

Application

SC Ex side channel blowers are used in pressure and vacuum systems in explosion hazardous areas. The side channel blowers comply with the requirements of the ATEX Directive 2014/34/EU, and are designed for use in hazard zones outside mines and mine workings, meeting the requirements of Group II Category 3G - Zone 2.

- II 3G Ex h IIB+H₂ T3 Gc

Construction

- side channel blower with direct drive,
- cast aluminium impeller, dynamically balanced,
- cast aluminium casing,
- blower suitable for horizontal or vertical operation (special design),
- casing cover made of aluminium sheet, motor base made of steel sheet, painted*,
- radial shaft seals made of fluorocarbon rubber,
- unpainted blower (raw aluminium, shot-blasted and impregnated),
- maximum temperature of the conveyed medium 60°C,
- motor ambient temperature from -20°C to +60°C.

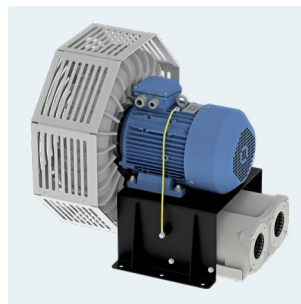
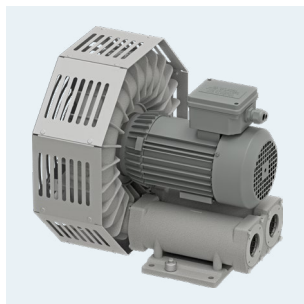
Electric motor

- asynchronous, three-phase, 230/400V 50Hz (up to 3kW),
- asynchronous, three-phase, 400/690V 50Hz (above 4kW),
- efficiency class IE2 (up to 0,55kW),
- efficiency class IE3 (above 0,75kW),
- ingress protection IP66 (up to 1,1 kW),
- ingress protection IP55 (above 1,5 kW),
- insulation class F,
- for frequency control (PTC sensors as standard).

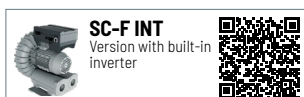
Special executions

- motor with voltage and frequency different than standard,
- motor with ingress protection different than standard,
- supporting frame, without silencers, PN6 flanges,
- electrochemical treatment of the surfaces of blower components.

* In SC30, base made of stainless steel.



RELATED PRODUCTS





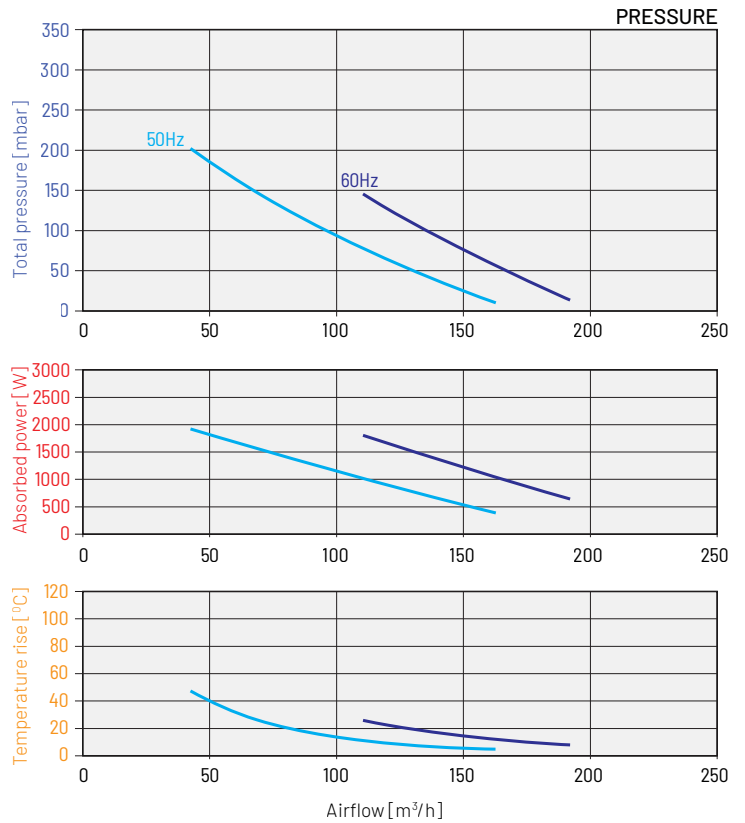
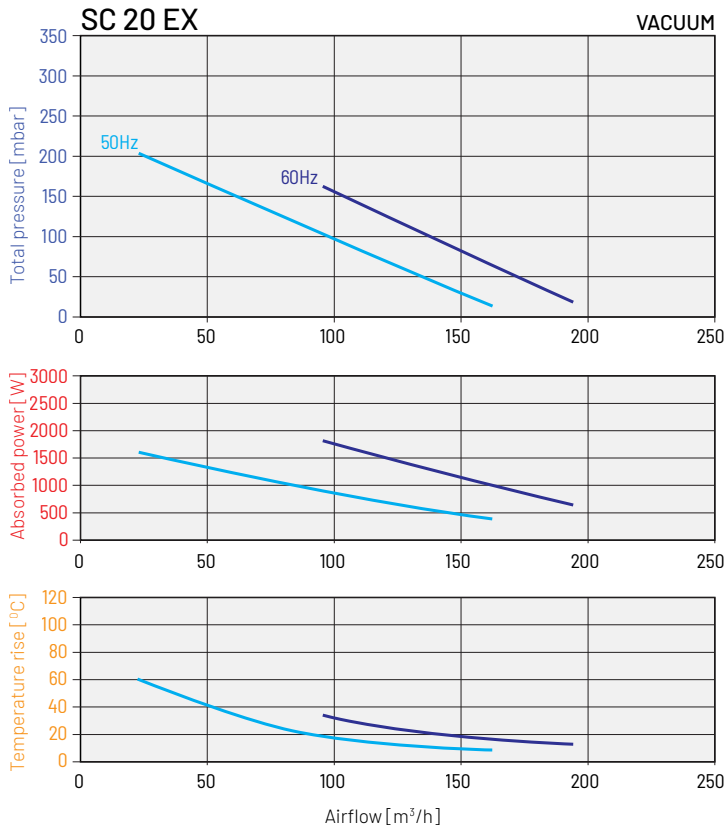
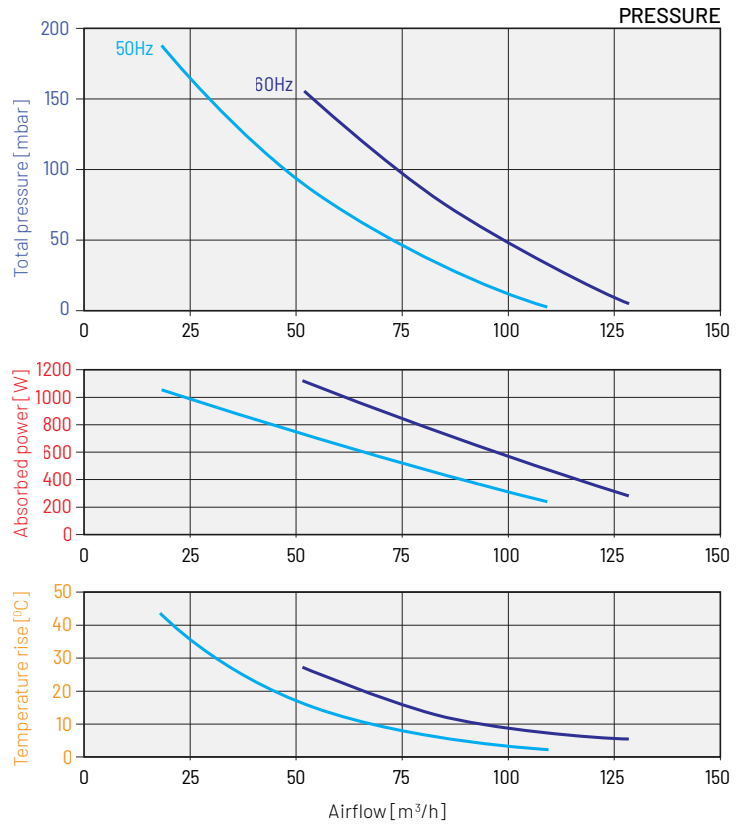
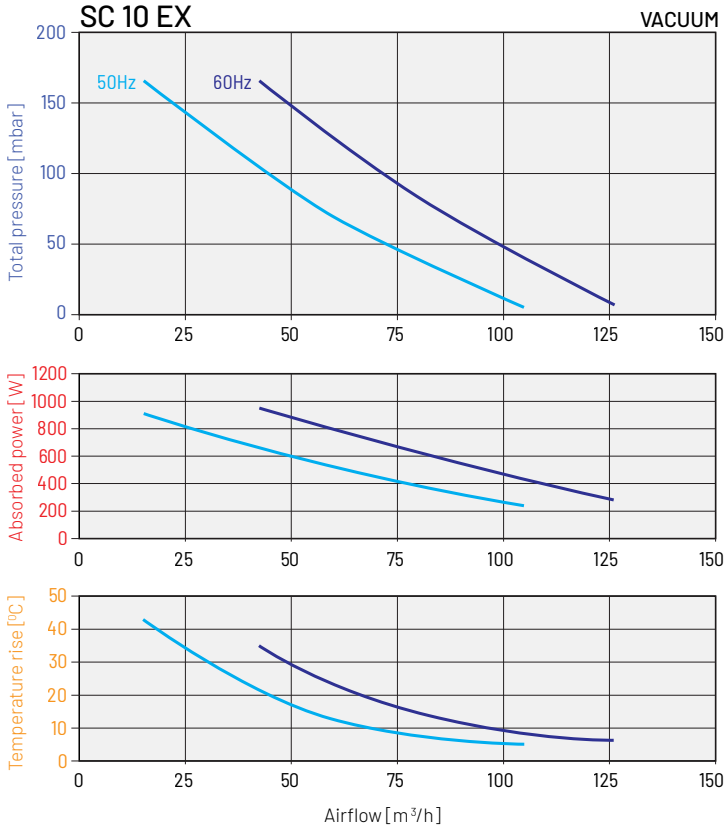
NOMINAL DATA

type	airflow max	pressure max vacuum pressure	speed	voltage rated	current max abs.	power motor	sound pressure level*	weight	article number
50 Hz									
SC10Ex055T 3G VFD	110 m ³ /h	-170 mbar 190 mbar	2 900 rpm	400 V (Y)	1,5 A	0,55 kW	72 dB(A)	19,0 kg	426511710
SC20Ex110T 3G VFD	165 m ³ /h	-205 mbar 200 mbar	2 900 rpm	400 V (Y)	2,5 A	1,1 kW	75 dB(A)	29,0 kg	436511720
SC30Ex220T 3G VFD	270 m ³ /h	-225 mbar 225 mbar	2 900 rpm	400 V (Y)	4,3 A	2,2 kW	78 dB(A)	51,0 kg	436511730
SC40Ex400T 3G VFD	570 m ³ /h	-205 mbar 185 mbar	2 900 rpm	400 V (Δ)	7,4 A	4 kW	82 dB(A)	80,0 kg	436511740
SC40Ex550T 3G VFD	570 m ³ /h	-295 mbar 275 mbar	2 900 rpm	400 V (Δ)	10,0 A	5,5 kW	83 dB(A)	83,0 kg	436511740-01
SC46Ex750T 3G VFD	765 m ³ /h	-275 mbar 270 mbar	2 900 rpm	400 V (Δ)	13,3 A	7,5 kW	84 dB(A)	131,0 kg	436511746
SC46Ex1100T 3G VFD	765 m ³ /h	-320 mbar 405 mbar	2 900 rpm	400 V (Δ)	19,5 A	11 kW	84 dB(A)	137,0 kg	436511746-01
SC50Ex1100T 3G VFD	960 m ³ /h	-315 mbar 285 mbar	2 900 rpm	400 V (Δ)	19,5 A	11 kW	84 dB(A)	174,0 kg	436511750
SC50Ex1500T 3G VFD	960 m ³ /h	-355 mbar 440 mbar	2 900 rpm	400 V (Δ)	26,2 A	15 kW	85 dB(A)	186,0 kg	436511750-01
60 Hz									
SC10Ex055T 3G VFD	130 m ³ /h	-165 mbar 155 mbar	3 500 rpm	460 V (Y)	1,5 A	0,64 kW	76 dB(A)	19,0 kg	426511710
SC20Ex110T 3G VFD	195 m ³ /h	-165 mbar 145 mbar	3 500 rpm	460 V (Y)	2,5 A	1,3 kW	79 dB(A)	29,0 kg	436511720
SC30Ex220T 3G VFD	320 m ³ /h	-180 mbar 145 mbar	3 500 rpm	460 V (Y)	4,3 A	2,53 kW	82 dB(A)	51,0 kg	436511730
SC40Ex400T 3G VFD	675 m ³ /h	-160 mbar 140 mbar	3 500 rpm	460 V (Δ)	7,4 A	4,6 kW	86 dB(A)	80,0 kg	436511740
SC40Ex550T 3G VFD	675 m ³ /h	-245 mbar 215 mbar	3 500 rpm	460 V (Δ)	10,0 A	6,3 kW	87 dB(A)	83,0 kg	436511740-01
SC46Ex750T 3G VFD	930 m ³ /h	-190 mbar 200 mbar	3 500 rpm	460 V (Δ)	13,3 A	8,6 kW	88 dB(A)	131,0 kg	436511746
SC46Ex1100T 3G VFD	930 m ³ /h	-310 mbar 310 mbar	3 500 rpm	460 V (Δ)	19,5 A	12,7 kW	88 dB(A)	137,0 kg	436511746-01
SC50Ex1100T 3G VFD	1 085 m ³ /h	-240 mbar 205 mbar	3 500 rpm	460 V (Δ)	19,5 A	12,7 kW	88 dB(A)	174,0 kg	436511750
SC50Ex1500T 3G VFD	1 085 m ³ /h	-370 mbar 335 mbar	3 500 rpm	460 V (Δ)	26,2 A	17,3 kW	89 dB(A)	186,0 kg	436511750-01

* The sound pressure level is measured in accordance with EN ISO 3744, given at a distance of 1 m.
The measurement is carried out with the duct connected, without relief valve.
The tolerance of the measured values is ±3 dB(A).

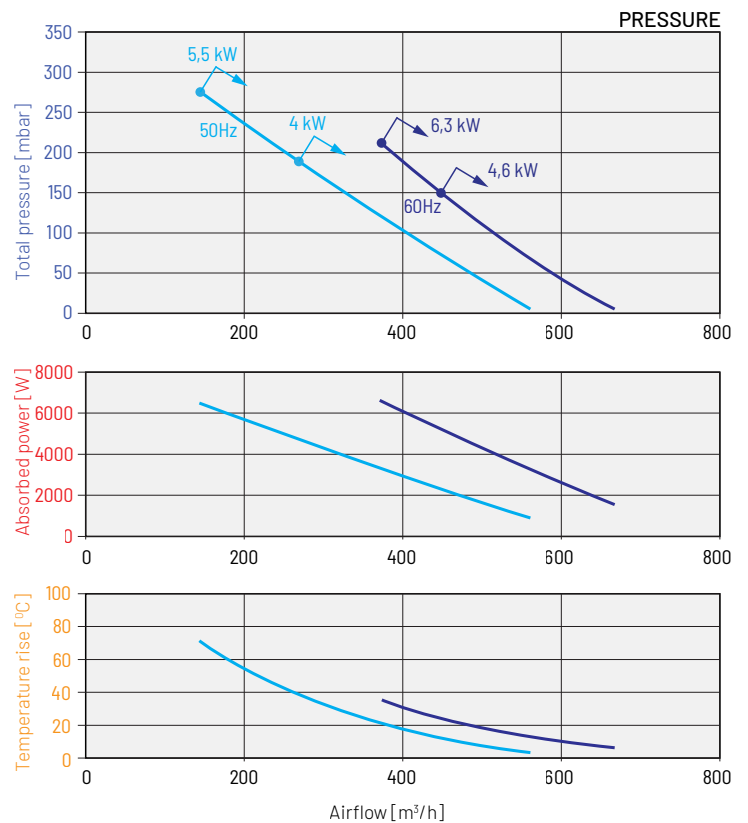
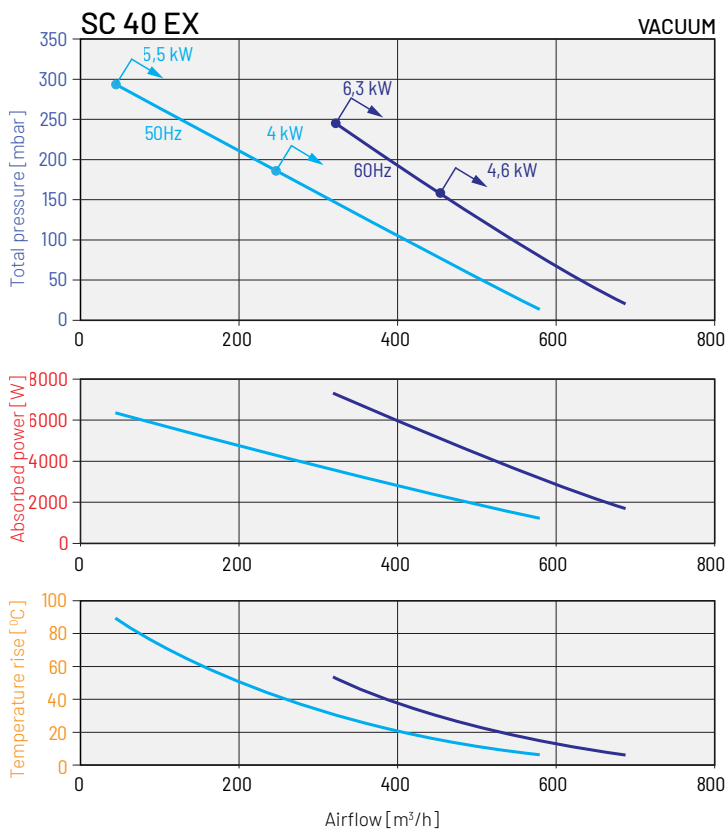
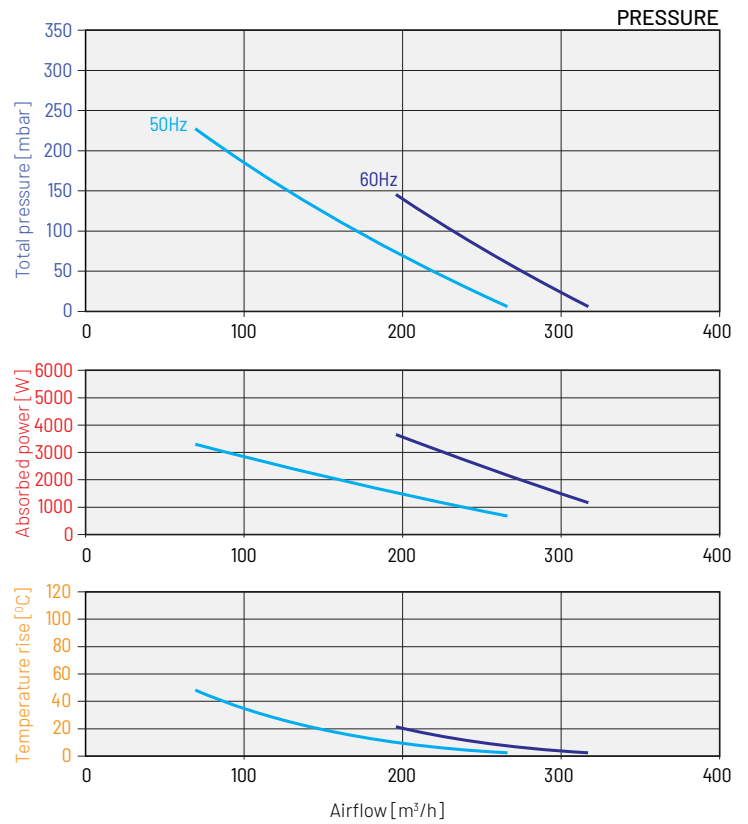
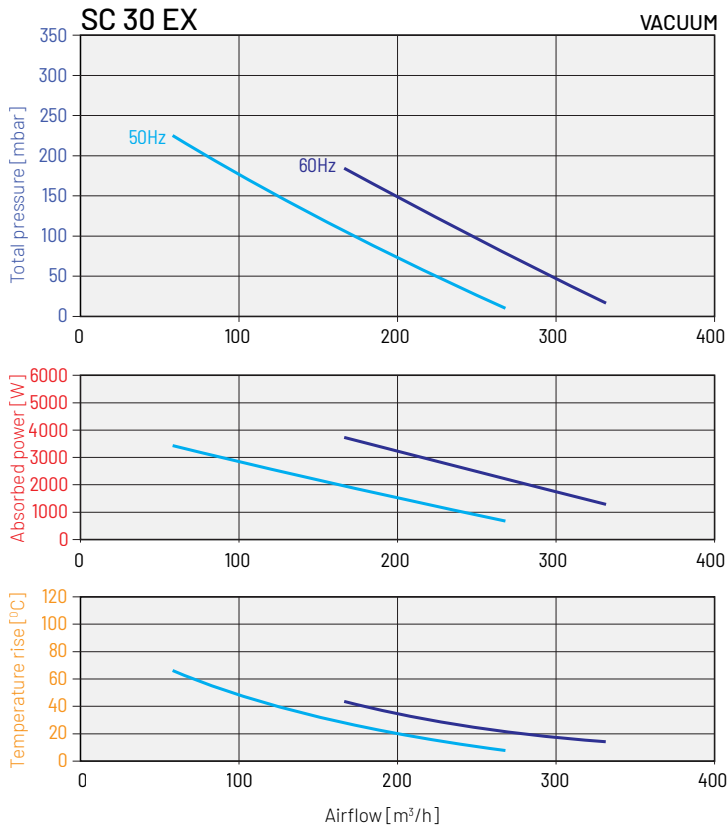


PERFORMANCE CHARACTERISTICS OF THE BLOWERS



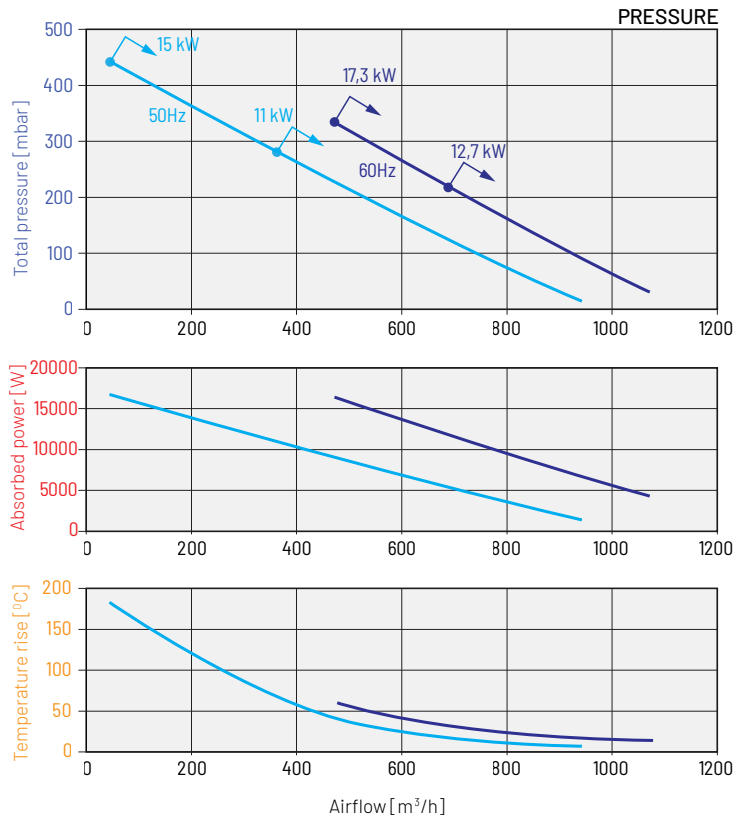
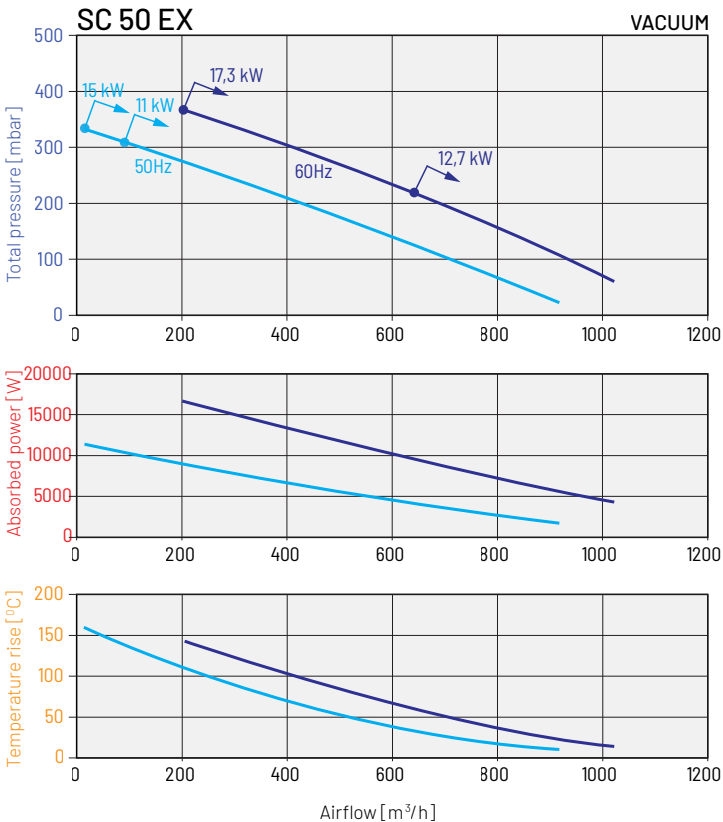
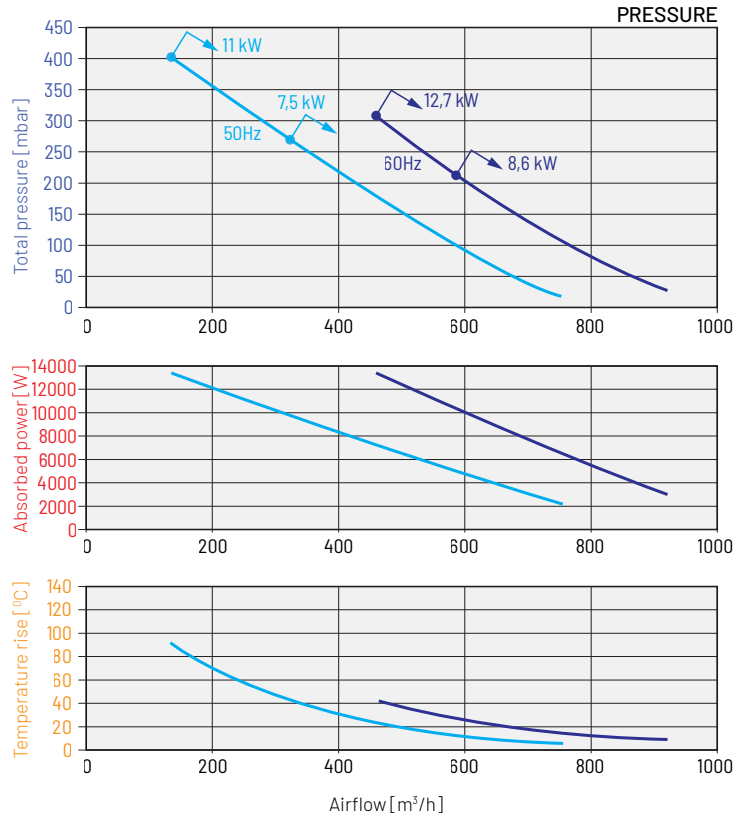
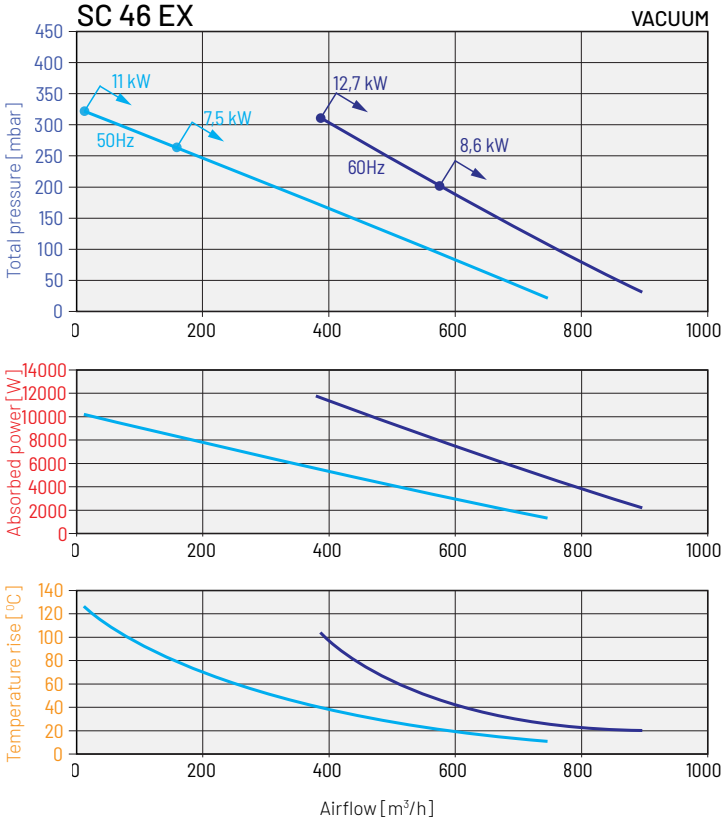


PERFORMANCE CHARACTERISTICS OF THE BLOWERS





PERFORMANCE CHARACTERISTICS OF THE BLOWERS





The values presented in the charts represent the parameters obtained during continuous operation at the conveyed medium temperature of 15°C, measured at the inlet, at an atmospheric pressure (absolute) of 1013 hPa.

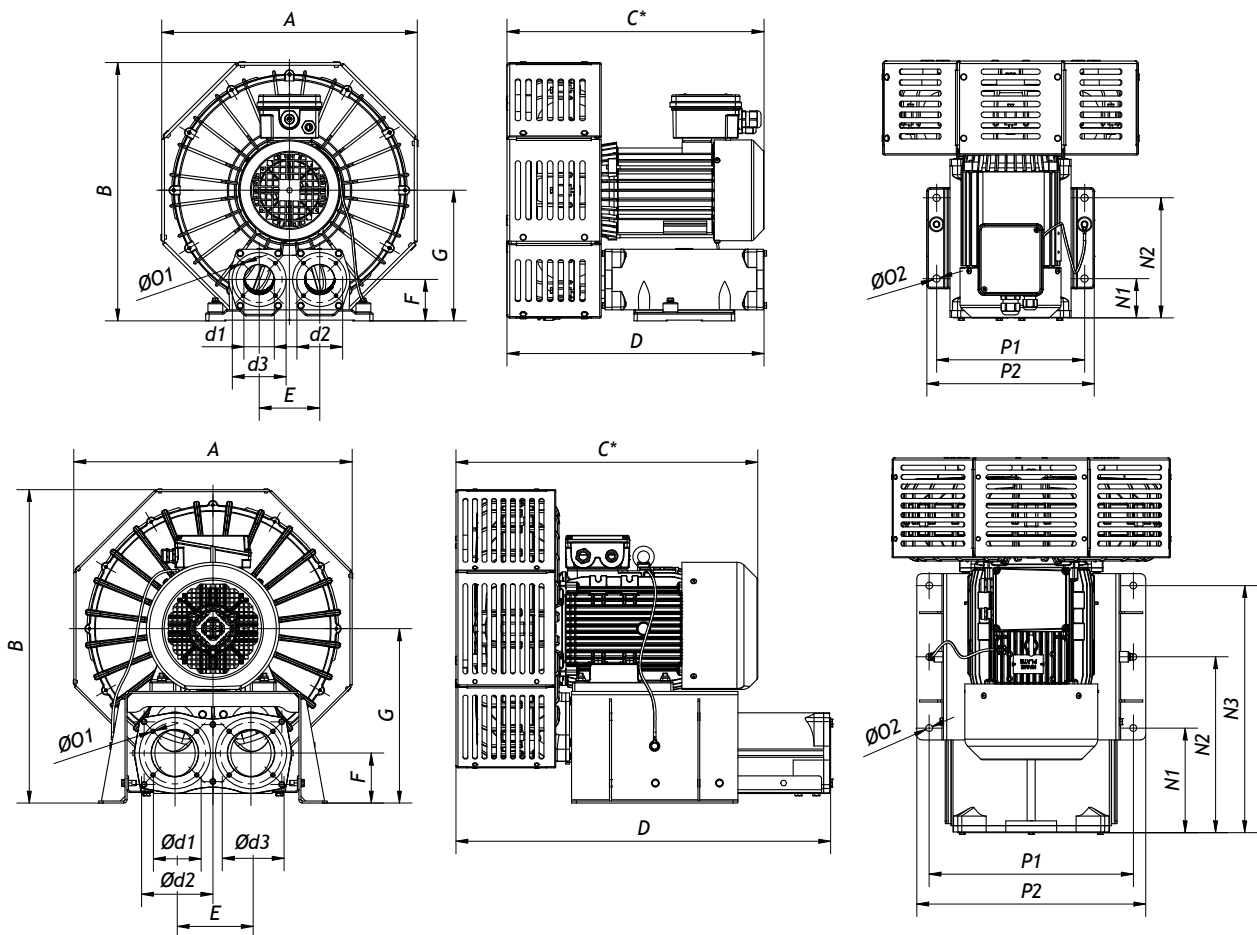
The above data applies to an ambient temperature of up to 25°C. The tolerance of the measured values is ±10%.

SC side channel blowers can operate either on vacuum or pressure. They are designed to transport clean air and generate positive and negative pressure in a pneumatic system. The units should be installed in a way that is isolated from atmospheric conditions and stresses caused by vibrations, shocks and impacts.

The devices meet the requirements of the 2006/42/EC Machinery Directive, the 2014/35/EU Low Voltage Directive and the PN-EN 60034-1 standard. The motors are made in insulation class F.

Due to the design of the unit, a filter is required on the suction side.

DIMENSIONS

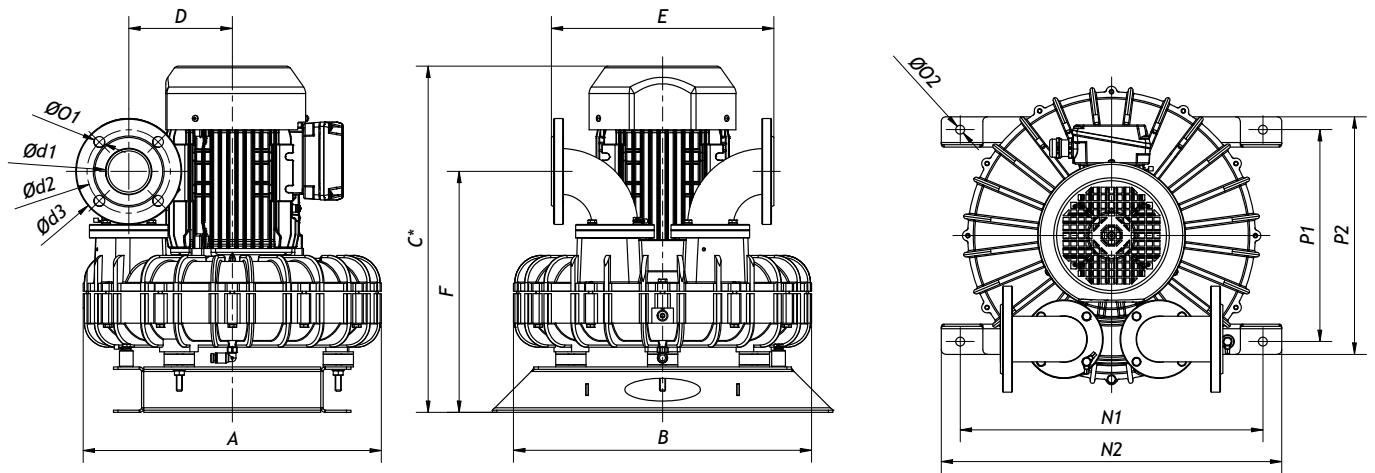


type	A	B	C*	D	d1	d2	d3	E	F	G	N1	N2	N3	O1	O2	P1	P2
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SC10Ex	335	343	347	348	45	68	80	90	61,5	176	58,5	178,5	-	M5	11	220	249
SC20Ex	380	384	381	381	45	68	80	90	61,5	194	58,5	178,5	-	M5	11	220	249
SC30Ex	440	470	409	531	60	85	104	126	83	250	50	210	370	M6	12	330	360
SC40Ex	530	587	490/517	597	75	110	130	145	91	322	116,5	241,5	366,5	M8	12	380	414
SC46Ex	586	660	605/635	788	100	130	150	160	105	367	220,5	370,5	520,5	M8	14	430	482
SC50Ex	636	718	726	800	100	130	150	160	105	400	205	355	505	M8	14	430	482

* dimension C depends on the motor used



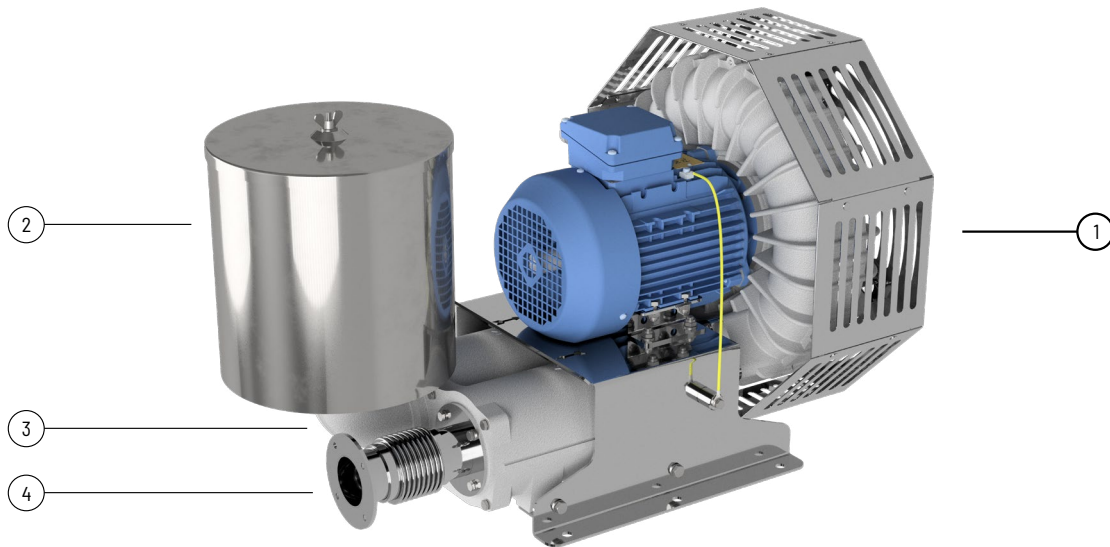
DIMENSIONS (Vertical application**)



type	A mm	B mm	C* mm	D mm	d1 mm	d2 mm	d3 mm	E mm	F mm	N1 mm	N2 mm	O1 mm	O2 mm	P1 mm	P2 mm
SC10Ex	306	297	392	109	49,5	100	130	230	223	310	350	14	10	234	258
SC20Ex	358	358	424	127	49,5	100	130	230	255	400	450	14	12	280	314
SC30Ex	394	394	458	137	61,5	110	140	294	319	400	450	14	12	280	314
SC40Ex	502	482	539/566	196	77,5	130	160	359	377	510	560	14	12	344	378
SC46Ex	558	540	674/704	210	90,5	150	190	414	429	600	660	18	14	364	408
SC50Ex	611	580	795	243	90,5	150	190	414	441	640	700	18	14	404	448

* dimension C depends on the motor used
 ** special execution (on frame, without silencers, PN6 flanges)

MOUNTING ACCESSORIES



1	2	(2)	3	4
type	filter	filter (standard)	elbow	flexible connector
SC10Ex	46515910	46515151	25515285-10	46515920
SC20Ex	46515910	46515151	25515285-10	46515920
SC30Ex	46515911	46515152	25515286-10	46515921
SC40Ex	46515912	46515153	25515287-10	46515922
SC46Ex	46515913	46515154	25515288-10	46515923
SC50Ex	46515913	46515154	25515288-10	46515923