

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

### IE2



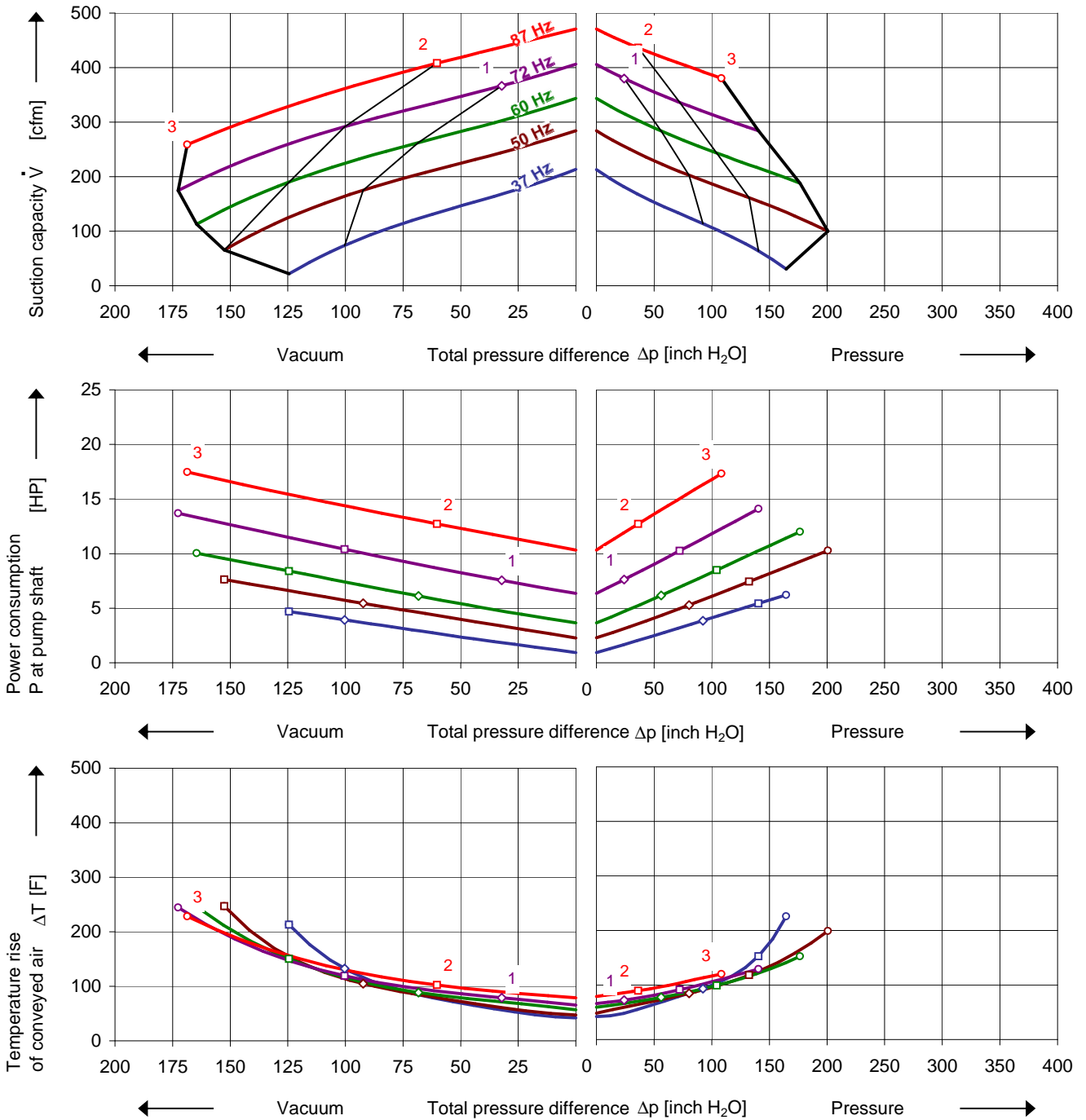
### Side channel blower with Frequency Converter



#### 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 2BH2 0540-1

| No.  | Fre-<br>quency | Rated motor |         |       | Max. differential<br>pressure <sup>1)</sup> |          | Sound pressure<br>level <sup>2)</sup> | Weight<br>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>      |                |             |         |       |   |          |                                       |                   |                                  |          |
| 3  | 87             | 345 Δ       | 26.5 Δ  | 12.9  | -420  | 270      |                                       | 276               | 2BH20540-1AA2N1-AA               | G        |
| <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       | 8.8 Y   | 4.0   | -230  | 200      | 69                                    | 187               | 2BH20540-1AAPL1-AA <sup>3)</sup> | D        |
|  | 60             | 400 Y       | 8.4 Y   | 4.55  | -170  | 140      | 73                                    |                   |                                  | D        |
|  | 72             | 290 Δ       | 15.1 Δ  | 5.6   | -80   | 60       |                                       |                   |                                  | F        |
| 2  | 50             | 345 Y       | 11.8 Y  | 5.5   | -380  | 330      | 69                                    | 212               | 2BH20540-1AAPM1-AA <sup>3)</sup> | E        |
|  | 60             | 400 Y       | 11.4 Y  | 6.3   | -310  | 260      | 73                                    |                   |                                  | E        |
|  | 87             | 345 Δ       | 20.5 Δ  | 9.5   | -150  | 90       | 82                                    |                   |                                  | G        |
| 3  | 50             | 345 Y       | 15.5 Y  | 7.5   | -380  | 500      | 69                                    | 229               | 2BH20540-1AAPN1-AA <sup>3)</sup> | F        |
|  | 60             | 400 Y       | 15.1 Y  | 8.6   | -410  | 440      | 73                                    |                   |                                  | F        |
|  | 87             | 345 Δ       | 26.5 Δ  | 12.9  | -420  | 270      | 82                                    |                   |                                  | G        |

- 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: 2BH20540-1 □□□□□□-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<br>voltage | Max. motor<br>current | Typical motor<br>power | Rated mains<br>current | Fuse Protection | Weight<br>Approx. | Adaptor for wall<br>mounting |
|---------------------|-----------------|------------------------|-----------------------|------------------------|------------------------|-----------------|-------------------|------------------------------|
| Order No.           |                 |                        |                       |                        |                        |                 |                   | V                            |
| D                   | 2FC4402-1 □□ 00 | 400V (-15%)            | 9.5                   | 4.0                    | 7.9                    | 16              | 5.0               | 2FX16490ER00                 |
| E                   | 2FC4552-1 □□ 00 |                        | 13.0                  | 5.5                    | 10.8                   | 20              | 8.7               | 2FX16690ER00                 |
| F                   | 2FC4752-1 □□ 00 | 480V (+10%)            | 17.8                  | 7.5                    | 14.8                   | 25              | 21.0              | 2FX16990ER00                 |
| G                   | 2FC4113-1 □□ 00 |                        | 28.0                  | 11.0                   | 23.3                   | 35              |                   |                              |

| I/O's and automation |   | Order option | Example:   |
|----------------------|---|--------------|--|
| ST                   | 2 AIN / 2 AOUT / 4 DIGIN / 1 DIGOUT / 2 RELAYS                      | STANDARD     | 2BH20540-1AA2N1-AA-Z Z=U51<br><br>VFD type 2FC4113-1PB00 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<br>2FX6022-0BD00                                   |
| USB adaptor cable  | 2FX4521-0ER00 | Pressure                                  | 0 ... 600 mbar<br>0 ... 1000 mbar<br>2FX6013-0BD00<br>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.

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