

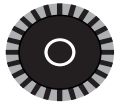
# G-BH1 e

## Data sheet 2BH1 800

Side channel blower with Frequency Converter

IE3

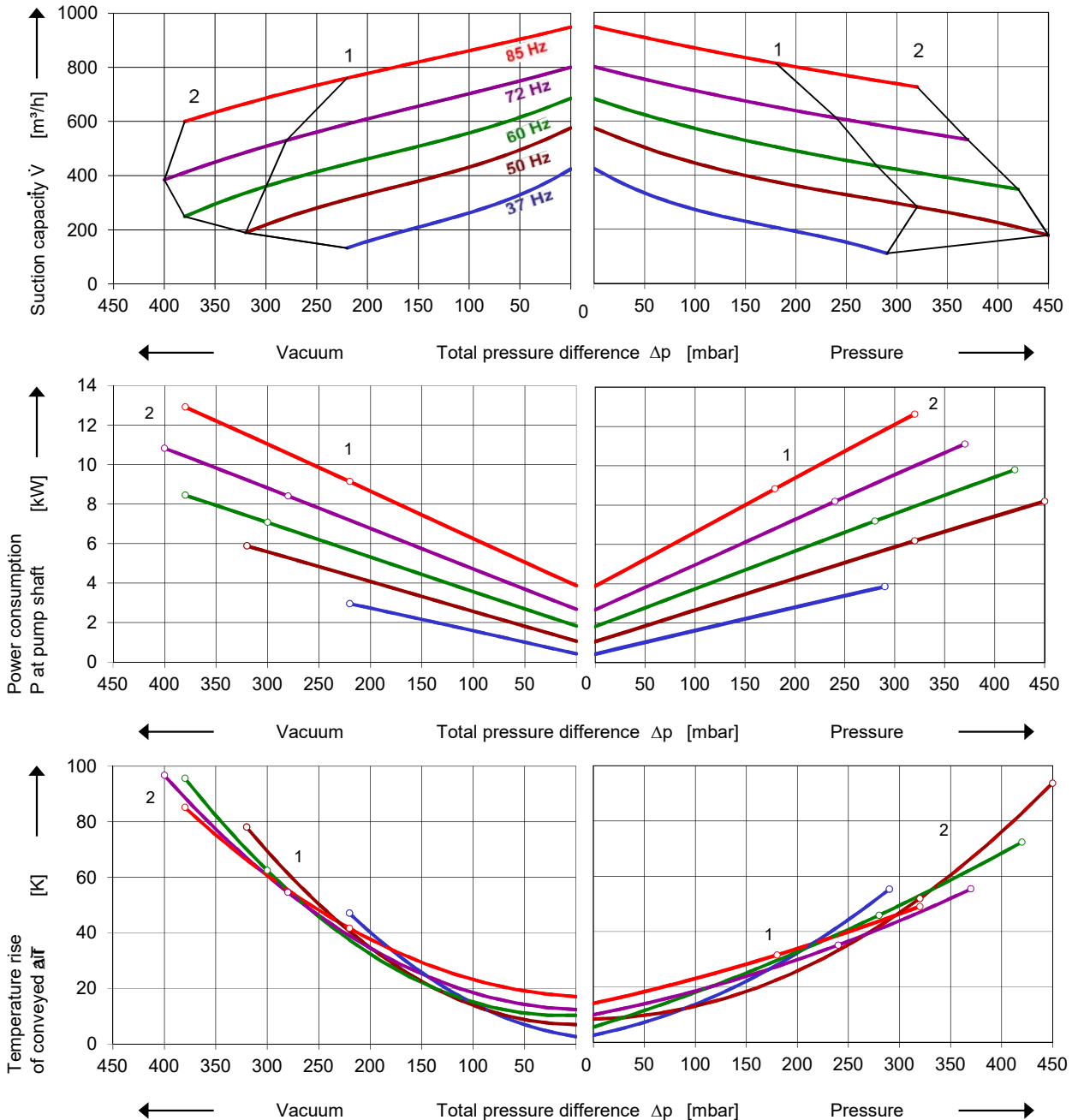
CEC US



### 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 800

No.	Fre- quency Hz	Rated motor			Max. differential pressure <sup>1)</sup>		Sound pressure level dB(A)	Weight Approx. kg	Order No.		VFD type	
		Voltage V	Current A	Power kW	Vacuum mbar	Pressure mbar						
<b>IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450</b>												
1	85	370 Y	20,3 Y	10,2	-220	180	85	79/80	119	125	2BH1800-1A316	G
2	85	380 Y	27,4 Y	14,0	-380	320	85	79/80	158	159	2BH1800-1A326	G
<b>IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>												
	37	-	-	-	-220	230	65	79/80	113	113	2BH1800-1AK06	3)
	50	-	-	-	-220	210	71					
	60	-	-	-	-190	180	73					
	85	400 Δ	14,4 Δ	7,5	-90	80	85					
1	37	-	-	-	-220	290	66	79/80	124	124	2BH1800-1AK16	3)
	50	-	-	-	-320	320	72					
	60	-	-	-	-300	280	74					
	85	400 Δ	20,0 Δ	10,2	-220	180	85					
2	37	-	-	-	-220	290	66	79/80	132	136	2BH1800-1AK26	3)
	50	-	-	-	-320	450	73					
	60	-	-	-	-380	420	75					
	85	400 Δ	26,0 Δ	14,0	-380	320	85					

With seperately 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: 2BH1800-□□□□-Z Z=A11
- 4) Different pressure - only for information
- 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	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	21,0	2FX16990ER00
G	2FC4113-1 □□ 00		28,0	11,0	23,3	35		
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	2BH1800-1A316-Z Z=U51  VFD type 2FC4113-1PB00 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-elmoietschle.com">www.gd-elmoietschle.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.

Elmo Rietschle is a brand of Gardner Denver



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