

HT 42 / A / 102 / 1206 / IE

Air-Oil Heat Exchangers

Scambiatori di calore Aria-Olio

Serie MG Air



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INFORMAZIONI GENERALI

Scambiatori Aria-Olio - Serie MG Air 2000K

INTRODUZIONE

Gli scambiatori di calore aria-olio sono impiegati per il raffreddamento di circuiti oleodinamici usando, come fluido raffreddante, l'aria ambiente convogliata sulla massa radiante da una ventola azionata da un motore elettrico o idraulico.

La massa radiante, in lega di alluminio ad alta resistenza, è ottenuta mediante un processo costruttivo di saldo-brasatura sotto vuoto.

La particolare configurazione dei condotti aumenta la turbolenza del fluido e di conseguenza la capacità di scambio; inoltre la presenza di speciali turbolatori sull'alettatura del pacco radiante, migliora ulteriormente il coefficiente di trasmissione totale.

Il risultato è un prodotto tecnologicamente avanzato di dimensioni contenute, leggero e robusto.

• Fluidi compatibili

- OLI MINERALI, HL, HLP
- EMULSIONI ACQUA-OLIO
- ACQUA-GLICOLE
- Per altri fluidi consultare il nostro ufficio tecnico

• Specifiche tecniche masse radianti

- Materiale: alluminio "long life".
- Pressione d'esercizio: 20 bar
- Pressione di collaudo: 35 bar
- Temperatura max d'esercizio: 120°C
- Per particolari atmosfere aggressive consultare il nostro ufficio tecnico.

• Installazione

Lo scambiatore deve essere installato in posizione orizzontale e rispettare la distanza minima dalle pareti (vedi fig. 1) per assicurare il naturale afflusso dell'aria di raffreddamento .

Lo scambiatore è generalmente installato sulla linea di ritorno al serbatoio; deve inoltre essere protetto da colpi o vibrazioni mediante supporti antivibranti e tubi flessibili. Evitare che lo scambiatore sia sottoposto a repentine variazioni di flusso, colpi d'ariete e pulsazioni che possono causare danni irreversibili agli elementi dello scambiatore .

Si raccomanda l'installazione di una valvola di by-pass (vedi fig. 2) a protezione dello scambiatore dall'innalzamento della pressione dovuta all'elevata viscosità del fluido durante le partenze a freddo.

GENERAL INFORMATION

Heat exchangers - MG Air 2000K Series

DESCRIPTION

The air-oil heat exchangers are used for cooling oil in the hydraulic systems using, as cooler that passes over the radiant by means of a fan operated by an electric or hydraulic motor.

The cooler element, in high resistance aluminium alloy, is obtained by means of a bronze-welding process carried out under vacuum.

The particular configuration of the cooling pipes increases the turbulence of the fluid consequently of the exchange capacity, moreover, the presence of special jets on the cooler finning further improves the total transmission coefficient. The result is a very small, light and robust technologically advanced product.

• Compatible fluids

- MINERAL OILS, HL, HLP.
- WATER-OIL EMULSION.
- WATER-GLYCOL.
- Consults our Tech. Dpt. for other fluids

• Technical specifications of Cooler Element

- Material : "long life" aluminium
- Operating pressure: 20 bar.
- Test pressure: 35 bar.
- Max. operating temperature: 120°C
- For specially "aggressive" atmospheres contact our Tech. Dpt.

• Installation

The exchanger can be fitted in a horizontal position, respecting the minimum distance from the wall (see fig. 1) so as to ensure a natural flow of cooling air. The exchanger is usually installed on oil tank return piping; it must also be protected from impacts and mechanical vibrations by supports and must be connected to the plant with flexible hoses.

Avoid subjecting the exchanger to sudden changes in flow , hammering and pulsations that can cause irreversible damage to the element.

We recommend installing a by-pass valve see fig. 2) to protect the exchanger from over-pressure generated when the plants is started up due to high oil viscosity.

DATI TECNICI

Manutenzione

È buona norma prestare particolare attenzione alla pulizia della massa radiante per garantire un naturale ricambio d'aria, ed evitare una diminuzione della efficienza termica.

Pulizia lato olio

Per eseguire la pulizia lato olio, lo scambiatore dovrà essere smontato.
Lo sporco può essere rimosso flussando in controcorrente un prodotto sgrassante, compatibile con alluminio.
Effettuare un lavaggio con olio idraulico prima di ricollegare il prodotto all'impianto.

Pulizia lato aria

La pulizia lato aria può essere effettuata con aria compressa o acqua, con direzione del getto parallelo alle alette per non danneggiarle.
Lo sporco oleoso o grasso può essere rimosso con getto di vapore o acqua calda.
Durante questa operazione, il motore elettrico non deve essere collegato alla tensione, e dovrà essere adeguatamente protetto.

TECHNICAL DATA

Maintenance

You should be particularly carefull in cleaning the cooler element to guarantee a natural exchange of air, in order to prevent a reduction in thermal efficiency.

Cleaning oil side

*The exchanger should be dismantled to clean on the oil side.
The dirt can be removed by flushing, in counter-current, de-greasing substance, compatible with aluminium.
Wash with hydraulic oil before re-connecting the product to the plant.*

Cleaning air side

*Cleaning on the air side can be done using compressed air or water, directing the jet parallel to the fins so as not to damage them.
Oily dirt or grease can be removed with a jet of steam or hot water.
During this operation, the electric motor must be disconnected from the voltage supply, and must be adequately protected*

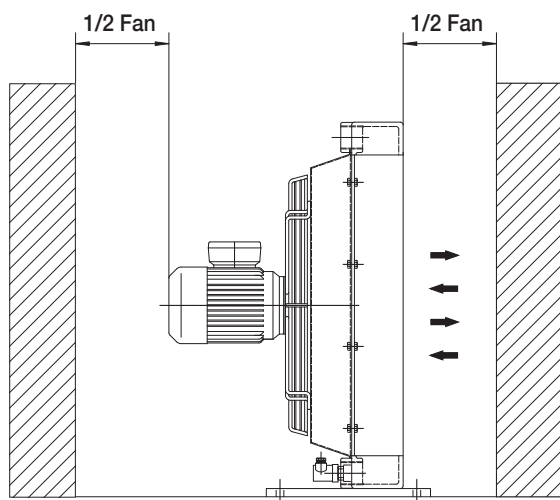


Fig.1

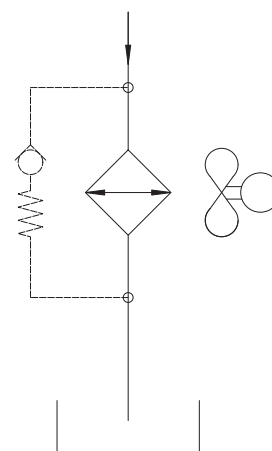


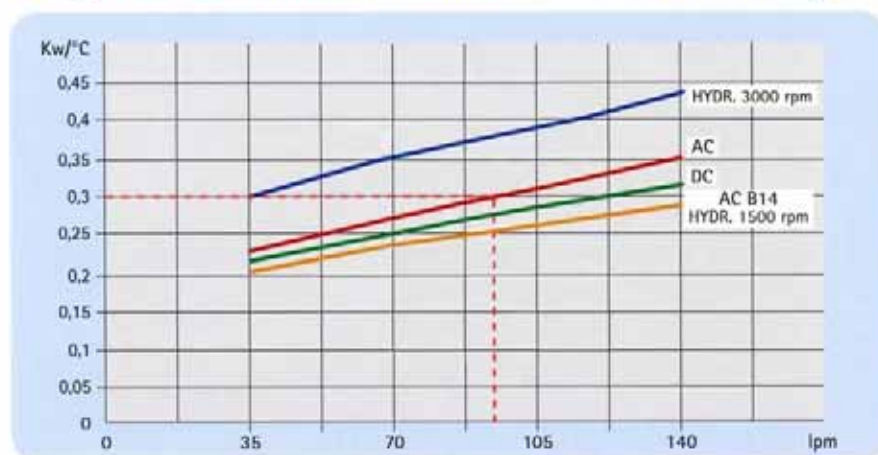
Fig.2

Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
253001###	230 AC	50	0,189	0,85	2520	300	78	2220	44	1,6	15
253003###	230-400 AC	50/60	0,195	0,43	2600	300	76	2500	44		15
253004###	230-400 AC B14	50/60	0,370	1,03	1370	300	70	1850	55		20
253012###	12 DC	/	0,180	12,2	3000	305	80	1920	65		14
253024###	24 DC	/	0,180	6	3000	305	83	2100	65		14
253056###	Prepared for Gr.2 hydraulic motor					300			/		15

☎ Contattare il nostro Ufficio Tecnico Contact our Tech. Dpt

Diagramma rendimento *Performance diagram*



Esempio di scelta di uno scambiatore

Per effettuare la scelta di uno scambiatore si procede nel seguente modo :

Si calcola la potenza specifica di scambio espressa in kW / °C , conoscendo la potenza da dissipare ed il ΔT (differenza fra la temperatura di ingresso olio e la temperatura ambiente)

Esempio :

Potenza da dissipare : 19,5 kW
 Portata olio ISO VG 32 : 90 lt./ min.
 Temperatura ingresso olio : 60°C
 Temperatura ambiente : 30°C
 Azionamento ventola M.E. 220/400 V - 50 Hz

$$P = \frac{19,5 \text{ kW}}{60^\circ\text{C} - 30^\circ\text{C}} = 0,65 \text{ kW} / ^\circ\text{C}$$

Data la portata dell'olio e la potenza specifica di scambio si procede alla ricerca del prodotto avvalendosi dei grafici riportati a catalogo relativi ai singoli modelli.

Lo scambiatore selezionato risulta il modello :
 HPA 30-230/400V - 50 Hz cod. 243003

Per una completa identificazione del prodotto consultare la pagina "Denominazione codice prodotto".
 Nel caso non siano conosciuti tutti i dati per la scelta, contattare il nostro Ufficio Tecnico

Example of how to choose a heat exchanger

Proceed with sizing the exchanger with a knowledge of the data as the example below shows :

You can calculate the specific heat exchange power kW / °C if you know the power to dissipate and the ΔT (difference between the oil input temperature and the ambient temperature)

Example :

Power to dissipate : 19,5 kW
 ISO VG 32 Oil flow : 90 lt./ min.
 Oil Input temperature : 60°C
 Ambient temperature : 30°C
 Fan operated with E.M. 220/400 V - 50 Hz

$$P = \frac{19,5 \text{ kW}}{60^\circ\text{C} - 30^\circ\text{C}} = 0,65 \text{ kW} / ^\circ\text{C}$$

Given the oil flow and specific exchange power, product research is made by referring to the graph in the catalogue which is relevant to each model

The exchanger selected is the following :
 HPA 30-230/400V - 50 Hz cod. 243003

For a complete description of the exchanger consult the " Order code " page.

If you do not have all the data required for selecting the model, contact our Tech. Dept.

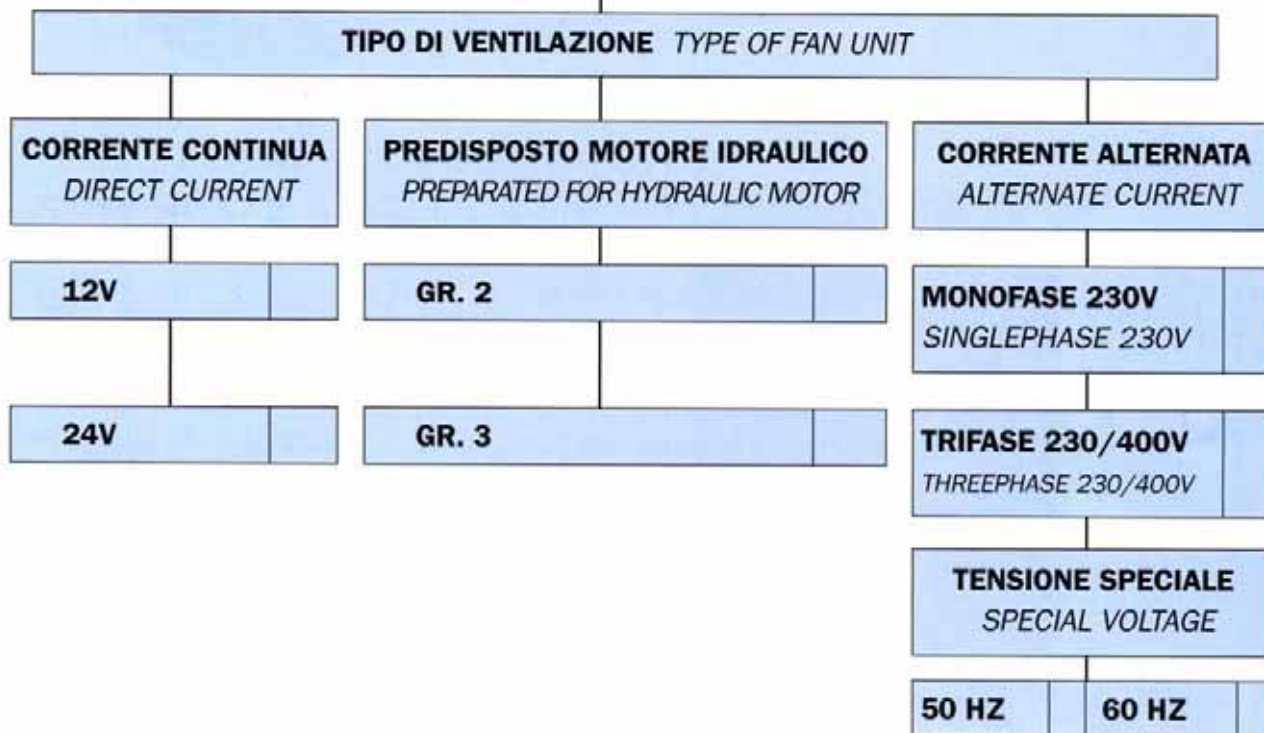
Modulo richiesta dati

Sheet for cooler selection

CLIENTE COMPANY	
RICHIEDENTE NAME	

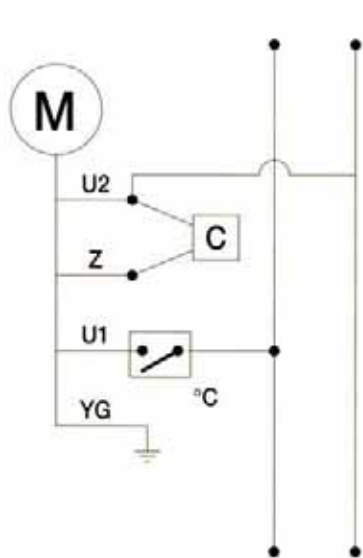
ARIA-OLIO AIR-OIL

PORTATA OLIO OIL FLOW RATE	lpm	
POTENZA INSTALLATA TOTAL POWER	kW	
POTENZA DA DISSIPARE POWER TO BE DISSIPATED	kW	
TEMPERATURA INGRESSO OLIO OIL TEMPERATURE INLET	°C	
TEMPERATURA ARIA MAX MAX AMBIENT TEMPERATURE	°C	
VISCOSITÀ OLIO OIL VISCOSITY	cst	
PRESSIONE DI LAVORO WORKING PRESSURE	bar	

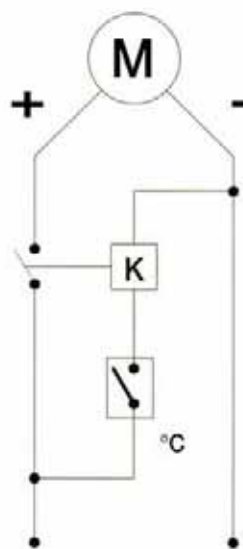


Collegamenti elettrici

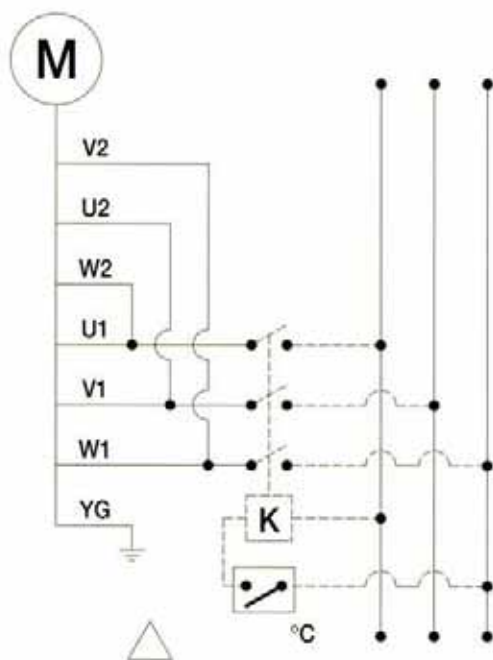
Electric Wiring



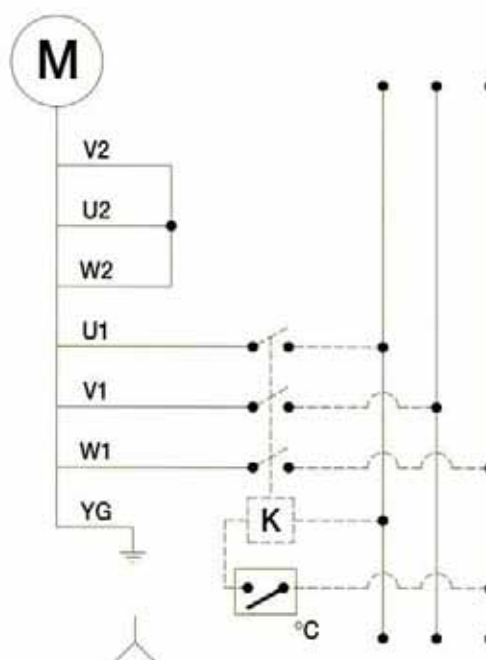
230V AC 1 PHASE



12-24V DC



230V AC 3 PHASE



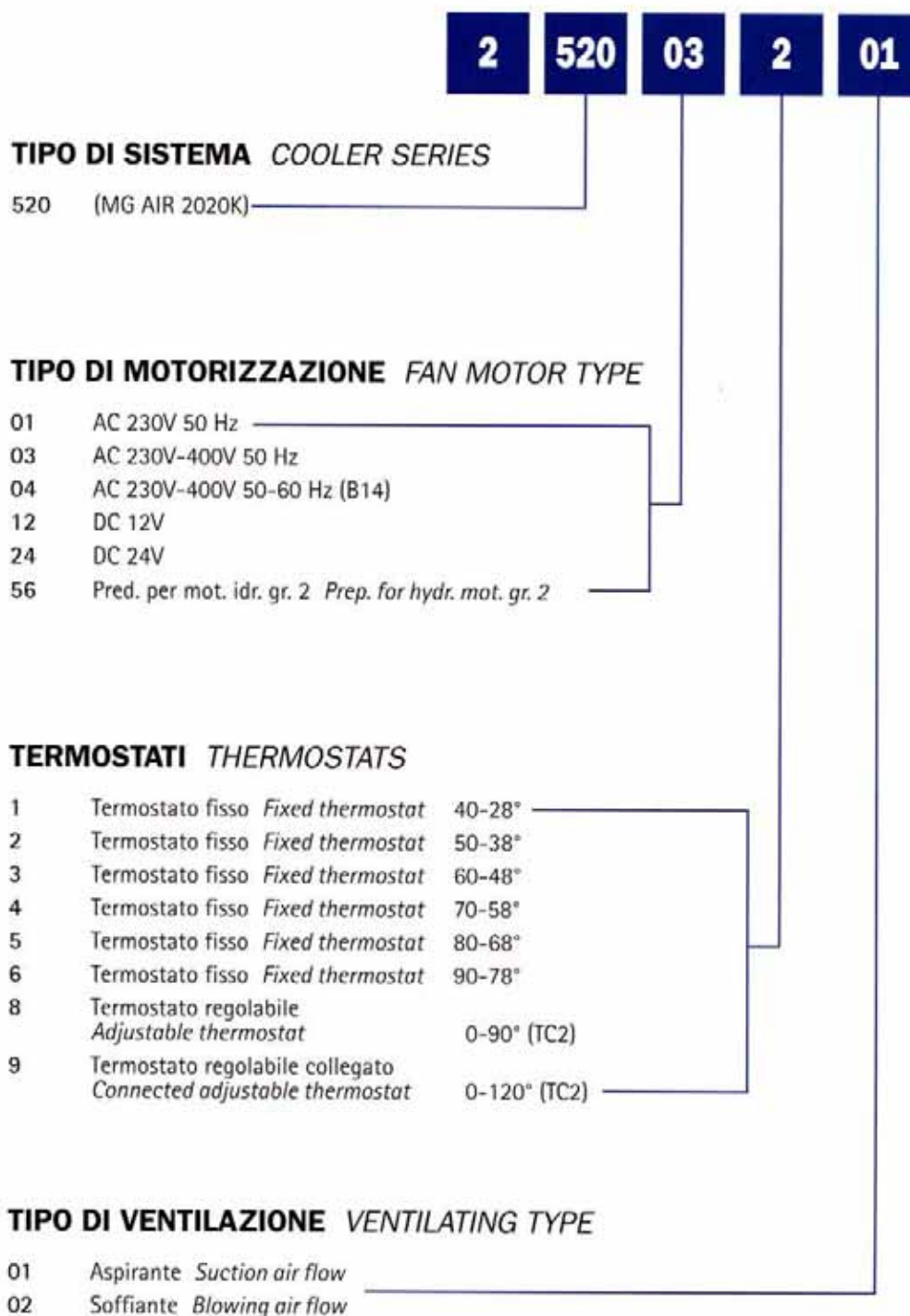
400V AC 3 PHASE

°C = Termostato NA./Thermostat NO.
K = Relé/Relay

Denominazione codice prodotto *Aria-olio Serie 2000K*

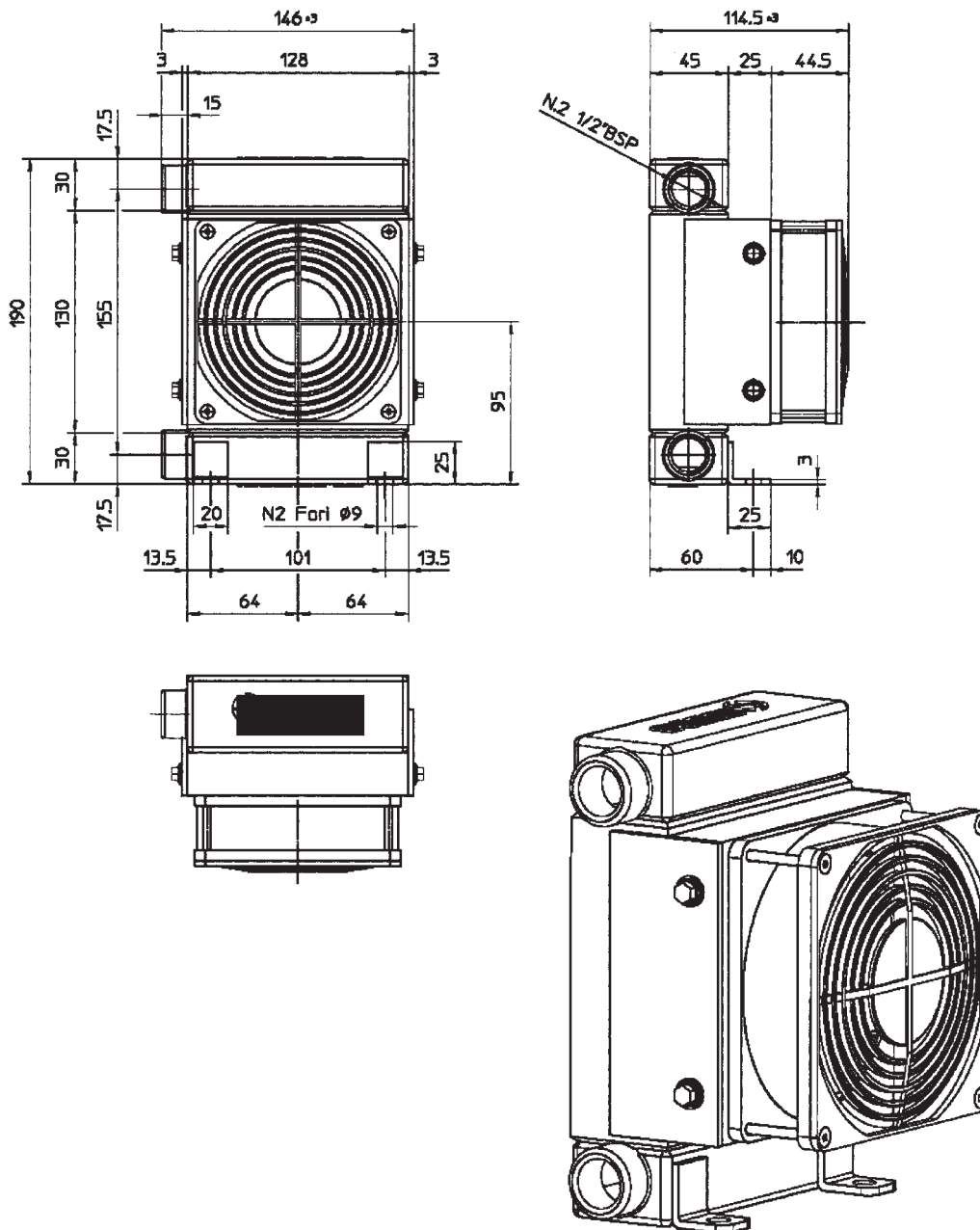
Ordering code

Air-oil 2000K Series



MG 2005K

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

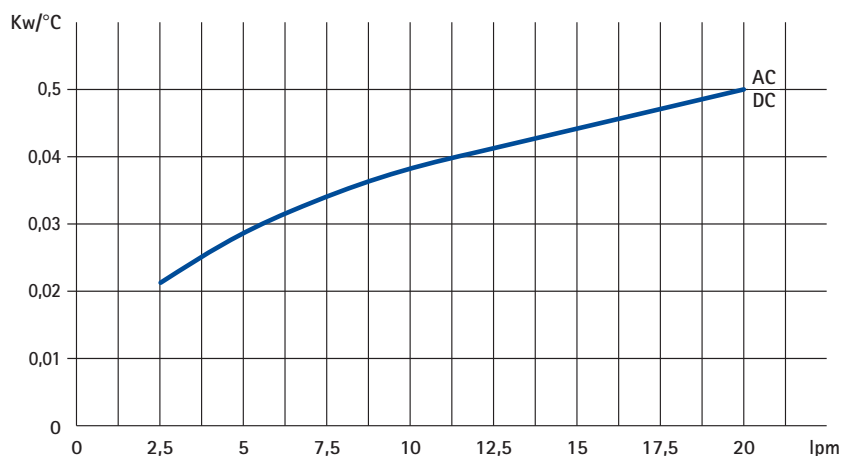
MG 2005K

Dati tecnici *Technical Data*

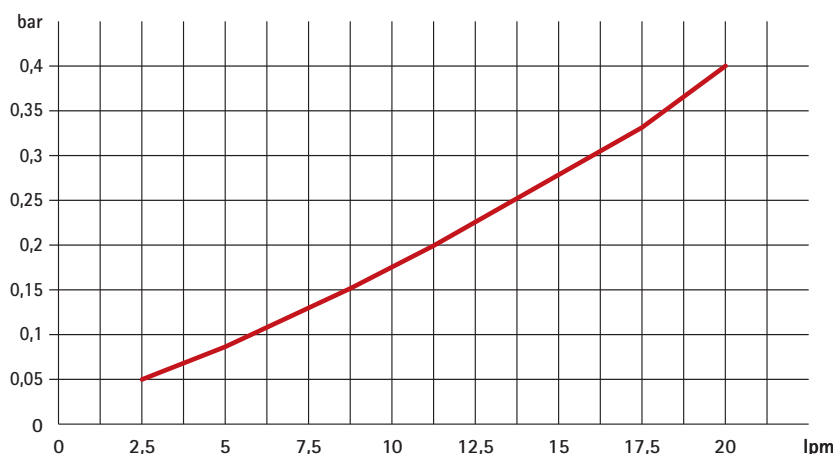
P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	It	Kg
054240023050#	230 AC	50	0,019	0,12	2650	105	40/47	125	☎	0,3	3,2
054240001200#	12 DC	/	0,005	0,4	3050	105	45/49	140	☎		
054240002400#	24 DC	/	0,005	0,2	3050	105	45/49	140	☎		

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop*

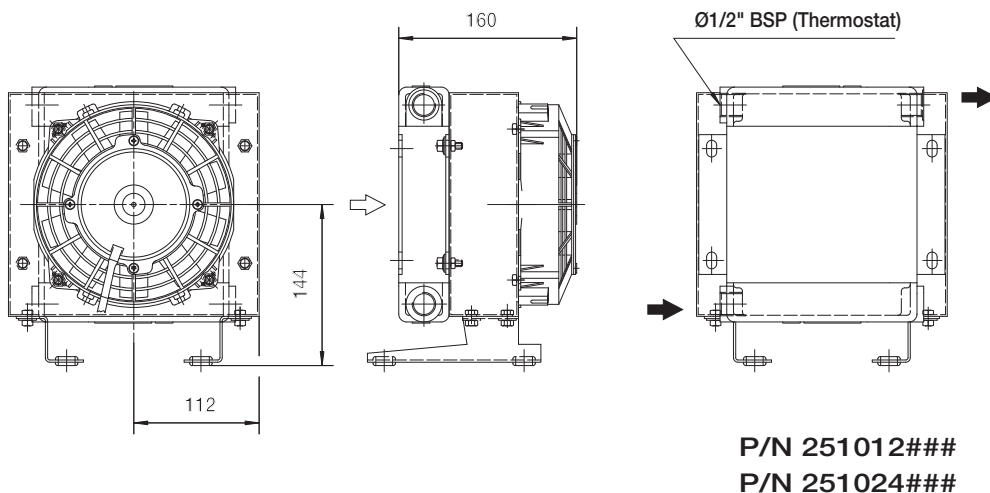
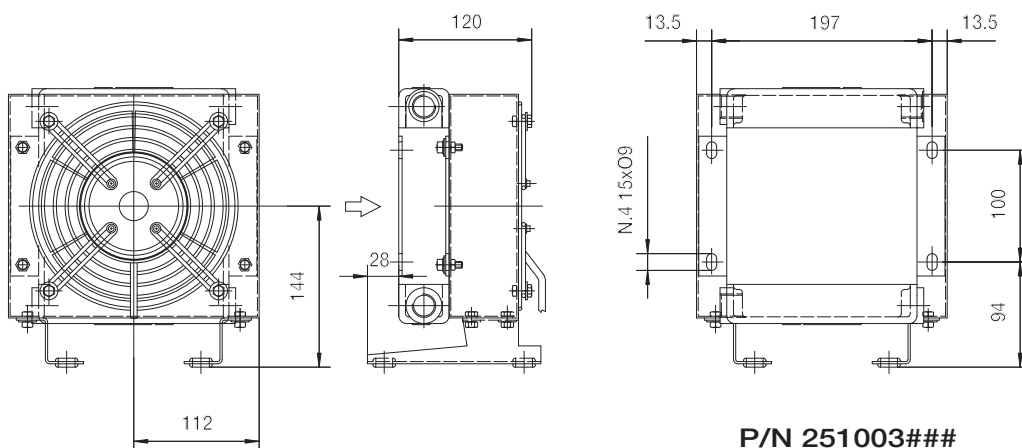
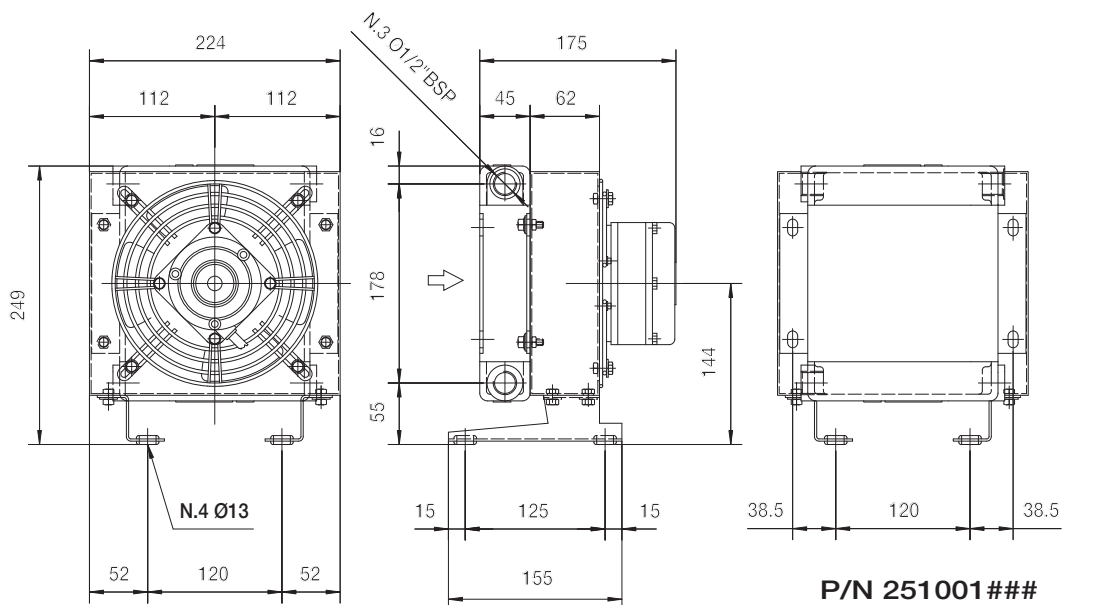


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2010K

Dimensioni *Dimensions*



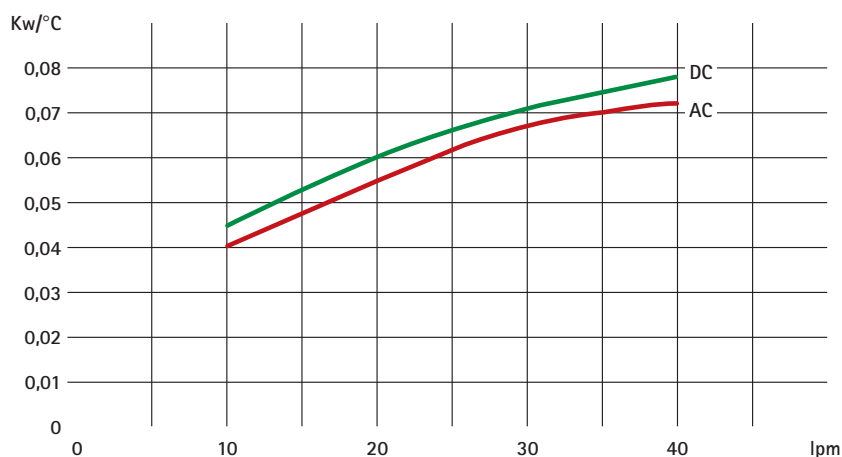
Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2010K

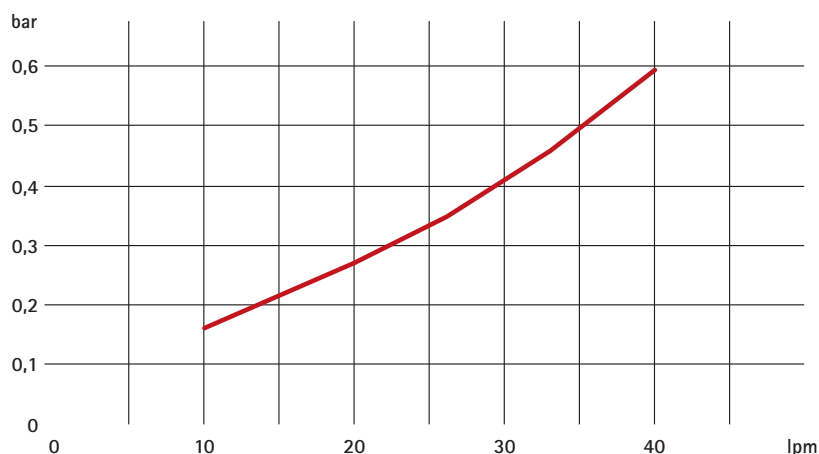
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
251001###	230 AC	50	0,047	0,21	2500	175	67	235	54	0,3	6
251003###	230-400 AC	50/60	0,045	0,12	2750	175	63	190	54		6
251012###	12 DC	/	0,08	4,5	4200	167	75	410	68		5
251024###	24 DC	/	0,08	2,3	4300	167	75	410	68		5

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

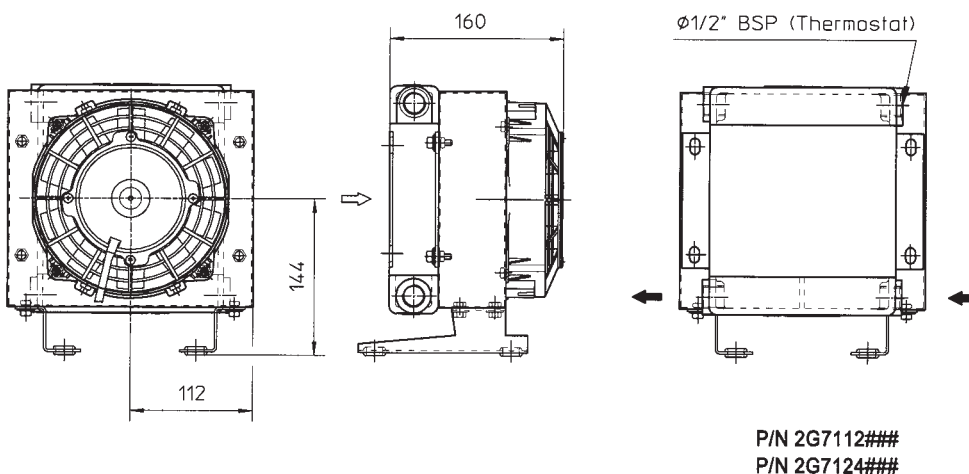
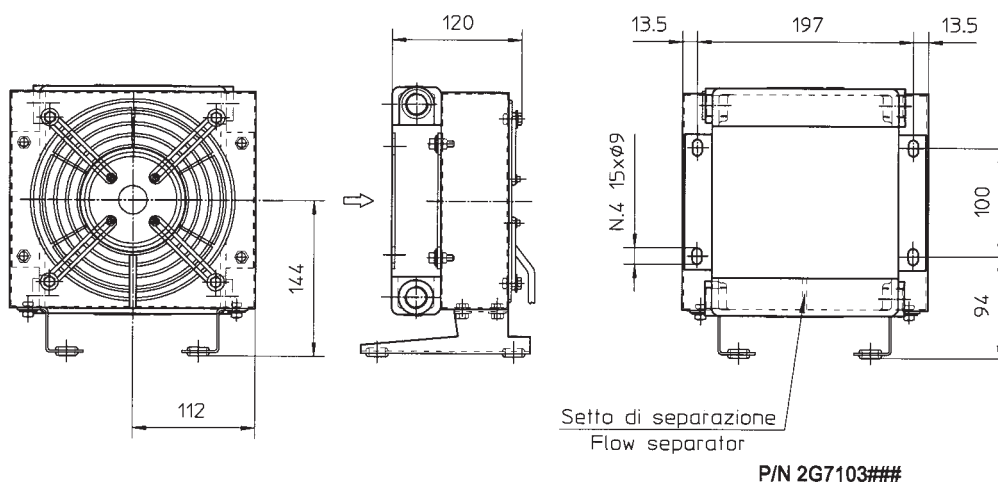
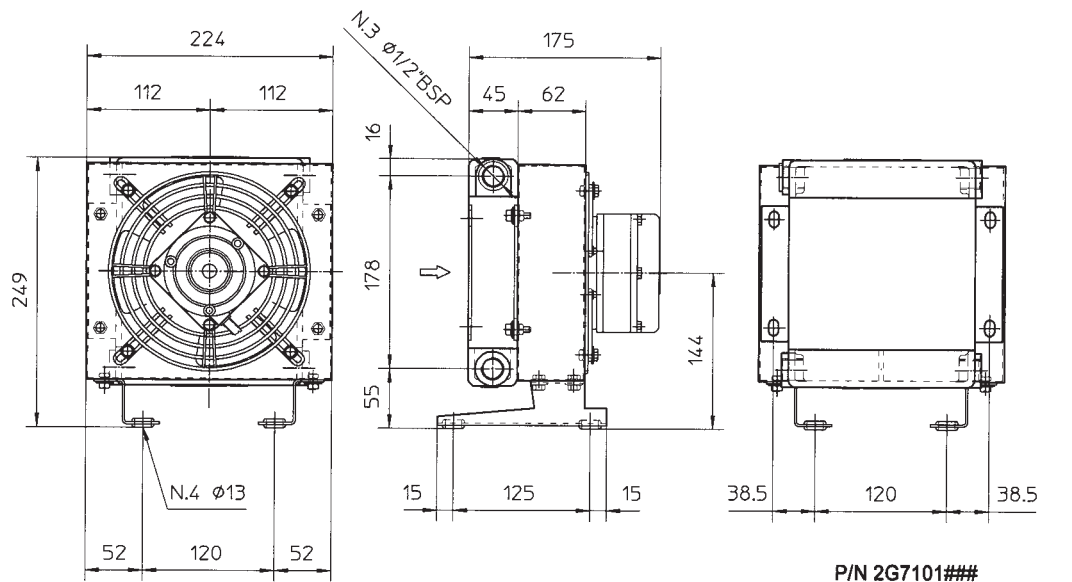


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2010K 2PASS

Dimensioni *Dimensions*



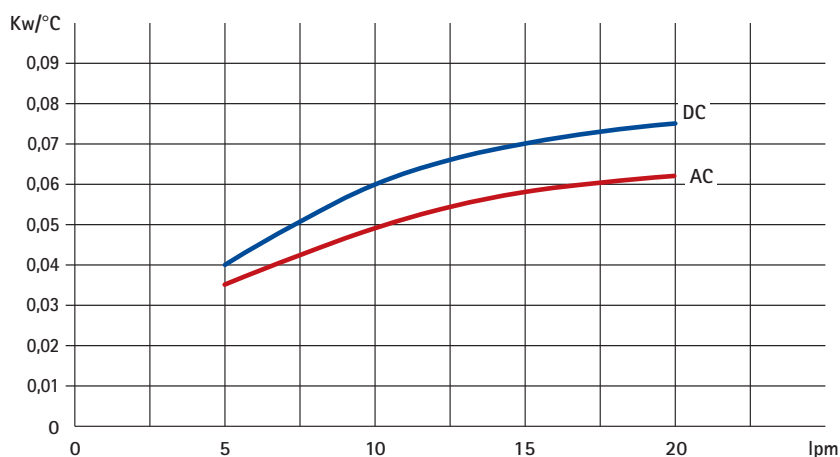
Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2010K 2PASS

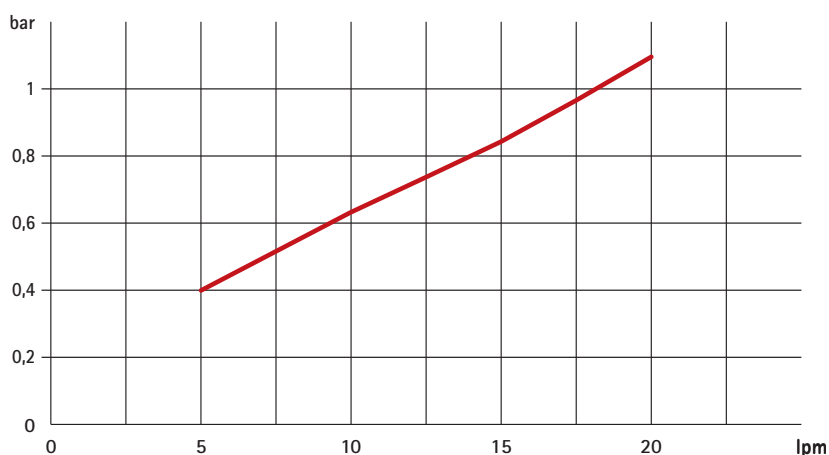
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m ³ /h)	IP	It	Kg
2G7101###	230 AC	50	0,047	0,21	2500	175	67	235	54	0,3	6
2G7103###	230-400 AC	50/60	0,045	0,12	2750	175	63	190	54		6
2G7112###	12 DC	/	0,08	4,5	4200	167	75	410	68		5
2G7124###	24 DC	/	0,08	2,3	4300	167	75	410	68		5

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

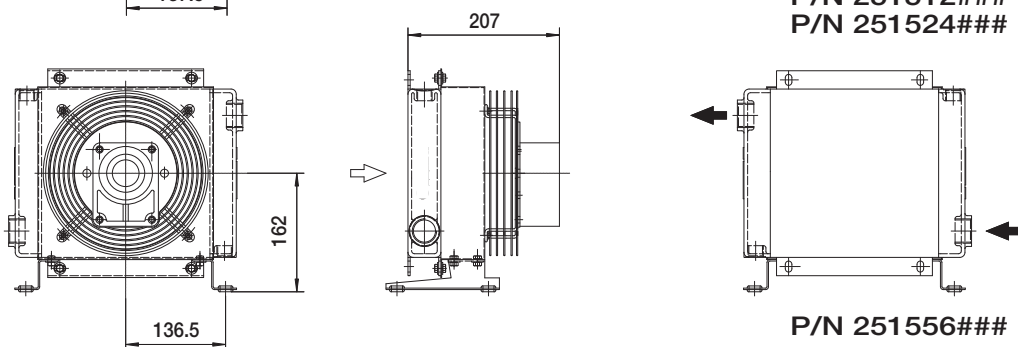
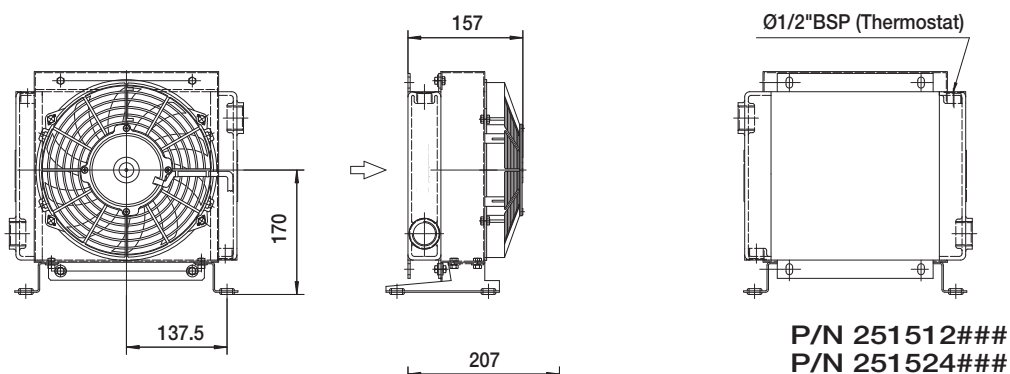
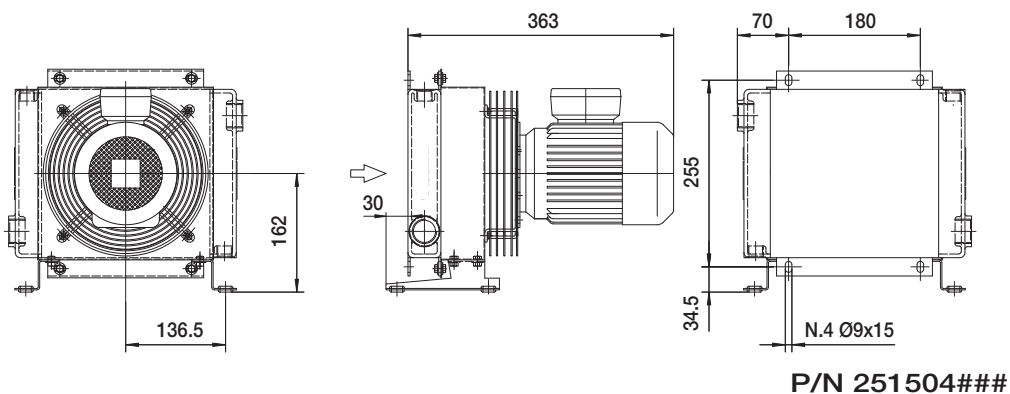
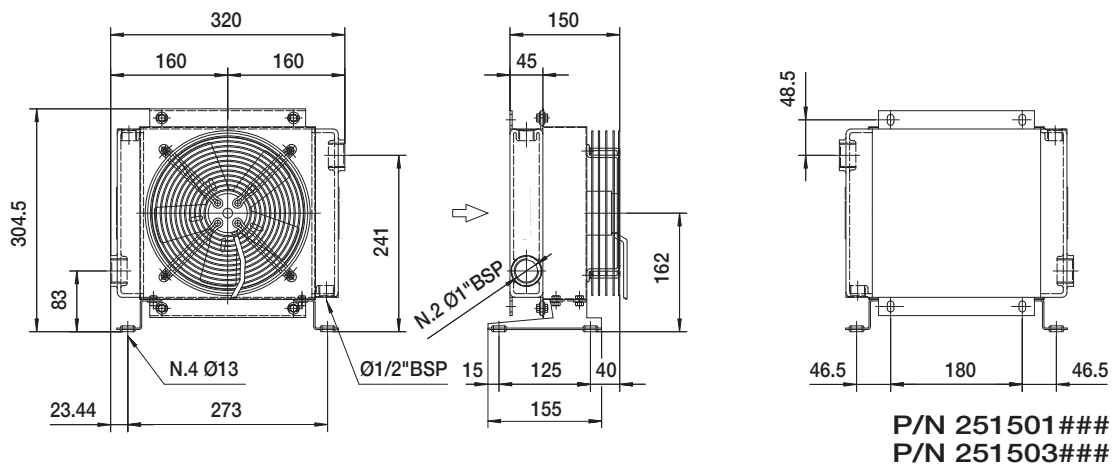


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

est	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2015K

Dimensioni *Dimensions*



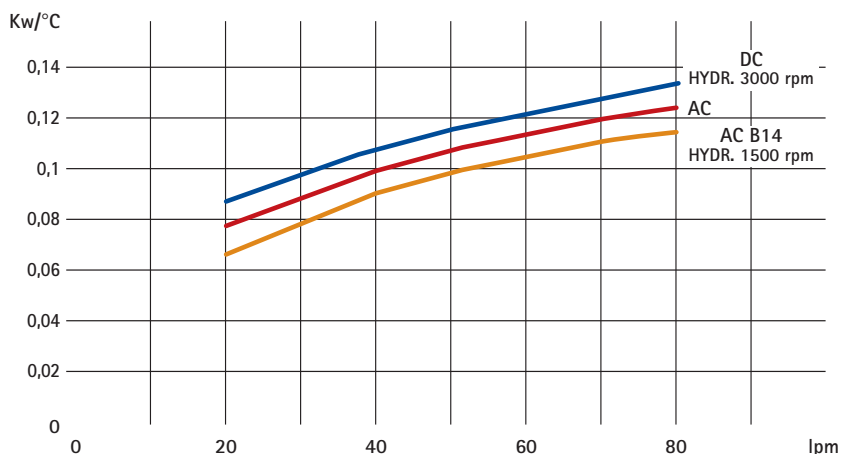
Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2015K

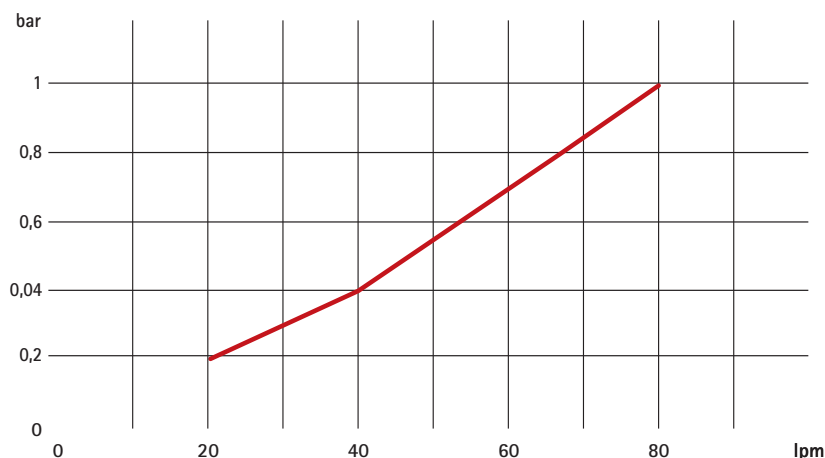
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
251501###	230 AC	50	0,067	0,29	2770	200	68	700	44	0,5	7
251503###	230-400 AC	50/60	0,068	0,15	2600	200	69	720	44		7
251504###	230-400 AC B14	50/60	0,250	0,72	1350	200	61	415	55		10
251512###	12 DC	/	0,09	6,1	3100	225	72	880	68		6,5
251524###	24 DC	/	0,10	2,9	3000	225	73	865	68		6,5
251556###	Prepared for Gr.2 hydraulic motor					200			/		6

Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

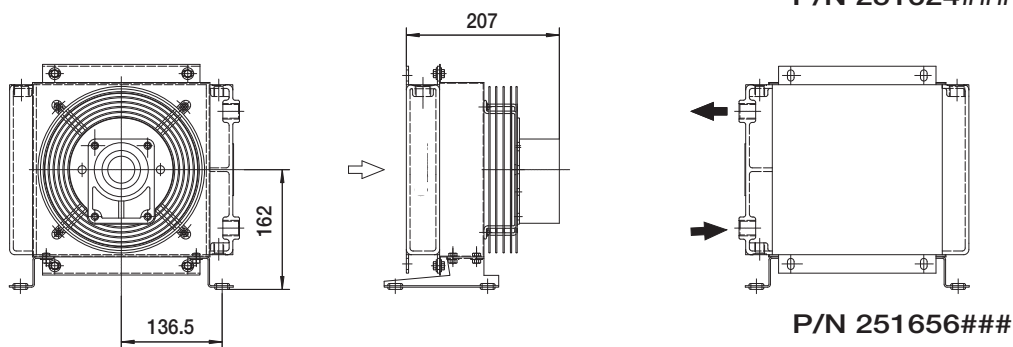
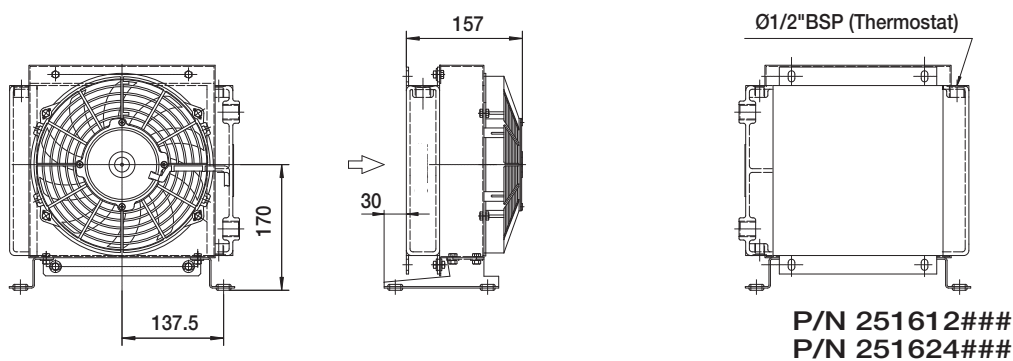
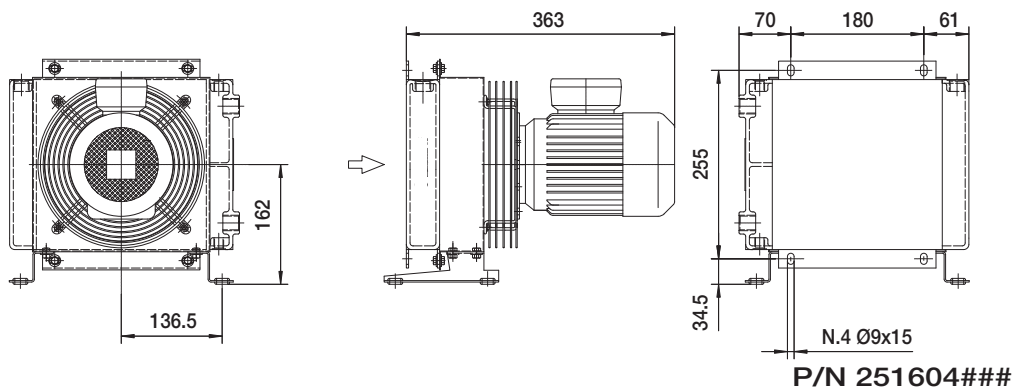
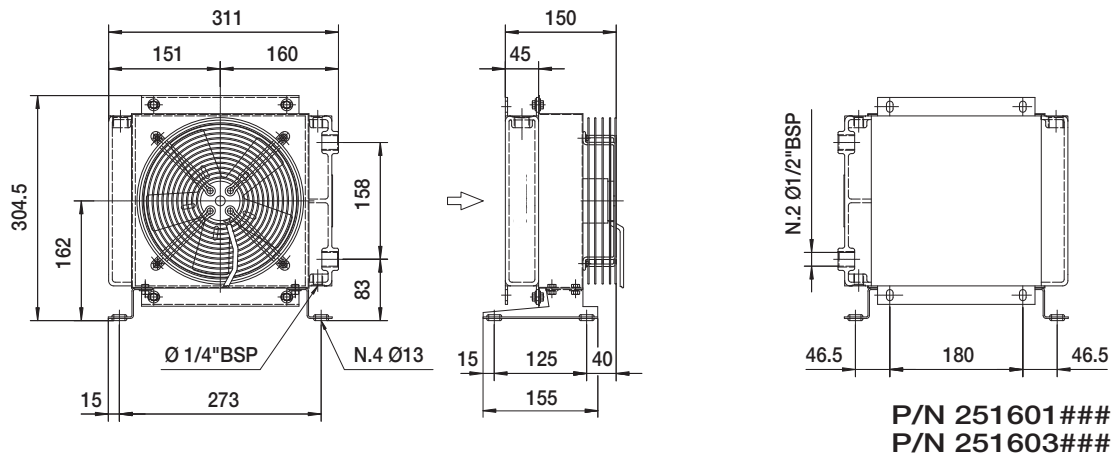


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2015K 2PASS

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

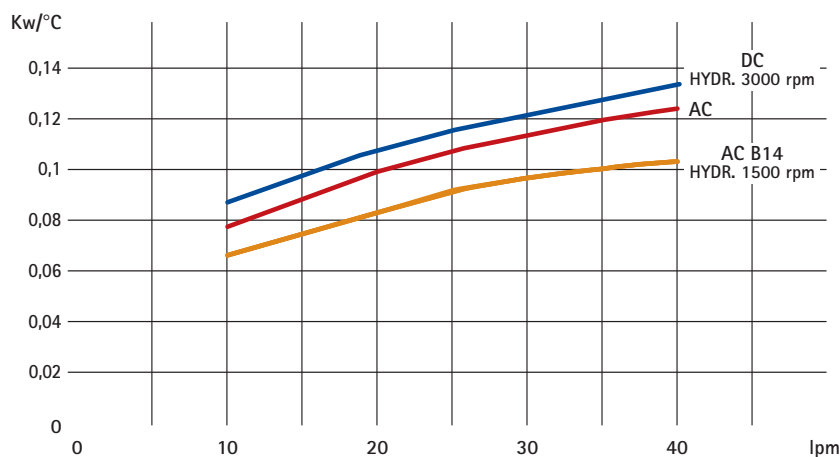
MG 2015K 2PASS

Dati tecnici *Technical Data*

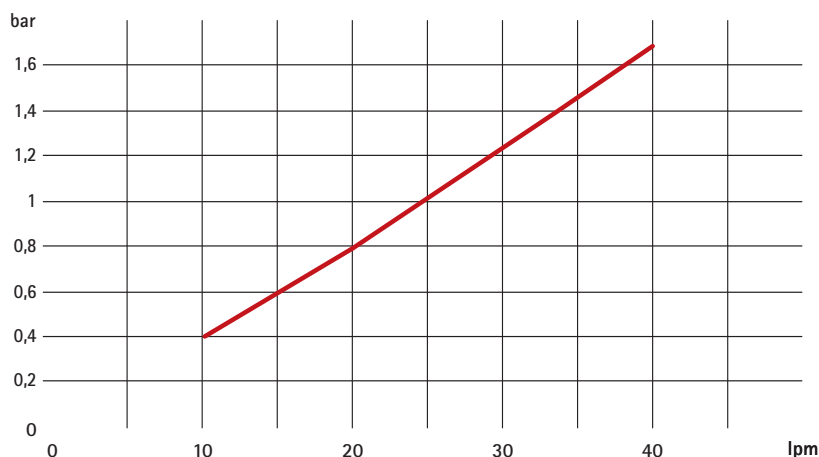
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
251601###	230 AC	50	0,067	0,29	2770	200	68	700	44	0,5	7
251603###	230-400 AC	50/60	0,068	0,15	2600	200	69	720	44		7
251604###	230-400 AC B14	50/60	0,250	0,72	1350	200	61	415	55		10
251612###	12 DC	/	0,09	6,1	3100	225	72	880	68		6,5
251624###	24 DC	/	0,10	2,9	3000	225	73	865	68		6,5
251656###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		6

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

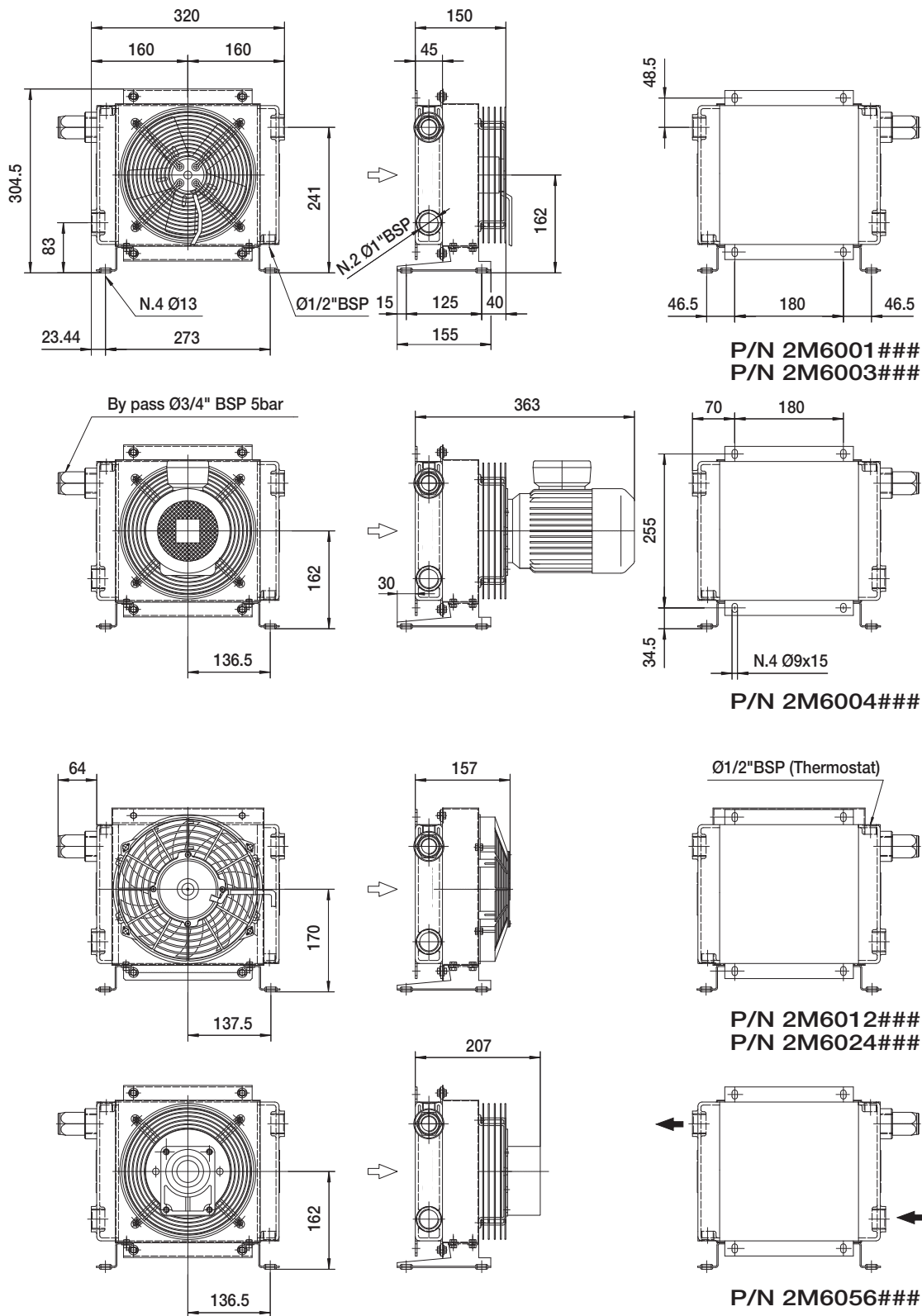


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2015K By-Pass

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

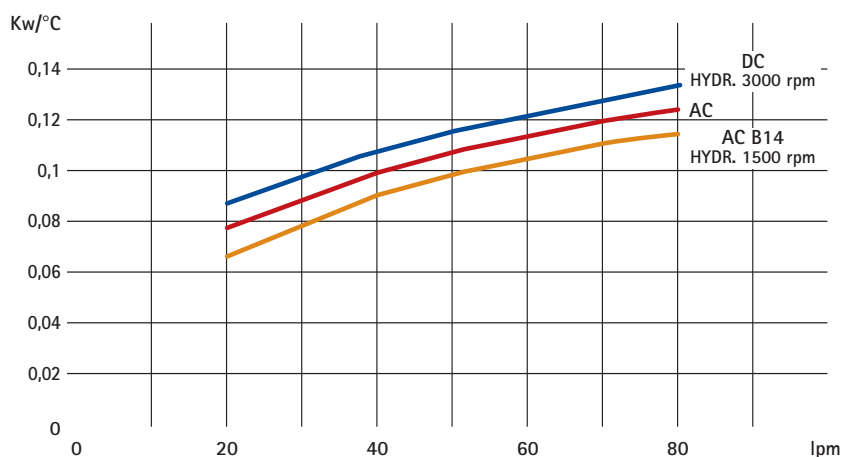
MG 2015K By-Pass

Dati tecnici *Technical Data*

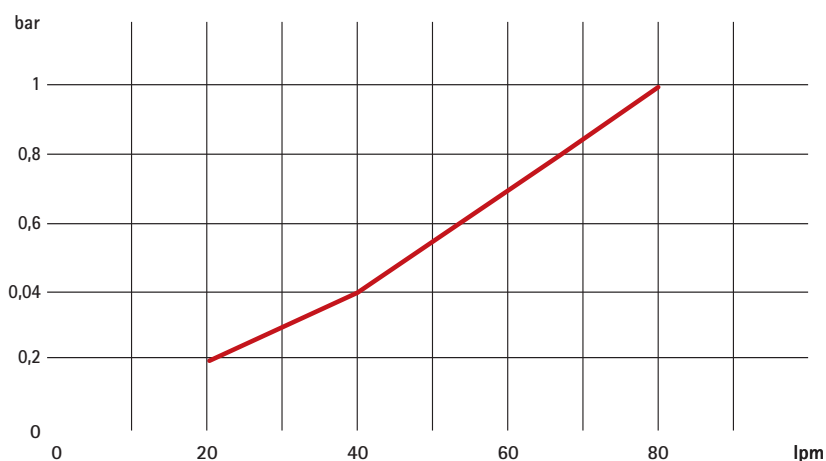
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m ³ /h)	IP	It	Kg
2M6001###	230 AC	50	0,067	0,29	2770	200	68	700	44	0,5	7
2M6003###	230-400 AC	50/60	0,068	0,15	2600	200	69	720	44		7
2M6004###	230-400 AC B14	50/60	0,250	0,72	1350	200	61	415	55		10
2M6012###	12 DC	/	0,09	6,1	3100	225	72	880	64		6,5
2M6024###	24 DC	/	0,10	2,9	3000	225	73	865	64		6,5
2M6056###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		6

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

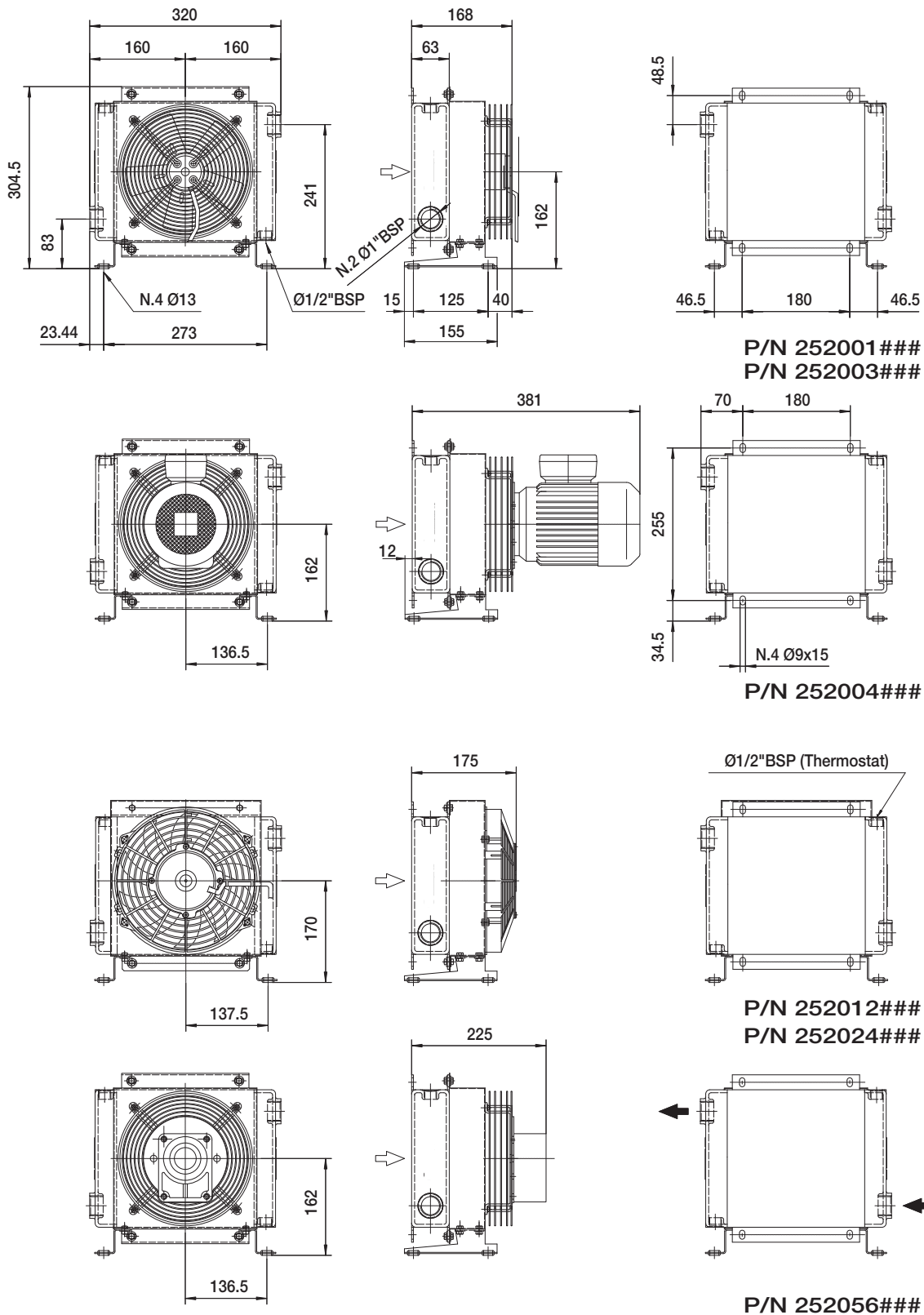


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2020K

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

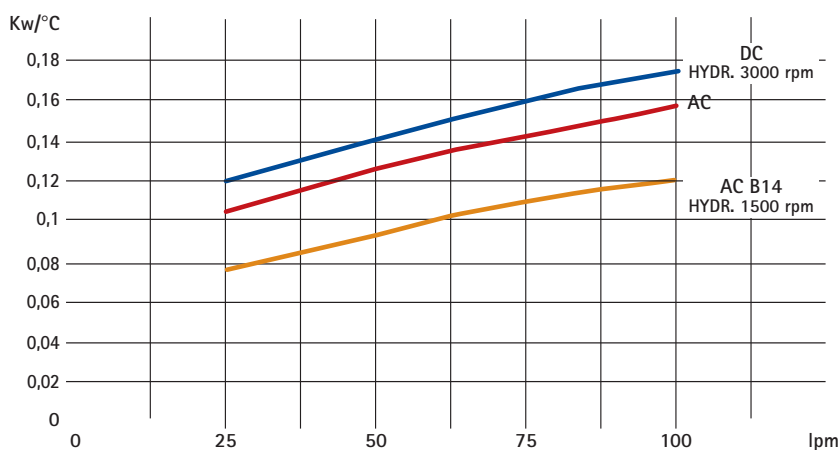
MG 2020K

Dati tecnici *Technical Data*

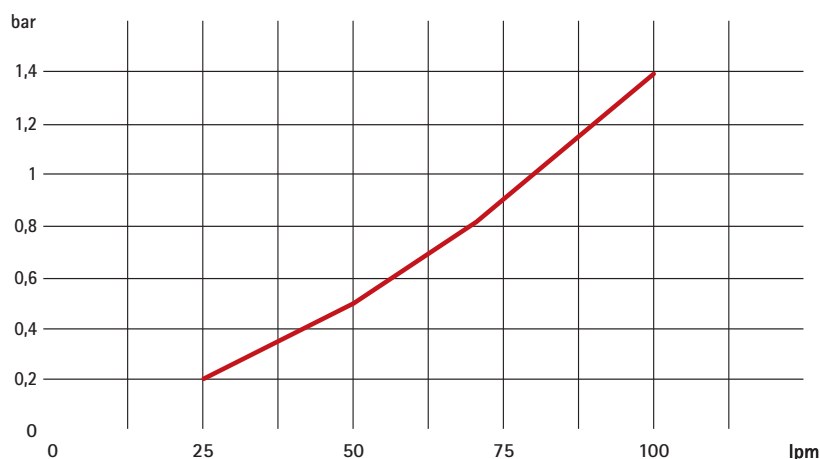
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
252001###	230 AC	50	0,067	0,29	2770	200	68	675	44	0,7	8
252003###	230-400 AC	50/60	0,068	0,15	2600	200	68	645	44		8
252004###	230-400 AC B14	50/60	0,250	0,7	1350	200	64	390	55		11
252012###	12 DC	/	0,09	5,9	3100	225	72	795	68		7
252024###	24 DC	/	0,10	3,1	3000	225	72	785	68		7
252056###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		7

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

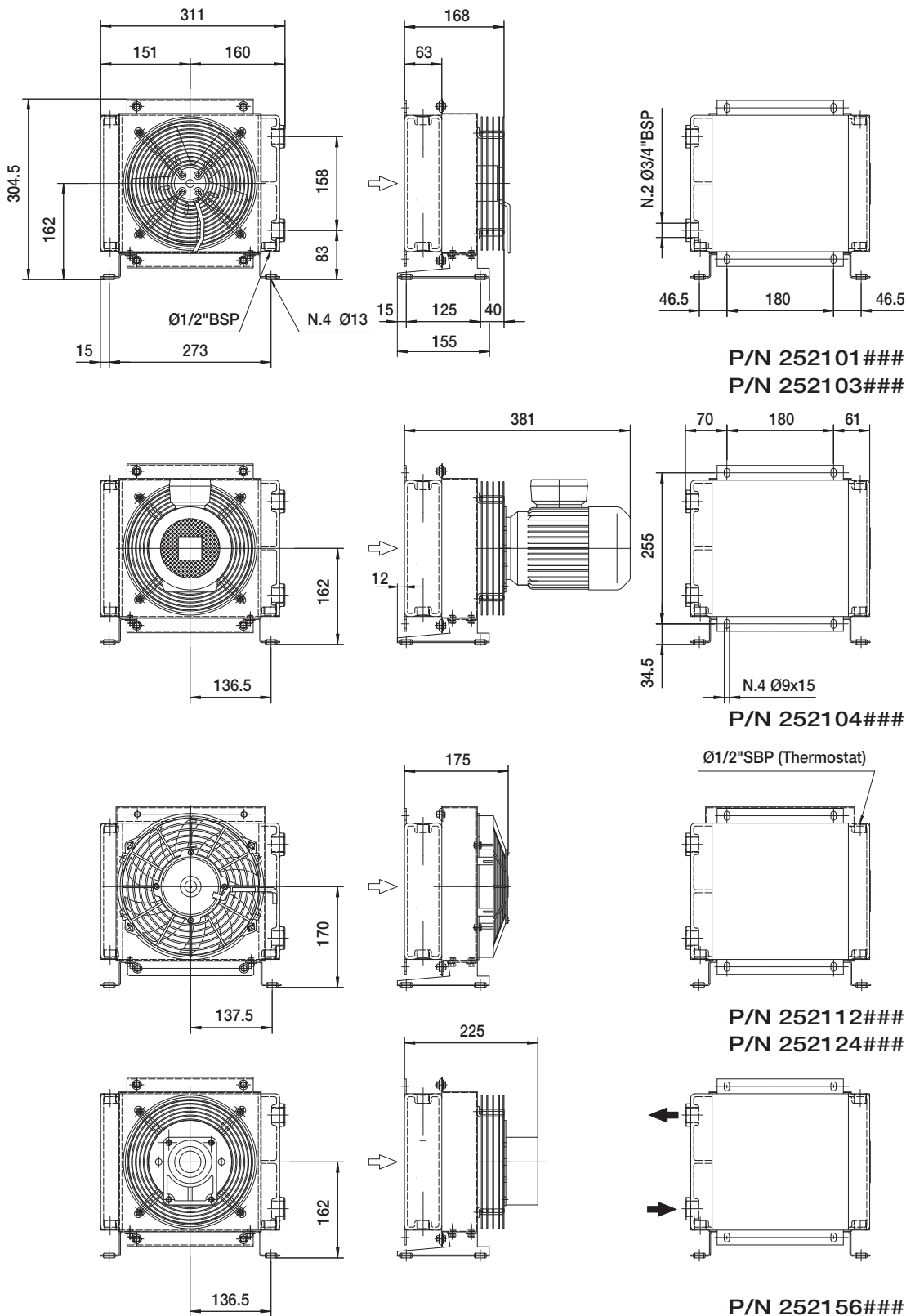


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2020K 2PASS

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

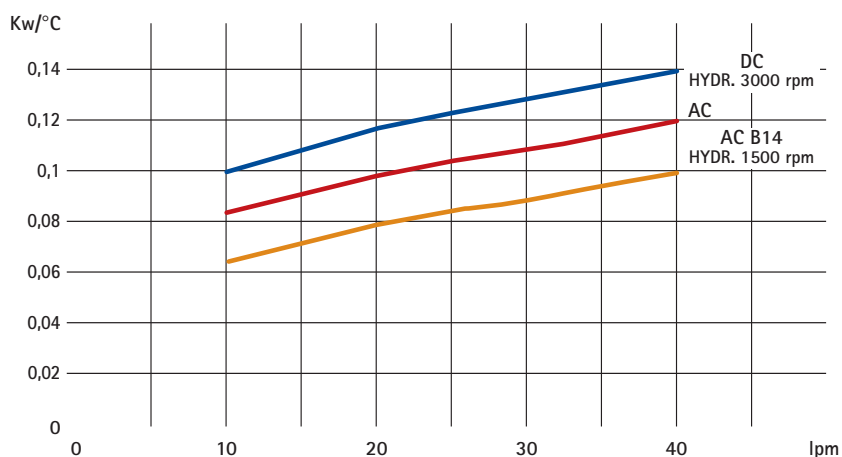
MG 2020K 2PASS

Dati tecnici *Technical Data*

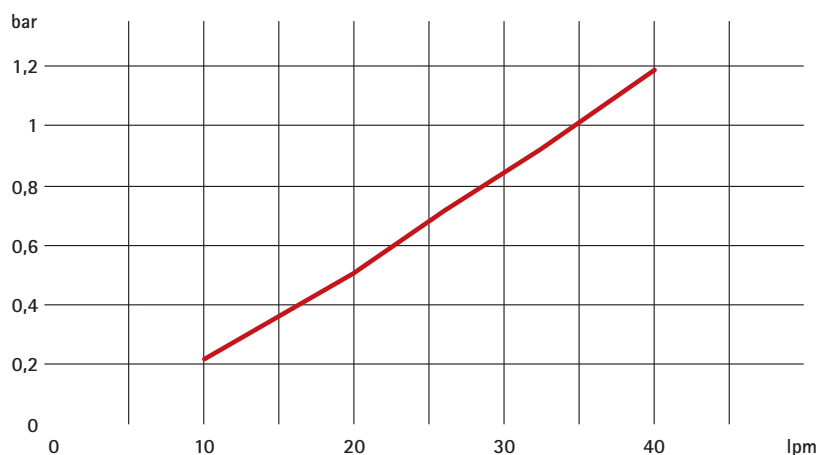
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
252101###	230 AC	50	0,067	0,29	2770	200	68	675	44	0,7	8
252103###	230-400 AC	50/60	0,068	0,15	2600	200	68	645	44		8
252104###	230-400 AC B14	50/60	0,250	0,7	1350	200	64	390	55		11
252112###	12 DC	/	0,09	5,9	3100	225	72	795	68		7
252124###	24 DC	/	0,10	3,1	3000	225	72	785	68		7
252156###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		7

☎ Contattare il ns. Ufficio tecnico *Contact our Tech. Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

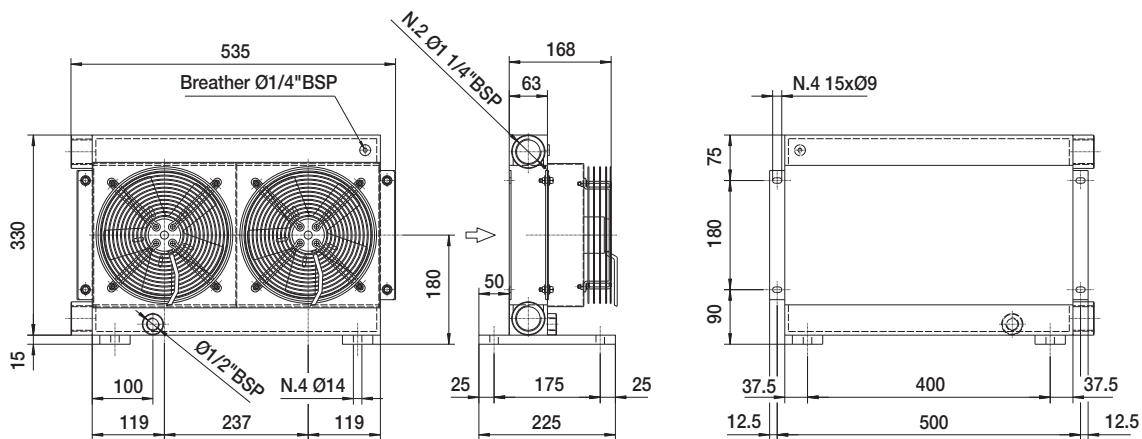


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

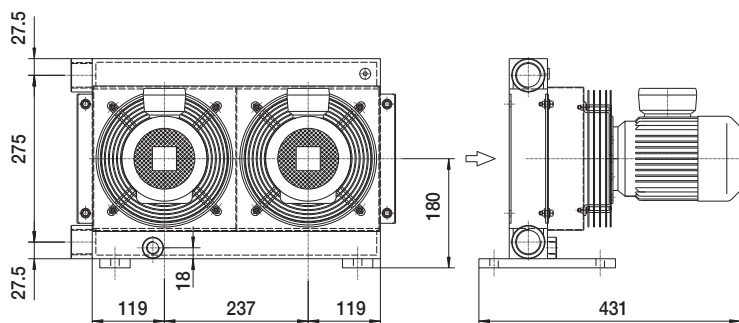
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2020 2KS

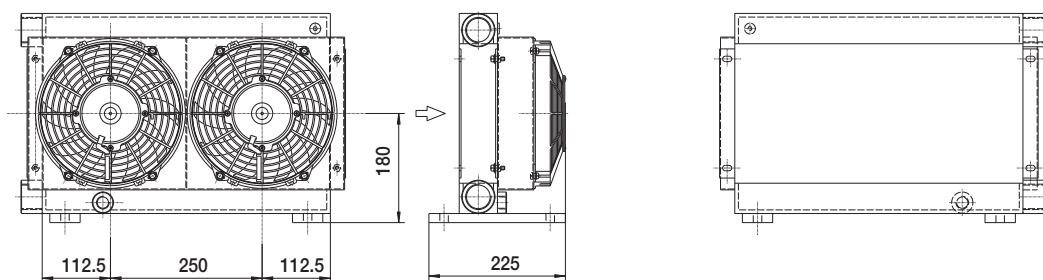
Dimensioni *Dimensions*



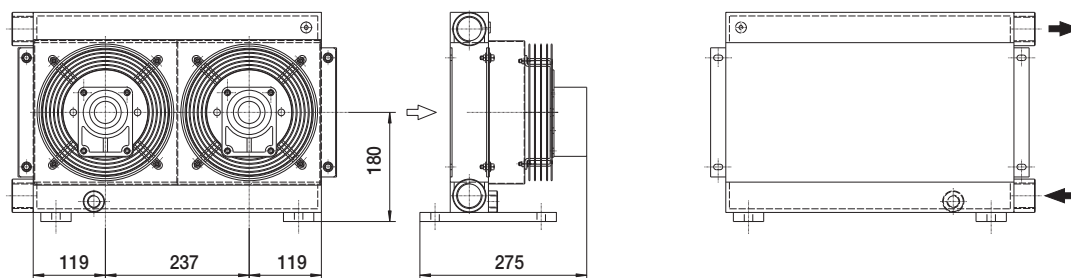
232103###
232101###



232104###



232112###
232124###



232156###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2020 2KS

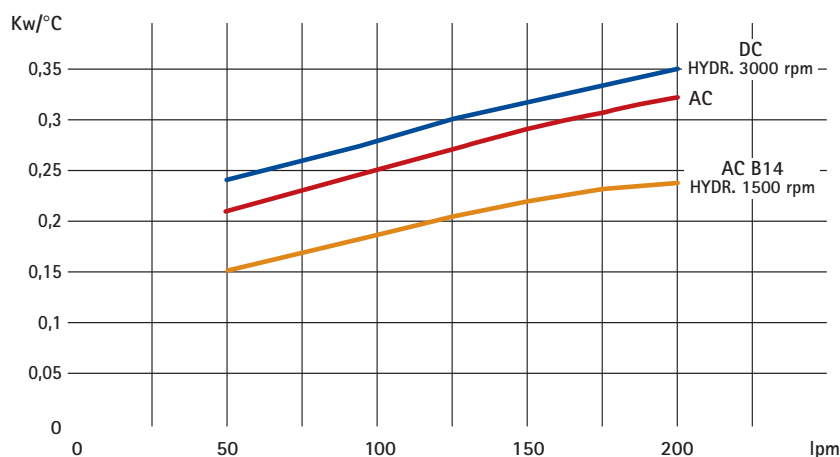
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	It	Kg
232101###	230 AC	50	0,067	0,29	2770	200	71	675	44	1,4	17
232103###	230-400 AC	50/60	0,068	0,15	2800	200	71	645	44		17
232104###	230-400 AC B14	50/60	0,250	0,7	1350	200	67	390	55		23
232112###	12 DC	/	0,09	5,9	3100	225	75	795	68		15
232124###	24 DC	/	0,10	3,1	3000	225	75	785	68		15
232156###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		14

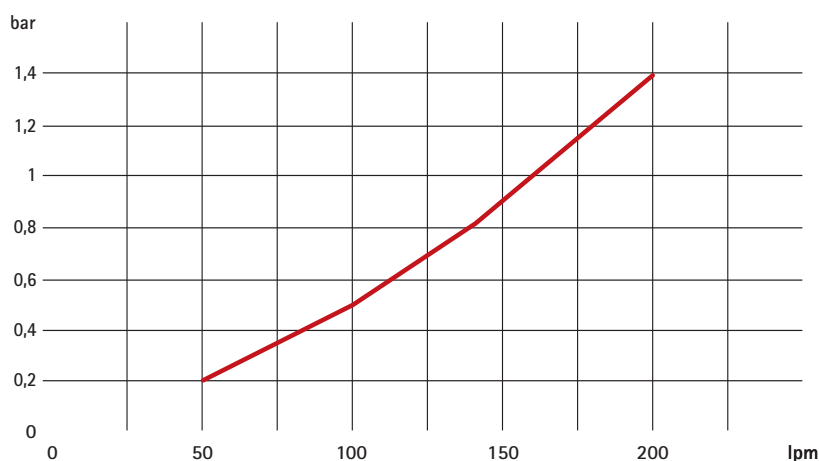
I dati sono riferiti al singolo ventilatore *The data refers to each ventilator*

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

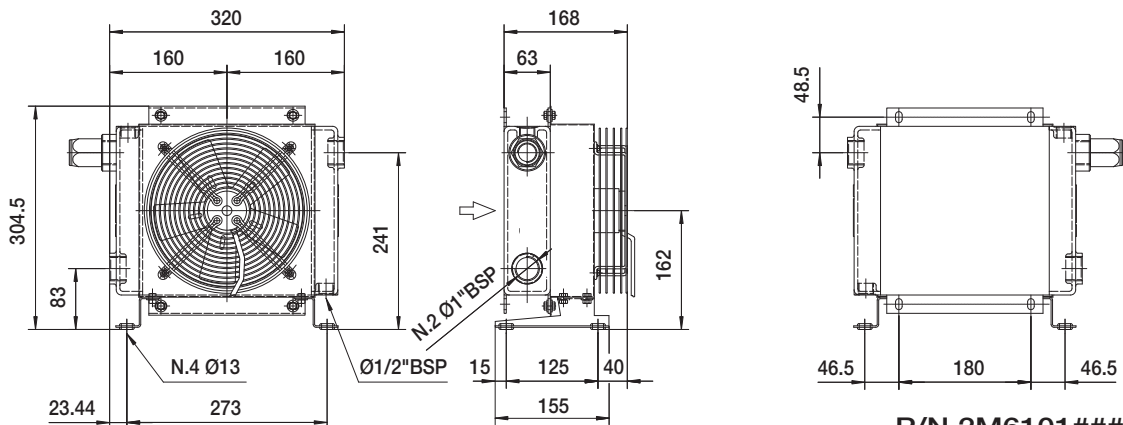


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

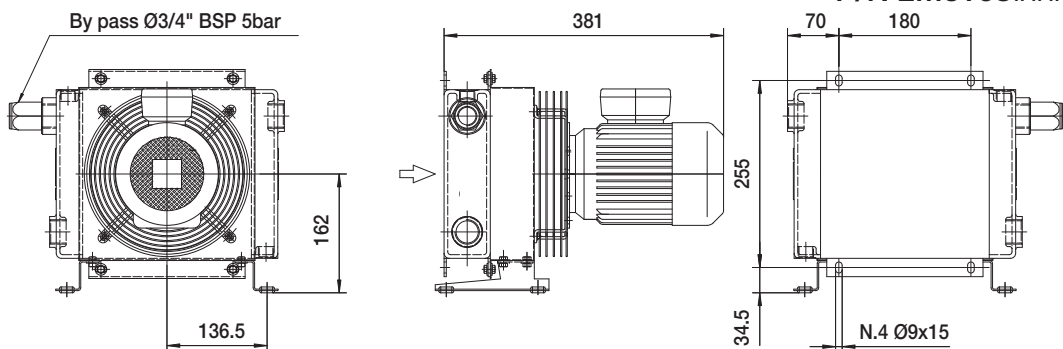
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2020K By-Pass

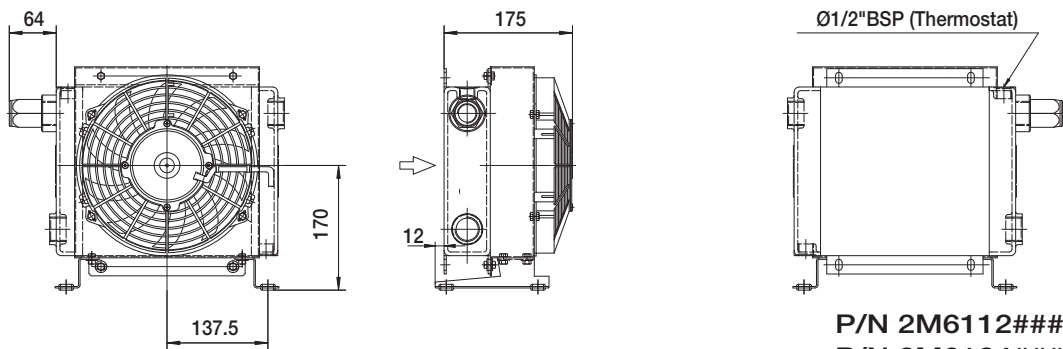
Dimensioni *Dimensions*



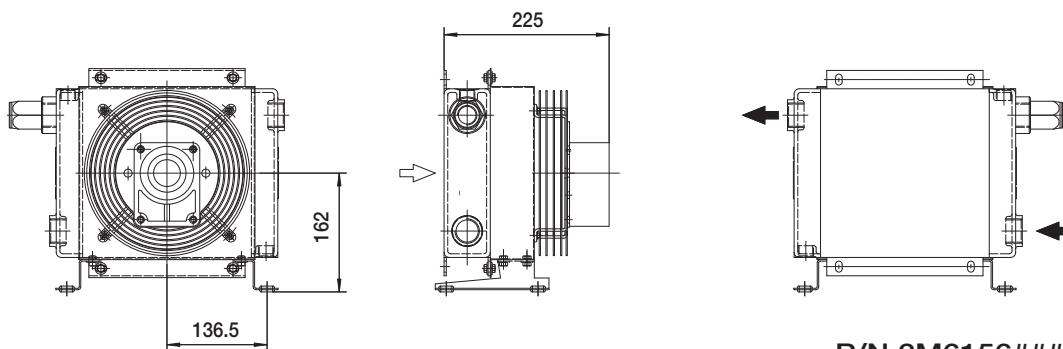
P/N 2M6101###
P/N 2M6103###



P/N 2M6104###



P/N 2M6112###
P/N 2M6124###



P/N 2M6156###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

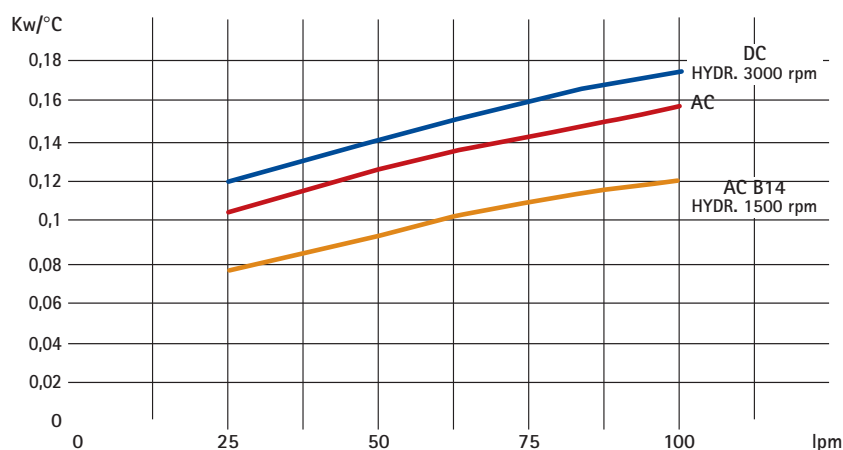
MG 2020K By-Pass

Dati tecnici *Technical Data*

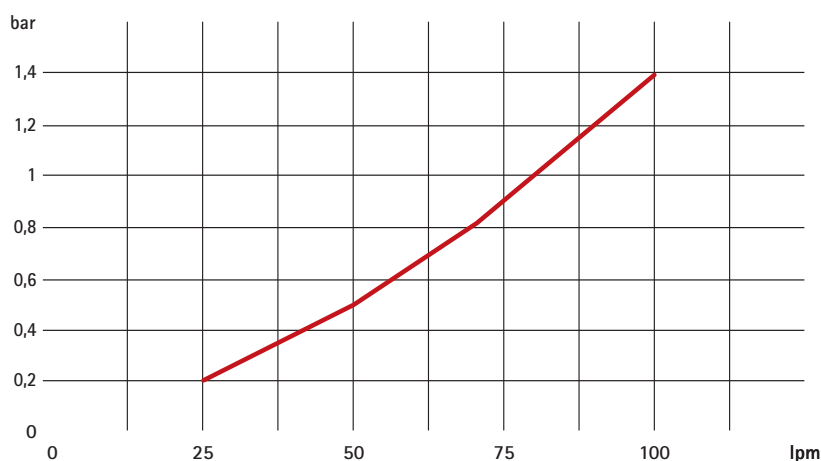
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m ³ /h)	IP	It	Kg
2M6101###	230 AC	50	0,067	0,29	2770	200	68	675	44	0,7	8
2M6103###	230-400 AC	50/60	0,068	0,15	2600	200	68	645	44		8
2M6104###	230-400 AC B14	50/60	0,250	0,7	1350	200	64	390	55		11
2M6112###	12 DC	/	0,09	5,9	3100	225	72	795	64		7
2M6124###	24 DC	/	0,10	3,1	3000	225	72	785	64		7
2M6156###	Prepared for Gr.2 hydraulic motor					200			/		7

Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

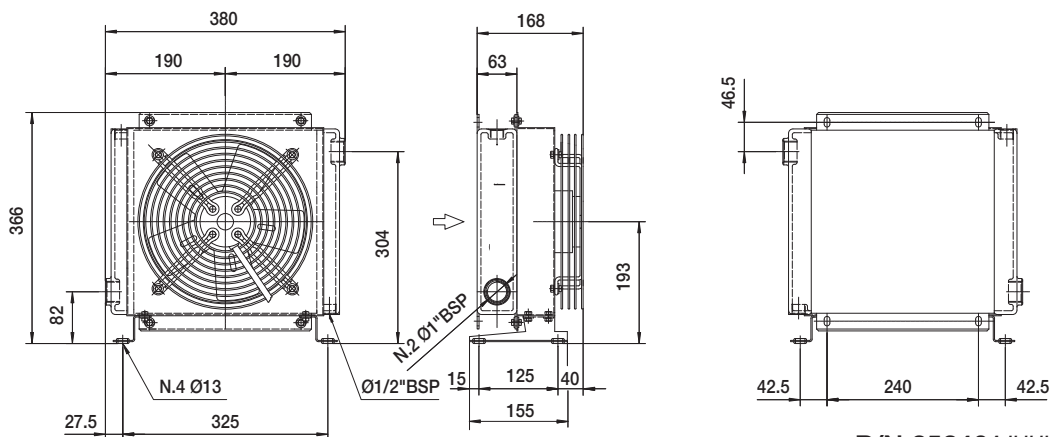


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

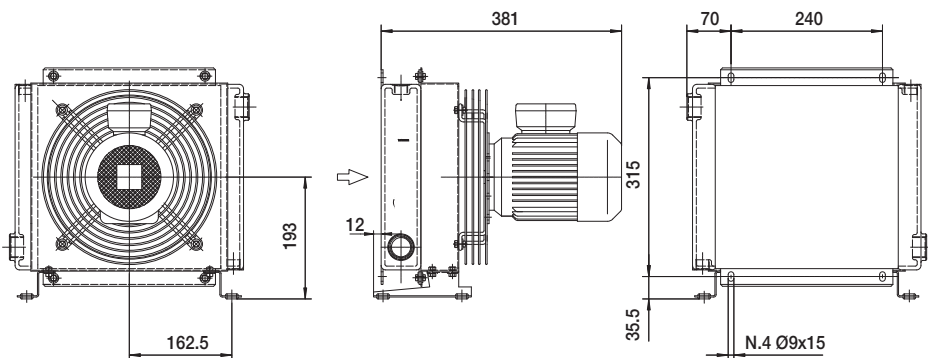
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2024K

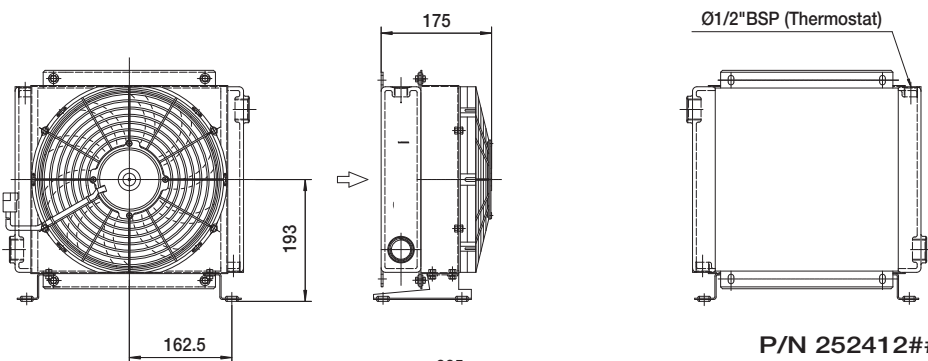
Dimensioni *Dimensions*



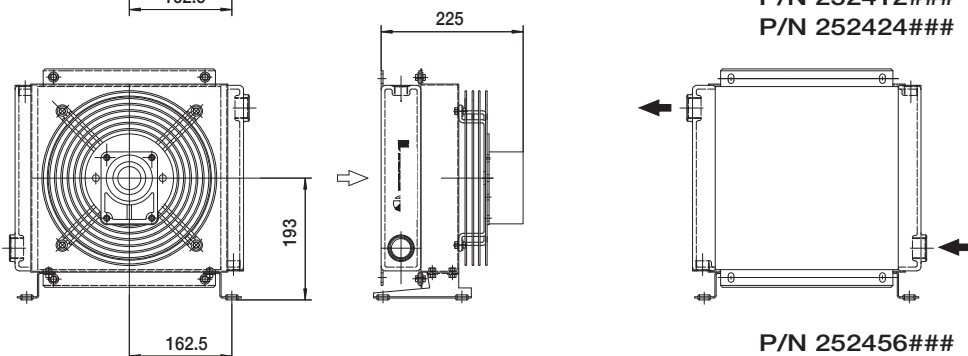
P/N 252401###
P/N 252403###



P/N 252404###



P/N 252412###
P/N 252424###



P/N 252456###

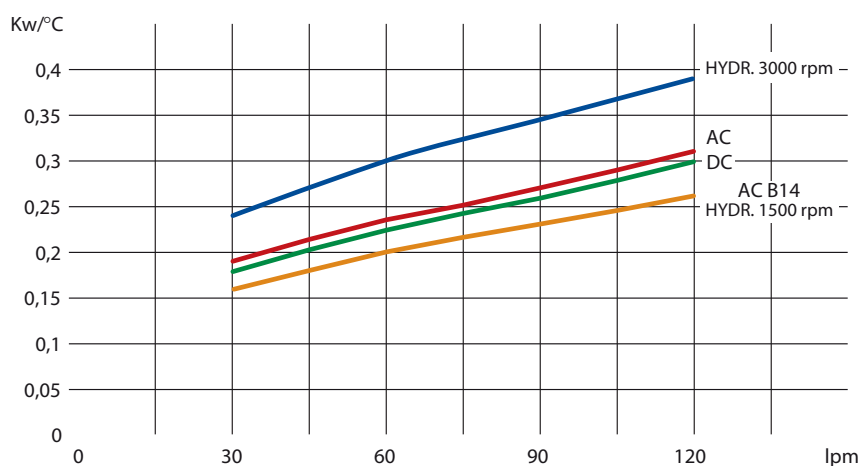
Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2024K

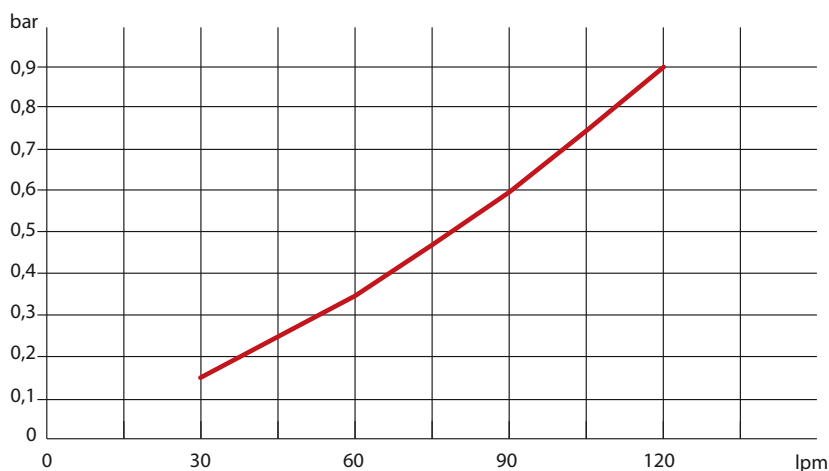
Dati tecnici Technical Data

P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	m ³ /h	IP	It	Kg
252401###	230 AC	50	0,108	0,48	2525	250	72	1350	44	1	11
252403###	230-400 AC	50/60	0,105	0,22	2500	250	72	1300	44		11
252404###	230-400 AC B14	50/60	0,250	0,71	1450	250	64	1000	55		16
252412###	12 DC	/	0,110	7,1	3000	280	72	1180	68		10
252424###	24 DC	/	0,110	3,8	3000	280	74	1280	68		10
252456###	Prepared for Gr.2 hydraulic motor				☎	250	☎	☎	/		10

Diagramma rendimento Performance diagram



Perdite di carico Pressure drop (ISO VG 32)

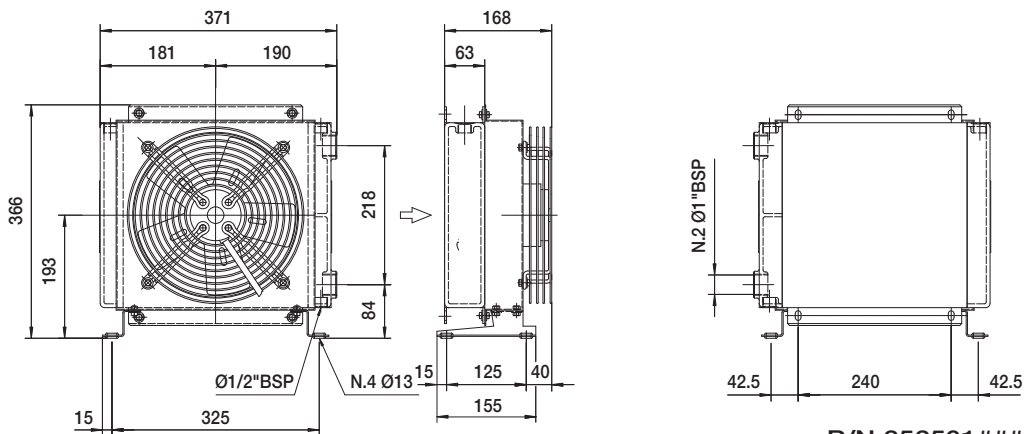


Fattore di correzione - F - (perdite di carico) Correction factor - F - (Pressure drop)

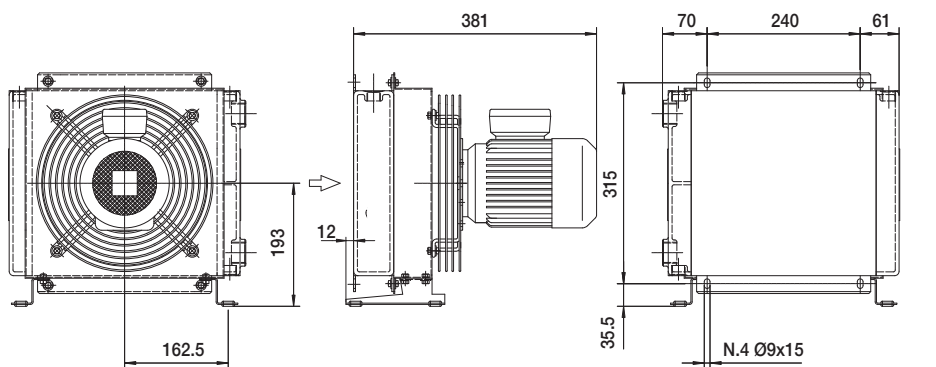
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2024K 2PASS

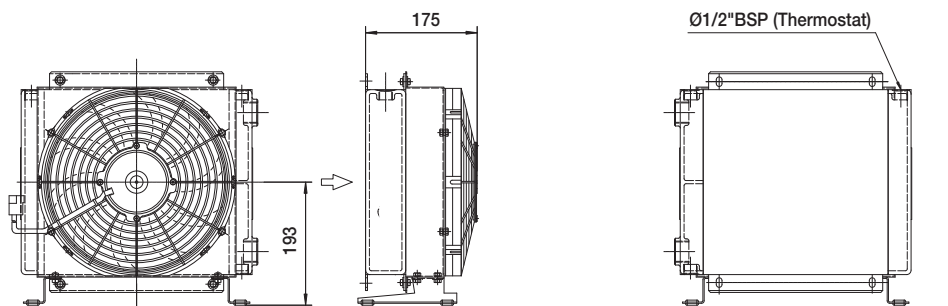
Dimensioni *Dimensions*



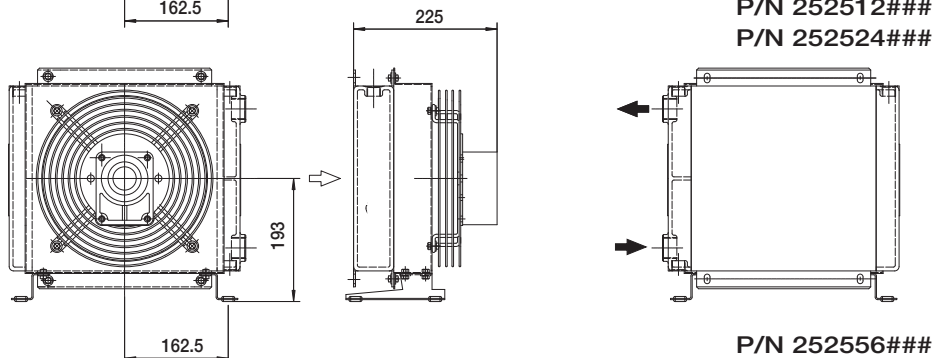
P/N 252501###
P/N 252503###



P/N 252504###



P/N 252512###
P/N 252524###



P/N 252556###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

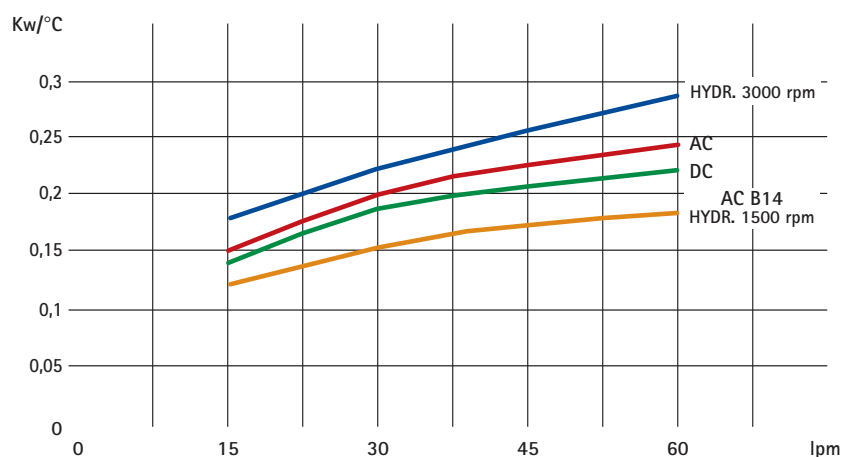
MG 2024K 2PASS

Dati tecnici *Technical Data*

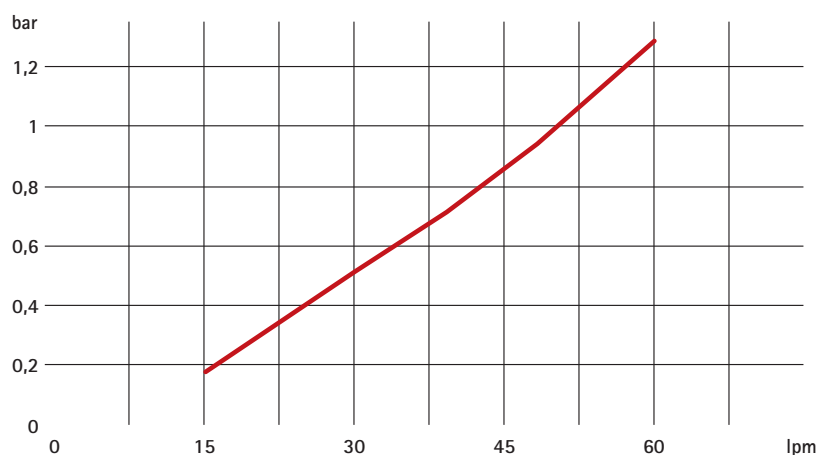
P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m ³ /h)	IP	lt	Kg
252501###	230 AC	50	0,108	0,48	2525	250	72	1350	44	1	11
252503###	230-400 AC	50/60	0,105	0,22	2500	250	72	1300	44		11
252504###	230-400 AC B14	50/60	0,250	0,71	1450	250	64	1000	55		16
252512###	12 DC	/	0,110	7,1	3000	280	72	1180	68		10
252524###	24 DC	/	0,110	3,8	3000	280	74	1280	68		10
252556###	Prepared for Gr.2 hydraulic motor				☎	250	☎	☎	/		10

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

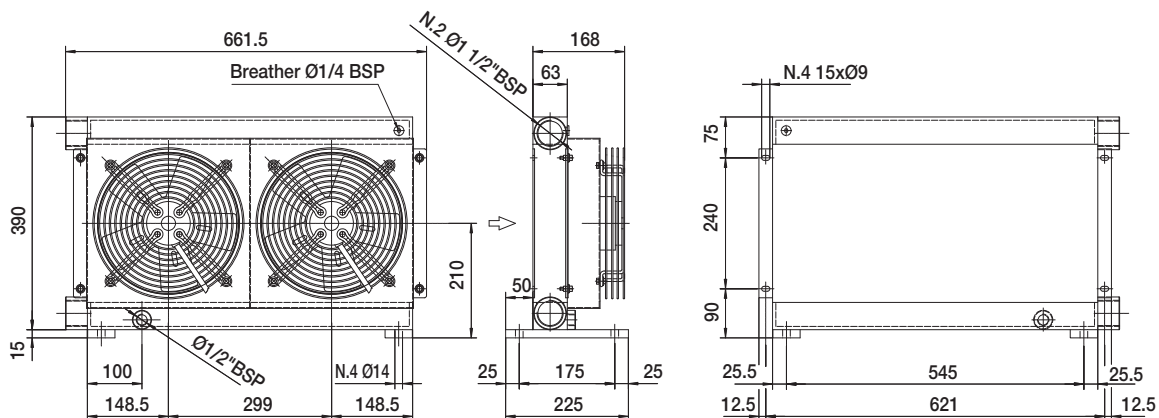


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

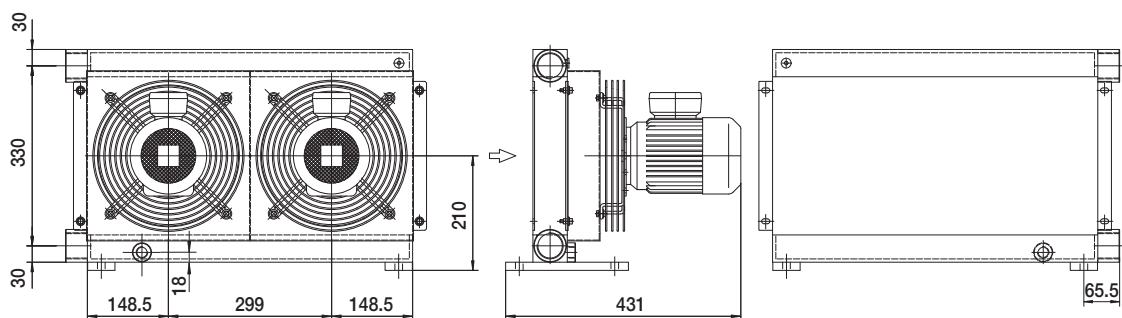
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2024 2KS

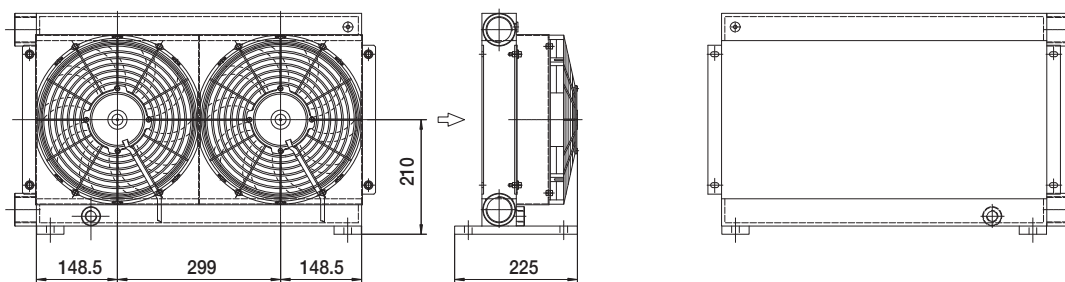
Dimensioni *Dimensions*



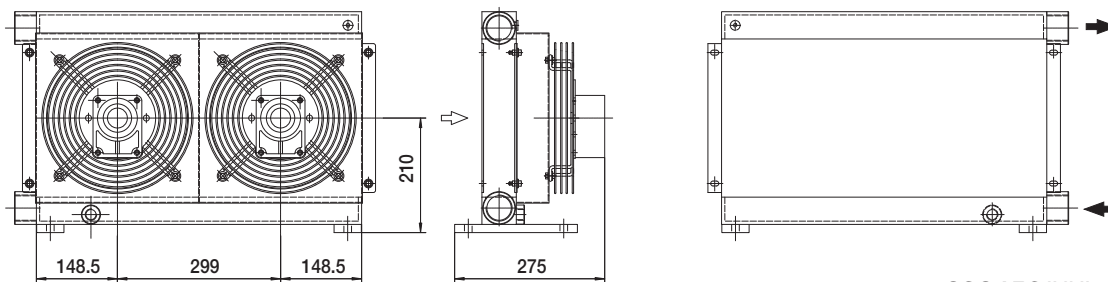
232401###
232403###



232404###



232412###
232424###



232456###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2024 2KS

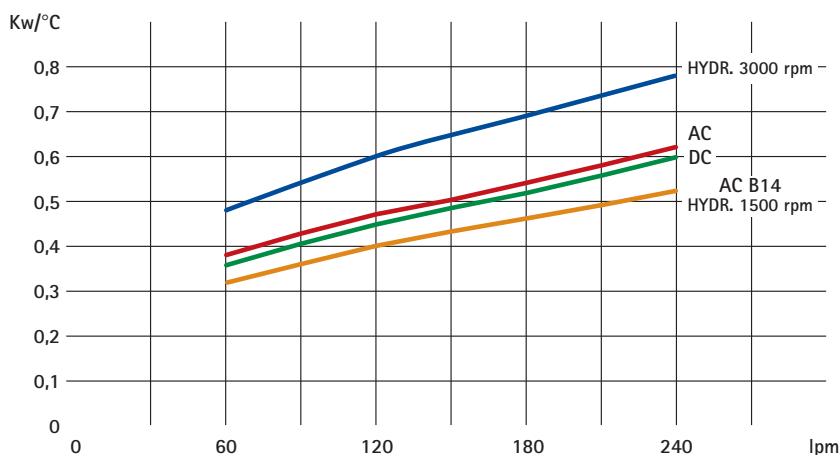
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
232401###	230 AC	50	0,108	0,48	2525	250	75	1350	44	2	23
232403###	230-400 AC	50/60	0,105	0,22	2670	250	75	1300	44		23
232404###	230-400 AC B14	50/60	0,250	0,71	1450	250	67	1000	55		34
232412###	12 DC	/	0,110	7,1	3000	280	75	1180	68		21
232424###	24 DC	/	0,110	3,8	3000	280	77	1280	68		21
232456###	Prepared for Gr.2 hydraulic motor				☎	250	☎	☎	/		20

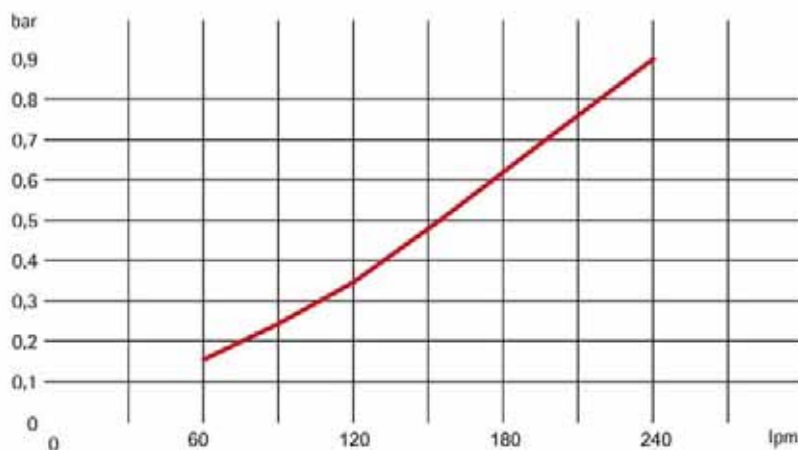
I dati sono riferiti al singolo ventilatore *The data refers to each ventilator*

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

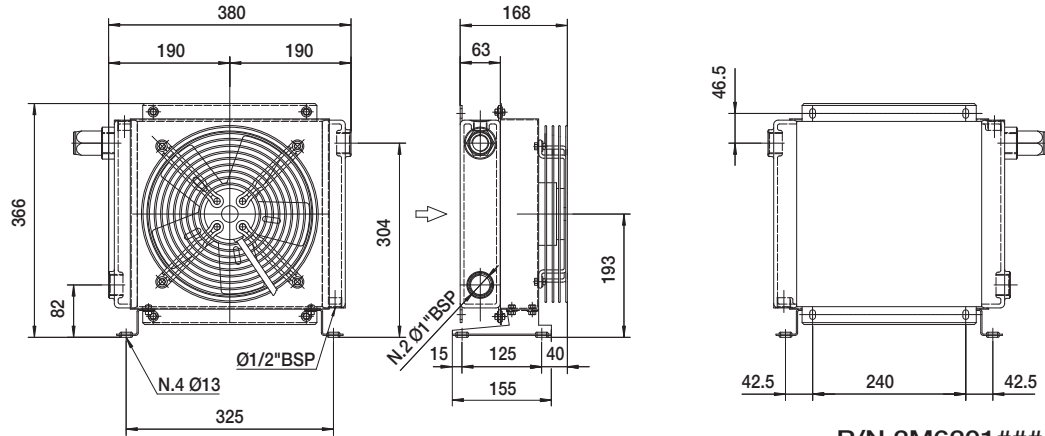


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

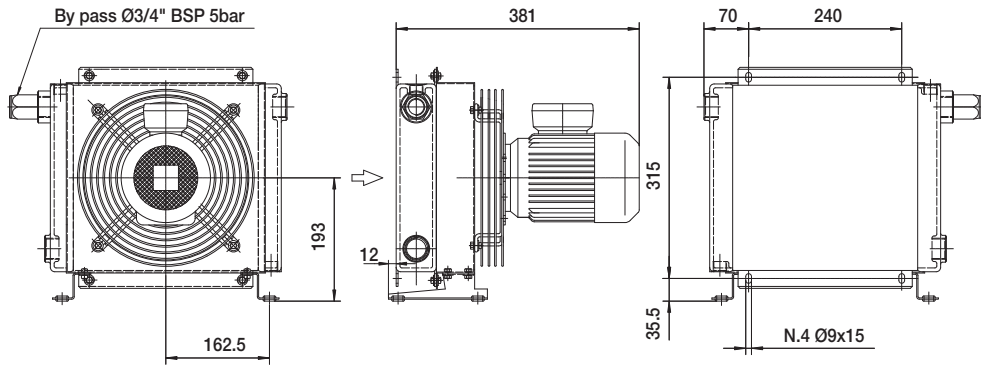
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2024K By-Pass

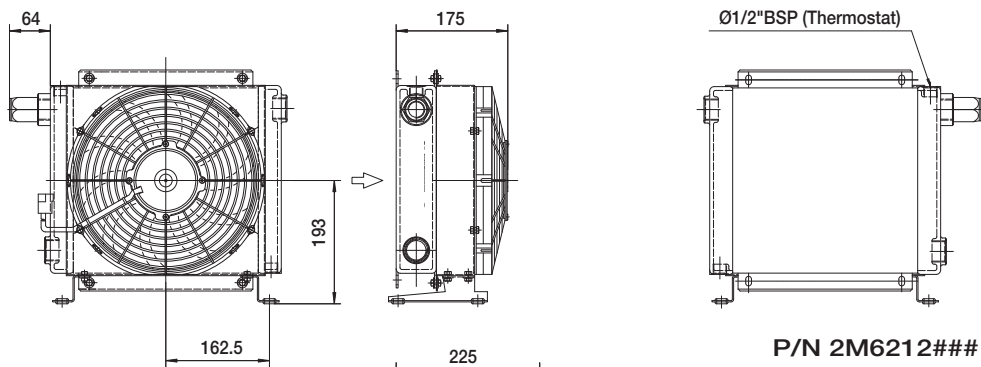
Dimensioni *Dimensions*



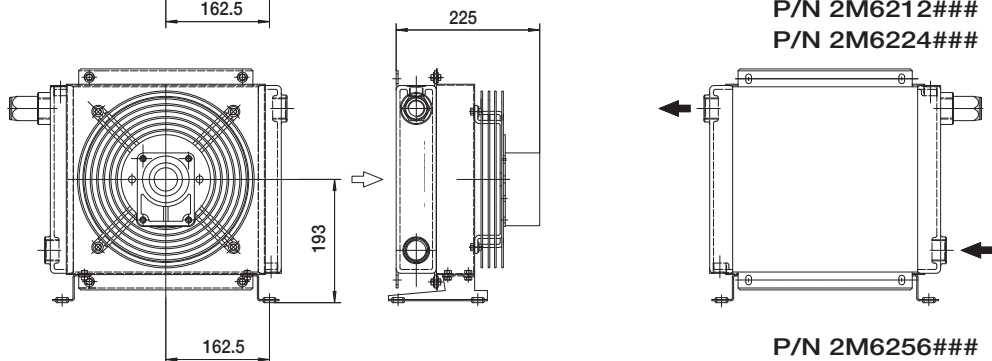
P/N 2M6201###
P/N 2M6203###



P/N 2M6204###



P/N 2M6212###
P/N 2M6224###



P/N 2M6256###

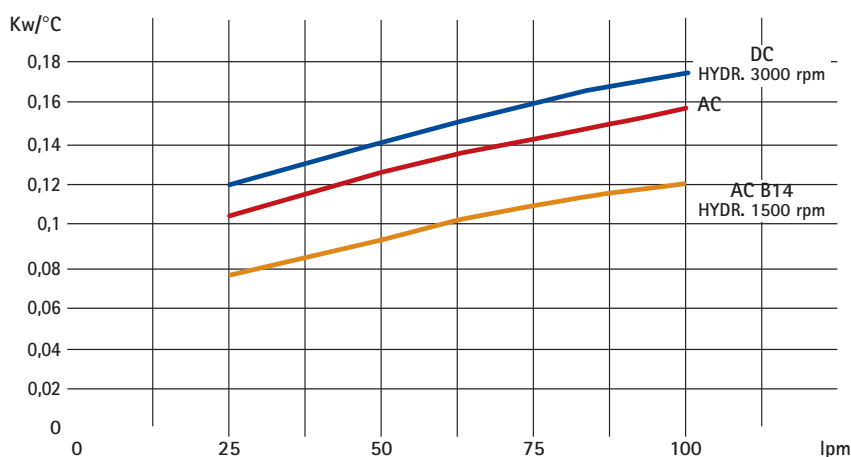
Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2024K By-Pass

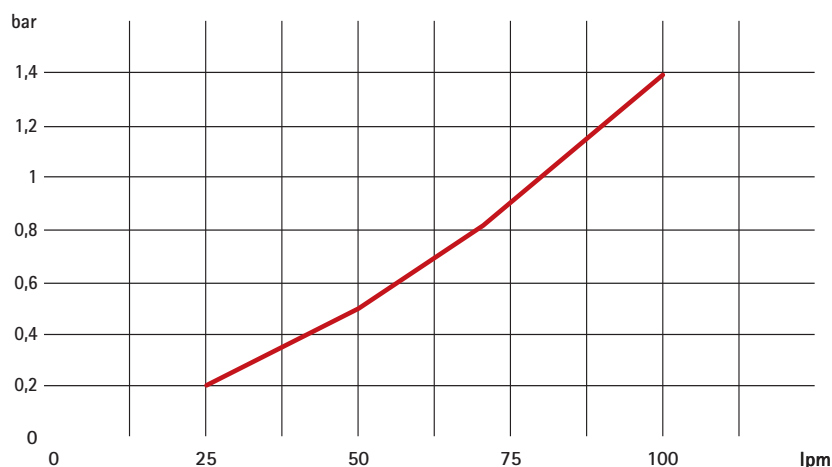
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
2M6101###	230 AC	50	0,067	0,29	2770	200	68	675	44	0,7	8
2M6103###	230-400 AC	50/60	0,068	0,15	2600	200	68	645	44		8
2M6104###	230-400 AC B14	50/60	0,250	0,7	1350	200	64	390	55		11
2M6112###	12 DC	/	0,09	5,9	3100	225	72	795	64		7
2M6124###	24 DC	/	0,10	3,1	3000	225	72	785	64		7
2M6156###	Prepared for Gr.2 hydraulic motor				☎	200	☎	☎	/		7

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

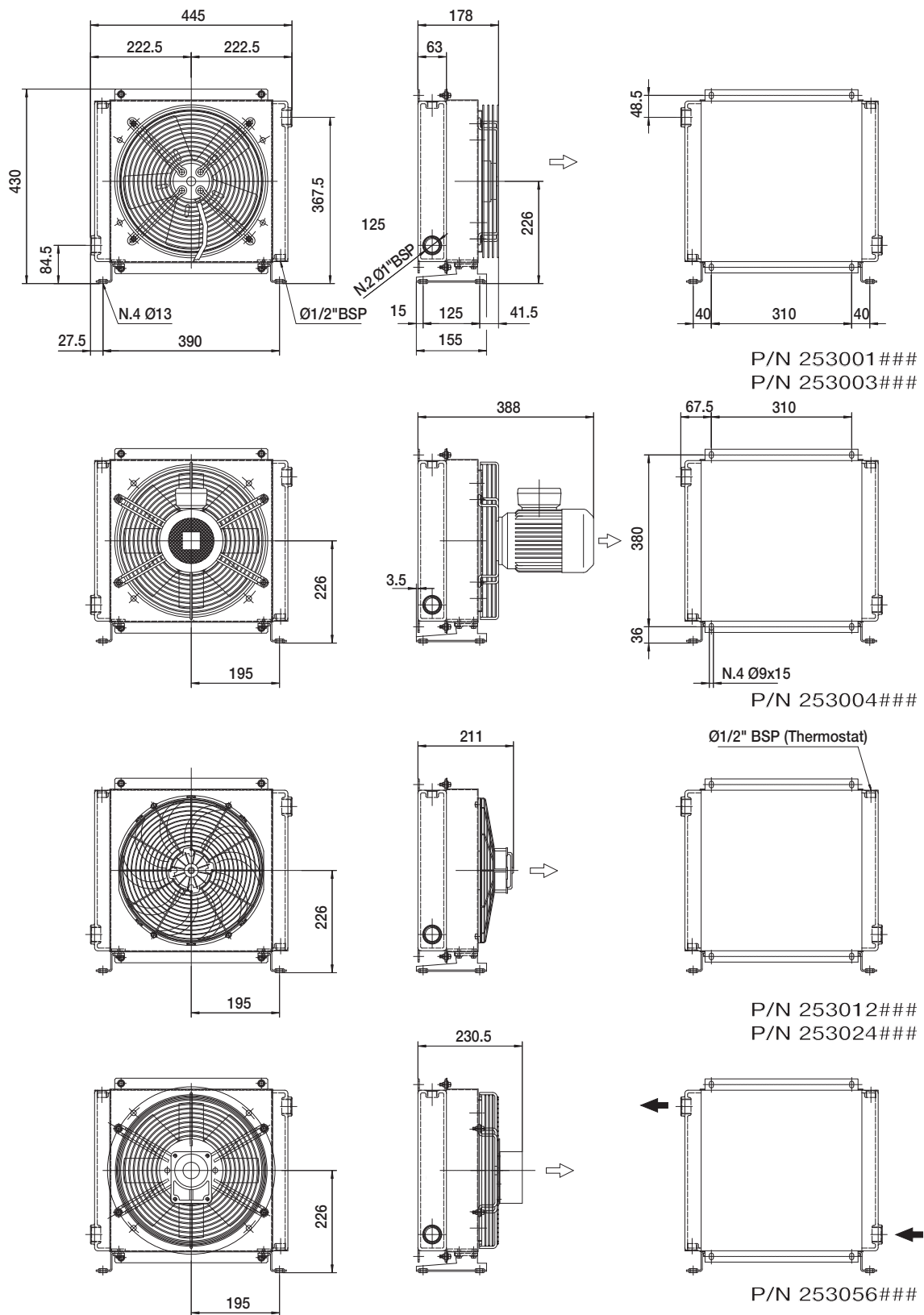


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2030K

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

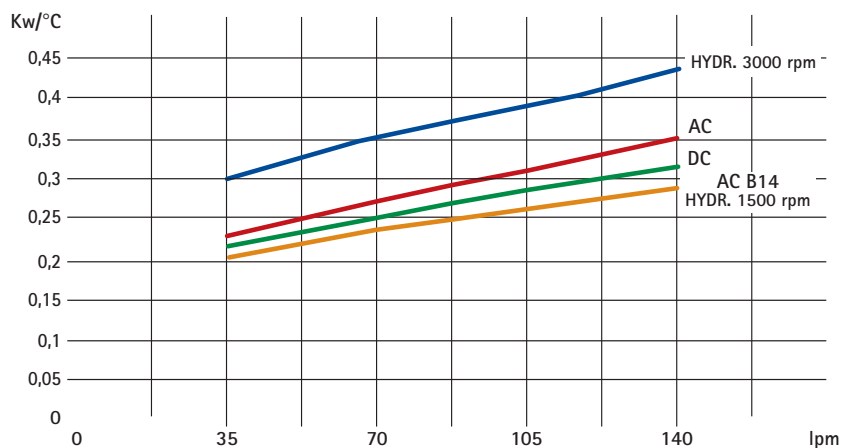
MG 2030K

Dati tecnici *Technical Data*

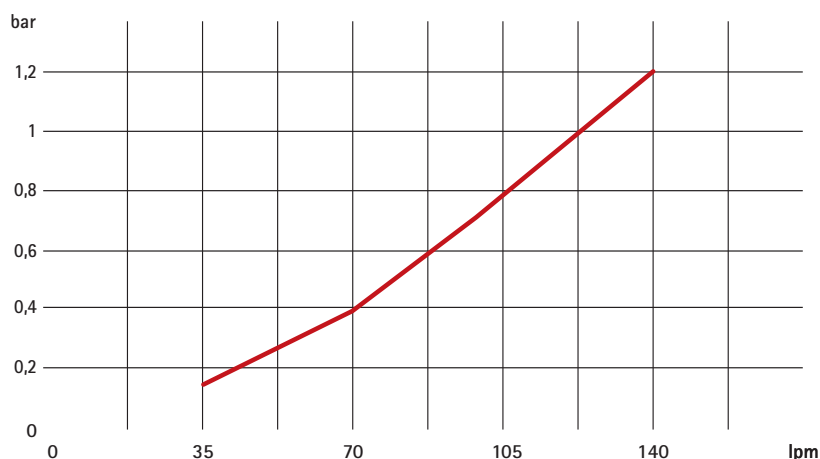
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
253001###	230 AC	50	0,189	0,85	2520	300	78	2220	44	1,6	15
253003###	230-400 AC	50/60	0,195	0,43	2600	300	76	2500	44		15
253004###	230-400 AC B14	50/60	0,370	1,03	1370	300	70	1850	55		20
253012###	12 DC	/	0,180	12,2	3000	305	80	1920	68		14
253024###	24 DC	/	0,180	6	3000	305	83	2100	68		14
253056###	Prepared for Gr.2 hydraulic motor				☎	300	☎	☎	/		15

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

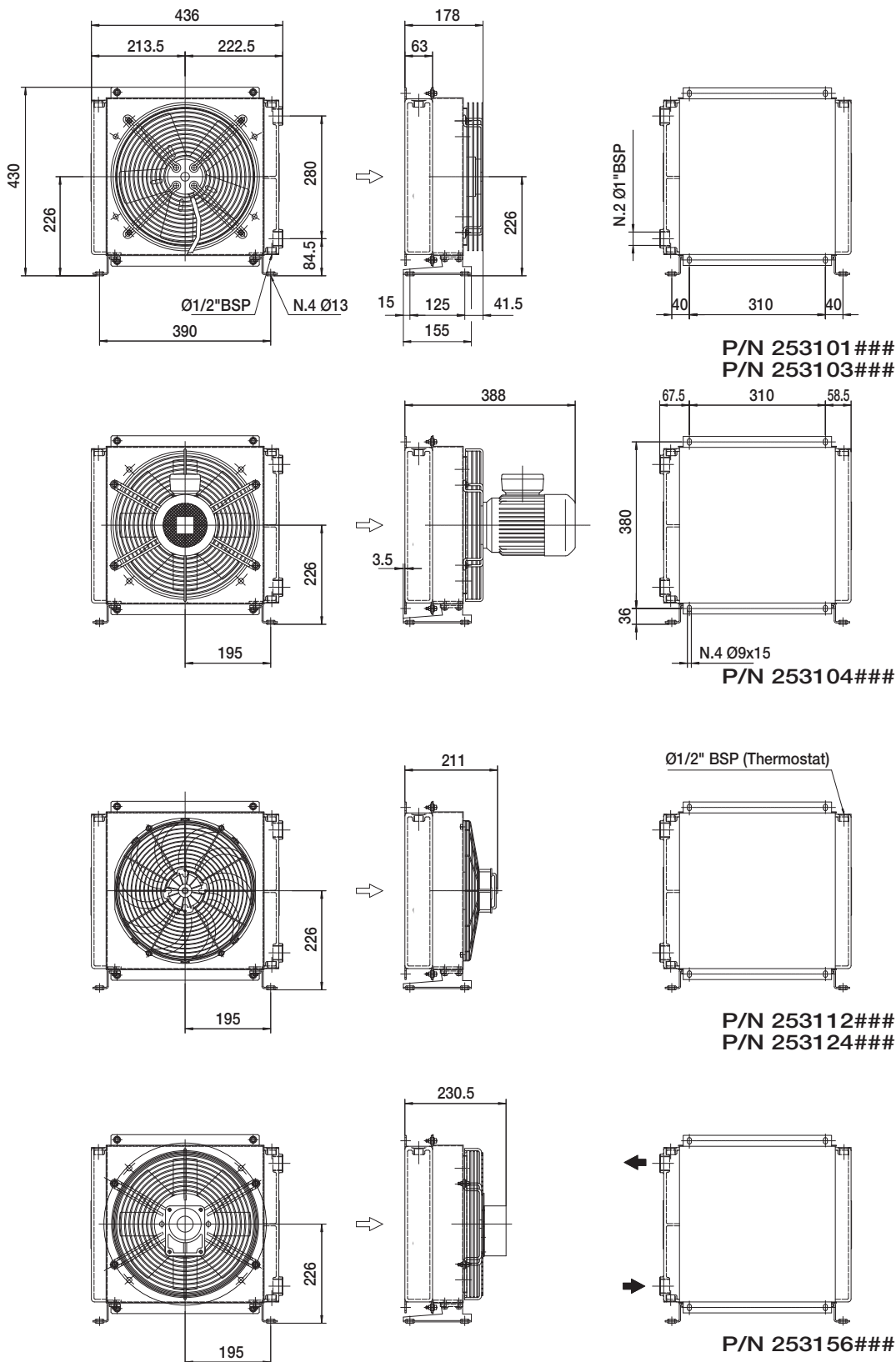


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2030K 2PASS

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

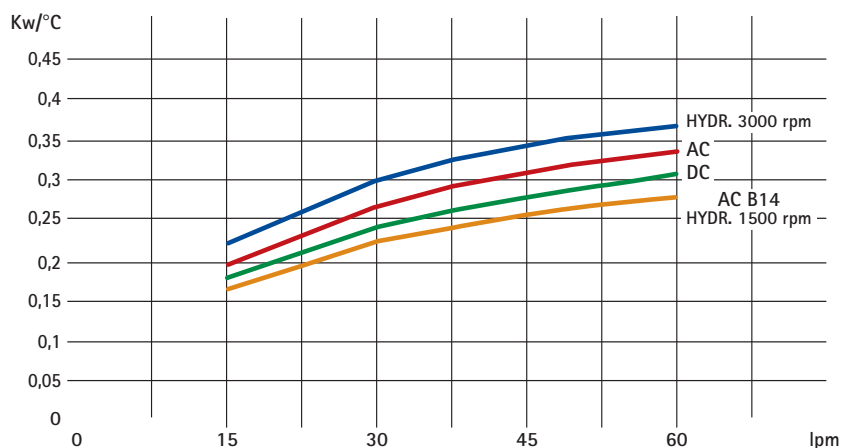
MG 2030K 2PASS

Dati tecnici *Technical Data*

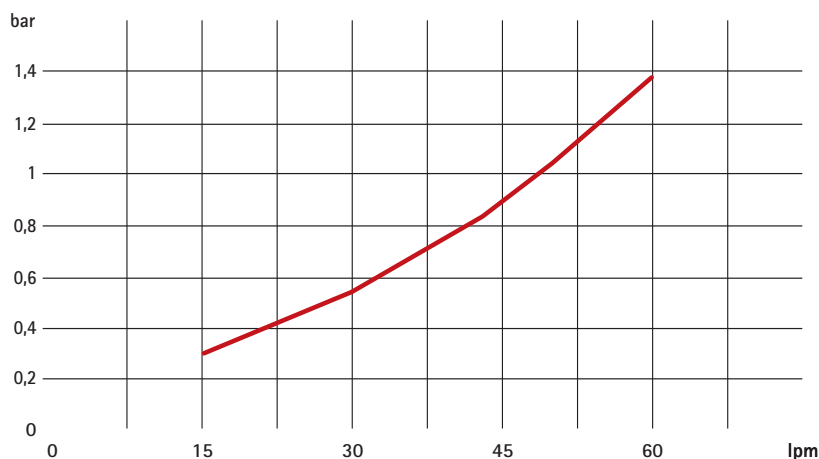
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
253101###	230 AC	50	0,189	0,85	2520	300	78	2220	44	1,6	15
253103###	230-400 AC	50/60	0,195	0,43	2600	300	76	2500	44		15
253104###	230-400 AC B14	50/60	0,370	1,03	1370	300	70	1850	55		20
253112###	12 DC	/	0,180	/	3000	305	80	1920	68		14
253124###	24 DC	/	0,180	/	3000	305	83	2100	68		14
253156###	Prepared for Gr.2 hydraulic motor					300			/		15

Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

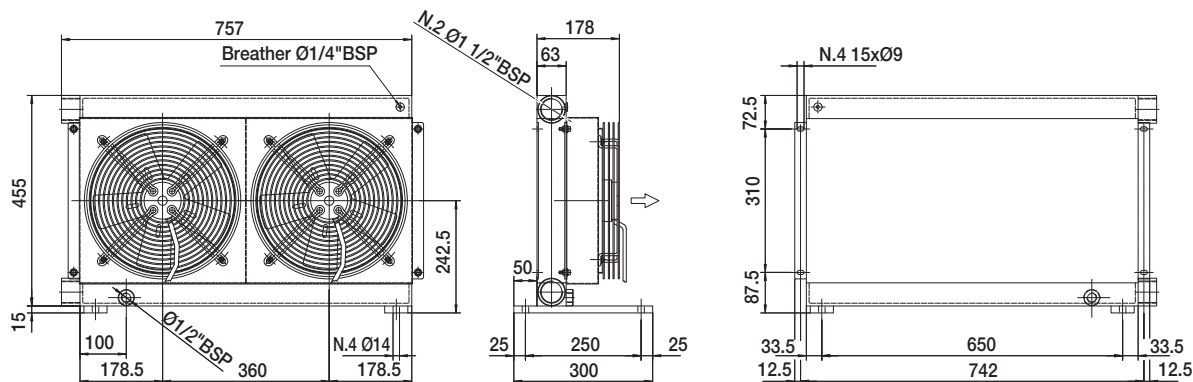


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

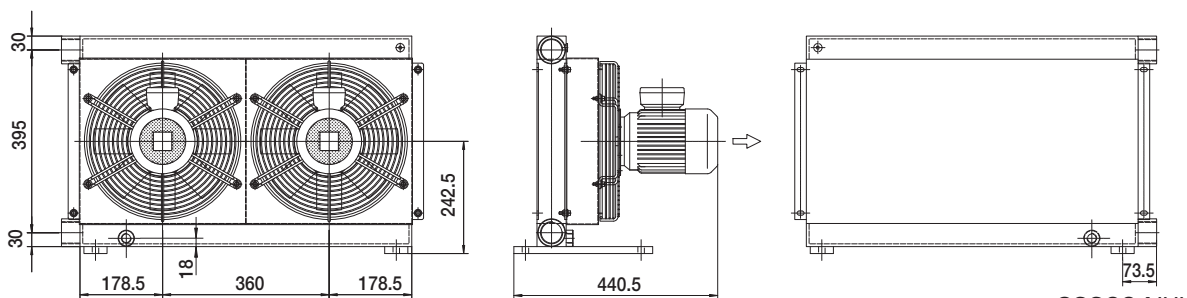
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2030 2KS

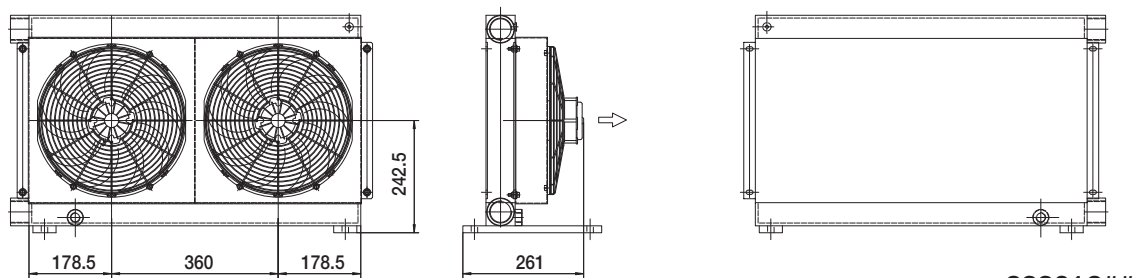
Dimensioni *Dimensions*



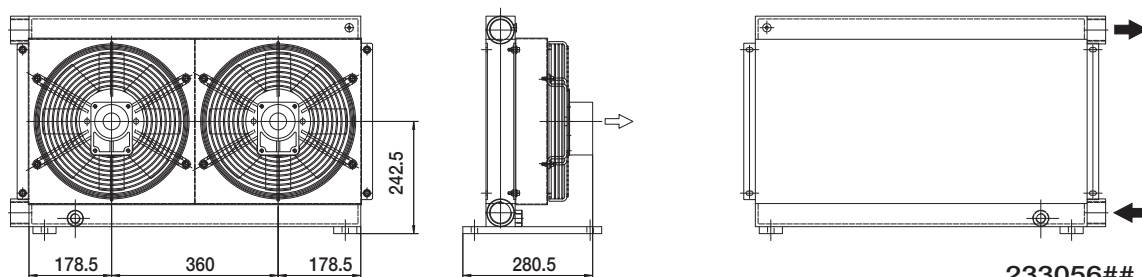
233001##
233003##



233004##



233012##
233024##



233056##

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2030 2KS

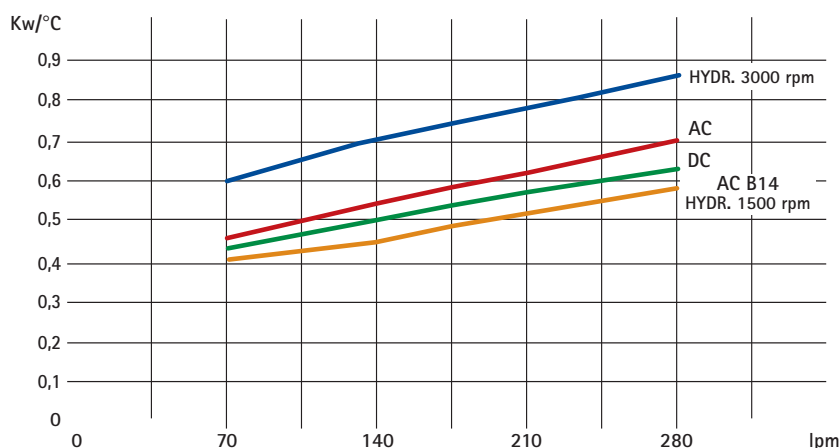
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	lt	Kg
233001###	230 AC	50	0,189	0,85	2520	300	81	2220	44	3,2	31
233003###	230-400 AC	50/60	0,195	0,43	2600	300	79	2500	44		31
233004###	230-400 AC B14	50/60	0,370	1,03	1370	300	73	1850	55		42
233012###	12 DC	/	0,180	/	3000	305	83	1920	68		29
233024###	24 DC	/	0,180	/	3000	305	86	2100	68		29
233056###	Prepared for Gr.2 hydraulic motor				☎	300	☎	☎	/		30

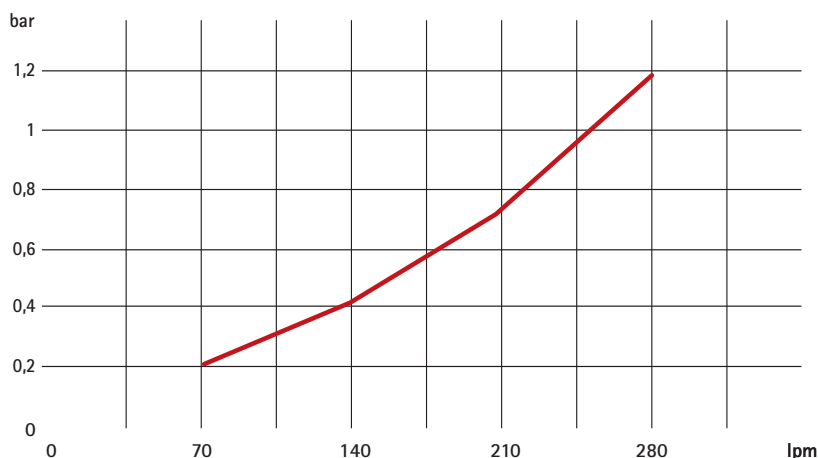
I dati sono riferiti al singolo ventilatore *The data refers to each ventilator*

☎ Contattare il ns. Ufficio tecnico *Contact our Tech. Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

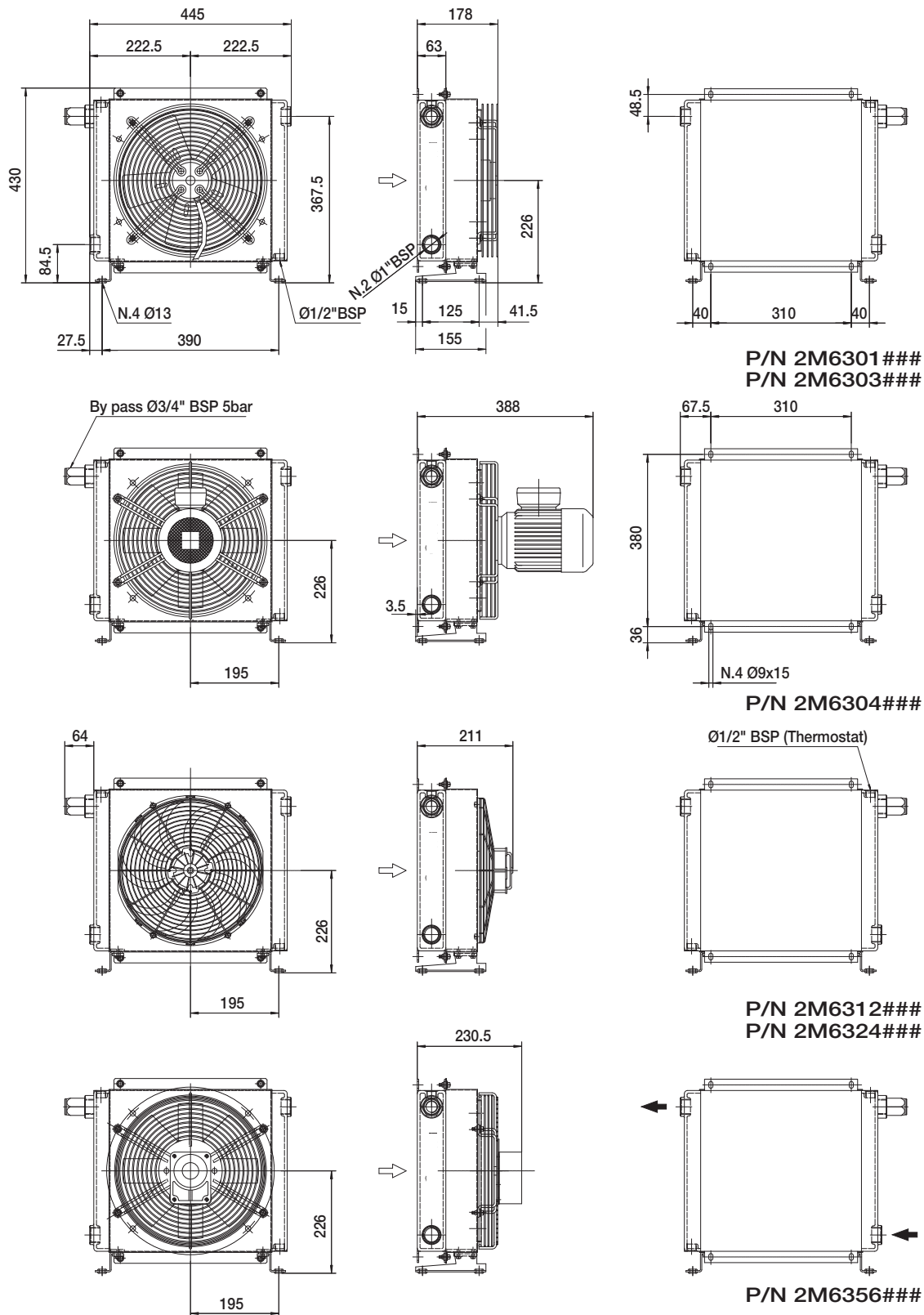


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2030K By-pass

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

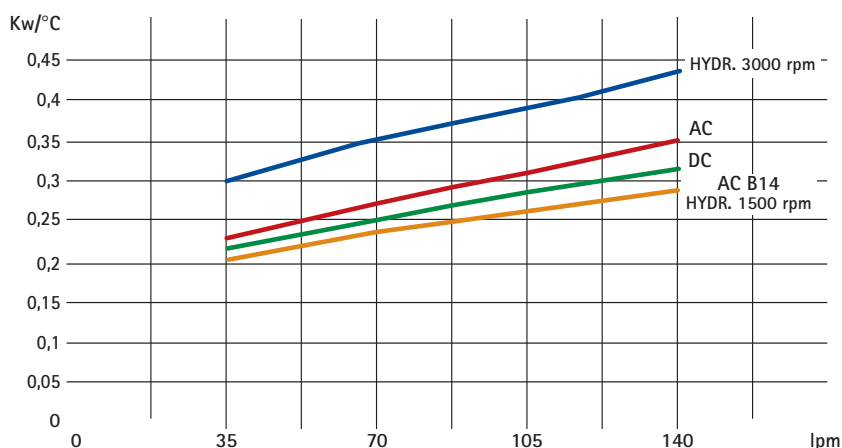
MG 2030K By-pass

Dati tecnici *Technical Data*

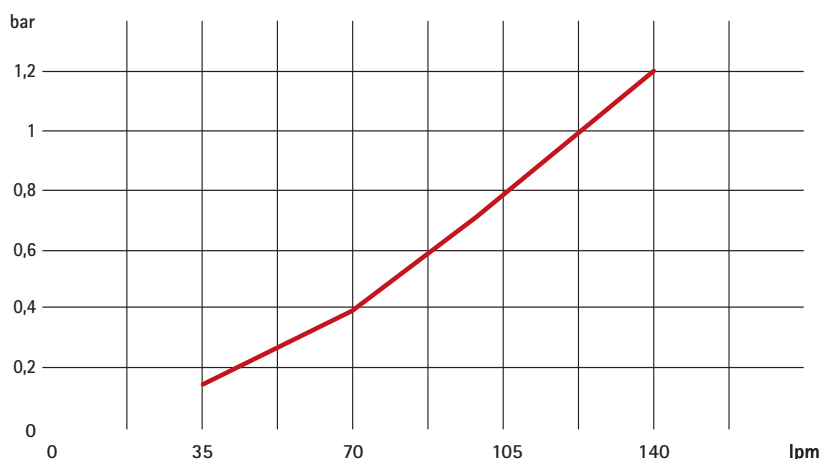
P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	It	Kg
2M6301###	230 AC	50	0,189	0,85	2520	300	78	2220	44	1,6	15
2M6303###	230-400 AC	50/60	0,195	0,43	2600	300	76	2500	44		15
2M6304###	230-400 AC B14	50/60	0,370	1,03	1370	300	70	1850	55		20
2M6312###	12 DC	/	0,180	/	3000	305	80	1920	65		14
2M6324###	24 DC	/	0,180	/	3000	305	83	2100	65		14
2M6356###	Prepared for Gr.2 hydraulic motor				☎	300	☎	☎	/		15

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

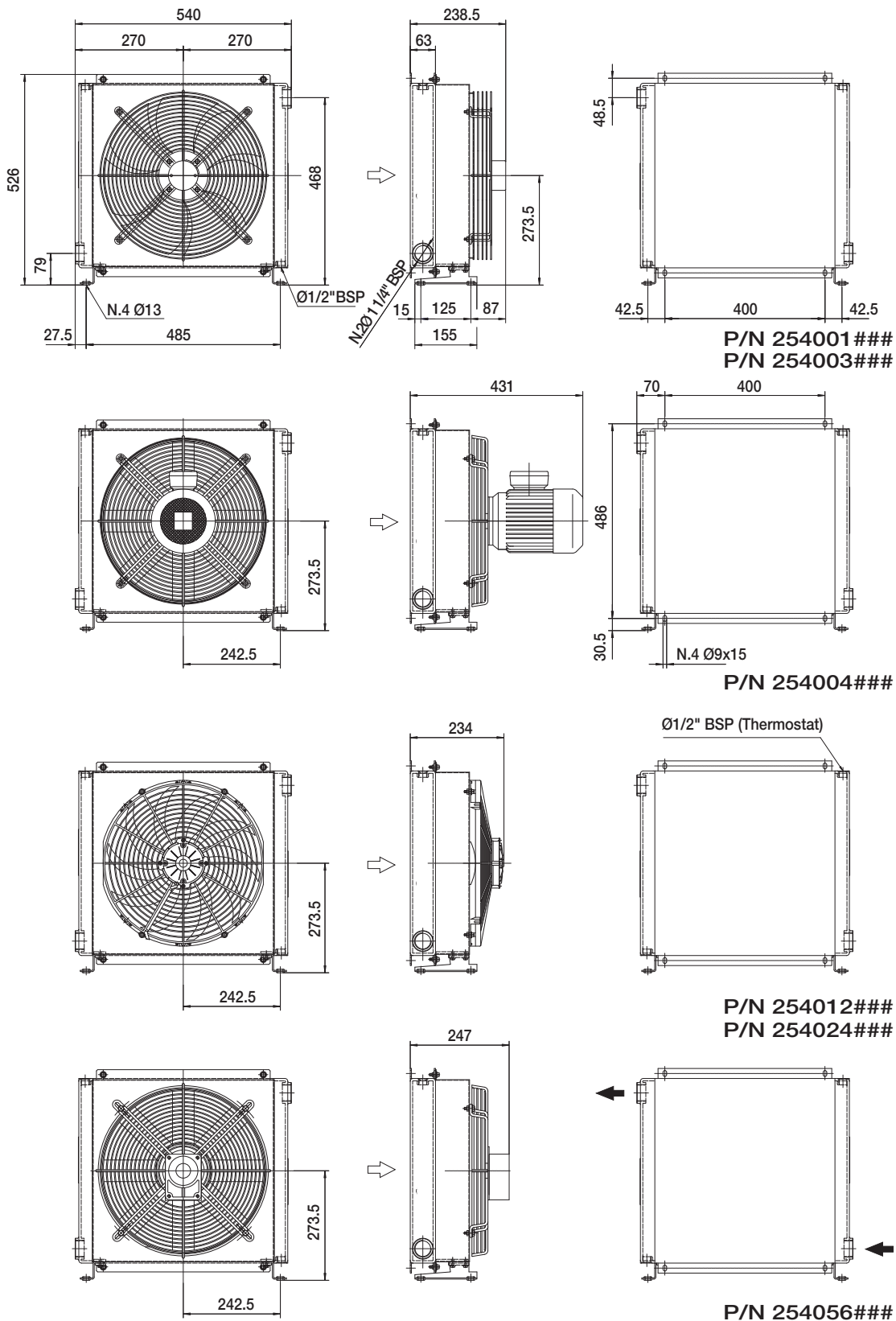


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2040K

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

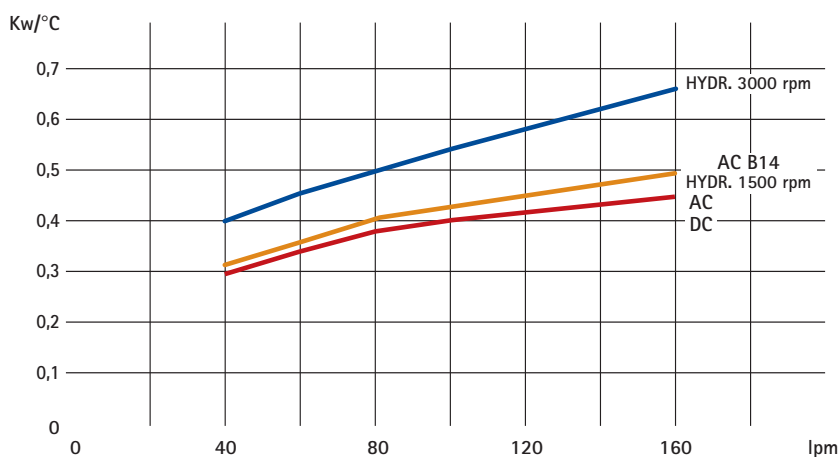
MG 2040K

Dati tecnici *Technical Data*

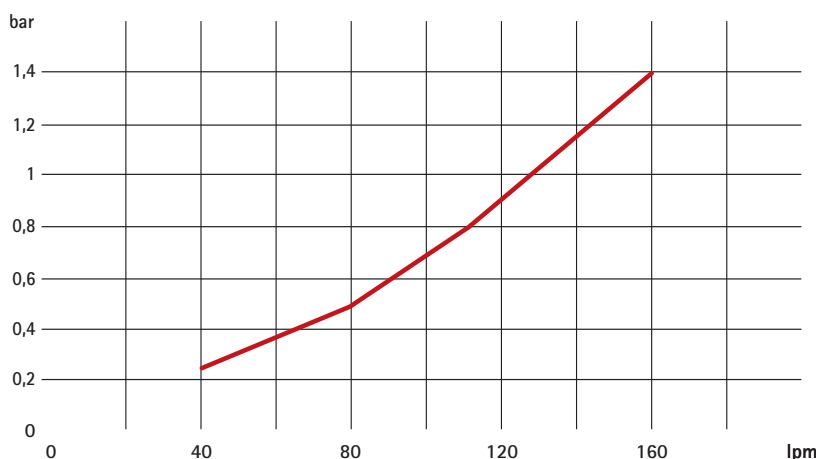
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
254001###	230 AC	50	0,32	1,25	1260	400	71	3200	54	2,7	21
254003###	230-400 AC	50/60	0,27	0,5	1300	400	71	3200	54		21
254004###	230-400 AC B14	50/60	0,55	1,52	1400	400	77	3740	55		25
254012###	12 DC	/	0,21	13,8	2500	385	76	3000	68		20
254024###	24 DC	/	0,21	8,2	2500	385	79	3370	68		20
254056###	Prepared for Gr.2 hydraulic motor				☎	400	☎	☎	/		19

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

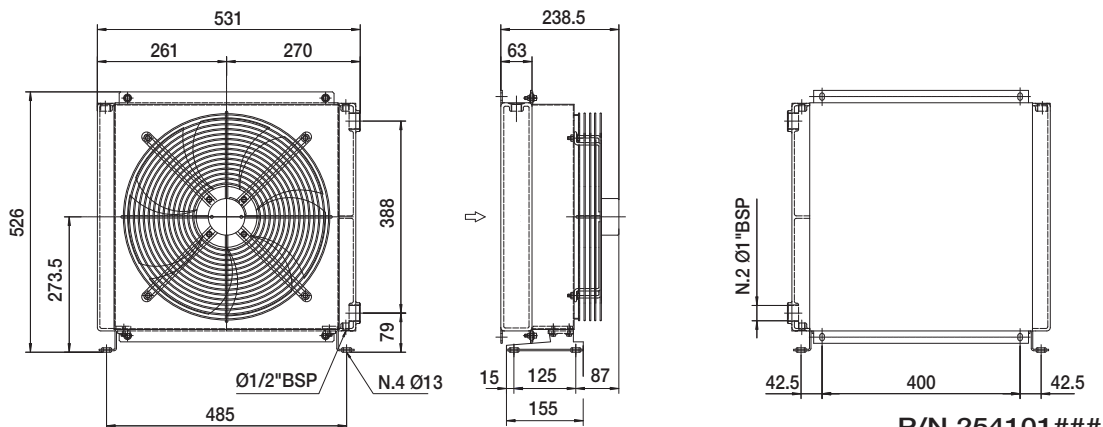


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

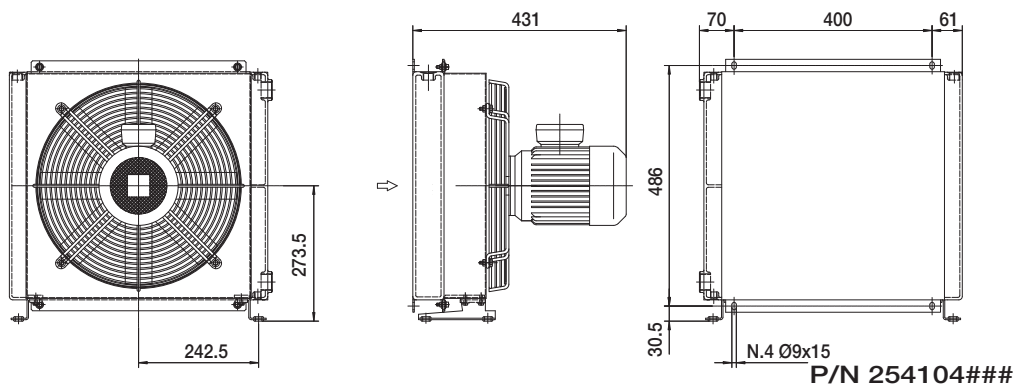
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2040K 2PASS

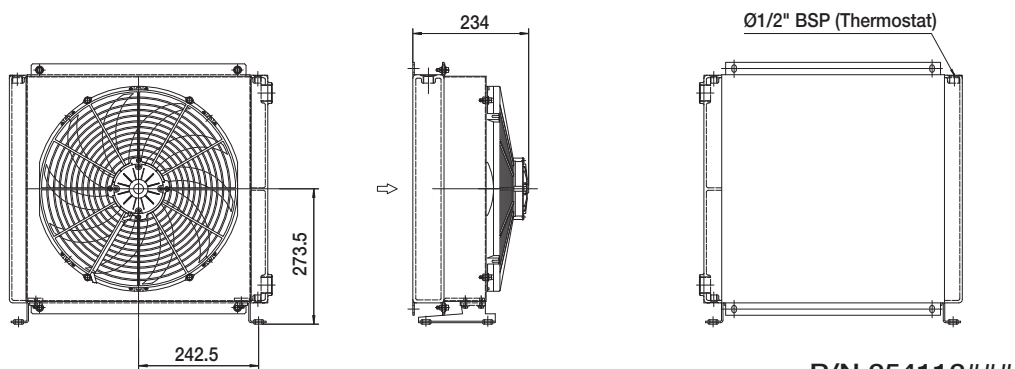
Dimensioni *Dimensions*



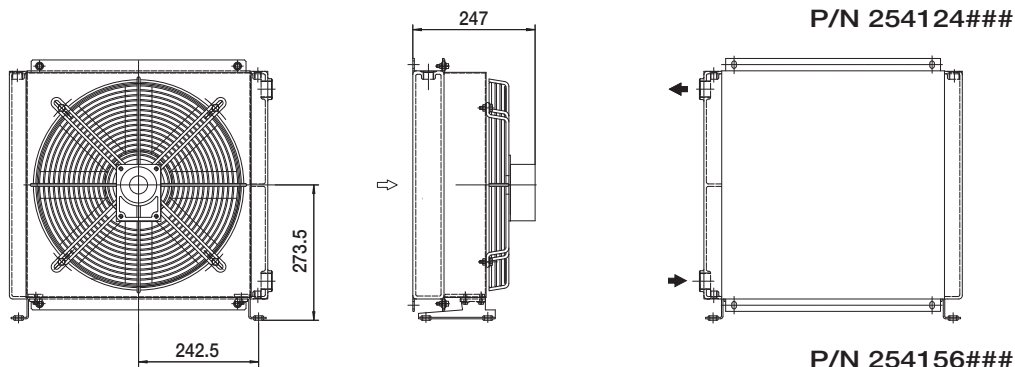
P/N 254101###
P/N 254103###



P/N 254104###



P/N 254112###
P/N 254124###



P/N 254156###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

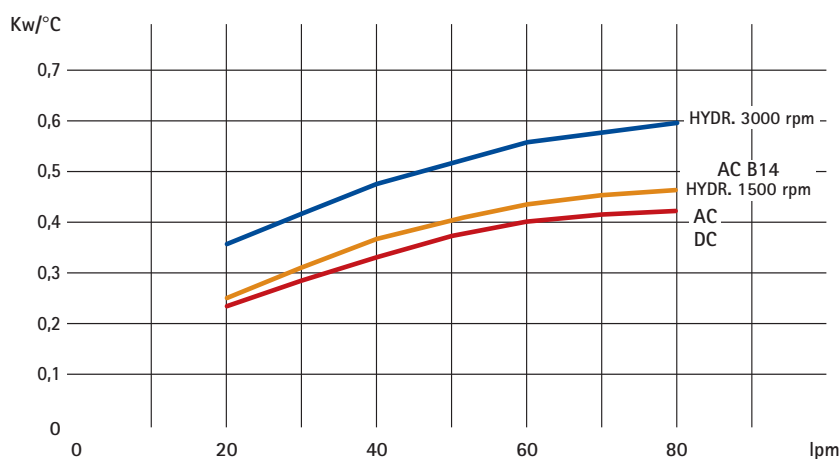
MG 2040K 2PASS

Dati tecnici *Technical Data*

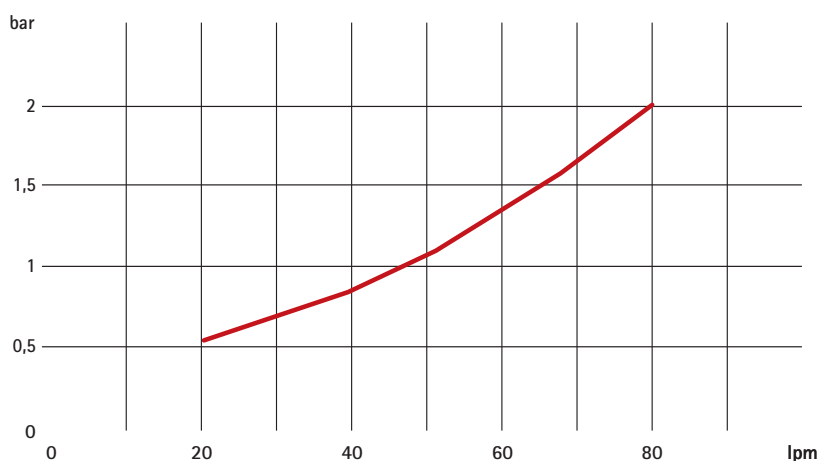
P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	It	Kg
254101###	230 AC	50	0,32	1,25	1260	400	71	3200	54	2,7	21
254103###	230-400 AC	50/60	0,27	0,5	1300	400	71	3200	54		21
254104###	230-400 AC B14	50/60	0,55	1,52	1400	400	77	3740	55		25
254112###	12 DC	/	0,21	13,8	2500	385	76	3000	68		20
254124###	24 DC	/	0,21	8,2	2500	385	79	3370	68		20
254156###	Prepared for Gr.2 hydraulic motor				☎	400	☎	☎	/		19

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

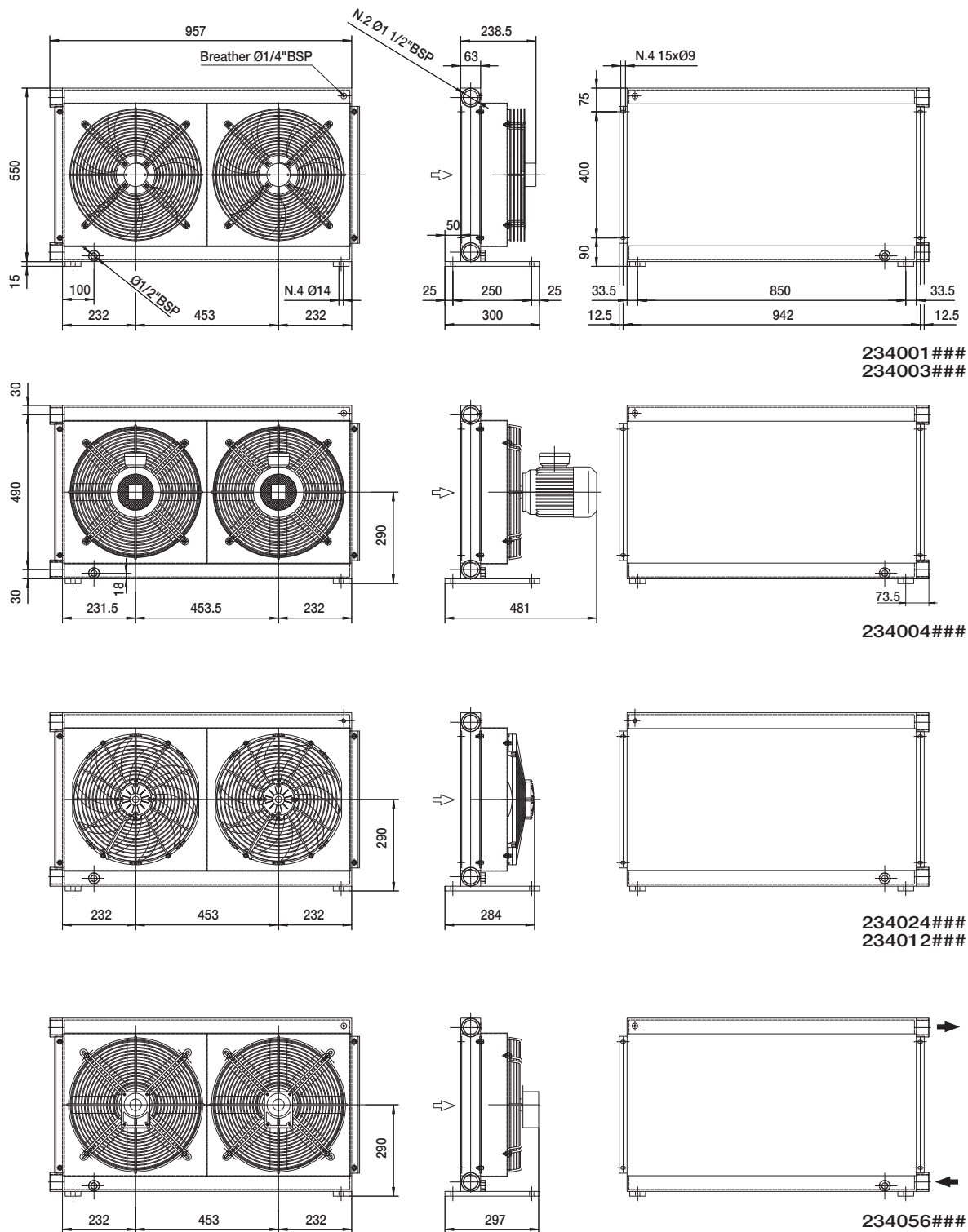


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2040 2KS

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2040 2KS

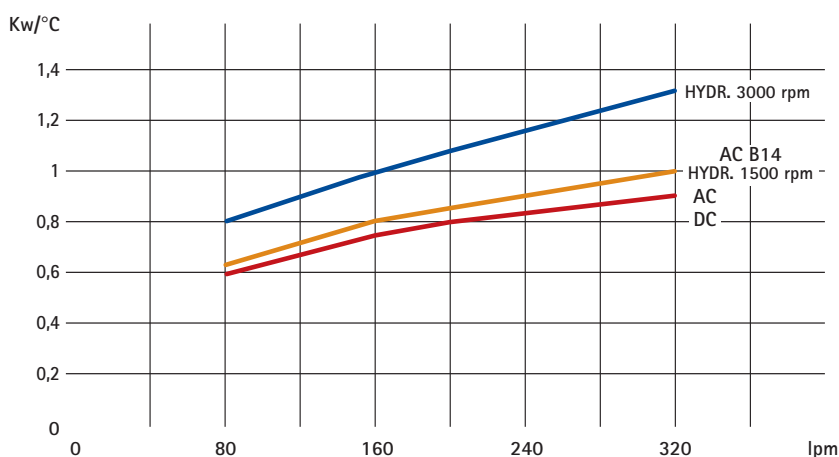
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	It	Kg
234001###	230 AC	50	0,32	1,25	1260	400	74	3200	54	5,4	42
234003###	230-400 AC	50/60	0,27	0,5	1300	400	74	3200	54		42
234004###	230-400 AC B14	50/60	0,55	1,52	1400	400	80	3740	55		50
234012###	12 DC	/	0,21	13,8	2500	385	79	3000	68		41
234024###	24 DC	/	0,21	8,2	2500	385	82	3370	68		41
234056###	Prepared for Gr.2 hydraulic motor				☎	400	☎	☎	/		39

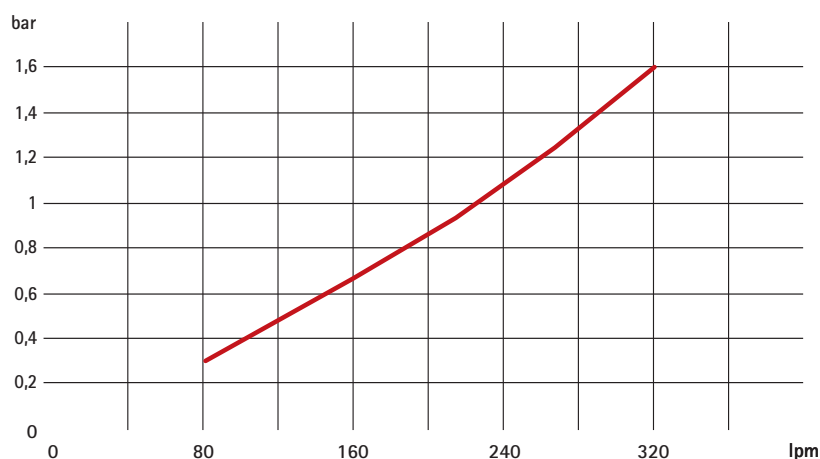
I dati sono riferiti al singolo ventilatore *The data refers to each ventilator*

☎ Contattare il ns. Ufficio tecnico *Contact our Tech. Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

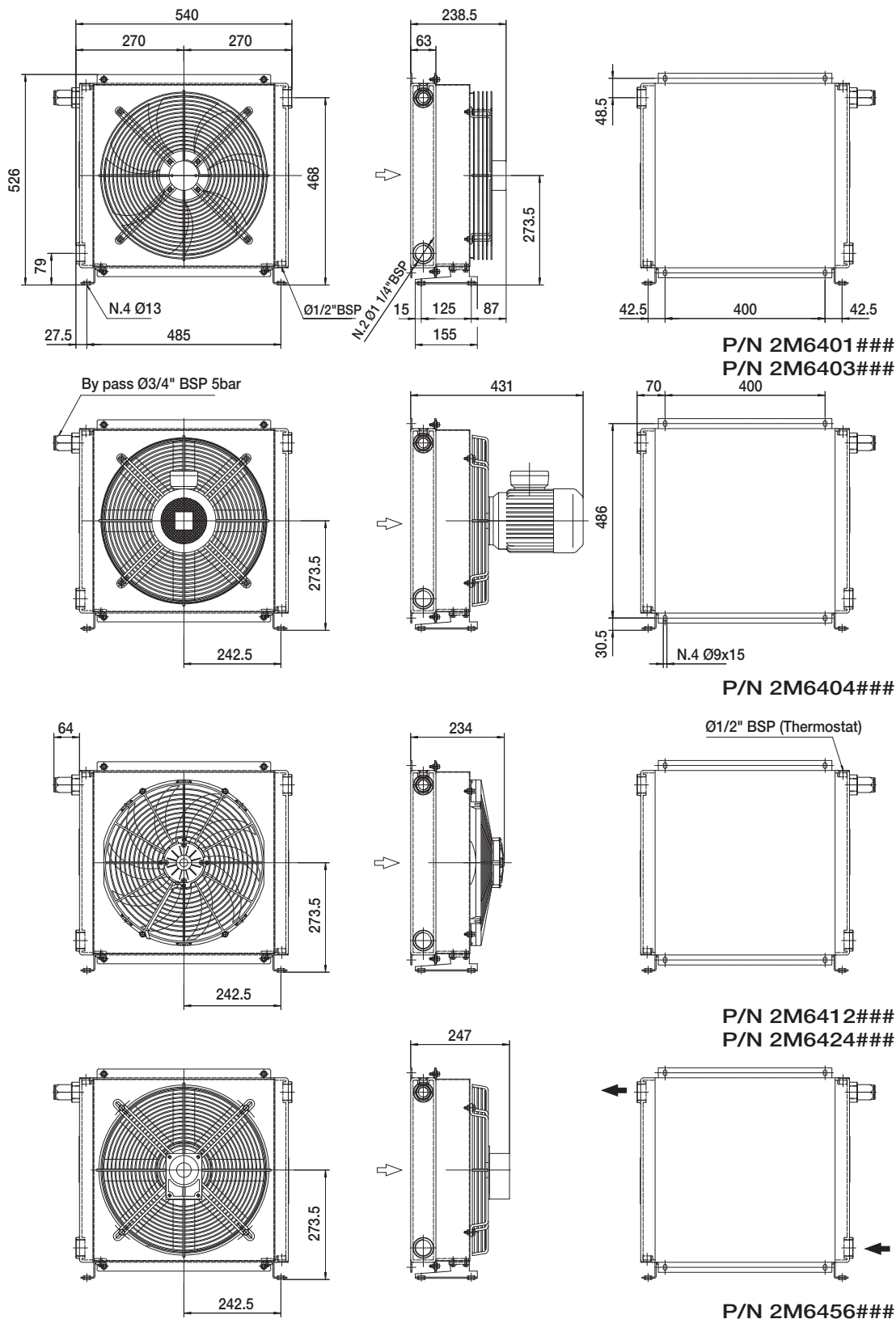


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2040K By-Pass

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

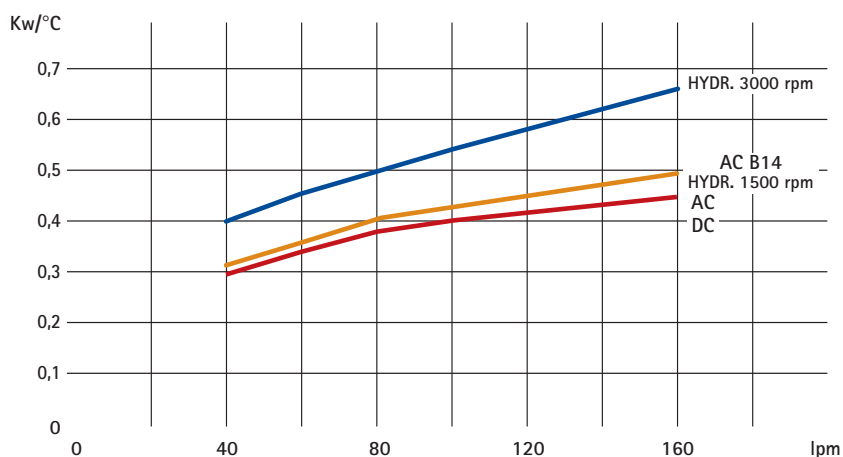
MG 2040K By-Pass

Dati tecnici *Technical Data*

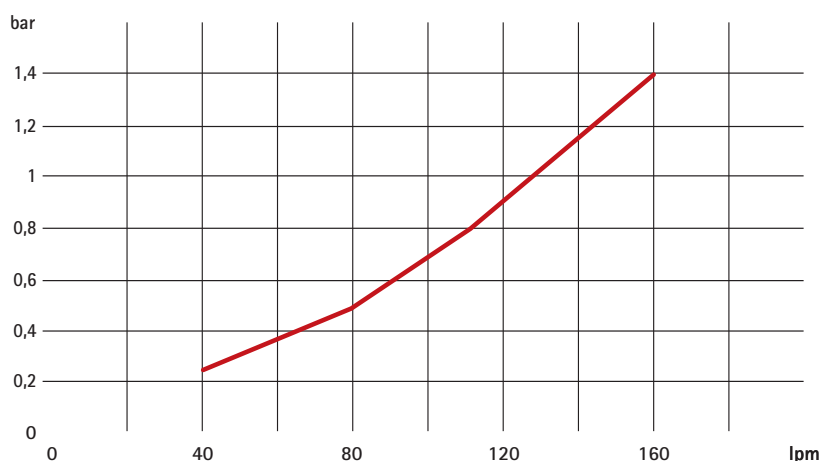
P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	It	Kg
2M6401###	230 AC	50	0,32	1,25	1260	400	71	3200	54	2,7	21
2M6403###	230-400 AC	50/60	0,27	0,5	1300	400	71	3200	54		21
2M6404###	230-400 AC B14	50/60	0,55	1,52	1400	400	77	3740	55		25
2M6412###	12 DC	/	0,21	13,8	2500	385	76	3000	65		20
2M6424###	24 DC	/	0,21	8,2	2500	385	79	3370	65		20
2M6456###	Prepared for Gr.2 hydraulic motor				☎	400	☎	☎	/		19

☎ Contattare il ns. Ufficio tecnico *Contact our Tech . Dpt*

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

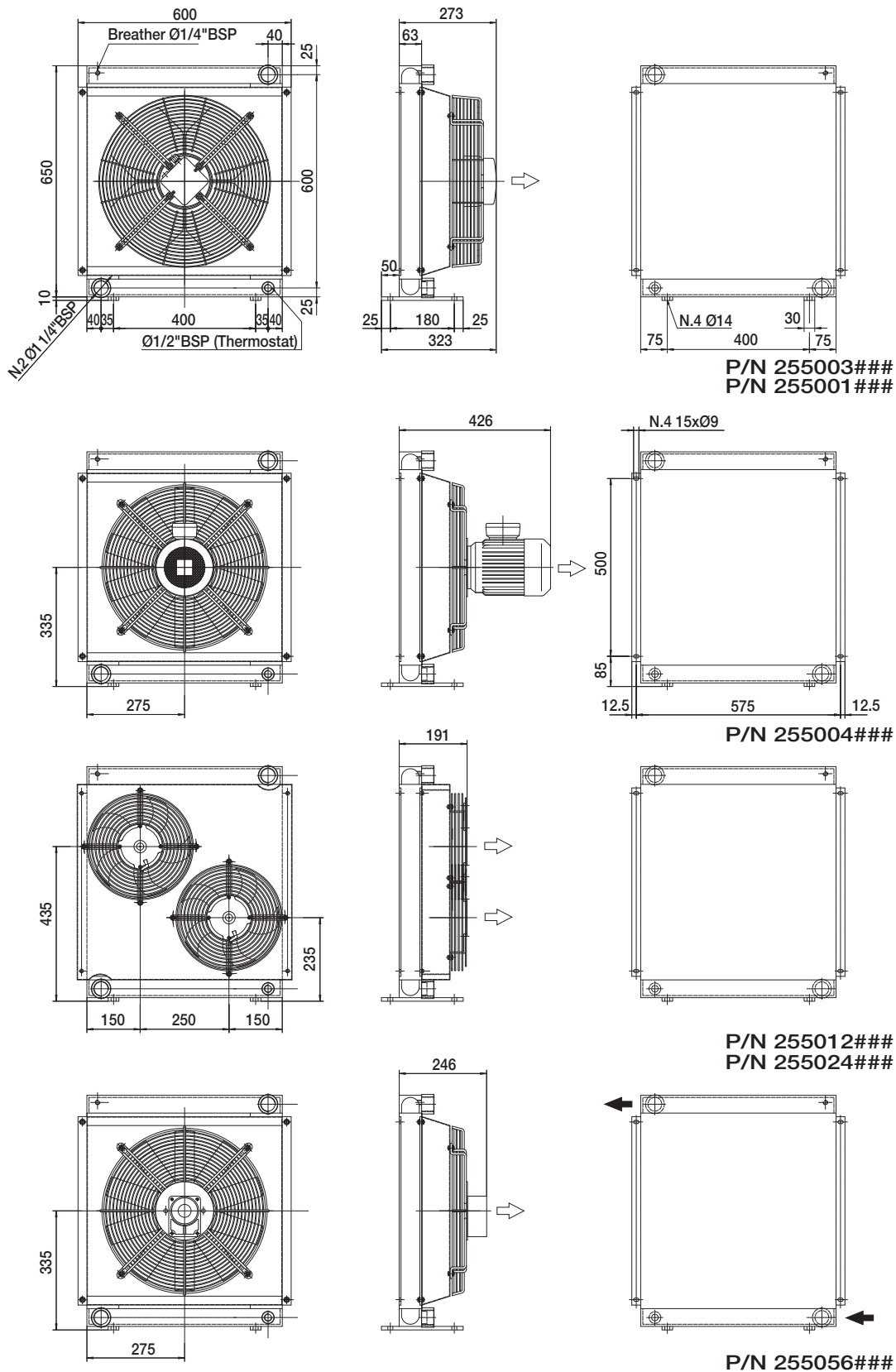


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2050K

Dimensioni *Dimensions*



Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2050K

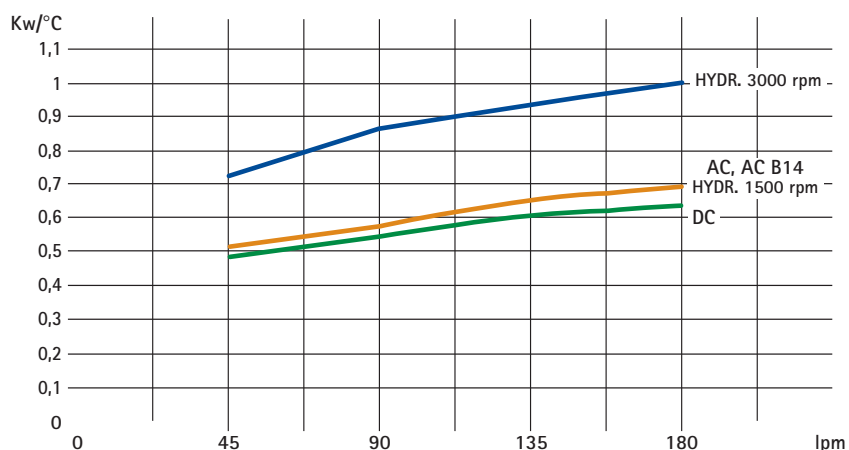
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	ø Fan	dB(A)	(m³/h)	IP	lt	Kg
255003###	230-400 AC	50/60	0,43	0,9	1340	450	76	5000	54	5	27
255004###	230-400 AC B14	50/60	0,75	1,88	1450	450	79	5200	55		30
255012###	12 DC	/	0,15	9,5	3100	280	76	2000	68		24
255024###	24 DC	/	0,15	5,6	3100	280	79	2000	68		24
255056###	Prepared for Gr.2 hydraulic motor				☎	450	☎	☎	/		23

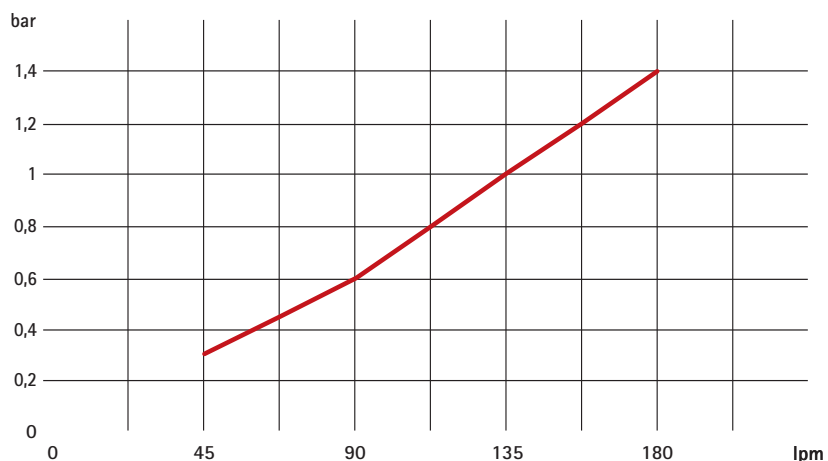
Per il 12-24V i dati sono riferiti al singolo ventilatore For 12-24V the data refers to each ventilator

☎ Contattare il ns. Ufficio tecnico Contact our Tech. Dpt

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*

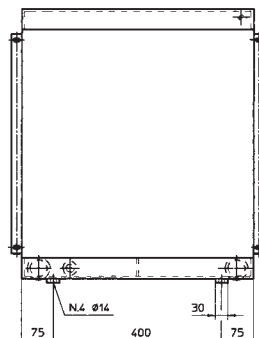
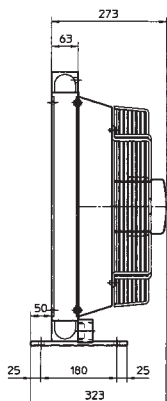
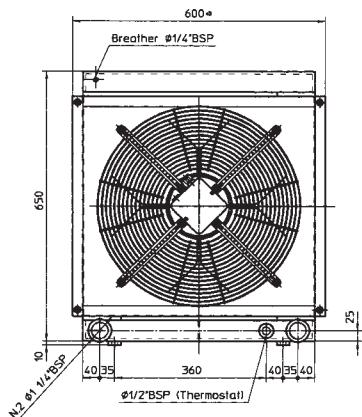


Fattore di correzione - F - (perdite di carico) *Correction factor - F - (Pressure drop)*

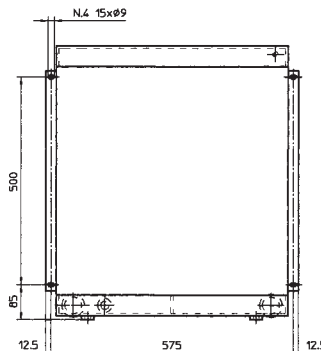
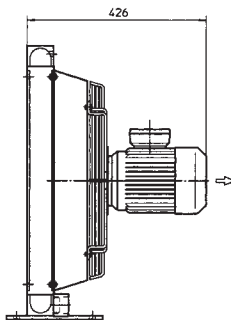
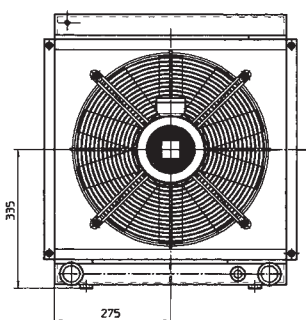
cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

MG 2050K 2PASS

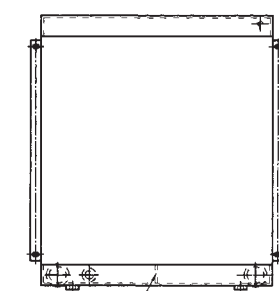
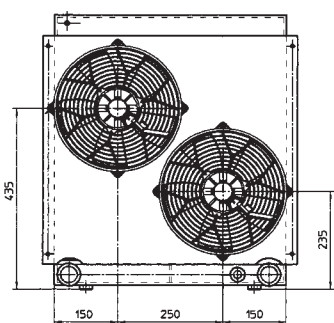
Dimensioni *Dimensions*



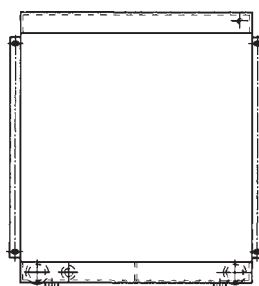
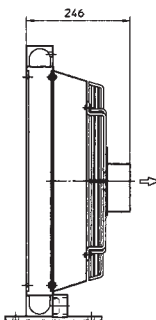
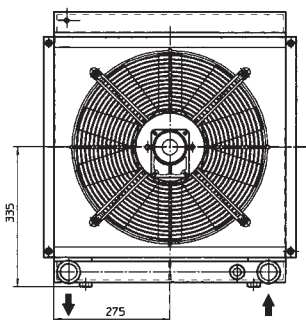
P/N 2G7003###
P/N 2G7001###



P/N 2G7004###



P/N 2G7012###
P/N 2G7024###



P/N 2G7056###

Le dimensioni di ingombro e le caratteristiche tecniche non sono impegnative
Over-all dimensions and technical characteristic are not binding

MG 2050K 2PASS

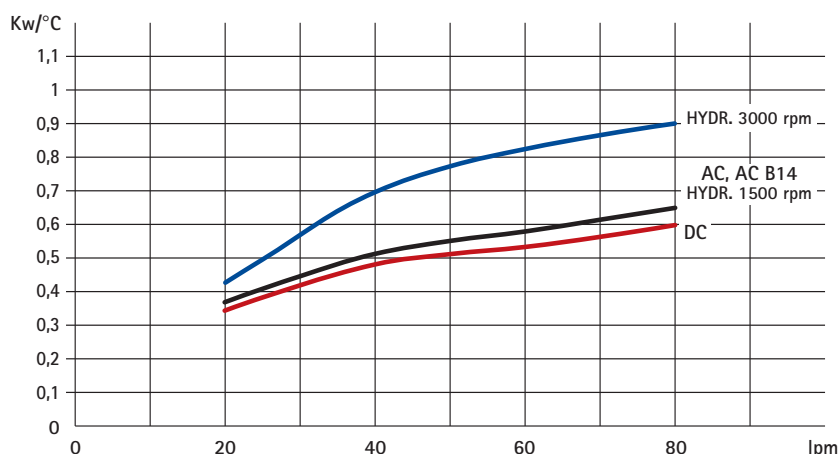
Dati tecnici *Technical Data*

P/N	V	Hz	kW	A	rpm	∅ Fan	dB(A)	(m³/h)	IP	lt	Kg
2G7003###	230-400 AC	50/60	0,43	0,9	1340	450	76	5000	54	5	27
2G7004###	230-400 AC B14	50/60	0,75	1,88	1450	450	79	5200	55		30
2G7012###	12 DC	/	0,15	9,5	3100	280	76	2000	68		24
2G7024###	24 DC	/	0,15	5,6	3100	280	79	2000	68		24
2G7056###	Prepared for Gr.2 hydraulic motor				☎	450	☎	☎	/		23

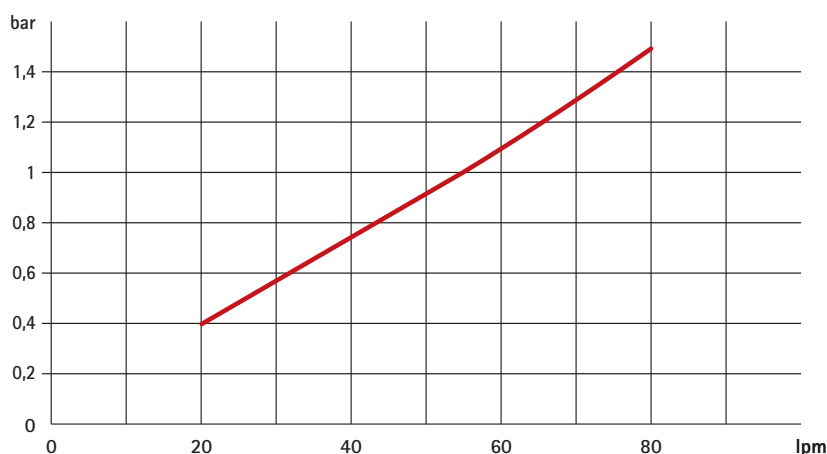
Per il 12-24V i dati sono riferiti al singolo ventilatore For 12-24V the data refers to each ventilator

☎ Contattare il ns. Ufficio tecnico Contact our Tech . Dpt

Diagramma rendimento *Performance diagram*



Perdite di carico *Pressure drop (ISO VG 32)*



Fattore di correzione - F - (perdite di carico) Correction factor - F - (Pressure drop)

cst	10	15	20	30	40	50	60	80	100	200	300
F	0,5	0,65	0,77	1	1,2	1,4	1,6	1,9	2,1	3,3	4,3

Poichè HANSA-TMP offre una gamma di prodotti molto vasta, alcuni di questi vengono impiegati per più tipi di applicazioni, quindi le informazioni fornite possono riferirsi solo a determinate situazioni.

Se nel catalogo non sono riportati tutti i dati necessari, si prega di contattare HANSA-TMP.

Al fine di poter fornire una risposta esauriente potrà rendersi necessaria la richiesta di dati specifici riguardanti l'applicazione in questione.

Questo catalogo, pur essendo stato approntato con particolare cura nella precisione dei dati riportati, non consiste parte di alcun contratto espresso o implicito.

HANSA-TMP si riserva il diritto di apportare qualsiasi modifica ai dati riportati.

As HANSA-TMP has a very extensive range of products and some of them have a variety of applications, the supplied information may often only apply to specific situations.

If the catalogue does not supply all the required information, please contact HANSA-TMP.

In order to provide a comprehensive reply to queries we may require specific data regarding the proposed application.

Whilst every reasonable endeavour has been made to ensure accuracy, this publication cannot be considered to represent part of any contract, whether expressed or implied.

HANSA-TMP reserves the right to amend specifications at their discretion.



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