

VORTICEL A-E ES RANGE

INDUSTRIAL WALL-MOUNTED AXIAL FANS

VORTICE

VORTICE S.p.A. is part of a multinational group, [1] **VORTICE GROUP**, which operates through its own companies or local distributors in over 90 countries worldwide and has a rich product portfolio that guarantees air quality and climate comfort. The headquarters of VORTICE S.p.A are in Tribiano (Milan).



VORTICE GROUP also includes:

[1/2]
BUSINESS UNIT INDUSTRIAL, born from the acquisition in 2010 of Loran srl, based in Isola della Scala (VR). 2024 become Vortice's BUSINESS UNIT INDUSTRIAL.

[3]
VORTICE LIMITED, the UK subsidiary of VORTICE S.p.A., established in 1977 and based in Burton on Trent.

[4]
VORTICE VENTILATION SYSTEM, a company inaugurated in 2013 with headquarters in Changzhou, China.

[5]
CASALS VENTILACIÓN AIR INDUSTRIAL S.L. historic Spanish brand, based in Sant Joan de les Abadesses, Girona, acquired in 2019.

[6]
VORTICE LATAM S.A., based in Alajuela in Costa Rica, established in 2012.

[7]
VORTICE POLSKA new representative office in Warsaw, Poland, established in 2026.

VORTICEL A-E ES RANGE

Industrial wall-mounted axial fans

Versatile and suitable for a wide range of industrial and commercial applications, their compact dimensions allow them to be easily integrated into various fields of application, from refrigeration to air conditioning, from ventilation to renewable energy generation systems, where high air flow rates are required alongside relatively low pressure drops. Their precisely calibrated drives and advanced control technology ensure efficient operation.



Regulatory Standards

Products of the VORTICEL A-E ES Range series comply with the following European Standards, Directives and Regulations:

- **Machine Safety Standards:**

- UNI EN ISO 12100:2010
- CEI EN 60204-1:2018
- UNI EN ISO 13857:2020
- UNI EN ISO EN 12499:2019
- CEI EN 60529:1997

- **Electromagnetic Compatibility Standards:**

- EN IEC 61000-6-4:2019
- EN IEC 61000-6-2:2019
- EN IEC 61000-3-2:2019

- **European Directives and Regulations for CE Marketing:**

- EMC Directive 2014/30/UE
- RED Directive (2014/53/UE)
- Ecodesign Directive (2009/125/CE)
- RoHS Directive 2011/65/EU + RoHS 3 Amendment 2015/863
- Machinery Regulation (UE) 2023/1230
- Electric Motors Regulation (EU) 2019/1781
- Fans Regulation (UE) 2024/1834
- REACH Regulation (EC) 1907/2006

TECHNICAL FEATURES

High efficiency industrial wall mounted axial fans with reduced axial depth, available in diameters from 250 to 630 mm and airflow rates up to 14.500 m^3/h.

- **Range Composition:**

  8 models: 7 single phase and 1 three phase.

- **Construction:**

  Panels made of powder coated black painted steel.

- **Inlet nozzles:**

  Integrated with the panels, calibrated to optimize airflow; elongated profile to improve performance and allow easy connection to ducting.

- **Protection grilles:**

  Compliant with UNI ISO 13857, made of welded steel rings, powder coated black.

- **Motors:**

  EC motors integrated with driver, external rotor type to minimize axial lengh, shafts mounted on ball bearings, thermally protected and speed controllable via 0–10 V signal.

- **Impellers:**

  Dynamically balanced impellers (UNI ISO 1940, grade 6.3); plastic blades, optimised in shape to ensure high performance, high efficiency and low noise levels.

KEY FEATURES

- **High efficiency and performance:**

  The reliable and quiet electronically commutated (EC) motors fitted to them make the VORTICEL A-E ES series fans the ideal solution for applications requiring a high air flow rate with low static pressure. Fully compliant with modern for environmental protection, they combine low energy consumption with simple speed control via a potentiometer (code 12828), allowing the treated air flow rate to be adjusted as requirements change, making them the most efficient and, at the same time, cost-effective solution in the medium to long term.

- **High reliability:**

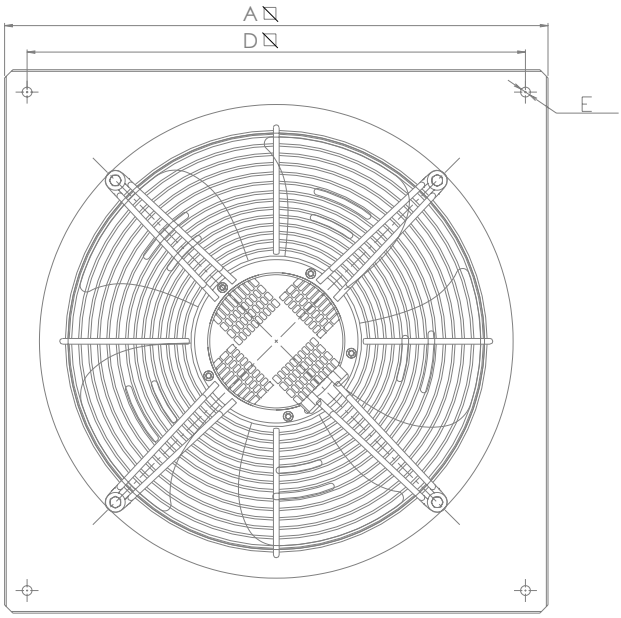
  Optimized construction for continuous operation in industrial environments, even at high ambient temperatures.

- **Full compliance with the latest European regulations,including Regulation (EU) 2024/1834, effective from 24 July 2026, which introduces stricter minimum efficiency requirements for fans sold in EU countries (with limited exceptions).**

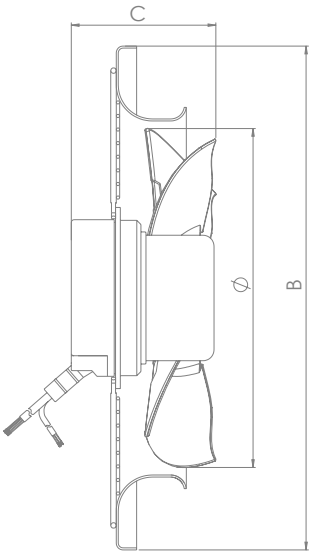
- **Installation flexibility:** Suitable for installation in any orientation.

- **Reduced axial depth.**

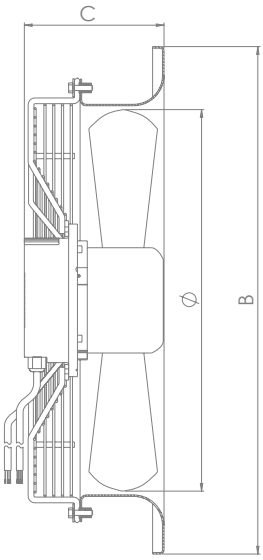
Dimensions



TYPE 1



TYPE 2



	MODELS	COD.	Ø	A	B	C	D	ØE
TYPE 1	**SINGLE-PHASE**							
	A-E 250 M ES	41220	250	370	370	102.6	320	7
	A-E 300 M ES	41221	300	430	430	86.8	380	10
	A-E 350 M ES	41222	350	485	485	125	435	10
	A-E 400 M ES	41223	400	540	540	148.7	490	10
	A-E 450 M ES	41224	450	575	575	153	520	10
TYPE 2	A-E 500 M ES-A	41225	500	665	665	184.2	610	12
	A-E 500 M ES-B	41226	500	665	665	190.5	610	12
	THREE-PHASE							
	A-E 500 T ES	41227	500	725	725	183	670	12

Dimensions in mm

TECHNICAL DATA

MODELS	Code	Motor Class	V~50/60 Hz	(W)	(A) Max	RPM	Max Airflow m³/h	Pa	Sound Pressure Lp dB(A) 1m	kg	IP	Outside temperature Max °C	Outside temperature Min °C
SINGLE-PHASE													
A-E 250 M ES	41220	B	220-240	200	1,4	3150	1500	208	69	4,5	44	+60	-20
A-E 300 M ES	41221	B	220-240	165	1,2	2100	1980	147	65	3	44	+60	-20
A-E 350 M ES	41222	B	220-240	165	1,1	1550	2825	143	67	6,5	44	+60	-20
A-E 400 M ES	41223	B	220-240	330	1,5	1650	4830	183	69	6	54	+60	-20
A-E 450 M ES	41224	B	220-240	340	1,57	1700	5540	165	70	6,5	44	+60	-20
A-E 500 M ES-A	41225	B	220-240	200	1,4	900	4850	98	56	10	54	+60	-20
A-E 500 M ES-B	41226	F	220-240	500	2,45	1450	7450	195	71	18	55	+60	-20
THREE-PHASE													
A-E 500 T ES	41227	F	380-415	850	1,5	1690	8700	270	78	18	44	+60	-20

ENERGY EFFICIENCY DATA ACCORDING TO REG. (EU) 2024/1834

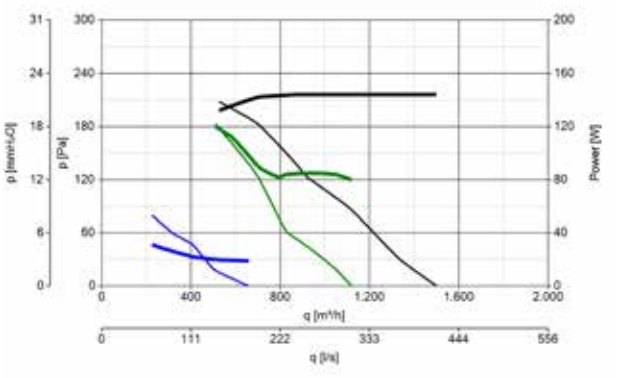
PRODUCT NAME AND CODE	A-E 250 M ES 41220	A-E 300 M ES 41221	A-E 350 M ES 41222	A-E 400 M ES 41223	A-E 450 M ES 41224	A-E 500 M ES-A 41225
Address at which the manufacturer can be contacted:	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy
Applicable pressure difference [Pa]:	183	98	72	147	130	62
DC voltage lower than 100V:	False	False	False	False	False	False
Efficiency category:	Static	Static	Static	Static	Static	Static
Efficiency grade N at BEP:	63	51	50	51	54	59
Fan efficiency [%]:	43,9	32,1	31,8	36,8	39,8	40,3
Fan speed in revolutions per minute [RPM]:	2945	1934	1530	1720	1638	840
Fan type:	axial fan	axial fan	axial fan	axial fan	axial fan	axial fan
List of all significant elements:	see the instruction booklet	see the instruction booklet	see the instruction booklet	see the instruction booklet	see the instruction booklet	see the instruction booklet
Manufacturer's name:	Vortice SpA	Vortice SpA	Vortice SpA	Vortice SpA	Vortice SpA	Vortice SpA
Measurement category:	A	A	A	A	A	A
Special characteristics:	no	no	no	no	no	no
Special speed:	no	no	no	no	no	no
The electric input power Pe [kW]:	0,142	0,170	0,177	0,411	0,426	0,184
The specific ratio:	1	1	1	1	1	1
Use of a VSD:	integrated	integrated	integrated	integrated	integrated	integrated
Volume flow rate qv [m³/h]:	879	1446	2055	2854	3620	3128

ENERGY EFFICIENCY DATA ACCORDING TO REG. (EU) 2024/1834

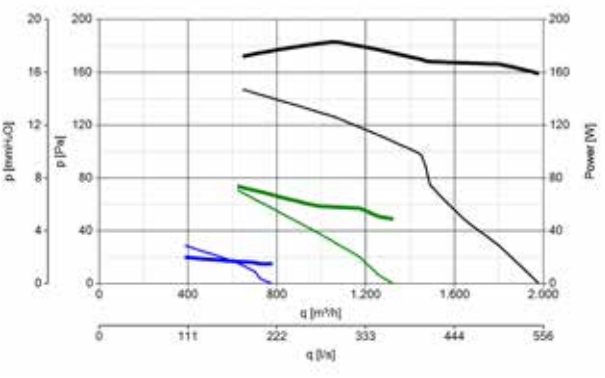
PRODUCT NAME AND CODE	A-E 500 M ES-B 41226	A-E 500 T ES 41227
Address at which the manufacturer can be contacted:	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy	Vortice SpA Starda Cerca 2 20067 Tribiano (MI) Italy
Applicable pressure difference [Pa]:	140	187
DC voltage lower than 100V:	False	False
Efficiency category:	Static	Static
Efficiency grade N at BEP:	54	52
Fan efficiency [%]:	41,1	40,9
Fan speed in revolutions per minute [RPM]:	1424	1720
Fan type:	axial fan	axial fan
List of all significant elements:	see the instruction booklet	see the instruction booklet
Manufacturer's name:	Vortice SpA	Vortice SpA
Measurement category:	A	A
Special characteristics:	no	no
Special speed:	no	no
The electric input power Pe [kW]:	0,585	0,892
The specific ratio:	1	1
Use of a VSD:	integrated	integrated
Volume flow rate qv [m^3/h]:	4854	5612

PERFORMANCE AND CONSUMPTION CURVES

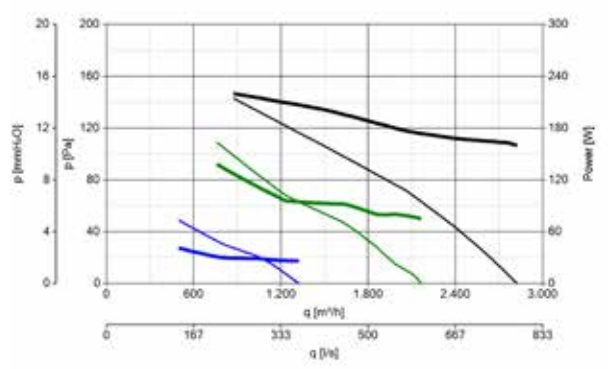
A-E 250 M ES
Cod.41220



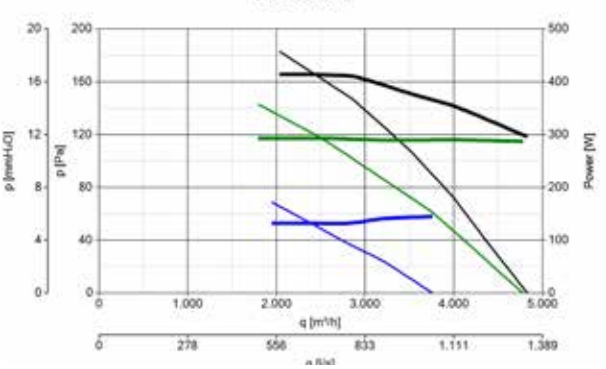
A-E 300 M ES
Cod.41221



A-E 350 M ES
Cod.41222



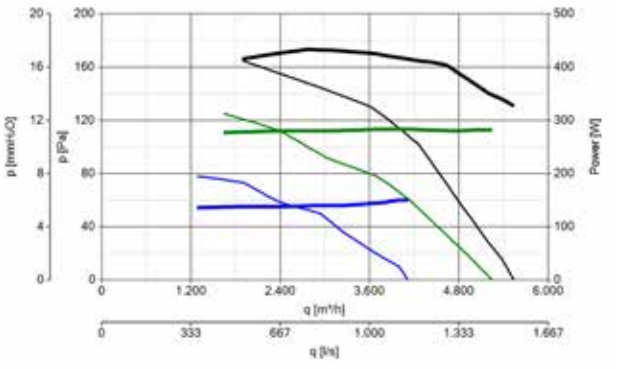
A-E 400 M ES
Cod.41223



Flow rate/Power
10V
6V
4V

Flow rate / Pressure
10V
6V
4V

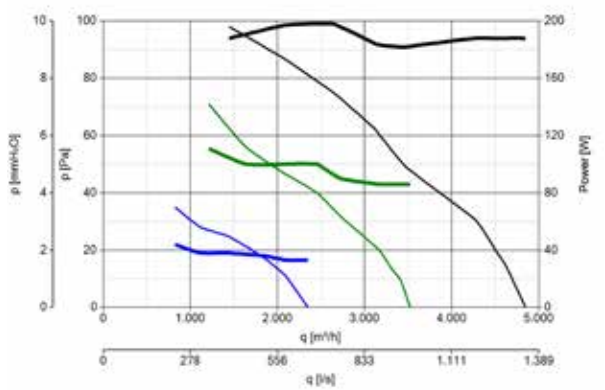
A-E 450 M ES
Cod.41224



Flow rate/Power
10V
6V
4V

Flow rate / Pressure
10V
6V
4V

A-E 500 M ES-A
Cod.41225

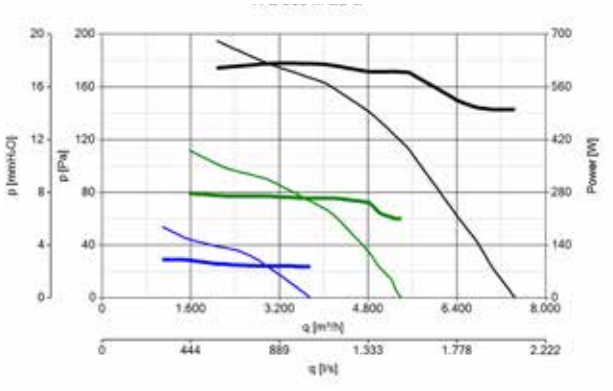


Flow rate/Power
10V
7V
5V

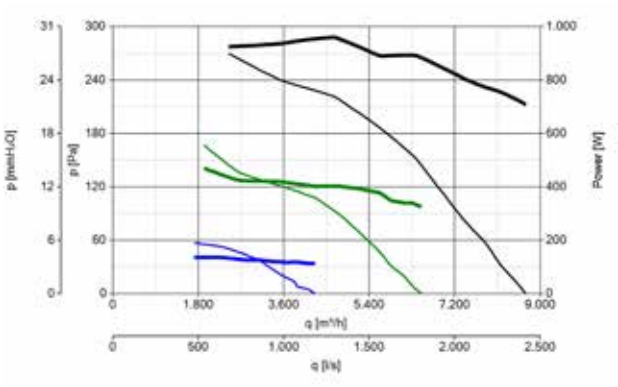
Flow rate / Pressure
10V
7V
5V

PERFORMANCE AND CONSUMPTION CURVES

A-E 500 M ES-B
Cod.41226



A-E 500 T ES
Cod.41227



Flow rate/Power
10V
6V
4V

Flow rate / Pressure
10V
6V
4V

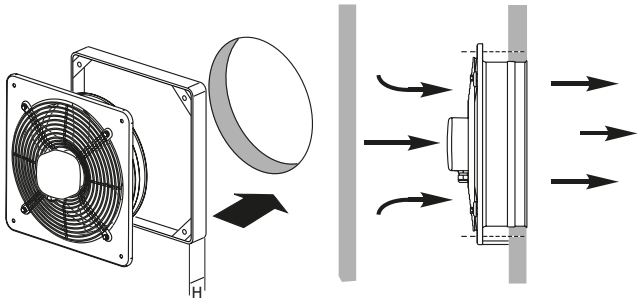
Flow rate/Power
10V
7V
5V

Flow rate / Pressure
10V
7V
5V

ACCESSORIES

MODELS	CODE	DPU SPACER	POT - POTENTIOMETER	TRA - SAFETY GRILLE	PGR/PGR-P GRAVITY SHUTTER
SINGLE-PHASE					
A-E 250 M ES	41220	•	•	•	•
A-E 300 M ES	41221	•	•	•	•
A-E 350 M ES	41222	•	•	•	•
A-E 400 M ES	41223	•	•	•	•
A-E 450 M ES	41224	•	•	•	•
A-E 500 M ES-A	41225		•	•	•
A-E 500 M ES-B	41226		•	•	•
THREE-PHASE					
A-E 500 T ES	41227		•	•	•

DPU - SPACER



Model	Code	DPU - SPACER	Code
A-E 250 M ES	41220	DPU 250	52152
A-E 300 M ES	41221	DPU 300	52252
A-E 350 M ES	41222	DPU 350	52352
A-E 400 M ES	41223	DPU 400	52452
A-E 450 M ES	41224	DPU 450	52551

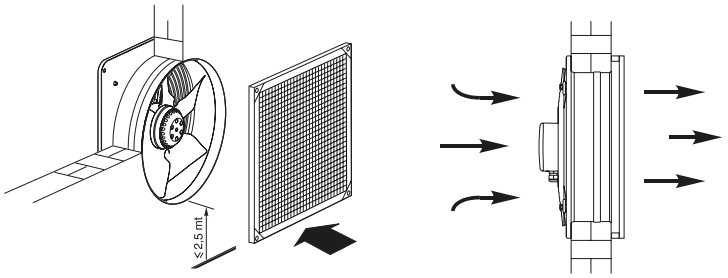
POT - POTENTIOMETER - Cod.12828



Wall-mounted and flush-mounted (in a standard DIN box) 0–10 V potentiometer.

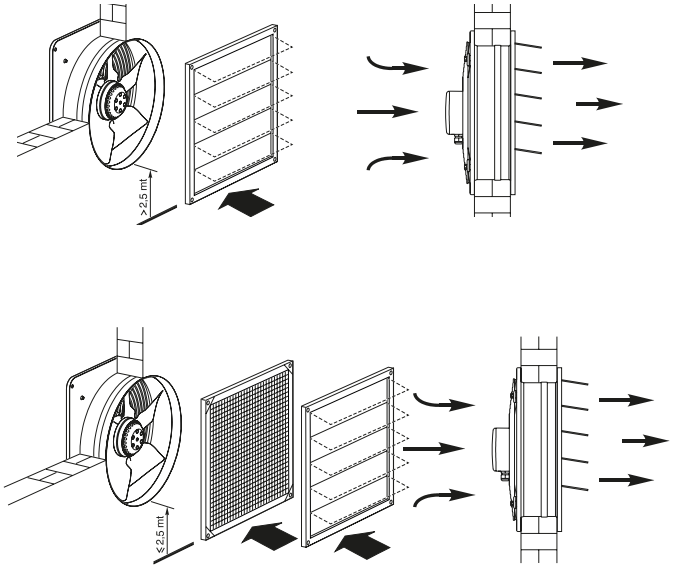
The fan speed can be adjusted by connecting the potentiometer.

TRA - FRAME WITH PROTECTIVE SAFETY NET



Model	Code	TRA - Frame with safety net	Code
A-E 250 M ES	41220	TRA 250	51150
A-E 300 M ES	41221	TRA 300	51250
A-E 350 M ES	41222	TRA 350	51350
A-E 400 M ES	41223	TRA 400	51450
A-E 450 M ES	41224	TRA 450/500	51550
A-E 500 M ES- A	41225		
A-E 500 M ES-B	41226		
A-E 500 T ES	41227		

PGR/PGR-P - GRAVITY SHUTTER



Model	Code	PGR - Gravity shutter	Code
A-E 250 M ES	41220	PGR 250	50150
A-E 300 M ES	41221	PGR 300	50250
A-E 350 M ES	41222	PGR 350	50350
A-E 400 M ES	41223	PGR 400	50400
A-E 450 M ES	41224	PGR 450/500	50550
A-E 500 M ES- A	41225		
A-E 500 M ES-B	41226		
A-E 500 T ES	41227		

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