

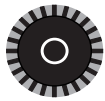
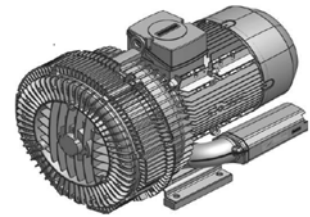
# G-BH1 N

## Data sheet 2BH1 640

Side channel blower in ATEX configuration



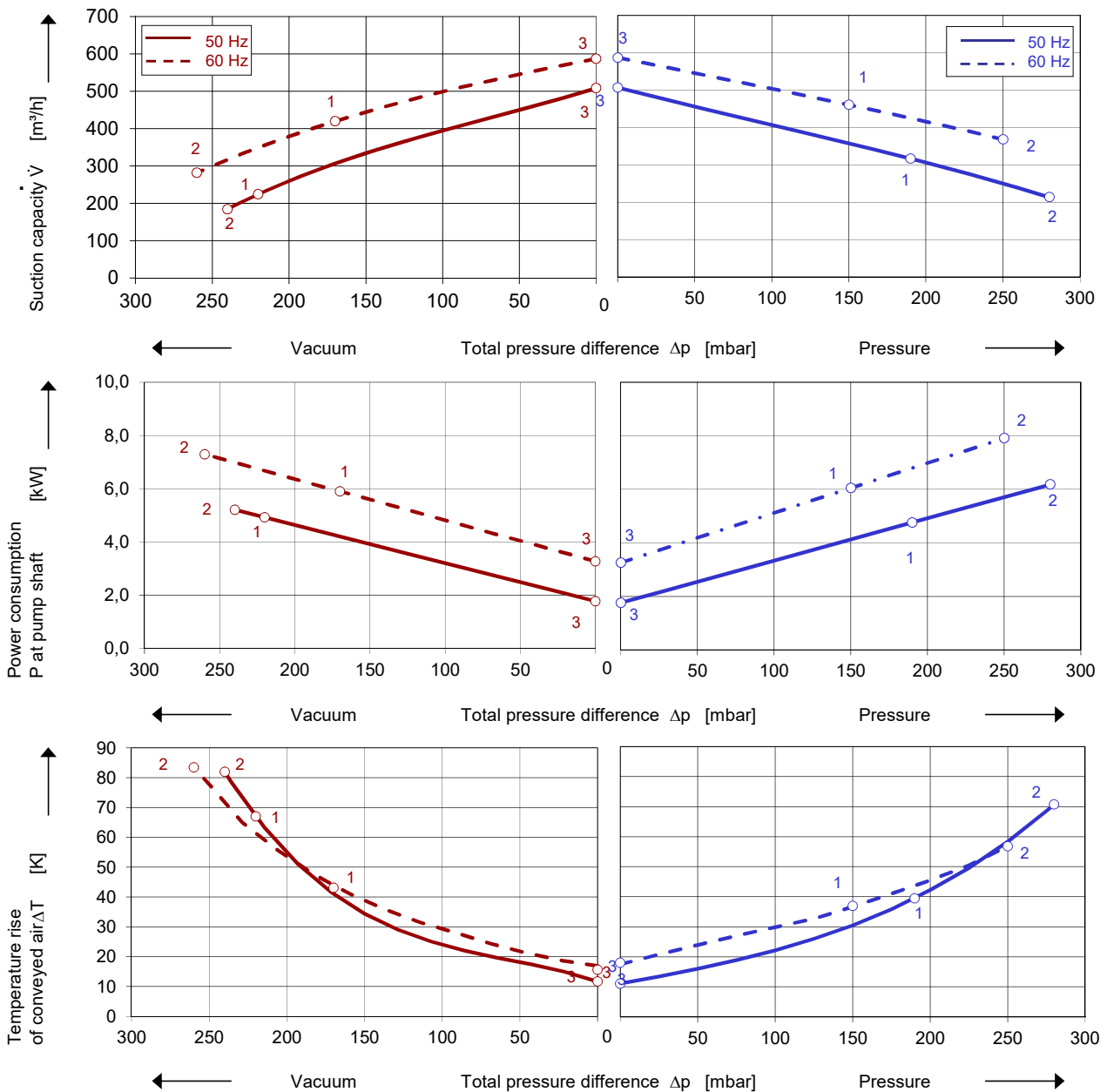
**IE3**



### 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.

Every G-BH pump can be used both as vacuum pump and compressor in continuous operation over the total performance curve range. Blowers with 2014/34/EU (ATEX Directive) are available for categories 3GD and 3/2D as fixed voltage machines for 50 and 60 Hz. For category 3/2G 50 Hz or 60 Hz versions only are available.

## Selection and ordering data

### Type 2BH1 640

No.	Fre- quency	Rated			Max. differential pressure		Sound pressure level dB(A)	Weight Approx. kg	Degree of pro- tection	ATEX category	Order No.
		Voltage	Current	Power	Vacuum	Pressure					
		Hz	V	A	kW	mbar					
<b>IE3 3~ 50/60 Hz, Insulation material class F, Temperature class T3</b>											<b>3GD, 3/2D</b>
1	50	400 Δ / 690 Y	9,90 Δ / 5,70 Y	5,5	-220	190	71	75	IP65	3/2D <sup>2)</sup>	2BH1640-1GD46-Z Z=M34
	60	460 Δ	9,70 Δ	6,3	-170	150	71				
	50	400 Δ / 690 Y	9,90 Δ / 5,70 Y	5,5	-220	190	71		IP55	3GD <sup>2)</sup>	2BH1640-1GD46-Z Z=M74
	60	460 Δ	9,70 Δ	6,3	-170	150	71				
2	50	400 Δ / 690 Y	13,1 Δ / 7,3 Y	7,5	-240	280	71	87	IP65	3/2D <sup>2)</sup>	2BH1640-1GD56-Z Z=M34
	60	460 Δ	13,0 Δ	8,6	-260	250	71				
	50	400 Δ / 690 Y	13,1 Δ / 7,3 Y	7,5	-240	280	71		IP55	3GD <sup>2)</sup>	2BH1640-1GD56-Z Z=M74
	60	460 Δ	13,0 Δ	8,6	-260	250	71				
<b>IE3 3~ 50 Hz oder 3~ 60 Hz, Insulation material class F, Temperature class T3</b>											

- 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).
- The abbreviations „D“ and „G“ used include the subcategories (i) for „inside“ and (o) for „outside“. Examples:  
M74/75: 3GD includes 3(i) and 3(o)  II 3G IIB T3 Gc and II 3D IIIB T125°C Dc  
M34: 3/2D includes 3D(i) and 2D(o)  II 3/2D IIIC T125°C Dc/Db  
M71: 3/2G includes 3G(i) and 2G(o)  II 3/2G IIB T3 Gc/Gb

All G-BH fulfil the directives 2006/42 / EC (machines) and 2014/34 / EU (ATEX directive) as well as the standards EN 60079-0 / EN (potentially explosive areas: equipment - general requirements / device protection through increased safety "e ") and ISO 80079-36 (Explosive atmospheres: non-electrical devices for use in explosive atmospheres - basics and requirements).

The motors comply with thermal class F in efficiency class IE3. The voltage tolerance is designed according to the standards mentioned above. The frequency tolerance is +/- 2 % maximum.

Other Voltages [V]						
ATEX-category	50 Hz	60 Hz	2BH1...-1.	□	□	-Z Z=
<b>3~</b>						
<b>3/2D, 3GD</b>	230 Δ / 400 Y	460 Y		<b>D</b>	<b>1</b>	<b>M34, M74</b>
	400 Δ / 690 Y	460 Δ		<b>D</b>	<b>6</b>	
	500 Δ	575 Δ		<b>D</b>	<b>5</b>	
<b>3/2G</b>	230 Δ / 400 Y	-		<b>D</b>	<b>1</b>	<b>M71 on request</b>
	400 Δ / 690 Y	-		<b>D</b>	<b>6</b>	
	500 Δ	-		<b>D</b>	<b>5</b>	
	-	460 Y		<b>G</b>	<b>1</b>	
	-	460 Δ		<b>G</b>	<b>6</b>	
	-	575 Δ		<b>G</b>	<b>5</b>	

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.



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