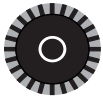


G-BH1 e

Data sheet 2BH1 800

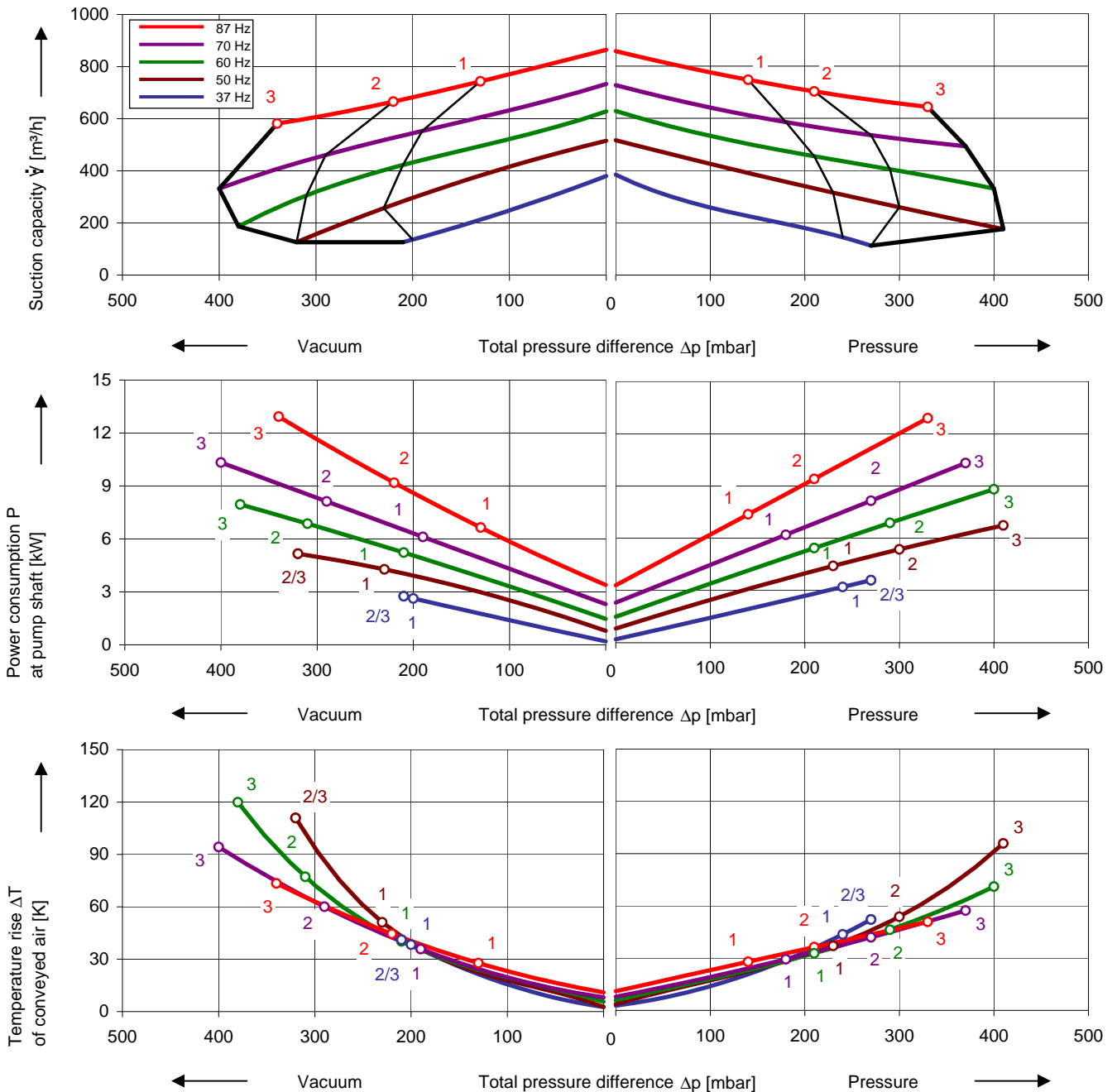
Side channel blower with Frequency Converter



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 2BH1 800

No.	Fre- quency	Rated mains		Rated motor		Rated	Max. differential pressure ¹⁾		Sound pressure level ²⁾	Weight Approx.	Order No.
		Voltage ⁵⁾	Current	Voltage	Current ⁶⁾	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											
1	86	400	21.5			6.90	-140	140	81	127	2BH1800-7AN01
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	9.0 Y	4.0	-200	200	70	117.0	2BH1800-7AH06 ³⁾
	60			430 Y	9.0 Y	4.6	-160	160	74		
	86			380 Δ	15.6 Δ	6.9	-140	140	81		
2	50			380 Y	13.3 Y	5.5	-300	300	70	136.5	2BH1800-7AH16 ³⁾
	60			430 Y	13.3 Y	6.3	-300	280	74		
	86			380 Δ	22.0 Δ	9.5	-220	210	81		
3	50			380 Y	16.7 Y	7.5	-320	430	7	142.5	2BH1800-7AH26 ³⁾
	60			430 Y	17.3 Y	8.6	-350	400	74		
	86			380 Δ	27.5 Δ	13.0	-270	230	81		

Stand alone FC (IP20)

Rated mains voltage ⁵⁾	Max. motor current ⁶⁾	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	7.3	3.0	9.0	7.0	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
400	13	5.5	16.8	12.0	5.2	2FX4612-ONE00	2.9	2FC4552-2NE00
400	16.5	7.5	21.5	15.0	3.0	2FX4606-ONE00	3.6	2FC4752-2NE00
400	23.5	11	-	21.0	8.2	2FX4613-1NE00	3.6	2FC4113-2NE00 ⁷⁾
400	32	15	-	29.0	13.0	2FX4614-1NE00	34	2FC4153-2NE00 ⁷⁾

- 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: 2BH1800-7 □□□□-ZA11
- 5) 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.
- 6) 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.
- 7) Mains choke / mains filter mentioned is mandatory for operation.

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	5190006021000
Application module	2FX4502-ONE00	Pressure 0 ... 600 mbar	5190006011000
Profibus module	2FX4507-ONE00	Pressure 0 ... 1000 mbar	5190006012000

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

*Elmo Rietschle is a brand of Gardner
Denver's Industrial Products Group
and part of Blower Operations*

er.de@gardnerdenver.com
www.gd-elmorietschle.com

Gardner Denver Deutschland GmbH

Industriestraße 26
97616 Bad Neustadt - Germany

Tel.: +49 9771 6888-0
Fax: +49 9771 6888-4000

Gardner Denver Schopfheim GmbH

Roggenbachstraße 58
79650 Schopfheim - Germany

Tel.: +49 7622 392-0
Fax: +49 7622 392-300