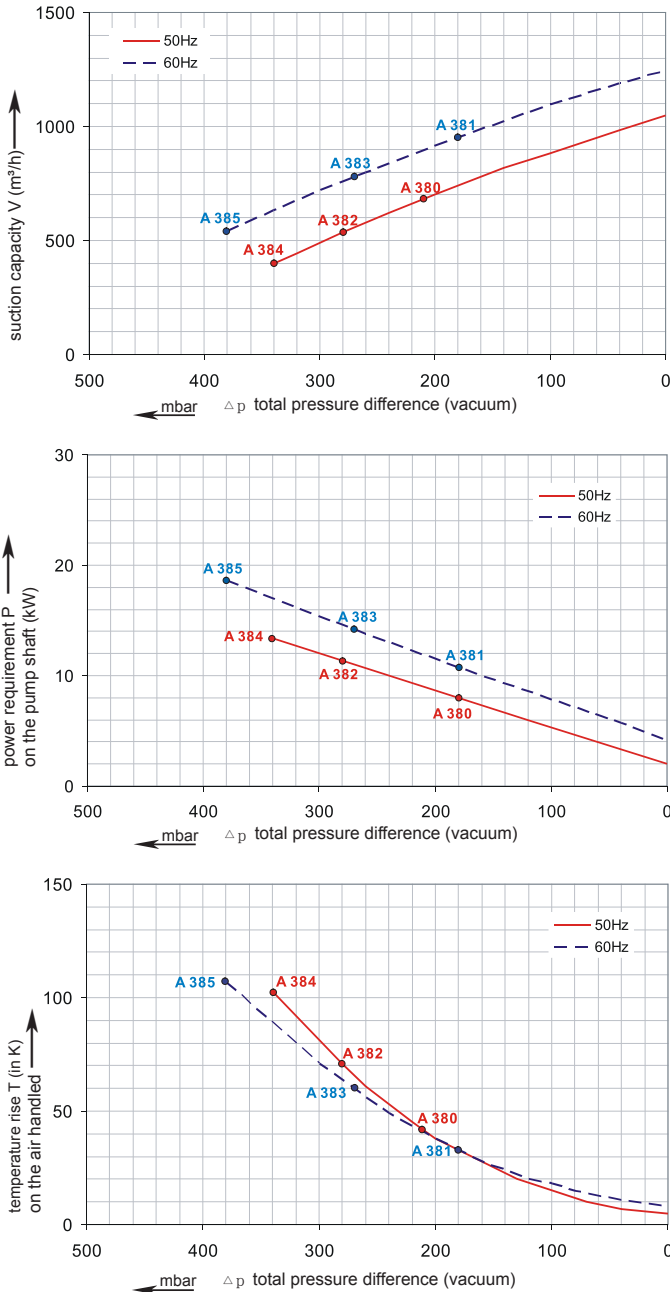
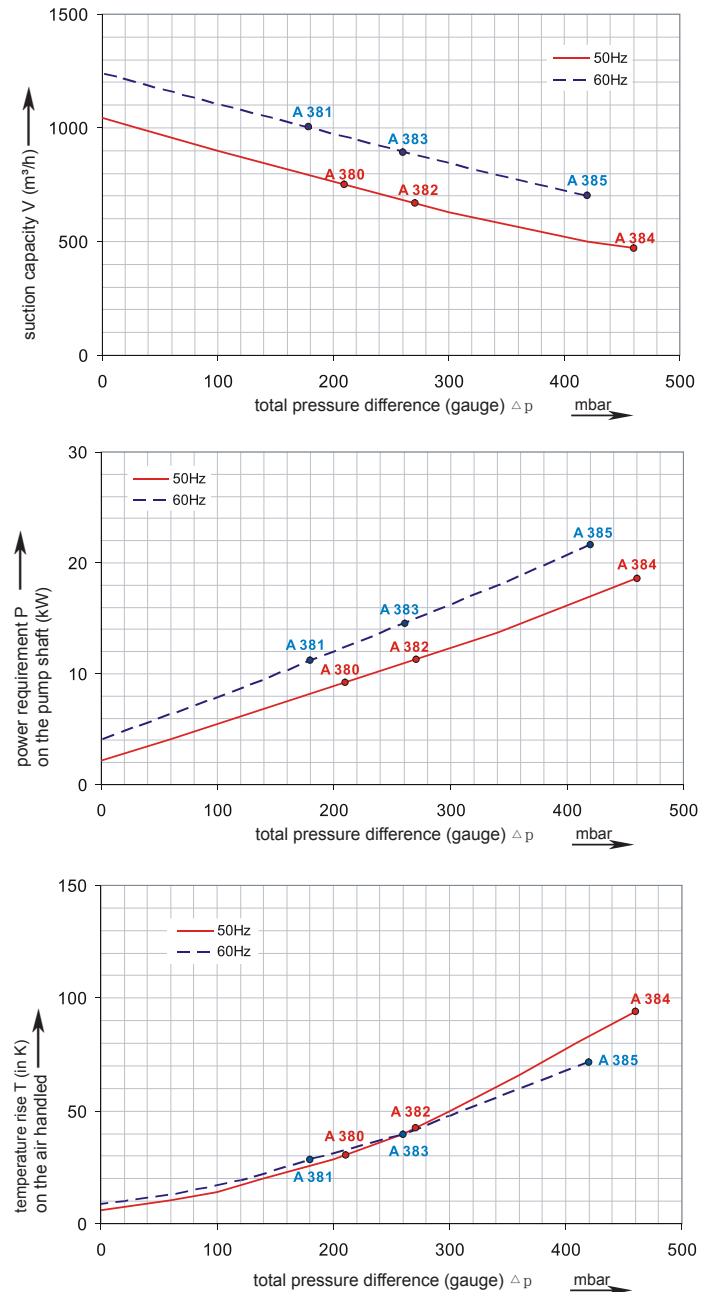


PUMP: ORB 91

Performance Curve for Vacuum



Performance Curve for Compressor



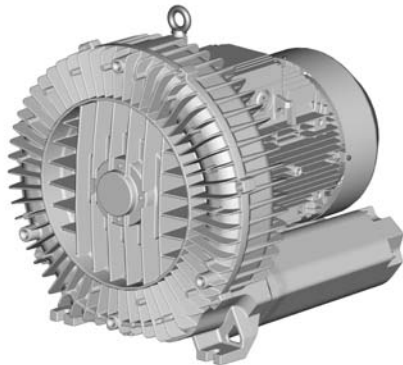
The performance curves are based on air at a temperature of 15 °C and an atmospheric pressure of 1013 mbar with a tolerance of +/- 10 %. The total pressure differences are valid for suction and ambient temperatures up to 25 °C. For other conditions please confer with us.

Each ORB type can be applied both as vacuum pump and compressor in continuous operation over the total stated performance curve range. The motors are available as standard for the input voltage range of 50 and 60 Hz and for protection category IP 55 as well as approved for UL and CSA.

Selection and ordering data

Type ORB 91

Curve No.	Order No.	Fre- quency	Rated power	Input voltage		Input current		Permissible total differential pressure ²⁾		Sound pressure level ³⁾	Weight ca.
				Hz	kW	V	A	Vacuum mbar	Compressor mbar		
3~ 50/60 Hz IP55 isulation material class F 1)											
A 380	ORB 91-8.5-3	50	8.5	345D ... 415D	600Y...720Y	18.2D	10.5Y	-210	210	74	93
A 381	ORB 91-8.5-3	60	9.8	380D ... 480D	660Y...720Y	18.2D	10.5Y	-180	180	79	93
A 382	ORB 91-12.5-3	50	12.5	345D ... 415D	600Y...720Y	28.0D	16.2Y	-280	270	74	116
A 383	ORB 91-12.5-3	60	14.5	380D ... 480D	660Y...720Y	29.0D	16.7Y	-270	260	79	116
A 384	ORB 91-18.5-3	50	18.5	345D ... 415D	600Y...720Y	37.0D	21.0Y	-340	460	74	126
A 385	ORB 91-18.5-3	60	21.3	380D ... 480D	660Y...720Y	39.0D	22.5Y	-380	420	79	126



Other voltage ranges

50Hz		60Hz		ORB 91
				<input type="checkbox"/> <input type="checkbox"/>
				↑ ↑
3~				
185...225 V D/320...390 V Y	200...240 V D/345...415 V Y	H	1	
200...240 V D/345...415 V Y	200...275 V D/380...480 V Y	H	6	
345...415 V D	380...480 V D	H	1	
500 V D	575VD	C	5	

Machines according to the ATEX norm 94/4 EG are available for the whole performance range.
Following types available: Category 3 G, 3/2 G, 3 D and 3/2 D.
Further voltage range on request; please quote in plain text.

All ORB achieve the standards and norms of the low voltage directive (LVD)2006/95/EC, rotating electrotechnical motor EN 60034-1-2004, electromagnetic compatibility(EMC)EN55014-1/2,EN61000-2/-3/-4/-6.

- 1) For standard UL for ELECTRIC MOTOR UL 1004-1.
- 2) Relief-valve are available for limiting differential pressure.
- 3) Measuring-surface sound-pressure level acc. to DIN EN 21680, measured at a distance of 1 m. The pump is throttled to an average suction pressure, a hose is connected to the discharge side (compressor) / suction side (vacuum pump), but is not fitted with relief valves.

The motors are designed according to the DIN EN 60 034 / DIN IEC 34-1 and temperature class F.

For the three phase machines the tolerances are +/- 10 % for fixed voltage and +/- 5 % for voltage range.

The single phase machines are designed with a +/- 5 % tolerances. If only 90 % of the maxium allowed pressure will be used for the continuousoperating then the allowed voltage range add to +/- 10 %.

For all single and three phase machines which designed according to the UL and CSA norm (UL 1004-1) the maximum allowed voltage tolerances are - 10 % resp. + 6 %.

The frequency tolerance is maximum +/- 2 %.