during transportation and operation against vibration and thermal expansion.

Support manufactured in galvanized steel, with optimised length to permit uniform air suction in the coil.

## FEATURES AND BENEFITS

### Footprint

- Optimised footprint with higher capacity

### 630, 800, 910 and 1000 mm fan diameter

- More performance available
- Low power consumption fan motor
- More choice on noise level
- Flexible design

### RAL 9002 all parts painted

- No cut edge
- Higher corrosion resistance class (C4), double surface treatment
- Longer product life

### Coil design

- Increased heat transfer thanks to innovative fins corrugation

### Flanges UNI EN 1092-1 (on BDD/BDD6) in stainless steel

- Easy and accurate piping connection
- Faster installation

### Casing

- Strong casing with new design

### High energy efficiency

- Best performance with low energy consumption

## OPTIONS

### Non standard fin spacing

- For heavy dusty environments

### Coil treatment

- Useful for aggressive environments
- Corrosion resistance

### Spray water device (only BDD)

- Possibility to select smaller units
- Keep the performance during the hot season

### Vibration dumpers

- Useful to reduce vibrations

## SPECIAL FANS

### EC fans

- Less power consumption during regulation
- Best alternative for frequency converter control

### 480/3 ph-60 Hz IP54

- High adaptability on every market

### IP55

- High protection fan to be used in tropical or desert areas

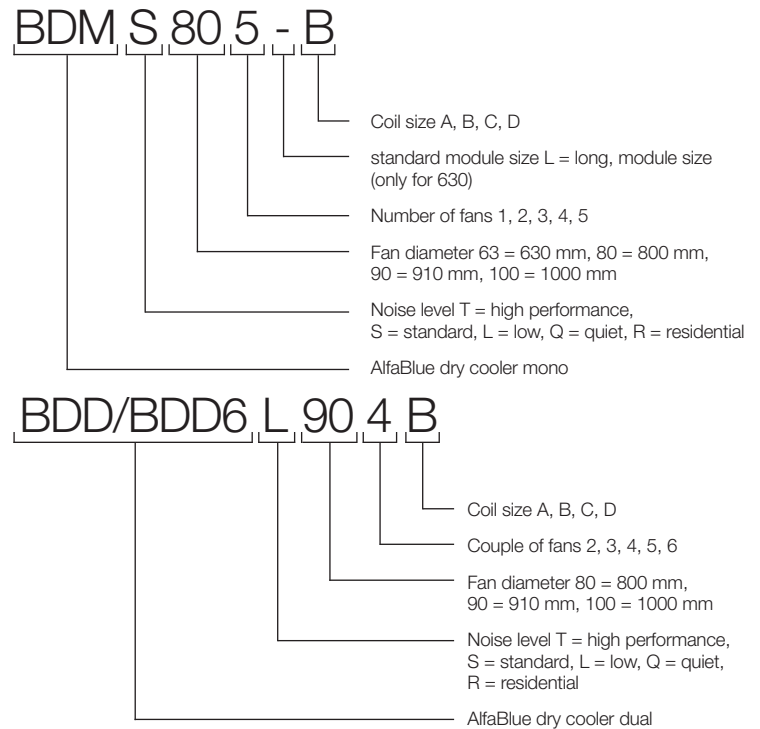
### High temperature electric motors

- Useful for high temperature fluids when the outlet air is too hot for the standard fan motors

### Explosion proof fan motor

- Useful on hazardous environments (max. zone II)

## Code description



## ELECTRICAL PARTS

### Switch on/off

- Local safety switch wired to isolate the fan
- Local safety switch EMC wired to isolate the fan

### Terminal box

- All fans are wired for an easy electrical connection

### Switchboard

- Corrosion/Shock/Condensation/UV resistance
- Wide range of solutions
- Switchboard IP 55
- Vertical/horizontal installation

### Cabling

- Ready for installation

### Design for frequency converter

- Units can run under frequency control (when air temperature is below the designated temperature, it results in energy savings, noise reduction and prolonged fan motor life)

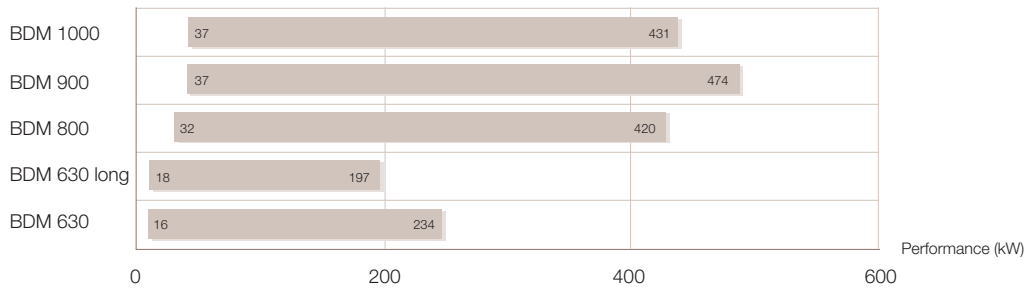
### Fan step control

- Energy saving
- Cheap outlet temperature controller

### Fan speed control

- Better control of performance
- Energy saving
- Noise reduction when air temperature is below design temperature
- Variable and fine control of velocity according to heat reject

**BDM performance range (kW) and dimensions (mm)**  
(according to ENV 1048)



Model	Dimensions (mm)	BDM 631	BDM 632	BDM 633	BDM 634
	W	1215	1215	1215	1215
<b>BDM 630</b>	L	1525	2615	3705	4795
	D	720	720	720	720

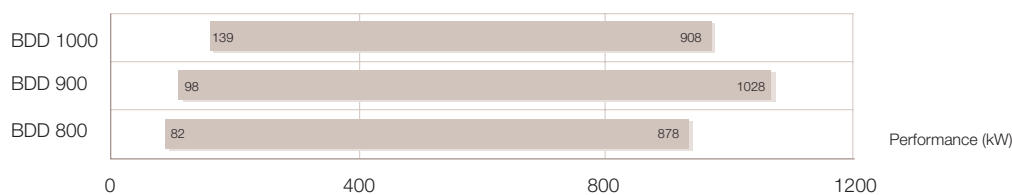
Model	Dimensions (mm)	BDM 631	BDM 632	BDM633
	W	1215	1215	1215
<b>BDM 630L</b>	L	1835	3235	4635
	D	720	720	720

Model	Dimensions (mm)	BDM 801	BDM 802	BDM 803	BDM 804	BDM 805
	W	1455	1455	1455	1455	1455
<b>BDM 800</b>	L	2185	3935	5685	7435	9185
	D	750	750	750	750	750

Model	Dimensions (mm)	BDM 901	BDM 902	BDM 903	BDM 904
	W	1455	1455	1455	1455
<b>BDM 910</b>	L	2535	4635	6735	8835
	D	790	790	790	790

Model	Dimensions (mm)	BDM 1001	BDM 1002	BDM 1003	BDM 1004
	W	1455	1455	1455	1455
<b>BDM 1000</b>	L	2535	4635	6735	8835
	D	790	790	790	790

**BDD performance range (kW) and dimensions (mm)**  
(according to ENV 1048)

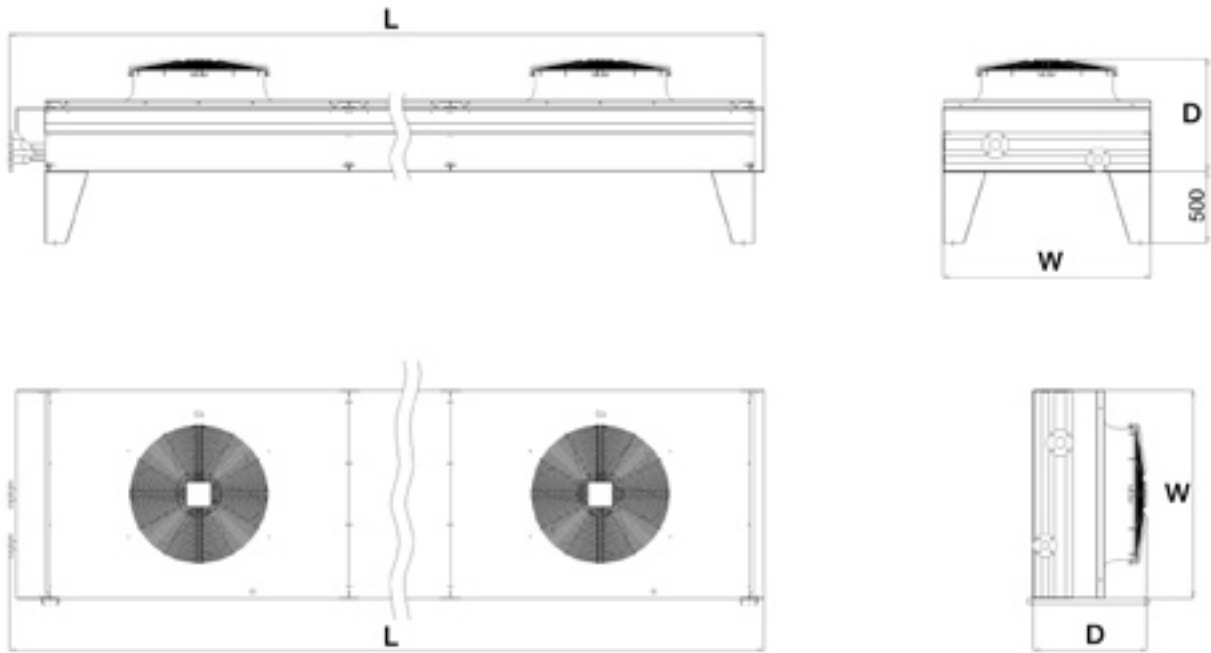


Model	Dimensions (mm)	... 802	... 803	... 804	... 805	... 806
	W	2290	2290	2290	2290	2290
<b>BDD/BDD6</b>	L	3935	5685	7435	9185	10935
	D	750	750	750	750	750

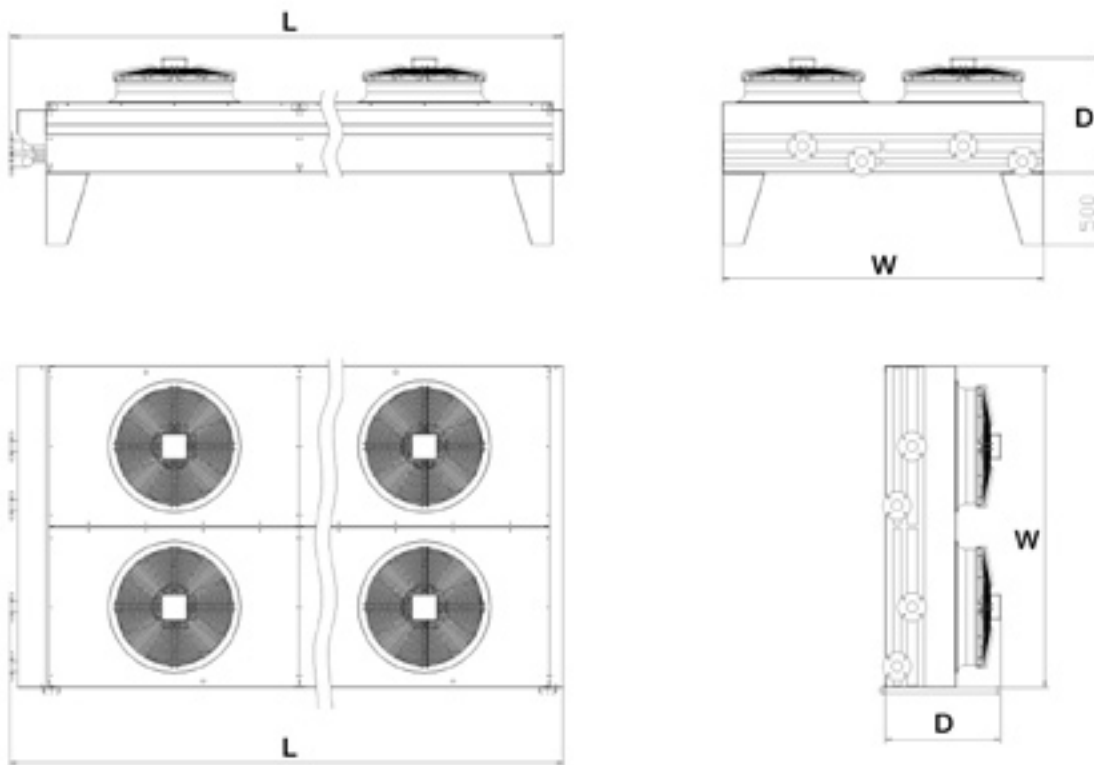
Model	Dimensions (mm)	... 902	... 903	... 904	... 905
	W	2290	2290	2290	2290
<b>BDD/BDD6</b>	L	4635	6735	8835	10935
	D	790	790	790	790

Model	Dimensions (mm)	... 1002	... 1003	... 1004	... 1005
	W	2290	2290	2290	2290
<b>BDD/BDD6</b>	L	4635	6735	8835	10935
	D	790	790	790	790

Dimensions BDM



Dimensions BDD/BDD6



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How to contact Alfa Laval

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