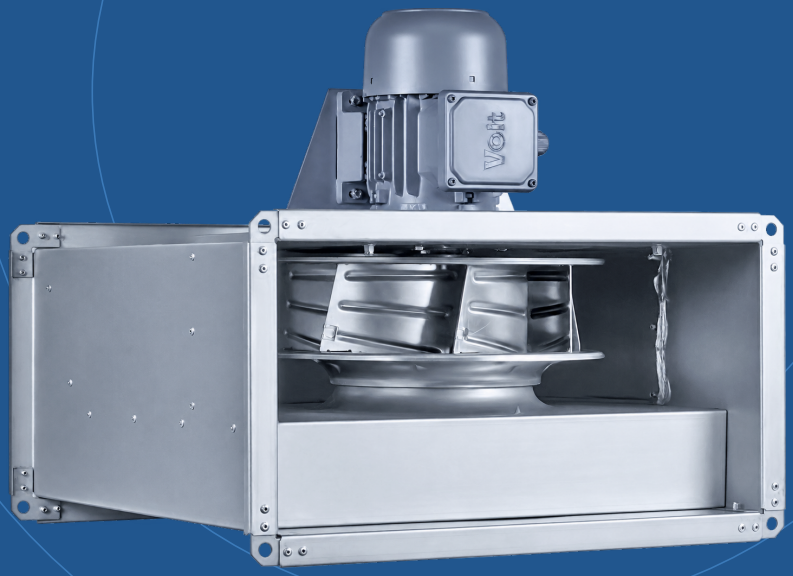
VBF-R-EX SERIES

Ex-proof rectangular duct fans

VBF-R-EX

BACKWARD-CURVED IMPELLER

MOTOR OUTSIDE THE AIRSTREAM

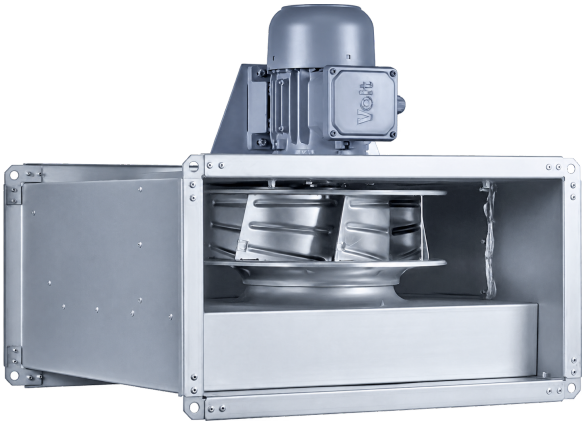


2000-10500	6	50 Hz
Curve upper limits / m^3/h	Models in the range	Performance frequency

01 / PRODUCT OVERVIEW

Rectangular ducts. Ex-proof configuration.

Ex-proof rectangular duct fan



01 External motor arrangement

Direct-drive extraction with a three-phase Ex-proof motor outside the transported-air path.

02 Casing and copper inlet

Corrosion-resistant sheet-steel casing and backward-curved centrifugal impeller. The Ex-proof arrangement uses a copper inlet.

03 Inspection access

Connect to matching rectangular ducts. Keep space for the inspection cover, external motor and terminal box.

CONFIGURE THE COMPLETE ASSEMBLY

Match the supplied assembly to the intended application. The motor reference and complete fan marking are separate records. Product photographs illustrate the series construction.

Selection parameter	Series reference
Mains reference	400 V / 3 phase / 50 Hz
Motor protection / insulation reference	IP55 / class F
Operating temperature	-20 to 40 °C
Maximum medium temperature	40 °C

Dedicated motor reference: II 2G Ex d IIC T4 Gb. Complete fan marking and certificate: to be confirmed.

02 / TECHNICAL DATA

Select the duct extraction duty.

06 CONFIGURATIONS / 400 V / 3 PHASE / 50 Hz

Model	Max. airflow m^3/h	Rated input W	Rated A	Rated speed rpm	Max. static Pa	Mass kg	LpA / 3 m dB(A)
VBF-R-EX 315T-4P	2000	250	0.87	1380	359	35	53
VBF-R-EX 355T-4P	3000	250	0.87	1380	510	36	58
VBF-R-EX 400T-4P	4100	370	1.2	1390	580	49	56
VBF-R-EX 450T-4P	5500	550	1.6	1395	690	52	58
VBF-R-EX 500T-4P	8000	1100	2.6	1410	870	74	64
VBF-R-EX 560T-4P	10500	2200	4.9	1420	1036	91	66

Maximum airflow, maximum static reference and rated motor values are separate records. Static references follow the highest supplied curve point. Polynomial approximations and nominal declarations can differ slightly. Rated and curve speeds remain independent; no speed scaling is applied.

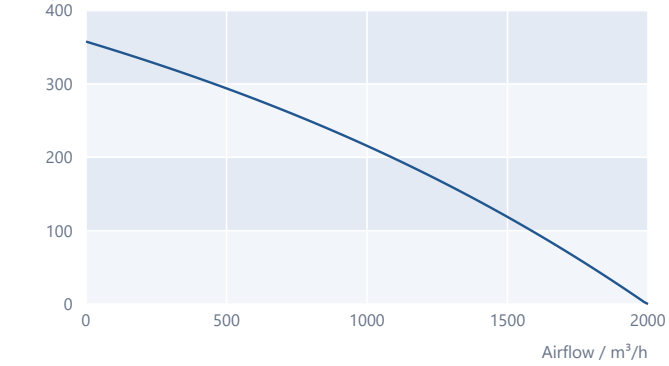
Reference	Available data
Performance basis	Dedicated Ex-proof configuration curves
Acoustic paths	Inlet / outlet / housing
Sound pressure reference	Published total at 3 m

03 / AIR PERFORMANCE

Fan Performance Curves

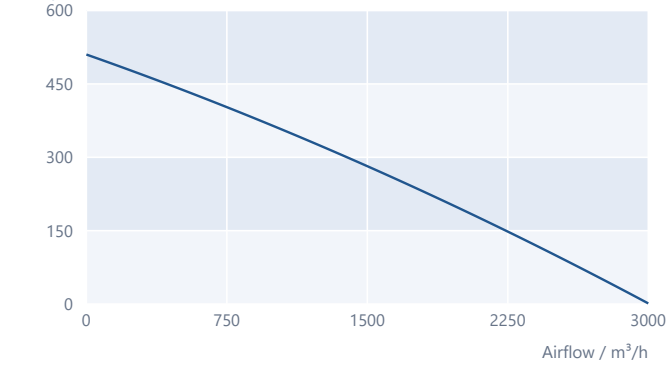
VBF-R-EX 315T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



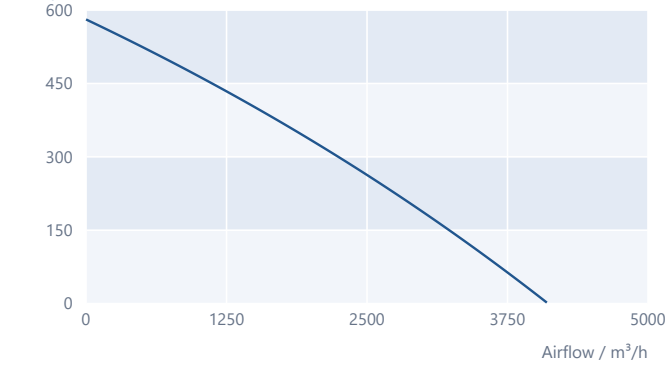
VBF-R-EX 355T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



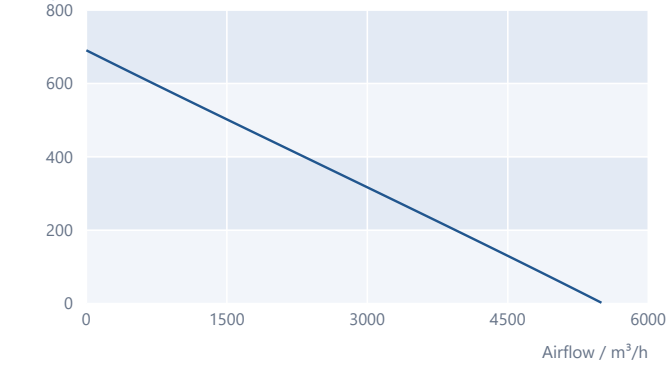
VBF-R-EX 400T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



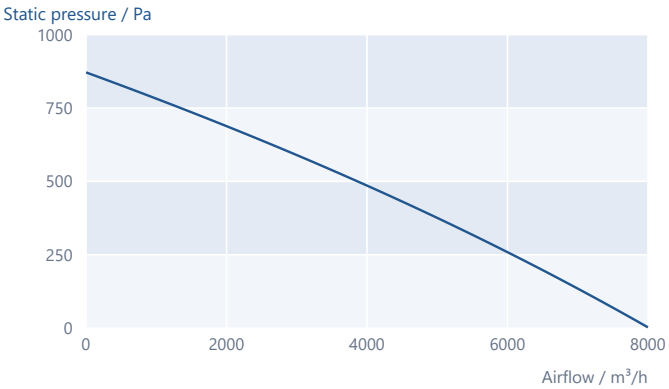
VBF-R-EX 450T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



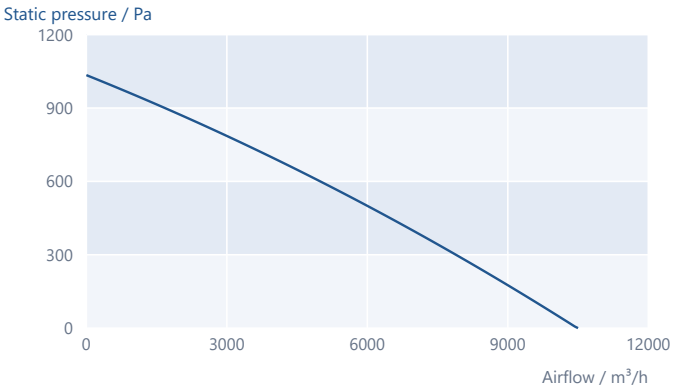
VBF-R-EX 500T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



VBF-R-EX 560T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



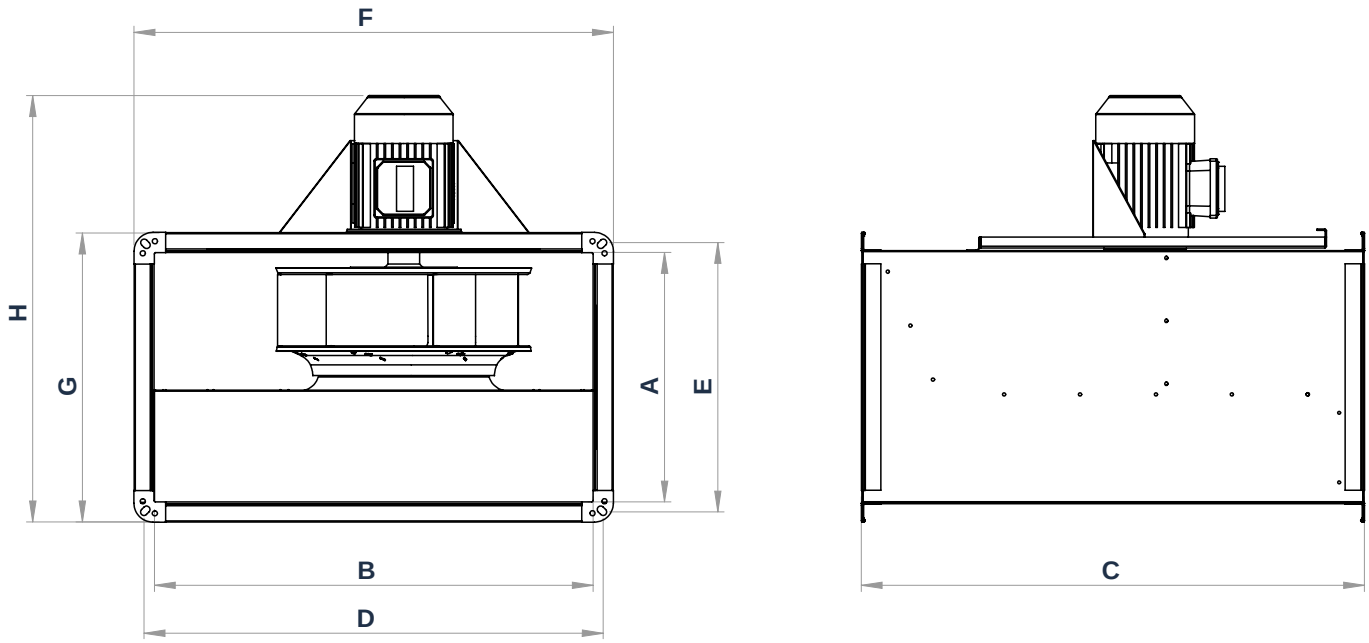
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting.

04 / DIMENSIONS

Coordinate the duct interface.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C	D	E	F	G	H
VBF-R-EX 315T-4P	350	600	750	620	370	660	410	550
VBF-R-EX 355T-4P	350	600	750	620	370	660	410	650
VBF-R-EX 400T-4P	400	700	800	720	420	770	470	630
VBF-R-EX 450T-4P	400	700	800	720	420	770	470	630
VBF-R-EX 500T-4P	500	800	920	820	520	870	570	780
VBF-R-EX 560T-4P	500	1000	1050	1030	530	1070	570	780

Select the matching model row. The series outline is representative and is not drawn to scale. Provide fixing and service clearance.

05 / ACOUSTIC DATA

Sound references for each model.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VBF-R-EX 315T-4P	Inlet	50	65	61	63	60	61	56	48	70
VBF-R-EX 315T-4P	Outlet	54	72	68	69	68	67	62	54	76
VBF-R-EX 315T-4P	Housing	27	57	53	50	49	48	49	37	60
VBF-R-EX 355T-4P	Inlet	50	61	67	65	68	66	63	60	74
VBF-R-EX 355T-4P	Outlet	51	61	69	71	71	73	67	70	78
VBF-R-EX 355T-4P	Housing	33	40	59	57	59	58	50	47	65
VBF-R-EX 400T-4P	Inlet	58	68	64	66	66	62	56	50	73
VBF-R-EX 400T-4P	Outlet	62	68	70	71	71	69	61	55	77
VBF-R-EX 400T-4P	Housing	40	60	57	52	51	46	38	35	63
VBF-R-EX 450T-4P	Inlet	50	65	61	63	60	61	56	48	70
VBF-R-EX 450T-4P	Outlet	54	72	68	69	68	67	62	54	76
VBF-R-EX 450T-4P	Housing	27	57	53	50	49	48	49	37	60
VBF-R-EX 500T-4P	Inlet	61	72	71	73	71	71	66	58	79
VBF-R-EX 500T-4P	Outlet	66	75	76	77	79	75	70	61	84
VBF-R-EX 500T-4P	Housing	45	68	64	61	61	60	54	43	71
VBF-R-EX 560T-4P	Inlet	84	70	77	76	78	75	71	65	84
VBF-R-EX 560T-4P	Outlet	71	80	81	82	83	80	74	65	89
VBF-R-EX 560T-4P	Housing	58	70	65	63	61	58	54	50	73

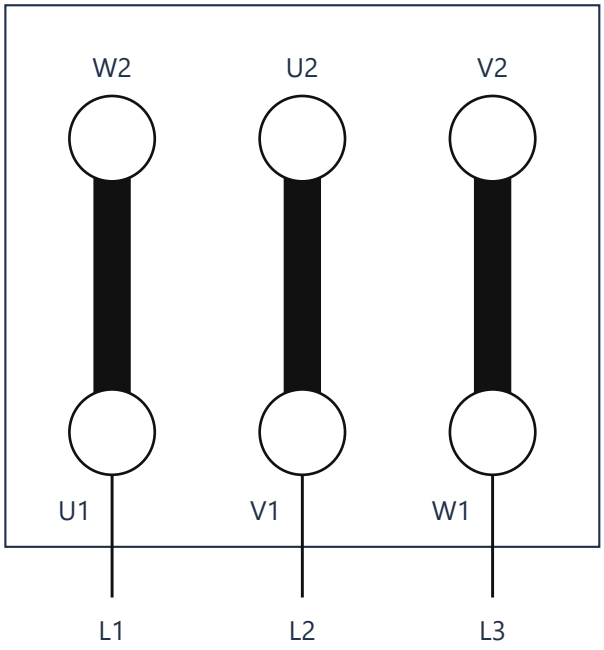
All supplied inlet, outlet and housing spectra are retained. The first band remains 65 Hz as supplied; totals are not arithmetic sums. Published sound-pressure totals at 3 m are listed in the technical table. Missing sound-pressure octave bands are not inferred.

06 / ELECTRICAL & EX-PROOF SCOPE

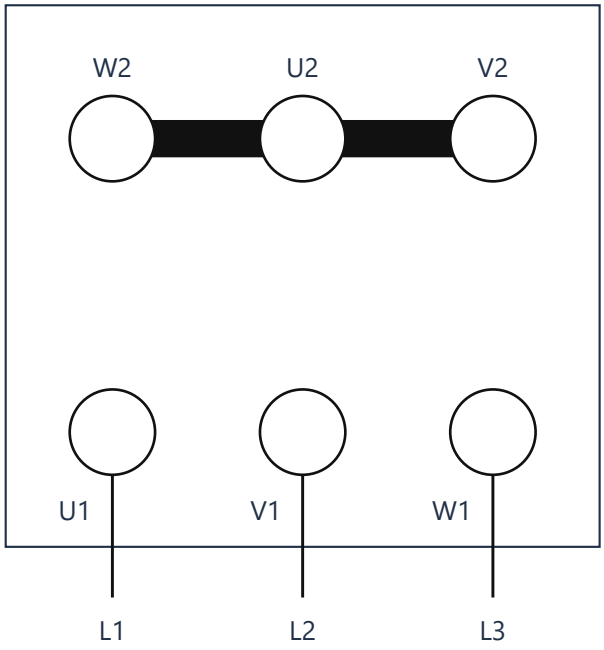
Connect the specified motor.

TERMINAL TOPOLOGY REFERENCE / VBF-R-EX

DELTA CONNECTION



STAR CONNECTION



Terminal topology reference only. Select the final star/delta connection from the supplied Ex-proof motor nameplate and instructions; 400 V alone does not determine the bridge arrangement. Connect protective earth and equipotential bonding as specified.

Reference	Configuration status
Published Ex-proof motor reference	II 2G Ex d IIC T4 Gb
Complete fan marking	To be confirmed
Complete fan certificate	To be confirmed

The motor reference concerns gas; dust approval is not established. Use the speed controller and motor protection permitted for the supplied Ex-proof assembly. Confirm its marking, certificate, temperature class and installation zone against the supplied documentation.

VBF-R-EX

Ex-proof rectangular duct fans

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info@voltvent.com | voltvent.com