



**Elmo
Rietschle**

IE3

CE
US



G-BH7 e

Data sheet 2BH7 420

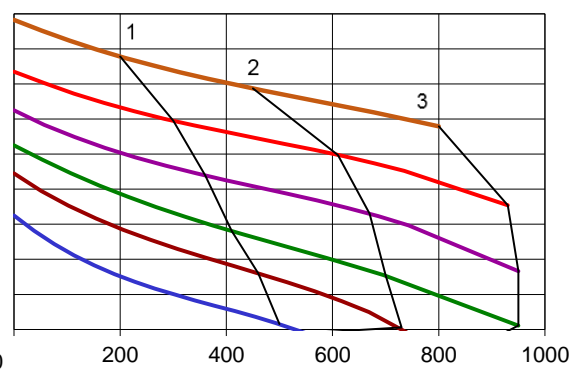
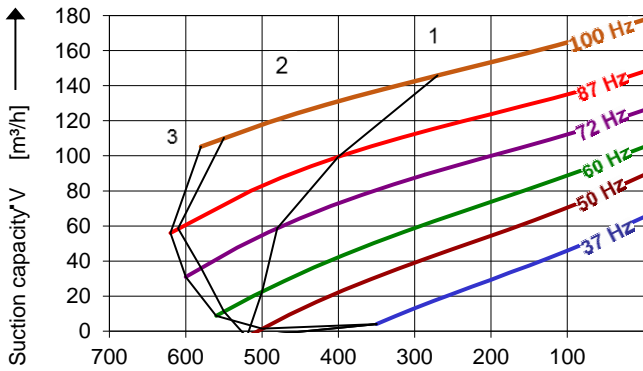
Side channel blower with Frequency Converter



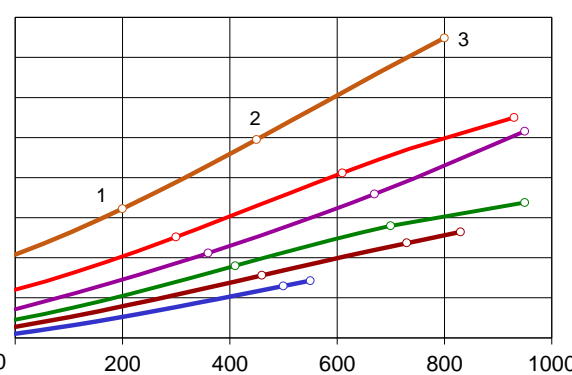
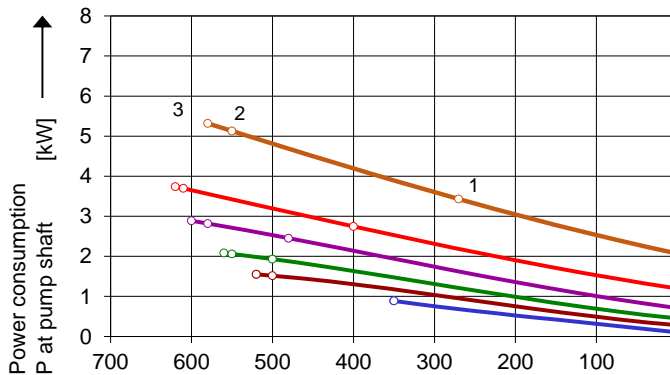
Performance curves

Vacuum operation

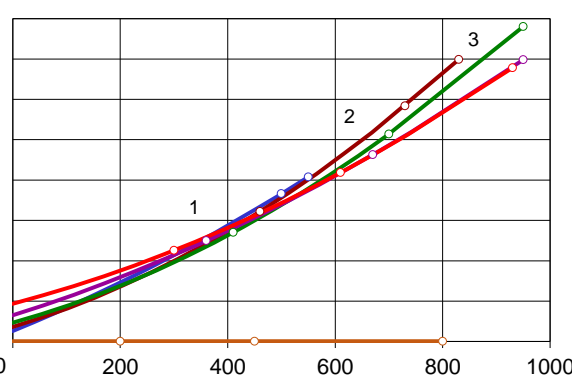
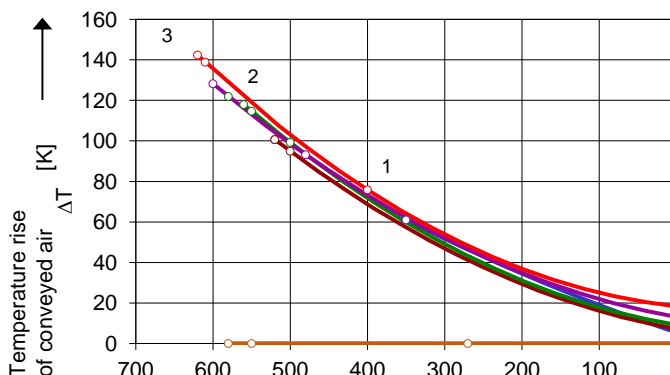
Compressor operation



← Vacuum Total pressure difference Δp [mbar] Pressure →



← Vacuum Total pressure difference Δp [mbar] Pressure →



← Vacuum Total pressure difference Δp [mbar] Pressure →

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 420

No.	Frequency Hz	Rated motor			Max. differential pressure ¹⁾		Sound pressure level ²⁾ dB(A)	Weight Approx. kg	Order No.		VFD type	
		Voltage V	Current A	Power kW	Vacuum mbar	Pressure mbar						
		Y	Y	Y	Y	Y						
IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450												
1	100	400 Y	6,5 Y	3,5	-270	200	77	70/71	43	45	2BH7420-0A321-1	C
2	100	400 Y	9,5 Y	5,0	-550	450	77	70/71	43	50	2BH7420-0A331-1	D
3	100	400 Y	12,7 Y	6,9	-580	800	80	70/72	55	57	2BH7420-0A361-1	E
3	87	380 Y	6,1 Y	2,9	-400	300	77	70/71	43	45	2BH7420-0A326-1	C
3	87	380 Y	8,8 Y	4,3	-610	610	77	70/71	48	50	2BH7420-0A336-1	D
3	87	380 Y	11,8 Y	5,8	-620	930	80	70/72	55	57	2BH7420-0A366-1	E
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1004 and CNA/CSA 22.2 No 68-09 (certificate number E225239)												
1	37	-	-	-	-350	500	56	70/71	38	40	2BH7420-0AK26-1 ³⁾	C
	50	-	-	-	-500	460	61					
	60	-	-	-	-490	410	66					
	87	400 Δ	5,8 Δ	2,9	-400	300	77					
2	37	-	-	-	-350	550	59	70/71	43	45	2BH7420-0AK36-1 ³⁾	D
	50	-	-	-	-520	730	61					
	60	-	-	-	-550	700	66					
	87	400 Δ	8,7 Δ	4,3	-610	610	77					
3	37	-	-	-	-350	520	66	70/72	47	49	2BH7420-0AK66-1 ³⁾	E
	50	-	-	-	-500	830	61					
	60	-	-	-	-560	950	66					
	87	400 Δ	11,0 Δ	5,8	-620	930	80					

With separately driven fan (order option G17)⁴⁾

- We recommend differential pressure indicators / switches for limiting differential pressure. Relief valves are only useable at defined frequency.
- 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).
- PTC recommended for motor overload protection. Ordering example: 2BH7420-□□□□□-Z Z=A11
- 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	kW	A	A	kg	Order No.
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	2BH7420-0A321-1-Z Z=U51 VFD type 2FC4302-1PB00 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.
Manual control		Differential pressure transmitters	
MMI handheld	2FX4520-0ER00	Vacuum -1000 ... 0 mbar	2FX6022-0BD00
USB adaptor cable	2FX4521-0ER00	Pressure 0 ... 600 mbar	2FX6013-0BD00
		0 ... 1000 mbar	2FX6014-0BD00
INVERTERpc Software			
Free download at www.gd-elmoietschle.com >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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