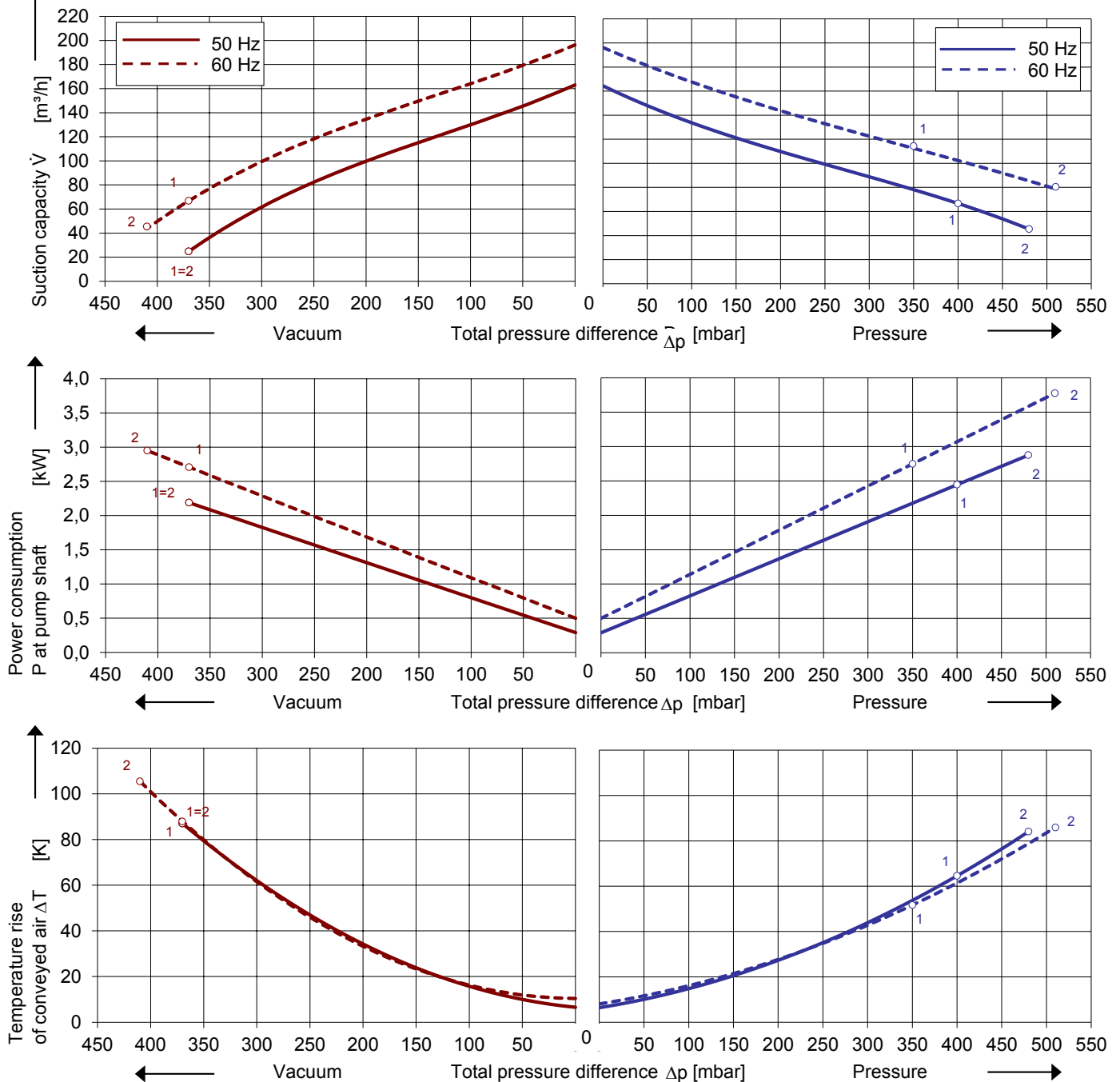


Performance curves

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 ± 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.

All 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 4RB 610

No.	Fre- quency	Rated			Max. differential pressure ²⁾		Sound pressure level ³⁾	Efficiency 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 certificate number E481218)										
1	50	190-210 Δ	9,9 Δ	2,5	-370	400	63	IE3	41	4RB 610-0AP11-1
	60	190-210 YY / 380-420 Y	12,0 YY / 6,0 Y	3,0	-370	350	68	IE3		
2	50	190-210 Δ	13,3 Δ	3,5	-370	480	64	IE3	45	4RB 610-0AP21-1
	60	190-210 YY / 380-420 Y	15,2 YY / 7,6 Y	4,0	-410	510	69	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	220-240 Δ / 380-420 Y	8,6 Δ / 5,0 Y	2,5	-370	400	63	IE3	41	4RB 610-0AP16-1
	60	220-240 YY / 440-480 Y	10,4 YY / 5,2 Y	3,0	-370	350	68	IE3		
2	50	220-240 Δ / 380-420 Y	11,6 Δ / 6,7 Y	3,5	-370	480	64	IE3	45	4RB 610-0AP26-1
	60	220-240 YY / 440-480 Y	13,2 YY / 6,6 Y	4,0	-410	510	69	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	380-420 Δ / 660-725 Y	5,0 Δ / 2,9 Y	2,5	-370	400	63	IE3	41	4RB 610-0AQ17-1
	60	440-480 Δ	15,2 Δ	3,0	-370	350	68	IE3		
2	50	380-420 Δ / 660-725 Y	6,7 Δ / 3,9 Y	3,5	-370	480	64	IE3	45	4RB 610-0AQ27-1
	60	440-480 Δ	6,6 Δ	4,0	-410	510	69	IE3		
IE3 3~ 50/60 Hz, IP55, Insulation material class F(UL certificate number E481218)										
1	50	220-240 Δ / 380-420 Y	8,6 Δ / 5,0 Y	2,5	-370	400	63	IE3	41	4RB 610-0AQ16-1
	60	440-480 Y	5,2 Y	3,0	-370	350	68	IE3		
2	50	220-240 Δ / 380-420 Y	11,6 Δ / 6,7 Y	3,45	-370	480	64	IE3	45	4RB 610-0AQ26-1
	60	440-480 Y	6,6 Y	4,0	-410	510	69	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 pumps 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

		Efficiency ⁴⁾	60 Hz	4RB ... -1	
50 Hz	60Hz				
3~ ¹⁾	2) ²⁾	3) ³⁾			
200 VΔ	200 V YY / 230 VΔ / 400 VY		•	P	1
190-210 VΔ	190-210 VYY / 220-240 VΔ / 380-420VY		•	P	6
200 V YY / 230 VΔ / 400 VY	230 V YY / 460 VY		•	Q	3
190-210 VYY / 220-240 VΔ / 380-420VY	220-240 VYY / 440-480VY		•	Q	5
475-525 V Y	550-600 V Y		•	Q	6
475-525 VΔ	550-600 VΔ		•	Q	7
220-240 VΔ / 380-420VY	440-480VY		•		
400 VΔ / 690 V Y	460 VΔ		•		

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.