東元IE3耐壓隔爆馬達
(IECEx/ ATEX認證)

MODEL： AEMBXZ

FLAMEPROOF MOTOR Ex d
IE3 EFFICIENCY
LOW VOLTAGE SQUIRREL CAGE
FRAME SIZE：80 ~ 315MC

31057D68933
REV. 04

SPECIFICATION TABLE

FLAMEPROOF MOTOR Ex d
3-PHASE IE3 EFFICIENCY
LOW VOLTAGE SQUIRREL CAGE

MODEL **AEMBXZ**

ITEM		STANDARD SPECIFICATION
RATING	Kind of Motor	Squirrel Cage Induction Motor (SCIM).
	Design Standards	BS 4999, EN 60079-0, EN60079-1, IEC 60034, IEC 60079-0, IEC 60079-1.
	Voltages	380V, 400V, 415V, 440V, Up to 690V.
	Frequency	50Hz.
	Output Range	0.75 ~ 185kW.
	R.P.M. (Syn.)	3000 ~ 750 R.P.M. (2 ~ 8 Poles).
	Time Duty	Continuous. S1, MCR (S.F. 1.0).
	Frame Size	80 ~ 315MC.
	Protection Enclosure	Totally Enclosed Fan Cooled , IP 55, IEC Ex / ATEX Explosion Proof.
	Cooling Method	Self External Fan, Surface Cooling (IC 411).
	Mounting	Horizontal Foot Mounting B3 (IM 1001).
APPLICATION	Environment Conditions	Place：Zone 1 Hazardous, Ambient Temperature：-20℃ ~ 55℃ Altitude：Less Than 1,000m.
	Hazardous Location	Suitable For Zone 1, Ex d Group ⅡB, Ex d Group Ⅰ For F# 80~280 Suitable For Zone 1, Ex d Group ⅡC, Ex d Group Ⅰ For F# 315
	Power Source Conditions	Voltage：±10%, Frequency：±5%, and ±10% of Combined Voltage and Frequency, But Frequency Variation Does Not Exceed ±5%.
	Method of Starting	Full Voltage Direct On Line or ⅄ - △ Starting.
	Operating Conditions	For Belt-Drive Application, However for 2-Pole 22kW and Larger, Direct-Coupling Service Only.
	Direction of Rotation	Bi - Directional.
PERFORMANCE	Test Procedure for Explosion Proof	According to EN 60079-0, EN 60079-1, IEC 60079-0, IEC 60079-1.
	Test Procedure	IEC60034-2-1 and Full Voltage Measuring Starting Performance.
	Winding Temperature Rise	Not to Exceed 80℃ Rise By Resistance Method at S.F. 1.0 .
	External Surface Temperature	Comply with Operating Temperature Code T4 for Sinusoidal Power, and PWM Inverter (Table 2 of IEC 60079-0), Limited by Built-In PTC Thermistor.
	Over Speed	120% Syn. R.P.M. for 2 Minutes.
	Over Torque	160% Rated Torque for 15 Sec.
OTHER	Certification	Ex db IIB T4 Gb & Ex db I Mb For F# 80 ~ 280 Ex db IIC T4 Gb & Ex db I Mb For F# 315

SPECIFICATION TABLE

FLAMEPROOF MOTOR Ex d
3-PHASE IE3 EFFICIENCY
LOW VOLTAGE SQUIRREL CAGE

MODEL
AEMBXZ

Certification Marking & Number:

Frame Size	Marking		Certificate Numebr		Standard
	ATEX	IECEx-	ATEX	IECEx-	
80	II 2 G Ex db IIB T4 Gb I M2 G Ex db I Mb	Ex db IIB T4 Gb Ex db I Mb	Baseefa 17ATEX0058X	IECEx BAS17.0040X	EN 60079-0: 2012 EN 60079-1: 2014 IEC 60079-0: 2011 IEC 60079-1: 2014
90					
100					
112					
132					
160					
180					
200			Baseefa 17ATEX0105X	IECEx BAS17.0085X	
225					
250					
280					
315	II 2 G Ex db IIC T4 Gb I M2 G Ex db I Mb	Ex db IIC T4 Gb Ex db I Mb	Baseefa 16ATEX0131X	IECEx BAS16.0061X	

SCHEMATIC DRAWING

FLAMEPROOF MOTOR Ex d
3-PHASE LOW VOLTAGE SQUIRREL CAGE

MODEL
AEMBXZ

Main Terminal Bolt Size 6 x

Frame Size	Terminal Bolt Size 6 x
80-112	M5
132-180	M6
200-225	M8
250-280	M10
315	M12

Single and Multiply Cable Entry Holes

Frame Size	T-Box Type	M20 or NPT 1/2" Auxiliary Cable Entries Number	Max. Size of Main Cable Entries			
			Single Hole		Two Holes	
80-112	TX-17	0	M40	NPT 1 1/4"	M20	NPT 1/2"
		1	M25	NPT 3/4"	-	-
132-180	TX-27	0	M63	NPT 2"	M32	NPT 1"
		1	M50	NPT 1 1/2"	M32	NPT 1"
		2	M40	NPT 1 1/4"	M32	NPT 1"
200-225	TX-47	0	M80	NPT 2 1/2"	M63	NPT 2"
		1	M80	NPT 2 1/2"	M63	NPT 2"
		2	M80	NPT 2 1/2"	M63	NPT 2"
250-280	TX-57	0	M90	NPT 3"	M63	NPT 2"
		1	M90	NPT 3"	M63	NPT 2"
		2	M90	NPT 3"	M63	NPT 2"
315	TX-76	0	M90	NPT 3"	M80	NPT 2 1/2"
		1	M90	NPT 3"	M80	NPT 2 1/2"
		2	M90	NPT 3"	M80	NPT 2 1/2"

PERFORMANCE DATA

3-PHASE SQUIRREL CAGE
IE3 EFFICIENCY INDUCTION MOTORS

MODEL
AEMBXZ

TEFC, CLASS H, 40℃ AMBIENT TEMP.
IEC DESIGN N CONTINUOUS DUTY
S.F. 1.0, 380, 400, 415, 440V 50HZ

IE3

TYPICAL PERFORMANCE (415 V)

OUTPUT		FULL LOAD RPM	FRAME NO.	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE				ROTOR GD2 kg-m2
HP	kW			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	
1	0.75	2825	80	81.0	82.0	79.0	85.0	79.0	65.0	1.52	15	0.258	280	250	350	0.006
		1440	80	82.5	82.0	79.0	74.5	65.0	50.5	1.70	15	0.507	295	260	375	0.013
		935	90L	79.0	80.0	78.5	73.0	64.5	51.5	1.81	10	0.780	200	155	235	0.022
		700	100L	76.5	76.5	73.0	60.0	50.5	38.5	2.27	10	1.043	235	220	230	0.042
1.5	1.1	2815	80	83.0	84.0	82.0	85.0	79.0	66.0	2.17	20	0.380	300	260	330	0.007
		1435	90L	84.5	86.5	85.5	80.5	73.5	60.5	2.25	20	0.746	255	180	290	0.019
		935	90L	81.0	81.5	79.5	73.0	65.0	52.0	2.59	15	1.145	200	175	240	0.027
		695	100L	79.0	80.0	77.5	64.0	55.0	42.5	3.03	15	1.540	210	200	215	0.059
2	1.5	2895	90L	86.0	87.0	85.0	85.0	79.0	66.5	2.85	25	0.504	300	265	375	0.012
		1440	90L	85.5	86.0	84.0	76.0	67.0	53.0	3.21	27	1.014	285	215	340	0.023
		950	100L	82.5	84.0	81.5	73.0	67.0	54.0	3.47	25	1.536	235	225	280	0.059
		705	112M	80.5	81.0	78.5	66.5	58.0	45.0	3.90	20	2.070	170	155	235	0.090
3	2.2	2900	90L	87.0	87.0	85.0	80.0	72.0	58.0	4.40	40	0.738	340	295	405	0.014
		1455	100L	87.0	88.0	86.0	78.0	73.0	59.0	4.51	40	1.471	275	195	355	0.046
		965	112M	86.0	85.5	85.0	67.0	54.0	47.5	5.31	35	2.218	200	180	285	0.084
		705	132S	83.0	83.5	82.0	69.0	60.0	46.5	5.34	30	3.036	230	205	265	0.138
4	3	2870	100L	87.5	88.5	87.0	88.0	85.0	76.0	5.42	50	1.017	355	330	375	0.025
		1450	100L	88.0	87.5	85.5	78.0	69.0	54.5	6.08	55	2.013	285	200	360	0.052
		970	132S	88.0	87.5	86.0	78.0	71.0	59.0	6.08	45	3.009	200	180	295	0.154
		715	132M	85.0	85.0	83.0	64.0	54.5	41.0	7.67	45	4.083	280	260	330	0.180
5.5	4	2885	112M	89.0	90.5	90.0	90.0	87.0	80.0	6.95	72	1.349	315	300	350	0.046
		1450	112M	89.0	89.5	89.0	82.0	76.0	63.5	7.63	65	2.684	275	155	330	0.083
		970	132M	89.0	89.0	87.0	78.0	71.5	59.0	8.02	60	4.012	210	195	310	0.206
		720	160M	86.0	86.0	84.5	70.5	62.0	48.5	9.18	55	5.406	190	170	250	0.344
7.5	5.5	2930	132S	91.5	91.5	90.5	85.0	82.0	73.0	9.84	85	1.826	220	190	300	0.075
		1460	132S	90.5	90.5	90.5	85.5	81.0	72.0	9.89	90	3.665	250	205	320	0.133
		970	132M	89.0	89.5	88.5	74.5	66.5	54.0	11.5	95	5.517	245	215	335	0.217
		720	160M	87.0	87.0	85.0	71.5	63.0	50.0	12.3	75	7.433	200	185	275	0.504
10	7.5	2920	132S	91.0	91.0	91.5	85.0	79.0	70.0	13.5	110	2.499	210	175	275	0.082
		1465	132M	91.5	92.0	91.5	85.0	80.5	71.0	13.4	120	4.981	255	195	345	0.173
		970	160M	90.0	90.5	89.5	79.0	73.0	61.5	14.7	100	7.523	270	235	270	0.484
		720	160L	88.0	88.0	86.0	71.0	64.5	51.0	16.7	100	10.14	225	215	295	0.672
15	11	2945	160M	92.5	92.5	92.0	91.0	89.0	83.5	18.2	140	3.634	230	185	285	0.183
		1465	160M	91.5	92.5	92.0	86.0	82.5	73.5	19.4	140	7.306	235	190	275	0.367
		965	160L	90.3	91.0	90.5	80.0	74.5	63.0	21.3	160	11.09	285	255	295	0.630
		720	180L	89.5	90.5	90.0	82.0	81.0	82.5	20.9	125	14.87	170	150	210	1.278
20	15	2935	160M	92.0	92.0	91.5	90.0	87.0	80.0	25.2	195	4.973	240	215	310	0.205
		1465	160L	92.5	93.0	92.5	86.0	83.0	74.5	26.2	195	9.962	245	195	285	0.462
		970	180L	91.5	92.0	92.0	84.0	81.0	72.5	27.2	170	15.05	230	165	250	1.342
		730	200L	90.0	90.5	89.0	78.0	72.0	60.0	29.7	180	19.99	195	170	230	2.085
25	18.5	2940	160L	93.0	93.5	93.0	90.5	87.0	79.5	30.6	245	6.123	260	225	300	0.237
		1480	180M	93.0	94.0	93.0	83.0	76.0	64.5	33.3	245	12.16	200	140	250	0.707
		975	200L	92.5	93.0	92.5	82.0	78.5	69.5	33.9	220	18.46	230	165	245	1.835
		735	225S	93.0	93.0	92.5	77.0	71.5	60.0	35.9	190	24.49	195	125	195	2.907

NOTE :
1. The above are typical values based on test According to IEC 60034-2-1.
2. Efficiency, power factor, speed and torque are the same for other voltages. Current values vary inversely with voltage.
3. Tolerance according to IEC 60034-1.
4. Data subject to change without notice.

PERFORMANCE DATA

3-PHASE SQUIRREL CAGE
IE3 EFFICIENCY INDUCTION MOTORS

MODEL
AEMBXZ

TEFC, CLASS H, 40℃ AMBIENT TEMP.
IEC DESIGN N CONTINUOUS DUTY
S.F. 1.0, 380, 400, 415, 440V 50HZ

IE3

TYPICAL PERFORMANCE (415 V)

OUTPUT		FULL LOAD RPM	FRAME NO.	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE				ROTOR GD2 kg-m2
HP	kW			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	
30	22	2950	180M	93.5	94.0	93.0	87.0	85.0	77.0	37.6	330	7.256	225	180	275	0.283
		1480	180L	93.0	94.0	93.5	83.0	76.5	65.0	39.7	270	14.46	200	140	240	0.792
		975	200L	92.5	93.5	93.5	82.5	79.5	71.0	40.1	260	21.95	220	180	240	2.085
		740	225M	93.0	93.0	92.0	73.0	66.0	54.0	45.1	230	28.93	225	145	230	3.256
40	30	2945	200L	93.5	94.0	93.0	90.5	91.0	88.5	49.3	350	9.912	170	120	250	0.602
		1475	200L	94.0	94.5	94.5	86.0	84.5	77.0	51.6	410	19.79	265	215	285	1.451
		985	225M	94.0	94.0	93.5	83.0	79.5	70.0	53.5	305	29.63	210	170	230	3.023
		735	250S	93.0	93.0	92.0	74.5	68.0	56.0	60.2	420	39.71	260	225	295	4.938
50	37	2960	200L	95.0	94.5	93.5	91.0	90.5	87.0	59.5	465	12.16	195	140	275	0.753
		1480	225S	95.0	95.0	94.5	85.0	82.0	74.0	63.7	460	24.33	205	185	290	1.896
		985	250S	94.5	94.5	94.5	86.0	82.5	74.0	63.3	450	36.55	245	210	265	4.559
		740	250M	93.0	93.0	92.0	76.0	70.0	58.5	72.8	490	48.65	245	215	270	5.669
60	45	2970	225M	95.0	95.0	94.0	93.0	92.0	87.0	70.4	555	14.74	150	120	320	1.357
		1480	225M	95.0	95.0	95.0	85.5	82.0	74.0	77.1	510	29.58	200	170	275	1.979
		985	250M	94.0	94.5	94.0	86.5	84.0	76.0	77.0	585	44.45	240	205	270	5.106
		737	280S	93.2	93.0	92.2	78.0	72.0	60.5	86	560	59.41	150	130	270	8.600
75	55	2970	250S	95.0	94.5	94.0	91.5	90.5	87.0	88.0	645	18.02	150	130	315	1.511
		1485	250S	95.0	95.0	95.0	86.0	83.5	76.5	93.7	690	36.04	220	245	275	3.911
		984	280S	94.8	93.9	93.6	83.0	81.0	73.0	97	840	54.39	240	200	260	8.900
		737	280M	93.2	93.0	92.2	79.0	73.0	61.5	104	840	72.61	150	130	270	10.60
100	75	2960	250M	95.0	95.0	95.0	92.0	91.0	88.0	119	825	24.65	140	130	295	1.745
		1480	250M	95.0	95.0	95.0	86.0	84.5	79.0	128	940	49.31	220	230	250	4.490
		984	280M	94.6	94.3	93.9	83.0	81.0	74.0	133	980	74.16	240	200	265	11.80
		737	315M	93.1	93.3	92.5	82.0	76.0	64.0	137	980	99.02	130	110	230	21.30
125	90	2962	280S	95.0	94.5	93.5	88.0	87.0	81.0	150	1200	29.56	170	150	230	2.800
		1480	280S	95.2	94.7	93.7	89.0	86.0	77.0	148	1200	59.17	210	170	250	6.800
		988	315M	95.0	94.5	93.8	86.0	83.0	76.0	153	1200	88.63	230	190	275	18.90
		737	315M	93.4	93.5	92.7	82.5	76.5	64.5	162	1200	118.8	130	110	230	26.70
150	110	2960	280M	95.2	94.7	93.4	89.0	87.5	81.0	181	1530	36.16	180	160	230	3.300
		1482	280M	95.4	94.9	93.6	89.0	86.0	77.5	180	1530	72.22	210	180	230	8.100
		985	315M	95.1	94.6	94.1	87.0	83.0	76.5	185	1530	108.7	200	160	255	20.80
175	132	2976	315M	95.4	94.9	93.6	89.5	87.8	82.0	215	1830	43.16	180	140	220	5.400
		1482	315M	95.6	95.0	94.2	89.0	87.0	78.5	216	1830	86.66	220	180	250	12.10
200	150	2976	315M	95.6	95.1	94.0	90.0	89.0	83.0	243	2050	49.04	180	120	240	6.200
		1485	315M	95.8	95.3	94.3	88.0	84.5	79.0	248	2050	98.28	200	160	250	14.10
215	160	2978	315M	95.6	95.6	95.0	87.5	85.5	79.0	266	2200	52.28	180	130	220	6.496
		1490	315M	95.8	95.8	95.4	83.9	81.2	69.0	275	2200	104.5	150	140	250	13.57
250	185	2979	315M	95.8	95.7	95.1	88.0	86	79.5	305	2500	60.42	180	140	220	7.424
		1490	315M	96.0	96.0	95.6	84.9	81.2	72.1	315	2500	120.8	165	155	250	15.46

NOTE :

1. The above are typical values based on test According to IEC 60034-2-1.
2. Efficiency, power factor, speed and torque are the same for other voltages. Current values vary inversely with voltage.
3. Tolerance according to IEC 60034-1.
4. Data subject to change without notice.

PERFORMANCE DATA

3-PHASE SQUIRREL CAGE
HIGH EFFICIENCY INDUCTION MOTORS

MODEL
AEMBXZ□

TEFC, CLASS H, 40℃ AMBIENT TEMP.
AS ; BS DESIGN N CONTINUOUS DUTY
S.F. 1.0, 380, 400, 415, 440V 50HZ

TYPICAL PERFORMANCE (415 V)

OUTPUT		FULL LOAD RPM	FRAME NO.	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE				ROTOR GD2 kg-m2
HP	kW			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	
1	0.75	2825	80	83.0	82.0	79.0	85.0	79.0	65.0	1.48	15	0.258	280	250	350	0.006
		1440	80	84.5	82.0	79.0	74.5	65.0	50.5	1.66	15	0.507	295	260	375	0.013
		935	90L	80.5	80.0	78.5	73.0	64.5	51.5	1.78	10	0.780	200	155	235	0.022
		700	100L	76.6	76.5	73.0	60.0	50.5	38.5	2.27	10	1.043	235	220	230	0.042
1.5	1.1	2815	80	84.5	84.0	82.0	85.0	79.0	66.0	2.13	20	0.380	300	260	330	0.007
		1435	90L	86.0	86.5	85.5	80.5	73.5	60.5	2.21	20	0.746	255	180	290	0.019
		935	90L	82.5	81.5	79.5	73.0	65.0	52.0	2.54	15	1.145	200	175	240	0.027
		695	100L	79.1	80.0	77.5	64.0	55.0	42.5	3.02	15	1.540	210	200	215	0.059
2	1.5	2895	90L	86.5	87.0	85.0	85.0	79.0	66.5	2.84	25	0.504	300	265	375	0.012
		1440	90L	87.0	86.0	84.0	76.0	67.0	53.0	3.16	27	1.014	285	215	340	0.023
		950	100L	84.0	84.0	81.5	73.0	67.0	54.0	3.40	25	1.536	235	225	280	0.059
		705	112M	81.0	81.0	78.5	66.5	58.0	45.0	3.87	20	2.070	170	155	235	0.090
3	2.2	2900	90L	87.5	87.0	85.0	80.0	72.0	58.0	4.37	40	0.738	340	295	405	0.014
		1455	100L	88.2	88.0	86.0	78.0	73.0	59.0	4.45	40	1.471	275	195	355	0.046
		965	112M	87.2	85.5	85.0	67.0	54.0	47.5	5.24	35	2.218	200	180	285	0.084
		705	132S	84.6	83.5	82.0	69.0	60.0	46.5	5.24	30	3.036	230	205	265	0.138
4	3	2870	100L	88.5	88.5	87.0	88.0	85.0	76.0	5.36	50	1.017	355	330	375	0.025
		1450	100L	89.1	87.5	85.5	78.0	69.0	54.5	6.01	55	2.013	285	200	360	0.052
		970	132S	88.8	87.5	86.0	78.0	71.0	59.0	6.03	45	3.009	200	180	295	0.154
		715	132M	85.3	85.0	83.0	64.0	54.5	41.0	7.65	45	4.083	280	260	330	0.180
5.5	4	2885	112M	90.3	90.5	90.0	90.0	87.0	80.0	6.85	72	1.349	315	300	350	0.046
		1450	112M	90.0	89.5	89.0	82.0	76.0	63.5	7.54	65	2.684	275	155	330	0.083
		970	132M	89.6	89.0	87.0	78.0	71.5	59.0	7.96	60	4.012	210	195	310	0.206
		720	160M	87.1	86.0	84.5	70.5	62.0	48.5	9.06	55	5.406	190	170	250	0.344
7.5	5.5	2930	132S	91.7	91.5	90.5	85.0	82.0	73.0	9.82	85	1.826	220	190	300	0.075
		1460	132S	91.0	90.5	90.5	85.5	81.0	72.0	9.83	90	3.665	250	205	320	0.133
		970	132M	89.5	89.5	88.5	74.5	66.5	54.0	11.5	95	5.517	245	215	335	0.217
		720	160M	88.0	87.0	85.0	71.5	63.0	50.0	12.2	75	7.433	200	185	275	0.504
10	7.5	2920	132S	91.7	91.0	91.5	85.0	79.0	70.0	13.4	110	2.499	210	175	275	0.082
		1465	132M	91.7	92.0	91.5	85.0	80.5	71.0	13.4	120	4.981	255	195	345	0.173
		970	160M	91.0	90.5	89.5	79.0	73.0	61.5	14.5	100	7.523	270	235	270	0.484
		720	160L	89.0	88.0	86.0	71.0	64.5	51.0	16.5	100	10.14	225	215	295	0.672
15	11	2945	160M	93.2	92.5	92.0	91.0	89.0	83.5	18.0	140	3.634	230	185	285	0.183
		1465	160M	92.9	92.5	92.0	86.0	82.5	73.5	19.2	140	7.306	235	190	275	0.367
		965	160L	91.5	91.0	90.5	80.0	74.5	63.0	20.9	160	11.09	285	255	295	0.630
		720	180L	90.5	90.5	90.0	82.0	81.0	82.5	20.6	125	14.87	170	150	210	1.278
20	15	2935	160M	93.5	92.0	91.5	90.0	87.0	80.0	24.8	195	4.973	240	215	310	0.205
		1465	160L	93.0	93.0	92.5	86.0	83.0	74.5	26.1	195	9.962	245	195	285	0.462
		970	180L	92.0	92.0	92.0	84.0	81.0	72.5	27.0	170	15.05	230	165	250	1.342
		730	200L	91.7	90.5	89.0	78.0	72.0	60.0	29.2	180	19.99	195	170	230	2.085
25	18.5	2940	160L	93.8	93.5	93.0	90.5	87.0	79.5	30.3	245	6.123	260	225	300	0.237
		1480	180M	94.0	94.0	93.0	83.0	76.0	64.5	33.0	245	12.16	200	140	250	0.707
		975	200L	93.0	93.0	92.5	82.0	78.5	69.5	33.7	220	18.46	230	165	245	1.835
		735	225S	93.6	93.0	92.5	77.0	71.5	60.0	35.7	190	24.49	195	125	195	2.907

NOTE :
1. The above are typical values based on test According to IEC 60034-2.
2. Efficiency, power factor, speed and torque are the same for other voltages. Current values vary inversely with voltage.
3. Tolerance according to IEC 60034-1, AS1359.
4. Data subject to change without notice.

PERFORMANCE DATA

3-PHASE SQUIRREL CAGE
HIGH EFFICIENCY INDUCTION MOTORS

MODEL
AEMBXZ

TEFC, CLASS H, 40℃ AMBIENT TEMP.
AS ; BS DESIGN N CONTINUOUS DUTY
S.F. 1.0, 380, 400, 415, 440V 50HZ

TYPICAL PERFORMANCE (415 V)

OUTPUT		FULL LOAD RPM	FRAME NO.	EFFICIENCY			POWER FACTOR			CURRENT		TORQUE				ROTOR GD2 kg-m2
HP	kW			FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (%)	3/4 LOAD (%)	1/2 LOAD (%)	FULL LOAD (A)	LOCKED ROTOR (A)	FULL LOAD kg-m	LOCKED ROTOR %FLT	PULL UP %FLT	BREAK DOWN %FLT	
30	22	2950	180M	94.1	94.0	93.0	87.0	85.0	77.0	37.4	330	7.256	225	180	275	0.283
		1480	180L	94.5	94.0	93.5	83.0	76.5	65.0	39.0	270	14.46	200	140	240	0.792
		975	200L	93.5	93.5	93.5	82.5	79.5	71.0	39.7	260	21.95	220	180	240	2.085
		740	225M	93.5	93.0	92.0	73.0	66.0	54.0	44.8	230	28.93	225	145	230	3.256
40	30	2945	200L	94.5	94.0	93.0	90.5	91.0	88.5	48.8	350	9.912	170	120	250	0.602
		1475	200L	94.5	94.5	94.5	86.0	84.5	77.0	51.4	410	19.79	265	215	285	1.451
		985	225M	94.6	94.0	93.5	83.0	79.5	70.0	53.1	305	29.63	210	170	230	3.023
		735	250S	93.5	93.0	92.0	74.5	68.0	56.0	59.9	420	39.71	260	225	295	4.938
50	37	2960	200L	94.9	94.5	93.5	91.0	90.5	87.0	59.6	465	12.16	195	140	275	0.753
		1480	225S	95.4	95.0	94.5	85.0	82.0	74.0	63.5	460	24.33	205	185	290	1.896
		985	250S	94.5	94.5	94.5	86.0	82.5	74.0	63.3	450	36.55	245	210	265	4.559
		740	250M	94.0	93.0	92.0	76.0	70.0	58.5	72.1	490	48.65	245	215	270	5.669
60	45	2970	225M	95.2	95.0	94.0	93.0	92.0	87.0	70.7	555	14.74	150	120	320	1.357
		1480	225M	95.2	95.0	95.0	85.5	82.0	74.0	76.9	510	29.58	200	170	275	1.979
		985	250M	94.5	94.5	94.0	86.5	84.0	76.0	76.6	585	44.45	240	205	270	5.106
		737	280S	93.6	93.4	92.6	78.0	72.0	60.5	86.1	560	59.41	150	130	270	8.600
75	55	2970	250S	95.8	94.5	94.0	91.5	90.5	87.0	88.0	645	18.02	150	130	315	1.511
		1485	250S	95.5	95.0	95.0	86.0	83.5	76.5	93.7	690	36.04	220	245	275	3.911
		984	280S	95.0	94.3	94.0	83.0	81.0	73.0	97.7	840	54.39	240	200	260	8.900
		737	280M	93.6	93.4	92.6	79.0	73.0	61.5	104	840	72.61	150	130	270	10.60
100	75	2960	250M	95.5	95.0	95.0	92.0	91.0	88.0	119	825	24.65	140	130	295	1.745
		1480	250M	95.7	95.0	95.0	86.0	84.5	79.0	128	940	49.31	220	230	250	4.490
		984	280M	95.2	94.7	94.3	83.0	81.0	74.0	132	980	74.16	240	200	265	11.80
		737	315M	94.0	93.8	93.0	82.0	76.0	64.0	135	980	99.02	130	110	230	21.30
125	90	2962	280S	95.5	95.0	94.0	88.5	87.0	81.0	148	1200	29.56	170	150	230	2.800
		1480	280S	95.7	95.2	94.2	86.5	83.6	77.0	151	1200	59.17	210	170	250	6.800
		988	315M	95.5	95.0	94.3	84.0	82.5	76.0	156	1200	88.63	230	190	275	18.90
		737	315M	94.2	94.0	93.2	82.5	76.5	64.5	161	1200	118.8	130	110	230	26.70
150	110	2960	280M	95.8	95.3	94.0	89.0	87.5	81.0	179	1530	36.16	180	160	230	3.300
		1482	280M	96.0	95.5	94.4	87.5	84.0	77.5	182	1530	72.22	210	180	230	8.100
		985	315M	95.8	95.3	94.8	84.5	83.0	76.5	189	1530	108.7	200	160	255	20.80
175	132	2976	315M	96.1	95.6	94.3	89.5	87.8	82.0	214	1830	43.16	180	140	220	5.400
		1482	315M	96.1	95.6	94.8	88.0	84.5	78.5	217	1830	86.66	220	180	250	12.10
200	150	2976	315M	96.1	95.6	94.5	90.0	89.0	83.0	241	2050	49.04	180	120	240	6.200
		1485	315M	96.3	95.8	94.8	88.0	84.5	79.0	246	2050	98.28	200	160	250	14.10
215	160	2978	315M	95.6	95.6	95.0	87.5	85.5	79.0	266	2200	52.28	180	130	220	6.496
		1490	315M	95.8	95.8	95.4	83.9	81.2	69.0	275	2200	104.5	150	140	250	13.57
250	185	2979	315M	95.8	95.7	95.1	88.0	86	79.5	305	2500	60.42	180	140	220	7.424
		1491	315M	96.5	96.3	95.6	85.0	81.2	72.2	314	2500	120.7	165	155	250	15.46

NOTE :

1. The above are typical values based on test According to IEC 60034-2.
2. Efficiency, power factor, speed and torque are the same for other voltages. Current values vary inversely with voltage.
3. Tolerance according to IEC 60034-1, AS1359.
4. Data subject to change without notice.

Ex d Converter Operation

FRAME SIZE 80~315MC

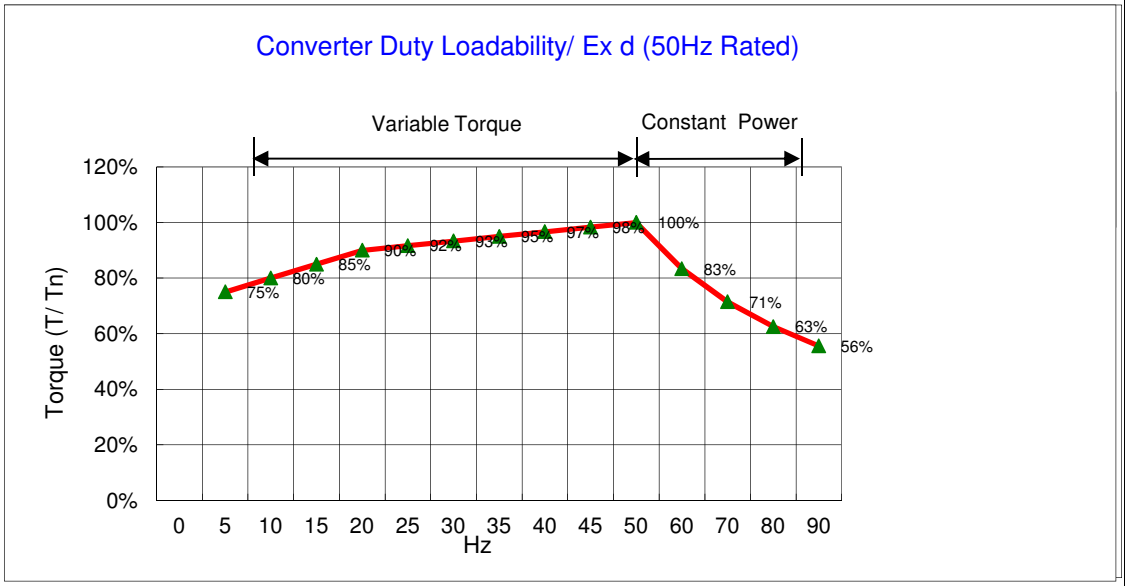
MODEL

AEMBXZ

Continuous Output Under Converter/ Ex d ,Ex de, Temp. Code T4, TEFC (IC411)

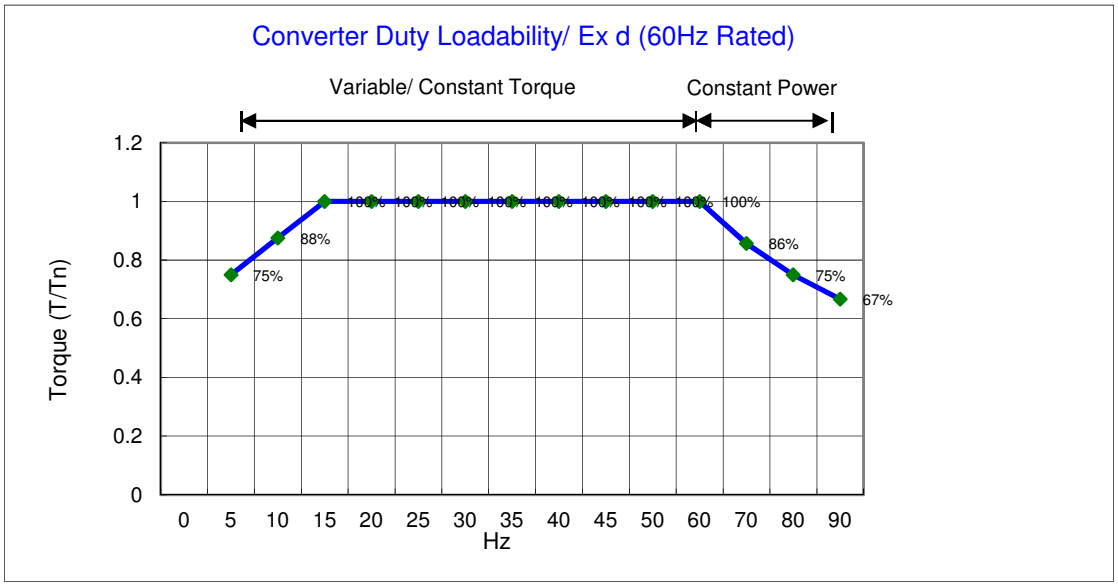
50Hz rated Motor

Output	Torque value
Hz	%
0	
5	75%
10	80%
15	85%
20	90%
25	92%
30	93%
35	95%
40	97%
45	98%
50	100%
60	83%
70	71%
80	63%
90	56%



60Hz rated Motor

Output	Torque value
Hz	%
0	
5	75%
10	88%
15	100%
20	100%
25	100%
30	100%
35	100%
40	100%
45	100%
50	100%
60	100%
70	86%
80	75%
90	67%



Notes:

1) Installation: to follow the guidelines detailed in "IEC60034-25 Cage induction MOTOR when fed from converters - Application guide" within the certified Schedule of Variations.
2) Maximum safe operating speed:
   2p: 3600 (min^{-1})
   4p & 6p & 8p : follow IEC60034-1,Table 17
3) With thermisters PTC 140℃ (total 3, one per phase)
4) Converter operation parameter
   - F carrier(min.) 3kHz
   - IOL=1.5 IN, tOL=10s, tCOOL=10 min. (OL: Over Load)
5) Constant power range is not suitable for F#315

OUTLINE DIMENSION SHEET

FLAMEPROOF MOTOR Ex d
3-PHASE HIGH EFFICIENCY
FRAME SIZE 80~112M

MODEL
AEMBXZ

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.

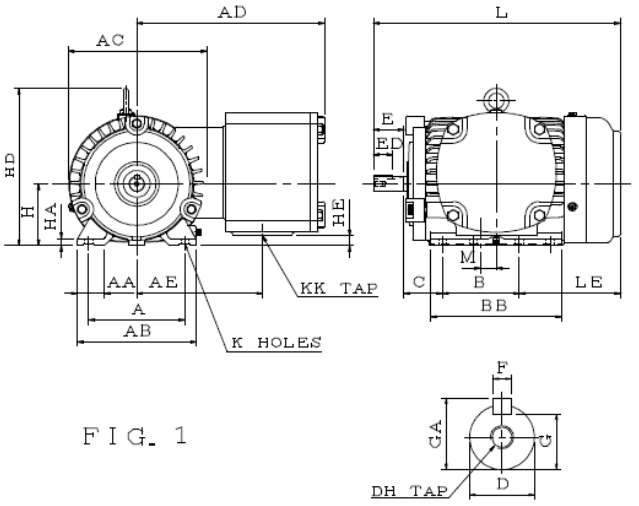


FIG. 1

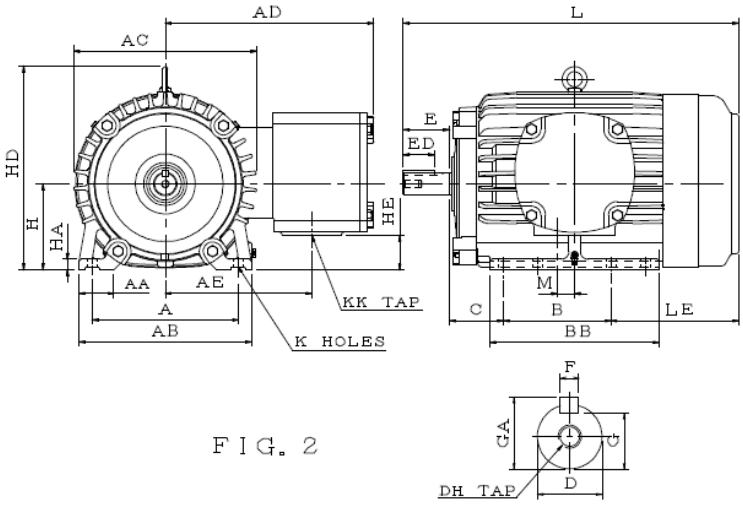


FIG. 2

Dimension in mm

Output (kW)				FRAME SIZE	FIG. NO.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE
2P	4P	6P	8P															
0.75 1.1	0.75	-	-	80	1	125	35.5	155	177	246	163.5	100	170	50	80	9.0	204	12.5
1.5 2.2	1.1 1.5	0.75 1.1	-	90L		140	35.5	170	201	257	174.5	125	215	56	90	10.0	223	22.5
3	2.2 3	1.5	0.75 1.1	100L	2	160	45.0	195	221	265	182.0	140	225	63	100	12.5	243	32.5
4	4	2.2	1.5	112M		190	45.0	224	239	273	190.5	140	220	70	112	14.0	265	44.5

FRAME SIZE	M	K	KK	L	LE	SHAFT EXTENSION							BEARING		APPROX. WEIGHT KGS
						D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END	
80	20.0	10	M20X1.5	322.0	132.0	19	40	25	6	15.5	21.5	M6×12	6204ZZC3	6204ZZC3	31
90L	31.0	10	M20X1.5	402.5	171.5	24	50	32	8	20.0	27.0	M8×16	6205ZZC3	6205ZZC3	42
100L	25.0	12	M20X1.5	425.5	162.5	28	60	40	8	24.0	31.0	M10×20	6206ZZC3	6305ZZC3	52
112M	22.5	12	M20X1.5	441.0	171.0	28	60	40	8	24.0	31.0	M10×20	6306ZZC3	6306ZZC3	62

Note： 1. Tolerance of shaft end diameter D： ϕ19 ~ ϕ28：j6 .

2. Tolerance of shaft center hight H：+0 , -0.5 .

OUTLINE DIMENSION SHEET

FLAMEPROOF MOTOR Ex d
3-PHASE HIGH EFFICIENCY
FRAME SIZE 132S~180LC

MODEL **AEMBXZ**

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.

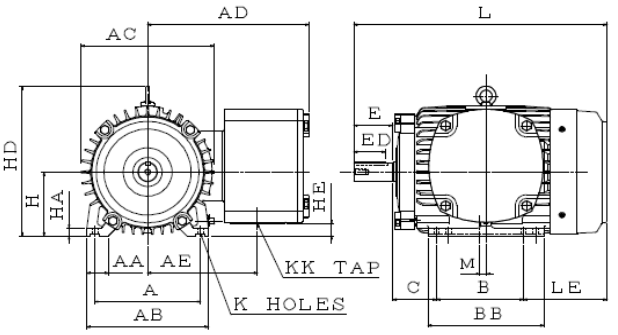
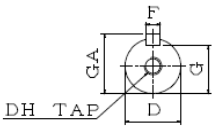


FIG. 3



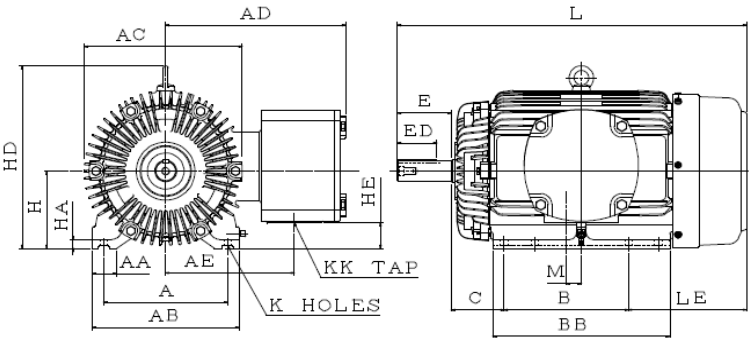
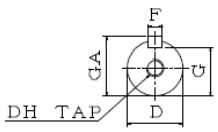


FIG. 4



Dimension in mm

Output (kW)				FRAME	FIG.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE
2P	4P	6P	8P	SIZE	NO.													
5.5 7.5	5.5	3	2.2	132S	3	216	45	250	273	330	225	140	237	89	132	16	310	25
—	7.5	4 5.5	3	132M		216	45	250	273	330	225	178	237	89	132	16	310	25
11 15	11	7.5	4 5.5	160M	4	254	50	300	334	368	263	210	362	108	160	18	378	50
18.5	15	11	7.5	160L		254	50	300	334	368	263	254	362	108	160	18	378	50
22	—	—	—	180MA		279	75	355	382	393	288	241	335	121	180	20	431	70
—	18.5	—	—	180MC		279	75	355	382	393	288	241	335	121	180	20	431	70
—	22	15	11	180LC		279	75	355	382	393	288	279	335	121	180	20	431	70

FRAME SIZE	M	K	KK	L	LE	SHAFT EXTENSION							BEARING		APPROX. WEIGHT KGS
						D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END	
132S	31.5	12.0	M25X1.5	520	211	38	80	64	10	33.0	41.0	M12×24	6308ZZC3	6306ZZC3	114
132M	12.5	12.0	M25X1.5	520	173	38	80	64	10	33.0	41.0	M12×24	6308ZZC3	6306ZZC3	119
160M	53.0	14.5	M25X1.5	714	286	42	110	80	12	37.0	45.0	M16×32	6309ZZC3	6307ZZC3	173
160L	31.0	14.5	M25X1.5	714	242	42	110	80	12	37.0	45.0	M16×32	6309ZZC3	6307ZZC3	197
180MA	19.0	14.5	M32X1.5	710	238	48	110	80	14	42.5	51.5	M16×32	6311ZZC3	6310ZZC3	205
180MC	19.0	14.5	M32X1.5	710	238	48	110	80	14	42.5	51.5	M16×32	6311ZZC3	6310ZZC3	210
180LC	0.0	14.5	M32X1.5	710	200	48	110	80	14	42.5	51.5	M16×32	6311ZZC3	6310ZZC3	254

Note： 1. Tolerance of shaft end diameter D： ϕ38 ~ ϕ48：k6 .

2. Tolerance of shaft center hight H：+0 , -0.5 .

OUTLINE DIMENSION SHEET

FLAMEPROOF MOTOR Ex d
3-PHASE HIGH EFFICIENCY
FRAME SIZE 200LA~280MC

MODEL
AEMBXZ

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.

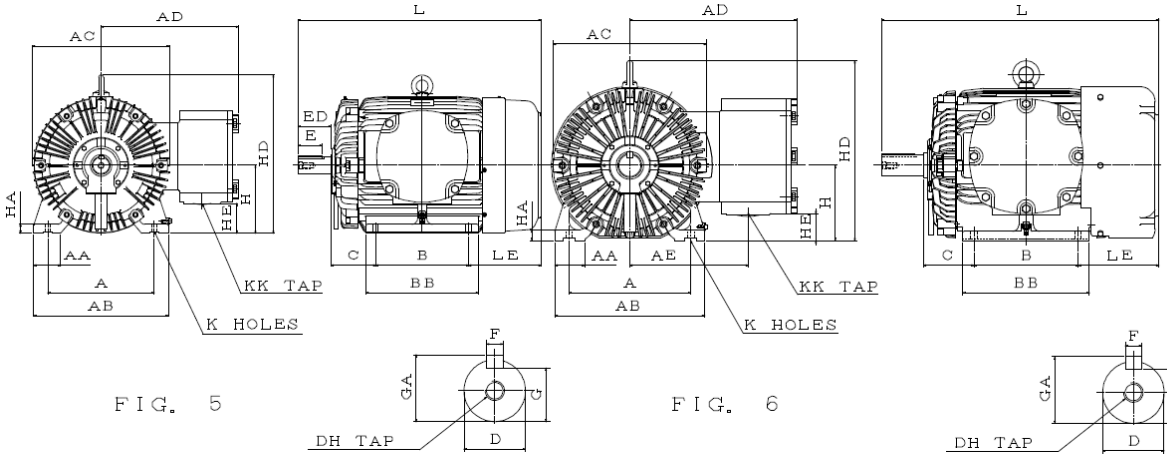


FIG. 5　　FIG. 6

Dimension in mm

Output (kW)				FRAME	FIG.	A	AA	AB	AC	AD	AE	B	BB	C	H	HA	HD	HE
2P	4P	6P	8P	SIZE	NO.													
30 37	—	—	—	200LA	5	318	80	400	420	438	318	305	365	133	200	25	470	64
—	30	18.5 22	15	200LC		318	80	400	420	438	318	305	365	133	200	25	470	64
—	37	—	18.5	225SC		356	90	450	458	458	338	286	375	149	225	30	525	99
45	—	—	—	225MA		356	90	450	458	458	338	311	375	149	225	30	525	99
—	45	30	22	225MC		356	90	450	458	458	338	311	375	149	225	30	525	99
55	—	—	—	250SA	6	406	100	500	523	558	395	311	385	168	250	36	597	85
—	55	37	30	250SC		406	100	500	523	558	395	311	385	168	250	36	597	85
75	—	—	—	250MA		406	100	500	523	558	395	349	425	168	250	36	597	85
—	75	45	37	250MC		406	100	500	523	558	395	349	425	168	250	36	597	85
90	—	—	—	280SA		457	110	560	577	588	425	368	445	190	280	40	655	115
—	90	55	45	280SC		457	110	560	577	588	425	368	445	190	280	40	655	115
110	—	—	—	280MA		457	110	560	577	588	425	419	495	190	280	40	655	115
—	110	75	55	280MC		457	110	560	577	588	425	419	495	190	280	40	655	115

FRAME SIZE	K	KK	L	LE	SHAFT EXTENSION							BEARING		APPROX. WEIGHT KGS
					D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END	
200LA	18.5	M50X1.5	770.0	222.0	55	110	80	16	49.0	59.0	M20×40	6312C3	6212C3	358
200LC	18.5	M50X1.5	770.0	222.0	55	110	80	16	49.0	59.0	M20×40	6312C3	6212C3	388
225SC	18.5	M50X1.5		266.0		140	110	18	53.0	64.0	M20×40	6313C3	6213C3	438
225MA	18.5	M50X1.5	811.0	241.0	55	110	80	16	49.0	59.0	M20×40	6312C3	6212C3	458
225MC	18.5	M50X1.5	841.0	241.0	60	140	110	18	53.0	64.0	M20×40	6313C3	6213C3	468
250SA	24.0	M63X1.5	887.5	268.5	60	140	110	18	53.0	64.0	M20×40	6313C3	6313C3	596
250SC	24.0	M63X1.5	887.5	268.5	70	140	110	20	62.5	74.5	M20×40	6317C3	6313C3	609
250MA	24.0	M63X1.5	925.5	268.5	60	140	110	18	53.0	64.0	M20×40	6313C3	6313C3	659
250MC	24.0	M63X1.5	925.5	268.5	70	140	110	20	62.5	74.5	M20×40	6317C3	6313C3	699
280SA	24.0	M63X1.5	992.0	294.0	65	140	110	18	58.0	69.0	M20×40	6314C3	6313C3	741
280SC	24.0	M63X1.5	1022.0	294.0	80	170	140	22	71.0	85.0	M20×40	NU318C3	6318C3	838
280MA	24.0	M63X1.5	1042.0	293.0	65	140	110	18	58.0	69.0	M20×40	6314C3	6313C3	811
280MC	24.0	M63X1.5	1072.0	293.0	80	170	140	22	71.0	85.0	M20×40	NU318C3	6318C3	935

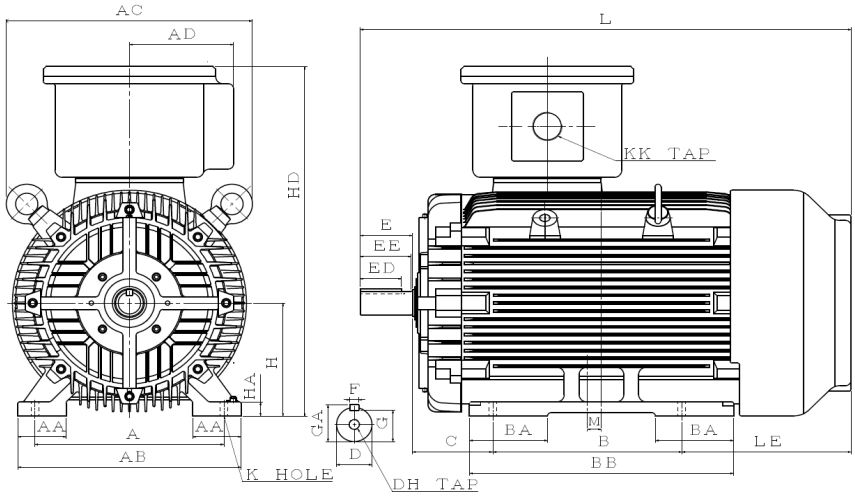
Note： 1. Tolerance of shaft end diameter D： ϕ55 ~ ϕ80：m6 .
2. Tolerance of shaft center hight H：200~250：+0 , -0.5 ; 280：+0, -1 .

OUTLINE DIMENSION SHEET

FLAMEPROOF MOTOR Ex d
3-PHASE LOW VOLTAGE SQUIRREL CAGE
FRAME SIZE 315MA-315MC

MODEL
AEMBXZ

Totally Enclosed Fan - Cooled Type, Squirrel - Cage Rotor.



Dimension in mm

FIG. 7

Output (kW)				FRAME SIZE	FIG. NO.	A	AA	AB	AC	AD	B	BA	BB	C	EE	H	HA
2P	4P	6P	8P														
132/150/160/185	-	-	-	315MA	7	508	130	600	662	315	457	210	710	216	134	315	40
-	132/150/160/185	90/110/132	75/90	315MB		508	130	600	662	315	457	210	710	216	157	315	40
-	132/150/160/185	90/110/132	75/90	315MC		508	130	600	662	315	457	210	710	216	157	315	40

FRAME SIZE	HD	K	KK	L	LE	M	SHAFT EXTENSION							BEARING		APPROX. WEIGHT KGS
							D	E	ED	F	G	GA	DH	DRIVE END	OPPOSITE DRIVE END	
315MA	974	28	M75x1.5	1319	506	63.5	65	140	110	18	58	69	M20x40	6316C3	6316C3	1380
315MB	974	28	M75x1.5	1349	506	63.5	85	170	140	22	76	90	M20x40	*6320C3	6316C3	1480
315MC	974	28	M75x1.5	1349	506	63.5	85	170	140	22	76	90	M20x40	NU320	6316C3	1480

Note：

1. Tolerance of shaft end diameter D：m6.
2. Tolerance of shaft center hight H：+0 , -1
3. * For Direct Flexible Coupling