



**Elmo
Rietschle**

G-BH 1 N

Data sheet 2BH1 640

Side channel blower with IE3-motors

IE3

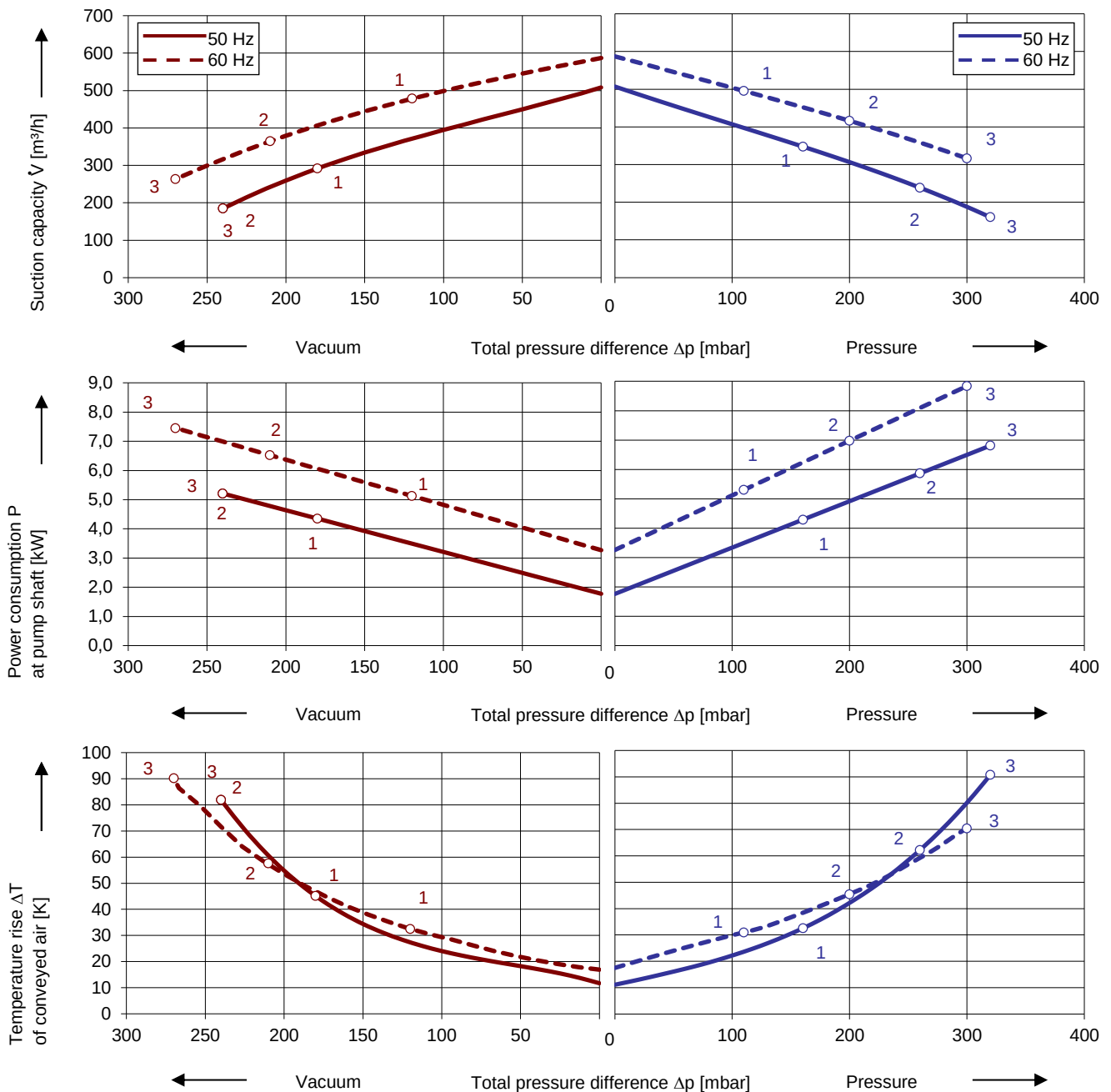
UL [®] **US**



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				
		Hz	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	17,1 Δ	4,6	-180	160	68	IE3	65	2BH1640-1GK31
	60	190-210 YY / 380-420 Y	19,6 YY / 9,8 Y	5,3	-130	120	71	IE3		
	60	200 YY	19,6 YY	5,3	-130	120	71	NP		
2	50	190-210 Δ	23,5 Δ	6,3	-240	260	71	IE3	75	2BH1640-1GK41
	60	190-210 YY / 380-420 Y	27,6 YY / 13,8 Y	7,3	-210	200	75	IE3		
	60	200 YY	27,6 YY	7,3	-210	200	75	NP		
3	50	190-210 Δ	30,8 Δ	8,6	-240	320	71	IE3	87	2BH1640-1GK51
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	9,9	-270	300	75	IE3		
	60	200 YY	35,2 YY	9,9	-270	300	75	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	-180	160	68	IE3	65	2BH1640-1GK36
	60	220-240 YY / 440-480 Y	17,0 YY / 8,5 Y	5,3	-130	120	71	IE3		
	60	230 YY / 460 Y	17,0 YY / 8,5 Y	5,3	-130	120	71	NP		
2	50	220-240 Δ / 380-420 Y	20,4 Δ / 11,8 Y	6,3	-240	260	71	IE3	75	2BH1640-1GK46
	60	220-240 YY / 440-480 Y	24,0 YY / 12,0 Y	7,3	-210	200	75	IE3		
	60	230 YY / 460 Y	24,0 YY / 12,0 Y	7,3	-210	200	75	NP		
3	50	220-240 Δ / 380-420 Y	26,8 Δ / 15,5 Y	8,6	-240	320	71	IE3	87	2BH1640-1GK56
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	9,9	-270	300	75	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	9,9	-270	300	75	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	Y	4,6	-180	160	68	IE3	62	2BH1640-1GQ33
	60	550-600 Y	0,0 Y	5,3	-130	120	71	NP		
2	50	475-525 Y	Y	6,3	-240	260	71	IE3	75	2BH1640-1GQ43
	60	550-600 Y	0,0 Y	7,3	-210	200	75	NP		
3	50	475-525 Y	Y	8,6	-240	320	71	IE3	87	2BH1640-1GQ53
	60	550-600 Y	0,0 Y	9,9	-270	300	75	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	-180	160	68	IE3	62	2BH1640-1GQ37
	60	440-480 Δ	8,5 Δ	5,3	-130	120	71	IE3		
	60	460 Δ	8,5 Δ	5,3	-130	120	71	NP		
2	50	380-420 Δ / 660-725 Y	11,8 Δ / 6,8 Y	6,3	-240	260	71	IE3	75	2BH1640-1GQ47
	60	440-480 Δ	12,0 Δ	7,3	-210	200	75	IE3		
	60	460 Δ	12,0 Δ	7,3	-210	200	75	NP		
3	50	380-420 Δ / 660-725 Y	15,5 Δ / 8,9 Y	8,6	-240	320	71	IE3	87	2BH1640-1GQ57
	60	440-480 Δ	15,3 Δ	9,9	-270	300	75	IE3		
	60	460 Δ	15,3 Δ	9,9	-270	300	75	NP		

- 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)				
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				
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				
475-525 V Y			550-600 V Y				•		Q	3
475-525 VΔ			550-600 VΔ							
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