



Applicable standard for testing: IS 4029  
Applicable standard for efficiency determination: IS 4889

Voltage : 415V+/-10%  
Frequency : 50Hz+/-5%  
Combined Variation : +/-10%

## Performance table for 2 Pole motors TEFC 3 Phase Squirrel Cage Induction Motors - Frame size 63 to 355L

Ambient : 50°C  
Duty : S1(Continuous)  
3000 rpm (2-Pole)

Ins. Class : F  
Temp. Rise : B  
Protection : IP55

Rated Output		Frame size IEC	Type ref. B3 construction	Rated Speed RPM	Rated Current Amps.	Rated Torque kg-m	Operating characteristics at rated output						With DOL starting		Pullout Torque to Rated Torque Ratio	Rotor GD <sup>2</sup> kgm <sup>2</sup>	Net Weight B3 constr. kg
kW	HP						Power Factor			% Efficiency			Starting Current to Rated Current Ratio	Starting Torque to rated torque ratio			
		FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L	1/2L	
0.18	0.25	63	MA063213	2720	0.57	0.06	0.76	0.66	0.52	58.0	57.0	52.0	3.2	2.7	3.0	0.0085	5
0.25	0.35	63	MA063233	2720	0.65	0.09	0.82	0.75	0.63	65.0	60.0	54.0	3.5	2.4	2.6	0.0099	5
0.37	0.50	71	MA071213	2790	0.91	0.13	0.80	0.72	0.60	71.0	68.0	62.0	4.0	2.3	2.8	0.0015	6
0.55	0.75	71	MA071233	2805	1.31	0.19	0.79	0.72	0.58	74.0	74.0	71.0	5.0	2.7	3.0	0.0019	7
0.75	1.0	80	MA080213	2830	1.65	0.26	0.82	0.74	0.62	77.0	76.0	72.0	5.0	2.5	2.8	0.0037	10
1.1	1.5	80	MA080233	2840	2.36	0.38	0.82	0.75	0.63	79.0	79.0	76.0	5.9	2.7	3.0	0.0051	11
1.5	2.0	90S	MA09S233	2825	3.01	0.52	0.86	0.83	0.76	80.6	80.6	74.0	5.5	2.7	3.0	0.0071	15
2.2	3.0	90L	MA09L253	2830	4.36	0.76	0.85	0.82	0.74	82.5	80.0	76.0	6.0	3.0	3.0	0.0093	18
3.7	5.0	100L	MA10L213	2900	7.12	1.24	0.85	0.80	0.70	85.0	83.0	78.0	6.5	2.8	3.0	0.0188	24
5.5	7.5	132S	MA13S2B3	2920	10.1	1.83	0.88	0.85	0.77	85.7	85.0	80.0	6.5	2.3	3.0	0.0630	52
7.5	10.0	132S	MA13S2E3	2920	13.6	2.50	0.88	0.84	0.76	87.0	86.0	82.0	6.5	2.3	3.0	0.0760	65
9.3	12.5	132M	MA13M2N3	2920	16.5	3.10	0.89	0.85	0.76	88.0	86.0	83.0	6.5	2.4	2.9	0.0980	67
11	15	160M	MA16M213	2920	19.3	3.67	0.89	0.87	0.83	89.0	88.0	86.0	5.8	2.0	3.0	0.134	95
15	20	160M	MA16M253	2920	26.2	5.00	0.89	0.88	0.82	89.5	89.0	87.0	6.0	2.0	3.0	0.171	112
18.5	25	160L	MA16L273	2920	31.6	6.17	0.90	0.88	0.86	90.5	90.0	88.0	6.5	2.0	3.0	0.225	123
22	30	180M	MA18M213	2930	37.6	7.31	0.89	0.87	0.80	91.5	90.5	88.0	6.5	2.2	2.7	0.30	168
30	40	200L	MA20L233	2950	51.2	9.91	0.88	0.85	0.79	92.6	92.0	89.5	6.5	2.5	2.5	0.52	253
37	50	200L	MA20L253	2945	62.9	12.2	0.88	0.85	0.79	93.0	92.5	91.0	6.5	2.5	2.5	0.61	264
45	60	225M	MA22M233	2960	74.4	14.8	0.90	0.87	0.83	93.5	93.0	91.0	6.0	2.5	2.5	1.04	348
55	75	250M	MA25M213	2960	89.1	18.1	0.92	0.91	0.86	93.3	92.8	91.5	6.0	2.1	2.6	2.11	523
75	100	280S	MA28S213	2970	122	24.6	0.91	0.89	0.84	93.7	92.5	90.0	6.0	1.8	2.7	2.63	626
90	120	280M	MA28M233	2970	146	29.5	0.91	0.89	0.84	94.0	93.0	91.0	6.0	1.8	2.7	3.01	669
110	150	315S	MA31S233	2982	180	35.9	0.90	0.86	0.78	94.5	94.0	91.5	7.0	2.0	2.5	5.0	898
125	170	315M	MA31M2A3	2982	206	40.8	0.89	0.85	0.76	94.7	93.5	91.5	7.0	2.2	2.6	5.0	940
132	180	315M	MA31M233	2982	215	43.1	0.90	0.86	0.78	95.0	94.0	92.0	7.0	2.0	2.5	5.0	940
150	200	315L	MA31L2A3	2982	247	49.0	0.89	0.84	0.76	95.1	94.2	92.2	7.0	2.0	2.5	6.2	1100
160	215	315L	MA31L253	2982	260	52.3	0.90	0.85	0.77	95.2	94.6	92.7	7.0	2.0	2.5	6.2	1100
180	240	315L	MA31L2B3	2982	299	58.8	0.88	0.82	0.75	95.3	94.7	92.7	7.0	2.0	2.5	7.7	1185
200	270	355L	MA35L2A3	2985	324	65.3	0.90	0.87	0.82	95.5	95.0	93.0	7.0	1.6	2.4	12.0	1680
*250	335	355L	MA35L213	2985	404	81.6	0.90	0.88	0.84	95.7	95.2	93.7	7.0	1.6	2.4	12.0	1680
*315	425	355L	MA35L233	2985	508	102.8	0.90	0.88	0.84	95.8	95.3	93.8	7.0	1.6	2.4	14.7	1870

**Notes:**

- All performance values are subject to tolerance as per IS/IEC 60034-1
- Ratings above 355kW up to 630kW are available in 355 & 400 frames with Dual Circuit Cooling Arrangement (DCCA).
- Efficiency measurement are without sales
- \*- These ratings are suitable for class F temperature rise



# INDUSTRIAL TEFC SCR MOTORS

Applicable standard for testing: IS 4029  
 Applicable standard for efficiency determination: IS 4889

Voltage : 415V +/-10%  
 Frequency : 50Hz +/-5%  
 Combined Variation : +/-10%

## Performance table for 4 Pole motors TEFC 3 Phase Squirrel Cage Induction Motors - Frame size 63 to 355L

Ambient : 50°C  
 Duty : S1 (Continuous)  
 1500 rpm (4-Pole)

Ins. Class : F  
 Temp. Rise : B  
 Protection : IP55

Rated Output		Frame size IEC	Type ref. B3 construction	Rated Speed RPM	Rated Current Amps.	Rated Torque kg-m	Operating characteristics at rated output						With DOL starting		Pullout Torque to Rated Torque Ratio	Rotor GD <sup>2</sup> kgm <sup>2</sup>	Net Weight B3 constr. kg
							Power Factor			% Efficiency			Starting Current to Rated Current Ratio	Starting Torque to rated torque ratio			
KW	HP	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L			1/2L		
0.12	0.16	63	MA063413	1330	0.41	0.09	0.75	0.65	0.50	54.0	48.0	40.0	2.4	1.9	2.3	0.00140	5
0.18	0.25	63	MA063433	1350	0.56	0.13	0.75	0.65	0.50	60.0	56.0	50.0	3.0	2.0	2.3	0.00160	5
0.25	0.35	71	MA071413	1370	0.68	0.18	0.76	0.63	0.51	67.0	64.0	58.0	3.0	2.0	2.5	0.0024	6
0.37	0.50	71	MA071433	1360	1.02	0.26	0.71	0.62	0.50	71.0	70.0	64.0	3.4	2.3	2.5	0.0033	7
0.55	0.75	80	MA080413	1405	1.28	0.38	0.81	0.70	0.56	74.0	71.0	67.0	4.0	2.4	2.6	0.0061	10
0.75	1.0	80	MA080433	1405	1.74	0.52	0.78	0.70	0.58	77.0	76.0	72.0	4.5	2.8	3.0	0.0072	11
1.1	1.5	90S	MA09S433	1410	2.45	0.76	0.80	0.73	0.61	78.0	77.0	72.0	4.2	2.3	2.7	0.0120	14
1.5	2.0	90L	MA09L453	1410	3.26	1.04	0.80	0.72	0.58	80.0	79.0	75.0	5.0	2.5	3.0	0.0160	17
2.2	3.0	100L	MA10L433	1420	4.55	1.51	0.82	0.69	0.53	82.0	80.0	76.0	5.5	2.5	3.0	0.0210	22
3.7	5.0	112M	MA11M433	1430	7.3	2.52	0.83	0.76	0.65	85.0	85.0	82.0	6.0	2.6	3.0	0.0530	32
5.5	7.5	132S	MA13S483	1450	10.3	3.69	0.86	0.81	0.70	86.5	86.0	84.0	6.0	2.4	3.0	0.1040	50
7.5	10.0	132M	MA13M4K3	1450	13.7	5.04	0.87	0.82	0.72	87.5	87.0	85.0	6.0	2.3	3.0	0.1260	74
9.3	12.5	160M	MA16M4A3	1450	17.4	6.25	0.84	0.80	0.72	88.5	88.0	87.0	6.0	2.0	2.5	0.141	93
11	15	160M	MA16M4C3	1450	20.5	7.39	0.84	0.81	0.76	89.0	89.0	86.0	6.0	2.1	2.5	0.177	105
15	20	160L	MA16L4K3	1450	27.5	10.1	0.84	0.83	0.79	90.2	90.5	90.0	6.0	2.1	2.5	0.235	113
18.5	25	180M	MA18M433	1460	33.2	12.3	0.85	0.82	0.72	91.2	91.2	90.0	6.0	2.4	2.5	0.460	160
22	30	180L	MA18L473	1460	39.2	14.7	0.85	0.82	0.72	91.8	91.5	90.0	6.0	2.4	2.5	0.540	188
30	40	200L	MA20L433	1465	51.6	19.9	0.88	0.84	0.77	92.0	92.0	90.0	6.0	2.6	2.6	0.860	270
37	50	225S	MA22S413	1470	63.6	24.5	0.87	0.83	0.75	93.0	93.0	91.0	6.0	2.5	2.5	1.32	328
45	60	225M	MA22M433	1470	76.3	29.8	0.88	0.84	0.75	93.2	93.2	91.0	6.0	2.5	2.5	1.60	362
55	75	250M	MA25M413	1478	93.8	36.2	0.87	0.84	0.77	93.8	93.5	92.0	6.0	2.4	2.5	2.78	500
75	100	280S	MA28S413	1485	129	49.2	0.86	0.83	0.75	94.2	94.0	93.0	6.0	2.1	2.8	5.00	653
90	120	280M	MA28M433	1485	154	59.0	0.86	0.83	0.75	94.7	94.5	93.5	6.0	2.1	2.8	6.00	713
110	150	315S	MA31S413	1485	188	72.1	0.86	0.83	0.76	94.7	94.5	93.2	6.5	2.5	3.0	9.97	862
125	170	315M	MA31M4A3	1486	216	81.9	0.85	0.81	0.74	94.8	94.5	93.3	6.5	2.5	3.0	11.7	965
132	180	315M	MA31M433	1487	225	86.5	0.86	0.83	0.76	95.0	94.8	93.8	6.5	2.5	3.0	11.7	965
150	200	315L	MA31L4A3	1488	261	98.2	0.84	0.80	0.72	95.2	95.0	93.9	6.5	2.5	3.0	14.0	1145
160	215	315L	MA31L453	1487	268	104.8	0.87	0.84	0.78	95.4	95.2	94.0	6.5	2.4	3.0	14.0	1145
180	240	315L	MA31L463	1487	305	117.9	0.86	0.83	0.76	95.5	95.3	94.0	6.5	2.5	3.0	15.6	1225
200	270	315L	MA31L473	1489	338	130.8	0.86	0.83	0.76	95.6	95.4	94.0	7.0	2.5	3.0	17.8	1290
250	335	355L	MA35L413	1488	413	163.6	0.88	0.85	0.75	95.8	95.5	94.0	6.5	2.2	2.5	23.3	1680
315	422	355L	MA35L433	1488	519	206.2	0.88	0.85	0.75	96.0	95.6	94.2	6.5	2.2	2.5	32.7	1855
*355	475	355L	MA35L453	1488	585	232.4	0.88	0.85	0.75	96.0	95.6	94.2	6.5	2.2	2.5	37.9	2025

**Notes:**

- All performance values are subject to tolerance as per IS/IEC 60034-1
- Ratings above 400 kW up to 1000kW are available in 355, 400 & 450 frames with Dual Circuit Cooling Arrangement (DCCA).
- Efficiency measurement are without sales
- \*. These ratings are suitable for class F temperature rise

Applicable standard for testing: IS 4029  
 Applicable standard for efficiency determination: IS 4889  
 Voltage : 415V+/-10%  
 Frequency : 50Hz+/-5%  
 Combined Variation : +/-10%

## Performance table for 6 Pole motors TEFC 3 Phase Squirrel Cage Induction Motors - Frame size 71 to 355L

Ambient : 50° C  
 Duty : S1 (Continuous)  
 1000 rpm (6-Pole)

Ins. Class : F  
 Temp. Rise : B  
 Protection : IP55

Rated Output		Frame size IEC	Type ref. B3 construction	Rated Speed RPM	Rated Current Amps.	Rated Torque kg-m	Operating characteristics at rated output						With DOL starting		Pullout Torque to Rated Torque Ratio	Rotor GD <sup>2</sup> kgm <sup>2</sup>	Net Weight B3 constr. kg	
							Power Factor			% Efficiency			Starting Current to Rated Current Ratio	Starting Torque to rated torque ratio				
KW	HP	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L	1/2L	FL	3/4L			1/2L			
0.25	0.35	71	MA071633	875	0.80	0.28	0.70	0.60	0.48	0.48	62.0	62.0	55.0	2.6	2.0	2.3	0.00380	7
0.37	0.50	80	MA080613	910	1.08	0.40	0.70	0.60	0.48	0.48	68.0	66.0	61.0	3.0	2.1	2.3	0.00600	10
0.55	0.75	80	MA080633	915	1.56	0.59	0.71	0.62	0.48	0.48	69.0	70.0	64.0	4.0	2.2	2.5	0.0084	11
0.75	1.0	90S	MA09S633	925	1.99	0.79	0.72	0.61	0.50	0.50	73.0	70.0	69.0	3.4	2.0	2.5	0.0122	14
1.1	1.5	90L	MA09L653	930	2.80	1.15	0.72	0.61	0.50	0.50	76.0	74.0	72.0	4.0	2.1	2.6	0.0160	17
1.5	2.0	100L	MA10L633	935	3.72	1.56	0.72	0.64	0.52	0.52	78.0	75.0	72.0	4.0	2.0	2.5	0.0250	22
2.2	3.0	112M	MA11M633	935	4.97	2.29	0.77	0.68	0.55	0.55	80.0	80.0	74.0	5.0	2.0	2.5	0.0500	29
3.7	5.0	132S	MA13S683	950	8.05	3.79	0.77	0.72	0.60	0.60	83.0	83.0	82.0	5.0	2.2	2.8	0.118	50
5.5	7.5	132M	MA13M6N3	950	11.6	5.64	0.78	0.74	0.64	0.64	84.5	84.5	83.0	5.5	2.5	3.0	0.172	71
7.5	10.0	160M	MA16M633	960	14.8	7.61	0.80	0.74	0.64	0.64	88.0	88.0	86.0	5.4	2.0	2.5	0.276	103
9.3	12.5	160L	MA16L663	960	18.4	9.44	0.80	0.74	0.64	0.64	88.0	88.0	87.0	5.5	2.1	2.5	0.340	113
11	15	160L	MA16L673	965	21.6	11.1	0.80	0.77	0.70	0.70	88.5	88.0	87.0	6.0	2.0	2.5	0.400	123
15	20	180L	MA18L613	965	29.0	15.1	0.80	0.75	0.62	0.62	90.0	90.0	87.0	5.5	2.6	2.3	0.680	175
18.5	25	200L	MA20L613	975	34.0	18.5	0.83	0.78	0.70	0.70	91.1	91.0	88.0	5.8	2.6	2.3	1.00	241
22	30	200L	MA20L633	975	40.3	22.0	0.83	0.77	0.68	0.68	91.5	91.0	88.0	5.8	2.6	2.3	1.20	254
30	40	225M	MA22M623	975	52.1	30.0	0.87	0.84	0.76	0.76	92.0	92.0	88.0	6.0	2.3	2.2	2.10	336
37	50	250M	MA25M603	975	63.2	37.0	0.88	0.85	0.82	0.82	92.5	92.5	91.0	6.0	2.5	2.3	3.51	458
45	60	280S	MA28S613	984	80.1	44.5	0.84	0.80	0.72	0.72	93.0	92.5	92.0	6.0	2.5	2.4	5.11	573
55	75	280M	MA28M633	984	95.2	54.4	0.86	0.83	0.76	0.76	93.5	93.0	92.0	6.0	2.4	2.4	6.16	620
75	100	315S	MA31S613	988	132	73.9	0.84	0.82	0.75	0.75	94.0	94.0	92.2	6.0	2.4	2.5	10.7	830
90	120	315M	MA31M633	989	158	88.6	0.84	0.80	0.74	0.74	94.2	94.2	92.5	6.0	2.2	2.5	12.4	912
110	150	315M	MA31M653	989	193	108.3	0.84	0.81	0.74	0.74	94.5	94.5	92.5	6.0	2.3	2.5	15.5	1010
125	170	315L	MA31L6A3	990	221	123.0	0.83	0.80	0.72	0.72	94.7	94.6	92.6	6.0	2.3	2.5	18.0	1175
132	180	315L	MA31L673	990	230	129.9	0.84	0.81	0.74	0.74	95.0	94.9	93.0	6.0	2.3	2.5	18.0	1175
150	200	315L	MA31L6B3	990	268	147.6	0.82	0.79	0.70	0.70	95.0	94.3	92.8	6.0	2.0	2.5	21.5	1231
160	215	315L	MA31L693	990	279	157.4	0.84	0.81	0.71	0.71	95.0	94.5	93.0	6.0	2.0	2.5	21.5	1231
180	240	355L	MA35L6A3	990	321	177.1	0.82	0.77	0.65	0.65	95.1	94.6	93.0	6.0	2.0	2.5	28.7	1670
200	270	355L	MA35L613	990	348	196.8	0.84	0.80	0.70	0.70	95.2	95	93.3	6.0	2.0	2.5	28.7	1670
250	335	355L	MA35L633	990	434	246.0	0.84	0.80	0.70	0.70	95.5	95	93.5	6.0	2.0	2.5	35.5	1780

**Notes:**

- All performance values are subject to tolerance as per IS/IEC 60034-1
- Ratings above 315kW up to 800kW are available in 355, 400 & 450 frames with Dual Circuit Cooling Arrangement (DCCA). Efficiency measurements are without seals.

## Performance table for 8 Pole motors TEFC 3 Phase Squirrel Cage Induction Motors - Frame size 90S to 355L

Applicable standard for testing: IS 4029  
Applicable standard for efficiency determination: IS 4889

Voltage : 415V+/-10%  
Frequency : 50Hz+/-5%  
Combined Variation : +/-10%

Ambient : 50° C  
Duty : S1(Continuous)  
750 rpm (8-Pole)

Ins. Class : F  
Temp. Rise : B  
Protection : IP55

Rated Output		Frame size IEC	Type ref. B3 construction	Rated Speed RPM	Rated Current Amps.	Rated Torque kg-m	Operating characteristics at rated output				With DOL starting		Pullout Torque to Rated Torque Ratio	Rotor GD <sup>2</sup> kgm <sup>2</sup>	Net Weight B3 constr. kg		
KW	HP						Power Factor			% Efficiency						Starting Current to Rated Current	Starting Torque to rated torque
		FL	3/4L	1/2L	FL	3/4L	1/2L	1/2L									
0.37	0.50	90S	MA09S813	700	1.32	0.51	0.63	0.52	0.41	62.0	55.0	48.0	2.7	1.8	2.1	0.01100	11
0.55	0.75	90L	MA09L853	690	1.81	0.78	0.63	0.55	0.43	67.0	62.0	58.0	2.9	2.0	2.4	0.01400	14
0.75	1.0	100L	MA10L813	685	2.04	1.07	0.73	0.63	0.50	70.0	70.0	64.0	3.0	1.6	1.8	0.0230	18
1.1	1.5	100L	MA10L833	690	2.91	1.55	0.71	0.62	0.48	74.0	73.0	71.0	3.3	1.9	2.3	0.0270	21
1.5	2.0	112M	MA11M813	705	3.87	2.07	0.70	0.62	0.50	77.0	77.0	75.0	3.8	1.7	2.2	0.0510	25
2.2	3.0	132S	MA13S8B3	705	5.03	3.04	0.78	0.74	0.64	78.0	78.0	75.0	3.5	1.8	2.3	0.0990	57
3.7	5.0	160M	MA16M813	720	8.05	5.01	0.78	0.74	0.65	82.0	82.0	78.0	4.4	1.8	2.0	0.217	88
5.5	7.5	160M	MA16M833	715	11.6	7.49	0.78	0.74	0.65	84.5	84.5	82.0	4.8	1.9	2.2	0.299	101
7.5	10.0	160L	MA16L873	710	15.6	10.29	0.78	0.74	0.65	86.0	84.0	82.0	5.5	2.1	2.2	0.400	119
9.3	12.5	180M	MA18M813	715	18.9	12.7	0.79	0.74	0.64	86.5	86.5	85.0	4.5	2.1	2.2	0.620	177
11	15	180L	MA18L833	720	22.1	14.9	0.79	0.74	0.64	87.5	87.5	86.0	4.5	2.1	2.2	0.720	182
15	20	200L	MA20L833	720	28.8	20.3	0.82	0.79	0.71	88.5	88.5	87.0	5.5	2.5	2.3	1.32	282
18.5	25	225S	MA22S813	725	36.6	24.9	0.79	0.77	0.69	89.0	88.0	87.0	5.3	2.1	2.2	1.950	329
22	30	225M	MA22M833	725	43.0	29.6	0.79	0.77	0.69	90.0	89.0	87.0	5.3	2.1	2.2	2.410	369
30	40	250M	MA25M813	730	55.9	40.0	0.82	0.78	0.68	91.0	90.5	89.0	5.5	2.5	2.2	3.720	472
37	50	280S	MA28S823	730	70.8	49.4	0.79	0.75	0.65	92.0	92.0	90.0	5.5	2.2	2.2	5.83	615
45	60	280M	MA28M853	730	86.1	60.0	0.79	0.75	0.65	92.0	92.0	91.0	5.5	2.2	2.2	6.86	665
55	75	315S	MA31S813	740	105	72.4	0.78	0.73	0.62	93.0	92.5	90.5	5.5	2.1	2.4	10.7	912
75	100	315M	MA31M833	740	143	98.7	0.78	0.73	0.62	93.5	93.0	92.0	5.5	2.1	2.4	12.4	912
90	120	315M	MA31M853	740	171	118.5	0.78	0.73	0.62	94.0	93.5	92.5	5.5	2.1	2.4	15.5	1010
110	150	315L	MA31L873	740	208	144.8	0.78	0.73	0.62	94.2	93.7	92.5	5.5	2.1	2.4	18.0	1170
125	170	315L	MA31L8A3	740	236	164.5	0.78	0.73	0.64	94.3	93.7	92.5	5.5	2.1	2.4	21.5	1340
132	180	315L	MA31L893	740	249	173.7	0.78	0.73	0.64	94.5	94.0	92.8	5.5	2.1	2.4	21.5	1340
150	200	355L	MA35L8A3	740	283	197.4	0.78	0.70	0.60	94.6	94.0	92.5	5.5	1.8	2.2	28.7	1670
160	215	355L	MA35L813	740	300	210.6	0.78	0.70	0.60	95.0	94.5	92.5	5.5	1.8	2.2	28.7	1670
180	240	355L	MA35L8B3	740	338	236.9	0.78	0.70	0.60	95.0	94.3	92.3	5.5	1.8	2.2	35.5	1780
200	270	355L	MA35L833	740	375	263.2	0.78	0.70	0.60	95.0	94.5	92.5	5.5	1.8	2.2	35.5	1780

**Notes:**

- All performance values are subject to tolerance as per IS/IEC 60034-1
- Ratings above 250 kW up to 630kW are available in 355, 400 & 450 frames with Dual Circuit Cooling Arrangement (DCCA). For more details please contact sales office. Efficiency measurements are without seals.

# INDUSTRIAL TEFC SCR MOTORS

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**Dimensional Drawing: Industrial Motors Type MA Foot Mounted (B3) TEFC series Frame 63-355L**

**FRAME SIZE 63 TO 80**

**FRAME SIZE 160M TO 180L**

**FRAME SIZE 90S TO 132M**

**FRAME SIZE 250M TO 355L**

**\* Refer TABLE A for tolerances**

**FRAME SIZE 200L TO 225M**

CAT-C-6335-3-1

## Dimensional Details: Industrial Motors Type MA Foot Mounted (B3) TEFC series Frame 63-355L

IEC Fr. size	FIXING										GENERAL										TERMINAL BOX										SHAFT				
	Pole	A*	B*	B1*	C*	H*	K*	AB	AA	BA	BA1	BC	HA	HC	HD	AD	L	LC	CA	AC	LV**	V	q	AG	S2 B.S.C.	* DA	* DA	E EA	F* FA	GA* GC	I	d5			
63	2 & 4	100	80	—	40	63	7	126	100	28	30	—	13	7	125	179	—	206	241	75	124	30	149	104	40	3/4"	11	23	4	12.5	18	M4			
71	2,4 & 6	112	90	—	45	71	7	135	110	31	30	—	13	7	141	195	—	234	278	83	140	30	166	102	40	3/4"	14	30	5	16	25	M5			
80	2,4 & 6	125	100	—	50	80	10	150	124	31	35	—	15	9	159	214	—	267	324	94	157	30	185	112	40	3/4"	19	40	6	21.5	35	M6			
90S	2,4,6 & 8	140	100	—	56	90	10	168	150	34	31.5	—	18	12	177	230	—	302	374	118	174	35	199	139	52	3/4"	24	50	8	27	45	M8			
90L	2,4,6 & 8	125	100	—	63	100	12	190	174	43.5	36	—	21	12	198	257	—	366	448	125	192	40	225	152	56	1"	28	60	8	31	55	M10			
100L	2,4,6 & 8	160	140	—	70	112	12	220	174	47	36	—	21	12	222	282	—	388	471	141	220	45	249	157	56	1"	28	60	8	31	55	M10			
112M	4,6 & 8	190	140	—	89	132	12	256	—	64	—	—	23	17	262	338	—	475	568	189	—	—	196	—	—	—	—	—	—	—	—	—	—		
132S	4,6 & 8	216	178	—	108	160	15	310	—	58	70	—	23	20	318	366	226	556	659	232	260	50	299	—	63	1"	38	80	10	41	70	M12			
132M	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	556	659	232	260	50	299	—	63	1"	38	80	10	41	70	M12			
160M	4,6 & 8	254	210	—	121	180	15	344	—	65	70	—	23	26	357	412	265	556	659	232	260	50	299	—	63	1"	38	80	10	41	70	M12			
160L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	556	659	232	260	50	299	—	63	1"	38	80	10	41	70	M12			
180M	4,6 & 8	279	241	—	133	200	19	398	355	85	85	—	28	32	397	462	319	605	741	203	—	—	323	—	—	—	—	—	—	—	—	—	—		
180L	2,4,6 & 8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	605	741	203	—	—	323	—	—	—	—	—	—	—	—	—	—		
200L	4,6 & 8	318	305	—	149	225	19	436	361	85	85	—	28	34	450	509	344	585	721	183	316	60	98	—	186	1"	42	110	12	45	105	M16			
225S	4,6 & 8	286	286	—	149	225	19	436	361	85	85	—	28	34	450	509	344	649	785	203	316	60	98	—	186	1"	42	110	12	45	105	M16			
225M	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	649	785	203	316	60	98	—	186	1"	42	110	12	45	105	M16			
250M	4,6 & 8	356	311	—	149	225	19	436	361	85	85	—	28	34	450	509	344	629	765	183	—	—	345	—	—	—	—	—	—	—	—	—	—		
250M	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	629	765	183	—	—	345	—	—	—	—	—	—	—	—	—	—		
250M	4,6 & 8	406	349	—	168	250	24	506	425	100	115	—	49	42	495	665	—	679	799	217	354	70	83	—	216	1 1/2"	48	110	14	51.5	100	M16			
280S/M	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	717	838	218	354	70	83	—	216	1 1/2"	48	110	14	51.5	100	M16			
315S/M	4,6 & 8	508	457	—	133	200	19	398	355	85	85	—	28	32	397	462	319	679	799	217	354	70	83	—	216	1 1/2"	48	110	14	51.5	100	M16			
315L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	795	920	262	394	80	—	—	—	—	—	—	—	—	—	—	—		
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	827	976	231	—	—	432.5	—	—	—	—	—	—	—	—	—	—		
355L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	837	956	276	450	90	—	—	—	—	—	—	—	—	—	—	—		
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	852	1001	231	—	—	445	—	—	—	—	—	—	—	—	—	—		
355L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	914	1065	268	489	100	578	352	243	2"	60	140	18	64	130	M20			
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	1010	1160	271	544	115	638	360	243	2"	65	140	18	69	130	M20			
355L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1137	1293	240	—	—	386	—	—	—	—	—	—	—	—	—	—		
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	1167	1353	240	—	—	416	—	—	—	—	—	—	—	—	—	—		
355L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1302	1458	454	600	130	728	—	278	2"	80	170	22	85	160	M20			
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	1332	1518	454	600	130	728	—	278	2"	80	170	22	85	160	M20			
355L	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1461	1622	458	685	145	850	—	403	3"	75	140	20	79.5	130	M20			
355L	4,6 & 8	610	630	—	254	355	28	710	770	110	170	—	73	45	693	939	—	1491	1682	458	685	145	850	—	403	3"	95	170	25	100	160	M24			

TABLE A

Dimension	Tolerance	Specification	Dimension	Tolerance	Specification
A,B	±0.75	—	D, DA	±0.10, ±0.15, ±0.20, ±0.25	IS : 1231
H	±0.360	—	GA, GC, F, FA	±0.05, ±0.07, ±0.10, ±0.15, ±0.20, ±0.25	IS : 1231
K	±0.430	—	d5 (centering)	±0.05, ±0.07, ±0.10, ±0.15, ±0.20, ±0.25	IS : 2048
	±0.520	—			IS : 2540

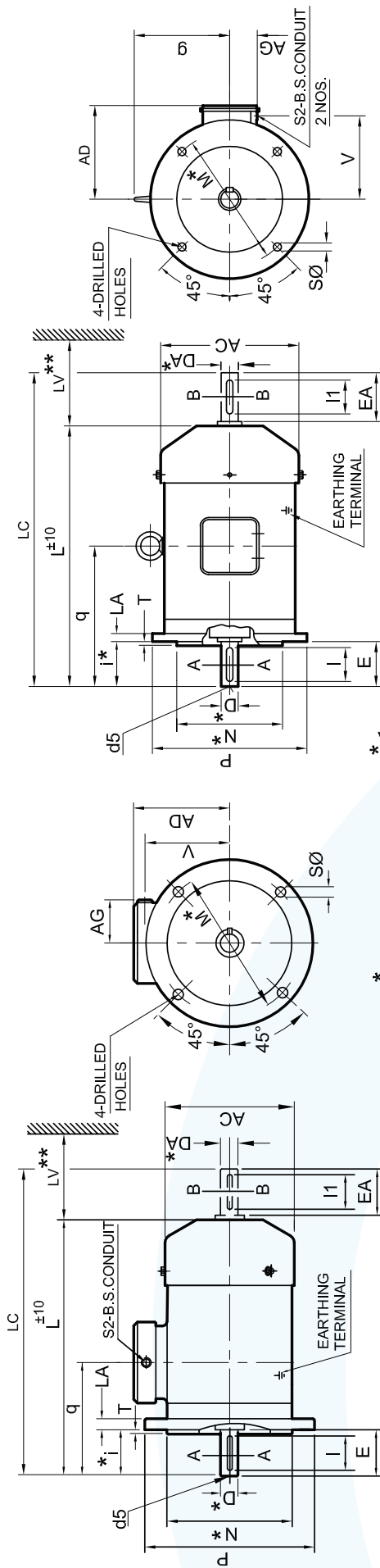
- ① Without Eye bolt
- Key / key way fit : h9 / N9
- Double shaft extension can be provided with shaft dimension identical to DE shaft.
- Also suitable for B6, B7, B8, V5 & V6 mounting as per IS 2253.
- \*\* Minimum distance for efficient cooling of motor to be maintained by user

All Dimensions are in mm unless otherwise specified.

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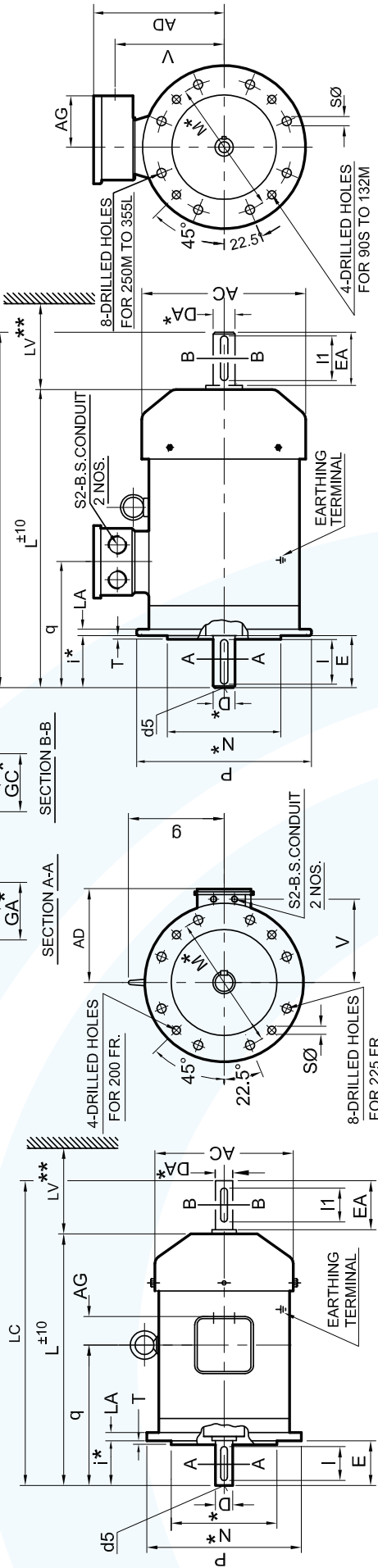
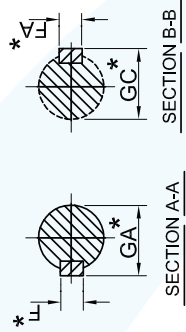


## Dimensional Drawing: Industrial Motors Type MA Flange Mounted (B5) TEFC series Frame 63-355L



FRAME SIZE 63 TO 80

FRAME SIZE 160M TO 180L



FRAME SIZE 200L TO 225M

FRAME SIZE 90S TO 132M  
FRAME SIZE 250M TO 355L

\* Refer TABLE A for tolerances

## Dimensional Details: Industrial Motors Type MA Flange Mounted (B5) TEFC series Frame 63-355L

IEC Fr. size	Pole	FIXING				GENERAL										TERMINAL BOX				SHAFT				
		N	M	i	*	S	T	LA	AD	AC	L	LC	LV	g	V	q	AG	S2 B.S.C.	* D, DA	E EA	F* FA	GA* GC*	I	d5
63	2 & 4	95	115	23	10	3	9	116	124	225	260	30	—	86	109	40	3/4"	11	23	4	12.5	18	M4	
	2,4 & 6	160	130	30	10	3.5	9	124	140	261	305	30	—	95	127	40	3/4"	14	30	5	16	25	M5	
80	2,4 & 6	200	130	165	40	12	3.5	10	134	157	267	30	—	105	112	40	3/4"	19	40	6	21.5	35	M6	
	2,4,6 & 8	200	130	165	50	12	3.5	10	140	174	302	35	①	109	139	52	3/4"	24	50	8	27	45	M8	
90L	2,4,6 & 8	250	180	215	60	15	4	11	157	195	366	40	—	125	152	56	1"	28	60	8	31	55	M10	
	2,4,6 & 8	250	180	215	60	15	4	11	170	220	388	45	—	137	157	56	1"	28	60	8	31	55	M10	
132S	2										475	568												
	4,6 & 8	300	230	265	80	15	4	12	206	260	459	552	50	—	167	196	63	1"	38	80	10	41	70	M12
132M	2										556	659												
	4&6										497	590												
160M	2										605	741												
	4,6 & 8	350	250	300	110	19	5	13	226	316	585	721	60	206	186	323	63	1"	42	110	12	45	105	M16
160L	2										649	785												
	4,6 & 8										629	765												
180M	2,4,6 & 8	350	250	300	110	19	5	13	265	354	679	799	70	232	216	371	97	1 1/2"	48	110	14	51.5	100	M16
	2,4,6 & 8										717	838												
200L	2	400	300	350	110	19	5	15	319	394	795	920	80	262	249	396	172	2"	55	110	16	59	100	M20
	4,6 & 8										772	897												
225S	4,6 & 8										827	976												
	2	450	350	400	110	19	5	16	344	450	837	956	90	284	273	415	172	2"	60	140	18	64	130	
225M	4,6 & 8										852	1001												
	2	550	450	500	140	19	5	18	415	489	914	1065	100	—	328	352	243	2"	60	140	18	64	130	
250M	4,6 & 8	550	450	500	140	19	5	18	445	544	1010	1160	115	—	358	360	243	2"	65	140	18	69	130	
	2										1137	1293												
280S/M	4,6 & 8	550	450	500	140	19	5	18	445	544	1010	1160	115	—	358	360	243	2"	65	140	18	69	130	
	2										1137	1293												
315S/M	2										1167	1353	130	—	413	416	278	2"	80	170	22	85	160	
	4,6 & 8	660	550	600	170	24	6	515	600		1302	1458												
315L	2										1332	1518												
	4,6 & 8	800	680	740	170	24	6	584	690		1461	1622	145	—	495	434	403	3"	75	140	20	79.5	130	
355L	2										1491	1682												
	4,6 & 8										1491	1682												

TABLE A

Dimension	Tolerance	Specification
N	j6	UPTO 450 OVER 450
M	±0.3	UPTO 265 OVER 265
i	±1	UPTO 85 OVER 85

Dimension	Tolerance	Specification
D, DA	j6	111, 14, 19, 24, 28Ø
GA, GC, F, FA	k6	38, 42, 48Ø
d5 (centering)	m6	55, 60, 65, 75, 80, 95Ø
		IS : 1231
		IS : 2048
		IS : 2540

① Without Eye bolt

□ Key / key way fit : h9 / N9

□ 8 Nos. Fixing Holes from 225S/M frame onwards

□ Double shaft extension can be provided with shaft dimension identical to D.E. shaft

□ Also suitable for V1 & V3 mounting as per IS 2253

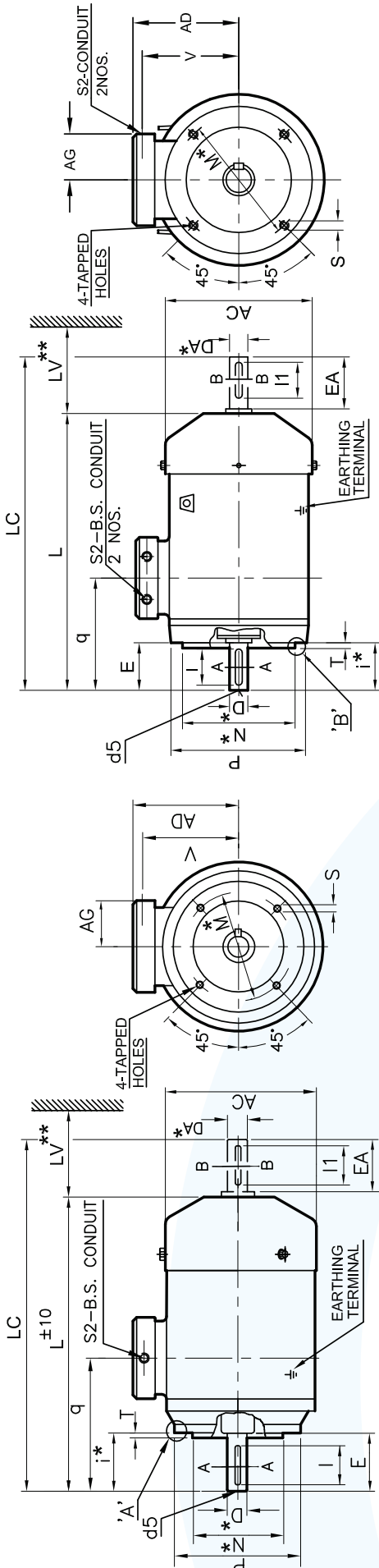
\*\* Minimum distance for efficient cooling of motor to be maintained by user

All Dimensions are in mm unless otherwise specified.

Note: For B3/B5 mounting motor in frame 63 & 71 refer to Sales office



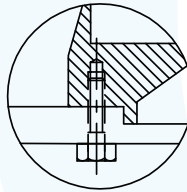
## Dimensional Details: Industrial Motors Type MA Face Mounted (B14) TEFC series Frame 63-132M



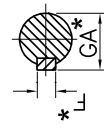
FRAME SIZE 63 TO 80

FRAME SIZE 90S TO 132M

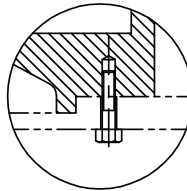
IEC Fr. size	Pole	FIXING			GENERAL				TERMINAL BOX			SHAFT												
		P	N	M	T	AD	AC	L	LC	LV	g	V	q	AG	S2	D*	E	F*	I	d5				
63	2 & 4	90	60	75	23	M5X10	2.5	116	124	206	241	30	—	86	104	40	3/4"	11	23	4	12.5	18	M4	
71	2,4 & 6	105	70	85	30	M6X10	2.5	124	140	234	278	30	—	95	102	40	3/4"	14	30	5	16	25	M5	
80	2,4 & 6	120	80	100	40	M6X13	3	134	157	267	324	30	—	105	112	40	3/4"	19	40	6	21.5	35	M6	
90S	2,4,6 & 8	140	95	115	50	M8X12	3	140	174	302	374	35	①	109	139	52	3/4"	24	50	8	27	45	M8	
90L	2,4,6 & 8	160	110	130	60	M8X12	3.5	157	195	366	448	40	—	125	152	56	1"	28	60	8	31	55	M10	
100L	2,4,6 & 8	160	110	130	60	M8X12	3.5	170	220	388	471	45	—	137	157	56	1"	28	60	8	31	55	M10	
112M	2,4,6 & 8	160	110	130	60	M8X12	3.5	170	220	388	471	45	—	137	157	56	1"	28	60	8	31	55	M10	
132S	2	—	—	—	—	—	—	—	—	475	568	—	—	196	—	—	—	—	—	—	—	—	—	—
132M	4,6 & 8	250	180	215	80	M12X20	4	206	260	459	552	50	—	167	—	63	1"	38	80	10	41	70	M12	
	4 & 6	—	—	—	—	—	—	—	—	556	659	—	—	215	—	—	—	—	—	—	—	—	—	—



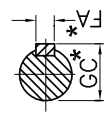
ENLARGEMENT OF CIRCLE 'A'



SECTION A—A



ENLARGEMENT OF CIRCLE 'B'



SECTION B—B

TABLE A

Dimension	Tolerance	Specification	Dimension		Tolerance		Specification
			D, DA	k6	j6	11,14,19,24,28Ø	
N	j6	IS : 2223	D, DA	k6	38Ø	IS : 1231	
M	±0.3		GA, GC, FA			IS : 2048	
i	±1		d5 (centering)			IS : 2540	

\*Refer TABLE A for tolerances

- ① Without Eye bolt
  - Also suitable for V19 & V18 mounting as per IS 2253
  - Key / key way fit : h9 / N9
  - Double shaft extension can be provided with shaft dimension identical to D.E. shaft
  - \*\* Minimum distance for efficient cooling of motor to be maintained by user
- All Dimensions are in mm unless otherwise specified.