VORTICE

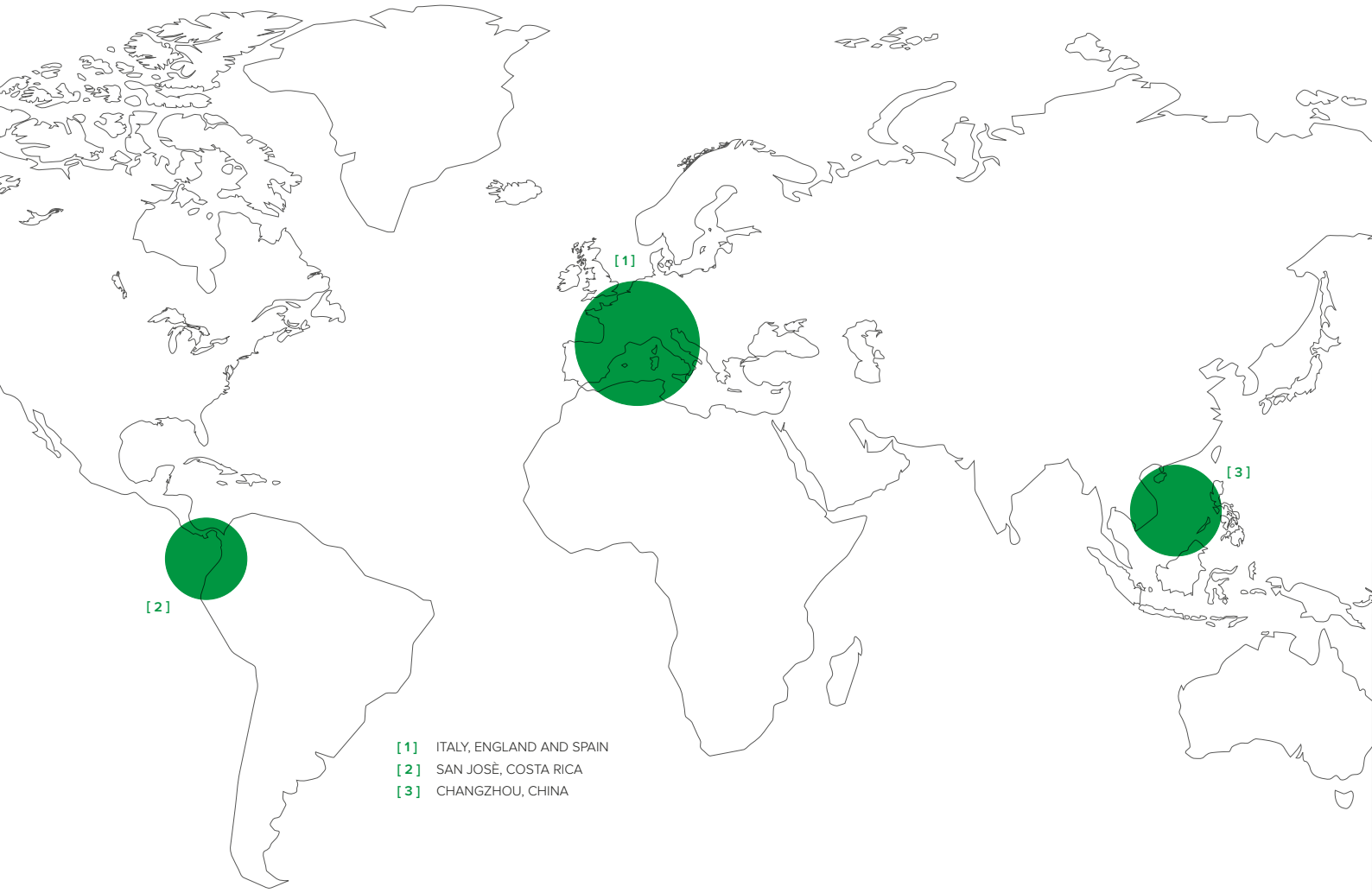
vortice.com

COMMERCIAL VENTILATION

VORT QBK HE RANGE

NEW

VORTICE GROUP



[1] ITALY, ENGLAND AND SPAIN
[2] SAN JOSÈ, COSTA RICA
[3] CHANGZHOU, CHINA

Vortice Headquarters

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

The **VORTICE GROUP** also includes:

1


2


3


4


5


1 **VORTICE UK Ltd**, English branch opened in 1977 based in Burton on Trent.

2 **VORTICE INDUSTRIAL ,** born from the acquisition in 2010 of Loran srl, based in Isola della Scala (VR).

3 **CASALS** historic Spanish brand of VENTILACIÓN INDUSTRIAL IND. S.L., based in Sant Joan de les Abadesses, Girona, acquired in 2019.

4 **VORTICE Ventilation System**, company inaugurated in 2013 with headquarters in Changzhou China.

5 **VORTICE Latam**, based in San Josè, Costa Rica, established in 2012.

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COMMERCIAL VENTILATION

CERTIFICATIONS

The VORT QBK HE SAL and VORT QBK HE COMFORT range products are compliant with the following European Directives and Regulations:

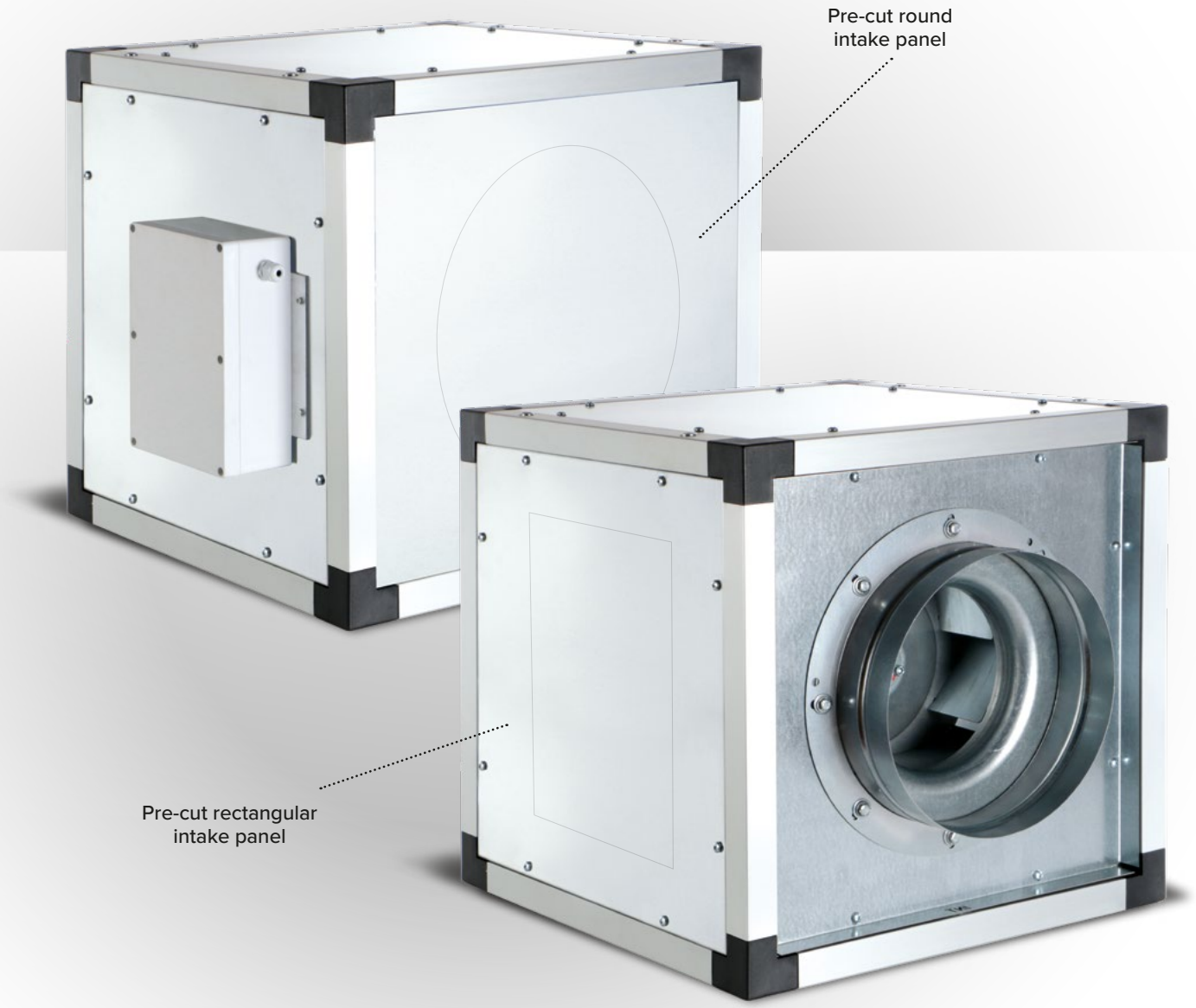
- Machine Directive (2006/42/CE)
- Electromagnetic Compatibility Directive EMC 2014/30 EU;
- Erp Directive (2009/125/CE)
- Erp Regulation N° 327/2011

VORT QBK HE SAL RANGE

High efficiency self-supporting cabinet fans

High efficiency self-supporting cabinet fans with modular structure, designed for installation in ventilation ducts of business and industrial premises (bathrooms, offices, laboratories, shops, laundries, restaurants, hotels, bars).

- Simple and flexible installation, thanks to the proportionally reduced dimensions and the possibility to re-position the delivery panels according to system requirements.
- Suitable for outdoor installation (optional rain guard).
- Wide continuous operation temperature range.



TECHNICAL FEATURES

- 15 models, 7 single phase and 8 three phase.
- Structure in extruded aluminium profiles, thickness 30 mm, joined by angular couplings PA loaded with glass fibre.
- Galvanised sheet steel sandwich panels with thickness of 23 mm; mineral wool cladding, density 90 kg/m^3.
- Two round and rectangular-shaped pre-cut intakes made on two adjoining panels that are easily interchangeable depending on the layout of the ventilation system, allowing for a simplified connection to ducts of different shapes.
- Extraction side circular spigots including cylindrical fittings, complete with rubber gasket for coupling to ducts.
- Delivery side square spigots.
- Internal coupling ports at the impellers to maximise operating efficiency.
- Self-cleaning, centrifugal, backward-curve blade impellers, statically and dynamically balanced, directly coupled to the Single and Three phase motors according to the model. Compliant with the requirements of the Erp N.327/2011/EU Regulation.
- 4 or 6-pole fan motors, IP55, Class F insulation, with thermal protection and suitable for frequency adjustment (no need for sinusoidal filters in the case of three-phase units). Shafts turning in self-lubricating ball bearings that ensure reliable functioning of the units at an ambient temperature up to + 60°C when the products are powered at 230 V / 50 Hz (single-phase devices), or at 400 V / 50 Hz (three-phase devices). .

VORT QBK HE SAL RANGE

High efficiency self-supporting cabinet fans

TECHNICAL DATA

	PRODUCTS	CODE	V~HZ	W MAX	A MAX	RPM	MAX FLOW RATE		MAX PRESSURE		°C* MAX	IP motor	KG
							m^3/h	l/s	mmH_2O	Pa			
	VORT QBK HE SAL 250 M EC	45765	230~50	4800	-	2000	1083	301	31.4	307.9	50	55	23,10
	VORT QBK HE SAL 315 M EC	45771	230~50	350	-	1400	3057	849	53.70	526.6	50	55	31.60
SINGLE PHASE	VORT QBK HE SAL 315 4M	45766	230~50	250	1,55	1400	2159	600	28.30	277.5	50	55	31.60
SINGLE PHASE	VORT QBK HE SAL 355 4M	45767	230~50	340	1,93	1390	3310	919	35.50	348.1	50	55	38.30
SINGLE PHASE	VORT QBK HE SAL 400 4M	45768	230~50	610	3,98	1440	4715	1310	46.10	452.1	50	55	49.40
SINGLE PHASE	VORT QBK HE SAL 450 4M	45769	230~50	920	7,45	1450	7084	1968	58.80	576.7	50	55	63.60
SINGLE PHASE	VORT QBK HE SAL 500 4M	45770	230~50	1480	9,83	1435	9548	2652	72.30	709	50	55	103.90
THREE PHASE	VORT QBK HE SAL 315 4T	45772	230/400~50	200	0,62	1400	2195	610	28.90	283.4	60	55	31.50
THREE PHASE	VORT QBK HE SAL 355 4T	45773	230/400~50	320	0,79	1390	3268	908	36.20	355	60	55	38.20
THREE PHASE	VORT QBK HE SAL 400 4T	45774	230/400~50	570	1,49	1440	4732	1315	46.90	459.9	60	55	49.30
THREE PHASE	VORT QBK HE SAL 450 4T	45775	230/400~50	930	2,49	1450	7142	1984	60.30	591.4	60	55	73.60
THREE PHASE	VORT QBK HE SAL 500 4T	45776	230/400~50	1460	3,26	1435	9501	2639	73	715.9	60	55	109.90
THREE PHASE	VORT QBK HE SAL 560 4T	45777	230/400~50	2430	4,64	1440	12358	3433	90.70	889.5	60	55	140.90
THREE PHASE	VORT QBK HE SAL 630 4T	45778	230/400~50	4510	8,32	1450	18152	5042	118.60	1163.1	60	55	174.40
THREE PHASE	VORT QBK HE SAL 710 6T	45779	230/400~50	2230	5,94	960	16725	4646	65.70	644.3	60	55	231.50

* Product continuous operation maximum temperature.
** Data not available.

ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE SAL 250 EC	VORT QBK HE SAL 315 EC	VORT QBK HE SAL 315 4M	VORT QBK HE SAL 355 4M
CODE		45765	45771	45766	45767
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	0.20	0.37	0.37	0.57
Effective electric power input	kW	0.13	0.16	0.40	0.42
SFPint ****	$W/(m^3/s)$	628.12	426.26	426.26	723.76
Face velocity at nominal flow rate	m/s	4.06	4.68	5.06	5.81
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	252	191.59	187.83	240.96
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	39.5	46.18	34.50	35.29
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	70	67	67	71

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE SAL 400 4M	VORT QBK HE SAL 450 4M	VORT QBK HE SAL 500 4M
CODE		45768	45769	45770
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA
Nominal flow rate	m^3/s	0.85	1.25	1.65
Effective electric power input	kW	0.87	1.23	1.97
SFPint ****	$W/(m^3/s)$	1021.75	989.45	1190.87
Face velocity at nominal flow rate	m/s	6.77	7.84	8.41
Nominal external pressure (Δps, ext)	Pa		0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	328.68	423.82	526.44
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	34.13	45.57	47.30
Maximum percentage of internal leakage of the case	%	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA
Sound power LWA on the case	dB(A)	76	80	83

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components. ****VSD: with variable speed drive*

	UNIT OF MEASUREMENT	VORT QBK HE SAL 315 4T	VORT QBK HE SAL 355 4T	VORT QBK HE SAL 400 4T	VORT QBK HE SAL 450 4T
CODE		45772	45773	45774	45775
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	0.37	0.57	0.84	1.23
Effective electric power input	kW	0.17	0.31	0.56	1
SFPint ****	$W/(m^3/s)$	456.41	547.4	670.25	723.76
Face velocity at nominal flow rate	m/s	4.79	5.72	6.67	7.76
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	187.83	244.07	332.88	427.84
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	42.97	46.98	52.43	55.92
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	67	71	76	80

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components. ****VSD: with variable speed drive*

VORT QBK HE SAL RANGE

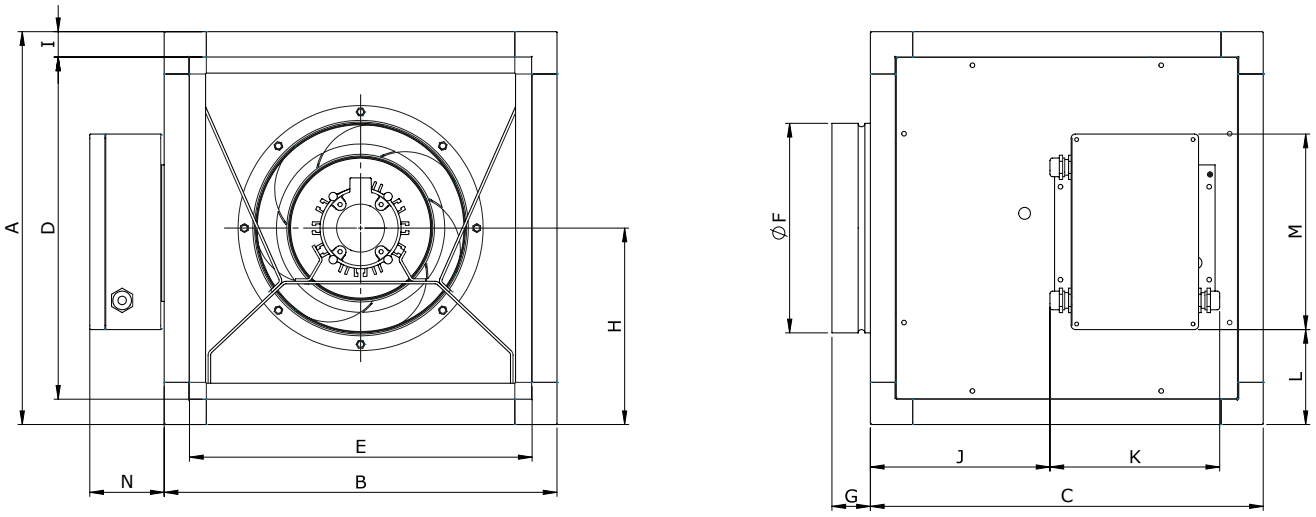
High efficiency self-supporting cabinet fans

ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE SAL 500 4T	VORT QBK HE SAL 560 4T	VORT QBK HE SAL 630 4T	VORT QBK HE SAL 710 6T
CODE		45776	45777	45778	45779
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	1.64	2.15	3.09	2.93
Effective electric power input	kW	1.61	2.38	4.38	2.4
SFPint ****	$W/(m^3/s)$	979.86	1111.27	426.26	817.97
Face velocity at nominal flow rate	m/s	8.37	8.71	9.91	7.4
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	528.77	628.84	811.64	451.69
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	57.07	59.52	60.30	58.06
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	83	85	89	83

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

DIMENSIONS



PRODUCTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N
VORT QBK HE SAL 250 EC	465	465	465	405	405	248	46	232.5	30	212	201	112	232	88
VORT QBK HE SAL 315 4M	525	525	525	465	465	298	46	262.5	30	-	-	-	-	-
VORT QBK HE SAL 355 4M	585	585	585	525	525	353	46	292.5	30	-	-	-	-	-
VORT QBK HE SAL 400 4M	650	650	650	590	590	398	46	325	30	-	-	-	-	-
VORT QBK HE SAL 450 4M	725	725	725	665	665	448	46	362.5	30	-	-	-	-	-
VORT QBK HE SAL 500 4M	800	800	800	740	740	498	46	400	30	-	-	-	-	-
VORT QBK HE SAL 315 EC	525	525	525	465	465	298	46	262.5	30	262	201	142	232	88
VORT QBK HE SAL 315 4T	525	525	525	465	465	298	46	262.5	30	-	-	-	-	-
VORT QBK HE SAL 355 4T	585	585	585	525	525	353	46	292.5	30	-	-	-	-	-
VORT QBK HE SAL 400 4T	650	650	650	590	590	398	46	325	30	-	-	-	-	-
VORT QBK HE SAL 450 4T	725	725	725	665	665	448	46	362.5	30	-	-	-	-	-
VORT QBK HE SAL 500 4T	800	800	800	740	740	498	46	400	30	-	-	-	-	-
VORT QBK HE SAL 560 4T	870	870	870	810	810	558	46	435	30	-	-	-	-	-
VORT QBK HE SAL 630 4T	945	945	945	885	885	628	46	472.5	30	-	-	-	-	-
VORT QBK HE SAL 710 6T	1020	1020	1020	960	960	708	46	510	30	-	-	-	-	-

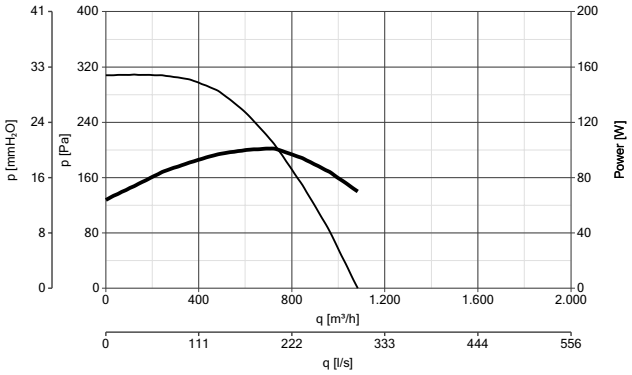
Dimensions (mm)

VORT QBK HE SAL RANGE

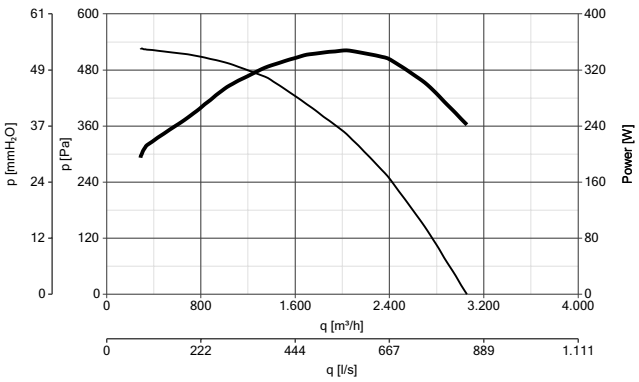
High efficiency self-supporting cabinet fans

PERFORMANCES CURVES

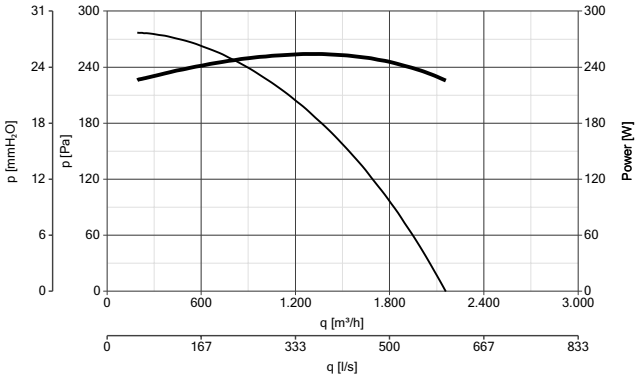
VORT QBK HE SAL 250 EC



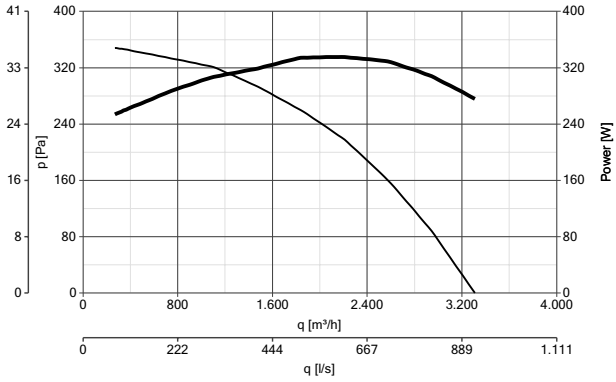
VORT QBK HE SAL 315 EC



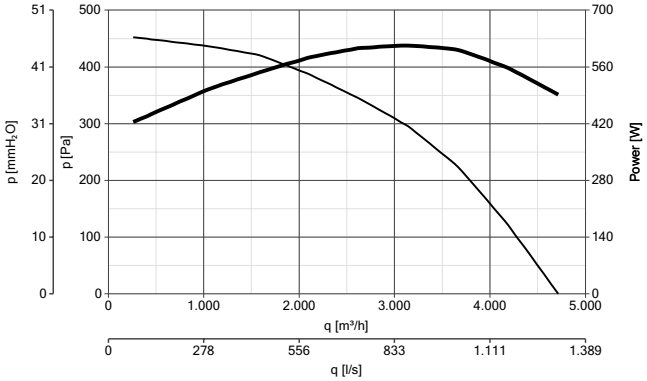
VORT QBK HE SAL 315 4M



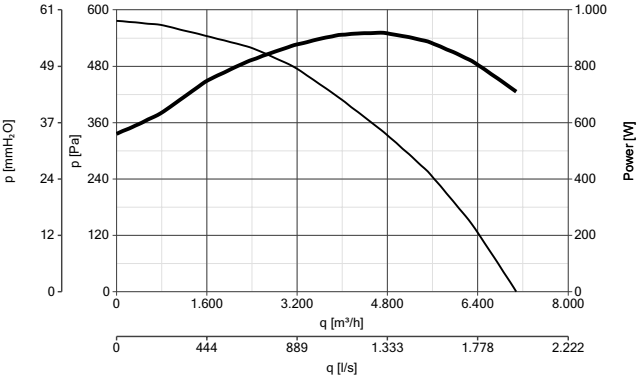
VORT QBK HE SAL 355 4M



VORT QBK HE SAL 400 4M

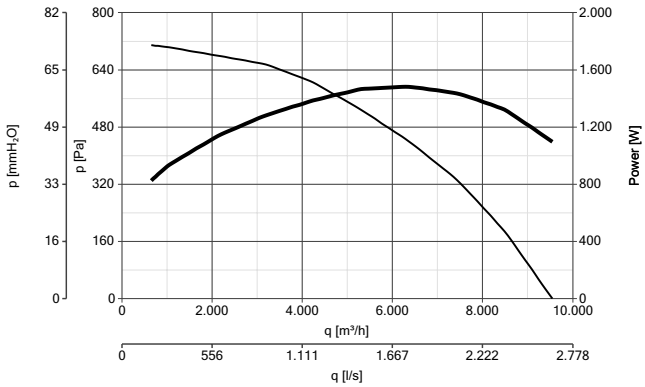


VORT QBK HE SAL 450 4M

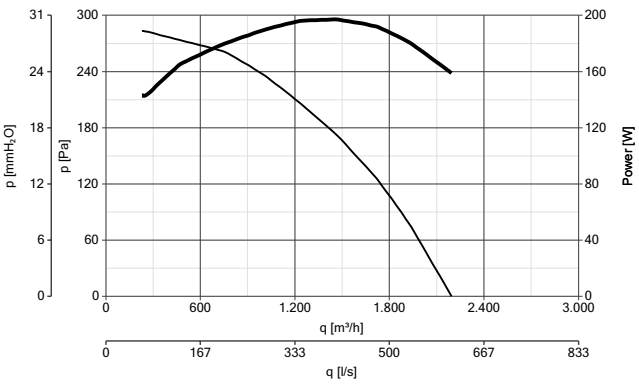


PERFORMANCES CURVES

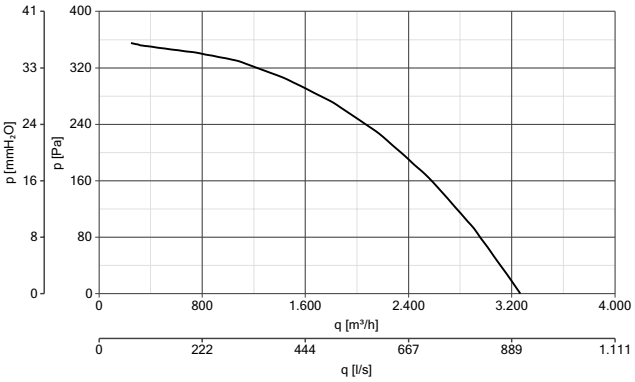
VORT QBK HE SAL 500 4M



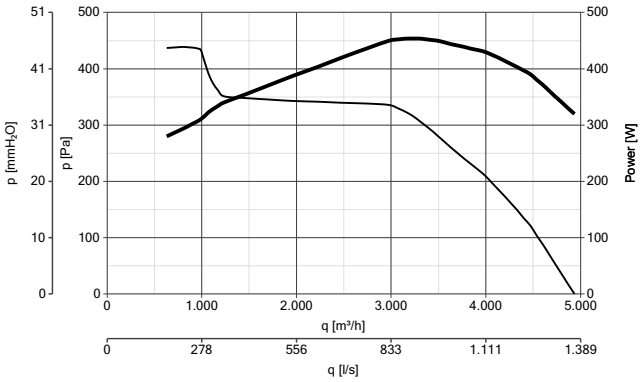
VORT QBK HE SAL 315 4T



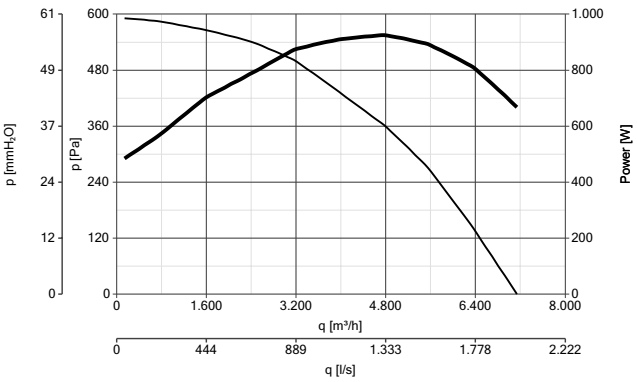
VORT QBK HE SAL 355 4T



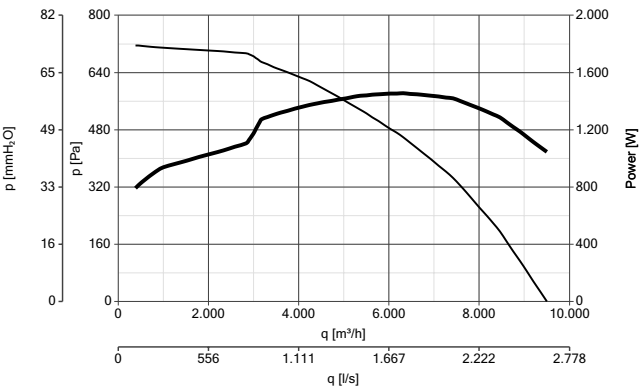
VORT QBK HE SAL 400 4T



VORT QBK HE SAL 450 4T



VORT QBK HE SAL 500 4T

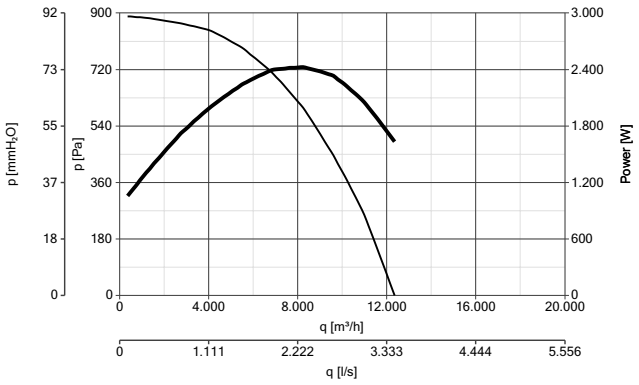


VORT QBK HE SAL RANGE

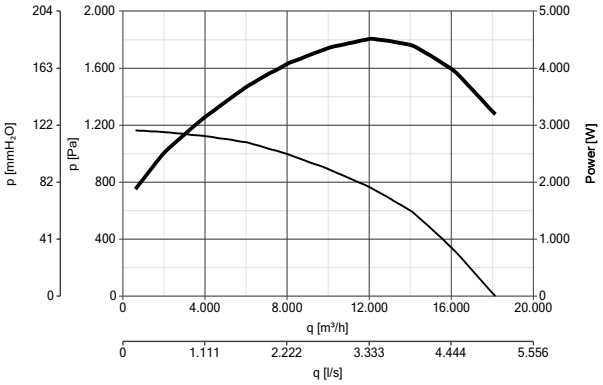
High efficiency self-supporting cabinet fans

PERFORMANCES CURVES

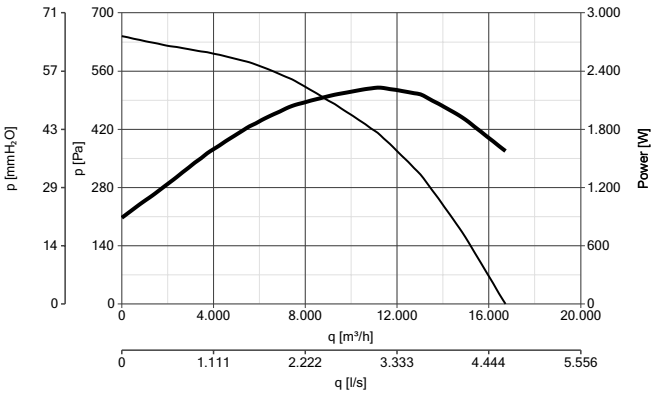
VORT QBK HE SAL 560 4T



VORT QBK HE SAL 630 4T



VORT QBK HE SAL 710 6T



FREQUENCY INVERTERS WITH SINUSOIDAL FILTER

MODELS	DESCRIPTION	CODE	PRODUCTS
	**IREM INVERTER 4 M** - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 4A.	12815	45767 - 45768 - 45766
	IREM INVERTER 6 M - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 6A.	12818	45769
	**IRET INVERTER 2.5 M** - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 2.5A.	12816	45772 - 45733 - 45774
	IRET INVERTER 5 M - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 5A.	12817	45775

CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCTS
	**IREM INVERTER 230 2.5 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 2.5 A.	12872	45766 - 45767
	**EMC-M FTR 2.5 - 4.2 A** - EMC filter for single phase loads of between 2.5 and 4.2 A	21873	
	**IREM INVERTER 230 4.2 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 4.2 A.	12873	45768
	**EMC-M FTR 2.5 - 4.2 A** - EMC filter for single phase loads of between 2.5 and 4.2 A	21873	
	**IREM INVERTER 230 10 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 10 A.	12875	45769 - 45770
	**EMC-M FTR 2.5 - 10 A** - EMC filter for single phase maximun load 7 A	21839	
	**IREM INVERTER 400 1.2 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 1.2 A.	12876	45772 - 45733
	**EMC-M FTR 1.2 - 2.2 A** - EMC filter for three phase between 1.2 and 2.2 A	21840	
	**IREM INVERTER 400 1.2 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 2.2 A.	12877	45774
	**EMC-M FTR 1.2 - 2.2 A** - EMC filter for three phase between 1.2 and 2.2 A	21840	
	**IREM INVERTER 400 3.6 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 3.6 A.	12878	45775 - 45776
	**EMC-M FTR 3.6 A** - EMC filter for three phase maximun load 3.6 A	21841	
	**IREM INVERTER 400 5 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 5 A.	12879	45777
	**EMC-M FTR 5 - 8 A** - EMC filter for three phase between 5 and 8 A	21842	
	**IREM INVERTER 400 8 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 8 A.	12880	45779
	**EMC-M FTR 5 - 8 A** - EMC filter for three phase between 5 and 8 A	21842	
	**IREM INVERTER 400 12 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 12 A.	12881	45778
	**EMC-M FTR 12 - 16 A** - EMC filter for three phase between 125 and 16 A	21843	
	**POT** Potentiometer that can be wall-mounted or recessed in a DIN Standard electric box.	12828	45765 - 45771
	**SWT 16 -** Safety On/Off switch, maximum load 16A	25059	All models

VORT QBK HE SAL RANGE

High efficiency self-supporting cabinet fans

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	**QBK - HE SAL RRC -** Rain guard	21450	45765
		21451	45771 - 45766 - 45772
		21452	45767 - 45773
		21453	45768 - 45774
		21454	45769 - 45775
		21455	45770 - 45776
		21456	45777
		21457	45778
		21458	45779
	**QBK - HE GP -** Protection grille (to apply onto the outlet spigot)	21567	45765
		21568	45771 - 45766 - 45772
		21569	45767 - 45773
		21570	45768 - 45774
		21571	45769 - 45775
		21572	45770 - 45776
		21573	45777
		21574	45778
		21575	45779
	QBK - HE MFL - Circular flange to apply onto the outlet spigot	26862	45765
		26863	45771 - 45766 - 45772
		26864	45767 - 45773
		26865	45768 - 45774
		26866	45769 - 45775
		26867	45770 - 45776
		26868	45777
		26869	45778
		26870	45779
	**QBK F -** Support feet	21413	All models

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	**QBK SAVIB -** Vibration damper supports	21412	45765 - 45776 - 45767 45771 - 45772 - 45733
		21414	45768 - 45769 - 45774 -45775
		21586	45770 - 45776
		21415	45770 - 45776 - 45777 45778 - 45779
		21416	45794
		21585	45765
		25063	45771 - 45766 - 45772
		25064	45767 - 45773
	**QBK - HE RF -** Flexible fitting	25065	45768 - 45774
		21589	45769 - 45775
		25066	45770 - 45776
		25067	45777
		21592	45778
		21593	45779

APPLICATIONS

VORT QBK HE COMFORT RANGE

High efficiency self-supporting cabinet fans

Self-supporting, high efficiency cabinet fans with soundproofed and modular structure, designed for installation in the ventilation ducts of commercial and industrial premises (bathrooms, offices, laboratories, shops, laundries, restaurants, hotels, bars), where containment of the sound emissions radiated constitutes an essential requirement.

- Silent, thanks to the casing in thick, sound-absorbing sandwich panels.
- Simple and flexible installation, thanks to the proportionally reduced dimensions and the possibility to re-position the delivery panels according to system requirements.
- Suitable for outdoor installation (optional rain guard).
- Wide continuous operation temperature range.

TECHNICAL FEATURES

- 15 models, 7 single phase and 8 three phase.
- Structure in extruded aluminium profiles, thickness 50 mm, joined by angular couplings PA loaded with glass fibre.
- Galvanised sheet steel sandwich panels with thickness of 45 mm, to guarantee high soundproofing; mineral wool cladding, density 50kg/m^3.
- Two round and rectangular-shaped pre-cut intakes made on two adjoining panels that are easily interchangeable depending on the layout of the ventilation system, allowing for a simplified connection to ducts of different shapes.
- Extraction side circular spigots including cylindrical fittings, complete with rubber gasket for coupling to ducts.
- Delivery side square spigots.
- Internal coupling ports at the impellers to maximise operating efficiency.
- Self-cleaning, centrifugal, backward-curve blade impellers, statically and dynamically balanced, directly coupled to the Single and Three phase motors according to the model. Compliant with the requirements of the Erp N.327/2011/EU Regulation.
- 4 or 6-pole fan motors, IP55, Class F insulation, with thermal protection and suitable for frequency adjustment (no need for sinusoidal filters in the case of three-phase units). Shafts turning in self-lubricating ball bearings that ensure reliable functioning of the units at an ambient temperature up to + 60°C when the products are powered at 230 V / 50 Hz (single-phase devices), or at 400 V / 50 Hz (three-phase devices).

VORT QBK HE COMFORT RANGE

High efficiency self-supporting cabinet fans

TECHNICAL DATA

	PRODUCTS	CODE	V~HZ	W MAX	A MAX	RPM	MAX FLOW RATE m³/h	MAX FLOW RATE l/s	MAX PRESSURE mmH_2O	MAX PRESSURE Pa	°C* MAX	IP motor	KG
SINGLE PHASE	VORT QBK HE COMFORT 250 M EC	45780	230~50	100	-	2000	1083	301	31.40	307.9	50	55	24.9
SINGLE PHASE	VORT QBK HE COMFORT 315 M EC	45786	230~50	350	-	1400	3057	849	53.70	526.6	50	55	33.9
SINGLE PHASE	VORT QBK HE COMFORT 315 4M	45781	230~50	250	1,5	1400	2159	600	28.30	277.5	50	55	33.9
SINGLE PHASE	VORT QBK HE COMFORT 355 4M	45782	230~50	340	1,93	1390	3310	919	35.50	348.1	50	55	41,10
SINGLE PHASE	VORT QBK HE COMFORT 400 4M	45783	230~50	610	3,98	1440	4715	1310	46.10	452.1	50	55	52.6
SINGLE PHASE	VORT QBK HE COMFORT 450 4M	45784	230~50	920	7,45	1450	7084	1968	58.80	576.7	50	55	62.2
SINGLE PHASE	VORT QBK HE COMFORT 500 4M	45785	230~50	1480	9,83	1435	9548	2652	72.30	709	50	55	108
THREE PHASE	VORT QBK HE COMFORT 315 4T	45787	230/400~50	200	0,62	1400	2195	610	28.90	283.4	60	55	33.8
THREE PHASE	VORT QBK HE COMFORT 355 4T	45788	230/400~50	320	0,79	1390	3268	908	36.20	355	60	55	41
THREE PHASE	VORT QBK HE COMFORT 400 4T	45789	230/400~50	570	1,49	1440	4732	1315	46.90	459.9	60	55	52.5
THREE PHASE	VORT QBK HE COMFORT 450 4T	45790	230/400~50	930	2,49	1450	7142	1984	60.30	591.4	60	55	77.2
THREE PHASE	VORT QBK HE COMFORT 500 4T	45791	230/400~50	1460	3,26	1435	9501	2639	73.00	715.9	60	55	114
THREE PHASE	VORT QBK HE COMFORT 560 4T	45792	230/400~50	2430	4,64	1440	12358	3433	90.70	889.5	60	55	145.6
THREE PHASE	VORT QBK HE COMFORT 630 4T	45793	230/400~50	4510	8,32	1450	18152	5042	118.60	1163.1	60	55	179.9
THREE PHASE	VORT QBK HE COMFORT 710 6T	45794	230/400~50	2230	5,94	960	16725	4646	65.70	644.3	60	55	238,10

* Product continuous operation maximum temperature.
** Data not available.

ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE COMFORT 250 M EC	VORT QBK HE COMFORT 315 M EC	VORT QBK HE COMFORT 315 4M	VORT QBK HE COMFORT 355 4M
CODE		45780	45786	45781	45782
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	0.20	0.37	0.37	0.57
Effective electric power input	kW	0.13	0.16	0.40	0.42
SFPint ****	$W/(m^3/s)$	628.12	418.15	426.26	723.76
Face velocity at nominal flow rate	m/s	4.06	4.79	5.06	5.81
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	258.87	187.8	187.83	240.96
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	39.5	46.03	34.50	35.29
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	67	64	64	68

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE COMFORT 400 M EC	VORT QBK HE COMFORT450 4M	VORT QBK HE COMFORT 500 4M
CODE		45783	45784	45785
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA
Nominal flow rate	m^3/s	0.85	1.25	1.65
Effective electric power input	kW	0.87	1.23	1.97
SFPint ****	$W/(m^3/s)$	1021.75	989.45	1190.87
Face velocity at nominal flow rate	m/s	6.77	7.84	8.41
Nominal external pressure (Δps, ext)	Pa	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	328.68	423.82	526.44
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	34.13	45.57	47.30
Maximum percentage of internal leakage of the case	%	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA
Sound power LWA on the case	dB(A)	73	77	80

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

	UNIT OF MEASUREMENT	VORT QBK HE COMFORT 315 4T	VORT QBK HE COMFORT 355 4T	VORT QBK HE COMFORT 400 4T	VORT QBK HE COMFORT 450 4T
CODE		45787	45788	45789	45790
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	0.37	0,356	0.84	1.23
Effective electric power input	kW	0.21	0.36	0.65	1.03
SFPint ****	$W/(m^3/s)$	563.61	643.77	773.31	831.71
Face velocity at nominal flow rate	m/s	4.79	5.69	6.67	7.76
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	187.73	245.37	332.83	427.73
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	35.30	41.05	46.29	55.36
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	64	68	73	77

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

VORT QBK HE COMFORT RANGE

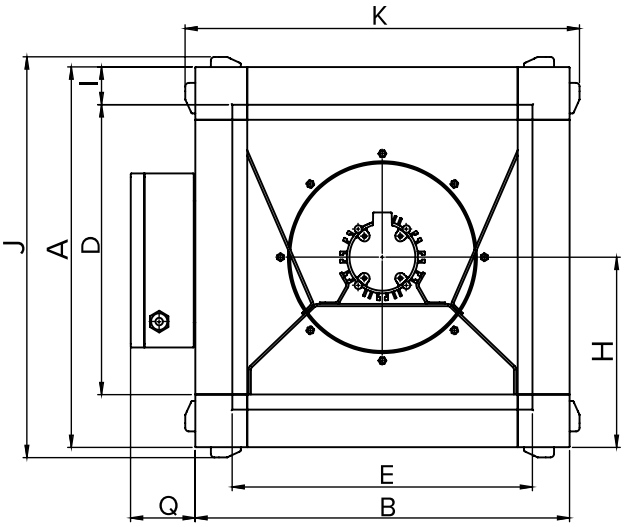
High efficiency self-supporting cabinet fans

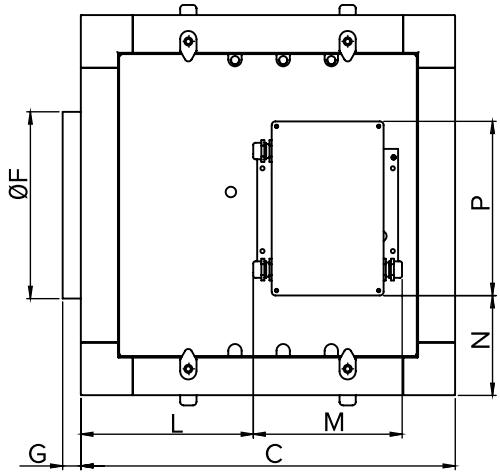
ENERGY DATA PURSUANT TO REGULATION N° 1253/2014/EU

	UNIT OF MEASUREMENT	VORT QBK HE COMFORT 500 4T	VORT QBK HE COMFORT 560 4T	VORT QBK HE COMFORT 630 4T	VORT QBK HE COMFORT 710 6T
CODE		45791	45792	45793	45794
Manufacturer's name or brand name	-	Vortice	Vortice	Vortice	Vortice
Type of ventilation unit declared	-	UVNR-U**	UVNR-U**	UVNR-U**	UVNR-U**
Type of drive	-	****VSD	****VSD	****VSD	****VSD
Type of heat exchanger system HRS	-	none	none	none	none
Heat efficiency of the heat recovery	%	NA	NA	NA	NA
Nominal flow rate	m^3/s	1.64	2.15	3.09	2.93
Effective electric power input	kW	1.66	2.48	4.48	2.45
SFPint ****	$W/(m^3/s)$	1011.64	1155.08	1448.21	835.77
Face velocity at nominal flow rate	m/s	8.37	8.72	9.91	7.4
Nominal external pressure (Δps, ext)	Pa	0	0	0	0
Internal pressure drop of the ventilation components (Δps, int)	Pa	528.88	628.35	811.51	451.59
Internal pressure drop of the non-ventilation components (Δps, add)	Pa	0	0	0	0
Static efficiency in the nominal point of the ventilation unit (ηFAN)	%	56.36	58.28	60.10	57.89
Maximum percentage of internal leakage of the case	%	NA	NA	NA	NA
Maximum percentage of external leakage of the case	%	NA	NA	NA	NA
Energy performance or energy classification of the filters	-	NA	NA	NA	NA
Description of the visual filter warning	-	NA	NA	NA	NA
Sound power LWA on the case	dB(A)	80	82	86	80

*NA Not Applicable. ** UVNR-U: Non- Residential Ventilation Unit - Unidirectional. *** VM: Multiple Speed. **** SFPint: Specific internal power of the ventilation components.*
****VSD: *with variable speed drive*

DIMENSIONS





PRODUCTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
VORT QBK HE COMFORT 250 EC	505	505	505	405	405	248	25	252,5	50	532	532	232	201	132	232	88
VORT QBK HE COMFORT 315 4M	565	565	565	465	465	298	25	282,5	50	592	592	-	-	-	-	-
VORT QBK HE COMFORT 355 4M	625	625	625	525	525	353	25	312,5	50	652	652	-	-	-	-	-
VORT QBK HE COMFORT 400 4M	690	690	690	590	590	398	25	345	50	717	717	-	-	-	-	-
VORT QBK HE COMFORT 450 4M	765	765	765	665	665	448	25	382,5	50	792	792	-	-	-	-	-
VORT QBK HE COMFORT 500 4M	840	840	840	740	740	498	25	420	50	867	867	-	-	-	-	-
VORT QBK HE COMFORT 315 EC	565	565	565	465	465	298	25	282,5	50	592	592	262	201	162	232	88
VORT QBK HE COMFORT 315 4T	565	565	565	465	465	298	25	282,5	50	592	592	-	-	-	-	-
VORT QBK HE COMFORT 355 4T	625	625	625	525	525	353	25	312,5	50	652	652	-	-	-	-	-
VORT QBK HE COMFORT 400 4T	690	690	690	590	590	398	25	345	50	717	717	-	-	-	-	-
VORT QBK HE COMFORT 450 4T	765	765	765	665	665	448	25	382,5	50	792	792	-	-	-	-	-
VORT QBK HE COMFORT 500 4T	867	840	840	740	740	498	25	420	50	867	867	-	-	-	-	-
VORT QBK HE COMFORT 560 4T	910	910	910	810	810	558	25	455	50	937	937	-	-	-	-	-
VORT QBK HE COMFORT 630 4T	985	985	985	885	885	628	25	492,5	50	1012	1012	-	-	-	-	-
VORT QBK HE COMFORT 710 6T	1060	1060	1060	960	960	708	25	530	50	1087	1087	-	-	-	-	-

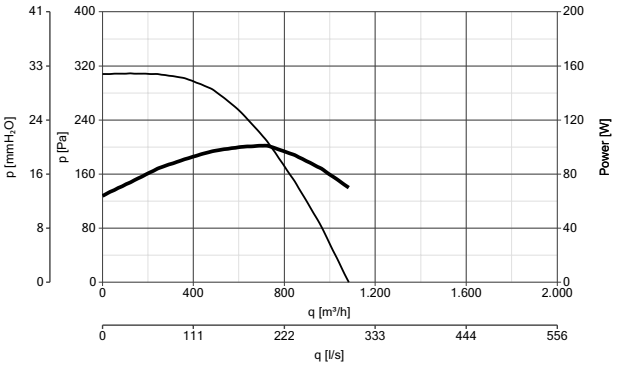
Dimensions (mm)

VORT QBK HE COMFORT RANGE

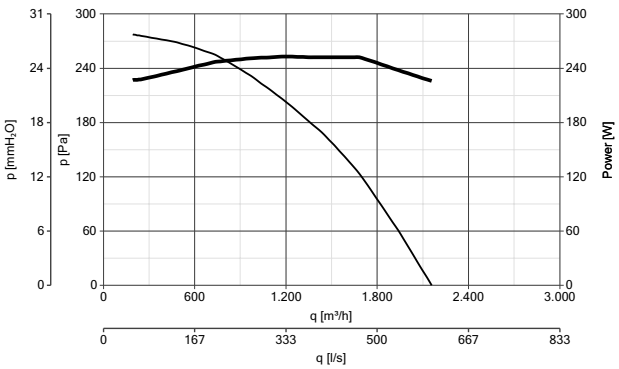
High efficiency self-supporting cabinet fans

PERFORMANCES CURVES

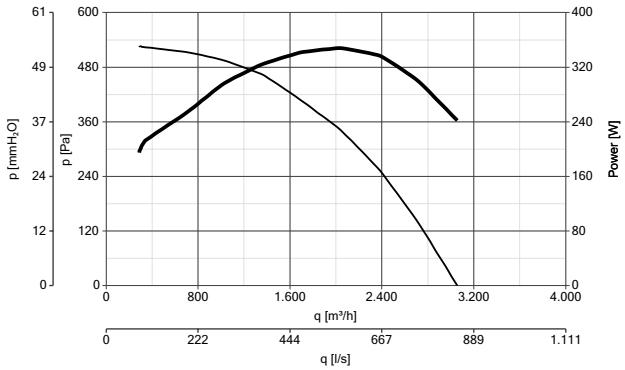
VORT QBK HE COMFORT 250 EC



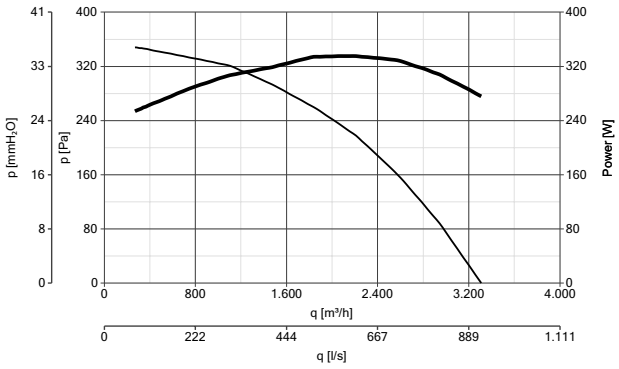
VORT QBK HE COMFORT 315 4M



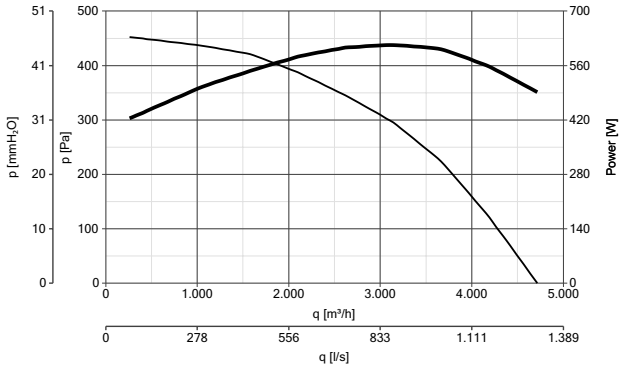
VORT QBK HE COMFORT 315 EC



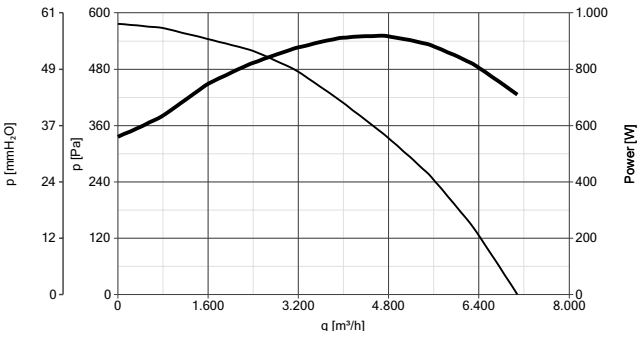
VORT QBK HE COMFORT 355 4M



VORT QBK HE COMFORT 400 4M

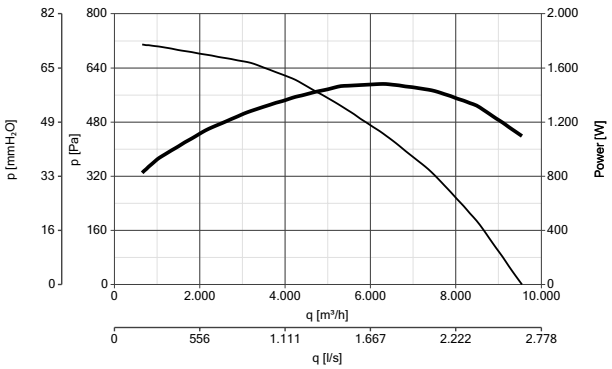


VORT QBK HE COMFORT 450 4M

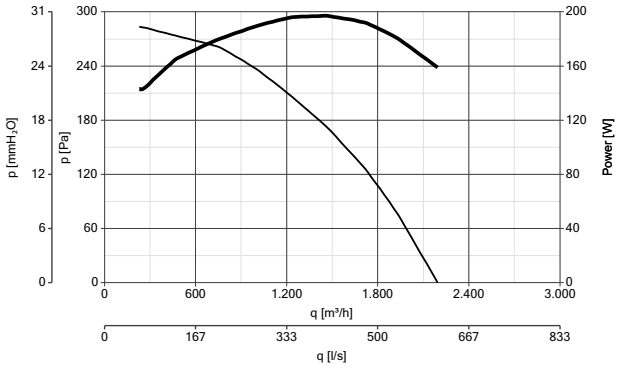


PERFORMANCES CURVES

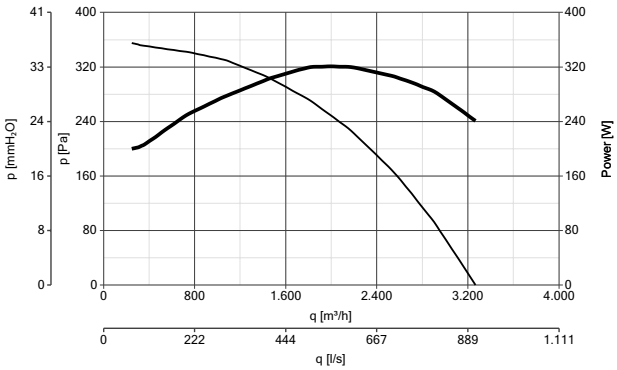
VORT QBK HE COMFORT 500 4M



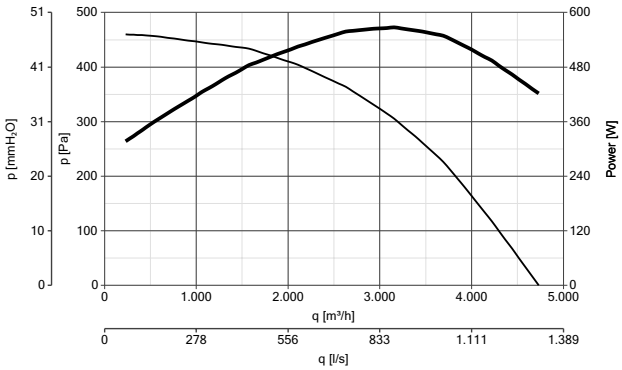
VORT QBK HE COMFORT 315 4T



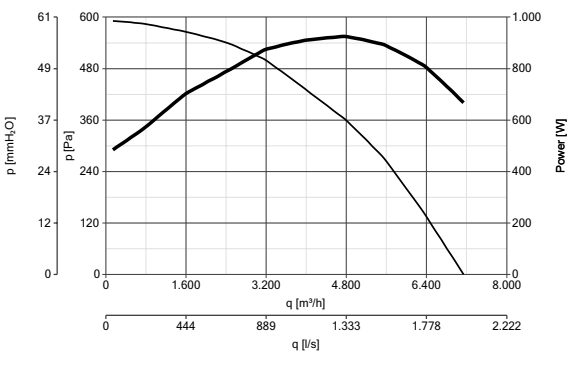
VORT QBK HE COMFORT 355 4T



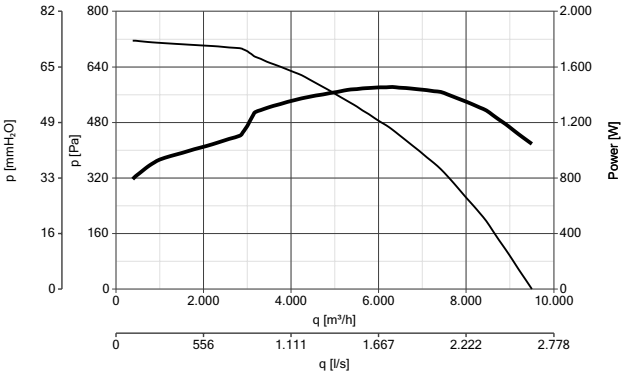
VORT QBK HE COMFORT 400 4T



VORT QBK HE COMFORT 450 4T



VORT QBK HE COMFORT 500 4T

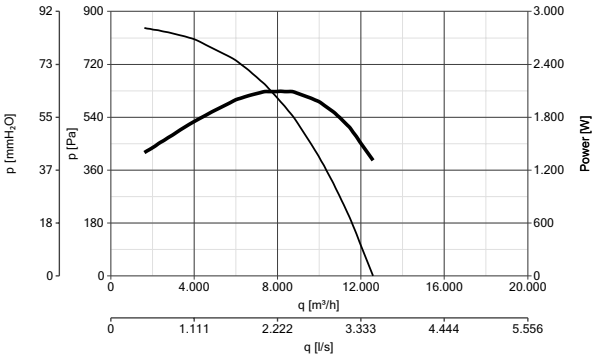


VORT QBK HE COMFORT RANGE

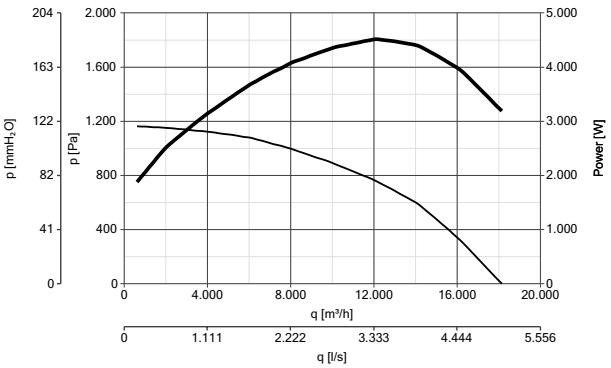
High efficiency self-supporting cabinet fans

PERFORMANCES CURVES

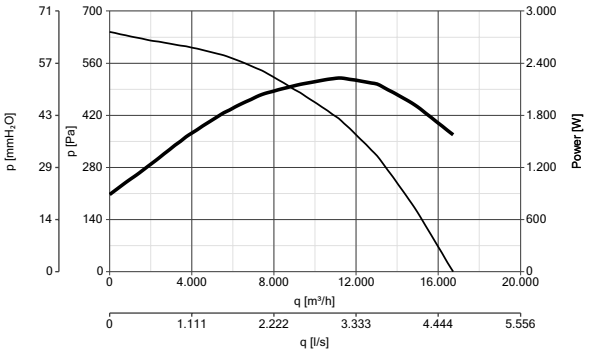
VORT QBK HE COMFORT 560 4T



VORT QBK HE COMFORT 630 4T



VORT QBK HE COMFORT 710 6T



FREQUENCY INVERTERS WITH SINUSOIDAL FILTER

MODELS	DESCRIPTION	CODE	PRODUCTS
	**IREM INVERTER 4 M** - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 4A.	12815	45781 - 45782 - 45783
	IREM INVERTER 6 M - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 6A.	12818	45784
	**IRET INVERTER 2.5 M** - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 2.5A.	12816	45787 - 45788 - 45789
	IRET INVERTER 5 M - variable frequency speed controller with EMC filter and sinusoidal filter; single phase power supply and output, maximum load 5A.	12817	45790

CONTROLLERS

MODELS	DESCRIPTION	CODE	PRODUCTS
	**IREM INVERTER 230 2.5 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 2.5 A.	12872	45781 - 45782
	**EMC-M FTR 2.5 - 4.2 A** - EMC filter for single phase loads of between 2.5 and 4.2 A	21873	
	**IREM INVERTER 230 4.2 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 4.2 A.	12873	45783
	**EMC-M FTR 2.5 - 4.2 A** - EMC filter for single phase loads of between 2.5 and 4.2 A	21873	
	**IREM INVERTER 230 10 A** - Variable frequency speed controller; single-phase power supply, three phase power supply and output, maximum load 10 A.	12875	45784 - 45785
	**EMC-M FTR 2.5 - 10 A** - EMC filter for single phase maximun load 7 A	21839	
	**IREM INVERTER 400 1.2 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 1.2 A.	12876	45787 - 45788
	**EMC-M FTR 1.2 - 2.2 A** - EMC filter for three phase between 1.2 and 2.2 A	21840	
	**IREM INVERTER 400 1.2 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 2.2 A.	12877	45789
	**EMC-M FTR 1.2 - 2.2 A** - EMC filter for three phase between 1.2 and 2.2 A	21840	
	**IREM INVERTER 400 3.6 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 3.6 A.	12878	45790 - 45791
	**EMC-M FTR 3.6 A** - EMC filter for three phase maximun load 3.6 A	21841	
	**IREM INVERTER 400 5 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 5 A.	12879	45792
	**EMC-M FTR 5 - 8 A** - EMC filter for three phase between 5 and 8 A	21842	
	**IREM INVERTER 400 8 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 8 A.	12880	45794
	**EMC-M FTR 5 - 8 A** - EMC filter for three phase between 5 and 8 A	21842	
	**IREM INVERTER 400 12 A** - Variable frequency speed controller; three-phase power supply, three phase power supply and output, maximum load 12 A.	12881	45793
	**EMC-M FTR 12 - 16 A** - EMC filter for three phase between 125 and 16 A	21843	
	**POT** Potentiometer that can be wall-mounted or recessed in a DIN Standard electric box.	12828	45780 - 45786
	**SWT 16 -** Safety On/Off switch, maximum load 16A	25059	All models

VORT QBK HE COMFORT RANGE

High efficiency self-supporting cabinet fans

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	**QBK - HE SAL RRC -** Rain guard	21450	45780
		21451	45781 - 45786 - 45787
		21452	45782 - 45788
		21453	45783 - 45789
		21454	45784 - 45790
		21455	45785 - 45791
		21456	45792
		21457	45793
		21458	45794
	**QBK - HE GP -** Protection grille (to apply onto the outlet spigot)	21567	45780
		21568	45781 - 45786 - 45787
		21569	45782 - 45788
		21570	45783 - 45789
		21571	45784 - 45790
		21572	45785 - 45791
		21573	45792
		21574	45793
		21575	45794
	QBK - HE MFL - Circular flange to apply onto the outlet spigot	26862	45780
		26863	45781 - 45786 - 45787
		26864	45782 - 45788
		26865	45783 - 45789
		26866	45784 - 45790
		26867	45785 - 45791
		26868	45792
		26869	45793
		26870	45794
	**QBK F -** Support feet	21413	All models

ACCESSORIES ON REQUEST

MODELS	DESCRIPTION	CODE	PRODUCTS
	**QBK SAVIB -** Vibration damper supports	21412	45780 - 45781 - 45786 - 45787
		21414	45782 - 45783 - 45784 45788 - 45789
		21586	45785 - 45790
		21415	45785 - 45790 - 45791 45792 - 45793
		21416	45794
	**QBK - HE RF -** Flexible fitting	21585	45780
		25063	45781 - 45786 - 45787
		25064	45782 - 45788
		25065	45783 - 45789
		21589	45769 - 45775
		25066	45785 - 45791
		25067	45792
		21592	45793
		21593	45794

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