



Elmo Rietschle

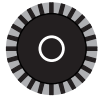
G-BH 1 N

Data sheet 2BH1 830-1

Side channel blower with IE3-motors

IE3

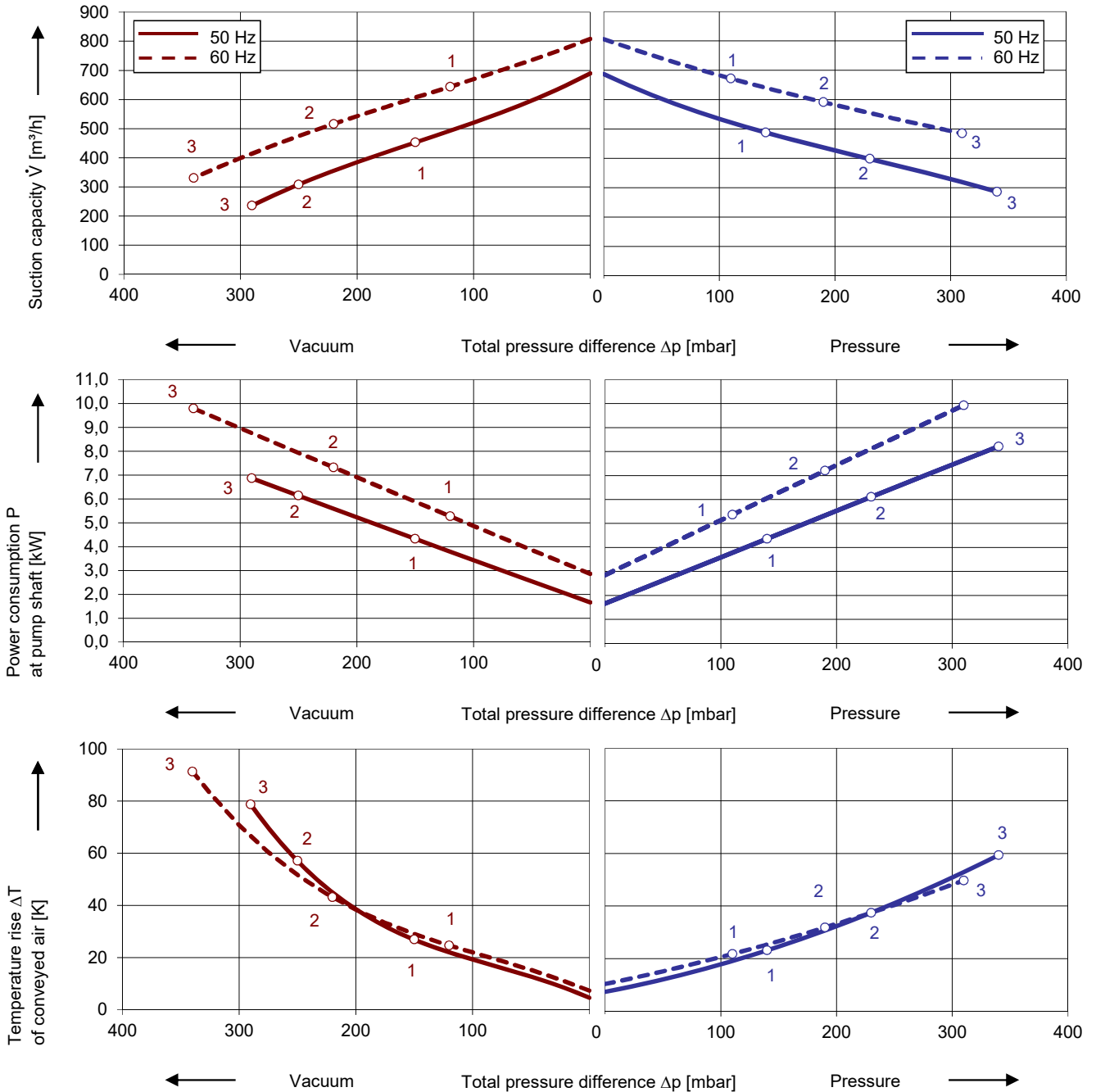
UL US



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. kg	Order No.
		Voltage 1)	Current	Power	Vacuum	Pressure				
	Hz	V	A	kW	mbar		dB(A)			
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	17,1 Δ	4,6	-150	140	77	IE3	112	2BH1830-1AK01
	60	190-210 YY / 380-420 Y	19,6 YY / 9,8 Y	5,3	-120	110	79	IE3		
	60	200 YY	19,6 YY	5,3	-120	110	79	NP		
2	50	190-210 Δ	23,5 Δ	6,3	-250	230	78	IE3	118	2BH1830-1AK11
	60	190-210 YY / 380-420 Y	27,6 YY / 13,8 Y	7,3	-220	190	80	IE3		
	60	200 YY	27,6 YY	7,3	-220	190	80	NP		
3	50	190-210 Δ	30,8 Δ	8,6	-290	340	79	IE3	134	2BH1830-1AK21
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	9,9	-340	310	81	IE3		
	60	200 YY	35,2 YY	9,9	-340	310	81	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	14,9 Δ / 8,6 Y	4,6	-150	140	77	IE3	112	2BH1830-1AK06
	60	220-240 YY / 440-480 Y	17,0 YY / 8,5 Y	5,3	-120	110	79	IE3		
	60	230 YY / 460 Y	17,0 YY / 8,5 Y	5,3	-120	110	79	NP		
2	50	220-240 Δ / 380-420 Y	20,4 Δ / 11,8 Y	6,3	-250	230	78	IE3	118	2BH1830-1AK16
	60	220-240 YY / 440-480 Y	24,0 YY / 12,0 Y	7,3	-220	190	80	IE3		
	60	230 YY / 460 Y	24,0 YY / 12,0 Y	7,3	-220	190	80	NP		
3	50	220-240 Δ / 380-420 Y	26,8 Δ / 15,5 Y	8,6	-290	340	79	IE3	134	2BH1830-1AK26
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	9,9	-340	310	81	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	9,9	-340	310	81	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	6,9 Y	4,6	-150	140	77	IE3	112	2BH1830-1AQ03
	60	550-600 Y	6,8 Y	5,3	-120	110	79	NP		
2	50	475-525 Y	9,5 Y	6,3	-250	230	78	IE3	118	2BH1830-1AQ13
	60	550-600 Y	9,6 Y	7,3	-220	190	80	NP		
3	50	475-525 Y	12,4 Y	8,6	-290	340	79	IE3	134	2BH1830-1AQ23
	60	550-600 Y	12,2 Y	9,9	-340	310	81	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	8,6 Δ / 5,0 Y	4,6	-150	140	77	IE3	112	2BH1830-1AQ07
	60	440-480 Δ	8,5 Δ	5,3	-120	110	79	IE3		
	60	460 Δ	8,5 Δ	5,3	-120	110	79	NP		
2	50	380-420 Δ / 660-725 Y	11,8 Δ / 6,8 Y	6,3	-250	230	78	IE3	118	2BH1830-1AQ17
	60	440-480 Δ	11,6 Δ	7,3	-220	190	80	IE3		
	60	460 Δ	11,6 Δ	7,3	-220	190	80	NP		
3	50	380-420 Δ / 660-725 Y	15,5 Δ / 8,9 Y	8,6	-290	340	79	IE3	134	2BH1830-1AQ27
	60	440-480 Δ	15,3 Δ	9,9	-340	310	81	IE3		
	60	460 Δ	15,3 Δ	9,9	-340	310	81	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	15,1 Δ / 8,7 Y	4,6	-150	140	77	IE3	112	2BH1830-1AQ06
	60	440-480 Y	8,5 Y	5,3	-120	110	79	IE3		
2	50	220-240 Δ 380-420 Y	20,4 Δ / 11,8 Y	6,3	-250	230	78	IE3	118	2BH1830-1AQ16
	60	440-480 Y	12,0 Y	7,3	-220	190	80	IE3		
3	50	220-240 Δ 380-420 Y	26,8 Δ / 15,5 Y	8,6	-290	340	79	IE3	134	2BH1830-1AQ26
	60	440-480 Y	15,3 Y	9,9	-340	310	81	IE3		

- 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.

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