

51689  
IP 54 IP 55  
F  
IC 411  
(IE)  
60034-30-2008  
60034-2-1-2007

Output and frame size in accordance  
with GOST R 51689  
IP 54 IP 55  
Insulation class F  
Temperature rise class B  
Energy efficiency (IE) in accordance with  
IEC 60034-30-2008  
The determination method is under  
IEC 60034-2-1-2007

Frame Size mm	Rated output kW	Type	Rated speed / rpm	Efficiency under the load			IE	Power factor under the load		Current at 380 V	I	M	M	Moment of inertia J <sup>2</sup> kgm <sup>2</sup>	Mass <sup>2)</sup> IM B3 kg	
				%				Cos φ			IN	MA	MM		Al	Iron
				100	75	50		100	75		IN	MN	MN			
															3000 rpm ( 2 pole )	
71	0.75	A71A2	2835	77.5	78.0	74.6	2	0.83	0.74	1.8	5.3	2.8	2.8	0.0006	8.7	-
71	1.1	A71B2	2820	79.6	79.6	77.5	2	0.86	0.78	2.4	5.2	2.8	2.8	0.0008	11	-
80	1.5	A80A2	2820	81.3	82.8	82.3	2	0.87	0.82	3.2	6.5	2.6	2.7	0.0015	13	-
80	2.2	A80B2	2820	83.2	83.5	82.7	2	0.87	0.82	4.6	6.0	2.9	3.1	0.0018	15	-
90	3.0	A90L2	2805	82.6	83.2	82.2	1	0.86	0.79	6.5	6.5	3.1	3.2	0.0022	17	-
100	4.0	A100S2	2850	84.0	85.0	83.0	1	0.86	0.79	8.4	5.7	3.6	3.6	0.0028	22	-
100	5.5	A100L2	2870	87.0	87.5	87.2	2	0.87	0.84	11	7.0	2.5	3.4	0.0080	31	-
112	7.5	A112M2	2886	88.0	88.3	87.2	1	0.88	0.84	14.7	7.2	2.5	3.4	0.0070	38	51
132	11.0 <sup>1)</sup>	A132M2	2885	89.4	90.3	89.8	2	0.88	0.84	21	7.5	2.8	3.5	0.0195	55	78
160	15.0	160S2	2945	89.0	89.9	88.0	1	0.86	0.82	30	7.5	2.0	3.2	0.042	92	116
160	18.5	160 2	2940	90.0	90.2	89.2	1	0.87	0.83	35	7.5	2.0	3.2	0.048	105	125
180	22.0 <sup>1)</sup>	A180S2	2940	90.5	90.5	89.7	1	0.89	0.86	42	7.5	2.1	3.5	0.055	128	147
180	30.0 <sup>1)</sup>	A180M2	2940	92.0	91.8	91.0	2	0.89	0.86	56	7.5	2.2	3.5	0.069	151	170
200	37.0	A200M2	2950	92.5	91.5	89.8	2	0.88	0.85	69	7.5	2.3	3.2	0.140	202	220
200	45.0	A200L2	2940	93.0	93.0	91.9	2	0.90	0.89	82	8.0	2.6	4.0	0.130	-	255
225	55.0	A225M2	2955	93.5	93.0	91.5	2	0.90	0.88	100	7.5	2.3	4.0	0.200	-	320
250	75.0	A250S2	2965	94.0	93.8	92.7	2	0.90	0.89	136	7.5	2.6	4.0	0.350	-	470
250	90.0	A250M2	2960	94.5	94.3	93.4	2	0.91	0.89	159	7.5	2.7	4.0	0.400	-	490
280	110.0	A280S2	2960	94,3	94,3	93.2	2	0.90	0.89	197	7,5	2,5	3,3	0.600	-	590
280	132.0 <sup>1)</sup>	A280M2	2964	94.6	94.0	93.1	2	0.90	0.88	236	8.5	2.9	3.5	0.700	-	620
315	160.0	A315S2	2977	95.6	95.2	94.2	3	0.87	0.84	292	7.5	2.4	3.3	1.15	-	1045
315	200.0 <sup>1)</sup>	315 2	2978	96.0	95.7	94.6	3	0.88	0.85	359	7.5	2.5	3.3	1.5	-	1070
315	250.0 <sup>1)</sup>	315 2	2977	95.5	95.3	94.0	2	0.89	0.88	446	7.1	2.0	3.1	1.7	-	1235
355	250.0	A355S 2	2982	95.2	94.5	93.1	2	0.87	0.85	459	6.5	1.4	2.9	2.7	-	1520
355	315.0	A355S B2	2984	95.9	95.3	94.0	3	0.87	0.84	574	7,7	1,6	3,3	3,1	-	1670
355	355.0 <sup>1)</sup>	A355S C2	2982	96.0	95.6	94.7	3	0.88	0.85	639	7.0	1.4	3.1	3.1	-	1670
355	400.0	A355 LB2	2980	96.0	95.6	94.7	-	0.89	0.88	711	7.9	1.5	3.2	4.0	-	2050
355	450.0 <sup>1)</sup>	A355 LC2	2978	96.0	95.6	94.7	-	0.89	0.88	800	7.7	1.5	3.1	4.0	-	2050

1)

F

1) Temperature rise class F

2)

2) Mass indicated for motors in aluminium and cast iron frames

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Frame Size mm	Rated output kW	Type	Rated speed / rpm	Efficiency under the load			IE	Power factor under the load		Current at 380 V	I	M	M	Moment of inertia J	Mass <sup>2)</sup>	
				%				Cos φ			IN	MA	MM		Al	Iron
				100	75	50		100	75		IN	MN	MN		IM1001 IM B3	
															1500 rpm ( 4 pole )	
71	0.55	A71A4	1410	71.0	71.0	68.1	-	0.78	0.65	1.5	4.0	2.0	2.2	0.0012	8.5	-
71	0.75	A71B4	1415	76.0	75.5	71.7	1	0.79	0.67	2.2	4.5	2.3	2.5	0.0016	10	-
80	1.1	A80A4	1420	79.5	80.1	78.2	1	0.80	0.71	2.6	5.5	2.3	2.6	0.0034	14	-
80	1.5	A80B4	1420	80.1	80.8	79.0	1	0.80	0.71	3.6	5.5	2.3	2.8	0.0042	16	-
90	2.2	A90L4	1388	79.7	81.9	81.6	1	0.83	0.73	5.1	5.0	2.2	2.6	0.0056	18.5	-
100	3.0 <sup>1)</sup>	A100S4	1395	79.0	80.8	79.3	0	0.80	0.70	7.3	5.5	2.7	3.0	0.0082	21	-
100	4.0	A100L4	1425	84.7	86.3	86.3	1	0.83	0.78	8.6	6.0	2.3	2.9	0.0101	30	-
112	5.5	A112M4	1435	86.0	86.3	86.0	1	0.83	0.78	11.7	6.6	2.7	3.4	0.0130	38	51
132	7.5	A132S4	1455	88.0	88.6	88.0	1	0.83	0.77	15.6	7.0	2.8	3.2	0.0260	52	75
132	11.0 <sup>1)</sup>	A132M4	1440	88.0	89.0	88.3	1	0.84	0.79	23	7.5	2.8	3.3	0.0321	62	87
160	15.0	160S4	1460	89.0	89.7	89.1	1	0.87	0.83	29	7.0	1.9	2.9	0.076	98	120
160	18.5 <sup>1)</sup>	160M4	1460	90.0	91.2	91.2	1	0.89	0.87	35	7.0	1.9	2.9	0.094	112	142
180	22.0 <sup>1)</sup>	180S4	1460	91.0	91.0	90.4	1	0.88	0.86	42	7.0	2.1	2.8	0.105	128	157
180	30.0 <sup>1)</sup>	180M4	1460	91.5	92.0	91.8	1	0.88	0.86	56	7.0	2.4	3.0	0.139	162	190
200	37.0 <sup>1)</sup>	A200M4	1460	92.0	92.5	92.1	1	0.87	0.84	70	7.5	2.2	3.5	0.194	202	230
200	45.0 <sup>1)</sup>	A200L4	1460	92.5	93.1	92.4	1	0.87	0.83	86	7.0	2.2	3.2	0.225	232	260
225	55.0 <sup>1)</sup>	A225M4	1475	93.0	93.3	91.9	1	0.87	0.85	105	7.9	2.8	3.7	0.408	-	340
250	75.0 <sup>1)</sup>	A250S4	1470	93.0	93.5	93.2	1	0.90	0.88	136	7.0	2.2	3.2	0.619	-	465
250	90.0 <sup>1)</sup>	A250M4	1470	94.2	94.3	93.8	2	0.90	0.86	161	7.0	2.5	3.2	0.80	-	550
280	110.0 <sup>1)</sup>	A280S4	1470	94.5	94.4	93.9	2	0.90	0.87	197	8.0	2.9	3.4	0.81	-	655
280	132.0	A280M4	1484	95.6	95.6	95.0	3	0.84	0.81	250	6.6	2.3	3.0	1.9	-	905
315	160.0	315S4	1487	95.8	95.8	95.0	3	0.84	0.79	302	7.5	2.5	3.2	2.3	-	1095
315	200.0	315 4	1484	95.8	95.7	95.3	2	0.85	0.81	372	7.4	2.5	3.3	2.8	-	1220
355	250.0	A355S 4	1488	95.5	95.1	93.9	2	0.85	0.81	467	7.0	2.3	2.8	5.6	-	1505
355	315.0 <sup>1)</sup>	A355S 4	1488	95.7	95.4	94.4	2	0.84	0.80	594	7.3	2.5	2.9	6.2	-	1620
355	355.0 <sup>1)</sup>	355SMC4	1488	95.9	95.6	94.7	2	0.86	0.83	652	6.6	2.2	2.7	6.8	-	1695
355	400.0	355MLB4	1489	96.4	96.4	95.6	3	0.88	0.87	716	7.0	1.5	3.0	7.7	-	2015
355	450.0 <sup>3)</sup>	A355MLC4	1489	96.5	96.5	95.4		0.88	0.87	805	7.0	1.5	3.0	8.3	-	2125
355	500.0 <sup>3)</sup>	A355MLD4	1489	96.5	96.5	95.4		0.88	0.87	895	7.0	1.5	3.0	8.3	-	2125

1) F

2)

3)

1) Temperature rise class F

2) Mass indicated for motors in aluminium and cast iron frames

3) Data on request

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Frame Size mm	Rated output kW	Type	Rated speed / rpm	Efficiency under the load			IE	Power factor under the load		Current at 380 V	I	M	M	Moment of inertia J <sup>2</sup> kgm <sup>2</sup>	Mass <sup>2)</sup> IM B3 kg	
				%				Cos φ			IN	MA	MM		Al	Iron
				100	75	50		100	75		IN	MA	MM			
1000	/	( 6 )		1000 rpm (6 pole)												
80	0.75	A80A6	930	71.0	71.6	68.3	1	0.70	0.61	2.3	4.0	2.0	2.4	0.0040	14	-
80	1.1	A80B6	930	73.5	75.7	72.0	1	0.72	0.65	3.2	4.0	2.0	2.4	0.0049	16	-
90	1.5	A90L6	920	76.5	77.5	75.5	1	0.73	0.66	4.1	4.5	2.4	2.5	0.0057	19	-
100	2.2	A100L6	940	80.0	81.6	79.8	1	0.72	0.62	5.8	4.3	2.0	2.2	0.0070	27	-
112	3.0	A112MA6	955	83.0	83.3	82.3	1	0.77	0.69	7	5.5	2.1	2.8	0.0076	31	45
112	4.0	A112MB6	950	84.0	85.0	84.7	1	0.80	0.74	9	6.0	2.2	2.6	0.0116	42	54
132	5.5	A132S6	955	84.0	85.0	85.1	1	0.77	0.74	12	5.9	2.2	2.8	0.0482	56	77
132	7.5 <sup>1)</sup>	A132M6	960	85.0	85.4	84.0	1	0.77	0.69	17.5	6.5	2.8	3.1	0.0596	67	92
160	11.0 <sup>1)</sup>	160S6	970	87.0	87.8	86.2	1	0.82	0.75	23	6.5	1.9	2.9	0.111	93	125
160	15.0 <sup>1)</sup>	160 6	970	89.0	89.5	87.1	1	0.82	0.75	31	7.0	2.3	3.0	0.140	125	145
180	18.5 <sup>1)</sup>	180M6	970	89.0	90.0	89.5	1	0.85	0.81	37	6.0	2.2	3.0	0.161	132	160
200	22.0	A200M6	975	90.0	90.1	88.8	1	0.84	0.79	44	7.0	2.4	3.3	0.233	170	210
200	30.0 <sup>1)</sup>	A200L6	975	90.0	90.2	88.0	0	0.84	0.79	60	6.5	2.1	3.0	0.350	205	245
225	37.0	A225M6	980	92.2	92.6	92.0	2	0.86	0.84	71	6.5	2.0	3.0	0.516	-	308
250	45.0	A250S6	986	93.0	93.0	92.1	2	0.86	0.83	85	7.0	1.8	3.0	1.01	-	440
250	55.0	A250M6	986	93.1	92.8	91.8	2	0.87	0.83	103	7.5	1.9	3.0	1.19	-	480
280	75.0	A280S6	985	93.7	93.6	93.0	2	0.87	0.84	140	7.5	2.0	3.2	1.5	-	570
280	90.0	A280M6	985	94.0	94.0	93.5	2	0.89	0.87	163	7.5	2.0	3.2	1.9	-	705
315	110.0	A315S6	987	95.1	95.4	95.1	3	0.89	0.88	197	7.0	1.5	2.5	3.8	-	960
315	132.0	A315M6	989	95.4	95.4	94.9	3	0.89	0.87	234	8.0	1.7	2.9	4.5	-	1050
355	160.0	A355S 6	993	95.6	95.4	94.4	3	0.82	0.78	310	6.2	1.9	2.3	7.5	-	1490
355	200.0	A355S 6	993	95.8	95.6	95.1	3	0.83	0.80	382	6.4	1.9	2.3	8.9	-	1635
355	250.0	A355MLA6	992	96.0	95.8	95.2	3	0.83	0.80	478	6.5	1.9	2.3	10.9	-	1905
355	315.0	A355MLB6	992	96.1	95.9	95.2	3	0.83	0.80	600	6.6	2.0	2.4	13.2	-	2070
355	355.0	A355ML 6	993	96.2	96.1	95.4	3	0.83	0.80	676	6.7	1.9	2.5	14.1	-	2190

1) F

1) Temperature rise class F

2) Mass indicated for motors in aluminium and cast iron frames

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**Output and frame size in accordance  
with GOST R 51689**  
**IP 54 IP 55**  
**Insulation class F**  
**Temperature rise class B**  
**IC 411**

Frame Size	Rated output	Type	Rated speed	Efficiency under the load		Power factor under the load		Current at 380 V	<u>I</u>	<u>M</u>	<u>M</u>	Moment of inertia J <sup>2</sup>	Mass <sup>2)</sup>	
				%		Cos φ			IN	MN	MN		IM1001	
				100	75	100	75		IA	MA	M		Al	Iron
													750 rpm (8 pole )	
160	7.5	160S8	730	85.0	85.4	0.73	0.65	18	5.5	1.6	2.4	0.135	93	125
160	11.0 <sup>1)</sup>	160M8	730	87.0	87.5	0.75	0.68	26	5.5	1.7	2.4	0.180	120	150
180	15.0 <sup>1)</sup>	180M8	730	88.0	88.5	0.76	0.69	35	5.5	1.7	2.7	0.214	154	180
200	18.5	A200M8	728	89.0	89.6	0.78	0.74	40	5.8	2.1	2.5	0.280	180	210
200	22.0 <sup>1)</sup>	A200L8	725	89.5	90.0	0.77	0.70	48	6.0	2.0	2.5	0.307	195	235
225	30.0 <sup>1)</sup>	A225M8	735	90.5	89.8	0.77	0.73	64	6.0	1.8	2.7	0.553	-	316
250	37.0	A250S8	738	92.0	92.2	0.80	0.76	76	6.0	1.8	2.5	1.005	-	435
250	45.0	A250M8	735	92.0	92.5	0.80	0.76	93	6.0	1.8	2.6	1.19	-	480
280	55.0	A280S8	735	93.0	93.2	0.80	0.76	113	6,5	1.9	3.0	1.5	-	570
280	75.0	A280M8	740	93.5	93.6	0.80	0.75	153	6.3	1.8	2.8	1.9	-	700
315	90.0	315S8	740	94.3	94.2	0.82	0.78	177	6.0	1.3	2.3	3.8	-	960
315	110.0 <sup>1)</sup>	A315M8	742	94.7	94.0	0.79	0.75	223	6,8	1.6	2.8	4.5	-	1050
355	132.0	A355S 8	743	95.1	95.1	0.77	0.72	274	5.9	1.6	2.3	7.2	-	1490
355	160.0	A355S 8	743	95.5	95.5	0.78	0.73	327	6.0	1.7	2.4	8.7	-	1635
355	200.0	A355MLA8	743	95.7	95.7	0.77	0.72	413	6.3	1.8	2.7	10.5	-	1890
355	250.0	A355MLB8	744	95.9	95.9	0.79	0.76	502	6.3	1.7	2.8	12.9	-	2100
													600 rpm (10 pole )	
315	55	315S 10	590	92,6	92,7	0,78	0,74	115	5,0	1,1	2,1	2,85	-	840
315	75	315S 10	590	93,3	93,4	0,76	0,72	161	5,0	1,2	2,0	3,8	-	960
315	90	A315M10	590	93,6	93,7	0,77	0,73	190	5,0	1,2	2,0	4,5	-	1050

1)

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2)

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