

SWEA Series

Three Phase Premium Efficiency
Asynchronous Aluminum Motors



General Information:

SWEA Series motors are Wonder-designed premium efficiency aluminum motors. They are for the application of carpentry, fans, pumps, compressors and other mechanical equipment. The efficiency indicators are in line with IE3.

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				
SWEA 80-180	IM B3 IM 1001	IM V5 IM 1011	IM V6 IM 1031	IM B6 IM 1051	IM B7 IM 1061	IM B8 IM 1071
SWEA 80-180	IM B35 IM 2001	IM V15 IM 2011	IM V36 IM 2031	*	*	*
SWEA 80-180	IM B34 IM 2101	*	*	*	*	*
SWEA 80-180	IM B5 IM 3001	IM V1 IM 3011	IM V3 IM 3031			
SWEA 80-180	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.

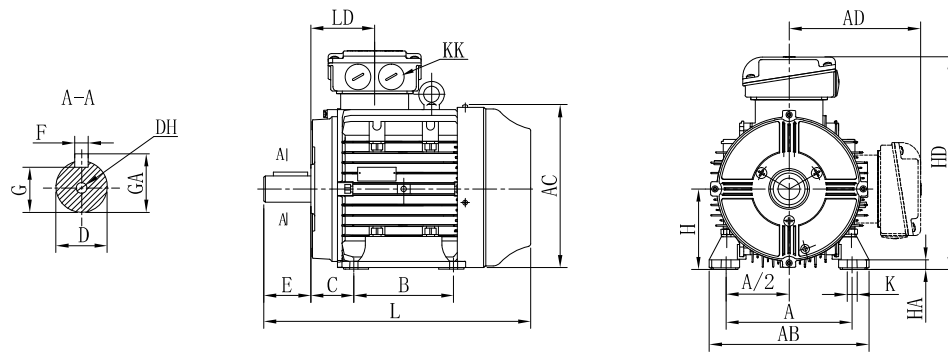
Technical Specifications

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			3810V	400V	100	75	50	100	75	50						
3000r/m (2 Pole) 50Hz																	
0.75	1	80M1	2855	1.77	1.68	80.7	81.1	79.4	0.80	0.74	0.62	6.8	3.3	3.7	66	0.001	11
1.1	1.5	80M2	2855	2.53	2.40	82.7	82.9	80.9	0.80	0.73	0.60	7.5	3.5	3.8	66	0.001	12
1.5	2	90S	2900	3.08	2.92	84.2	84.6	83.5	0.88	0.85	0.79	8.6	2.2	2.9	67	0.002	17
2.2	3	90L	2900	4.37	4.15	85.9	86.6	85.1	0.89	0.87	0.81	8.3	2.4	2.9	67	0.003	19
3	4	100L	2910	5.88	5.59	87.1	87.3	85.9	0.89	0.87	0.81	10.0	2.8	3.4	68	0.005	26
4	5.5	112M	2910	7.84	7.45	88.1	88.4	87.6	0.88	0.86	0.80	9.0	2.3	3.1	68	0.013	29
5.5	7.5	132S1	2925	10.5	10.0	89.2	89.7	88.7	0.89	0.86	0.81	8.6	2.1	3.3	69	0.024	42
7.5	10	132S2	2925	14.1	13.4	90.1	90.6	89.7	0.90	0.88	0.82	9.5	2.4	3.4	69	0.025	48
11	15	160M1	2950	20.8	19.3	91.2	91.3	90.3	0.89	0.86	0.80	8.7	2.4	3.3	70	0.056	97*
15	20	160M2	2950	27.9	26.5	91.9	91.8	90.8	0.89	0.87	0.82	8.8	2.6	3.3	70	0.064	107*
18.5	25	160L	2950	34.2	32.5	92.4	92.5	91.6	0.89	0.87	0.82	8.9	2.8	3.4	72	0.073	124*
22	30	180M	2955	40.1	38.1	92.7	92.6	91.5	0.90	0.88	0.84	9.4	2.6	3.9	72	0.105	145*
1500r/m (4 Pole) 50Hz																	
0.75	1.0	80M2	1425	1.89	1.80	82.5	82.6	80.0	0.73	0.65	0.52	7.3	3.3	3.5	64	0.005	16
1.10	1.5	90S	1440	2.55	2.42	84.1	84.4	82.9	0.78	0.72	0.62	7.0	2.2	2.7	64	0.006	17
1.50	2.0	90L	1440	3.38	3.21	85.3	85.5	83.8	0.79	0.73	0.63	7.5	2.4	2.7	65	0.007	19
2.20	3.0	100L1	1445	4.76	4.52	86.7	87.1	86.1	0.81	0.76	0.66	9.0	2.6	2.9	66	0.008	28
3.00	4.0	100L2	1445	6.42	6.10	87.7	88.2	87.1	0.81	0.76	0.66	9.2	2.7	2.9	66	0.009	34
4.00	5.5	112M	1450	8.47	8.05	88.6	89.3	88.1	0.81	0.77	0.67	8.3	2.8	2.8	67	0.018	36
5.50	7.5	132S	1460	11.5	10.9	89.6	89.7	88.3	0.81	0.76	0.66	9.0	2.6	3.0	68	0.037	54
7.50	10.0	132M	1460	15.4	14.6	90.4	90.5	89.3	0.82	0.77	0.68	8.9	2.8	3.0	68	0.045	63
11.00	15.0	160M	1470	21.5	20.4	91.4	91.5	90.5	0.85	0.81	0.73	8.6	2.6	3.1	68	0.105	100*
15.00	20.0	160L	1470	29.1	27.3	92.1	92.2	91.5	0.86	0.82	0.73	9.0	3.0	3.3	68	0.115	117*
18.50	25.0	180M	1475	35.7	33.5	92.6	92.7	91.5	0.86	0.82	0.73	9.0	2.5	3.0	73	0.166	152*
22.00	30.0	180L	1475	42.3	39.7	93.0	93.1	91.7	0.86	0.82	0.73	9.2	2.8	3.2	73	0.188	171*
1000r/m (6 Pole) 50Hz																	
0.75	1	90S	950	2.09	1.99	78.9	78.8	75.9	0.96	0.61	0.49	4.5	1.6	2.4	52	0.005	16
1.1	1.5	90L	950	2.95	2.80	81.0	81.4	79.4	0.70	0.64	0.50	5.0	1.6	2.4	52	0.006	20
1.5	2	100L	955	3.93	3.75	82.5	82.3	79.9	0.70	0.64	0.53	6.0	1.5	2.2	54	0.008	29
2.2	3	112M	960	5.43	5.16	84.3	85.1	83.6	0.73	0.67	0.55	9.2	2.2	2.5	54	0.015	31
3	4	132S	970	7.20	6.84	85.6	85.8	84.4	0.74	0.68	0.57	6.8	2.0	2.5	56	0.035	47
4	5.5	132M1	970	9.21	8.75	86.8	86.9	85.4	0.76	0.70	0.59	6.8	2.1	2.5	56	0.05	57
5.5	7.5	132M2	970	12.5	11.9	88.0	88.1	86.8	0.76	0.71	0.60	7.2	2.2	2.4	57	0.06	63
7.5	10	160M	975	16.8	15.4	89.1	89.3	88.2	0.79	0.72	0.60	7.5	2.4	2.4	59	0.13	97*
11	15	160L	975	24.4	22.3	90.3	90.6	89.4	0.79	0.72	0.60	7.8	2.9	2.7	59	0.24	117*
15	20	180L	980	31.6	30.1	91.2	91.1	89.7	0.79	0.73	0.61	8.7	2.9	3.3	60	0.35	152*

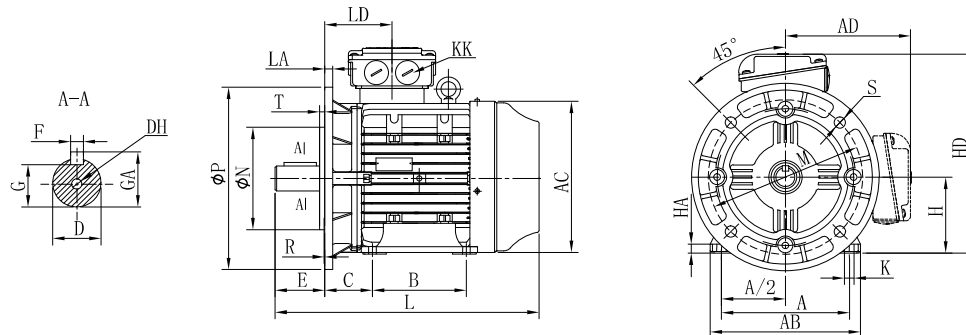
"*" means the maximum weight of motor.

B3, B35, B5 Mounting and Overall Dimensions

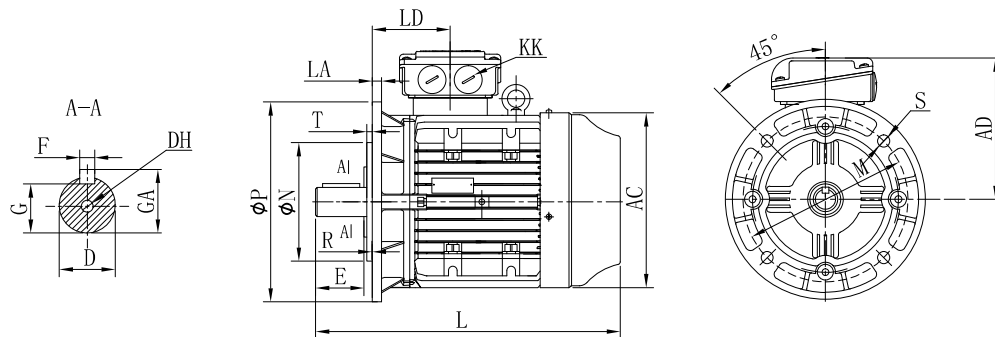
B3



B35



B5



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	HA	L	
80M-2	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	165	130	200	0±1.5	4-Φ12	3.5	154	157	124	204	21.5	9.5	75	10	295	
80M2-4	125	62.5	100	50	19	M6×16	40	6	15.5	80	4-Φ10	M20×1.5	165	130	200	0±1.5	4-Φ12	3.5	154	157	124	204	21.5	9.5	75	10	330	
90S	140	70	100	56	24	M8×20	50	8	20.0	90	4-Φ10	M25×1.5	165	130	200	0±1.5	4-Φ12	3.5	180	175	143	233	27	10	87	10	324	
90L	140	70	125	56	24	M8×20	50	8	20.0	90	4-Φ10	M25×1.5	165	130	200	0±1.5	4-Φ12	3.5	180	175	143	233	27	10	87	12	349	
100L1-4 100L 2, 6	160	80	140	63	28	M10×22	60	8	24.0	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	200	199	159	259	31	12	78	12	373	
100L2-4	160	80	140	63	28	M10×22	60	8	24.0	100	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	200	199	159	259	31	12	78	12	418	
112M	190	95	140	70	28	M10×22	60	8	24.0	112	4-Φ12	M25×1.5	215	180	250	0±2	4-Φ14.5	4.0	230	222	169	281	31	12	85	12	380	
132S	216	108	140	89	38	M12×28	80	10	33.0	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4.0	264	260	193	325	41	14	129	15	475	
132M	216	108	178	89	38	M12×28	80	10	33.0	132	4-Φ12	M32×1.5	265	230	300	0±2	4-Φ14.5	4.0	264	260	193	325	41	14	129	15	513	
160M	254	127	210	108	42	M16×36	110	12	37.0	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	314	314	237	397	45	15	154	22	612	
160L	254	127	254	108	42	M16×36	110	12	37.0	160	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	314	314	237	397	45	15	154	22	656	
180M	279	139.5	241	121	48	M16×36	110	14	42.5	180	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	317	355	255	435	51.5	15	159	25	685	
180L	279	139.5	279	121	48	M16×36	110	14	42.5	180	4-Φ14.5	M40×1.5	300	250	350	0±3	4-Φ18.5	5.0	347	355	255	435	51.5	15	159	25	723	