

# LZL VANE MOTORS



**1.05 – 6.5 kW**  
**1.4 – 8.7 hp**



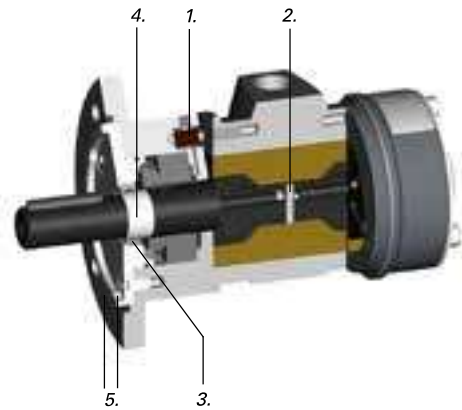
## Power motors (P)

The power motors come in all five sizes and are designed to give highest power and still maintain good low speed characteristics. These motors are delivered with lube free vanes and can therefore operate without lubrication.

Typically these motors are characterized by:

- Reliable starting.
- High starting torque and good low speed characteristics.
- Wide speed and torque range.
- Sturdy, compact construction to withstand rough treatment.
- Inlet and outlet port restrictors permit free speed running.
- Long working life and easy servicing.

EX certification valid for fixture mounted use only with a maximum surrounding temperature of +40°C (104°F).



1. Rubber hose valves for venting bearing and seals.
2. Vane pins.
3. Double seals.
4. Stainless steel bushing.
5. Aluminum front with stainless steel screws.

## Data at air pressure 6.3 bar (91 psi)

Model	Max output		Speed at max output	Torque at max output		Min starting torque		Stall torque		Free speed	Max allowed speed	Air consumption at max output		Weight		ATEX code**	Ordering No.
	kW	hp	r/min	Nm	lb-ft	Nm	lb-ft	Nm	lb-ft	r/min	r/min	l/s	cfm	kg	lb		
LZL03-L-P-AC	1.05	1.4	5300	1.9	1.4	2.8	2.1	3.8	2.8	11000		29	61	2.9	6.4	Ex II 2GD c T6 IIC T85oC X	8411 1009 70
LZL03-L-P-IEC	1.05	1.4	5300	1.9	1.4	2.8	2.1	3.8	2.8	11000		29	61	3.9	8.6	Ex II 2GD c T6 IIC T85oC X	8411 1009 88
LZL03-L-P-NEMA	1.05	1.4	5300	1.9	1.4	2.8	2.1	3.8	2.8	11000		29	61	3.8	8.4	Ex II 2GD c T6 IIC T85oC X	8411 1009 96
<b>Unrestricted*</b>	1.7	2.5	7500	2.2	1.6	2.8	2.1	3.8	2.8		11000		45	95			
LZL05-L-P-AC	1.3	1.7	4300	2.9	2.1	4.8	3.5	5.8	4.3	9000		37	78	3.9	8.6	Ex II 2GD c T6 IIC T85oC X	8411 1010 30
LZL05-L-P-IEC	1.3	1.7	4300	2.9	2.1	4.8	3.5	5.8	4.3	9000		37	78	4.8	10.6	Ex II 2GD c T6 IIC T85oC X	8411 1010 48
LZL05-L-P-NEMA	1.3	1.7	4300	2.9	2.1	4.8	3.5	5.8	4.3	9000		37	78	4.9	10.8	Ex II 2GD c T6 IIC T85oC X	8411 1010 55
LZL05-L-P-HUB	1.3	1.7	4300	2.9	2.1	4.8	3.5	5.8	4.3	9000		37	78	3.8	8.4	Ex II 2GD c T6 IIC T85oC X	8411 1011 50
<b>Unrestricted*</b>	2.1	2.8	6300	3.1	2.3	4.8	3.5	5.8	4.3		9200		50	106			
LZL15-L-P-AC	2.3	3.1	3380	6.5	4.8	10.9	8.0	13	9.6	7000		61	129	7.1	15.7	Ex II 2GD c T6 IIC T85oC X	8411 1011 19
LZL15-L-P-IEC	2.3	3.1	3380	6.5	4.8	10.9	8.0	13	9.6	7000		61	129	8.3	18.3	Ex II 2GD c T6 IIC T85oC X	8411 1011 68
LZL15-L-P-NEMA	2.4	3.2	3381	6.6	4.9	10.10	8.1	14	9.7	7000		61	129	8.3	18.3	Ex II 2GD c T6 IIC T85oC X	8411 1011 92
<b>Unrestricted*</b>	3.2	4.3	4500	6.8	5.0	10.9	8.0	13	9.6		7200		87	184			
LZL25-L-P-AC	3.4	4.6	2800	11.6	8.5	18	13.2	23	17	5800		86	182	11.3	24.9	Ex II 2GD c T6 IIC T85oC X	8411 1011 27
LZL25-L-P-IEC	3.4	4.6	2800	11.6	8.5	18	13.2	23	17	5800		86	182	15.2	33.5	Ex II 2GD c T6 IIC T85oC X	8411 1011 76
<b>Unrestricted*</b>	5.0	6.7	4000	12.0	8.8	18	13.2	23	17		6000		135	286			
LZL35-L-P-AC	5.2	7.0	2500	20	14.7	32	23.6	40	30	5000		130	275	20	44.1	Ex II 2GD c T6 IIC T85oC X	8411 1011 35
LZL35-L-P-IEC	5.2	7.0	2500	20	14.7	32	23.6	40	30	5000		13	275	20	44.1	Ex II 2GD c T6 IIC T85oC X	8411 1011 84
<b>Unrestricted*</b>	6.5	8.7	3100	20	14.7	32	23.6	40	30		5000		160	339			

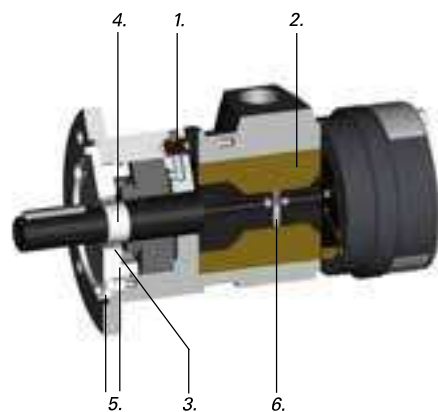
\* Motors without restrictor plates in the air in- and outlet, the motor should not be run above max allowed speed.  
\*\* Max allowed speed for the specified ATEX code is 5000 rpm.



### Low to medium speed motors (M)

These motors are, among other applications, ideal for mixing. To further ensure a clean and hygienic environment, a double shaft seal is used and all components that come in contact with the mixed medium are made of corrosion-resistant material. Thanks to the cylinder design and highly stable bearings, LZL motors require no extra drive shaft support and are ready for mounting without add-ons. For good adaptability, the motors are available with AC, IEC or NEMA.

EX certification valid for fixture mounted use only with a maximum surrounding temperature of +40°C (104°F).



1. Rubber hose valves for venting bearing and seals.
2. Lube free vanes.
3. Double seals.
4. Stainless steel bushing.
5. Aluminum front with stainless steel screws.
6. Spring loaded pins.

Model	Power at 3000 rpm		Torque at 3000 rpm		Stall torque		Max allowed speed	Air consumption at 3000 rpm		Weight		ATEX code	Ordering No.
	kW	hp	Nm	lb-ft	Nm	lb-ft		r/min	l/s	cfm	kg		
LZL03-L-M-AC	0.41	0.55	1.3	0.95	3.3	2.4	3000	16	34	2.9	6.4	Ex II 2GD c T6 IIC T85oC X	8411 1010 06
LZL03-L-M-IEC	0.41	0.55	1.3	0.95	3.3	2.4	3000	16	34	3.8	8.4	Ex II 2GD c T6 IIC T85oC X	8411 1010 14
LZL03-L-M-NEMA	0.41	0.55	1.3	0.95	3.3	2.4	3000	16	34	3.9	8.6	Ex II 2GD c T6 IIC T85oC X	8411 1010 22
<b>Unrestricted*</b>	1.0	1.3	3.3	2.4	3.8	2.8	3000	24	51				
LZL05-L-M-AC	0.63	0.84	2.0	1.5	5.8	4.3	3000	25	52	3.9	8.6	Ex II 2GD c T6 IIC T85oC X	8411 1010 63
LZL05-L-M-IEC	0.63	0.84	2.0	1.5	5.8	4.3	3000	25	52	4.8	10.6	Ex II 2GD c T6 IIC T85oC X	8411 1010 71
LZL05-L-M-NEMA	0.63	0.84	2.0	1.5	5.8	4.3	3000	25	52	4.9	10.8	Ex II 2GD c T6 IIC T85oC X	8411 1010 89
<b>Unrestricted*</b>	1.7	2.2	5.3	3.9	5.8	4.3	3000	35	74				

\* Motor without restrictor plates in the air in- and outlet, the motors should not be run above max allowed speed.

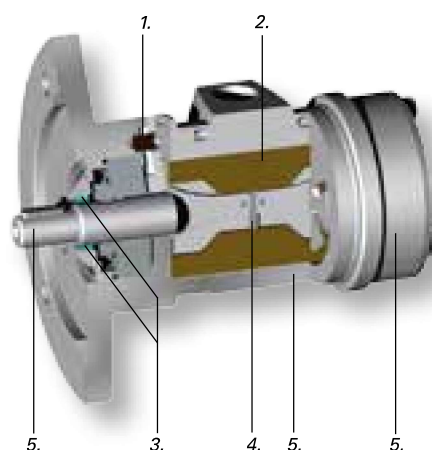
### Stainless steel motors

Stainless steel motors are available in the size LZL05. They are lube free and have the same features as the other lube free motors. All external parts, including the output shaft, are made of stainless steel, which makes the motors very corrosion resistant and ideal for applications such as the food industry, corrosive mixing and the chemical industry.

The material used in all external parts is ISO 683/XIII Type 17, SS 14 2346, DIN 17440 X 12CrNiS188.

The material in the output shaft is ISO 683/XIII Type 9b, SS 14 2321, DIN 17440 X 22CrNi17.

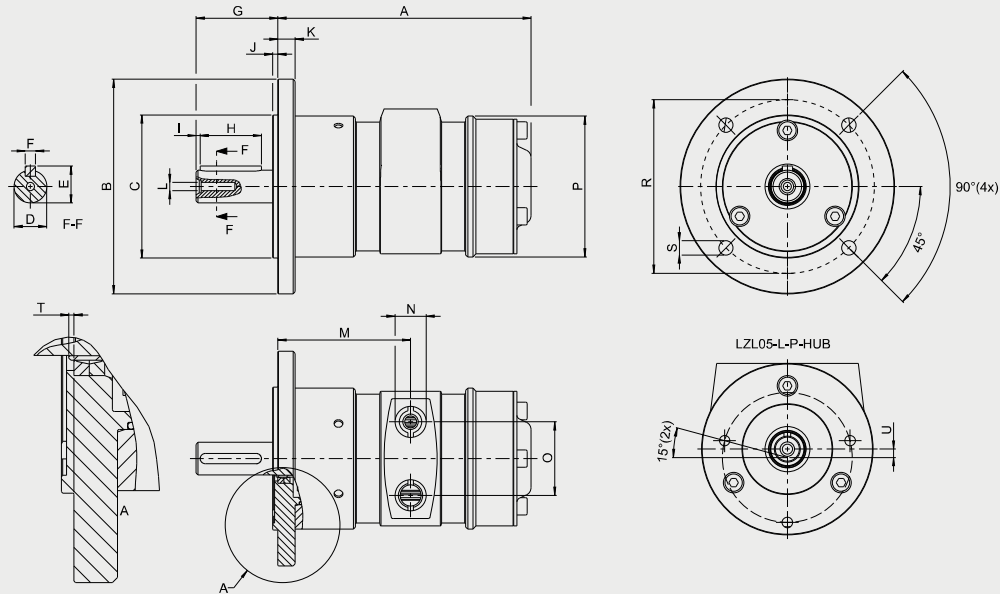
EX certification valid for fixture mounted use only with a maximum surrounding temperature of +40°C (104°F).



1. Rubber hose valves for venting bearing and seals.
2. Lube free vanes.
3. Double seals.
4. Vane pins.
5. Stainless steel.

Model	Power at 3000 rpm		Torque at 3000 rpm		Stall torque		Max allowed speed	Air consumption at 3000 rpm		Weight		ATEX code	Ordering No.
	kW	hp	Nm	lb-ft	Nm	lb-ft		r/min	l/s	cfm	kg		
LZL05-RL-P-IEC	0.63	0.84	2.0	1.5	5.8	4.3	3000	25	52	6.1	13.4	Ex II 2GD c T4 IIC T110oC	8411 1010 97
LZL05-RL-P-NEMA	0.63	0.84	2.0	1.5	5.8	4.3	3000	25	52	6.1	13.4	Ex II 2GD c T4 IIC T110oC	8411 1011 01
<b>Unrestricted*</b>	1.7	2.2	5.3	3.9	5.8	4.3	3000	35	74				

\* Motor without restrictor plates in the air in- and outlet, the motors should not be run above max allowed speed.



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	
LZL03-L-M/P-AC	mm	124	Ø105	Ø70 j6	Ø16 j7	18	5 h9	40	30	2.0	2.5	8.5	M5x15	65	BSP 3/8"	36	Ø69	Ø85	Ø7	1	-
LZL03-L-M/P-IEC	mm	124	Ø160	Ø110 j6	Ø14 j7	16	5 h9	30	20	2.0	3.5	8.5	M5x15	65	BSP 3/8"	36	Ø69	Ø130	Ø10	-	-
LZL03-L-M/P-NEMA	mm	124	Ø165.1	Ø114.3	Ø15.875	17.85	4.75	51.5	31.75	1.7	3.175	10	M5x15	65	BSP 3/8"	36	Ø69	Ø149.225	3/8"-16 UNC	1	-
LZL03-L-M/P-NEMA	inch	4.88	Ø6.5	Ø4.5	Ø0.625	0.703	0.187	2.03	1.25	0.07	0.125	0.39	M5x15	2.56	BSP 3/8"	1.42	Ø2.72	Ø5.875	3/8"-16 UNC	0.04	-
LZL05-L-P-AC	mm	152	Ø105	Ø70 j6	Ø18 j7	20.5	6 h9	40	30	3.0	2.5	8.5	M5x15	81	BSP 1/2"	44	Ø76	Ø85	Ø7	-	-
LZL05-L-M-AC	mm	152	Ø105	Ø70 j6	Ø16 j7	18	5 h9	40	30	2.0	2.5	8.5	M5x15	81	BSP 1/2"	44	Ø76	Ø85	Ø7	0.5	-
LZL05-L-M/P-IEC	mm	152	Ø160	Ø110 j6	Ø14 j7	16	5 h9	30	20	2.0	3.5	8.5	M5x15	81	BSP 1/2"	44	Ø76	Ø130	Ø10	-	-
LZL05-L-M/P-NEMA	mm	152	Ø165.1	Ø114.3	Ø15.875	17.85	4.75	51.5	31.75	1	3.175	10	M5x15	81	BSP 1/2"	44	Ø76	Ø149.225	3/8"-16 UNC	0.5	-
LZL05-L-M/P-NEMA	inch	5.98	Ø6.5	Ø4.5	Ø0.625	0.703	0.187	2.03	1.25	0.04	0.125	0.39	M5x15	3.19	BSP 1/2"	1.73	Ø3	Ø5.875	3/8"-16 UNC	0.02	-
LZL05-L-P-HUB	mm	152	Ø84	Ø44.45 j6	Ø12.7	14.51	3.175 H7	45	12.3	6.8	16	8.5	-	81	BSP 1/2"	44	Ø76	Ø63.6	1/4"-20 UNC	15.5	4.1
LZL05-L-P-HUB	inch	5.98	Ø3.31	Ø1.75	Ø0.5	0.57	0.125	1.77	0.5	0.3	0.63	0.335	-	3.19	BSP 1/2"	1.73	Ø3	Ø2.5	1/4"-20 UNC	0.61	0.161
LZL05-RL-P-IEC	mm	152	Ø160	Ø110 j6	Ø14 j7	16	5 h9	30	20	2.0	3.5	8.5	M5x15	81	BSP 1/2"	44	Ø76	Ø130	Ø10	-	-
LZL05-RL-P-NEMA	mm	152	Ø165.1	Ø114.3	Ø15.875	17.85	4.75	51.5	31.75	1	3.175	10	M5x15	81	BSP 1/2"	44	Ø76	Ø149.225	3/8"-16 UNC	0.5	-
LZL05-RL-P-NEMA	inch	5.98	Ø6.5	Ø4.5	Ø0.625	0.703	0.187	2.03	1.25	0.04	0.125	0.39	M5x15	3.19	BSP 1/2"	1.73	Ø3	Ø5.875	3/8"-16 UNC	0.02	-
LZL15-L-P-AC	mm	181.5	Ø140	Ø95 j6	Ø22 j7	24.5	6 h9	52.5	40	5.0	3.0	12	M6x16	95	BSP 1"	54	Ø100	Ø115	Ø9	-	-
LZL15-L-P-IEC	mm	181.5	Ø200	Ø130 j6	Ø19 j6	21.5	6 h9	40.5	30	5.0	3.5	12	M6x16	95	BSP 1"	54	Ø100	Ø165	Ø12	-	-
LZL15-L-P-NEMA	mm	181.5	Ø165.1	Ø114.3	Ø15.875	17.85	4.75	51.5	31.75	1.5	3.175	12	M6x16	95	BSP 1"	54	Ø100	Ø149.225	3/8"-16 UNC	-	-
LZL15-L-P-NEMA	inch	7.15	Ø6.5	Ø4.5	Ø0.625	0.703	0.187	2.03	1.25	0.06	0.125	0.472	M6x16	3.74	BSP 1"	2.13	Ø3.94	Ø5.875	3/8"-16 UNC	-	-
LZL25-L-P-AC	mm	221	Ø160	Ø110 j6	Ø28 j7	31	8 h7	62.5	50	5.0	3	12	M10x22	118	BSP 1"	70	Ø120	Ø130	Ø10	-	-
LZL25-L-P-IEC	mm	221	Ø200	Ø130 j6	Ø24 j6	27	8 h7	49.5	40	5.0	3.5	12	M10x22	118	BSP 1"	70	Ø120	Ø165	Ø12	-	-
LZL35-L-P-AC	mm	248.5	Ø200	Ø130 j6	Ø28 j7	31	8 h7	60	50	5.0	3.5	14	M10x22	129	BSP 1 1/4"	70	Ø134	Ø165	Ø12	-	-
LZL35-L-P-IEC	mm	248.5	Ø250	Ø180 j6	Ø28 j6	31	8 h7	60	50	5.0	4.0	14	M10x22	129	BSP 1 1/4"	70	Ø134	Ø215	Ø14.5	-	-
LZL35-P-IEC	mm	248.5	Ø250	Ø180 j6	Ø28 j6	M10x22	60	4.0	-	5.0	50	14	129	134	BSP 1 1/4"	70	Ø215	Ø14.5	31	8 h7	-

### LZL motors with IEC interface

Model	Flange mounting	IEC frame	Flange No.
LZL03-L-M/P-IEC	B5	71	FF 130
LZL05-L-M/P-IEC	B5	71	FF 130
LZL05-RL-M/P-IEC	B5	71	FF 130
LZL15-L-P-IEC	B5	80	FF 165
LZL25-L-P-IEC	B5	80	FF 165
LZL35-L-P-IEC	B5	100	FF 215