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# G-BH7 e Data sheet 2BH7 310

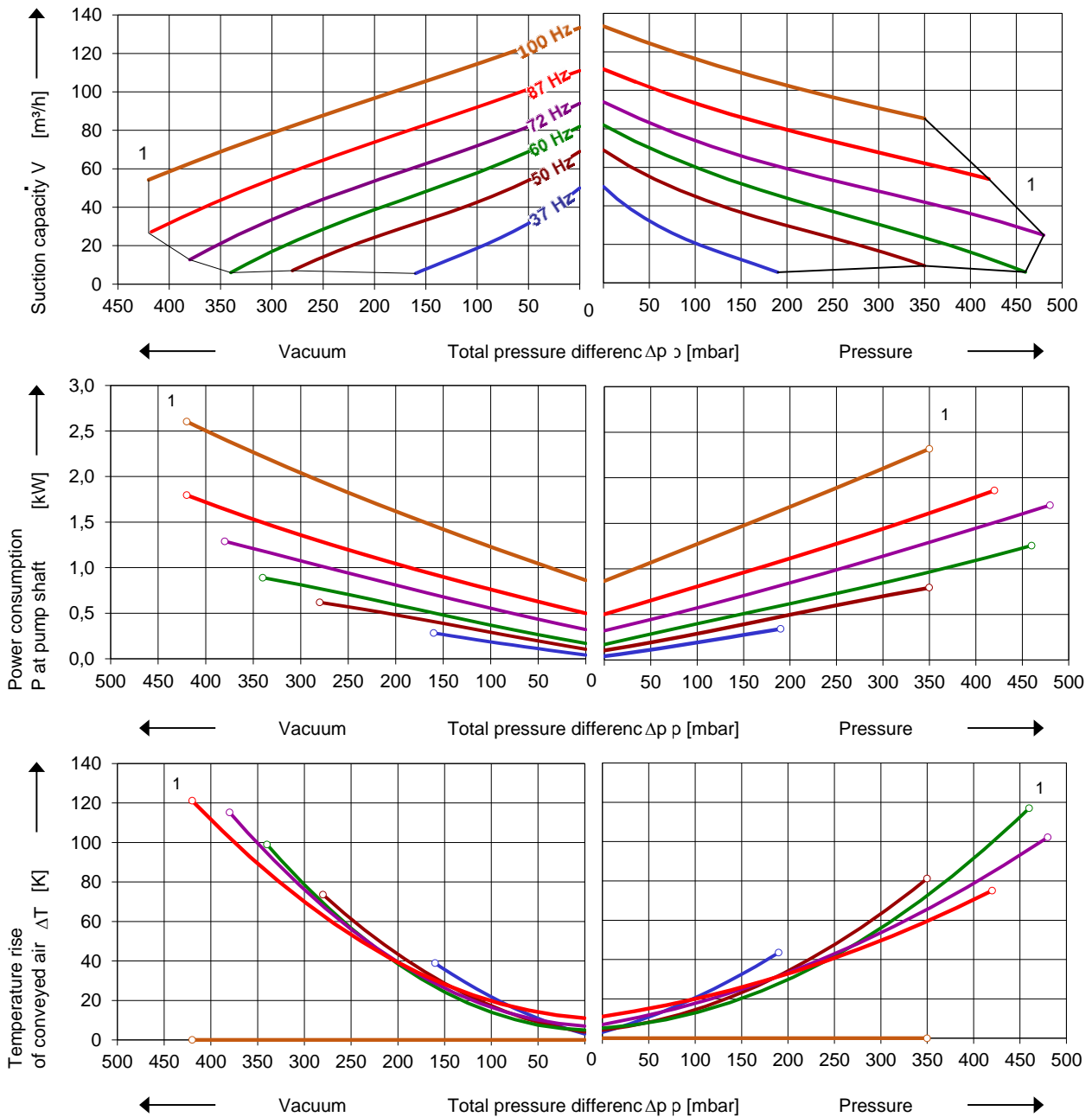
Side channel blower with Frequency Converter



## 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 345 V / 87 Hz and delta connection of motor. Frequency converters must be connected to a mains voltage of 380 V minimum.

## Selection and ordering data

Type 2BH7 310												
No.	Fre- quency	Rated motor			Max. differential pressure <sup>1)</sup>		Sound pressure level <sup>2)</sup>	Weight Approx.	Order No.		VFD type	
		Voltage	Current	Power	Vacuum	Pressure						
		Hz	V	A	kW	mbar		dB(A)	kg			
<b>IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450</b>												
1	100	400 Y	5,2 Y	2,6	-420	350	73	67/68	29	31	2BH7310-0A341-1	B
	87	380 Y	4,8 Y	2,3	-420	420	73	67/68	29	31	2BH7310-0A346-1	B
<b>IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1004 and CNA/CSA 22.2 No 68-09 (certificate number E225239)</b>												
1	37	-	-	-	-160	190	52	67/68	22	24	2BH7310-0AK36-1 <sup>3)</sup>	A
	50	-	-	-	-280	350	57					
	60	-	-	-	-340	340	62					
	87	400 Δ	3,45 Δ	1,6	-330	290	73					
	37	-	-	-	-160	190	57	67/68	24	26	2BH7310-0AK46-1 <sup>3)</sup>	B
	50	-	-	-	-280	350	57					
	60	-	-	-	-340	460	62					
	87	400 Δ	4,6 Δ	2,3	-420	420	73					
	37	-	-	-	-160	190	56	67/69	28	30	2BH7310-0AK56-1 <sup>3)</sup>	C
	50	-	-	-	-280	350	57					
	60	-	-	-	-340	460	62					
	87	400 Δ	5,8 Δ	2,9	-430	600	77					

With separately driven fan (order option G17) <sup>4)</sup>

- 1) We recommend differential pressure indicators / switches for limiting differential pressure. Relief valves are only useable at defined frequency.
- 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: 2BH7310-□□□□□-Z Z=A11
- 4) Sound pressure level with G17 dependent on voltage (50Hz / 60Hz)

All G-BH match the 2006/42/EC (machinery) and 2014/35/EU (low voltage) directives and the EN 60034 norm "Rotating electrical machines".  
The motors comply with EN 60 034 (IEC 60034) and thermal class F.

## Frequency converter (IP55) motor integrated / for wall mounting

Frequency Converter		Rated mains voltage	Max. motor current	Typical motor power	Rated mains current	Fuse Protection	Weight Approx.	Adaptor for wall mounting
Order No.								V
A	2FC4152-1 □□ 00	400V (-15%) ... 480V (+10%)	4,0	1,5	3,3	10	3,9	2FX16190ER00
B	2FC4222-1 □□ 00		5,6	2,2	4,6	10	5,0	2FX16490ER00
C	2FC4302-1 □□ 00		7,5	3,0	6,2	16		
D	2FC4402-1 □□ 00		9,5	4,0	7,9	16		
E	2FC4552-1 □□ 00		13,0	5,5	10,8	20	8,7	2FX16690ER00
F	2FC4752-1 □□ 00		17,8	7,5	14,8	25		
G	2FC4113-1 □□ 00		28,0	11,0	23,3	35	21,0	2FX16990ER00
H	2FC4153-1 □□ 00		34,0	15,0	28,3	50		
J	2FC4183-1 □□ 00		40,0	18,5	33,3	50		
K	2FC4223-1 □□ 00		48,0	22,0	39,9	63		

I/O's and automation		Order option	Example:
ST	2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS	STANDARD	2BH7310-0A341-1-Z Z=U51 VFD type 2FC4222-1PB00 to be delivered already installed
PB	2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiBus interface	Z = U51	
CB	2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / CANopen interface	Z = U52	
PN	2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiNet interface	Z = U53	
SC	2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / SERCOS3 interface	Z = U54	

## VFD accessories

Item	Order No.	Item	Order No.
<b>Manual control</b>		<b>Differential pressure transmitters</b>	
MMI handheld	2FX4520-0ER00	Vacuum -1000 ... 0 mbar	2FX6022-0BD00
USB adaptor cable	2FX4521-0ER00	0 ... 600 mbar	2FX6013-0BD00
		0 ... 1000 mbar	2FX6014-0BD00
<b>INVERTERpc Software</b>			
Free download at <a href="http://www.gd-elmorietschle.com">www.gd-elmorietschle.com</a> >Downloads >frequency-converters >Miscellaneous >Software			

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



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