



**Elmo
Rietschle**

IE3

UL
US



G-BH1 e Data sheet 2BH1 900

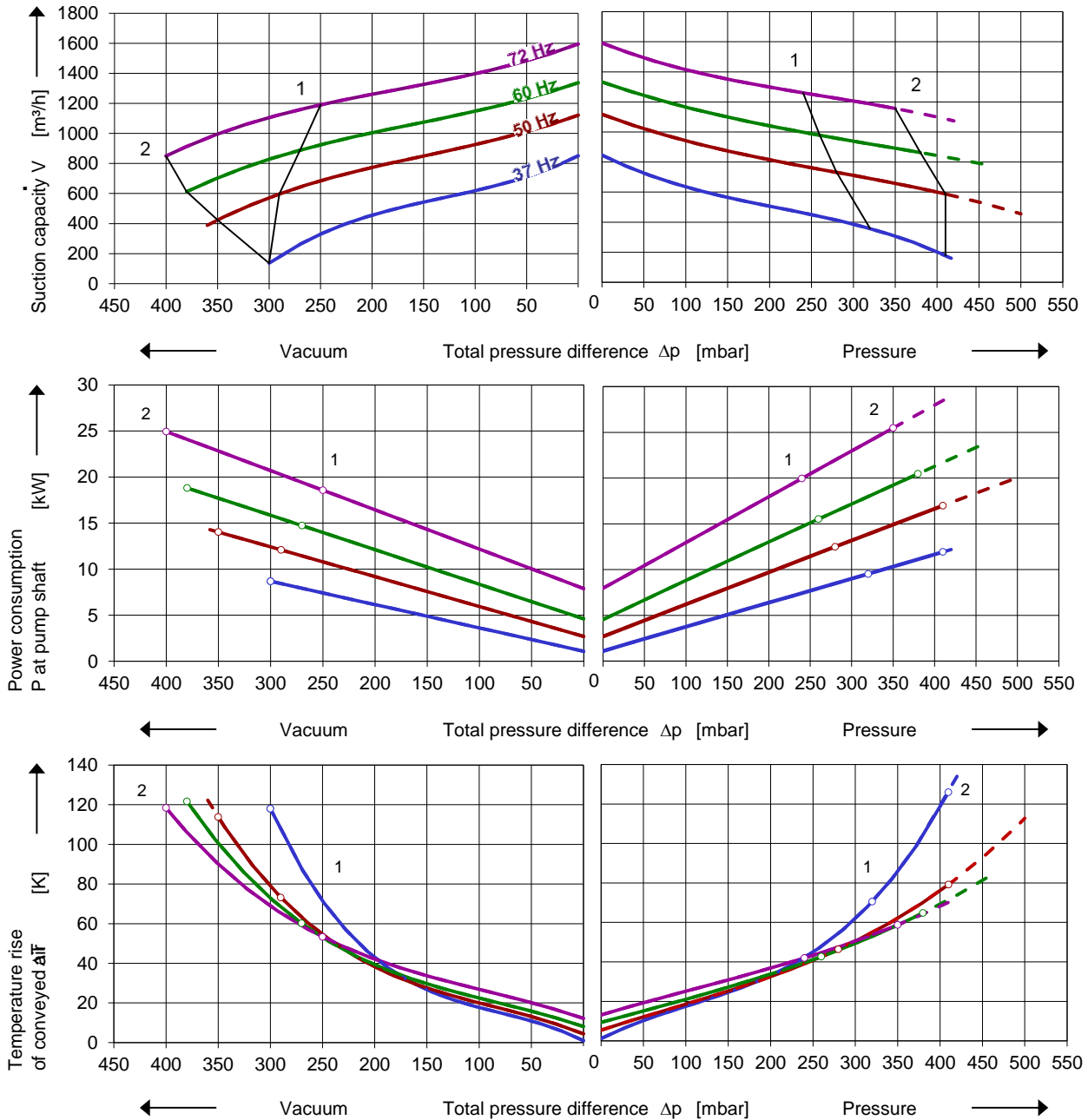
Side channel blower with Frequency Converter



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 2BH1 900

No.	Fre- quency Hz	Rated motor			Max. differential pressure ¹⁾ Vacuum Pressure mbar		Sound pressure level ²⁾ dB(A)	Weight Approx. kg	Order No.	VFD type		
		Voltage V	Current A	Power kW	Vacuum	Pressure						
IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450												
1	72	400 Y	33,0 Y	17,4	-250	240	82	79/80	252	254	2BH1900-1A314	H
2	72	400 Y	44,5 Y	23,9	-400	350	82	79/80	260	262	2BH1900-1A324	K
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)												
	37	-	-	-	-220	210	69	78/79	212	214	2BH1900-1AK06	3)
	50	-	-	-	-190	180	71					
	60	-	-	-	-150	140	75					
1	72	330 Δ	26,2 Δ	11,7	-90	80	82	79/80	232	234	2BH1900-1AK16	3)
	37	-	-	-	-300	320	72					
	50	-	-	-	-290	280	74					
	60	-	-	-	-270	260	78					
2	72	330 Δ	39,3 Δ	17,4	-250	240	82	79/80	240	242	2BH1900-1AK26	3)
	37	-	-	-	-300	410	72					
	50	-	-	-	-350	410	74					
	60	-	-	-	-380	380	78					
	72	330 Δ	54,1 Δ	23,9	-400	350	82	79/80	222	224	2BH1900-1AK36	3)
	37	-	-	-	-300	420	72					
	50	-	-	-	-360	500	74					
	60	-	-	-	-380	460	78					
	72	330 Δ	65,3 Δ	29,4	-400	420	82					

With seperately driven fan (order option G17)⁴⁾

- 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: 2BH1900-□□□□-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 V	Max. motor current A	Typical motor power kW	Rated mains current A	Fuse Protection A	Weight Approx. kg	Adaptor for wall mounting
Order No.								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	2BH1900-1A314-Z Z=U51 VFD type 2FC4153-1PB00 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 0 ... 600 mbar 2FX6022-0BD00 2FX6013-0BD00
USB adaptor cable	2FX4521-0ER00	Pressure	0 ... 1000 mbar 2FX6014-0BD00

INVERTERpc Software

Free download at www.gd-elmorietschle.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.

Elmo Rietschle is a brand of Gardner Denver

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