

**OLAER  
A-LDC  
COOLERS**

# AIR OIL COOLER

*Olaer A-LDC with D.C. motor for mobile hydraulic systems*



# COOLER SERIES FOR MOBILE HYDRAULICS

Olaer A-LDC air oil coolers with D.C. motors are high-efficiency coolers very competitive in price. Olaer are leaders in the field of solving problems of overheating in all types of hydraulic systems. For mobile hydraulic systems, we have developed a series of air oil coolers, Olaer A-LDC. From this series, we are able to supply coolers of the well-known high Olaer quality, at short notice.

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The Olaer A-LDC 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.



## Reliability in operation

Improved performance, extended service life and reduced operating costs are the most important reasons for seriously considering cooling of your hydraulic system.

The correct working temperature is your only guarantee that the oil in the hydraulic system works at the correct viscosity. The ideal cooler will provide prolonged oil durability hence extended hydraulic system life, minimize internal potentials for leaks, prolong lubricating qualities and maintain hydraulic efficiency for the entire working cycle.

The Olaer A-LDC air oil coolers are fitted with a 12V or a 24V D.C. motor.

## Own laboratory

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

The components are carefully selected to ensure optimum performance.

## Coolers for unlimited cooling requirements

Olaer A-LDC air oil coolers are ideal for mobile applications, primarily because of their compact size and light weight but also because they are quiet. The Olaer A-LDC coolers have high physical strength and are easy to retrofit on many types of machines and offer unlimited utilization of all standby units.

In the Olaer A-LDC series we have also developed small sized coolers for small cooling requirements.

## 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 technical sheet. The Olaer Group is represented worldwide providing you with support wherever you are located.



Different bypass functions are available to protect against cold starts.

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Can be fitted with Olaer Smart DC Drive for soft start and low current consumption

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Can be fitted with dust and/or stone guard.

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12V or 24V D.C. motors.

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## Olaer A-LDC coolers for all applications

### Mobile

- Cranes
- Harvesters
- Graders
- Rollers
- Contractors machines
- Wet brakes
- Rail-borne machines
- Picking machinery
- Earth drilling machines
- Concrete pumps
- Mining equipment
- Bulk loaders
- Fork-lift trucks
- Rock drills
- Geological investigation machinery
- Ditch excavators
- Scrapping machinery
- Forestry machinery
- Forwarders
- Asphalt spreaders
- Street-cleaning machines
- Snow slingers
- Cable laying machines
- Garbage collection trucks
- Ready-mix concrete trucks
- Agricultural machinery
- Compressors
- Motor oil cooling
- Power Generating Units

### Consult your local Olaer company for:

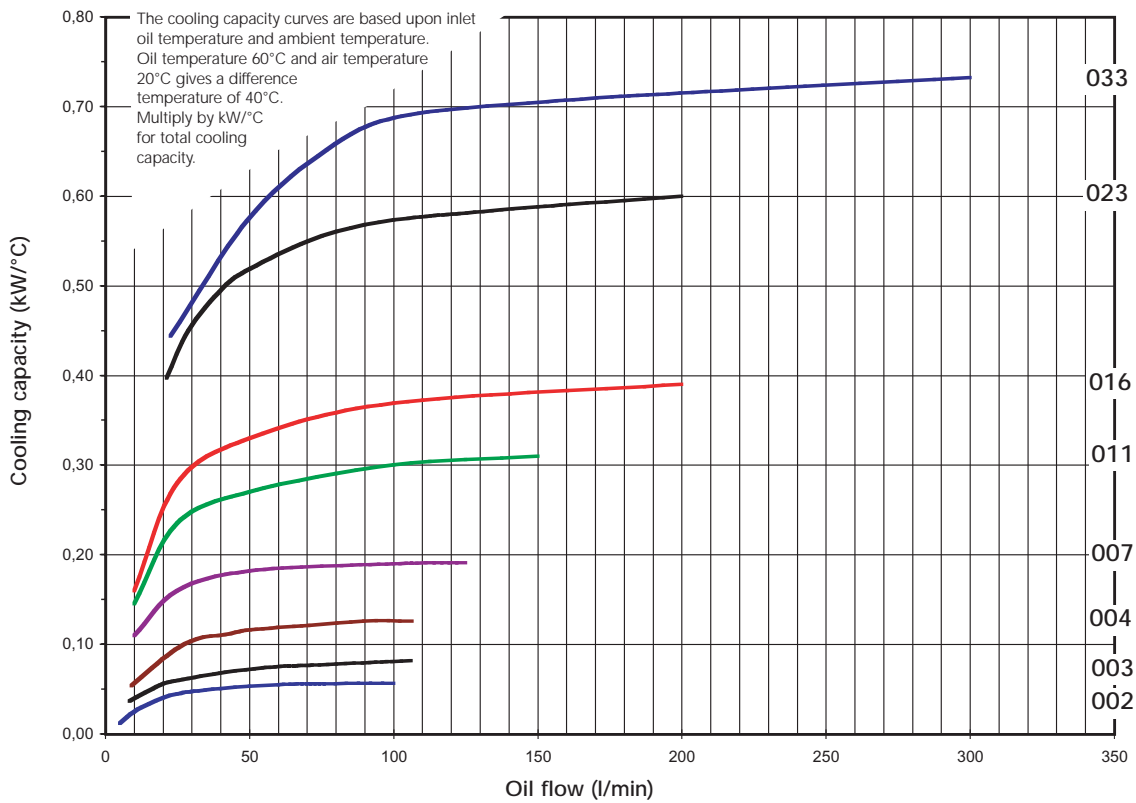
- type
- applications
- system construction
- sizing
- extreme operational conditions

# AIR OIL COOLER

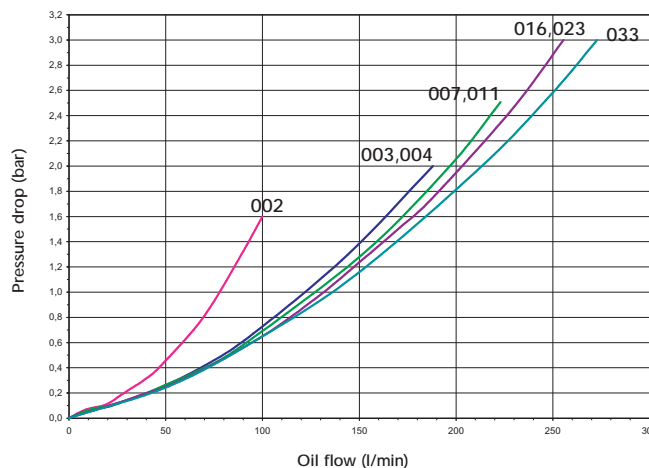
## *Olaer A-LDC with D.C. motor - Technical specification*

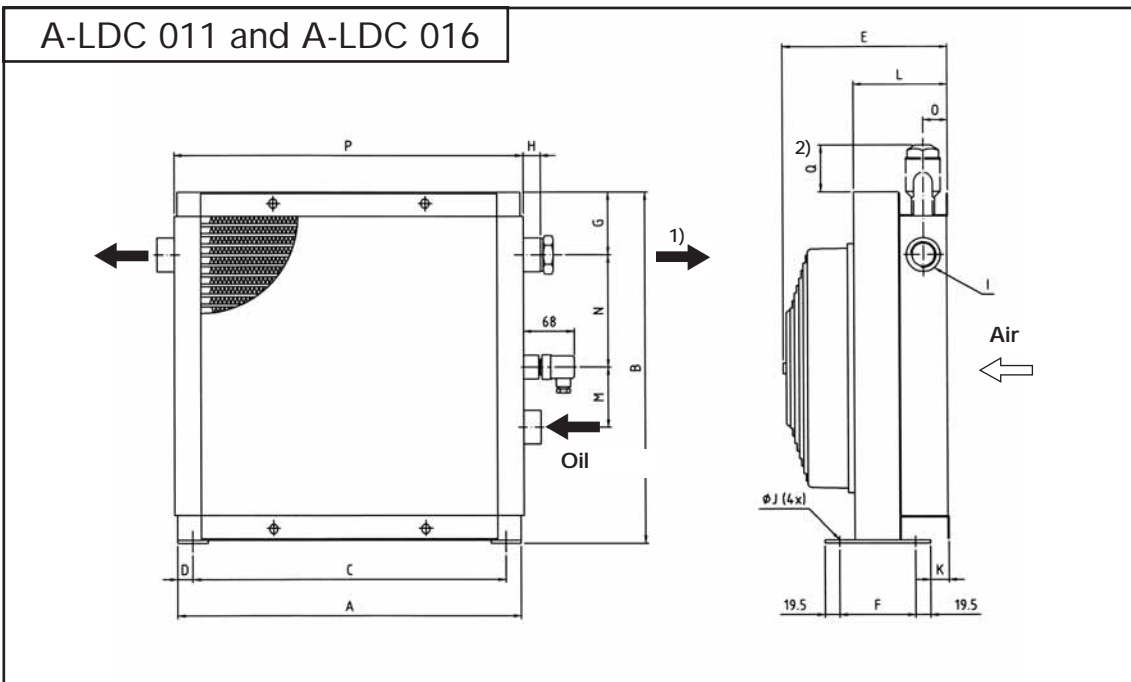
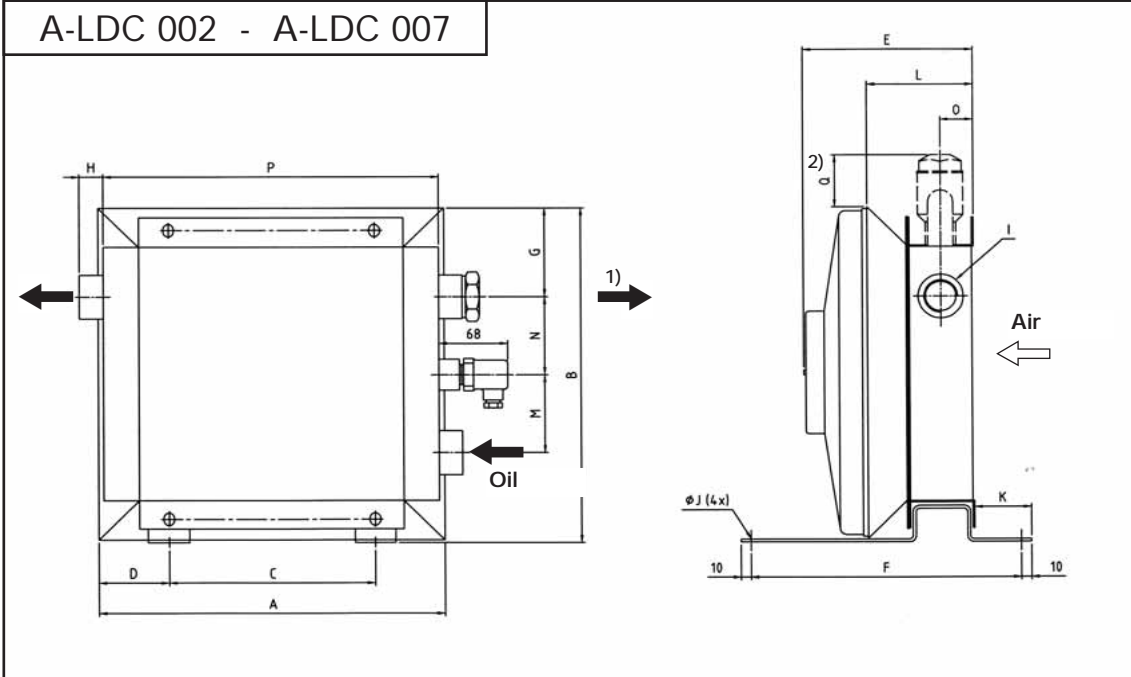
For selection of the ideal oil cooler,  
 find cooling capacity oil flow  
 oil temperature  
 max air temperature  
 or use calculation program.

### A-LDC 002 - A-LDC 033

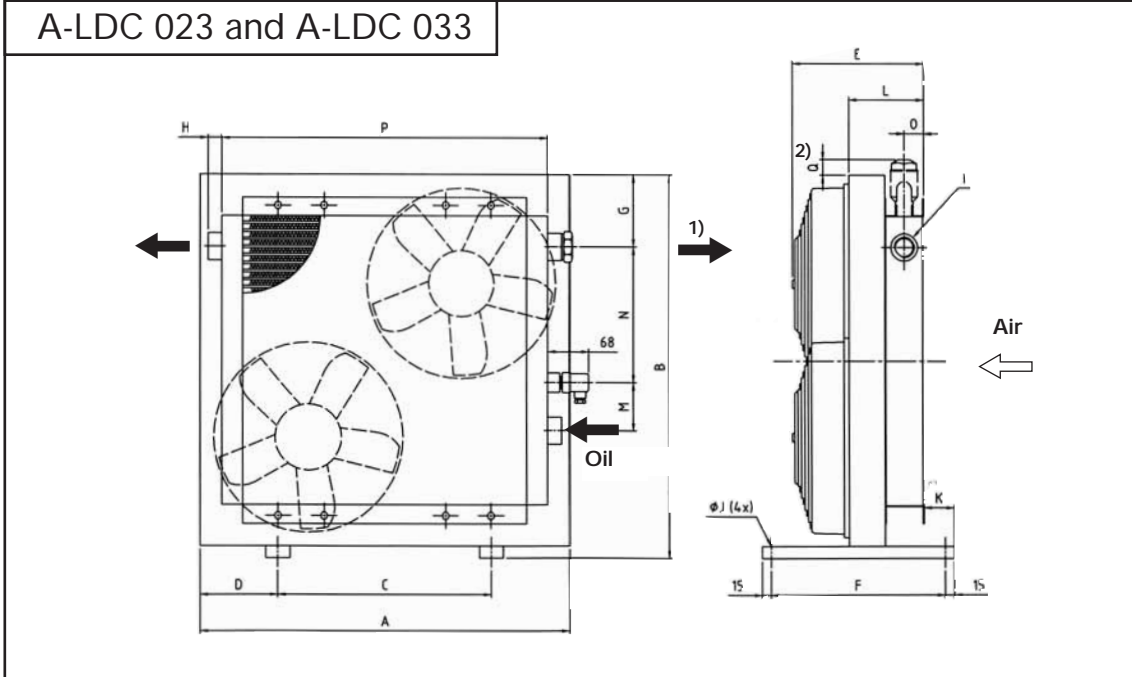


Pressure drop at 30 cSt (single-pass only)





1) Oil outlet when a by-pass valve type T or a two-pass is used (as from A-LDC 007)



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

### Dimensions

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q <sup>2)</sup>	Weight kg	Acoustic pressure level dB(A) 1 m*
A-LDC 002	184	187	74	55	154	186	48	20	G½	9	37	102	-	72	31	165	-	4.0	66
A-LDC 003	218	227	134	42	154	145	74	23	G1	9	27	102	-	90	31	245	69	4.5	68
A-LDC 004	256	260	134	61	154	145	80	23	G1	9	27	102	-	90	31	267	64	5.5	68
A-LDC 007	340	343	203	69	168	267	91	23	G1	9	56	105	80	80	33	330	53	8.5	71
A-LDC 011	400	396	360	20	219	101	82	23	G1	9x29	25	125	80	148	33	400	63	12	74
A-LDC 016	456	466	416	20	219	101	83	23	G1	9x29	25	125	80	149	33	464	62	15	74
A-LDC 023	615	635	356	130	219	290	119	23	G1	13	50	125	80	225	33	543	26	25	77
A-LDC 033	630	678	371	130	259	290	86	25	G1¼	13	30	165	80	326	33	635	59	30	77

\* Noise level tolerance ± 3 dB(A)

2) "Q" When selecting a by-pass valve type S

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

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

**1. Air oil cooler fitted with DC motor = A-LDC**

2. Cooler size	
002	011
003	016
004	023
007	033

3. Voltage	
12V	= A
24V	= B

4. Accessories DC motor	
Without accessories	= 0
Smart DC Drive (including temperature indicator)	= S
Relay box	= C

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

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

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

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

8. Standard/special	
Standard	= 0
Special	= Z

**Example: A-LDC-016-A-S-00-S20-S-0**

When ordering a special cooler, specify product, components, performance, dimensions etc., in text en clair.  
Price and time of delivery available from your local Olaer company.

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/guard	Glass fibre reinforced polypropylene
Fan housing	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

Technical specification, electric motors					
	A-LDC 002	A-LDC 003	A-LDC 004	A-LDC 007-016	A-LDC 023-033
Number of revolutions	3700 rpm	3670 rpm	3350 rpm	3060 rpm	3060 rpm
Protection standard	IP 64	IP 64	IP 64	IP 64	IP 64
Insulation class	H	H	H	H	H
Ambient temperature	-30°C - +80°C				
Current consumption					
12V/24V	6,5/3,5 A	8/4 A	8/4 A	20/10 A	2x20/2x10 A**

\*\* Olaer A-LDC 023 and Olaer A-LDC 033 are twin motored

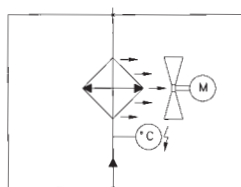
Use a relay if the current load is superior to:

8 A at 12 V

6 A at 24 V

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
<ul style="list-style-type: none"> <li>• with oil temperature &gt; 120°C</li> <li>• with oil viscosity &gt; 100 cSt</li> <li>• in aggressive environments</li> <li>• in ambients rich in particles</li> <li>• at high altitudes</li> </ul>



Piping diagram for  
Olaer A-LDC air oil cooler



## Distributor

### Oil Solutions



Phone 0421 336 009

Fax 03 9012 4332

International

Phone 61 421 336 009

Fax 61 3 9012 4332

[sales@oilsolutions.com.au](mailto:sales@oilsolutions.com.au)

[www.oilsolutions.com.au](http://www.oilsolutions.com.au)

PO Box 653 Castlemaine Australia 3450



**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.



**THE OLAER GROUP AROUND THE WORLD:** AUSTRALIA Olaer FCH. Tel: +61 2 9981 6888. AUSTRIA Olaer Austria GmbH. Tel: +43 7229 80306. BELGIUM S.A. Olaer Benelux. Tel: +32 2 466 15 15. CZECHIA Olaer CZ s.r.o. Tel: +42 5 47125 601-8. DENMARK Oiltech DK. Tel: +45 86 69 20 38. FINLAND Oiltech Hydraulics OY. Tel: +358 9 413 755 00. FRANCE Olaer Industries S.A. Tel: +33 1 41 19 17 00. GERMANY Olaer Industries GmbH. Tel: +49 6842 9204-0. GREAT BRITAIN FCH Ltd. Tel: +44 1244 535515. INDIA FCH India. Tel: +91 802 6533587. ITALY Olaer Italiana S.p.A. Tel: +39 011 991 85 11. KOREA Hyundai Olaer Hydraulic Co. Tel: +82 31 499 0897. NETHERLANDS Olaer Nederland B.V. Tel: +31 76 5412453. NORWAY Oiltech AS. Tel: +47 64 91 11 80. POLAND Oiltech Polska. Tel: +48 22 6738162. SCHWIZERLAND Olaer (Schweiz) AG. Tel: +41 26 492 70 00. SOUTH AFRICA FCH c/o Rolton Products CC. Tel: +27 11 474 3095. SPAIN Olaer-Oiltech Iberica SAU. Tel: +34 933 368 900. SWEDEN Oiltech AB. Tel: +46 8 636 07 00. USA Oil Air Hydraulics Inc. Tel: +1 713 937 89 00.

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.