

OLAER  
**A-LAC**  
COOLERS

# AIR OIL COOLER

*Olaer A-LAC with A.C. motors for industrial hydraulic systems*



# AN AIR OIL COOLER FOR DURABLE STRENGTH

The Olaer A-LAC oil cooler is supplied with a single phase or a three phase A.C. motor and is designed for use in industrial applications.

All the components have been developed in our own laboratory to ensure optimum harmonic operation.

With the Olaer A-LAC series, we can supply air oil coolers of Olaer's well-known high quality, at short notice.

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The Olaer A-LAC series of air oil coolers can be fitted with a thermo contact for oil temperature control.

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Cooler matrix with low pressure drop and high cooling capacity.



## High cooling capacity - low pressure drop

The ideal cooler will provide long-lasting oil durability hence extended hydraulic system life, minimize internal potentials for leaks, prolong lubricating qualities and maintain hydraulic efficiency for the entire working cycle.

Olaer A-LAC air oil coolers are easy to install, easy to handle and have extremely high performance and durable strength.

## Own laboratory

A series of quiet, long-lasting coolers with high cooling capacity per unit of surface area and a low pressure drop is the result of extensive research, development and testing in our own laboratory.

The components are carefully selected to ensure optimum performance. The unique cooler design provides an excellent cooling capacity with regard to cooler size.

During the development of the Olaer A-LAC series, we also took the opportunity to develop coolers for small cooling requirements, for which we predict an increasing demand in, for instance, leakage circuits.

## Simple and user-friendly design

The A-LAC air oil cooler design is simple and user-friendly and is easy to dismantle for cleaning. Olaer A-LAC coolers are highly resistant to material fatigue, caused by vibrations and pressure spikes.

The Olaer Group is represented worldwide providing you with service wherever you are located. The company's long traditions, range of customers and foresighted development have given us a wide technical expertise, an advantage for you by ensuring that the cooler you buy for your application is always the correct cooler.

## Calculate your cooling requirement

Olaer has developed a calculation program where, by entering your basic data, you can calculate your cooling requirement and select the correct cooler. The program is available on request from your local Olaer company.

For more detailed information, see separate information sheet.



Different by-pass functions are available to protect against cold starts.

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Can be fitted with dust and/or stone guard

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A.C. motors, 230V single phase or 400V three phase.

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## Olaer A-LAC coolers for all applications

### Industrial

- Presses
- CD presses
- Fibreboard presses
- Binding machines
- Lathes
- Multi-operation machines
- Crushers
- Lifts
- Water jet cutters
- Tempering furnaces
- Converters
- Saw transport equipment
- Simulators
- Welding machines
- Winches
- Diesel motors

- Bale presses
- Concrete tile presses
- Pipe benders
- Nibbling machines
- Milling machines
- Injection moulders
- Mills
- Rock-drilling equipment
- Cranes
- Transformers
- Timber mill machines
- Diesel oil cooling
- Test rigs
- Offshore equipment
- Cranes

### Transmissions

- Gas turbines
- Stone crushers
- Gear boxes
- Gear drives
- Transmissions
- Paper machines
- Bearing lubrication

**Consult your local  
Olaer company for:**

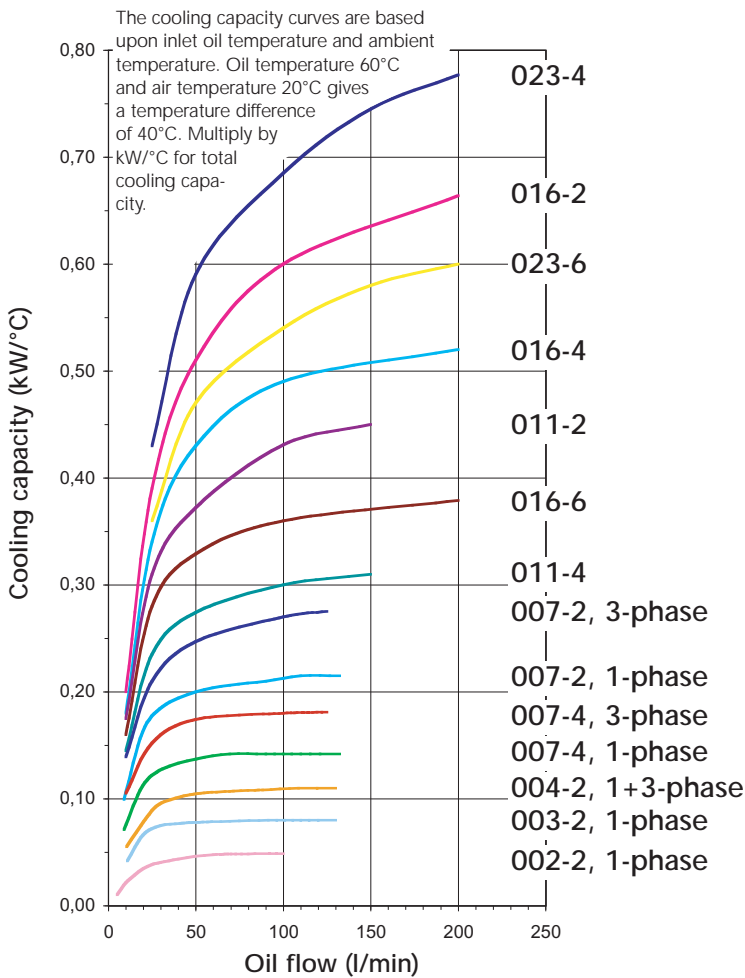
- type
- applications
- system construction
- dimensioning
- extreme operational conditions

# AIR OIL COOLER

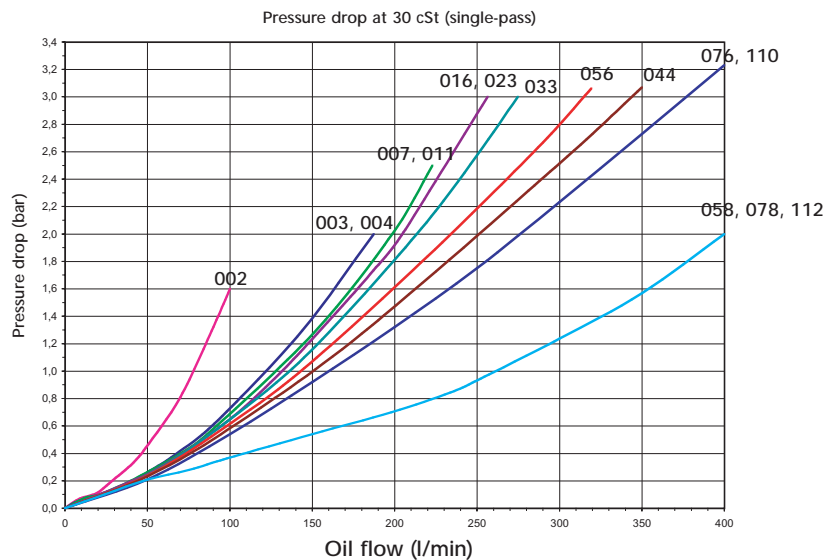
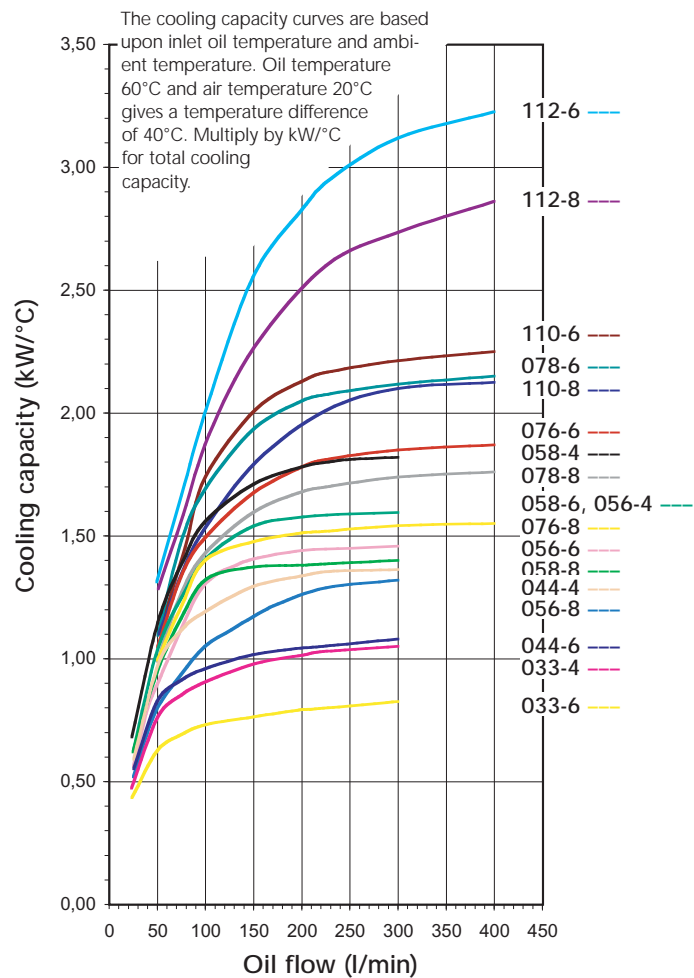
*Olaer A-LAC with A.C. motor - Technical specification*

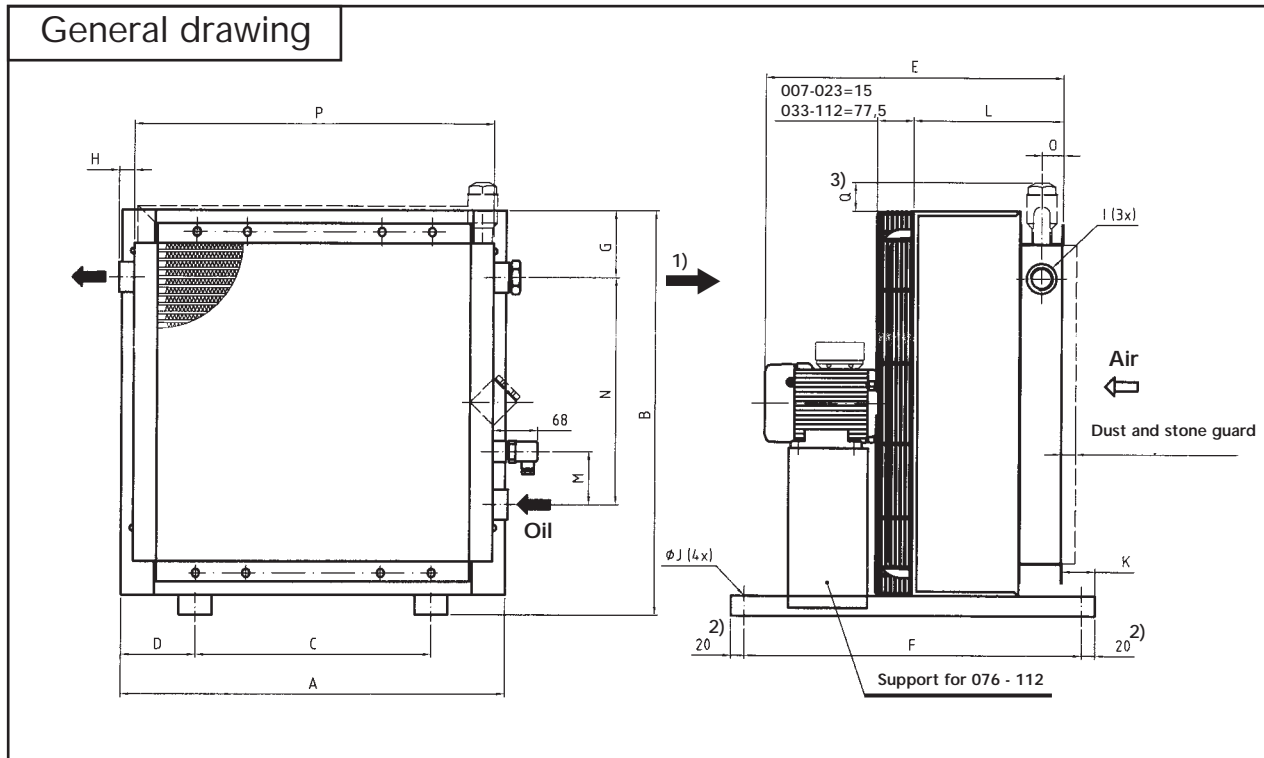
For selection of the ideal oil cooler, find out required  
cooling capacity  
oil flow  
oil temperature  
max air temperature  
or use our calculation program.

## A-LAC 002 - A-LAC 023



## A-LAC 033 - A-LAC 112





1) Oil outlet when a by-pass valve type T or a two pass is used

2) Dimension for A-LAC 002 - A-LAC 007 1phase = 10.

### Dimensions

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q <sup>3)</sup>
A-LAC 002-2 1-phase	155	186	74	41	153	186	48	20	G <sup>1/2</sup>	9	37	92	-	72	31	165	-
A-LAC 003-2 1-phase	210	223	134	38	225	145	70	23	G <sup>1</sup>	9	27	112	-	80	31	245	73
A-LAC 004-2 1-phase	250	259	134	58	230	145	77	23	G <sup>1</sup>	9	27	117	-	90	31	267	66
A-LAC 004-2 3-phase	250	259	134	58	230	145	77	23	G <sup>1</sup>	9	27	117	-	90	31	267	66
A-LAC 007-4 1-phase	340	343	203	69	252	267	91	23	G <sup>1</sup>	9	56	135	80	160	33	330	52
A-LAC 007-2 1-phase	340	343	203	69	252	267	91	23	G <sup>1</sup>	9	56	135	80	160	33	330	52
A-LAC 007-4 3-phase	365	395	203	81	375	510	103	23	G <sup>1</sup>	9	50	190	80	160	33	330	42
A-LAC 007-2 3-phase	365	395	203	81	375	510	103	23	G <sup>1</sup>	9	50	190	80	160	33	330	42
A-LAC 011-4 3-phase	440	470	203	119	400	510	106	23	G <sup>1</sup>	9	50	215	55	230	33	400	39
A-LAC 011-2 3-phase	440	470	203	119	433	510	106	23	G <sup>1</sup>	9	50	215	55	230	33	400	39
A-LAC 016-6 3-phase	496	526	203	147	425	510	100	23	G <sup>1</sup>	9	50	240	70	230	33	464	45
A-LAC 016-4 3-phase	496	526	203	147	425	510	100	23	G <sup>1</sup>	9	50	240	70	230	33	464	45
A-LAC 016-2 3-phase	496	526	203	147	458	510	100	23	G <sup>1</sup>	9	50	240	70	230	33	464	45
A-LAC 023-6 3-phase	580	610	356	112	450	510	101	23	G <sup>1</sup>	9	50	265	80	305	33	543	44
A-LAC 023-4 3-phase	580	610	356	112	483	510	101	23	G <sup>1</sup>	9	50	265	80	305	33	543	44
A-LAC 033-6 3-phase	692	722	356	168	534	510	103	25	G <sup>1 1/4</sup>	9	50	240	80	406	33	635	43
A-LAC 033-4 3-phase	692	722	356	168	618	510	103	25	G <sup>1 1/4</sup>	9	50	240	80	406	33	635	43
A-LAC 044-6 3-phase	692	866	356	168	559	510	87	25	G <sup>1 1/4</sup>	9	50	265	80	584	33	635	59
A-LAC 044-4 3-phase	692	866	356	168	643	510	87	25	G <sup>1 1/4</sup>	9	50	265	80	584	33	653	59
A-LAC 056-8 3-phase	868	898	508	180	632	510	102	25	G <sup>1 1/4</sup>	9	50	290	80	584	33	802	44
A-LAC 056-6 3-phase	868	898	508	180	668	510	102	25	G <sup>1 1/4</sup>	9	50	290	80	584	33	802	44
A-LAC 056-4 3-phase	868	898	508	180	668	510	102	25	G <sup>1 1/4</sup>	9	50	290	80	584	33	802	44
A-LAC 058-8 3-phase	868	898	508	180	652	510	102	31	G <sup>2</sup>	9	30	310	100	584	43	802	44
A-LAC 058-6 3-phase	868	898	508	180	688	510	102	31	G <sup>2</sup>	9	30	310	100	584	43	802	44
A-LAC 058-4 3-phase	868	898	508	180	688	510	102	31	G <sup>2</sup>	9	30	310	100	584	43	802	44
A-LAC 076-8 3-phase	1022	1052	518	252	693	800	101	31	G <sup>1 1/2</sup>	14	70	315	100	821	33	940	45
A-LAC 076-6 3-phase	1022	1052	518	252	701	800	101	31	G <sup>1 1/2</sup>	14	70	315	100	821	33	940	45
A-LAC 078-8 3-phase	1022	1052	518	252	713	800	101	31	G <sup>2</sup>	14	50	335	100	821	43	940	45
A-LAC 078-6 3-phase	1022	1052	518	252	721	800	101	31	G <sup>2</sup>	14	50	335	100	821	43	940	45
A-LAC 110-8 3-phase	1185	1215	600	293	785	800	100	31	G <sup>2</sup>	14	70	340	100	985	33	1130	46
A-LAC 110-6 3-phase	1185	1215	600	293	823	800	100	31	G <sup>2</sup>	14	70	340	100	985	33	1130	46
A-LAC 112-8 3-phase	1185	1215	600	293	805	800	100	31	G <sup>2</sup>	14	50	360	100	985	43	1130	46
A-LAC 112-6 3-phase	1185	1215	600	293	843	800	100	31	G <sup>2</sup>	14	50	360	100	985	43	1130	46

3) "Q" when a "by-pass valve" type S is selected.

Type	Acoustic pressure level dB(A) at 1 m*	Air flow m <sup>3</sup> /sec	No of poles/ Capacity kW	Weight kg
A-LAC 002-2 1-phase	50	0,06	2-0,05	4,2
A-LAC 003-2 1-phase	61	0,10	2-0,05	5
A-LAC 004-2 1-phase	63	0,15	2-0,07	6,5
A-LAC 004-2 3-phase	63	0,15	2-0,07	6,5
A-LAC 007-4 1-phase	65	0,24	4-0,08	9,5
A-LAC 007-2 1-phase	79	0,45	2-0,24	10
A-LAC 007-4 3-phase	64	0,29	4-0,25	15
A-LAC 007-2 3-phase	79	0,56	2-0,55	16
A-LAC 011-4 3-phase	69	0,61	4-0,25	20
A-LAC 011-2 3-phase	83	0,99	2-1,10	25
A-LAC 016-6 3-phase	63	0,58	6-0,18	23
A-LAC 016-4 3-phase	73	0,96	4-0,37	24
A-LAC 016-2 3-phase	86	1,45	2-1,10	27
A-LAC 023-6 3-phase	66	0,92	6-0,18	35
A-LAC 023-4 3-phase	77	1,50	4-0,75	36
A-LAC 033-6 3-phase	74	1,52	6-0,55	45
A-LAC 033-4 3-phase	84	2,41	4-2,20	52
A-LAC 044-6 3-phase	76	1,89	6-0,55	63
A-LAC 044-4 3-phase	85	2,99	4-2,20	65
A-LAC 056-8 3-phase	73	2,24	8-0,55	73
A-LAC 056-6 3-phase	81	3,08	6-1,50	75
A-LAC 056-4 3-phase	84	3,65	4-2,20	75
A-LAC 058-8 3-phase	74	2,00	8-0,55	80
A-LAC 058-6 3-phase	82	2,60	6-1,50	82
A-LAC 058-4 3-phase	85	3,20	4-2,20	82
A-LAC 076-8 3-phase	79	3,30	8-1,10	130
A-LAC 076-6 3-phase	86	4,50	6-2,20	140
A-LAC 078-8 3-phase	80	3,00	8-1,10	136
A-LAC 078-6 3-phase	87	4,10	6-2,20	146
A-LAC 110-8 3-phase	84	5,70	8-2,20	160
A-LAC 110-6 3-phase	90	7,70	6-5,50	170
A-LAC 112-8 3-phase	85	5,20	8-2,20	168
A-LAC 112-6 3-phase	91	7,00	6-5,50	178

\* Noise level tolerance  $\pm 3$  dB(A)

Ordering key for Olaer A-LAC air oil cooler.  
When ordering every item should be specified.

**A-LAC-XXX-X-X-XX-XXX-X-X**  
**1 2 3 4 5 6 7 8**

1. Air oil cooler fitted with AC motor = A-LAC

2. Cooler size		
002	023	078
003	033	110
004	044	112
007	056	
011	058	
016	076	

3. Number of poles, motor	
Two-pole	= 2
Four-pole	= 4
Six-pole	= 6
Eight-pole	= 8

4. Voltage and frequency	
Without motor	= 0
Three phase 230/400V, 50Hz*	= A
Three phase 275/480V, 60Hz*	= B
Single phase 230V, 50/60Hz	= C
Three phase 230/400 50Hz, 275/480V 60Hz**	= D
Three phase 500V, 50Hz	= E
Three phase 400/690V, 50Hz***	= F
Motor for special voltage (specify in text en clair)	= X

5. Thermo contact	
Without thermo contact	= 00
40°C	= 40
50°C	= 50
60°C	= 60
70°C	= 70
80°C	= 80
90°C	= 90

\* for A-LAC 033 to A-LAC 076/078-8.  
\*\* for A-LAC 002 to A-LAC 023.  
\*\*\* for A-LAC 076/078-6 to A-LAC 112.

6. Cooler matrix	
Standard	= 000
Two pass	= T00
Built-in pressure controlled by-pass valve, single-pass	
2 bar	= S20
5 bar	= S50
8 bar	= S80
Built-in pressure controlled by-pass valve, two-pass*	
2 bar	= T20
5 bar	= T50
8 bar	= T80
Built-in temperature and pressure controlled by-pass valve, single-pass	
50°C, 2.2 bar	= S25
60°C, 2.2 bar	= S26
70°C, 2.2 bar	= S27
90°C, 2.2 bar	= S29
Built-in temperature and pressure controlled by-pass valve, two-pass*	
50°C, 2.2 bar	= T25
60°C, 2.2 bar	= T26
70°C, 2.2 bar	= T27
90°C, 2.2 bar	= T29

7. Matrix guard	
Without guard	= 0
Stone guard	= S
Dust guard	= D
Dust and stone guard	= P

8. Standard/special	
Standard	= 0
Special	= Z

\* not available for A-LAC 002 - A-LAC 004.

**Example: A-LAC-033-6-A-50-T20-D-0**

When ordering a special cooler, specify product, components, performance, dimensions etc., in text en clair.  
Price and time of delivery available on request.

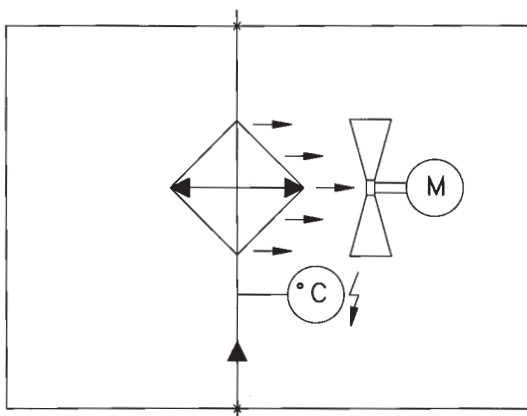
For further information and latest modifications, please enter our web site [www.olaer.com.au](http://www.olaer.com.au)  
To facilitate selection of the correct cooler, order Olaer's calculation programme.

Fluid compatibility	
Mineral oil	HL/HLP to DIN 51524
Oil/water emulsion	HFA, HFB to CETOP RP 77H
Water glycol	HFC to CETOP RP 77H
Phosphate ester	HFD-R to CETOP RP 77H

Material	
Matrix	Aluminium
Fan blades/hub	Glass fibre reinforced polypropylene/aluminium
Fan housing	Steel
Fan guard	Steel
Other parts	Steel
Surface treatment	Electrostatically powder coated

Technical specification, matrix	
Maximum static working pressure	21 bar
Dynamic working pressure	14 bar. Tested according to ISO/DIS 10771-1
Limits of heat transfer	± 6 %
Maximum oil inlet temperature	120°C.

Three-phase motor	Single-phase motor	A-LAC 004 three-phase motor
Three-phase asynchronous motor to IEC 34.1 and IEC 72 in accordance with DIN 57530/VDE 0530.		
Voltages: 50 Hz 220-240V/380-415V and 60 Hz 254-276V/440-480V or 50 Hz 380-415V/660-690V and 60 Hz 440-480V/760-830V	Nominal voltage 230V 50/60 Hz	Nominal voltage 230/400V 50/60 Hz
Insulation Class F	Insulation Class B	Insulation Class B
Rise of temperature Class B	Rise of temperature Class B	Rise of temperature Class B
Protection standard IP55	Protection standard IP 44	Protection standard IP 44



Piping diagram for Olaer A-LAC air oil cooler

#### Cooling capacity curves

The cooling capacity curves in this technical sheet are based upon tests according to EN 1048 and are made using oil type ISO VG 46 at 60°C.

#### Consult your local Olaer company for use

- with oil temperatures > 120°C
- with oil viscosity > 100 cSt
- in ambients rich in particles
- in contaminated environments
- at high altitudes



## Distributor

### Oil Solutions



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**OLAER  
COOLERS**

# THE COMPLETE PRODUCT RANGE



## OLAER A-LAC

An air oil cooler designed for industrial applications fitted with single-phase or three-phase motor. The components have been developed in our laboratory for optimum performance.

Max. cooling capacity 130 kW at ETD 40°C.



## OLAER A-LDC

An air oil cooler ideal for mobile applications because of its compact design and light weight, fitted with a 12V or a 24V DC motor. During the development of the A-LDC series of air oil coolers we developed also coolers for small cooling requirements.

Max. cooling capacity 30 kW at ETD 40°C.



## OLAER A-LHC

An air oil cooler fitted with a hydraulic motor for heavy duty applications with high cooling requirement. The Olaer A-LHC air oil coolers are designed for industrial as well as mobile applications. Max. cooling capacity 130 kW at ETD 40°C.



## OLAER A-LOC

An extremely reliable air oil cooling system consisting of a matrix, a fan and a pump. Fitted with one electric motor only, this cooling system is easy to install and at a very low cost. The Olaer A-LOC cooling system is supplied fit for installation in your system.

Max. cooling capacity 45 kW at ETD 40°C.



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Please note: Being a renowned manufacturer of cooling systems for hydraulics, Olaer is constantly seeking ways to improve the specification and design of its products and alterations take place continually. The products in this brochure may be updated, altered in any way or discontinued, without prior notice.