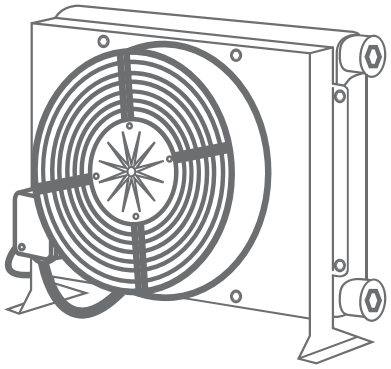
DC MOTOR AIR-OIL HEAT EXCHANGERS
SCAMBIATORI DI CALORE ARIA-OLIO CON VENTILATORI A CORRENTE CONTINUA



These type of exchangers are particularly suitable to cool oleo hydraulic systems of mobile machines, having fans at 12V or 24V to be connected to the battery of the machine.
The particular structure of the cooling element allows great thermic performances and pressure resistance. **Maximum working static pressure: 20 bar; test pressure: 35 bar.**

Out technical Department is available to suggest and find the better solution in case of particular working conditions, pressures, frequencies, vibrations, etc.

It is always recommended to assemble in parallel with the exchanger a by-pass valve to avoid extreme counter-pressures, particularly when the machine is started with cold oil. On the contrary, it is not useful to use a check valve as by-pass to protect the exchanger from pressure's peaks, since the inertia of the valve itself is too high in comparison with the speed of the pressure waves that occur into the oleo hydraulic systems.

The flow rates shown in the tables are the ones recommended for the exchanger proper working.
The efficiency curves show the specific exchange capacity in kcal/h°C or in kW/°C according to the different oil rates. To calculate the heat quantity the different exchangers are able to dissipate it is enough to multiply such capacity by the difference between the requested oil temperature and the summer room temperature.
We pay particular attention to the choice of our components in order to supply the customer with a reliable product.
Long lasting fans with IP68 electric protection and thermo switches with IP67 protection, available with two temperature ranges, 47°C or 60°C.

The thermo switch calibration shows the initial temperature of the fans, while the stop temperature is 11°C lower. We must consider that the tolerance on the above mentioned operating temperatures is 35°C.

The electric system of these exchangers is already wired.
If the exchanger is equipped with thermo switch, the electric system has a relay integrated into the thermo switch itself.

The carbon steel parts are powder painted in order to resist to corrosive phenomena.

For the right calculation of air-oil heat exchangers, we supply our customers with a calculation program on CD-ROM or that can be downloaded from our website.
The air-oil heat exchangers can be used to cool other kind of fluids, which must be compatible with aluminium and its alloys.

However, for each use, with the exception of oil cooling, we recommend to consult our Technical Department.

Questi tipi di scambiatori trovano impiego per il raffreddamento di impianti oleoidraulici su macchine mobili, essendo equipaggiati da ventilatori a 12 o 24 V, da collegare quindi alla batteria della macchina.
La particolare costruzione del radiatore consente di ottenere notevoli rese termiche e forte resistenza alla pressione. ***Pressione massima statica di funzionamento: 20 bar; pressione di collaudo: 35 bar.***

Il nostro Ufficio Tecnico è a disposizione per valutare la soluzione più opportuna in presenza di particolari condizioni di lavoro, pressioni, frequenze, vibrazioni,ecc..

È sempre consigliabile montare in parallelo allo scambiatore una valvola di by-pass per evitare eccessive contropressioni soprattutto al momento dell'avviamento della macchina con olio freddo.
Il radiatore può essere eventualmente fornito con una valvola di by-pass integrata o esterma.
Non è invece conveniente utilizzare una valvola di ritegno come by-pass per proteggere lo scambiatore dai picchi di pressione in quanto l'inerzia della valvola stessa è troppo alta rispetto alla velocità delle onde di pressione che si sviluppano all'interno dell'olio degli impianti oleoidraulici.

Le portate olio indicate nelle tabelle sono quelle consigliate per il buon funzionamento dello scambiatore.
Le curve di rendimento forniscono la potenzialità di scambio specifica in kcal/h°C o in kW/h°C in funzione della portata olio; per calcolare la quantità di calore che i vari scambiatori sono in grado di disperdere, è sufficiente moltiplicare tale potenzialità per la differenza tra le temperature dell'olio desiderata e dell'aria ambiente massima estiva.
Particolare attenzione è stata posta nella scelta dei componenti per fornire alla clientela un prodotto estremamente affidabile. In particolare, i ventilatori sono stati scelti a lunga durata e con una protezione elettrica IP68, così come il termostato fisso, disponibile nelle due diverse tarature 47° e 60°C e con una protezione elettrica IP67.
La temperatura dei termostati indica la temperatura di partenza dei ventilatori; quella di arresto è di 11°C inferiore.
Bisogna inoltre considerare che la tolleranza sulle temperature di intervento di cui sopra è di 35°C

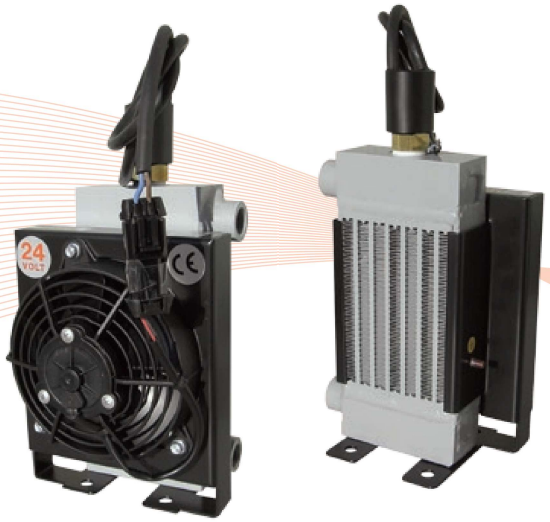
Gli scambiatori di questa serie sono forniti con l'impianto elettrico già cablato.

Nel caso lo scambiatore sia munito di termostato, l'impianto elettrico è sempre completato da un relè incorporato nel termostato stesso.
Le parti in lamiera d'acciaio al carbonio, per resistere ai fenomeni corrosivi presenti nell'applicazione su macchine mobili, sono verniciate con vernice a polvere e successivamente passate in forno.

Per il calcolo degli scambiatore aria-olio è disponibile un programma su CD-rom o scaricabile dal nostro sito internet.
Gli scambiatori aria-olio possono essere utilizzati per raffreddare altri tipi di fluidi, a condizione che essi siano compatibili con l'alluminio e le sue leghe.

Consigliamo comunque, per qualsiasi impiego che non sia il raffreddamento dell'olio, di contattare il nostro Ufficio Tecnico.

APL 170



PURCHASE CODES

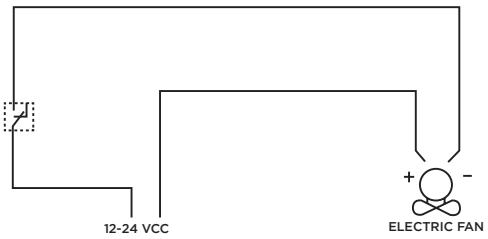
APL 170 12/24V without thermo switch	3RL17012 / 3RL17024
APL 170 12/24V with thermo switch	3RL17012T247 / 3RL17024T247 3RL17012T260 / 3RL17024T260

SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	1RO92302
Frame	3CNL170.1
Frame support	3STFL170.1
12VDC Electric fan	1MCVA-37A101A
24VDC Electric fan	1MCVA-37B101A

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
50	
45	0,05
40	
35	0,04
30	
25	0,03
20	
15	0,02
10/0 — 5 — 10 — 15 — 20 — 25 — 30 — 35 — 40 — 45	l/min



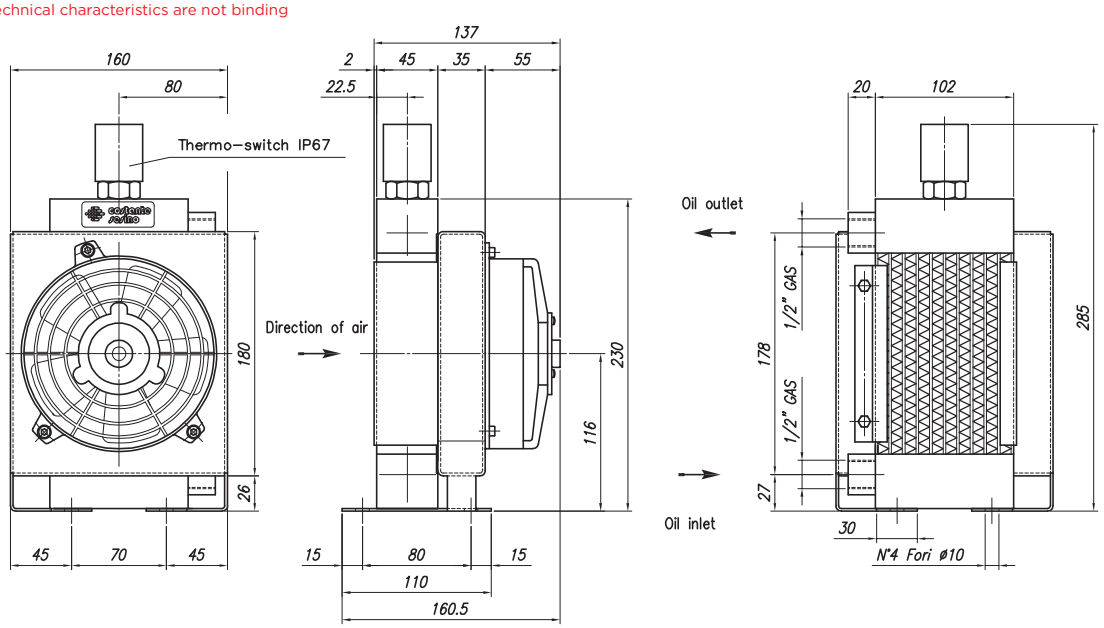
PRESSURE DROP DIAGRAM

Bar	
1,6	
1,4	
1,2	
1	
0,8	
0,6	
0,4	
0,2	
0 — 5 — 10 — 15 — 20 — 25 — 30 — 35 — 40 — 45	l/min

CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
5-40	12	65	5,4	400	65	70	3	0,5	130
5-40	24	65	2,7	400	65	70	3	0,5	130

APL 240

PURCHASE CODES

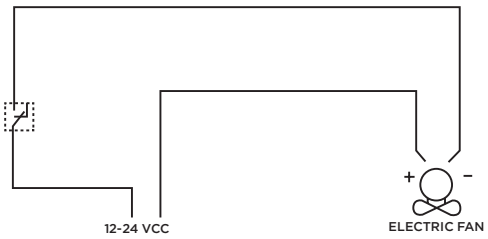
APL 240 12/24V without thermo switch	3RL24012 / 3RL24024
APL 240 12/24V with thermo switch	3RL24012T247 / 3RL24024T247 3RL24012T260 / 3RL24024T260

SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNAP260
Frame	3CNAP260.1
12VDC Electric fan	1MCVA14AP7AC
24VDC Electric fan	1MCVA14BP7AC

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
135	
120	0,14
105	0,12
90	0,10
75	0,08
60	0,06
45	0,04
15/0	10 20 30 40 50 60 70 80 90 l/min



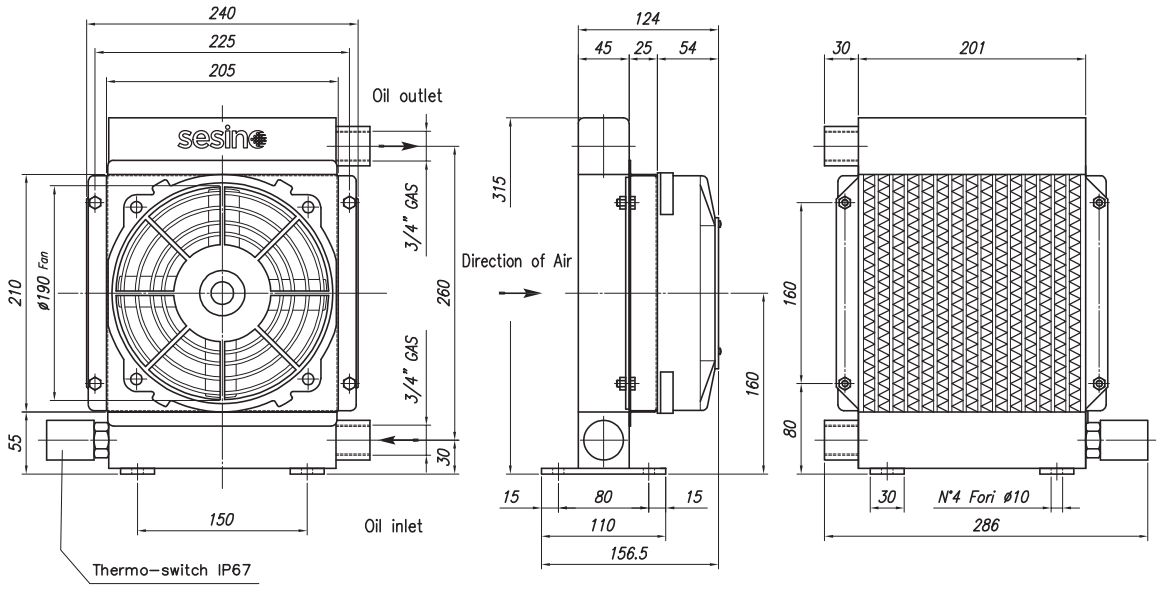
PRESSURE DROP DIAGRAM

Bar	
2,7	
2,4	
2,1	
1,8	
1,5	
1,2	
0,9	
0,6	
0,1	
0	10 20 30 40 50 60 70 80 90 l/min

CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
10-80	12	65	5,4	500	64	72	5	1	190
10-80	24	65	2,7	500	64	72	5	1	190

APL 263

PURCHASE CODES

APL 263 12/24V without thermo switch	3RL26312 / 3RL26324
APL 263 12/24V with thermo switch	3RL26312T247 / 3RL26324T247 3RL26312T260 / 3RL26324T260

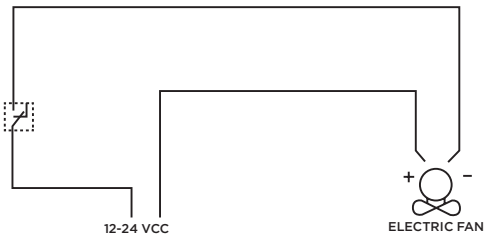
SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNL263
Frame	3CNAP260.1
12VDC Electric fan	1MCVA14AP7AC
24VDC Electric fan	1MCVA14BP7AC

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
200	0,22
180	0,2
160	0,18
140	0,16
120	0,14
100	0,12
80	0,1
60	0,08
40/0	0,06

10 20 30 40 50 60 70 80 90 100 l/min



PRESSURE DROP DIAGRAM

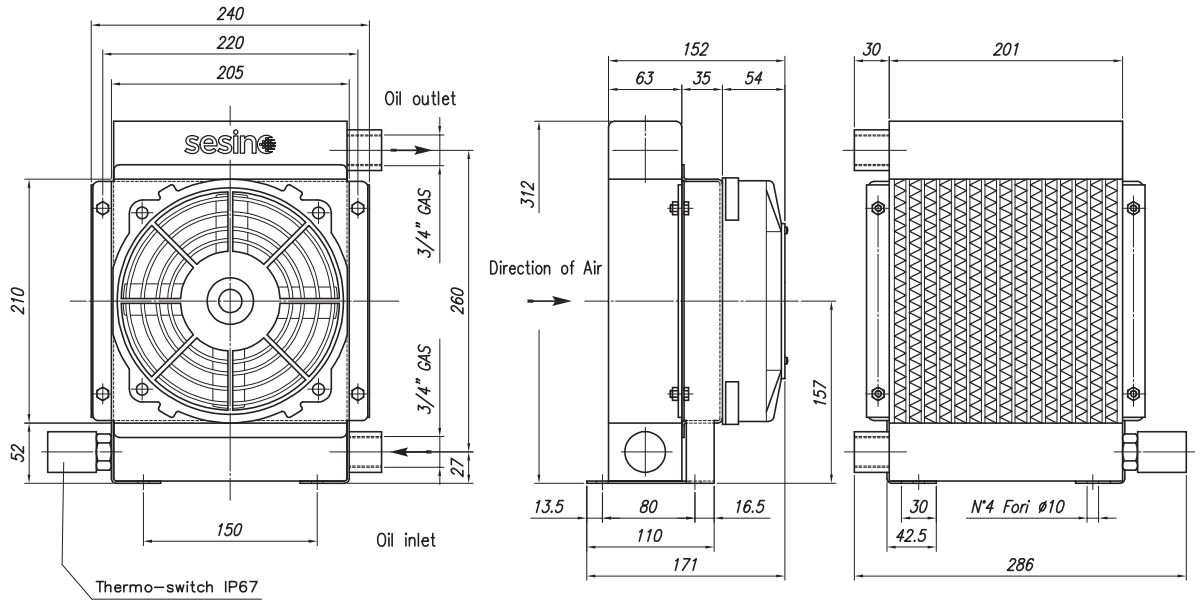
Bar
2
1,75
1,5
1,25
1
0,75
0,5
0,25
0

10 20 30 40 50 60 70 80 90 100 l/min

CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
10-80	12	65	5,2	500	64	72	5	1	190
10-80	24	65	2,6	500	64	72	5	1	190

APL 300

PURCHASE CODES

APL 300 12/24V without thermo switch	3RL30012 / 3RL30024
APL 300 12/24V with thermo switch	3RL30012T247 / 3RL30024T247 3RL30012T260 / 3RL30024T260

SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNL300
Frame	3CNL300.1
12VDC Electric fan	1VNAPL30012C
24VDC Electric fan	1VNAPL30024C

PERFOMANCE DIAGRAM

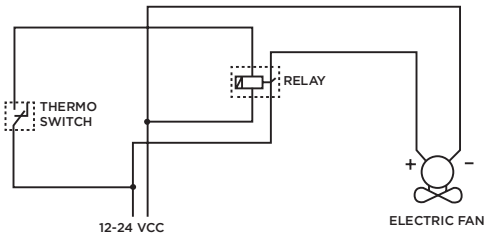
kr [kcal/h°C]	kW [kW/°C]
300	0,325
280	
260	0,3
240	
220	0,275
200	0,25
180	0,225
160	0,2
140/0	

25 50 75 100 125 150 175 l/min

PRESSURE DROP DIAGRAM

Bar
2
1,75
1,5
1,25
1
0,75
0,5
0,25
0

25 50 75 100 125 150 175 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

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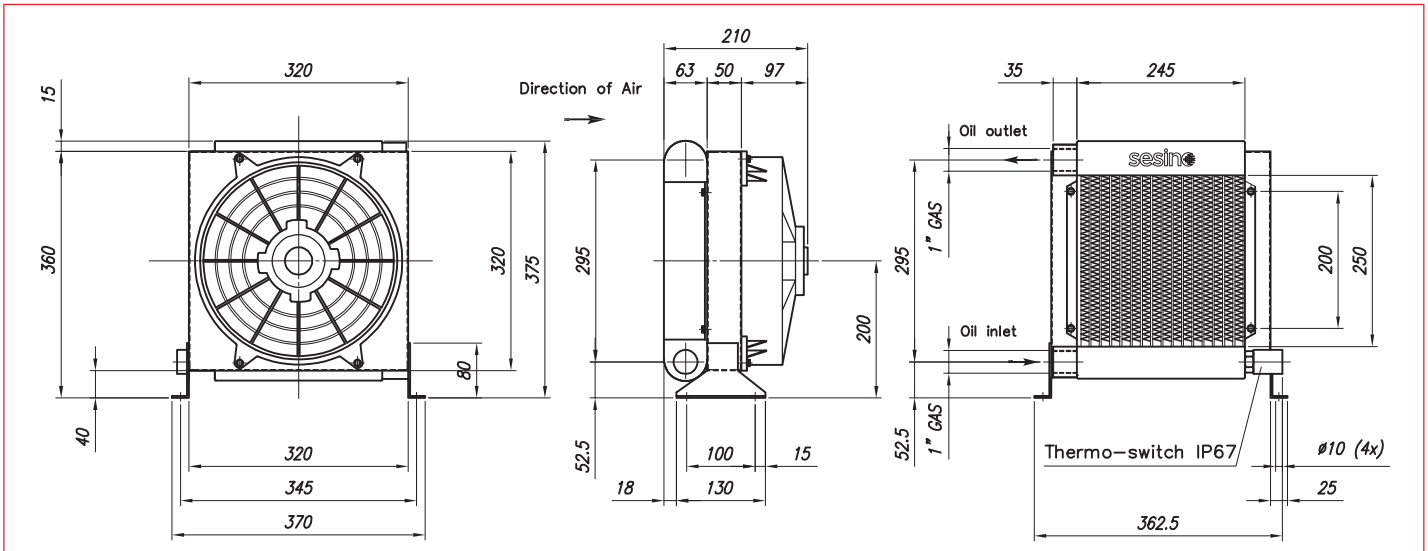


OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
20-150	12	190	14,8	1.700	68	79	10	2	280
20-150	24	190	7,4	1.700	68	79	10	2	280

APL 300/2

PURCHASE CODES

APL 300/2 12/24V without thermo switch	3RL30212 / 3RL30224
APL 300/2 12/24V with thermo switch	3RL30212T247 / 3RL30224T247 3RL30212T260 / 3RL30224T260

SPARE PARTS

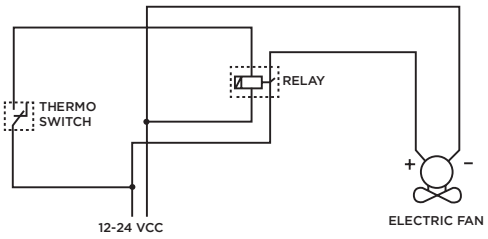
Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNL302
Frame	3CNL302.1
12VDC Electric fan	1VNAPL30012C
24VDC Electric fan	1VNAPL30024C

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
420	
400	0,45
380	0,425
360	0,4
340	0,375
320	0,35
300	
280	
260/0 30 60 90 120 150 180 210	l/min

PRESSURE DROP DIAGRAM

Bar	
2	
1,75	
1,5	
1,25	
1	
0,75	
0,5	
0,25	
0 30 60 90 120 150 180 210	l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

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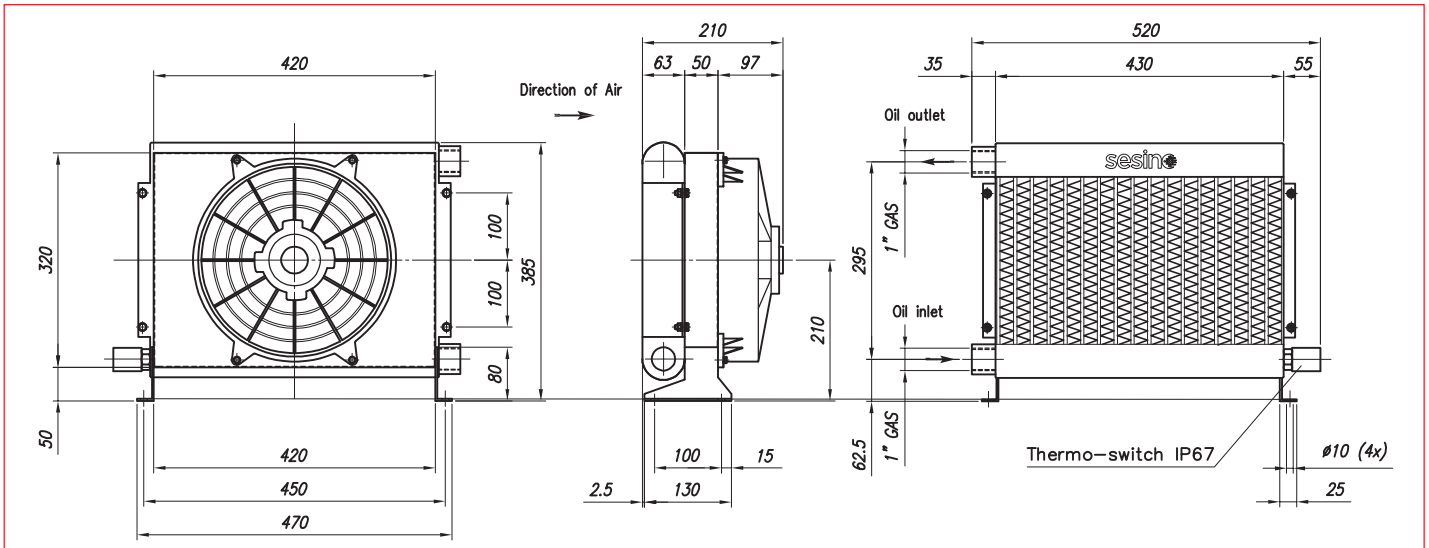


OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-180	12	180	15,0	2.200	68	83	14	3,6	280
30-180	24	180	7,5	2.200	68	83	14	3,6	280

APL 430

PURCHASE CODES

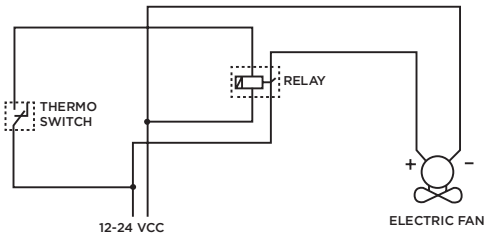
APL 430 12/24V without thermo switch	3RL43012 / 3RL43024
APL 430 12/24V with thermo switch	3RL43012T247 / 3RL43024T247 3RL43012T260 / 3RL43024T260

SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNL430
Frame	1430LCNV
12VDC Electric fan	1VNAPL43012C
24VDC Electric fan	1VNAPL43024C

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
550	
500	0,6
450	0,55
400	0,5
350	0,45
300	0,4
250	0,35
200	0,3
	0,25
	0,2
150/0	25 50 75 100 125 150 175 l/min



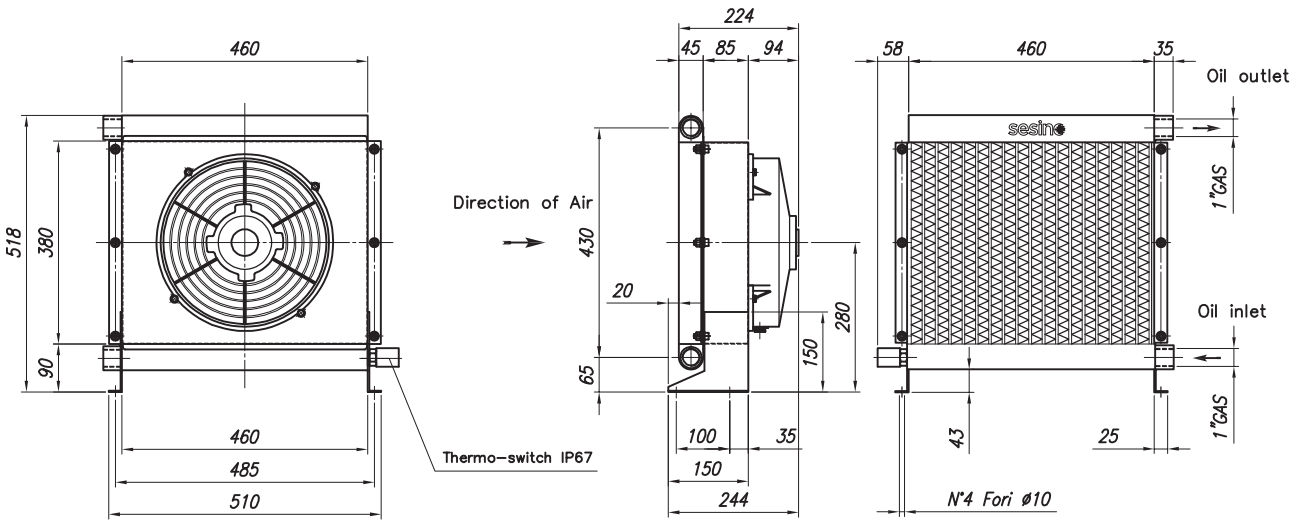
PRESSURE DROP DIAGRAM

Bar	
3	
2,5	
2	
1,5	
1	
0,5	
0	25 50 75 100 125 150 175 l/min

CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
20-150	12	210	17	2.500	68	82	16	3,6	310
20-150	24	210	8,5	2.500	68	82	16	3,6	310

APL 430/2

PURCHASE CODES

APL 430/2 12/24V without thermo switch	3RL43212 / 3RL43224
APL 430/2 12/24V with thermo switch	3RL43212T247 / 3RL43224T247 3RL43212T260 / 3RL43224T260

SPARE PARTS

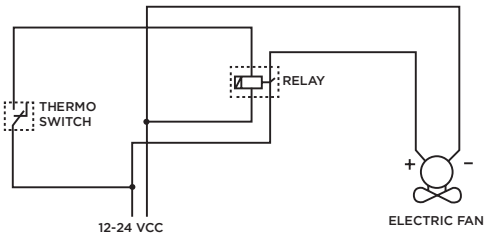
Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNAP432TP
Frame	1430LCNV
12VDC Electric fan	1VNAPL43012C
24VDC Electric fan	1VNAPL43024C

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
700	0,8
650	0,75
600	0,7
550	0,65
500	0,6
450	0,55
400	0,5
350	0,45
	0,4
300/0	30 60 90 120 150 180 210 230 l/min

PRESSURE DROP DIAGRAM

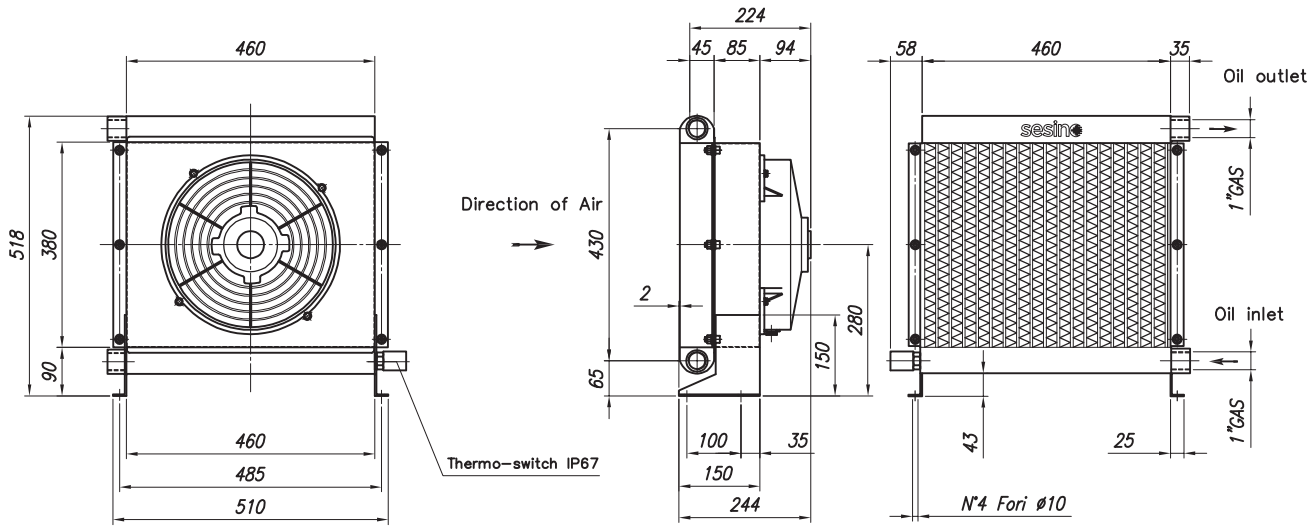
Bar	
2	
1,75	
1,5	
1,25	
1	
0,75	
0,5	
0,25	
0	30 60 90 120 150 180 210 230 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-200	12	210	17	2.400	68	82	20	5,5	310
30-200	24	210	8,5	2.400	68	82	20	5,5	310

APL 494

PURCHASE CODES

APL 494 12/24V without thermo switch	3RL49412 / 3RL49424
APL 494 12/24V with thermo switch	3RL49412T247 / 3RL49424T247 3RL49412T260 / 3RL49424T260

SPARE PARTS

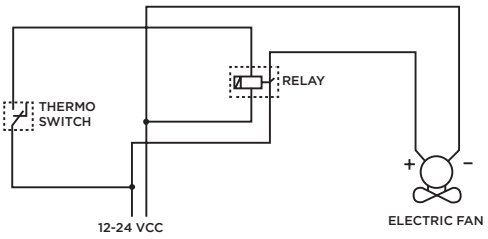
Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	1RO99332
Frame	3CNL494.1
12VDC Electric fan	1MCVA18AP70AC
24VDC Electric fan	1VNAPL58024C

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
1000	
900	1,125
800	1
700	0,875
600	0,75
500	0,625
400	0,5
300	0,375
200	0,25
100	0,125
0	30 60 90 120 150 180 210 240 270 l/min

PRESSURE DROP DIAGRAM

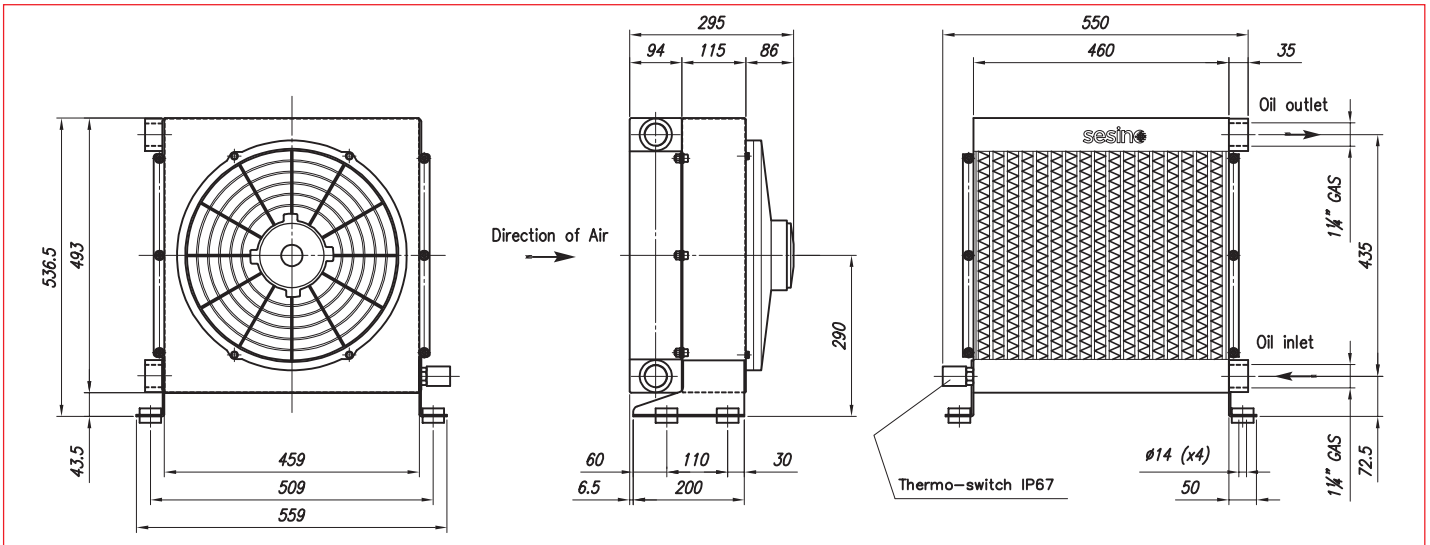
Bar	
2	
1,75	
1,5	
1,25	
1	
0,75	
0,5	
0,25	
0	30 60 90 120 150 180 210 240 270 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-240	12	240	20	2.800	68	85	25	8	380
30-240	24	240	10	2.800	68	85	25	8	380

APL 580

PURCHASE CODES

APL 580 12/24V without thermo switch	3RL58012 / 3RL58024
APL 580 12/24V with thermo switch	3RL58012T247 / 3RL58024T247 3RL58012T260 / 3RL58024T260

SPARE PARTS

Thermo-switch 47-36 12V IP 67	1TRM47-36/12V
Thermo-switch 47-36 24V IP 67	1TRM47-36/24V
Thermo-switch 60-49 12V IP 67	1TRM60-49/12V
Thermo-switch 60-49 24V IP 67	1TRM60-49/24V
Cooling element	3RNL580
Frame	3CNL580.1
12VDC Electric fan	1MCVA18AP70AC
24VDC Electric fan	1VNAPL58024C

PERFOMANCE DIAGRAM

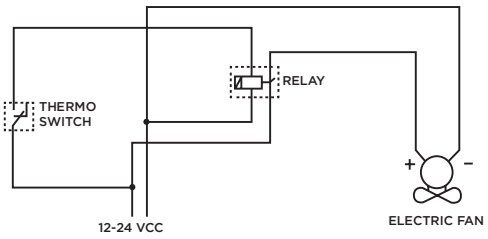
kr [kcal/h°C]	kW [kW/°C]
1300	
1200	1,4
1100	1,3
1000	1,2
900	1,1
800	1
700	0,9
600	0,8
500/0	0,7

50 100 150 200 250 300 l/min

PRESSURE DROP DIAGRAM

Bar
2
1,75
1,5
1,25
1
0,75
0,5
0,25
0

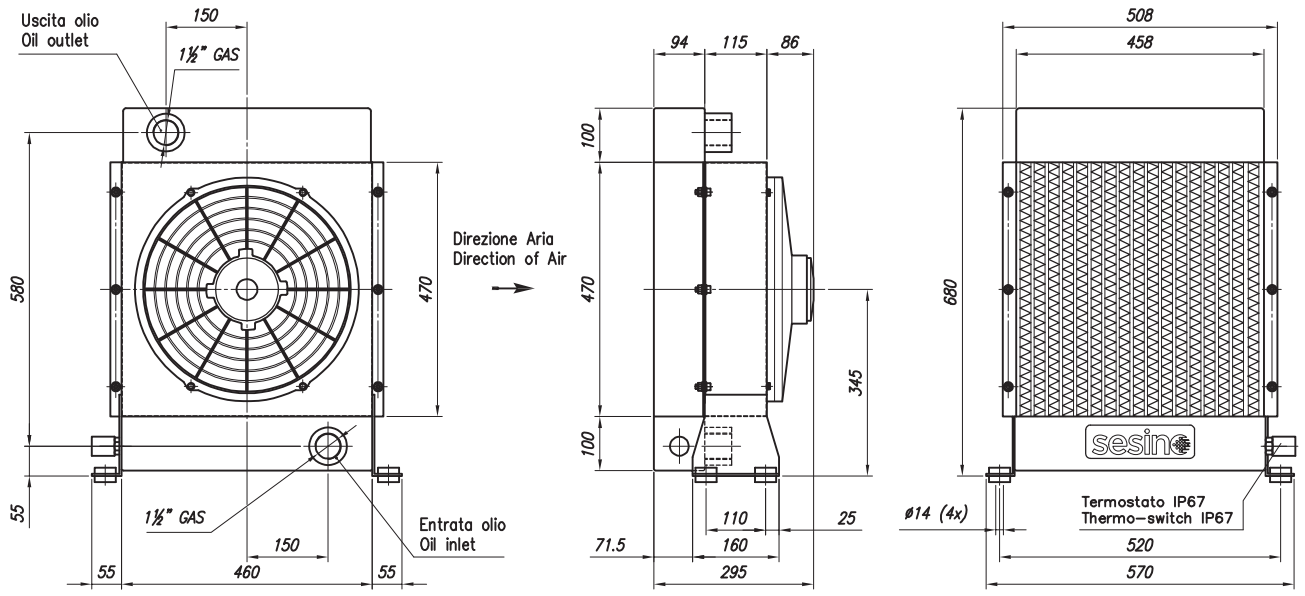
50 100 150 200 250 300 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
50-250	12	240	20	2.900	68	85	33	11,5	380
50-250	24	240	10	2.900	68	85	33	11,5	380

APL 2/463

PURCHASE CODES

APL 2/463 12/24V without thermo switch	3RL2/46312 / 3RL2/46324
APL 2/463 12/24V with thermo switch	3RL2/46312T247 / 3RL2/46324T247 3RL2/46312T260 / 3RL2/46324T260

SPARE PARTS

Thermo-switch 60-49 IP 65	1TRM60-49
Thermo-switch 47-36 IP 65	1TRM47-36
Electric junction box	1CSSDBOPLA
12VDC Relay	1RLCOPAT12
24VDC Relay	1RLCOPAT
Shock isolating mounting (4 pcs)	3KIT4135
Cooling element	1RO01341
Frame	3CNL2/463.1
12VDC Electric fan	1VNAPL43012C
24VDC Electric fan	1VNAPL43024C

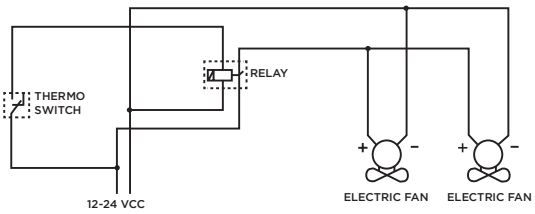
PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
1600	
1400	
1200	1,75
1000	1,5
800	1,25
600	1
400	0,75
200	0,5
0	0,25

30 60 90 120 150 180 210 240 270 l/min

PRESSURE DROP DIAGRAM

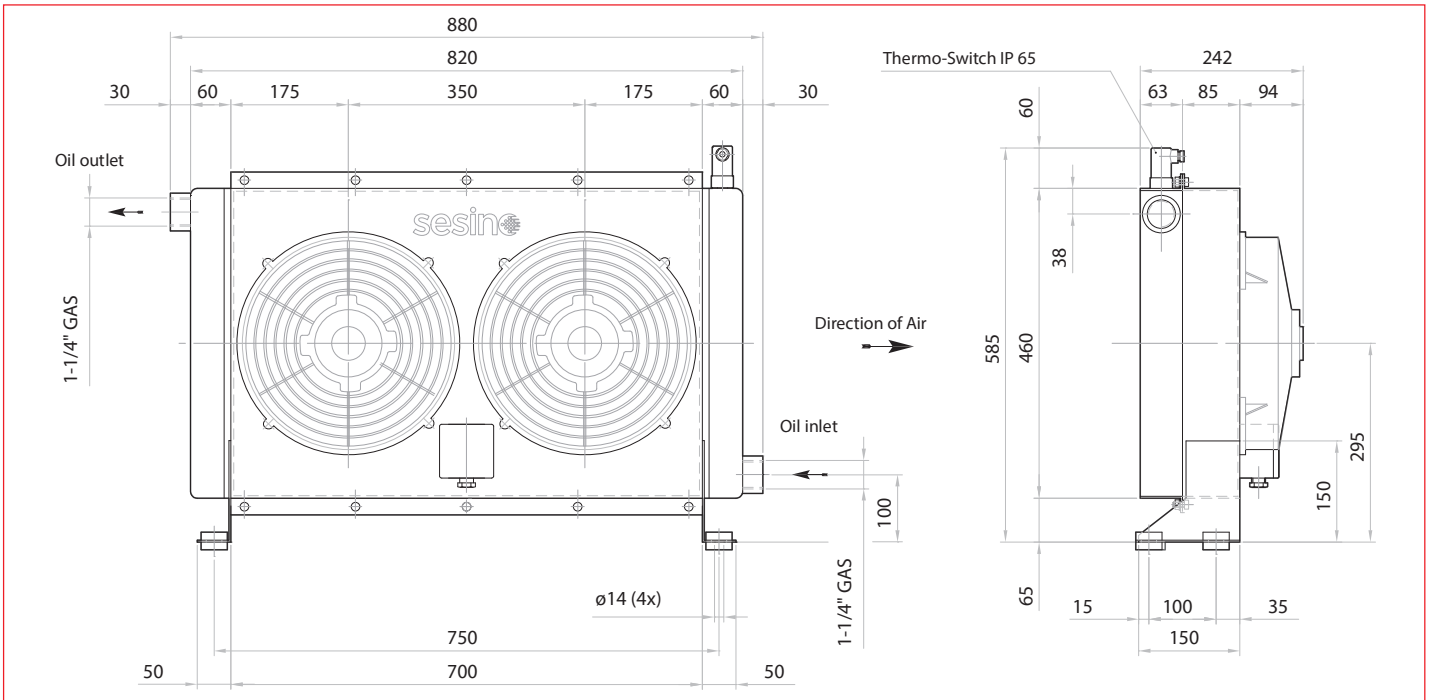
Bar	
2	
1,75	
1,5	
1,25	
1	
0,75	
0,5	
0,25	
0	10 20 30 40 50 60 70 80 90 110 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-240	12	420	34	4.800	68	85	40	8	310
30-240	24	420	17	4.800	68	85	40	8	310

APL 2/494

PURCHASE CODES

APL 2/494 12/24V without thermo switch	3RL2/49412 / 3RL2/49424
APL 2/494 12/24V with thermo switch	3RL2/49412T247 / 3RL2/49424T247 3RL2/49412T260 / 3RL2/49424T260

SPARE PARTS

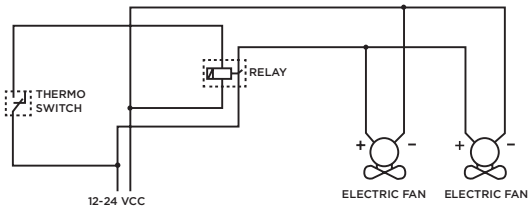
Thermo-switch 60-49 IP 65	1TRM60-49
Thermo-switch 47-36 IP 65	1TRM47-36
Electric junction box	1CSSDBOPLA
12VDC Relay	1RLCOPAT12
24VDC Relay	1RLCOPAT
Shock isolating mounting (4 pcs)	3KIT4135
Cooling element	1RO01342
Frame	3CNL2/494.1
12VDC Electric fan	1MCVA18AP70C
24VDC Electric fan	1VNAPL58024C

PERFOMANCE DIAGRAM

kr [kcal/h°C]	kW [kW/°C]
1800	2
1600	1,75
1400	1,5
1200	1,25
1000	1
800	0,75
600	0,5
400	0,25
200	
0	30 60 90 120 150 180 210 240 270 l/min

PRESSURE DROP DIAGRAM

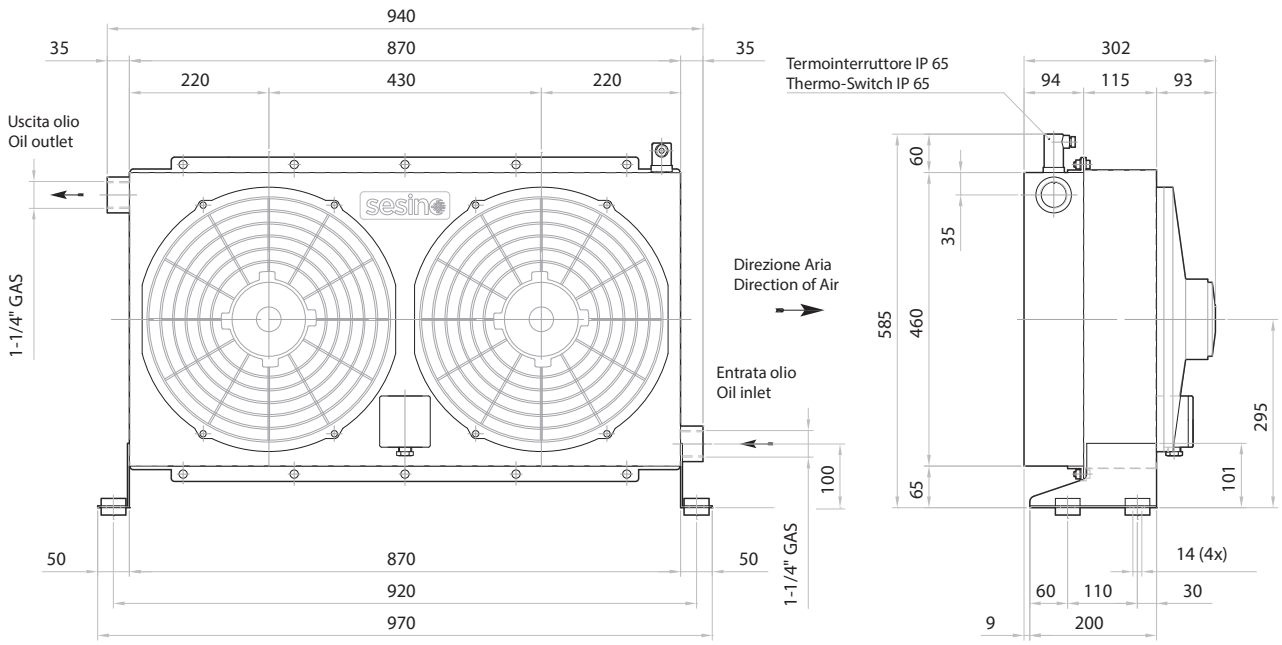
Bar	
3	
2,5	
2	
1,5	
1	
0,5	
0	30 60 90 120 150 180 210 240 270 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-240	12	480	40	5.600	68	88	50	16	380
30-240	24	480	20	5.600	68	88	50	16	380

APL 2/580

PURCHASE CODES

APL 2/580 12/24V without thermo switch	3RL2/58012 / 3RL2/58024
APL 2/580 12/24V with thermo switch	3RL2/58012T247 / 3RL2/58024T247 3RL2/58012T260 / 3RL2/58024T260

SPARE PARTS

Thermo-switch 60-49 IP 65	1TRM60-49
Thermo-switch 47-36 IP 65	1TRM47-36
Electric junction box	1CSSDBOPLA
12VDC Relay	1RLCOPAT12
24VDC Relay	1RLCOPAT
Shock isolating mounting (4 pcs)	3KIT4135
Cooling element	1RO00336
Frame	3CNL2/580.1
12VDC Electric fan	1MCVA18AP70AC
24VDC Electric fan	1VNAPL58024C

PERFOMANCE DIAGRAM

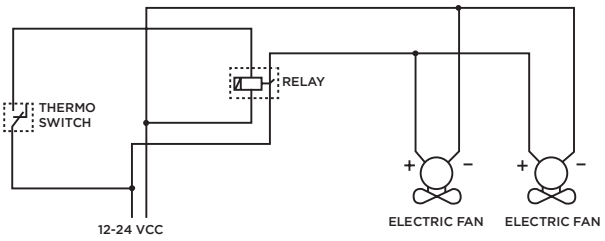
kr [kcal/h°C]	kW [kW/°C]
3000	
2500	3
2000	2,5
1500	2
1000	1,5
500	1
0	0,5

50 100 150 200 250 300 350 l/min

PRESSURE DROP DIAGRAM

Bar
4
3,5
3
2,5
2
1,5
1
0,5
0

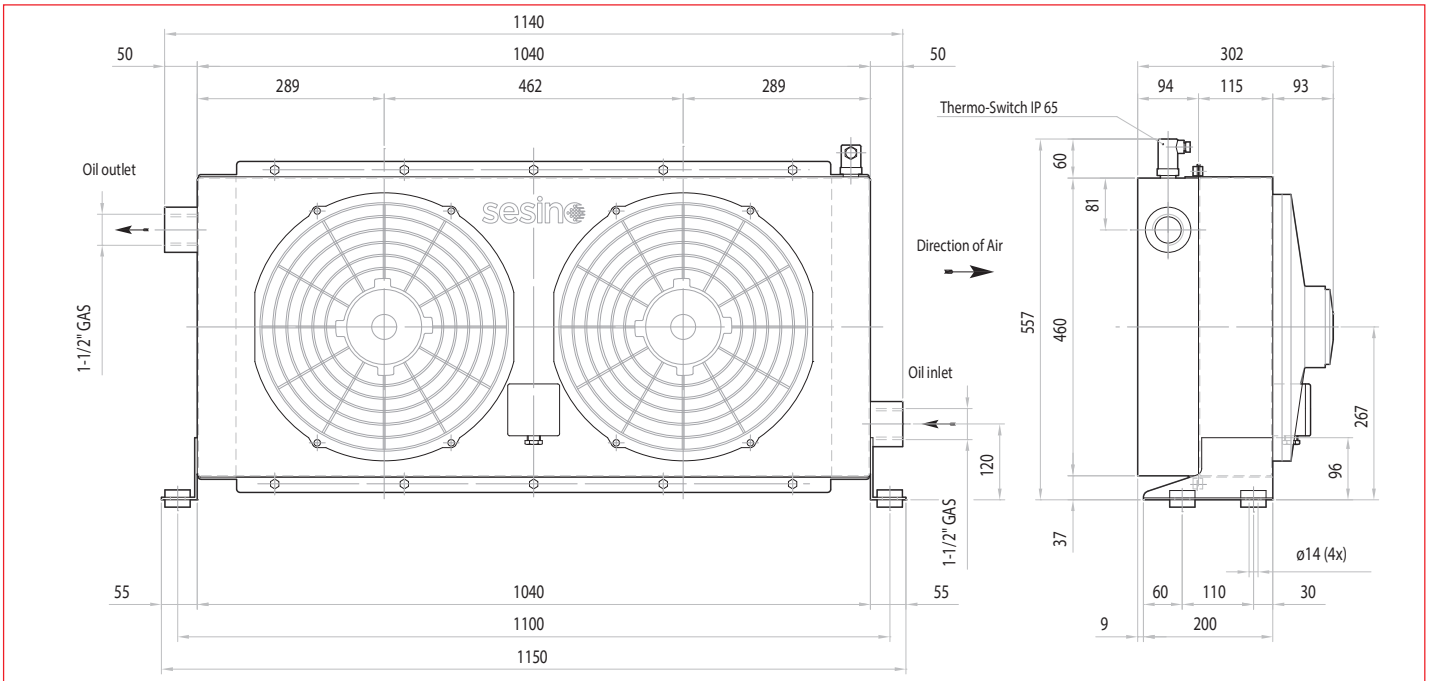
50 100 150 200 250 300 350 l/min



CORRECTION FACTOR

cSt	22	30	46	68	100	150	220
f	0,6	1	1,5	2,3	3,5	5	7

- Dimensions and technical characteristics are not binding



OIL FLOW	VOLTAGE	POWER	CURRENT	AIR FLOW	ELECTRIC PROTECTION	NOISE LEVEL	WEIGHT	CAPACITY	ø FAN
l/min	V	W	A	m³/h	IP	dB(A)	kg	lt.	mm
30-350	12	480	40	5.800	68	88	60	23	380
30-350	24	480	20	5.800	68	88	60	23	380