

TECO

Rotates the world

AESV / AESU / AESV-LA Series Squirrel Cage Induction Motor

AESV1S / AESU1S / AESV1S-LA (IE1) STANDARD EFFICIENCY



Introduction to IEC 60034-30-1

Electric motor application in the industry consumes between 30% and 40% of the generated electrical energy worldwide. Improving efficiency of the complete drive system is therefore a major concern in the energy-efficiency efforts. Many different energy efficiency standards for cage induction motors from different countries were already in use (NEMA, EPACK, CSA, CEMEP, COPANT, AS/NZS, JIS, GB and others) before IEC came up with an efficiency standard. It became increasingly difficult for manufactures to design motors for a global market and for customers to understand differences and similarities of standards in different countries, therefore IEC 60034-30-1 was developed for global standards for easy reference.

IEC 60034-30-1: Efficiency classes of single-Speed, Three Phase, Cage-induction motor (IE-code)

As part of a concerted effort worldwide to reduce energy consumption, CO2 emissions and the impact of industrial operations on the environment, TECO is committed to produce International Energy-Efficiency Class (IE) motors in order to reduce the energy consumed and in turn reduce greenhouse gas emissions. TECO's V-series are designed, manufactured and tested to meet latest European and International standard. The New V Series, which comprise of full range of Efficiency Classes IE1, IE2 & IE3 Motors.

What does this standard covers?

It specifies efficiency classes for single-speed, three-phase, 50Hz and 60 Hz, cage-induction motors that have:

- Rated Voltage up to 1000V;
- Rated Output Power between 0.12kW and 1000kW;
- Either 2, 4, 6 or 8 pole;
- Rated either duty type S1 (continuous duty) or S3 (intermittent periodic duty) with a rated cycle duration factor of 80% or higher;
- Capable of operating direct on-line;
- Rated for operating conditions in accordance with IEC 60034-1, clause 6.

Electrical Design

Type: Squirrel Cage Induction Motor
Ratings: 0.18 kW ~ 375 kW

Duty Rating

All Motors have a maximum continuous duty rating of S1 under rated load. For duty cycles other than S1 please refer to TECO.

Supply Voltage

Stock motors are designed for operation as below:
2.2kW and below : 220~240V/ 380~415V 3 phase /50Hz
3 kW and above : 380~415V 3 phase /50Hz

Insulation System

All motor are design with class F insulation and Class B temperature rise at ambient temperature of 40° C. For any other insulation system other than standard Class F insulation or Class B temperature rise at higher ambient temperature than standard 40° C, please refer to TECO.

Inverter Duty

All motors are design to be suitable for Inverter use, comply with IEC 60034-17. For intensive use of Inverter duty operations complying to IEC60034-25, please refer to TECO.

Standards

IEC 60034-1 Rotating electrical machines - Part 1: Rating and performance.

IEC 60034-2-1 Rotating electrical machines - Part 2-1: Standard methods for determining losses and efficiency from tests

IEC 60034-5 Rotating electrical machines - Part 5: Degrees of protection provided by the integral design of rotating electrical machines (IP code) - classification.

IEC 60034-6 Rotating electrical machines - Part 6: Methods of cooling (IC code).

IEC 60034-7 Rotating electrical machines - Part 7: Classification of types of enclosures and mounting arrangements (IM code).

IEC 60034-8 Rotating electrical machines - Part 8: Terminal markings and direction of rotation.

IEC 60034-9 Rotating electrical machines - Part 9: Noise limits.

IEC 60034-11-1 Rotating electrical machines - Part 11-1: Thermal protection.

IEC 60034-12 Rotating electrical machines - Part 12: Starting performance of single-speed three-phase cage induction motors.

IEC 60034-14 Rotating electrical machines - Part 14: Mechanical vibration of certain machines - Limits of vibration.

IEC 60034-17 Rotating electrical machines - Part 17: Cage induction motors when fed from converters - Application guide.

IEC 60034-30-1 Rotating electrical machines - Part 30: Efficiency classes for single-speed three-phase cage induction motors.

Mechanical Design

Type: Squirrel Cage Induction Motor
 Frame Size: 80M to 355C
 Enclosure: Totally Enclosed Fan Cooled (TEFC), Totally Enclosed Non Ventilated (TENV)

Ingress Protection

Stock motors are design to meet Ingress Protection of IP55, other special requirement please refer to TECO.

Drive Method

Stock motors are design for both Direct Coupling and Belt Drive use from frame size 80M to 250M. However, for 2 Pole Motor design for both Direct coupling and Belt drive is from Frame size 80M to 200L only. For belt drive application for other frame size, please refer to TECO.

Bearings

High Quality Deep Groove Ball Sealed Bearings are use for our stock motor from frame size 80 to 225M and Vacuum De-Gassed High Quality Deep Groove Ball Open Bearings are use for stock motor from frame Size 250M to 355C. Any special bearings, please refer to TECO.

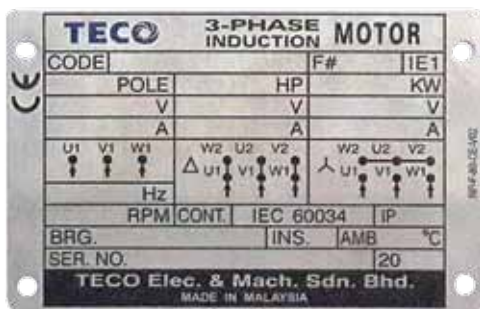
Lubrication

Both our sealed and open type bearing are grease lubricated.

Construction

Frame: High Grade Cast Iron
 End Bracket: High Grade Cast Iron
 External Fan: Polypropylene
 Fan Cover: Pressed Steel
 Shaft: Carbon Steel
 Lead: 6 Leads
 Iron Core: High Grade, Insulated, Cold Rolled,

Electro Magnetic Steel Plate



Terminal Box

Stock motor are fitted with pressed steel T-Box for Frame 80M to 180M and Cast Iron T-Box for frame 200L to 355M. T-Box are designed for provision of rotation by 90° to every direction that enable cable entry from 4 directions.

Finishing

Stock motor are completed with Phenolic Rust Proof Base Plus Lacquer Surface Finished Painting as standard:
 Gray Color (Munsell 7.5B 3.5/0.5) (IE 1)
 Blue Color (Munsell 5PB 3/8) (IE 2)
 Green Color (Munsell 7.5GY 4.5/3.5) (IE 3)
 Any other colour finishing, please refer to TECO.

Standards

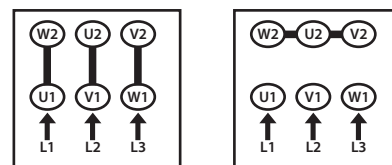
IEC 60072-1 Dimensions and output series for rotating electrical machines - Part 1: Frame numbers 56 to 400 and flange numbers 55 to 1080.

Connection Diagram

Direct-On-Line

For motor rating 2.2kW and below:
 Low Voltage: 220~240V
 High Voltage: 380~415V

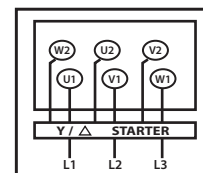
For motor rating 3kW and above:
 Low Voltage: 380~415V



Star-Delta

Connect U1,V1,W1,U2,V2 & W2 to Star-Delta starter panel.

Power Supply Voltage(L1,L2,L3) to be connected to voltage indicated in Delta configuration column on the motor nameplate.



Special Enhancement

The following enhancement are also available. Please refer to TECO.

- IP 56
- Class 'H' Insulation
- Inverter Duty Wire
- Special Paint Finishes
- Special Shaft Extensions
- Dual Speed
- Smoke Spill Duty
- Stainless Steel Hardware
- Conversion of sealed bearing to open bearing

Optional Accessories

Thermal Protection Accessories

PTC Thermistors
 Resistance Temperature Detectors (RTD)
 Thermostat

Moisture Protection Accessories

Space Heater

IE 1 Performance Data (2 Pole)

Motor Type AESV1S / AESU1S / AESV1S-LA

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT				TORQUE					APPROX. WEIGHT kg
kW	HP			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)			LRC (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL-UP %FLT	BREAK-DOWN %FLT	ROTOR GD ² kg-m ²	
										VOLTAGE									
								380	400	415	400V								
0.75	1	2800	80M	72.1	71.6	68.8	88.0	81.0	68.0	1.80	1.71	1.64	11	0.261	235	210	255	0.005	16.5
1.1	1.5	2810	80M	75.0	75.9	74.5	87.5	81.0	70.0	2.55	2.42	2.33	17	0.381	265	235	290	0.006	18.0
1.5	2	2850	90S	77.2	77.2	75.3	88.0	82.0	70.5	3.35	3.19	3.07	21	0.512	225	210	290	0.010	23.0
2.2	3	2855	90L	79.7	80.7	79.7	89.0	84.0	74.0	4.71	4.48	4.31	33	0.750	240	230	310	0.013	27.0
3	4	2890	100L	81.5	82.0	80.5	89.0	85.0	76.0	6.28	5.97	5.75	50	1.010	215	195	280	0.022	37.5
3.7	5	2880	112M	82.6	83.6	81.6	90.0	87.0	79.0	7.56	7.18	6.92	62	1.250	240	180	320	0.042	47.5
4	5.5	2910	112M	83.1	84.1	83.1	90.5	87.5	79.5	8.08	7.68	7.40	67	1.337	200	170	325	0.042	47.5
5.5	7.5	2900	132S	84.7	83.7	81.3	88.0	85.5	79.0	11.2	10.7	10.3	69	1.845	170	150	235	0.057	61.0
7.5	10	2895	132S	86.0	86.0	84.5	82.0	80.0	76.0	16.2	15.4	14.8	91	2.521	170	145	225	0.063	65.0
11	15	2945	160M	87.6	87.6	85.6	89.0	85.5	77.5	21.4	20.4	19.6	176	3.634	225	140	280	0.154	105
15	20	2940	160M	88.7	89.2	88.2	91.0	90.0	85.5	28.2	26.8	25.9	210	4.964	220	135	260	0.192	120
18.5	25	2940	160L	89.3	89.8	89.3	92.0	90.0	85.5	34.2	32.5	31.3	291	6.123	270	190	310	0.237	135
22	30	2945	180M	89.9	89.9	88.9	90.0	88.0	83.5	41.3	39.2	37.8	314	7.269	220	175	280	0.283	175
30	40	2955	200L	90.7	90.2	87.7	84.5	79.0	71.0	59.5	56.5	54.5	441	9.878	185	140	275	0.521	240
37	50	2955	200L	91.2	91.2	90.2	88.5	87.0	81.0	69.6	66.2	63.8	527	12.18	195	135	270	0.633	270
45	60	2955	225MA	91.7	91.2	89.7	91.5	90.0	86.0	81.5	77.4	74.6	600	14.82	150	130	260	1.074	315
55	75	2970	250MA	92.1	92.1	91.1	91.0	90.0	85.5	99.7	94.7	91.3	697	18.02	135	115	295	1.211	405
75	100	2970	280SA	92.7	92.7	91.4	87.0	85.0	80.0	141	134	129	966	24.57	130	120	260	1.759	515
90	125	2965	280MA	93.0	92.8	91.9	87.0	84.0	76.5	169	161	155	1157	29.53	140	120	290	2.023	552
110	150	2970	315SA	93.5	93.5	92.8	89.0	87.0	81.0	201	191	184	1330	36.09	135	115	230	3.600	800
132	175	2970	315MA	93.7	93.7	93.0	89.5	88.5	83.5	239	227	219	1570	43.31	145	120	230	4.400	900
160	215	2970	315LA	94.0	94.0	93.2	91.5	90.5	86.0	283	269	259	2050	52.50	210	175	240	5.200	980
200	270	2970	315LA	94.0	94.0	93.4	92.0	91.0	87.5	351	334	322	2500	65.62	210	175	240	6.400	1100
220	300	2975	355MA	94.5	94.0	93.0	90.0	88.0	81.0	393	373	360	2840	72.06	140	115	280	10.40	1550
250	335	2978	355MA	94.6	94.2	93.3	91.0	89.0	83.5	441	419	404	3180	81.81	150	125	280	12.00	1650
315	420	2978	355LA	94.8	94.4	93.5	91.5	90.0	86.0	552	524	505	3900	103.1	150	125	280	14.00	1900
375	500	2980	355CA	94.8	94.8	93.7	92.0	90.5	86.5	653	621	598	4500	122.6	150	125	280	12.40	2340

Note:

1. The above are typical values based on test according to IEC 60045-2-1:2007. (DY)
2. Tolerance according to IEC 60034-1.
3. Breakdown & Locked rotor torques are show as average expected voltages
4. Efficiency, power factor, speed and torque are the same for other voltages.
Current values vary inversely with voltage
5. Noise according to IEC 60034-9.
6. Data subject to change without prior notice.

IE 1 Performance Data (4 Pole)

Motor Type AESV1S / AESU1S / AESV1S-LA

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT				TORQUE					APPROX. WEIGHT kg
kW	HP			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)			LRC (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL-UP %FLT	BREAK-DOWN %FLT	ROTOR GD ² kg-m ²	
										380	400	415							
0.55	0.75	1425	80M	70.0	68.9	62.1	73.0	62.5	50.0	1.64	1.55	1.50	9.0	0.376	220	200	265	0.007	15.0
0.75	1	1425	80M	72.1	71.6	68.3	77.0	66.0	52.5	2.05	1.95	1.88	12	0.512	240	215	275	0.009	16.5
1.1	1.5	1425	90S	75.0	75.0	68.1	79.0	68.5	55.5	2.82	2.68	2.58	17	0.751	220	165	235	0.014	22.0
1.5	2	1425	90L	77.2	77.2	74.2	81.0	72.5	59.0	3.64	3.46	3.34	23	1.024	230	175	240	0.017	24.0
2.2	3	1435	100L	79.7	79.7	77.2	79.5	71.0	57.0	5.28	5.01	4.83	39	1.492	210	185	300	0.033	32.0
3	4	1445	100L	81.5	80.9	77.5	85.0	76.0	63.0	6.58	6.25	6.02	52	2.020	250	180	300	0.046	37.5
3.7	5	1445	112M	82.6	82.6	80.6	82.0	74.5	64.0	8.30	7.88	7.60	62	2.491	220	180	290	0.059	44.5
4	5.5	1445	112M	83.1	83.6	81.7	82.0	76.0	64.0	8.92	8.47	8.17	60	2.693	190	180	260	0.065	47.5
5.5	7.5	1465	132S	84.7	84.7	83.2	82.5	75.5	63.5	12.0	11.4	11.0	86	3.653	235	190	315	0.103	64.0
7.5	10	1460	132M	86.0	86.5	85.0	86.0	81.5	71.5	15.4	14.6	14.1	109	4.998	215	175	295	0.133	78.0
11	15	1465	160M	87.6	88.1	87.1	86.5	82.5	74.5	22.1	21.0	20.2	155	7.306	200	150	255	0.271	105
15	20	1465	160L	88.7	88.7	87.2	86.0	80.5	71.0	29.9	28.4	27.4	217	9.962	215	155	265	0.396	130
18.5	25	1475	180M	89.3	89.3	88.8	86.0	83.5	76.5	36.6	34.8	33.5	220	12.20	165	125	220	0.611	175
22	30	1475	180L	89.9	89.9	88.9	84.0	80.5	72.5	44.3	42.0	40.5	299	14.51	195	150	230	0.712	190
30	40	1475	200L	90.7	91.2	90.7	86.5	83.5	76.5	58.1	55.2	53.2	444	19.79	240	185	275	1.220	255
37	50	1480	225SC	91.2	90.7	89.7	85.0	81.5	74.5	72.5	68.9	66.4	489	24.33	190	160	245	1.649	315
45	60	1475	225MC	91.7	92.2	91.2	85.5	83.0	76.5	87.2	82.8	79.8	523	29.68	175	145	220	1.731	330
55	75	1485	250MC	92.1	92.1	91.1	87.0	85.0	79.5	104	99.1	95.5	714	36.04	220	110	230	2.755	450
75	100	1480	280SB	92.7	92.7	92.2	84.5	81.0	73.5	145	138	133	948	49.31	175	165	275	4.224	566
90	125	1480	280MB	93.0	93.2	92.5	85.5	82.5	72.5	172	163	157	1164	59.17	175	165	270	4.943	624
110	150	1480	315SB	93.5	93.5	92.9	86.5	83.5	75.5	207	196	189	1330	72.43	190	155	250	7.200	800
132	175	1480	315MB	93.7	93.7	93.2	86.5	83.0	74.5	247	235	227	1570	86.91	200	165	250	8.400	900
160	215	1482	315LB	94.0	94.0	93.4	87.5	84.5	77.0	296	281	271	2000	105.2	200	165	250	10.00	990
200	270	1482	315LB	94.0	94.1	93.6	88.5	86.0	79.0	365	347	334	2500	131.5	210	175	250	13.20	1160
220	300	1486	355MB	94.5	94.3	93.4	87.8	85.0	78.4	403	383	369	2750	144.3	180	160	250	20.40	1550
250	335	1486	355MB	94.6	94.4	93.8	88.0	85.5	78.0	456	433	418	3150	163.9	190	155	270	23.20	1650
315	420	1486	355LB	94.9	94.8	94.3	88.8	86.3	79.5	568	540	520	3900	206.6	200	165	270	28.80	1900
375	500	1486	355CB	94.9	94.9	94.4	89.5	88.0	82.0	671	637	614	4500	245.9	200	165	270	34.80	2340

Note:

1. The above are typical values based on test according to IEC 60045-2-1:2007. (DY)
2. Tolerance according to IEC 60034-1.
3. Breakdown & Locked rotor torques are show as average expected voltages
4. Efficiency, power factor, speed and torque are the same for other voltages.
Current values vary inversely with voltage
5. Noise according to IEC 60034-9.
6. Data subject to change without prior notice.

IE 1 Performance Data (6 Pole)

Motor Type AESV1S / AESU1S / AESV1S-LA

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT				TORQUE					APPROX. WEIGHT kg
kW	HP			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)			LRC (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL-UP %FLT	BREAK-DOWN %FLT	ROTOR GD ² kg-m ²	
										380	400	415							
0.55	0.75	915	80M	67.5	67.0	62.0	72.0	60.5	48.0	1.72	1.63	1.57	8.0	0.585	220	210	225	0.012	18.0
0.75	1	935	90S	70.0	67.2	62.9	71.0	60.5	48.0	2.29	2.18	2.10	11	0.780	190	175	285	0.017	24.0
1.1	1.5	935	90L	72.9	71.0	66.1	68.5	57.0	44.5	3.35	3.18	3.06	17	1.145	220	205	260	0.023	27.5
1.5	2	935	100L	75.2	75.2	69.8	75.0	65.0	52.0	4.04	3.84	3.70	21	1.561	200	170	235	0.035	31.5
2.2	3	950	112M	77.7	77.7	74.8	73.5	63.0	50.0	5.85	5.56	5.36	34	2.253	205	195	270	0.058	42.5
3	4	965	132S	79.7	79.7	77.3	72.5	63.5	50.0	7.89	7.49	7.22	45	3.025	195	185	270	0.097	57.5
3.7	5	960	132M	80.9	80.9	75.9	75.5	65.5	53.5	9.20	8.74	8.43	61	3.750	180	160	230	0.114	62.5
4	5.5	960	132M	81.4	81.9	80.4	77.5	69.5	56.5	9.63	9.15	8.82	59	4.054	190	175	275	0.131	69.0
5.5	7.5	965	132M	83.1	82.6	81.1	72.0	63.5	50.0	14.0	13.3	12.8	92	5.546	210	160	280	0.171	77.5
7.5	10	960	160M	84.7	83.7	81.3	81.5	76.5	66.0	16.5	15.7	15.1	94	7.602	210	185	255	0.363	110
11	15	965	160L	86.4	86.9	85.9	81.5	76.0	65.0	23.7	22.5	21.7	155	11.09	245	230	270	0.558	140
15	20	970	180L	87.7	88.2	87.7	82.0	79.5	73.5	31.7	30.1	29.0	178	15.05	195	140	210	1.342	195
18.5	25	975	200L	88.6	88.6	87.6	82.5	79.0	70.5	38.5	36.5	35.2	223	18.46	200	185	220	1.604	250
22	30	975	200L	89.2	89.7	89.7	82.0	78.5	69.5	45.7	43.4	41.8	296	21.95	210	180	220	1.912	270
30	40	975	225MC	90.2	90.2	87.2	86.0	83.5	76.0	58.8	55.8	53.8	344	29.94	175	155	210	2.442	325
37	50	975	250MC	90.8	90.8	89.8	85.5	81.0	73.0	72.4	68.8	66.3	451	36.92	185	180	220	3.373	405
45	60	980	280SB	91.4	91.5	90.7	82.5	79.5	71.0	90.7	86.1	83.0	597	44.68	150	140	230	4.400	500
55	75	980	280MB	91.9	92.0	91.3	83.5	80.5	72.0	109	103	99.7	680	54.61	150	140	235	5.290	557
75	100	985	315SB	92.6	92.7	92.1	84.5	81.5	72.5	146	138	133	840	74.20	160	130	230	10.40	800
90	125	985	315MB	93.0	93.0	92.5	84.5	81.5	72.0	174	165	159	1070	89.04	175	145	230	12.80	880
110	150	988	315LB	93.5	93.5	93.0	84.5	81.5	72.5	212	201	194	1295	108.5	175	145	230	15.60	990
132	175	988	315LB	93.7	93.7	93.2	84.0	80.0	71.0	255	242	233	1530	130.2	210	175	240	17.20	1120
160	215	990	355MB	94.0	94.0	93.4	86.0	83.0	75.0	301	286	275	2054	157.5	180	160	300	28.00	1550
200	270	990	355MB	94.0	94.0	93.6	86.0	83.0	75.0	376	357	344	2450	196.9	200	165	240	33.60	1750
220	300	990	355MB	94.5	94.5	94.0	86.0	83.5	76.0	411	391	377	2700	216.6	200	165	240	37.60	1800
250	335	988	355LB	94.6	94.6	94.2	86.0	83.0	75.5	467	444	428	3050	246.6	200	165	250	41.20	1950
315	420	990	355CB	94.8	94.8	94.4	87.5	85.5	79.0	577	548	528	3830	310.1	210	175	240	56.00	2600

Note:

1. The above are typical values based on test according to IEC 60045-2-1:2007. (DY)
2. Tolerance according to IEC 60034-1.
3. Breakdown & Locked rotor torques are show as average expected voltages
4. Efficiency, power factor, speed and torque are the same for other voltages.
Current values vary inversely with voltage
5. Noise according to IEC 60034-9.
6. Data subject to change without prior notice.

IE 1 Performance Data (8 Pole)

Motor Type AESV1S / AESU1S / AESV1S-LA

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT				TORQUE					APPROX. WEIGHT kg
kW	HP			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)			LRC (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL-UP %FLT	BREAK-DOWN %FLT	ROTOR GD ² kg-m ²	
										VOLTAGE									
								380	400	415	400V								
0.18	0.25	710	80M	50.0	44.5	36.0	46.5	40.0	34.0	1.18	1.12	1.08	4.7	0.247	360	350	370	0.010	17.0
0.37	0.5	705	90S	59.5	56.7	50.5	61.5	52.0	41.5	1.54	1.46	1.41	5.0	0.511	180	170	240	0.017	24.0
0.55	0.75	700	90L	63.6	61.7	55.7	61.5	53.0	42.0	2.14	2.03	1.96	7.3	0.765	180	150	250	0.022	26.0
0.75	1	700	100L	66.7	65.2	59.8	66.0	56.5	45.5	2.59	2.46	2.37	9.4	1.043	180	160	210	0.033	29.0
1.1	1.5	690	100L	70.2	69.7	65.4	67.5	59.0	47.0	3.53	3.35	3.23	15	1.551	200	175	210	0.046	34.5
1.5	2	705	112M	72.8	72.3	68.5	67.0	59.0	46.5	4.67	4.44	4.28	20	2.070	160	135	215	0.065	41.0
2.2	3	700	132S	75.9	75.9	73.6	72.5	64.0	51.0	6.07	5.77	5.56	26	3.058	190	175	225	0.115	54.0
3	4	700	132M	78.1	78.6	76.4	73.0	65.0	52.0	7.99	7.59	7.32	34	4.170	190	175	220	0.138	60.0
3.7	5	720	160M	79.4	79.4	77.4	71.0	62.5	49.0	9.97	9.47	9.13	59	5.000	200	180	270	0.265	83.0
4	5.5	720	160M	80.0	80.3	78.2	71.5	64.0	51.5	10.6	10.1	9.73	59	5.406	200	180	270	0.265	83.0
5.5	7.5	720	160M	82.0	82.4	80.5	72.0	64.5	52.5	14.2	13.4	13.0	81	7.433	200	180	270	0.374	98.0
7.5	10	720	160L	83.8	84.3	82.7	73.5	66.5	54.5	18.5	17.6	16.9	107	10.14	200	190	270	0.530	115
11	15	725	180L	85.8	86.3	85.3	75.0	68.0	55.5	26.0	24.7	23.8	138	14.76	190	170	215	0.990	156
15	20	725	200L	87.2	87.8	86.8	76.5	70.5	59.0	34.2	32.5	31.3	164	20.13	190	170	205	1.418	224
18.5	25	730	225SC	88.1	88.1	87.1	78.0	72.0	62.0	40.9	38.9	37.5	236	24.66	185	150	200	2.093	288
22	30	730	225MC	88.8	88.3	86.8	77.0	70.5	59.0	48.9	46.4	44.8	281	29.32	200	175	210	2.442	316
30	40	730	250MC	89.9	89.4	87.9	78.5	70.5	60.0	64.6	61.4	59.1	378	39.99	190	160	210	3.475	389
37	50	735	280SB	90.6	91.0	90.4	77.5	78.5	75.0	80.1	76.1	73.3	495	48.98	130	125	210	5.553	553
45	60	735	280MB	91.2	91.6	91.1	78.0	79.2	76.0	96.1	91.3	88.0	595	59.57	135	125	210	6.760	624
55	75	735	315SB	92.5	92.5	91.8	79.5	75.0	64.0	114	108	104	630	72.92	165	135	220	15.20	840
75	100	735	315MB	92.7	92.7	92.0	80.5	76.0	66.0	153	145	140	820	99.44	160	130	220	19.60	960
90	125	735	315LB	93.0	93.0	92.3	81.0	77.0	67.5	182	172	166	1000	119.3	160	130	220	23.60	1060
110	150	735	315LB	93.5	93.5	92.9	81.0	78.0	68.5	221	210	202	1250	145.8	160	130	220	30.40	1160
132	175	740	355MB	93.9	93.9	93.1	82.5	78.5	69.0	259	246	237	1950	173.8	120	100	240	34.00	1600
160	215	740	355MB	94.3	94.3	93.8	82.5	78.5	69.0	312	297	286	1950	210.7	130	110	240	39.60	1750
200	270	740	355LB	94.4	94.4	93.8	83.0	79.0	69.5	388	368	355	2550	263.4	130	110	240	52.00	2000
220	300	740	355LB	94.6	94.6	94.1	83.5	80.0	71.5	423	402	387	2700	289.7	125	105	240	56.40	2100
250	335	740	355CB	94.8	94.8	94.3	83.5	80.0	71.0	480	456	439	3200	329.2	135	110	240	67.60	2400

Note:

1. The above are typical values based on test according to IEC 60045-2-1:2007. (DY)
2. Tolerance according to IEC 60034-1.
3. Breakdown & Locked rotor torques are show as average expected voltages
4. Efficiency, power factor, speed and torque are the same for other voltages.
Current values vary inversely with voltage
5. Noise according to IEC 60034-9.
6. 8 pole : Efficiency per TECO performance standard (Comply to min. requirement of IE1 efficiency).
7. Data subject to change without prior notice.

Dimensions

B3 Outline Dimension

Foot Mounted(B3)
Motor Type: AESV1S, AESV2S, AESV3S
Frame Size: 80M to 225M

B3

FIGURE 1

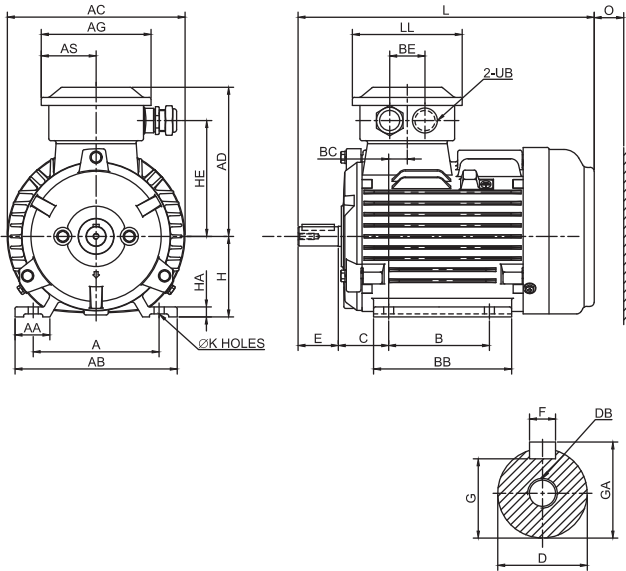
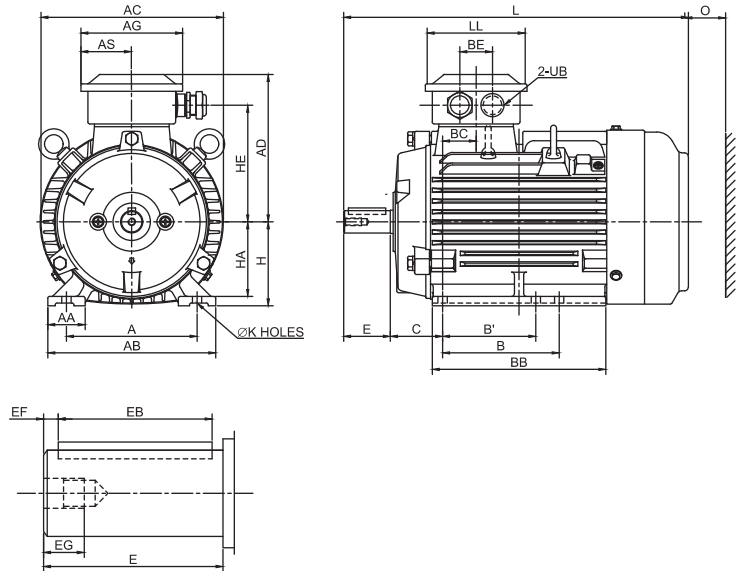


FIGURE 2



Output (kW)				FRAME SIZE	FIG. NO	A	AA	AB	AC	AD	AG	AS	B	B'	BA	BA'	BB	BC	BE	C	
2P	4P	6P	8P																		
0.75	0.55	0.55	0.18	80M	1	125	34.5	161	177	148	109	54.5	100	---	---	---	137	18.5	35	50	
1.1	0.75	0.55	0.37	90S		140	40	180	197	158	109	54.5	100	---	---	---	161	36	35	56	
2.2	1.5	1.1	0.55	90L		140	40	180	197	158	109	54.5	125	100	---	---	---	186	36	35	56
3	2.2	1.5	0.75	100L		160	40	200	219	185.5	125	62.5	140	---	---	---	181	21	40	63	
3.7	3.7	2.2	1.5	112M		190	45	235	235	193	125	62.5	140	---	---	---	186	28	40	70	
4	4	2.2	1.5	132S		216	57	263	273	210.5	125	62.5	140	---	---	---	184	6	40	89	
---	7.5	3	2.2	132M		216	57	263	273	210.5	125	62.5	178	140	---	---	222	6	40	89	
---	4	5.5	3	160M	3	254	60	300	317	240.5	166	83	210	---	57.5	57.5	256	47	60	108	
11	11	7.5	3.7	160L		254	60	300	317	240.5	166	83	254	210	57.5	101.5	300	47	60	108	
15	15	11	4	180M		279	65	330	354	266.5	166	83	241	---	62	62	292	39	60	121	
---	18.5	---	5.5	180L		279	65	330	354	266.5	166	83	279	241	62	100	330	39	60	121	
---	22	15	11	200L	4	318	70	378	398	332	231	110.5	305	---	76	76	365	60	106	133	
30	30	18.5	15	225SC		356	75	431	449	358	231	110.5	286	---	90	90	350	37.5	106	149	
---	37	---	18.5	225MA		356	75	431	449	358	231	110.5	311	286	90	115	375	37.5	106	149	
45	---	---	---	225MC		356	75	431	449	358	231	110.5	311	286	90	115	375	37.5	106	149	
---	45	30	22	225MC	356	75	431	449	358	231	110.5	311	286	90	115	375	37.5	106	149		

Note:

- All dimensions are in mm.
- Pre-packed shielded ball bearing for frame size 80M to 225M
- Dual Eye-bolts provided for frame 90S to 355C
- Data are subject to change without prior notice

B3

B3 Outline Dimension

Foot Mounted(B3)

Motor Type: AESV1S, AESV2S, AESV3S

Frame Size: 80M to 225M

FIGURE 3

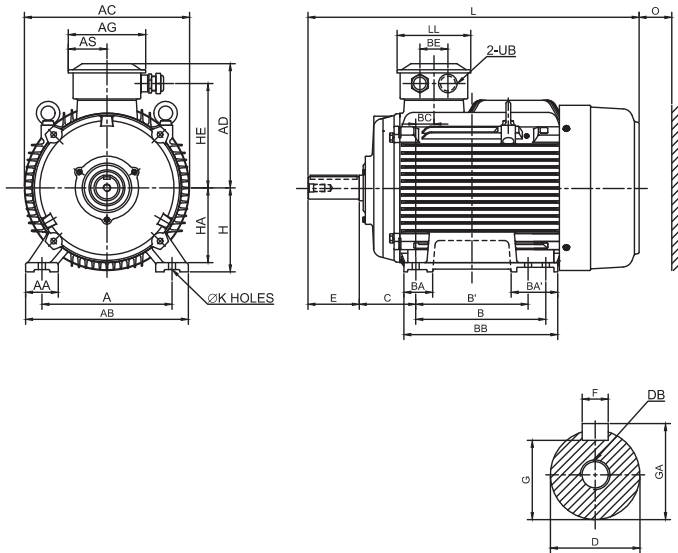
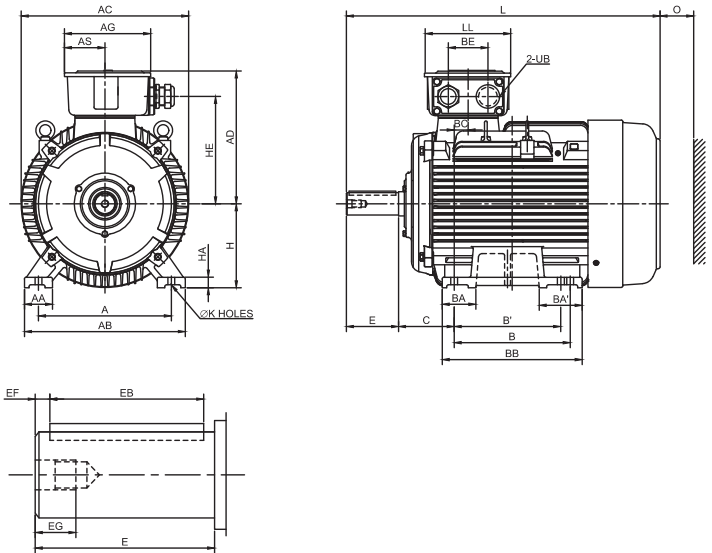


FIGURE 4



FRAME SIZE	H	HA	HE	K	L	LL	O	UB	SHAFT EXTENSION								BEARING		
									D	E	EB	EF	EG	F	G	GA	DB	DRIVE END	OPPOSITE DRIVE END
80M	80	10	115	10	293	109	40	M20x1.5	19	40	32	4	16	6	15.5	21.5	M6	6204ZZC3	6204ZZC3
90S	90	10	125	10	344.5	109	40	M20x1.5	24	50	40	5	19	8	20	27	M8	6205ZZC3	6205ZZC3
90L	90	10	125	10	369.5	109	40	M20x1.5	24	50	40	5	19	8	20	27	M8		
100L	100	12	146	12	392	125	50	M25X1.5	28	60	50	5	22	8	24	31	M10	6206ZZC3	6206ZZC3
112M	112	13	153.5	12	412.5	125	50	M25X1.5	28	60	50	5	22	8	24	31	M10	6306ZZC3	6306ZZC3
132S	132	16	171	12	466	125	50	M25x1.5	38	80	70	5	28	10	33	41	M12	6308ZZC3	6306ZZC3
132M	132	16	171	12	504	125	50	M25x1.5	38	80	70	5	28	10	33	41	M12		
160M	160	18	198	14.5	608	158	60	M32x1.5	42	110	100	5	36	12	37	45	M16	6309ZZC3	6307ZZC3
160L	160	18	198	14.5	652	158	60	M32x1.5	42	110	100	5	36	12	37	45	M16		
180M	180	20	224	14.5	672	158	70	M32x1.5	48	110	100	5	36	14	42.5	51.5	M16	6311ZZC3	6310ZZC3
180L	180	20	224	14.5	710	158	70	M32x1.5	48	110	100	5	36	14	42.5	51.5	M16		
200L	200	24	262	18.5	770	231	80	M50x1.5	55	110	100	5	42	16	49	59	M20	6312ZZC3	6212ZZC3
225SC	225	28	288	18.5	816	231	90	M50x1.5	60	140	125	7.5	42	18	53	64	M20	6313ZZC3	6213ZZC3
225MA	225	28	288	18.5	811	231	90	M50x1.5	55	110	100	5	42	16	49	59	M20	6312ZZC3	6212ZZC3
225MC	225	28	288	18.5	841	231	90	M50x1.5	60	140	125	7.5	42	18	53	64	M20	6313ZZC3	6213ZZC3

Note:

1. All dimensions are in mm.
2. Tolerance of shaft end diameter D: 1) $\varnothing 19\sim\varnothing 28:j6$, 2) $\varnothing 38\sim\varnothing 48:k6$, 3) $\varnothing 55\sim\varnothing 65:m6$
3. Tolerance of shaft center high H: +0, -0.5
4. Data are subject to change without prior notice

Dimensions

B3 Outline Dimension

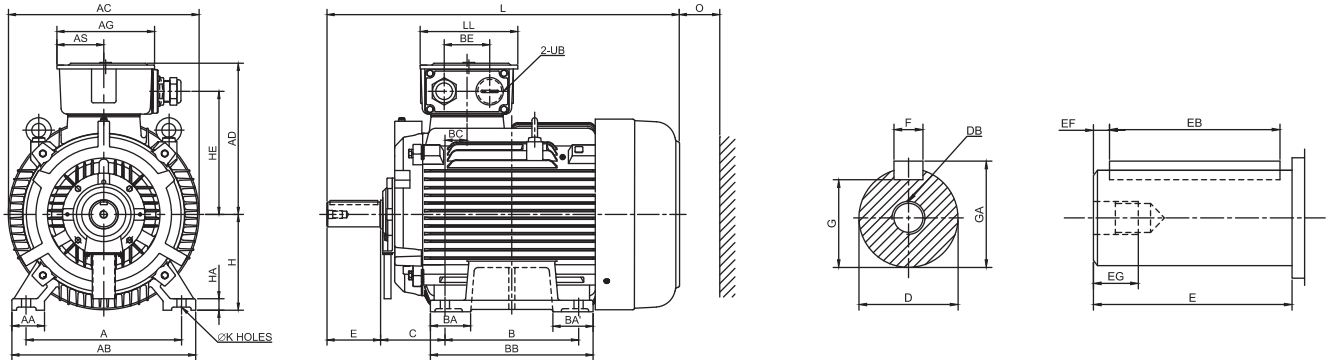
Foot Mounted(B3)

Motor Type: AESV1S, AESV2S, AESV3S

Frame Size: 250 M to 355C

B3

FIGURE 5



Output (kW)				FRAME SIZE	FIG. NO	A	AA	AB	AC	AD	AG	AS	B	B'	BA	BA'	BB	BC	BE	C
2P	4P	6P	8P																	
55	---	---	---	250MA	5	406	85	480	499	400	255	122.5	349	---	105	105	425	57.5	119	168
---	55	37	30	250MC		406	85	480	499	400	255	122.5	349	---	105	105	425	57.5	119	168
75	---	---	---	280SA	6	457	110	560	546	433	255	122.5	368	---	110	110	445	48	119	190
---	75	45	37	280SB		457	110	560	546	433	255	122.5	368	---	110	110	445	48	119	190
90	---	---	---	280MA		457	110	560	546	433	255	122.5	419	---	130	137	495	48	119	190
---	90	55	45	280MB		457	110	560	546	433	255	122.5	419	---	130	137	495	48	119	190
110	---	---	---	315SA		508	115	615	620	527.5	336	163	406	---	210	210	620	53	140	216
---	110	75	55	315SB		508	115	615	620	527.5	336	163	406	---	210	210	620	53	140	216
132 (160)	---	---	---	315MA		508	115	615	620	527.5	336	163	457	---	240	240	670	53	140	216
---	132 (160)	90 (110)	75	315MB		508	115	615	620	527.5	336	163	457	---	240	240	670	53	140	216
160 200	---	---	---	315LA		508	130	630	620	527.5	336	163	508	---	230	230	770	53	140	216
---	160 200	110 132 (160)	90 110	315LB		508	130	630	620	527.5	336	163	508	---	230	230	770	53	140	216
(220) (250)	---	---	---	315CA	508	150	650	682	590	412	189	710	---	335	335	900	68	180	216	
---	(220) (250)	(200) (220)	(132) (160)	315CB	508	150	650	682	590	412	189	710	---	335	335	900	68	180	216	
(315)	---	---	---	315DA	508	150	650	682	590	412	189	900	---	180	250	1060	68	180	216	
---	(315)	(250)	(200) (220)	315DB	508	150	650	682	590	412	189	900	---	180	250	1060	68	180	216	
220 250	---	---	---	355MA	610	150	750	810	645	412	189	---	560	330	330	910	48	180	254	
---	220 250	160 200 220	132 160	355MB	610	150	750	810	645	412	189	---	560	330	330	910	48	180	254	
315	---	---	---	355LA	610	150	750	810	645	412	189	630	---	330	330	910	48	180	254	
---	315	250	200 220	355LB	610	150	750	810	645	412	189	630	---	330	330	910	48	180	254	
375	---	---	---	355CA	610	150	750	810	645	412	189	710	---	390	390	1100	48	180	254	
---	375	315	250	355CB	610	150	750	810	645	412	189	710	---	390	390	1100	48	180	254	

Note:

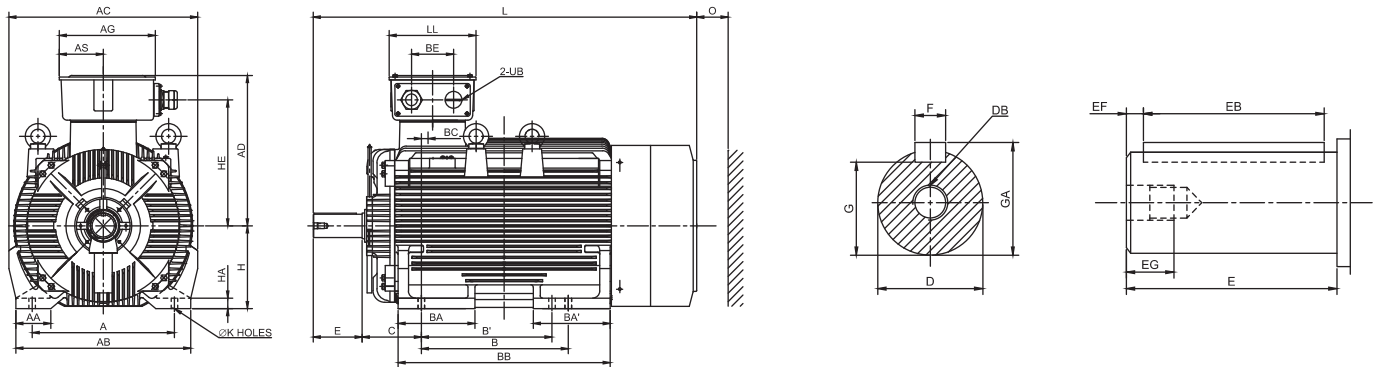
1. All dimensions are in mm.
2. Open type ball bearing for frame size 250M to 355C
3. Dual Eye-bolts provided for frame 90S to 355C
4. Output in () is for optional frame size upon request
5. Data are subject to change without prior notice

B3

B3 Outline Dimension

Foot Mounted(B3)
Motor Type: AESV1S, AESV2S, AESV3S
Frame Size: 250M to 355C

FIGURE 6



FRAME SIZE	H	HA	HE	K	L	LL	O	UB	SHAFT EXTENSION								BEARING		
									D	E	EB	EF	EG	F	G	GA	DB	DRIVE END	OPPOSITE DRIVE END
250MA	250	30	322	24	921	255	105	M63x1.5	60	140	125	7.5	42	18	53	64	M20	6313C3	6313C3
250MC	250	30	322	24	921	255	105	M63x1.5	65	140	125	7.5	42	18	58	69	M20	6315C3	6313C3
280SA	280	35	354.5	24	1037.5	255	140	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6314C3	6314C3
280SB	280	35	354.5	24	1037.5	255	140	M63X1.5	75	140	125	7.5	40	20	67.5	79.5	M20	6318C3	6316C3
280MA	280	35	354.5	24	1087.5	255	140	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6314C3	6314C3
280MB	280	35	354.5	24	1087.5	255	140	M63X1.5	75	140	125	7.5	40	20	67.5	79.5	M20	6318C3	6316C3
315SA	315	35	430	28	1216	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	6314C3
315SB	315	35	430	28	1246	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	6316C3
315MA	315	35	430	28	1266	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	6314C3
315MB	315	35	430	28	1296	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	6316C3
315LA	315	45	430	28	1366	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	6314C3
315LB	315	45	430	28	1396	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	6316C3
315CA	315	45	485	28	1484	372	200	M72X2	75	140	125	7.5	40	20	67.5	79.5	M20	6316C3	6316C3
315CB	315	45	485	28	1514	372	200	M72X2	95	170	160	5	48	25	86	100	M24	6322C3	6322C3
315DA	315	45	485	28	1674	372	200	M72X2	75	140	125	7.5	40	20	67.5	79.5	M20	6316C3	6316C3
315DB	315	45	485	28	1704	372	200	M72X2	95	170	160	5	48	25	86	100	M24	6322C3	6322C3
355MA	355	45	540	28	1605	372	230	M72X2	80	170	140	5	40	22	71	85	M20	6318C3	6318C3
355MB	355	45	540	28	1645	372	230	M72X2	100	210	180	5	48	28	90	106	M24	6322C3	6322C3
355LA	355	45	540	28	1605	372	230	M72X2	80	170	140	5	40	22	71	85	M20	6318C3	6318C3
355LB	355	45	540	28	1645	372	230	M72X2	100	210	180	5	48	28	90	106	M24	6322C3	6322C3
355CA	355	45	540	28	1795	372	230	M72X2	80	170	140	5	40	22	71	85	M20	6318C3	6318C3
355CB	355	45	540	28	1835	372	230	M72X2	100	210	180	5	48	28	90	106	M24	6322C3	6322C3

Note:

1. All dimensions are in mm.
2. Tolerance of shaft end diameter D: 1) Ø55~Ø100:m6
3. Tolerance of shaft center high H: 1) 80~250: +0, -0.5, 2) 280~355: +0, -1
4. Data are subject to change without prior notice

Dimensions

V1 Outline Dimension

Flange Mounted(V1)

Motor Type: AESU1S, AESU2S, AESU3S

Frame Size: 80M to 225M

V1

FIGURE 1

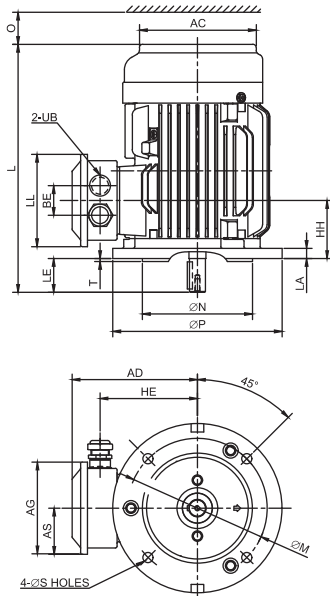
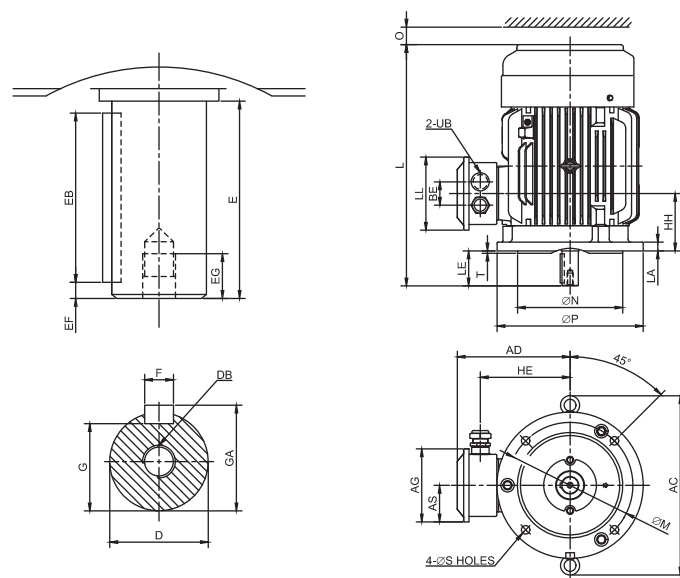


FIGURE 2



Output (kW)				FRAME SIZE	FIG. NO	FLANGE DIMENSION							AC	AD	AG	AS	BE	HE
2P	4P	6P	8P			LA	LE	M	N	P	S	T						
0.75 1.1	0.55 0.75	0.55	0.18	80M	1	12	40	165	130	200	12	3.5	177	148	109	54.5	35	115
1.5	1.1	0.75	0.37	90S	2	12	50	165	130	200	12	3.5	271	158	109	54.5	35	125
2.2	1.5	1.1	0.55	90L		12	50	165	130	200	12	3.5	271	158	109	54.5	35	125
3	2.2 3	1.5	0.75 1.1	100L		16	60	215	180	250	14.5	4	288.5	185.5	125	62.5	40	146
3.7 4	3.7 4	2.2	1.5	112M		15	60	215	180	250	14.5	4	306.5	193	125	62.5	40	153.5
5.5 7.5	5.5	3	2.2	132S		16	80	265	230	300	14.5	4	360	210.5	125	62.5	40	171
---	7.5	3.7 4 5.5	3	132M		16	80	265	230	300	14.5	4	360	210.5	125	62.5	40	171
11 15	11	7.5	3.7 4 5.5	160M	3	15	110	300	250	350	18.5	5	427	240.5	166	83	60	198
18.5	15	11	7.5	160L		15	110	300	250	350	18.5	5	427	240.5	166	83	60	198
22	18.5	---	---	180M		15	110	300	250	350	18.5	5	476	266.5	166	83	60	224
---	22	15	11	180L		15	110	300	250	350	18.5	5	476	266.5	166	83	60	224
30 37	30	18.5 22	15	200L		17	110	350	300	400	18.5	5	524	332	231	110.5	106	262
---	37	---	18.5	225SC	4	20	140	400	350	450	18.5	5	574	358	231	110.5	106	288
45	---	---	---	225MA		20	110	400	350	450	18.5	5	574	358	231	110.5	106	288
---	45	30	22	225MC		20	140	400	350	450	18.5	5	574	358	231	110.5	106	288

Note:

1. All dimensions are in mm.
2. Tolerance of N: Ø130~Ø450: j6
3. Pre-packed shielded ball bearing for frame size 80M to 225M
4. Dual Eye-bolts provided for frame 90S to 355L
5. Data are subject to change without prior notice

V1 Outline Dimension

Flange Mounted(V1)

Motor Type: AESU1S, AESU2S, AESU3S

Frame Size: 80M to 225M

FIGURE 3

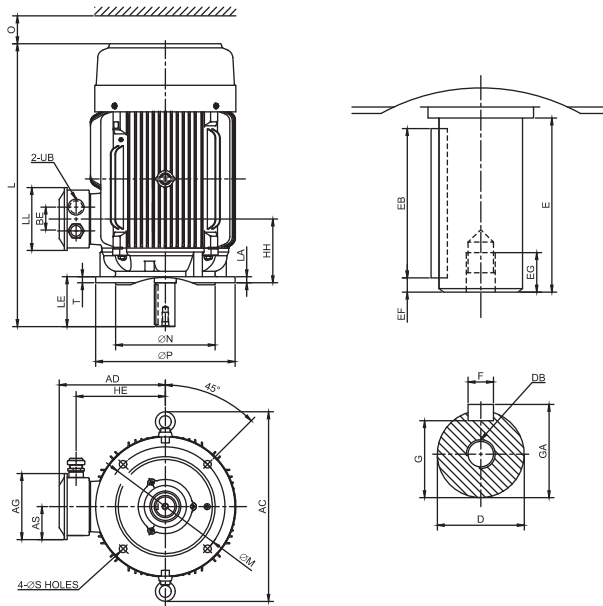
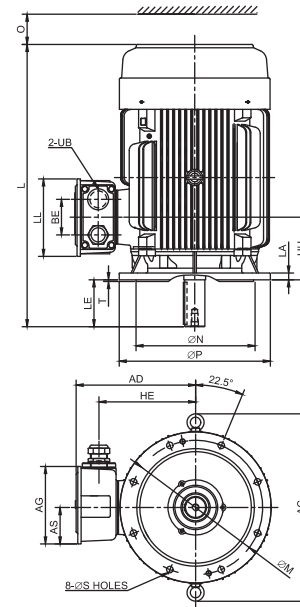


FIGURE 4



FRAME SIZE	HH	L	LL	O	UB	SHAFT EXTENSION									BEARING	
						D	E	EB	EF	EG	F	G	GA	DB	DRIVE END	OPPOSITE DRIVE END
80M	68.5	293	109	40	M20X1.5	19	40	32	4	16	6	15.5	21.5	M6	6204ZZC3	6204ZZC3
90S	92	344.5	109	40	M20X1.5	24	50	40	5	19	8	20	27	M8	6205ZZC3	6205ZZC3
90L	92	369.5	109	40	M20X1.5	24	50	40	5	19	8	20	27	M8		
100L	84	392	125	50	M25X1.5	28	60	50	5	22	8	24	31	M10	6206ZZC3	6206ZZC3
112M	98	412.5	125	50	M25X1.5	28	60	50	5	22	8	24	31	M10	6306ZZC3	6306ZZC3
132S	95	466	125	50	M25X1.5	38	80	70	5	28	10	33	41	M12	6308ZZC3	6306ZZC3
132M	95	504	125	50	M25X1.5	38	80	70	5	28	10	33	41	M12		
160M	155	608	158	60	M32x 1.5	42	110	100	5	36	12	37	45	M16	6309ZZC3	6307ZZC3
160L	155	652	158	60	M32x 1.5	42	110	100	5	36	12	37	45	M16		
180M	160	672	158	70	M32x 1.5	48	110	100	5	36	14	42.5	51.5	M16	6311ZZC3	6310ZZC3
180L	160	710	158	70	M32x 1.5	48	110	100	5	36	14	42.5	51.5	M16		
200L	193	770	231	80	M50x 1.5	55	110	100	5	42	16	49	59	M20	6312ZZC3	6212ZZC3
225SC	186.5	816	231	90	M50 x 1.5	60	140	125	7.5	42	18	53	64	M20	6313ZZC3	6213ZZC3
225MA	186.5	811	231	90	M50 x 1.5	55	110	100	5	42	16	49	59	M20	6312ZZC3	6212ZZC3
225MC	186.5	841	231	90	M50 x 1.5	60	140	125	7.5	42	18	53	64	M20	6313ZZC3	6213ZZC3

Note:

1. All dimensions are in mm.
2. Tolerance of shaft end diameter D: 1) $\varnothing 19\sim\varnothing 28$:j6, 2) $\varnothing 38\sim\varnothing 48$:k6, 3) $\varnothing 55\sim\varnothing 65$:m6
3. Data are subject to change without prior notice

Dimensions

V1 Outline Dimension

Flange Mounted(V1)

Motor Type: AESU1S, AESU2S, AESU3S

Frame Size: 250M to 355L

V1

FIGURE 5

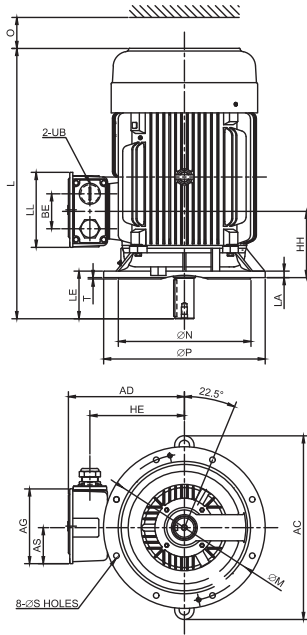
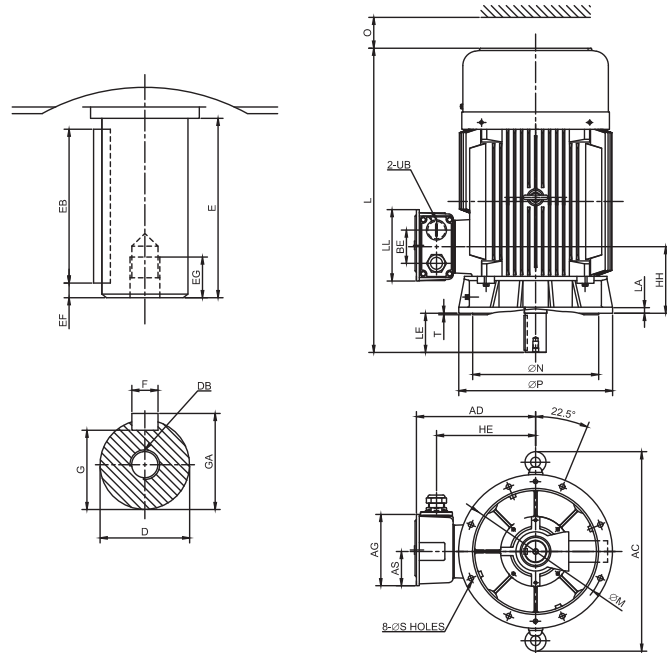


FIGURE 6



Output (kW)				FRAME SIZE	FIG. NO	FLANGE DIMENSION							AC	AD	AG	AS	BE	HE
2P	4P	6P	8P			LA	LE	M	N	P	S	T						
55	---	---	---	250MA	5	22	140	500	450	550	18.5	5	642	400	255	122.5	119	322
---	55	37	30	250MC		22	140	500	450	550	18.5	5	642	400	255	122.5	119	322
75	---	---	---	280SA	6	22	140	500	450	550	18.5	5	713	433	255	122.5	119	354.5
---	75	45	37	280SB		22	140	500	450	550	18.5	5	713	433	255	122.5	119	354.5
90	---	---	---	280MA		22	140	500	450	550	18.5	5	713	433	255	122.5	119	354.5
---	90	55	45	280MB		22	140	500	450	550	18.5	5	713	433	255	122.5	119	354.5
110	---	---	---	315SA	7	25	140	600	550	660	24	6	660	527	336	163	140	430
---	110	75	55	315SB		25	170	600	550	660	24	6	660	527	336	163	140	430
132 (160)	---	---	---	315MA		25	140	600	550	660	24	6	660	527	336	163	140	430
---	132 (160)	90 (110)	75	315MB		25	170	600	550	660	24	6	660	527	336	163	140	430
160 200	---	---	---	315LA		25	140	600	550	660	24	6	660	527	336	163	140	430
---	160 200	110 132 (160)	90 110	315LB		25	170	600	550	660	24	6	660	527	336	163	140	430
220 250	---	---	---	355MA	8	30	170	740	680	800	24	6	980	645	412	189	180	540
---	220 250	160 200 220	132 160	355MB		30	210	740	680	800	24	6	980	645	412	189	180	540
315	---	---	---	355LA		30	170	740	680	800	24	6	980	645	412	189	180	540
---	315	250	200 220	355LB		30	210	740	680	800	24	6	980	645	412	189	180	540

Note:

1. All dimensions are in mm.
2. Tolerance of N: Ø130~Ø450: j6, Ø550~680: js6
3. Open type ball bearing for frame size 250M to 355L

4. Output in () is for optional frame size upon request
5. Dual Eye-bolts provided for frame 90S to 355D
6. Data are subject to change without prior notice

Dimensions

V1 Outline Dimension

Flange Mounted(B3)

Motor Type: AESU1S, AESU2S, AESU3S

Frame Size: 250M to 355L

FIGURE 7

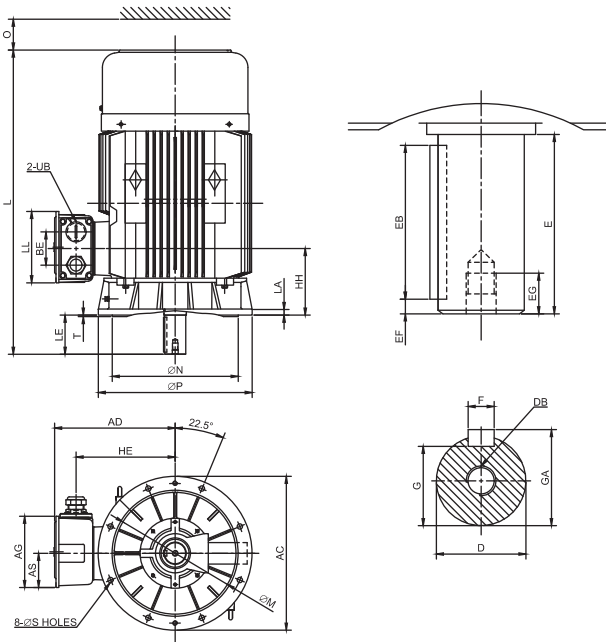
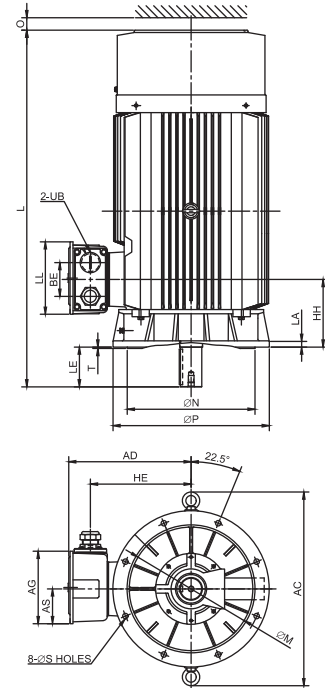


FIGURE 8

V1



FRAME SIZE	HH	L	LL	O	UB	SHAFT EXTENSION									BEARING	
						D	E	EB	EF	EG	F	G	GA	DB	DRIVE END	OPPOSITE DRIVE END
250MA	225.5	921	255	105	M63 x 1.5	60	140	125	7.5	42	18	53	64	M20	6313C3	6313C3
250MC	225.5	921	255	105	M63 x 1.5	65	140	125	7.5	42	18	58	69	M20	6315C3	6313C3
280SA	238	1037.5	255	140	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6314C3	6314C3
280SB	238	1037.5	255	140	M63X1.5	75	140	125	7.5	40	20	67.5	79.5	M20	6318C3	6316C3
280MA	238	1087.5	255	140	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6314C3	6314C3
280MB	238	1087.5	255	140	M63X1.5	75	140	125	7.5	40	20	67.5	79.5	M20	6318C3	6316C3
315SA	269	1216	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	7314C3
315SB	269	1246	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	7316C3
315MA	269	1266	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	7314C3
315MB	269	1296	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	7316C3
315LA	269	1366	322	180	M63X1.5	65	140	125	7.5	40	18	58	69	M20	6316C3	7314C3
315LB	269	1396	322	180	M63X1.5	80	170	160	5	40	22	71	85	M20	6320C3	7316C3
355MA	302	1605	372	230	M72X2	80	170	140	5	40	22	71	85	M20	6318C3	7318C3
355MB	302	1645	372	230	M72X2	100	210	180	5	48	28	90	106	M24	6322C3	7322C3
355LA	302	1605	372	230	M72X2	80	170	140	5	40	22	71	85	M20	6318C3	7318C3
355LB	302	1645	372	230	M72X2	100	210	180	5	48	28	90	106	M24	6322C3	7322C3

Note:

1. All dimensions are in mm.

2. Tolerance of shaft end diameter D: 1) $\varnothing 55 \sim \varnothing 100$: m6

3. Data are subject to change without prior notice

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