

### TEFC 3 Phase Squirrel Cage Induction Motors - Frame size 63 to 280M

**eff2**

Voltage : 415V ± 10%  
 Frequency : 50Hz ± 5%  
 Combined Variation : ± 10%

Ambient : 50°C  
 Duty : S1 (Continuous)

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

**Table-2**

**1500 rpm (4-Pole)**

Rated Output		Frame size IEC	Type Ref. B3 Construction	Operating Characteristics at Rated output									With DOL Starting		Pullout Toque to Rated Toque Ratio	Rotor GD <sup>2</sup> kgm <sup>2</sup>	Net Weight B3 Constr. kg
				Speed RPM	Current Amps.	Rated Torque Kg-m.	Power Factor			%Efficiency <b>eff2</b>			Starting Current to Rated Current Ratio	Starting Torque to Rated Torque Ratio			
kW	HP	FL	3/4L				1/2L	FL	3/4L	1/2L							
0.12	0.16	63	MA063413	1330	0.41	0.088	0.75	0.65	0.50	54.0	48.0	40.0	2.4	1.9	2.3	0.0014	5
0.18	0.25	63	MA063433	1350	0.56	0.130	0.75	0.65	0.50	60.0	56.0	50.0	3.0	2.0	2.3	0.0016	5
0.25	0.35	71	MA071413	1370	0.68	0.178	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	0.265	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	1.3	0.381	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	1.75	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	0.012	14
1.5	2.0	90L	MA09L453	1410	3.25	1.03	0.80	0.72	0.58	80.0	79.0	75.0	4.8	2.5	3.0	0.016	17
2.2	3.0	100L	MA10L433	1420	4.55	1.51	0.82	0.69	0.53	82.0	80.0	76.0	5.7	2.5	3.0	0.021	22
3.7	5.0	112M	MA11M433	1430	7.30	2.52	0.83	0.76	0.65	85.0	85.0	82.0	6.0	2.6	3.0	0.053	32
5.5	7.5	132S	MA13S433	1445	10.4	3.71	0.85	0.80	0.68	86.0	85.0	83.0	6.0	2.2	3.0	0.113	60
7.5	10	132M	MA13M473	1445	14.5	5.06	0.83	0.78	0.68	87.0	87.0	85.0	6.0	2.5	3.0	0.134	74
9.3	12.5	160M	MA16M4A3	1450	17.1	6.25	0.86	0.82	0.77	88.0	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	97
15	20	160L	MA16L4K3	1450	27.6	10.08	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	12.30	0.85	0.82	0.72	91.2	91.2	90.0	6.0	2.4	2.5	0.46	160
22	30	180L	MA18L473	1460	39.0	14.70	0.86	0.82	0.72	91.8	91.5	90.0	6.0	2.4	2.5	0.54	188
30	40	200L	MA20L433	1465	51.5	19.90	0.88	0.84	0.77	92.0	92.0	90.0	6.0	2.6	2.5	0.86	270
37	50	225S	MA22S413	1470	64.0	24.50	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	76.5	29.80	0.88	0.84	0.75	93.2	93.2	91.0	6.0	2.5	2.5	1.60	362
55	75	250M	MA22M433	1475	94.0	36.30	0.87	0.85	0.78	93.8	93.3	91.5	6.0	2.5	2.6	2.83	475
75	100	280S	MA28S413	1480	124	49.40	0.89	0.89	0.83	94.2	94.0	93.0	6.0	2.2	2.5	5.00	653
90	120	280M	MA28M433	1480	149	59.20	0.89	0.87	0.81	94.7	94.3	93.2	6.0	2.2	2.5	6.00	713

Note: •Efficiency class 'eff2' will be punched on the nameplates as per IS:12615-2004 (Rev.1) for ratings from 0.37kW to 90kW  
 •All performance values are subject to tolerance as per IS:325 •Efficiency measurements are without seals