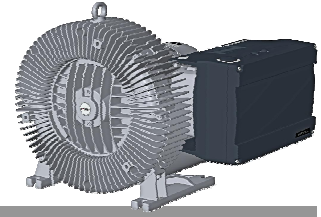
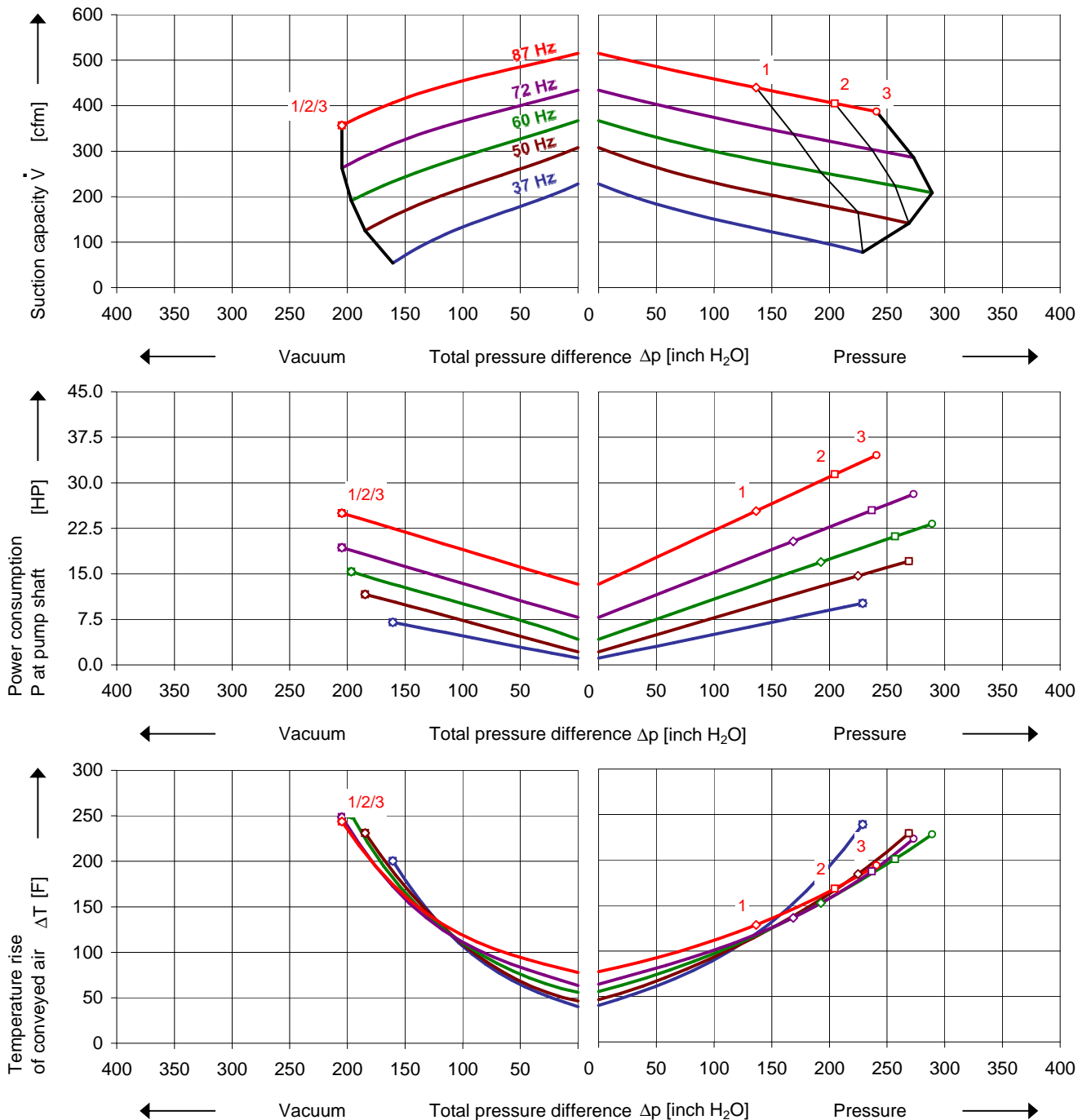


# G-BH1 e

## Data sheet 2BH1 810

**IE2**


### Side channel blower with Frequency Converter


**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 810

No.	Fre- quency	Rated motor			Max. differential pressure <sup>1)</sup>		Sound pressure level <sup>2)</sup>	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 IE2 motor with thermistor (PTC), IP55</b>										
1	87	345 Δ	38.0 Δ	19.0	-510	340	84	454	2BH1810-7H231	J
2	87	345 Δ	48.0 Δ	23.6	-510	510	84	481	2BH1810-7H241	K
<b>3- 50/60 Hz, IP55, Insulation material class F, UL 507 and CSA 22.2 No 113 (certificate number E225239)</b>										
1	50	345 Y	23.0 Y	11.0	-460	560	74	448	2BH1810-7HP31 <sup>3)</sup>	G
	60	400 Y	22.5 Y	12.6	-490	480	78			G
	87	345 Δ	38.0 Δ	19.0	-510	340	84			J
3	50	345 Y	31.0 Y	15.0	-460	670	74	474	2BH1810-7HP41 <sup>3)</sup>	H
	60	400 Y	30.5 Y	17.3	-490	720	78			H
	87	360 Δ	53.0 Δ	26.0	-510	600	84			-

- 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 sensores recommended for motor overload protection. Ordering example: 2BH1810- □□□□-Z Z=A11

All G-BH blowers conform to 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 (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
G	2FC4113-1 □□ 00	400V (-15%) ...	28.0	11.0	23.3	35	21.0	2FX16990ER00
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	480V (+10%)	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	2BH1810-7H231-Z Z=U51 VFD type 2FC4183-1PB00 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.
<b>Manual control</b>		<b>Differential pressure transmitters</b>	
MMI handheld	2FX4520-0ER00	Vacuum -1000 ... 0 mbar	2FX6022-0BD00
USB adaptor cable	2FX4521-0ER00	0 ... 600 mbar	2FX6013-0BD00
		0 ... 1000 mbar	2FX6014-0BD00
<b>INVERTERpc Software</b>			
Free download at <a href="http://www.gd-elmorietschle.com">www.gd-elmorietschle.com</a> >Downloads >Product Documents >Accessories			

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.

Elmo Rietschle is a brand of Gardner Denver

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