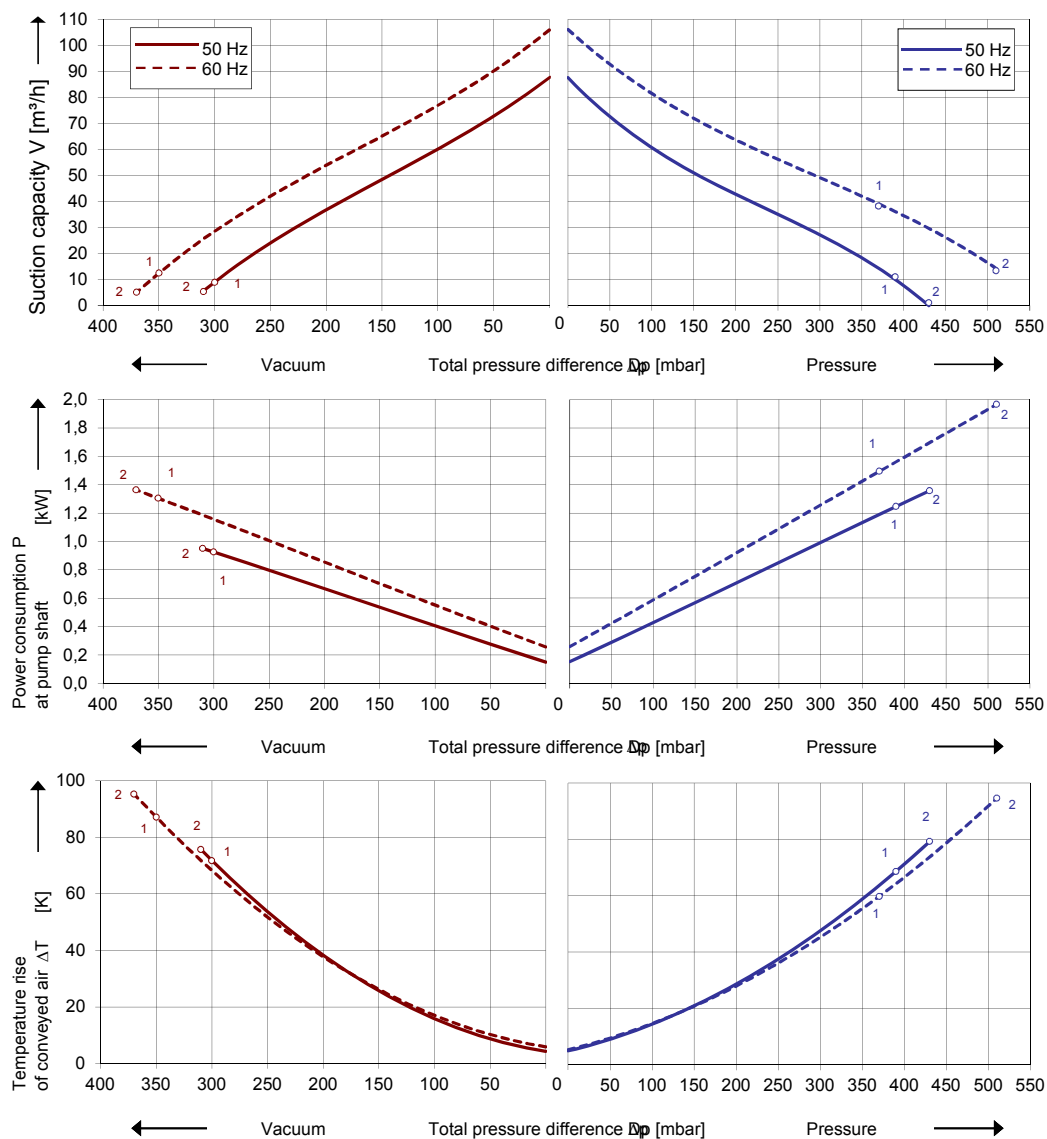


Performance curves

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 4RB 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.

Selection and ordering data										
Type 4RB 410										
No.	Fre- quency	Rated			Max. differential pressure ²⁾		Sound pressure level ³⁾ dB(A)	Efficiency ⁴⁾ 0	Weight Approx. kg	Order No.
		Voltage ¹⁾ V	Current A	Power kW	Vacuum mbar	Pressure				
	Hz									
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	190-210△	5,6 △	1,3	-300	390	63	IE3	26	4RB 410-0AP11-1
	60	190-210 YY / 380-420 Y	6,3 △/ 3.2 Y	1,6	-350	370	68	IE3		
2	50	190-210△	6.9 △	1,75	-310	430	63	IE3	29	4RB 410-0AP21-1
	60	190-210YY / 380-420 Y	7,8 △/ 3.9 Y	2,0	-370	510	68	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	220-240 △ / 380-420 Y	4,9 △/ 2,9 Y	1,3	-300	390	63	IE3	29	4RB 410-0AP16-1
	60	220-240 YY / 440-480 Y	5,5 YY / 2,8 Y	1,6	-350	370	68	IE3		
2	50	220-240 △ / 380-420 Y	6.0 △/ 3.5Y	1,75	-310	430	63	IE3	29	4RB 410-0AP26-1
	60	220-240 YY / 440-480 Y	6,8 YY / 3.4 Y	2,0	-370	510	68	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	380-420 △ / 660-725 Y	2,9 △/ 1,7 Y	1,3	-300	390	63	IE3	29	4RB 410-0AQ17-1
	60	440-480 △	2,8 △	1,6	-350	370	68	IE3		
2	50	380-420 △ / 660-725 Y	3,5 △/ 2,0 Y	1,75	-310	430	63	IE3	29	4RB 410-0AQ27-1
	60	440-480 △	3,4 △	2,0	-370	510	68	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	220-240 △ / 380-420 Y	2,9 △/ 1,7 Y	1,3	-300	390	63	IE3	29	4RB 410-0AQ16-1
	60	440-480 Y	2,8 △	1,6	-350	370	68	IE3		
2	50	220-240 △ / 380-420 Y	3,5 △/ 2,0 Y	1,75	-310	430	63	IE3	29	4RB 410-0AQ26-1
	60	440-480 Y	3,4 △	2,0	-370	510	68	IE3		

- 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 4RB blowers 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		
50 Hz	60Hz			60 Hz	4RB0- □ . □ -1	
3~						
200 V△	200 V YY / 230 V△ / 400 VY			.	P	1
190-210 V△	190-210 VYY / 220-240 V△ / 380-420VY			.	P	6
200 V YY / 230 V△ / 400 VY	230 V YY / 460 VY			.	P	6
190-210 VYY / 220-240 V△ / 380-420VY	220-240 VYY / 440-480VY			.	P	6
475-525 V Y	550-600 V Y			.	Q	3
475-525 V△	550-600 V△			.	Q	5
220-240 V△ / 380-420VY	440-480VY			.	Q	6
400 V△ / 690 V Y	460 V△			.	Q	7

Changes in particular of the quoted performance curve, data and weights may occur without prior notice. The data given do not constitute an obligation from our side to deliver as shown.