



**S**cambiatori  
di calore

**H**eat exchangers

SERIE **SAB** SERIES



# SCAMBIATORI DI CALORE SERIE SAB

Heat exchangers series "SAB"



Gli scambiatori di calore acqua-olio della OMT, sono indicati per impieghi gravosi ed hanno inoltre una elevata capacità di scambio. La gamma di portata di tali scambiatori è molto ampia, varia dai 0.15m<sup>3</sup>/h ai 49 m<sup>3</sup>/h . Inoltre gli scambiatori della serie SAB, esposti nel presente catalogo prevedendo due versioni: "S" per portate di olio medio/basse e "L" per portate maggiorate.

OMT water/oil heat exchangers are constructed for heavy duties and with high exchange. Their flow range goes from 0.15 m<sup>3</sup>/h to 49 m<sup>3</sup>/h . Heat exchangers "SAB" Series stated in our leaflet are designed for 2 versions: "S" for medium/low and "L" for bigger oil flows.

## CARATTERISTICHE TECNICHE

Scambiatori di calore costruiti in versione a 2 e 4 vie e nelle varianti "S" e "L".

- Fascio tubiero in rame e tubi mandrinati sulle piastre per garantire una maggiore resistenza e tenuta anche in presenza di vibrazioni.
- Deflettori realizzati in lamiera.
- Corpo esterno realizzato in acciaio al carbonio con adeguati spessori per garantire la massima sicurezza.
- Coperchi realizzati in ghisa ad alta resistenza in versione a 2 e 4 vie.

## TECHNICAL FEATURES

Produced in 2 or 4 ways, "S" and "L" version.

Tubes bundle are in copper rolled into tubesheet to give the most safety construction under vibration.

Baffles made in steel plate.

Shell made of carbon steel in adapted tightness to guarantee the max. safety, Covers made of cast-iron with high resistance in a 2 and 4 ways version.

## ESECUZIONI SPECIALI

A richiesta vengono prodotti scambiatori con:

- Connessioni con flange SAE - UNI - ANSI.
- Coperchi in acciaio al carbonio.
- Fascio tubero in INOX 304 e 316/L - ALLUMINIUM/BRASS - FERRO - CUPRO/NICHEL - MUNTZ.
- Scambiatori con fascio tubiero a "U" per alte temperature.
- Piastre in INOX.
- Fascio estraibile

## SPECIAL APPLICATION

On request:

- Connection with SAE - UNI - ANSI flanges
- Covers in carbon steel
- Tubes bundle in INOX 304 and 316/L - ALUMINIUM/BRASS - IRON - CUPRO/NICHEL - MUNTZ.
- Heat exchangers with "U" tubes for high temperatures.
- Removable bundle.

## GARANZIA

La durata della garanzia è di 12 mesi a partire dalla data di consegna e, per i prodotti sostituiti, dalla data di sostituzione. Si garantisce la conformità dei prodotti forniti, intendendosi cioè che i prodotti sono privi di difetti nei materiali e nelle lavorazioni. La garanzia accordata decade per errati montaggi, corrosioni e incrostazioni causate da un utilizzo non corretto.

## GUARANTEE

It is of 12 months from delivery date and, for replaced items, from replacement date.

We guarantee items with no material and working defect. Our guarantee is not valid for wrong installation, corrosion or incrostation caused by a wrong use.

### Pressione d'esercizio

Lato mantello: 10 bar  
Lato tubi: 10 bar

### Temperatura massima

Lato mantello: 99°C  
Lato tubi: 99°C

### Working pressure

Shell side: 10 bar  
Tubes side: 10 bar

### Max working temperature

Shell side: 99°C  
Tubes side: 99°C

## DIAGRAMMI DI RENDIMENTO

Rendimento per olio idraulico: 32 cSt  
Temperatura acqua: 15°C  
Temperatura olio: 50°C

I diagrammi di rendimento nelle pagine seguenti sono stati calcolati con un olio 32cSt (VG32) e una differenza di temperatura di ingresso di 35°C tra l'olio e l'acqua. Di seguito viene riportato un esempio per come effettuare la scelta dello scambiatore, nel momento in cui la differenza tra le due temperature è diversa dai 35°C.

$\Delta t$ olio/acqua:	35°C	30°C	25°C	20°C	15°C
Coefficiente:	1	1.2	1.4	1.6	1.8

Esempio: si vogliono dissipare 1000 Kcal/h con  $t$  di 25°C  
 $1000 \times 1.4 = 1400$  quindi per ottenere la dissipazione voluta occorre utilizzare una curva più alta.

**Perdite di carico lato olio.** L'impiego di olii con differenti viscosità genera variazioni nelle perdite di carico indicate nei diagrammi. La sottoindicata tabella permette di calcolare il valore effettivo.

cSt	10	15	20	32	40	50	60	80	100	200
cF	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## PERFORMANCE DIAGRAMS

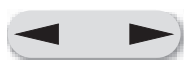
Efficiency for hydraulic oil to 32 cSt: 32 cSt  
Water temperature: 15°C  
Oil temperature: 50°C

Performance diagrams that follow have been calculated with a 32 cSt (VG32) oil and an inlet temperature difference of 35°C between oil and water. You will find an between the 2 temperatures is different from 35°C.

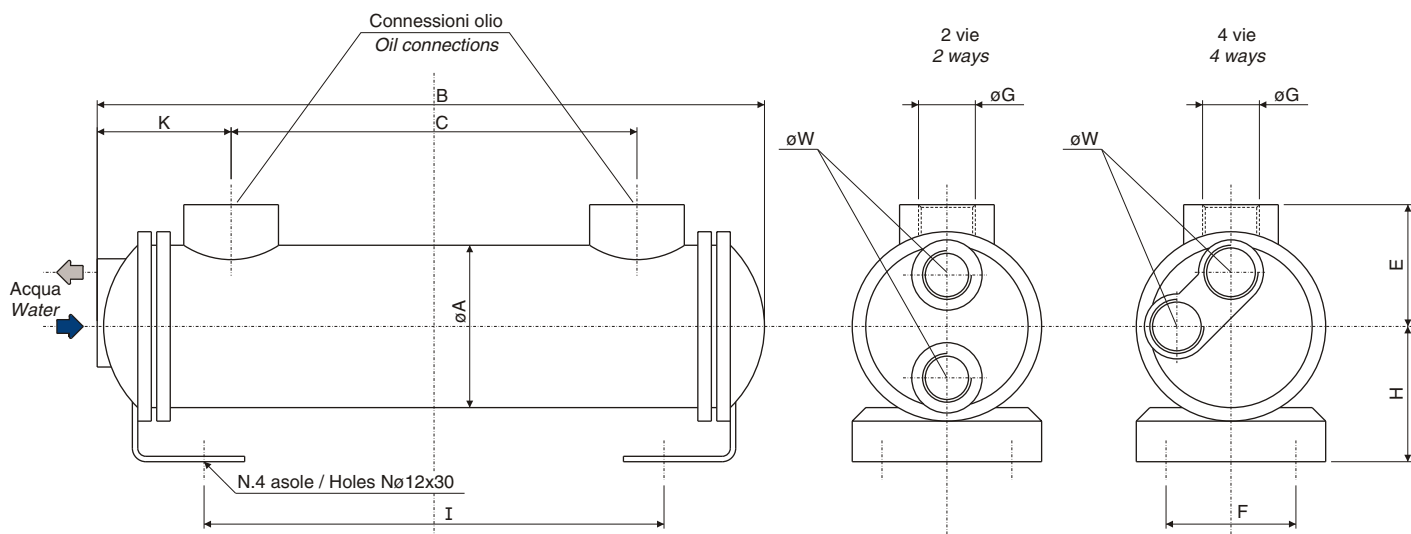
$\Delta t$ oil/water:	35°C	30°C	25°C	20°C	15°C
Factor:	1	1.2	1.4	1.6	1.8

Exemple: if want to dissipate 1000 Kcal/h con  $Dt$  di 25°C  
 $1000 \times 1.4 = 1400$  to obtain the wanted dissipation, you have to use a higher curve.

Oil side pressure drops: the use of oils with different viscosities, produces variations in the pressure drops indicated in the diagrams. The following table allows to calculate the effective value.



# Scambiatori di calore serie "SAB" acqua-olio Water-oil heat exchangers series "SAB"

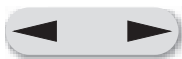


## CARATTERISTICHE TECNICHE TECHNICAL FEATURES

Modello Type	Portata olio m <sup>3</sup> /h Oil Flow m <sup>3</sup> /h		*Kw resi Kw dissipated with oil	A	B	C	K	I	E	F	H	ØG	ØW 4 vie 4 ways	ØW 2 vie 2 ways
	s	L												
SAB83-250	1 - 6	5 - 10	3- 10	Ø83	420	250	90	305	75	70	60	1 1/2" BSP	1/2" BSP	1" BSP
SAB83-500			5- 17		690	500		560						
SAB83-805			9- 23,5		1000	805		865						
SAB83-1110			13- 28		1300	1110		1170						
SAB133-285	2 - 9	5 - 15	10- 24	Ø133	500	285	-	345	110	105	100	1 1/2" BSP	1" BSP	1 1/2" BSP
SAB133-535			18- 34		750	535		595						
SAB133-845			23- 46		1060	845		905						
SAB133-995			28- 50		1210	995		1055						
SAB133-1105			30- 56		1320	1105		1165						
SAB168-470	2,5 - 16	6 - 36	24- 68	Ø168	765	470	145	570	130	98	120	2" BSP	1 1/2" BSP	-
SAB168-775			32- 87		1080	775		875						
SAB168-1080			35-105		1380	1080		1180						
SAB168-1385			45-120		1700	1385		1485						
SAB219-435	3 - 18	7 - 49	32- 90	Ø219	800	435	175	330	180	140	180	2" BSP	1 1/2" BSP	1 1/2" BSP
SAB219-740			60-115		1090	740		635						
SAB219-1045			80-150		1400	1045		940						
SAB219-1350			90-170		1700	1350		1245						
SAB219-1660			110-190		1980	1660		1555						

\* Kw resi con scambiatori a 4 vie.  
Per scambiatori a 2 vie pregasi contattare il nostro Ufficio Tecnico.

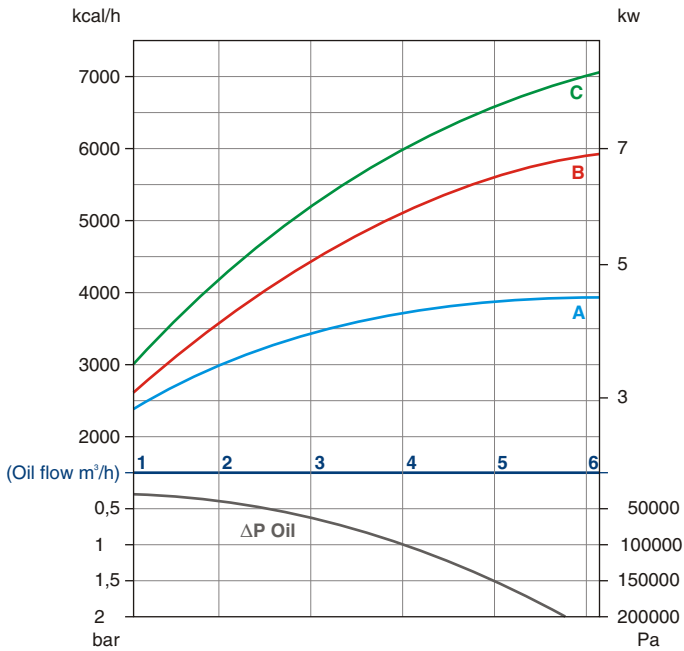
\* Dissipated Kw using 4 ways heat exchangers.  
For 2 ways heat exchangers please get in touch with our technical department.



# Scambiatori di calore serie "SAB83" acqua-olio Water-oil heat exchangers series "SAB83"

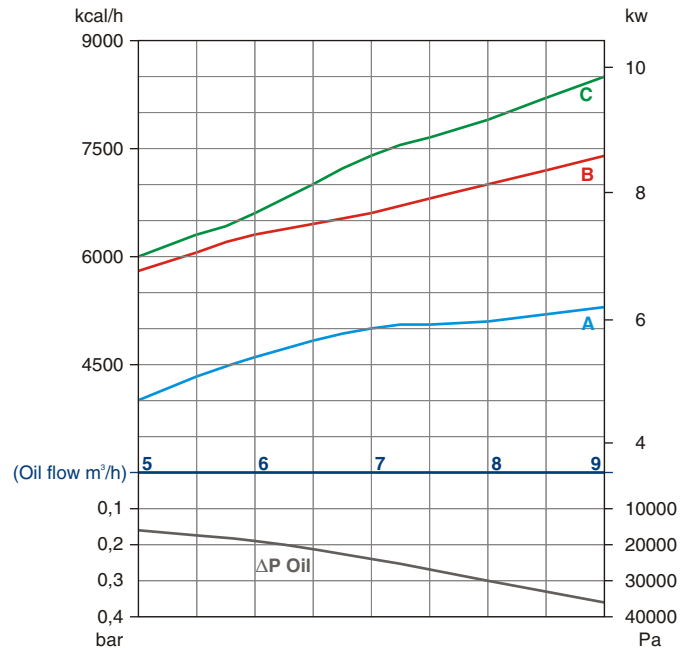
TIPO / SERIES

**SAB83-250-S4**



TIPO / SERIES

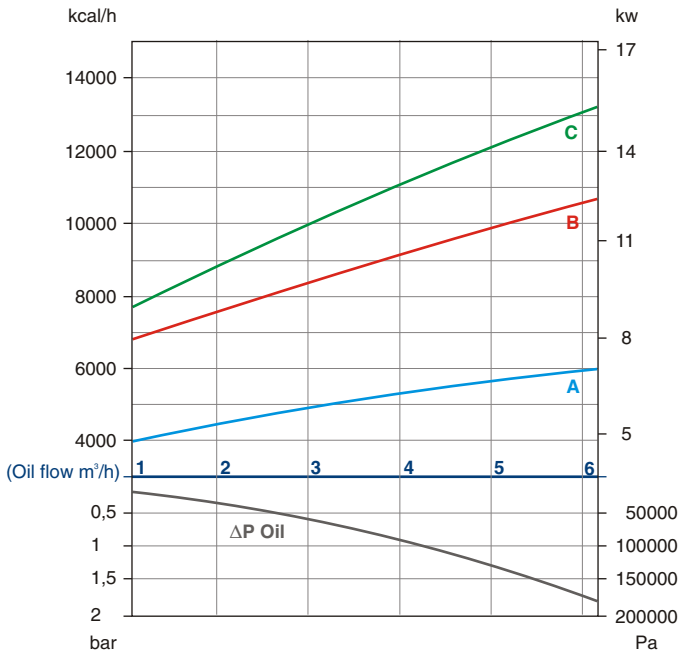
**SAB83-250-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB83-250	A	0,5
	B	1,25
	C	2

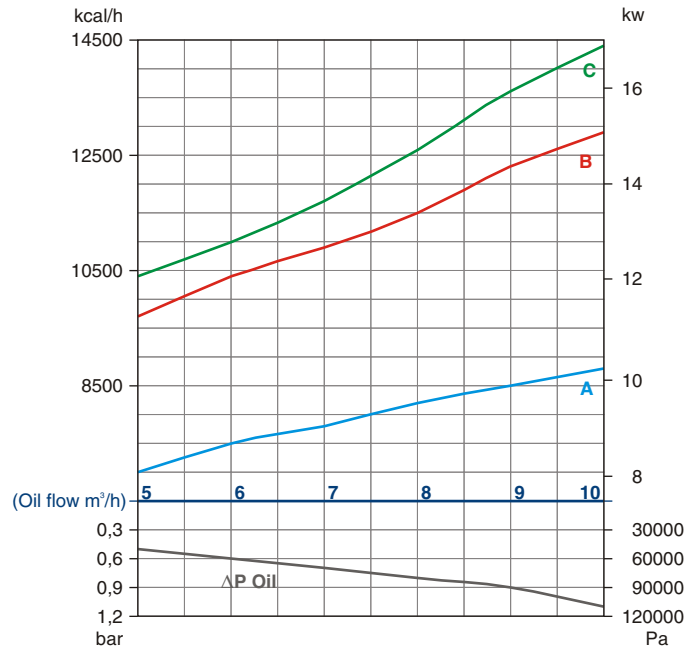
TIPO / SERIES

**SAB83-500-S4**

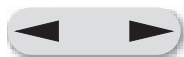


TIPO / SERIES

**SAB83-500-L4**



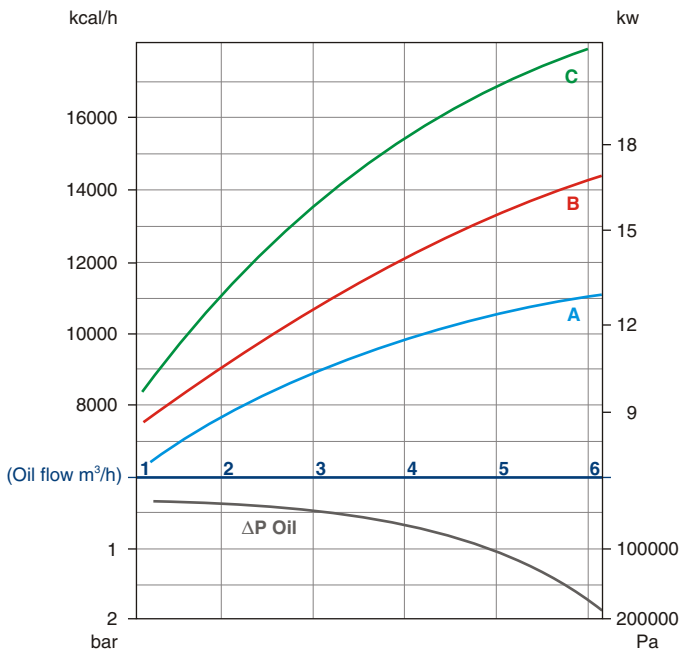
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB83-500	A	0,5
	B	1,25
	C	2



# Scambiatori di calore serie "SAB83" acqua-olio Water-oil heat exchangers series "SAB83"

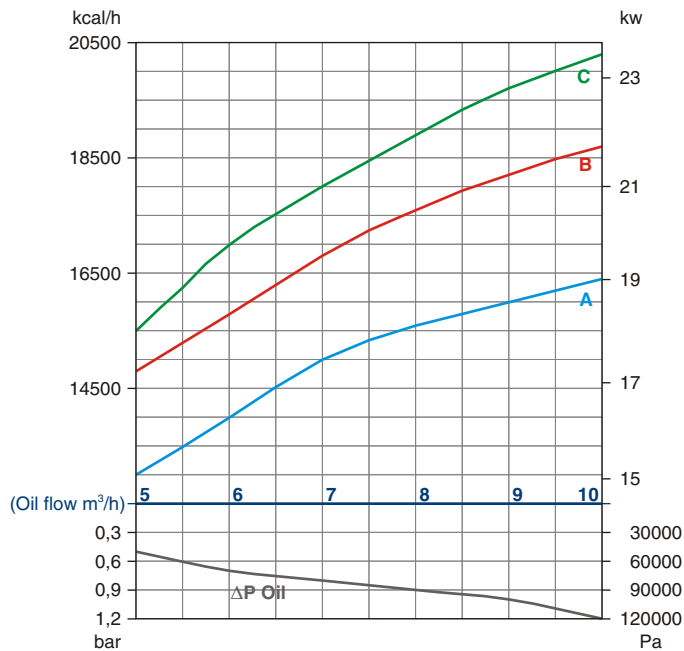
TIPO / SERIES

**SAB83-805-S4**



TIPO / SERIES

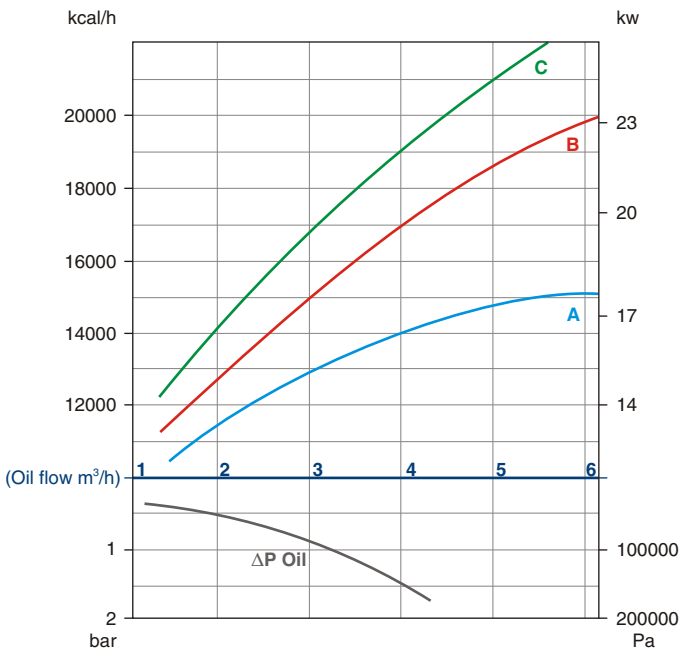
**SAB83-805-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB83-805	A	1
	B	1,5
	C	2

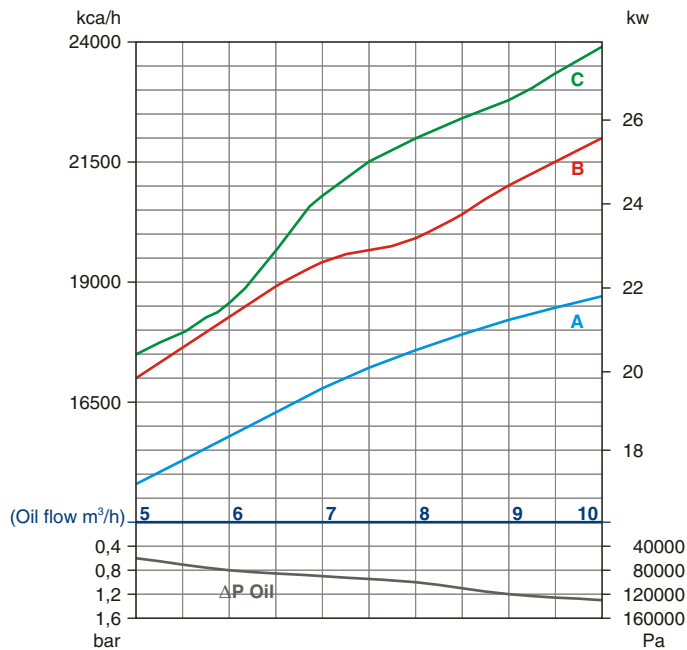
TIPO / SERIES

**SAB83-1110-S4**

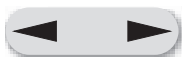


TIPO / SERIES

**SAB83-1110-L4**



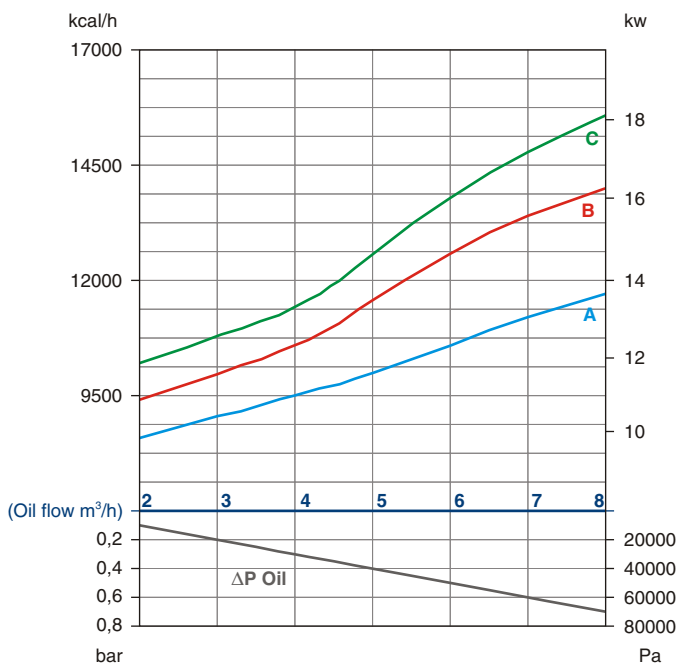
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB83-1110	A	1
	B	1,5
	C	2



# Scambiatori di calore serie "SAB133" acqua-olio Water-oil heat exchangers series "SAB133"

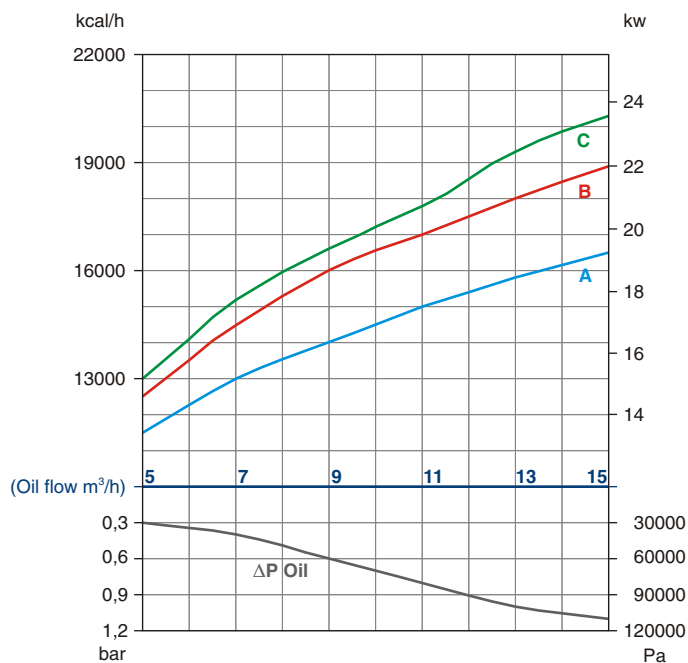
TIPO / SERIES

**SAB133-285-S4**



TIPO / SERIES

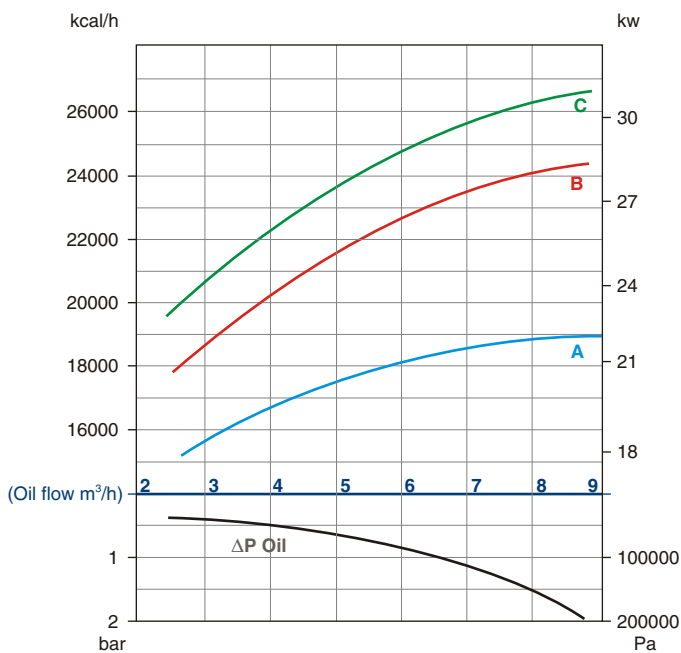
**SAB133-285-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB133-250	A	2
	B	3
	C	4

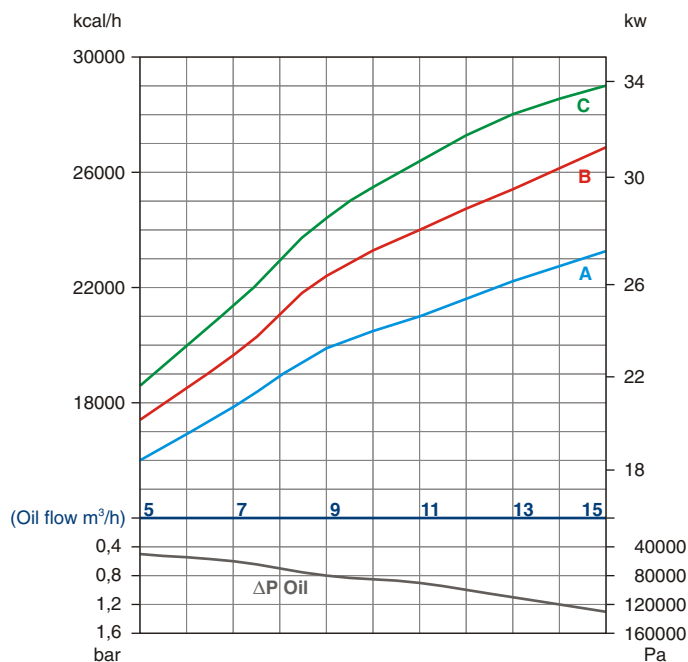
TIPO / SERIES

**SAB133-535-S4**

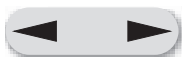


TIPO / SERIES

**SAB133-535-L4**



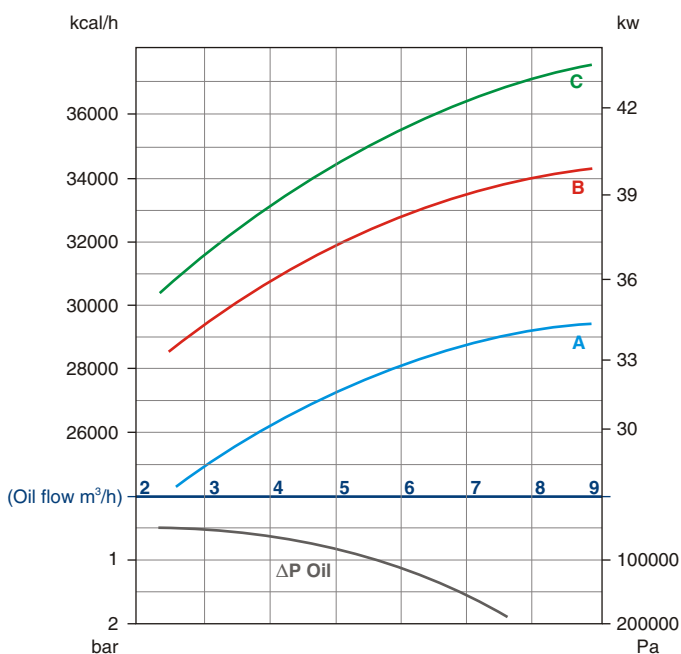
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB133-535	A	2
	B	3
	C	4



# Scambiatori di calore serie "SAB133" acqua-olio Water-oil heat exchangers series "SAB133"

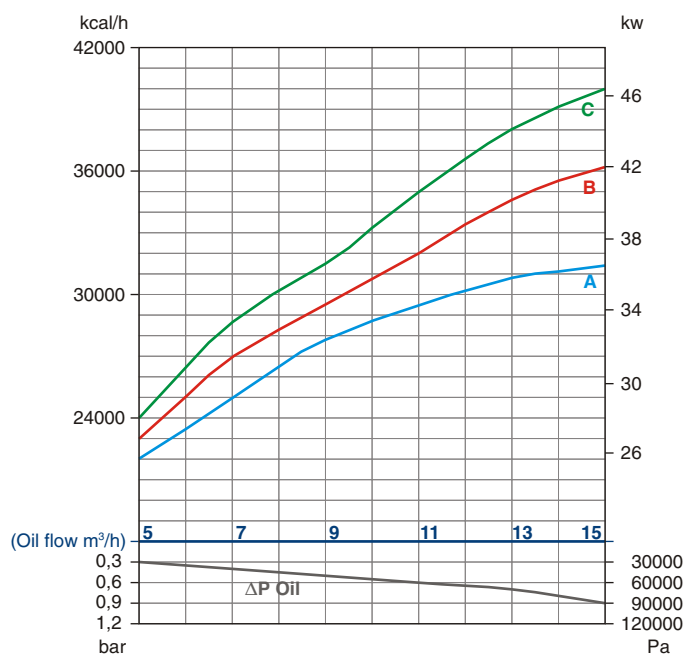
TIPO / SERIES

**SAB133-845-S4**



TIPO / SERIES

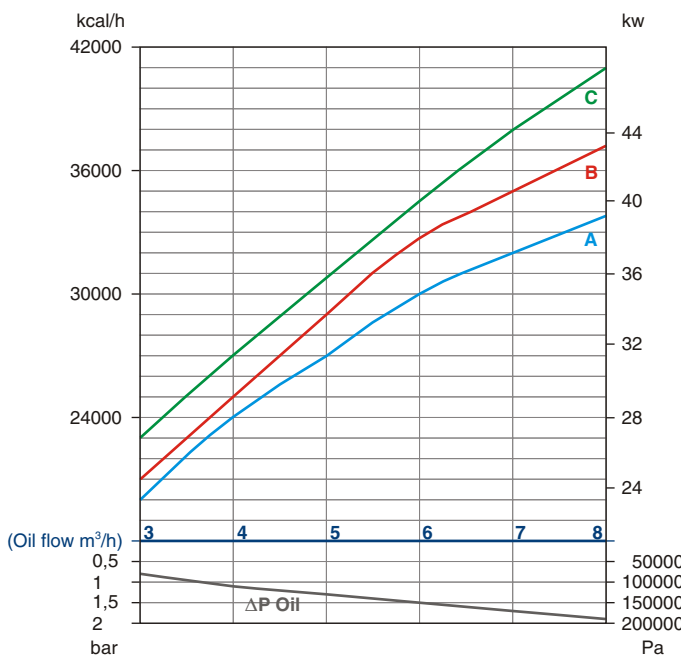
**SAB133-845-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB133-845	A	2,5
	B	3
	C	4

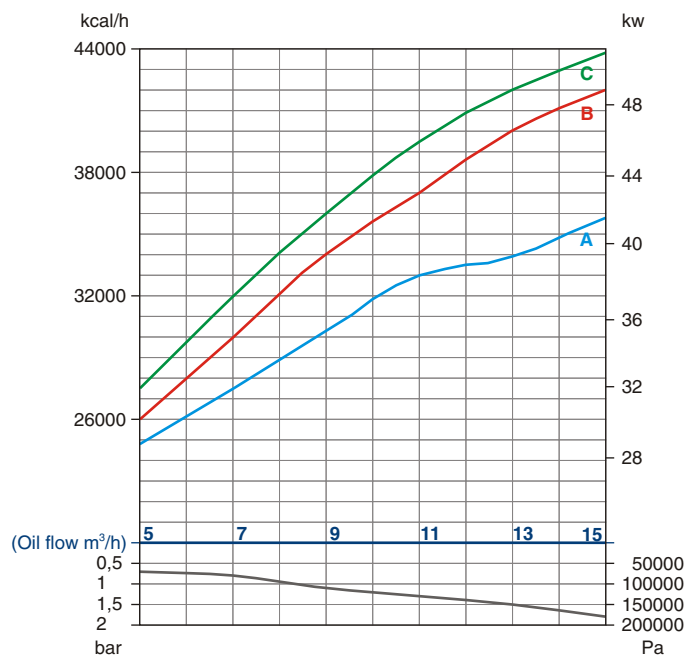
TIPO / SERIES

**SAB133-995-S4**

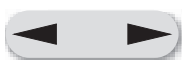


TIPO / SERIES

**SAB133-995-L4**



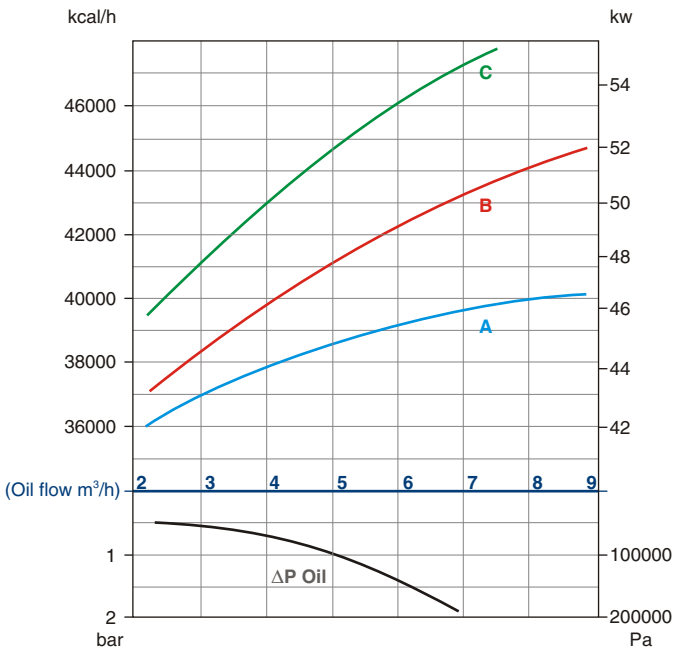
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB133-995	A	2,5
	B	3
	C	4



# Scambiatori di calore serie "SAB133" acqua-olio Water-oil heat exchangers series "SAB133"

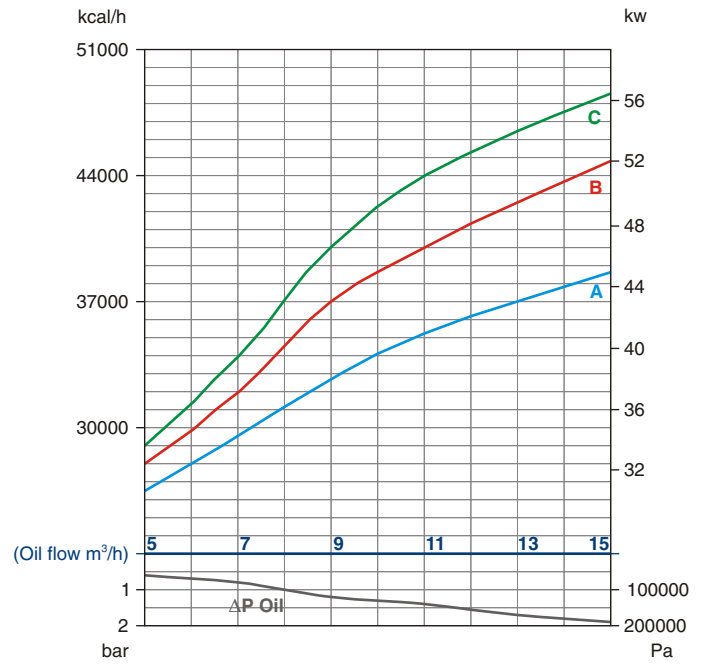
TIPO / SERIES

**SAB133-1105-S4**

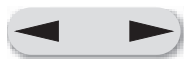


TIPO / SERIES

**SAB133-1105-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB133-1105	A	2,5
	B	3
	C	4

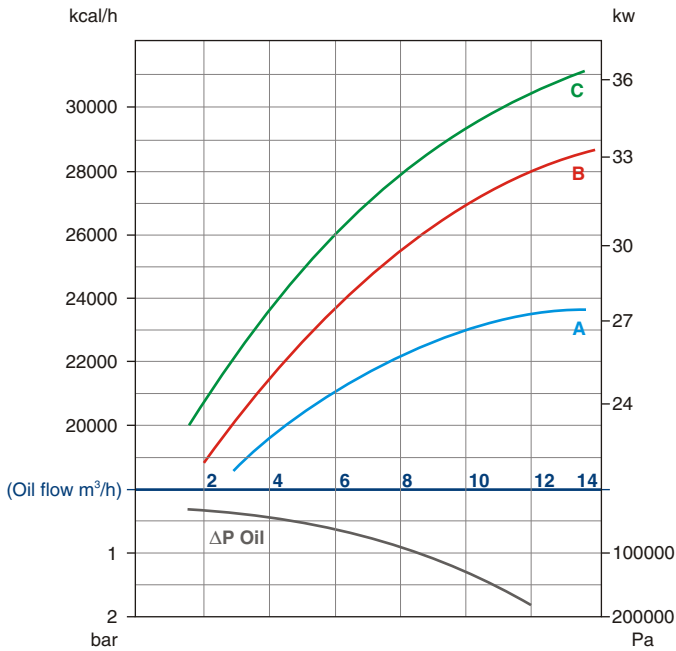




# Scambiatori di calore serie "SAB168" acqua-olio Water-oil heat exchangers series "SAB168"

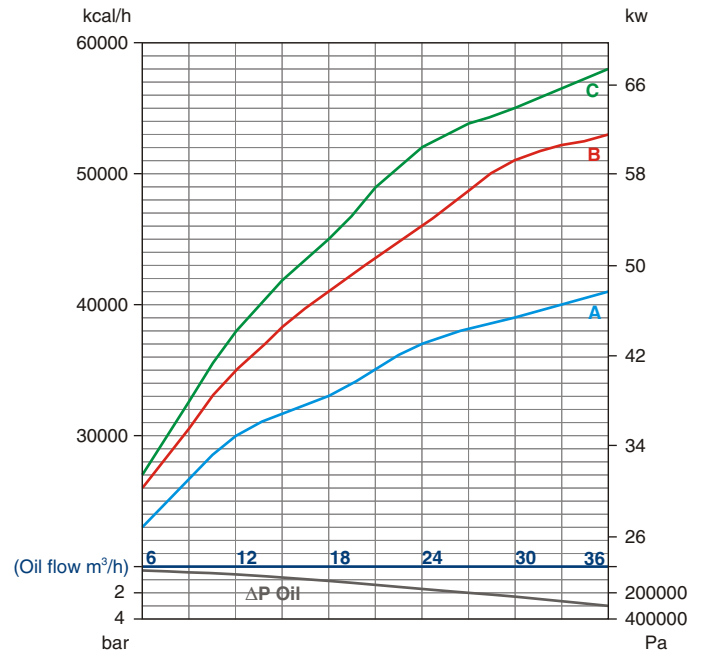
TIPO / SERIES

**SAB168-470-S4**



TIPO / SERIES

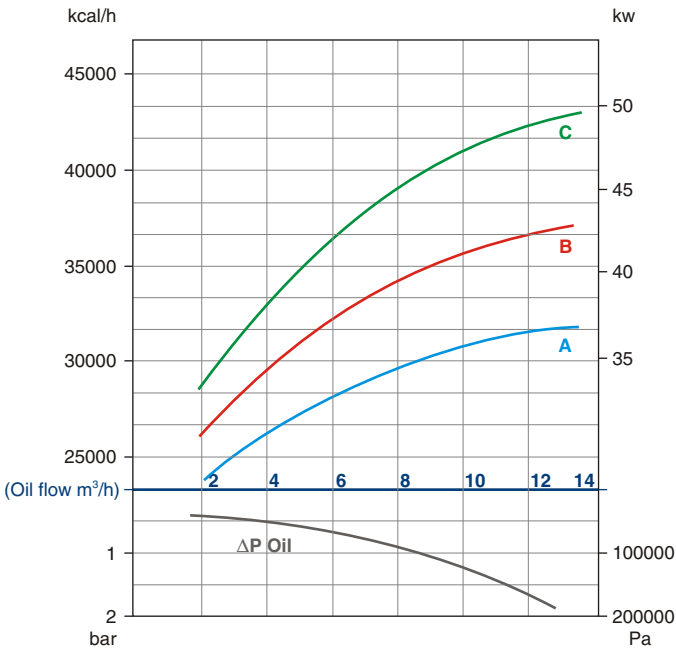
**SAB168-470-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB168-470	A	2,5
	B	4
	C	5,5

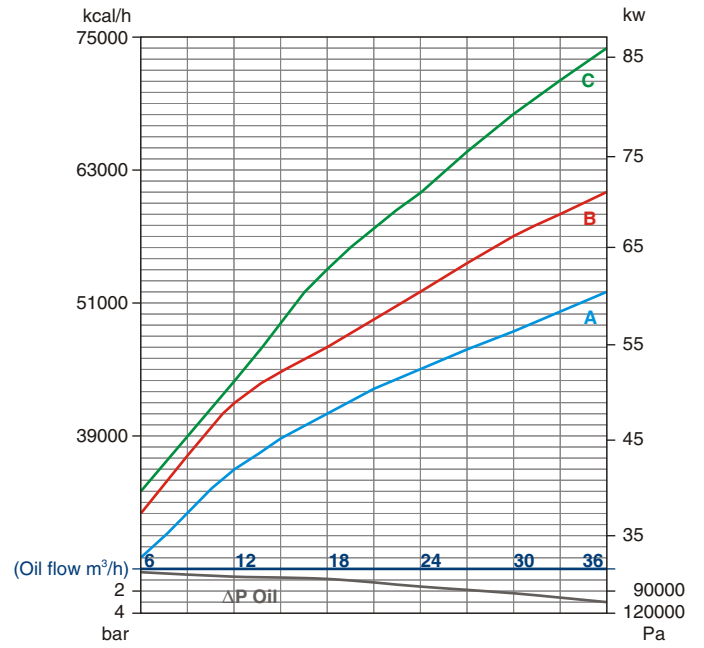
TIPO / SERIES

**SAB168-775-S4**

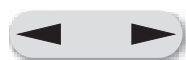


TIPO / SERIES

**SAB168-775-L4**



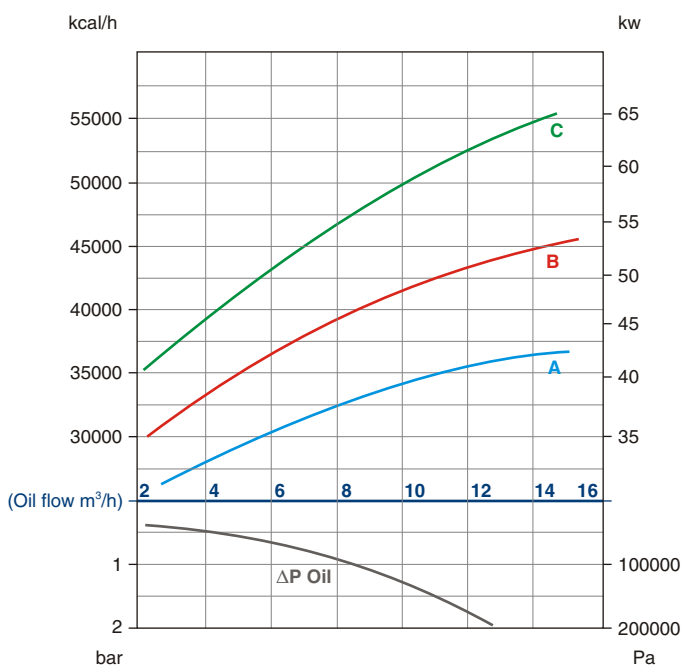
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB168-775	A	2,5
	B	4
	C	5,5



# Scambiatori di calore serie "SAB168" acqua-olio Water-oil heat exchangers series "SAB168"

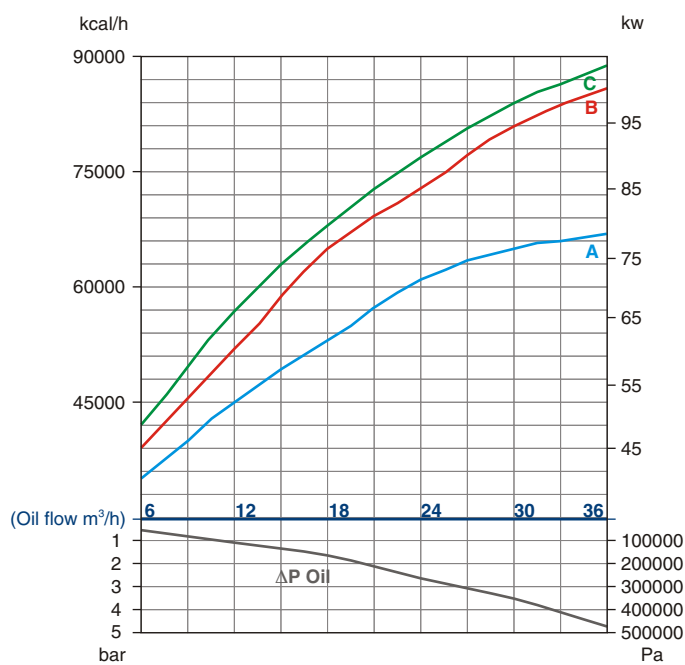
TIPO / SERIES

**SAB168-1080-S4**



TIPO / SERIES

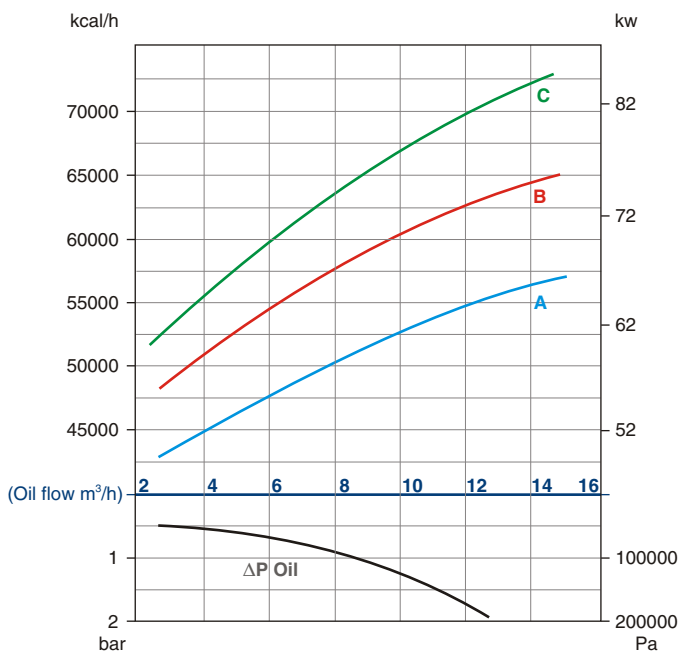
**SAB168-1080-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB168-1080	A	3
	B	5
	C	6

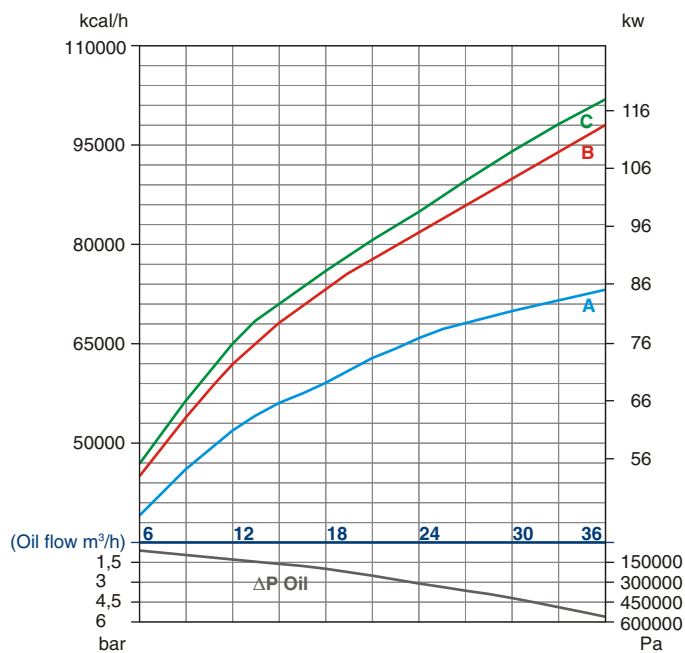
TIPO / SERIES

**SAB168-1385-S4**

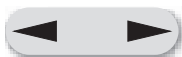


TIPO / SERIES

**SAB168-1385-L4**



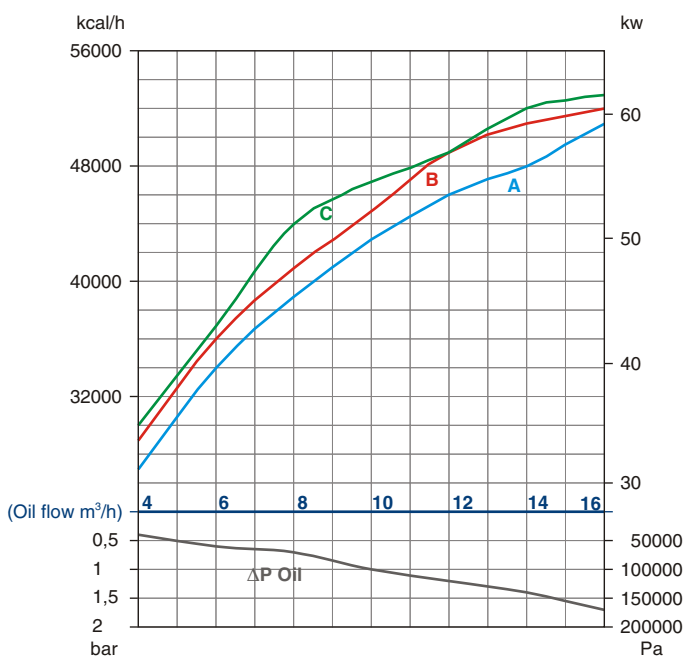
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB168-1385	A	3
	B	5
	C	6



# Scambiatori di calore serie "SAB219" acqua-olio Water-oil heat exchangers series "SAB219"

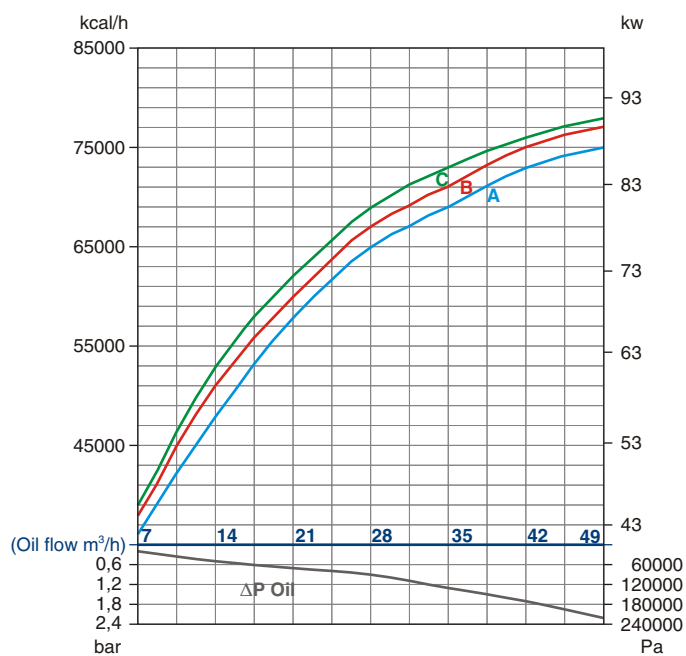
TIPO / SERIES

**SAB219-435-S4**



TIPO / SERIES

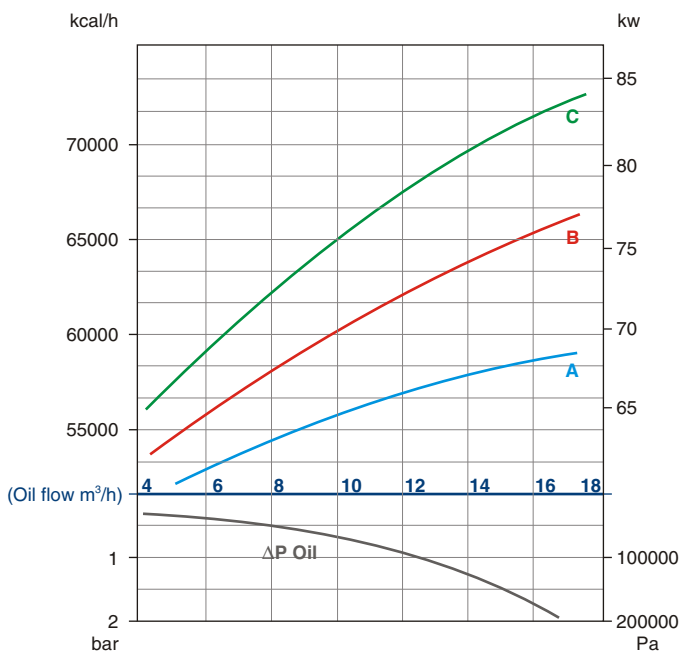
**SAB219-435-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB219-435	A	5
	B	6
	C	7

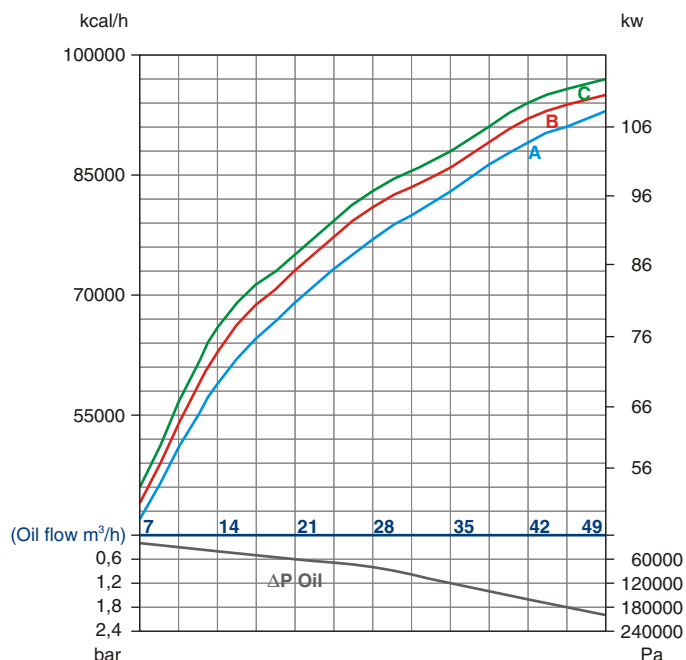
TIPO / SERIES

**SAB219-740-S4**

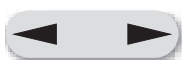


TIPO / SERIES

**SAB219-740-L4**



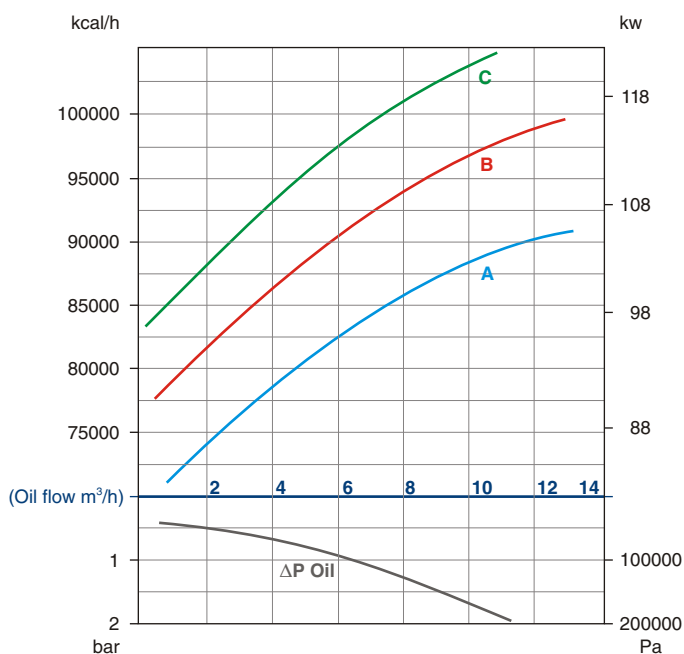
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB219-740	A	5
	B	6
	C	7



# Scambiatori di calore serie "SAB219" acqua-olio Water-oil heat exchangers series "SAB219"

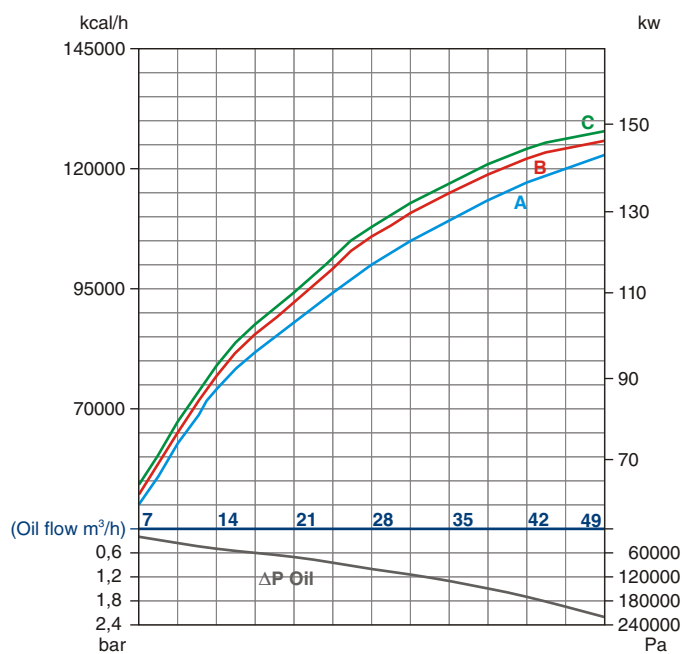
TIPO / SERIES

**SAB219-1045-S4**



TIPO / SERIES

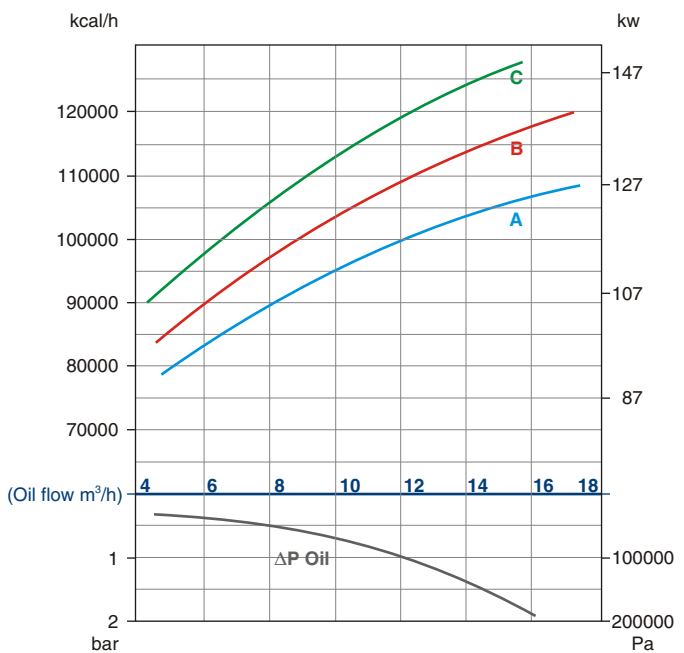
**SAB219-1045-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB219-1045	A	7
	B	8
	C	9

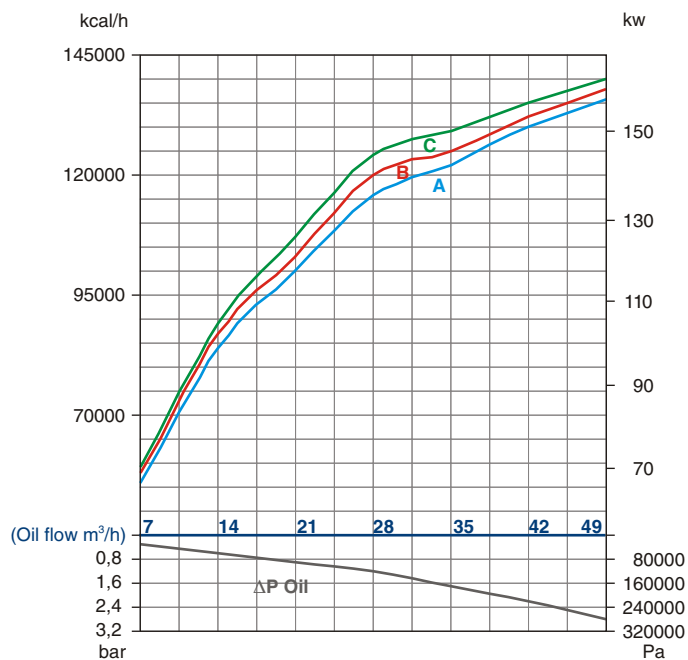
TIPO / SERIES

**SAB219-1350-S4**

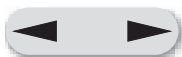


TIPO / SERIES

**SAB219-1350-L4**



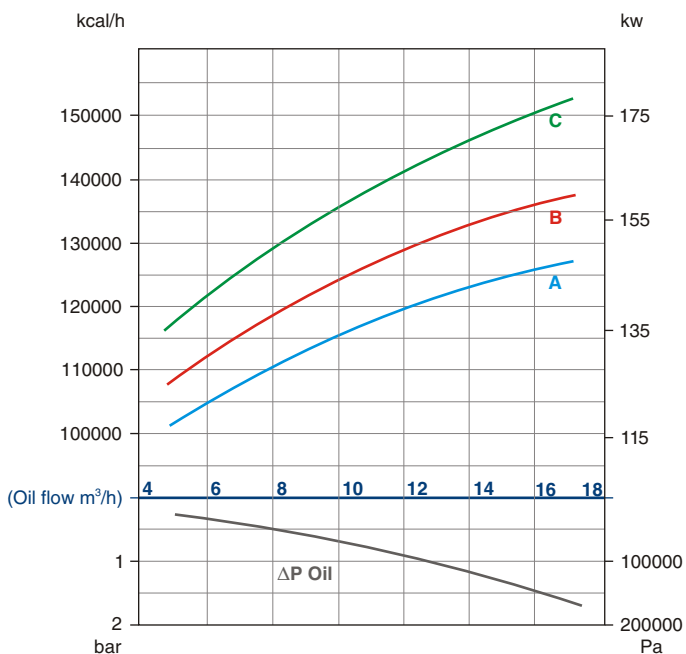
Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB219-1350	A	7
	B	8
	C	9



# Scambiatori di calore serie "SAB219" acqua-olio Water-oil heat exchangers series "SAB219"

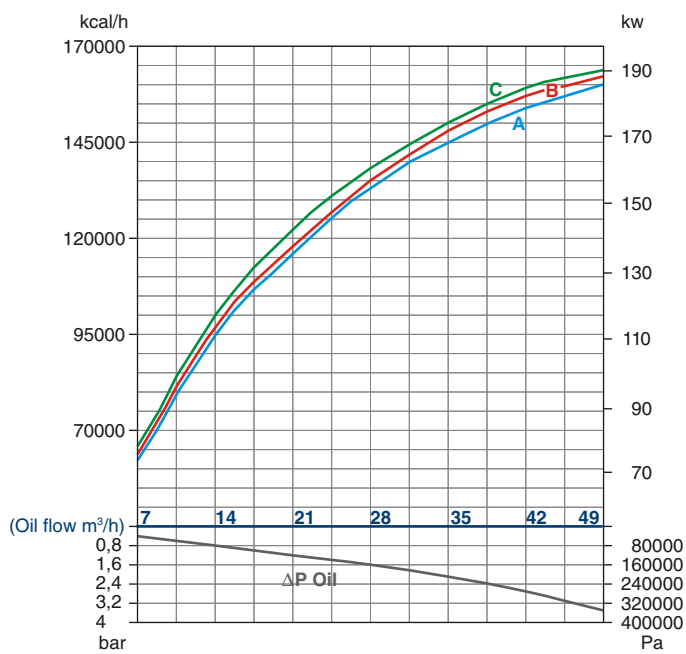
TIPO / SERIES

**SAB219-1660-S4**



TIPO / SERIES

**SAB219-1660-L4**



Tipo Type	Consumo Acqua / Water consumption	
	Curva / Line	m³/h
SAB219-1660	A	8
	B	9
	C	10



**SAB83-500**

**S**

**4**

Tipo / Type
SAB83-250
SAB83-500
SAB83-805
SAB83-1110
SAB133-285
SAB133-535
SAB133-845
SAB133-995
SAB133-1105
SAB168-470
SAB168-775
SAB168-1080
SAB168-1385
SAB219-435
SAB219-740
SAB219-1045
SAB219-1350
SAB219-1660

Portata olio / Oil flow
S
L

N. vie / Ways
2
4

Per applicazioni speciali (AISI o ACQUAMARINA) contattare l'ufficio tecnico.

You are kindly requested to get in touch with our Technical Department in case of special application (AISI or sea water).





S cambiatori di calore

H *Heat exchangers*

SERIE **S** SERIES



SCAMBIATORI - EXCHANGERS

Divisione - *Division*



# SCAMBIATORI DI CALORE SERIE S

Heat exchangers series S



Gli scambiatori ARIA-OLIO della OMT, nascono per essere installati sulle linee di ritorno dei circuiti oleodinamici.

La speciale conformazione del pacco radiante, realizzato in lega di alluminio che ne esalta le qualità di conducibilità ed il processo di saldobrasatura dei turbinatori e dei condotti, hanno permesso di ottenere un elevato coefficiente di scambio termico e una buona resistenza alla pressione, qualità ottenuta tramite l'utilizzo di materiali altamente qualificati.

OMT air/oil heat exchangers have been designed to be used on the return line of the hydraulic systems.

The special structure of the cooler element in alu-alloy increases the conductivity quality, and the brase welding process of the conduits allows a high thermic exchange and a good resistance to pressure, obtained by using qualified materials.

## CARATTERISTICHE TECNICHE

### Specifiche pacco radiante

Materiale	Alluminio
Pressione di esercizio	25 bar
Pressione di collaudo	35 bar
Temperatura max d'esercizio	120°C

### Compatibilità con i fluidi

Oli minerali, hl, hlp, emulsioni acqua-olio.

### Installazione

È consigliabile installare in parallelo allo scambiatore una valvola di By-pass, per proteggerlo durante la fase di avviamento. Inoltre assicurarsi di non interporre ostacoli alla portata dell'aria.

### Manutenzione

#### Pulizia lato olio

Lo sporco potrà essere eliminato con il flussaggio di un prodotto detergente o sgrassante compatibile con l'alluminio. Alla fine di tale operazione bisognerà ricorrere all'aria compressa per eliminare i residui che restano all'interno.

#### Pulizia lato aria

La pulizia dovrà essere effettuata mediante aria compressa o acqua. Durante tale operazione bisognerà prestare particolare attenzione alla direzione del getto per non rovinare le alette. Se lo sporco è causato da olio o da grasso, la pulizia potrà essere effettuata con un getto di vapore o di acqua calda. Durante tali operazioni il motore elettrico dovrà essere scollegato e adeguatamente protetto.

## TECHNICAL DATA

### Radiating mass data

Material	Aluminium
Nominal pressure	25 bar
Test pressure	35 bar
Max temperature	120°C

### Fluid compatibility

Mineral oils, hl, hlp, water-oil emulsion.

### Installation

We recommend to install a by-pass valve in parallel to the heat exchanger, for its protection during the starting up. Make sure there is no obstacle to the air flow.

### Maintenance

#### Oil side cleaning

Flushing with a detergent or a degreasing product compatible with aluminium, eliminates the dirt. To remove the residuals, use compressed air.

#### Air side cleaning

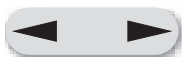
It can be done by using compressed air or water and paying attention to the jet direction for not spoiling the vanes. If oil or grease has to be removed, clean with a jet of steam or hot water. Make sure that the electric motor is disconnected and properly protected.

## MATERIALI UTILIZZATI

Ventola	Acciaio o plastica rinforzata
Convogliatore	Acciaio
Griglia di protezione	Acciaio o plastica rinforzata

## MATERIALS

Fan	Steel or hard plastic
Fan case	Steel
Fan protection	Steel or hard plastic





Di seguito sono riportati tre differenti gruppi di grafici ognuno dei quali corrisponde ad una diversa serie di scambiatori:

- serie "SS" standard
- serie "SS2" con doppio passaggio per portate ridotte, ma con maggiore potenzialità di scambio termico.
- serie "SD" per portate elevate.

Sull'asse delle ascisse viene indicata la portata d'olio che attraversa lo scambiatore, espressa in (lt/min), mentre sulle ordinate è indicato il rendimento di dissipazione per ogni grado centigrado, espresso in (kcal/h °C); oppure in (kw/°C).

Il calore specifico di dissipazione ( $\eta$ ) è dato dal rapporto tra la potenzialità termica (Q) dello scambiatore e la differenza di temperatura tra l'olio in entrata e la temperatura ambiente ( $T^{\circ}\text{olio} - T^{\circ}\text{aria}$ ), con la seguente formula:

$$\eta = \frac{Q \text{ (kcal/h)}}{T^{\circ}\text{olio} - T^{\circ}\text{aria} \text{ (}^{\circ}\text{C)}}$$

Supponendo che lo scambiatore possa dissipare 3000 (kcal/h) e si abbia una differenza di temperatura ( $T^{\circ}\text{olio} - T^{\circ}\text{aria}$ ) = 30(°C):

$$\eta = \frac{3000 \text{ (kcal/h)}}{30(^{\circ}\text{C})} = 100(\text{Kcal/h } ^{\circ}\text{C})$$

Nel caso in cui non sia nota la potenzialità termica (Q) dello scambiatore è possibile calcolarla empiricamente con la seguente formula:

$$Q = 0,40 \cdot V \cdot \Delta t_o$$

Dove:

V = portata olio in (lt/h)

$\Delta t_o$  = differenza temp. tra olio in entrata e in uscita

0,40 è un valore approssimato o utilizzabile per olio idraulico (nel caso non se ne conoscano il peso specifico e il calore specifico).

$$\left[ \begin{array}{l} 0,40 \text{ (kcal/lt}^{\circ}\text{C)} = c \cdot y \\ \text{dove:} \\ C = \text{calore specifico (kcal/kg}^{\circ}\text{C)} \\ Y = \text{peso specifico (kg/dm}^3\text{)} \end{array} \right]$$

Supponendo di avere una portata di 6000(lt/h) e una differenza di temperatura tra olio in ingresso e olio in uscita ( $\Delta t_o$ ) di 8(°C) la potenzialità termica dello scambiatore è:

$$Q = 0,40 \cdot 6000 \cdot 8 = 19200 \text{ kcal/h}$$

Here you can find three different sets of diagrams, each corresponding to a different series of exchangers:

- series "SS" standard
- series "SS2" with double passage for reduced flows, but with bigger power of heat exchange.
- series "SD" for high flows.

On the abscissas you can find the oil flow going through the exchanger, expressed in (lt/min), while on the ordinates you can find the dissipation performance for each centigrade degree, expressed in (kcal/h °C); or in (kw/°C).

The specific dissipation heat ( $\eta$ ) is the result of the ratio between thermic power (Q) of the exchanger and the difference of the temperature between oil input and the ambient temperature (oil  $T^{\circ}$  - air  $T^{\circ}$ ), using the following formula:

$$\eta = \frac{Q \text{ (kcal/h)}}{T^{\circ}\text{olio} - T^{\circ}\text{aria} \text{ (}^{\circ}\text{C)}}$$

Supposing the exchanger can dissipate 3000 (kcal/h) and you have a temperature difference (oil  $T^{\circ}$  - air  $T^{\circ}$ ) = 30 (°C):

$$\eta = \frac{3000 \text{ (kcal/h)}}{30(^{\circ}\text{C})} = 100(\text{Kcal/h } ^{\circ}\text{C})$$

When the thermic power (Q) of the exchanger is unknown, it is possible to calculate it empirically using the following formula:

$$Q = 0,40 \cdot V \cdot \Delta t_o$$

Where:

V = oil flow in (lt/h)

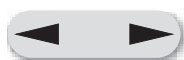
$\Delta t_o$  = temperature difference between oil in and out

0,40 is an approximate value or it can be used for hydraulic oil (when specific weight and specific heat are unknown).

$$\left[ \begin{array}{l} 0,40 \text{ (kcal/lt}^{\circ}\text{C)} = c \cdot y \\ \text{where:} \\ C = \text{specific heat (kcal/kg}^{\circ}\text{C)} \\ Y = \text{specific weight (kg/dm}^3\text{)} \end{array} \right]$$

Supposing the flow is 6000 (lt/h) and the difference between oil in and out ( $\Delta t_o$ ) is 8(°C) the thermic power of the exchanger is:

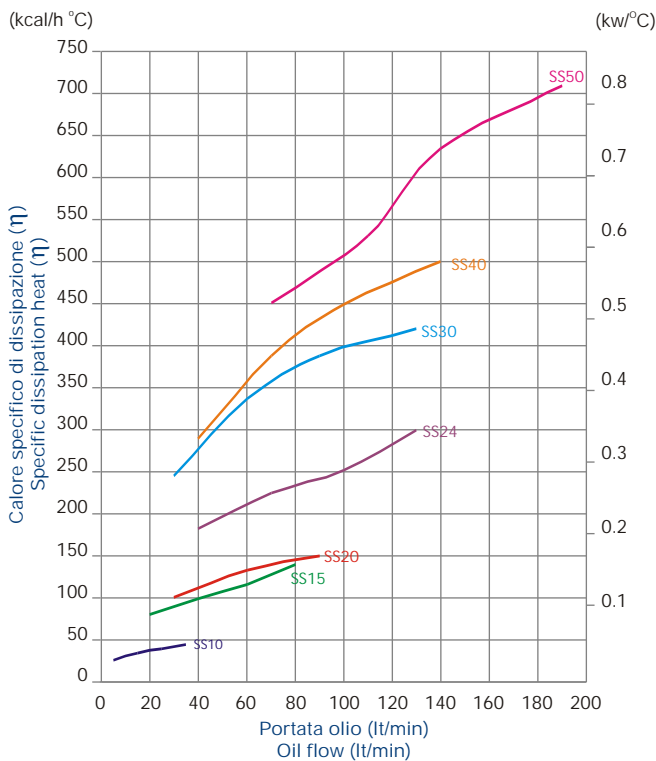
$$Q = 0,40 \cdot 6000 \cdot 8 = 19200 \text{ kcal/h}$$



# Scambiatori di calore serie S - Serie aria-olio

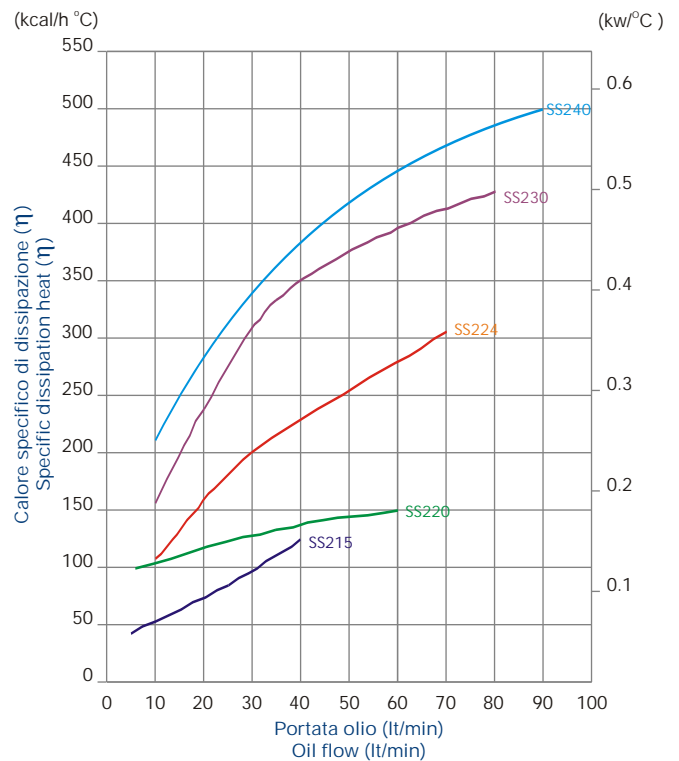
## Heat exchanger series S - Air/oil version

DI AGRAMMI DI RENDIMENTO SERIE "SS"  
PERFORMANCE DIAGRAM



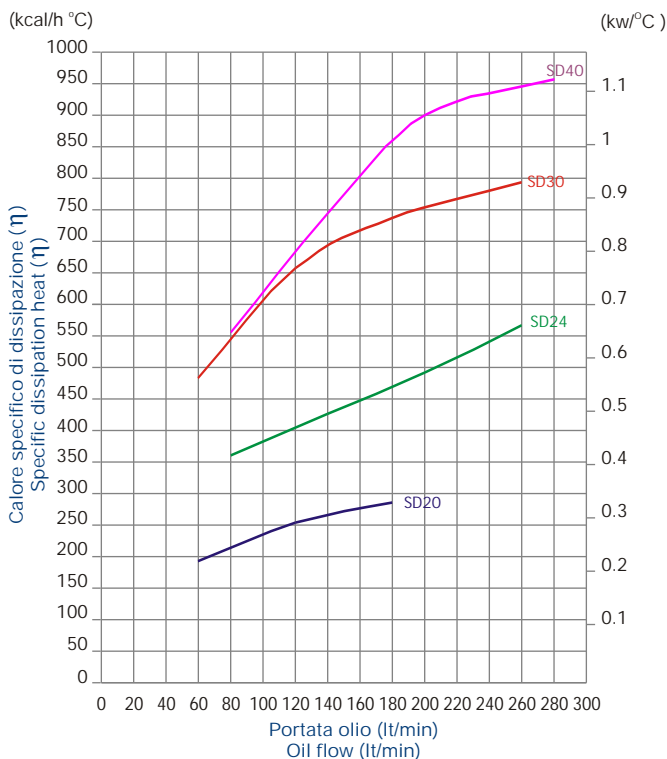
- SS10
- SS15
- SS20
- SS24
- SS30
- SS40
- SS50

DI AGRAMMI DI RENDIMENTO SERIE "SS2"  
PERFORMANCE DIAGRAM



- SS215
- SS220
- SS224
- SS230
- SS240

DI AGRAMMI DI RENDIMENTO SERIE "SD"  
PERFORMANCE DIAGRAM



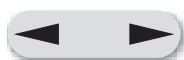
- SD20
- SD24
- SD30
- SD40

Le curve sopra indicate sono valide dal momento in cui si aziona il gruppo di raffreddamento.

La gamma OMT prevede diversi tipi di motorizzazione. Spazia dal motore in C.A. monofase, trifase e trifase unificato B14, a quello in C.C. 12-24V, oltre alla possibilità della predisposizione per il motore idraulico. È consigliato l'utilizzo della tipologia B14 nel momento in cui l'apparecchio ha un funzionamento continuo.

*The above curves are valid when the cooler element is activated.*

*OMT range offers various types of motors. It ranges from C.A. single-phase, three-phase and B14 standardized three-phase motor to C.C. 12-24V motor, in addition to the possibility of the prearrangement for hydraulic motor. We advice the use of B14 type when the equipment runs continuously.*

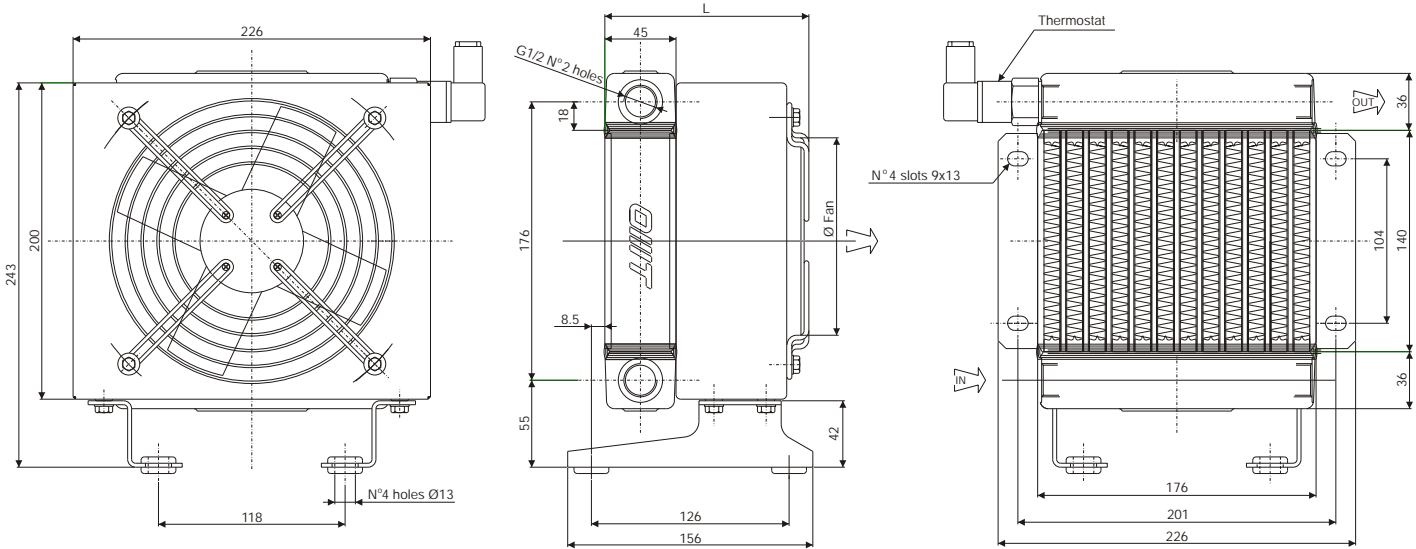


# Scambiatore tipo SS10 - Serie aria-olio Heat exchanger series SS10 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2650/3000	0.050/0.046	170	63	125	500	0.28	6	44
03	50/60	230/400	2750/3100	0.045/0.043	170	63	125	500	0.28	6	44
12	DC	12	4000	0.080	167	64	158	550	0.28	5	64
24	DC	24	4100	0.080	167	64	158	550	0.28	5	64

Portata olio consigliata da 5 a 35 (lt/min)  
Suggested oil flow from 5 to 35 (lt/min)

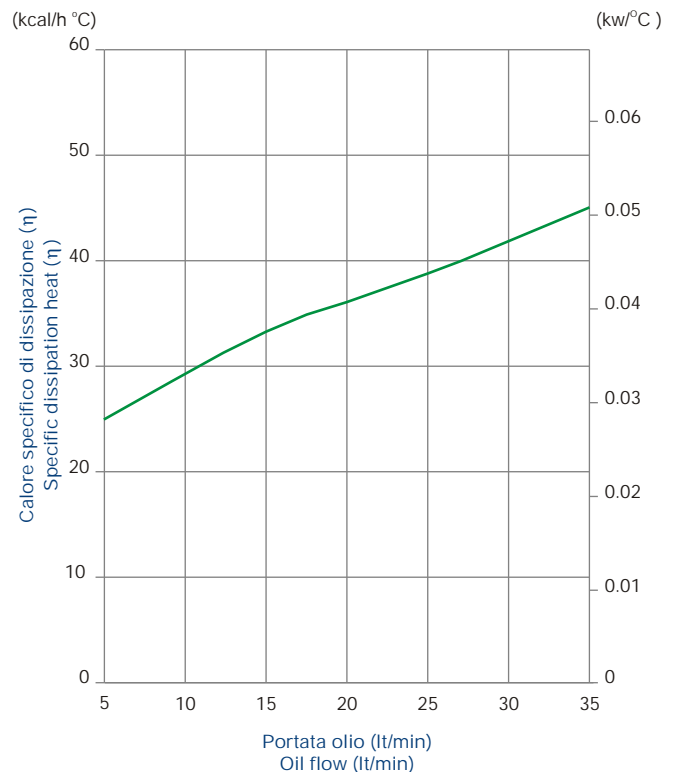


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

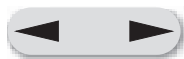
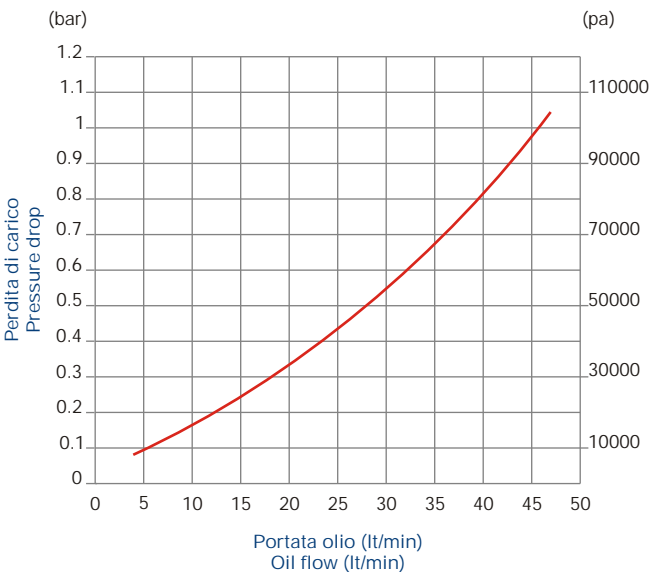
### COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	2.1	2.8	3.4

### DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



### DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

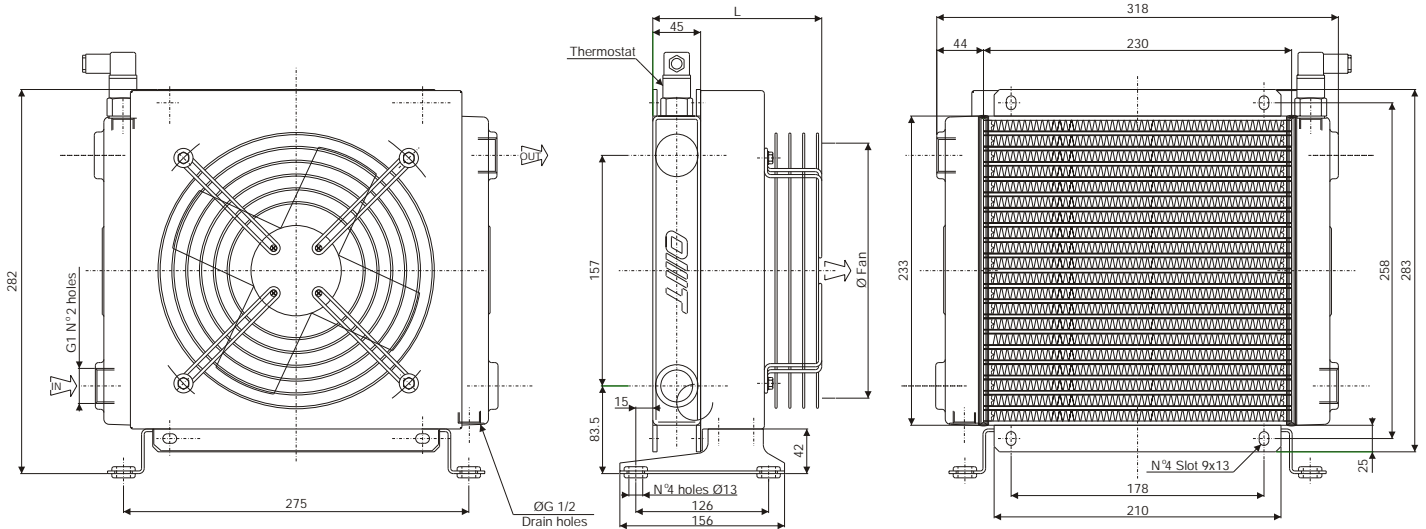


# Scambiatore tipo SS15 - Serie aria-olio Heat exchanger series SS15 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Vol tage V	N° Giri /mi n RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (l t)	Peso (kg) Wei ght (kg)	IP
01	50/60	230	2600/2900	0.064/0.078	200	67	152	890	0.48	7	44
03	50/60	230/400	2600/2900	0.068/0.070	200	67	152	890	0.48	7	44
14	50/60	230/400	1370/1650	0.25	200	67	346	890	0.48	10	55
12	DC	12	3100	0.100	225	66	158	1200	0.48	6.5	64
24	DC	24	3000	0.100	225	66	158	1200	0.48	6.5	64

Portata olio consigliata da 20 a 80 (lt/min)  
Suggested oil flow from 20 to 80 (lt/min)

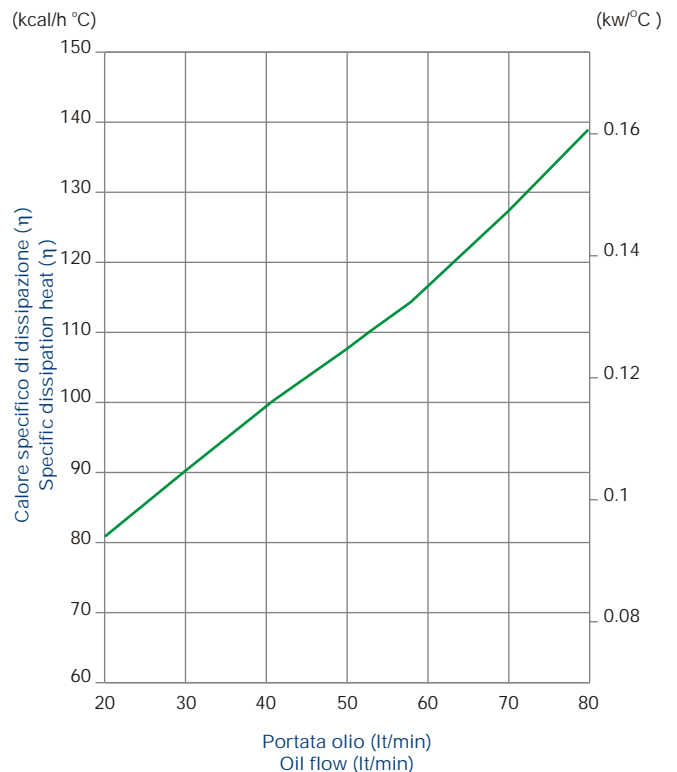


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

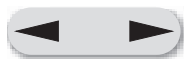
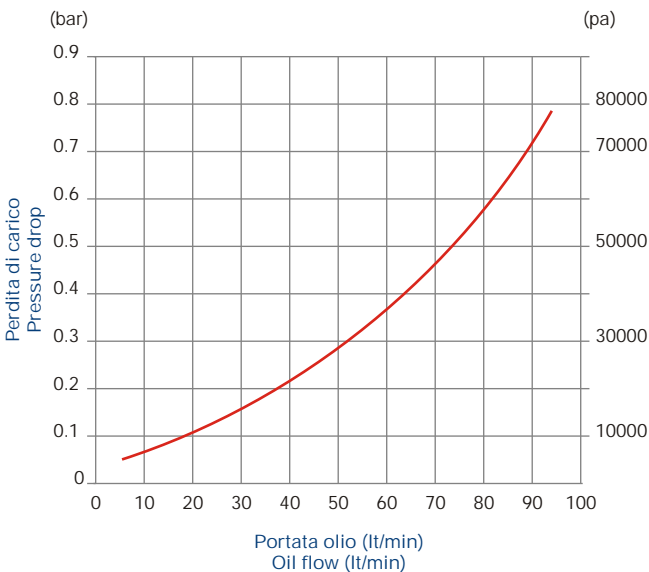
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

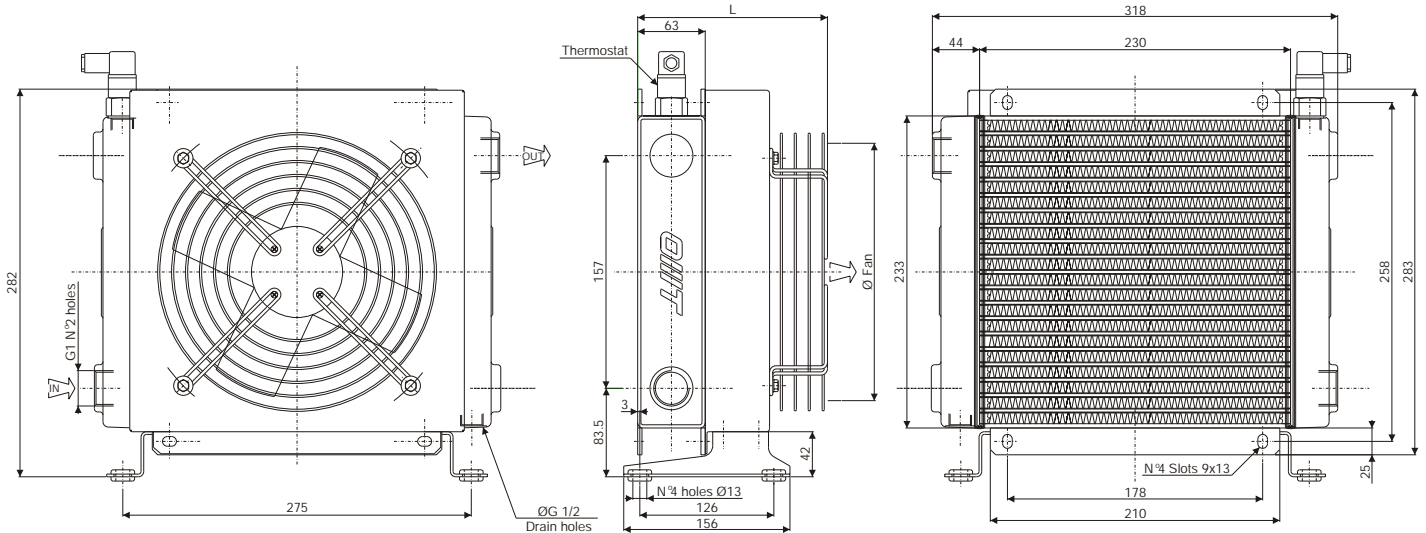


# Scambiatore tipo SS20 - Serie aria-olio Heat exchanger series SS20 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2600/2900	0.064/0.078	200	67	170	890	0.68	8	44
03	50/60	230/400	2600/2900	0.068/0.070	200	67	170	890	0.68	8	44
14	50/60	230/400	1370/1650	0.25	200	67	364	890	0.68	11	55
12	DC	12	3100	0.100	225	66	176	1200	0.68	7	64
24	DC	24	3000	0.100	225	66	176	1200	0.68	7	64

Portata olio consigliata da 30 a 90 (lt/min)  
Suggested oil flow from 30 to 90 (lt/min)

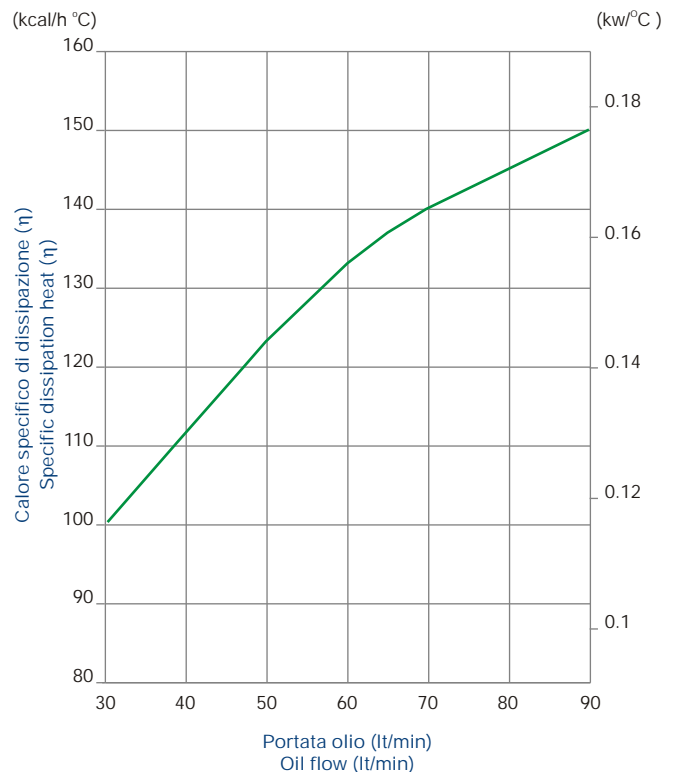


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

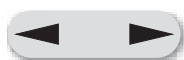
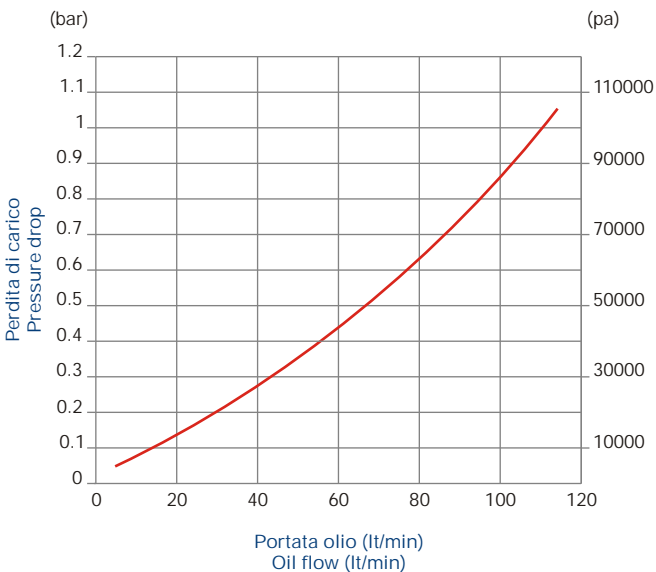
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

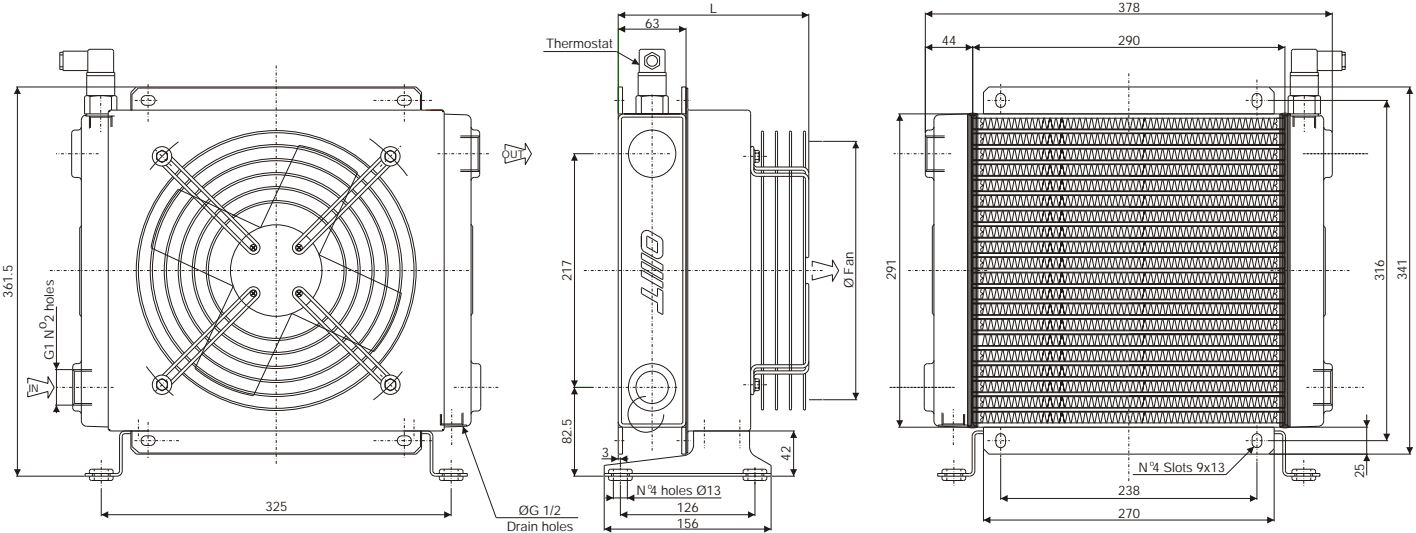


# Scambiatore tipo SS24 - Serie aria-olio Heat exchanger series SS24 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2550/2750	0.11/0.16	250	68	169	1780	0.9	11	44
03	50/60	230/400	2500/2650	0.10/0.14	250	68	169	1780	0.9	11	44
14	50/60	230/400	1370	0.25	250	68	364	1780	0.9	15.5	55
12	DC	12	3000	0.100	280	66	176	1600	0.9	10	64
24	DC	24	3000	0.100	280	66	176	1600	0.9	10	64

Portata olio consigliata da 40 a 130 (lt/min)  
Suggested oil flow from 40 to 130 (lt/min)

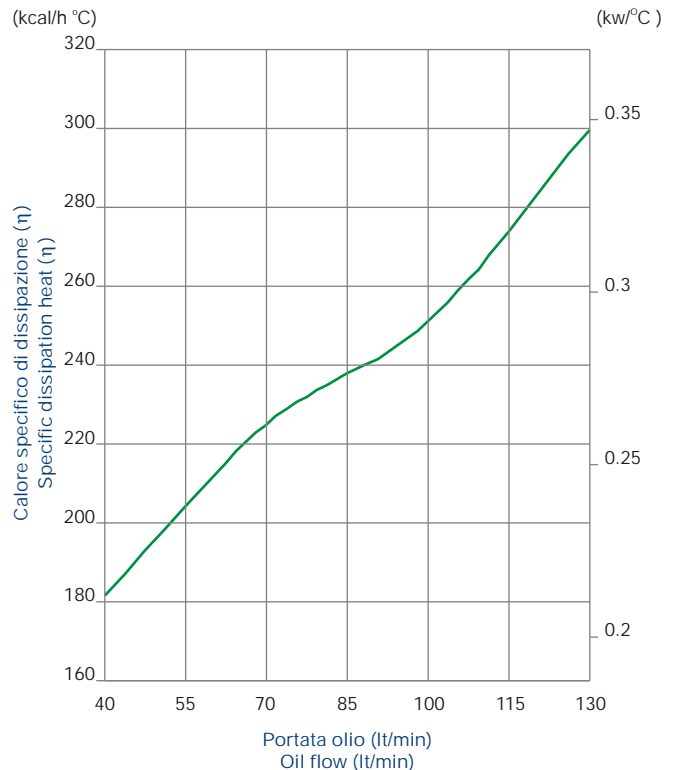


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

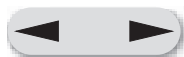
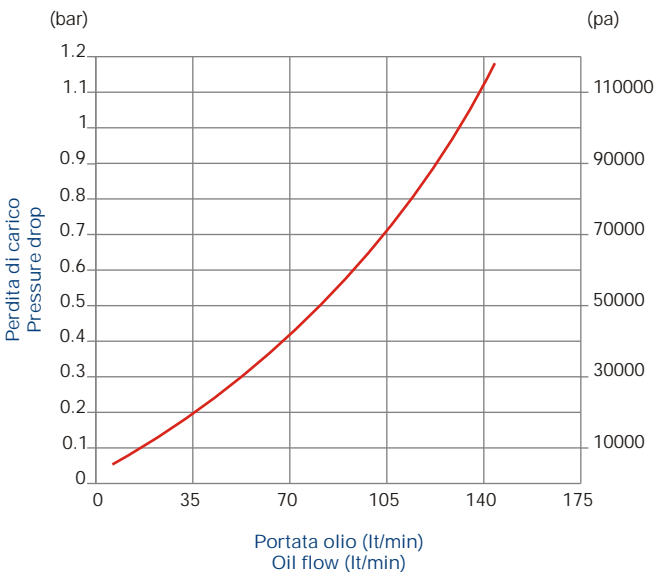
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

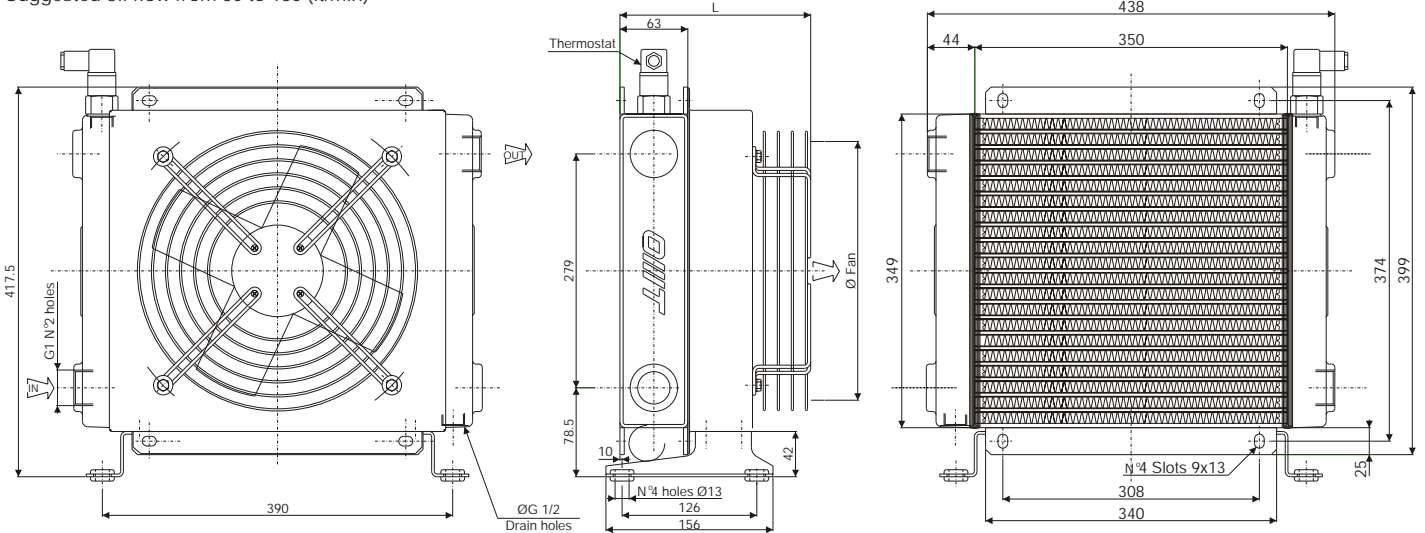


# Scambiatore tipo SS30 - Serie aria-olio Heat exchanger series SS30 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2700/3000	0.23/0.35	300	69	183	3290	1.5	15	44
03	50/60	230/400	2600/2850	0.19/0.27	300	69	183	3290	1.5	15	44
14	50/60	230/400	1390	0.37	300	69	404	3290	1.5	20	55
12	DC	12	3000	0.175	305	67	219	2300	1.5	14	64
24	DC	24	3000	0.175	305	67	219	2300	1.5	14	64
G2			1500		300	69	238	3290	1.5	14.5	

Portata olio consigliata da 30 a 130 (lt/min)  
Suggested oil flow from 30 to 130 (lt/min)

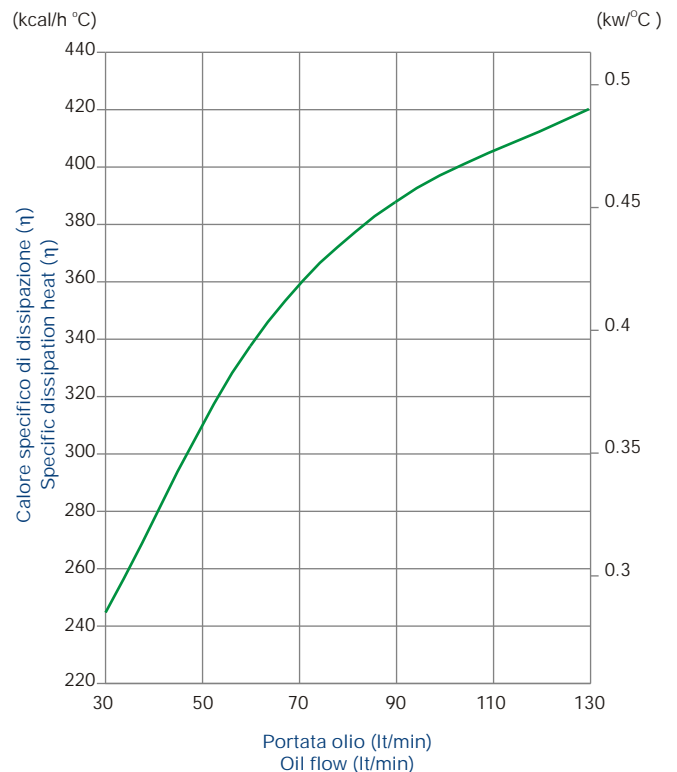


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

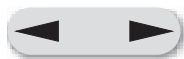
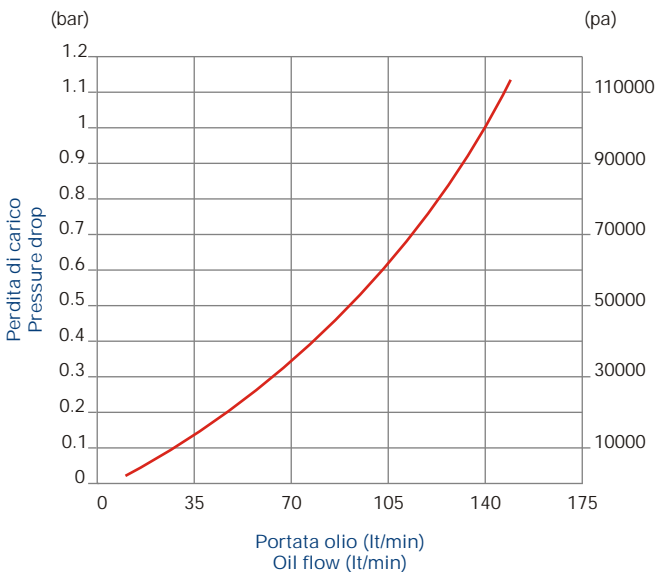
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

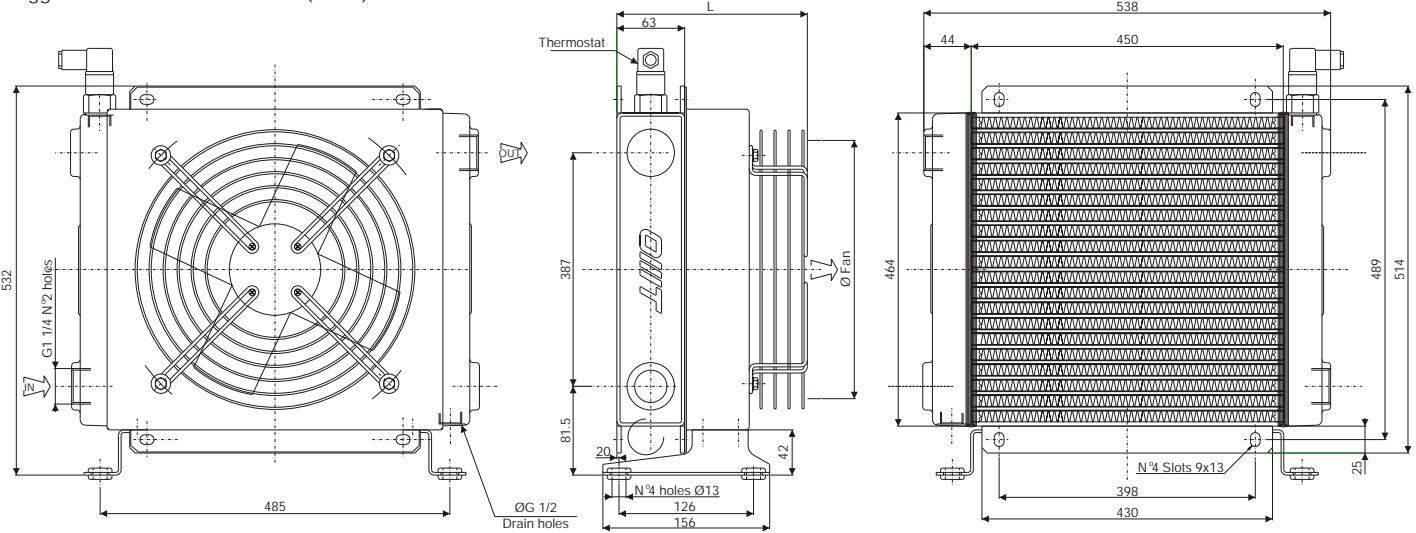


# Scambiatore tipo SS40 - Serie aria-olio Heat exchanger series SS40 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	1440/1700	0.16/0.24	400	71	223	4000	2.6	21	44
03	50/60	230/400	1450/1690	0.13/0.18	400	71	223	4000	2.6	21	44
14	50/60	230/400	1430	0.55	400	71	446	4000	2.6	25	55
12	DC	12	2500	0.200	385	69	229	3500	2.6	20	64
24	DC	24	2500	0.200	385	71	229	3500	2.6	20	64
G2			1500		400	71	248	4000	2.6	19	

Portata olio consigliata da 40 a 140 (lt/min)  
Suggested oil flow from 40 to 140 (lt/min)

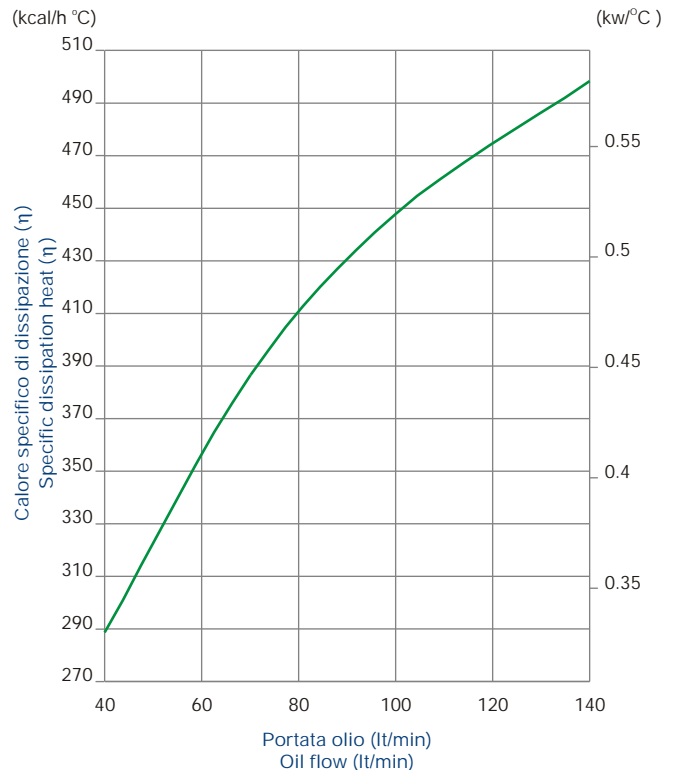


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

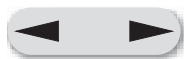
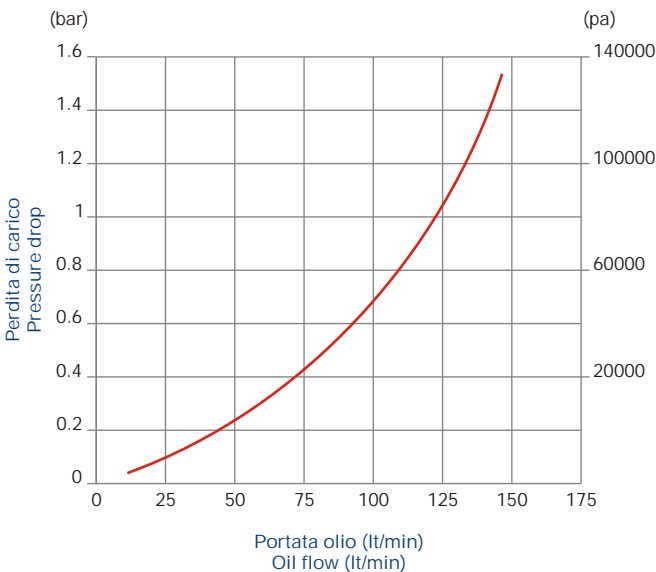
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)





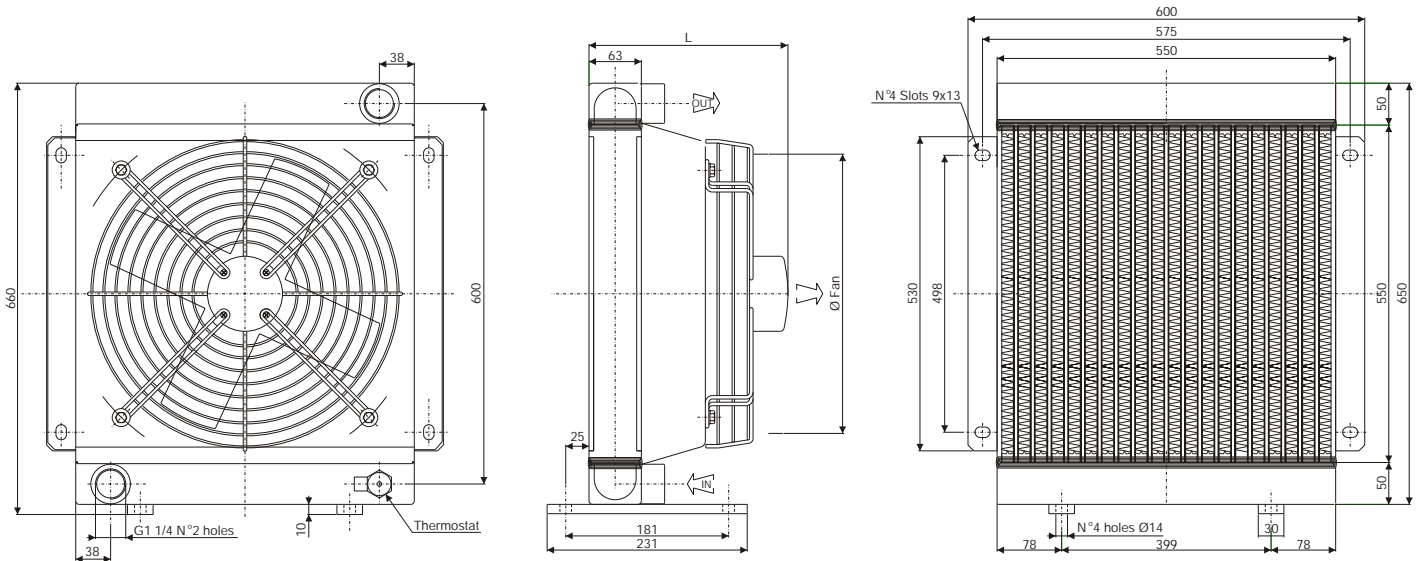
# Scambiatore tipo SS50 - Serie aria-olio Heat exchanger series SS50 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
03	50/60	230/400	1380/1840	0.20/0.28	450	73	290	6830	4.9	27	44
14	50/60	230/400	1430	0.75	450	73	446	6830	4.9	30	55
12	DC	12	3000	0.145 (x2)	280	73	207	4200	4.9	24	64
24	DC	24	3000	0.145 (x2)	280	73	207	4200	4.9	24	64
G2			1500		450	73	248	6830	4.9	23	

Portata olio consigliata da 70 a 190 (lt/min)  
Suggested oil flow from 70 to 190 (lt/min)

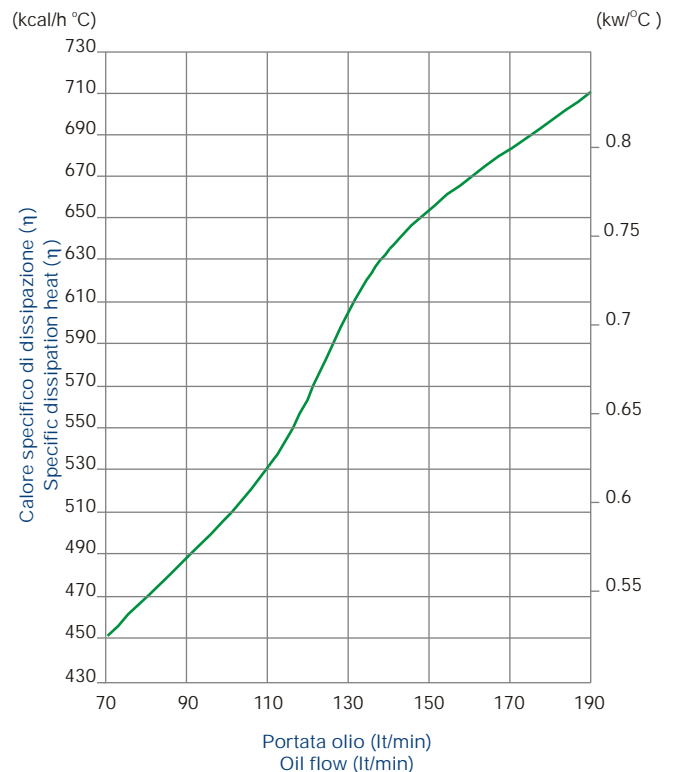
(x2)= doppio motore  
(x2)= double engine



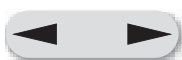
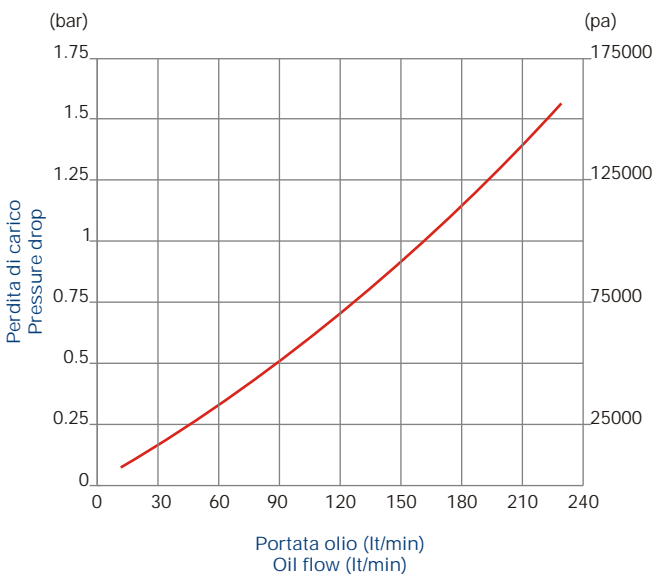
### COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

### DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



### DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

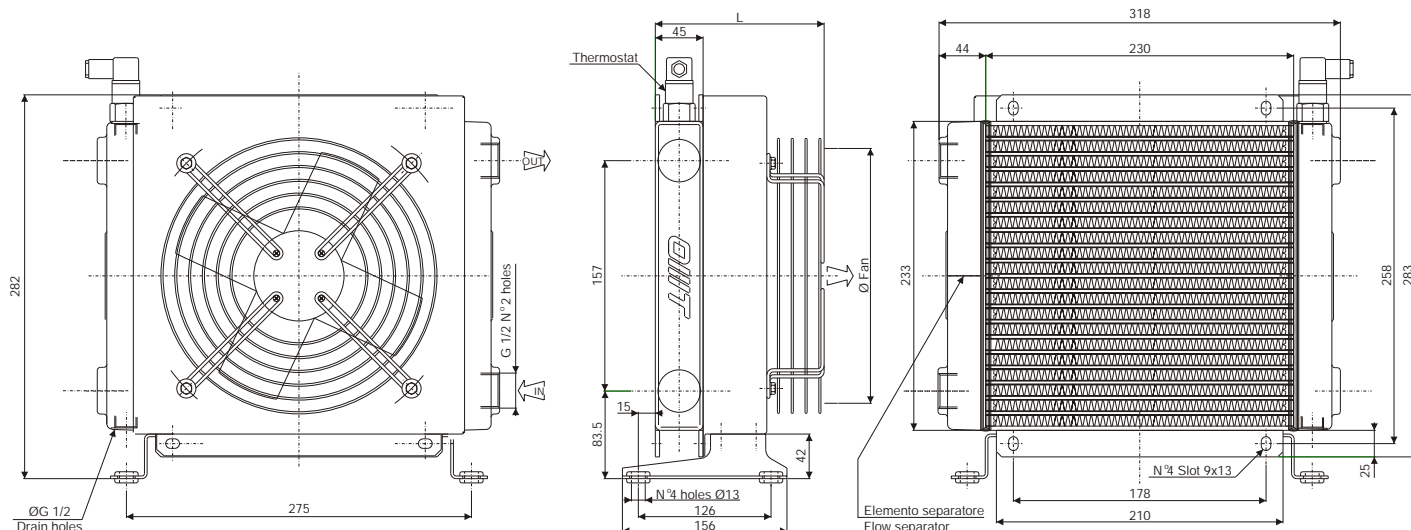


# Scambiatore tipo SS215 2pass - Serie aria-olio Heat exchanger series SS215 2pass - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri /mi n RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2600/2900	0.064/0.078	200	67	152	890	0.48	7	44
03	50/60	230/400	2600/2900	0.068/0.070	200	67	152	890	0.48	7	44
14	50/60	230/400	1370/1650	0.25	200	67	346	890	0.48	10	55
12	DC	12	3100	0.100	225	66	158	1200	0.48	6.5	64
24	DC	24	3000	0.100	225	66	158	1200	0.48	6.5	64

Portata olio consigliata da 5 a 40 (lt/min)  
Suggested oil flow from 5 to 40 (lt/min)

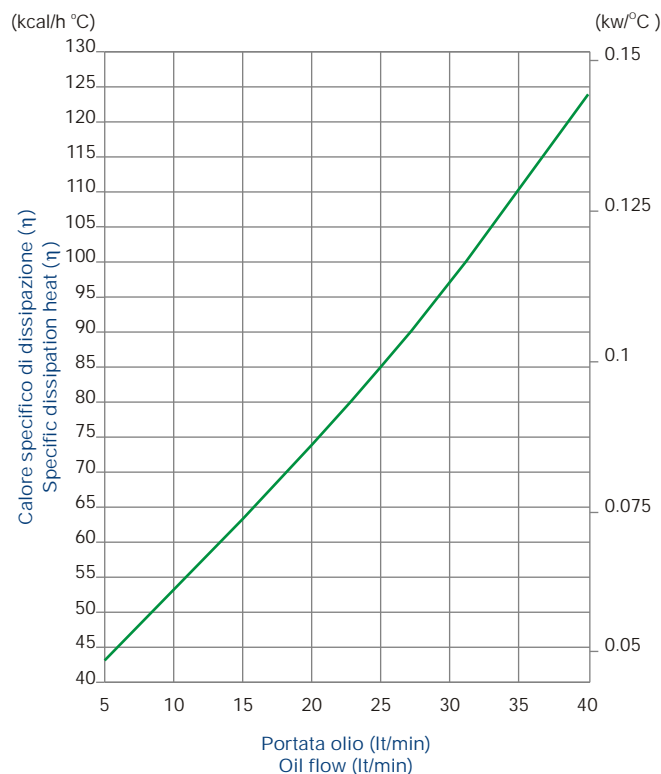


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

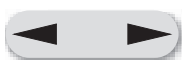
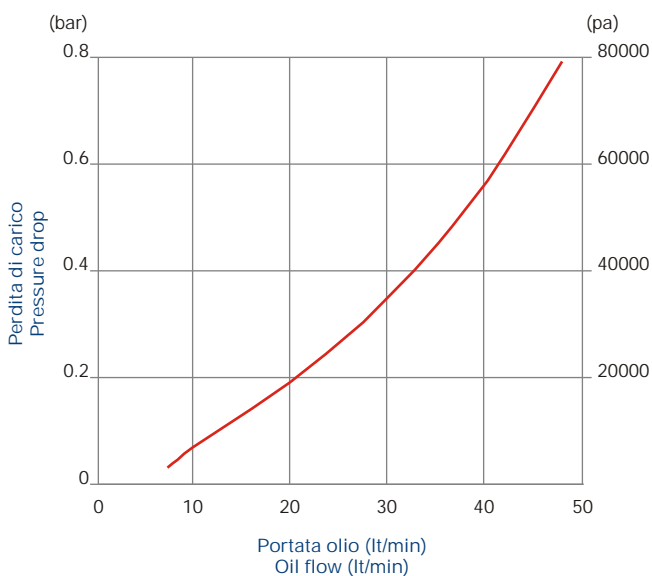
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

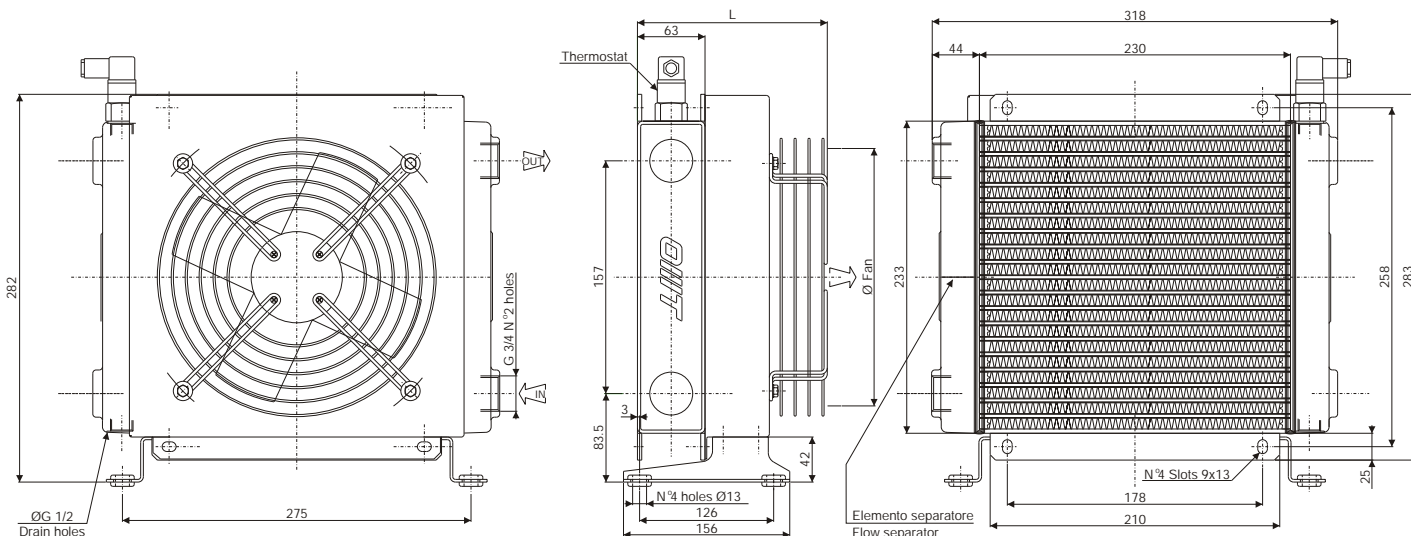


# Scambiatore tipo SS220 2pass - Serie aria-olio Heat exchanger series SS220 2pass - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2600/2900	0.064/0.078	200	67	170	890	0.68	8	44
03	50/60	230/400	2600/2900	0.068/0.070	200	67	170	890	0.68	8	44
14	50/60	230/400	1370/1650	0.25	200	67	364	890	0.68	11	55
12	DC	12	3100	0.100	225	66	176	1200	0.68	7	64
24	DC	24	3000	0.100	225	66	176	1200	0.68	7	64

Portata olio consigliata da 6 a 60 (lt/min)  
Suggested oil flow from 6 to 60 (lt/min)

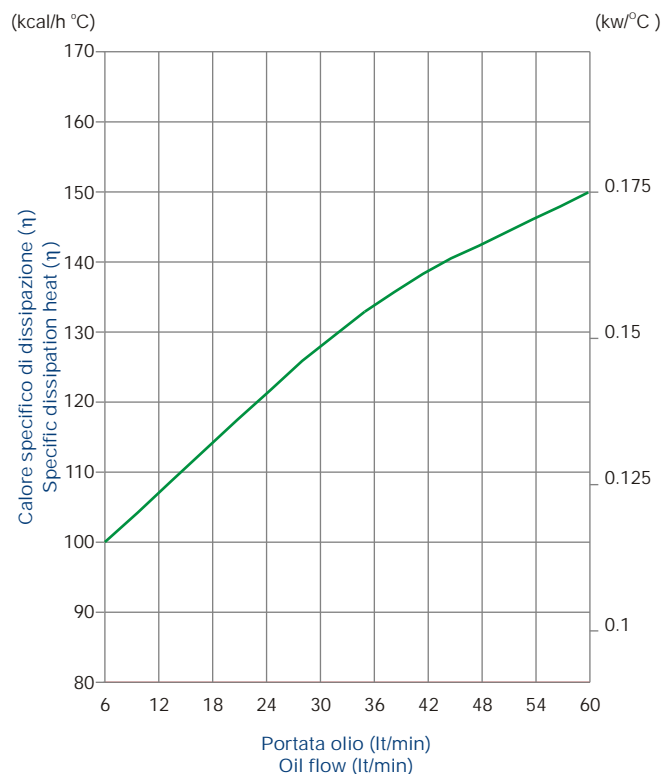


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

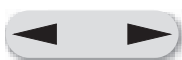
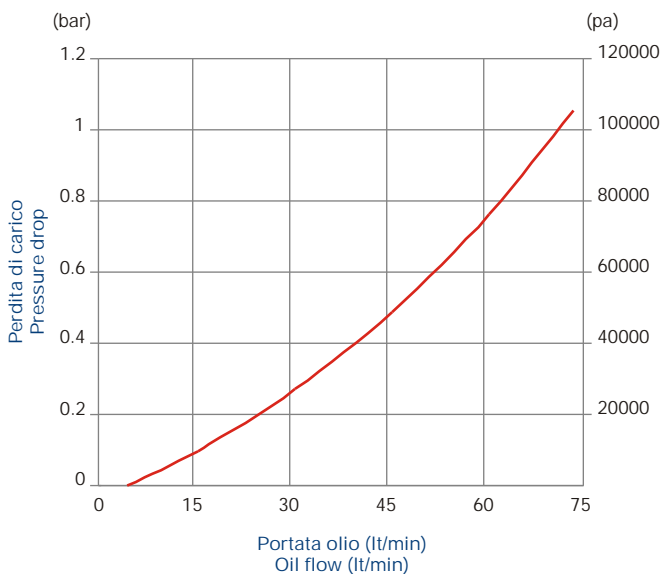
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

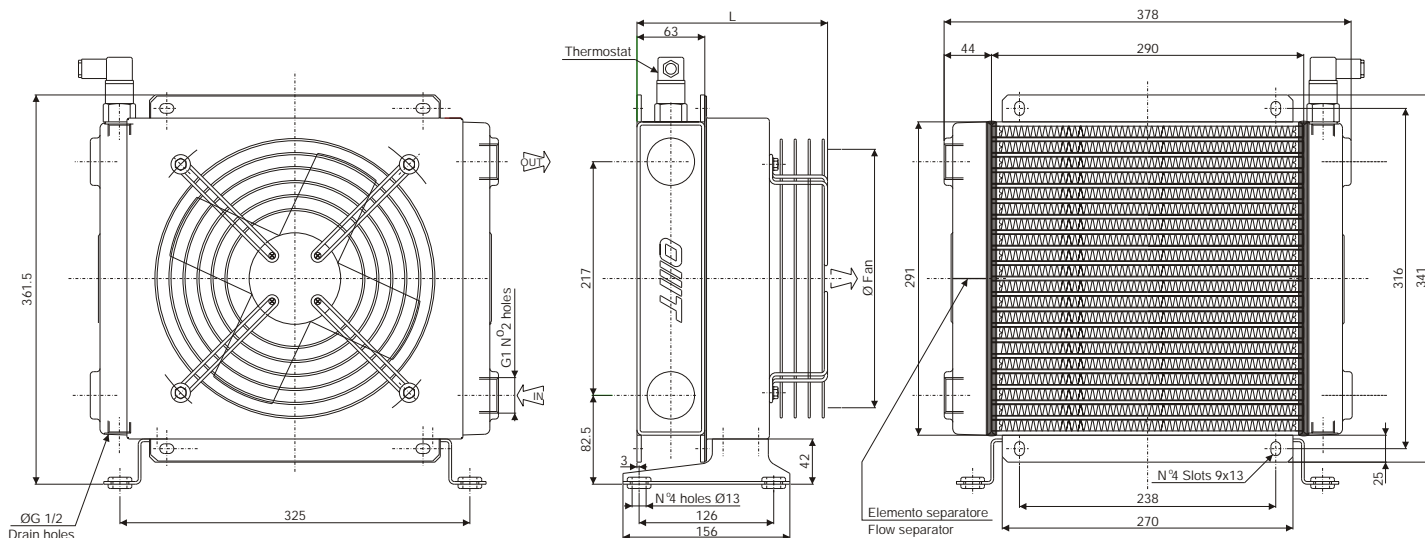


# Scambiatore tipo SS224 2pass - Serie aria-olio Heat exchanger series SS224 2pass - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2550/2750	0.11/0.16	250	68	169	1780	0.9	11	44
03	50/60	230/400	2500/2650	0.10/0.14	250	68	169	1780	0.9	11	44
14	50/60	230/400	1370	0.25	250	68	364	1780	0.9	15.5	55
12	DC	12	3000	0.100	280	66	176	1600	0.9	10	64
24	DC	24	3000	0.100	280	66	176	1600	0.9	10	64

Portata olio consigliata da 10 a 70 (lt/min)  
Suggested oil flow from 10 to 70 (lt/min)

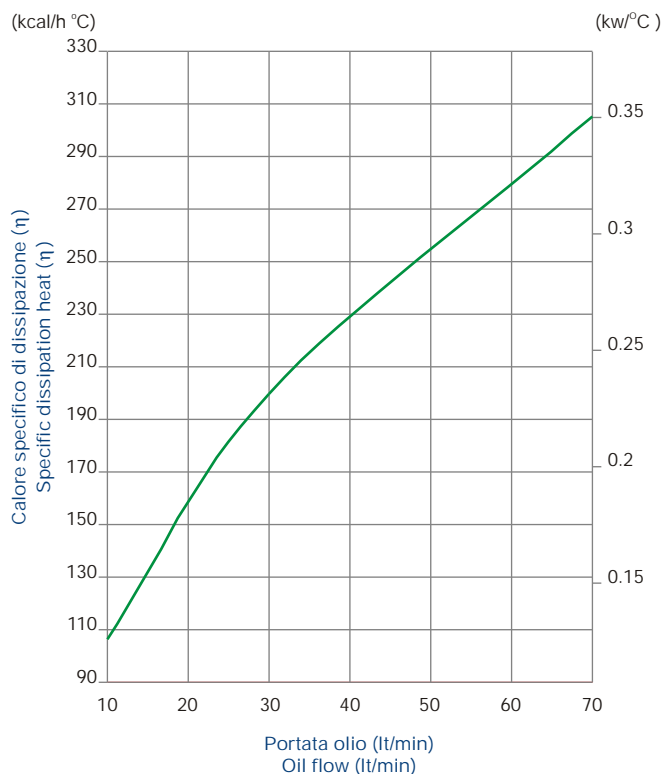


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

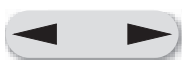
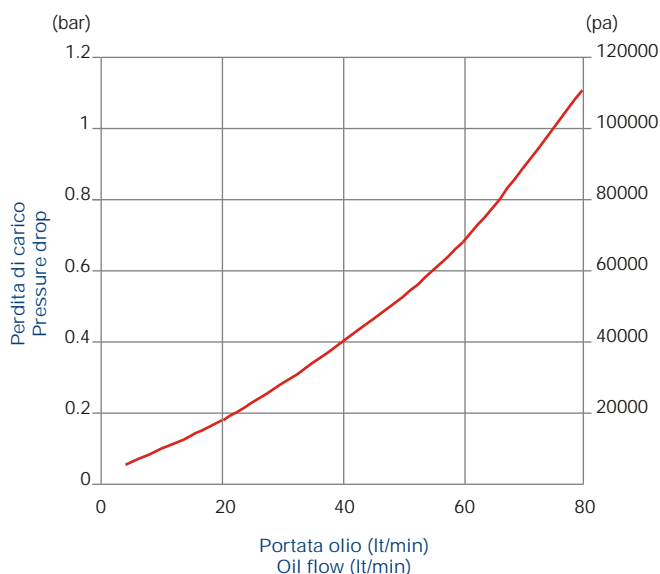
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

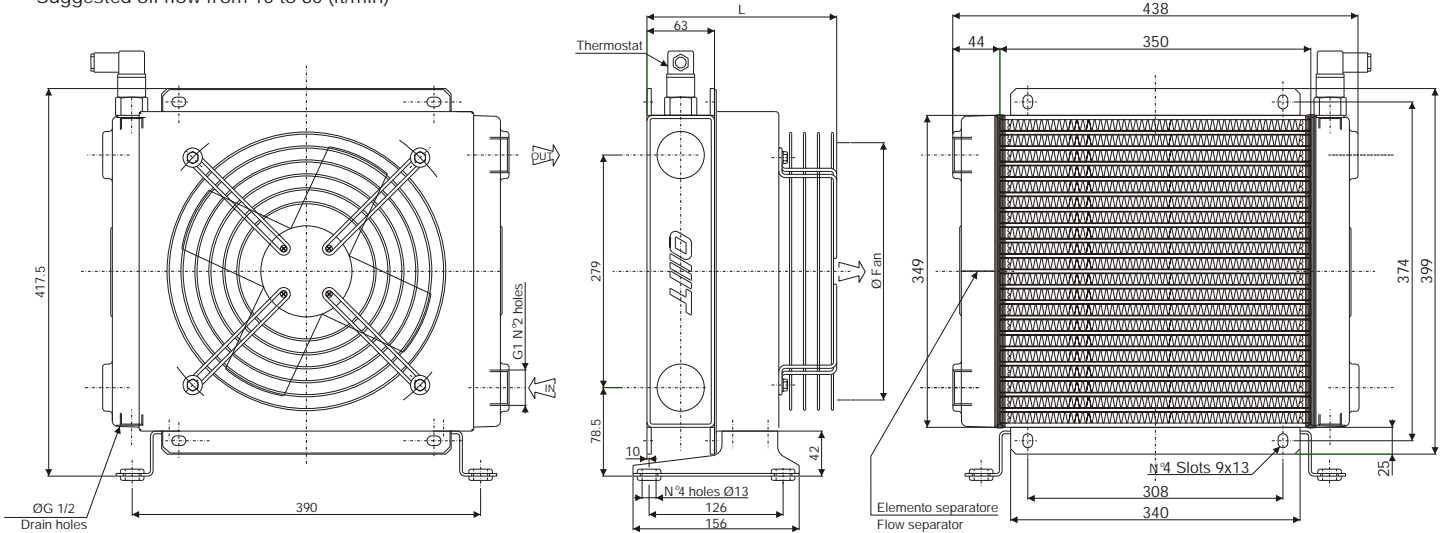


# Scambiatore tipo SS230 2pass - Serie aria-olio Heat exchanger series SS230 2pass - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2700/3000	0.23/0.35	300	69	183	3290	1.5	15	44
03	50/60	230/400	2600/2850	0.19/0.27	300	69	183	3290	1.5	15	44
14	50/60	230/400	1390	0.37	300	69	404	3290	1.5	20	55
12	DC	12	3000	0.175	305	67	219	2300	1.5	14	64
24	DC	24	3000	0.175	305	67	219	2300	1.5	14	64
G2			1500		300	69	238	3290	1.5	14.5	

Portata olio consigliata da 10 a 80 (lt/min)  
Suggested oil flow from 10 to 80 (lt/min)

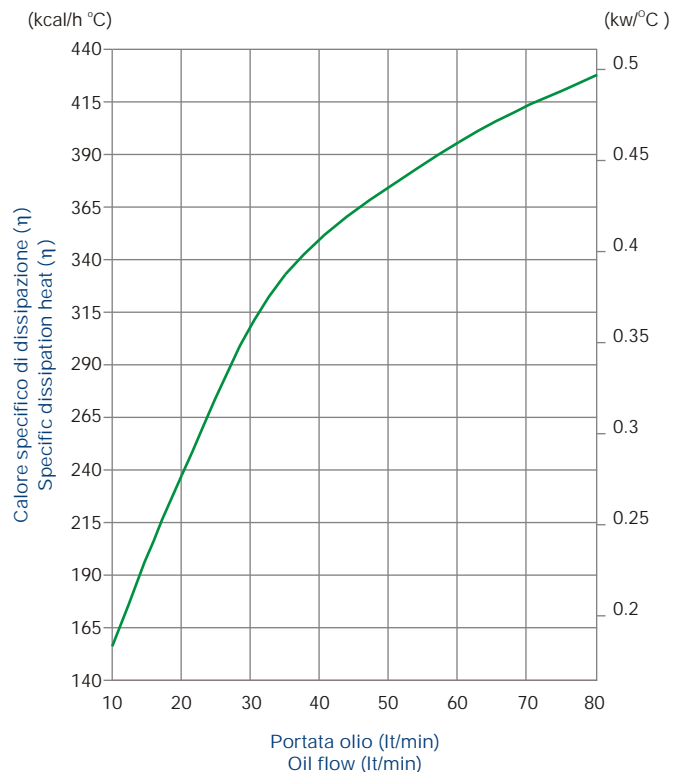


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

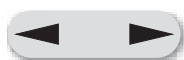
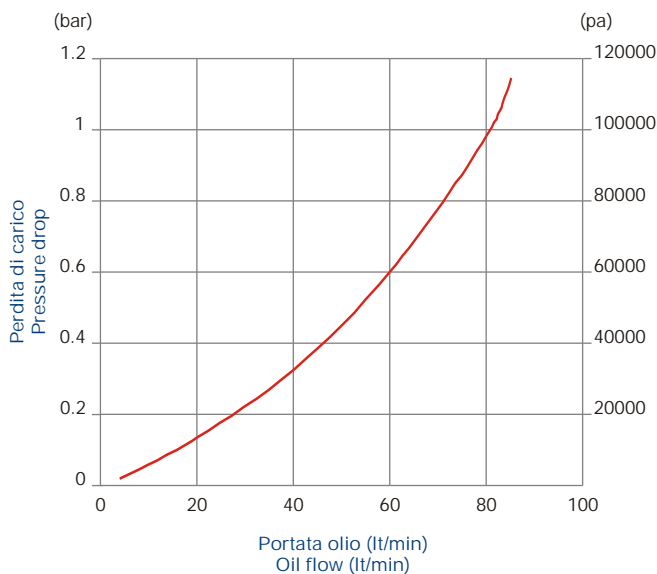
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)

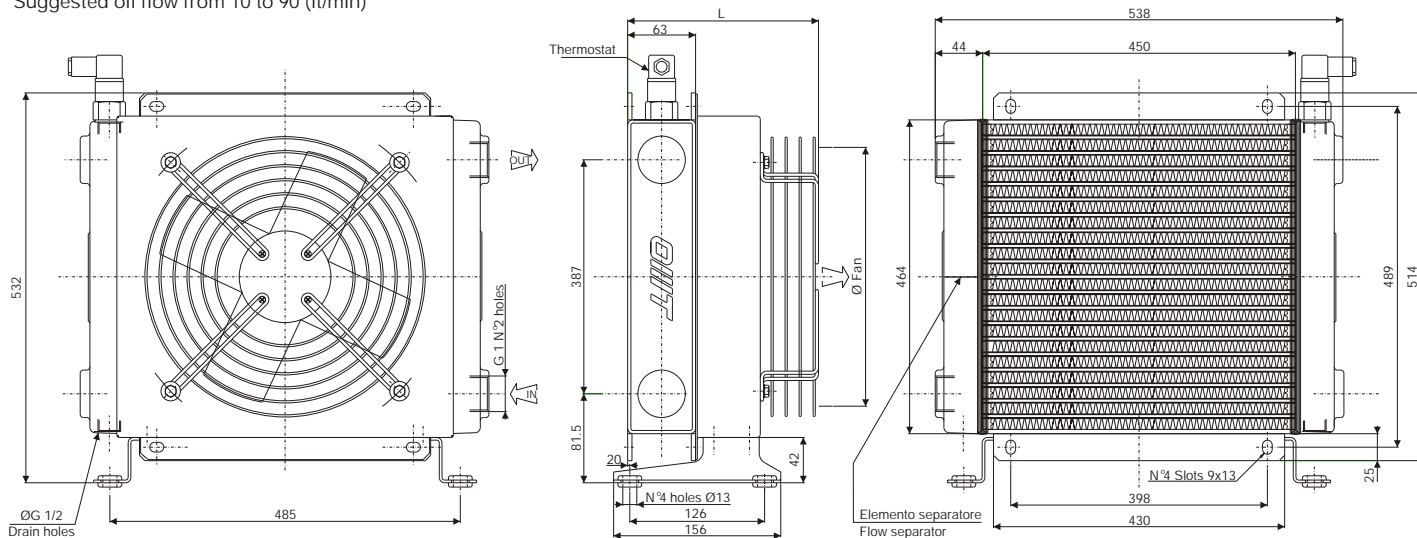


# Scambiatore tipo SS240 2pass - Serie aria-olio Heat exchanger series SS240 2pass - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	1440/1700	0.16/0.24	400	71	223	4000	2.6	21	44
03	50/60	230/400	1450/1690	0.13/0.18	400	71	223	4000	2.6	21	44
14	50/60	230/400	1430	0.55	400	71	446	4000	2.6	25	55
12	DC	12	2500	0.200	385	69	229	3500	2.6	20	64
24	DC	24	2500	0.200	385	71	229	3500	2.6	20	64
G2			1500		400	71	248	4000	2.6	19	

Portata olio consigliata da 10 a 90 (lt/min)  
Suggested oil flow from 10 to 90 (lt/min)

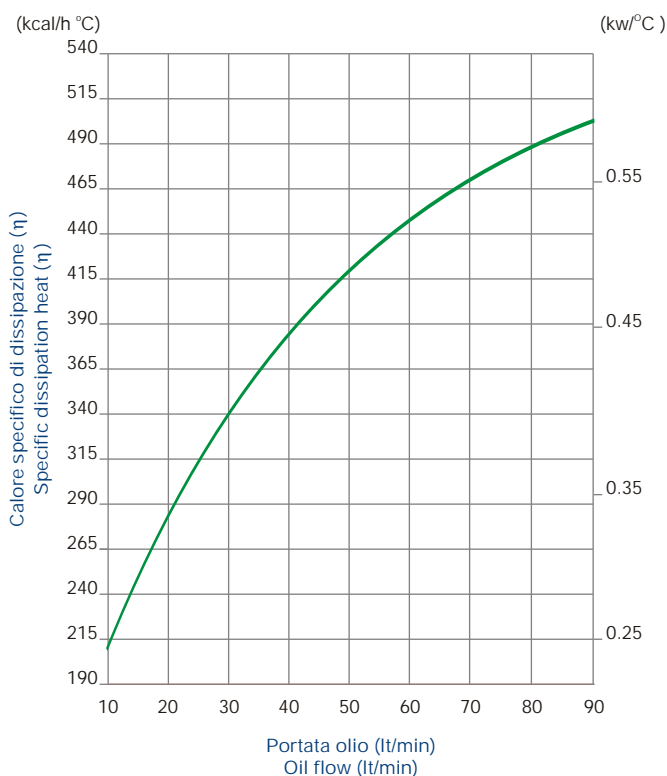


Il disegno è comprensivo dell'opzione P (vedi pag. 21)  
The drawing includes option P (see page 21)

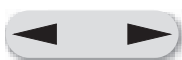
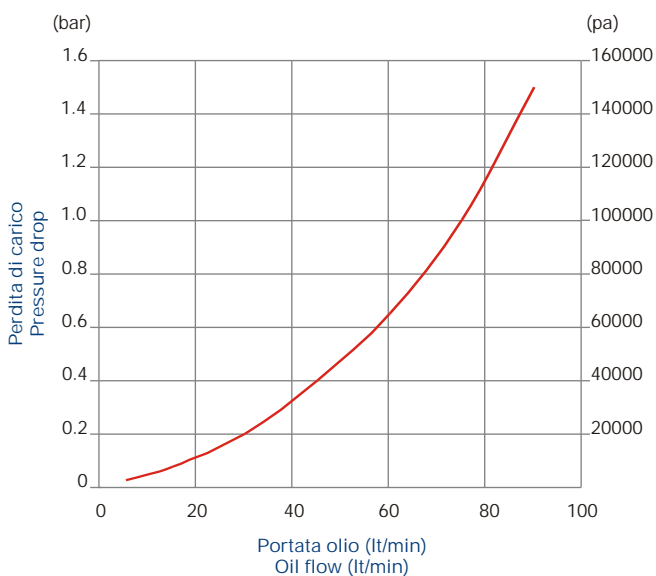
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)



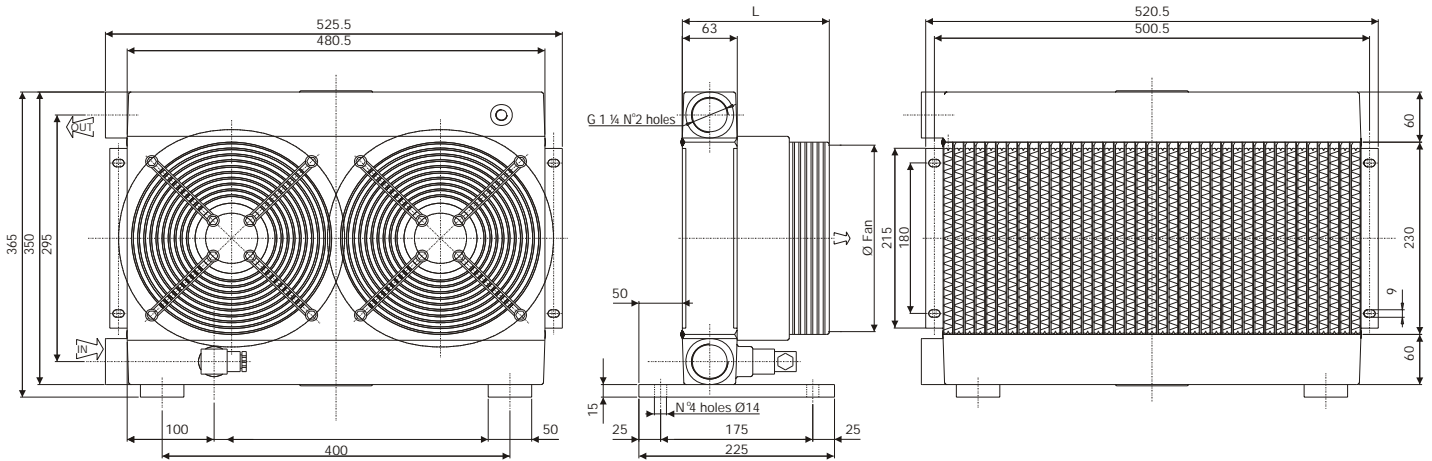
# Scambiatore tipo SD20 - Serie aria-olio Heat exchanger series SD20 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2600/2900	0.064/0.078 (x2)	200	67	170	1780	1.3	17	44
03	50/60	230/400	2600/2900	0.068/0.070 (x2)	200	67	170	1780	1.3	17	44
14	50/60	230/400	1370/1650	0.25 (x2)	200	67	364	1780	1.3	23	55
12	DC	12	3100	0.100 (x2)	225	66	176	2400	1.3	15	64
24	DC	24	3000	0.100 (x2)	225	66	176	2400	1.3	15	64

Portata olio consigliata da 60 a 180 (lt/min)  
Suggested oil flow from 60 to 180 (lt/min)

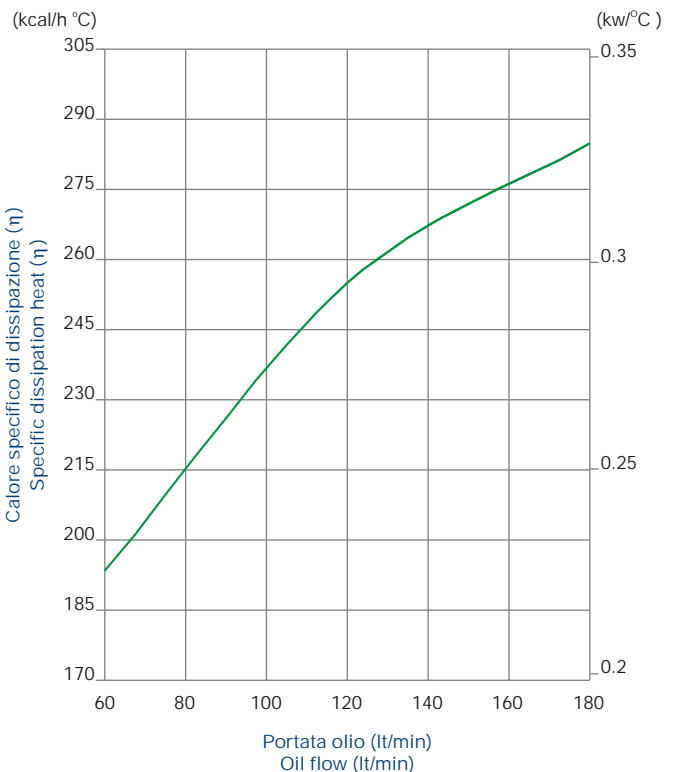
(x2)= doppio motore



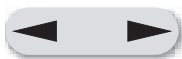
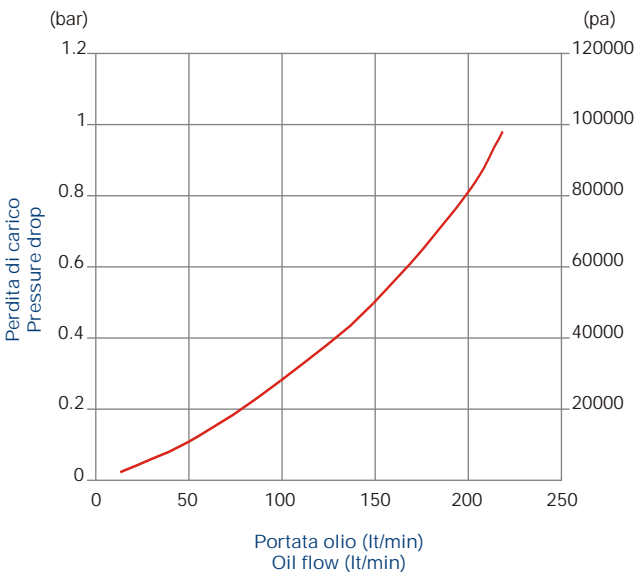
### COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

### DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



### DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)



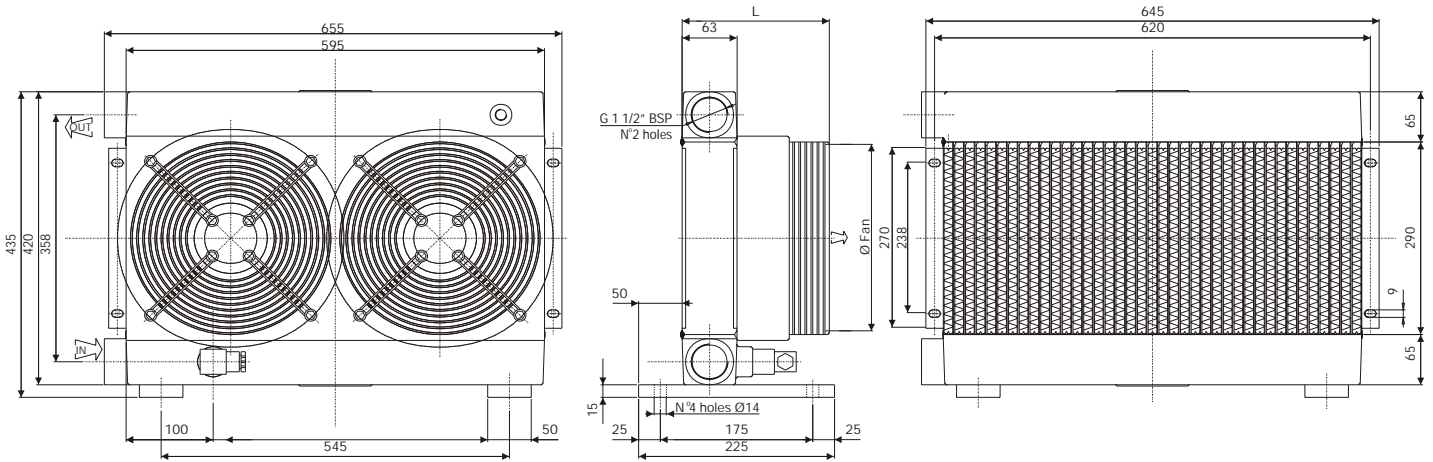
# Scambiatore tipo SD24 - Serie aria-olio Heat exchanger series SD24 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri /min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2550/2750	0.11/0.16 (x2)	250	68	169	3560	1.9	23	44
03	50/60	230/400	2500/2650	0.10/0.14 (x2)	250	68	169	3560	1.9	23	44
14	50/60	230/400	1370	0.25 (x2)	250	68	364	3560	1.9	34	55
12	DC	12	3000	0.100 (x2)	280	66	176	3200	1.9	21	64
24	DC	24	3000	0.100 (x2)	280	66	176	3200	1.9	21	64

Portata olio consigliata da 80 a 260 (lt/min)  
Suggested oil flow from 80 to 260 (lt/min)

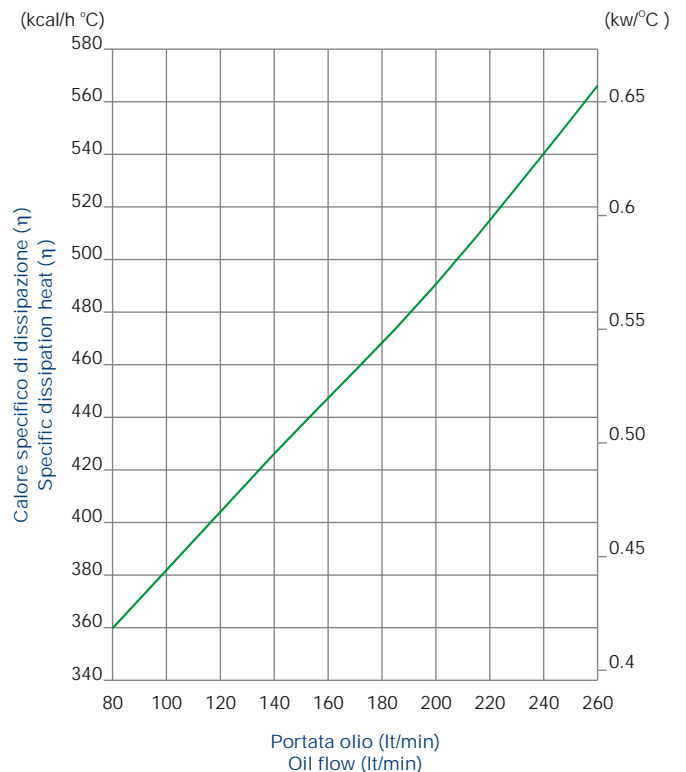
(x2)= doppio motore  
(x2)= double engine



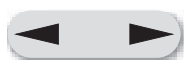
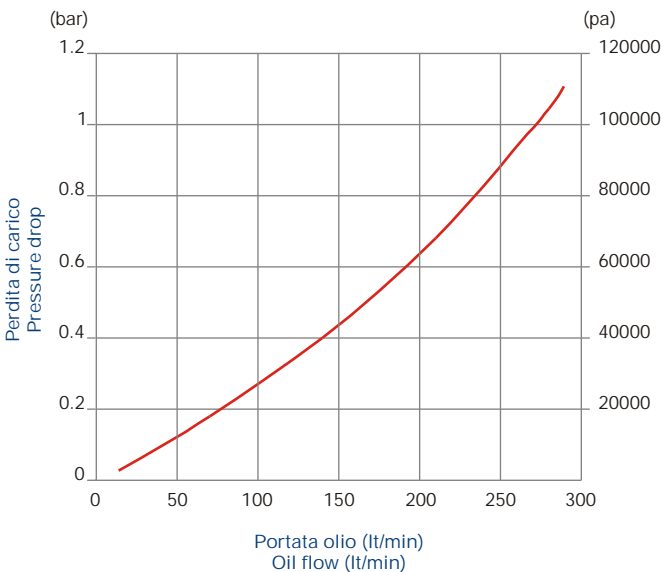
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)





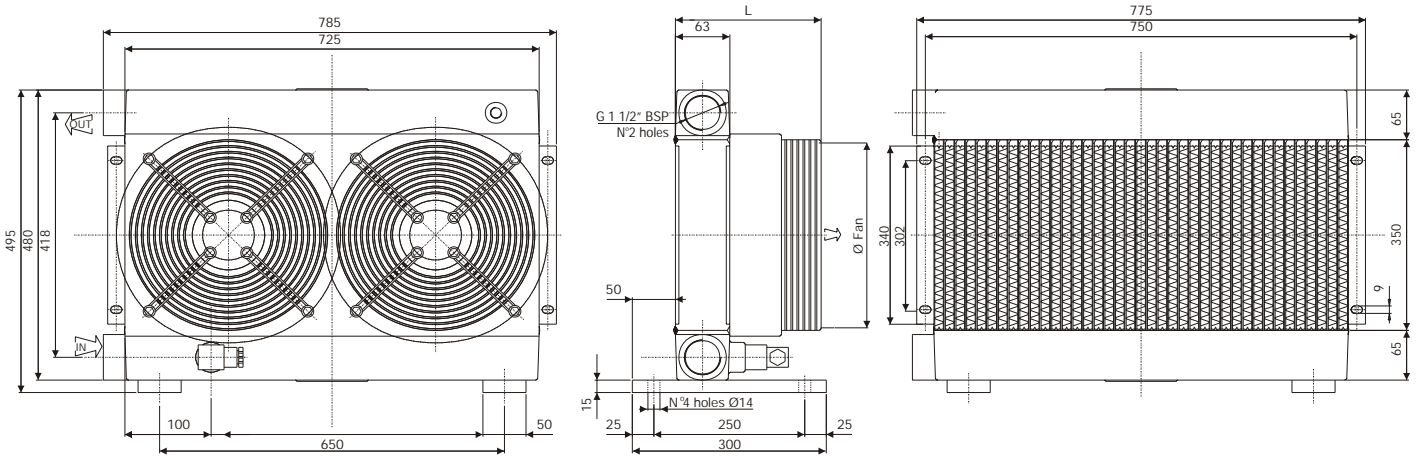
# Scambiatore tipo SD30 - Serie aria-olio Heat exchanger series SD30 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri /min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	2700/3000	0.23/0.35 (x2)	300	69	183	6580	3.1	31	44
03	50/60	230/400	2600/2850	0.19/0.27 (x2)	300	69	183	6580	3.1	31	44
14	50/60	230/400	1390	0.37 (x2)	300	69	404	6580	3.1	42	55
12	DC	12	3000	0.175 (x2)	305	67	219	4600	3.1	29	64
24	DC	24	3000	0.175 (x2)	305	67	219	4600	3.1	29	64
G2			1500		300	69	238	6580	3.1	30	

Portata olio consigliata da 80 a 260 (lt/min)  
Suggested oil flow from 80 to 260 (lt/min)

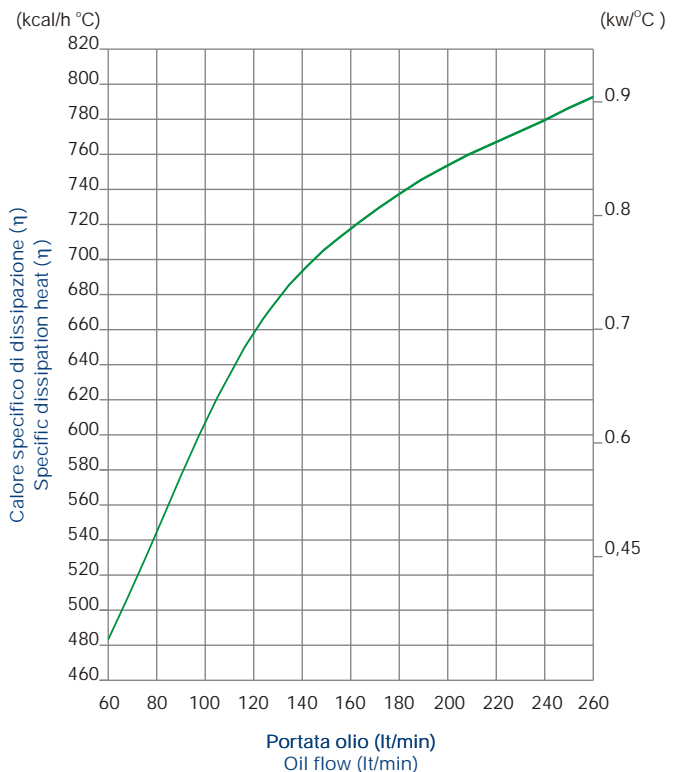
(x2)= doppio motore  
(x2)= double engine



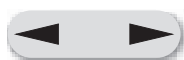
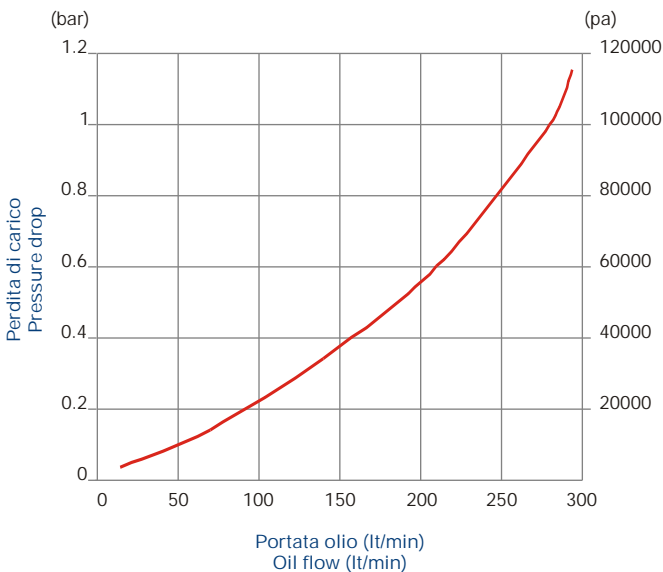
### COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

### DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



### DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)



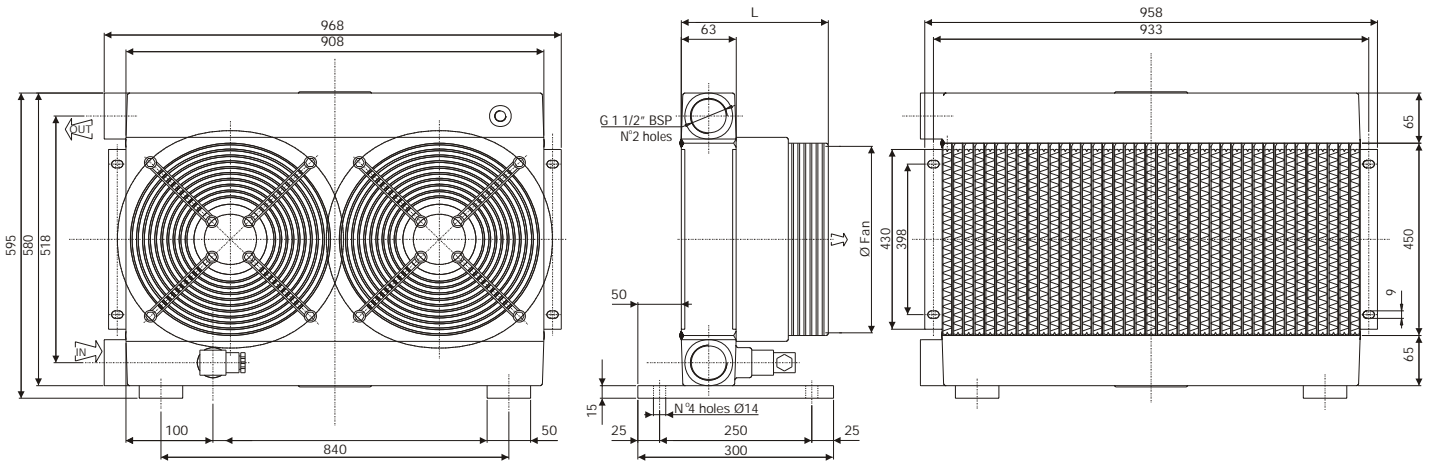
# Scambiatore tipo SD40 - Serie aria-olio Heat exchanger series SD40 - Air/oil version

## CARATTERISTICHE TECNICHE DEL GRUPPO DI VENTILAZIONE TECHNICAL FEATURES

Tipologia Type	Frequenza Hz Frequency Hz	Tensione V Voltage V	N° Giri/min RPM	Potenza Kw Power Kw	Di am. Ventola Ø FAN (mm)	dB (A)	L (mm)	Q air (m³/h)	Cap. (lt)	Peso (kg) Weight (kg)	IP
01	50/60	230	1440/1700	0.16/0.24 (x2)	400	71	223	8000	5.3	42	44
03	50/60	230/400	1450/1690	0.13/0.18 (x2)	400	71	223	8000	5.3	42	44
14	50/60	230/400	1430	0.55 (x2)	400	71	446	8000	5.3	50	55
12	DC	12	2500	0.200 (x2)	385	69	229	7000	5.3	41	64
24	DC	24	2500	0.200 (x2)	385	71	229	7000	5.3	41	64
G2			1500		400	71	248	8000	5.3	39	

Portata olio consigliata da 80 a 280 (lt/min)  
Suggested oil flow from 80 to 280 (lt/min)

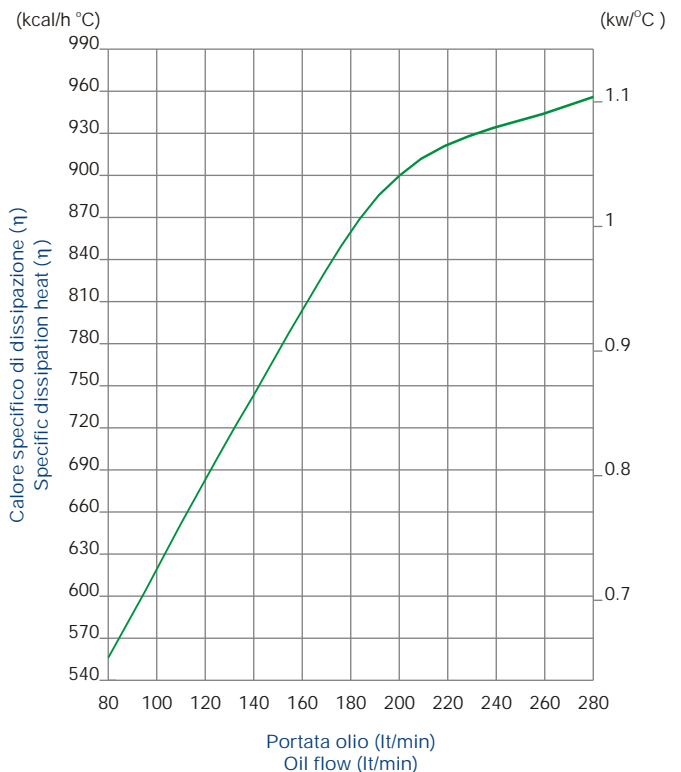
(x2)= doppio motore  
(x2)= double engine



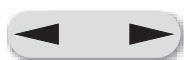
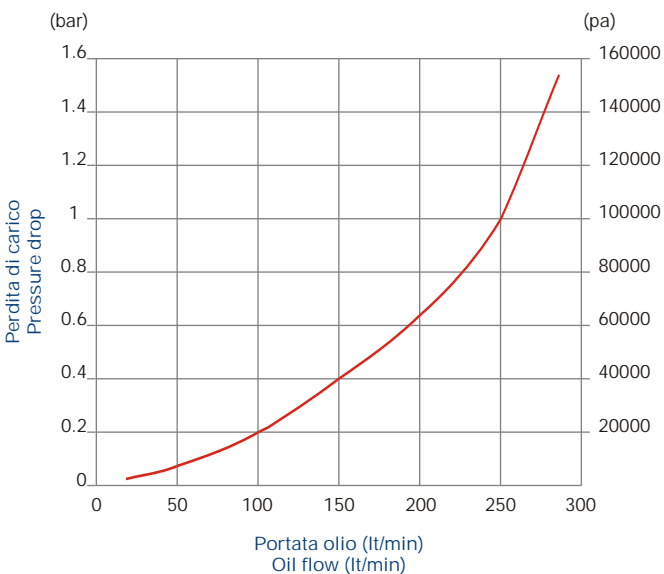
## COEFFICIENTE DI CORREZIONE CORRECTION FACTOR

CST	10	15	20	32	40	50	60	80	100	200
F	0.51	0.66	0.76	1	1.22	1.4	1.6	1.9	2.1	3.4

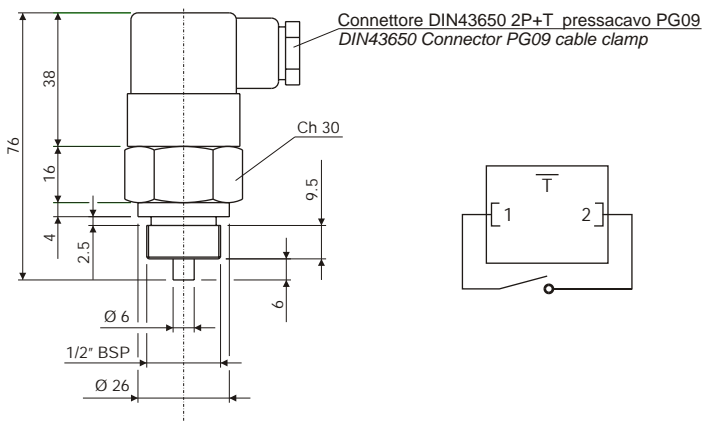
## DIAGRAMMA DI RENDIMENTO PERFORMANCE DIAGRAM



## DIAGRAMMA PERDITE DI CARICO (32 cst) PRESSURE DROP DIAGRAM (32 cst)



## TERMOSTATO BIMETALLICO FISSO - BIMETALLIC FIXED TEMPERATURE SWITCH



Codice termostato Switch part number	Temperatura d'intervento Working temperature	Contatto Contact
T01	36-26°C	NA/NO
T02	43-33°C	
T03	52-42°C	
T04	65-55°C	
T05	75-65°C	
T06	85-75°C	
T07	95-85°C	

NA=normalmente aperto  
NO=normally open

### Dati elettrici

Tensione max. 250Vca  
Corrente max. 16A  
Tolleranza intervento  $\pm 5^\circ\text{C}$   
Differenziale fisso max.  $15^\circ\text{C}$   
Connessione elettrica DIN43650  
Protezione elettrica IP65  
Temperatura max.  $130^\circ\text{C}$

### Electrical data

Max. voltage 250Vac  
Max. current 16A  
Tolerance  $\pm 5^\circ\text{C}$   
Fixed hysteresis max.  $15^\circ\text{C}$   
Electrical connection DIN43650  
Protection degree IP65  
Max temperature  $130^\circ\text{C}$

### Materiali

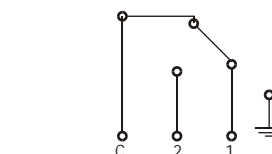
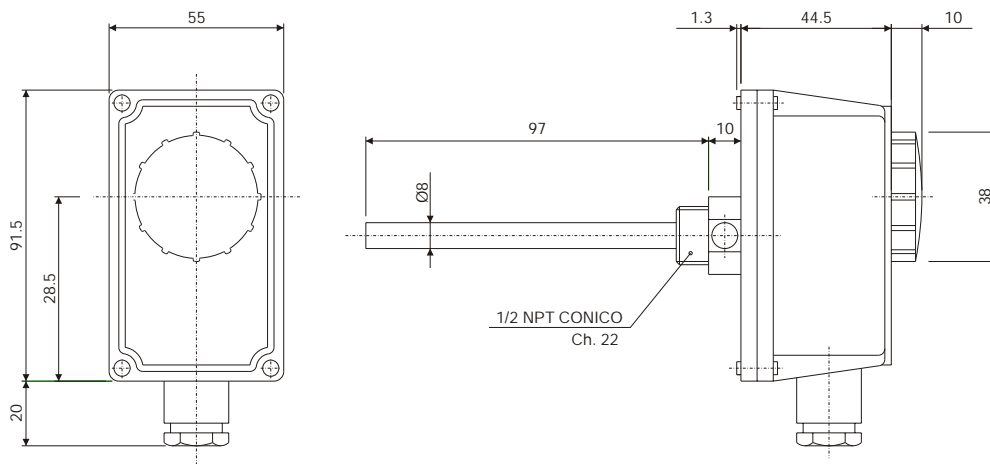
Corpo Ottone  
Contatti Argentati

### Materials

Body Brass  
Contacts Silver plated

N.B.: assemblare il termostato allo scambiatore con una rondella piana in rame.

## TERMOSTATO REGOLABILE - TEMPERATURE SWITCH



**Morsetto1:**  
apre il circuito all'aumentare della temperatura  
**Morsetto2:**  
chiude il circuito all'aumentare della temperatura  
**Comune:**  
entrata comune

Codice termostato regolabile  
Adjustable switch part number

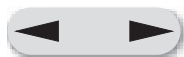
T08

### Dati tecnici

Campo di regolaz. temp.  $0^\circ\pm 90^\circ\text{C}$   
Tolleranza  $\pm 5\text{k}$   
Differenziale  $6\pm 2\text{k}$   
Grado di protezione IP 40  
Classe di isolamento I  
Gradiente termico  $< 1\text{k}/\text{min}$   
Temperatura max. testa  $80^\circ\text{C}$   
Temperatura max. bulbo  $125^\circ\text{C}$   
Temperatura di stoccaggio  $-15^\circ\text{C}\pm 55^\circ\text{C}$   
Costante di tempo  $< 1'$   
Portata sui contatti C-1:  $10(2.5)\text{A}/250\text{V}$ -  
C-2:  $6(2.5)\text{A}/250\text{V}$ -  
contatti in interruzione o in commutazione  
Uscita 1B  
Tipo di azione  
Situazione di installaz. ambiente normale  
Passacavo M20x1.5

### Technical data

Temperature range  $0^\circ\pm 90^\circ\text{C}$   
Tolerance  $\pm 5\text{k}$   
Temperature differential  $6\pm 2\text{k}$   
Degree of protection IP 40  
Insulation class I  
Temp. rate of change  $< 1\text{k}/\text{min}$   
Max. head temperature  $80^\circ\text{C}$   
Max. sensing bulb temp.  $125^\circ\text{C}$   
Storage temperature  $-15^\circ\text{C}\pm 55^\circ\text{C}$   
Time constant  $< 1'$   
Contacts rating C-1:  $10(2.5)\text{A}/250\text{V}$ -  
C-2:  $6(2.5)\text{A}/250\text{V}$ -  
cutoff or switching contacts  
Output 1B  
Switch action  
Installation location normal environment  
Fairlead type M20x1.5



SS20

14

02

A

P

Tipologia di scambiatore Type	
SS10	
SS15	
SS20	
SS24	
SS30	
SS40	
SS50	
SS215 (2pass)	
SS220 (2pass)	
SS224 (2pass)	
SS230 (2pass)	
SS240 (2pass)	
SD20	
SD24	
SD30	
SD40	

Termostati bimetallici fissi Bimetallic fixed temperature switches	
00	Senza termostato - No switch
01	Termostato fisso - Fixed switch 36-26°C
02	Termostato fisso - Fixed switch 43-33°C
03	Termostato fisso - Fixed switch 52-42°C
04	Termostato fisso - Fixed switch 65-55°C
05	Termostato fisso - Fixed switch 75-65°C
06	Termostato fisso - Fixed switch 85-75°C
07	Termostato fisso - Fixed switch 95-85°C

Opzioni Options	
P	Con staffe di fissaggio With foot flanges
E	Con cablaggio elettrico With electric connection
PE	Con staffe di fissaggio e con cablaggio elettrico With foot flanges and with electric connection

P-PE opzione valida solo per  
SS10; SS15; SS20; SS24; SS30; SS40; SS215;  
SS220; SS224; SS230; SS240.  
P-PE option applicable only for  
SS10; SS15; SS20; SS24; SS30; SS40; SS215;  
SS220; SS224; SS230; SS240.

Termostato regolabile Adjustable switch	
08	Termostato regolabile - Adjustable switch 0-90°C

Tipi di ventilazione Fans	
A	Aspirante - Drawing

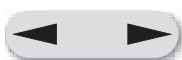
Tipi di ventilazione Fan Motor	
01	230V 50/60 Hz monofase - Single phase
03	230/400V 50/60 Hz trifase - Three phase
14	230/400V 50/60 Hz trifase B14 - Three phase B14
12	12V CC
24	24V CC
G2	Predisposto per motore idraulico GR.2 - Arranged for hydraulic motor GR.2

## APPLICAZIONI SPECIALI

Per tutte le applicazioni che non rientrano nei casi normali specificati in questo catalogo contattare l'ufficio commerciale della OMT per un eventuale studio di fattibilità.

## SPECIAL APPLICATIONS

For special solutions or particular applications, please contact OMT commercial department for informations.



# Scambiatori di calore serie S - Serie aria-olio

## Heat exchanger series S - Air/oil version

### ASSORBIMENTI MOTORE MOTOR ABSORPTIONS

Tipologia Type	SS10 (A)	SS15 - SS215 (A)	SS20-SS220-SD20 (A)	SS24-SS224-SD24 (A)	SS30-SS230-SD30 (A)	SS40-SS240-SD40 (A)	SS50 (A)
01 50 Hz	0.22	0.30	0.30	0.51	1.10	0.71	
01 60 Hz	0.21	0.34	0.34	0.74	1.55	1.10	
03 50 Hz	0.13	0.17	0.17	0.19	0.33	0.44	0.48
03 60 Hz	0.09	0.13	0.13	0.23	0.43	0.39	0.53
14 50 Hz		1.6	1.6	1.6	2	2.3	3.3
14 60 Hz		0.9	0.9	0.9	1.2	1.3	1.9
12V	6.4	6.4	6.4	6.9	7	8	5.4
24V	3.1	3.3	3.3	3.6	3.5	4	3.2

Nella tabella è riportato il valore di assorbimento in (A) di ogni singolo motore.  
The absorption value (A) of each motor is shown in the table.

