

WONDER® Since 1988

In Synchronization with the Future

ISO14001 ISO9001 ISO45001   CE  RoHS  SASO  TUV SÜD  UL  UL

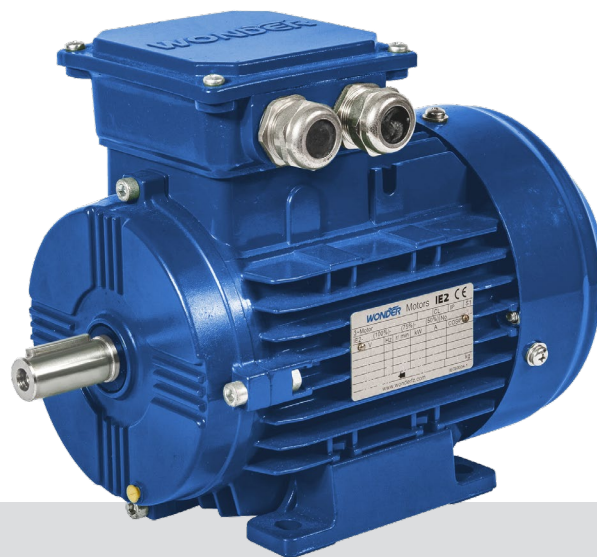
ZWEA Series

High Efficiency with Increased Power
Asynchronous Aluminum Motors

IE2

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High Efficiency with Increased Power
Asynchronous Aluminum Motors



General Information:

ZWEA Series motors are high efficiency aluminum motors with increased power. ZWEA motors provide equipment manufacturers and end users with higher output while the frame size is smaller compared to IEC standard motors. The efficiency indicators are in line with IE2.

Wonder three phase asynchronous motors are widely applied in general machinery and industries such as pumps & water treatment, road machinery, petroleum, chemical & metallurgy, cement and papermilling.

Technical Characteristics:

- IP55 protection, class F insulation, B-level temperature rise, S1 duty;
- Rated voltage 400V;
- Rated frequency 50Hz;
- Operation ambient temperature: -20°C~40°C;
- Operation altitude ≤1000m.
- Y-connection for motors up to 3kW,
Δ-connection for 4kW and above.
- Cooling method: IC411/IC416.

Mounting Arrangements:

Types	Basic Type of Construction	Derived Types of Construction				
ZWEA 160-280	IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071
ZWEA 160-280	IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	* IM 2051	* IM 2061	* IM 2071
ZWEA 160-280	IM B34 IM 2101	* IM 2111	* IM 2131	* IM 2151	* IM 2161	* IM 2171
ZWEA 160-280	IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031			
ZWEA 160-280	IM B14 IM 3601	IM V18 IM 3611	IM V19 IM 3631			

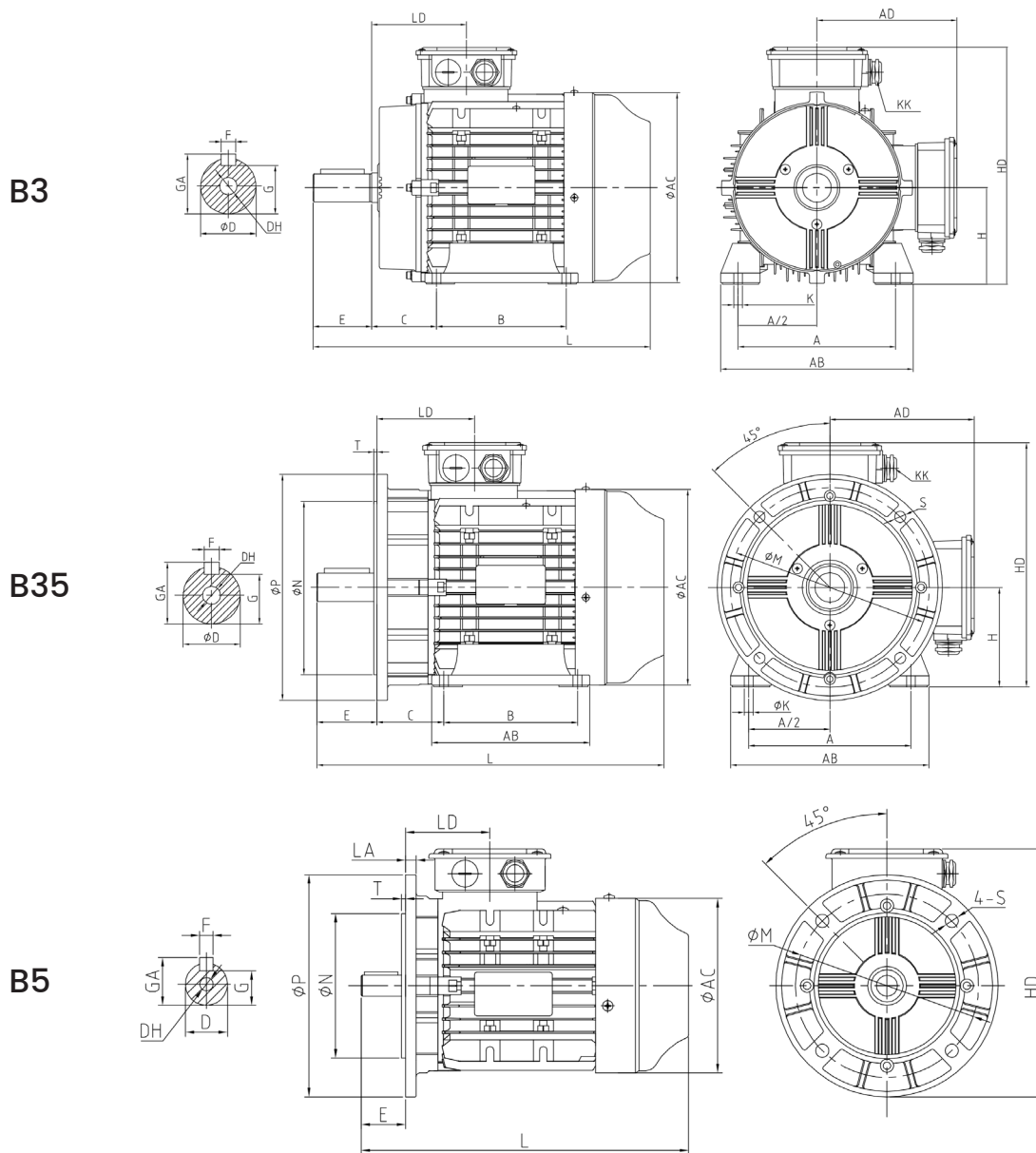
Basic types of construction may be used in all derived types of construction.
1) "*" means not-defined mounting by IEC 60034-7.
2) for the types of construction IM V6, IM B6, IM B8 inquiry is necessary.

Technical Specifications

Rated Output		IEC Frame	Rated Speed r/m	Full Load Current I _n (A)	Efficiency η%			Power Factor cosφ			Locked Rotor Current I _L /I _n	Locked Rotor Torque T _L /T _n	Break-down Torque T _b /T _n	Sound LP dB(A)	Moment of Inertia J(kgm ²)	Weight kg
					% of Full Load											
kW	HP			400V	100	75	50	100	75	50						
3000r/m (2 Pole) 50Hz																
1.5	2	80M2	2815	3.29	81.3	81.6	79.9	0.81	0.75	0.64	7.7	3.8	3.9	66	0.002	14
2.2	3	90S	2890	4.24	84.2	84.7	83.4	0.89	0.86	0.79	7.8	2.5	2.9	67	0.003	17
3	4	90L	2890	5.75	84.6	85.2	84.2	0.89	0.87	0.82	7.8	2.5	2.7	67	0.004	20
4	5.5	100L	2900	7.48	85.8	86	84.7	0.9	0.88	0.83	8.7	2.8	3.1	68	0.005	29
5.5	7.5	112M	2900	10.3	87	87.6	87.2	0.89	0.87	0.81	7.8	2.3	2.9	68	0.013	30
9.2	12.5	132S2	2925	16.6	88.7	88.9	87.8	0.9	0.89	0.85	8.3	2.1	2.9	69	0.027	57
11	15	132M	2920	19.7	89.4	89.8	89.3	0.9	0.88	0.85	8.7	2.3	3	71	0.035	63
18.5	25	160M2	2940	32.3	90.9	90.9	89.8	0.91	0.84	0.82	8.1	2.2	3.1	72	0.064	115*
22	30	160L	2940	38.2	91.3	91	89.4	0.91	0.87	0.84	9	2.7	3.3	72	0.075	124*
30	40	180M	2950	51.2	92	91.5	90.2	0.92	0.9	0.87	8.9	2.4	3.4	72	0.109	160*
1500r/m (4 Pole) 50Hz																
1.1	1.5	80M2	1430	2.67	81.7	80.7	77.3	0.73	0.65	0.5	6.7	3.4	3.3	64	0.005	17
1.5	2	90S	1430	3.31	82.8	82.4	81.9	0.79	0.73	0.62	6.5	2.3	2.6	65	0.006	18
2.2	3	90L	1440	4.77	84.3	83.8	81	0.79	0.74	0.63	7	2.7	2.8	65	0.007	24
4	5.5	100L2	1445	8.23	86.6	86.4	84.5	0.81	0.75	0.65	8.2	3.4	3.1	66	0.009	38
5.5	7.5	112M	1450	11.2	87.7	88	87.3	0.81	0.76	0.65	8.2	3.1	2.9	67	0.018	36
7.5	10	132S	1460	14.7	89	88.7	88.1	0.83	0.78	0.72	8.9	3.4	3.3	68	0.04	62
9.2	12.5	132M1	1460	18.4	89.2	89.1	87.8	0.81	0.77	0.68	8.5	2.8	2.8	68	0.05	72
11	15	132M2	1460	21.6	89.8	89.7	88.3	0.82	0.77	0.68	9.1	3.1	3	68	0.06	77
15	20	160M	1460	27.5	90.6	91	90.4	0.87	0.84	0.74	7.4	2.2	2.5	68	0.11	108*
18.5	25	160L	1460	33.3	91.2	91.2	90.5	0.88	0.83	0.77	8.8	3	3.1	68	0.118	127*
22	30	180M	1470	40.3	91.6	91.6	90.7	0.86	0.82	0.77	8.1	3	3	70	0.169	152*
30	40	180L	1470	53.9	92.3	92.3	91.6	0.87	0.82	0.77	8.1	3.1	3.1	70	0.188	177*
1000r/m (6 Pole) 50Hz																
1.1	1.5	90S	930	2.9	78.3	77.5	75.9	0.7	0.62	0.5	4	1.7	2.2	53	0.005	15
1.5	2	90L	950	3.88	79.8	79.7	77	0.7	0.62	0.5	4.9	2	2.4	53	0.006	20
2.2	3	100L	950	5.32	81.8	82	80	0.73	0.67	0.56	4.6	1.6	2	55	0.009	27
3	4	112M	950	7.12	83.3	84	83	0.73	0.68	0.57	5.7	2	2.1	55	0.015	31
4	5.5	132S	970	8.86	84.6	84.1	83.6	0.77	0.7	0.58	7.1	3.8	3	58	0.03	56
7.5	10	132M2	970	16.1	87.2	87.1	85.6	0.77	0.72	0.61	7.6	2.5	2.5	58	0.05	76
11	15	160M	970	23.2	88.7	88.7	87.6	0.77	0.75	0.65	7.5	2.3	3	60	0.16	115*
15	20	160L	970	30.6	89.7	89.7	88.3	0.79	0.74	0.65	7.5	2	2.6	60	0.23	127*
18.5	25	180L	975	36.5	90.4	90.5	89.5	0.81	0.74	0.66	9.1	3.1	3.2	62	0.36	171*

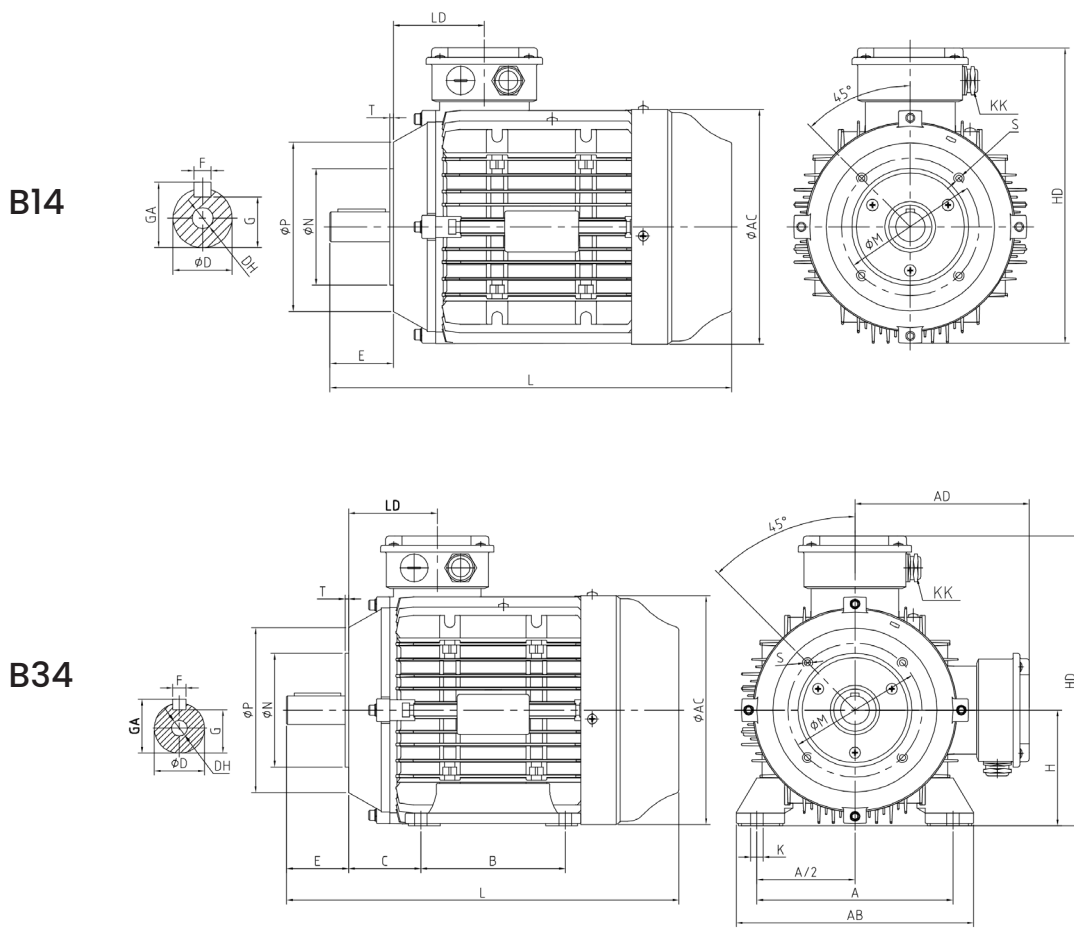
"*" means the maximum weight of motor.

B3, B35, B5 Mounting and Overall Dimensions



Frame Size	Mounting and Overall Dimensions (mm)																									
	A	A/2	B	C	D	DH	E	F	G	H	K	KK	M	N	P	R	S	T	AB	AC	AD	HD	GA	LA	LD	L
80M2-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4- $\phi 10$	M20×1.5	165	130	200	0	4- $\phi 12$	3.5	154	157	122	202	21.5	9.5	75	295
80M2-4	125	62.5	100	50	19	M6×16	40	8	15.5	80	4- $\phi 10$	M20×1.5	165	130	200	0	4- $\phi 12$	3.5	154	157	122	202	21.5	9.5	75	330
90S	140	70	100	56	24	M8×20	50	8	20	90	4- $\phi 10$	M25×1.5	165	130	200	0	4- $\phi 12$	3.5	180	175	141	231	27	10	87	324
90L	140	70	125	56	24	M8×20	50	8	20	90	4- $\phi 10$	M25×1.5	165	130	200	0	4- $\phi 12$	3.5	180	175	141	231	27	10	87	349
100L-2.6	160	80	140	63	28	M10×22	60	8	24	100	4- $\phi 12$	M25×1.5	215	180	250	0	4- $\phi 15$	4	200	199	157	257	31	12	78	373
100L2-4	160	80	140	70	38	M12×28	80	10	33	132	4- $\phi 12$	M32×1.5	265	230	300	0	4- $\phi 15$	4	200	199	157	257	31	12	78	418
112M	190	95	140	89	38	M12×28	80	10	33	132	4- $\phi 12$	M32×1.5	265	230	300	0	4- $\phi 15$	4	230	222	167	279	31	12	85	380
132S	216	108	178	89	38	M12×28	80	10	33	132	4- $\phi 12$	M32×1.5	265	230	300	0	4- $\phi 15$	4	264	260	191	323	41	14	129	475
132M	216	108	178	89	38	M12×28	80	12	33	132	4- $\phi 12$	M32×1.5	265	230	300	0	4- $\phi 15$	4	264	260	191	323	41	14	129	513
160M	254	127	210	108	42	M16×36	110	12	37	160	4- $\phi 15$	M40×1.5	300	250	350	0	4- $\phi 19$	5	314	314	237	397	45	15	154	612
160L	254	127	154	108	42	M16×36	110	14	37	160	4- $\phi 15$	M40×1.5	300	250	350	0	4- $\phi 19$	5	314	314	237	397	45	15	154	656
180M	279	139.5	241	121	48	M16×36	110	14	42.5	180	4- $\phi 15$	M40×1.5	300	250	350	0	4- $\phi 19$	5	347	355	255	435	51.5	15	159	685
180L	279	139.5	279	121	48	M16×36	110	14	42.5	180	4- $\phi 15$	M40×1.5	300	250	350	0	4- $\phi 19$	5	347	355	255	435	51.5	15	159	723

B14, B34 Mounting and Overall Dimensions



Frame Size	Mounting and Overall Dimensions (mm)																									
	A	A/2	B	C	D	DH	E	F	G	H	K	KK	M	N	P	R	S	T	AB	AC	AD	HD	GA	LA	LD	L
80M2-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-φ10	M20×1.5	100	80	120	0	4-M6	3	154	157	122	202	21.5	75	10	295
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-φ10	M20×1.5	100	80	120	0	4-M6	3	154	157	122	202	21.5	75	10	330
90S	140	70	100	56	24	M8×20	50	8	20	90	4-φ10	M25×1.5	115	95	140	0	4-M8	3	180	175	141	231	27	87	10	324
90L	140	70	125	56	24	M8×20	50	8	20	90	4-φ10	M25×1.5	115	95	140	0	4-M8	3	180	175	141	231	27	87	10	349
100L2.6	160	80	140	63	28	M10×22	60	8	24	100	4-φ12	M25×1.5	130	110	160	0	4-M8	3.5	200	199	157	257	31	78	12	373
100L2-4	160	80	140	63	28	M10×22	60	8	24	100	4-φ12	M25×1.5	130	110	160	0	4-M8	3.5	200	199	157	257	31	78	12	418
112M	190	95	140	70	28	M10×22	60	8	24	112	4-φ12	M25×1.5	130	110	160	0	4-M8	3.5	230	222	167	279	31	85	12	380
132S	216	108	140	89	38	M12×28	80	10	33	132	4-φ12	M32×1.6	165	130	200	0	4-M10	4	264	260	191	323	41	129	15	475
132M	216	108	178	89	38	M12×28	80	10	33	132	4-φ12	M32×1.8	165	130	200	0	4-M10	4	264	260	191	323	41	129	15	513

Bearings

Frame Size	Driving End		Non-driving End	
	2 Pole	4,6,8 Pole	2 Pole	4,6,8 Pole
ZWEA80	6204-2Z/C3	6204-2Z/C3	6203-2Z/C3	6203-2Z/C3
ZWEA90	6205-2Z/C3	6205-2Z/C3	6204-2Z/C3	6204-2Z/C3
ZWEA100	6306-2Z/C3	6306-2Z/C3	6205-2Z/C3	6205-2Z/C3
ZWEA112	6306-2Z/C3	6306-2Z/C3	6205-2Z/C3	6205-2Z/C3
ZWEA132	6308-2Z/C3	6308-2Z/C3	6206-2Z/C3	6206-2Z/C3
ZWEA160	6309-2Z/C3	6309-2Z/C3	6209-2Z/C3	6209-2Z/C3
ZWEA180	6311/C3	6311/C3	6211/C3	6211/C3



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