

*advanced quality
customized designs
made in europe*

Oil/Air heat exchangers



- Low noise level
- High performance
- Low cost

**UNIVERSAL
HYDRAULIK** 
Your Partner for coolers and systems

Series

LKI

For industrial use

LKI-HYD

For mobile use

**OIL-AIR
COOLING**



Product description

Product description

With this new generation of Universal Hydraulik LKI oil-coolers, the manufacturers have succeeded in reducing the noise level. These coolers are ideally suited for stationary installations - for the cooling of hydraulic or lubricating oils. The range has been extended to include slow-running ventilators, and the housings have been optimised, in order to produce the very low noise level. In order to make the cooler range as comprehensive as possible, the smaller models are also available as single or dual versions, thus covering oil-cooling requirements for both low and high oil throughflow volumes. The max. oil flow is reduced by 50% in the dual version and the cooler gets a slightly higher performance by this. The oil flow through one half of the cooler and then through the other half in the dual version. The oil stays longer in the cooler, which results in higher performances. The single version is ideal for higher oil volumes, to avoid too big pressure drops on the oil side. You can also see the differences in the performance data and the oil connections on the cooler drawings.

Product highlights

- Testing pressure: 363 psi static according to DIN 50104
- Operating pressure: 232 psi (min. 2 Mill. Cycles from 0-232 psi at 2 Hz and 140 °F)
- Compact oil-cooler
- High cooling performance
- Low pressure loss
- Max. operating temperature: 248 °F
- High flexibility
- 2" SAE flange from LKI 700 upward
- Cooling of: Oil, HFA, HFB, HFC, HFD-fluids up to $v = 100 \times 10^{-6} \text{ m}^2/\text{s}$, water/glycol min. 65:35 - under no circumstances water without corrosion prevention
- Coolant: air
- Variable motor; Hydro / 12/24V

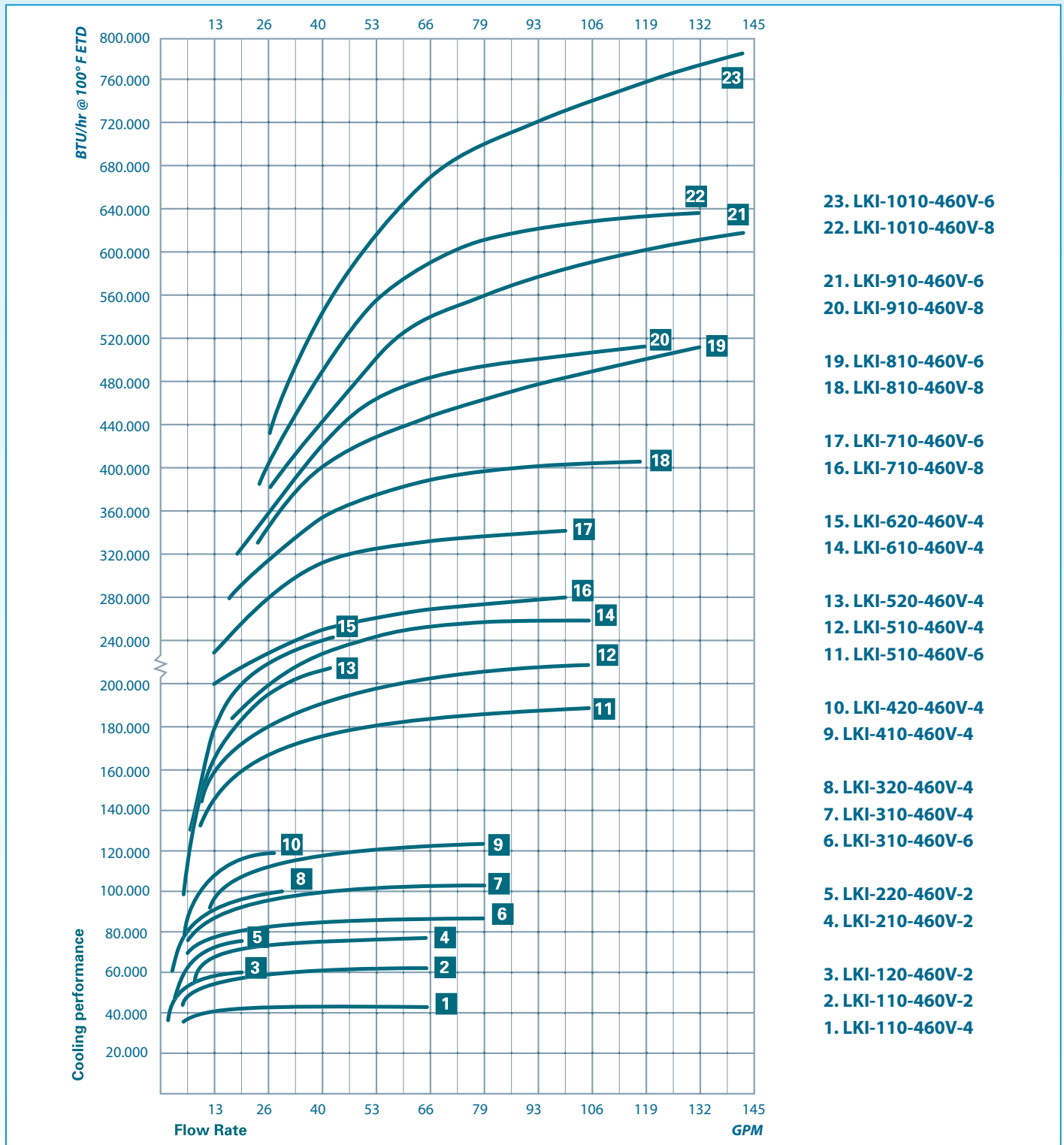
Option

- Testing pressure 580 psi
- Filter pad available on request
- Thermo-bypass
- Thermo-switch
- Cooling block in stainless steel
- ATEX series for use in potentially explosive environments
- Seawater version also available (off-shore)

Materials

	STANDARD	SEAWATER
COOLING BLOCK	Aluminium, RAL 9006	2-component paint
HOUSING	Steel, RAL 9006	Electroplated
FAN	PPG	
SAFETY BARRIER	Steel with blue-chrome finish	
FEET	Galvanized	

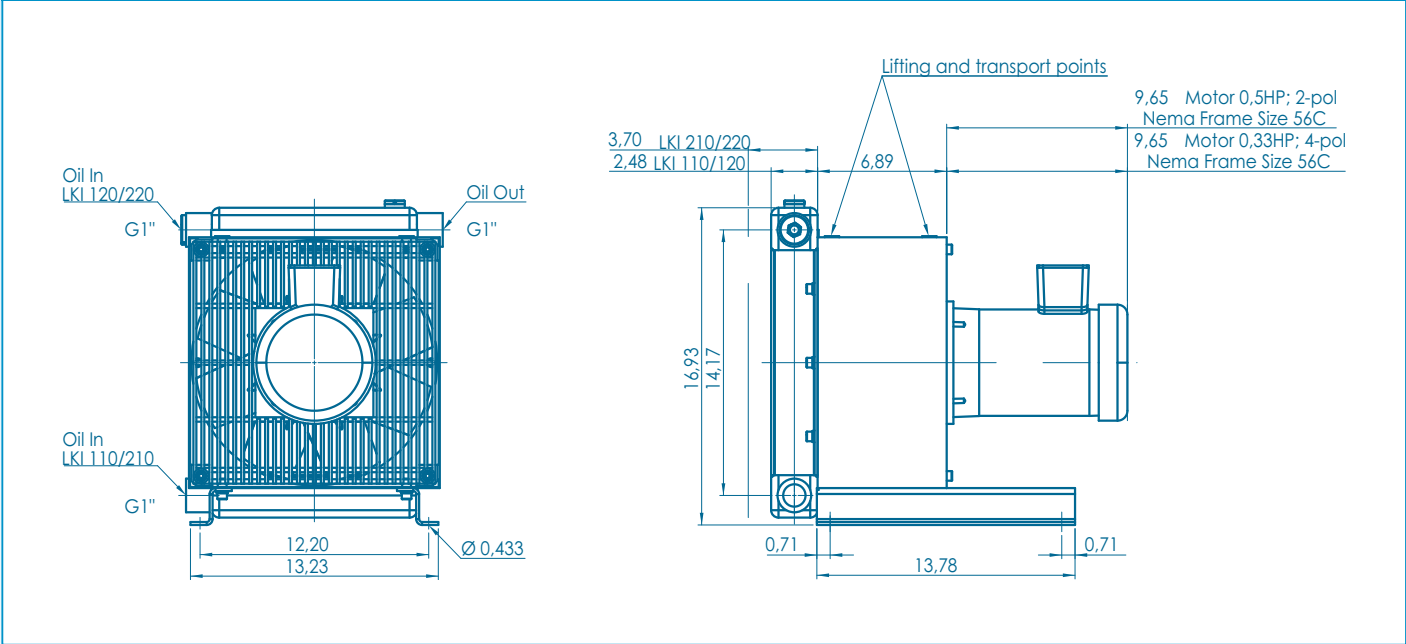
Performance Data LKI-110 - 1010



The calculation of the specific cooling performance is based on an oil temperature of 140° F, an ambient temperature of 68° F – and therefore a temperature difference of 72° F. The figures apply to ISO VG32 hydraulic oil with 30 cSt. For variances, Δp is multiplied by the correction factor f from the diagram on Page 3.

LKI-100/200

Dimensions



LKI 100 - 600: lateral internal-thread oil connections

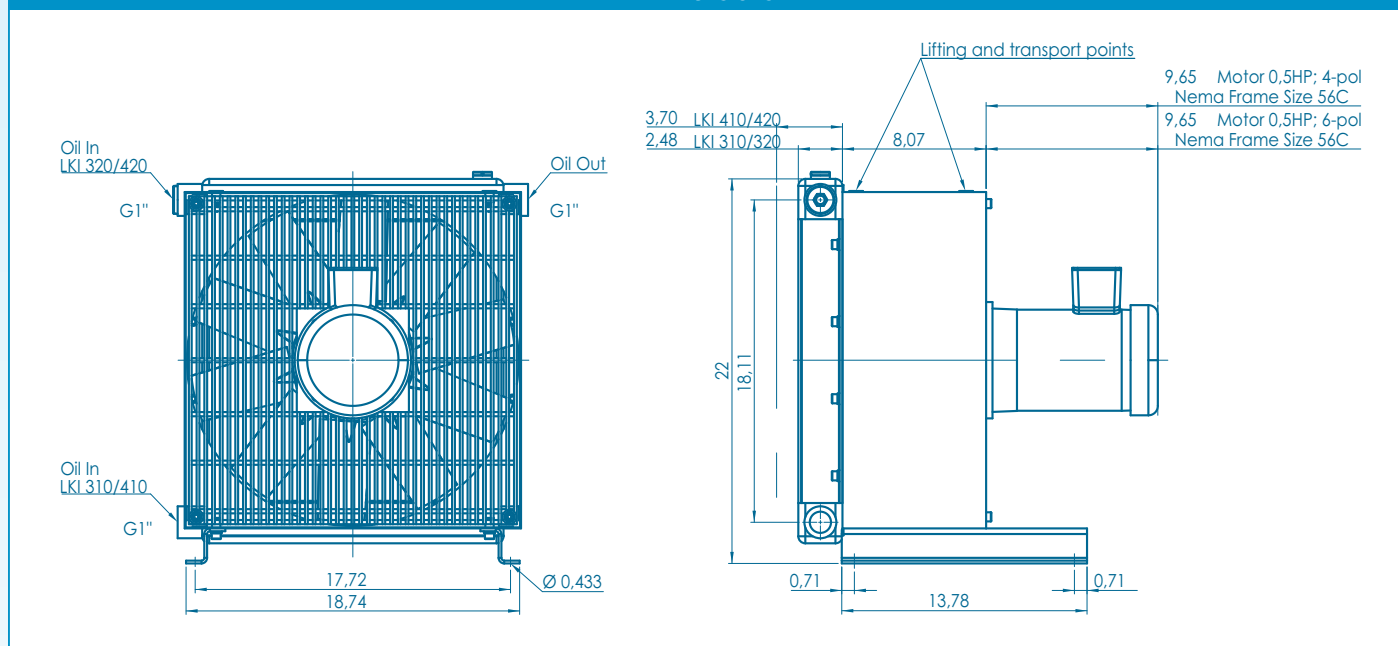
Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-110-460V-2	0.5	1.33	3450	2733.35	77/62	37.5
LKI-120-460V-2	0.5	1.33	3450	2733.35	77/62	37.5
LKI-110-460V-4	0.33	1.0	1725	1038.25	64/50	37.5
LKI-120-460V-4	0.33	1.0	1725	1038.25	64/50	37.5
LKI-210-460V-2	0.5	1.33	3450	2500.28	79/64	44
LKI-220-460V-2	0.5	1.33	3450	2500.28	79/64	44
LKI-210-460V-4	0.33	1.0	1725	1059.44	64/50	44
LKI-220-460V-4	0.33	1.0	1725	1059.44	64/50	44

* may vary by ±3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

LKI-300/400

Dimensions



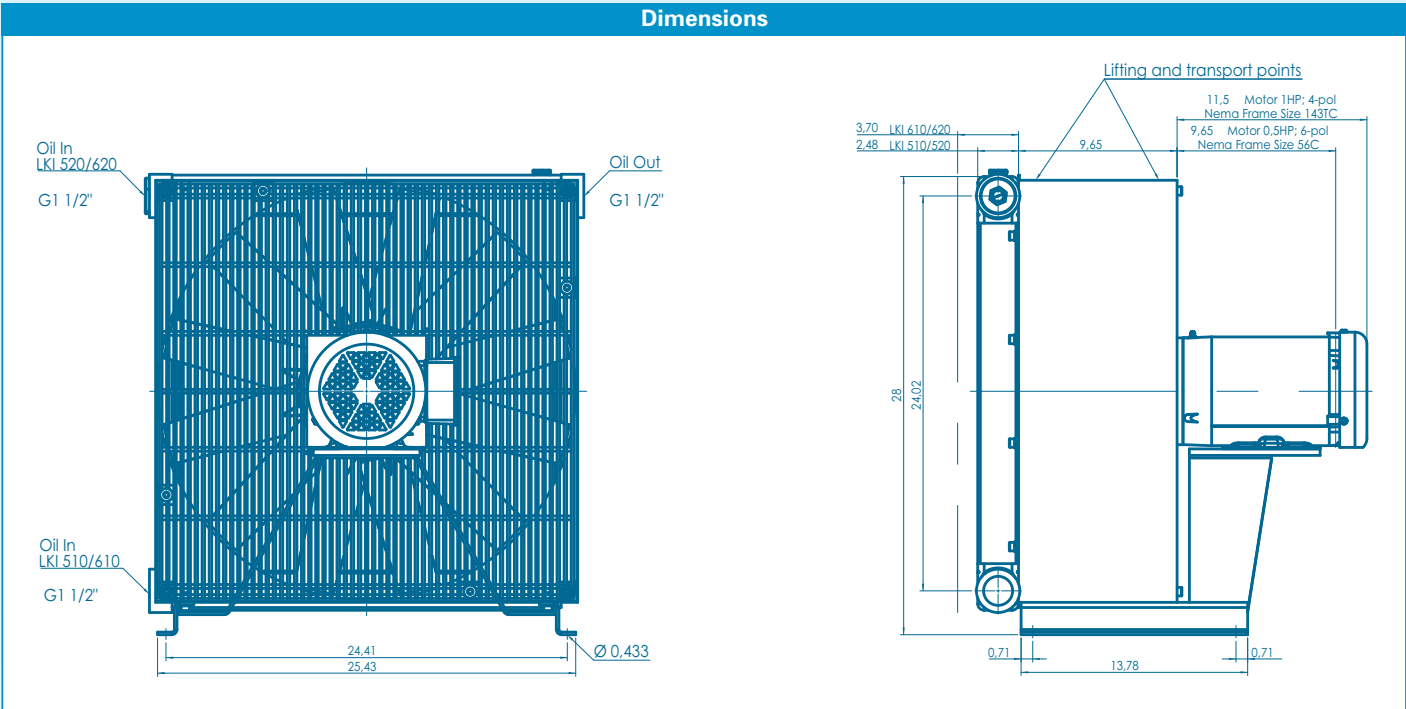
LKI 100 - 600: lateral internal-thread oil connections

Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-310-460V-4	0.5	0.89	1725	1567.97	73/58	55
LKI-320-460V-4	0.5	0.89	1725	1567.97	73/58	55
LKI-410-460V-4	0.5	0.48	1725	1610.35	75/63	70.5
LKI-420-460V-4	0.5	0.48	1725	1610.35	75/63	70.5

* may vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

LKI-500/600



LKI 100 - 600: lateral internal-thread oil connections

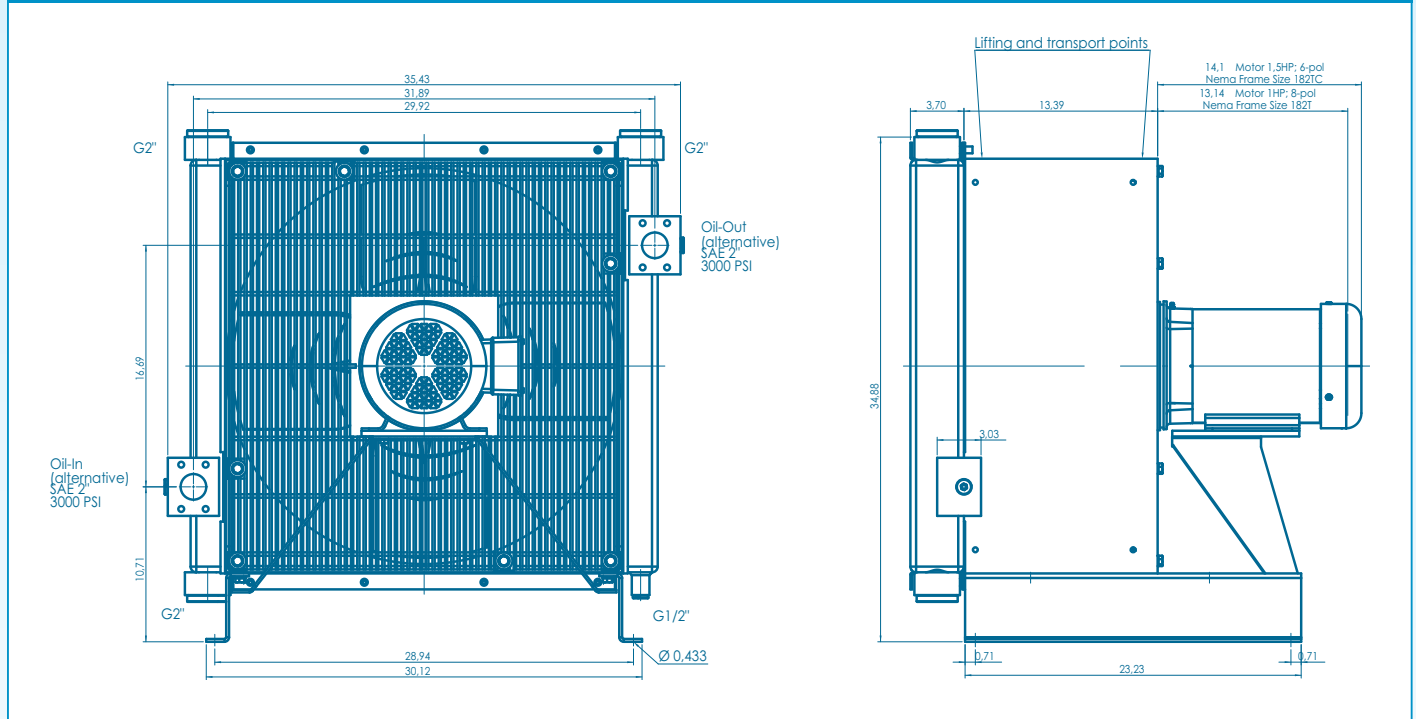
Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-510-460V-4	1	1.33	1760	3602.09	80/70	88
LKI-520-460V-4	1	1.33	1760	3602.09	80/70	88
LKI-510-460V-6	0.5	1.0	1140	2246.01	70/57	81.5
LKI-520-460V-6	0.5	1.0	1140	2246.01	70/57	81.5
LKI-610-460V-4	1	1.33	1760	3178.32	80/70	108
LKI-620-460V-4	1	1.33	1760	3178.32	80/70	108
LKI-610-460V-6	0.5	1.0	1140	2012.94	70/57	108
LKI-620-460V-6	0.5	1.0	1140	2012.94	70/57	108

* may vary by ±3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

LKI-700

Dimensions



LKI 700 - 1000: lateral internal-thread oil connections and SAE flange at front or rear

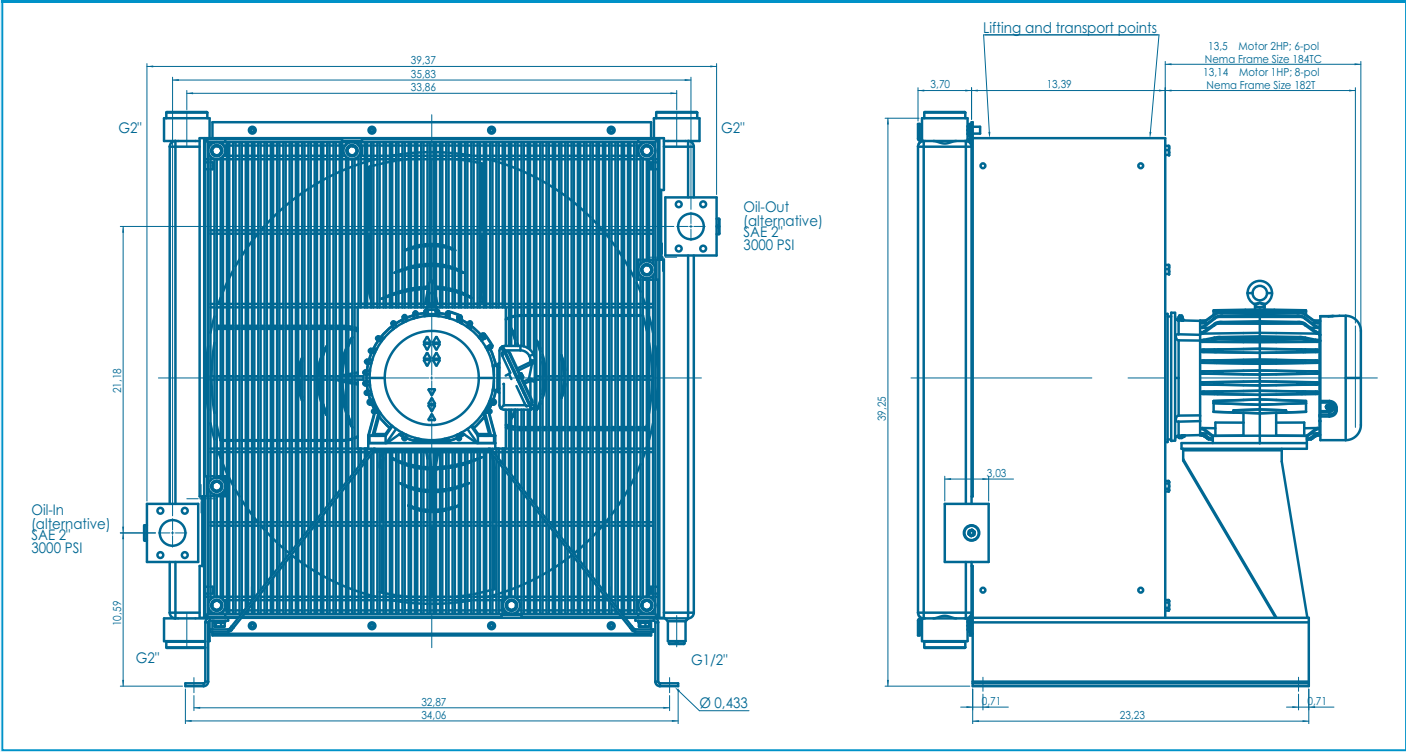
Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-710-460V-6	1.5	0.89	1140	4534.40	77/64	200.5
LKI-710-460V-8	1	0.89	1725	3305.45	69/56	200.5

* may vary by ±3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

LKI-800

Dimensions



LKI 700 - 1000: lateral internal-thread oil connections and SAE flange at front or rear

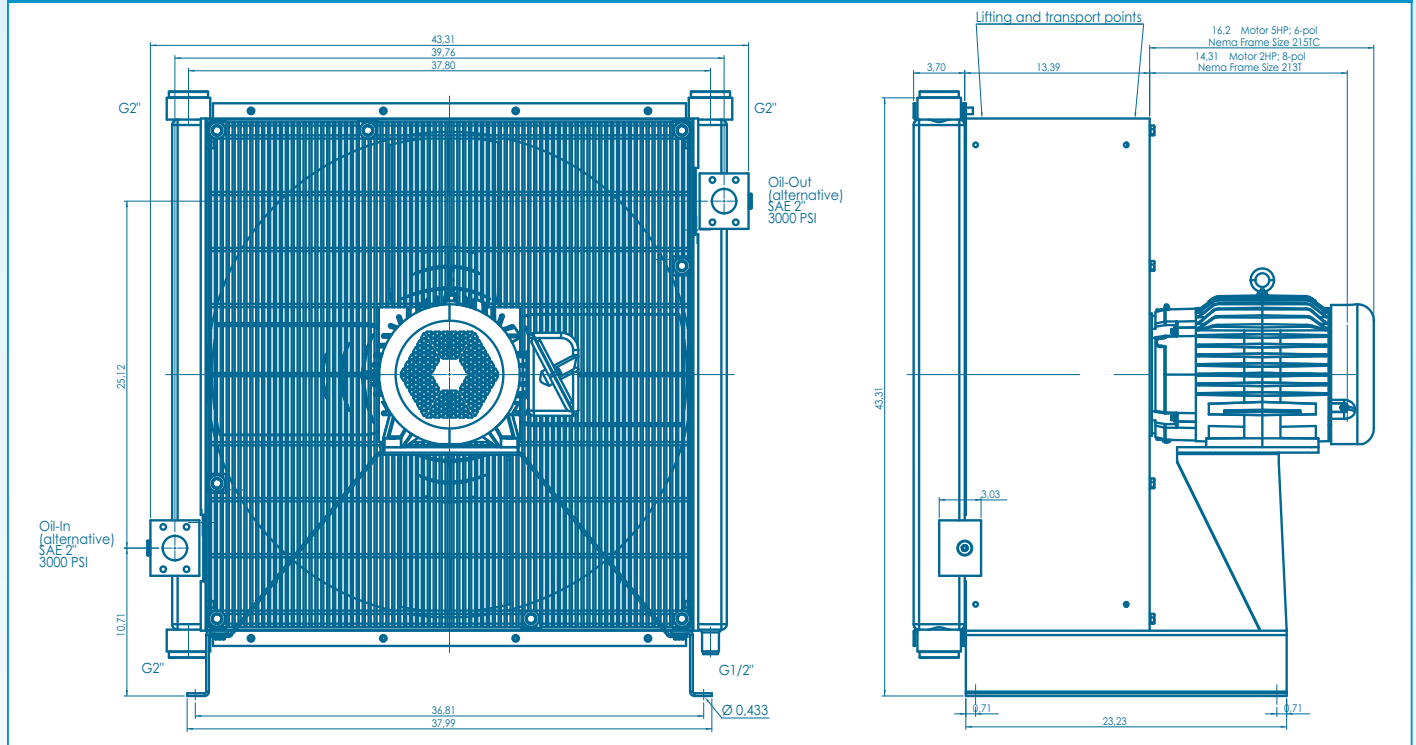
Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-810-460V-6	2	3.78	1165	7119.44	79/68	244.5
LKI-810-460V-8	1	2.42	750	5593.84	72/60	244.5

* may vary by ±3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

LKI-900

Dimensions



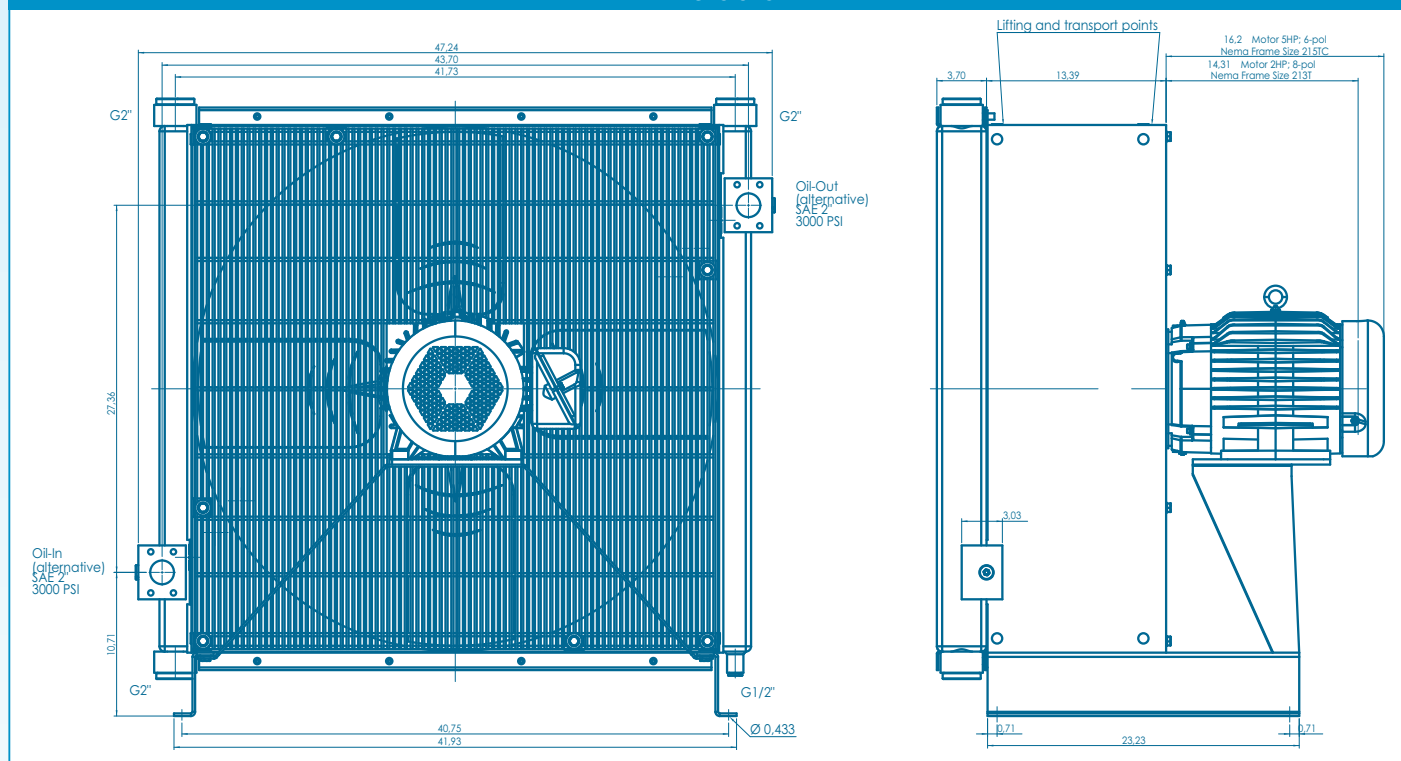
LKI 700 - 1000: lateral internal-thread oil connections and SAE flange at front or rear

Technical data

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-910-460V-6	5	7.2	1165	8962.86	85/72	302
LKI-910-460V-8	1.1	3.78	750	6504.96	76/64	289

* may vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Dimensions



LKI 700 - 1000: lateral internal-thread oil connections and SAE flange at front or rear

Model	Motor performance	Power consumption	RPM	Air throughflow	Noise level*	Weight
	HP	KW	min ⁻¹	CFM	1m/7m (dBA)	lbs
LKI-1010-460V-6	5	7.2	1165	11399.57	84/71	346
LKI-1010-460V-8	1.5	3.78	750	8136.50	76/64	333

* may vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

Hydraulic Motor Information

Model	Motor performance <i>HP</i>	RPM <i>min⁻¹</i>	11 ccm		22 ccm	
			<i>P (PSI)</i>	<i>V (GPM)</i>	<i>P (PSI)</i>	<i>V (GPM)</i>
LKHYD-110-X-2	0.5	3450	61	11	31	22
LKHYD-120-X-2	0.5	3450	61	11	31	22
LKHYD-110-X-4	0.33	1760	58	6	29	11
LKHYD-120-X-4	0.33	1760	58	6	29	11
LKHYD-210-X-2	0.5	3450	61	11	31	22
LKHYD-220-X-2	0.5	3450	61	11	31	22
LKHYD-210-X-4	0.37	1760	58	6	29	11
LKHYD-220-X-4	0.37	1760	58	6	29	11
LKHYD-310-X-4	0.5	1760	120	6	60	11
LKHYD-320-X-4	0.5	1760	120	6	60	11
LKHYD-310-X-6	0.5	1165	59	4	29	8
LKHYD-320-X-6	0.5	1165	59	4	29	8
LKHYD-410-X-4	0.5	1760	120	6	60	11
LKHYD-420-X-4	0.5	1760	120	6	60	11
LKHYD-410-X-6	0.5	1165	59	4	29	8
LKHYD-420-X-6	0.5	1165	59	4	29	8
LKHYD-510-X-4	1	1760	243	6	121	11
LKHYD-520-X-4	1	1760	243	6	121	11
LKHYD-510-X-6	0.5	1165	122	4	61	8
LKHYD-520-X-6	0.5	1165	122	4	61	8
LKHYD-610-X-4	1	1760	243	6	121	11
LKHYD-620-X-4	1	1760	243	6	121	11
LKHYD-610-X-6	0.5	1165	122	4	61	8
LKHYD-620-X-6	0.5	1165	122	4	61	8
LKHYD-710-X-6	1.5	1165	538	4	269	8
LKHYD-710-X-8	1	860	364	3	182	6
LKHYD-810-X-6	2	1165	733	4	367	8
LKHYD-810-X-8	2	860	497	3	248	6
LKHYD-910-X-6	5	1165	1466	4	733	8
LKHYD-910-X-8	2	860	728	3	364	6
LKHYD-1010-X-6	5	1165	1466	4	733	8
LKHYD-1010-X-8	3	860	993	3	497	6

* may vary by ± 3 dB(A) due to room characteristics, own frequencies, oil connections, viscosities etc.

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Ordering code

LKI - 110 - 460V - 2 - G - L

Application
Cooler for industrial use = **LKI**
Mobile cooler * = **LKM**
Cooler with hydraulic motor = **LKHYD**
* (on request)

Unit Size
1
2
3
4
5
6
7
8
9
10

Version
1 Way = **10**
2 Way = **20**

- = Standard
L = flat version,
no feet,
with mounting

- = Standard
G 90 = Cooling block
turned 90°
G 180 = Cooling block
turned 180° /

Revolutions per minute (60Hz)

2 = 2 pole / 3600 RPM
4 = 4 pole / 1800 RPM
6 = 6 pole / 1200 RPM
8 = 8 pole / 850/860 RPM

Motor type

460 V = 208-230/460 V or 230/460 V
115 V = 115/208-230 V
HYD 11 = 11 ccm Hydraulic motor
HYD 22 = 22 ccm Hydraulic motor

Motors with special voltages, hydraulic and explosion
protection available on request.
All motors comply with EISA regulations.

The technical data of this sheet is depending on the described operational conditions and individual cases. At different operational conditions and differing individual cases contact UniversalHydraulik.

Technical modifications reserved. Please also pay attention to our operation manuals and maintenance documentations.

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