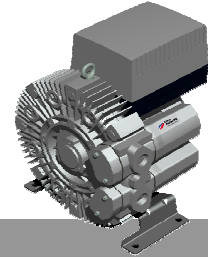


G-BH7 e

Data sheet 2BH7 310

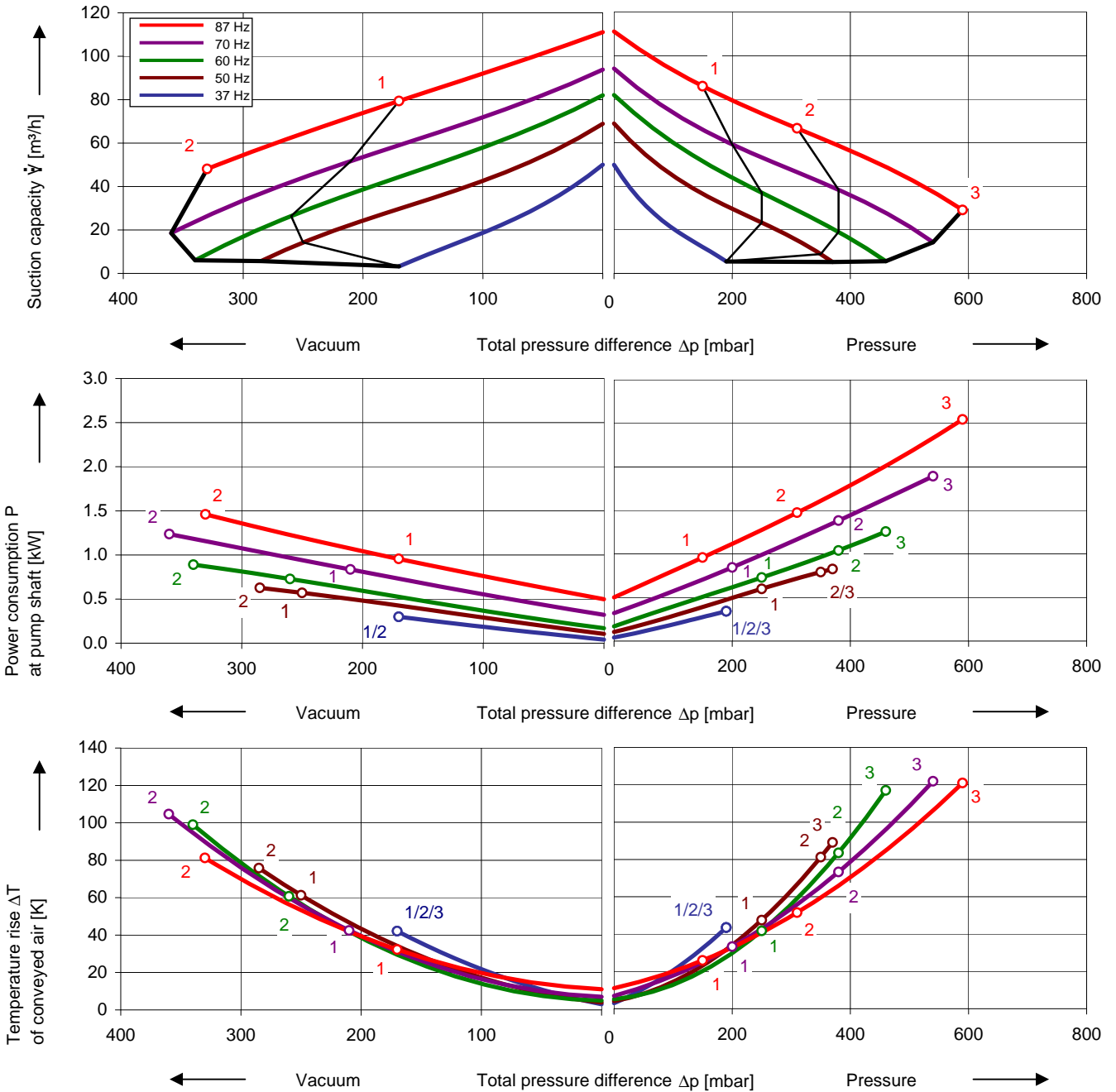
Side channel blower with Frequency Converter



Performance curves

Vacuum operation

Compressor operation



The performance curves are based on air at a temperature of 15 °C and an atmospheric pressure of 1013 mbar with a tolerance of $\pm 10\%$. The total pressure differences are valid for suction and ambient temperature up to 25 °C. For other conditions please get in touch with us.

The performance curves are based on frequency converter operation and a pulse frequency of 4 kHz minimum. Rated voltage/frequency set point is 380 V / 86 Hz and delta connection of motor. Frequency converters must be connected to a mains voltage of 400 V.

Selection and ordering data

Type 2BH7 310

No.	Fre- quency	Rated mains ⁴⁾		Rated motor		Rated	Max. differential pressure ¹⁾		Sound pressure level ²⁾	Weight Approx.	Order No.
		Voltage	Current	Voltage	Current ⁵⁾	Power	Vacuum	Pressure			
		Hz	V	A	V	A	kW	mbar		dB(A)	
3~ 86 Hz, IP55, Insulation material class F, integrated FC, PTC sensor for motor protection											
2	86	400	3.8			1.30	-330	310	76	22	2BH7310-0AN21-7
3	86	400	9.5			2.60	-410	590	76	33	2BH7310-0AN51-7
3~ 50/60/86 Hz, IP55, Insulation material class F, UL 507 and CSA 22.2 No 113 (certificate number E225239)											
1	50			380 Y	1.60 Y	0.55	-250	250	57	17	2BH7310-0AH16-7 ³⁾
	60			430 Y	1.70 Y	0.63	-260	250	62		
	86			380 Δ	2.80 Δ	0.90	-170	150	76		
2	50			380 Y	2.30 Y	0.81	-280	350	57	18	2BH7310-0AH26-7 ³⁾
	60			430 Y	2.30 Y	0.94	-340	360	62		
	86			380 Δ	4.00 Δ	1.30	-180	160	76		
3	50			380 Y	4.30 Y	1.50	-280	350	57	29	2BH7310-0AH56-7 ³⁾
	60			430 Y	4.40 Y	1.75	-340	360	62		
	86			380 Δ	7.50 Δ	2.60	-410	590	76		

Stand alone FC (IP20)

Rated mains voltage ⁴⁾	Max. motor current ⁵⁾	Typical motor power	Rated mains current		Mains choke / filter		Stand alone FC (IP20)	
			without mains choke / filter	with mains choke / filter	Weight Approx.	Order No.	Weight Approx.	Order No.
V	A	kW	A		kg			kg
Operation with standard rated power, UL 508C and CSA 22.2 No. 14 (certificate number E224047)								
400	1.8	0.55	2.5	2	1.1	2FX4609-ONE00	1.2	2FC4551-2NE00
400	2.4	0.75	3.3	2.3	1.1	2FX4609-ONE00	1.2	2FC4751-2NE00
400	3.9	1.5	5.5	3.9	2	2FX4610-ONE00	1.6	2FC4152-2NE00
400	5.6	2.2	7.3	5.1	2	2FX4610-ONE00	1.6	2FC4222-2NE00
400	7.3	3.0	9	7	2.5	2FX4611-ONE00	2.9	2FC4302-2NE00
400	9.5	4.0	12.3	8.8	5.2	2FX4612-ONE00	2.9	2FC4402-2NE00

- 1) In case of frequency converter operation differential pressures at 50 Hz and 60 Hz differ compared to operation directly on mains. We recommend differential pressure indicators / switches for limiting differential pressure.
- 2) Measuring surface sound pressure level acc. to EN ISO 3744, measured with an equivalent unit at a distance of 1 m. The pump is throttled to an average suction pressure, with piping connected, but no relief valves fitted, tolerance ±3 dB (A).
- 3) PTC recommended for motor overload protection. Ordering example: 2BH7 310-7 □□□□-ZA11
- 4) Input voltage range of frequency converters is 400 V - 500 V +/- 10%. Permitted (input) frequency range is 45 Hz - 65 Hz +/- 0%. The standard motor insulation system is suitable for converter input voltages up to 460 V.
- 5) Rated motor current of blower must not exceed 1.05 x max. motor current of the stand alone FC. Example: for rated motor current of 48,5 A the stand alone FC 2FC4223-2NE00 (47 A) can be used.

All G-BH fulfil the 2006/42/EC (machinery) and 2006/95/EC (low voltage) directives and the EN 60034-1 norm "Rotating electrical machines".

The motors comply with EN 60 034-1 / -2 / -30 (IEC 60034) and thermal class F.

Frequency converter accessories

Item	Order No.	Item	Order No.
Operating panels		PC control	
Keypad	2FX4505-ONE00	Parameterization software	2FX4515-ONE00
Keypad-Handheld	2FX4506-ONE00	RS 232 interface	2FX4510-OLE00
Connection cable 2,5 m	2FX4511-OLE00	RS 232 cable	2FX4513-OLE00
Connection cable 5 m	2FX4512-OLE00	Connection cable	2FX45□□-OLE00
Automation / networking		Pressure indicators	
Switch-potentiometer-unit	2FX4503-OLE00	Vacuum -1000 ... 0 mbar	2FX6021-0BD00
Application module	2FX4502-ONE00	Pressure 0 ... 600 mbar	2FX6011-0BD00
Profibus module	2FX4507-ONE00	Pressure 0 ... 1000 mbar	2FX6012-0BD00

Changes in particular of the quoted performance curve, data and weights may occur without prior notice. The data given do not constitute an obligation from our side to deliver as shown.

Gardner Denver

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