



Elmo Rietschle

G-BH 1 N

Data sheet 2BH1 810-1

Side channel blower with IE3-motors

IE3

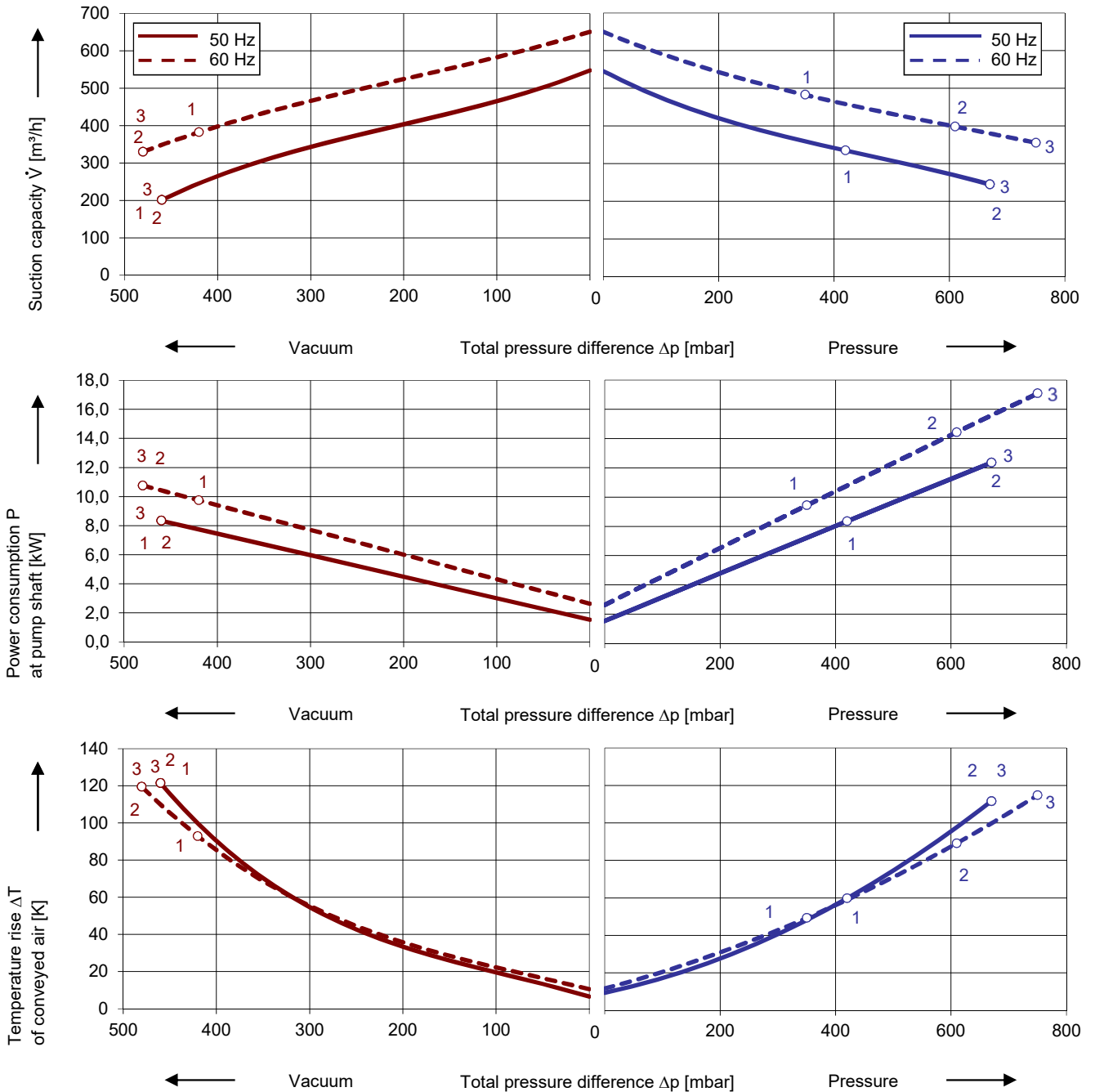
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Performance curves

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				
					Hz	V				
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	30,8 Δ	8,6	-460	420	74	IE3	170	2BH1810-1HK21
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	9,9	-420	350	78	IE3		
	60	200 YY	35,2 YY	9,9	-420	350	78	NP		
2	50	190-210 Δ	46,4 Δ	12,6	-460	670	74	IE3	182	2BH1810-1HK31
	60	190-210 YY / 380-420 Y	52,8 YY / 26,4 Y	14,5	-480	610	78	IE3		
	60	200 YY	52,8 YY	14,5	-480	610	78	NP		
3	50	190-210 Δ	63,1 Δ	17,3	-460	670	74	IE3	196	2BH1810-1HK41
	60	190-210 YY / 380-420 Y	72,2 YY / 36,1 Y	19,9	-480	750	78	IE3		
	60	200 YY	72,2 YY	19,9	-480	750	78	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	26,8 Δ / 15,5 Y	8,6	-460	420	74	IE3	170	2BH1810-1HK26
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	9,9	-420	350	78	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	9,9	-420	350	78	NP		
2	50	220-240 Δ / 380-420 Y	40,3 Δ / 23,3 Y	12,6	-460	670	74	IE3	182	2BH1810-1HK36
	60	220-240 YY / 440-480 Y	46,0 YY / 23,0 Y	14,5	-480	610	78	IE3		
	60	230 YY / 460 Y	46,0 YY / 23,0 Y	14,5	-480	610	78	NP		
3	50	220-240 Δ / 380-420 Y	54,9 Δ / 31,7 Y	17,3	-460	670	74	IE3	196	2BH1810-1HK46
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	19,9	-480	750	78	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	19,9	-480	750	78	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	15,5 Δ / 8,9 Y	8,6	-460	420	74	IE3	170	2BH1810-1HQ27
	60	440-480 Δ	15,3 Δ	9,9	-420	350	78	IE3		
	60	460 Δ	15,3 Δ	9,9	-420	350	78	NP		
2	50	380-420 Δ / 660-725 Y	23,3 Δ / 13,4 Y	12,6	-460	670	74	IE3	182	2BH1810-1HQ37
	60	440-480 Δ	23,0 Δ	14,5	-480	610	78	IE3		
	60	460 Δ	23,0 Δ	14,5	-480	610	78	NP		
3	50	380-420 Δ / 660-725 Y	31,7 Δ / 18,3 Y	17,3	-460	670	74	IE3	196	2BH1810-1HQ47
	60	440-480 Δ	31,4 Δ	19,9	-480	750	78	IE3		
	60	460 Δ	31,4 Δ	19,9	-480	750	78	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	26,8 Δ / 15,5 Y	8,6	-460	420	74	IE3	170	2BH1810-1HQ26
	60	440-480 Y	15,3 Y	9,9	-420	350	78	IE3		
	60	440-480 Y	15,3 Y	9,9	-420	350	78	IE3		
2	50	220-240 Δ 380-420 Y	40,3 Δ / 23,3 Y	12,6	-460	670	74	IE3	182	2BH1810-1HQ36
	60	440-480 Y	23,0 Y	14,5	-480	610	78	IE3		
	60	440-480 Y	23,0 Y	14,5	-480	610	78	IE3		
3	50	220-240 Δ 380-420 Y	54,9 Δ / 31,7 Y	17,3	-460	670	74	IE3	196	2BH1810-1HQ46
	60	440-480 Y	31,4 Y	19,9	-480	750	78	IE3		
	60	440-480 Y	31,4 Y	19,9	-480	750	78	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.

Voltage range		Efficiency 4)	c  us	60 Hz	2BH1...-1. <input type="checkbox"/> . <input type="checkbox"/>
50 Hz	60Hz				
3~					
200 VΔ	200 V YY / 230 VΔ / 400 VY		•		K 1
190-210 VΔ	190-210 VYY / 220-240 VΔ / 380-420VY	IE3	•		K 6
200 V YY / 230 VΔ / 400 VY	230 V YY / 460 VY		•		K 6
190-210 VYY / 220-240 VΔ / 380-420VY	220-240 VYY / 440-480VY	IE3	•		K 6
475-525 V Y	550-600 V Y		•		Q 3
475-525 VΔ	550-600 VΔ		•		Q 5
220-240 VΔ / 380-420VY	440-480VY	IE3	•		Q 6
400 VΔ / 690 V Y	460 VΔ		•		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 shc