



Elmo Rietschle

IE3

CEC US



G-BH1 e Data sheet 2BH1 640

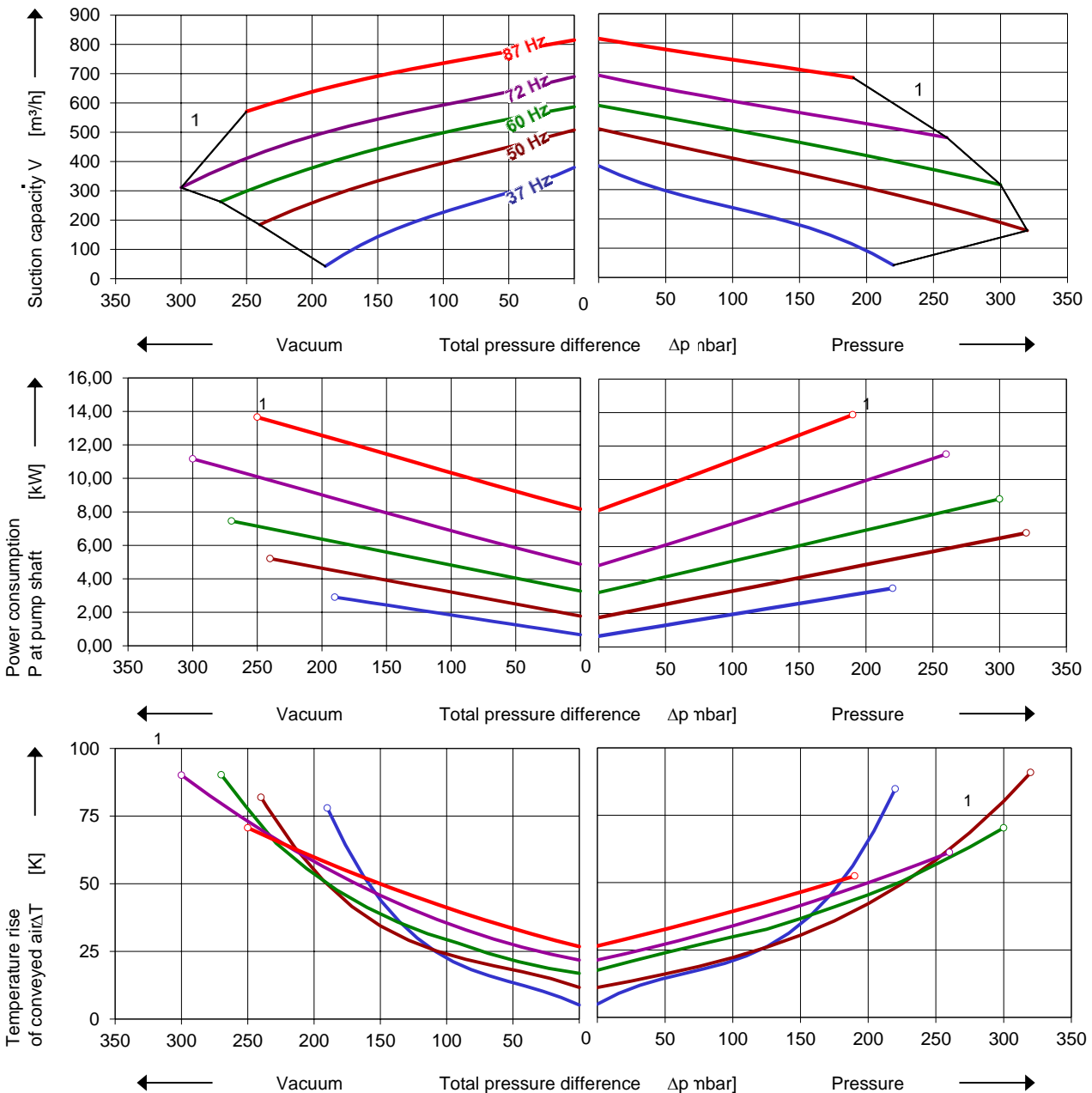
Side channel blower with Frequency Converter



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 2BH1 640												
No.	Frequency	Rated motor			Max. differential pressure ¹⁾		Sound pressure level ²⁾	Weight Approx.	Order No.	VFD type		
		Voltage	Current	Power	Vacuum	Pressure						
	Hz	V	A	kW	mbar		dB(A)	kg				
IE3 Integrated VFD 3~ 400V -15% ... 480V +10%, 50/60 Hz ±6% with thermistor (PTC), IP55, UL 1450												
1	87	380 Y	27,4 Y	14,0	-250	190	84	77/78	107	109	2BH1640-1G356	G
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)												
1	37	-	-	-	-190	220	69	77/78	75	77	2BH1640-1GK46	3)
	50	-	-	-	-240	260	71					
	60	-	-	-	-210	200	75					
	85	400 Δ	20,4 Δ	10,2	-90	70	85					
	37	-	-	-	-190	220	69	77/78	87	89	2BH1640-1GK56	3)
	50	-	-	-	-240	320	71					
	60	-	-	-	-270	300	75					
	85	400 Δ	26,0 Δ	14,0	-250	190	85					

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) 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: 2BH1640-□□□□-Z Z=A11
- 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	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	8,7	2FX16690ER00
E	2FC4552-1 □□ 00		13,0	5,5	10,8	20		
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	2BH1640-1G356-Z Z=U51 VFD type 2FC4752-1PB00 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.
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-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.

Elmo Rietschle is a brand of Gardner Denver

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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-elmorietschle.com • er.de@gardnerdenver.com

Gardner Denver Schopfheim GmbH

Johann-Sutter-Straße 6+8
79650 Schopfheim - Germany
Tel.: +49 7622 392-0
Fax: +49 7622 392-300