

IEM ATEX

Aspiratori assiali a telaio quadro
Plate mounted axial fans

Zona 21 II2D Ex h IIIB T 135°C Db
DUST

NORME | NORMS

EN 14986:2017
EN 1127-1
EN ISO 80079-36
EN ISO 80079-37

Attestato di Esame del Tipo
Type Examination Statement
IMQ 10ATEX 002 X

A RICHIESTA
UPON REQUEST

- Versioni a 60 Hz
- Classi di temperatura T5 e T6
- Versions at 60 Hz
- Temperature classes T5 and T6

VERSIONI | VERSIONS

IEM ATEX
Zone 1
II2G Ex h IIB T4 Gb
GAS

IEM ATEX
Zone 1
II2G Ex IIB+H2 T4 Gb
HYDROGEN

DESCRIZIONE

Gli aspiratori assiali della serie IEM ATEX sono costruiti e certificati in conformità alla Direttiva ATEX 2014/34/UE.
Sono specificatamente progettati per poter essere utilizzati in zona 21, ossia in aree o ambienti dove sia necessario garantire un elevato fattore di sicurezza contro le esplosioni dovute alla presenza di polveri combustibili (II2D).
Il loro impiego è previsto per convogliare aria pulita con temperature comprese in un range da -20°C a +60°C (su richiesta, da -40°C a +60°C).

COSTRUZIONE

- Telaio portante in lamiera d'acciaio zincata stampato e imbutito, con ampio raggio in aspirazione.
- Girante con pale a profilo alare in nylon-vetro antistatico e mozzo in fusione di lega d'alluminio. Bilanciata staticamente e dinamicamente secondo ISO 21940-11-2017.
- Esecuzione 5 (accoppiamento diretto con girante a sbalzo). Flusso dell'aria da motore a girante.
- Rete di protezione, lato motore, in tondino d'acciaio trafilato e verniciato. Realizzata a norme EN ISO 12499:2010 e UNI 80079-37-2016.

MOTORE

Motore antideflagrante asincrono trifase o monofase a norme internazionali IEC 60034, IEC 60072, ATEX 2014/34/UE, EMC 2014/30/UE, LVD 2014/35/UE, marcato CE, IP66 secondo la EN ISO 20653, classe F. Idoneo ad un servizio continuo (S1). Specificamente progettato per installazione in ambienti classificati come zona ATEX 21 II2D (POLVERI) IIIC, apparecchiature protette mediante custodie con requisiti di tenuta alla penetrazione della polvere "tb" in accordo allo standard CEI EN IEC 60079-0, CEI EN 60079-31. Motore dotato di sistema di protezione da sovratemperature con termistori tipo PTC conformi alle norme DIN 44081, DIN 44082, IEC 60034-11-2 e idoneo alla regolazione di velocità a mezzo di regolatore tipo inverter (per la versione trifase).

ACCESSORI

S - Serranda a gravità
D - Distanziatore realizzato in lamiera verniciata a polveri epossipoliestiriche
R - Rete di protezione lato girante, realizzata a norme UNI EN ISO 12499 e protetta contro gli agenti atmosferici
Interruttore di servizio ATEX.

DESCRIPTION

The axial fans of the IEM ATEX series are manufactured and certified according to the ATEX Directive 2014/34/EU.
They are specifically designed to be used in zone 21, i.e. in areas or environments where it is necessary to guarantee a high safety factor against explosions due to the presence of combustible dusts (II2D).
They are suitable to convey clean air with a temperature included in a range from -20°C to +60°C (on request, from -40°C to +60°C).

CONSTRUCTION

- Supporting frame in drawn steel sheet, with wide radius inlet cone.
- Impeller with airfoil blades in glass reinforced antistatic polyamide and hub in die-cast aluminium alloy, balanced according ISO 21940-11-2017.
- Execution 5 (direct coupling motor/impeller). Air-flow from motor to impeller.
- Inlet protection guard in steel painted rod, manufactured according to norms EN ISO 12499:2010 and UNI 80079-37-2016.

MOTOR

Explosion-proof asynchronous three-phase or single-phase motor compliant with international standards IEC 60034, IEC 60072, ATEX 2014/34/EU, EMC 2014/30/EU, LVD 2014/35/EU, CE marked, IP66 to EN ISO 20653, class F. Suitable for continuous service (S1). Specifically designed for installation in environments classified as ATEX zone 21 II2D (DUST) IIIC, equipment protected by enclosures with dust penetration tightness requirements "tb" according to CEI EN IEC 60079-0, CEI EN 60079-31. The motor includes an overtemperature protection system equipped with PTC thermistors in accordance with DIN 44081, DIN 44082, IEC 60034-11-2 and suitable for speed regulation by inverter-type controller (for three-phase version).

ACCESSORIES

S - Gravity shutter
D - Spacer manufactured in epoxy painted steel sheet
R - Impeller side protection guard manufactured according to UNI ISO 12499 rules and protected against atmospheric agents
ATEX service switch.

elicent® aspirazione evoluta

PRESTAZIONI | PERFORMANCE

IEM ATEX Ⓓ

Le prestazioni aerauliche sono rilevate in conformità alla norma EN ISO 5801/AMCA 210 con densità dell'aria standard avente peso specifico1,2 Kg/m³. Il livello di potenza sonora è ottenuto secondo la norma AMCA 300-08 in camera riverberante. Installazione A.
Le tolleranze sono conformi alla ISO 13348 e alla DIN 24166.
Alimentazione 230V/1Ph/50Hz o 400V/3Ph/50Hz.

Air performances are measured according to EN ISO 5801 / AMCA 210 standard with air density with 1.2 kg/m³ specific weight.
The sound power level is obtained according to AMCA 300-08 in reverberating room. Installation A.
Tolerances comply with ISO13348 and DIN 24166.
Power supply 230V/1Ph/50Hz or 400V/3Ph/50Hz.

U – M/T
Alimentazione elettrica
Monofase/Trifase
Power supply
Single/Three-phase

P
N° di poli motore
N° of motor poles
(RPM: 2p=3000 4p=1500 6p=1000 8p=750)

Pm (kW)
Potenza nominale motore
Motor power rating

In (A)
Corrente nominale a pieno carico
Full load current

IP/CL
Grado di protezione motore/Classe di isolamento
Motor protection grade/Insulation class

Mot. (Gr)
Grandezza motore
Motor size

Lp/Lw (dBA)
Livello di pressione e potenza sonora
Sound pressure and volume levels

Ps (Pa)
Pressione statica
Static pressure

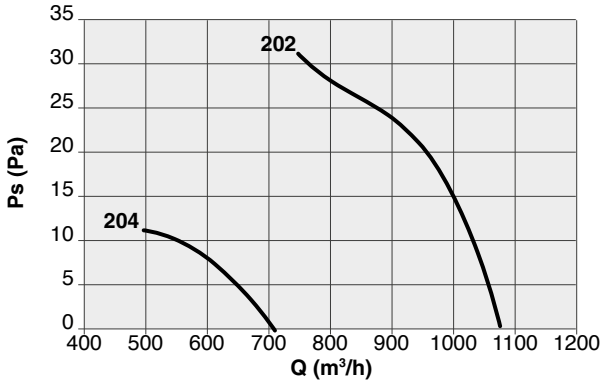
Q (m³/h)
Portata volumetrica
Airflow volume

IEM ATEX Ⓓ 200

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0030	IEM ATX	202	M	2	0.18	1.96	66/F	–	63
1XE0031			T	2	0.12	0.56	66/F	–	56
1XE0032		204	M	4	0.06	0.88	66/F	–	56
1XE0033			T	4	0.09	0.53	66/F	–	56

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
202	LwA	49.8	57.8	61.8	59.8	65.1	64.8	58.8	46.8	70.1
	Lp	32.3	40.3	44.3	42.3	47.6	47.3	41.3	29.3	52.6
204	LwA	34.7	42.7	46.7	44.7	50	49.7	43.7	31.7	55
	Lp	17.2	25.2	29.2	27.2	32.5	32.2	26.2	14.2	37.5

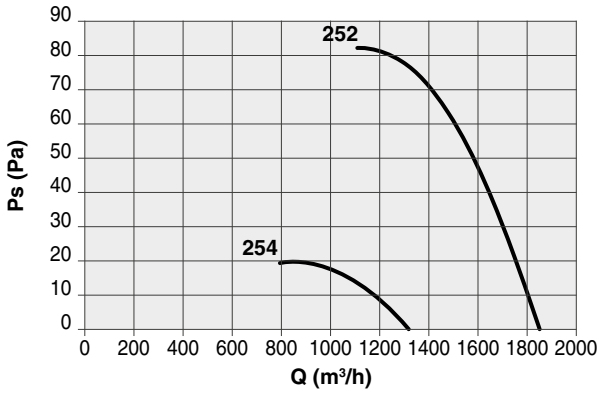


IEM ATEX Ⓓ 250

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0034	IEM ATX	252	M	2	0.18	1.96	66/F	–	63
1XE0035			T	2	0.12	0.56	66/F	–	56
1XE0036		254	M	4	0.09	0.93	66/F	–	63
1XE0037			T	4	0.09	0.53	66/F	–	56

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
252	LwA	-	65.5	72.1	77.3	78.4	72.3	67.3	59.5	84.7
	Lp	-	48	54.6	59.8	60.9	54.8	49.8	42	67.2
254	LwA	-	53.4	60	65.2	66.3	60.3	55.2	47.4	69.6
	Lp	-	32.9	39.5	44.7	45.8	39.7	34.7	26.9	52.1

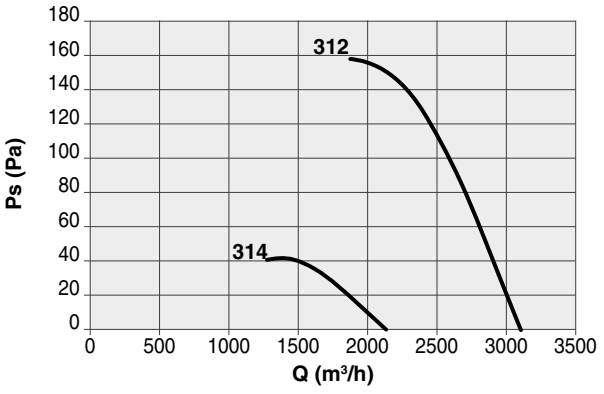


IEM ATEX Ⓓ 310

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0038	IEM ATX	312	M	2	0.25	2.20	66/F	–	71
1XE0039			T	2	0.25	0.62	66/F	–	63
1XE0040		314	M	4	0.09	0.98	66/F	–	63
1XE0041			T	4	0.09	0.45	66/F	–	56

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
312	LwA	62.8	66.8	74.8	75.8	78.8	79.8	74.8	62.8	84.5
	Lp	45.3	49.3	57.3	58.3	61.3	62.3	57.3	45.3	67
314	LwA	47.7	51.7	59.7	60.7	63.7	64.7	59.7	47.7	69.4
	Lp	30.2	34.2	42.2	43.2	46.2	47.2	42.2	30.2	51.9



U – M/T
Alimentazione elettrica
Monofase/Trifase
Power supply
Single/Three-phase

P
N° di poli motore
N° of motor poles
(RPM: 2p=3000 4p=1500 6p=1000 8p=750)

Pm (kW)
Potenza nominale motore
Motor power rating

In (A)
Corrente nominale a pieno carico
Full load current

IP/CL
Grado di protezione motore/Classe di isolamento
Motor protection grade/Insulation class

Mot. (Gr)
Grandezza motore
Motor size

Lp/Lw (dBA)
Livello di pressione e potenza sonora
Sound pressure and volume levels

Ps (Pa)
Pressione statica
Static pressure

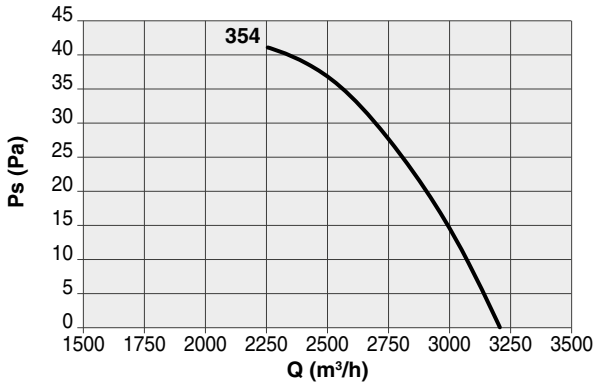
Q (m³/h)
Portata volumetrica
Airflow volume

IEM ATEX D 350

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0043	IEM ATX	354	M	4	0.12	1.20	66/F	–	63
1XE0042			T	4	0.12	0.51	66/F	–	63

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
354	LwA	50.7	52.7	62.7	64.7	65.2	68.7	64.7	53.7	72.8
	Lp	33.2	35.2	45.2	47.2	47.7	51.2	47.2	36.2	55.3

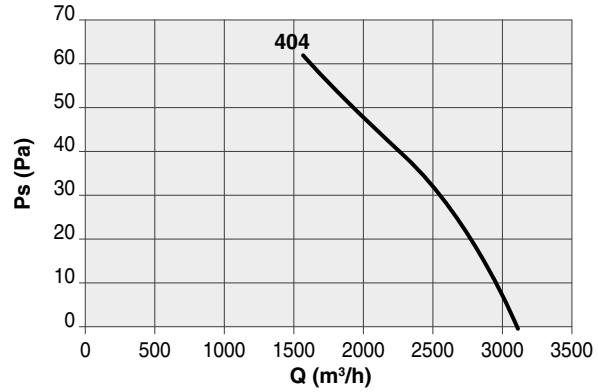


IEM ATEX D 400

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0044	IEM ATX	404	M	4	0.18	1.75	66/F	–	71
1XE0045			T	4	0.18	0.70	66/F	–	63

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
404	LwA	54.7	56.7	61.7	64.7	68.7	69.7	55.7	56.7	73.6
	Lp	37.2	39.2	44.2	47.2	51.2	52.2	38.2	39.2	56.1

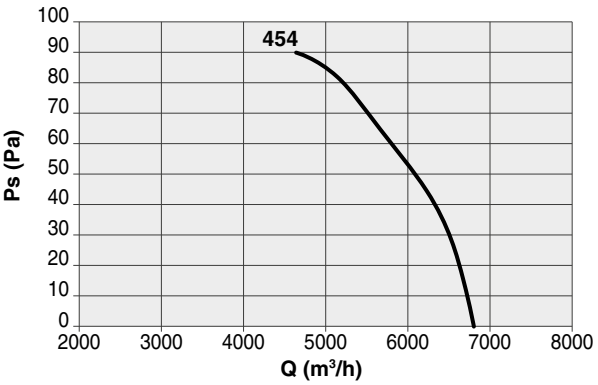


IEM ATEX D 450

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0046	IEM ATX	454	M	4	0.37	2.90	66/F	–	80
1XE0047			T	4	0.37	1.10	66/F	–	71

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
454	LwA	47.2	48.2	53.2	57.2	60.2	61.2	56.2	49.2	83.2
	Lp	64.7	65.7	70.7	74.7	77.7	78.7	73.7	66.7	65.7

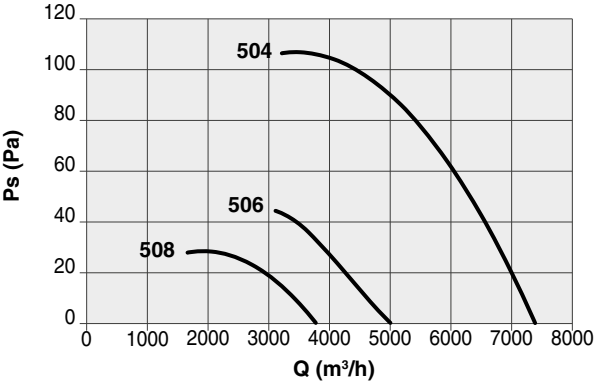


IEM ATEX D 500

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0048	IEM ATX	504	T	4	0.55	1.50	66/F	–	80
1XE0049		506	T	6	0.18	0.76	66/F	–	71
1XE0050		508	T	8	0.12	0.90	66/F	–	71

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
504	LwA	51.2	52.2	60.2	62.2	59.2	56.2	59.2	46.2	84.6
	Lp	68.7	69.7	77.7	79.7	76.7	73.7	76.7	63.7	67.1
506	LwA	56.7	66.7	64.7	65.7	65.7	67.7	62.7	54.7	73.8
	Lp	39.2	49.2	47.2	48.2	48.2	50.2	45.2	37.2	56.3
508	LwA	34.2	40.2	40.2	40.2	42.2	43.2	39.2	29.2	66.6
	Lp	51.7	57.7	57.7	57.7	59.7	60.7	56.7	46.7	49.1



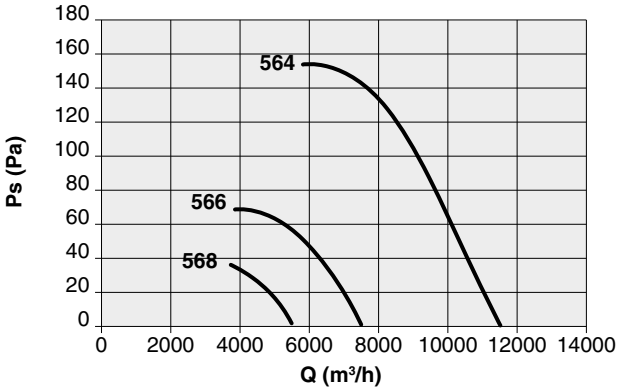
U – M/T	P	Pm (kW)	In (A)	IP/CL	Mot. (Gr)	Lp/Lw (dBA)	Ps (Pa)	Q (m³/h)
Alimentazione elettrica Monofase/Trifase Power supply Single/Three-phase	N° di poli motore N° of motor poles (RPM: 2p=3000 4p=1500 6p=1000 8p=750)	Potenza nominale motore Motor power rating	Corrente nominale a pieno carico Full load current	Grado di protezione motore/Classe di isolamento Motor protection grade/Insulation class	Grandezza motore Motor size	Livello di pressione e potenza sonora Sound pressure and volume levels	Pressione statica Static pressure	Portata volumetrica Airflow volume

IEM ATEX Ⓓ 560

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0051		564	T	4	0.75	2.00	66/F	✓	80
1XE0052	IEM ATX	566	T	6	0.25	1.00	66/F	–	71
1XE0053		568	T	8	0.18	0.95	66/F	–	80

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
564	LwA	34.8	55.8	66.3	64.8	63.8	63.8	60.8	51.8	88.9
	Lp	52.3	73.3	83.8	82.3	81.3	81.3	78.3	69.3	71.4
566	LwA	43.5	64.5	75.0	73.5	72.5	72.5	69.5	60.5	80.1
	Lp	26.0	47.0	57.5	56.0	55.0	55.0	52.0	43.0	62.6
568	LwA	37.2	58.2	68.7	67.2	66.2	66.2	63.2	54.2	73.9
	Lp	19.7	40.7	51.2	49.7	48.7	48.7	45.7	36.7	56.4

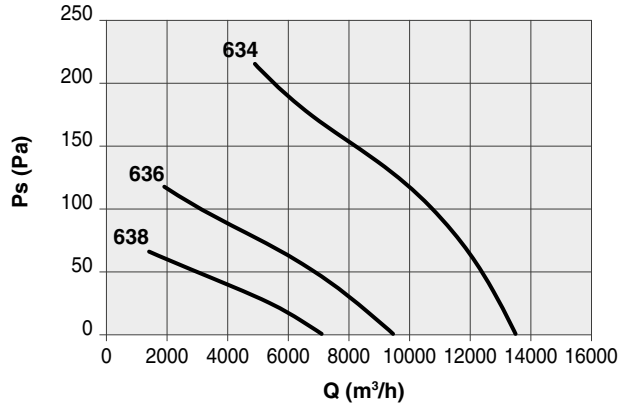


IEM ATEX Ⓓ 630

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0054		634	T	4	1.10	2.70	66/F	✓	90
1XE0055	IEM ATX	636	T	6	0.37	1.25	66/F	–	80
1XE0056		638	T	8	0.25	1.20	66/F	–	80

LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
634	LwA	38.8	54.8	65.8	66.8	68.8	70.1	64.8	56.8	74,8
	Lp	56.3	72.3	83.3	84.3	86.3	87.6	82.3	74.3	92,3
636	LwA	47.5	63.5	74.5	75.5	77.5	78.8	73.5	65.5	83,5
	Lp	30.0	46.0	57.0	58.0	60.0	61.3	56.0	48.0	66
638	LwA	41.2	57.2	68.2	69.2	71.2	72.5	67.2	59.2	77,3
	Lp	23.7	39.7	50.7	51.7	53.7	55.0	49.7	41.7	59,8

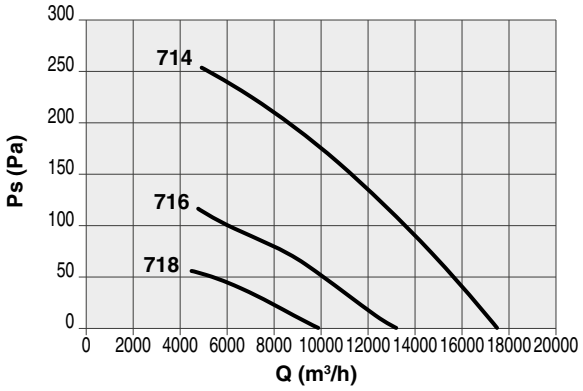


IEM ATEX Ⓓ 710

Code	Tipo Type	Modello Model	U	P	Pm (kW)	In (A)	IP/CL	IE3	Mot. (Gr)
1XE0057		714	T	4	2.20	5.50	66/F	✓	100L
1XE0058	IEM ATX	716	T	6	0.75	2.70	66/F	✓	90S
1XE0059		718	T	8	0.37	1.30	66/F	–	90S

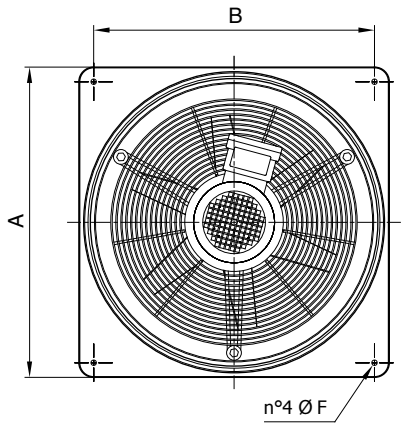
LIVELLI SONORI | SOUND LEVELS dB(A)

Hz		63	125	250	500	1000	2000	4000	8000	TOT
714	LwA	40.8	53.8	65.8	68.8	74.8	76.8	70.8	61.8	97.6
	Lp	58.3	71.3	83.3	86.3	92.3	94.3	88.3	79.3	80.1
716	LwA	31.8	51.8	56.8	55.8	60.8	63.8	56.8	44.8	84.6
	Lp	49.3	69.3	74.3	73.3	78.3	81.3	74.3	62.3	67.1
718	LwA	50.8	62.3	70.3	69.3	71.3	73.3	64.3	51.3	77.7
	Lp	33.3	44.8	52.8	51.8	53.8	55.8	46.8	33.8	60.2

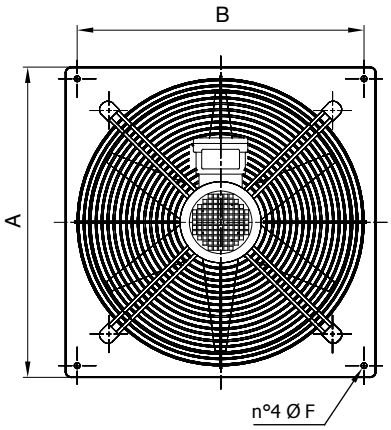


DIMENSIONI | DIMENSIONS mm

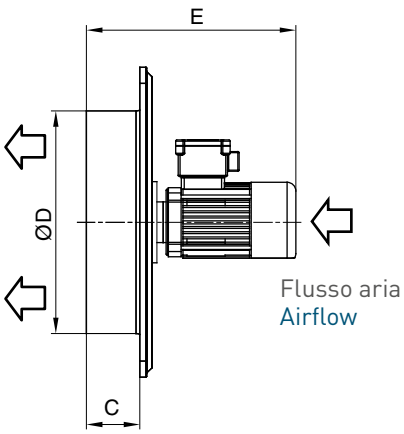
IEM ATEX D



IEM ATEX 200 ÷ 560



IEM ATEX 630 - 710



IEM ATEX D

TIPO | TYPE	A	B	C	ØD	E	ØF	Kg
IEM ATX 200	345	305	44	215	314	8.5	7
IEM ATX 250	400	350	57	265	327	8.5	9
IEM ATX 310	465	405	77	316	350	10	13
IEM ATX 350	525	465	90	366	360	10	14
IEM ATX 400	580	520	100	417	360	10	16
IEM ATX 450	630	570	107	461	385	10	20
IEM ATX 500	700	640	137	516	415	10	24
IEM ATX 560	765	695	122	573	400	10	27
IEM ATX 630	800	730	93	640	420	12	29
IEM ATX 710	850	800	93	710	465	12	38

Pesi indicativi | Indicative weights

elicent® aspirazione evoluta

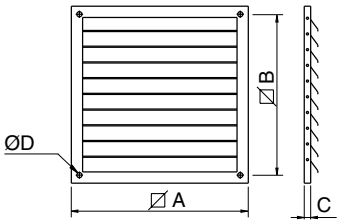
S | SERRANDA A GRAVITÀ | GRAVITY SHUTTER

Evita dispersioni di calore e l'entrata del vento, pioggia o volatili. Le alette della serranda si aprono con il movimento dell'aria a ventilatore in funzione, richiudendosi per gravità al suo spegnimento. Il telaio è in acciaio verniciato a polveri epossipoliestiriche e le alette sono in tecnopolimero. Minima resistenza al passaggio dell'aria.

It avoids heat loss and entry of wind, rain and birds. The fins of the shutter are opened by the air flow when the fan is working and they close down by gravity when the fan is switched off. The frame is in steel sheet painted with epoxy powder coating and the fins are in techno-polymer. The use of the gravity shutter causes a small capacity reduction.

Code	Tipo | Type	⍁A	⍁B	C	ØD	Kg
1SE2000	S 20	275	250	10	10	1.0
1SE2500	S 25	325	300	10	10	1.5
1SE3000	S 31	375	350	10	10	2.0
1SE3500	S 35	425	400	10	10	2.5
1SE4000	S 40	475	450	10	10	3.0
1SE4500	S 45	530	500	15	10	3.5
1SE5000	S 50	630	600	15	10	4.0
1SE5600	S 56	660	630	15	10	4.5
1SE6300	S 63	760	730	15	10	5.5
1SE7000	S 71	830	800	15	10	6.0

Dimensioni in mm | Dimensions in mm



D | DISTANZIATORE | SPACER

Serve, principalmente, a supportare il ventilatore quando la parete ha uno spessore inferiore all'altezza del boccaglio del ventilatore stesso. Il telaio è in lamiera zincata (D63 - D71 sono verniciate a polveri epossipoliestiriche), ai quattro angoli sono previsti inserti filettati in acciaio zincato per il fissaggio del pannello del ventilatore, su di un lato e della serranda e/o della rete sull'altro lato.

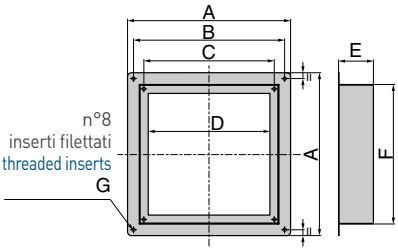
It is needed to support the fan when the width of the wall is smaller than the dimension "C" (height of the fan inlet cone). Frame is in galvanized steel sheet (D63 and D71 are painted with epoxy powder coating); on the four corners there are 8 threaded inserts in galvanized steel sheet, for fixing the fan in one side and the shutter and/ or the grid on the other side.

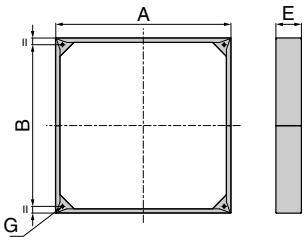
Code	Tipo | Type	A	B	C	D	E	F	G	Kg
1DP2002	D 20	340	305	249	230	70	280	M6	1.8
1DP2502	D 25	390	350	299	280	70	330	M6	2.2
1DP3002	D 30	445	405	349	330	100	380	M6	3.0
1DP3502	D 35	510	465	399	380	100	430	M6	3.4
1DP4003	D 40	560	520	449	420	120	480	M6	4.6
1DP4502	D 45	610	570	499	470	120	530	M6	5.0
1DP5003	D 50	680	640	602	570	150	630	M8	5.4
1DP5602	D 56	750	695	631	605	150	685	M8	6.6

Dimensioni in mm | Dimensions in mm

Code	Tipo | Type	A	B	E	G	Kg
1DP6301	D 63	790	729	210	M8	9.8
1DP7003	D 71	840	800	115	M8	6.5

Dimensioni in mm | Dimensions in mm





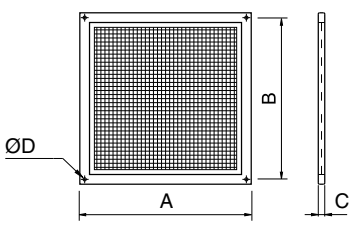
R | RETE DI PROTEZIONE | PROTECTION GUARD

Evita il contatto accidentale con la girante del ventilatore.
Il telaio e la rete sono in acciaio verniciato a polveri epossipoliestiriche.

It avoids the accidental contact with the impeller of the fan.
Frame and grid are in epoxy painted steel sheet

Code	Tipo | Type	A	B	C	ØD	Kg
5RE7020	R 20	275	250	10	10	1.3
5RE7025	R 25	325	300	10	10	1.5
5RE7031	R 31	375	350	10	10	1.9
5RE7035	R 35	425	400	10	10	2.3
5RE7040	R 40	475	450	10	10	2.7
5RE7045	R 45	530	500	15	10	2.8
5RE7050	R 50	630	600	15	10	4.0
5RE7056	R 56	660	630	15	10	4.6
5RE7063	R 63	760	730	15	10	5.3
5RE7070	R 71	830	800	15	10	6.0

Dimensioni in mm | Dimensions in mm



NB: accessori non contemplati nel **Certificato di Esame del Tipo**. Contattare il servizio tecnico-commerciale per esigenze costruttive diverse.
NB: accessories not included in the **Type Examination Certificate**. Please contact us for any different construction requirments.