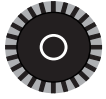


## G-BH 1 N

### Data sheet 2BH1 610

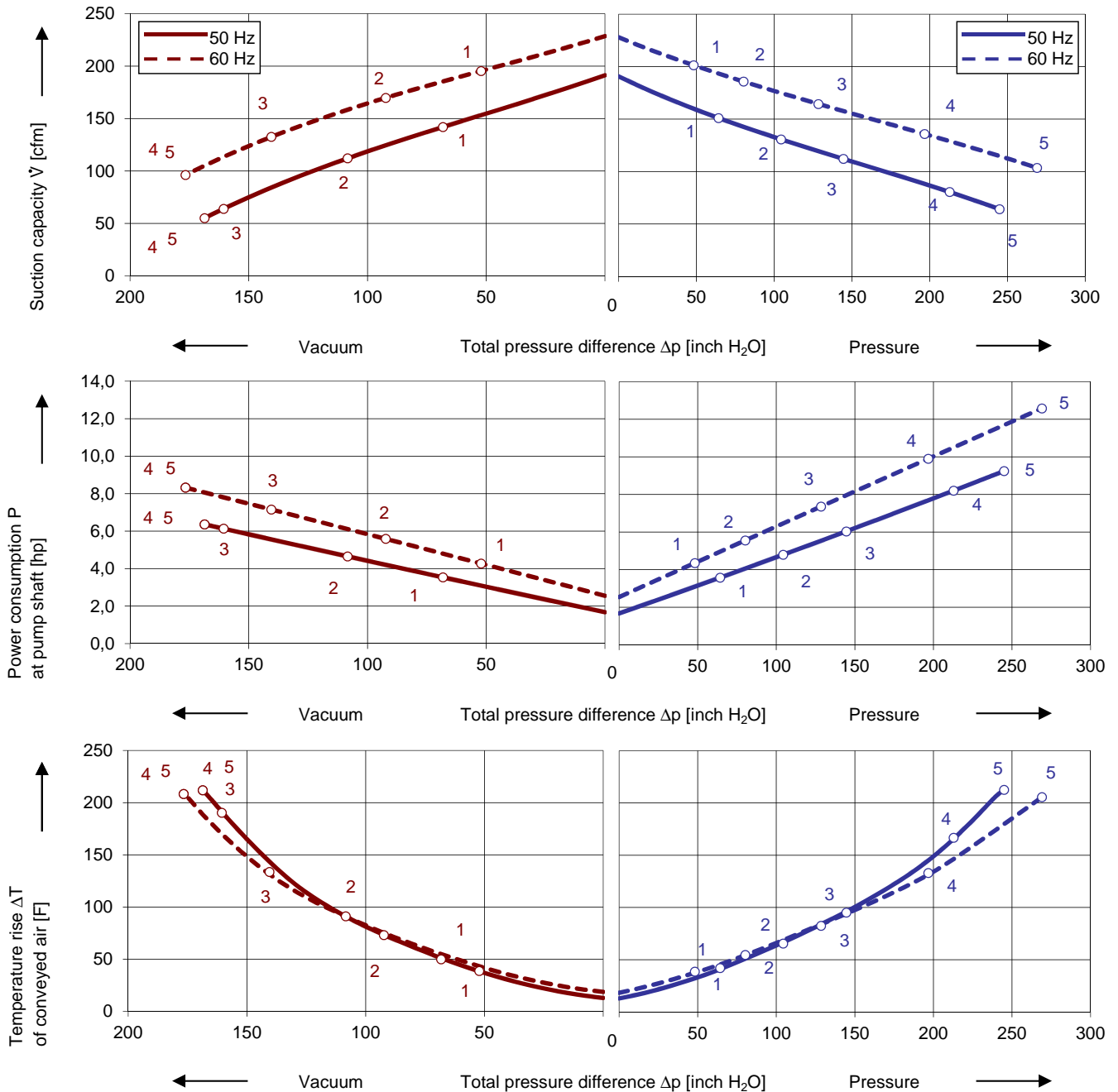
Side channel blower with NEMA Premium



#### Performance curves

##### Vacuum operation (acfm)

##### Pressure operation (scfm)



#### CS

The performance curves are based on air at a temperature of 59 F and an atmospheric pressure of 29.92 inch Hg with a tolerance of  $\pm 10\%$ . The total Suction capacity relates to inlet conditions. Pressure capacity relates to atmospheric conditions. For other conditions please contact Elmo Rietschle.

Every G-BH blower can be used either for vacuum or pressure in continuous operation over the total performance curve range. The standard motors have a protection category of IP 55 and insulation class F. These blowers are UL and CSA approved.

## Selection and ordering data

Type										
No.	Fre- quency Hz	Rated			Max. differential pressure		sound press. level 3) dB(A)	Efficiency class 4)	Weight approx. lbs	Order No.
		Voltage 1)	Current	Power	Vacuum	Pressure				
		V	A	hp	inch H <sub>2</sub> O					
<b>IE3 3- 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)</b>										
1	50	190-210 Δ	9,9 Δ	3,4	-68	64	69	IE3	117	2BH1610-1HK11
	60	190-210 YY / 380-420 Y	12,0 YY / 6,0 Y	4,0	-52	48	73	IE3		
	60	200 YY	12,0 YY	4,0	-52	48	73	NP		
2	50	190-210 Δ	13,3 Δ	4,6	-108	104	75	IE3	128	2BH1610-1HK21
	60	190-210 YY / 380-420 Y	15,2 YY / 7,6 Y	5,4	-92	80	73	IE3		
	60	200 YY	15,2 YY	5,4	-92	80	73	NP		
3	50	190-210 Δ	17,1 Δ	6,2	-161	145	67	IE3	143	2BH1610-1HK31
	60	190-210 YY / 380-420 Y	19,6 YY / 9,8 Y	7,1	-141	128	71	IE3		
	60	200 YY	19,6 YY	7,1	-141	128	71	NP		
4	50	190-210 Δ	23,5 Δ	8,4	-169	213	71	IE3	161	2BH1610-1HK41
	60	190-210 YY / 380-420 Y	27,6 YY / 13,8 Y	9,8	-177	197	75	IE3		
	60	200 YY	27,6 YY	9,8	-177	197	75	NP		
5	50	190-210 Δ	30,8 Δ	11,5	-169	245	71	IE3	187	2BH1610-1HK51
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	13,3	-177	269	75	IE3		
	60	200 YY	35,2 YY	13,3	-177	269	75	NP		
<b>IE3 3- 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)</b>										
1	50	220-240 Δ / 380-420 Y	8,6 Δ / 5,0 Y	3,4	-68	64	69	IE3	117	2BH1610-1HK16
	60	220-240 YY / 440-480 Y	10,4 YY / 5,2 Y	4,0	-52	48	73	IE3		
	60	230 YY / 460 Y	10,4 YY / 5,2 Y	4,0	-52	48	73	NP		
2	50	220-240 Δ / 380-420 Y	11,6 Δ / 6,7 Y	4,6	-108	104	75	IE3	128	2BH1610-1HK26
	60	220-240 YY / 440-480 Y	13,2 YY / 6,6 Y	5,4	-92	80	73	IE3		
	60	230 YY / 460 Y	13,2 YY / 6,6 Y	5,4	-92	80	73	NP		
3	50	220-240 Δ / 380-420 Y	14,9 Δ / 8,6 Y	6,2	-161	145	67	IE3	143	2BH1610-1HK36
	60	220-240 YY / 440-480 Y	17,0 YY / 8,5 Y	7,1	-141	128	71	IE3		
	60	230 YY / 460 Y	17,0 YY / 8,5 Y	7,1	-141	128	71	NP		
4	50	220-240 Δ / 380-420 Y	20,4 Δ / 11,8 Y	8,4	-169	213	71	IE3	161	2BH1610-1HK46
	60	220-240 YY / 440-480 Y	24,0 YY / 12,0 Y	9,8	-177	197	75	IE3		
	60	230 YY / 460 Y	24,0 YY / 12,0 Y	9,8	-177	197	75	NP		
5	50	220-240 Δ / 380-420 Y	26,8 Δ / 15,5 Y	11,5	-169	245	71	IE3	187	2BH1610-1HK56
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	13,3	-177	269	75	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	13,3	-177	269	75	NP		
<b>IE3 3- 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)</b>										
1	50	475-525 Y	4,0 Y	3,4	-68	64	69	IE3	117	2BH1610-1HQ13
	60	550-600 Y	4,1 Y	4,0	-52	48	73	NP		
2	50	475-525 Y	5,4 Y	4,6	-108	104	75	IE3	128	2BH1610-1HQ23
	60	550-600 Y	5,3 Y	5,4	-92	80	73	NP		
3	50	475-525 Y	6,9 Y	6,2	-161	145	67	IE3	143	2BH1610-1HQ33
	60	550-600 Y	6,8 Y	7,1	-141	128	71	NP		
4	50	475-525 Y	9,5 Y	8,4	-169	213	71	IE3	170	2BH1610-1HQ43
	60	550-600 Y	9,6 Y	9,8	-177	197	75	NP		
5	50	475-525 Y	12,4 Y	11,5	-169	245	71	IE3	194	2BH1610-1HQ53
	60	550-600 Y	12,2 Y	13,3	-177	269	75	NP		
<b>IE3 3- 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)</b>										
1	50	380-420 Δ / 660-725 Y	5,0 Δ / 2,90 Y	3,4	-68	64	69	IE3	117	2BH1610-1HQ17
	60	440-480 Δ	5,2 Δ	4,0	-52	48	73	IE3		
	60	460 Δ	5,2 Δ	4,0	-52	48	73	NP		
2	50	380-420 Δ / 660-725 Y	6,7 Δ / 3,85 Y	4,6	-108	104	75	IE3	128	2BH1610-1HQ27
	60	440-480 Δ	6,6 Δ	5,4	-92	80	73	IE3		
	60	460 Δ	6,6 Δ	5,4	-92	80	73	NP		
3	50	380-420 Δ / 660-725 Y	8,6 Δ / 5,0 Y	6,2	-161	145	67	IE3	143	2BH1610-1HQ37
	60	440-480 Δ	8,5 Δ	7,1	-141	128	71	IE3		
	60	460 Δ	8,5 Δ	7,1	-141	128	71	NP		
4	50	380-420 Δ / 660-725 Y	11,8 Δ / 6,8 Y	8,4	-169	213	71	IE3	170	2BH1610-1HQ47
	60	440-480 Δ	12,0 Δ	9,8	-177	197	75	IE3		
	60	460 Δ	12,0 Δ	9,8	-177	197	75	NP		
5	50	380-420 Δ / 660-725 Y	15,5 Δ / 8,9 Y	11,5	-169	245	71	IE3	194	2BH1610-1HQ57
	60	440-480 Δ	15,3 Δ	13,3	-177	269	75	IE3		
	60	460 Δ	15,3 Δ	13,3	-177	269	75	NP		

- In case of variable frequency drive operation the standard motor insulation system is suitable for VFD input voltages up to 500 V.
- Relief valves available for limiting differential pressure.
- Surface sound pressure levels are according 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 blowers conform to the 2006/42/EC (machinery) and 2006/95/EC (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	c  us
50 Hz		60Hz			
3~					
200 VΔ		200 V YY / 230 VΔ / 400 VY		 IE3	•
190-210 VΔ		190-210 VYY / 220-240 VΔ / 380-420VY			
200 V YY / 230 VΔ / 400 VY		230 V YY / 460 VY		 IE3	•
190-210 VYY / 220-240 VΔ / 380-420VY		220-240 VYY / 440-480VY			
475-525 V Y		550-600 V Y		 NEMA Premium	•
475-525 VΔ		550-600 VΔ			
400 VΔ / 690 V Y		460 VΔ		 NEMA Premium	•

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.

Elmo Rietschle is a brand of Gardner Denver

Gardner  
Denver

Your Ultimate Source for Vacuum and Pressure

**Gardner Denver Deutschland GmbH**

Industriestraße 26  
97616 Bad Neustadt - Germany  
Tel.: +49 9771 6888-0  
Fax: +49 9771 6888-4000

www.elmorietschle.com

**Gardner Denver, Inc.**

1800 Gardner Expressway  
Quincy, IL 62305  
Tel: 866-249-2275  
Fax: 217-221-8780