

# L-BV 7 N

## Data sheet 2BV7 070

### Liquid ring compressor

**IE3**
**RAL**


#### General information

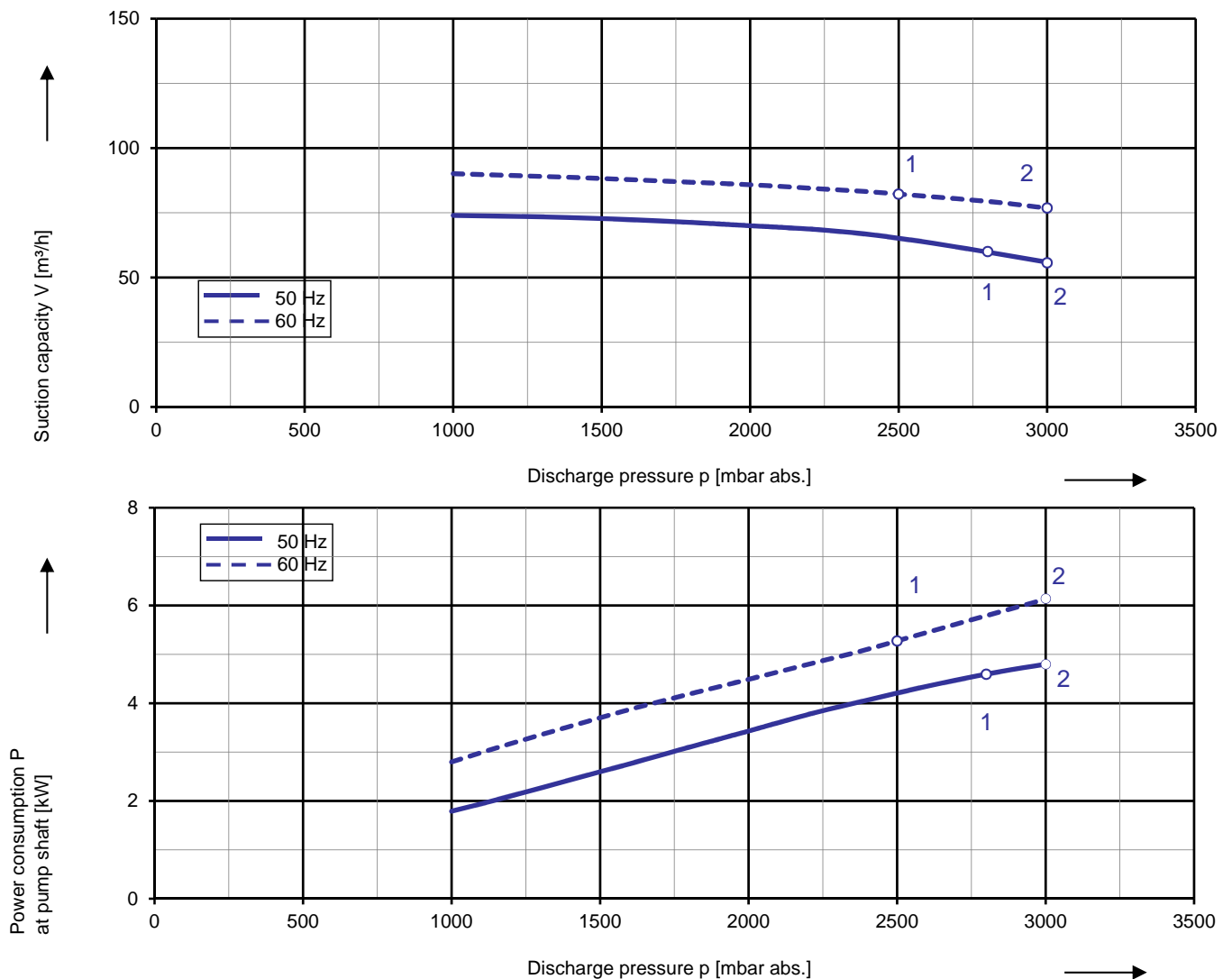
Elmo Rietschle compressors of the family L-BV7 are suitable for compressing gases and wet vapours.

The compressor of the model range 2BV7 are especially space-saving in their monoblock design. They are available in cast iron (standard color RAL 9006) and in stainless steel (all stainless steel parts are pickled and passivated). The motor is painted as standard in RAL 9006.



#### Performance curves

##### Compressor operation



The characteristic curves are based on the evacuation of 50 % saturated air and an intake temperature of 20 °C. At a suction pressure of 1013 mbar abs. and a temperature of the operating liquid of 15 °C (water as operating liquid) the characteristic curves will be achieved. The tolerance is ± 10 %.

The motors are supplied as standard for the input voltage ranges of 50 and 60 Hz and for the protection category IP55 as well as approved for UL and CSA. ATEX-Compressors with 2006/42 EG for category 2G are available, too.

# Selection and ordering data

**Typ 2BV7 070**

Fre- quency	Rated			Service factor	Efficiency <sup>3)</sup>	Quantity of operating liquid 1)	Sound pressure level 2)	Weight Approx.	Order No.
	Voltage	Current	Power						
Hz	V	A	kW	SF	-	m <sup>3</sup> /h	dB(A)	kg	
<b>3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>									
50	190-210 Δ	17,7 Δ	4,6	1,00	IE3	0,40	68	39	<b>2BV7070-2</b> □ <b>K08-1B</b>
60	190-210 YY / 380-420 Y	20,0 YY / 10,0 Y	5,3	1,00	IE3	0,28	74		
		200 YY	20,0 YY	5,3	1,00	NP	0,28	74	
50	190-210 Δ	23,5 Δ	6,3	1,00	IE3	0,40	68	53	<b>2BV7070-3</b> □ <b>K08-1B</b>
60	190-210 YY / 380-420 Y	27,6 YY / 13,8 Y	7,3	1,00	IE3	0,28	74		
		200 YY	27,6 YY	7,3	1,00	NP	0,28	74	
<b>3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>									
50	220-240 Δ / 380-420 Y	15,4 Δ / 8,9 Y	4,6	1,00	IE3	0,40	68	39	<b>2BV7070-2</b> □ <b>K08-6B</b>
60	220-240 YY / 440-480 Y	17,4 YY / 8,7 Y	5,3	1,00	IE3	0,28	74		
		230 YY / 460 Y	17,4 YY / 8,7 Y	5,3	1,00	NP	0,28	74	
50	220-240 Δ / 380-420 Y	20,4 Δ / 11,8 Y	6,3	1,00	IE3	0,40	68	53	<b>2BV7070-3</b> □ <b>K08-6B</b>
60	220-240 YY / 440-480 Y	24,0 YY / 12,0 Y	7,3	1,00	IE3	0,28	74		
		230 YY / 460 Y	24,0 YY / 12,0 Y	7,3	1,00	NP	0,28	74	
<b>3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>									
50	500 Y	7,1 Y	4,6	1,00	IE3	0,40	68	39	<b>2BV7070-2</b> □ <b>Q08-3B</b>
60	575 Y	6,95 Y	5,3	1,00	NP	0,28	74		
50	500 Y	9,5 Y	6,3	1,00	IE3	0,28	74	53	<b>2BV7070-3</b> □ <b>Q08-3B</b>
60	575 Y	9,6 Y	7,3	1,00	NP	0,40	68		
<b>3~ 50/60 Hz, IP55, Insulation material class F, UL 1450 and CAN/CSA C22.2 No. 68-09 (certificate number E225239)</b>									
50	380-420 Δ / 660-725 Y	8,9 Δ / 5,1 Y	4,6	1,00	IE3	0,40	68	39	<b>2BV7070-2</b> □ <b>Q08-7B</b>
60	440-480 Δ	8,7 Δ	5,3	1,00	IE3	0,28	74		
		460 Δ	8,7 Δ	5,3	1,00	NP	0,28	74	
50	380-420 Δ / 660-725 Y	11,8 Δ / 6,8 Y	6,3	1,00	IE3	0,40	68	53	<b>2BV7070-3</b> □ <b>Q08-7B</b>
60	440-480 Δ	12,0 Δ	7,3	1,00	IE3	0,28	74		
		460 Δ	12,0 Δ	7,3	1,00	NP	0,28	74	

### Materials

Casing	Port plate	Impeller	Lantern
CrNi steel	CrNi steel	Bronze	Cast iron

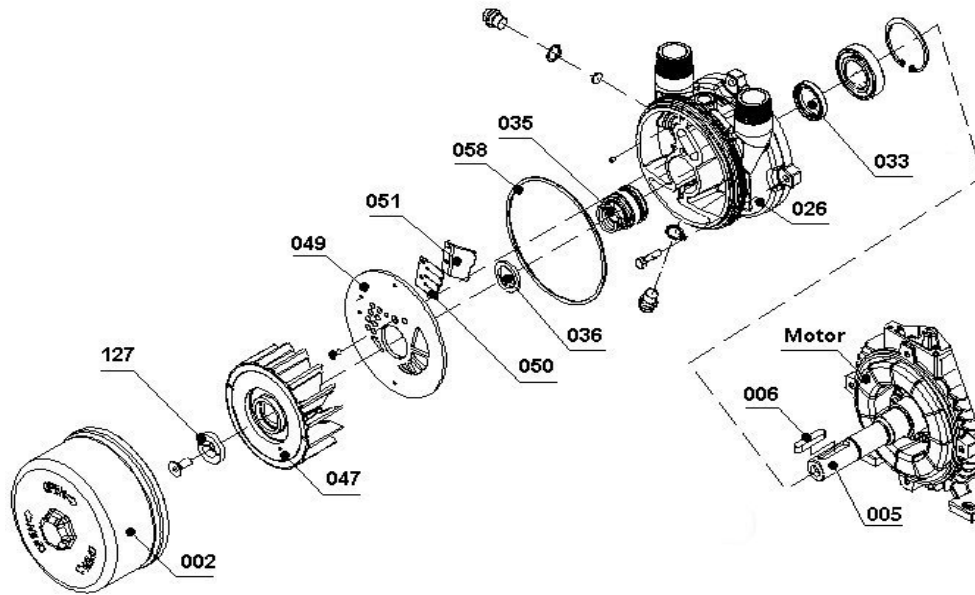
- 1) The quantities of operating liquid apply for fresh water operation without discharge liquid separator.
- 2) Measuring surface sound pressure level acc. to EN ISO 3744, measured with an equivalent unit at a distance of 1 m. The pump is throttled to an average suction pressure, with piping connected, but no relief valves fitted, tolerance ±3 dB (A).
- 3) Efficiency is maintained at rated motor power.

Voltage range		Efficiency	c  us	60 Hz	2BV7.... □ ... □
50 Hz	60Hz				
<b>3~</b>					
200 VΔ	200 V YY / 230 VΔ / 400 VY		•		<b>K 1</b>
190-210 VΔ	190-210 VYY / 220-240 VΔ / 380-420VY		•		
200 V YY / 230 VΔ / 400 VY	230 V YY / 460 VY		•		<b>K 6</b>
190-210 VYY / 220-240 VΔ / 380-420VY	220-240 VYY / 440-480VY		•		
475-525 V Y	550-600 V Y		•		<b>Q 3</b>
475-525 VΔ	550-600 VΔ		•		<b>Q 5</b>
400 VΔ / 690 V Y	460 VΔ		•		<b>Q 7</b>

All L-BV fulfil the 2006/42/EC (machinery) and 2014/35/EU (low voltage) directives and the EN 60034-1 norm "Rotating electrical machines". The motors comply with EN 60 034 (IEC 60034) and thermal class F. Voltage tolerances for three phase motors are +/-10%. The frequency tolerance is +/- 2 % maximum. Service factor (SF) and motor efficiency according NEMA MG1-12.

The cast iron machines are completely painted in standard color RAL 9006.

All cast parts of the stainless steel version are pickled and passivated, the motor is standardly painted in RAL 9006.



Part No.	Materials	
	2BV7. ....A.....	
	CrNi steel / bronze / cast iron	
002	Casing	Chrome-nickel steel (X5CrNi 1810 - / 1.4301) EN 10088 - 2
005	Pump shaft	Chrome-steel (X20Cr13 / 1.4021) EN 10088 - 3
006	Feather key	Chrome-nickel-molybdenum steel (X6CrNiMoTi 17-12-2 / 1.4571) EN 10088 - 3
026	Lantern	Grey cast iron (EN-GJL200 / EN-JL 2030) EN 1561
033	Radial shaft seal	Nitrile-butadiene-caotchouc (NBR) ISO 1629
035	Mechanical seal	Carbon / SIC / Viton (FPM) / chrome-nickel-molybdenum steel (EN 12756 - BQ1VGG)
036	Washer	Chrome-nickel-molybdenum steel (X5CrNiMo 17-12-2 / 1.4401) EN 10088 - 3
047	Impeller	Cast aluminium bronze (G-CuAl10Fe5Ni5 / CC33G-GS) EN 1982
049	Port plate	Chrome-nickel-molybdenum steel (X6CrNiMoTi 17-12-2 / 1.4541) EN10088-2
050	Valve plate	Teflon(PTFE)
051	Intercepting plate	Chrome-nickel-molybdenum steel (X5CrNiMo 17-12-2 / 1.4401) EN 10088 - 2
058	Seal (O-Ring)	Nitrile-butadiene-caotchouc (NBR) ISO 1629
127	Retaining washer	Chrome-nickel-molybdenum steel (X6CrNiMoTi 17-12-2 / 1.4571) EN 10088 - 2

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.

Elmo Rietschle is a brand of Gardner Denver

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