

COMMERCIAL PRODUCT GUIDE

TECHNICAL SOLUTIONS FOR
COMMERCIAL APPLICATIONS

Experts in **Ventilation** since 1954...



ABOUT US:

Vortice Limited is an international company specialising in the production and manufacture of ventilation, air treatment, and air quality systems. Vortice alongside newly acquired Casals Ventilation is recognised for producing high quality industrial equipment for many sectors worldwide.



Operating in over 90 countries



Over 400 employees worldwide



Over 2,400 customers



Product range of over 10,000 items



1 million parts sold per year



The Vortice Service

With next day delivery on many products Vortice carries a large stock offering to ensure products are delivered on time. This is further supported by a first class sales and technical team to ensure a hassle free service.

NEXT DAY DELIVERY *

A selected core range of Vortice products are available for a **NEXT DAY DELIVERY*** to distributors at most UK mainland addresses as outlined on the map. For all other areas shown a 48 hour service will be provided.

In addition to the large stocks of products from our H&V fan ranges we have also increased our stock levels of the key accessories and matched ancillaries required.

PRODUCTS AVAILABLE FOR NEXT DAY !



Look out for the symbol next to products.

48 hour for these locations

IN BRANCH TRAINING

Product training available in branch, on site or via many online meeting platforms.

PRODUCT SELECTION

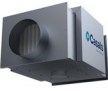
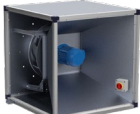
Interested in making your own selections? Vortice can offer bespoke software to enable quick and easy selections.

Email technical@vortice.ltd.uk for more information.

EMAIL ORDERS TO: SALES@VORTICE.LTD.UK

* Next Business Day - Orders to be placed before 1.30pm
* Standard terms and conditions apply

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RANGE	PAGE	AIRFLOW FROM - TO (m ³ /h)	DIA MIN-MAX	MAX TEMP °C
 AXIAL FANS				
 LOW PRESSURE AXIAL FANS A-E Range	10	1365 - 9502	250 - 600	50 °C
 SHORT CASED AXIAL FANS HBA Range	19	3440 - 151010	395 - 1250	60 °C
 WALL/WINDOW REVERSIBLE AXIAL FANS Vario Range	24	220 - 1750	6" - 9" - 12"	50 °C
 DUCTED FANS				
 MIXED FLOW IN-LINE FANS Lineo Range	32	180 - 2740	100 - 315	60 °C
 CENTRIFUGAL IN-LINE FANS CA Range	48	85 - 1100	100 - 315	50 °C
 CENTRIFUGAL IN-LINE FANS SBC-3-Plus EEC	75	445 - 3075	145 - 6210	60 °C
 CABINET FANS				
 ACOUSTIC BOX FANS Kentalbox Plus Range	82	2400 - 19765	315 - 630	60 °C
 HIGH TEMP ACOUSTIC BOX FANS Kentalcook Range	86	2540 - 22100	350 - 630	120 °C

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RANGE	PAGE	AIRFLOW FROM - TO (m³/h)	DIA MIN-MAX	MAX TEMP °C
 CENTRIFUGAL FANS				
 CENTRIFUGAL LOW PRESSURE FANS BD Range	92	1080 - 10600	-	60 °C
 ROOF FANS				
 ROOF FANS WITH ABS COWL Kentalroof Range	97	2590 - 22550	315 - 630	80 °C
 AIR HANDLING UNITS				
 HIGH EFFICIENCY HEAT RECOVERY UNITS NRG Flat Range	102	-	-	-
 HIGH EFFICIENCY HEAT RECOVERY UNITS NRG Mega Range	116	-	-	-

Ancillary Quick Ref Guide



SHORT CASED AXIAL FANS

HBA Range
Sizes 710 - 1250 also available



**FAN
ANCILLARY
INVERTER
(SINGLE PHASE)**



**FAN
ANCILLARY
INVERTER
(3 PHASE)**

FAN MODEL	FAN DESCRIPTION	FAN POLE	FAN PHASE	FAN CODE	FAN ANCILLARY INVERTER (SINGLE PHASE)	FAN ANCILLARY INVERTER (3 PHASE)
HBA 350 Dia, Single Phase, 2 Pole, 0,55 kW	350mm Dia Short Cased Axial	2	1	260351306__A	*	*
HBA 350 Dia, Single Phase, 2 Pole, 0,75 kW				260352306__A		
HBA 350 Dia, Single Phase, 2 Pole, 1,1 kW				260353306__A		
HBA 350 Dia, Single Phase, 4 Pole, 0,12 kW		4	1	260361306__A	*	*
HBA 350 Dia, Three Phase, 4 Pole, 0,12 kW				260361606__A		
HBA 350 Dia, Three Phase, 6 Pole, 0,12 kW				260371606__A		
HBA 400 Dia, Single Phase, 4 Pole, 0,25 kW	400mm Dia Short Cased Axial	4	1	260412306__A	*	*
HBA 400 Dia, Three Phase, 4 Pole, 0,25 kW				260412606__A		
HBA 400 Dia, Three Phase, 6 Pole, 0,18 kW				260422606__A		
HBA 450 Dia, Single Phase, 4 Pole, 0,25 kW	450mm Dia Short Cased Axial	4	1	260462306__A	*	*
HBA 450 Dia, Three Phase, 4 Pole, 0,25 kW				260462606__A		
HBA 450 Dia, Three Phase, 6 Pole, 0,12 kW				260471606__A		
HBA 500 Dia, Three Phase, 4 Pole, 0,37 kW	500mm Dia Short Cased Axial	4	1	260512306__A	*	*
HBA 500 Dia, Three Phase, 4 Pole, 0,37 kW				260512606__A		
HBA 500 Dia, Three Phase, 6 Pole, 0,18 kW				260522606__A		
HBA 560 Dia, Single Phase, 4 Pole, 0,37 kW	560mm Dia Short Cased Axial	4	1	260571326__A	*	*
HBA 560 Dia, Single Phase, 4 Pole, 0,55 kW				260572326__A		
HBA 560 Dia, Single Phase, 4 Pole, 0,75 kW				260573326__A		
HBA 560 Dia, Single Phase, 6 Pole, 0,18 kW	560mm Dia Short Cased Axial	6	1	260582326__A	*	*
HBA 560 Dia, Single Phase, 6 Pole, 0,25 kW				260583326__A		
HBA 560 Dia, Three Phase, 4 Pole, 0,37 kW	560mm Dia Short Cased Axial	4	3	260571626__A	SFC230I003	SFC400III1
HBA 560 Dia, Three Phase, 4 Pole, 0,55 kW				260572626__A	SFC230I004	SFC400III2
HBA 560 Dia, Three Phase, 4 Pole, 0,75 kW				260573626__A	SFC230I004	SFC400III2
HBA 560 Dia, Three Phase, 4 Pole, 1,1 kW				260574626__A	SFC230I007	SFC400III4
HBA 560 Dia, Three Phase, 4 Pole, 1,5 kW				260575626__A	SFC230I007	SFC400III4
HBA 560 Dia, Three Phase, 4 Pole, 2,2 kW				260576626__A	SFC230I0010	SFC400III5
HBA 560 Dia, Three Phase, 6 Pole, 0,18 kW	560mm Dia Short Cased Axial	6	3	260582626__A	SFC230I003	SFC400III1
HBA 560 Dia, Three Phase, 6 Pole, 0,25 kW				260583626__A	SFC230I003	SFC400III1
HBA 560 Dia, Three Phase, 6 Pole, 0,37 kW				260584626__A	SFC230I003	SFC400III2
HBA 560 Dia, Three Phase, 6 Pole, 0,55 kW				260585626__A	SFC230I004	SFC400III2
HBA 630 Dia, Single Phase, 4 Pole, 0,55 kW	630mm Dia Short Cased Axial	4	1	260642326__A	*	*
HBA 630 Dia, Single Phase, 4 Pole, 0,75 kW				260643326__A		
HBA 630 Dia, Single Phase, 6 Pole, 0,37 kW	630 mm Dia Short Cased Axial	6	1	260653326__A	*	*
HBA 630 Dia, Three Phase, 4 Pole, 0,55 kW	630 mm Dia Short Cased Axial	4	3	260642626__A	SFC230I004	SFC400III2
HBA 630 Dia, Three Phase, 4 Pole, 0,75 kW				260643626__A	SFC230I004	SFC400III2
HBA 630 Dia, Three Phase, 4 Pole, 1,1 kW				260644626__A	SFC230I007	SFC400III4
HBA 630 Dia, Three Phase, 4 Pole, 1,5 kW				260645626__A	SFC230I007	SFC400III4
HBA 630 Dia, Three Phase, 4 Pole, 2,2 kW				260646626__A	SFC230I0010	SFC400III5
HBA 630 Dia, Three Phase, 4 Pole, 3kW				260647626__A	N/A	SFC400III8

* No controller - fan must be wired on full speed upon installation

Ancillary Quick Ref Guide



ACOUSTIC BOX FAN

Kentalbox Plus Range



FAN MODEL	FAN DESCRIPTION	FAN POLE	FAN PHASE	FAN CODE	FAN ANCILLARY INVERTER (SINGLE PHASE)	FAN ANCILLARY INVERTER (3 PHASE)
Kentalbox Plus 315 Dia, Single Phase, 4 Pole, 0,25kW	315mm Kitchen Cabinet	4	1	249314103	*	*
Kentalbox Plus 315 Dia, Three Phase, 2 Pole, 1,5kW	315mm Kitchen Cabinet	2	3	249312106	SFC230I007	SFC400III4
Kentalbox Plus 315 Dia, Three Phase, 4 Pole 0,25kW	315mm Kitchen Cabinet	4	3	249314106	SFC230I003	SFC400III1
Kentalbox Plus 355 Dia, Single Phase, 4 Pole, 0,25kW	355mm Kitchen Cabinet	4	1	249354103	*	*
Kentalbox Plus 355 Dia, Three Phase, 4 Pole, 0,25kW	355mm Kitchen Cabinet	4	3	249354106	SFC230I003	SFC400III1
Kentalbox Plus 400 Dia, Single Phase, 4 Pole, 0,55kW	400mm Kitchen Cabinet	4	1	249404103	*	*
Kentalbox Plus 400 Dia, Three Phase, 4 Pole, 0,55kW	400mm Kitchen Cabinet	4	3	249404106	SFC230I004	SFC400III2
Kentalbox Plus 450 Dia, Three Phase, 4 Pole, 1,1kW	450mm Kitchen Cabinet	4	3	249454106	SFC230I007	SFC400III4
Kentalbox Plus 500 Dia, Three Phase, 4 Pole, 1,5kW	500mm Kitchen Cabinet	4	3	249504106	SFC230I007	SFC400III4
Kentalbox Plus 500 Dia, Three Phase, 6 Pole, 0,55kW	500mm Kitchen Cabinet	6	3	249506106	SFC230I004	SFC400III2
Kentalbox Plus 560 Dia, Three Phase, 4 Pole, 3kW	560mm Kitchen Cabinet	4	3	249564106	*	SFC400III8
Kentalbox Plus 560 Dia, Three Phase, 6 Pole, 1,1kW	560mm Kitchen Cabinet	6	3	249566106	SFC230I007	SFC400III4
Kentalbox Plus 630 Dia, Three Phase, 4 Pole, 7,5kW	630mm Kitchen Cabinet	4	3	249634106	*	SFC400III16
Kentalbox Plus 630 Dia, Three Phase, 6 Pole, 2,2kW	630mm Kitchen Cabinet	6	3	249636106	N/A	SFC400III8



HIGH TEMP BOX FAN

Kentalcook Range



FAN MODEL	FAN DESCRIPTION	FAN POLE	FAN PHASE	FAN CODE	FAN ANCILLARY INVERTER (SINGLE PHASE)	FAN ANCILLARY INVERTER (3 PHASE)
Kentalcook 315 Dia, Single Phase, 4 Pole, 0,25kW	315mm Kitchen Cabinet	4	1	249314103Q	*	*
Kentalcook 315 Dia, Three Phase, 2 Pole, 1,5kW	315mm Kitchen Cabinet	2	3	249312106Q	SFC230I007	SFC400III4
Kentalcook 315 Dia, Three Phase, 4 Pole, 0,25kW	315mm Kitchen Cabinet	4	3	249314106Q	SFC230I003	SFC400III1
Kentalcook 355 Dia, Single Phase, 4 Pole, 0,25kW	355mm Kitchen Cabinet	4	1	249354103Q	*	*
Kentalcook 355 Dia, Three Phase, 4 Pole, 0,25kW	355mm Kitchen Cabinet	4	3	249354106Q	SFC230I003	SFC400III1
Kentalcook 400 Dia, Single Phase, 4 Pole, 0,55kW	400mm Kitchen Cabinet	4	1	249404103Q	*	*
Kentalcook 400 Dia, Three Phase, 4 Pole, 0,55kW	400mm Kitchen Cabinet	4	3	249404106Q	SFC230I004	SFC400III2
Kentalcook 450 Dia, Three Phase, 4 Pole, 1,1kW	450mm Kitchen Cabinet	4	3	249454106Q	SFC230I007	SFC400III4
Kentalcook 500 Dia, Three Phase, 4 Pole, 1,5kW	500mm Kitchen Cabinet	4	3	249504106Q	SFC230I007	SFC400III4
Kentalcook 500 Dia, Three Phase, 6 Pole, 0,55kW	500mm Kitchen Cabinet	6	3	249506106Q	SFC230I004	SFC400III2
Kentalcook 560 Dia, Three Phase, 4 Pole, 3kW	560mm Kitchen Cabinet	4	3	249564106Q	*	SFC400III8
Kentalcook 560 Dia, Three Phase, 6 Pole, 1,1kW	560mm Kitchen Cabinet	6	3	249566106Q	SFC230I007	SFC400III4
Kentalcook 630 Dia, Three Phase, 4 Pole, 5,5kW	630mm Kitchen Cabinet	4	3	249634106Q	*	SFC400III16
Kentalcook 630 Dia, Three Phase, 6 Pole, 1,5kW	630mm Kitchen Cabinet	6	3	249636106Q	*	SFC400III8

* No controller - fan must be wired on full speed upon installation

Ancillary Quick Ref Guide



CENTRIFUGAL IN-LINE FAN
SBC-3-Plus EEC Range



FAN MODEL	FAN DESCRIPTION	FAN CODE	SPEED CONTROLLER	FILTER ANCILLARY COARSE 60%	FILTER ANCILLARY FINE 50%
SBC-3 PLUS 125 EEC	125mm Dia Inline Centrifugal	1111904	FX263300	FILTG04005	FILTF07018
SBC-3 PLUS 150 EEC	150mm Dia Inline Centrifugal	1111905	FX263300	FILTG04006	FILTF07019
SBC-3 PLUS 160 EEC	160mm Dia Inline Centrifugal	1112402	FX263300	FILTG04006	FILTF07019
SBC-3 PLUS 200 EEC	200mm Dia Inline Centrifugal	1112403	FX263300	FILTG04007	FILTF07020
SBC-3 PLUS 250 EEC	250mm Dia Inline Centrifugal	1112404	FX263300	FILTG04007	FILTF07020
SBC-3 PLUS 315 EEC	315mm Dia Inline Centrifugal	1112405	FX263300	FILTG04007	FILTF07020
SBC-3 PLUS 355 EEC	355mm Dia Inline Centrifugal	1112407	FX263300	FILTG04008	FILTF07021
SBC-3 PLUS 400 EEC	400mm Dia Inline Centrifugal	1112408	FX263300	FILTG04009	FILTF07022
SBC-3 PLUS 450 EEC	450mm Dia Inline Centrifugal	1112409	FX263300	FILTG04009	FILTF07022
SBC-3 PLUS 500 EEC	500mm Dia Inline Centrifugal	1112411	FX263300	FILTG04010	FILTF07023
SBC-3 PLUS 560 EEC	560mm Dia Inline Centrifugal	1112413	FX263300	FILTG04010	FILTF07023



CENTRIFUGAL IN-LINE FAN
BD Range



FAN MODEL	FAN DESCRIPTION	FAN CODE	FAN POLE	FAN PHASE	FAN ANCILLARY (INVERTER 1 PHASE)	FAN ANCILLARY (INVERTER 3 PHASE)	FAN ANCILLARY (STEP SPEED CONTROLLER)
BD 7/7 M4 0,13kW	BD Double Inlet 7/7	251100261	4	1	*	*	960710015 (REG 1,5A) 960710030 (REG 3A)
BD 7/7 M6 0,04kW	BD Double Inlet 7/7	251160260	6	1	*	*	960710015
BD 9/7 M4 0,35kW	BD Double Inlet 9/7	251270260	4	1	*	*	960710030
BD 9/7 M6 0,13kW	BD Double Inlet 9/7	251260261	6	1	*	*	960710015
BD 9/9 M4 0,35kW	BD Double Inlet 9/9	251220260	4	1	*	*	960710030
BD 9/9 M6 0,13kW	BD Double Inlet 9/9	251280261	6	1	*	*	960710015
BD 10/8 M4 0,59kW	BD Double Inlet 10/8	251340260	4	1	*	*	960710050
BD 10/8 M6 0,21kW	BD Double Inlet 10/8	251330261	6	1	*	*	960710030
BD 10/10 M4 0,59kW	BD Double Inlet 10/10	251320260	4	1	*	*	960710050
BD 10/10 M6 0,21kW	BD Double Inlet 10/10	251370261	6	1	*	*	960710030
BD 12/9 M6 0,76kW	BD Double Inlet 12/9	251600261	6	1	*	*	960710100
BD 12/9 T6 1,1kW	BD Double Inlet 2/9	251600161	6	3	SFC230I007	SFC400III5	*
BD 12/12 M6 0,76kW	BD Double Inlet 12/12	251520261	6	1	*	*	960710100
BD 12/12 T6 1,1kW	BD Double Inlet 12/12	251520160	6	3	SFC230I007	SFC400III5	*
BD 15/15 T6 2,2kW	BD Double Inlet 15/15	252370106	6	3	N/A	SFC400III8	*

* No controller - fan must be wired on full speed upon installation



AXIAL FANS 





A-E RANGE

Low-pressure axial fans

Industrial wall-mounted slim axial fans, available in different diameters and in single and three phase versions, designed for the ventilation of commercial and industrial premises, such as offices, gyms, restaurants, discos, dry cleaners and warehouses.

Range Code Key

A-E	25	2	M
Range Name	Diameter 25 = 250 30 = 300	Poles	M = Single-Phase T = Three-Phase

Versions

- 19 models, in single and three-phase versions, with 2, 4 and 6 poles, with a nominal diameter between 250 and 630 mm.

Key features

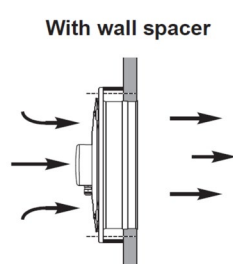
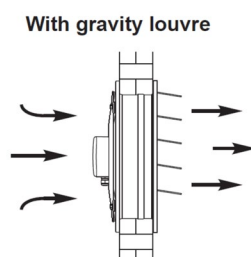
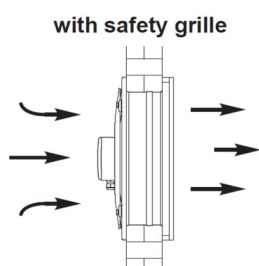
- Reduced axial clearance.
- Possibility of installation in the presence of pressure drops (e.g. discharge via duct or through filters).
- Robust and weatherproof construction.
- Motors with high (IP54) degree of protection against dust and water.

Technical features

- Wall panels made of pressed steel, pickled, phosphated and epoxy powder coated with hammered effect finish, guaranteeing long-term resistance to aggressive agents, in grey colour with hammered finish.
- Ventilation ports, fashioned in one piece with the wall panels, elongated profile, gauged to optimise airflow.
- Safety and anti-bird protective grilles designed in accordance with the UNI ISO 13857 standard combining the function of motor bracket, made of electrically welded steel rings with epoxy black paint finish. Easy removal simplifies the maintenance and cleaning of the fan.
- Class F thermally protected asynchronous rotor type motors in order to contain the axial clearance of the fan, with shafts mounted on double shielded ball bearings, characterized by high (IP54) degree of protection against dust and water, speed adjustable by Vortex controllers.
- Starting capacitors of the single-phase models comply with the EN 60252-1 standard and are third-party certified.
- Dynamically balanced impeller (UNI ISO 1940, Class 6.3); variable number of blades from 4 to 7 according to the model, moulded in electrically galvanised sheet steel and polyester powder-coated.

Note

- The fans of the VORTICEL A-E range comply with Reg. ErP No. 327/2011/EU.
- The fans of the VORTICEL A-E range are compatible with applications that envision high pressure drops, such as those induced by discharge into ventilation ducts or by coupling to air filters. They are not suitable for handling flows characterized by significant concentrations of abrasive powders or acid or corrosive substances.





TECHNICAL DATA

	PRODUCTS	CODE	V~50HZ	W	A	POLES	RPM	MAX AIRFLOW		MAX PRESSURE		Lp dB(A) *	MAX °C**	KG
								m³/h	l/s	mmH₂O	Pa			
SINGLE - PHASE	 A-E 252 M (250 DIA)	42207	220-240	95	0.41	2	2500	1365	379	379	177	53.0	50	2.1
	 A-E 254 M (250 DIA)	42208	220-240	38	0.17	4	1400	764	212	212	61	38.5	50	2.1
	 A-E 304 M (300 DIA)	42216	220-240	81	0.35	4	1400	1563	434	434	130	43.0	50	3.0
	 A-E 354 M (350 DIA)	42258	220-240	170	0.75	4	1400	2960	822	822	100	49.5	50	6.2
	 A-E 404 M (400 DIA)	42260	220-240	300	1.33	4	1400	4310	1197	1197	152	55.6	50	9.3
	 A-E 454 M (450 DIA)	42307	220-240	270	1.19	4	1400	5250	1458	1458	127	54.8	50	15.0
	 A-E 504 M (500 DIA)	42316	220-240	482	2.12	4	1400	6639	1844	1844	186	59.0	50	13.2
	 A-E 506 M (500 DIA)	42337	220-240	290	1.27	6	1000	4805	1335	1335	152	57.2	50	17.6
	 A-E 566 M (560 DIA)	42356	220-240	350	1.60	6	1000	6715	1865	1865	134	57.2	50	24.2
THREE - PHASE	 A-E 254 T (250 DIA)	42357	380-415	50	0.22	4	1400	785	218	218	134	39.0	50	2.5
	 A-E 304 T (300 DIA)	42227	380-415	79	0.22	4	1400	1696	471	471	129	46.0	50	3.4
	 A-E 354 T (350 DIA)	42259	380-415	166	0.35	4	1400	2980	828	828	115	48.7	50	6.2
	 A-E 404 T (400 DIA)	42261	380-415	318	0.65	4	1400	3832	1064	1064	246	62.5	50	6.3
	 A-E 454 T (450 DIA)	42308	380-415	370	0.73	4	1350	5187	1440	1440	155	58.0	50	6.5
	 A-E 504 T (500 DIA)	42327	380-415	485	1.12	4	1400	6966	1935	1935	128	60.5	40	11.1
	 A-E 506 T (500 DIA)	42346	380-415	250	0.79	6	1000	5040	1400	1400	96	52.7	50	15.0
	 A-E 564 T (560 DIA)	42336	380-415	925	1.71	4	1400	9255	2570	2570	285	54.9	40	14.8
	 A-E 566 T (560 DIA)	42366	380-415	480	1.06	6	1000	8050	2236	2236	175	56.7	50	20.8
	 A-E 636 T (630 DIA)	42347	380-415	522	1.10	6	1000	9502	2639	2639	154	58.0	50	15.8

*Sound pressure level measured at 1 and 3m in free field conditions in accordance with standard ISO 3741.

** Maximum continuous operating temperature of the product.

ERP DATA DIRECTIVE N° 327/2011/UE

SINGLE - PHASE

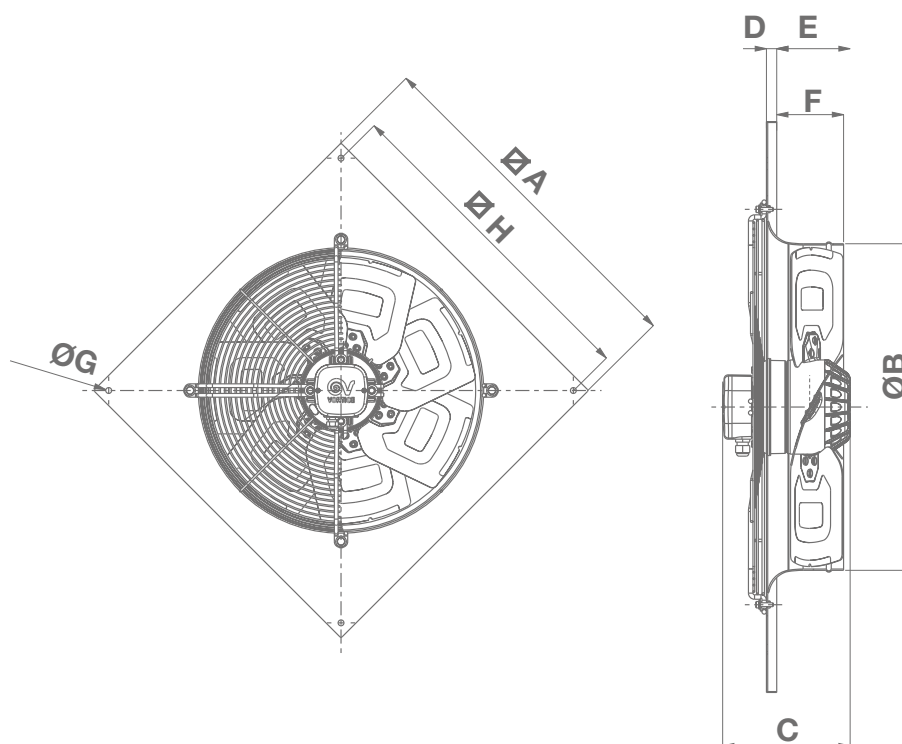
PRODUCTS	CODE	MEASUREMENT CAT.	EFFICIENCY CAT.	YEAR OF CONSTRUCTION	VARIABLE DRIVE	η	N.	kW Pe	m ³ /h q	BEP* Pa p	RPM	Spec. ratio <1.04
A-E 354 M (350 DIA)	42258	A	STATIC	2015	NO	29.0	41.0	0.1450	1975	74.1	1333	YES
A-E 404 M (400 DIA)	42260	A	STATIC	2015	NO	32.1	42.0	0.2282	3121	84.6	1375	YES
A-E 454 M (450 DIA)	42307	A	STATIC	2015	NO	31.6	41.5	0.2749	3501	89.4	1309	YES
A-E 504 M (500 DIA)	42316	A	STATIC	2013	NO	32.2	41.0	0.3972	4749	101	1285	YES
A-E 506 M (500 DIA)	42337	A	STATIC	2015	NO	29.9	40.0	0.2293	3681	67.1	924	YES
A-E 566 M (560 DIA)	42356	A	STATIC	2015	NO	32.7	42.0	0.2816	4468	74.3	891	YES

THREE - PHASE

A-E 354 T (350 DIA)	42259	A	STATIC	2015	NO	29.5	41.0	0.1415	2107	71.2	1332	YES
A-E 404 T (400 DIA)	42261	A	STATIC	2013	NO	29.2	40.0	0.2078	2376	96	1428	YES
A-E 454 T (450 DIA)	42308	A	STATIC	2013	NO	30.8	40.0	0.3049	3442	101	1384	YES
A-E 504 T (500 DIA)	42327	A	STATIC	2013	NO	32.9	41.0	0.4741	5056	116	1366	YES
A-E 506 T (500 DIA)	42346	A	STATIC	2015	NO	29.5	40.0	0.2162	3408	68.3	957	YES
A-E 564 T (560 DIA)	42336	A	STATIC	2013	NO	36.6	44.0	0.7527	6528	159	1349	YES
A-E 566 T (560 DIA)	42366	A	STATIC	2015	NO	31.7	41.0	0.3749	5249	81.4	936	YES
A-E 636 T (630 DIA)	42347	A	STATIC	2013	NO	33.8	43.0	0.410	6309	82	923	YES

* Best efficiency point.

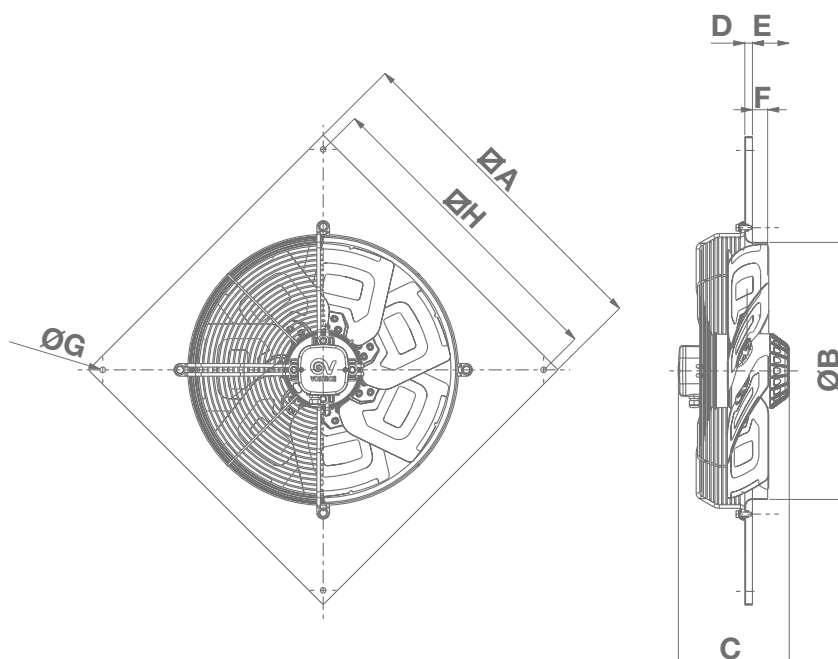
DIMENSIONS



PRODUCTS	BLADES	$\varnothing A$	$\varnothing B$	C	D	E	F	G	$\varnothing H$
A-E 252 M (250 DIA)	5	320	264	149	10	-	82	8	280
A-E 254 M (250 DIA)	5	320	264	149	10	-	82	8	280
A-E 254 T (250 DIA)	5	320	264	149	10	-	82	8	280
A-E 304 M (300 DIA)	5	380	316	151	10	-	84	8	330
A-E 304 T (300 DIA)	5	380	316	151	10	-	84	8	330
A-E 354 M (350 DIA)	5	450	361	155	12	85	74	9	380
A-E 354 T (350 DIA)	5	450	366	155	12	85	74	9	380
A-E 404 M (400 DIA)	4	510	406	200	12	108	88	12	430
A-E 454 M (450 DIA)	4	630	455	206	15	100	85	12	530
A-E 506 M (500 DIA)	7	630	508	218	16	134	105	11	530
A-E 506 T (500 DIA)	4	630	508	198	16	114	105	11	530
A-E 566 M (560 DIA)	5	725	563	248	16	161	105	11	675
A-E 566 T (560 DIA)	5	725	563	218	16	131	105	11	675

Dimensions (mm)

DIMENSIONS

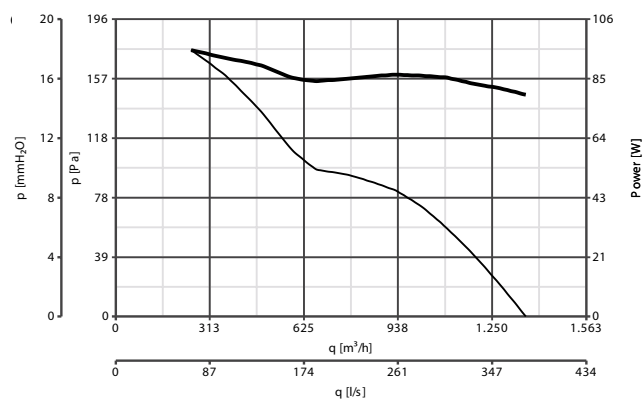


PRODUCTS	BLADES	$\varnothing A$	$\varnothing B$	C	D	E	F	G	$\varnothing H$
A-E 404 T (400 DIA)	4	510	406	207	15	67	30	12	430
A-E 454 T (450 DIA)	4	630	455	207	15	67	30	12	530
A-E 504 M (500 DIA)	4	630	507	218	15	72	30	11	530
A-E 504 T (500 DIA)	4	630	507	198	15	52	30	11	530
A-E 564 T (560 DIA)	4	725	563	218	15	67	30	11	675
A-E 636 T (630 DIA)	4	805	638	218	15	68	45	11	750

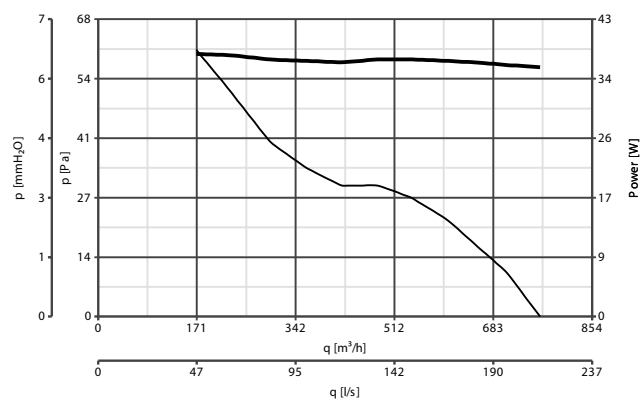
Dimensions (mm)

PERFORMANCE CURVES

A-E 252 M



A-E 254 M

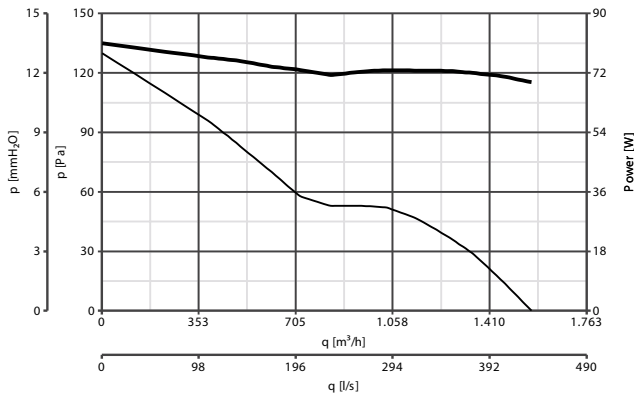


— Power consumption
— Delivery

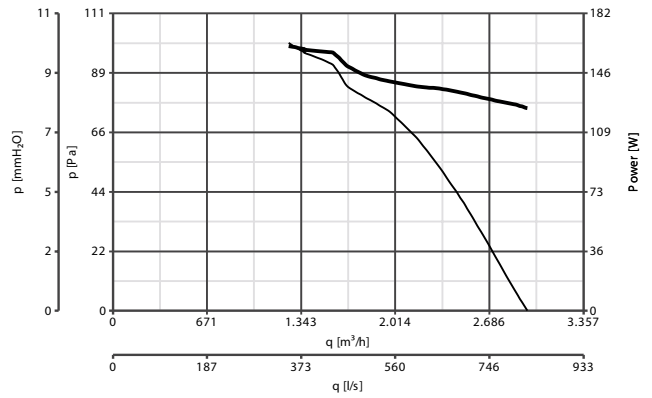


PERFORMANCE CURVES

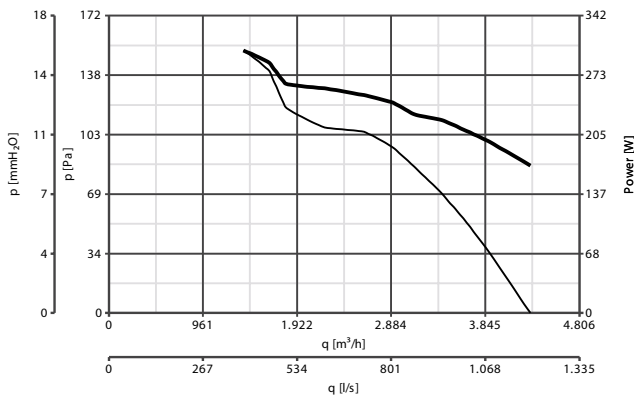
A-E 304 M



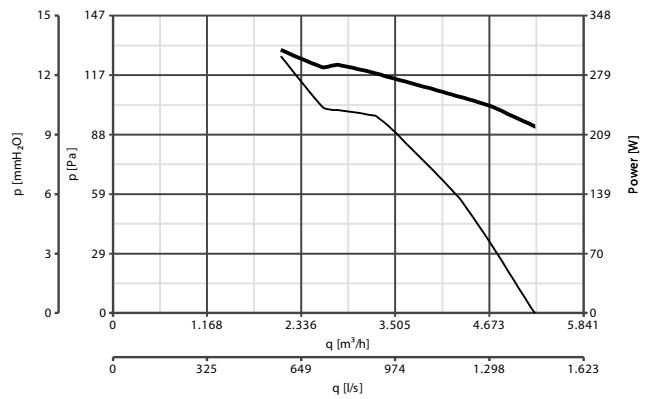
A-E 354 M



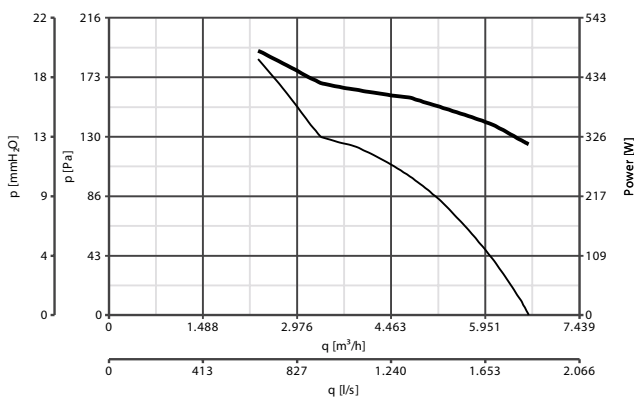
A-E 404 M



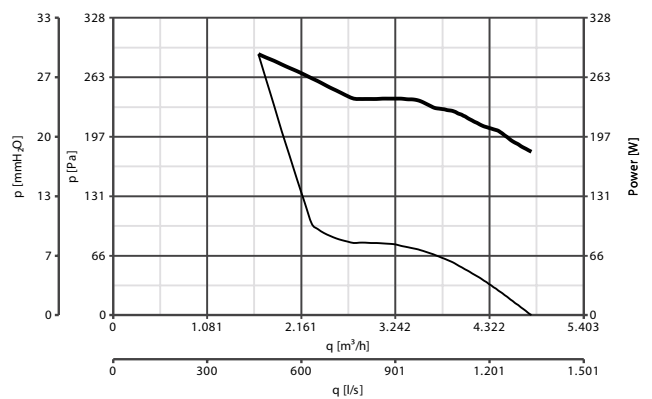
A-E 454 M



A-E 504 M



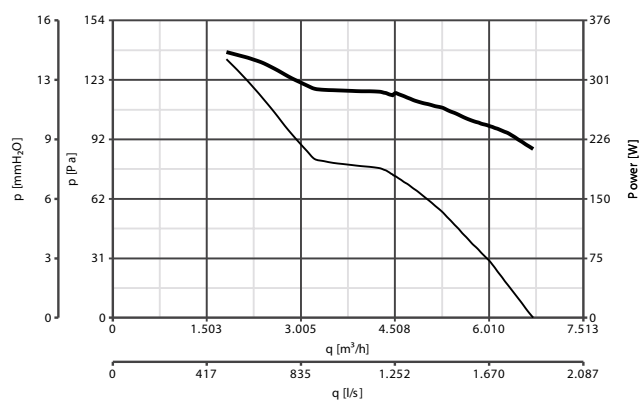
A-E 506 M



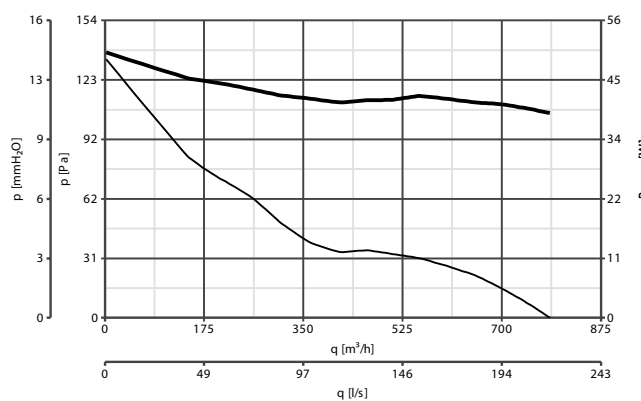
— Power consumption
— Delivery

PERFORMANCE CURVES

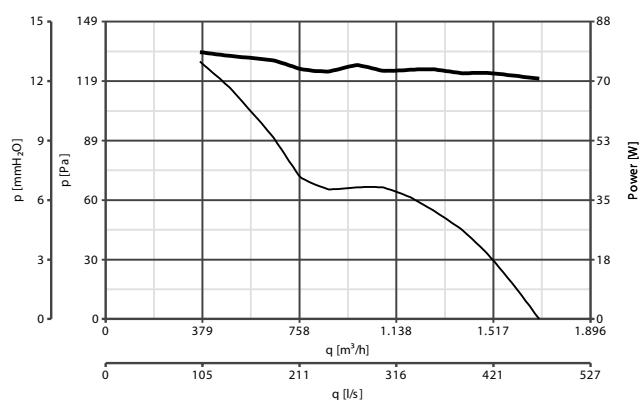
A-E 566 M



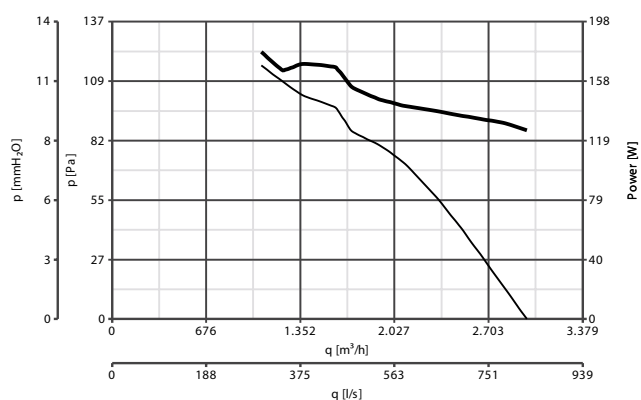
A-E 254 T



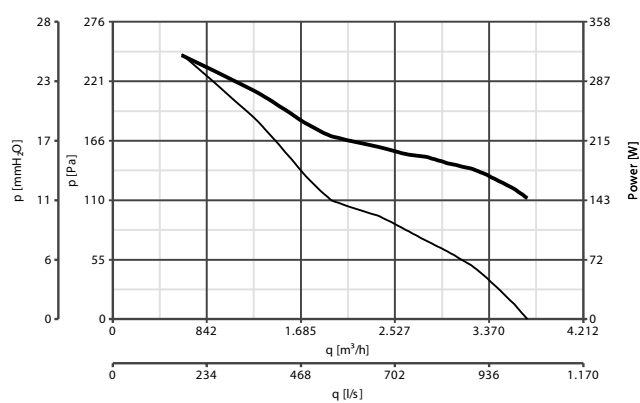
A-E 304 T



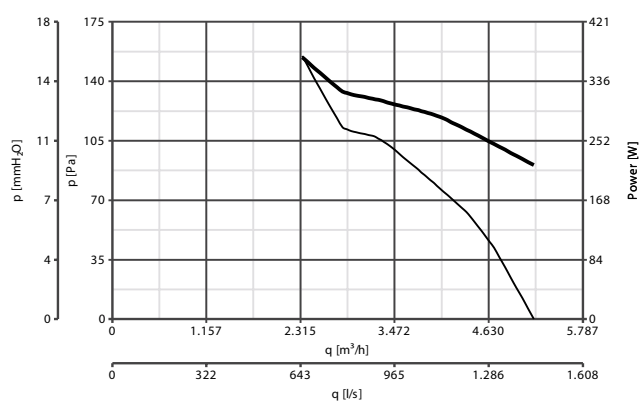
A-E 354 T



A-E 404 T



A-E 454 T

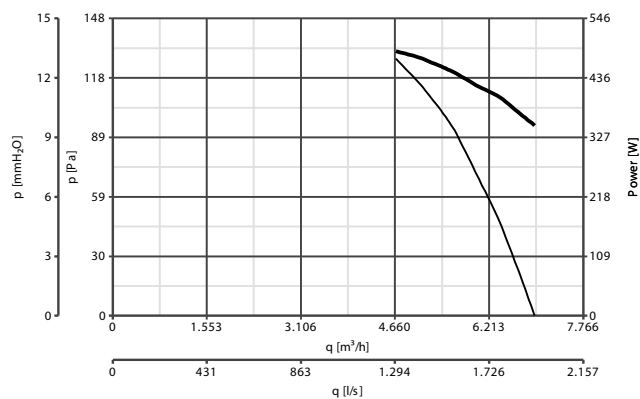


— Power consumption
— Delivery

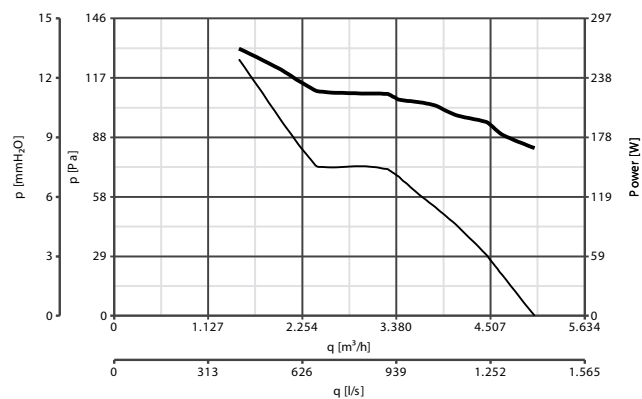


PERFORMANCE CURVES

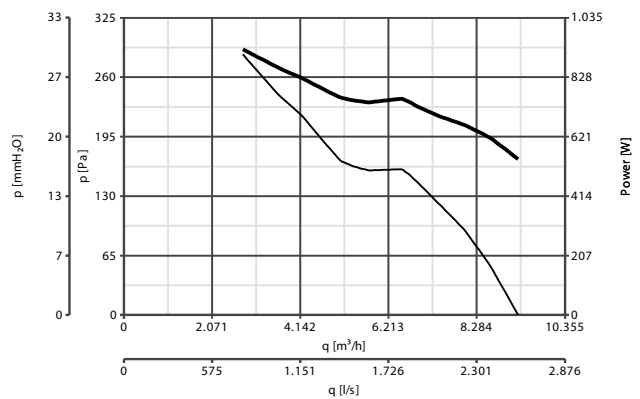
A-E 504 T



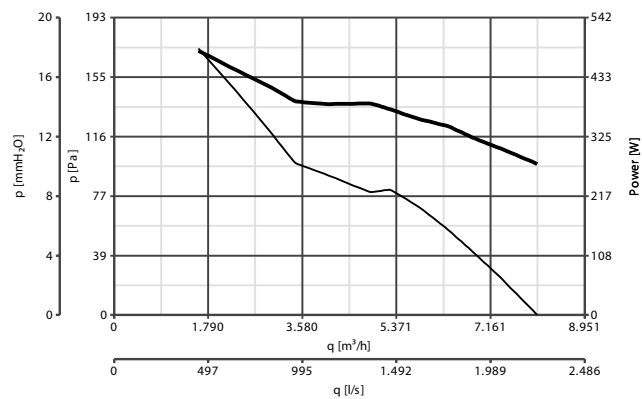
A-E 506 T



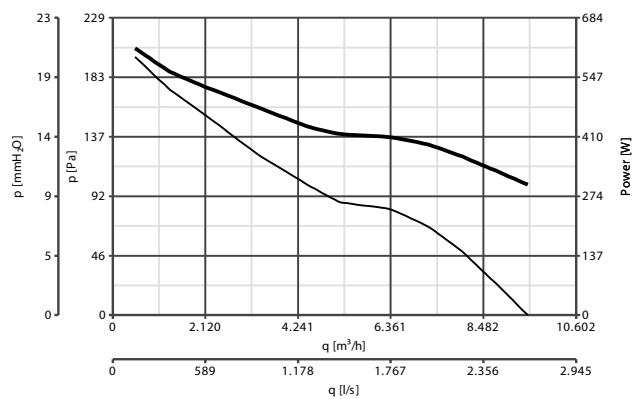
A-E 564 T



A-E 566 T



A-E 636 T



— Power consumption
— Delivery

ACCESSORIES

MODELS	DESCRIPTION		CODE	PRODUCTS
	DPU - Spacer for panel installation	250	52151	42207 - 42208 - 42357
		300	52251	42216 - 42227
		350	52351	42258 - 42259
		400	52451	42260 - 42261
	PGR - Gravity shutter	250	50150	42207 - 42208 - 42357
		300	50250	42216 - 42227
		350	50350	42258 - 42259
		400	50450	42260 - 42261
		450/500	50550	42307 - 42316 - 42337 - 42308 - 42327 - 42346 - 42347
	TRA - Frame with safety net	250	51150	42207 - 42208 - 42357
		300	51250	42216 - 42227
		350	51350	42258 - 42259
		400	51450	42260 - 42261
		400/500	51550	42307 - 42316 - 42337 - 42308 - 42327 - 42346

CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCTS
	IRM 30 - Three position single-phase speed controller	12921	42258 - 42260 - 42337 - 42356
	IRT 15 - Three position three-phase speed controller	12923	42227 - 42259 - 42261 - 42346 - 42657
	IRT 35 - Three-phase variable voltage drive	12924	42261 - 42308 - 42327 - 42336 - 42346 - 42347 - 42366
	IREM 3 - 3A Single-phase speed controller	12931	42207 - 42208 - 42216 - 42258 - 42260 - 42316 - 42337 - 42356
	C 1.5 - 1.5A Electronic speed controller	12966	42207 - 42208 - 42216 - 42258
	IREM INVERTER 4 M - Single-phase speed controller with inverter*	12815	42207 - 42208 - 42216 - 42258 - 42260 - 42307 - 42316 - 42337 - 42356
	IRET INVERTER 2.5 M - Three-phase speed controller with inverter*	12816	42357 - 42227 - 42259 - 42261 - 42308 - 42327 - 42346 - 42336 - 42366 - 42347
	POT - Potentiometer	12828	12815 - 12816

* To adjust a regulator with inverter, combine a 0-10V potentiometer as code 12828



HBA RANGE

Short cased axial fans

Key features

- Wall axial fan with circular reinforced frame made of sheet steel.
- Motor-impeller modular assembly for complete versatility.
- Protected against corrosion by powder coating of polyester resin.
- Standard asynchronous squirrel-cage motor with IP-55 protection and Class F insulation. Manufactured with standard voltages: 230V 50Hz in single phase motors, 230/400V 50Hz in three phase motors up to 4kW and 400/690V 50Hz for higher powers.
- HB: polyamide impeller with variable pitch angle reinforced with fibreglass.
- HBA: cast aluminium impeller with variable pitch angle.

Applications

- Designed for wall or duct installation, they are suitable for:
 - Air renewal in buildings and industries.
 - Maximum continuous working temperature: single phase 50°C, three phase 60°C.



Under request

- B form impeller (air flow from impeller to motor).
- 100% reversible impeller.
- Hot-dipped galvanised or stainless steel housing.
- Fan to move air up to 100°C (HBA).

ACCESSORIES



INT

Safety switch



RPO

Outlet Protection Guard



SFC

Frequency speed controller



MC HB

Square mounting frame for HB



PCP

Plastic gravity shutter



PC2

Aluminium overpressure damper



RP1

Inlet protection guard

2 POLE SINGLE PHASE

Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound dB (A) **	Weight Kg	Connection diagram
350 Dia, Single Phase, 2 Pole	25° - 40°	0,55	1,10	6.810	60	8	1

4 POLE SINGLE PHASE

Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound dB (A) **	Weight Kg *	Connection diagram
350 Dia, Single Phase, 4 Pole	35° - 40°	0,12	0,12	3.440	42	8	1
400 Dia, Single Phase, 4 Pole	35° - 40°	0,25	0,25	4.670	46	9	1
450 Dia, Single Phase, 4 Pole	35° - 40°	0,25	0,25	6.360	47	10	1
450 Dia, Single Phase, 4 Pole	25° - 45°	0,25	0,55	6.760	51	12	1
500 Dia, Single Phase, 4 Pole	35° - 40°	0,37	0,37	8.140	48	15	1
500 Dia, Single Phase, 4 Pole	25° - 45°	0,25	0,75	9.420	54	17	1
560 Dia, Single Phase, 4 Pole	20° - 45°	0,37	0,75	13.910	56	18	1
560 Dia, Single Phase, 4 Pole	20° - 45°	0,37	0,75	14.710	57	19	1
560 Dia, Single Phase, 4 Pole	20° - 45°	0,37	0,75	14.640	70	19	1
630 Dia, Single Phase, 4 Pole	20° - 30°	0,55	0,75	13.810	57	21	1
630 Dia, Single Phase, 4 Pole	20° - 27,5°	0,55	0,75	12.510	59	22	1
630 Dia, Single Phase, 4 Pole	20° - 25°	0,55	0,75	12.020	63	22	1
710 Dia, Single Phase, 4 Pole	20° - 25°	0,75	0,75	15.510	63	24	1
710 Dia, Single Phase, 4 Pole	20° - 20°	0,75	0,75	12.080	65	25	1
710 Dia, Single Phase, 4 Pole	20° - 20°	0,75	0,75	13.640	66	25	1

6 POLE SINGLE PHASE

Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound dB (A) **	Weight Kg *	Connection diagram
560 Dia, Single Phase, 6 Pole	20° - 45°	0,18	0,25	9.000	47	18	1
560 Dia, Single Phase, 6 Pole	20° - 45°	0,18	0,25	9.520	48	19	1
560 Dia, Single Phase, 6 Pole	20° - 45°	0,18	0,25	9.760	67	19	1
630 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	13.010	49	21	1
630 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	14.110	51	22	1
630 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	13.570	71	22	1
710 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	18.110	53	24	1
710 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	19.610	56	25	1
710 Dia, Single Phase, 6 Pole	20° - 45°	0,37	0,37	18.350	76	25	1

2 POLE - THREE PHASE

Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound dB (A) **	Weight Kg *	Connection diagram
350 Dia, Three Phase, 2 Pole	25° - 40°	0,55	1,10	6.810	60	8	2
400 Dia, Three Phase, 2 Pole	25° - 40°	0,75	1,10	9.270	62	9	2
450 Dia, Three Phase, 2 Pole	25° - 35°	1,50	2,20	11.800	68	10	2

4 POLE - THREE PHASE

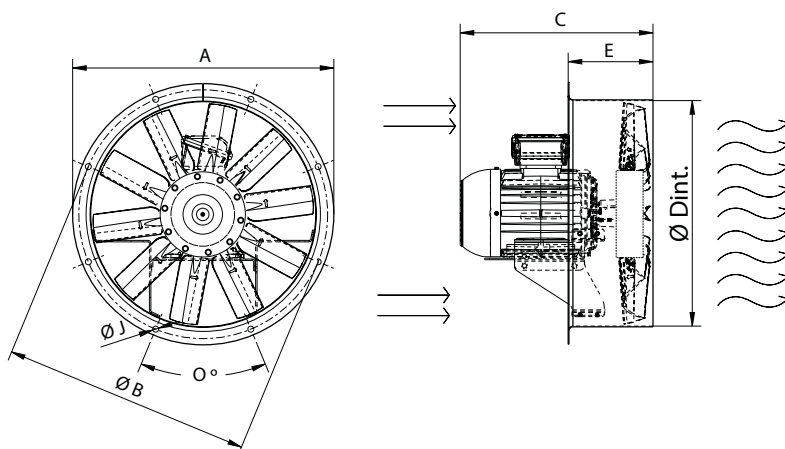
Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m³/h	Sound dB (A) **	Weight Kg *	Connection diagram
350 Dia, Three Phase, 4 Pole	35° - 40°	0,12	0,12	3.440	42	8	2
400 Dia, Three Phase, 4 Pole	35° - 40°	0,25	0,25	4.670	46	9	2
450 Dia, Three Phase, 4 Pole	35° - 40°	0,25	0,25	6.360	47	10	2
450 Dia, Three Phase, 4 Pole	25° - 45°	0,25	0,55	6.760	51	12	2
500 Dia, Three Phase, 4 Pole	35° - 40°	0,37	0,37	8.140	48	15	2
500 Dia, Three Phase, 4 Pole	25° - 45°	0,25	0,75	9.420	54	17	2
560 Dia, Three Phase, 4 Pole	20° - 45°	0,37	2,20	13.910	56	18	2
560 Dia, Three Phase, 4 Pole	20° - 45°	0,37	3,00	14.710	57	19	2
560 Dia, Three Phase, 4 Pole	20° - 45°	0,37	2,20	14.640	70	19	2
630 Dia, Three Phase, 4 Pole	20° - 45°	0,55	3,00	20.110	58	21	2
630 Dia, Three Phase, 4 Pole	20° - 45°	0,55	3,00	21.810	60	22	2
630 Dia, Three Phase, 4 Pole	20° - 45°	0,55	3,00	20.350	74	22	2
710 Dia, Three Phase, 4 Pole	20° - 45°	0,75	4,00	27.910	63	24	2
710 Dia, Three Phase, 4 Pole	20° - 45°	0,75	4,00	30.310	65	25	2
710 Dia, Three Phase, 4 Pole	20° - 45°	0,75	4,00	27.520	79	25	2
800 Dia, Three Phase, 4 Pole	20° - 45°	1,10	7,50	39.010	63	32	2
800 Dia, Three Phase, 4 Pole	20° - 45°	1,10	7,50	41.810	71	33	2
800 Dia, Three Phase, 4 Pole	20° - 40°	1,10	4,00	34.470	71	32	2
900 Dia, Three Phase, 4 Pole	20° - 42°	3,00	15,00	50.950	72	75	2
900 Dia, Three Phase, 4 Pole	20° - 42°	3,00	15,00	58.310	73	81	2
1000 Dia, Three Phase, 4 Pole	20° - 42°	5,50	22,00	69.340	72	93	2
1000 Dia, Three Phase, 4 Pole	20° - 42°	5,50	22,00	81.210	76	99	2
1120 Dia, Three Phase, 4 Pole	20° - 42°	5,50	37,00	92.050	74	111	2
1120 Dia, Three Phase, 4 Pole	20° - 42°	5,50	37,00	109.010	78	118	2
1250 Dia, Three Phase, 4 Pole	20° - 42°	7,50	45,00	132.010	83	127	2
1250 Dia, Three Phase, 4 Pole	20° - 42°	11,00	45,00	151.010	88	136	2



6 POLE - THREE PHASE

Model	Angle	Min. Rated power kW	Max. Rated power kW	Max. Airflow m ³ /h	Sound dB (A) **	Weight Kg *	Connection diagram
350 Dia,Three Phase, 6 Pole	35° - 40°	0,12	0,12	2.230	33	8	2
400 Dia,Three Phase, 6 Pole	35° - 40°	0,18	0,18	3.030	37	9	2
450 Dia,Three Phase, 6 Pole	35° - 40°	0,12	0,12	4.120	38	10	2
450 Dia,Three Phase, 6 Pole	25° - 45°	0,18	0,18	4.380	42	12	2
500 dia,Three Phase, 6 Pole	35° - 40°	0,18	0,18	5.270	39	15	2
500 Dia,Three Phase, 6 Pole	25° - 45°	0,18	0,18	6.100	45	17	2
560 Dia,Three Phase, 6 Pole	20° - 45°	0,18	0,55	9.000	47	18	2
560 Dia,Three Phase, 6 Pole	20° - 45°	0,18	0,55	9.520	48	19	2
560 Dia,Three Phase, 6 Pole	20° - 45°	0,18	0,55	9.760	67	19	2
630 Dia,Three Phase, 6 Pole	20° - 45°	0,37	0,75	13.010	49	21	2
630 Dia,Three Phase, 6 Pole	20° - 45°	0,37	0,75	14.110	51	22	2
630 Dia,Three Phase, 6 Pole	20° - 45°	0,37	0,75	13.570	71	22	2
710 Dia,Three Phase, 6 Pole	20° - 45°	0,37	1,10	18.110	53	24	2
710 Dia,Three Phase, 6 Pole	20° - 45°	0,37	1,10	19.610	56	25	2
710 Dia,Three Phase, 6 Pole	20° - 45°	0,37	1,10	18.350	76	25	2
800 Dia,Three Phase, 6 Pole	20° - 45°	0,75	2,20	25.310	54	32	2
800 Dia,Three Phase, 6 Pole	20° - 45°	0,75	2,20	27.110	61	33	2
800 Dia,Three Phase, 6 Pole	20° - 45°	0,75	2,20	25.190	72	32	2
900 Dia,Three Phase, 6 Pole	20° - 42°	1,50	4,00	33.010	62	75	2
900 Dia,Three Phase, 6 Pole	20° - 42°	1,50	4,00	37.810	63	81	2
1000 Dia,Three Phase, 6 Pole	20° - 42°	3,00	7,50	44.970	63	93	2
1000 Dia,Three Phase, 6 Pole	20° - 42°	3,00	7,50	52.610	67	99	2
1120 Dia,Three Phase, 6 Pole	20° - 42°	3,00	11,00	59.660	65	111	2
1120 Dia,Three Phase, 6 Pole	20° - 42°	3,00	11,00	70.510	69	118	2
1250 Dia,Three Phase, 6 Pole	20° - 42°	3,00	15,00	85.410	73	127	2
1250 Dia,Three Phase, 6 Pole	20° - 42°	3,00	15,00	98.110	79	136	2

DIMENSIONS



Model	ØA	ØB	ØD	E	ØI	O
350 Dia	434	395	365	150	10	8x45°
400 Dia	472	450	403	150	10	8x45°
450 Dia	525	500	452	170	12	8x45°
500 Dia	600	560	504	170	12	12x30°
560 Dia	646	620	559	175	12	12x30°
630 Dia	725	690	633	185	12	12x30°
710 Dia	802	770	715	190	12	16x22,5°
800 Dia	892	860	801	220	12	16x22,5°
900 Dia	1000	970	903,5	340	12	16x22,5°
1000 Dia	1115	1070	1013	340	12	16x22,5°
1120 Dia	1234	1190	1132	340	12	16x22,5°
1250 Dia	1365	1320	1263	340	15	20x18°

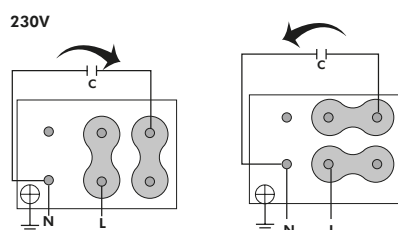
C' max. Aprox. (Consult motor size table / Consultar tabla tamaño constructivo motor)															
Model	63	71	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L	200	225
350 Dia	303	306	335	-	-	-	-	-	-	-	-	-	-	-	-
400 Dia	-	301	335	352	377	-	-	-	-	-	-	-	-	-	-
450 Dia	328	328	347	362	387	418	-	-	-	-	-	-	-	-	-
500 Dia	-	338	350	362	387	421	-	-	-	-	-	-	-	-	-
560 Dia	-	338	352	362	387	423	-	-	-	-	-	-	-	-	-
630 Dia	-	-	352	386	411	442	463	-	-	-	-	-	-	-	-
710 Dia	-	-	357	391	416	447	468	-	-	-	-	-	-	-	-
800 Dia	-	-	-	427	427	463	469	525	563	-	-	-	-	-	-
900 Dia	-	-	-	-	-	658	658	658	721	742	778	787	-	-	-
1000 Dia	-	-	-	-	-	-	-	653	653	716	738	776	792	-	-
1120 Dia	-	-	-	-	-	-	-	760	760	760	760	761	780	864	949
1250 Dia	-	-	-	-	-	-	-	759	759	759	759	760	779	863	948

MOTOR SIZE DEPENDING ON POWER (1 SPEED)

Kw																			
	0,075	0,09	0,12	0,18	0,25	0,37	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	11	15	18,5	22
M2-T2 (3000rpm)	-	56	56	63	63	71	71	80	80	90S	90L	100L	112M	132S	132S	160M	160M	160L	180M
M4-T4 (1500rpm)	56	56	63	63	71	71	80	80	90S	90L	100L	100L	112M	132S	132M	160M	160L	180M	180L
M6-T6 (1000rpm)	-	63	-	71	71	80	80	90S	90L	100L	112M	132S	132M	132M	160M	160L	180L	200L	200L
M8-T8 (750rpm)	-	71	71	80	80	90S	90L	100L	100L	112M	132S	132M	160M	160M	160L	180L	200L	225S	225M

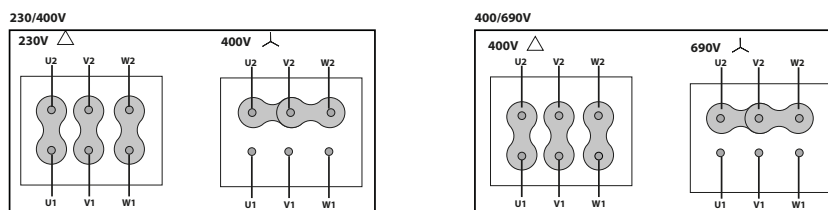
CONNECTION DIAGRAMS

1 SINGLE PHASE MOTORS



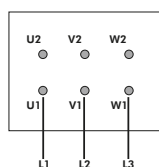


2 THREE PHASE MOTORS

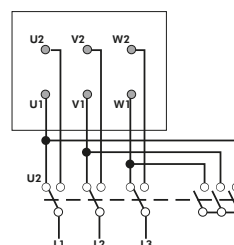
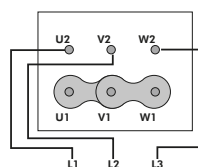


3 2 SPEEDS 400V

LOW SPEED
VELOCIDAD BAJA



HIGH SPEED
VELOCIDAD ALTA



For performance curves please visit fanware product selector here:





VORTICE VARIO RANGE

Wall/window reversible axial fans

Manual and automatic version unidirectional and reversible axial fans, designed for wall or glass installation in domestic or commercial premises subjected to heavy-duty daily use.

Version

- 7 models, with nominal diameter between 150 and 300 mm, in unidirectional and reversible versions, driven by bushing and bearing motors, with manual and automatic drive closing fins.

Key features

- Wide range of possible alternative installations (windows, walls, false-ceilings, roofs, dark rooms, etc.) thanks to the optional accessories available.
- Easy, fast installation.
- Elegant, "Intel Design" and "Design Index Adi" award-winning design.
- Suitable for bathroom installation.

Technical features

- White, shock-proof, plastic resin (ABS) panels, prevents ageing caused by exposure to sunlight ("UV resistant").
- Heat protected motors with shafts mounted on bushings with self-centring and self-lubricating neck to favour low sound emissions, or on ball bearings LL models to ensure long lasting (at least 30,000 h) continuous service at the maximum plate temperature.
- Axial impellers moulded in plastic resin, resistant to aggressive agents.
- Possibility of combining with a timer and temperature, relative humidity, smoke and presence sensors (optional).
- Fully compliant with Reg. No. 327/2011/EU.
- Protection rating from dust and water: IPX4.
- Class of electric isolation: II □ (earthing not required).

TECHNICAL DATA

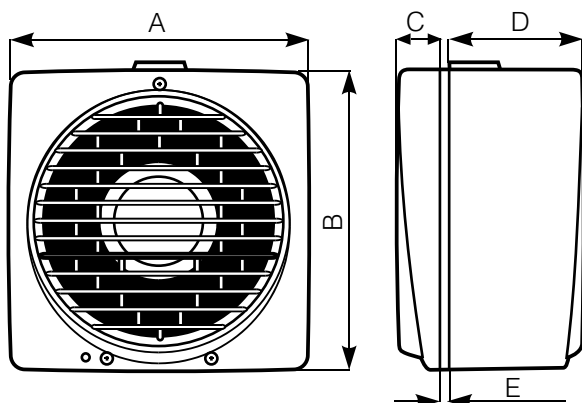
MODELS	CODE	V _n 50/60HZ	W max	A max	RPM max	MAX AIRFLOW m³/h	MAX AIRFLOW l/s	Lp dB(A)* 3m max	MAX °C**	KG
 VORTICE 150/6" P	12611	220-240	18	0.10	1340	235	65.3	37.5	50	2.07
 VORTICE 150/6" AR	12612	220-240	25	0.11	1340 ⁽¹⁾ 2040 ⁽²⁾	235 ⁽¹⁾ 150 ⁽²⁾	65.3 ⁽¹⁾ 41.7 ⁽²⁾	37.5	50	2.07
 VORTICE 150/6" AR LL S	12 615	220-240	35	0.17	2110 ⁽²⁾ 2520 ⁽¹⁾	380 ⁽²⁾ 215 ⁽¹⁾	105.6 ⁽²⁾ 59.7 ⁽¹⁾	49.6	50	2.07
 VORTICE 150/6" P LL S	12614	220-240	32	0.16	2110	380	105.6	46.9	50	2.07
 VORTICE 230/9" P	12451	220-240	22	0.10	790	480	133	35.6	50	3.45
 VORTICE 230/9" AR	12452	220-240	26	0.13	790 ⁽¹⁾ 1080 ⁽²⁾	480 ⁽¹⁾ 310 ⁽²⁾	133 ⁽¹⁾ 86 ⁽²⁾	35.6	50	3.45
 VORTICE 230/9" P LL S	12454	220-240	32 (50 Hz) 38 (60 Hz)	0.18	1200	700	194.4	43.6	50	3.45
 VORTICE 230/9" AR LL S	12455	220-240	35 (50 Hz) 40 (60 Hz)	0.19	1200 ⁽¹⁾ 1300 ⁽²⁾	700 ⁽¹⁾ 370 ⁽²⁾	194.4 ⁽¹⁾ 102.8 ⁽²⁾	43.6	50	3.45
 VORTICE 300/12" AR	12412	220-240	45	0.21	840 ⁽¹⁾ 1085 ⁽²⁾	1050 ⁽¹⁾ 700 ⁽²⁾	292 ⁽¹⁾ 194.4 ⁽²⁾	40.2	50 (50 Hz) 40 (60 Hz)	6.13
 VORTICE 300/12" AR LL S	12415	220-240	75 (50 Hz) 90 (60 Hz)	0.41	1215 ⁽¹⁾ 1280 ⁽²⁾	1650 ⁽¹⁾ 920 ⁽²⁾	458.3 ⁽¹⁾ 255.6 ⁽²⁾	53.6	50 (50 Hz) 40 (60 Hz)	6.13

⁽¹⁾ Intake - ⁽²⁾ Extract

Legend: P= Pull Cord, A= Automatic, R= Reversible, LL= Long Life, S= Performance boost.



DIMENSIONS

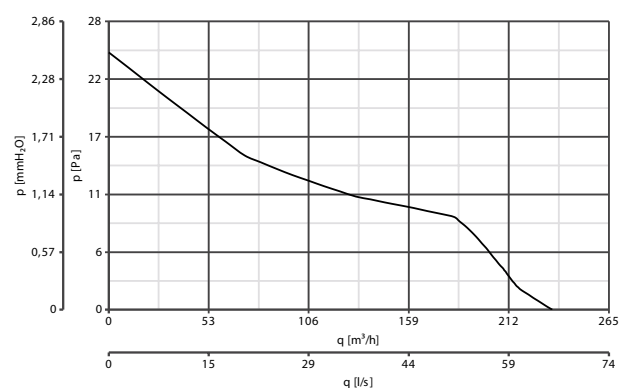


MODELS	A	B	C	D	E MIN/MAX	HOLE DIA Ø
VORTICE 150/6"	215	218	31	97.5	2/38	185÷190
VORTICE 230/9"	294	297	31	130	2/38	257÷262
VORTICE 300/12"	390	393	31	147	2/38	324÷329

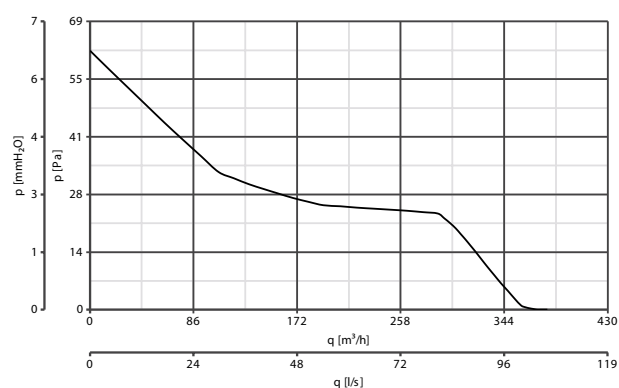
Dimensions (mm)

PERFORMANCE CURVES

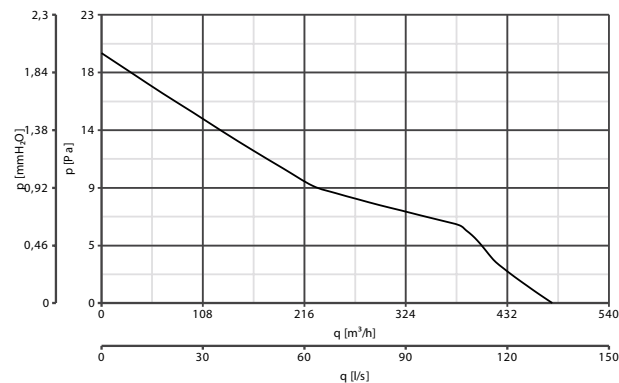
150/6" P - 150/6" AR



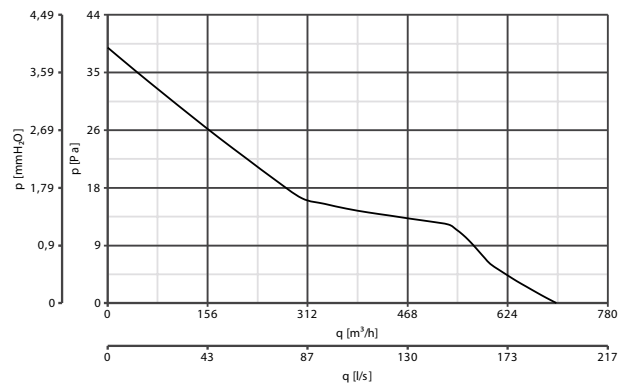
150/6" P AR LL S - 150/6" AR LL S



230/9" P - 230/9" AR



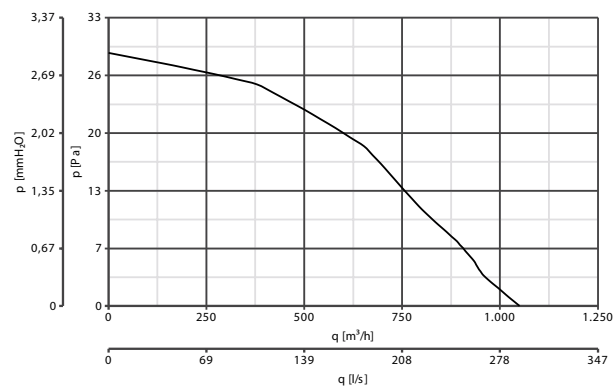
230/9" P AR LL S - 230/9" AR LL S



— Power consumption — Delivery

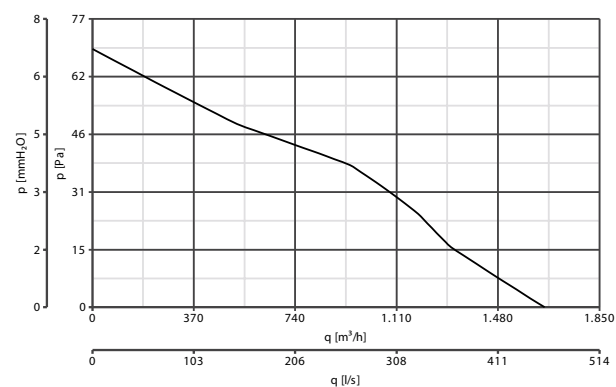
PERFORMANCE CURVES

300/12" AR



— Power consumption — Delivery

300/12" AR LL S



CONTROLLER

MODELS	DESCRIPTION	CODE	PRODUCTS
	CR5N - Reversible 5 speeds controller	12941	All products (not for code 12611 - 12451)
	CREN - Reversible 5 speeds controller	12944	All products (not for code 12611 - 12451)
	C TEMP - Environmental sensor for temperature	12992	All products (not for code 12611 - 12451)
	C SMOKE - Environmental sensor for air quality	12993	All products (not for code 12611 - 12451)
	C HCS - Environmental seonsor for humidity	12994	All products (not for code 12611 - 12451)
	C PIR - Passive infrared sensor	12998	All products (not for code 12611 - 12451)
	C TIMER - Adjustable over-run timer	12999	All products (not for code 12611 - 12451)

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	KIT VV - Double opening window kit	150/6" 13021	12611 - 12612 - 12615 - 12614
		230/9" 13022	12451 - 12452 - 12454 - 12455
		300/12" 13023	12412 - 12415
	KIT FF - Double opening window kit	150/6" 13024	12611 - 12612 - 12615 - 12614
		230/9" 13025	12451 - 12452 - 12455
		300/12" 13026	12412 - 12415
	KIT TC - Spigot plate remote application	150/6" 13027	12611 - 12612 - 12615 - 12614
		230/9" 13028	12451 - 12452 - 12454 - 12455
		300/12" 13029	12412 - 12415
	KIT MU - Wall mounting kit with rods	13018	12611 - 12612 - 12451 - 12452 - 12455 12412 - 12415



ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	KIT TE - Roof cowl/wind baffle kit	150/6"	12611 - 12612 - 12615 - 12614
		230/9"	12451 - 12452 - 12454 - 12455
		300/12"	12412 - 12415
	KIT SA - Darkroom cowl kit	13004	12451 - 12452 - 12455 - 12613 - 12616 12653 - 12456 - 12413 - 12416



SINGLE AND DOUBLE-GLAZED WINDOW

Models	Code	Kit required (code)	thickness min/max
150/6" P	12611	none	2÷38
150/6" AR	12612		
150/6" P LL S	12614		
150/6" AR LL S	12615		
230/9" P	12451		
230/9" AR	12452		
230/9" P LL S	12454		
230/9" AR LL S	12455		
300/12" AR	12412		
300/12" AR LL S	12415		



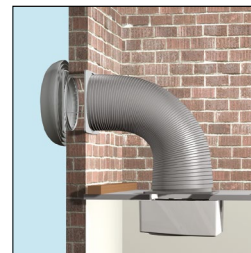
WINDOW/PANEL MOUNTING WITH EXTERNAL COWL AS A WIND BAFFLE

Models	Code	Kit required (code)
150/6" P	12611	13001
150/6" AR	12612	
150/6" P LL S	12614	
150/6" AR LL S	12615	
230/9" P	12451	13002
230/9" AR	12452	
230/9" P LL S	12454	
230/9" AR LL S	12455	
300/12" AR	12412	13003
300/12" AR LL S	12415	



KIT VV - DOUBLE-GLAZED (OPENING) WINDOW

Models	Code	Kit required (code)	thickness min/max
150/6" P	12611	13021	30÷43
150/6" AR	12612		
150/6" P LL S	12614		
150/6" AR LL S	12615		
230/9" P	12451	13022	
230/9" AR	12452		
230/9" AR LL S	12455		
230/9" P LL S	12454		
300/12" AR	12412	13023	
300/12" AR LL S	12415		



WALL MOUNTING FOR REMOTE APPLICATION*

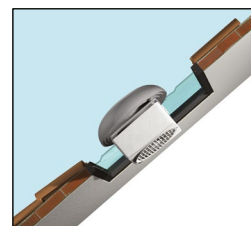
Models	Code	Kit required (code)
150/6" AR	12612	13003 + 13018 + 2 items 13027
150/6" AR LL S	16615	
230/9" AR	12452	13002 + 13018 + 2 items 13028
230/9" AR LL S	12455	
300/12" AR	12412	13003 + 13018 + 2 items 13029
300/12" AR LL S	12611	

* duct not included



KIT FF - DOUBLE (OPENING) WINDOW SECONDARY-GLAZED

Models	Code	Kit required (code)	thickness min/max
150/6" P	12611	13024	230÷300
150/6" AR	12612		
150/6" P LL S	12614		
150/6" AR LL S	12615		
230/9" P	12451	13025	
230/9" AR	12452		
230/9" AR LL S	12455		
230/9" P LL S	12454		
300/12" AR	12412	13026	
300/12" AR LL S	12415		



KIT TE - ROOF COWL/WIND BAFFLE KIT

Models	Code	Kit required (code)
150/6" P	12612	13001
150/6" P LL S	12614	
150/6" AR LL S	12615	
230/9" AR	12452	
230/9" AR LL S	12455	13002
230/9" P LL S	12454	
300/12" AR	12412	
300/12" AR LL S	12415	



KIT MU - WALL MOUNTING

Models	Code	Kit required (code)	thickness min/max
150/6" P	12611	13018	300
150/6" AR	12612		
150/6" P LL S	12614		
150/6" AR LL S	12615		
230/9" P	12451		
230/9" AR	12452		
230/9" AR LL S	12455		
230/9" P LL S	12454		
300/12" AR	12412		
300/12" AR LL S	12415		



ROOF MOUNTING WITH EXTERNAL COWL AS A WIND BAFFLE

Models	Code	Kit required (code)	thickness min/max
150/6" P	12611	13001 + 13018	300
150/6" AR	12612		
150/6" P LL S	12614		
150/6" AR LL S	12615		
230/9" P	12451	13002 + 13018	
230/9" AR	12452		
230/9" AR LL S	12455		
230/9" P LL S	12454		
300/12" AR	12412	13003 + 13018	
300/12" AR LL S	12415		

VORTICE VARIO I RANGE

Wall/window reversible axial fans

Manual and automatic version unidirectional and reversible axial fans, designed for recessed installation in domestic or commercial premises subjected to heavy-duty daily use.



Version

- 3 models, with nominal diameter between 150 and 300 mm, reversible, driven by bearing motors, with automatic drive closing fins.

Key features

- Wide range of possible alternative installations (recessed with remote exhaust, recessed with remote exhaust from roof, false-ceiling, etc.) thanks to the optional accessories available.
- Easy, fast installation.
- Elegant, "Intel Design" and "Design Index Adi" award-winning design.
- Suitable for bathroom installation.

Technical features

- White, shock-proof, plastic resin (ABS) panels, prevents ageing caused by exposure to sunlight ("UV resistant").
- Black internal casings, moulded in shock-proof plastic resin and resistant to aggressive agents.
- Heat protected motors with shafts mounted on ball bearings to guarantee long lasting continuous service (at least 30,000 h) at the maximum plate temperature.
- Axial impellers moulded in plastic resin, resistant to aggressive agents, with saber shaped blades to combine high performance with low noise emissions.
- Possibility of combining with a timer and temperature, relative humidity, smoke and presence sensors (optional).
- Fully compliant with Reg. No. 327/2011/EU.
- Protection rating from dust and water: IPX4.
- Class of electric isolation: II □ (earthing not required).

TECHNICAL DATA

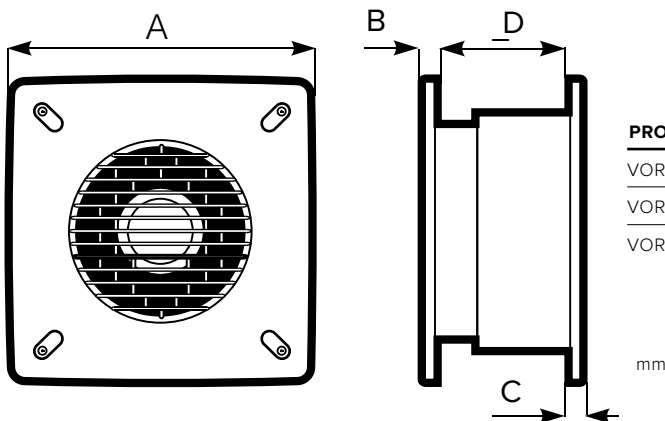
MODELS	CODE	V _n 50/60HZ	W max	A max	RPM max	MAX AIRFLOW		Lp dB(A)* 3m max	MAX °C**	KG
						m³/h	l/s			
 VORTICE 150/6" ARI	12613	220-240	25	0.11	1330 ⁽¹⁾ 1880 ⁽²⁾	220 ⁽¹⁾ 130 ⁽²⁾	61.1 ⁽¹⁾ 36.1 ⁽²⁾	38.2	50	2.52
 VORTICE 150/6" ARI LL S	12616	220-240	35	0.17	2080 ⁽¹⁾ 2460 ⁽²⁾	350 ⁽¹⁾ 200 ⁽²⁾	97.2 ⁽¹⁾ 55.6 ⁽²⁾	49.1	50	2.52
 VORTICE 230/9" ARI	12453	220-240	26	0.13	810 ⁽¹⁾ 1080 ⁽²⁾	450 ⁽¹⁾ 300 ⁽²⁾	125 ⁽¹⁾ 83.3 ⁽²⁾	35.7	50	3.88
 VORTICE 230/9" ARI LL S	12456	220-240	35 (50 Hz) 40 (60 Hz)	0.19	1160 ⁽¹⁾ 1260 ⁽²⁾	680 ⁽¹⁾ 350 ⁽²⁾	188.9 ⁽¹⁾ 97.2 ⁽²⁾	45.3	50	3.88
 VORTICE 300/12" ARI	12413	220-240	45	0.21	850 ⁽¹⁾ 1150 ⁽²⁾	1200 ⁽¹⁾ 850 ⁽²⁾	333.3 ⁽¹⁾ 236.1 ⁽²⁾	40.7	50 (50 Hz) 40 (60 Hz)	7.20
 VORTICE 300/12" ARI LL S	12416	220-240	75 (50 Hz) 90 (60 Hz)	0.41	1230 ⁽¹⁾ 1310 ⁽²⁾	1750 ⁽¹⁾ 1000 ⁽²⁾	486.1 ⁽¹⁾ 277.7 ⁽²⁾	53.5	50 (50 Hz) 40 (60 Hz)	7.20

⁽¹⁾ Intake - ⁽²⁾ Extract

Legend: P= Pull Cord, A= Automatic, R= Reversible, LL= Long Life, S= Performance boost.



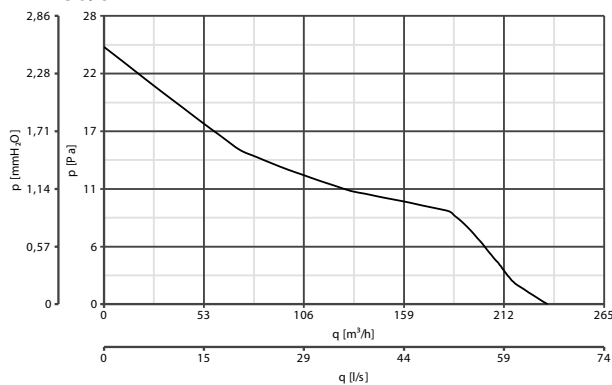
DIMENSIONS



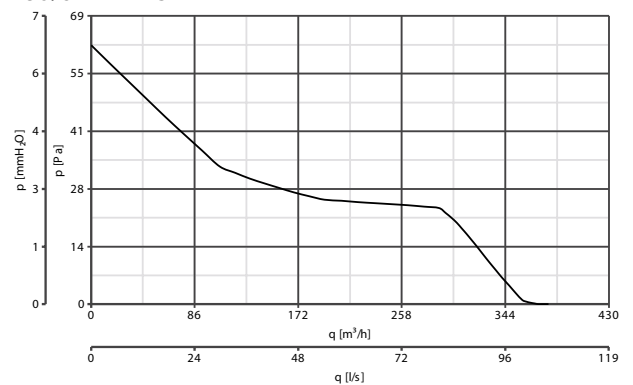
PRODUCT	ØA	B	C	D	HOLE THROUGH WALL SIZE
VORTICE 150/6" ARI	300	9.5	10.5	135	260/265
VORTICE 230/9" ARI	400	10	11.0	180	335/340
VORTICE 300/12"	495	10.5	11.5	210	435/440

PERFORMANCE CURVES

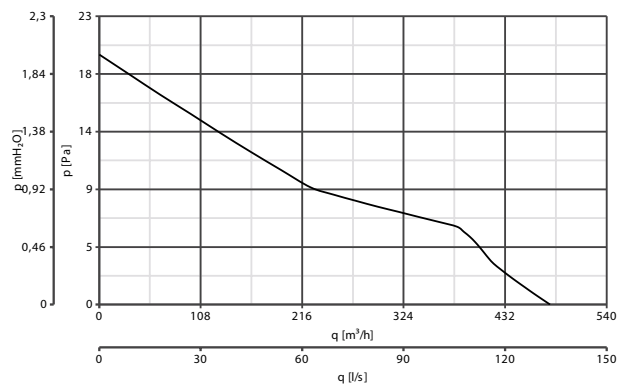
150/6" ARI



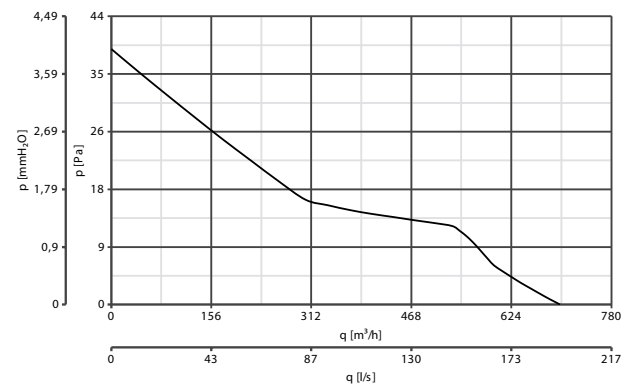
150/6"ARI LL S



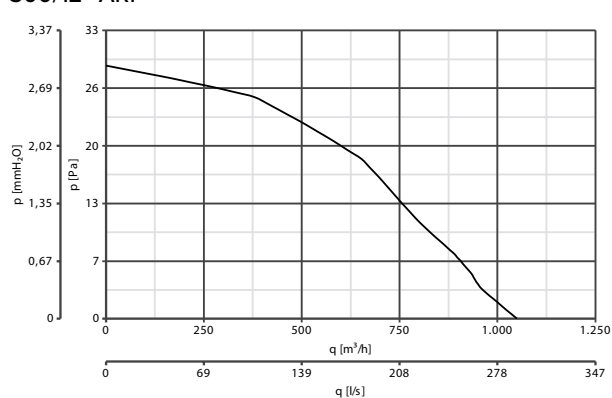
230/9" ARI



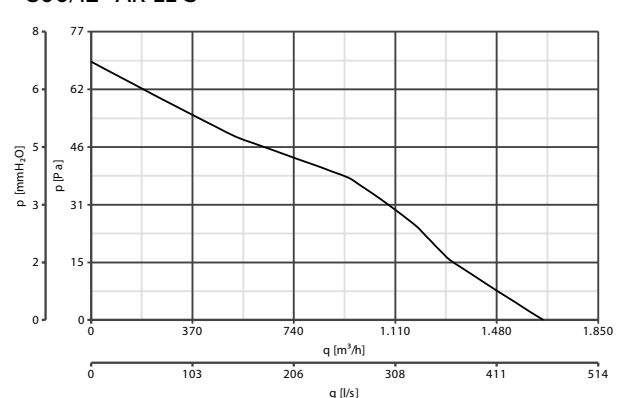
230/9" ARI LL S



300/12" ARI



300/12" AR LL S



— Power consumption — Delivery



AXIAL FANS

VARIO RANGE

CONTROLLER

MODELS	DESCRIPTION	CODE	PRODUCT
	CR5N - Reversible 5 speeds controller	12941	All products
	CREN - Reversible 5 speeds controller	12944	All products
	C TEMP - Environmental sensor for temperature	12992	All products
	C SMOKE - Environmental sensor for air quality	12993	All products
	C HCS - Environmental sensor for humidity	12994	All products
	C PIR - Passive infrared sensor	12998	All products
	C TIMER - Adjustable over-run timer	12999	All products

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT
	KIT ML - Deep wall installation kit	150/6"	12616 - 12613
		230/9"	12456 - 12653
		300/12"	12416 - 12413
	KIT TC - Spigot plate remote application	150/6"	12616 - 12613
		230/9"	12456 - 12653
		300/12"	12416 - 12413
	KIT SO - Ceiling, false ceiling and panel kit	150/6" 230/9"	12616 - 12456 - 12613 - 12653
		300/12"	12413 - 12416

ACCESSORIES ON REQUEST

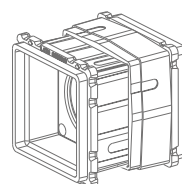


BUILT-IN WALL MOUNTING

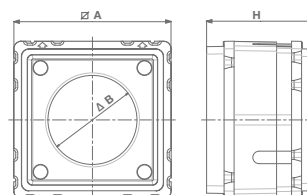
Models	Code	Kit required (code)	thickness
150/6" ARI LL S	12616	none	135
150/6" ARI	12613		
230/9" ARI LL S	12456		180
230/9" ARI	12453	13012	210
300/12" ARI LL S	12416		
300/12" ARI	12413		

BUILT-IN DEEP WALL MOUNTING

Models	Code	Kit required (code)	thickness min/max
150/6" ARI LL S	12616	13015	260÷460
150/6" ARI	12613		
230/9" ARI LL S	12456	13016	320÷500
230/9" ARI	12453		
300/12" ARI LL S	12416	13017	375÷515
300/12" ARI	12413		



MODEL	□ A	P (MIN)	P (MAX)
150/6"	325	220	330
230/9"	400	220	330
300/12"	500	220	330



MODEL	A	ØB	H
3,217 MM	325	180	205÷330
KIT IN 230/9"	400	260	205÷330
KIT IN 300/12"	500	305	205÷330

BUILT-IN PANEL, CEILING AND FALSE CEILING MOUNTING*

Models	Code	Kit required (code)
150/6" ARI LL S	12616	13012
150/6" ARI	12613	
230/9" ARI LL S	12456	13014
230/9" ARI	12453	
300/12" ARI LL S	12616	13014
300/12" ARI	12416	

* duct not included



DUCTED FANS 

LINEO RANGE

Mixed flow in-line fans

Mixed flow in-line duct fans, installed in false ceilings or in attics. The ideal low-visual impact ventilation solution for residential, commercial or industrial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc.).



Versions

- 18 models, with nominal diameter between 100 and 315 mm.

Key features

- Complete range, 18 models with a nominal diameter between 100 mm and 315mm, with or without timer.
- Easy maintenance.
- Flexibility and ease of installation ideal for your specific performance-related requirements, consumption. needs and operating costs.
- Can be installed horizontally, vertically or sloping.
- Fully compliant with Reg. ErP 2018 N. 1253/2014.

Technical features

- Electric box produced in a material granting electrical and fire resistance.
- Inlet nozzle dimensioned to sustain the product in the wall and ceiling installation.
- Impeller designed to reach the ErP efficiency levels.
- Protective cover correcting the airflow after the impeller and the rectifier avoiding energy losses.
- Outlet nozzle dimensioned to sustain the product in the wall and ceiling installation.
- Enclosures made of fire resistant plastic resin, E2 class, according with ISO EN 11925-2: 2010, in areas close to motor and electrical components.
- 2 or 3 speed motors (depending on models), thermally protected, with shaft mounted on ball bearing supports, coupled with a mixed flow impeller.
- High water resistance: IPX5 (if installed in a duct).
- Speed adjustable through Vortice speed devices.
- Insulation Class: II .



TECHNICAL AND PERFORMANCE DATA - LINEO*

Models	Code	V 50/60HZ	W min/max	A min/max	RPM min/max	Max Airflow		Max Pressure		Sound Pressure Lp dB (A)**	Protection grade***	Max °C	KG
						m³/h min/max	l/s min/max	mmH₂O min/max	Pa min/max				
 LINEO 100	17144	220-240	20	0.09	1520	180	50	13	127.5	30.7	IP44	60	1.8
 LINEO 100 T	17185		23	0.11	2030	255	70.8	16.5	161.9	39.4			
LINEO 100 Q	17143	220-240	12	0.05	1860	155	43.1	6.5	63.8	29.4	IP44	60	1.8
 LINEO 100 Q T	17184		15	0.9	2450	200	55.6	7.5	73.6	37.9			
 LINEO 125	17145	220-240	25	0.11	1570	250	69.4	13	127.5	33.9	IP44	60	1.8
 LINEO 125 T	17186		33	0.15	2140	365	101.4	17	166.8	43			
 LINEO 150	17146	220-240	40	0.18	1580	385	106.9	21	206	41.4	IP44	60	2.5
 LINEO 150 T	17187		58	0.26	2100	550	152.8	27	264.9	50.5			
LINEO 160	17147	220-240	40	0.18	1580	385	106.9	21	206	41.7	IP44	60	2.8
LINEO 160 T	17188		58	0.26	2100	550	152.8	27	264.9	50.8			
LINEO 200 Q	17148	220-240	45	0.22	1780	700	194.4	13	127.5	39.6	IP44	60	4.3
LINEO 200 Q T	17189		75	0.37	2740	950	263.9	29	284.5	49.0			
LINEO 250 Q	17149	220-240	85	0.40	1850	720	200	34	333.5	49.1	IP44	60	5.9
LINEO 250 Q T	17197		110	0.50	2550	990	275	53	519.9	56.2			

* All data referred to supply at 50 Hz

** Calculated in free field conditions at 3 m distance

*** Protection referred to ducted units

Models	Code	V 50 HZ	W min/med/ max	A min/med/ max	RPM min/med/ max	Max Airflow		Max Pressure		Protection grade***	Max °C	KG
						m³/h min/med/max	l/s min/med/max	mmH₂O min/med/max	Pa min/med/max			
 LINEO 200	17180	220 - 240	80	0.34	1925	815	226.4	21.5	210.9	IPX5	50	4,9
LINEO 200 T	17177		95	0.42	2450	1025	284.7	27.3	267.7			
			110	0.49	2710	1135	315.3	30	294.2			
 LINEO 250	17181	220 - 240	90	0.41	1500	725	201	13.9	136.5	IPX5	50	5,3
			120	0.54	2240	1145	318	29	284.4			
			145	0.63	2730	1440	400	37.2	364.8			
 LINEO 315	17182	220 - 240	190	1.14	1770	1590	442	27.1	265.8	IPX5	50	9,5
			260	1.57	2300	2115	588	42.2	413.9			
			360	1.60	2690	2590	719	55.4	543.3			

SOUND LEVELS - LINEO 200 - 250 - 315

Models	Code	SOUND POWER Lw dB (A)			SOUND PRESSURE LP dB(A)*		
		min	INTAKE med.	max	min	SUPPLY med.	max
LINEO 200	17180	64.9	69.5	72.9	78.6	70.5	74.3
LINEO 200 T	17177						
LINEO 250	17181	63.9	71.7	75.5	64.7	72.3	74.9
LINEO 315	17182	70.9	76.0	79.7	72.2	77.9	82.5

Models	Code	SOUND POWER Lw dB (A)			SOUND PRESSURE LP dB(A)*		
		min	INTAKE med.	max	min	SUPPLY med.	max
LINEO 200	17180	47.4	52.0	55.4	51.9	52.9	56.8
LINEO 200 T	17177						
LINEO 250	17181	46.4	54.1	58.0	47.1	54.8	57.4
LINEO 315	17182	53.4	58.5	62.2	54.7	60.4	64.9

* Calculated in free field conditions at 3 m distance



DUCTED FANS

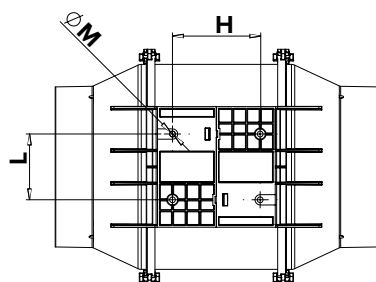
LINEO RANGE

DIMENSIONS - LINEO

Models	Code	A	B	C	Ø D	E	F	G	H	L	Ø M	N
LINEO 100	17144	188.5	211	303	96	101.5	189	90	60	80	5.5	-
LINEO 100 T	17185	188.5	211	303	96	101.5	189	90	60	80	5.5	-
LINEO 100 Q	17143	156	174	231	96	82	152	95	51.5	47.5	4.5	-
LINEO 100 Q T	17184	156	174	231	96	82	152	95	51.5	47.5	5.5	-
LINEO 125	17145	188.5	211	258	122	101.5	189	90	60	80	5.5	-
LINEO 125 T	17186	188.5	211	258	122	101.5	189	90	60	80	5.5	-
LINEO 150	17146	214.5	234	294	146	112.5	212	110	60	80	5.5	-
LINEO 150 T	17187	214.5	234	294	146	112.5	212	110	60	80	5.5	-
LINEO 160	17147	214.5	234	272.5	156	112.5	212	110	60	80	5.5	-
LINEO 160 T	17147	214.5	234	272.5	156	112.5	212	110	60	80	5.5	-
LINEO 200	17180	270	373	396	194.5	195	330	190	120	155	5.5	-
LINEO 200 T	17177	270	373	396	194.5	195	330	190	120	155	5.5	280
LINEO 200 Q	17148	234.5	266	300	196	125.5	235	140	94	100	5.5	-
LINEO 200 Q T	17189	234.5	266	300	196	125.5	235	140	94	100	5.5	-
LINEO 250	17181	300	378	322	243	190	329	200	70	170	5.5	174.5
LINEO 250 Q	17149	300	322	385	247	152.5	292	176.5	140	145	5.5	-
LINEO 250 Q T	17189	300	322	385	247	152.5	292	176.5	140	145	5.5	174.5
LINEO 315	17182	373	446	420	307	224	398	309	110	255	8.5	259.5

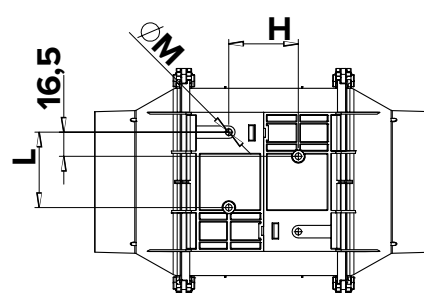
VERSION A

LINEO 100 - LINEO 100 T - LINEO 125 - LINEO 125 T - LINEO 150 - LINEO 150 T
LINEO 160 - LINEO 160 T - LINEO 200 Q - LINEO 200 Q T - LINEO 250 Q - LINEO 250 Q T



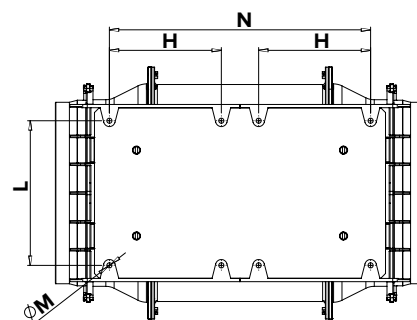
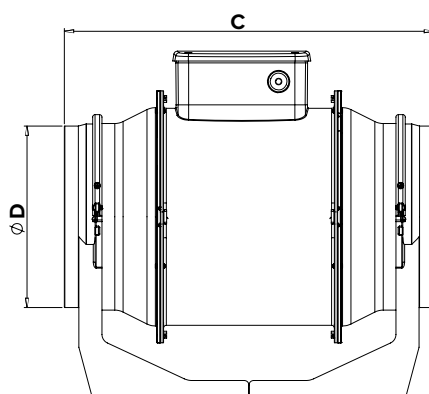
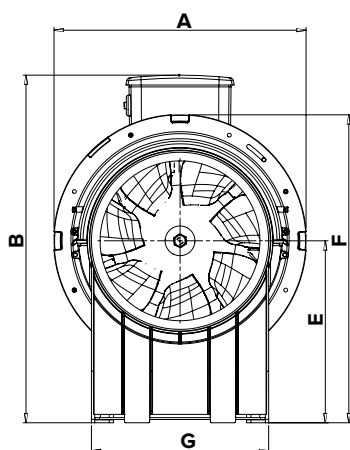
VERSION B

LINEO 100 Q
LINEO Q T



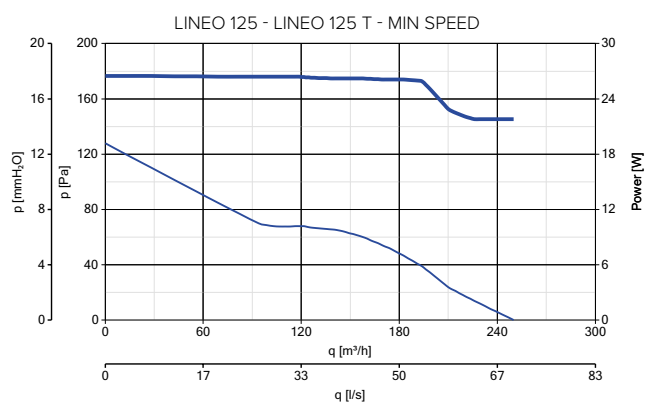
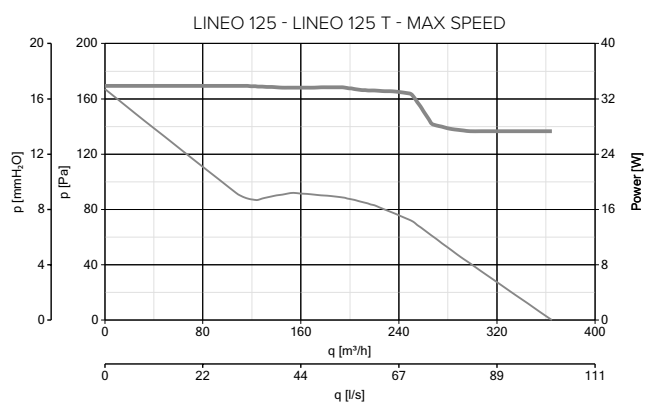
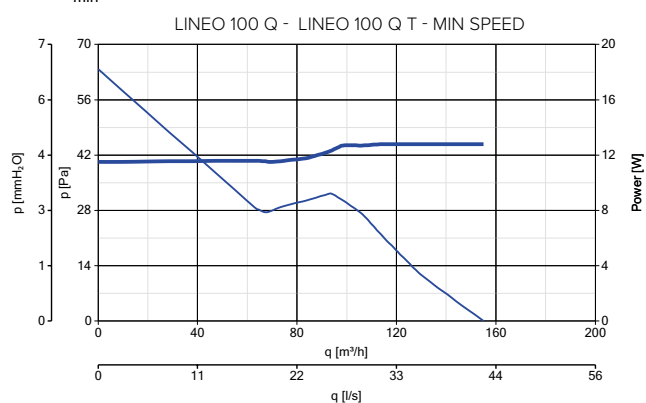
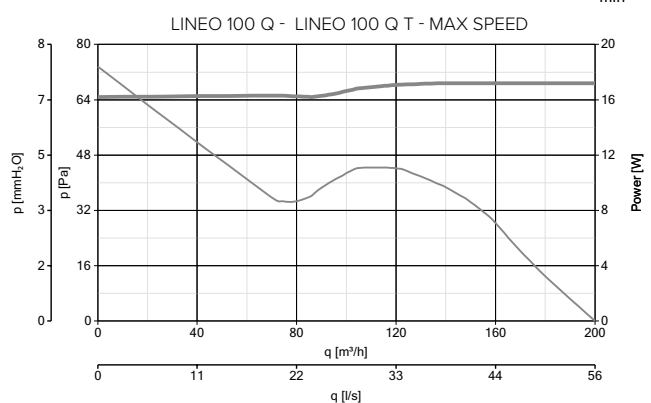
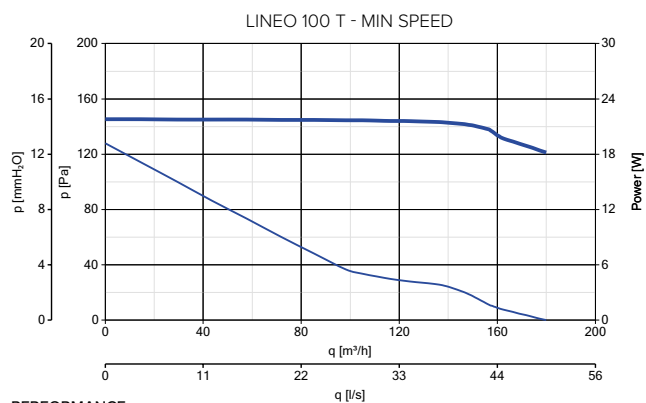
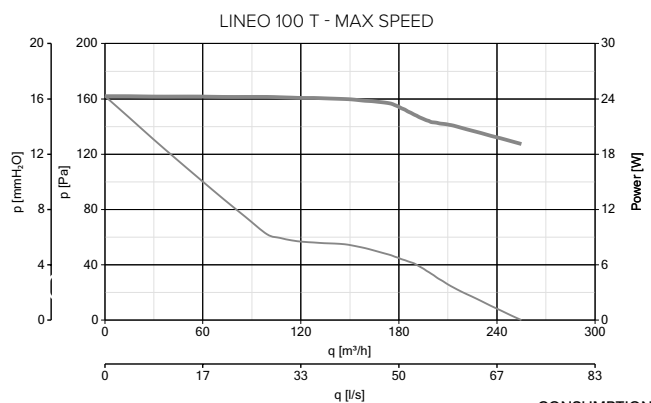
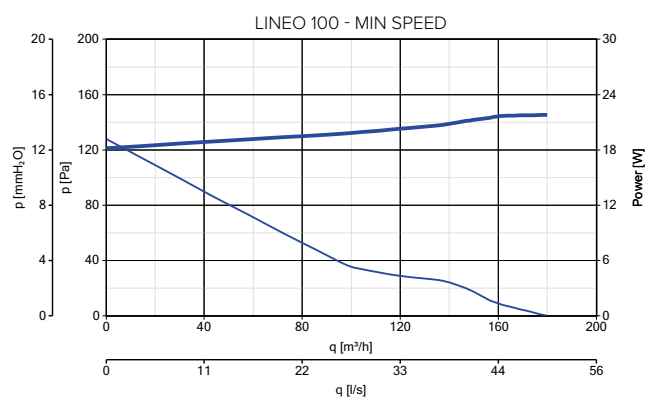
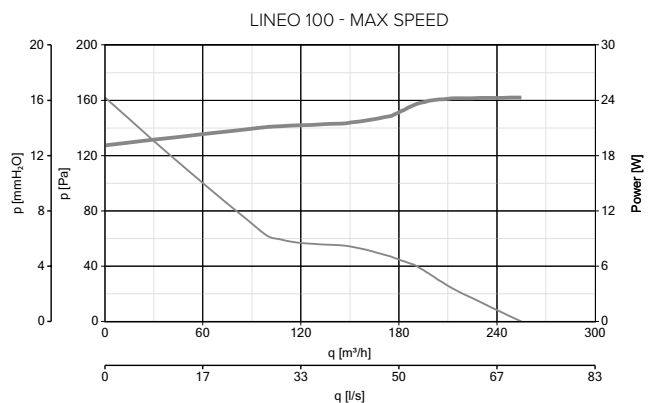
VERSION C

LINEO 200 - LINEO 200 T - LINEO 250 - LINEO 315





PERFORMANCE AND ABSORPTION CURVES - LINEO

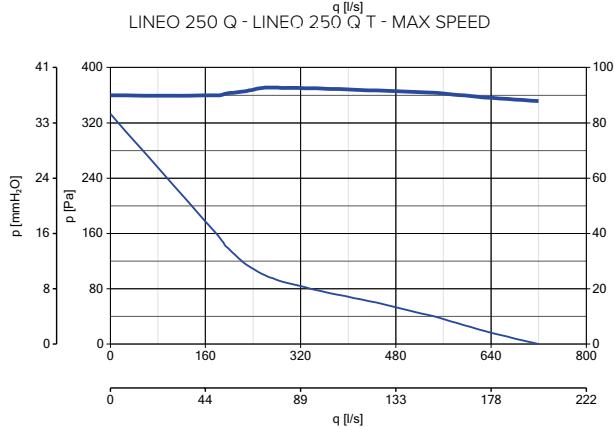
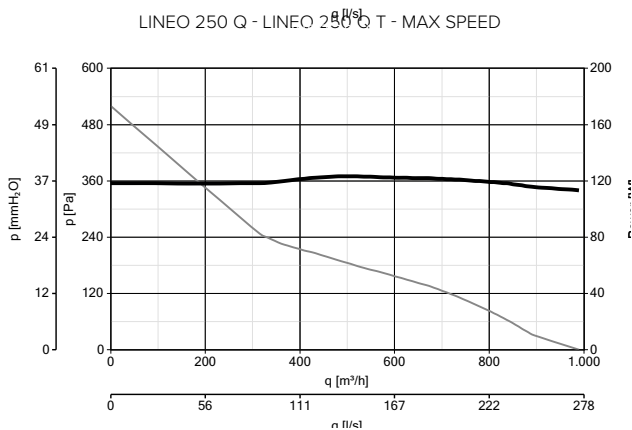
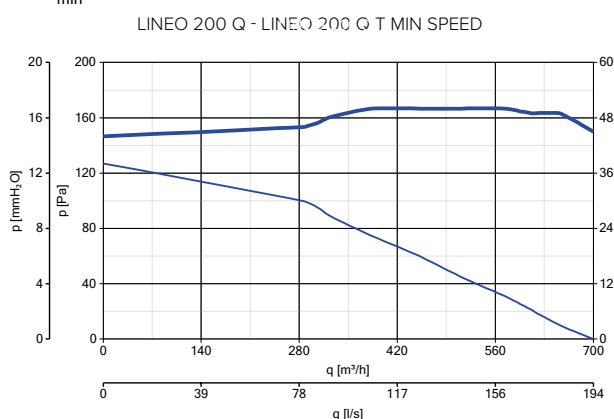
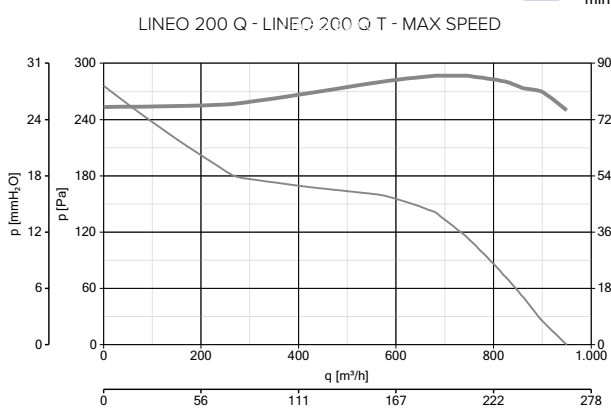
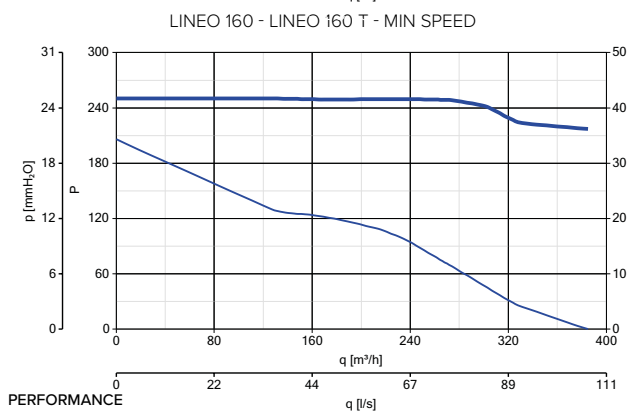
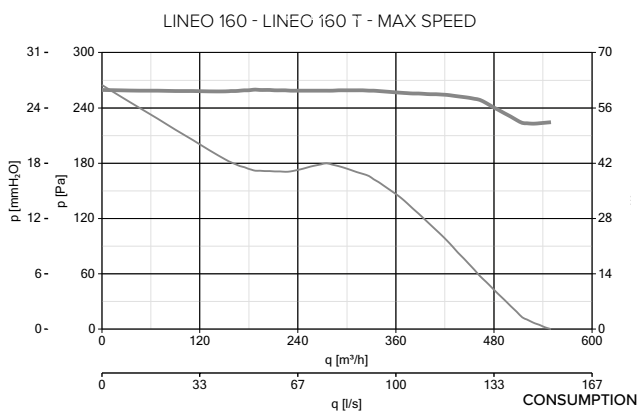
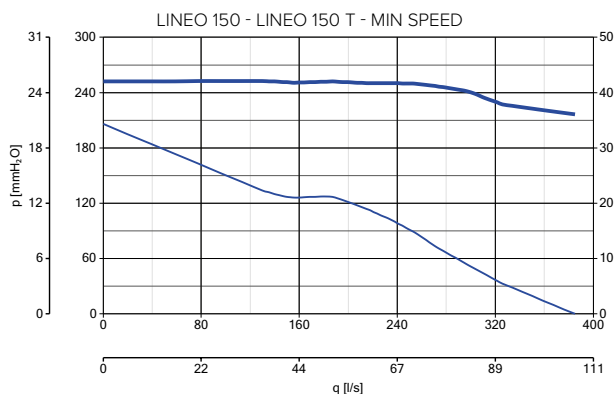
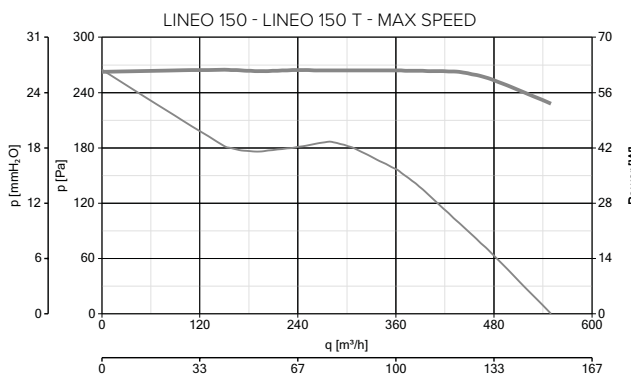




DUCTED FANS

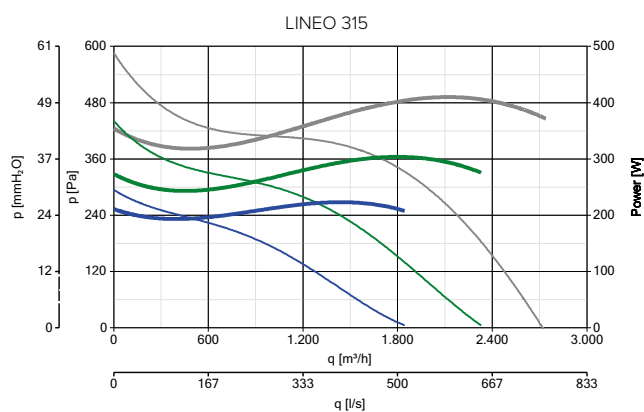
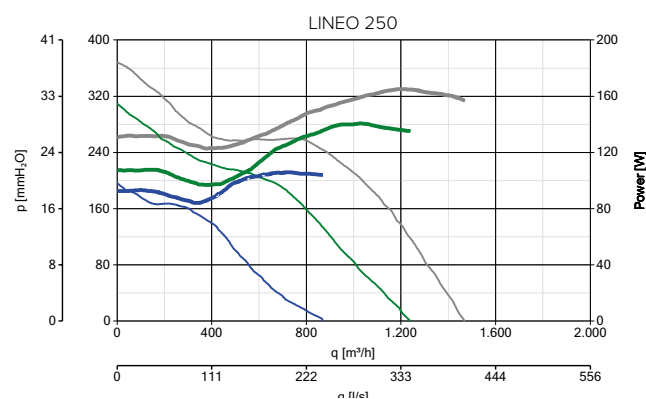
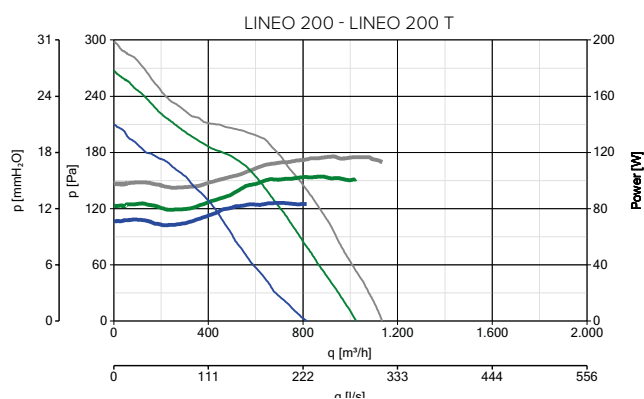
LINEO RANGE

PERFORMANCE AND ABSORPTION CURVES - LINEO





PERFORMANCE AND ABSORPTION CURVES - LINEO



CONSUMPTION	PERFORMANCE
— MAX	— MAX
— MID	— MID
— MIN	— MIN



LINEO QUIET RANGE

Acoustic mixed flow in-line fans

Mixed flow in-line duct fans with low noise and AC motors, installed in false ceilings or in attics. The ideal low-visual impact ventilation solution for residential, commercial or industrial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc.).

Versions

- 12 models, with nominal diameter between 100 and 315 mm.

Key features

- 2 or 3 speeds, depending on models.
- Low noise - casing integrating a sound absorbing coating optimised to minimise sound emissions radiated into the environment and transmitted through exhaust and supply ducts.
- Easy maintenance; each unit is easily accessible for cleaning or maintenance.
- Flexibility and ease of installation ideal for your specific performance-related requirements, consumption.
- Can be installed horizontally, vertically or sloping.
- Fully compliant with Reg. ErP 2018 N. 1253/2014.

Technical features

- Enclosures made of fire resistant plastic resin, E2 class, according with ISO EN 11925-2: 2010, in areas close to motor and electrical components.
- Casing integrating a sound-absorbing coating, optimised to minimise sound emissions radiated into the environment and transmitted through exhaust and supply ducts.
- Induction motor, thermally protected, with shaft mounted on ball bearing supports, coupled with a mixed-flow impeller.
- High water resistance: IPX5 (if installed in a duct).
- Speed adjustable through Vortice speed devices.
- Insulation Class: II .



TECHNICAL AND PERFORMANCE DATA - LINEO QUIET*

Models	Code	V _n 50/60 HZ	W min/med/ max	A min/med/ max	RPM min/med/ max	Max Airflow		Max Pressure		grade**	Max °C	KG
						m³/h min/med/max	l/s min/med/max	mmH ₂ O min/med/max	Pa min/med/max			
 LINEO 100 QUIET	17160	220-240	11	0.09	1455	150	41.7	9	88.3	IP45	45	3,8
LINEO 100 T QUIET	17190		24	0.11	1880	200	55.6	11.5	112.8			
			27	0.13	2260	260	72.2	15	147.1			
 LINEO 125 QUIET	17161	220-240	11	0.09	1125	190	52.8	8	78.5	IP45	45	3,6
LINEO 125 T QUIET	17191		24	0.11	1475	250	69.4	10	98.1			
			27	0.13	1880	320	88.9	14	137.3			
 LINEO 150 QUIET	17162	220-240	24	0.14	1040	255	70.8	10.5	103	IP45	55	5,4
LINEO 150 T QUIET	17192		37	0.17	1430	350	97.2	15.5	152			
			50	0.22	2030	510	141.7	21.5	210.9			
LINEO 160 QUIET	17163	220-240	24	0.14	1040	255	70.8	10.5	103	IP45	55	5,2
LINEO 160 T QUIET	17193		37	0.17	1430	350	97.2	15.5	152			
			50	0.22	2030	510	141.7	21.5	210.9			
 LINEO 200 QUIET	17164	220-240	50	0.34	1880	805	223.6	20.6	202	IPX5	50	8,6
LINEO 200 T QUIET	17194		80	0.42	2380	1045	290.3	26.3	257.9			
			95	0.49	2690	1160	322.2	29	284.4			
 LINEO 250 QUIET	17165	220-240	95	0.42	1640	960	266.7	20.2	198.1	IPX5	50	13,4
			125	0.55	2320	1340	372.2	30.3	297.2			
			150	0.65	2750	1550	430.6	34.6	339.3			
 LINEO 315 QUIET	17166	220-240	215	0.95	1930	2070	575	30.6	300.1	IPX5	50	28,3
			270	1.15	2360	2530	702.8	43.3	424.6			
			360	1.55	2705	2890	802.8	53.6	525.7			

* all data referred to supply at 50 Hz

** protection grade referred to ducted units

SOUND LEVELS - LINEO QUIET

Models	Code	INTAKE			SUPPLY			BREAKOUT		
		min	med.	max	min	med.	max	min	med.	max
LINEO 100 QUIET	17160	40.3	48.3	52.8	40	47.8	52.6	36.5	44	48.9
LINEO 100 T QUIET	17190									
LINEO 125 QUIET	17161	39.2	44.1	52.2	38.6	44.6	52.5	32.8	40.9	47.4
LINEO 125 T QUIET	17191									
LINEO 150 QUIET	17162	39.8	48.4	58.3	40.5	48.4	58	34.9	43.4	52.1
LINEO 150 T QUIET	17192									
LINEO 160 QUIET	17163	41.6	50	60.4	42.1	49.4	59.5	34.6	43	50.7
LINEO 160 T QUIET	17193									
LINEO 200 QUIET	17164	57.2	62.8	65.5	56.2	62	64.8	48	53.4	56
LINEO 200 T QUIET	17194									
LINEO 250 QUIET	17165	61.1	67.6	70.9	61.2	67.9	71.2	52.7	59	62.4
LINEO 315 QUIET	17166									
		69.3	73.3	75.9	68	72.1	74.9	60	64.4	67.5

Models	Code	INTAKE			SUPPLY			BREAKOUT		
		min	med.	max	min	med.	max	min	med.	max
LINEO 100 QUIET	17160	22.8	30.8	35.3	22.5	30.3	35.1	16	23.5	28.4
LINEO 100 T QUIET	17190									
LINEO 125 QUIET	17161	21.7	26.6	34.7	21.1	27.1	35	12.3	20.4	26.9
LINEO 125 T QUIET	17191									
LINEO 150 QUIET	17162	22.3	30.9	40.8	23	30.9	40.5	14.4	22.9	31.6
LINEO 150 T QUIET	17192									
LINEO 160 QUIET	17163	24.1	32.5	42.9	24.6	31.9	42	14.1	22.5	30.2
LINEO 160 T QUIET	17193									
LINEO 200 QUIET	17164	39.7	45.3	48	38.7	44.5	47.3	27.5	32.9	35.5
LINEO 200 T QUIET	17194									
LINEO 250 QUIET	17165	53.4	50.1	53.4	43.7	50.4	53.7	32.2	38.5	41.9
LINEO 315 QUIET	17166									
		51.8	55.8	58.4	50.5	54.6	57.4	39.5	43.9	47

* calculated in free field conditions at 3 m distance



DUCTED FANS

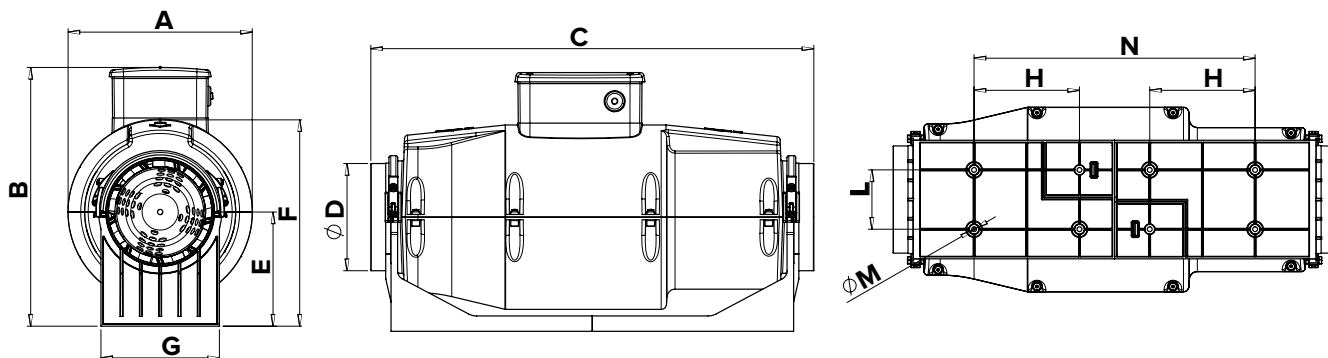
LINEO RANGE

DIMENSIONS - LINEO QUIET

Models	Code	A	B	C	Ø D	E	F	G	H	L	Ø M	N	VERSION
LINEO 100 QUIET	17160	210	294.5	639	97	130	235	135	120	67.5	5.5	320	A
LINEO 100 T QUIET	17190												
LINEO 125 QUIET	17161	210	294.6	504.5	122	130	235	135	120	67.5	5.5	320	A
LINEO 125 T QUIET	17191												
LINEO 150 QUIET	17162	232	320.5	685	147	145	261.5	170	132	85	5.5	360	A
LINEO 150 T QUIET	17192												
LINEO 160 QUIET	17163	232	320.5	570	156.5	145	261.5	170	135	85	5.5	360	A
LINEO 160 T QUIET	17193												
LINEO 200 QUIET	17164	322.5	417.5	625.5	194.5	195	363.5	190	120	155	5.5	510	B
LINEO 200 T QUIET	17194												
LINEO 250 QUIET	17165	318	412	751.5	243	189.5	363.5	200	70	170	6.5	604.5	B
LINEO 315 QUIET	17166	415.5	496.5	940	307	244	441	309	110	255	8.5	780	B

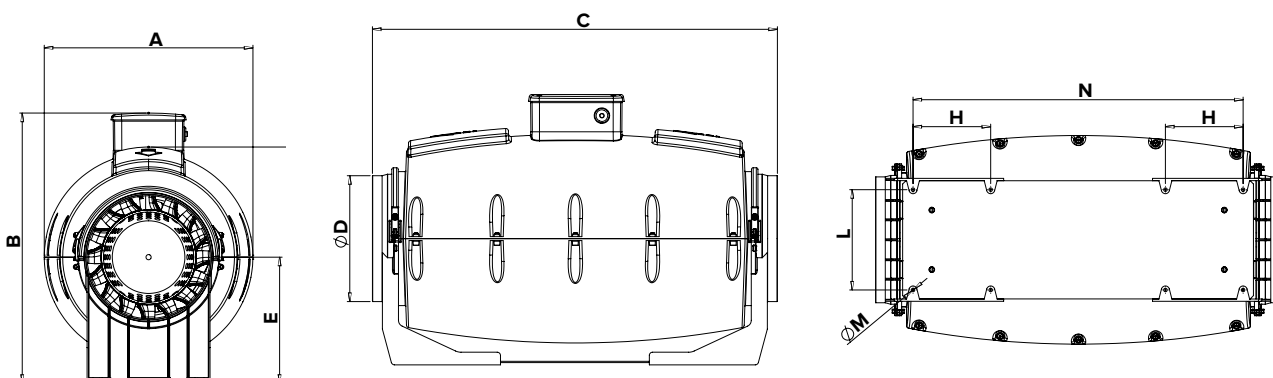
VERSION A

LINEO 100 QUIET - LINEO 100 T QUIET - LINEO 125 QUIET - LINEO 125 T QUIET
 LINEO 150 QUIET - LINEO 150 T QUIET - LINEO 160 QUIET - LINEO 160 T QUIET



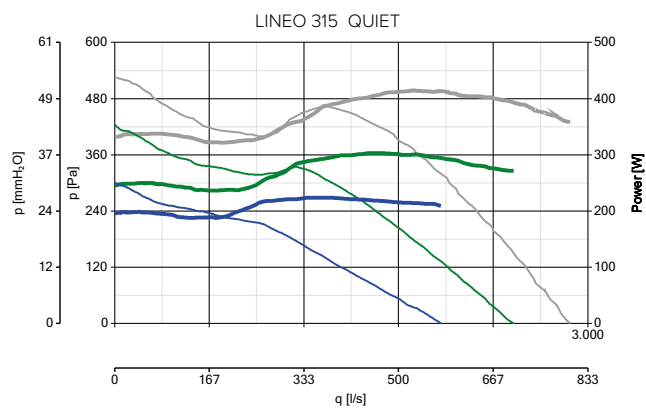
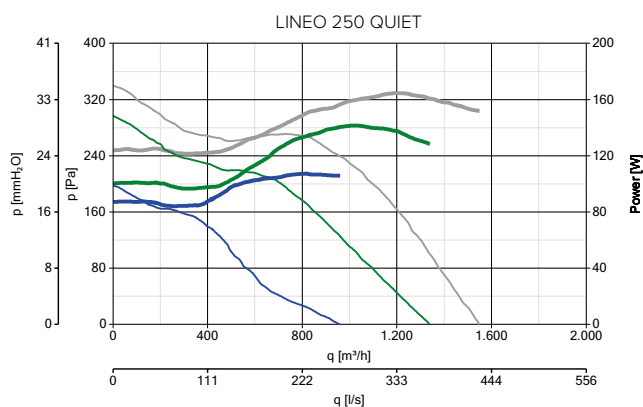
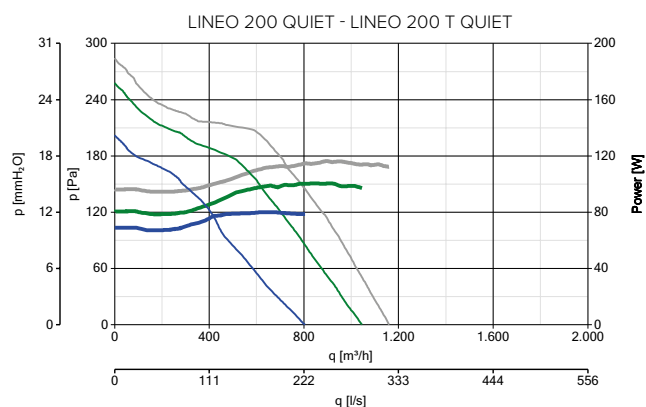
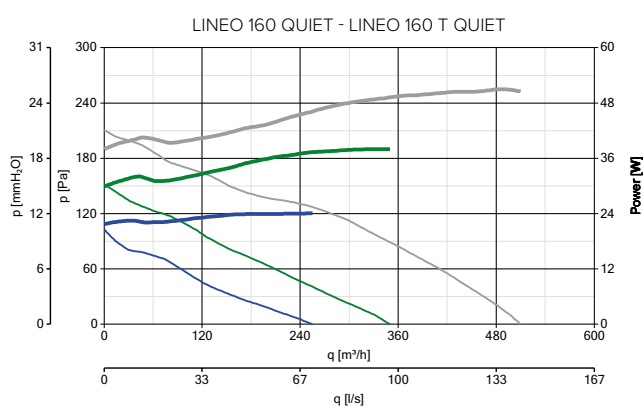
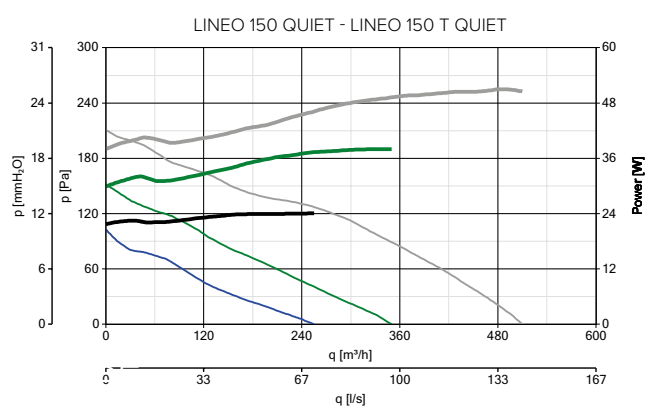
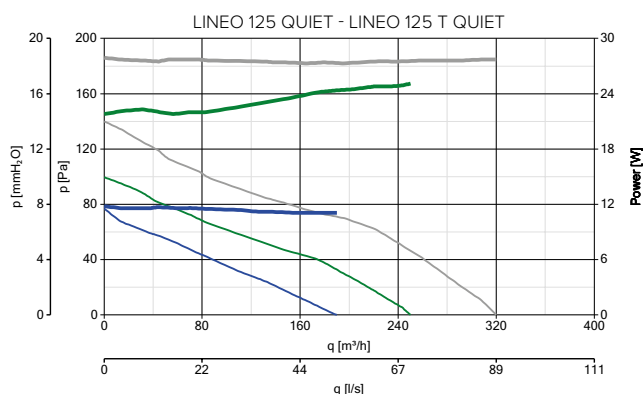
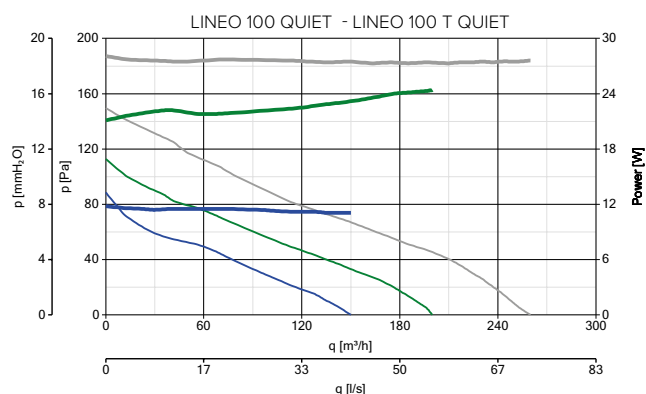
VERSION B

LINEO 200 QUIET - LINEO 200 T QUIET - LINEO 250 QUIET - LINEO 315 QUIET





PERFORMANCE AND ABSORPTION CURVES - LINEO QUIET



CONSUMPTION PERFORMANCE

10V 10V

6V 6V

4V 4V



DUCTED FANS

LINEO RANGE

CONTROLLERS - LINEO QUIET

MODELS	DESCRIPTION	CODE	PRODUCT
	C5 0.5 - 5 SPEED CONTROLLER	12987	17160 - 17161 - 17162 - 17163 - 17164 17165 - 17166
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	17160 - 17161 - 17162 - 17163 - 17164 17165 - 17166
	C 2.5 - ELECTRONIC SPEED CONTROLLER 2.5 A	12967	17165 - 17166
	KIT SCB5 - CONVERTS SCR5 TO A BUILT-IN VERSION	22483	12987 - 12966 - 12967
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12987 - 12966 - 12967
	TRIO-LINEO 503 - 3 SPEED SELECTOR	12891	17160 - 17161 - 17162 - 171763 - 17164 17165 - 17166 - 17190 - 17191 17192 17193 - 17194
	C TEMP - TEMPERATURE SENSOR	12992	ALL PRODUCTS
	C SMOKE - AIR QUALITY SENSOR	12993	ALL PRODUCTS
	C HCS - RELATIVE HUMIDITY SENSOR	12994	ALL PRODUCTS
	C PIR - PASSIVE INFRARED SENSOR	12998	ALL PRODUCTS
	C TIMER - TIMER	12999	ALL PRODUCTS



LINEO QUIET ES RANGE

Acoustic mixed flow in-line fans with EC motor

Mixed flow in-line duct fans with EC brushless motors, installed in false ceilings or in attics. The ideal low-visual impact ventilation solution for residential, commercial or industrial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc.).

Versions

- 7 models, with nominal diameter between 100 and 315 mm.

Key features

- 2 speed EC brushless motors.
- Easy maintenance; each unit is easily accessible for cleaning or maintenance.
- Flexibility and ease of installation ideal for your specific performance related requirements, consumption.
- Can be installed horizontally, vertically or sloping.
- Fully compliant with Reg. ErP 2018 N. 1253/2014.

Technical features

- Enclosures made of fire resistant plastic resin, E2 class, according with ISO EN 11925-2: 2010, in areas close to motor and electrical components.
- Casing integrating a sound-absorbing coating, optimised to minimise sound emissions radiated into the environment and transmitted through exhaust and supply ducts.
- EC (brushless) motor, thermally protected, with shaft mounted on ball bearing supports, coupled with a centrifugal impeller.
- High water resistance: IPX5 (if installed in a duct).
- Equipped with a thermal fuse overheating safety device.
- Speed adjustable through potentiometer (0-10V signal) or two-speed switch (to be set at the installation in a preset range).
- Insulation Class: II .



DUCTED FANS

LINEO RANGE

TECHNICAL AND PERFORMANCE DATA - LINEO QUIET ES*

Models	Code	V~50/60HZ	W		RPM	Max Airflow		Max Pressure		Protection grade**	Max °C	KG
			4/6/8/10V	4/6/8/10V		m³/h 4/6/8/10V	l/s 4/6/8/10V	mmH₂O 4/6/8/10V	Pa 4/6/8/10V			
LINEO 100 QUIET ES	17170	220-240	6.2	0.09	1140	135	37.5	3.5	34.3	IP45	60	3,8
			8.3	0.12	1450	175	48.6	5.8	56.9			
			14.7	0.18	2050	250	69.4	11.4	111.8			
			23	0.26	2510	300	83.3	24.8	243.2			
LINEO 125 QUIET ES	17171	220-240	6.6	0.10	1080	180	50	3.3	32.4	IP45	60	3,6
			8.8	0.12	1340	225	62.5	5.6	54.9			
			16	0.18	1865	320	88.9	11	107.9			
			24	0.26	2210	380	105.6	23.7	232.4			
LINEO 150 QUIET ES	17172	220-240	7.7	0.11	1015	250	69.4	4.6	45.1	IP45	60	5,4
			10.6	0.14	1240	305	84.7	7.5	73.6			
			20	0.24	1700	430	119.4	14.7	107.9			
			31	0.34	2030	515	143.1	24.2	237.3			
LINEO 160 QUIET ES	17173	220-240	7.7	0.11	1010	250	69.4	4.5	44.1	IP45	60	5,2
			10.6	0.14	1245	315	87.5	7.5	73.6			
			19.7	0.23	1685	435	120.8	14.4	141.2			
			31	0.34	2035	525	145.8	23.9	234.4			
LINEO 200 QUIET ES	17174	220-240	15.2	0.18	1380	570	158.3	8.6	84.3	IP45	50	8,6
			25.3	0.27	1705	720	200	13.9	136.3			
			52.4	0.52	2245	945	262.5	22.9	224.6			
			88	0.78	2700	1145	318.1	33.6	329.5			
LINEO 250 QUIET ES	17175	220-240	20	0.19	1365	750	208.3	10.1	99.1	IP45	50	13,4
			35	0.28	1680	940	261.1	15.6	153			
			75	0.60	2250	1250	347.2	26.6	260.9			
			125	0.97	2680	1485	412.4	37.5	367.8			
LINEO 315 QUIET ES	17176	220-240	42	0.31	1260	1400	388.9	12.9	126.5	IP45	50	28,3
			72	0.51	1560	1730	480.6	19.5	191.2			
			155	1.10	2070	2300	638.9	33.8	331.5			
			220	1.52	2350	2630	730.6	38.7	379.5			

* all data referred to supply at 50 Hz

** protection grade referred to ducted units

SOUND LEVELS - LINEO QUIET ES

SOUND POWER Lw dB (A)

Models	Code	INTAKE				SUPPLY				BREAKOUT			
		4V	6V	8V	10V	4V	6V	8V	10V	4V	6V	8V	10V
LINEO 100 QUIET ES	17170	37.7	42.9	53.4	55.6	38.1	43.6	54.2	58.2	30.4	36.4	45.3	51.4
LINEO 125 QUIET ES	17171	37.9	41.8	52	55	38.5	43.1	53.9	57.5	31.8	36.9	45.6	49.2
LINEO 150 QUIET ES	17172	40	44.7	53.2	58.2	40.9	45.9	53.8	58.2	34.2	39.1	46.5	51.5
LINEO 160 QUIET ES	17173	40.6	45.7	54.1	59.5	41	46.3	54	58.8	33	37.9	45.2	49.7
LINEO 200 QUIET ES	17174	48.7	54.3	60.8	65.5	48.1	53.6	60.4	65.2	40.2	45.3	51.4	56.3
LINEO 250 QUIET ES	17175	54.4	59.5	65.9	70.4	54.8	59.9	66.2	70.7	45.2	50.3	57.8	61.5
LINEO 315 QUIET ES	17176	61.9	66.2	71.8	74	58.7	63.4	69.4	72	54	56.3	65.1	68.8

SOUND PRESSURE Lp dB(A)*

Models	Code	INTAKE				SUPPLY				BREAKOUT			
		4V	6V	8V	10V	4V	6V	8V	10V	4V	6V	8V	10V
LINEO 100 QUIET ES	17170	20.2	25.4	35.9	38.1	20.6	26.1	36.7	40.7	9.9	15.9	25.8	30.9
LINEO 125 QUIET ES	17171	20.4	24.3	34.5	37.5	21	25.6	36.4	40	11.3	16.4	25.1	28.7
LINEO 150 QUIET ES	17172	22.5	27.2	35.7	40.7	23.4	28.4	36.3	40.7	13.7	18.6	26	31
LINEO 160 QUIET ES	17173	23.1	28.2	36.6	42	23.6	28.8	35.6	41.3	12.5	17.4	24.7	29.2
LINEO 200 QUIET ES	17174	31.2	36.8	43.3	48	30.6	36.1	42.9	47.7	19.7	24.8	30.9	35.8
LINEO 250 QUIET ES	17175	36.9	42	48.4	52.9	37.3	42.4	48.7	53.2	24.7	28.9	37.3	41
LINEO 315 QUIET ES	17176	44.4	48.7	54.3	56.5	41.2	45.9	51.9	54.5	33.5	35.8	44.6	48.3

* Calculated in free field conditions at 3 m distance



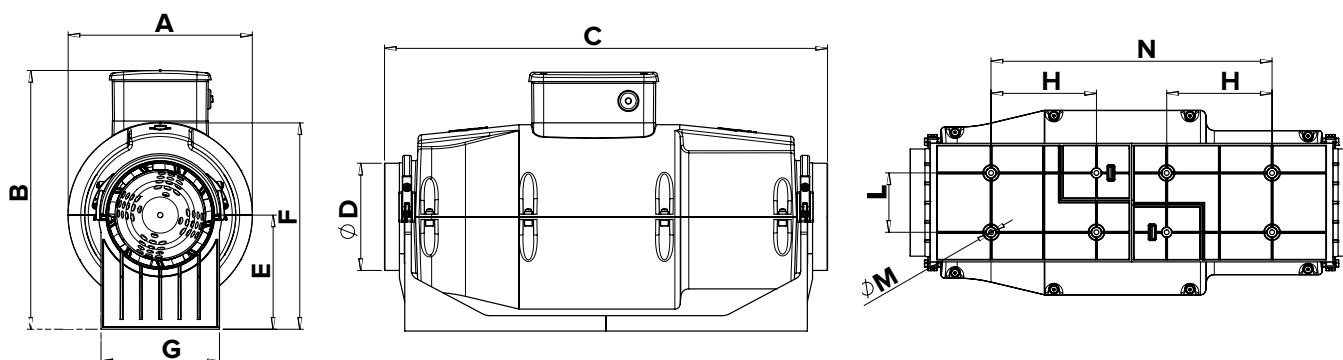


DIMENSIONS - LINEO QUIET ES

Models	Code	A	B	C	Ø D	E	F	G	H	L	Ø M	N	VERSION
LINEO 100 QUIET ES	17170	210	294.6	639	97	130	235	135	120	67.5	5.5	320	A
LINEO 125 QUIET ES	17171	210	294.6	504.5	122	130	235	135	120	67.5	5.5	320	A
LINEO 150 QUIET ES	17172	232	320.6	685	147	145	261.5	170	132	85	5.5	360	A
LINEO 160 QUIET ES	17173	232	320.6	570	156.5	145	261.5	170	135	85	5.5	360	A
LINEO 200 QUIET ES	17174	322.5	417.6	625.5	194.5	195	363.5	190	120	155	5.5	510	B
LINEO 250 QUIET ES	17175	318	411.9	751.5	243	189.5	363.5	200	70	170	6.5	604.5	B
LINEO 315 QUIET ES	17176	415.5	557.8	940	307	234	441	309	110	255	8.5	780	C

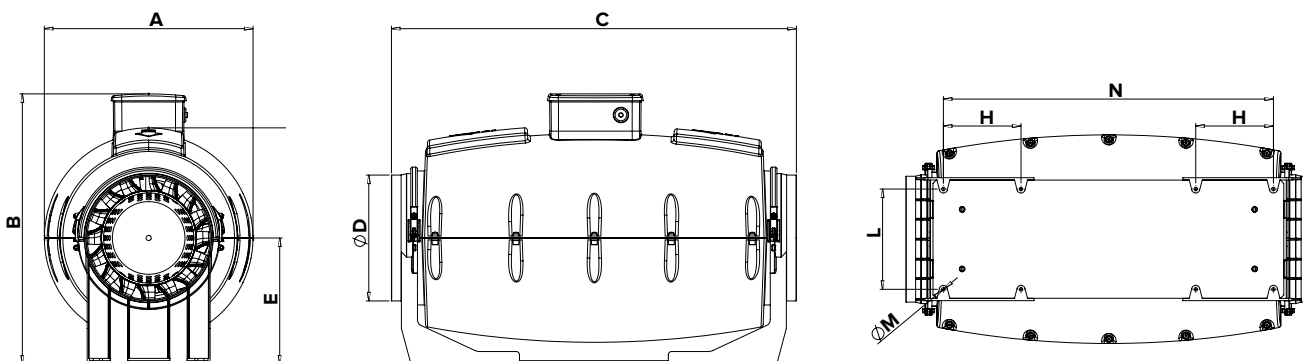
VERSION A

LINEO 100 QUIET ES - LINEO 125 QUIET ES - LINEO 150 QUIET ES - LINEO 160 QUIET ES



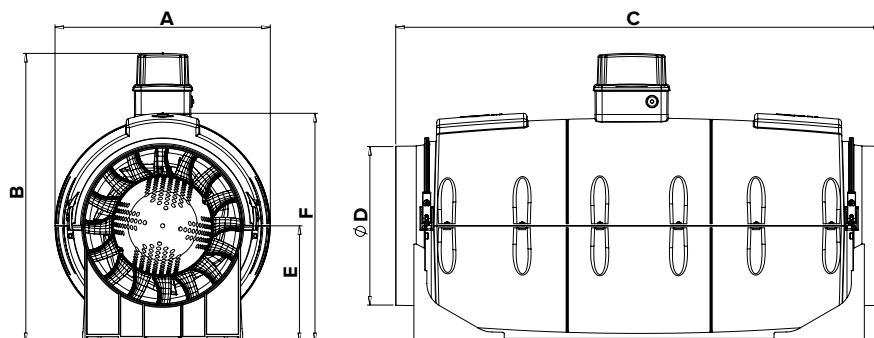
VERSION B

LINEO 200 QUIET ES - LINEO 250 QUIET ES



VERSION C

LINEO 315 QUIET ES

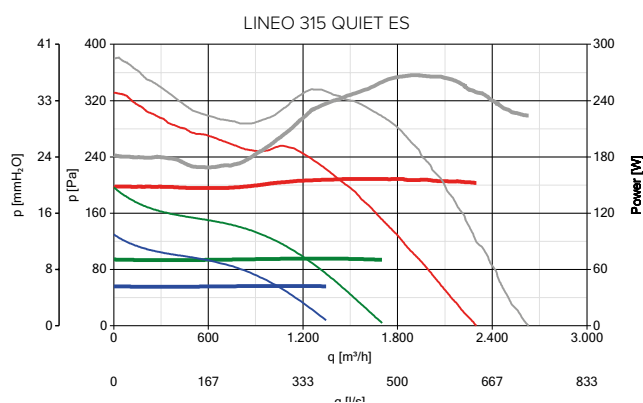
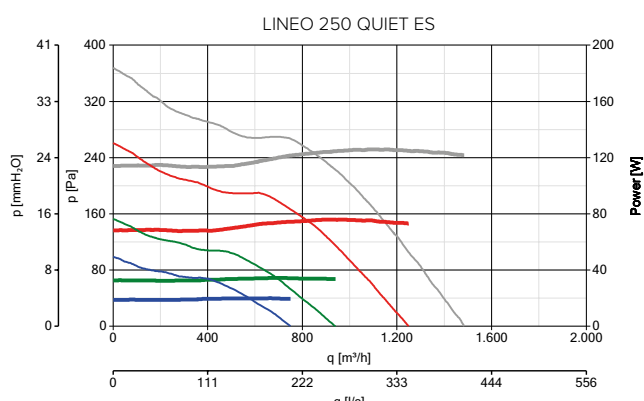
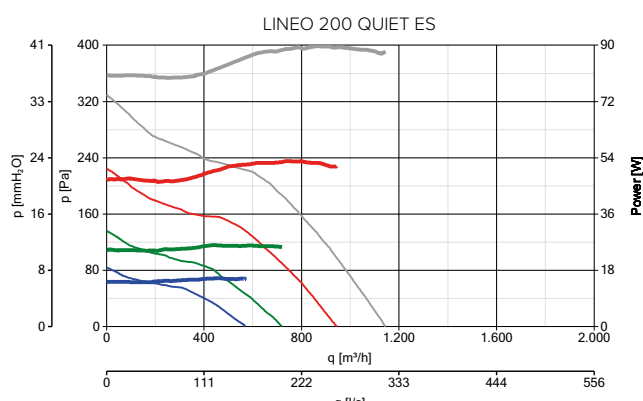
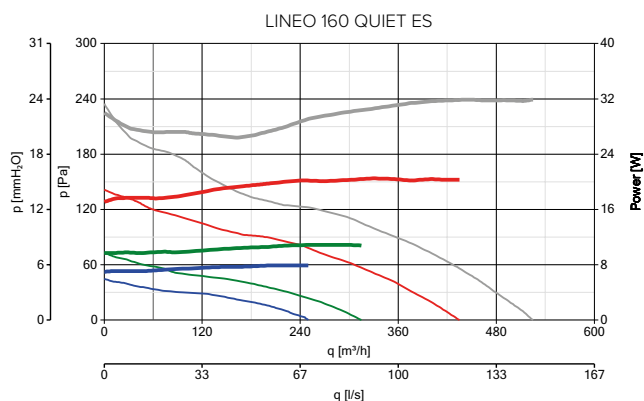
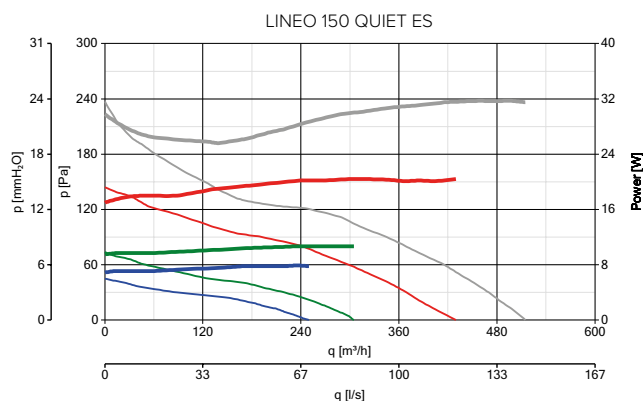
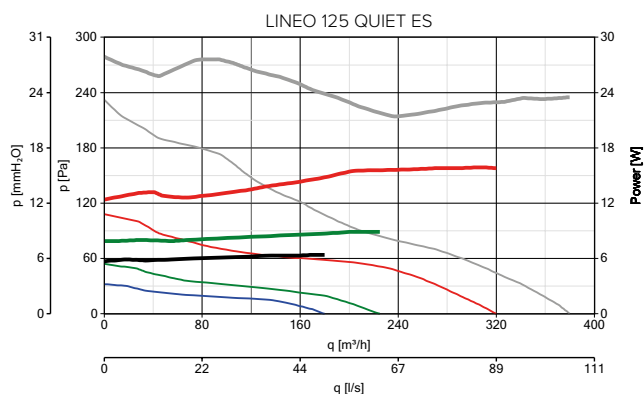
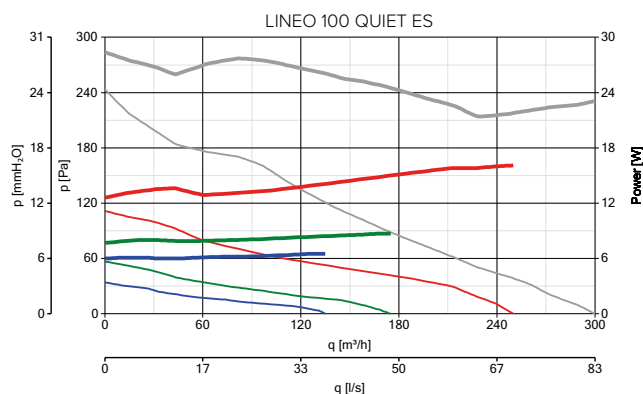




DUCTED FANS

LINEO RANGE

PERFORMANCE AND ABSORPTION CURVES - LINEO QUIET ES



CONSUMPTION PERFORMANCE

10V 10V

8V 8V

6V 6V

4V 4V



CONTROLLERS - LINEO QUIET ES

MODELS	DESCRIPTION	CODE	PRODUCT
	POT-IT - POTENTIOMETER COMPATIBLE WITH FLUSH MOUNTING IN UNI 503 ELECTRIC BOX	12826	17170 - 17171 - 17172 - 17173 - 17174 17175 - 17176
	POT - POTENTIOMETER COMPATIBLE WITH FLUSH MOUNTING IN DIN ELECTRIC BOX	12828	17170 - 17171 - 17172 - 17173 - 17174 17175 - 17176
	DUO - 2 SPEED SELECTOR	22914	ALL PRODUCTS
	C TEMP - TEMPERATURE SENSOR	12992	ALL PRODUCTS
	C SMOKE - AIR QUALITY SENSOR	12993	ALL PRODUCTS
	C HCS - HUMIDITY SENSOR	12994	ALL PRODUCTS
	C PIR - PASSIVE INFRARED SENSOR	12998	ALL PRODUCTS
	C TIMER - TIMER	12999	ALL PRODUCTS



CA V0 RANGE

Centrifugal in-line fans in self-extinguishing V0 plastic

Self-extinguishing plastic resin centrifugal duct fans, installed in false ceilings or in attics. The ideal low-visual impact ventilation solution for residential, commercial or industrial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc.).

Versions

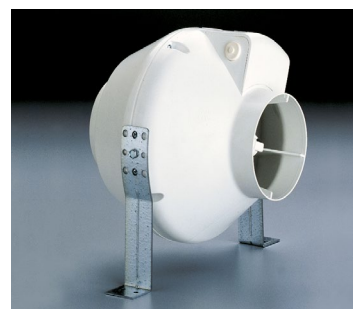
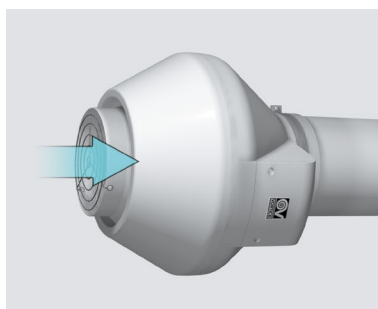
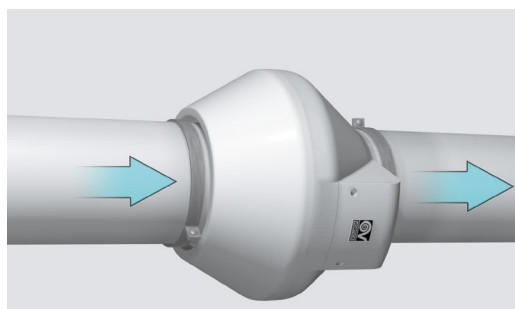
- 7 models, with nominal diameter between 100 and 315 mm.

Key features

- Built to withstand aggressive agents.
- Standard supplied support brackets.
- High protection rating from dust and water for safe use in industrial environments.
- Wide continuous operation temperature range (-25 °C / + 50 °C).
- Can be installed horizontally, vertically or sloping.
- Fully compliant with Reg. ErP 2018 N. 1253/2014

Technical features

- Casing built into the boxes containing the mains connection terminals and the flow conditioner fins, constructed in self-extinguishing plastic resin (V0).
- 3 speed fans that can be set using optional device TRIO-CA (code 12869), composed of:
 - AC motors with thermal overload cut-out and shafts turning on ball bearings to guarantee long lasting continuous service (at least 30,000 h) at the maximum plate temperature.
 - Backward-curve, heat resistant plastic resin blade impellers loaded with glass fibre to combine structural strength and dimensional stability.
 - Galvanised steel sheet brackets for wall, ceiling and false ceiling installation.
- Possibility of connecting to remote environmental temperature, humidity, smoke and presence sensors (optional).
- Protection rating from dusts and water: IP44 (appliance ducted in extraction and delivery).
- Insulation Class: II .





TECHNICAL DATA

Models	Code	V _n 50/60HZ				Max Airflow		Max Pressure		LP DB(A) 3m	Max °C	KG
			W	A	RPM	m³/h	l/s	mmH ₂ O	Pa			
			min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max		
 CA 100 V0 D	16008	220-240	14 27 50	0.14 0.19 0.22	1660 - 2400	85 156 251	24 43 69.7	27 36 37	269 360 366	51 - 56*	50	2.4
 CA 125 V0 D	16018	220-240	14 27 52	0.14 0.19 0.22	1480 - 2400	107 200 300	29 55 83	19 33 34.7	195 333 340	45 - 56*	50	2.3
 CA 150 V0 D	16028	220-240	14 27 52	0.14 0.19 0.22	1400 - 2400	150 275 460	41 76 128	8.4 24 31.8	83 241 312	44 - 56*	50	2.6
CA 200 V0 Q	16035	220-240	35 48 104	0.35 0.40 0.45	- - 2355	310 415 805	87 115 224	22 35 44.7	215 351 438	- - 59*	50	3.1
CA 200 V0 E	16038	220-240	39 58 90	0.35 0.40 0.40	1320 2015 2611	387.1 605 775	107.5 - 215.3	24.6 39.2 42.2	241.2 392 413.9	- - 50.3**	50	3.5
CA 250 V0 E	16039	220-240	45 62 90	0.37 0.39 0.40	1600 2190 2610	525 730 855	145.8 202 237.5	22.2 35 38.1	218 344 373.3	- - 49.9**	50	3.7
CA 315 V0 E	16041	220-240	48 80 120	0.48 0.57 0.54	1280 1970 2640	527 825 1100	146.3 229 305.5	27.5 50 56.6	270 488 554.7	- - 54**	55	5.5
CA 315 V0 SE	16090	220-240	195	0,85	2790	1560	433	66	649	64	45	6.6

* Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 3741.

** Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 9614.

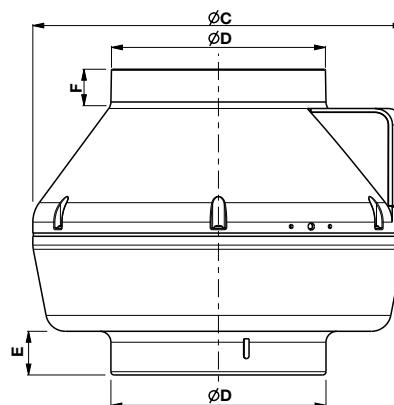
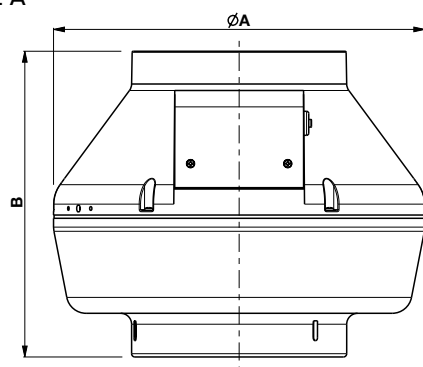


DUCTED FANS

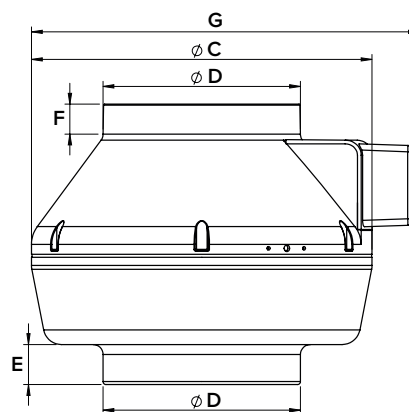
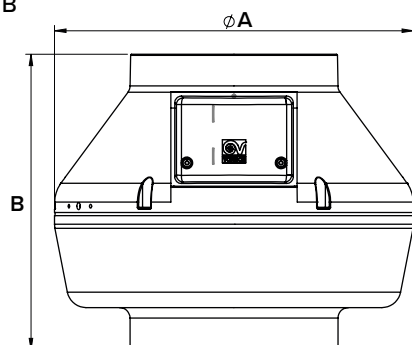
CA RANGE

DIMENSIONS

TYPE A



TYPE B



MODELS	ØA	B	ØC	ØD	E	F	G
CA 100 V0 D (TYPE A)	250	250	250	97	30	30	-
CA 125 V0 D (TYPE A)	250	250	250	122	30	30	-
CA 150 V0 D (TYPE A)	300	305	300	147/157	30/30	30/60	-
CA 200 V0 Q (TYPE B)	340	280	340	197	40	30	390
CA 200 V0 E (TYPE B)	340	280	340	197	40	30	390
CA 250 V0 E (TYPE B)	340	305	340	247	60	30	390
CA 315 V0 E (TYPE B)	400	340	400	312	75	40	438
CA 315 V0 SE (TYPE B)	400	340	400	312	75	40	438

Dimensions (mm)

AVAILABLE ONLY FOR EXTRA EU MARKET

MODELS	ØA	B	ØC	ØD	E	F
CA 100 V0 D (TYPE A)	250	250	250	97	30	30
CA 125 V0 D (TYPE A)	250	250	250	122	30	30
CA 150 V0 D (TYPE A)	300	305	300	147/157	30/60	30/60
CA 200 V0 Q (TYPE A)	340	280	340	197	40	30

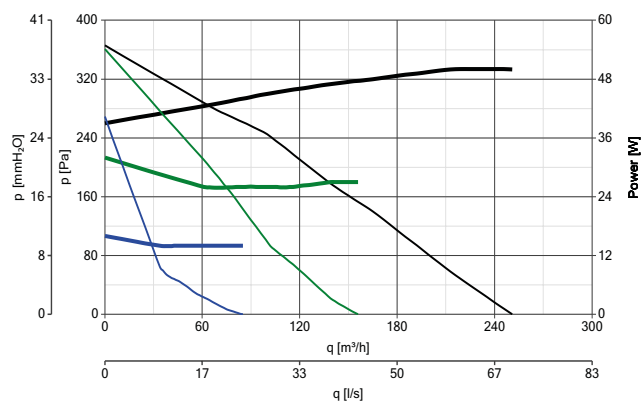
Dimensions (mm)



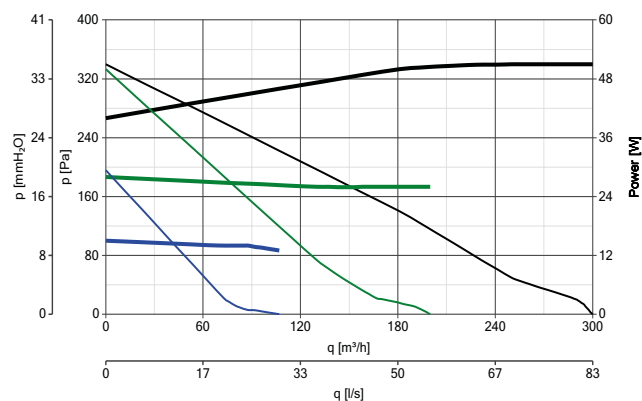


PERFORMANCE CURVES

CA 100 V0 D



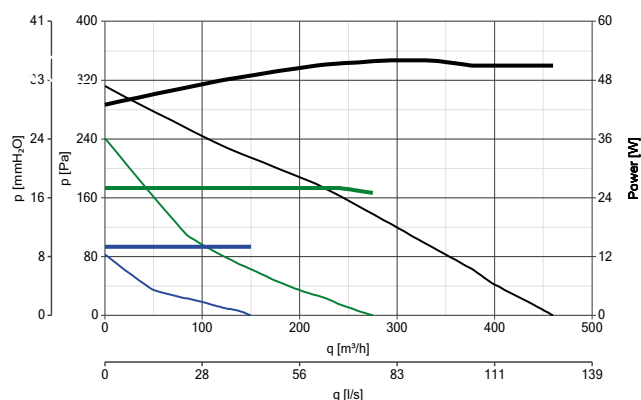
CA 125 V0 D



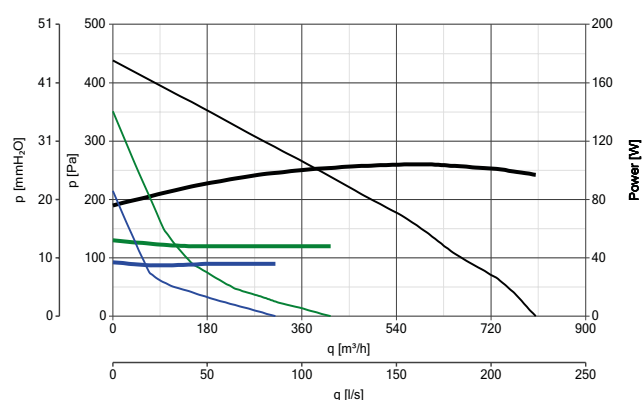
POWER CONSUMPTION
 — max
 — med
 — min

PERFORMANCE CURVES
 — max
 — med
 — min

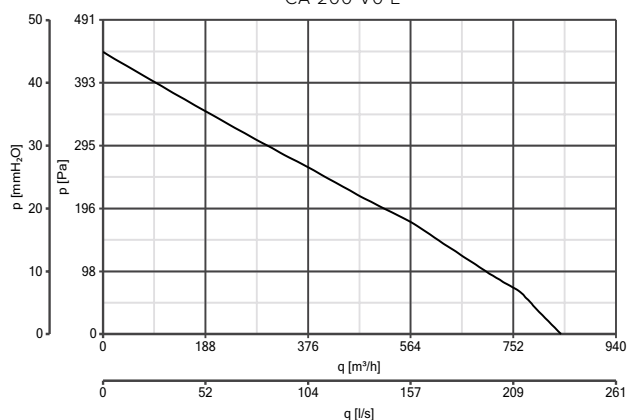
CA 150 V0 D



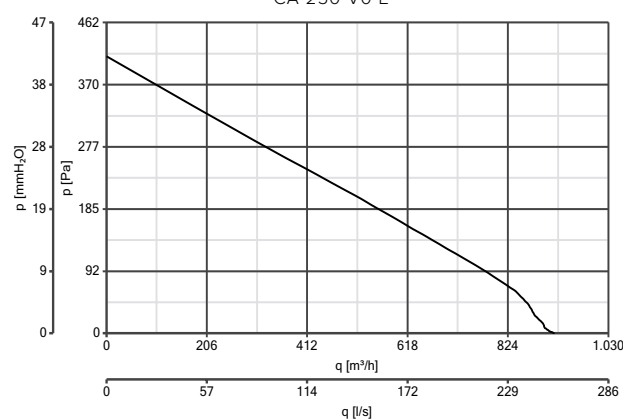
CA 200 V0 Q



CA 200 V0 E



CA 250 V0 E



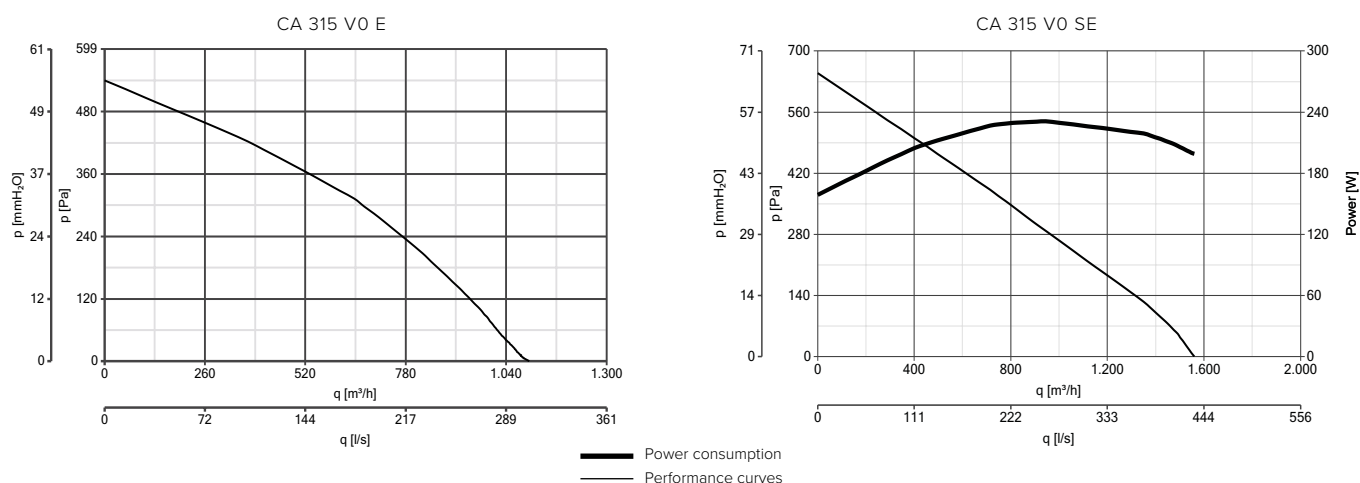
— Power consumption
 — Performance curves



DUCTED FANS

CA RANGE

PERFORMANCE CURVES



CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCT
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	ALL PRODUCTS
	C 2.5 - ELECTRONIC SPEED CONTROLLER 2.5 A	12967	ALL PRODUCTS
	SCNRB - BUILT-IN ELECTRONIC SPEED CONTROLLER	12971	ALL PRODUCTS
	TRIO - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE UNI 503 STANDARD ELECTRIC BOXES	12869	16008 - 16018 - 16028 - 16035 - 16038 - 16039 - 16041
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12966 - 12967
	IREM D - ELECTRONIC SPEED CONTROLLER FOR INSTALLATION IN STANDARD DIN BOX. MAXIMUM LOAD: 1.0 A.	12867	ALL PRODUCTS
	DUO - 2 SPEEDS CONTROLLER	22914	16034 - 16044 - 16054 - 16064
	C TEMP - THERMO SWITCH	12992	ALL PRODUCTS
	C SMOKE - AIR QUALITY SENSOR	12993	ALL PRODUCTS
	C HCS - HUMIDISTAT	12994	ALL PRODUCTS
	C PIR - PASSIVE INFRARED SENSOR	12998	ALL PRODUCTS
	C TIMER - TIMER	12999	ALL PRODUCTS
MODELS	DESCRIPTION	CODE	PRODUCT
	CA-MU - MOUNTING BRACKETS	22674	ALL PRODUCTS
	CA-G - PROTECTION GRILLE	100 22750	16008
		125 22755	16018
		150 22760	16028
		200 22765	16035 - 16038
		250 22770	16039
		315 22775	16041 - 16090





CA MD RANGE

Centrifugal in-line metal fans

Painted sheet steel centrifugal duct fans, installed in false ceilings or in attics. The ideal low-visual impact ventilation solution for residential, commercial or industrial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc).

Versions

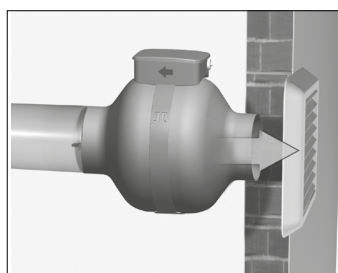
8 models, with nominal diameter between 100 and 315 mm.

Key features

- Built to withstand weathering and high temperatures.
- Standard supplied support brackets.
- High protection rating from dust and water for safe use in industrial environments.
- Wide continuous operation temperature range (-25 °C / + 50 °C).
- Can be installed horizontally, vertically or sloping.

Technical features

- Pickled, phosphate-coated steel sheet casing that has been painted with polyester paint against aggressive weathering.
- Motor-holder built into the boxes housing the mains connection terminals and the flow conditioner fins, constructed in self-extinguishing plastic resin (V0).
- 3-speed fans that can be set using optional device TRIO-CA (code 12869), composed of:
 - AC motors with thermal overload cut-out and shafts turning on ball bearings to guarantee long lasting continuous service (at least 30,000 h) at the maximum plate temperature.
 - Backward-curve, heat resistant plastic resin blade impellers loaded with glass fibre to combine structural strength and dimensional stability.
- Galvanised steel sheet brackets for wall, ceiling and false ceiling installation.
- Possibility of connecting to remote environmental temperature, humidity, smoke and presence sensors (optional).
- Protection rating from dusts and water: IP44 (appliance ducted in extraction and delivery).
- Insulation Class: II .



TECHNICAL DATA

Models	Code	V~50HZ				Max Airflow		Max Pressure		LP DB(A) 3m	Max °C	KG
			W	A	RPM	m³/h	l/s	mmH₂O	Pa			
			min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max		
 CA 100 MD	16150	230	26 47 85	0,22 0,30 0,40	1190 1810 2370	163 250 337	45,0 69,4 93,0	19,9 33 38,9	195,9 323,4 381,6	32,3* - 43,2*	50	2,97
 CA 125 MD	16151	230	26 47 85	0,22 0,30 0,40	1130 1685 2300	210 315 445	58,0 87,5 123,6	17,6 30,7 36,8	172,6 301,3 361,4	30,8* - 45,9*	50	3,0
 CA 150 MD E	16163	230	26 47 85	0,22 0,30 0,38	1160 1725 2650	230 350 535	63,8 97,2 148,6	12,3 25,3 44,3	121,0 248,7 435,1	42,3** - 53,2**	50	4,9
CA 150 Q MD	16152	230	26 47 85	0,22 0,30 0,40	1160 1725 2340	230 350 470	63,8 97,2 130,5	12,3 25,3 33,3	121,1 248,2 327,0	34,7* - 48,1*	50	2,98
CA 160 MD E	16164	230	39 53 85	0,35 0,36 0,38	1130 2160 2665	325 450 555	90,2 125 154,1	32,7 41,8 44,0	321,5 409,8 431,8	43,4* - 53,4*	50	4,9
 CA 200 MD E	16165	230	39 57 89	0,35 0,38 0,43	1440 2140 2630	412 620 775	114,0 172,2 215,0	36,0 45,0 45,0	353,0 441,0 441,0	36,2** - 48,1**	50	4,8
 CA 250 MD E	16166	230	50 82 120	0,47 0,55 0,53	1410 2120 2635	540 805 1010	150,0 223,6 280,5	33,7 49,2 54,8	330,8 482,6 537,6	38,3** - 52,7**	50	5,3
 CA 315 MD E	16167	230	50 82 120	0,47 0,54 0,53	1510 2150 2630	570 830 1015	158,3 230,5 281,9	36,0 50,7 55,5	353,2 497,3 544,9	41,8** - 52,3**	50	7,0
CA 315 MD SE	16097	220-240	190	0,84	2800	1550	430	67	657	58\	45	6,6

* Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 3741.

** Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 9614.



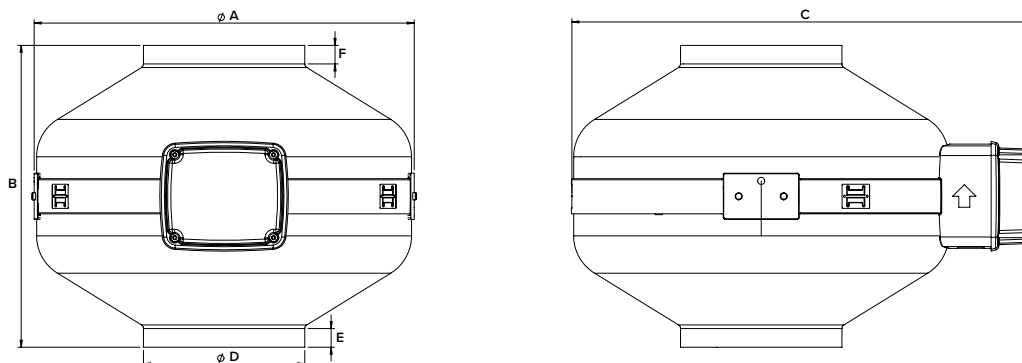
ENERGY DATA FOR REGULATION N° 1254/2014/UE

	UNIT OF MEASURE	CA 160 MD E	CA 200 MD E	CA 250 MD E	CA 15 MD E	CA 315 MD SE
CODE		16164	16165	16166	16167	16097
Supplier's name or trade mark	-	Vortice	Vortice	Vortice	Vortice	Vortice
SFPint	W(m³/s)	482,85	382,78	397,50	385,03	293,89
Declared typology	-	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**
Type of drive	-	MSD***	MSD***	MSD***	MSD***	MSD***
Type of heat recovery system HRS	-	None	None	None	None	NONE
Nominal NRVU flow rate	m³/s	0,13611	0,21389	0,2747	0,2791	0,361
Effective electric power input	kW	0,088	0,089	0,127	0,123	0,220
Face velocity at design flow rate	m/s	6,7696	6,8083	5,5966	3,5822	4,633
Nominal external pressure (Δps, ext)	Pa	70	12	21	18	187
Internal pressure drop of ventilation components (Δps,int)	Pa	279	135	126	122	175
Internal pressure drop of non-ventilation components (Δps,add)	Pa	0	0	0	0	0
Static efficiency of fans used in accordance with Regulation (EU) N. 327/2011	%	43,2	35,3	31,8	31,8	40,2
Declared maximum internal leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*
Declared maximum external leakage rate of the casing of ventilation units	%	5,9	4,2	2,3	2,2	0,5
Energy performance or classification of the filters	-	NA*	NA*	NA*	NA*	NA*
Description of visual filter warning	-	NA*	NA*	NA*	NA*	NA*
Casing sound power level	LWA[dB(A)]	74	69	73	73	75

	UNIT OF MEASURE	CA 100 MD	CA 125 MD	CA 150 MD E	CA 150 Q MD
CODE		16150	16151	16163	16152
Supplier's name or trade mark	-	Vortice	Vortice	Vortice	Vortice
SFPint	W(m³/s)	602,29	478,53	567,30	408,13
Declared typology	-	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**
Type of drive	-	MSD***	MSD***	MSD***	MSD***
Type of heat recovery system HRS	-	None	None	None	None
Nominal NRVU flow rate	m³/s	0,07917	0,09861	0,14333	0,10260
Effective electric power input	kW	0,051	0,051	0,086	0,053
Face velocity at design flow rate	m/s	10,08	8,0335	8,1110	5,8003
Nominal external pressure (Δps, ext)	Pa	12,8	8,8	15	31,4
Internal pressure drop of ventilation components (Δps,int)	Pa	183	148	255	149
Internal pressure drop of non-ventilation components (Δps,add)	Pa	0	0	0	0
Static efficiency of fans used in accordance with Regulation (EU) N. 327/2011	%	30,4	30,7	44,9	28,8
Declared maximum internal leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*
Declared maximum external leakage rate of the casing of ventilation units	%	3,6	3,0	6,3	2,8
Energy performance or classification of the filters	-	NA*	NA*	NA*	NA*
Description of visual filter warning	-	NA*	NA*	NA*	NA*
Casing sound power level	LWA[dB(A)]	64	66	74	69

*NA: Not applicable - **RVU-U: Non Residential Ventilation Unit - Unidirectional - ***MSD: Multi-Speed Drive

DIMENSIONS

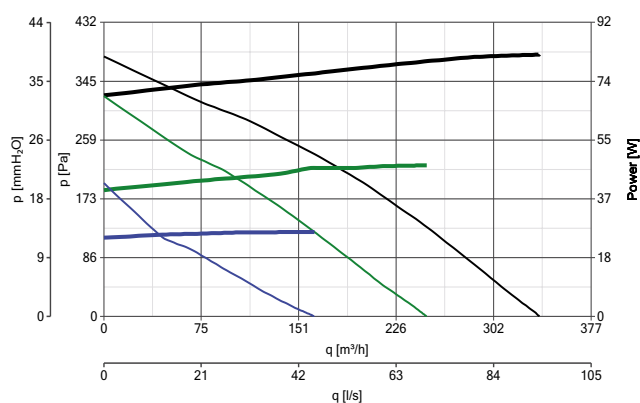


MODELS	ϕA	B	C	ϕD	E	F
CA 100	255	239	330	97	15	15
CA 125	255	239	330	122	23	23
CA 150 Q	255	239	330	147	30	30
CA 150	347	275	424	147	17	17
CA 160	347	275	424	157	18	18
CA 200	347	275	424	197	20	17
CA 250	347	275	424	247	38	35
CA 315	406	306	488	312	21	30
CA 315 SE	415	314	455	312	29	42

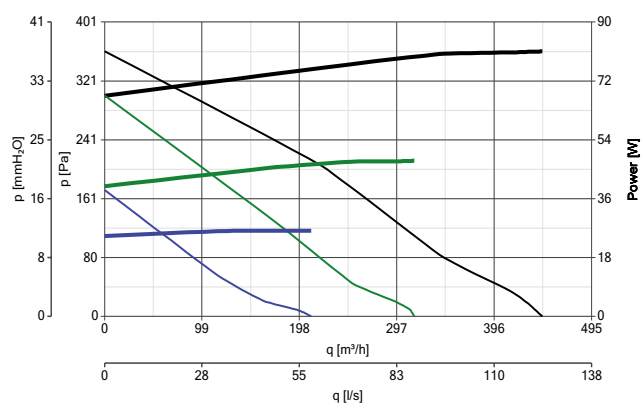


PERFORMANCE CURVES

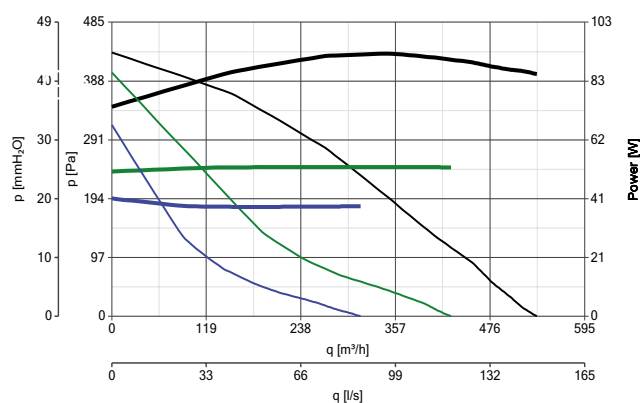
CA 100 MD



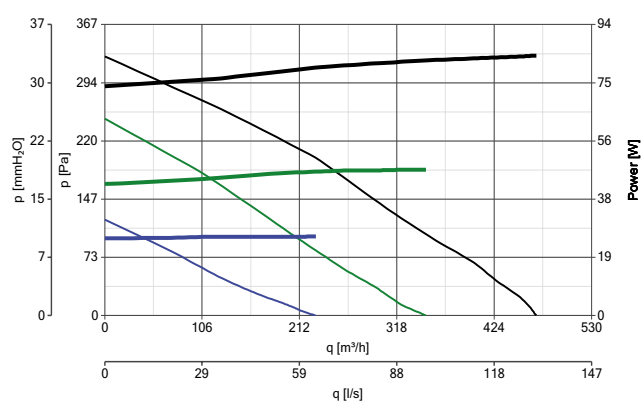
CA 125 MD



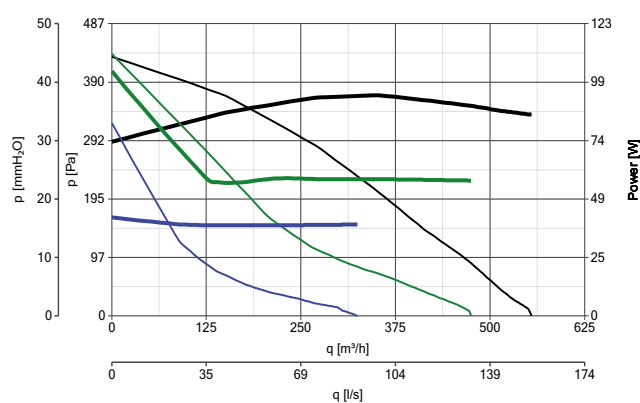
CA 150 MD E



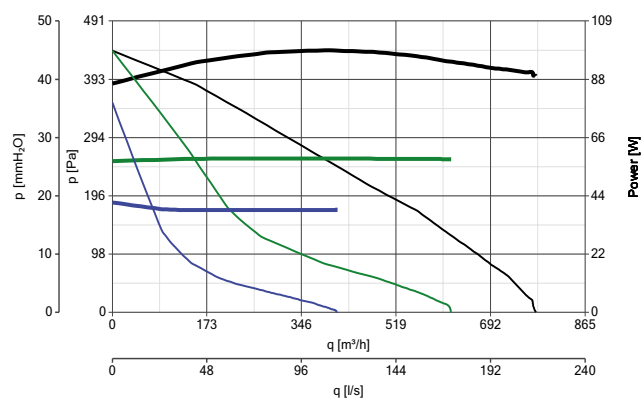
CA 150 Q MD



CA 160 MD E



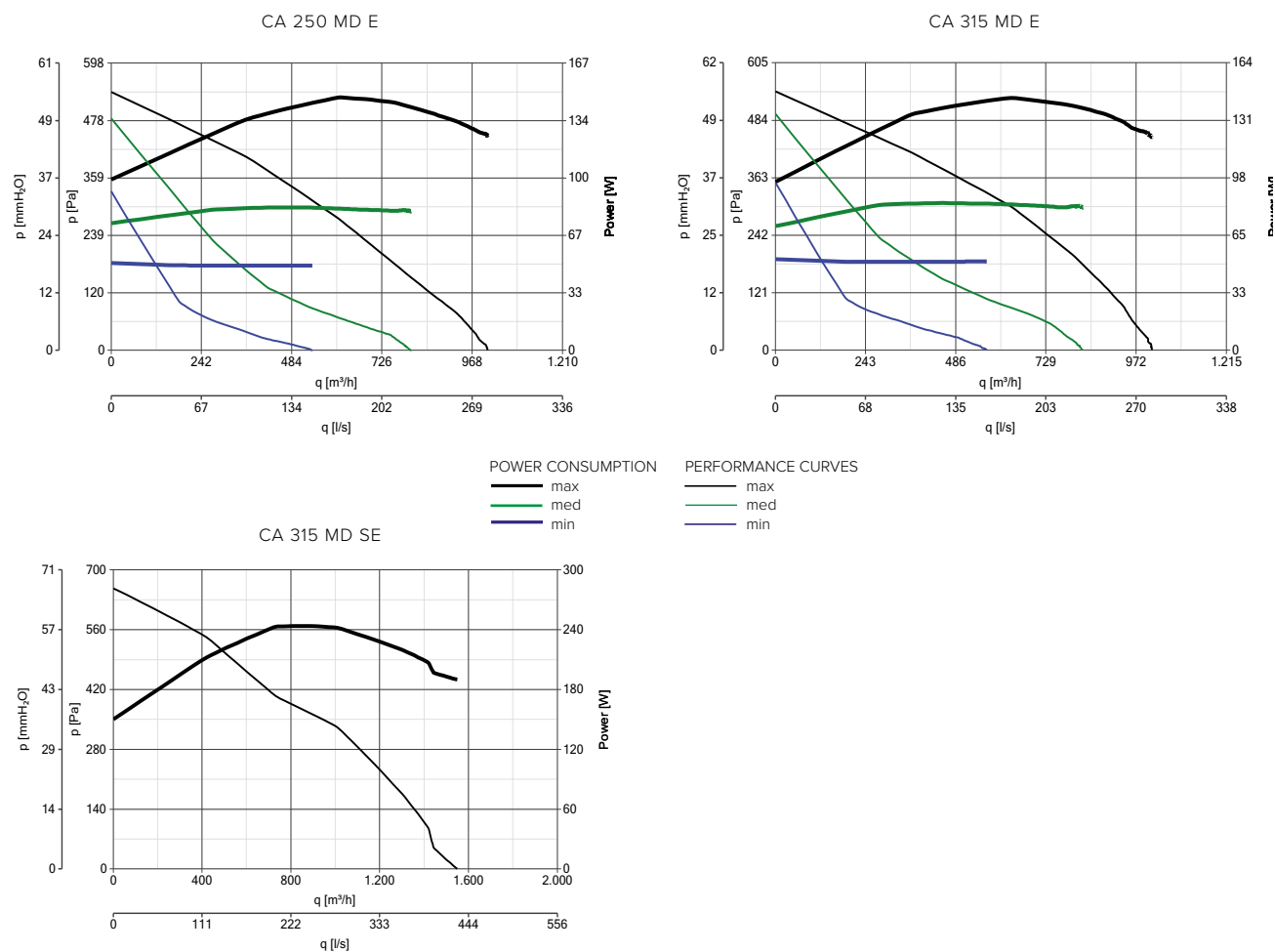
CA 200 MD E



POWER CONSUMPTION
 — max
 — med
 — min

PERFORMANCE CURVES
 — max
 — med
 — min

PERFORMANCE CURVES





CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCT
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	ALL PRODUCTS
	C 2.5 - ELECTRONIC SPEED CONTROLLER 2.5 A	12967	ALL PRODUCTS
	SCNRB - ELECTRONIC SPEED CONTROLLER, BUILT-IN	12971	ALL PRODUCTS
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12966 - 12967
	TRIO - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE UNI 503 STANDARD ELECTRIC BOXES	12869	16150 - 16151 - 16163 - 16152 - 16164 16165 - 16166 - 16167
	IRM5 2B - 5-POSITION SPEED CONTROLLER OF THE AUTOTRANSFORMER TYPE, DESIGNED TO CONTROL SINGLE-PHASE ASYNCHRONOUS MOTORS.	12861	16097

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT	
	CA-MU - MOUNTING BRACKETS	22674	ALL PRODUCTS	
		100	22750	16150 - 16107
		125	22755	16151 - 16108
	CA-G - PROTECTION GRILLE	150	22760	16152 - 16163 - 16109 - 16153
		200	22765	16165 - 16155
		250	22770	16166 - 16156
		315	22775	16167 - 16157 - 16097

CA WE D E RANGE

Centrifugal external wall fans

Painted sheet steel mixed flow duct fans, designed for outdoor installation. The ideal low-visual impact, low-noise ventilation solution for residential or commercial premises (kitchens, toilets, laboratories, bars, restaurants, laundries, shops, etc.).



Versions

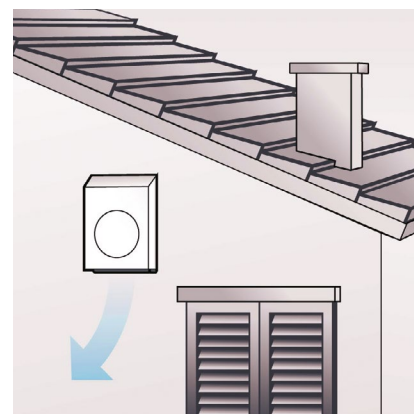
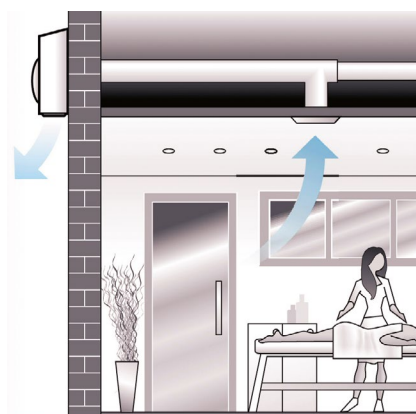
- 5 models, with nominal diameter between 100 and 200 mm.

Key Features

- Built to withstand weathering and high temperatures.
- Designed to minimise noise in the environment.
- Automatic delivery closing to prevent air re-entry and the entry of foreign bodies.
- Fully compliant with Reg. ErP 2018 N. 1253/2014.

Technical features

- Steel sheet front covers that have been painted with polyester paint against aggressive weathering. Grille-protected delivery spigots with automatic spring closure device to prevent the entry of foreign bodies.
- Rear flanges in plastic resin with a mineral-based additive to dampen vibrations and soften noise.
- 3-speed fans that can be set using optional device TRIO-CA (code 12869), composed of:
 - AC motors with thermal overload cut-out and shafts turning on ball bearings to guarantee long lasting (at least 40,000 h) continuous service at the maximum plate temperature.
 - Backward-curve, heat resistant plastic resin blade impellers loaded with glass fibre to combine structural strength and dimensional stability.
- Possibility of connecting to remote environmental temperature, humidity, smoke and presence sensors (optional).
- Protection rating from the water: IPX5.
- Insulation Class: II .





TECHNICAL DATA

Models	Code	V _{n50}				Max Airflow		Max Pressure		LP DB(A) 3m	Max °C	KG
			W	A	RPM	m³/h	l/s	mmH ₂ O	Pa			
			min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max		
CA 100 WE D	16091	220-240	12 24 50	0,13 0,18 0,23	925 1515 2390	68 150 252	18,8 41,6 70	18,3 37,4 38,6	180 366,4 379,4	38,3 - 50,1	60	4,5
CA 125 WE D	16092	220-240	12 24 50	0,13 0,18 0,23	880 1400 2350	85 175 328	23,6 48,6 91,1	15,3 34,3 36,7	150,4 336,3 359,5	36,3 - 49,5	60	4,5
CA 150 WE D E	16087	230	38 100	0,36 0,44 0,44	1015 1455 2520	215 335 625	59,7 93 173,1	27,2 42,1 45,5	267,1 413,6 446,6	23,1 - 42,9	55	8
CA 160 WE D E	16088	230	38 57 100	0,36 0,44 0,44	1060 1475 2490	235 362 660	65,2 100,5 183,3	30,1 43,4 45,2	295,7 425,8 443,9	22 - 37,5	55	8
CA 200 WE D E	16089	230	38 53 100	0,36 0,44 0,44	1100 1460 2495	245 353 680	60 90 188,8	24,9 38,9 44,3	244,4 381,7 434,3	20,9 - 39,1	55	8

* Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 9614.

ENERGY DATA FOR REGULATION N° 1254/2014/UE

	UNIT OF MEASURE	CA 100 WE D	CA 125 WE D	CA 150 Q WE D	CA 150 WE D E	CA 160 WE D E	CA 200 WE D E
CODE		16091	16092	16093	16087	16088	16089
Supplier's name or trade mark	-	Vortice	Vortice	Vortice	Vortice	Vortice	Vortice
SFPint	W(m³/s)	NA*	NA*	NA*	NA*	NA*	NA*
Declared typology	-	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**
Type of drive	-	MSD***	MSD***	MSD***	MSD***	MSD***	MSD***
Type of heat recovery system HRS	-	None	None	None	None	None	None
Nominal NRVU flow rate	m³/s	0,06328	0,08097	0,09533	0,17219	0,18325	0,18492
Effective electric power input	kW	0,052	0,053	0,053	0,104	0,105	0,103
Face velocity at design flow rate	m/s	8,05678	6,59821	5,39476	9,74421	9,11411	5,88608
Nominal external pressure (Δps, ext)	Pa	471	314	20	69	20	98
Internal pressure drop of ventilation components (Δps,int)	Pa	-234	-121	144	157	187	107
Internal pressure drop of non-ventilation components (Δps,add)	Pa	0	0	0	0	0	0
Static efficiency of fans used in accordance with Regulation (EU) N. 327/2011	%	28,8	29,5	29,5	37,4	36,1	36,8
Declared maximum internal leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*	NA*
Declared maximum external leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*	NA*
Energy performance or classification of the filters	-	NA*	NA*	NA*	NA*	NA*	NA*
Description of visual filter warning	-	NA*	NA*	NA*	NA*	NA*	NA*
Casing sound power level	LWA[dB(A)]	50	50	50	43	38	39

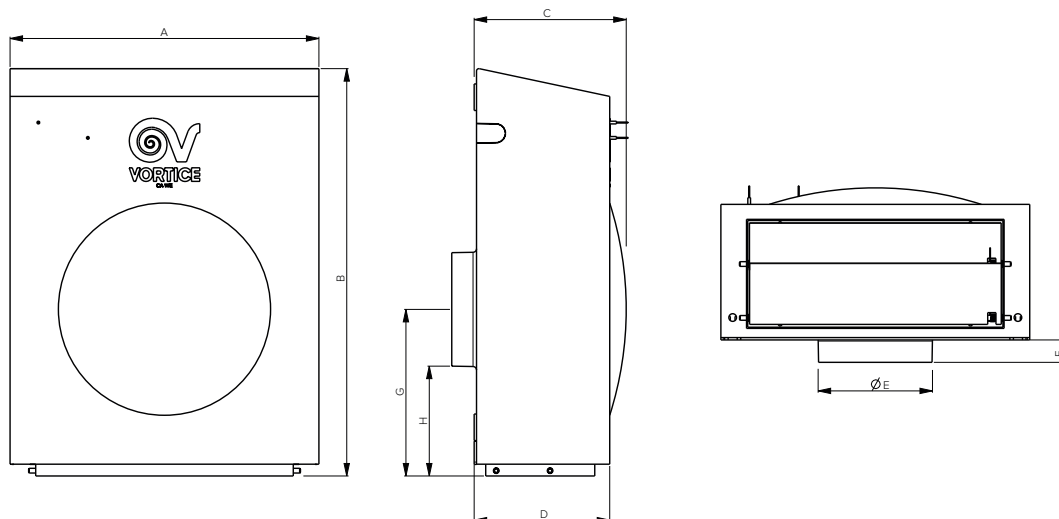
*NA: Not applicable - **RVU-U: Non Residential Ventilation Unit - Unidirectional - ***MSD: Multi-Speed Drive



DUCTED FANS

CA RANGE

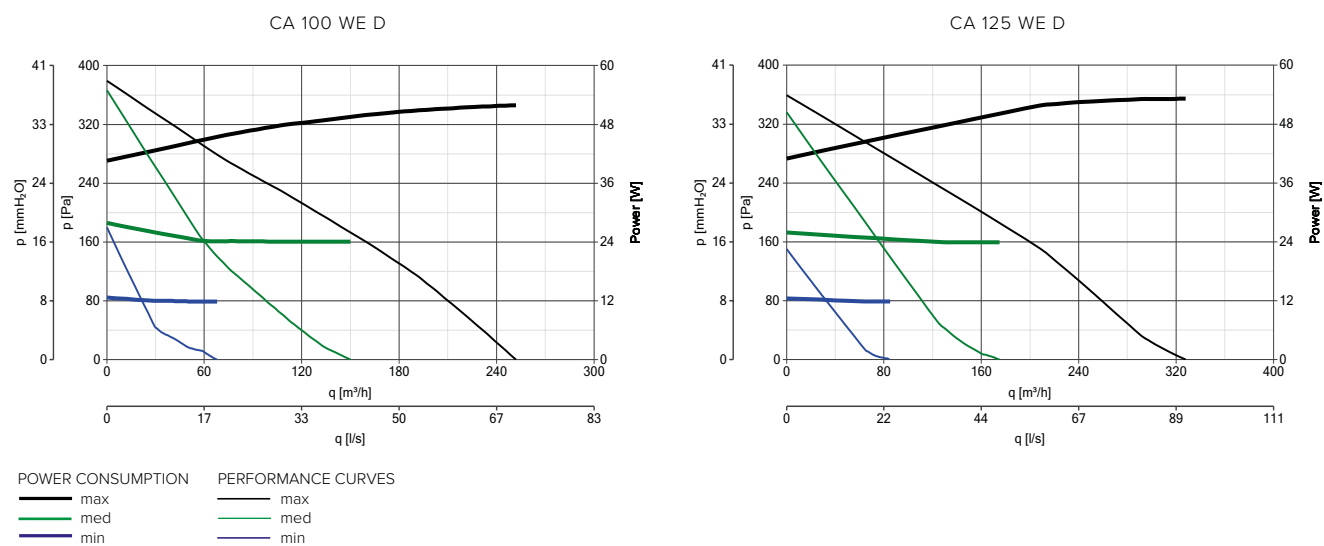
DIMENSIONS



MODELS	A	B	C	D	ØE	F	G	H
CA100 WE D	262	345	127	113	97	20	142	93
CA125 WE D	262	345	127	113	122	20	142	80,5
CA150 WE D E	360	430	173	155	147	20	180	106
CA160 WE D E	360	430	173	155	157	20	180	101
CA200 WE D E	360	430	173	155	157	20	180	81

Dimensions (mm)

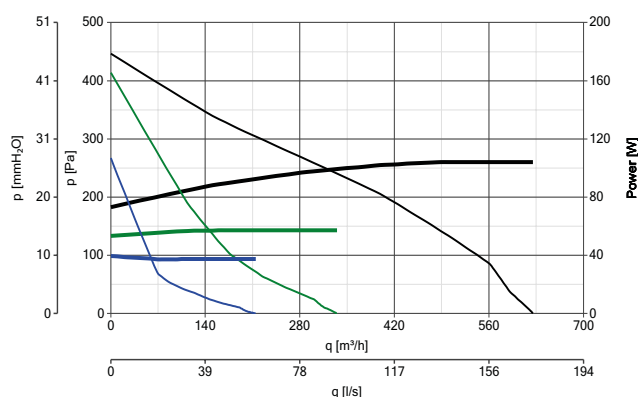
PERFORMANCE CURVES



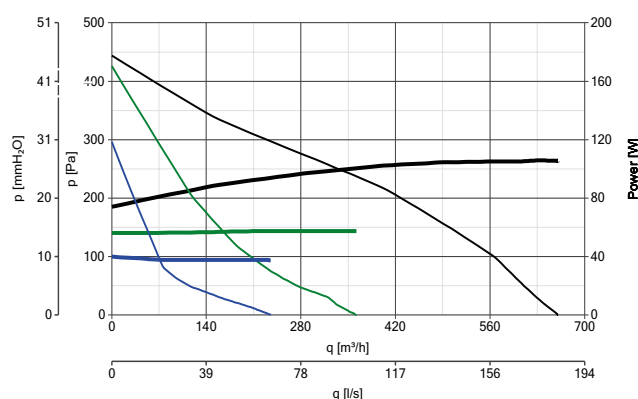


PERFORMANCE CURVES

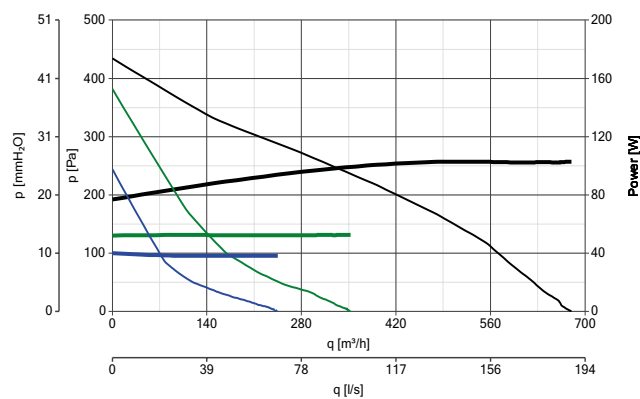
CA 150 WE D E



CA 160 WE D E



CA 200 WE D E



POWER CONSUMPTION
 — max
 — med
 — min

PERFORMANCE CURVES
 — max
 — med
 — min

CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCT
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	ALL PRODUCTS
	C 2.5 - ELECTRONIC SPEED CONTROLLER 2.5 A	12967	ALL PRODUCTS
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12966 - 12967
	TRIO - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE UNI 503 STANDARD ELECTRIC BOXES	12869	ALL PRODUCTS



CA MD E RF RANGE

Centrifugal roof fans

Painted steel sheet mixed flow roof fans. Installed at the end of the ventilation duct, effectively and economically meet the ventilation needs of commercial or industrial premises (laboratories, bars, restaurants, laundries, gyms, etc.) with a roof-mounted exhaust.

Versions

- 9 models, with nominal diameter between 100 and 315 mm.

Key features

- Excellent price-to-performance ratio.
- Built to withstand weathering and high temperatures.
- Extremely reliable and low maintenance.
- Wide continuous operation temperature range.
- Fully compliant with Reg. ErP 2018 N. 1253/2014.

Technical features

- Pickled, phosphate-coated steel sheet casing and roof fixing plates that have been painted with polyester paint against aggressive weathering.
- Motor-holder built into the boxes housing the mains connection terminals and the flow conditioner fins, constructed in self-extinguishing plastic resin (V0).
- Plastic resin covering that is resistant to weathering and to ageing induced by UV rays ("UV resistant").
- 3-speed fans that can be set using optional device TRIO-CA (code 12869), composed of:
 - AC motors with thermal overload cut-out and shafts turning on ball bearings to guarantee long lasting continuous service (at least 30,000 h) at the maximum plate temperature.
 - Centrifugal impellers with backward curved blades in heat-resistant plastic resin loaded with glass fibres to combine structural strength and dimensional stability.
- Possibility of connecting to remote environmental temperature, humidity, smoke and presence sensors (optional).
- Protection rating from dusts and water: IP44 (appliance ducted in extraction and delivery).
- Insulation Class: II .



TECHNICAL DATA

Models	Code	V _{n50/60}				Max Airflow		Max Pressure		LP DB(A) 3m*	Max °C	KG
			W	A	RPM	m³/h	l/s	mmH ₂ O	Pa			
			min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max	min/med/max		
CA 100 MD E RF	16140	220-240	12 24 50	0,13 0,18 0,23	900 1555 2405	95 167 265	26,3 46 73,6	27,7 39,7 39,7	272,2 389,3 389,3	27,3 - 37,5	50	4,6
CA 125 MD E RF	16141	220-240	12 24 50	0,13 0,18 0,23	915 1538 2405	118 200 312	32,7 55,5 86,6	16,5 34,8 36,3	161,8 340,8 356,1	21,5 - 40,2	50	4,6
CA 150 Q MD E RF	16142	220-240	12 24 50	0,13 0,18 0,23	963 1608 2430	122 207 312	33,8 57,5 86,6	7,2 21,7 31,4	70,7 212,8 307,9	23,8 - 37,5	50	7,5
 CA 150 MD E RF	16183	220-240	33 45 85	0,33 0,37 0,39	1240 1660 2630	230 310 490	63,8 86,1 136,1	31,3 41,2 44	307,6 404,7 432,1	24,6 - 43,8	55	7,5
CA 160 MD E RF	16184	220-240	33 45 88	0,33 0,37 0,39	1300 1740 2655	245 325 500	68 90 138	20,5 32,9 40,5	201 322,6 400	30,4 - 44,8	55	9
 CA 200 MD E RF	16185	220-240	33 45 95	0,33 0,37 0,42	1156 1465 2555	310 395 700	86,1 109,7 194,7	31,9 41,3 44,9	313,4 405,5 440,6	23 - 31,7	55	9,6
 CA 250 MD E RF	16186	220-240	48 80 130	0,47 0,57 0,57	1195 1752 2665	385 570 850	106,9 158,3 236,1	39,1 53,2 56,3	384,1 521,5 552,2	28,6 - 43,8	50	10
CA 315 MD E RF	16187	220-240	48 80 130	0,48 0,57 0,57	1186 1755 2590	370 565 865	102,7 156,9 240,2	37,6 55,2 58,5	368,9 542,1 573,7	32,8 - 40,7	50	12
CA 315 MD SE RF	16098	220-240	190	0,84	2800	1220	339	69	673	55	45	6,6

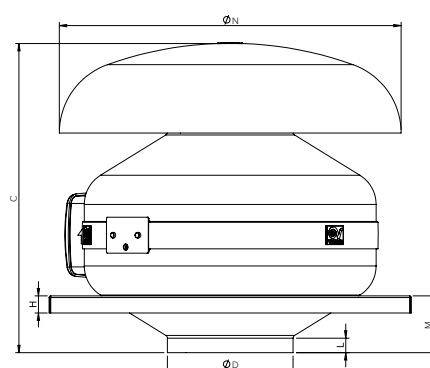
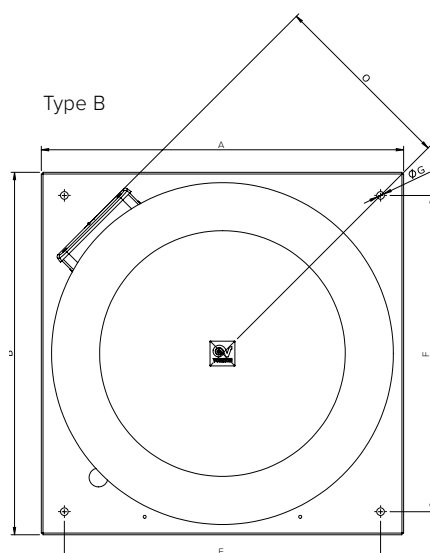
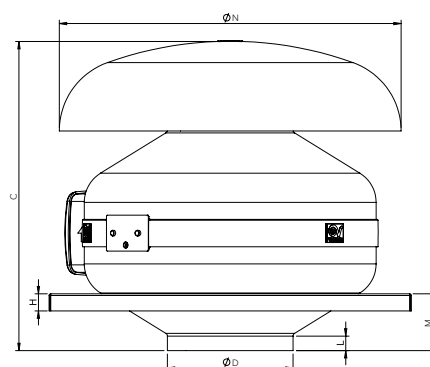
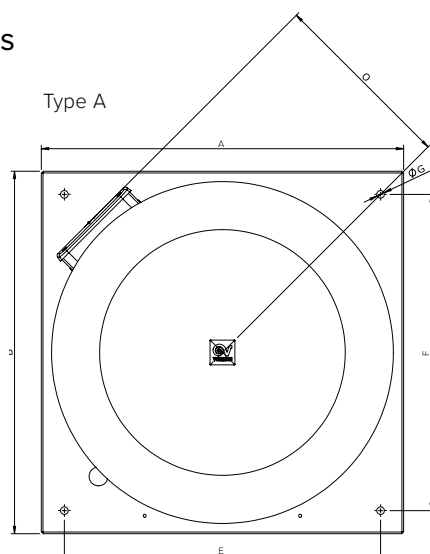
* Sound pressure level measured at 3 m in free field conditions with long-cased appliance in delivery mode in accordance with standard EN ISO 9614.

ENERGY DATA FOR REGULATION N° 1254/2014/UE

	UNIT OF MEASURE	CA 100 MD E RF	CA 125 MD E RF	CA 150 Q MD E RF	CA 150 MD E RF	CA 315 MD SE RF
CODE		16140	16141	16142	16183	16098
Supplier's name or trade mark	-	Vortice	Vortice	Vortice	Vortice	Vortice
SFPint	W(m³/s)	NA*	NA*	NA*	NA*	NA*
Declared typology	-	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**	NRVU-U**
Type of drive	-	MSD***	MSD***	MSD***	MSD***	MSD***
Type of heat recovery system HRS	-	None	None	None	None	None
Nominal NRVU flow rate	m³/s	0,06967	0,08597	0,08589	0,13508	0,321
Effective electric power input	kW	0,051	0,051	0,050	0,089	0,236
Face velocity at design flow rate	m/s	8,87024	7,00565	4,86032	7,64415	4,348
Nominal external pressure (Δps, ext)	Pa	108	29	29	69	59
Internal pressure drop of ventilation components (Δps,int)	Pa	110	154	154	213	256
Internal pressure drop of non-ventilation components (Δps,add)	Pa	0	0	0	0	0
Static efficiency of fans used in accordance with Regulation (EU) N. 327/2011	%	29,8	30,8	31,4	42,8	43
Declared maximum internal leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*
Declared maximum external leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	0,5
Energy performance or classification of the filters	-	NA*	NA*	NA*	NA*	NA*
Description of visual filter warning	-	NA*	NA*	NA*	NA*	NA*
Casing sound power level	LWA[dB(A)]	38	40	38	44	73

*NA: Not applicable - **RVU-U: Non Residential Ventilation Unit - Unidirectional - ***MSD: Multi-Speed Drive

DIMENSIONS



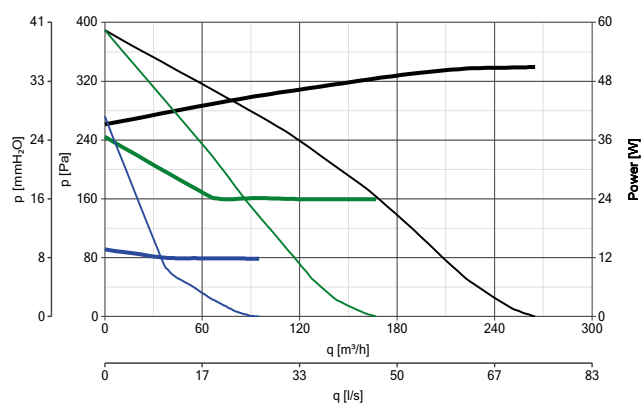
MODELS	TYPE	A	B	C	ØD	E	F	ØG	H	L	M	ØN	O
CA 100 MD E RF	B	334	334	305	97	280	280	9	20	15	35	300	198
CA 125 MD E W	B	334	334	305	122	280	280	9	20	23	35	300	198
CA 150 Q MD E RF	B	334	334	305	147	280	280	9	20	30	35	300	198
CA 150 MD E RF	A	424	424	365	147	370	370	9	20	17	47	400	220
CA 160 MD E RF	B	424	424	365	157	370	370	9	20	18	47	400	250
CA 200 MD E RF	B	424	424	365	197	370	370	9	20	20	49	400	250
CA 250 MD E RF	A	489	489	367	247	435	435	9	20	38	41	400	220
CA 315 MD E RF	A	489	489	415	312	435	435	9	20	36	65	534	250
CA 315 MD SE RF	A	489	489	423	312	435	435	9	20	42	74	534	260

Dimensions (mm)

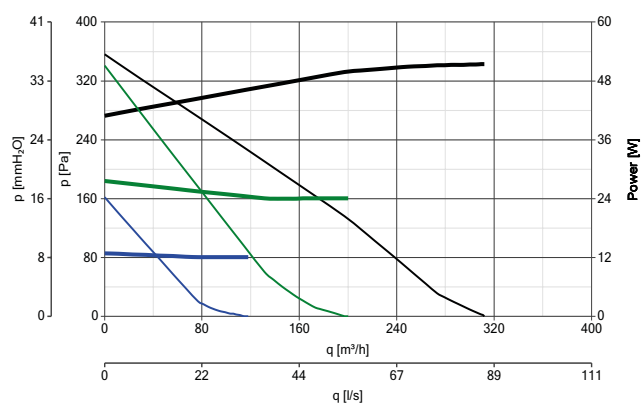


PERFORMANCE CURVES

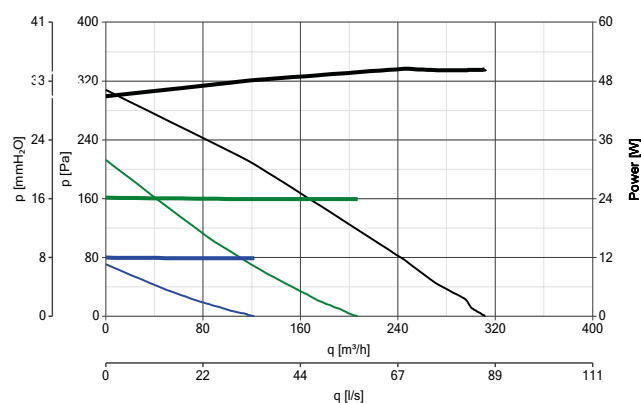
CA 100 MD E RF



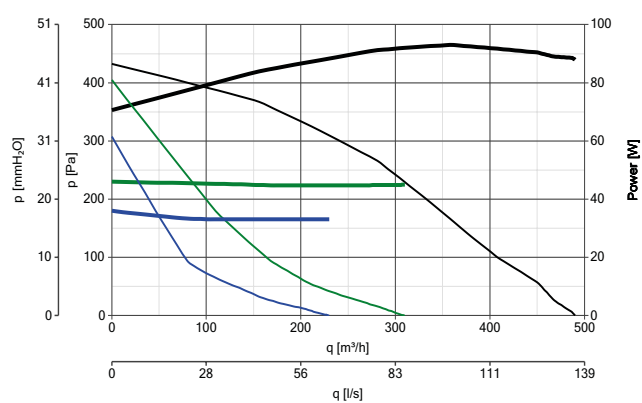
CA 125 MD E RF



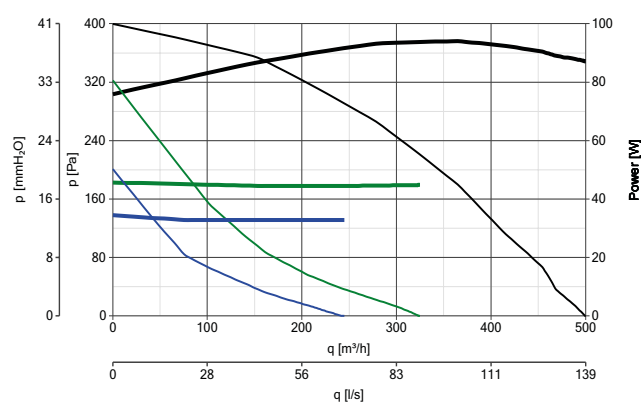
CA 150 Q MD E RF



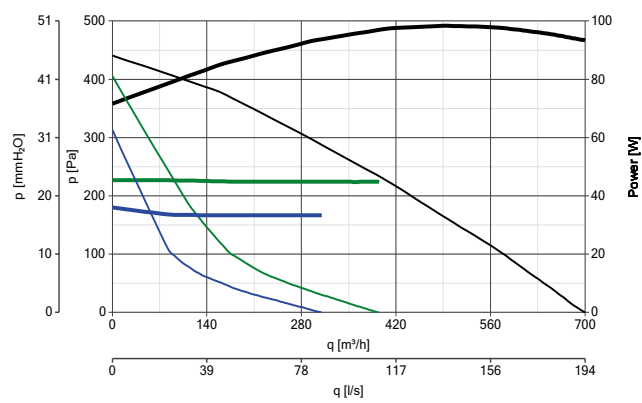
CA 150 MD E RF



CA 160 MD E RF



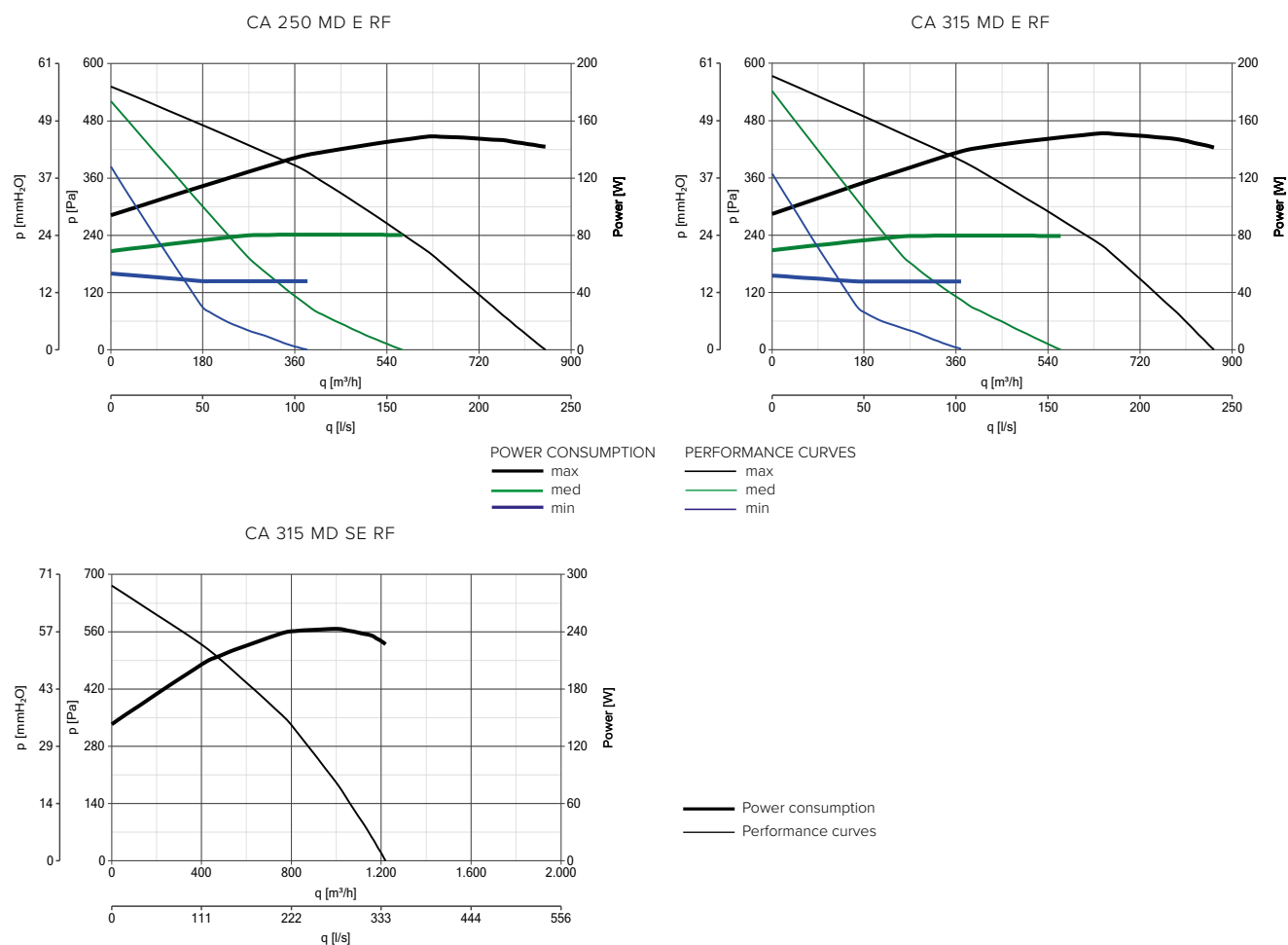
CA 200 MD E RF



POWER CONSUMPTION
 max
 med
 min

PERFORMANCE CURVES
 max
 med
 min

PERFORMANCE CURVES





CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCT
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	ALL PRODUCTS
	C 2.5 - ELECTRONIC SPEED CONTROLLER 2.5 A	12967	ALL PRODUCTS
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12966 - 12967
	TRIO - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE UNI 503 STANDARD ELECTRIC BOXES	12869	16140 - 16141 - 16142 - 16183 - 16184 16185 - 16186 - 16187
	IRM5 2B - 5-POSITION SPEED CONTROLLER OF THE AUTOTRANSFORMER TYPE, DESIGNED TO CONTROL SINGLE-PHASE ASYNCHRONOUS MOTORS.	12861	16098

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT
	CA-G - PROTECTION GRILLE	100	22750
		125	22755
		150	22760
		160	22762
		200	22765
		250	22770
		315	22775
	CARF-C 125 - SUB-FRAME	22543	16140 - 16141
	CARF-C 150/160/200 - SUB-FRAME	22544	16142 - 16183 - 16184 - 16185
	CARF-C 250/315 - SUB-FRAME	22545	16186 - 16187 - 16098



DUCTED FANS

CA RANGE

CA IN LINE QUIET ES

Centrifugal in-line fans with EC motor

Suitable for indoor wall-mounted applications at the end of ventilation ducts in residential and industrial environments as factories, hospitals, gyms, restaurants, etc...

Technical features

- Casings made of galvanized steel sheet, robust and resistant to corrosion, highly (IP44) protected against dust and water when ducted; improved inner sound proof lining, consisting of 50 mm thick melamine coating, to dramatically reduce noise emissions into adjacent rooms.
- Fixing brackets, made of galvanized steel sheet, integrated in the casings to speed up installation.
- Circular spigots for connection to standard commercial hoses, fitted with a double lip rubber gasket for perfect air tightness.
- Highly efficient backward curved centrifugal impellers directly coupled with energy saving, speed controllable (0-10 V signal) single-phase, EC (brushless), protected against overheating, external rotor motors. Ball bearings to grant long lasting (at least 40.000 h) continuous duty at the maximum rated temperature. Speed setting through Vortice potentiometers (optional).
- Electrical connection boxes, made of plastic resin shock proof and resistant to aggressive agents, with a very high (IP55) protection against dust and water.
- Protection against dust and water: IP44 (when ducted)
- Electric insulation class: I (grounding mandatory).

TECHNICAL DATA

Models	Code	V 50/60Hz	W*	A	Max airflow*		Max pressure*		Max* °C	Kg
					m³/h max	l/s max	mmH ₂ O max	Pa max		
CA-IL 100 QUIET ES	16270	220/240	85	0,73	310	86,1	71,4	700	40	5,6
CA-IL 125 QUIET ES	16271	220/240	85	0,74	380	105,5	72,4	710	40	5,6
CA-IL 150 QUIET ES	16274	220/240	85	0,73	450	125	63,2	620	40	6
CA-IL 160 QUIET ES	16275	220/240	85	0,74	480	133,3	61,1	600	40	6
CA-IL 200 QUIET ES	16276	220/240	110	0,91	850	236,1	56	550	40	6,2

* Values referred to 230V/50Hz





ENERGY DATA FOR REGULATION N° 1254/2014/UE

	UNIT OF MEASURE	CA-IL 100 QUIET ES	CA-IL 125 QUIET ES	CA-IL 150 QUIET ES	CA-IL 160 QUIET ES	CA-IL 200 QUIET ES
CODE		16270	16271	16274	16275	16276
Supplier's name or trade mark	-	Vortice	Vortice	Vortice	Vortice	Vortice
SFPint	W(m³/s)	1002,42	770,82	644,12	585,45	413,18
Declared typology	-	NRVU-U**	NRVU-U**	NRVU-U**	NR-VU-U**	NR-VU-U**
Type of drive	-	MSD***	MSD***	MSD***	MSD***	MSD***
Type of heat recovery system HRS	-	None	None	None	None	None
Nominal NRVU flow rate	m³/s	0,0794	0,0883	0,1150	0,1197	0,2208
Effective electric power input	kW	0,085	0,085	0,085	0,085	0,109
Face velocity at design flow rate	m/s	10,115	7,1980	6,5076	5,9545	413,18
Nominal external pressure (Δps, ext)	Pa	26	78	41	52	36
Internal pressure drop of ventilation components (Δps,int)	Pa	386	314	278	262	185
Internal pressure drop of non-ventilation components (Δps,add)	Pa	0	0	0	0	
Static efficiency of fans used in accordance with Regulation (EU) N. 327/2011	%	38,5	40,7	43,2	44,8	44,8
Declared maximum internal leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*
Declared maximum external leakage rate of the casing of ventilation units	%	NA*	NA*	NA*	NA*	NA*
Energy performance or classification of the filters	-	NA*	NA*	NA*	NA*	NA*
Description of visual filter warning	-	NA*	NA*	NA*	NA*	NA*
Casing sound power level	LWA[dB(A)]	59	59	56	56	58

*NA: Not applicable - **RVU-U: Non Residential Ventilation Unit - Unidirectional - ***MSD: Multi-Speed Drive

SOUNDS LEVELS

Models	Breakout sound power LwA dB(A)			Sound pressure Lp _{3m} * dB(A)			Sound power on extract dB(A)			Sound power on supply dB(A)		
	Max Speed	Mid Speed	Min Speed	Max Speed	Mid Speed	Min Speed	Max Speed	Mid Speed	Min Speed	Max Speed	Mid Speed	Min Speed
CA-IL 100 QUIET ES	60	47	36	39,5	26,5	15,5	61	52	42	72	63	53
CA-IL 125 QUIET ES	59	47	37	38,5	26,5	16,5	62	51	41	71	61	52
CA-IL-150 QUIET ES	56	47	41	35,5	26,5	20,5	60	53	47	71	64	57
CA-IL 160 QUIET ES	56	47	41	35,5	26,5	20,5	58	48	40	68	60	51
CA-IL 200 QUIET ES	58	53	43	37,5	32,5	22,5	63	55	46	74	67	56

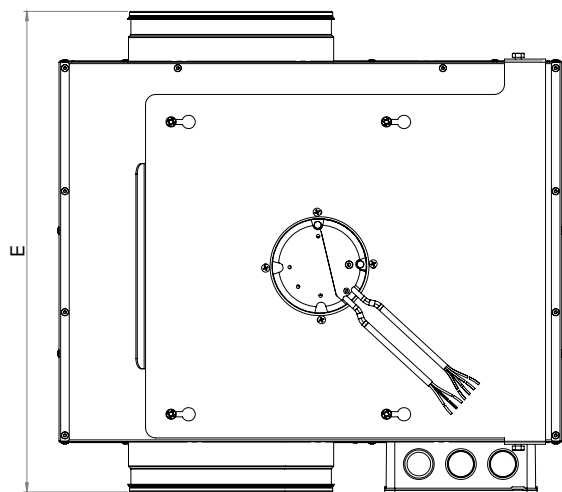
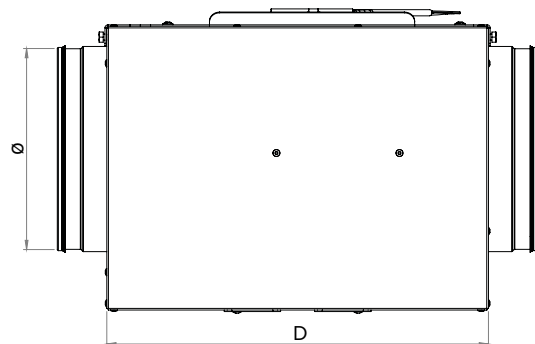
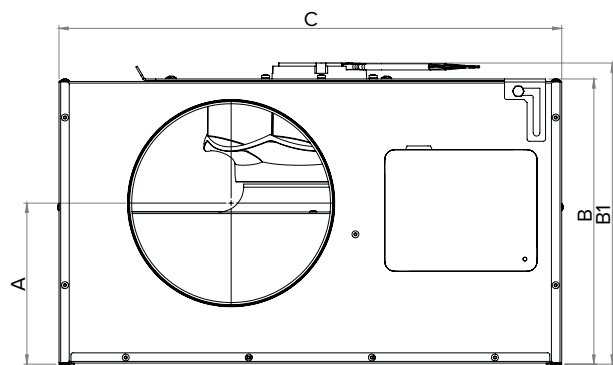
*Calculated in free field conditions at 3 m distance in accordance with EN ISO 374 standard.



DUCTED FANS

CA RANGE

DIMENSIONS

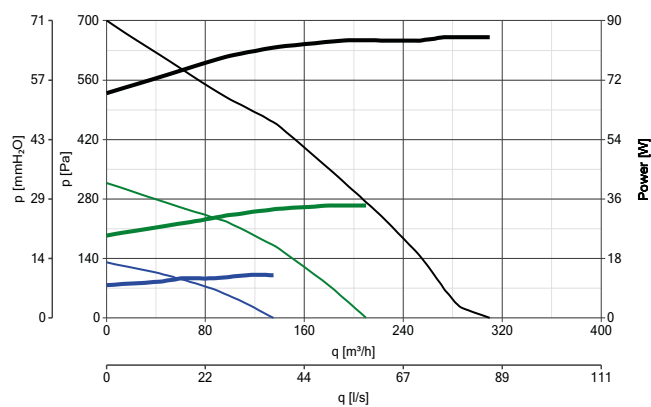


Models	A	B	B1	C	D	E	Ø
CA-IL 100 QUIET ES	134	203	203	427	307	411,5	100
CA-IL 125 QUIET ES	120,5	203	203	427	307	411,5	125
CA-IL 150 QUIET ES	143	238	203	442	307	412	150
CA-IL 160 QUIET ES	138	238	203	490	362	467	160
CA-IL 200 QUIET ES	163	277	288,5	490	372	468,5	200

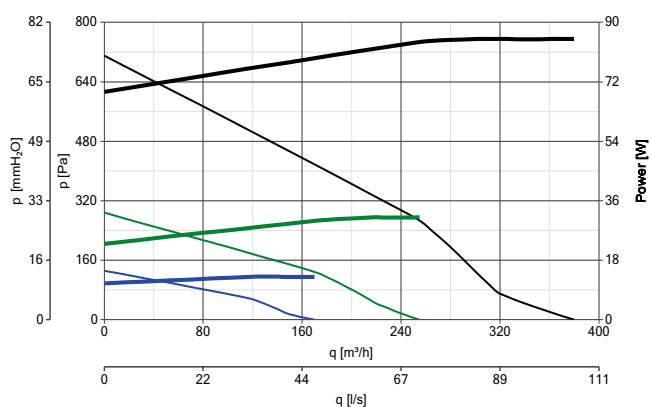
Dimensions (mm)

PERFORMANCE CURVES

CA-IL 100 QUIET ES



CA-IL 125 QUIET ES



POWER CONSUMPTION
 — max
 — med
 — min

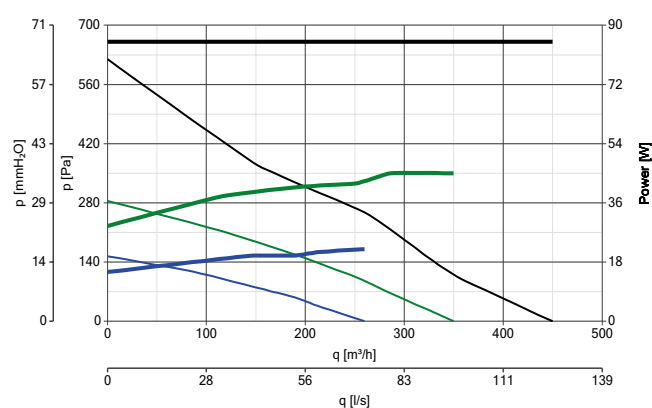
PERFORMANCE CURVES
 — max
 — med
 — min



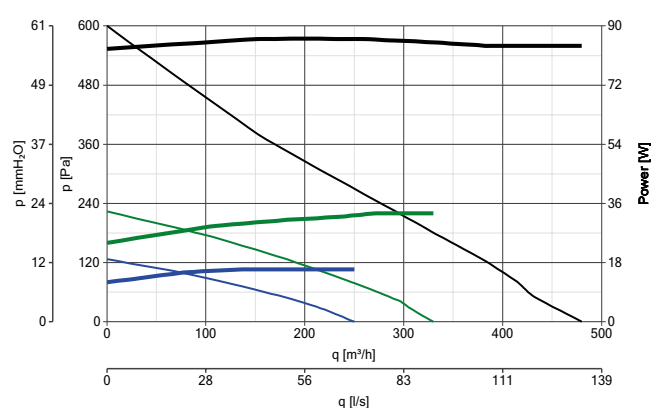


PERFORMANCE CURVES

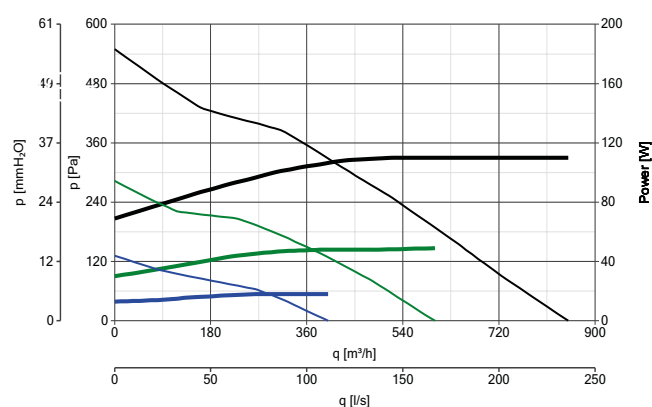
CA-IL 150 QUIET ES



CA-IL 160 QUIET ES



CA-IL 200 QUIET ES



POWER CONSUMPTION
 — max
 — med
 — min

PERFORMANCE CURVES
 — max
 — med
 — min



DUCTED FANS

CA RANGE

CONTROLLERS

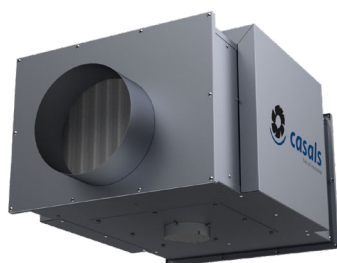
MODELS	DESCRIPTION	CODE	PRODUCT
	C 1.5 - ELECTRONIC SPEED CONTROLLER 1.5 A	12966	ALL PRODUCTS
	KIT SCB - BUILT-IN CONTROLLER ADAPTOR	22481	12966
	POT-IT - POTENTIOMETER	12826	ALL PRODUCTS
	POT - POTENTIOMETER	12828	ALL PRODUCTS
	TRIO - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE UNI 503 STANDARD ELECTRIC BOXES	21196	ALL PRODUCTS
	TRIO D - 3 SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE DIN STANDARD ELECTRIC BOXES	12866	ALL PRODUCTS
	IREM D - ELECTRONIC STEPLESS SPEED SWITCH FOR WALL AND FLUSH MOUNTING INSIDE DIN STANDARD ELECTRIC BOX	12867	ALL PRODUCTS

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCT
	GR - PROTECTIVE METAL GRIDS (TO BE ASSEMBLED ON THE PRODUCT)	100	21177
		125	21178
		150	21179
		160	21180
		200	21181
	FS - FLEXIBLE SLEEVES WITH CLAMPS FOR HOSE FASTENING	100	21182
		125	21183
		150	21184
		160	21185
		200	21186
	TRA 250 - OUTLET PORT PROTECTION GRILLES - FITTED TO THE APPLIANCE INTAKE TO PREVENT ACCIDENTAL CONTACT WITH MOVING PARTS IF THE APPLIANCE IS INSTALLED IN AN ACCESSIBLE POSITION	51150	16275 - 16276
	PGR 250 - PLASTIC MADE GRAVITY SHUTTERS	50150	16275 - 16276

SBC-3 PLUS EEC

Centrifugal in-line fan in low profile box with external EC motor



Key features

- Inline ventilation box made of galvanised steel with circular connection flanges.
- Self-cleaning impeller with back curved (reaction) blades of high performance and single inlet, direct drive. Dynamically balanced to minimise noise and vibration. Polyamide reinforced impeller for models 125, 150 and 160.
- High-efficiency (IE4 for three phase motors and IE5 for single motors), low noise external rotor EC motor. Speed control through a 0-10V or PWM signal.
- Single-phase 230V 50/ 60Hz power supply for models with circular inlet from Ø125 to Ø355, and for models with rectangular inlet from 3015 to 6040 Three-phase power supply 400V 50/60Hz for circular inlet models from Ø400 to Ø560, and for models with rectangular inlet from 7050 to 8060mm. IP44 motor and class B insulation.
- Supplied with a filtration stage ISO COARSE≥60% (G4) or 2 stages ISO COARSE≥60% (G4) and ISO ePM1≥50% (F7).
- Easily accessible inspection and cleaning register.
- **Filters not located in unit - to be ordered separately.**



Applications

- Designed for installation in ducts, they are indicated for:
 - Air renovations in bathrooms and small rooms.
 - Perfect for false ceiling mounting.
 - Working temperature range from -20°C to 60°C.

ACCESSORIES

INT



Safety switch

REGC



Speed controller for EEC motors

TEJ SB-3 EEC



Weather protective roof for SBC-3 EEC & VARIANTS

CFF



Filter cells with FiberPlast frame.

CFGF



Cell filter with galvanised frame. To be ordered as an accessory

CHEF



High efficiency, rigid and compact filters. To be ordered as an accessory

PMR



Speed controller with safety switch for EEC engine



DUCTED FANS

SBC-3 PLUS EEC RANGE

TECHNICAL DATA

SINGLE PHASE DATA - FAN ONLY

Model	Fan Code	R.P.M.	Rated I (A) 230V	Rated Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 125 EEC	1111904	3950	0,25	0,06	340	43	9	1
SBC-3 PLUS 150 EEC	1111905	3570	0,6	0,09	550	45	13,5	1
SBC-3 PLUS 160 EEC	1112402	3570	0,6	0,09	605	46	13,5	1
SBC-3 PLUS 200 EEC	1112403	2500	1	0,15	1.120	46	20	1
SBC-3 PLUS 250 EEC	1112404	2500	1	0,15	1.410	47	20	1
SBC-3 PLUS 315 EEC	1112405	2500	1	0,15	1.600	48	20	1

THREE PHASE DATA - FAN ONLY

Model	Fan Code	Rated R.P.M.	Rated I (A) 400V	Rated Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 400 EEC	1112408	2100	1,63	0,99	4.150	51	52	3
SBC-3 PLUS 450 EEC	1112409	2100	1,63	0,99	4.500	52	52	3
SBC-3 PLUS 500 EEC	1112411	1450	1,67	1,01	5.840	44	72	3
SBC-3 PLUS 560 EEC	1112413	1450	1,67	1,01	6.062	45	72	3

SINGLE PHASE DATA WITH ISO COARSE≥60% (G4) FILTER



Model	Fan Code	G4 Filter Code	R.P.M.	Rat. I (A) 230V	Rat. Pow. kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 125 EEC	1111904	FILTG04005	3950	0,25	0,06	300	43	10	1
SBC-3 PLUS 150 EEC	1111905	FILTG04006	3570	0,6	0,09	520	45	15,5	1
SBC-3 PLUS 160 EEC	1112402	FILTG04006	3570	0,6	0,09	560	46	15,5	1
SBC-3 PLUS 200 EEC	1112403	FILTG04007	2500	1	0,15	1.050	46	23	1
SBC-3 PLUS 250 EEC	1112404	FILTG04007	2500	1	0,15	1.310	47	23	1
SBC-3 PLUS 315 EEC	1112405	FILTG04007	2500	1	0,15	1.460	48	23	1
SBC-3 PLUS 355 EEC	1112407	FILTG04008	2350	1,7	0,36	2.430	52	34,5	2

THREE PHASE DATA WITH ISO COARSE≥60% (G4) FILTER

Model	Fan Code	G4 Filter Code	Rat. R.P.M.	Rat. I (A) 400V	Ra. Pow. kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 400 EEC	1112408	FILTG04009	2100	1,63	0,99	3.730	51	57	3
SBC-3 PLUS 450 EEC	1112409	FILTG04009	2100	1,63	0,99	4.020	52	57	3
SBC-3 PLUS 500 EEC	1112411	FILTG04010	1450	1,67	1,01	5.220	44	78	3
SBC-3 PLUS 560 EEC	1112413	FILTG04010	1450	1,67	1,01	5.330	45	78	3

SINGLE PHASE WITH (G4) FILTER + (F7) FILTERS



Model	Fan Code	G4 Filter Code	F7 Filter Code	R.P.M.	Rat. I (A) 230V	Rat. Pow. kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 125 EEC	1111904	FILTG04005	FILTF07018	3950	0,25	0,06	265	43	12	1
SBC-3 PLUS 150 EEC	1111905	FILTG04006	FILTF07019	3570	0,6	0,09	470	45	19,5	1
SBC-3 PLUS 160 EEC	1112402	FILTG04006	FILTF07019	3570	0,6	0,09	510	46	19,5	1
SBC-3 PLUS 200 EEC	1112403	FILTG04007	FILTF07020	2500	1	0,15	960	46	29	1
SBC-3 PLUS 250 EEC	1112404	FILTG04007	FILTF07020	2500	1	0,15	1.125	47	29	1
SBC-3 PLUS 315 EEC	1112405	FILTG04007	FILTF07020	2500	1	0,15	1.235	48	29	1
SBC-3 PLUS 355 EEC	1112407	FILTG04008	FILTF07021	2350	1,7	0,36	1.930	52	42,5	2

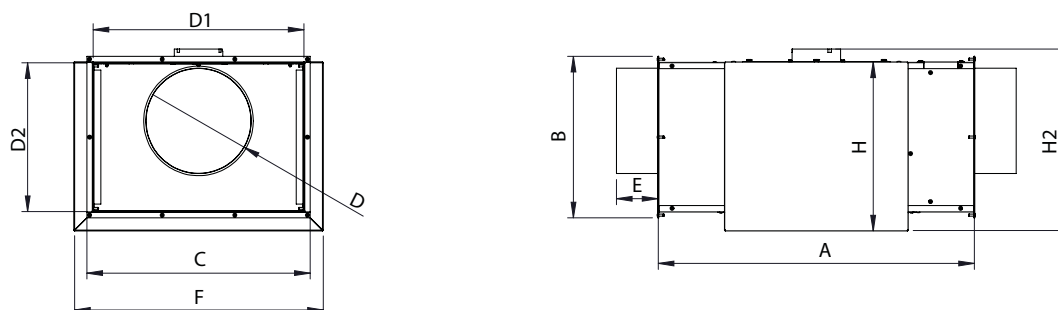
THREE PHASE WITH (G4) PRE FILTER + (F7) FILTERS

Model	Fan Code	G4 Filter Code	F7 Filter Code	Rat. R.P.M.	Rat. I (A) 400V	Rat. Pow. kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connect. diagram
SBC-3 PLUS 400 EEC	1112408	FILTG04009	FILTF07022	2100	1,63	0,99	3.110	51	67	3
SBC-3 PLUS 450 EEC	1112409	FILTG04009	FILTF07022	2100	1,63	0,99	3.360	52	67	3
SBC-3 PLUS 500 EEC	1112411	FILTG04010	FILTF07023	1450	1,67	1,01	4.300	44	90	3
SBC-3 PLUS 560 EEC	1112413	FILTG04010	FILTF07023	1450	1,67	1,01	4.420	45	90	3





DIMENSIONS



MODEL	A	B	C	D	D1	D2	E	F	H	H2
SBC-3 PLUS 125 EEC	520	180	330	125	300	150	98	392	199	225
SBC-3 PLUS 150 EEC	620	230	430	150	400	200	98	492	249	274,5
SBC-3 PLUS 160 EEC	620	230	430	160	400	200	98	492	249	274,5
SBC-3 PLUS 200 EEC	750	383	530	200	500	353	98	592	402	431
SBC-3 PLUS 250 EEC	750	383	530	250	500	353	98	592	402	431
SBC-3 PLUS 315 EEC	750	383	530	315	500	353	98	592	402	431
SBC-3 PLUS 355 EEC	900	430	630	355	600	400	98	693	450	491
SBC-3 PLUS 400 EEC	1050	530	730	400	700	500	98	793	550	605
SBC-3 PLUS 450 EEC	1050	530	730	450	700	500	98	793	550	605
SBC-3 PLUS 500 EEC	1350	631	830	500	800	601	98	893	651	706
SBC-3 PLUS 560 EEC	1350	631	830	560	800	601	98	893	651	706

ISO COARSE $\geq 60\%$ (G4)



Code	Dimensions (mm)	Rat. Air flow m ³ /h	Initial Press. Loss (Pa)
FILTG04005	295x145x24	400	57
FILTG04006	395x198x24	600	57
FILTG04007	495x348x24	1300	57

ISO COARSE $\geq 60\%$ (G4)



Code	Dimensions (mm)	Rat. Air flow m ³ /h	Initial Press. Loss (Pa)
FILTG04008	594x394x48	2250	60
FILTG04009	694x496x48	3300	60
FILTG04010	794x598x48	4550	60

ePM1 $\geq 50\%$ (F7)



Code	Dimensions (mm)	Rat. Air flow m ³ /h	Initial Press. Loss (Pa)
FILTF07018	295x145x24	200	90
FILTF07019	395x198x24	350	90
FILTF07020	495x348x24	700	90
FILTF07021	594x394x48	1700	90
FILTF07022	694x496x48	2500	90
FILTF07023	794x598x48	3460	90



DUCTED FANS

SBC-3 PLUS EEC RANGE

CONNECTION DIAGRAMS

SINGLE PHASE

MAINS SUPPLY TO FAN

Nº	Signal Señal	Colour Color	Specification Especificación
1	L	Brown Marrón	AC 220V-50/60 Hz
2	N	Blue Azul	AC 220V-50/60 Hz
3	Pe	Yellow-Green Amarillo-Verde	

Nº	Signal Señal	Colour Color	Specification Especificación
1	L	Brown Marrón	AC 220V-50/60 Hz
2	N	Blue Azul	AC 220V-50/60 Hz
3	Pe	Yellow-Green Amarillo-Verde	

THREE PHASE

Nº	Signal Señal	Colour Color	Specification Especificación
1	L1	Black Negro	AC 380V-50/60Hz
2	L2	Black Negro	AC 380V-50/60Hz
3	L3	Black Negro	AC 380V-50/60Hz
4	Pe	Yellow-Green Amarillo-Verde	

MAINS SUPPLY TO SPEED CONTROLLER (REGC)

Nº	Signal Señal	Colour Color	Specification Especificación
1	GND	Blue Azul	
2	Vsp	Yellow Amarillo	0-10V/PWM
3	Vcc	Red Rojo	DC 10V
4	FG	White Blanco	1 Pulse/R

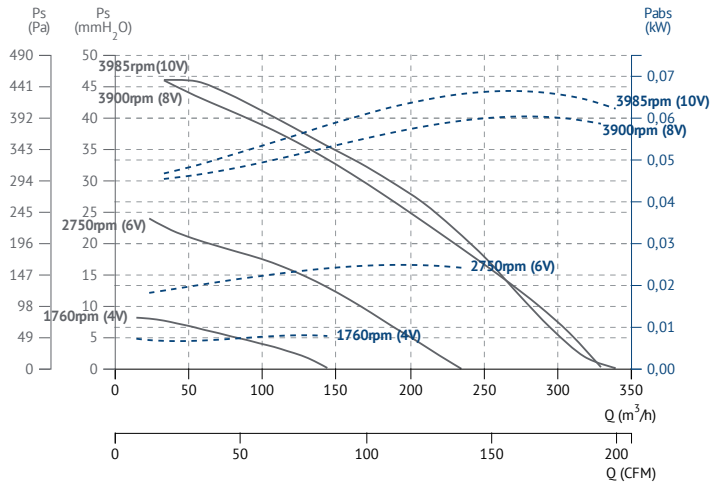
Nº	Signal Señal	Colour Color	Specification Especificación
1	GND	Blue Azul	
2	Vsp	Yellow Amarillo	0-10V/PWM
3	Vcc	Red Rojo	DC 10V
4	FG	White Blanco	12 Pulse/R

Nº	Signal Señal	Colour Color	Specification Especificación
1	Vcc	Red Rojo	DC 10V
2	Vsp	Yellow Amarillo	0-10VDC/PWM
3	GND	Blue Azul	
4	FG	White Blanco	12 Pulse/R

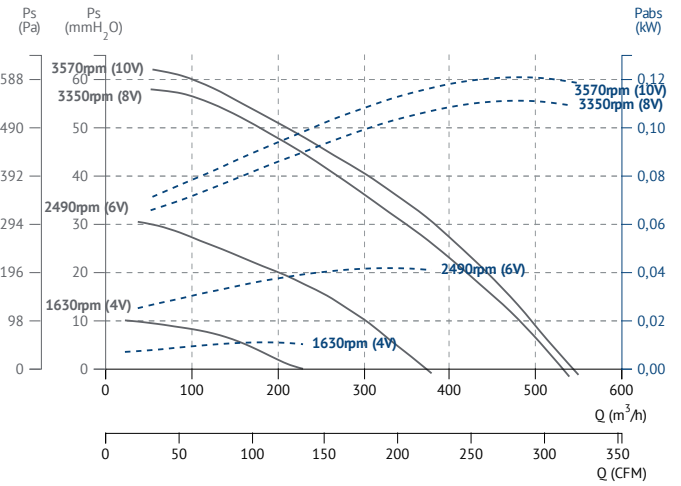


PERFORMANCE CURVES

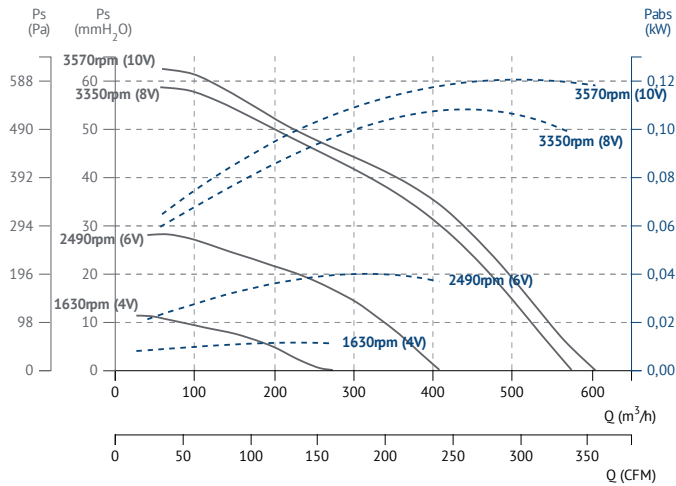
SBC-3 PLUS 125 EEC



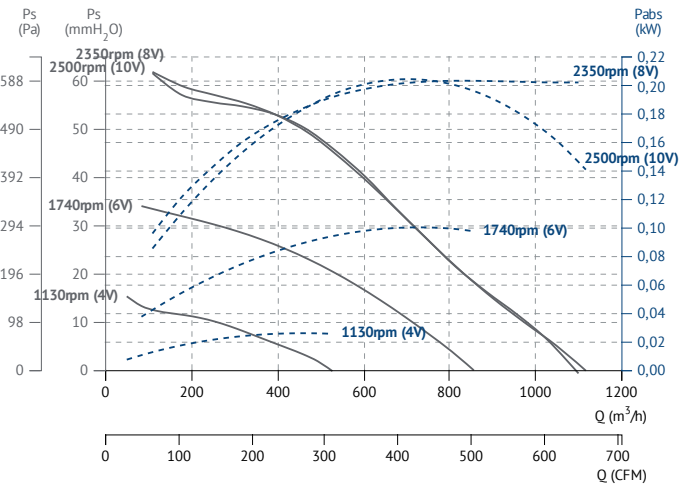
SBC-3 PLUS 150 EEC



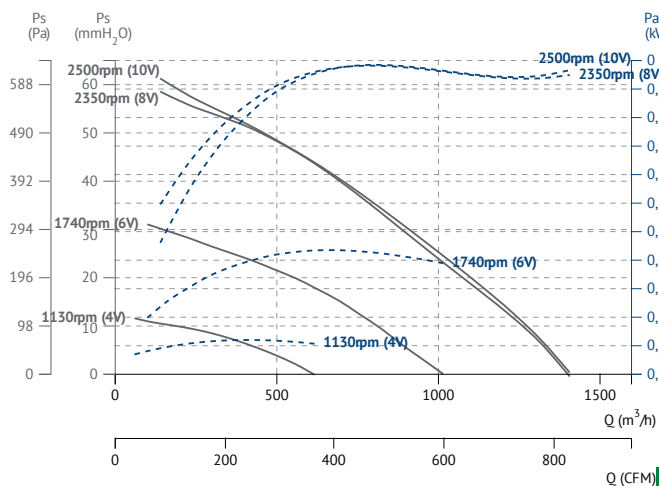
SBC-3 PLUS 160 EEC



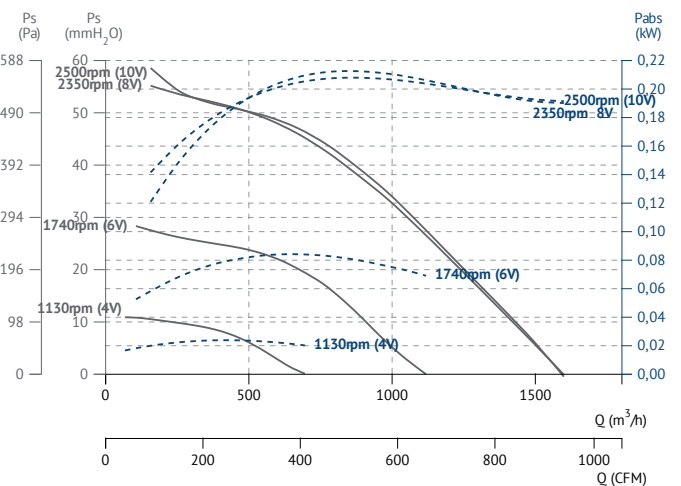
SBC-3 PLUS 200 EEC



SBC-3 PLUS 250 EEC



SBC-3 PLUS 315 EEC

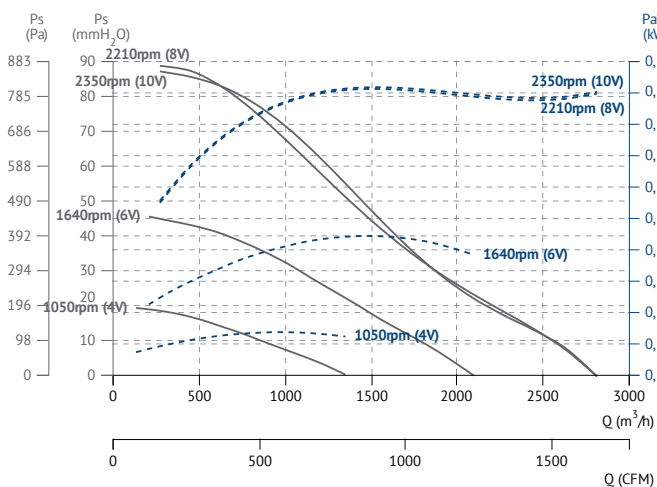




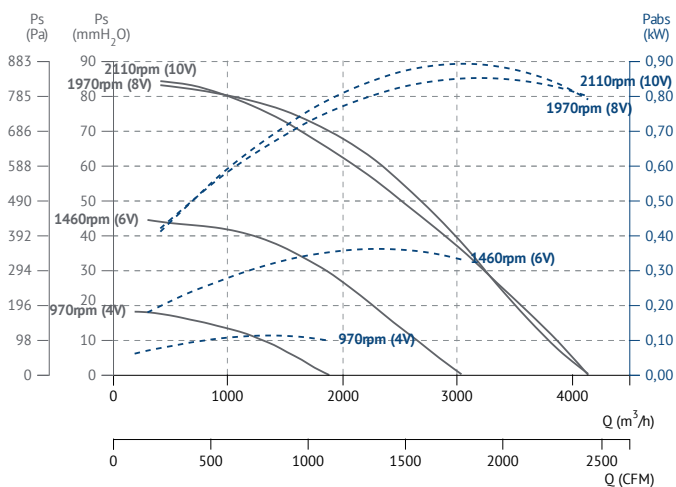
DUCTED FANS

SBC-3 PLUS EEC RANGE

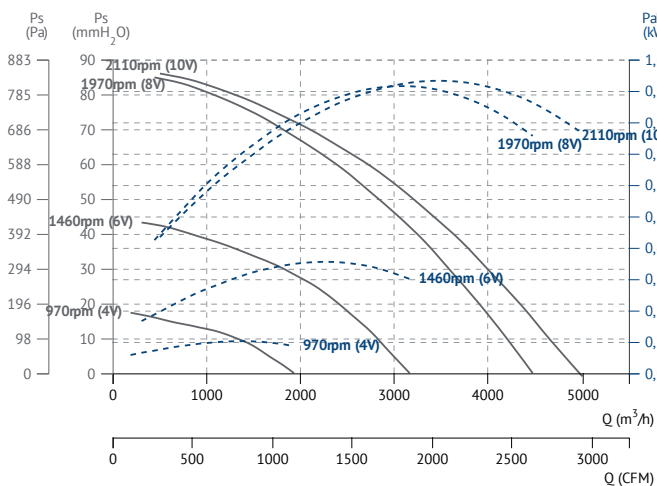
SBC-3 PLUS 355 EEC



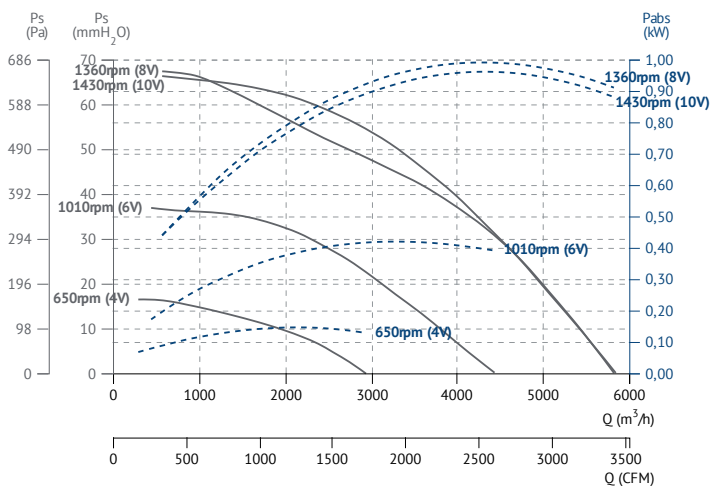
SBC-3 PLUS 400 EEC



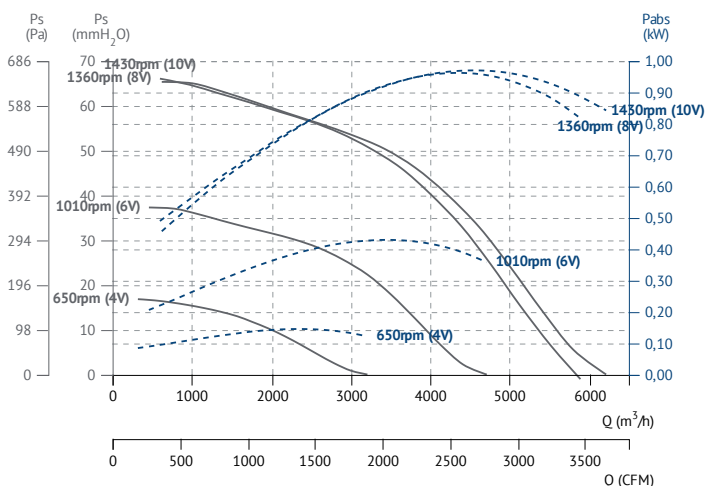
SBC-3 PLUS 450 EEC



SBC-3 PLUS 500 EEC



SBC-3 PLUS 560 EEC



CABINET FANS 



KENTALBOX PLUS RANGE

Acoustic box fans

Key features

- Ventilation box with 30 mm aluminium profile structure, nylon corners, galvanised sandwich panels with internal insulation rockwool (25mm thickness) class A1 (non combustible) of 90 kg/m³ density. All panels are equipped with "fastening system" for the quick assembly and disassembly whenever required, either for cleaning, maintenance or exchanging of panels.
- Centrifugal fan with motor coupled directly to the impeller, plug fan type.
- Circular inlet to facilitate duct connection. Open outlet.
- Models with AC motor inside the air flow. Standard asynchronous squirrel cage motor with IP-55 protection and Class F insulation. Standard voltages of 230V 60Hz for single phase motors, 230/400V 60Hz & 400/690V 60Hz for three-phase 1 speed motors and 400V 60Hz for 2 speed motors.
- Backward curved single inlet impeller of high performance with self cleaning system made of steel. Balanced statically and dynamically at origin.
- Exchangeable panels.



Applications

- Designed for in-line installation, they are suitable for:
 - Air renewal in buildings and industries.
 - Smoke extraction.
 - Maximum working temperature: three phase 60°C.

ACCESSORIES

SFC



Frequency speed controller

INT



Safety switch

BOX FILTER



External box filter

TIC



Outlet blind cover

TBIC



Outlet round cover

TEJ



Kental Weather Proof Roof

AVR



Anti vibration mounts

BA



Anti vibrating flange



Reducer



4 POLE

Code	Model	R.P.M	Rated I (A)		Power kW	Air flow m³/h	Sound dB (A)	Weight kg	Connection diagram
			230V	400V					
249314106	KENTALBOX PLUS 315 T4 0,25kW	1400	1,38	0,79	0,25	2.400	40	37	2
249354106	KENTALBOX PLUS 355 T4 0,25kW	1400	1,38	0,79	0,25	3.230	42	44	2
249404106	KENTALBOX PLUS 400 T4 0,55kW	1440	2,57	1,49	0,55	4.650	45	59	2
249454106	KENTALBOX PLUS 450 T4 1,1kW	1450	4,33	2,49	1,10	7.290	49	80	2
249504106	KENTALBOX PLUS 500 T4 1,5kW	1450	5,67	3,26	1,50	9.665	52	105	2
249564106	KENTALBOX PLUS 560 T4 3kW	1420	10,7	6,17	3,00	13.685	52	122	2
249634106	KENTALBOX PLUS 630 T4 7,5kW	1455	-	14,1	7,50	19.765	57	151	2

KENTALBOX PLUS PACK RANGE

Acoustic box fans



1



2



4



3

Pack contains:

- 1** Kentalbox Plus* (x1 qty)
- 2** Frequency Speed Controller - single or three phase (SFC) (x1 qty)
- 3** Outlet Circular Flange (TBIC) (x1 qty)
- 4** Reducer (RC) (x2 qty)

* Please note diameter of fan spigot is a 1 x size larger than on description

E.g: 560mm diameter fan = Kentalbox Plus 500mm

ITEMS INCLUDED IN PACK

Pack Code	Pack Model Description	Dia of Spigot	Fan Code	Speed Controller Code	Outlet Circular Flange Code	Reducer Code
KB400P1	KENTALBOX PLUS 400 T4 0,55kW Single Phase Pack	450 dia	249404106	SFC230I004*	TBICKBP400 **	RC- 450-400
KB450P1	KENTALBOX PLUS 450 T4 1,1kW Single Phase Pack	500 dia	249454106	SFC230I007*	TBICKBP450 **	RC- 450-400
KB500P1	KENTALBOX PLUS 500 T4 1,5kW Single Phase Pack	560 dia	249504106	SFC230I007*	TBICKBP500 **	RC- 560-500
KB400P3	KENTALBOX PLUS 400 T4 0,55kW Triple Phase Pack	450 dia	249404106	SFC400III2*	TBICKBP400 **	RC- 450-400
KB450P3	KENTALBOX PLUS 450 T4 1,1kW Triple Phase Pack	500 dia	249454106	SFC400III4*	TBICKBP450 **	RC- 500-450
KB500P3	KENTALBOX PLUS 500 T4 1,5kW Triple Phase Pack	560 dia	249504106	SFC400III4*	TBICKBP500 **	RC- 560-500
KB560P3	KENTALBOX PLUS 560 T4 3kW Triple Phase Pack	630 dia	249564106	SFC400III8*	TBICKBP560 **	RC- 630-560

* Single phase FSC (SFC230) entry/input 230V single phase and exit/output 230V three phase

Three phase FSC (SFC400) entry/input 400V three phase and exit/output 400V three phase

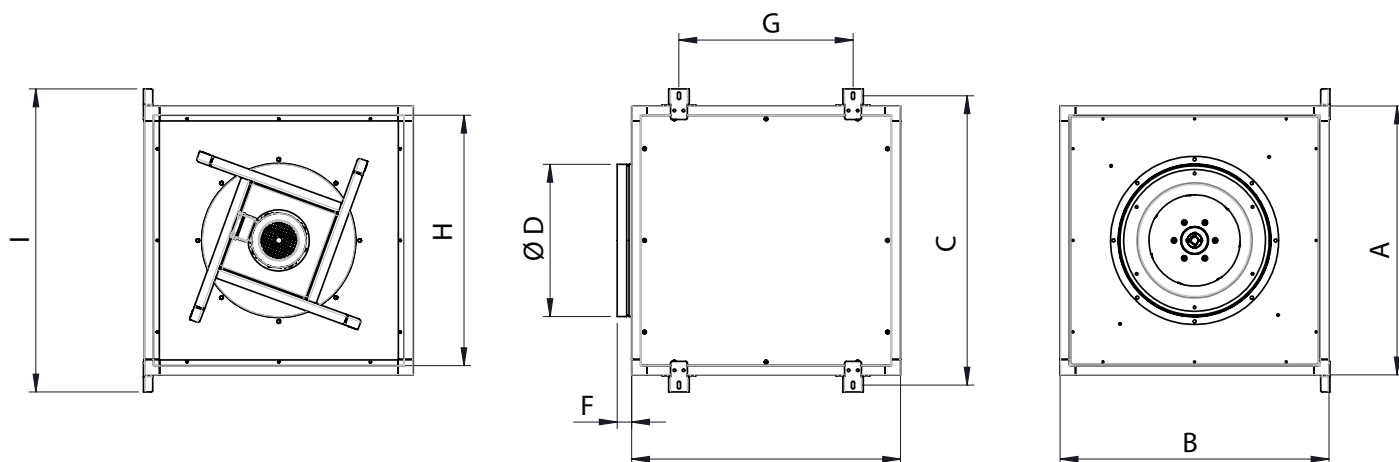
** Please note the Circular Outlet Flange (TBIC) is x 1 size up to match spigot on fan



CABINET FANS

KENTALBOX PLUS RANGE

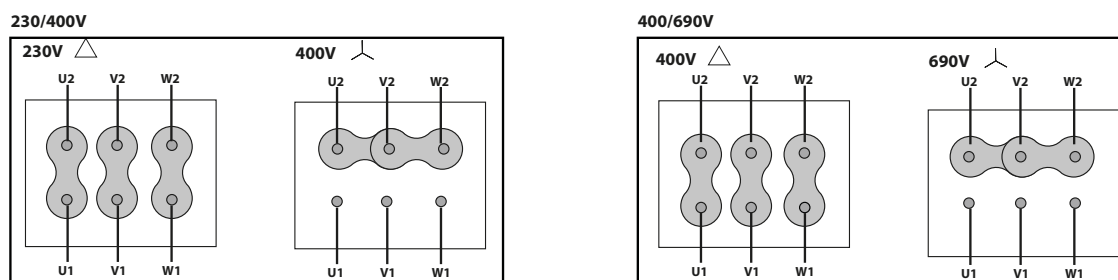
DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I
KENTALBOX PLUS 315	585	585	652	353	585	47	275	525	697
KENTALBOX PLUS 355	650	650	717	398	650	47	340	590	762
KENTALBOX PLUS 400	730	730	797	448	730	47	420	670	842
KENTALBOX PLUS 450	880	880	947	498	880	47	570	820	992
KENTALBOX PLUS 500	940	940	1007	558	940	47	630	880	1052
KENTALBOX PLUS 560	30	1030	1097	628	1030	47	720	970	1142
KENTALBOX PLUS 630	1120	1120	1187	708	1120	47	810	1060	1232

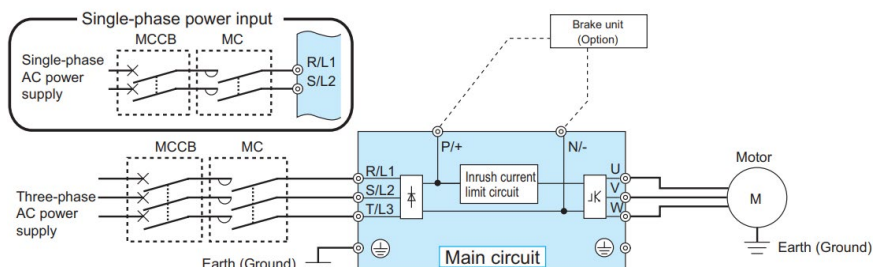
CONNECTION DIAGRAMS

THREE PHASE MOTORS 1 SPEED



FREQUENCY SPEED CONTROLLER

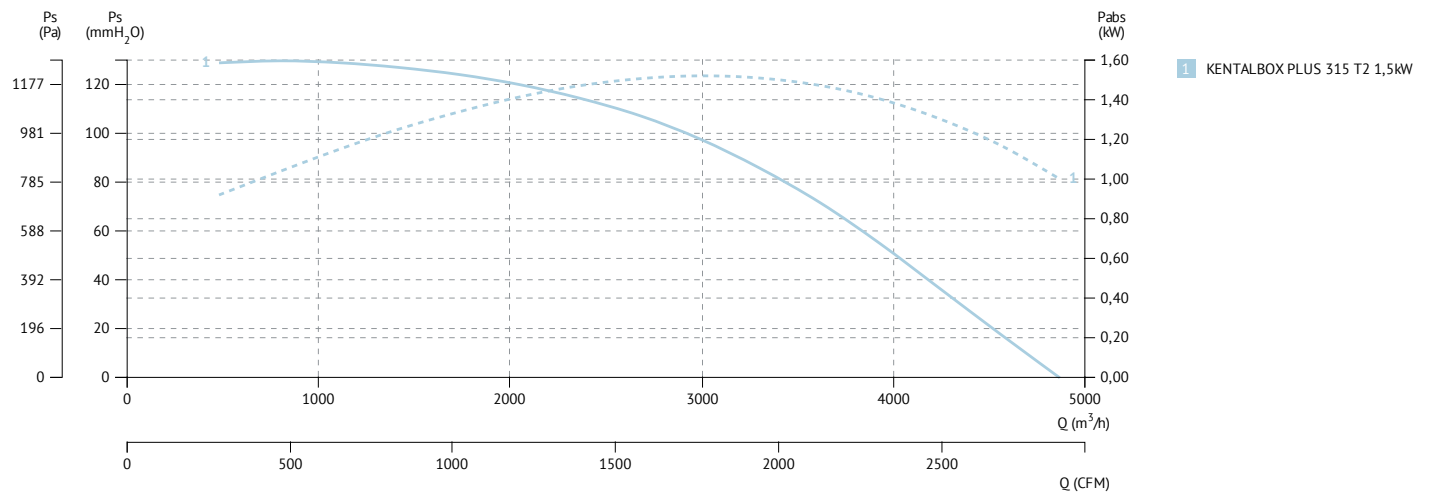
Source logic
 ⊙ Main circuit terminal
 ○ Control circuit terminal



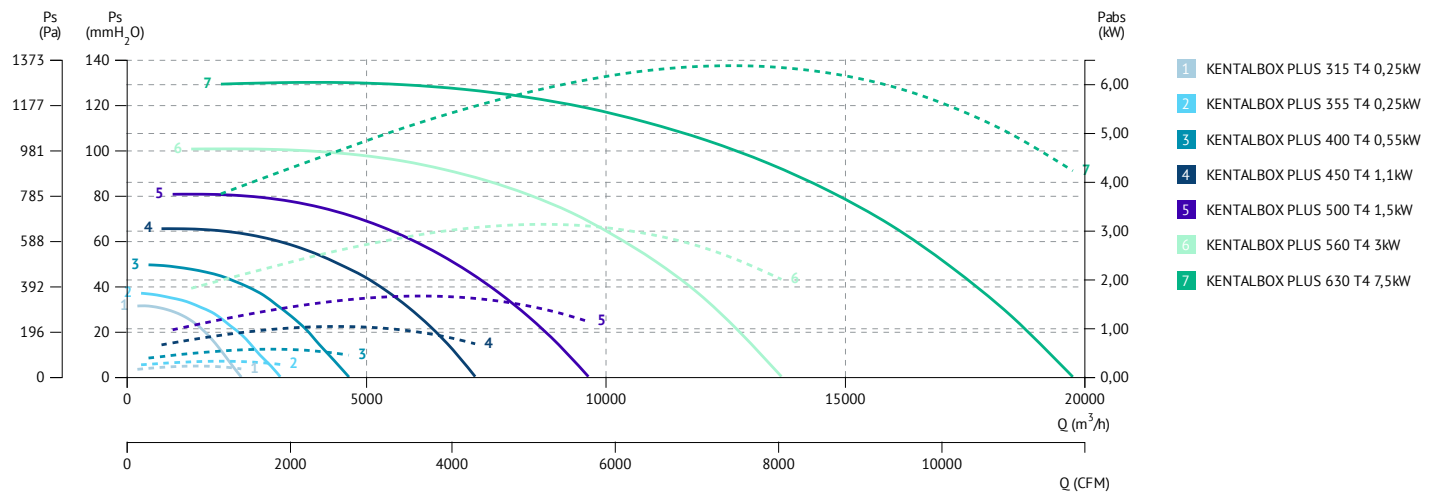


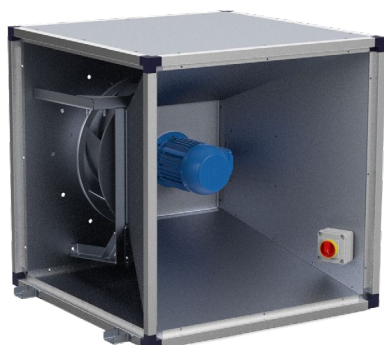
PERFORMANCE CURVES

2 POLE / 2 polos



4 POLE / 4 polos





KENTALCOOK RANGE

High temperature acoustic box fans

Key features

- Watertight ventilation box with very high efficiency and low noise level with 30 mm aluminium profile structure, nylon corners and galvanised steel sandwich panel with internal rock wool insulation 25 mm thick class A1 (non-combustible) and 90 kg/m³ density. All panels have a "fastening system" for easy assembly and disassembly whenever required, whether for cleaning, maintenance or panel exchange.
- Centrifugal fan with motor coupled directly to the coil type plug fan with motor outside the air flow.
- Circular inlet to facilitate the connection of ducts. open outlet.
- Models with AC motor isolated from the air flow, which allows working stably with contaminated flow at temperatures higher than ambient.
- Standard asynchronous squirrel cage motor with IP-55 protection and Class F insulation. Standard voltages.
- 230V 50Hz for single-phase and motors 230/400V and 400/690V50Hz for single speed, 400V three-phase motors 50Hz for the 2 speeds.
- High-performance single-aspiration turbine with backward curved blades (reaction) with self-cleaning system built in steel. Statically and dynamically balanced at origin.
- With stainless steel drainage purge for escape route of the fluid load.
- Built-in safety switch.
- Interchangeable drive panels.
- Registration panel accessible by handle.



Applications

- Designed for 90° entry-exit installation, they are suitable for:
 - Air renewal in buildings and industries.
 - Smoke extraction.
 - Kitchen extraction.
- Designed to deal with environments with oily load.
- Maximum continuous working temperature: three-phase 120°C.

ACCESSORIES

SFC



Speed controller

BOX FILTER



External box filter

TBIC



Outlet round cover

TIC



Outlet blind cover

TEJ



Weather protective roof for Kentalbox Plus

CFF



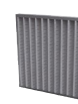
Filter cells with Fiber-Plast frame

CHEF



High efficiency, rigid and compact filters

CFGF



Cell filter with galvanised frame



ACCESSORIES CONTINUED

FAT TRAP

Stainless steel grease box
for restaurant exhaust fan



AVR

Anti vibration mounts



BA

Anti vibrating
flange



Reducer



KENTALCOOK PACK RANGE

High temperature acoustic box fans packed with accessories



Pack contains:

- 1** Kentalcook* (x1 qty)
- 2** Frequency Speed Controller - single or three phase (SFC) (x1 qty)
- 3** Outlet Circular Flange (TBIC) (x1 qty)
- 4** Reducer (RC) (x2 qty)

* Please note diameter of fan spigot is a 1 x size larger than on description

E.g: 560mm diameter fan = Kentalcook 500mm

ITEMS INCLUDED IN PACK

Pack Code	Pack Model Description	Dia of Spigot	Fan Code	Speed Controller Code	Circular Plate Code	Reducer Code
KC315P1	KENTALCOOK 315 T4 0,25kW Single Phase Pack	355 dia	249314106Q	SFC230I003	TBICKBP315	RC-355-315
KC355P1	KENTALCOOK 355 T4 0,25kW Single Phase Pack	400 dia	249354106Q	SFC230I003	TBICKBP355	RC- 400-355
KC400P1	KENTALCOOK 400 T4 0,55kW Single Phase Pack	450 dia	249404106Q	SFC230I004	TBICKBP400	RC- 450-400
KC450P1	KENTALCOOK 450 T4 1,1kW Single Phase Pack	500 dia	249454106Q	SFC230I007	TBICKBP450	RC- 450-400
KC500P1	KENTALCOOK 500 T4 1,5kW Single Phase Pack	560 dia	249504106Q	SFC230I007	TBICKBP500	RC- 560-500
KC315P3	KENTALCOOK 315 T4 0,25kW Triple Phase Pack	355 dia	249314106Q	SFC400III1	TBICKBP315	RC- 355-315
KC355P3	KENTALCOOK 355 T4 0,25kW Triple Phase Pack	400 dia	249354106Q	SFC400III1	TBICKBP355	RC- 400-355
KC400P3	KENTALCOOK 400 T4 0,55kW Triple Phase Pack	450 dia	249404106Q	SFC400III2	TBICKBP400	RC- 450-400
KC450P3	KENTALCOOK 450 T4 1,1kW Triple Phase Pack	500 dia	249454106Q	SFC400III4	TBICKBP450	RC- 500-450
KC500P3	KENTALCOOK 500 T4 1,5kW Triple Phase Pack	560 dia	249504106Q	SFC400III4	TBICKBP500	RC- 560-500
KC560P3	KENTALCOOK 560 T4 3kW Triple Phase Pack	630 dia	249564106Q	SFC400III8	TBICKBP560	RC- 630-560
KC630P3	KENTALCOOK 630 T4 7,5kW Triple Phase Pack	710 dia	249634106Q	SFC400III16	TBICKBP630	RC- 710-630

* Single phase FSC (SFC230) entry/input 230V single phase and exit/output 230V three phase

Three phase FSC (SFC400) entry/input 400V three phase and exit/output 400V three phase

** Please note the Circular Outlet Flange (TBIC) is x 1 size up to match spigot on fan

THREE PHASE RANGE

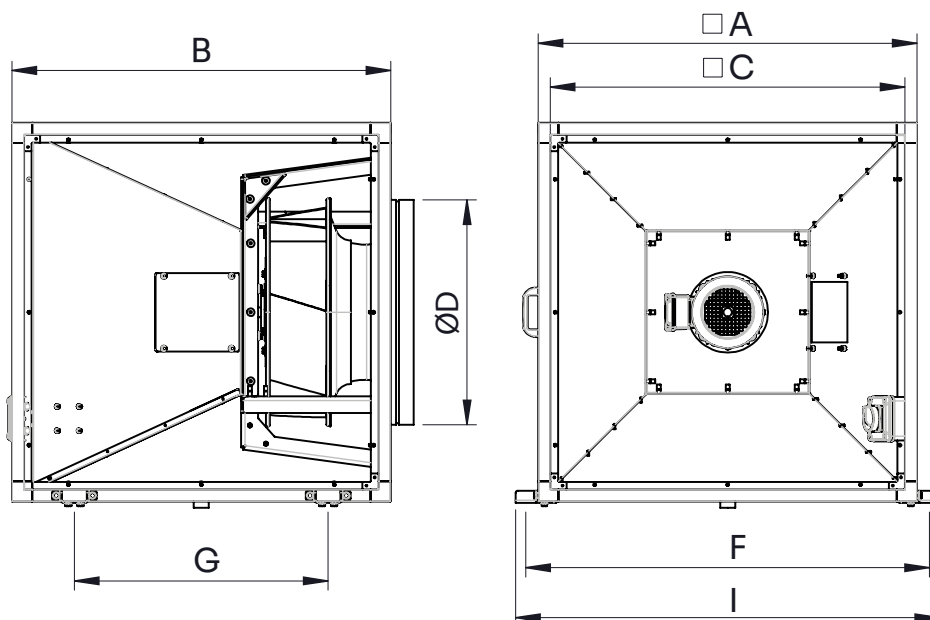
2 POLE

Code	Model	R.P.M	Rated I (A)		Power kW	Air flow m³/h	Weight kg	Connection diagram
			230V	400V				
249312106Q	KENTALCOOK 315 T2 1,5kW	2865	5,83	3,14	1,50	5.160	38	2

4 POLE

Code	Model	R.P.M	Rated I (A)		Power kW	Air flow m³/h	Weight kg	Connection diagram
			230V	400V				
249314106Q	KENTALCOOK 315 T4 0,25kW	1400	1,38	0,79	0,25	2.540	37	2
249354106Q	KENTALCOOK 355 T4 0,25kW	1400	1,38	0,79	0,25	3.540	44	2
249404106Q	KENTALCOOK 400 T4 0,55kW	1440	2,57	1,49	0,55	5.240	59	2
249454106Q	KENTALCOOK 450 T4 1,1kW	1450	4,33	2,49	1,10	7.720	80	2
249504106Q	KENTALCOOK 500 T4 1,5kW	1450	5,67	3,26	1,50	10.230	105	2
249564106Q	KENTALCOOK 560 T4 3kW	1420	10,7	6,17	3,00	14.740	122	2
249634106Q	KENTALCOOK 630 T4 5,5kW	1460	-	10,5	5,50	22.100	151	2

DIMENSIONS



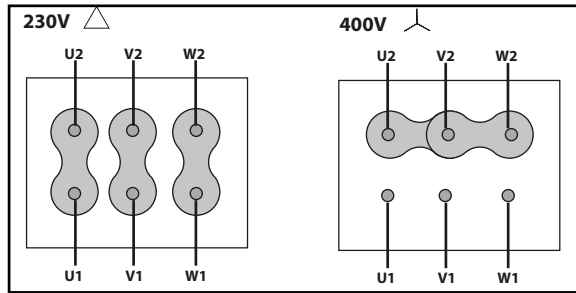
MODEL	A	B	C	D	F	G	I
KENTALCOOK 315	585	585	525	353	647	275	697
KENTALCOOK 355	650	650	590	398	712	340	762
KENTALCOOK 400	730	730	670	448	792	420	842
KENTALCOOK 450	880	880	820	498	942	570	992
KENTALCOOK 500	940	940	880	558	1002	630	1052
KENTALCOOK 560	1030	1030	970	628	1092	720	1142
KENTALCOOK 630	1120	1120	1060	708	1182	810	1232



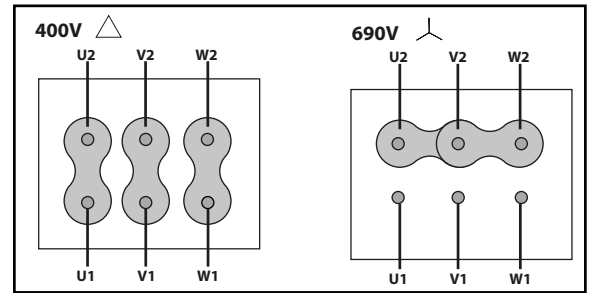
CONNECTION DIAGRAMS

2 THREE PHASE MOTORS 1 SPEED

230/400V



400/690V

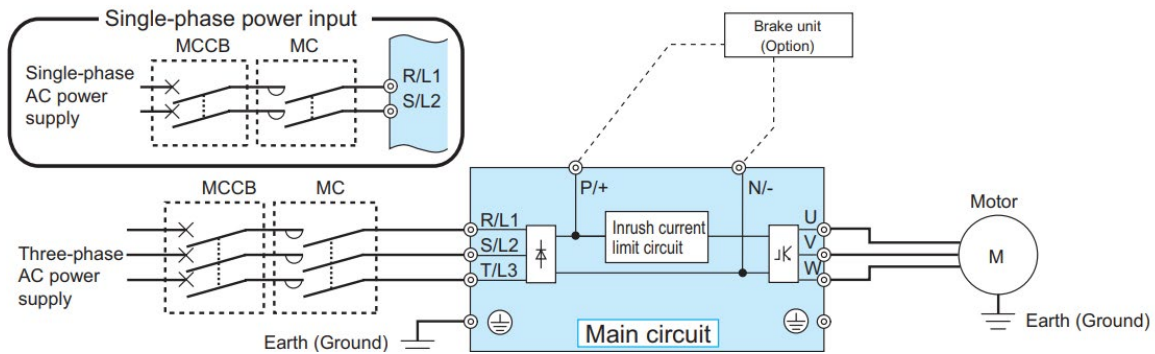


FREQUENCY SPEED CONTROLLER

Source logic

⊙ Main circuit terminal

○ Control circuit terminal



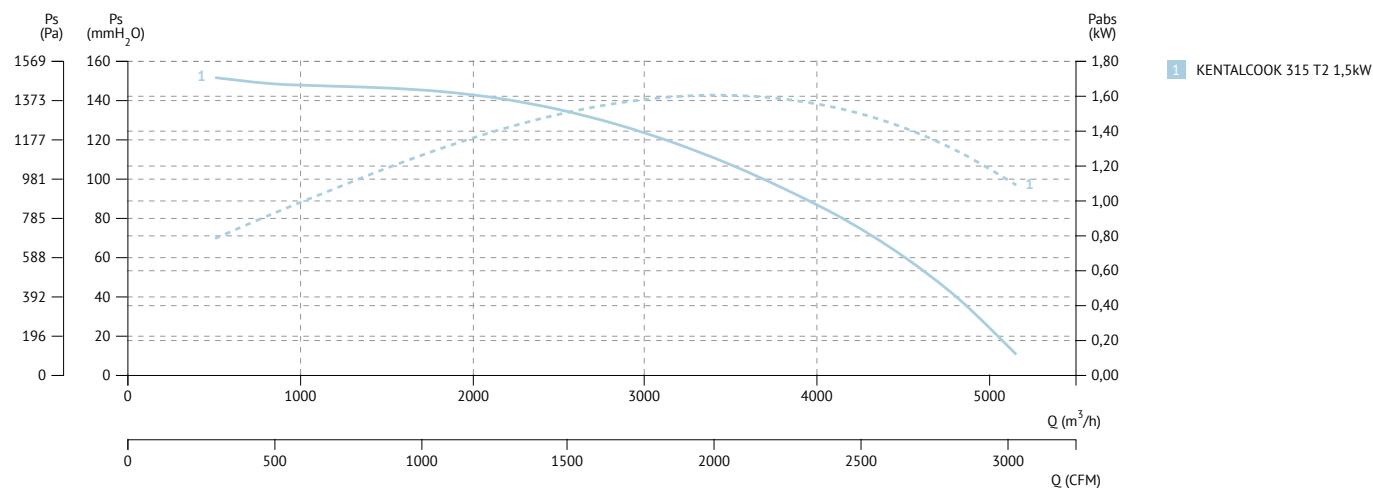


CABINET FANS

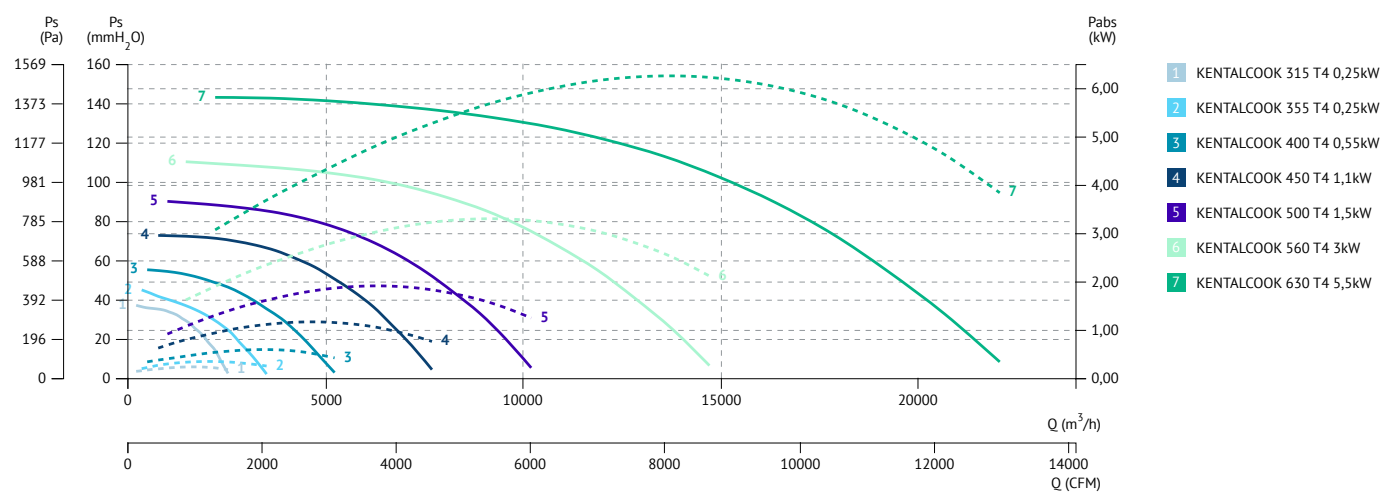
KENTALCOOK RANGE

CHARACTERISTIC CURVES

2 POLE / 2 polos



4 POLE / 4 polos



CENTRIFUGAL LOW PRESSURE FANS





BD RANGE

Centrifugal low pressure fans

Key features

- Galvanised steel sheet housing.
- Double inlet.
- Polyamide impeller reinforced with fibreglass in models 7/7, 9/9, 10/10 and 12/12. The impeller of the rest of models are made of galvanised steel sheet.
- Double inlet forward curved impeller in all models.
- Supplied with mounting feet (included in price).
- Motor fixing with an exclusive system designed by Casals through flexible arms and silent blocks to avoid vibration. Flexible arms in compliance with the ROHS 2002/95/EC Directive (Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment).
- Closed motors specially designed by Casals: extruded aluminium motor housing, wiring box fit in the motor with IP-65 protection. Motor with IP 55 protection and Class F insulation. Manufactured with standard voltages: 230V.
- 50 Hz in single phase motors and 230/400V 50 Hz in three phase motors. Single phase motors with controllable voltage speed. Three phase motors controllable using a frequency speed controller.



Applications

- Designed for assembly in equipment.
 - Ventilation boxes and air handling units.
 - Centrifugal heaters.
 - Industrial and professional kitchen hoods. Use in supply or extraction with prior fat filtering.

Under request

- Impeller made of galvanized steel sheet.
- MBI assembled.

ACCESSORIES



INT

Safety switch



SFC

Frequency speed controller



REG

Single phase manual speed controller



MBI

Outlet flange



RA

Inlet protection guard



RM

Motor guard



RI

Outlet guard



SINGLE PHASE RANGE

4 POLE

Code	Model	R.P.M	Rated I (A) 230V	Rated Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
251100261	BD 7/7 M4 0,13kW	1370	1,55	0,13	1.940	59	9	1
251270260	BD 9/7 M4 0,35kW	1375	2,7	0,35	2.540	60	15	1
251220260	BD 9/9 M4 0,35kW	1375	2,7	0,35	2.810	61	12	1
251340260	BD 10/8 M4 0,59kW	1340	4,5	0,59	3.440	63	22	1
251320260	BD 10/10 M4 0,59kW	1340	4,5	0,59	3.780	64	22	1

6 POLE

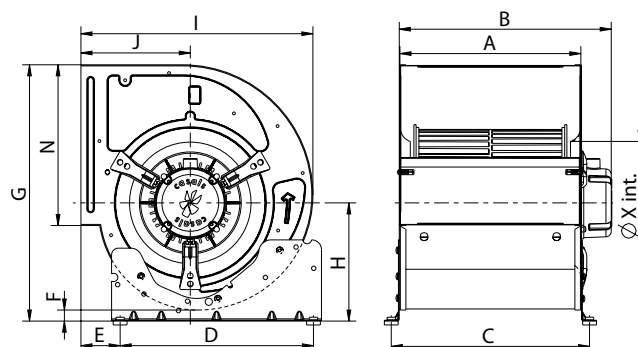
Code	Model	R.P.M	Rated I (A) 230V	Rated Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
251160260	BD 7/7 M6 0,04kW	885	0,6	0,04	1.080	44	9	1
251260261	BD 9/7 M6 0,13kW	940	1,3	0,13	2.050	50	14	1
251280261	BD 9/9 M6 0,13kW	940	1,3	0,13	2.240	53	15	1
251330261	BD 10/8 M6 0,21kW	945	2,1	0,21	2.625	56	17	1
251370261	BD 10/10 M6 0,21kW	945	2,1	0,21	2.860	56	15,5	1
251600261	BD 12/9 M6 0,76kW	950	6,7	0,76	5.860	59	21	1
251520261	BD 12/12 M6 0,76kW	950	6,7	0,76	6.275	59	27	1

THREE PHASE RANGE

6 POLE

Code	Model	Rated R.P.M	Rated I (A)		Rated Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
			230V	400V					
251600161	BD 12/9 T6 1,1kW	945	6,54	3,78	1,1	6.200	59	26	2
251520160	BD 12/12 T6 1,1kW	945	6,54	3,78	1,1	6.450	59	27	2
252370106	BD 15/15 T6 2,2kW	900	10,92	6,31	2,2	10.600	64	57	2

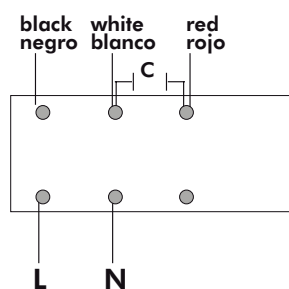
DIMENSIONS



Model	A	B max	C	D	E	F	G	H	I	J	N	X
BD 7/7 M4 0,12kW	230	302	259	245	48,5	9,5	337	150	316	153	208	158
BD 7/7 M4 0,13kW	230	302	259	245	48,5	9,5	337	150	316	153	208	158
BD 7/7 M6 0,04kW	230	277	259	245	48,5	9,5	337	150	316	153	208	158
BD 9/7 M4 0,35kW	233	287	262	245	70	19	407	191	376	184	260	202
BD 9/7 M6 0,12kW	233	284	262	245	70	19	407	191	376	184	260	202
BD 9/7 M6 0,13kW	233	284	262	245	70	19	407	191	376	184	260	202
BD 9/9 M4 0,35kW	301	354,5	330	245	70	19	407	191	376	184	260	202
BD 9/9 M6 0,12kW	301	352	330	245	70	19	407	191	376	184	260	202
BD 9/9 M6 0,13kW	301	352	330	245	70	19	407	191	376	184	260	202
BD 10/8 M4 0,59kW	265	339	294	350	70,5	20	464	214	420	198	291	220
BD 10/8 M6 0,19kW	265	333	294	350	70,5	20	464	214	420	198	291	220
BD 10/8 M6 0,21kW	265	333	294	350	70,5	20	464	214	420	198	291	220
BD 10/10 M4 0,59kW	329	384	359	350	70,5	20	464	214	420	198	291	220
BD 10/10 M6 0,19kW	329	368	359	350	70,5	20	464	214	420	198	291	220
BD 10/10 M6 0,21kW	329	384	359	350	70,5	20	464	214	420	198	291	220
BD 12/9 M6 0,76kW	310	380	339	350	77	17	536	244	490	230	343,5	260
BD 12/9 M6 0,79kW	310	389	339	350	77	17	536	244	490	230	343,5	260
BD 12/9 T6 1,1kW	310	380	339	350	77	17	536	244	490	230	343,5	260
BD 12/12 M6 0,76kW	396	437	425	350	77	17	536	244	490	230	343,5	260
BD 12/12 T6 1,1kW	396	437	425	350	77	17	536	244	490	230	343,5	260

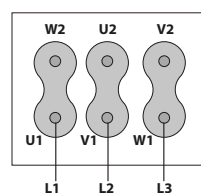
CONNECTION DIAGRAMS

1 SINGLE PHASE MOTORS

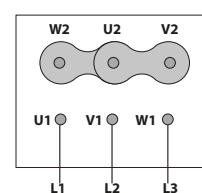


2 THREE PHASE MOTORS 1 SPEED

230V Δ



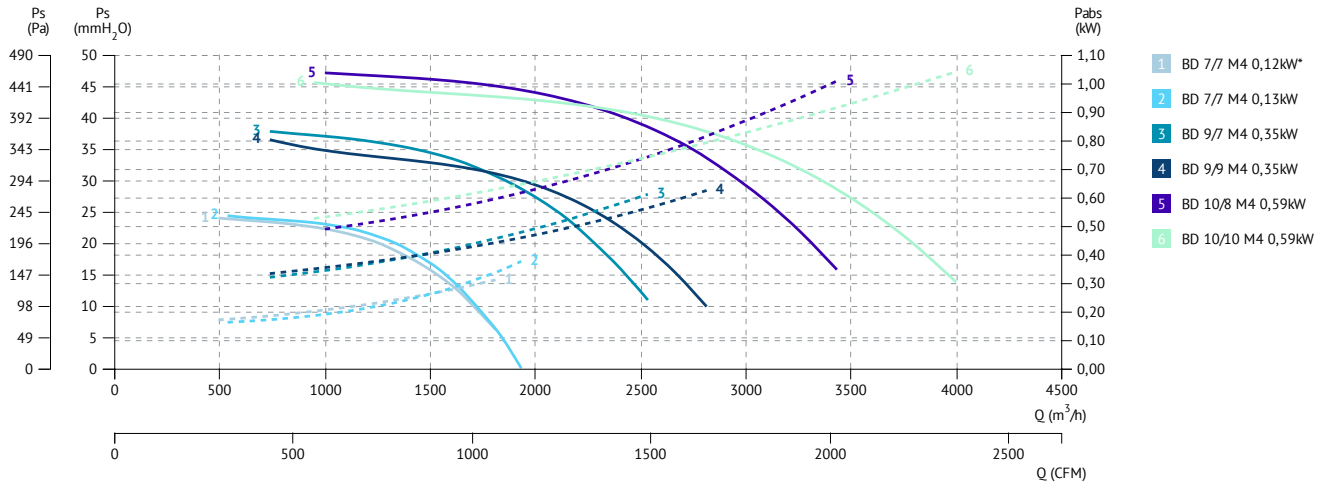
400V $\star$



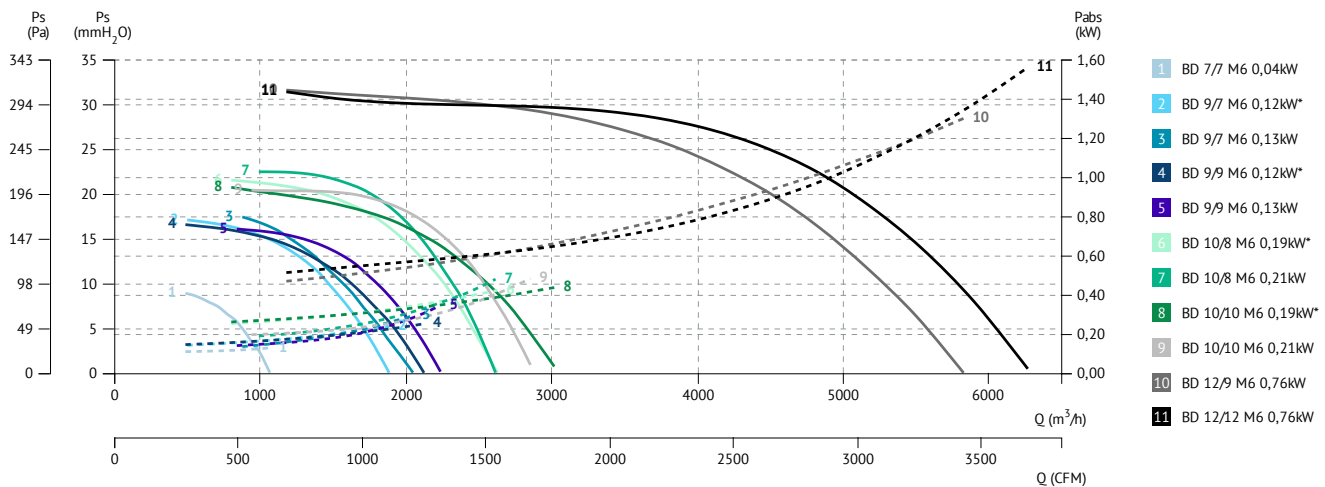


CHARACTERISTIC CURVES

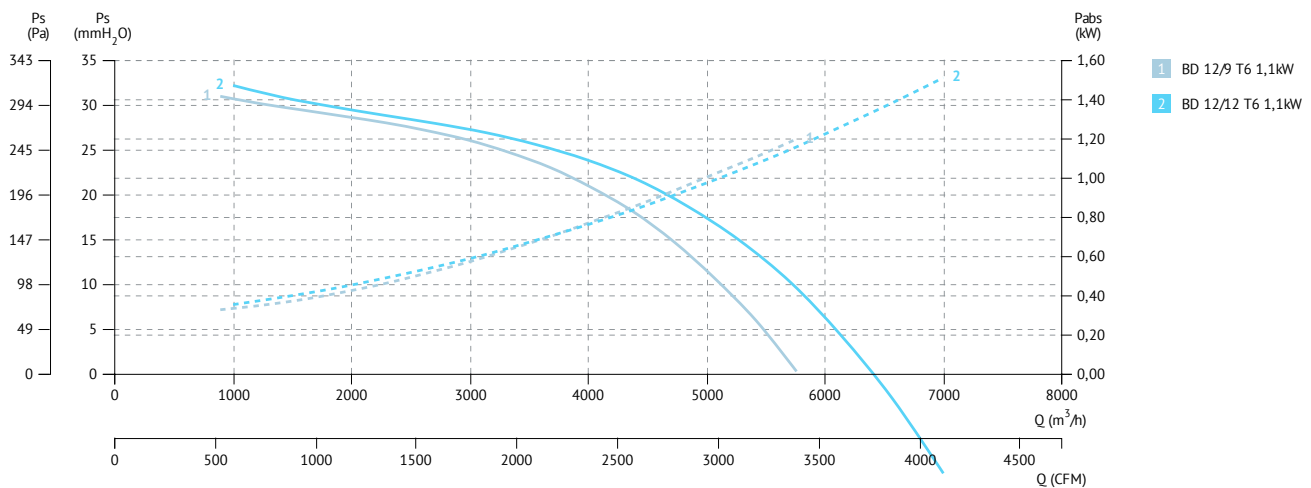
4 POLE / 4 polos



6 POLE / 6 polos



6 POLE / 6 polos





KENTALROOF RANGE

Roof fans with ABS cowl

Key features

- ABS protection cowl easily removable for motor and impeller maintenance thanks to the integrated folding system. The ABS hat is characterised by its toughness, impact resistance and ability to withstand extreme temperatures. 100% of the ABS used is recycled.
- Structure in anticorrosive galvanized steel and support frame for adaptation to the roof with anti-bird protection grid.
- High-performance, backward-curved blade (reaction) turbines with self cleaning system, built in galvanized steel treated with anti-corrosion.
- Standard asynchronous squirrel cage motor with IP-55 protection and Class insulation. Standard voltages of 230V50Hz for single phase motors,
- 230/400V50Hz & 400/690V 50Hz for three-phase 1 speed motors and 400V50Hz for 2 speed motors.

Applications

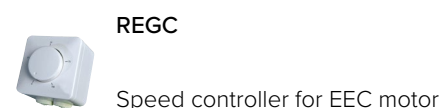
- Designed for deck or roof mounting, they are indicated for:
 - Smoke extraction.
 - Smoke extraction in case of fire while the engine is outside the risk area.
 - Air renewal in all types of buildings and industries.
 - Industrial and professional kitchen hoods.
 - Maximum continuous working temperature: transported air 80°C, ambient 60°C to 25°C in three-phase motors.

Under request

- Special voltages.
- Also available in aluminium cowl version.



ACCESSORIES



REGC

Speed controller for EEC motor



BTI

Inclined roof fan support



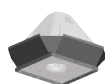
ASIL+AMC

Support for circular accessories with connection frame



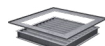
BAD

Circular-circular anti-vibration flange



KV

Vertical kit for roof fans



CMP-HUT+ACMP

Galvanised depression shutter



AC

Connection flange



PMR

Speed controller with safety switch for EEC motor



SILC-MINI

Circular sound attenuator in galvanised steel

SINGLE PHASE RANGE

4 POLE

Code	Model	R.P.M	Rated I (A) 230V	Rat. Power kW	Air flow m³/h	Weight Kg	Connection diagram
27931471PAM	KENTALROOF 315 M4 0,25kW	1400	1,93	0,25	2.590	35,50	1
27935471PAM	KENTALROOF 355 M4 0,25kW	1400	1,93	0,25	3.610	41	1
27940480PAM	KENTALROOF 400 M4 0,55kW	1400	3,98	0,55	5.340	45	1



ROOF FANS

KENTALROOF RANGE

THREE PHASE RANGE

2 POLE

Code	Model	R.P.M	Rated I (A)		Rat. Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
			230V	400V					
27931290PA	KENTALROOF 315 T2 1,5kW	2865	5,83	3,14	1,50	5.260	59	36	2

4 POLE

Code	Model	R.P.M	Rated I (A)		Rat. Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
			230V	400V					
27931471PA	KENTALROOF 315 T4 0,25kW	1400	1,38	0,79	0,25	2.590	43	35,50	2
27935471PA	KENTALROOF 355 T4 0,25kW	1400	1,38	0,79	0,25	3.610	45	41	2
27940480PA	KENTALROOF 400 T4 0,55kW	1440	2,57	1,49	0,55	5.340	48	45	2
27945490PA	KENTALROOF 450 T4 1,1kW	1450	4,33	2,49	1,10	7.870	52	85	2
27950491PA	KENTALROOF 500 T4 1,5kW	1450	5,67	3,26	1,50	10.430	55	96	2
279564100PA	KENTALROOF 560 T4 3kW	1420	10,7	6,17	3,00	15.040	55	104	2
279634132PA	KENTALROOF 630 T4 5,5kW	1460	-	10,5	5,50	22.550	60	140	2

6 POLE

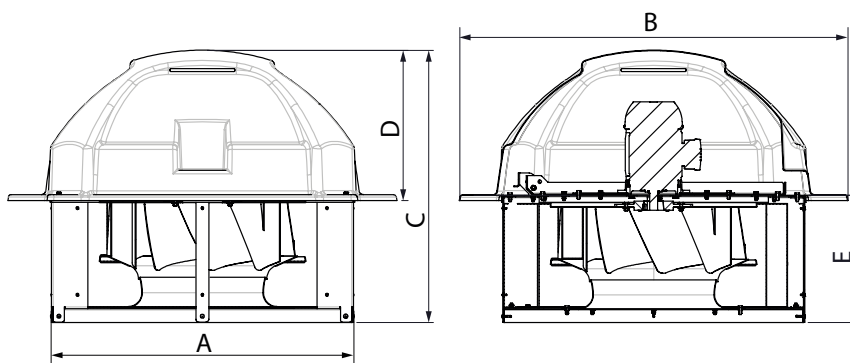
Code	Model	R.P.M	Rated I (A)		Rat. Power kW	Air flow m³/h	Sound dB (A)	Weight Kg	Connection diagram
			230V	400V					
27950680PA	KENTALROOF 500 T6 0,55kW	900	3,00	1,8	0,55	6.850	46	95	2
27956690PA	KENTALROOF 560 T6 1,1kW	925	4,83	2,78	1,10	10.020	46	103	2
279634100PA	KENTALROOF 630 T6 1,5kW	940	6,45	3,71	1,50	14.820	51	130	2

THREE PHASE RANGE 2 SPEEDS

4/8 POLE

Code	Model	R.P.M	Rated I (A) 400V	Rat. Power kW	Air flow m³/h	Weight Kg	Connection diagram
27931471PA2V	KENTALROOF 315 T4/T8 0,25/0,03kW	1370	1,13/0,37	0,25	2.590	35,50	3
27935471PA2V	KENTALROOF 355 T4/T8 0,25/0,03kW	1370	1,13/0,37	0,25	3.610	41	3
27940480PA2V	KENTALROOF 400 T4/T8 0,75/0,12kW	1400	2,03/0,68	0,75	5.340	45	3
27945490PA2V	KENTALROOF 450 T4/T8 1,1/0,18kW	1400	2,67/1,08	1,10	7.870	85	3
27950491PA2V	KENTALROOF 500 T4/T8 1,5/0,25kW	1400	3,46/1,27	1,50	10.430	96	3
279564100PA2V	KENTALROOF 560 T4/T8 3/0,55kW	1430	6,53/2,33	3,00	15.040	104	3
279634132PA2V	KENTALROOF 630 T4/T8 5,5/1,1kW	1450	10,73/3,82	5,50	22.550	140	3

DIMENSIONS

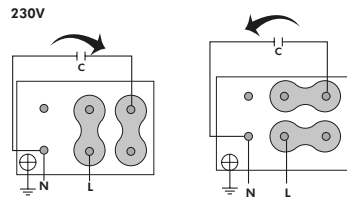


Model	A (int)	B	C	D	E
KENTALROOF 315	592	795,3	601	365	249
KENTALROOF 355	662	865,3	624,5	365	272,5
KENTALROOF 400	662	865,3	647,5	365	295,5
KENTALROOF 450	936	1227	775,8	470	323,8
KENTALROOF 500	936	1227	812	470	360
KENTALROOF 560	936	1227	849,6	470	397,6
KENTALROOF 630	1035	1339	942,5	520	440,5

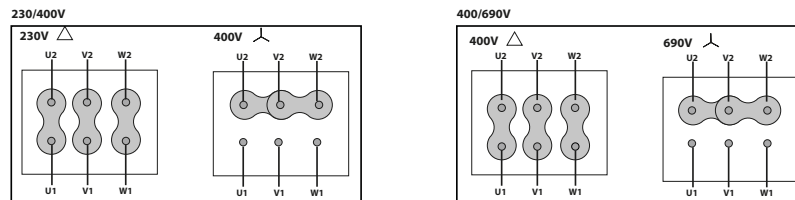


CONNECTION DIAGRAMS

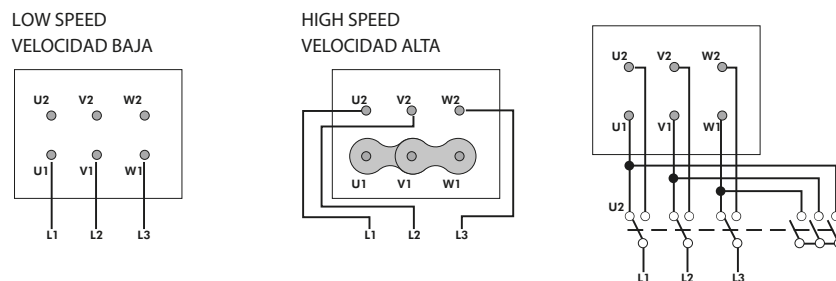
1 SINGLE PHASE MOTORS 1 SPEED



2 THREE PHASE MOTORS 1 SPEED

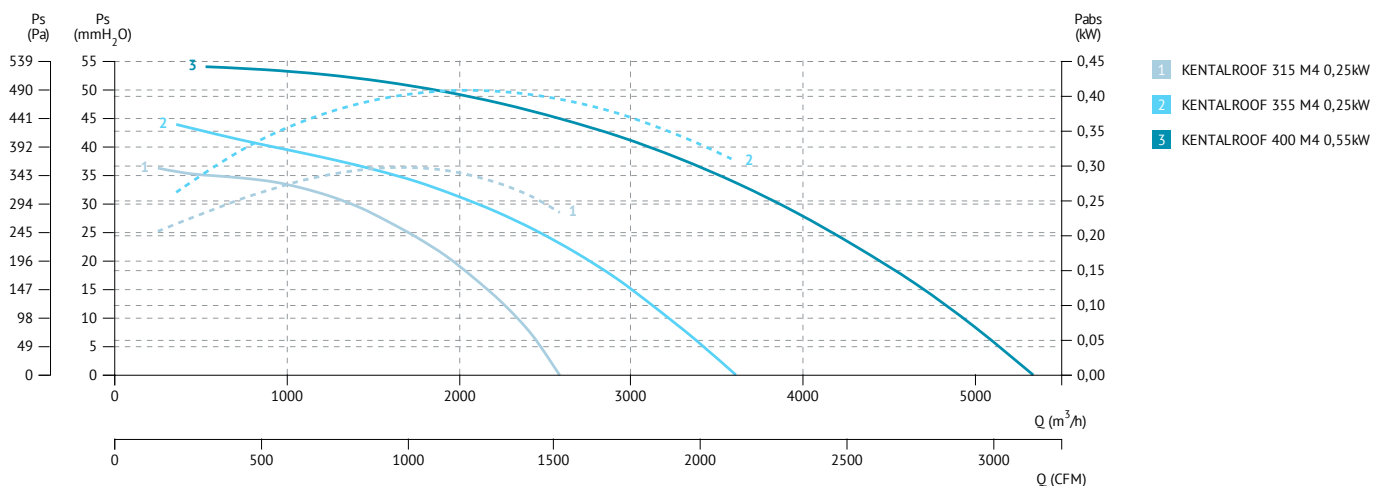


3 2 SPEEDS /400V DAHLANDER (Y, YY)



CHARACTERISTIC CURVES

4 POLE / 4 polos

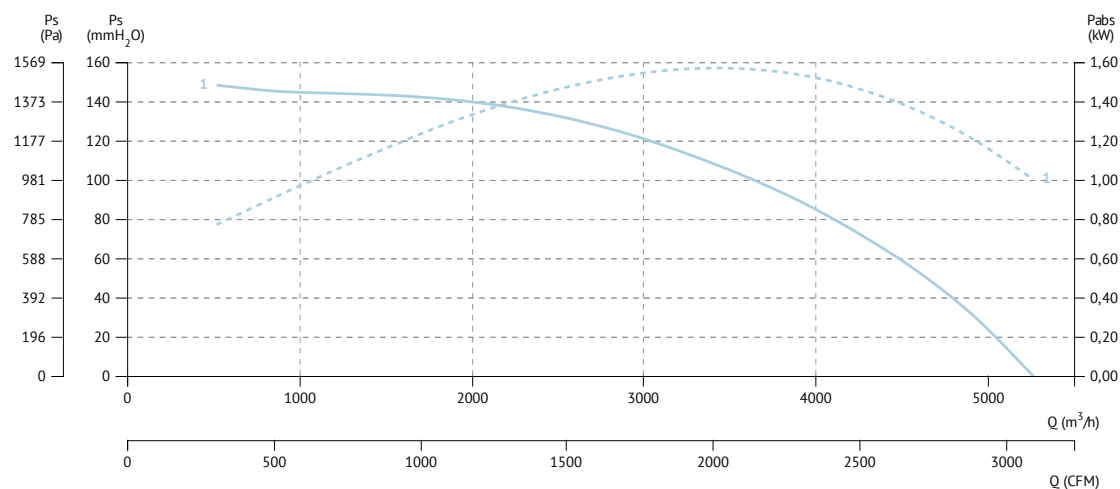




ROOF FANS

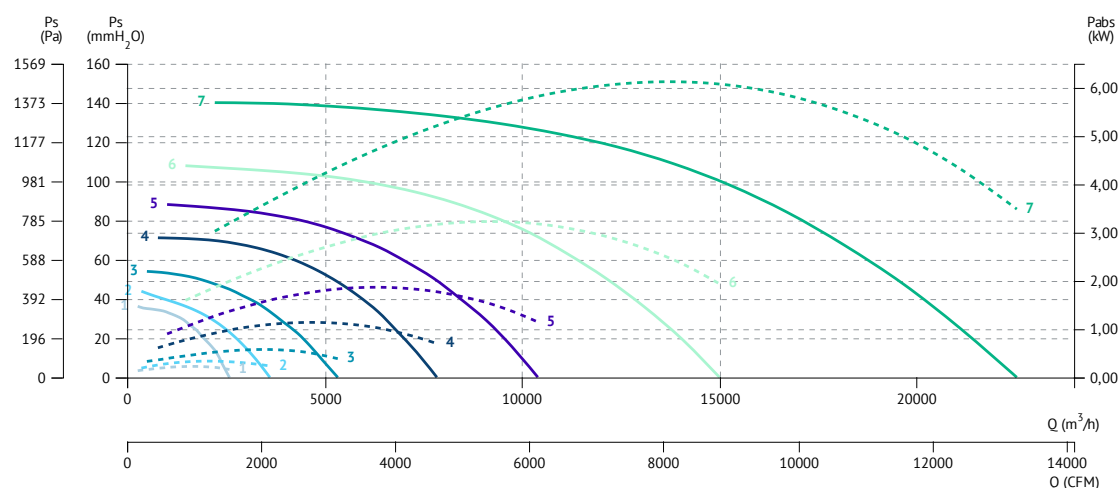
KENTALROOF RANGE

2 POLE / 2 polos



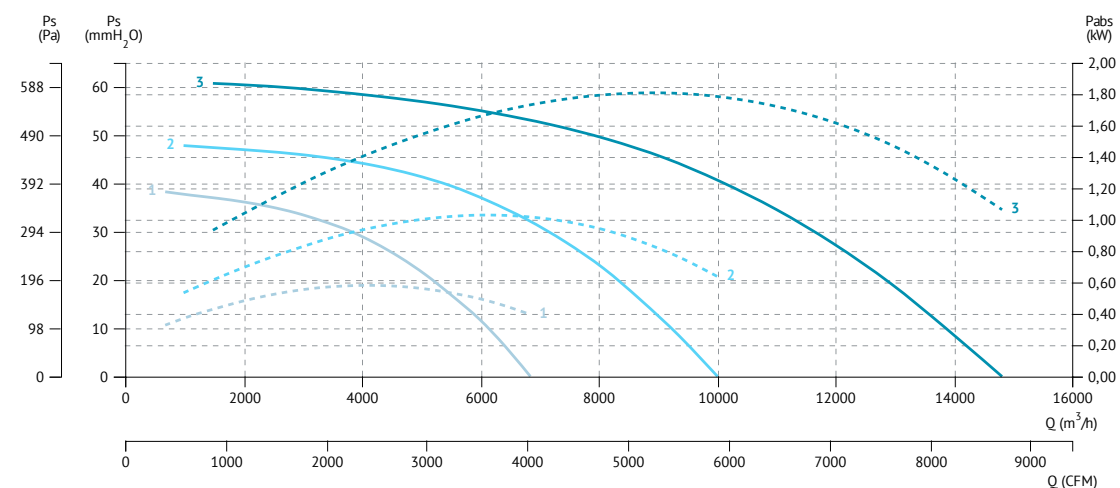
1 KENTALROOF 315 T2 1,5kW

4 POLE / 4 polos



- 1 KENTALROOF 315 T4 0,25kW
- 2 KENTALROOF 355 T4 0,25kW
- 3 KENTALROOF 400 T4 0,55kW
- 4 KENTALROOF 450 T4 1,1kW
- 5 KENTALROOF 500 T4 1,5kW
- 6 KENTALROOF 560 T4 3kW
- 7 KENTALROOF 630 T4 5,5kW

6 POLE / 6 polos



- 1 KENTALROOF 500 T6 0,55kW
- 2 KENTALROOF 560 T6 1,1kW
- 3 KENTALROOF 630 T6 1,5kW



AIR HANDLING UNITS

VORT NRG FLAT EVO

High efficiency heat recovery units with plate heat exchanger and 50mm thick insulated panels



INTRODUCTION

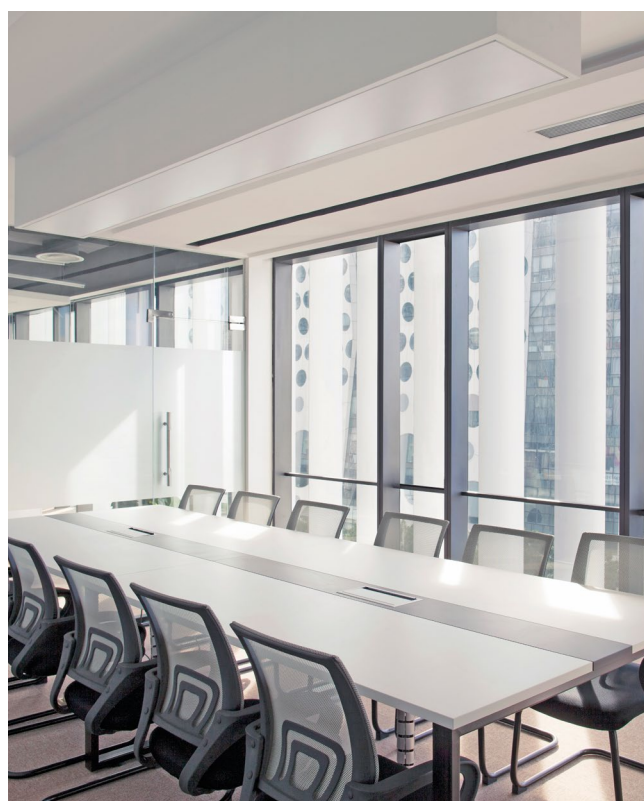
The sick building syndrome is a disease recognised by the World Health Organization that presents a series of symptoms due to the presence of toxic elements in the workplace. The main sources of pollution originate both from factors inside and outside the building.

Replacing the air, not wasting energy, is the solution. Thanks to the installation of Controlled Mechanical Ventilation systems it is possible to guarantee the correct air exchange and filtration.

The heat recovery units provide the air exchange together with the recovery of a part of the thermal energy of the

extracted air which is given to the fresh air at practically no cost; therefore a pre-heating in winter or a pre-cooling in summer of the introduced air is obtained, moreover they bring other advantages such as air filtration and a smaller sizing of the heating and cooling systems, allowing savings both during the purchase and the conduction of the same.

The recovery units of the RXC/HE series are available in 7 sizes, with nominal air flow rates from 400 to 4000 m³/h. The units have been designed for false ceiling installation (H) or ground installation (V) and are available in the ECO, PLUS, TOP versions.





CONSTRUCTION CHARACTERISTICS

1 | STRUCTURE

Structure in RAL 9010 steel profiles, pre-painted at 180°C with polyurethane powder paint and 50 mm thick panels.

Sheets with 6/10" thickness covered with protective film, in galvanized steel.

The internal insulation is made of high density polyurethane foam (40 kg/m³).

The casing is made according to EN1886 standard, class D1 mechanical strength.

The air tightness is guaranteed by a particularly adaptable and resilient neoprene gasket, the tightening of the opening panels is made by means of push screws that ensure an adequate and constant pressure on the gaskets. In all areas subject to condensation there is a condensation tray, inclined internally and in compliance with EN 1.4301.

3 | FILTERS

The units can host different types of filters, both in the room air extract and in the fresh air intake. They are mounted on guides equipped with gaskets to guarantee effective sealing. Their position, upstream of the internal components, also guarantees their protection.

4 | FANS

Independently controllable, they are made up of centrifugal impellers with reversed blades, directly coupled to electronically commuted bearing motors (EC brushless), external rotor, single-phase or three-phase (depending on the model), integral thermal protectors and able to adapt the performance to the needs of the moment (modulating air flow control), ensuring low consumption and reduced noise emissions.



2 | HEAT RECOVERY

The units are equipped with an aluminium counter-flow heat exchanger used to transfer heat from the exhaust air to the fresh air. The heat exchange takes place in counter-flow with efficiency higher than 80% in dry air, according to the ECO Design and Eurovent approval. The spacing between the fins is optimised in order to reduce air side pressure drop and fan power consumption. The heat recovery is also equipped with an additional by-pass damper for the management of the free-cooling and free-heating mode as per ERP regulation. By-pass damper 100% of the airflow rate. The heat exchanger participates to the Eurovent Certification program and it is sized according to the ECO Design specification.



DEFROST SYSTEM (optional)

The automatic defrosting system can be carried out either electrically (consists of a self-regulating electric coil installed on the return air intake), or with unbalanced airflows (consists of a specific device and software that avoid an excessive drop of the exhaust air temperature).

ADDITIONAL COILS (optional | external module)

External module that can accommodate heating and/or cooling coils with a high number of rows. The module can also accommodate combined coils (water cooling, water and/or electric heating).

5 | LCD REMOTE GRAPHIC DISPLAY

All units are supplied complete with a remotable control panel with LCD graphic display.

TECHNICAL DATA

MODEL		400	600	1000	1500	2000	3000	4000
Type of ventilation unit		UVNR-B (Non Residential Ventilation Units- Bidirectional)						
Type of drive installed		Analog signal on EC fan (0-10Vdc)						
Type of fans	type/nr.	EC/2	EC/2	EC/4	EC/4	EC/2	EC/2	EC/2
Type of heat recovery system (HRS)	type/nr.	static counter-flow / 1						
Winter Thermal Efficiency (η_{t_nrvu}) ⁽¹⁾	%	80,8	81,4	81,6	81,8	82,0	82,2	82,0
Winter Thermal Efficiency ⁽²⁾	%	88,0	88,4	88,5	88,7	88,9	89,0	88,9
Nominal airflow rate	m ³ /h	410	650	1000	1620	2150	3040	3980
Electrical power consumption	kW	0,15	0,22	0,35	0,56	0,82	1,32	1,58
Installed electrical power	kW	0,35	0,35	0,70	0,72	1,16	1,56	2,29
SFP _{int}	W/(m ³ /s)	786	580	714	764	840	1011	1004
SFP _{lim} 2018	W/(m ³ /s)	1318	1326	1315	1297	1282	1248	1206
Front speed at design range	m/s	2,18	1,61	2,03	2,14	1,93	2,21	2,41
External nominal pressure $\Delta p_{s, ext}$ ⁽³⁾	Pa	150	150	150	150	150	150	150
Internal pressure drop $\Delta p_{s, int}$ Supp./ Ret.	Pa	203/178	141/120	187/166	238/208	230/209	279/229	334/301
Fans static efficiency (UE) n.327/2011	%	48,4	45,2	49,4	53,0	52,2	50,5	62,9
Max. external / internal leakage percentage	%	max 3,5 % at -400 Pa max 5,0 % at +250 Pa						
Energy classification filters		ePM1 55% (F7) ePM10 60% (M5)						
Filter pressure switch		present						
Sound power level L_{WA} ⁽⁴⁾	dB(A)	63	71	69	76	80	84	84
Sound pressure level ⁽⁵⁾	dB(A)							
Power supply	V/ph/Hz							

⁽¹⁾ ratio between the thermal gain of the inlet air and the thermal loss of the exhaust air, both referred to the external temperature, measured under dry reference conditions, with balanced mass flow and a thermal difference of the internal/external air of 20K, excluding the thermal gain generated by the fan motors and the internal leakage, in accordance with the provisions of attached V of EU Regulation No 1253/2014

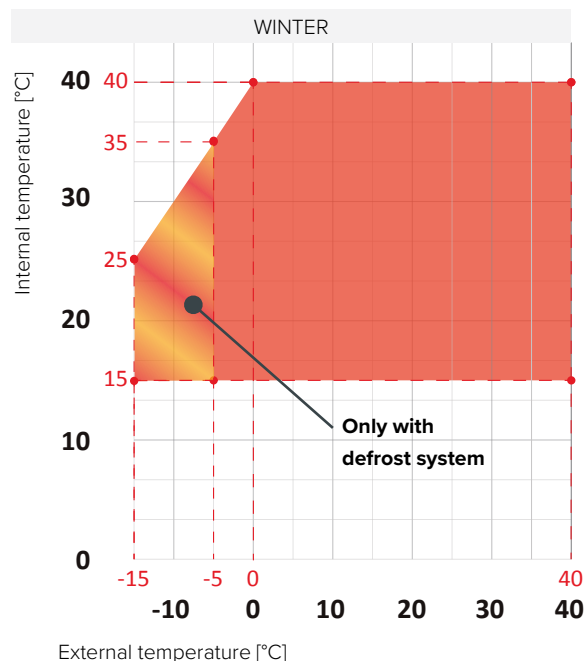
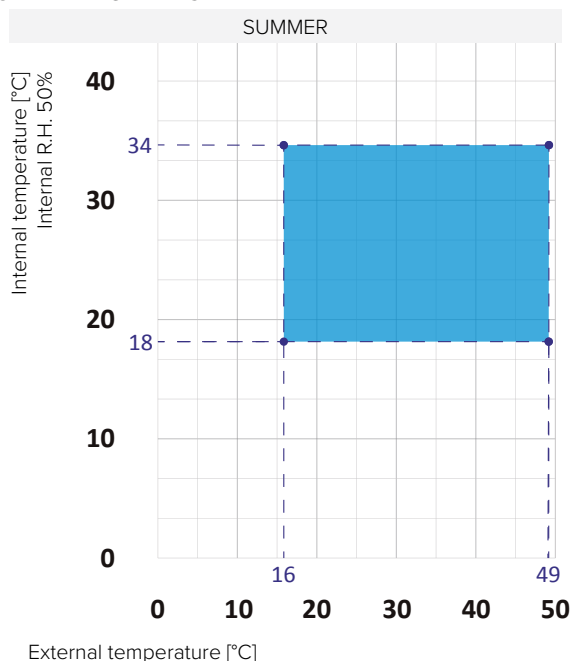
⁽²⁾ outside air: -5 °C / 80 % RH- Inside air: 20 °C / 50 % RH

⁽³⁾ performance with clean filters

⁽⁴⁾ sound power level calculated in accordance with EN 3744

⁽⁵⁾ sound pressure level measured at 1 m free field distance, ducted unit, in accordance with EN 3744

OPERATING LIMITS





CONTROLS

The units are supplied complete with control system and available in the version ECO, PLUS and TOP.

ECO: complete with air temperature sensors installed on the fresh air intake and on room return air.

PLUS: this control option is set to operate at CONSTANT PRESSURE, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

TOP: this control option is set to operate at CONSTANT AIRFLOW, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

ACCESSORIES

ISO coarse 40% (G2) grease air pre-filter

Filter used in presence of large pollutants suspended in the air or in case of filtration of oily mists. The material is washable and it may be installed with ePM10 60% (M5), ePM1 55% (F7) or ePM1 80% (F9) filters.

ePM10 50% (G4) air pre-filter

Filter with low pressure drop and it may be installed with the ePM10 60% (M5), ePM1 55% (F7) or ePM1 80% (F9) filters.

ePM10 60% (M5), ePM1 55% (F7), ePM1 80% (F9) air filters

Filters with large filtering surface area that guarantees long operating life and less frequent replacements.

Additional filter rails

They are used when a second filter, in series with the one used as standard, is required.

Electric defrost system

Consists of an electric coil installed on the return air and controlled by a temperature probe positioned on the exhaust air. It's guarantees a considerable reduction of the input power compared to other traditional systems.

Unbalanced airflows defrost system

Consists of a specific device and a software that avoid an excessive drop of the exhaust air temperature.

This system is normally supplied in combination with the hot water coil (optional).

Electric re-heating battery (internal)

All the control systems allows to select, in stepless mode, the supply and return fan speeds and automatically manages the heat recovery by-pass damper through the motorized On/Off control. They also manages the summer/winter seasonal change over and programming for daily time bands.

The controls can also manages an optional hot water or cold water coil through a 3-way modulating valve and an additional supply air sensor in order to maintain a fixed point operating logic.

The same logic can also be used to manage an electric post-heating coil, if present.

The systems alerts to the user when filters need replacing (the clogged state of the filters is monitored by a pair of differential pressure switches supplied as standard) or the onset of any alarm and this may also be integrated into modern home automation systems via RS485 serial port with Modbus protocol.

Hot / Cold water coil (external)

Manufactured with copper pipes mechanically expanded in the aluminium fins, it is supplied in a dedicated section with the same features of the main unit, to be installed in the supply air-flow side and fixed with a dedicated installation kit supplied with it. On request, it is possible to install coils with different capacities from the standard ones. The cooling coil section is supplied complete with condensate drain pan with side water discharge.

3 way modulating valve

Valve with modulating electric actuator for the control of the water flow of the hot / cold water coil.

Connections not included (to be arrange for by the installer).

Air damper with actuator

It operate to exclude the fresh air intake and/or the room return air flow. The damper is controlled by On/Off actuator for the opening or the closing, or with return closing spring.

Sound attenuator

Consists of a cylindrical and perforated section made in galvanized steel, containing a mineral wool sound-proofing material with class M0. The construction avoids any risk of mineral wool fraying.

CO2 probe

ECO version units can be equipped with air quality CO2 probe. This accessory is installed and wired in the factory on the return air and it allows to determine the quantity of carbon dioxide present in the environment, NOTE: CO2 probe is not available in PLUS and TOP versions.

ACCESSORIES

MODEL		400	600	1000	1500	2000	3000	4000
ECO	EC Brushless supply and return fans	■	■	■	■	■	■	■
	Supply and return differential pressure switches	■	■	■	■	■	■	■
	100% by-pass damper with electric actuator	■	■	■	■	■	■	■
	Microprocessor control	■	■	■	■	■	■	■
	Remotable control panel with LCD graphic display ⁽²⁾	■	■	■	■	■	■	■
	Built-in control sensors	■	■	■	■	■	■	■
	MODBUS RS485 serial interface card	■	■	■	■	■	■	■
PLUS	EC Brushless supply and return fans	■	■	■	■	■	■	■
	Supply and return differential pressure switches	■	■	■	■	■	■	■
	Fans differential pressure transducers	■	■	■	■	■	■	■
	100% by-pass damper with electric actuator	■	■	■	■	■	■	■
	Microprocessor control	■	■	■	■	■	■	■
	Remotable control panel with LCD graphic display ⁽²⁾	■	■	■	■	■	■	■
	Built-in control sensors	■	■	■	■	■	■	■
	MODBUS RS485 serial interface card	■	■	■	■	■	■	■
	Constant PRESSURE version	■	■	■	■	■	■	■
TOP	EC Brushless supply and return fans	■	■	■	■	■	■	■
	Supply and return differential pressure switches	■	■	■	■	■	■	■
	Fans differential pressure transducers	■	■	■	■	■	■	■
	100% by-pass damper with electric actuator	■	■	■	■	■	■	■
	Microprocessor control	■	■	■	■	■	■	■
	Remotable control panel with LCD graphic display ⁽²⁾	■	■	■	■	■	■	■
	Built-in control sensors	■	■	■	■	■	■	■
	MODBUS RS485 serial interface card	■	■	■	■	■	■	■
	Constant AIRFLOW version	■	■	■	■	■	■	■
Accessories	ISO Coarse 40% (G2) grease pre-filter on return air	□	□	□	□	□	□	□
	ePM ₁₀ 50% (G4) pre-filter on supply and return air	□	□	□	□	□	□	□
	ePM ₁₀ 60% (M5) filter on supply and return air	□	□	□	□	□	□	□
	ePM ₁ 55% (F7) filter on supply and return air	□	□	□	□	□	□	□
	ePM ₁ 80% (F9) filter on supply and return air	□	□	□	□	□	□	□
	Additional filter rails	□	□	□	□	□	□	□
	Electric defrost system	□	□	□	□	□	□	□
	Unbalanced airflows desfrost system	□	□	□	□	□	□	□
	Electric post-heating coil	□	□	□	□	□	□	□
	Hot water coil ⁽¹⁾	□	□	□	□	□	□	□
	Cold water coil ⁽¹⁾	□	□	□	□	□	□	□
	Kit 3 way modulating valve ⁽²⁾	□	□	□	□	□	□	□
	Fresh air / Exhaust air damper	□	□	□	□	□	□	□
	On/Off damper actuator	□	□	□	□	□	□	□
	Rounded outlets kit (4 Pcs.)	–	–	–	–	–	□	□
	Sound attenuator ⁽¹⁾	□	□	□	□	□	□	–
	CO ₂ probe (available only for ECO version)	□	□	□	□	□	□	□

■ Standard □ Optional – Not available

⁽¹⁾ Mounted in a separate box

⁽²⁾ Supplied loose



OPERATING MODE

The return air from the room, with a higher thermal load than the fresh air, crosses the plate heat exchanger, where it gives up part of its thermal load and cools down before being exhausted.

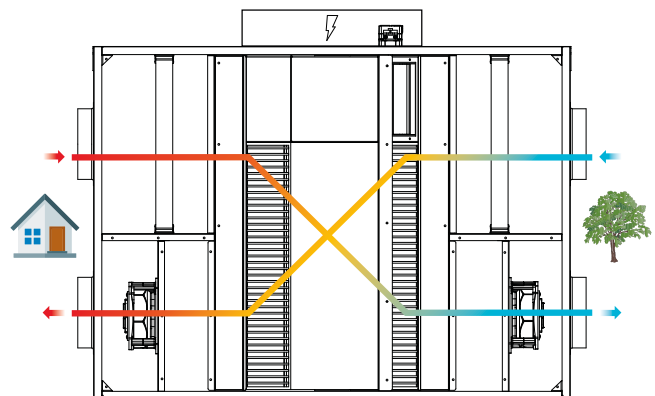
The fresh air, with a lower thermal load than the return one from the room, crosses the plate heat exchanger in the opposite direction and heats up before the introduction into the room. The modulation of the airflow rate, through variation of the rotation speed of the EC fans, will allow a precise control of the supply air temperature.

During winter operation, in particular working conditions with low external temperatures, the heat exchanger could be subject to the formation of surface frost with consequent loss of efficiency.

To prevent this from happening, the unit provides for the controlled management of an automatic defrosting cycle, obtained by means of a self-regulated electric

battery in PWM mode, installed on the room air intake. The system increases the temperature of the exhaust air thus avoiding the risk of frost on the heat exchanger.

The system is controlled by a specific temperature probe positioned on the air outlet and guarantees a considerable reduction of the power absorbed by the

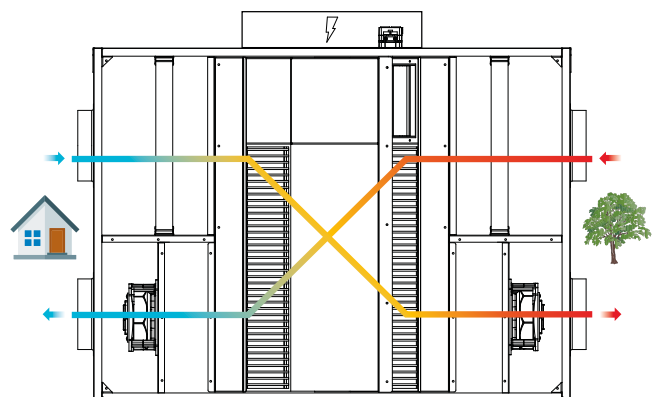


● COOLING MODE

The return air from the room, with a lower thermal load than the fresh air, crosses the plate heat exchanger, where it takes part of its thermal load and heats up before being exhausted.

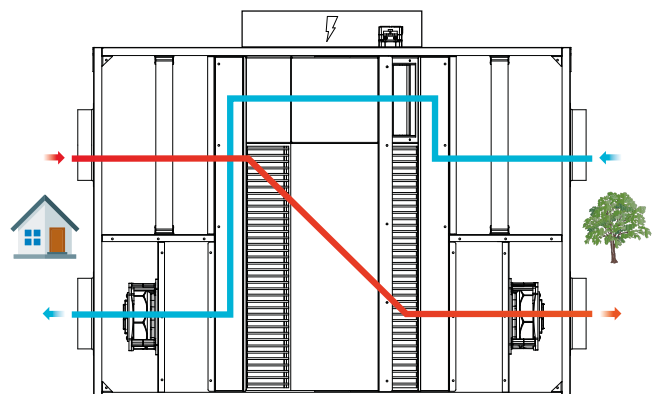
The fresh air, with a higher thermal load than the room air, crosses the plate heat exchanger in the opposite direction and cools down before the introduction into the room.

The modulation of the airflow rate, by varying the rotation speed of the EC fans, will allow a precise control of the supply air temperature.



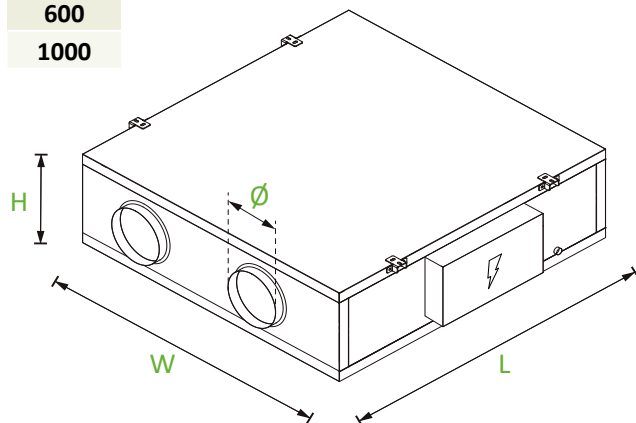
● FREE-COOLING

When the outdoor air temperature is lower than the temperature of the room to be air-conditioned and if the latter requires cooling, the unit operates in Free-Cooling mode by opening the By-Pass damper positioned on the plate heat exchanger and thus allowing the entry of outdoor air without heat recovery.

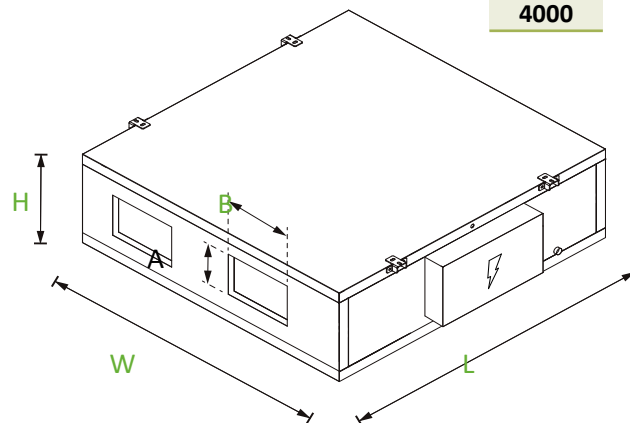


DIMENSIONAL DRAWING - Configurations H

MOD.	1500
400	2000
600	
1000	



MOD.	3000
4000	

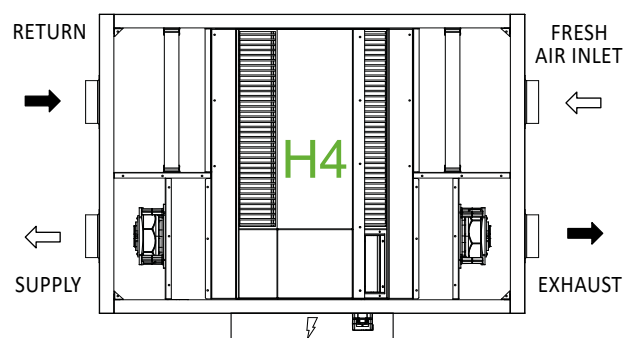
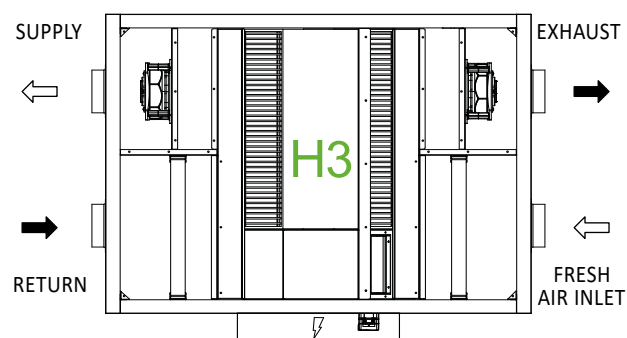
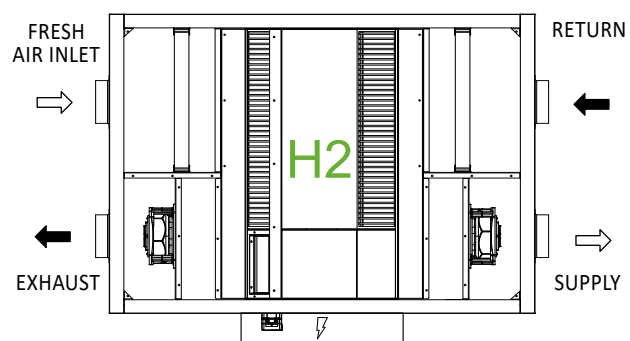
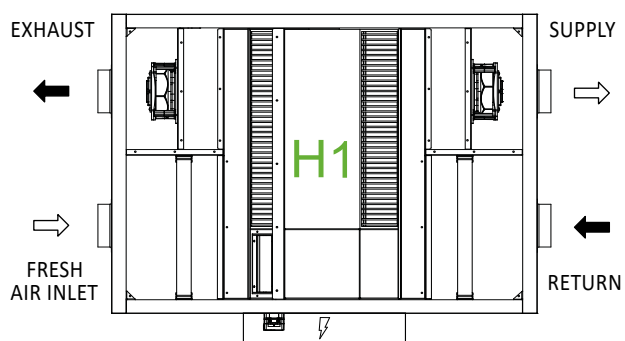


WEIGHTS AND DIMENSIONS

MODEL		400	600	1000	1500	2000	3000	4000
L	mm	1300	1400	1400	1650	1650	1950	1950
W	mm	750	1050	1350	1350	1600	1700	1950
H	mm	390	430	430	550	550	630	630
Ø / BxA	mm	Ø 150	Ø 200	Ø 250	Ø 250	Ø 250	450x350	450x350
Weight *	kg	117	133	180	226	288	338	369

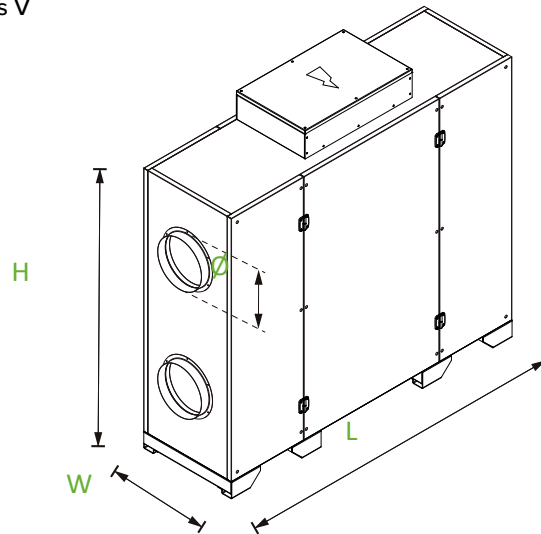
* Weight is referred to the main unit (without accessories)

CONFIGURATIONS (plan view)



DIMENSIONAL DRAWING - configurations V

MOD.
400
600
1000
1500
2000

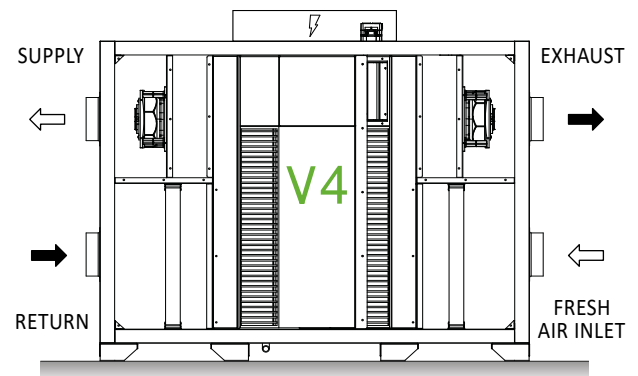
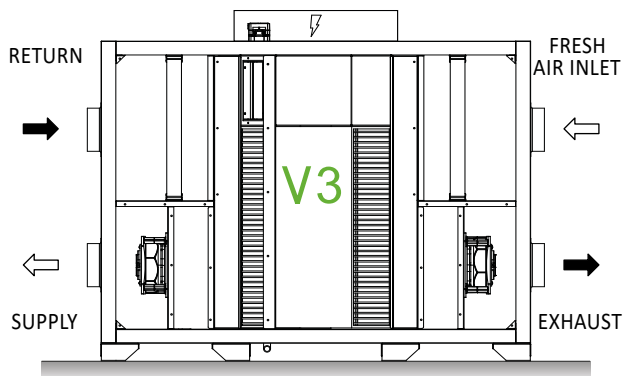
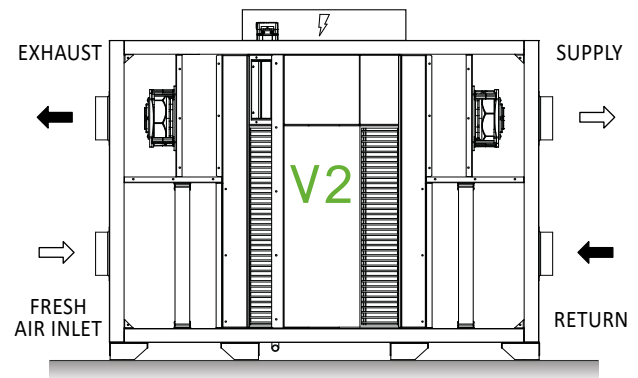
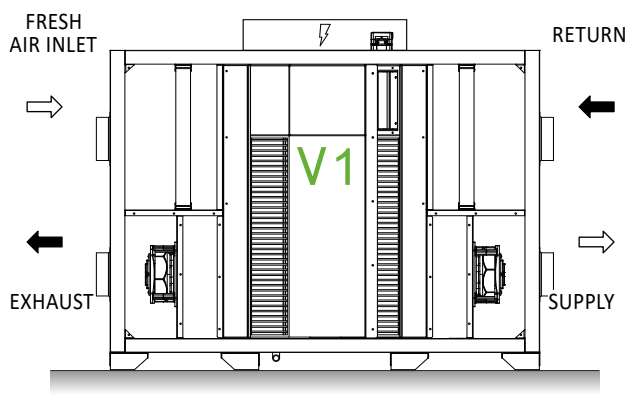


WEIGHTS AND DIMENSIONS

MODEL		400	600	1000	1500	2000	3000	4000
L	mm	1300	1400	1400	1650	1650	-	-
W	mm	390	430	430	550	550	-	-
H	mm	822	1122	1422	1422	1672	-	-
Ø	mm	Ø 150	Ø 200	Ø 250	Ø 250	Ø 250	-	-
Weight *	kg	120	137	184	232	294	-	-

* Weight is referred to the main unit (without accessories)

CONFIGURATIONS (front view)



VORT NRG FLAT EVO V

High efficiency vertical heat recovery units with plate heat exchanger and 50mm thick insulated panels



INTRODUCTION

The sick building syndrome is a disease recognized by the World Health Organization that presents a series of symptoms due to the presence of toxic elements in the workplace. The main sources of pollution originate both from factors inside and outside the building.

Replacing the air, not wasting energy, is the solution. Thanks to the installation of Controlled Mechanical Ventilation systems it is possible to guarantee the correct air exchange and filtration.

The heat recovery units provide the air exchange together with the recovery of a part of the thermal energy of the

extracted air which is given to the fresh air at practically no cost; therefore a pre-heating in winter or a pre-cooling in summer of the introduced air is obtained, moreover they bring other advantages such as air filtration and a smaller sizing of the heating and cooling systems, allowing savings both during the purchase and the conduction of the same.

The recovery units of the RXV/HE series are available in 6 sizes, with nominal air flow rates from 650 to 4000 m³/h. The units have been designed for ground installation (**V**) with vertical air flows and are available in the **ECO**, **PLUS**, **TOP** versions.





STRUCTURE AND PANELS

The structure of the units can be realised in 2 types:

Type 1: Panels 50 mm Standard [T3/TB3]

50 x 50 mm extruded anodised aluminium profiles with mechanical resistance requirements according to EN 1886: D1 (M). 50 mm thick double-wall sandwich type panelling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T3/TB3** in accordance with EN1886.

Type 2: Panels 50 mm TB [T2/TB2]

50 x 50 mm thermal break profiles in extruded anodised aluminium, with mechanical resistance requirements in accordance with EN 1886: D1 (M).

50 mm thermal break sandwich type double-wall paneling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T2/TB2** in accordance with EN1886.

AIR FILTERS

The filter sections on the return and fresh air are supplied with panel filters class ePM₁₀ 60% (M5) and ePM₁ 55% (F7) in accordance with international norms.

All units are equipped with differential pressure switches to monitor the air side pressure drops of the filtering sections.

FANS

The units are equipped with high efficiency plug-fan type fans with built-in brushless EC motor.

In this way it is possible to guarantee an accurate control of the airflow both in the supply and extract section, ensuring that all regulatory requirements such as SFP are met.

The airflow rate of the fan is managed through the integrated electronic control system.

HEAT RECOVERY

The units are equipped with a high-efficiency counter-flow heat exchanger made of aluminium.

The heat exchanger participates to the **Eurovent Certification** program and it is sized according to the **ECO Design** specification.

CONTROLS

The unit is managed by a microprocessor electronic board with dedicated software and external LCD display as user interface. Through the external or remote LCD display it is possible to set all the working set-points of the unit and display the operating status and any alarm conditions present.

Through the values acquired by the room temperature probe and the supply air, the thermoregulation will be managed with reference to the set-points.

The unit can manage the automatic change of operating modes by comparing the temperature and humidity of the outside and room air.

The microprocessor also activates and modulates all the dampers of the unit and optimizes all the operating parameters of the refrigerant circuit.

The RS485 interface is standard (MODBUS protocol) to be used for connection to remote supervision and control systems.

The control can also be supplied with a second remotable control panel (optional).



LCD REMOTE GRAPHIC DISPLAY

CONTROLS

The units are supplied complete with control system and available in the version **ECO**, **PLUS** and **TOP**.

ECO: complete with air temperature sensors installed on the fresh air intake and on room return air.

PLUS: this control option is set to operate at **CONSTANT PRESSURE**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

TOP: this control option is set to operate at **CONSTANT AIRFLOW**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

All the control systems allows to select, in stepless mode, the supply and return fan speeds and automatically manages the heat recovery by-pass damper through the motorized On/Off control. They also manages the summer/winter seasonal change over and programming for daily time bands.

The controls can also manages an optional hot water or cold water coil through a 3-way modulating valve and an additional supply air sensor in order to maintain a fixed point operating logic. The same logic can also be used to manage an electric post-heating coil, if present.

The systems alerts to the user when filters need replacing (the clogged state of the filters is monitored by a pair of differential pressure switches supplied as standard) or the onset of any alarm and this may also be integrated into modern home automation systems via RS485 serial port with Modbus protocol.

VERSION	ECO	PLUS	TOP
EC Brushless supply and return fans	■	■	■
Supply and return differential pressure switches	■	■	■
100% by-pass damper with electric actuator	■	■	■
Microprocessor control	■	■	■
Remotable control panel with LCD graphic display	■	■	■
Built-in control sensors	■	■	■
Fans differential pressure transducers	■	■	■
MODBUS RS485 serial interface card	■	■	■
Water or electric coil management	■	■	■
VARIABLE AIRFLOW version	■	—	—
CONSTANT AIRFLOW version	—	■	—
CONSTANT PRESSURE version	—	—	■

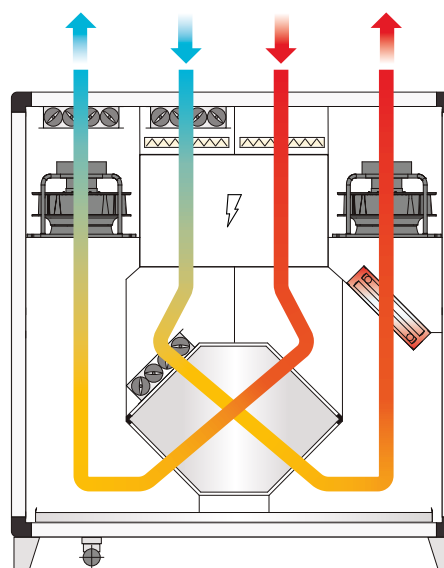
OPERATING MODE

In winter, the ambient air with a higher thermal load passes through the plate heat exchanger, releasing heat and cooling down before being expelled. The fresh air passes through the exchanger in the opposite direction, warming up.

In summer, the ambient air with a lower thermal load passes through the exchanger, absorbing heat and warming up before being expelled. The fresh air passes through the exchanger in the opposite direction, cooling down before being introduced into the environment.

The airflow is modulated by varying the speed of the EC fans to control the supply air temperature.

In Free-Cooling mode, the unit opens the By-Pass damper, allowing external fresh air to enter without heat recovery when the external temperature is lower than the internal temperature.





TECHNICAL DATA

MODEL		600	1000	1500	2000	3000	4000
Nominal airflow rate	m ³ /h	650	1000	1500	2000	3000	4000
Type of ventilation unit		UVNR-B (Non Residential Ventilation Units- Bidirectional)					
Type of drive installed		Analog signal on EC fan (0-10Vdc)					
Type of fans	type/nr.	EC/2	EC/2	EC/2	EC/2	EC/2	EC/2
Type of heat recovery system (HRS)	type/nr.	static counter-flow / 1					
Winter Thermal Efficiency (η_{t_nrvu}) ⁽¹⁾	%	80,6	79,4	79,2	79,2	78,6	78,4
Winter Thermal Efficiency ⁽²⁾	%	82,9	81,5	82,0	82,1	81,3	81,2
Nominal electric power input ⁽²⁾	kW	0,21	0,47	0,67	0,86	1,35	1,71
Max electrical power absorbed	kW	0,36	1,16	1,16	1,56	2,56	4,80
Max electrical current absorbed	A	2,90	4,90	4,90	6,80	3,90	7,60
SFPint	W/(m ³ /s)	503	1019	1019	932	998	896
SFPlim 2018	W/(m ³ /s)	1169	1119	1092	1073	1008	959
External nominal pressure $\Delta p_{s, ext}$ ⁽³⁾	Pa	150	150	150	150	150	150
Internal pressure drop $\Delta p_{s, int}$ on supply air	Pa	139	265	302	281	262	275
Fans static efficiency (UE) n.327/2011	%	52,1	51,7	58,2	59,4	61,3	61,8
Max. external / internal leakage percentage	%	max 3,5 % at -400 Pa max 5,0 % at +250 Pa					
Energy classification filters		ePM1 55% (F7) ePM10 60% (M5)					
Filter pressure switch		present					
Sound power level L_{WA} ⁽⁴⁾	dB(A)	63	63	66	68	67	71
Sound pressure level ⁽⁵⁾	dB(A)	47	47	49	52	50	55
Power supply	V/ph/Hz	230/1/50				400/3/50	

⁽¹⁾ ratio between the thermal gain of the inlet air (0 °C) and the thermal loss of the exhaust air (20 °C), both referred to the external temperature, measured under dry reference conditions,

with balanced mass flow and a thermal difference of the internal/external air of 20K, excluding the thermal gain generated by the fan motors and the internal leakage,

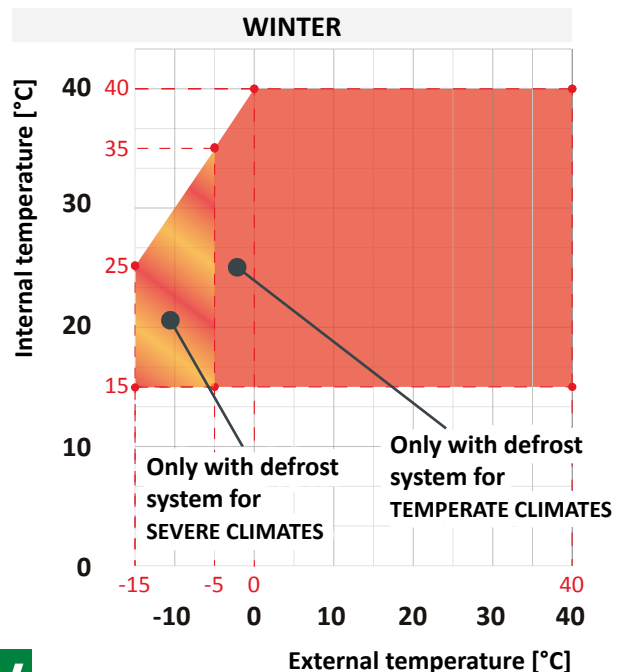
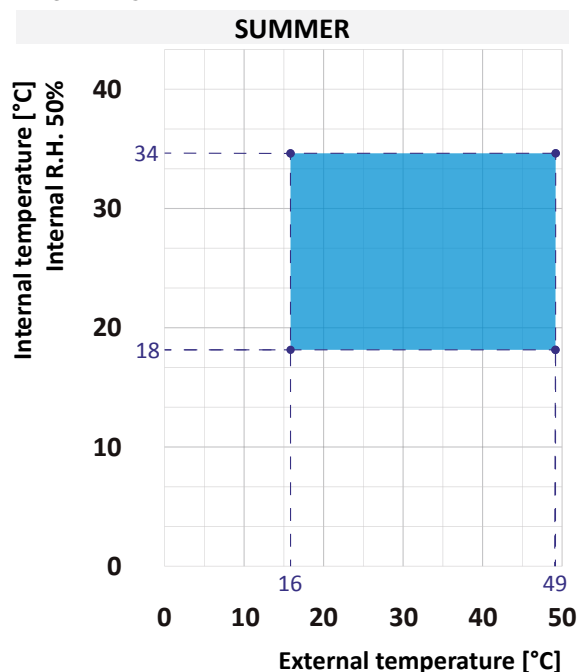
⁽²⁾ outside air: -5 °C / 80 % RH- Inside air: 20 °C / 50 % RH

⁽³⁾ performance with clean filters

⁽⁴⁾ sound power level calculated in accordance with EN 3744

⁽⁵⁾ sound pressure level measured at 1 m free field distance, ducted unit, in accordance with EN 3744

OPERATING LIMITS



ACCESSORIES

ePM₁₀ 50% (G4) air pre-filter

Synthetic panel filter with low pressure drop.

ePM₁₀ 60% (M5), ePM₁ 55% (F7), ePM₁ 80% (F9) air filters

Filters with large filtering surface area that guarantees long operating life and less frequent replacements.

Defrost system for TEMPERATE CLIMATES (down to -5°C external)

To prevent frost formation on the heat exchanger, the unit manages an automatic defrost cycle through the unbalance of air flows. The defrost system consists of a specific device and a software that prevents an excessive drop of the temperature in the exhaust air by slowing down the supply air flow. The system is guaranteed for external temperatures down to -5°C.

Defrost system for SEVERE CLIMATES (down to -15°C external)

To prevent frost formation on the heat exchanger, the unit manages an automatic defrost cycle through the unbalance of air flows. The defrost system (optional) consists of a specific device and a software that prevents an excessive drop of the temperature in the exhaust air by slowing down the supply air flow and opening the by-pass damper in the heat exchanger. This device requires pairing with a hot water coil kit + modulating valve or a self-regulating electric heater. The system is guaranteed for external temperatures down to -15°C.

Hot / Cold water coil

Coil manufactured with copper pipes mechanically expanded in the aluminium fins to increase the thermal exchange rate. On request, it is possible to install coils with thermal performances different from the standard ones, when previously agreed with the factory. The section is supplied complete with condensate drain pan with water discharge (only for cold water coil).

3 way modulating valve

Valve with modulating electric actuator for the control of the water flow of the hot / cold water coil. Connections not included (to be arranged for by the installer).

Air damper with actuator

It operates to exclude the fresh air intake and/or the room return air flow. The damper is controlled by On/Off actuator for the opening or the closing, or with return closing spring.

Flexible joints kit (4 pcs)

Flexible joint for rectangular ducts, complete with galvanized steel flange and screws.

CO₂ probe

ECO version units can be equipped with air quality CO₂ probe. This accessory is installed and wired in the factory on the return air and it allows to determine the quantity of carbon dioxide present in the environment, increasing the quantity of external air to dilute its content.

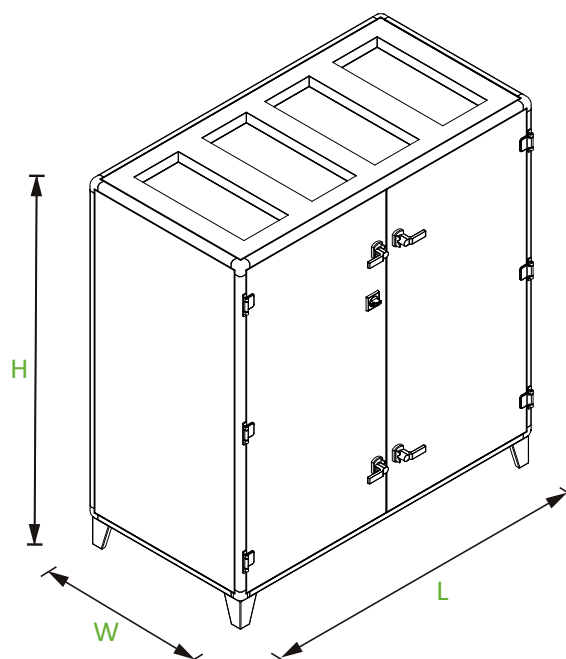
NOTE: CO₂ probe is available in ECO version only.

MODEL	600	1000	1500	2000	3000	4000
50 mm Thermal Break frame	□	□	□	□	□	□
ePM ₁₀ 50% (G4) pre-filter on supply and return air	□	□	□	□	□	□
ePM ₁₀ 60% (M5) filter on supply and return air	□	□	□	□	□	□
ePM ₁ 55% (F7) filter on supply and return air	□	□	□	□	□	□
ePM ₁ 80% (F9) filter on supply and return air	□	□	□	□	□	□
Unbalanced airflows desfrost system for temperate climates	□	□	□	□	□	□
Unbalanced airflows desfrost system for severe climates	□	□	□	□	□	□
Electric post-heating coil	□	□	□	□	□	□
Hot water coil	□	□	□	□	□	□
Cold water coil	□	□	□	□	□	□
3 way modulating valve	□	□	□	□	□	□
Fresh air / Exhaust air damper with On/Off actuator	□	□	□	□	□	□
Flexible joints kit (4 pcs)	□	□	□	□	□	□
CO ₂ probe (available only for ECO version)	□	□	□	□	□	□

■ Standard □ Optional – Not available



DIMENSIONAL DRAWING

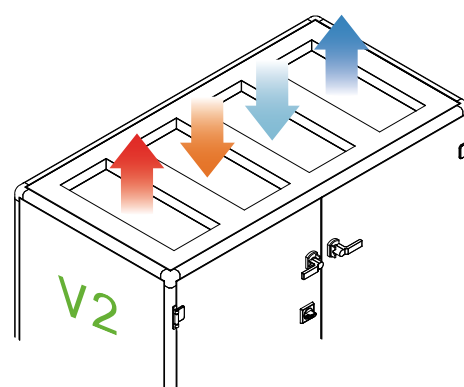
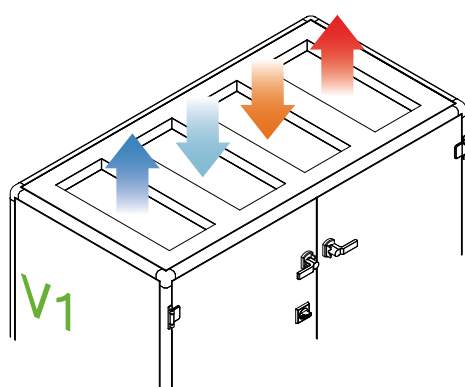


DIMENSIONS AND WEIGHTS

MODEL	600	1000	1500	2000	3000	4000
L (mm)	1260	1560	1560	1860	1860	2160
W (mm)	660	660	810	810	960	1260
H (mm)	1390	1540	1690	1840	1840	1840
Weight (kg)	215	233	302	397	472	690

Dimensions and weights referred to the standard configuration

CONFIGURATIONS



 ROOM RETURN AIR
 STALE ROOM EXHAUST AIR

 FRESH AIR INLET
 SUPPLY AIR TO THE ROOM

VORT NRG MEGA

High efficiency heat recovery units with plate heat exchanger and 50mm thick insulated panels



INTRODUCTION

Any occupied room requires the correct supply of fresh air and, at the same time, the control of the internal thermo-hygrometric conditions, through the recovery of energy from the air extracted from the room, by means of static counter-flow heat recoveries, the level of well-being of the occupants is guaranteed, both in summer and winter.

For buildings that require air changes and are not equipped with dedicated air conditioning systems, the installation of such units allows the supply of primary air at controlled temperature without substantially changing the internal conditions in the occupied spaces.

These units also make it possible to guarantee support for the air conditioning system in the intermediate seasons using free-cooling or free-heating modes.

These units, if installed on existing buildings, guarantee the energy requalification of the system through the management of the air change without additional charges; in the case of new installations, instead, the air change is completely carried out allowing to reduce the size of the main air conditioning system.

In the intermediate seasons the building will benefit from free or partially-generated cooling from these units, which during the partial load phases allow the main system to operate with higher efficiency.





STRUCTURE AND PANELS

The structure of the units can be realised in 2 types:

Type 1: Panels 50 mm Standard [T3/TB3]

50 x 50 mm extruded anodised aluminium profiles with mechanical resistance requirements according to EN 1886: D1 (M). 50 mm thick double-wall sandwich type panelling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T3/TB3** in accordance with EN1886.

Type 2: Panels 50 mm TB [T2/TB2]

50 x 50 mm thermal break profiles in extruded anodised aluminium, with mechanical resistance requirements in accordance with EN 1886: D1 (M).

50 mm thermal break sandwich type double-wall paneling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T2/TB2** in accordance with EN1886.

Safety microswitches are applied to the inspection doors to allow internal access to the various compartments of the unit only when the unit is completely switched off.

The main access and inspection panels consist of inspection doors with perimeter hinges made of non-corrosive polyamide and handles.

All units are supplied in monobloc sections.

AIR FILTERS

The units can host different types of filters, both in the room air extract and in the fresh air intake.

They are mounted on guides equipped with gaskets to guarantee effective sealing. Their position, upstream of the internal components, also guarantees their protection.

All units are equipped with differential pressure switches to monitor the air side pressure drops of the filtering sections.

FANS

The units are equipped with high efficiency plug-fan type fans with built-in brushless EC motor.

In this way it is possible to guarantee an accurate control of the airflow both in the supply and extract section, ensuring that all regulatory requirements such as SFP are met.

The airflow rate of the fan is managed through the integrated electronic control system thus ensuring, according to the needs of the system, that the correct operation of the unit is maintained with consequent saving of the energy absorbed by the unit.

The fans are fixed to the frame by means of self-centering brackets to ensure the correct distance between the impeller and the nozzle, thus optimizing performance.

HEAT RECOVERY

The units are equipped with an aluminium counter-flow plate heat exchanger used to transfer heat from the exhaust air to the fresh air. The heat exchange takes place in counter-flow.

In some conditions of low outside air temperature and high humidity, the exchanger may start to frost. The units are equipped with a defrost system required in case of very low ambient conditions. The defrost system can either be electric or by hot water.

The heat recovery is also equipped with an additional bypass damper for the management of the free-cooling and free-heating mode.

The heat exchanger participates to the **Eurovent Certification** program and it is sized according to the **ECO Design** specification.

CONTROLS

The unit is managed by a microprocessor electronic board with dedicated software and external LCD display as user interface. Through the external or remote LCD display it is possible to set all the working set-points of the unit and display the operating status and any alarm conditions present.

Through the values acquired by the room temperature probe and the supply air, the thermoregulation will be managed with reference to the set-points.

The unit can manage the automatic change of operating modes by comparing the temperature and humidity of the outside and room air.

The microprocessor also activates and modulates all the dampers of the unit and optimizes all the operating parameters of the refrigerant circuit.

The RS485 interface is standard (MODBUS protocol) to be used for connection to remote supervision and control systems. The control can also be supplied with a second remotable control panel (optional).



LCD REMOTE GRAPHIC DISPLAY

CONTROLS

The units are supplied as standard with a microprocessor control system and remotable control panel with graphic LCD display. They are available in two versions: **PLUS** and **TOP**.

PLUS: this control option is set to operate at **CONSTANT PRESSURE**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

TOP: this control option is set to operate at **CONSTANT AIRFLOW**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

All control systems allows to select, in stepless mode, the supply and return fan speeds, through the use of differential transducers and automatically manages the heat recovery by-pass damper through the motorized On/Off control.

They also manages the summer/winter seasonal change over and programming for daily time bands.

The controls can also manages an optional hot water or cold water coil through a 3-way modulating valve and an additional supply air sensor in order to maintain a fixed point operating logic. The same logic can also be used to manage an electric post-heating coil, if present.

They are also able to manage the unit's defrosting system, (optional), by means of an additional temperature probe located in the heat exchanger exhaust air.

The systems alerts to the user when filters need replacing (the clogged state of the filters is monitored by a pair of differential pressure switches supplied as standard) or the onset of any alarm and this may also be integrated into modern home automation systems via RS485 serial port with Modbus protocol (supplied as standard).

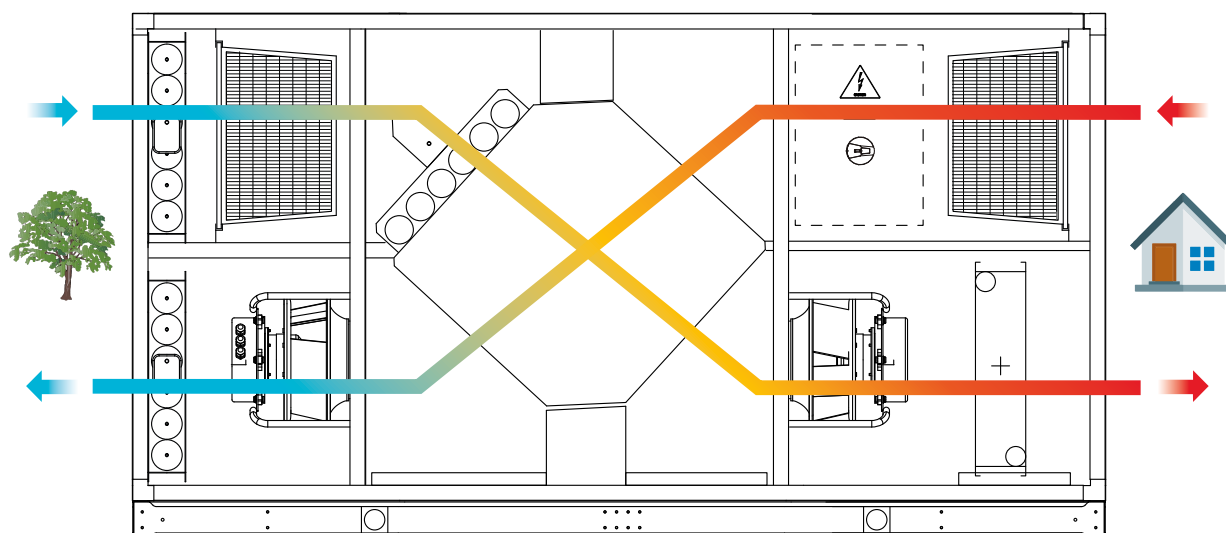
OPERATING MODE

In winter, the ambient air with a higher thermal load passes through the plate heat exchanger, releasing heat and cooling down before being expelled. The fresh air passes through the exchanger in the opposite direction, warming up.

In summer, the ambient air with a lower thermal load passes through the exchanger, absorbing heat and warming up before being expelled. The fresh air passes through the exchanger in the opposite direction, cooling down before being introduced into the environment.

The airflow is modulated by varying the speed of the EC fans to control the supply air temperature.

In Free-Cooling mode, the unit opens the By-Pass damper, allowing external fresh air to enter without heat recovery when the external temperature is lower than the internal temperature.





TECHNICAL DATA

MODEL		1000	1500	2000	3000	4000	6000	8000
Nominal airflow rate	m ³ /h	1000	1500	2000	3000	4000	6000	8000
Type of ventilation unit		UVNR-B (Non Residential Ventilation Units- Bidirectional)						
Type of drive installed		Analog signal on EC fan (0-10Vdc)						
Type of fans	type/nr.	EC/4	EC/2	EC/2	EC/2	EC/2	EC/4	EC/4
Type of heat recovery system (HRS)	type/nr.	static counter-flow / 1						
Winter Thermal Efficiency (η_{t_nrvu}) ⁽¹⁾	%	75,2	75,2	75,2	74,4	74,3	77,8	77,8
Winter Thermal Efficiency ⁽²⁾	%	83,7	83,7	83,7	82,9	80,8	86,4	86,4
Nominal electric power input ⁽²⁾	kW	0,54	0,84	0,88	1,05	1,90	2,10	4,80
Max electrical power absorbed	kW	0,68	1,00	1,00	2,20	3,00	4,40	6,00
Max electrical current absorbed	A	2,8	4,6	4,6	3,5	4,8	7,0	9,6
SFP _{int}	W/(m ³ /s)	858	849	759	916	949	943	811
SFPlim 2018	W/(m ³ /s)	1121	1101	1090	1014	974	991	941
External nominal pressure $\Delta p_{s, ext}$ ⁽³⁾	Pa	250	250	250	250	250	250	250
Internal pressure drop $\Delta p_{s, int}$ on supply air	Pa	290	323	304	384	364	344	329
Fans static efficiency (UE) n.327/2011	%	58	59	61	62	61	65	63
Max. external / internal leakage percentage	%	max 3,5 % at -400 Pa max 5,0 % at +250 Pa						
Energy classification filters		ePM1 55% (F7) ePM1 55% (F7)						
Filter pressure switch		present						
Sound power level L_{WA} ⁽⁴⁾	dB(A)	62	66	68	67	71	70	74
Sound pressure level ⁽⁵⁾	dB(A)	45	49	52	50	55	53	58
Power supply	V/ph/Hz	230/1/50			400/3/50			

⁽¹⁾ ratio between the thermal gain of the inlet air (0 °C) and the thermal loss of the exhaust air (20 °C), both referred to the external temperature, measured under dry reference conditions, with balanced mass flow and a thermal difference of the internal/external air of 20K, excluding the thermal gain generated by the fan motors and the internal leakage, in accordance

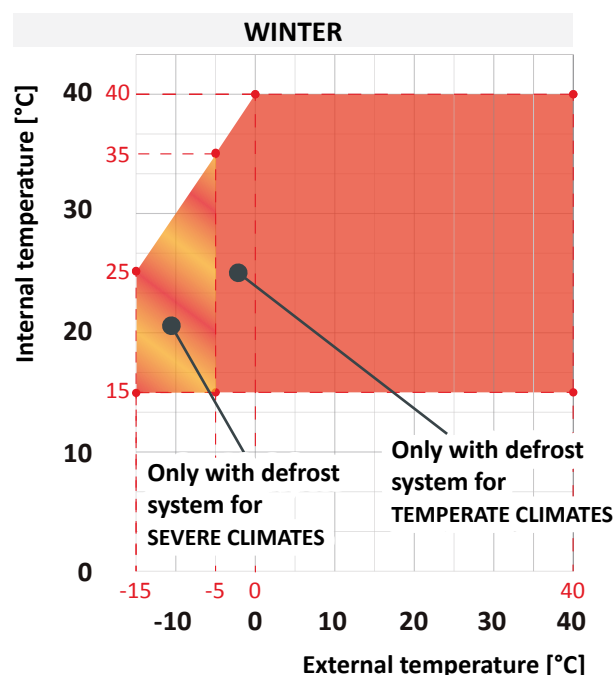
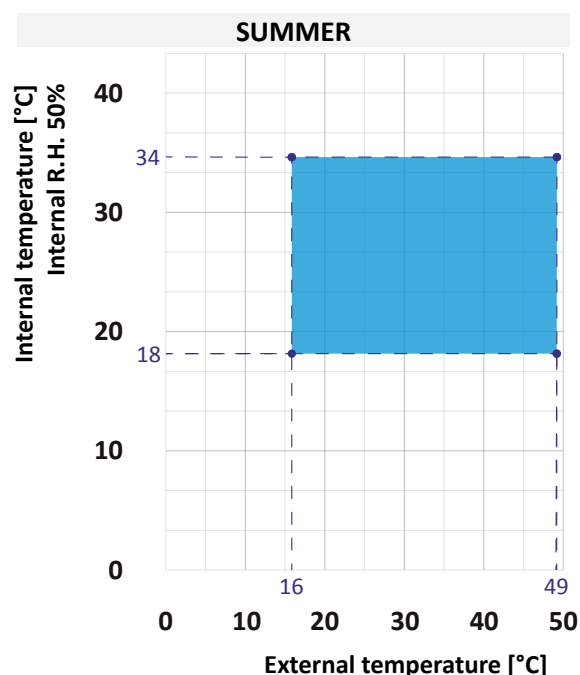
⁽²⁾ outside air: -5 °C / 80 % RH- Inside air: 20 °C / 50 % RH

⁽³⁾ performance with clean filters

⁽⁴⁾ sound power level calculated in accordance with EN 3744

⁽⁵⁾ sound pressure level measured at 1 m free field distance, ducted unit, in accordance with EN 3744

OPERATING LIMITS



ACCESSORIES

ePM₁₀ 50% (G4) air pre-filter

Synthetic panel filter with low pressure drop.

ePM₁₀ 60% (M5), ePM₁ 55% (F7), ePM₁ 80% (F9) air filters

Rigid bag filters with large filtering surface area that guarantees long operating life and less frequent replacements.

Defrost system for TEMPERATE CLIMATES (down to -5°C external)

To prevent frost formation on the heat exchanger, the unit manages an automatic defrost cycle through the unbalance of air flows.

The defrost system consists of a specific device and a software that prevents an excessive drop of the temperature in the exhaust air by slowing down the supply air flow. The system is guaranteed for external temperatures down to -5°C.

Defrost system for SEVERE CLIMATES (down to -15°C external)

To prevent frost formation on the heat exchanger, the unit manages an automatic defrost cycle through the unbalance of air flows. The defrost system (optional) consists of a specific device and a software that prevents an excessive drop of the temperature in the exhaust air by slowing down the supply air flow and opening the by-pass damper in the heat exchanger.

This device requires pairing with a hot water coil kit + modulating valve or a self-regulating electric heater. The system is guaranteed for external temperatures down to -15°C.

Hot / Cold water coil

Coil manufactured with copper pipes mechanically expanded in the aluminium fins, complete with condensate drain pan with water discharge (only for cold water coil). On request, it is possible to install coils with thermal performances different from the standard ones, when previously agreed with the factory.

3 way modulating valve

Valve with modulating electric actuator for the control of the water flow of the hot / cold water coil.

Connections not included (to be arranged for by the installer).

Air damper with actuator

It operates to exclude the fresh air intake and/or the room return air flow. The damper is controlled by On/Off actuator for the opening or the closing, or with return closing spring.

Flexible joints kit (4 pcs)

Flexible joint for rectangular ducts, complete with galvanized steel flange and screws.

CO₂ probe

This accessory is installed and wired in the factory on the return air and it allows to determine the quantity of carbon dioxide present in the environment, increasing the quantity of external air to dilute its content.

NOTE: CO₂ probe is available in TOP version only.

Ethernet port and TCP/IP modbus | BACnet port

Ethernet port for BMS Modbus or BACnet network connection.

Second remotable control panel with LCD display

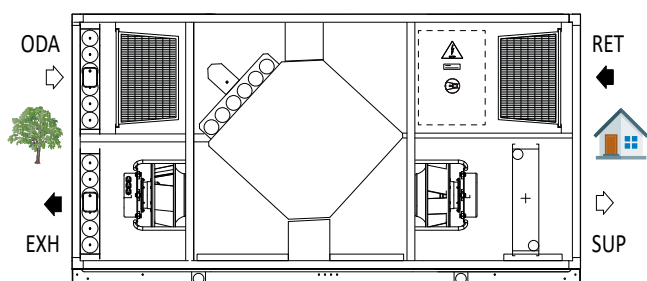
All units are supplied as standard with a control panel installed on board the unit. It is possible, however, to install a second control panel remotable up to 50 m away.

MODEL	1000	1500	2000	3000	4000	6000	8000
50 mm Thermal Break frame [T2/TB2]	☐	☐	☐	☐	☐	☐	☐
ePM ₁₀ 50% (G4) pre-filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
ePM ₁₀ 60% (M5) rigid bag filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
ePM ₁ 55% (F7) rigid bag filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
ePM ₁ 80% (F9) rigid bag filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
Unbalanced airflows desfrost system for temperate climates	☐	☐	☐	☐	☐	☐	☐
Unbalanced airflows desfrost system for severe climates	☐	☐	☐	☐	☐	☐	☐
Electric post-heating coil	☐	☐	☐	☐	☐	☐	☐
Hot water coil	☐	☐	☐	☐	☐	☐	☐
Cold water coil	☐	☐	☐	☐	☐	☐	☐
3 way modulating valve	☐	☐	☐	☐	☐	☐	☐
Fresh air / Exhaust air damper with On/Off actuator	☐	☐	☐	☐	☐	☐	☐
Flexible joints kit (4 pcs)	☐	☐	☐	☐	☐	☐	☐
CO ₂ probe (available in TOP version only)	☐	☐	☐	☐	☐	☐	☐
Ethernet port and TCP/IP Modbus BACnet port	☐	☐	☐	☐	☐	☐	☐
Second remotable control panel with LCD display	☐	☐	☐	☐	☐	☐	☐

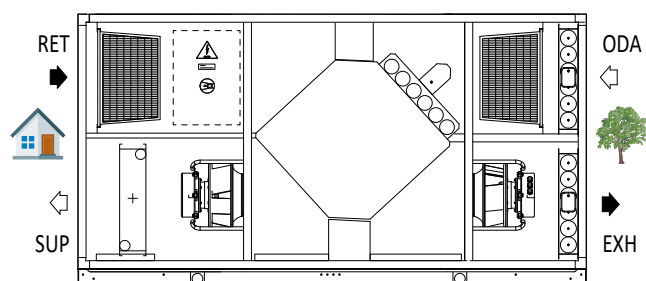


CONFIGURATIONS

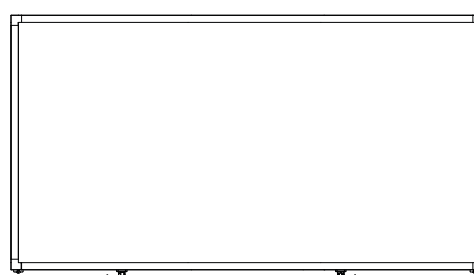
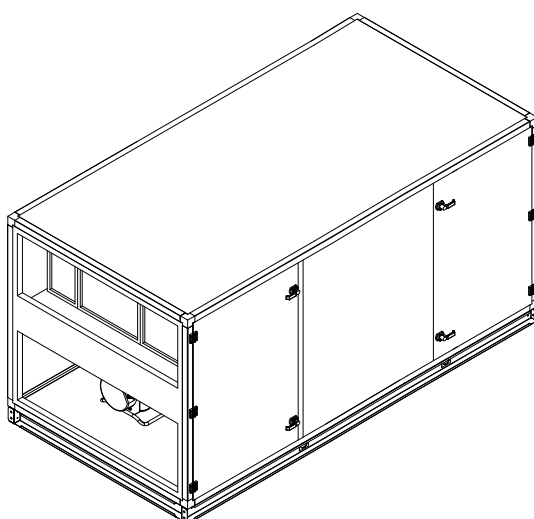
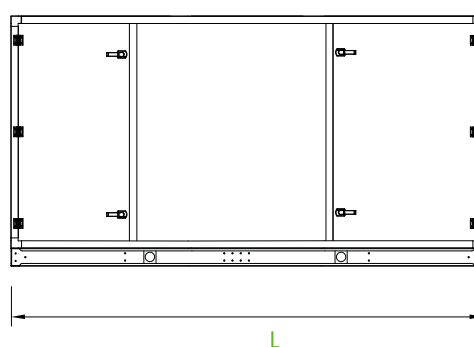
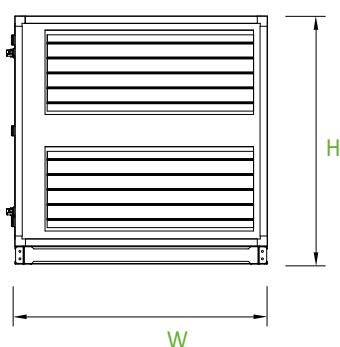
CONFIGURATION H1



CONFIGURATION H2



DIMENSIONAL DRAWING



DIMENSIONS AND WEIGHTS

MODEL	1000	1500	2000	3000	4000	6000	8000
L (mm)	2310	2310	2460	2460	2760	3060	3360
W (mm)	810	810	960	1110	1410	1410	1710
H (mm)	1080	1080	1230	1380	1380	1530	1680
Weight (kg)	268	271	322	379	498	612	761

Dimensions and weights refer to standard version without accessories

VORT NRG MEGA R

High efficiency heat recovery units with rotary wheel heat exchanger and 50mm thick insulated panels



INTRODUCTION

Any occupied room requires the correct supply of fresh air and, at the same time, the control of the internal thermo-hygrometric conditions, through the recovery of energy from the air extracted from the room, by means of rotary wheel heat recovery, the level of well-being of the occupants is guaranteed, both in summer and winter.

For buildings that require air changes and are not equipped with dedicated air conditioning systems, the installation of such units allows the supply of primary air at controlled temperature without substantially changing the internal conditions in the occupied spaces.

These units also make it possible to guarantee support for the air conditioning system in the intermediate seasons using free-cooling or free-heating modes.

These units, if installed on existing buildings, guarantee the energy requalification of the system through the management of the air change without additional charges; in the case of new installations, instead, the air change is completely carried out allowing to reduce the size of the main air conditioning system.

In the intermediate seasons the building will benefit from free or partially-generated cooling from these units, which during the partial load phases allow the main system to operate with higher efficiency.





STRUCTURE AND PANELS

The structure of the units can be realised in 2 types:

Type 1: Panels 50 mm Standard [T3/TB3]

50 x 50 mm extruded anodised aluminium profiles with mechanical resistance requirements according to EN 1886: D1 (M). 50 mm thick double-wall sandwich type panelling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T3/TB3** in accordance with EN1886.

Type 2: Panels 50 mm TB [T2/TB2]

50 x 50 mm thermal break profiles in extruded anodised aluminium, with mechanical resistance requirements in accordance with EN 1886: D1 (M).

50 mm thermal break sandwich type double-wall paneling with exterior in prepainted steel RAL 9010 and interior in galvanised steel with polyurethane foam insulation with a density of 40 kg/m³. This structure has a tightness class L1 while the thermal transmittance and thermal bridge characteristic is class **T2/TB2** in accordance with EN1886.

Safety microswitches are applied to the inspection doors to allow internal access to the various compartments of the unit only when the unit is completely switched off.

The main access and inspection panels consist of inspection doors with perimeter hinges made of non-corrosive polyamide and handles.

All units are supplied in monobloc sections.

AIR FILTERS

The units can host different types of filters, both in the room air extract and in the fresh air intake.

They are mounted on guides equipped with gaskets to guarantee effective sealing. Their position, upstream of the internal components, also guarantees their protection.

All units are equipped with differential pressure switches to monitor the air side pressure drops of the filtering sections.

FANS

The units are equipped with high efficiency plug-fan type fans with built-in brushless EC motor.

In this way it is possible to guarantee an accurate control of the airflow both in the supply and extract section, ensuring that all regulatory requirements such as SFP are met.

The airflow rate of the fan is managed through the integrated electronic control system thus ensuring, according to the needs of the system, that the correct operation of the unit is maintained with consequent saving of the energy absorbed by the unit.

The fans are fixed to the frame by means of self-centering brackets to ensure the correct distance between the impeller and the nozzle, thus optimizing performance.

HEAT RECOVERY

The units are equipped with an air-to-air rotary wheel exchanger, consisting by a cylindrical rotor containing thousands of channels and characterised by an extremely elevate surface development, a supporting frame, and an electric motor drive system. The heat exchange surface, very high in relation to the volume, allows very high thermal performances when compared to other types of heat recovery systems.

In rotary wheel heat recovery units the heat exchange takes place by accumulating the heat in the rotor; as a matter of fact while the cylinder rotates slowly, the exhaust air volume crosses half of the casing and gives its heat to the rotor matrix, which accumulates it.

The fresh air, crossing the other half, absorbs the accumulated heat. The parts absorbing and releasing the heat are continuously inverted, as the rotation proceeds, and the process may continue indefinitely.

The heat exchanger participates to the **Eurovent Certification** program and it is sized according to the **ECO Design** specification.

CONTROLS

The unit is managed by a microprocessor electronic board with dedicated software and external LCD display as user interface. Through the external or remote LCD display it is possible to set all the working set-points of the unit and display the operating status and any alarm conditions present.

Through the values acquired by the room temperature probe and the supply air, the thermoregulation will be managed with reference to the set-points.

The unit can manage the automatic change of operating modes by comparing the temperature and humidity of the outside and room air.

The microprocessor also activates and modulates all the dampers of the unit and optimizes all the operating parameters of the refrigerant circuit.

The RS485 interface is standard (MODBUS protocol) to be used for connection to remote supervision and control systems. The control can also be supplied with a second remotable control panel (optional).



LCD REMOTE GRAPHIC DISPLAY

CONTROLS

The units are supplied as standard with a microprocessor control system and remotable control panel with graphic LCD display. They are available in two versions: **PLUS** and **TOP**.

PLUS: this control option is set to operate at **CONSTANT PRESSURE**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

TOP: this control option is set to operate at **CONSTANT AIRFLOW**, it is supplied complete with pressure transducer and air temperature sensors installed on the fresh air intake and room return air.

All control systems allows to select, in stepless mode, the supply and return fan speeds, through the use of differential transducers and automatically manages the heat recovery by-pass damper through the motorized On/Off control.

They also manages the summer/winter seasonal change over and programming for daily time bands.

The controls can also manages an optional hot water or cold water coil through a 3-way modulating valve and an additional supply air sensor in order to maintain a fixed point operating logic. The same logic can also be used to manage an electric post-heating coil, if present.

They are also able to manage the unit's defrosting system, (optional), by means of an additional temperature probe located in the heat exchanger exhaust air.

The systems alerts to the user when filters need replacing (the clogged state of the filters is monitored by a pair of differential pressure switches supplied as standard) or the onset of any alarm and this may also be integrated into modern home automation systems via RS485 serial port with Modbus protocol (supplied as standard).

OPERATING MODE

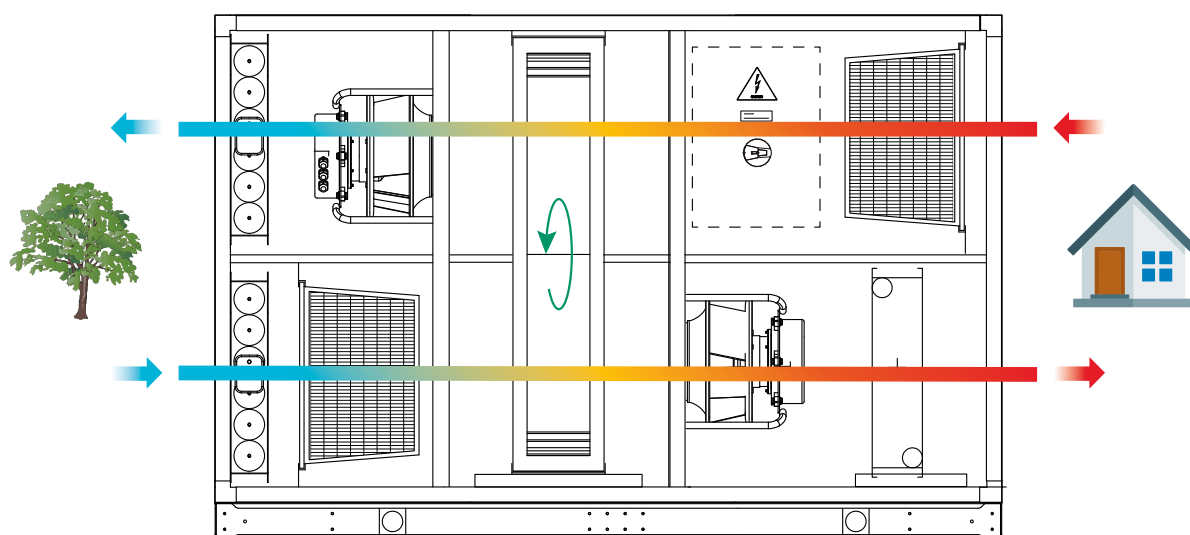
In winter the return air from the room with a higher thermal load passes through the rotary heat exchanger, releasing heat and cooling down before being exhausted.

The fresh air, with a lower thermal load, passes through the exchanger in the opposite direction, warming up before being introduced into the room.

The airflow is modulated by varying the speed of the EC fans to precisely control the supply air temperature. To prevent frost formation, the unit automatically manages a defrost cycle by temporarily stopping the rotation of the heat wheel exchanger.

In summer, the return air from the room with a lower thermal load passes through the rotary heat exchanger, warming up before being exhausted. The fresh air, with a higher thermal load, passes through the exchanger in the opposite direction, cooling down before being introduced into the room. The airflow is modulated by varying the speed of the EC fans to precisely control the supply air temperature.

When the outdoor air temperature is lower than the temperature of the room and if the latter requires cooling, the unit stops the rotation movement of the wheel exchanger to allow the entry of external air without heat recovery.





TECHNICAL DATA

MODEL		1000	1500	2000	3000	4000	6000	8000
Nominal airflow rate	m ³ /h	1000	1500	2000	3000	4000	6000	8000
Type of ventilation unit		UVNR-B (Non Residential Ventilation Units- Bidirectional)						
Type of drive installed		Analog signal on EC fan (0-10Vdc)						
Type of fans	type/nr.	EC/4	EC/2	EC/2	EC/2	EC/2	EC/4	EC/4
Type of heat recovery system (HRS)	type/nr.	enthalpic rotary wheel / 1						
Winter Thermal Efficiency (η_{t_nrvu}) ⁽¹⁾	%	75,3	75,2	76,9	76,6	74,7	74,4	76,0
Winter Thermal Efficiency ⁽²⁾	%	45,2	44,7	49,9	48,9	43,1	42,4	47,1
Nominal electric power input ⁽²⁾	kW	0,53	0,83	0,89	0,98	1,80	2,20	4,70
Max electrical power absorbed	kW	0,68	1,00	1,00	2,20	3,00	4,40	6,00
Max electrical current absorbed	A	2,8	4,6	4,6	3,5	4,8	7,0	9,6
SFP _{int}	W/(m ³ /s)	852	816	839	740	960	851	788
SFP _{lim} 2018	W/(m ³ /s)	1118	1104	1134	1083	984	892	890
External nominal pressure $\Delta p_{s, ext}$ ⁽³⁾	Pa	250	250	250	250	250	250	250
Internal pressure drop $\Delta p_{s, int}$ on supply air	Pa	270	301	313	297	353	335	293
Fans static efficiency (UE) n.327/2011	%	58	59	61	62	61	65	63
Max. external / internal leakage percentage	%	max 3,5 % at -400 Pa max 5,0 % at +250 Pa						
Energy classification filters		ePM1 55% (F7) ePM1 55% (F7)						
Filter pressure switch		present						
Sound power level L_{WA} ⁽⁴⁾	dB(A)	62	66	68	67	71	70	74
Sound pressure level ⁽⁵⁾	dB(A)	45	49	52	50	55	53	58
Power supply	V/ph/Hz	230/1/50			400/3/50			

⁽¹⁾ ratio between the thermal gain of the inlet air (0 °C) and the thermal loss of the exhaust air (20 °C), both referred to the external temperature, measured under dry reference conditions, with balanced mass flow and a thermal difference of the internal/external air of 20K, excluding the thermal gain generated by the fan motors and the internal leakage, in accordance

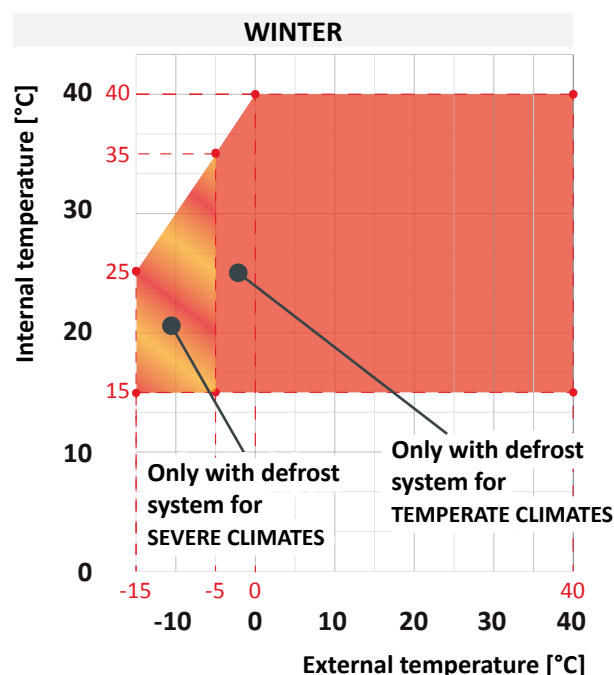
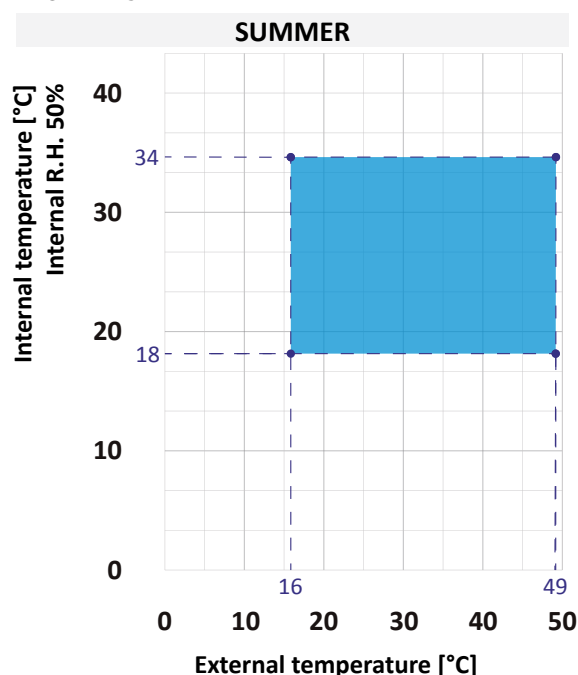
⁽²⁾ outside air: -5 °C / 80 % RH- Inside air: 20 °C / 50 % RH

⁽³⁾ performance with clean filters

⁽⁴⁾ sound power level calculated in accordance with EN 3744

⁽⁵⁾ sound pressure level measured at 1 m free field distance, ducted unit, in accordance with EN 3744

OPERATING LIMITS



ACCESSORIES

ePM₁₀ 50% (G4) air pre-filter

Synthetic panel filter with low pressure drop.

ePM₁₀ 60% (M5), ePM₁ 55% (F7), ePM₁ 80% (F9) air filters

Rigid bag filters with large filtering surface area that guarantees long operating life and less frequent replacements.

Electric re-heating battery

Made up of steel electric heaters, supplied complete with PWM control system and safety thermostat wired.

Hot / Cold water coil

Coil manufactured with copper pipes mechanically expanded in the aluminium fins, complete with condensate drain pan with water discharge (only for cold water coil). On request, it is possible to install coils with thermal performances different from the standard ones, when previously agreed with the factory.

3 way modulating valve

Valve with modulating electric actuator for the control of the water flow of the hot / cold water coil.
Connections not included (to be arranged for by the installer).

Air damper with actuator

It operates to exclude the fresh air intake and/or the room return air flow. The damper is controlled by On/Off actuator for the opening or the closing, or with return closing spring.

Flexible joints kit (4 pcs)

Flexible joint for rectangular ducts, complete with galvanized steel flange and screws.

CO₂ probe

This accessory is installed and wired in the factory on the return air and it allows to determine the quantity of carbon dioxide present in the environment, increasing the quantity of external air to dilute its content.

NOTE: CO₂ probe is available in TOP version only.

Ethernet port and TCP/IP modbus | BACnet port

Ethernet port for BMS Modbus or BACnet network connection.

Second remotable control panel with LCD display

All units are supplied as standard with a control panel installed on board the unit. It is possible, however, to install a second control panel remotable up to 50 m away.

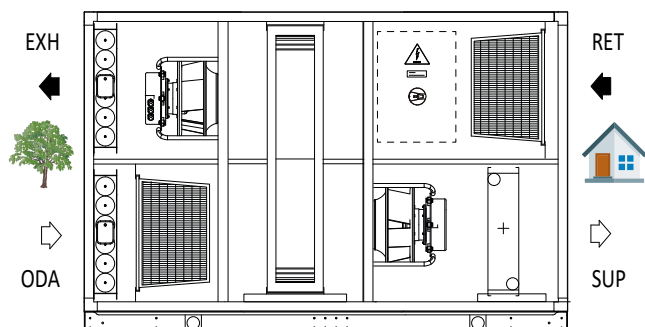
MODEL	1000	1500	2000	3000	4000	6000	8000
50 mm Thermal Break frame [T2/TB2]	☐	☐	☐	☐	☐	☐	☐
ePM ₁₀ 50% (G4) pre-filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
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ePM ₁ 55% (F7) rigid bag filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
ePM ₁ 80% (F9) rigid bag filter on supply and return air	☐	☐	☐	☐	☐	☐	☐
Unbalanced airflows desfrost system for temperate climates	☐	☐	☐	☐	☐	☐	☐
Unbalanced airflows desfrost system for severe climates	☐	☐	☐	☐	☐	☐	☐
Electric post-heating coil	☐	☐	☐	☐	☐	☐	☐
Hot water coil	☐	☐	☐	☐	☐	☐	☐
Cold water coil	☐	☐	☐	☐	☐	☐	☐
3 way modulating valve	☐	☐	☐	☐	☐	☐	☐
Fresh air / Exhaust air damper with On/Off actuator	☐	☐	☐	☐	☐	☐	☐
Flexible joints kit (4 pcs)	☐	☐	☐	☐	☐	☐	☐
CO ₂ probe (available in TOP version only)	☐	☐	☐	☐	☐	☐	☐
Ethernet port and TCP/IP Modbus BACnet port	☐	☐	☐	☐	☐	☐	☐
Second remotable control panel with LCD display	☐	☐	☐	☐	☐	☐	☐

■ Standard □ Optional – Not available

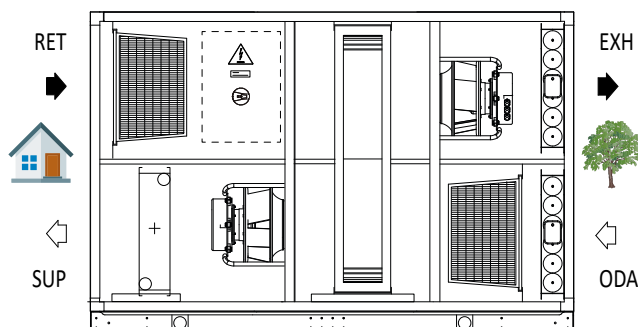


CONFIGURATIONS

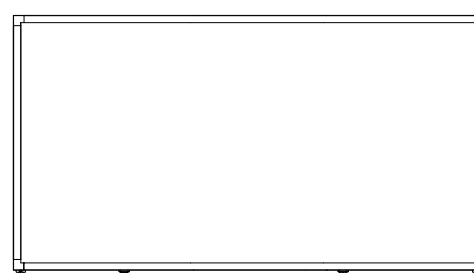
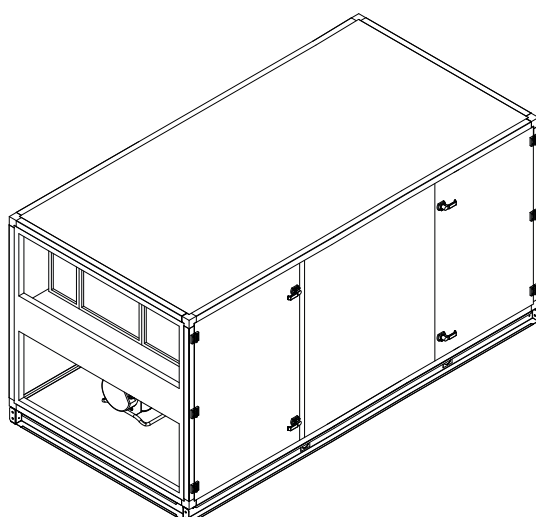
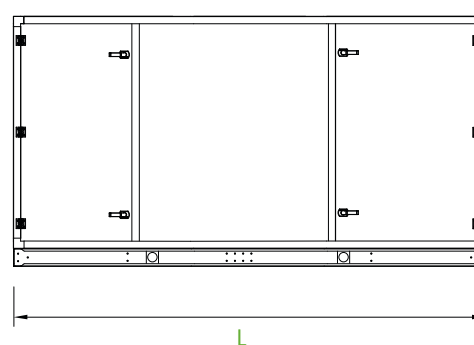
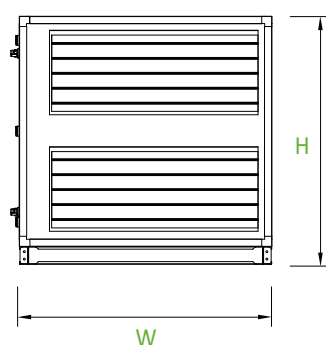
CONFIGURATION H1



CONFIGURATION H2



DIMENSIONAL DRAWING



DIMENSIONS AND WEIGHTS

MODEL	1000	1500	2000	3000	4000	6000	8000
L (mm)	2010	2010	2160	2310	2310	2610	2760
W (mm)	810	810	960	1110	1410	1410	1710
H (mm)	1080	1080	1230	1380	1380	1530	1830
Weight (kg)	274	279	338	425	479	586	789

Dimensions and weights refer to standard version without accessories

For **BESPOKE AHU** solutions Think **Vortice!**

Any size, any shape! The bespoke air handling units (AHUs) from Vortice are designed to fit your exact needs, no matter the space or complexity.



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Specification of AHU selection and accessory requirements and understanding your project needs.

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Quality checked products, tested to meet the customer specification, before dispatch. A well-stocked warehouse of components and modern manufacturing technology allows quick production of units and supply of spare parts when required.

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Flat-pack options for ease of installation and fully scheduled delivery service keeping installer up to date throughout the process.

ON SITE SUPPORT

AHU installation, controls commissioning and leakage testing in accordance with BS EN 1886.

AFTERSALES

Technical after sales team offering full support including installation service, commissioning advice and site visits to support set up.



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- MVHR BPEC training available
- Ask your wholesaler for more info



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AFTER PURCHASE

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Queries or questions?
Email us today at: aftersales@vortice.ltd.uk



ON SITE SUPPORT

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PRODUCT RELIABILITY

Vortice offer a comprehensive product warranty to protect against defects and performance issues and to give customers peace of mind.



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Vortice deliver comprehensive solutions that cover various needs in residential, specialised commercial and industrial applications.

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High Temperature Fans



Vortice offer an extensive range of F300 smoke fans specifically engineered for critical situations to ensure safe evacuation and reduce smoke build up.

For a quote or for more information email:

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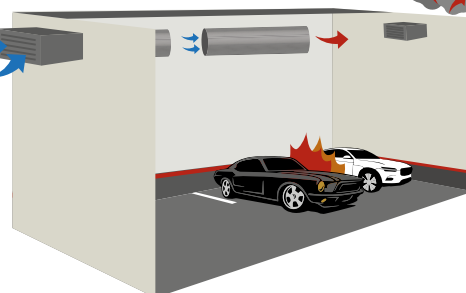


Air Extraction



Induction

Air Supply



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