INNOMOTICS

IE6

Technical data

Efficiency beyond expectations.

At Innomotics, we are redefining reliable motion for a better tomorrow. With the launch of our **IE6 permanent magnet motors***, we prove this commitment by taking energy savings to an even higher level – while maintaining all the well-known benefits of Innomotics permanent magnet motors.

With a **power factor close to 1**, a **reduction up to three shaft heights**, and **constant torque from low-speed**, the IE6 permanent magnet motors deliver outstanding performance and efficiency.

* Note: Assumption for the IE6 efficiency class is based on a 20 % reduction in losses compared to the IE5 class.

Article number	Rated power [kW]	Rated torque [Nm]	Rated current [A]	Rated power factor	Efficiency [%]	Maximum speed [rpm]	Maximum torque/ rated torque	bEMF at rated speed (20°C) [V]	Moment of inertia [kg.m²]	Weight [kg]	Efficiency class
Shaft height 71, aluminum frame											
3000 rpm											
1FZ1006-0CL3.-....	0.55	1.75	1.01	0.95	87.3	4500	2	340	0.00043	5	IE6
1FZ1006-0CL4.-....	0.75	2.40	1.35	0.95	88.7	4500	2	324	0.00043	5	IE6
1FZ1006-0CL5.-....	1.1	3.50	1.95	0.95	90.0	4500	2	324	0.00068	6	IE6
1FZ1006-0CL6.-....	1.5	4.75	2.64	0.95	90.9	4500	2	324	0.00068	6	IE6
1500 rpm											
1FZ1006-0CK3.-....	0.37	2.35	0.68	0.95	87.0	2250	2	310	0.00068	6	IE6
1FZ1006-0CK4.-....	0.55	3.50	0.99	0.95	89.1	2250	2	326	0.00081	7	IE6
1FZ1006-0CK5.-....	0.75	4.75	1.33	0.95	90.3	2250	2	323	0.00095	8	IE6
1FZ1006-0CK6.-....	1.1	7.0	1.92	0.95	91.4	2250	2	323	0.00138	11	IE6
Shaft height 71, cast iron frame											
3000 rpm											
1FZ1506-0CL3.-....	0.55	1.75	–	0.95	87.3	4500	2	340	0.00043	11	IE6
1FZ1506-0CL4.-....	0.75	2.40	–	0.95	88.7	4500	2	324	0.00043	11	IE6
1FZ1506-0CL5.-....	1.1	3.50	–	0.95	90.0	4500	2	324	0.00068	12	IE6
1FZ1506-0CL6.-....	1.5	4.75	–	0.95	90.9	4500	2	324	0.00068	12	IE6
1500 rpm											
1FZ1506-0CK3.-....	0.37	2.35	–	0.95	87.0	2250	2	310	0.00068	12	IE6
1FZ1506-0CK4.-....	0.55	3.50	–	0.95	89.1	2250	2	326	0.00081	13	IE6
1FZ1506-0CK5.-....	0.75	4.75	–	0.95	90.3	2250	2	323	0.00095	14	IE6
1FZ1506-0CK6.-....	1.1	7.0	–	0.95	91.4	2250	2	323	0.00138	17	IE6
Shaft height 90, aluminum frame											
3000 rpm											
1FZ1006-0EL4.-....	2.2	7.0	3.8	0.95	92.0	4500	2	350	0.00226	11	IE6
1FZ1006-0EL5.-....	3	9.5	5.2	0.95	92.8	4500	2	359	0.00277	13	IE6
1FZ1006-0EL6.-....	4	13	6.9	0.95	93.3	4500	2	347	0.00389	15	IE6
1FZ1006-0EL7.-....	5.5	18	9.4	0.95	94.0	4500	2	343	0.00429	16	IE6
1500 rpm											
1FZ1006-0EK4.-....	1.5	9.5	2.6	0.95	92.2	2250	2	343	0.00277	13	IE6
1FZ1006-0EK5.-....	2.2	14	3.8	0.95	93.0	2250	2	350	0.00429	16	IE6
1FZ1006-0EK6.-....	3	19	5.1	0.95	93.6	2250	2	348	0.00538	22	IE6

Article number	Rated power [kW]	Rated torque [Nm]	Rated current [A]	Rated power factor	Efficiency [%]	Maximum speed [rpm]	Maximum torque/ rated torque	bEMF at rated speed (20°C) [V]	Moment of inertia [kg.m²]	Weight [kg]	Efficiency class
Shaft height 90, cast iron frame											
3000 rpm											
1FZ1506-0EL4-....	2.2	7.0	–	0.95	92.0	4500	2	350	0.00226	22	IE6
1FZ1506-0EL5-....	3	9.5	–	0.95	92.8	4500	2	359	0.00277	23	IE6
1FZ1506-0EL6-....	4	13	–	0.95	93.3	4500	2	347	0.00389	25	IE6
1FZ1506-0EL7-....	5.5	18	–	0.95	94.0	4500	2	343	0.00429	27	IE6
1500 rpm											
1FZ1506-0EK4-....	1.5	9.5	–	0.95	92.2	2250	2	343	0.00277	24	IE6
1FZ1506-0EK5-....	2.2	14	–	0.95	93.0	2250	2	350	0.00429	27	IE6
1FZ1506-0EK6-....	3	19	–	0.95	93.6	2250	2	348	0.00538	33	IE6
Shaft height 132, aluminum frame											
3000 rpm											
1FZ1006-1CL2-....	11	35	18.5	0.95	95.1	4500	2	340	0.02301	34	IE6
1FZ1006-1CL3-....	15	47.5	25.1	0.95	95.6	4500	2	343	0.03371	43	IE6
1FZ1006-1CL4-....	18.5	59	30.9	0.95	95.9	4500	2	347	0.03933	48	IE6
1FZ1006-1CL5-....	22	70	36.7	0.95	96.0	4500	2	350	0.04449	53	IE6
1500 rpm											
1FZ1006-1CK0-....	5.5	35.0	9.3	0.95	94.6	2250	2	332	0.02836	39	IE6
1FZ1006-1CK2-....	7.5	47.5	12.6	0.95	95.1	2250	2	337	0.03933	48	IE6
1FZ1006-1CK3-....	11	70	18.4	0.95	95.6	2250	2	324	0.05005	58	IE6
Shaft height 132, cast iron frame											
3000 rpm											
1FZ1506-1CL2-....	11	35	–	0.95	95.1	4500	2	340	0.02301	52	IE6
1FZ1506-1CL3-....	15	47.5	–	0.95	95.6	4500	2	343	0.03371	60	IE6
1FZ1506-1CL4-....	18.5	59	–	0.95	95.9	4500	2	347	0.03933	69	IE6
1FZ1506-1CL5-....	22	70	–	0.95	96.0	4500	2	350	0.04449	73	IE6
1500 rpm											
1FZ1506-1CK0-....	5.5	35.0	–	0.95	94.6	2250	2	332	0.02836	56	IE6
1FZ1506-1CK2-....	7.5	47.5	–	0.95	95.1	2250	2	337	0.03933	69	IE6
1FZ1506-1CK3-....	11	70	–	0.95	95.6	2250	2	324	0.05005	77	IE6
Shaft height 280, cast iron frame											
3000 rpm											
1FZ1506-2DL3-....	110	350	180	0.97	97.4	3600	2	381	0.84	443	IE6
1FZ1506-2DL4-....	132	420	205	1	97.5	3600	2	390	1.01	480	IE6
1FZ1506-2DL5-....	160	509	250	1	97.6	3600	2	405	1.29	529	IE6
1FZ1506-2DL6-....	200	637	310	1	97.7	3600	2	390	1.57	617	IE6
1FZ1506-2DL7-....	250	796	400	0.97	97.7	3600	2	372	2.02	709	IE6
1500 rpm											
1FZ1506-2DK2-....	90	573	155	0.91	97.5	2250	2	320	1.31	536	IE6
1FZ1506-2DK3-....	110	700	189	0.91	97.6	2250	2	317	1.49	579	IE6
1FZ1506-2DK4-....	132	840	225	0.92	97.7	2250	2	330	1.67	643	IE6
1FZ1506-2DK5-....	160	1019	270	0.93	97.7	2250	2	302	1.85	684	IE6
1FZ1506-2DK6-....	200	1273	340	0.92	97.9	2250	2	333	2.03	719	IE6

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