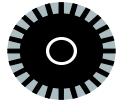


## G-BH2 e Data sheet 2BH2 0540-1

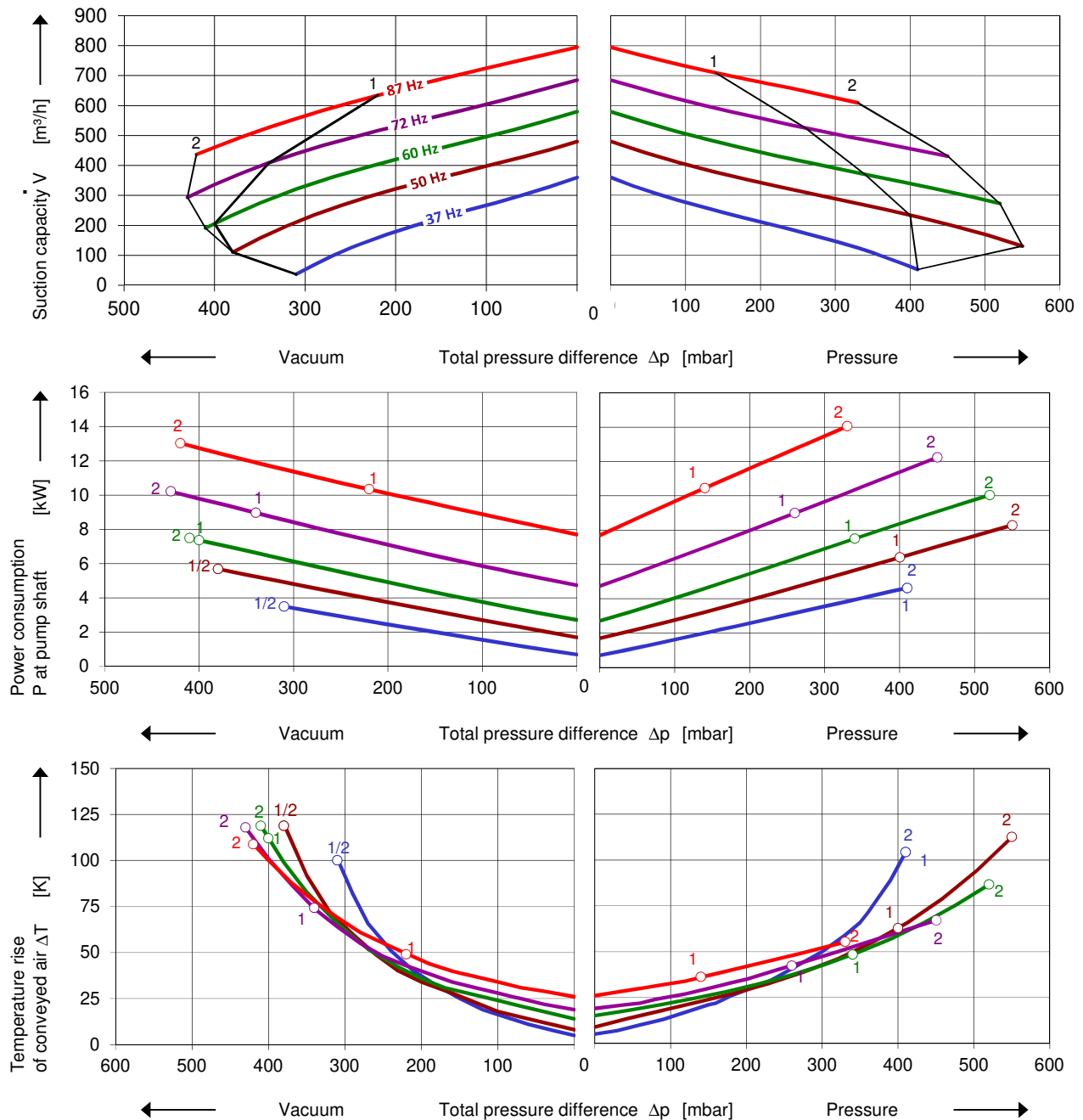
Side channel blower with Frequency Converter



### 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 2BH2 0540-1												
No.	Fre- quency	Rated			Max. differential pressure		Sound pressure level	Weight Approx.	Order No.			VFD type
		Voltage	Current	Power	Vacuum				Pressure			
					Hz	V				A	kW	
<b>Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450</b>												
1	85	380 Y	20.3 Y	10.2	-220	140	84	79/80	91	93	2BH20540-1AA3M6-BA	G
2	85	380 Y	27.4 Y	14.0	-420	330	84	79/80	123	125	2BH20540-1AA3N6-BA	G
<b>3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>												
	37	-	-	-	-310	280	66	75/76	83	85	2BH20540-1AAKL6-BA <sup>3)</sup>	F
	50	-	-	-	-270	240	67					
	60	-	-	-	-210	170	71					
	72	330 Δ	14.5 Δ	7.5	-100	80	75					
1	37	-	-	-	-310	410	68	79/80	91	93	2BH20540-1AAKM6-BA <sup>3)</sup>	G
	50	-	-	-	-380	400	67					
	60	-	-	-	-400	340	71					
	85	400 Δ	20.4 Δ	10.2	-220	140	84					
2	37	-	-	-	-310	410	68	79/80	103	105	2BH20540-1AAKN6-BA <sup>3)</sup>	G
	50	-	-	-	-380	550	67					
	60	-	-	-	-410	520	71					
	85	400 Δ	26.0 Δ	14.0	-420	330	84					

With separately driven fan (order option G17)

- 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
- 3) PTC recommended for motor overload protection. Ordering example: 2BH20540-1 □□□□-□□-□ Z Z=A11
- 4) Sound pressure level with G17 dependent on voltage (50Hz / 60Hz)

All G-BH match the 2006/42/EC (machinery) and 2006/95/EC (low voltage) directives and the EN 60034 norm "Rotating electrical machines".  
 The motors comply with EN 60 034-1 / -2 / -30 (IEC 60034) and thermal class F.  
 The frequency tolerance is +/- 2 % maximum.

## 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	2	3	10	4	2FX16190ER00
B	2FC4222-1 □□ 00		6	2	5	10		
C	2FC4302-1 □□ 00		8	3	6	16		
D	2FC4402-1 □□ 00		10	4	8	16	5	2FX16490ER00
E	2FC4552-1 □□ 00		13	6	11	20		
F	2FC4752-1 □□ 00		18	8	15	25	9	2FX16690ER00
G	2FC4113-1 □□ 00		28	11	23	35		
H	2FC4153-1 □□ 00		34	15	28	50	21	2FX16990ER00
J	2FC4183-1 □□ 00		40	19	33	50		
K	2FC4223-1 □□ 00		48	22	40	63		

I/O's and automation	Order option	Example:
ST 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS	STANDARD	2BH20540-1AA3M6-BA Z=U51  VFD type 2FC4113-1PB00 to be delivered already installed
PB 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiBus interface	Z = U51	
CB 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / CANopen interface	Z = U52	
PN 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / ProfiNet interface	Z = U53	
SC 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS / SERCOS3 interface	Z = U54	
EC 2 AIN / 2 AOOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS, with EtherCAT-Interface	Z = U56	

## 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	Pressure 0 ... 600 mbar	2FX6013-0BD00
		0 ... 1000 mbar	2FX6014-0BD00

**INVERTERpc Software**

Free download at [www.gd-elmorietschle.com](http://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.

<p style="font-weight: bold; font-size: 1.2em;">Elmo Rietschle</p> <p style="font-size: 0.8em;">Your Ultimate Source for Vacuum and Pressure</p>	<p style="font-weight: bold; font-size: 0.9em;">Gardner Denver Deutschland GmbH</p> <p style="font-size: 0.8em;">Industriestraße 26 97616 Bad Neustadt - Germany</p> <p style="font-size: 0.8em;">Tel.: +49 9771 6888-0 Fax: +49 9771 6888-4000</p> <p style="font-size: 0.8em;"><a href="http://www.gd-elmorietschle.com">www.gd-elmorietschle.com</a> • <a href="mailto:er.de@gardnerdenver.com">er.de@gardnerdenver.com</a></p>	<p style="font-weight: bold; font-size: 0.9em;">Gardner Denver Schopfheim GmbH</p> <p style="font-size: 0.8em;">Johann-Sutter-Straße 6+8 79650 Schopfheim - Germany</p> <p style="font-size: 0.8em;">Tel.: +49 7622 392-0 Fax: +49 7622 392-300</p>
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