







# Air Oil Coolers

LAC with AC Motor for Industrial Use



### CADE -

# Cylinder and Accumulator Division Europe

Made in Europe - serving all markets and industries



### Our product range - click for more detail:



































### Air Oil Cooler Range

As a global player specializing in innovative, efficient system solutions for temperature optimization and energy storage, Parker's products are used for the most diverse environments and applications all over the world.

In hydraulic systems energy is transformed and transmitted. During this process, efficiency losses occur, i.e. mechanical and hydraulic energy is converted into heat. It is the purpose of the cooler to dissipate this heat and to maintain the thermal balance of the hydraulic fluid.

Parker's high performance coolers are equipped with axial fans and IE3 class motors, ensuring your hydraulic system's peak performance.

Click <u>here</u> or scan QR code Parker's extensive series of air oil coolers for all requirements.

#### **Cooler Range**















### Why Cooling

Choosing the right cooler requires precise system sizing. The most reliable way to size a cooler is with the aid of our calculation program. This program, together with precise evaluations from our experienced, skilled engineers, gives you the opportunity for more cooling per \$ invested.

#### Overheating - an expensive problem

An underestimated cooling capacity produces a temperature that is too high. The consequences are poor lubricating properties, higher internal leakage, a higher risk of cavitation, damaged components, etc.

Overheating leads to a significant drop in efficiency which can be detrimental to our environment.

# Temperature optimization - a basic prerequisite for cost-efficient operation

Temperature balance in a hydraulic system occurs when the cooler can cool down the energy input that the system does not consume - the system's lost energy.

Temperature optimization occurs at the temperature at which the oil viscosity is maintained at recommended values.





### LAC - Air Oil Coolers

### For industrial use - maximum cooling capacity 300 kW

The LAC air oil cooler with single-phase or three-phase AC motor is optimized for use in the industrial sector. Together with a wide range of accessories, the LAC cooler is suitable for installation in most applications and environments. The maximum cooling capacity is 300 kW at ETD 40 °C.



Parker's Air Oil cooler range also includes the following versions:

**LAC-X** (ATEX version) **MAC** (Marine applications).

The LAC-X version is approved for applications where there may be an explosive environment above ground.

The MAC is especially suitable for marine environment to be better able to deal with corrosion attacks.

Please contact your Parker representative for more details!







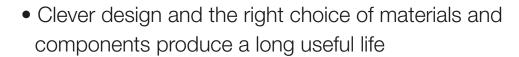


The Olaer Group has been part of Parker Hannifin since July 1st, 2012. With manufacturing and sales in 14 countries in North America, Asia and Europe, the Olaer Group expands Parker's presence in geographic growth areas and offers expertise in hydraulic accumulator and cooling systems for target growth markets such as oil and gas, power generation and renewable energy.





- Easy to maintain and easy to retrofit in many applications
- Cooler matrix with low pressure drop and high cooling capacity





- AC motor single-phase for smaller and three-phase for larger cooler sizes
- Service and repair costs are reduced

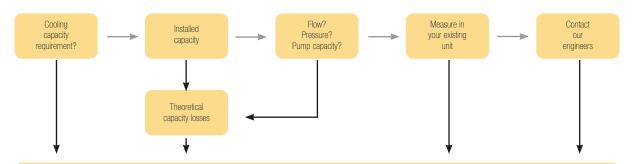


- High efficiency level preserved in continuous operation
- Compact design and light weight
- Quiet fan and fan motor
- REACH & RoHS compliant





# Calculate the Cooling Capacity Requirement



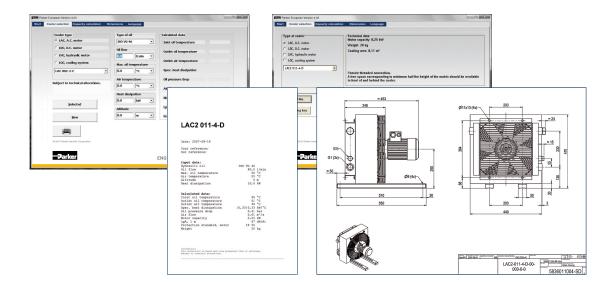
### Choose the right kind of cooler

Enter your values ....

... suggested solution



### https://divapps.parker.com/divapps/CADE/SSW/







Better energy consumption means not only less environmental impact, but also reduces operating costs, i.e. more cooling per € invested.

### More Cooling per €

### with precise calculations and our engineers' support

Optimal sizing produces efficient cooling. Correct sizing requires knowledge and experience. Our calculation program, combined with our engineers' support, gives you access to this very knowledge and experience.

The result is more cooling per € invested. The user-friendly calculation program can be downloaded from www.parker.com/acde.

#### Valuable system review into the bargain

A more wide-ranging review of the hydraulic system is often a natural element of cooling calculations. Other potential system improvements can then be discussed – e.g. filtering,

offline or online cooling, etc. Contact us for further guidance and information.

# Parker Hannifin's quality and performance guarantee insurance for your operations and systems

A constant striving towards more cost-efficient and environment friendly hydraulic systems requires continuous development. Areas where we are continuously seeking to improve performance include cooling capacity, noise level, pressure drop and fatigue.

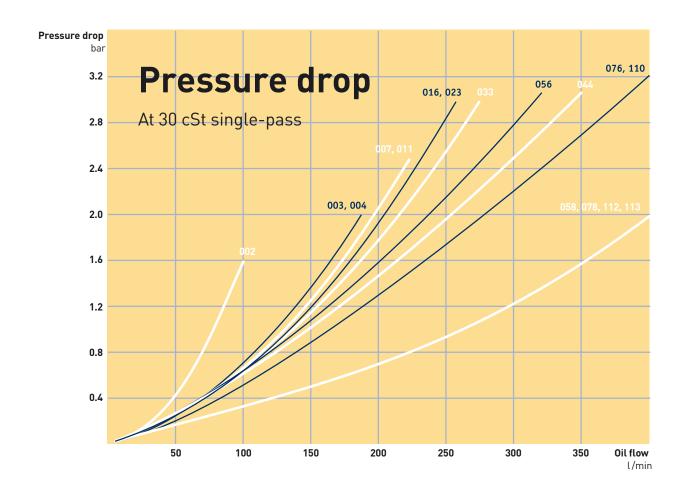
Meticulous quality and performance tests are conducted in our laboratory. All tests and measurements take place in accordance with standardised methods - cooling capacity in accordance with EN1048, noise level ISO 3743, pressure drop EN 1048 and fatigue ISO 10771-1.



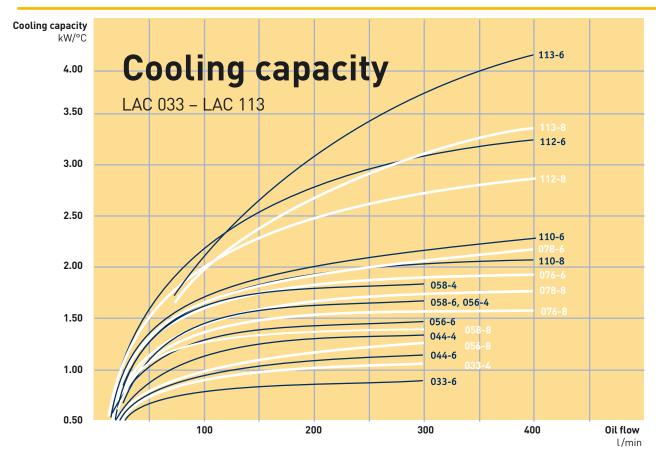


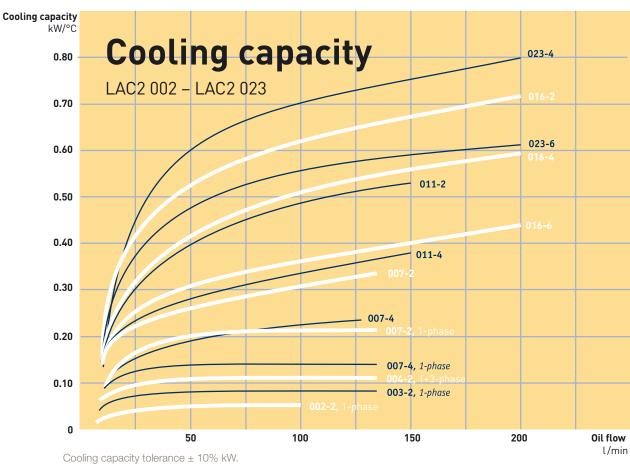


The cooling capacity curves are based on the inlet oil temperature and the ambient air temperature. An oil temperature of 60 °C and an air temperature of 20 °C produce a temperature difference of 40 °C. Multiply by kW/°C for total cooling capacity.

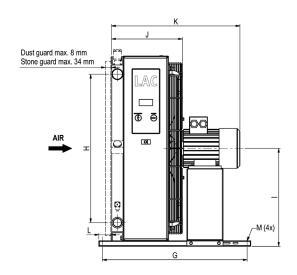








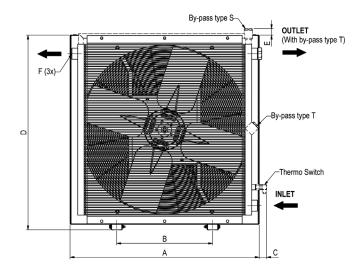




TYPE		Acoustic pressure level LpA dB(A) 1m*	No. of poles/ Capacity kW	Weight kg (approx)
LAC2	002-2-single-phase	50	2-0.05	4
LAC2	003-2-single-phase	61	2-0.05	5
LAC2	004-2-single-phase	63	2-0.07	6
LAC2	004-2-single-phase	63	2-0.07	6
LAC2	007-4-single-phase	65	2-0.08	9
LAC2	007-2-single-phase	79	2-0.24	10
LAC2	007-4-three-phase	62	4-0.25	15
LAC2	007-2-three-phase	79	2-0.55	16
LAC2	011-4-three-phase	67	4-0.25	20
LAC2	011-2-three-phase	82	2-1.10	25
LAC2	016-6-three-phase	60	6-0.18	23
LAC2	016-4-three-phase	70	4-0.37	24
LAC2	016-2-three-phase	86	2-1.10	27
LAC2	023-6-three-phase	64	6-0.18	35
LAC2	023-4-three-phase	76	4-0.75	36
LAC	033-6-three-phase	74	6-0.55	45
LAC	033-4-three-phase	84	4-2.20	52
LAC	044-6-three-phase	76	6-0.55	63
LAC	044-4-three-phase	85	4-2.20	65
LAC	056-8-three-phase	73	8-0.75	73
LAC	056-6-three-phase	81	6-1.50	75
LAC	056-4-three-phase	84	4-3.0	75
LAC	058-8-three-phase	74	8-0.75	80
LAC	058-6-three-phase	82	6-1.50	82
LAC	058-4-three-phase	85	4-3.0	82
LAC	076-8-three-phase	79	8-1.10	130
LAC	076-6-three-phase	86	6-2.20	140
LAC	078-8-three-phase	80	8-1.10	136
LAC	078-6-three-phase	87	6-2.20	146
LAC	110-8-three-phase	84	8-2.20	160
LAC	110-6-three-phase	90	6-5.50	170
LAC	112-8-three-phase	85	8-2.20	168
LAC	112-6-three-phase	91	6-5.50	178
LAC	113-8-three-phase	80	8-2.20	218
LAC	113-6-three-phase	88	6-5.50	237

 $<sup>^*</sup>$  = Noise level tolerance  $\pm$  3 dB(A).





OUTLET (With by-pass type S)

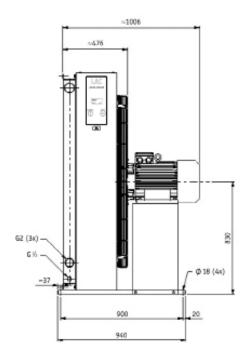
LAC2 002-2-single-phase 244 134 82 189 - G½ 190 72 97 105 167 39 LAC2 003-2-single-phase 244 134 82 223 71 G1 148 90 114 161 218 31 LAC2 004-4-single-phase 267 134 82 256 69 G1 148 90 131 165 222 28 LAC2 004-2-single-phase 267 134 82 256 69 G1 148 90 131 165 222 28 LAC2 007-4-single-phase 340 203 77 345 54 G1 267 160 175 189 249 49 LAC2 007-2-single-phase 340 203 77 345 54 G1 267 160 175 189 249 49 LAC2 007-2-single-phase 365 203 64 395 42 G1 510 160 213 225 429 50 LAC2 007-2-three-phase 365 203 64 395 42 G1 510 160 213 225 439 50 LAC2 007-2-three-phase 440 203 62 470 41 G1 510 230 250 249 453 50 LAC2 011-2-three-phase 440 203 62 470 41 G1 510 230 250 249 475 50 LAC2 016-6-three-phase 496 203 66 526 46 G1 510 230 250 278 272 474 50 LAC2 016-2-three-phase 496 203 66 526 46 G1 510 230 278 272 474 50 LAC2 016-2-three-phase 496 203 66 526 46 G1 510 230 278 272 479 50 LAC2 023-6-three-phase 580 356 63 610 44 G1 510 305 320 287 489 50 LAC2 033-6-three-phase 692 356 53 722 42 G11/4 510 406 376 318 534 50 LAC 033-4-three-phase 692 356 53 722 42 G11/4 510 406 376 318 534 50 LAC 033-4-three-phase 692 356 53 722 42 G11/4 510 406 376 318 534 50 LAC 044-6-three-phase 692 356 53 722 42 G11/4 510 584 448 343 643 50 LAC 044-6-three-phase 692 356 53 722 42 G11/4 510 584 448 343 643 50 LAC 056-8-three-phase 868 508 49 898 43 G11/4 510 584 448 343 643 50 LAC 056-8-three-phase 868 508 49 898 43 G11/4 510 584 464 388 682 30 LAC 056-8-three-phase 868 508 49 898 43 G11/4 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-8-three-phase	TYPE		Α	В	С	D	E	F	G	Н	1	J	K	L	Mø
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LAC2 004-2-single-phase	LAC2	003-2-single-phase	244	134	82	223	71	G1	148	90	114	161	218	31	9x14
LAC2         007-4-single-phase         340         203         77         345         54         G1         267         160         175         189         249         49           LAC2         007-2-single-phase         340         203         77         345         54         G1         267         160         175         189         249         49           LAC2         007-2-three-phase         365         203         64         395         42         G1         510         160         213         225         429         50           LAC2         007-2-three-phase         365         203         64         395         42         G1         510         160         213         225         429         50           LAC2         011-4-three-phase         440         203         62         470         41         G1         510         230         250         249         475         50           LAC2         016-4-three-phase         496         203         66         526         46         G1         510         230         278         272         474         50           LAC2         016-2-three-phase         580 <td< td=""><td>LAC2</td><td>004-4-single-phase</td><td>267</td><td>134</td><td>82</td><td>256</td><td>69</td><td>G1</td><td>148</td><td>90</td><td>131</td><td>165</td><td>222</td><td>28</td><td>9x14</td></td<>	LAC2	004-4-single-phase	267	134	82	256	69	G1	148	90	131	165	222	28	9x14
LAC2       007-2-single-phase       340       203       77       345       54       G1       267       160       175       189       249       49         LAC2       007-4-three-phase       365       203       64       395       42       G1       510       160       213       225       429       50         LAC2       007-2-three-phase       365       203       64       395       42       G1       510       160       213       225       434       50         LAC2       011-4-three-phase       440       203       62       470       41       G1       510       230       250       249       453       50         LAC2       011-2-three-phase       440       203       62       470       41       G1       510       230       250       249       475       50         LAC2       016-2-three-phase       496       203       66       526       46       G1       510       230       272       474       50         LAC2       016-2-three-phase       496       203       66       526       46       G1       510       230       278       272       479 <t< td=""><td>LAC2</td><td>004-2-single-phase</td><td>267</td><td>134</td><td>82</td><td>256</td><td>69</td><td>G1</td><td>148</td><td>90</td><td>131</td><td>165</td><td>222</td><td>28</td><td>9x14</td></t<>	LAC2	004-2-single-phase	267	134	82	256	69	G1	148	90	131	165	222	28	9x14
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LAC2 007-2-three-phase	LAC2	007-2-single-phase	340	203	77	345	54	G1	267	160	175	189	249	49	9x14
LAC2 011-4-three-phase	LAC2	007-4-three-phase	365	203	64	395	42	G1	510	160	213	225	429	50	9
LAC2       011-2-three-phase       440       203       62       470       41       G1       510       230       250       249       475       50         LAC2       016-6-three-phase       496       203       66       526       46       G1       510       230       278       272       474       50         LAC2       016-4-three-phase       496       203       66       526       46       G1       510       230       278       272       479       50         LAC2       016-2-three-phase       496       203       66       526       46       G1       510       230       278       272       479       50         LAC2       016-2-three-phase       496       203       66       526       46       G1       510       230       278       272       479       50         LAC2       023-6-three-phase       580       356       63       610       44       G1       510       305       320       287       419       50         LAC       033-6-three-phase       692       356       53       722       42       G114       510       406       376       318 <t< td=""><td>LAC2</td><td>007-2-three-phase</td><td>365</td><td>203</td><td>64</td><td>395</td><td>42</td><td>G1</td><td>510</td><td>160</td><td>213</td><td>225</td><td>434</td><td>50</td><td>9</td></t<>	LAC2	007-2-three-phase	365	203	64	395	42	G1	510	160	213	225	434	50	9
LAC2 016-6-three-phase	LAC2	011-4-three-phase	440	203	62	470	41	G1	510	230	250	249	453	50	9
LAC2 016-4-three-phase	LAC2	011-2-three-phase	440	203	62	470	41	G1	510	230	250	249	475	50	9
LAC2       016-2-three-phase       496       203       66       526       46       G1       510       230       278       272       496       50         LAC2       023-6-three-phase       580       356       63       610       44       G1       510       305       320       287       489       50         LAC2       023-4-three-phase       580       356       63       610       44       G1       510       305       320       287       511       50         LAC       033-6-three-phase       692       356       53       722       42       G1¼       510       406       376       318       534       50         LAC       033-4-three-phase       692       356       53       722       42       G1¼       510       406       376       318       618       50         LAC       044-6-three-phase       692       356       53       866       59       G1¼       510       584       448       343       559       50         LAC       044-4-three-phase       692       356       53       866       59       G1¼       510       584       448       343 <td< td=""><td>LAC2</td><td>016-6-three-phase</td><td>496</td><td>203</td><td>66</td><td>526</td><td>46</td><td>G1</td><td>510</td><td>230</td><td>278</td><td>272</td><td>474</td><td>50</td><td>9</td></td<>	LAC2	016-6-three-phase	496	203	66	526	46	G1	510	230	278	272	474	50	9
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LAC2 023-4-three-phase 580 356 63 610 44 G1 510 305 320 287 511 50 LAC 033-6-three-phase 692 356 53 722 42 G1¼ 510 406 376 318 534 50 LAC 033-4-three-phase 692 356 53 722 42 G1¼ 510 406 376 318 618 50 LAC 044-6-three-phase 692 356 53 866 59 G1¼ 510 584 448 343 559 50 LAC 044-4-three-phase 692 356 53 866 59 G1¼ 510 584 448 343 643 50 LAC 056-8-three-phase 868 356 49 898 43 G1¼ 510 584 448 343 643 50 LAC 056-6-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 056-4-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 056-8-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 056-6-three-phase 868 508 49 898 43 G1½ 510 584 464 368 668 50 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 652 30 LAC 058-6-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 1022 518 41 1052 45 G1½ 800 821 541 393 693 70 LAC 076-6-three-phase 1022 518 41 1052 45 G1½ 800 821 541 393 710 70	LAC2	016-2-three-phase	496	203	66	526	46	G1	510	230	278	272	496	50	9
LAC 033-6-three-phase 692 356 53 722 42 G11/4 510 406 376 318 534 50 LAC 033-4-three-phase 692 356 53 722 42 G11/4 510 406 376 318 618 50 LAC 044-6-three-phase 692 356 53 866 59 G11/4 510 584 448 343 559 50 LAC 044-4-three-phase 692 356 53 866 59 G11/4 510 584 448 343 643 50 LAC 056-8-three-phase 868 356 49 898 43 G11/4 510 584 448 343 643 50 LAC 056-6-three-phase 868 508 49 898 43 G11/4 510 584 464 368 668 50 LAC 056-4-three-phase 868 508 49 898 43 G11/4 510 584 464 368 668 50 LAC 058-8-three-phase 868 508 49 898 43 G1/4 510 584 464 368 668 50 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 652 30 LAC 058-6-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 1022 518 41 1052 45 G11/2 800 821 541 393 693 70 LAC 076-6-three-phase 1022 518 41 1052 45 G11/2 800 821 541 393 710 70	LAC2	023-6-three-phase	580	356	63	610	44	G1	510	305	320	287	489	50	9
LAC 033-4-three-phase 692 356 53 722 42 G11/4 510 406 376 318 618 50 LAC 044-6-three-phase 692 356 53 866 59 G11/4 510 584 448 343 559 50 LAC 044-4-three-phase 692 356 53 866 59 G11/4 510 584 448 343 643 50 LAC 056-8-three-phase 868 356 49 898 43 G11/4 510 584 448 343 643 50 LAC 056-6-three-phase 868 508 49 898 43 G11/4 510 584 464 368 668 50 LAC 056-4-three-phase 868 508 49 898 43 G11/4 510 584 464 368 668 50 LAC 056-8-three-phase 868 508 49 898 43 G11/4 510 584 464 368 668 50 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 652 30 LAC 058-6-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 1022 518 41 1052 45 G11/2 800 821 541 393 710 70	LAC2	023-4-three-phase	580	356	63	610	44	G1	510	305	320	287	511	50	9
LAC 044-6-three-phase 692 356 53 866 59 G1¼ 510 584 448 343 559 50 LAC 044-4-three-phase 692 356 53 866 59 G1¼ 510 584 448 343 643 50 LAC 056-8-three-phase 868 356 49 898 43 G1¼ 510 584 448 343 643 50 LAC 056-6-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 056-4-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 056-4-three-phase 868 508 49 898 43 G1¼ 510 584 464 368 668 50 LAC 058-8-three-phase 868 508 49 898 43 G2 510 584 464 388 652 30 LAC 058-6-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 682 30 LAC 058-4-three-phase 868 508 49 898 43 G2 510 584 464 388 688 30 LAC 076-8-three-phase 1022 518 41 1052 45 G1½ 800 821 541 393 693 70 LAC 076-6-three-phase 1022 518 41 1052 45 G1½ 800 821 541 393 710 70	LAC	033-6-three-phase	692	356	53	722	42	G11/4	510	406	376	318	534	50	9
LAC       044-4-three-phase       692       356       53       866       59       G1¼       510       584       448       343       643       50         LAC       056-8-three-phase       868       356       49       898       43       G1¼       510       584       448       343       643       50         LAC       056-6-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       056-4-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       058-8-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       68	LAC	033-4-three-phase	692	356	53	722	42	G11/4	510	406	376	318	618	50	9
LAC       056-8-three-phase       868       356       49       898       43       G1¼       510       584       448       343       643       50         LAC       056-6-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       056-4-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       058-8-three-phase       868       508       49       898       43       G2       510       584       464       388       652       30         LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       076-8-three-phase       868       508       49       898       43       G2       510       584       464       388       688	LAC	044-6-three-phase	692	356	53	866	59	G11/4	510	584	448	343	559	50	9
LAC       056-6-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       056-4-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       058-8-three-phase       868       508       49       898       43       G2       510       584       464       388       652       30         LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       076-8-three-phase       868       508       49       898       43       G2       510       584       464       388       688       30         LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       7	LAC	044-4-three-phase	692	356	53	866	59	G11/4	510	584	448	343	643	50	9
LAC       056-4-three-phase       868       508       49       898       43       G1¼       510       584       464       368       668       50         LAC       058-8-three-phase       868       508       49       898       43       G2       510       584       464       388       652       30         LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       688       30         LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70         LAC       076-6-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70	LAC	056-8-three-phase	868	356	49	898	43	G11/4	510	584	448	343	643	50	9
LAC       058-8-three-phase       868       508       49       898       43       G2       510       584       464       388       652       30         LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       688       30         LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70         LAC       076-6-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70	LAC	056-6-three-phase	868	508	49	898	43	G11/4	510	584	464	368	668	50	9
LAC       058-6-three-phase       868       508       49       898       43       G2       510       584       464       388       682       30         LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       688       30         LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       70         LAC       076-6-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70	LAC	056-4-three-phase	868	508	49	898	43	G11/4	510	584	464	368	668	50	9
LAC       058-4-three-phase       868       508       49       898       43       G2       510       584       464       388       688       30         LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       693       70         LAC       076-6-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70	LAC	058-8-three-phase	868	508	49	898	43	G2	510	584	464	388	652	30	9
LAC       076-8-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       693       70         LAC       076-6-three-phase       1022       518       41       1052       45       G1½       800       821       541       393       710       70	LAC	058-6-three-phase	868	508	49	898	43	G2	510	584	464	388	682	30	9
LAC 076-6-three-phase 1022 518 41 1052 45 G1½ 800 821 541 393 710 70	LAC	058-4-three-phase	868	508	49	898	43	G2	510	584	464	388	688	30	9
	LAC	076-8-three-phase	1022	518	41	1052	45	G1½	800	821	541	393	693	70	14
1000 F10 41 4050 45 00 000 004 544 440 740 50	LAC	076-6-three-phase	1022	518	41	1052	45	G1½	800	821	541	393	710	70	14
LAC 076-6-tilree-phase 1022 518 41 1052 45 G2 800 821 541 413 713 50	LAC	078-8-three-phase	1022	518	41	1052	45	G2	800	821	541	413	713	50	14
LAC 078-6-three-phase 1022 518 41 1052 45 G2 800 821 541 413 730 50	LAC	078-6-three-phase	1022	518	41	1052	45	G2	800	821	541	413	730	50	14
LAC 110-8-three-phase 1185 600 54 1215 45 G2 800 985 623 418 785 70	LAC	110-8-three-phase	1185	600	54	1215	45	G2	800	985	623	418	785	70	14
LAC 110-6-three-phase 1185 600 54 1215 45 G2 800 985 623 418 785 70	LAC	110-6-three-phase	1185	600	54	1215	45	G2	800	985	623	418	785	70	14
LAC 112-8-three-phase 1185 600 54 1215 45 G2 800 985 623 438 805 50	LAC	112-8-three-phase	1185	600	54	1215	45	G2	800	985	623	438	805	50	14
LAC 112-6-three-phase 1185 600 54 1215 45 G2 800 985 623 438 805 50	LAC	112-6-three-phase	1185	600	54	1215	45	G2	800	985	623	438	805	50	14
LAC 113-8-three-phase 1200 600 82 1215 45 G2 860 985 623 465 833 82	LAC	113-8-three-phase	1200	600	82	1215	45	G2	860	985	623	465	833	82	14
LAC 113-6-three-phase 1200 600 82 1215 45 G2 860 985 623 465 871 82	LAC	113-6-three-phase	1200	600	82	1215	45	G2	860	985	623	465	871	82	14

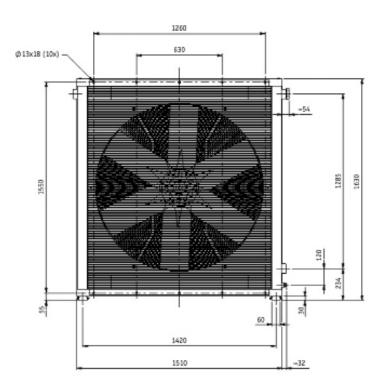




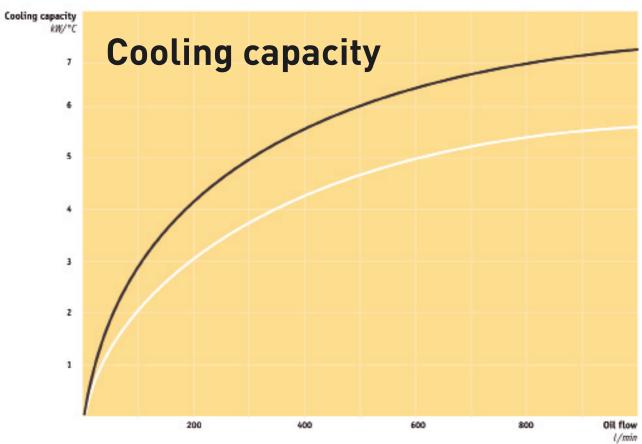
Туре	Acoustics pressure level Lp <sup>A</sup> dB(A) 1m*	No. of poles/ Capacity kW	Weight kg (approx)
LAC 200-6	92	6-11.0	405
LAC 200-8	86	8-4.0	365

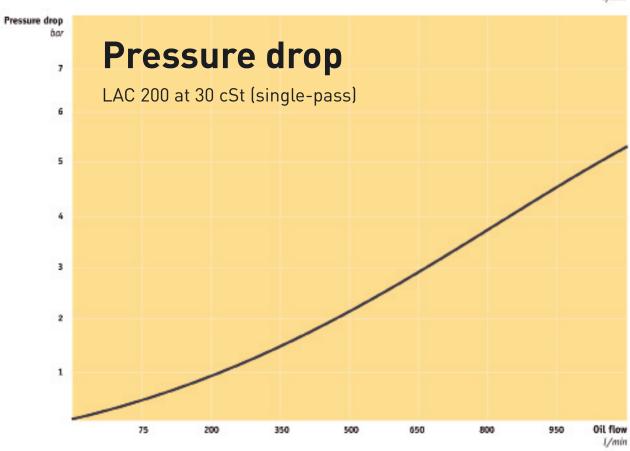
 $^*$  = Noise level tolerance  $\pm$  3 dB(A)





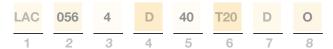








# **Code Key**



1	Туре	LAC, LAC2	
2	Cooler Size	004, 007, 011, 016, 023, 033, 044, 056, 058, 078, 112, 113	3, 200
3	Number of Poles / Motor	2, 4, 6, 8	
		0: no motor,	
		A: 230/400V 50Hz,	
4	Voltage and Frequency	B: 460V alt 480V 60Hz, C: Single Phase 230V 50Hz (not IE2)	),
		D:230/400V 50Hz 460 alt, 480 V 60 Hz,	
		E: 500V 50Hz (not standard),	
		F: 400/690V 50Hz 460 alt 480V 60Hz,	
		G: 525V 50Hz, 575V 60Hz, 575V 60Hz,	
		X: Motor for special voltage or frequency (stated in plain lange	uage)
		00: no contact	
		40: 40°C	
		50: 50°C	
5	Thermo Contact	60: 60°C	
		70: 70°C	
		80: 80°C	
		90: 90°C	
		000: Standard,	
		T00: Two-pass	
		Built in, pressure-controlled bypass, single pass	
		S20: 2 bar S50: 5 bar	
		S80: 8 bar	
		Built-in, pressure-controlled bypass, two-pass	
	Cooler Matrix	T20: 2 bar	
		T50: 5 bar	
6		T80: 8 bar,	
		Built-in temperature and pressure-controlled bypass, s	ingle-pass
		S25: 50°C, 2.2 bar S26: 60°C, 2.2 bar	
		S27: 70°C, 2.2 bar	
		S29: 90°C, 2.2 bar	
		Built-in temperature and pressure-controlled bypass, to	wo-pass
		T25: 50°C, 2.2. bar	
		T26: 60°C, 2.2. bar	
		T27: 70°C, 2.2. bar T29: 90°C, 2.2 bar	
		0: no guard,	
		S: stone guard,	
7	Matrix Guard	D: dust guard,	
		P: dust guard, P: dust and stone guard	■ 回続終終回 ■
8	Standard / Special	O: standard, Z: special	
٥	Standard / Special	Ο. διαπυαιά, Δ. δρ <del>ο</del> υίαι	

# **Technical Specifications**

Fluid Combinations		
Mineral Oil HL/HLP in accordance with DIN 515		
Oil / water emulsion	HFA, HFB in accordance with CETOP RP 77H	
Water glycol	HFC in accordance with CETOP RP 77H	
Phosphate ester	HFD-R in accordance with CETOP RP 77H	

Material				
Cooler 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 Data, Cooler Matrix	
Maximum static operating pressure	21 bar
Dynamic operating pressure	14 bar
Heat transfer limit	+- 6%
Maximum oil inlet temperature	120°C

Technical Data for 1-Phase Motor				
Insulation class	В			
Rise of temperature	В			
Protection class	IP 44			

Technical Data for 3-Phase Motor					
3-phase asynchronous motors in accordance with IEC 34-1 and IEC 72 in accordance with DIN 67530/VDE 0530					
Insulation class F					
Rise of temperature	В				
Protection class	IP 55				

Technical Data for 3-Phase Motor LAC2 004				
Rated voltage	230 / 400 V - 50 / 60 Hz			
Insulation class	В			
Rise of temperature	В			
Protection class	IP 44			

#### **Cooling Capacity Curve**

The cooling capacity curves in this technical data sheet are based on tests in accordance with EN 1048 and have been produced in oil type ISO VG 46 at 60°C.

#### **Contact Parker Hannifin for Advice on**

Oil temperatures > 120°C / Oil viscosity > 100 cSt



# Take the Next Step

- choose the right accessories

With our specialist expertise, industry knowledge and advanced technology, we can offer a range of different solutions for coolers and accessories to meet your requirements.

Supplementing a hydraulic system with a cooler, cooler accessories and an accumulator gives you increased availability and a longer useful life, as well as lower service and repair costs.

All applications and operating environments are unique. A wellplanned choice of the following accessories can thus further improve your hydraulic system.

Please contact Parker Hannifin for guidance and information.







Lifting eyes included as standard
For safe and simple handling
during installation and
relocation - only used for
installation and maintenance



Stone guard/Dust guard
In dirty environments a dust guard
prevents the matrix from getting
clogged by medium and large size
particles or chips and allows easier
maintenance. The Stone guard
protects the matrix from damage
by projectiles. When shielded,
the cooler is protected in the
toughest conditions and the risk
of unscheduled maintenance is
reduced to a minimum.



Thermo contact
Sensor with fixed set point,
for temperature warnings.
Can be used for more costefficient operation and better
environmental consideration
through the automatic control
of the fan motor, either on or
off.



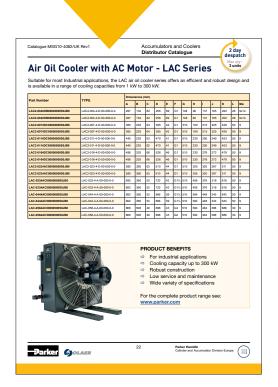
Temperature-controlled bypass valve Integrated Allows the oil to bypass the cooler matrix if the pressure drop is higher than 2,2 bar or less than the chosen temperature. The bypass closes when the oil temperature increases. Different closing temperatures available. Available for singlepass or two-pass matrix design





# **Check out Parker's Fast Track Programme**

includes many options for LAC coolers





https://discover.parker.com/FastTrackCADE



#### **WARNING - USER RESPONSIBILITY**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

#### Offer of Sale

Please contact your Parker representation for a detailed 'Offer of Sale'.



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Hendrik Ido Ambacht Tel: +31 (0)541 585 000

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CH - Switzerland, Etoy Tel: +41 (0)21 821 87 00

CZ - Czech Republic,

Prague

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DK - Denmark, Ballerup

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IL - Israel

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PL - Poland, Warsaw

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PT - Portugal

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CN - China, Shanghai

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HK - Hong Kong

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