



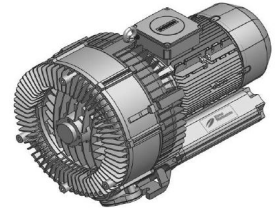
Elmo Rietschle

G-BH 1 N Data sheet 2BH1 940

Side channel blower with IE3-motors

IE3

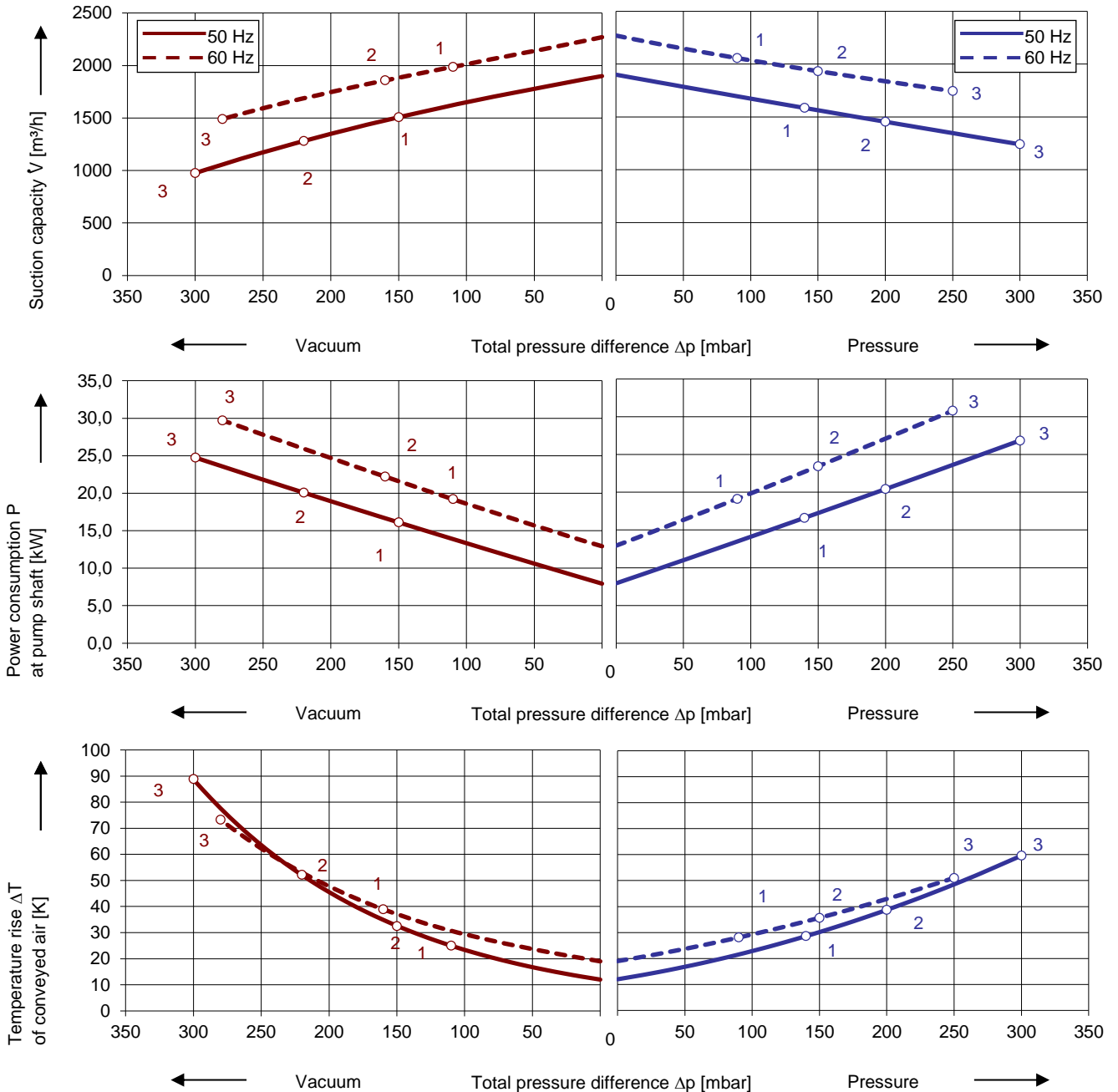
UL US



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. The motors are available as standard in protection category IP 55 and insulation class F. The vacuum pumps / compressors are UL and CSA approved.

Selection and ordering data

Type										
No.	Fre- quency	Rated			Max. differential pressure ²⁾		Sound pres. Level ³⁾	Efficiency class ⁴⁾	Weight approx.	Order No.
		Voltage ¹⁾	Current	Power	Vacuum	Pressure				
					mbar					
Hz	V	A	kW				kg			
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)										
1	50	190-210 Δ	63,1 Δ	17,3	-150	140	73	IE3	303	2BH1940-1BK21
	60	190-210 YY / 380-420 Y	72,2 YY / 36,1 Y	19,9	-110	90	77	IE3		
	60	200 YY	72,2 YY	19,9	-110	90	77	NP		
2	50	190-210 Δ	76,2 Δ	21,3	-220	200	73	IE3	314	2BH1940-1BK31
	60	190-210 YY / 380-420 Y	87,4 YY / 43,7 Y	24,5	-160	150	77	IE3		
	60	200 YY	87,4 YY	24,5	-160	150	77	NP		
3	50	190-210 Δ	92,5 Δ	25,3	-300	300	73	IE3	335	2BH1940-1BK41
	60	190-210 YY / 380-420 Y	107,0 YY / 53,5 Y	29,0	-280	250	77	IE3		
	60	200 YY	107,0 YY	29,0	-280	250	77	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)										
1	50	220-240 Δ / 380-420 Y	48,5 Δ / 31,7 Y	17,3	-150	140	73	IE3	303	2BH1940-1BK26
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	19,9	-110	90	77	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	19,9	-110	90	77	NP		
2	50	220-240 Δ / 380-420 Y	66,3 Δ / 38,3 Y	21,3	-220	200	73	IE3	314	2BH1940-1BK36
	60	220-240 YY / 440-480 Y	76,0 YY / 38,0 Y	24,5	-160	150	77	IE3		
	60	230 YY / 460 Y	76,0 YY / 38,0 Y	24,5	-160	150	77	NP		
3	50	220-240 Δ / 380-420 Y	68,5 Δ / 46,5 Y	25,3	-300	300	73	IE3	335	2BH1940-1BK46
	60	220-240 YY / 440-480 Y	93,0 YY / 46,5 Y	29,0	-280	250	77	IE3		
	60	230 YY / 460 Y	93,0 YY / 46,5 Y	29,0	-280	250	77	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)										
1	50	475-525 Y	25,4 Y	17,3	-150	140	73	IE3	303	2BH1940-1BQ23
	60	550-600 Y	25,1 Y	19,9	-110	90	77	NP		
2	50	475-525 Y	30,6 Y	21,3	-220	200	73	IE3	317	2BH1940-1BQ33
	60	550-600 Y	30,4 Y	24,5	-160	150	77	NP		
3	50	475-525 Y	37,2 Y	25,3	-300	300	73	IE3	335	2BH1940-1BQ43
	60	550-600 Y	37,2 Y	29,0	-280	250	77	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)										
1	50	380-420 Δ / 660-725 Y	31,7 Δ / 18,3 Y	17,3	-150	140	73	IE3	303	2BH1940-1BQ27
	60	440-480 Δ	31,4 Δ	19,9	-110	90	77	IE3		
	60	460 Δ	31,4 Δ	19,9	-110	90	77	NP		
2	50	380-420 Δ / 660-725 Y	38,3 Δ / 22,1 Y	21,3	-220	200	73	IE3	317	2BH1940-1BQ37
	60	440-480 Δ	38,0 Δ	24,5	-160	150	77	IE3		
	60	460 Δ	38,0 Δ	24,5	-160	150	77	NP		
3	50	380-420 Δ / 660-725 Y	46,5 Δ / 26,8 Y	25,3	-300	300	73	IE3	335	2BH1940-1BQ47
	60	440-480 Δ	46,5 Δ	29,0	-280	250	77	IE3		
	60	460 Δ	46,5 Δ	29,0	-280	250	77	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)										
1	50	220-240 Δ / 380-420 Y	54,9 Δ / 31,7 Y	17,3	-150	140	72	IE3	308	2BH1940-1BQ26
	60	440-480 Y	31,4 Y	19,9	-110	90	76	IE3		
2	50	220-240 Δ / 380-420 Y	66,3 Δ / 38,3 Y	21,3	-220	200	72	IE3	308	2BH1940-1BQ36
	60	440-480 Y	38,0 Y	24,5	-160	150	76	IE3		
2	50	220-240 Δ / 380-420 Y	80,5 Δ / 46,5 Y	25,3	-300	300	72	IE3	335	2BH1940-1BQ46
	60	440-480 Y	46,5 Y	29,0	-280	250	76	IE3		

- 1) In case of frequency converter operation the standard motor insulation system is suitable for converter input voltages up to 500 V.
- 2) Relief valves available for limiting differential pressure.
- 3) 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).
- 4) The motors according to NEMA MG1-12. NP=NEMA Premium; NEMA Premium includes IE3.

All G-BH match the 2006/42/EC (machinery) and 2014/35/EU (low voltage) directives and the EN 60034 norm "Rotating electrical machines".

Service factor (SF) and motor efficiency according NEMA MG1-12.

Voltage tolerances for three phase motors are +/-10%.

The frequency tolerance is +/- 2 % maximum.

Motor for alternate voltages

Voltage range		Efficiency ⁴⁾	NEMA Premium	60 Hz	2BH1...-1. □ . □
50 Hz	60Hz				
3~					
200 VΔ	200 V YY / 230 VΔ / 400 VY				
190-210 VΔ	190-210 VYY / 220-240 VΔ / 380-420VY	IE3	•		K 1
200 V YY / 230 VΔ / 400 VY	230 V YY / 460 VY	IE3	•		K 6
190-210 VYY / 220-240 VΔ / 380-420VY	220-240 VYY / 440-480VY	IE3	•		
475-525 V Y	550-600 V Y	IE3	•		Q 3
475-525 VΔ	550-600 VΔ	IE3	•		Q 5
220-240 VΔ / 380-420VY	440-480VY	IE3	•		Q 6
400 VΔ / 690 V Y	460 VΔ	IE3	•		Q 7

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.