



Elmo Rietschle

G-BH 1 N

Data sheet 2BH1 810-0

Side channel blower with IE3-motors

IE3

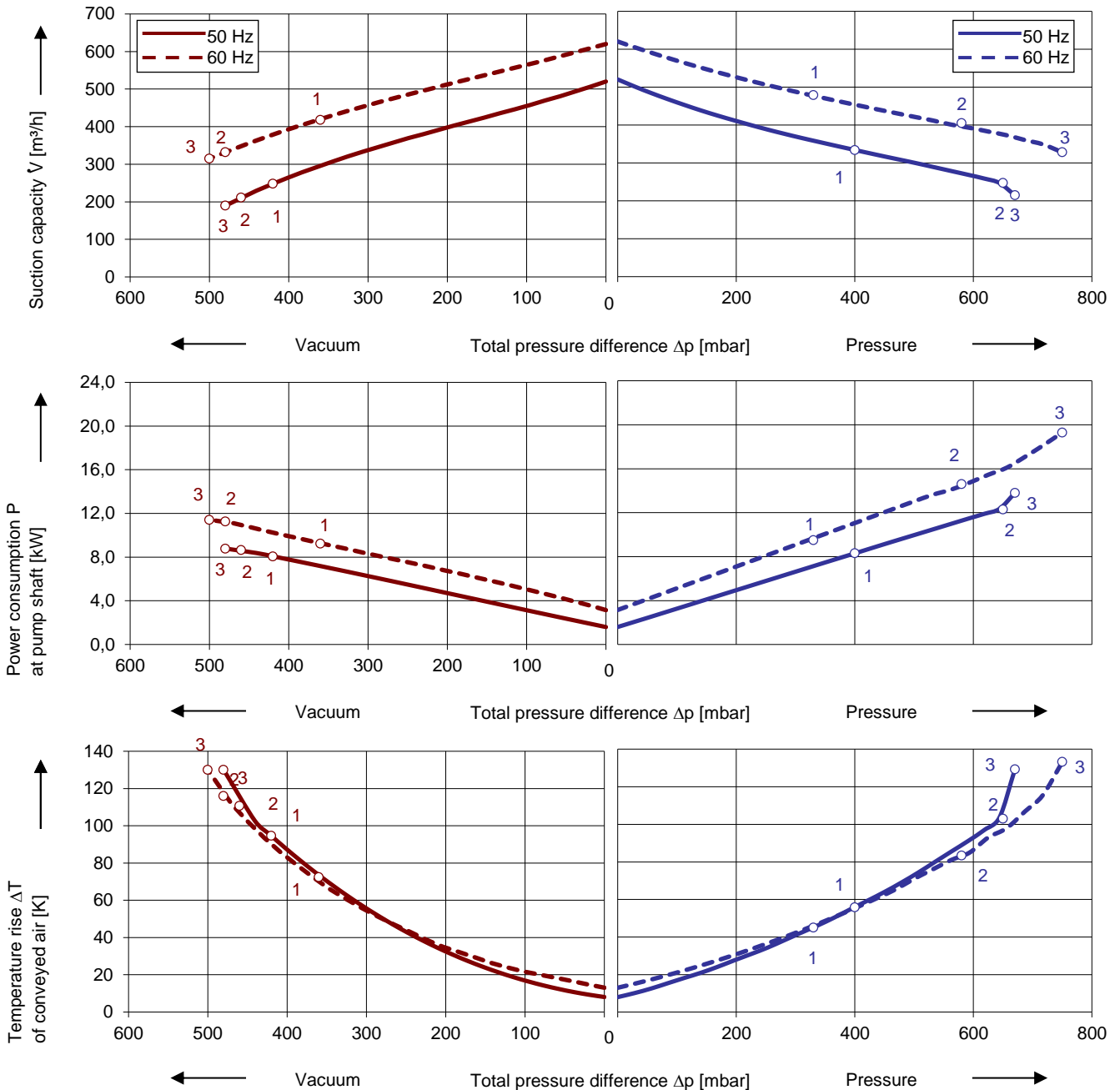
UL US



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 Hz	Rated			Max. differential pressure ²⁾		Sound pres. Level ³⁾ dB(A)	Efficiency class ⁴⁾	Weight approx. kg	Order No.
		Voltage ¹⁾	Current	Power	Vacuum	Pressure				
		V	A	kW	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	30,8 Δ	8,6	-420	400	71	IE3	161	2BH1810-0HK21
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	9,9	-360	330	76	IE3		
	60	200 YY	35,2 YY	9,9	-360	330	76	NP		
2	50	190-210 Δ	46,4 Δ	12,6	-460	650	71	IE3	200	2BH1810-0HK31
	60	190-210 YY / 380-420 Y	52,8 YY / 26,4 Y	14,5	-480	580	76	IE3		
	60	200 YY	52,8 YY	14,5	-480	580	76	NP		
3	50	190-210 Δ	63,1 Δ	17,3	-460	670	71	IE3	208	2BH1810-0HK41
	60	190-210 YY / 380-420 Y	72,2 YY / 36,1 Y	19,9	-480	750	76	IE3		
	60	200 YY	72,2 YY	19,9	-480	750	76	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	-420	400	71	IE3	161	2BH1810-0HK26
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	9,9	-360	330	76	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	9,9	-360	330	76	NP		
2	50	220-240 Δ / 380-420 Y	40,3 Δ / 23,3 Y	12,6	-460	650	71	IE3	200	2BH1810-0HK36
	60	220-240 YY / 440-480 Y	46,0 YY / 23,0 Y	14,5	-480	580	76	IE3		
	60	230 YY / 460 Y	46,0 YY / 23,0 Y	14,5	-480	580	76	NP		
3	50	220-240 Δ / 380-420 Y	54,9 Δ / 31,7 Y	17,3	-460	670	71	IE3	208	2BH1810-0HK46
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	19,9	-480	750	76	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	19,9	-480	750	76	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	12,4 Y	8,6	-420	400	71	IE3	161	2BH1810-0HQ23
	60	550-600 Y	12,2 Y	9,9	-360	330	76	NP		
2	50	475-525 Y	18,6 Y	12,6	-460	650	71	IE3	182	2BH1810-0HQ33
	60	550-600 Y	18,4 Y	14,5	-480	580	76	NP		
3	50	475-525 Y	25,4 Y	17,3	-460	670	71	IE3	209	2BH1810-0HQ43
	60	550-600 Y	25,1 Y	19,9	-480	750	76	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	-420	400	71	IE3	161	2BH1810-0HQ27
	60	440-480 Δ	15,3 Δ	9,9	-360	330	76	IE3		
	60	460 Δ	15,3 Δ	9,9	-360	330	76	NP		
2	50	380-420 Δ / 660-725 Y	23,3 Δ / 13,4 Y	12,6	-460	650	71	IE3	182	2BH1810-0HQ37
	60	440-480 Δ	23,0 Δ	14,5	-480	580	76	IE3		
	60	460 Δ	23,0 Δ	14,5	-480	580	76	NP		
3	50	380-420 Δ / 660-725 Y	31,7 Δ / 18,3 Y	17,3	-460	670	71	IE3	209	2BH1810-0HQ47
	60	440-480 Δ	31,4 Δ	19,9	-480	750	76	IE3		
	60	460 Δ	31,4 Δ	19,9	-480	750	76	NP		

- In case of frequency converter operation the standard motor insulation system is suitable for converter input voltages up to 500 V.
- Relief valves available for limiting differential pressure.
- 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 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	2BH1...-1. □ . □
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		•	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		•	K 6
475-525 V Y	550-600 V Y		•	Q 3
475-525 VΔ	550-600 VΔ		•	Q 5
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 shown.