

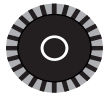
G-BH1 e

Data sheet 2BH1 300

Side channel blower with Frequency Converter



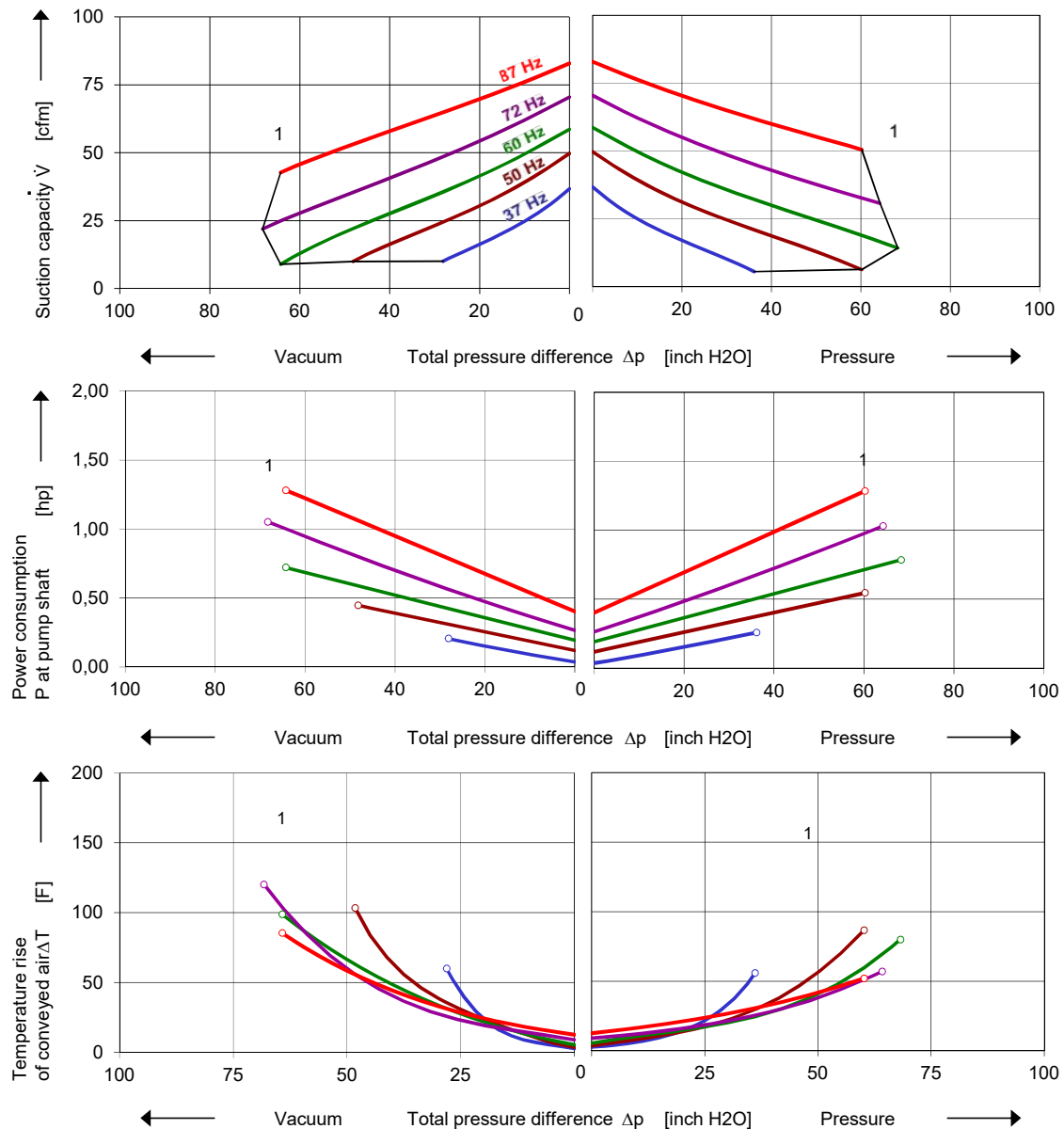
IE2



Performance curves

Vacuum operation (acfm)

Pressure operation (scfm)



The performance curves are based on air at a temperature of 59 F and an atmospheric pressure of 29.92 inch Hg with a tolerance of $\pm 10\%$. The total Suction capacity relates to inlet conditions. Pressure capacity relates to atmospheric conditions. For other conditions please contact Elmo Rietschle.

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 300

No.	Fre- quency	Rated motor			Max. differential		Sound pressure level	Weight Approx.	Order No.		VFD type
		Voltage	Current	Power	Vacuum	Pressure					
	Hz	V	A	hp	inch H ₂ O		dB(A)	lbs			
IE2 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450											
1	87	345 Δ	2,70 Δ	1,3	-64	60	62	0/0	33	0	2BH1300-1A221
IE2 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)											
	37	-	-	-	-32	36					
	50	-	-	-	-48	52	53				
	60	-	-	-	-48	44	56	0/0	22	0	2BH1300-1AP16 ³⁾
	87	400 Δ	1,65 Δ	0,9	-32	28					A

With separately 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) Surface sound pressure levels are according 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 sensors recommended for motor overload protection. Ordering example: 2BH1300-□□□□-Z Z=A11
- 4) Sound pressure level with G17 dependent on voltage (50Hz / 60Hz)

All G-BH blowers conform to 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

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

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		
F	2FC4752-1 □□ 00		17,8	7,5	14,8	25	21,0	2FX16690ER00
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	2BH1300-1A221-Z Z=U51 VFD type 2FC4152-1PB00 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	
EC 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS, zusätzlich mit EtherCAT-Schnittstelle	Z = U56	

VFD accessories

Item	Order No.	Item	Order No.
Manual control		Differential pressure transmitters	
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-elmoietschle.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



Your Ultimate Source for Vacuum and Pressure

Gardner Denver Deutschland GmbH
Industriestraße 26
97616 Bad Neustadt - Germany
Tel.: +49 9771 6888-0
Fax: +49 9771 6888-4000
www.gd-elmoietschle.com • er.de@gardnerdenver.com

Gardner Denver, Inc.
1800 Gardner Expressway
Quincy, IL 62305
Tel: 866-249-2275
Fax: 217-221-8780