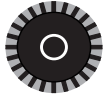
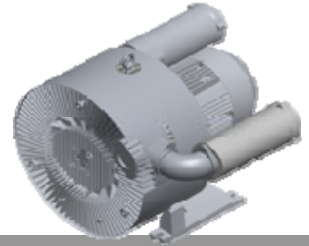


G-BH 1 N

Data sheet 2BH1 810-0

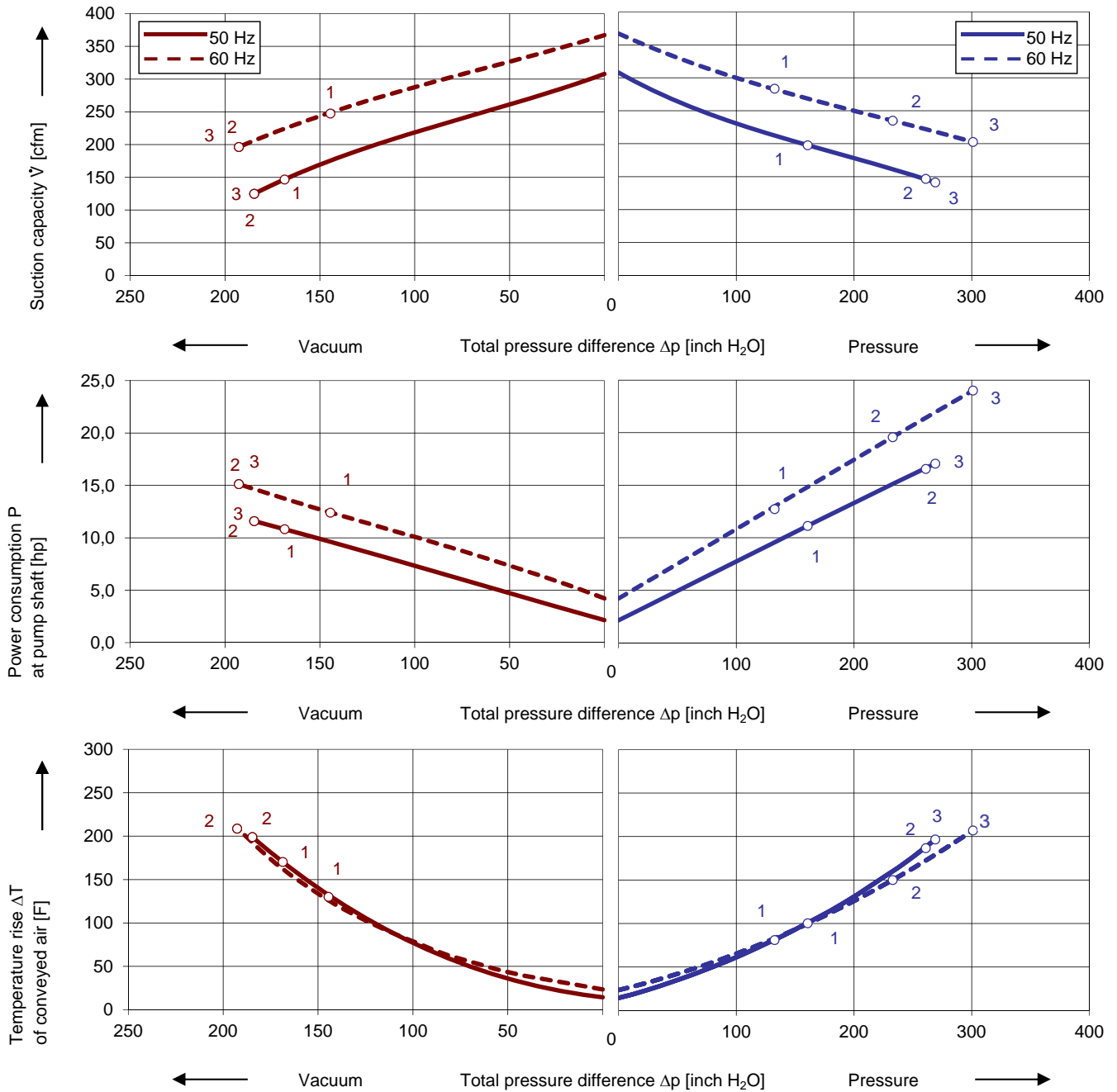
Side channel blower with NEMA Premium motor



Performance curves

Vacuum operation (acfm)

Pressure operation (scfm)



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	Rated			Max. differential ²⁾ pressure		sound press. level ³⁾	Efficiency class ⁴⁾	Weight approx.	Order No.
		Voltage ¹⁾	Current	Power	Vacuum	Pressure				
		Hz	V	A	hp	inch H ₂ O				
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	190-210 Δ	30,8 Δ	11,5	-169	161	71	IE3	355	2BH1810-0HK21
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	13,3	-145	132	76	IE3		
	60	200 YY	35,2 YY	13,3	-145	132	76	NP		
2	50	190-210 Δ	46,4 Δ	16,9	-185	261	71	IE3	441	2BH1810-0HK31
	60	190-210 YY / 380-480 Y	52,8 YY / 26,4 Y	19,4	-193	233	76	IE3		
	60	200 YY	52,8 YY	19,4	-193	233	76	NP		
3	50	190-210 Δ	63,1 Δ	23,2	-185	397	71	IE3	459	2BH1810-0HK41
	60	190-210 YY / 380-480 Y	72,2 YY / 36,1 Y	26,7	-193	444	76	IE3		
	60	200 YY	72,2 YY	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	220-240 Δ / 380-420 Y	26,8 Δ / 15,5 Y	11,5	-169	161	71	IE3	355	2BH1810-0HK26
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	13,3	-145	132	76	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	13,3	-145	132	76	NP		
2	50	220-240 Δ / 380-420 Y	40,3 Δ / 23,3 Y	16,9	-185	261	71	IE3	441	2BH1810-0HK36
	60	220-240 YY / 440-480 Y	46,0 YY / 23,0 Y	19,4	-193	233	76	IE3		
	60	230 YY / 460 Y	46,0 YY / 23,0 Y	19,4	-193	233	76	NP		
3	50	220-240 Δ / 380-420 Y	54,9 Δ / 31,7 Y	23,2	-185	397	71	IE3	459	2BH1810-0HK46
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	26,7	-193	444	76	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	475-525 Y	12,4 Y	11,5	-169	161	71	IE3	355	2BH1810-0HQ23
	60	550-600 Y	12,2 Y	13,3	-145	132	76	NP		
2	50	475-525 Y	18,6 Y	16,9	-185	261	71	IE3	401	2BH1810-0HQ33
	60	550-600 Y	18,4 Y	19,4	-193	233	76	NP		
3	50	475-525 Y	25,4 Y	23,2	-185	397	71	IE3	461	2BH1810-0HQ43
	60	550-600 Y	25,1 Y	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	380-420 Δ / 660-725 Y	15,5 Δ / 8,9 Y	11,5	-169	161	71	IE3	355	2BH1810-0HQ27
	60	440-480 Δ	15,3 Δ	13,3	-145	132	76	IE3		
	60	460 Δ	15,3 Δ	13,3	-145	132	76	NP		
2	50	380-420 Δ / 660-725 Y	23,3 Δ / 13,4 Y	16,9	-185	261	71	IE3	401	2BH1810-0HQ37
	60	440-480 Δ	23,0 Δ	19,4	-193	233	76	IE3		
	60	460 Δ	23,0 Δ	19,4	-193	233	76	NP		
3	50	380-420 Δ / 660-725 Y	31,7 Δ / 18,3 Y	23,2	-185	397	71	IE3	461	2BH1810-0HQ47
	60	440-480 Δ	31,4 Δ	26,7	-193	444	76	IE3		
	60	460 Δ	31,4 Δ	26,7	-193	444	76	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 ⁴⁾	c us	60 Hz	2BH1...-1.	□	□
50 Hz	60Hz						
3~							
200 V Δ	200 V YY / 230 V Δ / 400 VY		•			K	1
190-210 V Δ	190-210 VYY / 220-240 V Δ / 380-420VY	IE3	•			K	6
200 V YY / 230 V Δ / 400 VY	230 V YY / 460 VY		•			K	6
190-210 VYY / 220-240 V Δ / 380-420VY	220-240 VYY / 440-480VY	IE3	•			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 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

www.elmorietschle.com

Selection and ordering data

Type										
No.	Fre- quency	Rated			Max. differential ²⁾ pressure		sound press. level ³⁾	Efficiency class ⁴⁾	Weight approx.	Order No.
		Voltage ¹⁾	Current	Power	Vacuum	Pressure				
		Hz	V	A	hp	inch H ₂ O				
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	190-210 Δ	30,8 Δ	11,5	-169	161	71	IE3	355	2BH1810-0HK21
	60	190-210 YY / 380-420 Y	35,2 YY / 17,6 Y	13,3	-145	132	76	IE3		
	60	200 YY	35,2 YY	13,3	-145	132	76	NP		
2	50	190-210 Δ	46,4 Δ	16,9	-185	261	71	IE3	441	2BH1810-0HK31
	60	190-210 YY / 380-420 Y	52,8 YY / 26,4 Y	19,4	-193	233	76	IE3		
	60	200 YY	52,8 YY	19,4	-193	233	76	NP		
3	50	190-210 Δ	63,1 Δ	23,2	-185	397	71	IE3	459	2BH1810-0HK41
	60	190-210 YY / 380-420 Y	72,2 YY / 36,1 Y	26,7	-193	444	76	IE3		
	60	200 YY	72,2 YY	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	220-240 Δ / 380-420 Y	26,8 Δ / 15,5 Y	11,5	-169	161	71	IE3	355	2BH1810-0HK26
	60	220-240 YY / 440-480 Y	30,6 YY / 15,3 Y	13,3	-145	132	76	IE3		
	60	230 YY / 460 Y	30,6 YY / 15,3 Y	13,3	-145	132	76	NP		
2	50	220-240 Δ / 380-420 Y	40,3 Δ / 23,3 Y	16,9	-185	261	71	IE3	441	2BH1810-0HK36
	60	220-240 YY / 440-480 Y	46,0 YY / 23,0 Y	19,4	-193	233	76	IE3		
	60	230 YY / 460 Y	46,0 YY / 23,0 Y	19,4	-193	233	76	NP		
3	50	220-240 Δ / 380-420 Y	54,9 Δ / 31,7 Y	23,2	-185	397	71	IE3	459	2BH1810-0HK46
	60	220-240 YY / 440-480 Y	62,8 YY / 31,4 Y	26,7	-193	444	76	IE3		
	60	230 YY / 460 Y	62,8 YY / 31,4 Y	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	475-525 Y	12,4 Y	11,5	-169	161	71	IE3	355	2BH1810-0HQ23
	60	550-600 Y	12,2 Y	13,3	-145	132	76	NP		
2	50	475-525 Y	18,6 Y	16,9	-185	261	71	IE3	401	2BH1810-0HQ33
	60	550-600 Y	18,4 Y	19,4	-193	233	76	NP		
3	50	475-525 Y	25,4 Y	23,2	-185	397	71	IE3	461	2BH1810-0HQ43
	60	550-600 Y	25,1 Y	26,7	-193	444	76	NP		
IE3 3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 (certificate number E225239)										
1	50	380-420 Δ / 660-725 Y	15,5 Δ / 8,9 Y	11,5	-169	161	71	IE3	355	2BH1810-0HQ27
	60	440-480 Δ	15,3 Δ	13,3	-145	132	76	IE3		
	60	460 Δ	15,3 Δ	13,3	-145	132	76	NP		
2	50	380-420 Δ / 660-725 Y	23,3 Δ / 13,4 Y	16,9	-185	261	71	IE3	401	2BH1810-0HQ37
	60	440-480 Δ	23,0 Δ	19,4	-193	233	76	IE3		
	60	460 Δ	23,0 Δ	19,4	-193	233	76	NP		
3	50	380-420 Δ / 660-725 Y	31,7 Δ / 18,3 Y	23,2	-185	397	71	IE3	461	2BH1810-0HQ47
	60	440-480 Δ	31,4 Δ	26,7	-193	444	76	IE3		
	60	460 Δ	31,4 Δ	26,7	-193	444	76	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 ⁴⁾	c us	60 Hz	2BH1...-1.	□	□
50 Hz	60Hz						
3~							
200 V Δ	200 V YY / 230 V Δ / 400 VY		•			K	1
190-210 V Δ	190-210 VYY / 220-240 V Δ / 380-420VY	IE3	•			K	6
200 V YY / 230 V Δ / 400 VY	230 V YY / 460 VY		•			K	6
190-210 VYY / 220-240 V Δ / 380-420VY	220-240 VYY / 440-480VY	IE3	•			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 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

www.elmorietschle.com