



AlfaBlue BO

Air-cooled transformer oil coolers

General information & application

The AlfaBlue BO series is a modular range of heavy-duty OFAF-type (Oil Forced/Air Forced) oil coolers, specifically designed for cooling transformer oil. AlfaBlue oil coolers are available for both on-board and remote installation.

Capacities $\Delta T(T_{in/oil} - T_{in/air}) = 35^{\circ}\text{C}$ 50 up to 600 kW

Coil

An innovative coil design provides excellent heat transfer. In standard execution oil coolers are fitted with smooth copper tubing and industrial power fins for reduced fouling and long lasting performance. Available in different fin spacings (2.5 to 3.6 mm). Flanged connections, manifolds are provided with draining and venting nozzles. Coil corrosion protection is optional.

Casing

Frame design and construction provides high rigidity for protection against (seismic) vibration and thermal shocks. Casing and framework of corrosion resistant pregalvanized sheet steel. Support plates (vertical installation) and mounting feet (horizontal installation) manufactured in galvanized steel. Finishing in RAL color optional.

Fan motors

Fan motors with balanced aluminium fan blades, available in three fan diameters (800, 900 & 1000 mm) in a single fan row. Available with five noise/fan speed levels and in dual fan speed execution. Standard power supply 400/50/3, other power supplies on request. Motors with external rotor in accordance with VDE 0530/12.84. Protection class IP 54 according to DIN 40050. Integrated thermo contacts provide reliable protection against thermal overload.

Options

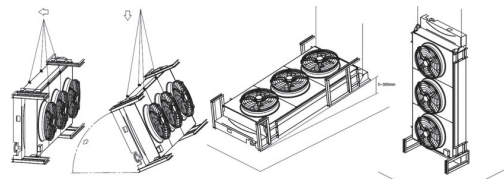
- Aluminium tubes (A)
- Coil corrosion protection
 - Coil coating F-coat (FC) or Blygold (BY)
 - Aluminium epoxy coated (EP)
 - Seawater resistant fins ALMg (SWR)
 - Copper fins (Cu)
 - Tinned copper fins & tubes
- Special fan motors (IP55, painted fan motors C3/C4/C5)
- Electrical options
 - Lockable safety switch (SW)
 - Central terminal connection box (CB)
- Coil protection grid
- Casing painted in RAL colour (P)
- Metal skid (SK)
- Seaworthy wooden packing box (WB)



AlfaBlue transformer oil cooler for on-board installation

Installation and shipping

Oil coolers are available for on-board installation directly onto the transformer (I) or remote mounting in horizontal (H) or vertical (V) setup. All on-board units are supplied with a re-usable metal skid permitting the transport of two units side by side on truck or container and lifting the product from horizontal to vertical position without risk of damaging the unit. Units for remote installation (H/V) are supplied on a wooden pallet, with the metal skid as an option. Seaworthy packaging is optional.



Certifications

The Alfa Laval quality system is in accordance with ISO 9001. All products are manufactured according to CE and PED rules.

Design pressure

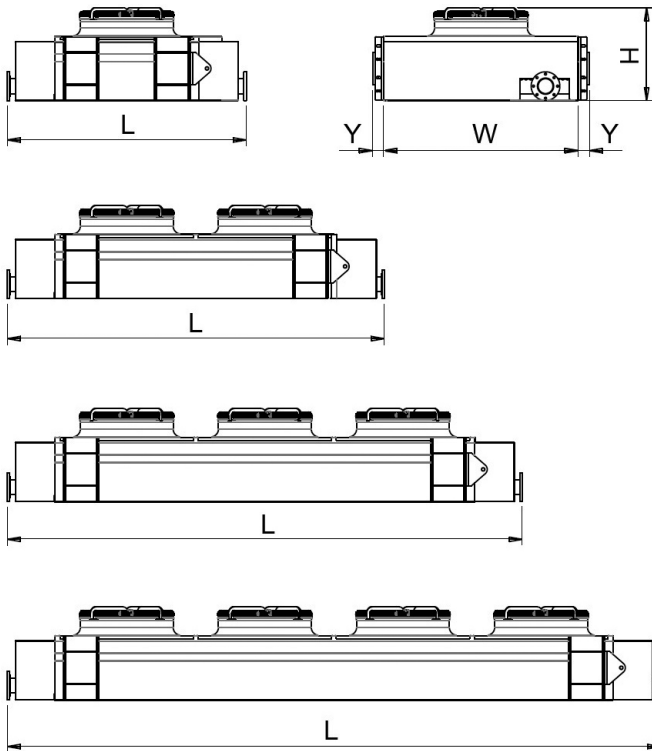
Design pressure 9 bar (copper tubes) or 3 bar (alu tubes) at 100 °C. Each heat exchanger is leak tested with dry air and finally flushed with oil to remove any remaining particles.

Selection

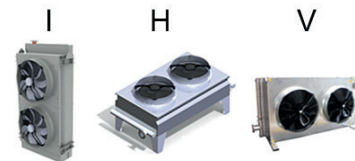
Selection and pricing is to be performed with our Alfa Laval air heat exchanger selection software. Please contact our sales organization for details and full technical documentation.

Fin material guideline

Environmental conditions	Recommended fin material/coating					
	High grade aluminium	SWR AlMg2.5	Aluminium F-coat	Aluminium Blygold	Aluminium Epoxy coated	Copper Cu
Urban (low acid)	+	++	+++	+++	++	+
Industrial (acid)	-	+	++	++	+	-
Coastal (salty)	-	++	+++	+++	++	++
Desert (sandy)	+	++	+++	++	++	++
Marine (high salty)	-	++	++	++	+	++
Tropical (high humidity)	+	++	++	++	+	+



Nr. of fans	Dimension (mm)						H	Y
	L			W				
	module length			module width				
	C	M	L	C	M	L		
1	1680	1880	2080	1450	1690	1930	820	95
2	2680	3080	3480	1450	1690	1930	820	95
3	3680	4280	4880	1450	1690	1930	820	95
4	4680	5480	6280	1450	1690	1930	820	95



Installation options

Code description

BO	L	Q	100	2	L	B	Y	36	H	P	7031	SW	-	IF	2.5	CU	Oil
1	2	3	4	5	6	7	8	9	10	11	12	13		14	15	16	17

- AlfaBlue oil cooler (BO=copper tubing, BOA=aluminium tubing)
- Module width (C, M, L)
- Sound level/fan speed (T=high performance, S=standard, M=medium, L=low, Q=quiet, R=dual fan speed)
- Fan diameter (80=800, 90=910, 100=1000 mm)
- Number of fans (1 to 4)
- Coil length (C, M, L)
- Nr. of tube rows (B or C)
- Electrical connection star (Y) or delta (D)
- Nr. of circuits
- Installation (I=on-board, H=airflow vertical, V=airflow horizontal)
- Transport packing (P=pallet, SK=container skid)
- Casing colour (RAL code)
- Options (SW, CB, OF)
- Fin material (IF=industrial fins, SWR=seawater resistant AlMg2.5, EP=epoxy coated, FC=F-coated, BY=blygold, CU=copper)
- Fin spacing (2.5, 2.8, 3.0, 3.2, 3.5 mm)
- Tube material (CU=copper, A=aluminium)
- Operating mode

Benefits

- Heavy duty design with high corrosion resistance
- Easily cleanable thanks to removable fan motors and industrial power fins
- Fully assembled: easy to connect to the transformer
- Reduced fan motor power consumption as a result of low static pressure
- Excellent sound characteristics
- Reliable performance
- Easy installation & maintenance
- Energy efficient - low total cost of ownership
- Two-year product guarantee.
- Easy access to additional on-line product information (QR code)



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

