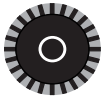
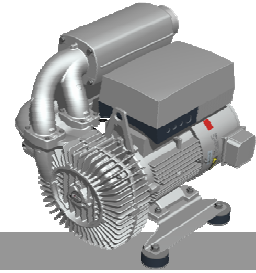


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Data sheet 2BH8 51

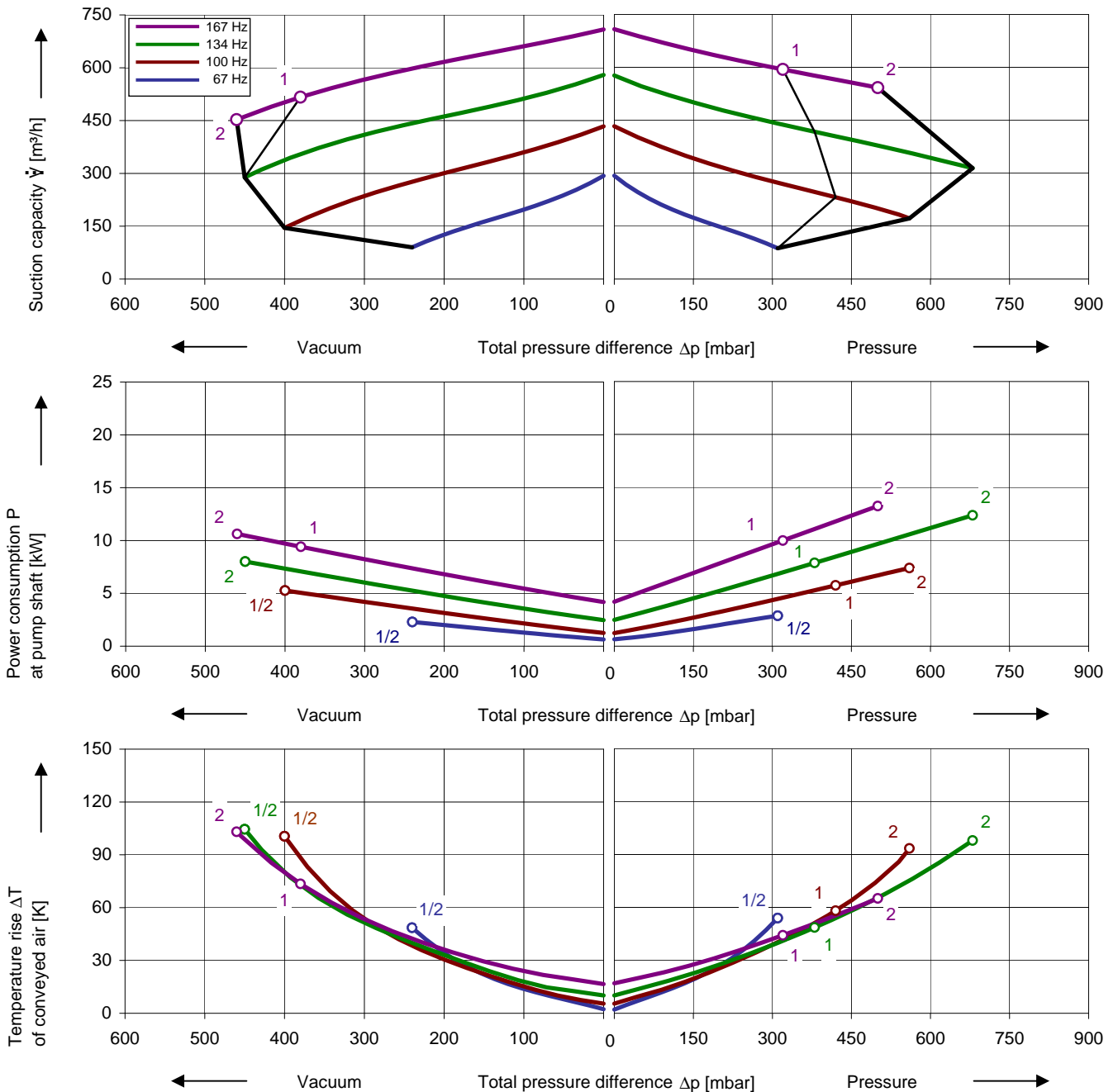
Vacuum pumps and compressors with frequency converter



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 at 400 V mains voltage and a pulse frequency of 4 kHz minimum. Corner frequency (rated frequency of voltage-frequency-control) is 167 Hz for 380 V rated motor voltage.

Selection and ordering data

Type 2BH8 51

No.	Fre- quency	Rated mains		Rated motor		Rated	Max. differential pressure ¹⁾		Sound pressure level ²⁾	Weight Approx.	Order No.
		Voltage ⁴⁾	Current	Voltage	Current ³⁾	Power	Vacuum	Pressure			
	Hz	V	A	V	A	kW	mbar		dB(A)	kg	

3--, IP55, Insulation material class F, integrated FC, PTC sensor for motor protection

1	167	400	21.5			9.2	-380	320	77	84	2BH85100-1AANM0-AA
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3--, IP55, Insulation material class F, PTC sensor for motor protection

2	167			380 Y	22.0 Y	11.8	-460	500	77	73	2BH85100-1AATM0-AA
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Stand alone FC (IP20)

Rated mains voltage ³⁾	Max. motor current ⁴⁾	Typical motor power	Rated mains current		Mains choke / filter		Stand alone FC (IP20)	
			without	with	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	16.5	7.5	21.5	15.0	3.0	2FX4606-0NE00	3.6	2FC4752-2NE00
400	23.5	11	-	21.0	8.2	2FX4613-1NE00	3.6	2FC4113-2NE00 ⁵⁾

- 1) 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). Operation with pulse frequency 8 kHz
- 3) 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.
- 4) 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.
- 5) 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	2FX4505-0NE00	Parameterization software	2FX4515-0NE00
Keypad-Handheld	2FX4506-0NE00	RS 232 interface	2FX4510-0LE00
Connection cable 2,5 m	2FX4511-0LE00	RS 232 cable	2FX4513-0LE00
Connection cable 5 m	2FX4512-0LE00	Connection cable	2FX45..-0LE00
Automation / networking		Pressure indicators	
Switch-potentiometer-unit	2FX4503-0LE00	Vacuum -1000 ... 0 mbar	2FX6021-0BD00
Application module	2FX4502-0NE00	Pressure 0 ... 600 mbar	2FX6011-0BD00
Profibus module	2FX4507-0NE00	Pressure 0 ... 1000 mbar	2FX6012-0BD00

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
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and part of Blower Operations

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Gardner Denver Schopfheim GmbH

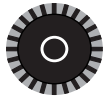
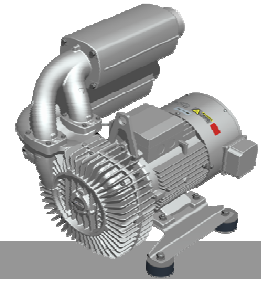
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Data sheet 2BH8 52

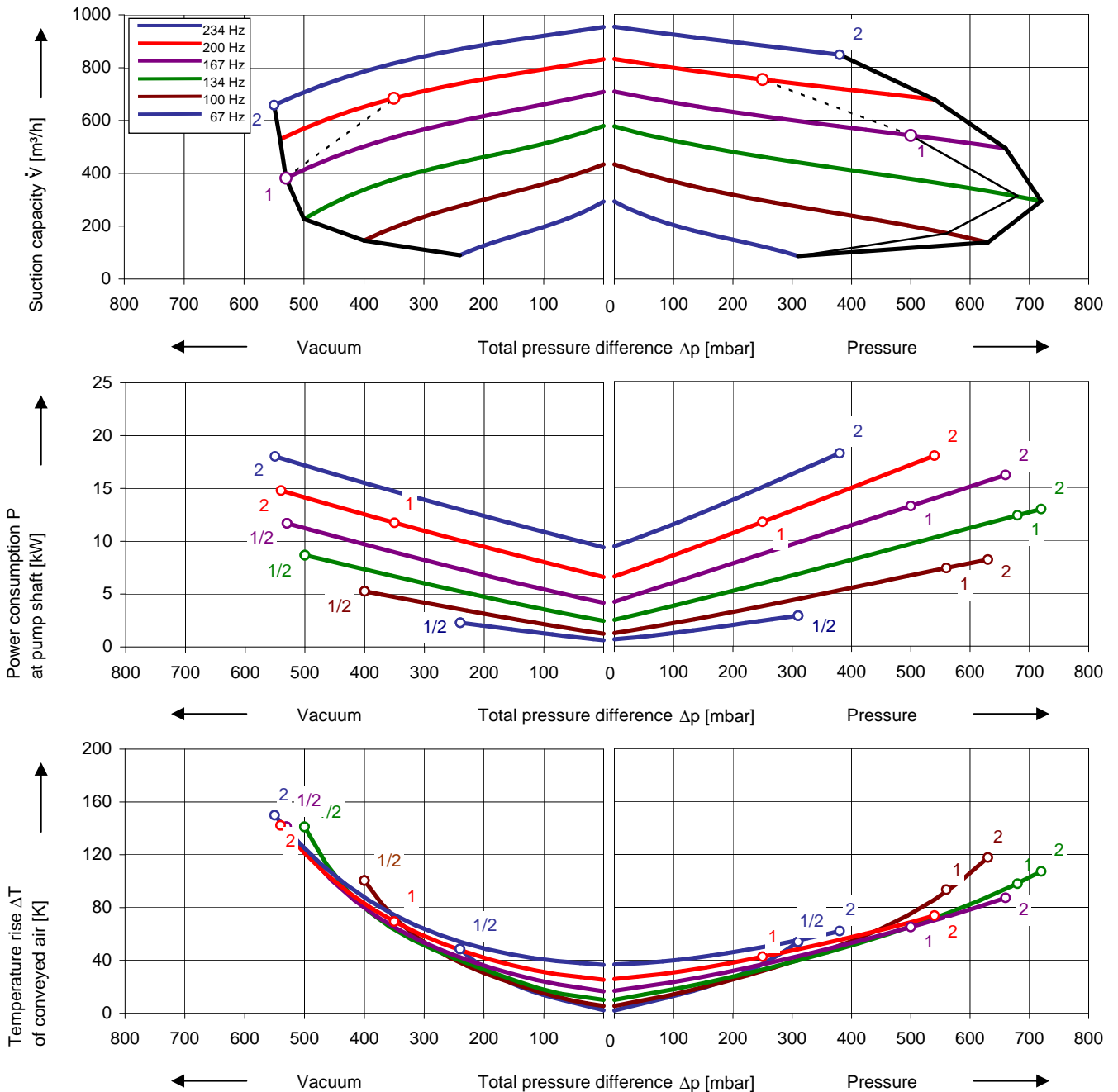
Vacuum pumps and compressors with frequency converter



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 at 400 V mains voltage and a pulse frequency of 4 kHz minimum. Corner frequency (rated frequency of voltage-frequency-control) is 167 Hz / 234 Hz for 380 V rated motor voltage.

Selection and ordering data

Type 2BH8 52

No.	Fre- quency	Rated mains		Rated motor		Rated	Max. differential pressure ¹⁾		Sound pressure level ²⁾	Weight Approx.	Order No.
		Voltage ⁴⁾	Current	Voltage	Current ³⁾	Power	Vacuum	Pressure			
									Hz	V	

3-, IP55, Insulation material class F, PTC sensor for motor protection

1	167			380 Y	22.0 Y	11.8	-530	500	77	77	2BH85200-1AATM0-AA
2	234			380 Y	34.5 Y	18.2	-550	500	77	85	2BH85200-1AATN2-AA

Stand alone FC (IP20)

Rated mains voltage ³⁾	Max. motor current ⁴⁾	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	A	kg	kg		kg	

Operation with standard rated power, UL 508C and CSA 22.2 No. 14 (certificate number E224047)

400	16.5	7.5	21.5	15.0	3.0	2FX4606-0NE00	3.6	2FC4752-2NE00
400	23.5	11	-	21.0	8.2	2FX4613-1NE00	3.6	2FC4113-2NE00 ⁵⁾
400	32	15	-	29.0	13.0	2FX4614-1NE00	34	2FC4153-2NE00 ⁵⁾
400	47.0	22	-	42	13	2FX4614-1NE00	34	2FC4223-2NE00 ⁵⁾

- 1) 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). Operation with pulse frequency 8 kHz
- 3) 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.
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