

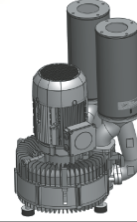


Elmo Rietschle

G-BH 1 N Data sheet 2BH1 943 Side channel blower with IE3-motors

IE3

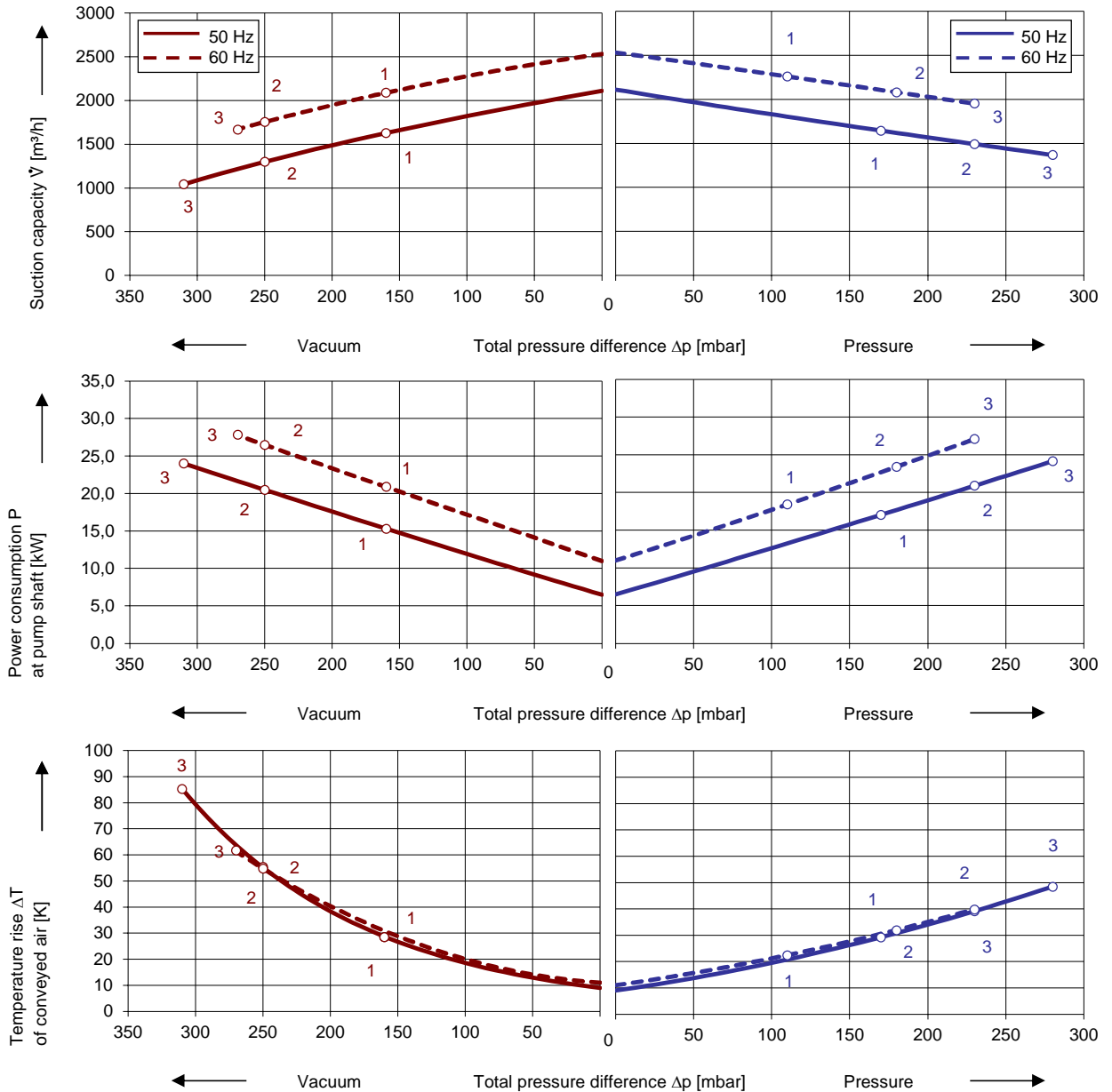
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Performance curves

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					
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	-160	170	73	IE3	331	2BH1943-1GK21
	60	190-210 YY / 380-420 Y	72,2 YY / 36,1 Y	19,9	-120	110	77	IE3		
	60	200 YY	72,2 YY	19,9	-120	110	77	NP		
2	50	190-210 Δ	76,2 Δ	21,3	-250	230	73	IE3	343	2BH1943-1GK31
	60	190-210 YY / 380-420 Y	87,4 YY / 43,7 Y	24,5	-190	180	77	IE3		
	60	200 YY	87,4 YY	24,5	-190	180	77	NP		
3	50	190-210 Δ	92,5 Δ	25,3	-310	280	73	IE3	363	2BH1943-1GK41
	60	190-210 YY / 380-420 Y	107,0 YY / 53,5 Y	29,0	-270	230	77	IE3		
	60	200 YY	107,0 YY	29,0	-270	230	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	-160	170	73	IE3	331	2BH1943-1GK26
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	19,9	-120	110	77	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	19,9	-120	110	77	NP		
2	50	220-240 Δ / 380-420 Y	66,3 Δ / 38,3 Y	21,3	-250	230	73	IE3	343	2BH1943-1GK36
	60	220-240 YY / 440-480 Y	76,0 YY / 38,0 Y	24,5	-190	180	77	IE3		
	60	230 YY / 460 Y	76,0 YY / 38,0 Y	24,5	-190	180	77	NP		
3	50	220-240 Δ / 380-420 Y	80,5 Δ / 46,5 Y	25,3	-310	280	73	IE3	363	2BH1943-1GK46
	60	220-240 YY / 440-480 Y	93,0 YY / 46,5 Y	29,0	-270	230	77	IE3		
	60	230 YY / 460 Y	93,0 YY / 46,5 Y	29,0	-270	230	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	-160	170	73	IE3	330	2BH1943-1GQ23
	60	550-600 Y	25,1 Y	19,9	-120	110	77	NP		
2	50	475-525 Y	30,6 Y	21,3	-250	230	73	IE3	342	2BH1943-1GQ33
	60	550-600 Y	30,4 Y	24,5	-190	180	77	NP		
3	50	475-525 Y	37,2 Y	25,3	-310	280	73	IE3	362	2BH1943-1GQ43
	60	550-600 Y	37,2 Y	29,0	-270	230	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	-160	170	73	IE3	330	2BH1943-1GQ27
	60	440-480 Δ	31,4 Δ	19,9	-120	110	77	IE3		
	60	460 Δ	31,4 Δ	19,9	-120	110	77	NP		
2	50	380-420 Δ / 660-725 Y	38,3 Δ / 22,1 Y	21,3	-250	230	73	IE3	342	2BH1943-1GQ37
	60	440-480 Δ	38,0 Δ	24,5	-190	180	77	IE3		
	60	460 Δ	38,0 Δ	24,5	-190	180	77	NP		
3	50	380-420 Δ / 660-725 Y	46,5 Δ / 26,8 Y	25,3	-310	280	73	IE3	362	2BH1943-1GQ47
	60	440-480 Δ	46,5 Δ	29,0	-270	230	77	IE3		
	60	460 Δ	46,5 Δ	29,0	-270	230	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	-160	170	72	IE3	330	2BH1943-1GQ26
	60	440-480 Y	31,4 Y	19,9	-120	110	76	IE3		
2	50	220-240 Δ / 380-420 Y	66,3 Δ / 38,3 Y	21,3	-250	230	72	IE3	342	2BH1943-1GQ36
	60	440-480 Y	38,0 Y	24,5	-190	180	76	IE3		
3	50	220-240 Δ / 380-420 Y	80,5 Δ / 46,5 Y	25,3	-310	280	72	IE3	362	2BH1943-1GQ46
	60	440-480 Y	46,5 Y	29,0	-270	230	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⁾		60 Hz	
50 Hz	60Hz			2BH1...-1.	□
3~					
200 VΔ	200 V YY / 230 VΔ / 400 VY	 IE3	•	K	1
190-210 VΔ	190-210 VYY / 220-240 VΔ / 380-420VY				6
200 V YY / 230 VΔ / 400 VY	230 V YY / 460 VY	 IE3	•	K	3
190-210 VYY / 220-240 VΔ / 380-420VY	220-240 VYY / 440-480VY				5
475-525 V Y	550-600 V Y	 IE3	•	Q	6
475-525 VΔ	550-600 VΔ				7
220-240 VΔ / 380-420VY	440-480VY	 IE3	•	Q	6
400 VΔ / 690 V Y	460 VΔ				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 show