



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

AESV2S / AESU2S / AESV2S-LA (IE2) HIGH EFFICIENCY

AESV3S / AESU3S / AESV3S-LA (IE3) PREMIUM EFFICIENCY

About TECO

Started as a local motor manufacturer in Taiwan, TECO was established in 1956. TECO's "Quality First" concept has been presented in the culture of TECO since the beginning of its history. This high standard has enabled the group to progressively produce products that meet and exceed NEMA, IEC, BS-EN, JIS, AS and CNS standards. Through a complete line of motors ranging from 1/4 Hp to 60,000Hp, a maximum of 14,200 V and a broad selection of engineered products, including high efficiency motors, inverter duty motors and explosion proof motors to meet a variety of customer needs TECO has earned a world-renowned reputation and become a leading manufacturer in the world.

TECO, dedicated to serving a vast array of industries around the world, is proud to present you its factories, sales, marketing and service offices located across the globe. These resources are across North America and Asia, several local sales offices, warehouses and repair/modification facilities that provide top quality products, customer focused service and on-time deliveries.

In India, 3 phase induction motors in range 0.75HP to 10HP are made in their Vadodara Plant.

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, EPACT, 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 IE2 & IE3 Motors.

Additional Specifications of IS 12615

The motors are capable of delivering rated output with, a) terminal voltage differing from its rated value by not more than $\pm 10\%$, or b) frequency differing from its rated value by not more than $\pm 5\%$, or c) the sum of absolute percent variations of (a) & (b) not exceeding 10% The fixing dimensions and shaft extensions of motors are conforming to the values specified in IS 1231 and IS 2223. The relationship between output, in kW and frame number are according to IS 1231. Apart from efficiency, Indian Standard defines following performance parameters for IE2 & IE3 motors 1) Full load Speed 2) Full load Current 3) Breakaway Torque 4) Breakaway Current.

CEMEP VS IEC 60034-30-1

The method for measuring efficiency for low-voltage three phase asynchronous motor was revised with the new EN 60034-2-1:2007 standard. The new standard significantly increases the accuracy under defined laboratory conditions. IEC 60034-30, is based on the new 60034-2-1: 2007 standard for the definition of efficiency. Where else CEMEP, was based on the previous EN 60034-2:1996. In a direct comparison of the both measuring methods at the same motor, it is expected the efficiency level determine according to the new method are up to a few percentage points below the efficiency level using the old method.

Efficiency	IE	Model
High	IE 2	AESV2S/AESU2S
Premium	IE 3	AESV3S/AESU3S

Type: Squirrel Cage Induction Motor Ratings: 0.55 kW ~ 7.5 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: 230V/415V 3-phase/50Hz & 3 kW and above: 415V 3-phase/50Hz

Insulation System

All motors are design with class F insulation and Class B temperature rise at ambient temperature of 50° C. For any other insulation system other than standard Class F insulation or Class B temperature rise at higher ambient temperature than standard 50° 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 IEC 60034-25, 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.

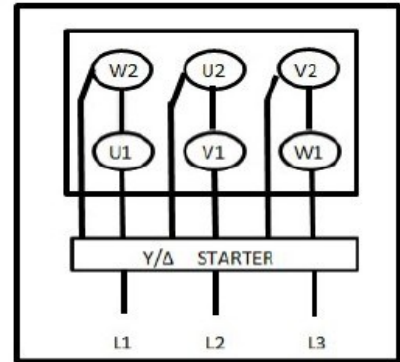
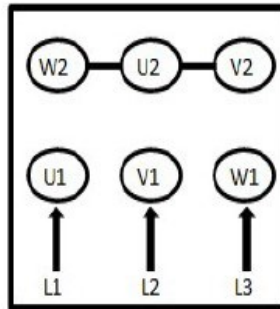
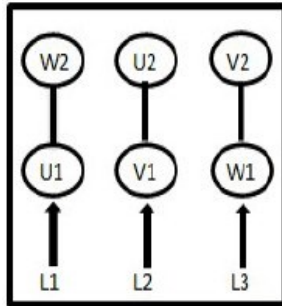
IEC 60034-17 Rotating electrical machines - Part 17: Cage induction motors when fed from converters - Application guide.

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

Direct-On-Line

For motor rating 2.2kW and below:
 Low Voltage: 230V, High Voltage: 415V

For motor rating 3kW and above:
 Low Voltage: 415



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.

Optional Accessories

Thermal Protection Accessories

- Thermistors
- Resistance Temperature Detectors (RTD) Thermostat

Moisture Protection Accessories

- Space Heater

Type: Squirrel Cage Induction Motor Frame Size: 80M to 132M
Enclosure: Totally Enclosed Fan Cooled (TEFC), Totally Enclosed Non-Ventilated (TENV)

Ingress Protection

Stock motors are design to meet Ingress Protection of IP55, another 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 132M.

Bearings

High Quality Deep Groove Ball Sealed Bearings are used for our stock motor from frame size 80 to 132M. 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 132M. 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. Paint shades are supplied on customer request as below:

Gray Color (Munsell 7.5B 3.5/0.5)

Blue Color (Munsell 5PB 3/8)

Green Color (Munsell 7.5GY 4.5/3.5)

For any other colour finishing, please refer to TECO.

Lifting Device

All motor from Frame Size 90 and above comes with dual eye bolt for lifting purposes.

Standards

IEC 60072-1 Dimensions and output series for rotating electrical machines - Part 1

IE 2 Performance Data (2 Pole)

OUTPUT		FULL LOAD	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT	
kW	HP			rpm	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD (A)	LRC (A)	FULL LOAD	LOCKED ROTOR	PULL-UP	BREAK-DOWN		ROTOR GD ²
											VOLTAGE							
0.75	1	2850	80M	77.4	78.0	76.3	85.5	78.5	66.0	1.70	9.0	0.256	215	180	280	0.005	16.5	
1.1	1.5	2875	80M	79.6	80.0	78.3	85.5	79.0	67.0	2.29	17	0.372	255	200	305	0.007	18.0	
1.5	2	2880	90S	81.3	81.8	80.3	86.5	80.5	69.0	2.97	24	0.507	260	245	325	0.011	23.0	
2.2	3	2875	90L	83.2	84.3	83.4	87.5	82.0	70.5	4.20	35	0.745	285	240	335	0.014	27.0	
3	4	2870	100L	84.6	85.9	85.7	88.0	83.0	73.0	5.75	49	1.008	245	225	310	0.022	37.5	
3.7	5	2880	112M	85.5	86.5	85.4	90.0	87.0	79.0	7.13	59	1.250	240	210	320	0.038	47.5	
5.5	7.5	2925	132S	87.0	87.2	86.2	86.0	82.5	74.5	10.61	82	1.830	240	180	300	0.063	61.0	
7.5	10	2920	132S	88.1	88.3	87.8	82.5	77.5	68.0	14.4	98	2.499	250	230	275	0.075	65.0	

IE2 Performance Data (4 Pole)

OUTPUT		FULL LOAD	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT	
kW	HP			rpm	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD (A)	LRC (A)	FULL LOAD	LOCKED ROTOR	PULL-UP	BREAK-DOWN		ROTOR GD ²
											VOLTAGE							
0.55	0.75	1425	80M	78.1	78.0	75.1	72.5	62.0	47.5	1.42	8.0	0.376	290	260	305	0.010	15.0	
0.75	1	1415	80M	79.6	79.5	76.9	73.5	63.5	49.5	1.86	11	0.516	300	295	325	0.013	16.5	
1.1	1.5	1445	90S	81.4	81.4	78.9	76.0	67.0	53.0	2.54	19	0.741	270	205	325	0.017	22.0	
1.5	2	1435	90L	82.8	83.7	82.6	81.0	73.0	59.5	3.23	23	1.017	250	180	300	0.022	24.0	
2.2	3	1450	100L	84.3	85.0	84.1	81.5	74.0	61.0	4.82	33	1.476	210	170	300	0.041	32.0	
3	4	1445	100L	85.5	85.9	84.8	82.0	75.0	62.5	6.06	44	2.020	210	170	300	0.050	37.5	
3.7	5	1450	112M	86.3	87.0	87.0	86.5	83.0	74.0	7.90	59	2.509	220	150	290	0.076	44.5	
4	5.5	1450	112M	86.6	87.6	87.5	85.0	80.5	71.0	8.44	58	2.684	220	200	300	0.083	47.5	
5.5	7.5	1455	132S	87.7	88.7	88.6	85.5	80.5	70.0	11.51	81	3.678	255	210	305	0.123	64.0	
7.5	10	1460	132M	88.7	89.6	89.5	84.0	78.5	67.0	14.24	112	4.998	275	200	305	0.142	78.0	

IE 2 Performance Data (6 Pole)

OUTPUT		FULL LOAD	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT	
kW	HP			rpm	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD	3/4 LOAD	1/2 LOAD	FULL LOAD (A)	LRC (A)	FULL LOAD	LOCKED ROTOR	PULL-UP	BREAK-DOWN		ROTOR GD ²
											VOLTAGE							
0.55	0.75	900	80M	73.1	68.8	64.9	67.0	57.0	44.0	1.72	7.0	0.595	225	220	250	0.012	18.0	
0.75	1	935	90S	75.9	76.4	73.9	69.5	60.0	46.5	2.21	10	0.780	210	185	260	0.019	24.0	
1.1	1.5	930	90L	78.1	78.8	76.9	71.5	62.0	48.5	3.23	14	1.151	215	190	260	0.026	27.5	
1.5	2	950	100L	79.8	80.5	78.8	70.5	61.5	48.5	3.71	19	1.536	170	140	240	0.048	31.5	
2.2	3	950	112M	81.8	82.4	81.1	75.0	66.5	53.0	5.51	34	2.253	280	255	300	0.071	42.5	
3	4	960	132S	83.3	84.1	83.2	78.0	71.0	58.0	6.91	37	3.041	190	165	300	0.103	57.5	
3.7	5	965	132M	84.3	84.3	82.8	76.0	68.5	55.0	8.07	61	3.731	180	180	270	0.131	62.5	
5.5	7.5	960	132M	86.0	86.9	86.5	79.5	72.5	60.5	12.13	78	5.574	230	195	300	0.188	77.5	

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 shown 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

IE3 Performance Data (2 Pole)

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT kg
				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	
kW	HP								VOLTAGE	400V							
0.75	1	2875	80M	80.7	78.3	75.1	84.5	78.0	66.5	1.53	12	0.254	280	275	335	0.006	18.0
1.1	1.5	2870	80M	82.7	83.0	81.3	85.0	78.5	66.5	2.18	18	0.373	300	295	350	0.007	19.5
1.5	2	2850	90S	84.2	85.4	85.8	90.5	87.0	78.0	2.74	22	0.512	220	210	300	0.012	25.5
2.2	3	2860	90L	85.9	86.7	86.8	89.5	85.0	75.5	3.98	35	0.748	245	235	315	0.014	29.0
3	4	2855	100L	87.1	88.3	88.4	90.0	86.5	78.5	5.32	48	1.022	325	310	355	0.025	41.5
3.7	5	2870	112M	87.8	88.2	88.0	90.5	87.5	80.0	6.48	60	1.254	290	270	345	0.046	51.5
4	5.5	2875	112M	88.1	89.0	88.9	91.0	87.5	80.0	6.94	69	1.354	270	250	360	0.046	51.5
5.5	7.5	2930	132S	89.2	89.8	89.5	88.5	86.0	79.5	9.69	80	1.826	210	205	340	0.075	73.0
7.5	10	2920	132S	90.1	90.9	90.8	87.0	84.5	77.5	13.3	100	2.499	210	195	315	0.081	76.0

IE 3 Performance Data (4 Pole)

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT kg
				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	
kW	HP								VOLTAGE	400V							
0.55	0.75	1430	80M	80.8	77.9	74.7	69.0	58.5	44.5	1.37	9.0	0.374	300	270	320	0.010	17.5
0.75	1	1410	80M	82.5	81.8	79.7	73.5	64.0	50.0	1.72	11	0.518	315	290	335	0.013	20.5
1.1	1.5	1430	90S	84.1	84.4	83.2	79.5	71.5	57.5	2.29	17	0.748	255	205	300	0.019	26.5
1.5	2	1435	90L	85.3	84.1	82.2	75.0	65.5	51.5	3.26	26	1.017	300	235	335	0.023	28.5
2.2	3	1450	100L	86.7	87.3	86.9	81.0	73.5	60.5	4.36	33	1.476	210	160	300	0.045	39.5
3	4	1455	100L	87.7	87.7	86.2	78.0	70.5	57.5	6.10	49	2.006	250	240	335	0.052	42.0
3.7	5	1445	112M	88.4	89.1	88.8	82.0	77.0	66.0	7.10	60	2.491	235	200	305	0.083	53.0
4	5.5	1445	112M	88.6	88.4	87.9	82.0	76.5	65.5	7.66	57	2.693	245	205	300	0.083	53.0
5.5	7.5	1455	132S	89.6	90.4	90.3	85.0	80.5	70.0	10.0	77	3.678	240	200	300	0.132	75.5
7.5	10	1460	132M	90.4	90.8	90.4	84.5	79.5	69.0	13.7	110	4.998	270	225	330	0.172	93.0

IE 3 Performance Data (6 Pole)

OUTPUT		FULL LOAD rpm	FRAME SIZE	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE					APPROX. WEIGHT kg
				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	
kW	HP								VOLTAGE	400V							
0.55	0.75	905	80M	77.2	69.7	66.2	69.0	58.0	44.5	1.44	6.0	0.591	210	195	250	0.012	19.5
0.75	1	935	90S	78.9	80.6	79.4	71.0	62.5	49.0	1.86	9.0	0.780	210	190	250	0.022	28.0
1.1	1.5	930	90L	81.0	81.2	80.5	72.0	63.5	50.0	2.62	13	1.151	210	185	240	0.026	30.5
1.5	2	950	100L	82.5	82.9	81.5	72.5	65.0	52.0	3.49	18	1.536	210	175	250	0.058	43.5
2.2	3	960	112M	84.3	84.3	82.2	67.0	59.0	47.0	5.42	29	2.230	190	180	280	0.083	53.5
3	4	970	132S	85.6	86.1	85.1	76.0	69.0	58.5	6.42	41	3.009	195	170	300	0.137	75.0
3.7	5	965	132M	86.5	87.5	87.0	77.0	70.0	58.0	7.73	56	3.731	200	185	275	0.143	77.0
4	5.5	970	132M	86.8	87.0	85.6	77.0	70.0	57.5	8.33	58	4.012	200	185	310	0.182	84.0
5.5	7.5	970	132M	88.0	88.5	87.6	79.5	72.5	60.0	10.9	88	5.517	210	205	300	0.216	91.0

Note:

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

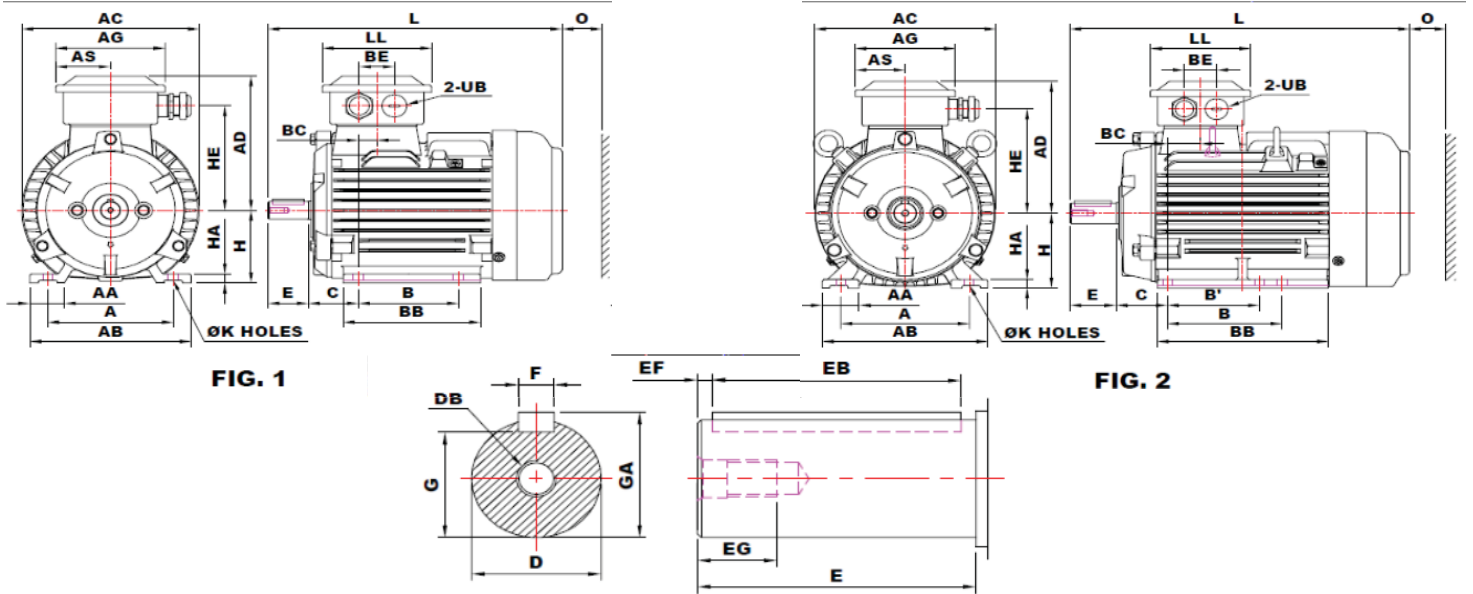
B3 Outline Dimension

Foot Mounted(B3)

Motor Type: AESV2S, AESV3S

Frame Size: 80M to 132M

B3



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 1.1	0.55 0.75	0.55	0.18	80M	1	125	34.5	161	177	148	109	54.5	100	---	---	---	137	18.5	35	50
1.5	1.1	0.75	0.37	90S	2	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 3	1.5	0.75 1.1	100L		160	40	200	219	185.5	125	62.5	140	---	---	---	181	21	40	63
3.7 4	3.7 4	2.2	1.5	112M		190	45	235	235	193	125	62.5	140	---	---	---	186	28	40	70
5.5 7.5	5.5	3	2.2	132S		216	57	263	273	210.5	125	62.5	140	---	---	---	184	6	40	89
---	7.5	3.7 4 5.5	3	132M		216	57	263	273	210.5	125	62.5	178	140	---	---	222	6	40	89

FRAME SIZE	H	HA	HE	K	L	LL	O	UB	SHAFT EXTENSION								BEARING		
									D	E	EB	EF	EG	F	G	GA	DB	DRIVEEND	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	6206ZZC3	6206ZZC3
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		

Note:

1. All dimensions are in mm.
2. Pre-packed shielded ball bearing for frame size 80M to 132M
3. Dual Eye-bolts provided for frame 90S to 132M
4. Tolerance of shaft end diameter D: 1) $\varnothing 19\sim\varnothing 28:j6$, 2) $\varnothing 38:k6$
5. Tolerance of shaft center high H : +0, -0.5
6. Data are subject to change without prior notice.

V1 Outline Dimension

V1

Flange Mounted(V1)
 Motor Type: AESU2S, AESU3S
 Frame Size: 80M to 132M

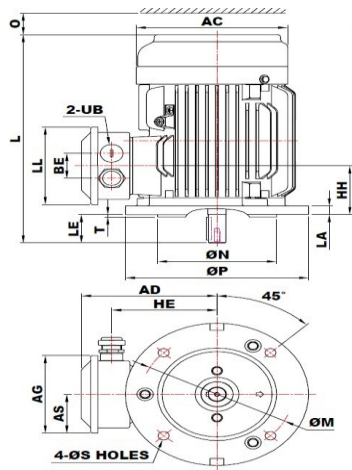


FIG. 1

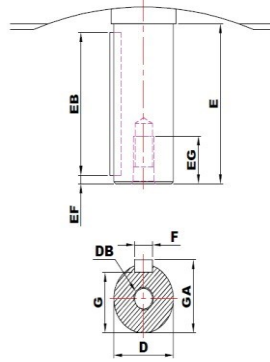


FIG. 2

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		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	

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		

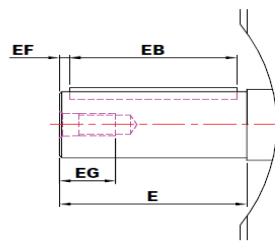
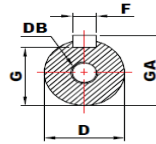
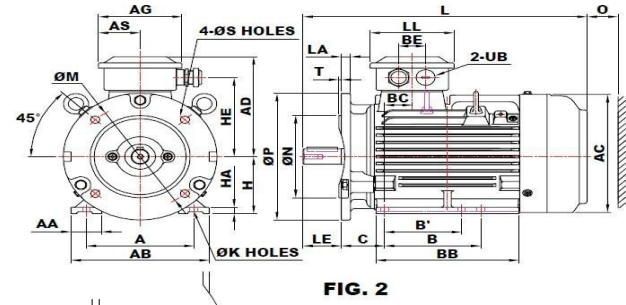
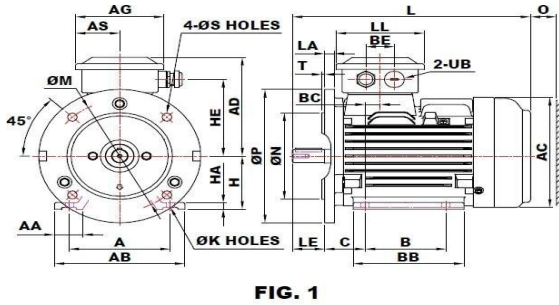
Note:

1. All dimensions are in mm.
2. Tolerance of N: Ø130~Ø230: j6
3. Pre-packed shielded ball bearing for frame size 80M to 132M
4. Dual Eye-bolts provided for frame 90S to 132M
5. Tolerance of shaft end diameter D: 1) Ø19~Ø28:j6, 2) Ø38:k6
6. Data are subject to change without prior notice.

B35 Outline Dimension

Foot & Flange Mounted(B35)
 Motor Type: AESV2S-LA, AESV3S-LA
 Frame Size: 80M to 132M

B35



Output (kW)				FRAME SIZE	FIG. NO	FLANGE DIMENSION							A	AA	AB	AC	AD	AG	AS	B	B'	BA	BA'	BB
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	125	34.5	161	177	148	109	54.5	100	---	---	---	137
1.5	1.1	0.75	0.37	90S	2	12	50	165	130	200	12	3.5	140	40	180	197	158	109	54.5	100	---	---	---	161
2.2	1.5	1.1	0.55	90L		12	50	165	130	200	12	3.5	140	40	180	197	158	109	54.5	125	100	---	---	186
3	2.2 3	1.5	0.75 1.1	100L		16	60	215	180	250	14.5	4	160	40	200	219	185.5	125	62.5	140	---	---	---	181
3.7 4	3.7 4	2.2	1.5	112M		15	60	215	180	250	14.5	4	190	45	235	235	193	125	62.5	140	---	---	---	186
5.5 7.5	5.5	3	2.2	132S		16	80	265	230	300	14.5	4	216	57	263	273	210.5	125	62.5	140	---	---	---	184
---	7.5	3.7 4 5.5	3	132M		16	80	265	230	300	14.5	4	216	57	263	273	210.5	125	62.5	178	140	---	---	222

FRAME SIZE	BC	BE	C	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	18.5	35	50	80	10	115	10	293	109	40	M20x1.5	19	40	32	4	16	6	15.5	21.5	M6	6204ZCC3	6204ZCC3
90S	36	35	56	90	10	125	10	344.5	109	40	M20x1.5	24	50	40	5	19	8	20	27	M8	6205ZCC3	6205ZCC3
90L	36	35	56	90	10	125	10	369.5	109	40	M20x1.5	24	50	40	5	19	8	20	27	M8		
100L	21	40	63	100	12	146	12	392	125	50	M25x1.5	28	60	50	5	22	8	24	31	M10	6206ZCC3	6206ZCC3
112M	28	40	70	112	13	153.5	12	412.5	125	50	M25x1.5	28	60	50	5	22	8	24	31	M10	6306ZCC3	6306ZCC3
132S	6	40	89	132	16	171	12	466	125	50	M25x1.5	38	80	70	5	28	10	33	41	M12	6308ZCC3	6306ZCC3
132M	6	40	89	132	16	171	12	504	125	50	M25x1.5	38	80	70	5	28	10	33	41	M12		

Note:

1. All dimensions are in mm.
2. Tolerance of N: Ø130~Ø230: j6
3. Pre-packed shielded ball bearing for frame size 80M to 132M
4. Dual Eye-bolts provided for frame 90S to 132M
5. Tolerance of shaft end diameter D: 1) Ø19~Ø28:j6, 2) Ø38:k6
7. Data are subject to change without prior notice.

6. Tolerance of shaft center high H : +0, -0.5

8. Data are subject to change without prior notice.

Name	Formula	Units	Definitions/ Notes
Output	1HP=746W=0.746kW		HP: horsepower
Current	$I = \frac{E}{R}$	I in A	E: volt R: Ohm
Input power	$P_{in} = E \cdot I \cdot \cos\phi \dots\dots\dots(1\Phi)$ $P_{in} = \sqrt{3} \cdot E \cdot I \cdot \cos\phi \dots\dots\dots(3\Phi)$	P_{in} in W	E: volt I: ampere
Output power	$P_{out} = E \cdot I \cdot \eta \cdot \cos\phi \dots\dots\dots(1\Phi)$ $P_{out} = \sqrt{3} \cdot E \cdot I \cdot \eta \cdot \cos\phi \dots\dots\dots(3\Phi)$	P_{out} in W	η : efficiency $\cos\phi$: power factor
Efficiency	$\eta = \frac{P_{out}}{P_{in}} \times 100\% = \frac{P_{in} - P_{loss}}{P_{in}} \times 100\%$	P_{loss} in W	
Power factor	$\cos\phi = \frac{P_{in}}{\sqrt{3} \cdot E \cdot I} \times 100\% \dots\dots\dots(3\Phi)$		
Synchronous speed	$N_s = \frac{120f}{P}$	N_s in min^{-1}	f: frequency of the power supply P: poles
Slip	$S = \frac{N_s - N}{N_s} \times 100\%$		N: motor speed
Torque	$T = \frac{974kW}{N}$	T in kgf-m	1 kgf-m=9.8 N-m
Power	$P = 1.027NT$	P in W	
Starting time	$t_s = \frac{GD^2N}{375(T_M - T_L)}$	t_s in sec GD^2 in kgm^2	GD^2 : inertia of system T_M : torque of motor
Braking time	$t_b = \frac{GD^2N}{375(T_M + T_L)}$	t_b in sec	T_L : torque of load
Reactive power absorbed by the motor	$Q = \sqrt{3} \cdot E \cdot I \cdot \sin\phi \dots\dots\dots(3\Phi)$	Q in VAR	
Sound power level	$L_w = 10 \log\left(\frac{P}{P_o}\right)$ ($P_o = 10^{-12}W$)	L_w in dB	
Sound pressure level	$L_p = 20 \log\left(\frac{P}{P_o}\right)$ ($P_o = 2 \times 10^{-5} P_a$)	L_p in dB	$P_a=1 \text{ N/m}^2$

International Mounting Code (IM)

Foot-Mounted					
IM B3 (IM 1001)	IM V5 (IM 1011)	IM V6 (IM 1031)	IM B6 (IM 1051)	IM B7 (IM 1061)	IM B8 (IM 1071)
Flange-Mounted			Foot & Flange Mounted		
IM B5 (IM 3001)	IM V1 (IM 3011)	IM V3 (IM 3031)	IM B35 (IM 2001)	IM V15 (IM 2011)	IM V36 (IM 2031)

Customer Name :

Contact Number :

Company :

Motor Specification RequiredEfficiency Class (IE) : IE 2 IE 3

Output : _____ kW / HP

Voltage : _____ Volts Frequency : _____ Hz

Poles : 2 4 6 Others :

Location : Indoor Outdoor _____ Application :

Mounting : _____ (Eg. B3, V1, B35)

Ingress Protection : IP55 IP56 _____ Others:Insulation Class : Class F (155 °C) Class H (180 °C)

Ambient Temperature : _____ °C

Temperature Rise : Class B (80 °C) Class F (105 °C)Starting Method : Direct-On-Line Star-Delta InverterInverter : IEC 60034-17:2006 Torque: Constant / Variable IEC 60034-25 Speed Range: From:___ To:___ HzDrive Method : Direct Coupling Belt drive others: ___

Quantity : _____



(IE2) HIGH EFFICIENCY



(IE3) PREMIUM EFFICIENCY

“TECO is fully committed to provide quality products that fulfill Customer, Legal and Other Requirements.”

Our Quality Means:

T - Total Satisfaction towards Customer needs

E - Efficient Performance with Quality Products and Services

C - Continuous Improvement of QMS

O – Outstanding Progressive Organization

REGISTERED OFFICE

TEMICO Motor India Private Limited Unit No. 1003, Level 10, Tower B,
The Millenia Building, No. 1 & 2, Murphy Road, Ulsoor, Bangalore, Karnataka – 560008.
T: +91 80 2836 6454
E Mail : sales@temico.co.in

FACTORY ADDRESS

TEMICO Motor India Private Limited
Plot No. 23, Bengaluru Hi Tech Defense and Aerospace Park IT Sector, Jala Hobli,
BandeKodigeHalli, Singahalli,
Bangalore, Karnataka – 562 149