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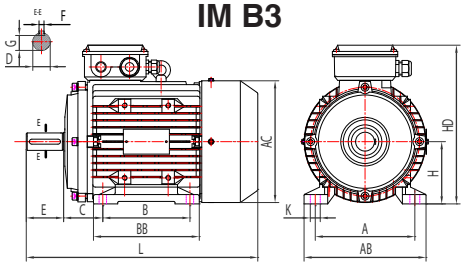
AMA IE2 & IE3 (Aluminium) 3 Ph Dimensions

AMTECS

IM B3



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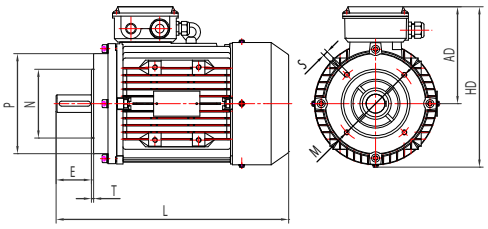

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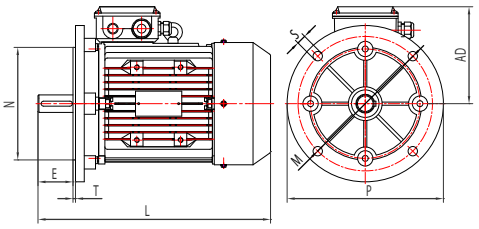

Frame size	A	B	C	D	E	F	G	K	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
									IM B14					IM B14L					IM B5					IM B5R										
56	90	71	36	9	20	3	7.2	5.8	65	50	80	M5	2.5	85	70	105	M6	2.5	100	80	120	7	3	85	70	105	8	2.5	108	89	100	100	156	195
63	100	80	40	11	23	4	8.5	7	75	60	90	M5	2.5	100	80	120	M6	3	115	95	140	10	3	100	80	120	8	3	120	103	120	109	172	218
71	112	90	45	14	30	5	11	7	85	70	105	M6	2.5	115	95	140	M8	3	130	110	160	10	3.5	115	95	140	10	3	132	104	139	119	189	250
80	125	100	50	19	40	6	15.5	10	100	80	120	M6	3	130	110	160	M8	3.5	165	130	200	12	3.5	130	110	160	10	3.5	160	124	135	135	206	295
90S	140	100	56	24	50	8	20	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	130	110	160	10	3.5	177	125	183	145	222	336
90L	140	125	56	24	50	8	20	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	130	110	160	10	3.5	177	150	183	145	220	362
100L	160	140	63	28	60	8	24	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	165	130	200	12	3.5	196	170	198	155	247	402
112M	190	140	70	28	60	8	24	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	165	130	200	12	3.5	218	183	277	173	281	429
132S	216	140	89	38	80	10	33	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	215	180	250	14.5	4	252	175	267	192	320	467
132M	216	178	89	38	80	10	33	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	215	180	250	14.5	4	252	218	267	192	320	505
132MX	216	178	89	38	80	10	33	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	215	180	250	14.5	4	252	218	267	192	320	530
160M	254	210	108	42	110	12	37	15	215	180	250	M12	4	-	-	-	-	-	300	250	350	18.5	5	265	230	300	14.5	4	302	304	314	246	406	619
160L	254	254	108	42	110	12	37	15	215	180	250	M12	4	-	-	-	-	-	300	250	350	18.5	5	265	230	300	14.5	4	302	304	314	246	406	663

Aluminium three-phase squirrel cage induction motors according to IEC/DIN, multi-mount design with removable feet.
Voltage 220-240/380-420V or 380-420/660-720V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, PTC Fitted as standard, Colour RAL 5010,
Cast iron drive end shield frame 100 and above.
Flange motors B5, B14 small available up to and including size 160. B14 large to 132.
Availiable in IE1, IE2 and IE3 efficiency. CUS/UL in IE3.

AMA Bearings, Oil seals & Gland sizes

AMTECS

	Frame size	Poles	Bearing Drive end	Bearing Non-drive end	Oil seal Drive end	Oil seal Non-drive end	Gland size
AMA	56	2-4	6201	6201	12x22x5	12x22x5	M16 x 1.5
AMA	63	2-4	6201	6201	12x24x7	12x24x7	M20 x 1.5
AMA	71	2-8	6202	6202	15x28x7	15x28x7	M20 x 1.5
AMA	80	2-8	6204	6204	20x34x7	20x34x7	M20 x 1.5
AMA	90	2-8	6205	6205	25x37x7	25x37x7	M20 x 1.5
AMA	100	2-8	6206	6206	30x44x7	30x44x7	M20 x 1.5
AMA	112	2-8	6306	6306	30x44x7	30x44x7	M25 x 1.5
AMA	132	2/4-8	6308 / 6308	6208 /6308	40x58x8	40x58x8	M25 x 1.5
AMA	160	2/4-8	6209 / 6309	6209 / 6209	45x62x8	45x62x8	M32 x 1.5

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AMA IE2 & IE3 (Aluminium) : 2 - Pole - 3000 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (φ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMA-IE1 56 K2	0.09	0.54	0.31		2758	0.68	62.0	0.3	5.50	2.2	2.3	49	3.2
AMA-IE2 56 G2	0.12	0.80	0.46		2780	0.71	53.6	0.4	4.55	3.1	3	49	3.9
AMA-IE2 63 K2	0.18	0.83	0.48		2832	0.78	69.3	0.4	4.94	2.8	2.8	52	4.5
AMA-IE2 63 G2	0.25	1.09	0.63		2830	0.78	72.7	0.8	5.6	3.3	3.4	52	5
AMA-IE2 71 K2	0.37	1.51	0.87		2753	0.86	72.1	1.3	4.89	2.8	2.1	54	6.5
AMA-IE2 71 G2	0.55	2.15	1.24		2817	0.83	77	1.9	6.17	3.4	2.2	54	7
AMA-IE3 80 K2	0.75	2.77	1.6		2880	0.83	80.7	2.49	5.5	1.8	3.5	58	13.5
AMA-IE3 80 G2	1.1	3.98	2.3		2880	0.83	82.7	3.68	7.5	2.6	3.5	58	15
AMA-IE3 90 S2	1.5	5.37	3.1		2895	0.83	84.2	4.95	7.1	2.6	3.5	62	19
AMA-IE3 90 L2	2.2	7.45	4.3		2895	0.85	95.9	7.26	7	2	3	62	21.5
AMA-IE3 100 L2	3	9.70	5.6		2895	0.88	87.1	9.9	8.6	2	3.2	65	30.5
AMA-IE3 112 M2	4	12.82	7.4	4.27	2905	0.88	88.1	13.1	8	1.8	2.9	67	34
AMA-IE3 132 S2	5.5		10	5.77	2930	0.88	98.2	17.9	7.5	2.1	2.5	70	49.5
AMA-IE3 132 Sx2	7.5		14	8.08	2930	0.88	90.1	24.4	7.3	2	3.5	70	55
AMA-IE3 160 M2	11		19	10.97	2945	0.90	91.2	35.7	7.3	2.3	2.6	71	99
AMA-IE3 160 Mx2	15		26	15.01	2945	0.91	91.9	48.6	7	1.9	2.3	71	108
AMA-IE3 160 L2	18.5		32	18.48	2940	0.89	92.4	60.1	7	1.6	2.5	71	118

AMA IE2 & IE3 (Aluminium) : 4 - Pole - 1500 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (φ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMA-IE1 56 K4	0.06	0.57	0.33		1371	0.56	46.0	0.42	4.4	2.1	2.2	41	3.5
AMA-IE1 56 G4	0.09	0.79	0.45		1350	0.56	49.0	0.64	4.4	2.1	2.2	41	3.9
AMA-IE2 63 K4	0.12	0.69	0.4		1369	0.71	61.5	0.8	3.3	2.3	2.4	41	4
AMA-IE2 63 G4	0.18	0.95	0.55		1366	0.72	65.9	1.3	3.6	2.4	2.5	41	6
AMA-IE2 71 K4	0.25	1.28	0.74		1374	0.7	69.4	1.7	4	2.1	2.4	45	6.5
AMA-IE2 71 G4	0.37	1.80	1.04		1380	0.71	73.0	2.6	4.4	2.7	2.5	45	7
AMA-IE2 80 K4	0.55	2.46	1.42		1438	0.71	78.7	3.7	5.9	2.6	2.6	49	10
AMA-IE3 80 G4	0.75	3.07	1.77		1420	0.74	82.5	5.0	6	2.9	3.6	49	16
AMA-IE3 90 S4	1.10	4.42	2.55		1445	0.74	84.1	7.3	6.5	2.7	3.8	54	20
AMA-IE3 90 L4	1.50	5.94	3.43		1445	0.74	85.3	9.9	6.8	3.0	3.6	54	22.5
AMA-IE3 100 L4	2.20	8.11	4.68		1435	0.78	86.7	14.6	7	2.5	3.5	56	32.5
AMA-IE3 100LX4	3.00	10.95	6.32		1435	0.78	87.7	20.0	7.2	2.6	3.5	56	38.5
AMA-IE3 112 M4	4.00	14.10	8.14	4.70	1440	0.80	88.6	26.5	7	2.3	3.2	58	44
AMA-IE3 132 S4	5.50		11.1	6.41	1460	0.80	89.6	36.0	7	2.7	3.5	61	54.5
AMA-IE3 132 M4	7.50		14.6	8.43	1460	0.82	90.4	49.1	7.1	2.7	3.8	61	66
AMA-IE3 160 M4	11.0		21.2	12.24	1465	0.82	91.4	71.7	7.2	1.9	2.3	63	102
AMA-IE3 160 L4	15.0		28.6	16.51	1465	0.82	92.1	97.8	6.8	1.8	2.4	63	117
AMA-IE3 160 Lx4	18.5		34.6	20	1470	0.85	90.5	120	7.5	2.2	2.2	69	130

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AMA IE2 & IE3 (Aluminium) : 6 - Pole - 1000 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMA-IE1 63 K6	0.09	0.89	0.51		830	0.67	38.0	1.04	4	1.7	2	4.2	4.0
AMA-IE1 63 G6	0.12	1.02	0.58		830	0.68	40.0	1.4	4	1.7	2	42	4.2
AMA-IE2 71 K6	0.18	1.23	0.71		928	0.6	60.8	1.9	3.2	2.4	2.3	42	6.5
AMA-IE2 71 G6	0.25	1.51	0.87		908	0.62	61.8	2.6	3.2	2.1	2.3	42	7
AMA-IE2 80 K6	0.37	2.17	1.25		954	0.6	70.9	3.7	3.9	2	2.2	49	10.5
AMA-IE2 80 G6	0.55	2.98	1.72		946	0.63	73.5	5.6	4	2.1	2.3	49	12
AMA-IE3 90 S6	0.75	3.81	2.2		935	0.61	78.9	7.86	4.5	2.5	3.3	51	20
AMA-IE3 90 L6	1.10	4.85	2.8		945	0.69	81.0	11.1	4.4	1.7	3.3	51	22.5
AMA-IE3 100 L6	1.50	6.58	3.8		949	0.69	82.5	15.1	5	2.3	3	53	30
AMA-IE3 112 M6	2.20	9.18	5.3		955	0.71	84.3	22	5.5	2.6	3	58	35.5
AMA-IE3 132 S6	3.00	12.30	7.1		968	0.71	85.6	29.6	5.5	2	3.1	58	46
AMA-IE3 132 M6	4.00	16.28	9.4	5.43	968	0.71	86.8	39.5	5.7	2.1	2.6	59	55
AMA-IE3 132 Mx6	5.50		12	6.93	968	0.75	88.0	54.3	6	1.7	2.6	61	65.5
AMA-IE3 160 M6	7.50		16	9.24	970	0.77	89.1	73.8	5.9	1.7	2.5	61	103
AMA-IE3 160 L6	11.0		22	12.70	970	0.79	90.3	108.3	6	1.5	2.4	62	116

AMA IE2 & IE3 (Aluminium) : 8 - Pole - 750 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Start-ing current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMA-IE1 71 K8	0.09	0.84	0.48		680	0.55	49	1.26	3.3	1.8	1.9	44	6.5
AMA-IE1 71 G8	0.12	1.2	0.67		690	0.54	48	1.7	3.5	1.9	2.1	44	6.5
AMA-IE2 80 K8	0.18	1.7	0.97		710	0.55	48.5	2.4	3.3	1.8	2	44	9.5
AMA-IE2 80 G8	0.25	2.1	1.21		710	0.55	54	3.4	3.3	1.8	2	44	12
AMA-IE2 90 S8	0.37	2.8	1.59		710	0.6	56.1	5	4	1.9	2	49	14
AMA-IE2 90 L8	0.55	3.7	2.11		710	0.61	61.7	7.4	4	1.9	2.1	49	17
AMA-IE3 100 L8	0.75	3.8	2.22		700	0.65	75	10.2	6.2	1.8	2	50	37
AMA-IE3 100 Lx8	1.10	5.1	2.96		710	0.69	77.7	14.8	6.2	1.8	2	50	43
AMA-IE31112 M8	1.50	6.7	3.88		705	0.7	79.7	20.3	6.7	1.8	2	51	49
AMA-IE3 132 S8	2.20	9.5	5.46		705	0.71	81.9	29.8	6.7	1.8	2	53	56
AMA-IE3 132 M8	3.00		7.2	4.2	705	0.72	83.5	40.6	6.9	1.8	2	55	68

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Aluminium Mounting Arrangements

AMTECS

B3 - Foot Mounted

B5 - Flange Mounted

B14S - Small Face Mounted

B3 - Foot Mounted
(Side Terminal Box)

B35 - Foot and Flange

B34S - Foot and Small Face

B14L - Large Face Mounted

B34L - Foot and Large Face

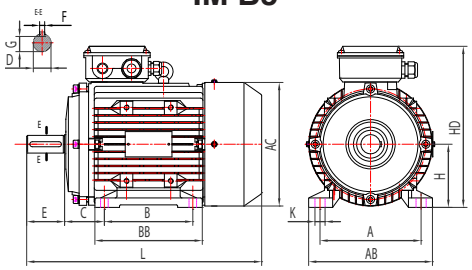
V1 - Vertical Flange Mounted
with Rain Canopy

Note: Other mounting arrangements and special shafts are available by request

AM (Cast Iron) 3 Phase Dimensions

AMTECS

IM B3



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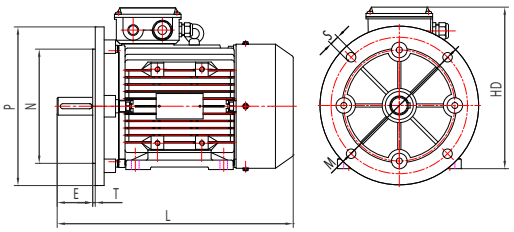

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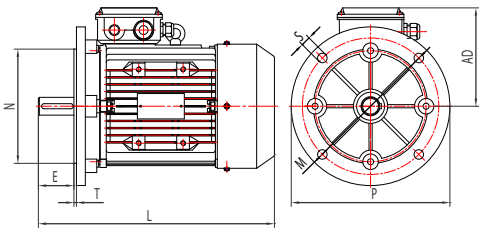

Frame size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	BB	AC	AD	HD	L
80	125	100	50	19	40	6	15.5	80	10	165	130	200	12	3.5	160	130	155	137	217	284
90S	140	100	56	24	50	8	20	90	10	165	130	200	12	3.5	180	140	175	147	237	311
90L	140	125	56	24	50	8	20	90	10	165	130	200	12	3.5	180	165	175	147	237	336
100L	160	140	63	28	60	8	24	100	12	215	180	250	14.5	4	200	176	195	176	276	375
112M	190	140	70	28	60	8	24	112	12	215	180	250	14.5	4	226	180	219	188	300	394
132S	216	140	89	38	80	10	33	132	12	265	230	300	14.5	4	262	186	258	208	340	463
132M	216	178	89	38	80	10	33	132	12	265	230	300	14.5	4	262	224	258	208	340	501
160M	254	210	108	42	110	12	37	160	14.5	300	250	350	18.5	5	314	260	314	255	415	608
160L	254	254	108	42	110	12	37	160	14.5	300	250	350	18.5	5	314	304	314	255	415	652
180M	279	241	121	48	110	14	42.5	180	14.5	300	250	350	18.5	5	349	311	355	272	452	688
180L	279	279	121	48	110	14	42.5	180	14.5	300	250	350	18.5	5	349	349	355	272	452	726
200L	318	305	133	55	110	16	49	200	18.5	350	300	400	18.5	5	388	396	397	302	502	766
225S4-10	356	286	149	60	140	18	53	225	18.5	400	350	450	18.5	5	431	368	446	323	548	806
225M2	356	311	149	55	110	16	49	225	18.5	400	350	450	18.5	5	431	393	446	323	548	801
225M4-10	356	311	149	60	140	18	53	225	18.5	400	350	450	18.5	5	431	393	446	323	548	831
250M2	406	349	168	60	140	18	53	250	24	500	450	550	18.5	5	484	445	485	363	613	910
250M4-10	406	349	168	65	140	18	58	250	24	500	450	550	18.5	5	484	445	485	363	613	910
280S2	457	368	190	65	140	18	58	280	24	500	450	550	18.5	5	542	484	547	392	672	980
280S4-10	457	368	190	75	140	20	67.5	280	24	500	450	550	18.5	5	542	485	547	392	672	980
280M2	457	419	190	65	140	18	58	280	24	500	450	550	18.5	5	542	485	547	392	672	1031
280M4-10	457	419	190	75	140	20	67.5	280	24	500	450	550	18.5	5	542	536	547	392	672	1031
315S2	508	406	216	65	140	18	58	315	28	600	550	660	24	6	536	570	620	515	830	1180
315S4-10	508	406	216	80	170	22	71	315	28	600	550	660	24	6	628	570	620	515	830	1180
315M2	508	457/508	216	65	140	18	58	315	28	600	550	660	24	6	628	680	620	515	830	1290
315M4-10	508	457/508	216	80	170	22	71	315	28	600	550	660	24	6	628	680	620	515	830	1320
315L2	508	457/508	216	65	140	18	58	315	28	600	550	660	24	6	628	680	620	515	830	1290
315L4-10	508	457/508	216	80	170	22	71	315	28	600	550	660	24	6	628	680	620	515	830	1320
355M2	610	560/630	254	75	140	20	67.5	355	28	740	680	800	24	6	750	750	698	630	985	1516
355M4-10	610	560/630	254	100	210	28	90	355	28	740	680	800	24	6	750	750	698	630	985	1546
355L2	610	560/630	254	75	140	20	67.5	355	28	740	680	800	24	6	750	750	698	630	985	1516
355L4-10	610	560/630	254	100	210	28	90	355	28	740	680	800	24	6	750	750	698	630	985	1546

Cast Iron three-phase induction motors according to IEC/DIN, terminal box top mounted, fixed cast feet.
Voltage 220-240/380-420V or 380-420/660-720V, 50Hz, Insulation class F, Protection IP55, PTC Fitted as standard, Colour RAL 5010,
Re-greaseable bearings on size 160 and above.
Flange motors B5 available up to and including size 280. B35 availiable on all sizes.
Availiable in IE1, IE2 and IE3 efficiency. CUS/UL in IE3.

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AM3 IE3 (Cast Iron) : 2 - Pole - 3000 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at		Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM3-IE3 132S2	5.5	10.1	5.83	2930	0.88	89.2	17.9	7.5	2.1	2.5	70	76
AM3-IE3 132Sx2	7.5	13.7	7.91	2930	0.88	90.1	24.4	7.3	2	3.5	70	84
AM3-IE3 160M2	11	19.3	11.14	2945	0.9	91.2	25.7	7.3	2.3	2.6	71	128
AM3-IE3 160Mx2	15	25.9	14.95	2945	0.91	91.9	48.6	7	1.9	2.3	71	140
AM3-IE3 160L2	18.5	32.4	18.71	2940	0.89	92.4	60.1	7	1.6	2.5	71	155
AM3-IE3 180M2	22	38.1	22.00	2955	0.9	92.7	71.1	7	1.6	2.5	77	192
AM3-IE3 200L2	30	52.1	30.08	2960	0.89	93.3	96.8	7	1.5	2.5	80	246
AM3-IE3 200Lx2	37	62.6	36.14	2960	0.91	93.7	119	7.3	1.5	2.5	80	267
AM3-IE3 225M2	45	78.4	45.26	2965	0.88	94	145	6.8	1.6	2.5	81	353
AM3-IE3 250M2	55	94.6	54.62	2970	0.89	94.3	176.9	7.2	1.6	2.6	81	408
AM3-IE3 280S2	75	127	73.32	2975	0.91	94.7	240.8	7.2	1.2	2	82	548
AM3-IE3 280M2	90	153	88.33	2975	0.89	95	288.9	7.4	1.2	2	82	596
AM3-IE3 315S2	110	185	106.81	2978	0.9	95.2	352.8	7.3	1.2	2	84	956
AM3-IE3 315M2	132	222	128.17	2978	0.9	95.4	432.3	7.3	1.3	2.1	84	1017
AM3-IE3 315L2	160	268	154.73	2980	0.9	95.6	512.8	6.8	1.2	2	87	1109
AM3-IE3 315Lx2	200	331	191.10	2980	0.91	95.8	640.9	7.8	1.1	2	87	1150
AM3-IE3 355M2	250	409	236.14	2982	0.92	95.8	800.6	7.9	1.1	2	90	1948
AM3-IE3 355Lx2	315	519	299.64	2982	0.92	95.8	1009	7.9	1.1	2	90	2356

AM3 IE3 (Cast Iron) : 4 - Pole - 1500 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at		Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM3-IE3 132S4	5.5	11.1	6.41	1460	0.80	89.6	36	7.1	2.7	3.5	61	81
AM3-IE3 132M4	7.5	14.6	8.43	1460	0.82	90.4	49.1	7.2	2.7	3.8	61	91
AM3-IE3 160M4	11	21.2	12.24	1465	0.82	91.4	71.7	6.8	1.9	2.3	63	141
AM3-IE3 160L4	15	28.6	16.51	1465	0.82	92.1	97.8	6.8	1.8	2.4	63	151
AM3-IE3 180M4	18.5	34.3	19.80	1470	0.84	92.6	120.2	6.9	1.8	2.5	69	190
AM3-IE3 180L4	22	40.2	23.21	1470	0.85	93	142.9	7	1.8	2.5	69	205
AM3-IE3 200L4	30	53.7	31.00	1475	0.86	93.6	194.2	6.8	1.8	2.3	70	275
AM3-IE3 225S4	37	66.1	38.16	1485	0.86	93.9	237.9	7.1	1.7	2.3	71	315
AM3-IE3 225M4	45	79.1	45.67	1485	0.87	94.2	289.4	7.1	1.8	2.4	71	345
AM3-IE3 250M4	55	96.2	55.54	1485	0.87	94.6	353.7	7	1.8	2.4	71	421
AM3-IE3 280S4	75	131	75.63	1486	0.87	95	482	6.9	1.8	2.2	73	538
AM3-IE3 280M4	90	157	90.64	1486	0.87	95.2	578.4	7.2	1.6	2.1	73	638
AM3-IE3 315S4	110	189	109.12	1488	0.88	95.4	706	7.2	1.6	2.1	80	958
AM3-IE3 315M4	132	226	130.48	1488	0.88	95.6	847.2	7.2	1.5	2	80	1045
AM3-IE3 315L	160	274	158.19	1488	0.88	95.8	1027	6.8	1.5	2	84	1115
AM3-IE3 315Lx	200	342	197.45	1490	0.88	96	1282	7.2	1.6	2.1	84	1233
AM3-IE3 355M	250	427	246.53	1490	0.88	96	1603	7.3	1.4	2.1	88	1744
AM3-IE3 355Lx	315	538	310.61	1490	0.88	96	2019	7.4	1.4	2	88	1950

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AM3 IE3 (Cast Iron) : 6 - Pole - 1000 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM3-IE3 112M6	2.2	9.18	5.30		955	0.71	84.3	22	5.5	2.6	3	58	53
AM3-IE3 132S6	3		7.11	4.10	968	0.71	85.6	29.6	5.5	2	3.1	58	79
AM3-IE3 132M6	4		9.36	5.40	968	0.71	86.8	39.5	5.7	2.1	2.6	59	86
AM3-IE3 132MX6	5.5		12.0	6.93	968	0.75	88	54.3	6	1.7	2.6	61	98
AM3-IE3 160M6	11		15.7	9.06	970	0.77	89.1	73.8	5.9	1.7	2.5	61	154
AM3-IE3 180L6	15		29.3	16.9	978	0.81	91.2	146.5	6	1.5	2.4	62	203
AM3-IE3 200L6	18.5		35.9	20.7	980	0.81	91.7	180.3	6.5	1.6	2.4	62	241
AM3-IE3 200LX6	22		41.4	24.0	980	0.83	92.2	214.4	6	1.7	2.3	63	256
AM3-IE3 225M6	30		55.4	32.0	980	0.84	92.9	292.3	6.5	1.9	2.2	64	322
AM3-IE3 250M6	37		68.1	39.3	985	0.84	93.3	385.7	6.8	1.9	2.2	66	405
AM3-IE3 280S6	45		81.5	47.1	985	0.85	93.7	436.3	6.5	1.8	2.2	68	521
AM3-IE3 280M6	55		99.1	57.2	985	0.85	94.1	533.2	6	1.8	2.2	68	570
AM3-IE3 315S6	75		135	77.9	985	0.84	95.4	727	8	2	2.3	73	890
AM3-IE4 315M6	90		160	92.4	985	0.85	95.6	873	8	2	2.2	73	999

AM3 IE3 (Cast Iron) : 8 - Pole - 750 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM3-IE3 160M8	4.00		9.3	5.4	720	0.73	84.8	53.1	6	2.5	2.9	68	123
AM3-IE3 160MX8	5.50		12.4	7.2	720	0.74	86.2	73	6	2.6	2.8	68	130
AM3-IE3 160L8	7.50		16.5	9.5	720	0.75	87.3	99.5	6.5	2.7	2.9	68	156
AM3-IE3 180L8	11.0		23.6	13.6	730	0.76	88.6	144	6.5	2.6	2.7	70	185
AM3-IE3 200L8	15.0		31.8	18.4	730	0.76	89.6	196	6.7	2.1	2.6	73	234
AM3-IE3 225S8	18.5		39	22.5	740	0.76	90.1	239	6.7	2.1	2.6	73	265
AM3-IE3 225M8	22.0		44.9	25.9	740	0.78	90.6	284	7	2.2	2.6	73	312
AM3-IE3 250M8	30.0		60	34.6	740	0.79	91.3	387	5.7	2	2.6	75	437
AM3-IE3 280S8	37.0		73.6	42.5	740	0.79	91.8	478	5.8	2.2	2.4	76	545
AM3-IE3 280M8	45.0		89.2		740	0.79	92.2	581	6.7	1.9	2	76	560

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AM4 IE4 (Cast Iron) : 2 - Pole - 3000 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM4-IE4 280S2	75		127	73	2975	0.89	95.6	241	8.5	2.5	3.1	82	585
AM4-IE4 280M2	90		152	88	2975	0.89	95.8	289	8.5	2.6	3	82	621
AM4-IE4 315S2	110		186	107	2975	0.89	96	353	8.5	2.1	2.8	84	845
AM4-IE4 315M2	132		223	129	2975	0.89	96.2	424	8.5	2.2	2.7	84	953
AM4-IE4 315L2	160		269	155	2975	0.89	96.3	514	8.5	1.9	2.7	87	1022
AM4-IE4 315LX2	200		336	194	2975	0.89	96.5	642	8.5	2	2.8	87	1133
AM4-IE4 355MX2	250		409	236	2982	0.92	95.8	800.6	7.9	1.1	2	90	1948
AM4-IE4 355LX2	315		519	300	2982	0.92	95.8	1009	7.9	2	2	90	2356

AM4 IE4 (Cast Iron) : 4 - Pole - 1500 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM4-IE4 280S4	75		130	75	1485	0.87	96	482	8.5	2.5	2.8	73	622
AM4-IE4 280M4	90		154	89	1485	0.88	96.1	579	8.5	2.5	2.8	73	710
AM4-IE4 315S4	110		185	107	1485	0.89	96.3	707	8.5	2.5	2.7	80	872
AM4-IE4 315M4	132		222	128	1485	0.89	96.4	849	8.5	2.5	2.8	80	990
AM4-IE4 315L4	160		266	154	1485	0.9	96.6	1029	8.5	2.3	2.7	84	1074
AM4-IE4 315LX4	200		332	192	1485	0.9	96.7	1286	8.5	2.1	2.5	84	1234
AM4-IE4 355MX4	250		427	247	1490	0.88	96	1603	7.3	1.4	2.1	88	1744
AM4-IE4 355LX4	315		538	311	1490	0.88	96	2019	7.4	1.4	2	88	1950

AM4 IE4 (Cast Iron) : 6 - Pole - 1000 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AM4-IE4 315S6	75		135	78	985	0.84	95.4	727	8	2	2.3	73	890
AM4-IE4 315M6	90		160	92	985	0.85	95.6	873	8	2	2.2	73	999

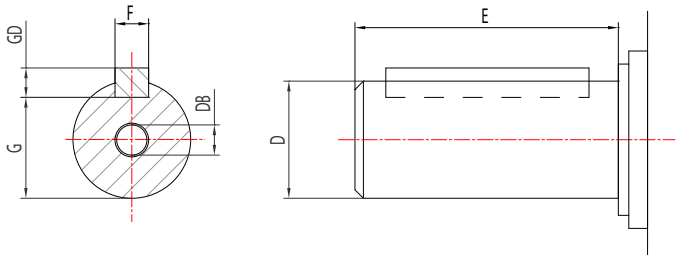
AM Bearings, Oil Seals & Gland Sizes

AMTECS

	Frame size	Poles	Bearing Drive end	Bearing Non-drive end	Oil seal Drive end	Oil seal Non-drive end	Gland size
AM	71	2 - 8	6202	6202	15x28x7	15x28x7	M20 x 1.5
AM	80	2 - 8	6204	6204	20x34x7	20x34x7	M20 x 1.5
AM	90	2 - 8	6205	6205	25x37x7	25x37x7	M20 x 1.5
AM	100	2 - 8	6206	6206	30x44x7	30x44x7	M25 x 1.5
AM	112	2 - 8	6306	6306	30x44x7	30x44x7	M25 x 1.5
AM	132	2 - 8	6308	6308	40x58x8	40x58x8	M25 x 1.5
AM	160	2 / 4 - 8	6209 / 6309	6209	62x45x8	62x45x8	M32 x 1.5
AM	180	2 / 4 - 8	6211 / 6311	6211	72x55x8	72x55x8	M32 x 1.5
AM	200	2 / 4 - 8	6212 / 6312	6212	75x60x8	75x60x8	M40 x 1.5
AM	225	2 / 4 - 8	6312 / 6313	6312	75x60x8 / 85x65x12	75x60x8	M40 x 1.5
AM	250	2 / 4 - 8	6313 / 6314	6313	85x65x12 / 90x70x12	85x65x12	M63 x 1.5
AM	280	2 / 4 - 8	6314 / 6317	6314	90x70x12 / 100x85x12	90x70x12	M63 x 1.5
AM	315	2 / 4 - 8	6317 / N319	6317 / 6319	100x85x12 / 120x95x13	100x85x12 / 120x95x13	M63 x 1.5
AM	355	2 / 4 - 8	6319 / N322	6319 / 6322	120x95x13 / 130x110x13	120x95x13 / 130x110x13	-

Shaft Dimensions and Tolerances

AMTECS



Frame size	D	E	F	G	GD	DB
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
56	9j6	20	3	7	3	M4 x 10
63	11j6	23	4	8.5	4	M4 x 10
71	14j6	30	5	11	5	M5 x 13
80	19j6	40	6	15.5	6	M6 x 16
90	24j6	50	8	20	7	M8 x 19
100	28j6	60	8	24	7	M10 x 28
112	28j6	60	8	24	7	M10 x 28
132	38k6	80	10	33	8	M12 x 30
160	42k6	110	12	37	8	M16 x 36
180	48k6	110	14	42.5	9	M16 x 36
200	55m6	110	16	49	10	M20 x 40
225S4-10	60m8	140	18	53	11	M20 x 50
225M2	55m6	110	16	49	10	M20 x 50
225M4-10	60m6	140	18	53	11	M20 x 50
250M2	60m6	140	18	53	11	M20 x 56
250M4-10	65m6	140	18	58	11	M20 x 56
280S2	65m6	140	18	58	11	M20 x 56
280S4-10	75m6	140	20	67.5	12	M20 x 56
280M2	65m6	140	18	58	11	M20 x 56
280M4-10	75m6	140	20	67.5	12	M20 x 56
315S2	65m6	140	18	58	11	M20 x 56
315S4-10	80m6	170	22	71	14	M20 x 56
315M2	65m6	140	18	58	11	M20 x 56
315M4-10	80m6	170	22	71	14	M20 x 56
315L2	65m6	140	18	58	11	M20 x 56
315L4-10	80m6	170	22	71	14	M20 x 56
355M2	75m6	140	20	67.5	12	M20 x 56
355M4-10	100m6	210	28	90	16	M24 x 56
355L2	75m6	140	20	67.5	12	M20 x 56
355L4-10	100m6	210	28	90	16	M24 x 56

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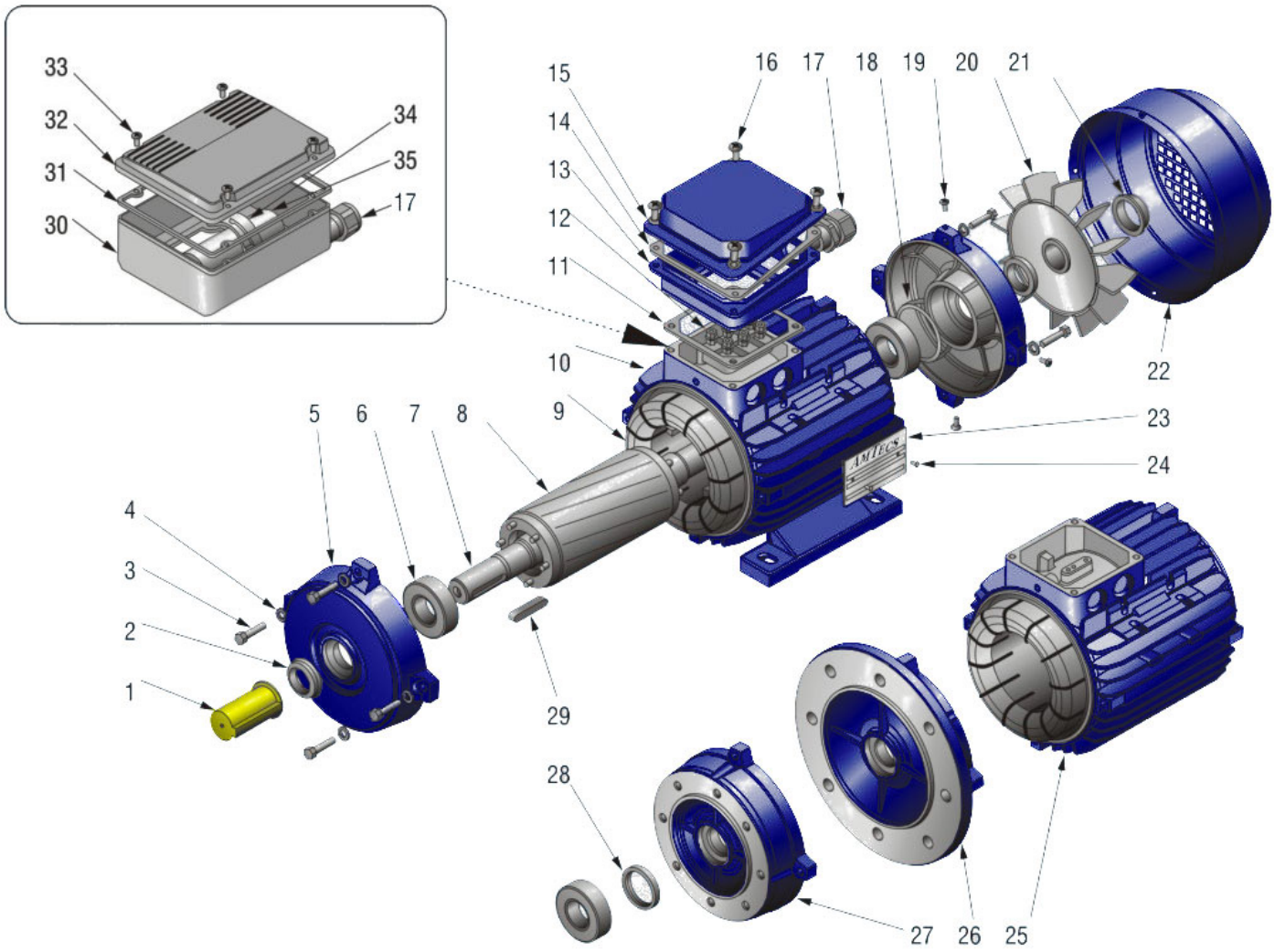
AM, AMA & AMAS Motor Exploded view

AMTECS



1. Shaft Cover
2. Oil Seal
3. Endshield fixing bolt
4. Endshield shake-proof washer
5. B3 Drive-end endshield
6. Drive-end bearing
7. Shaft
8. Rotor
9. Stator winding
10. Stator housing
11. Lower terminal box gasket
12. Terminal block
13. Lower terminal box
14. Terminal box gasket
15. Terminal box lid
16. Terminal box screw
17. Cable gland
18. Spring washer
19. Fan cowl fixing screw
20. Cooling fan
21. Cooling fan retaining clip
22. Fan cowl
23. Nameplate
24. Nameplate fixing screw
25. Stator housing
26. B5 Drive-end endshield
27. B14 Drive-end endshield
28. Oil Seal
29. Key
30. Terminal box
31. Terminal box gasket
32. Terminal box lid
33. Terminal box screw
34. Capacitor retaining clip
35. Capacitor

Note: Exploded view is for illustration purposes only as the design can vary from type to type

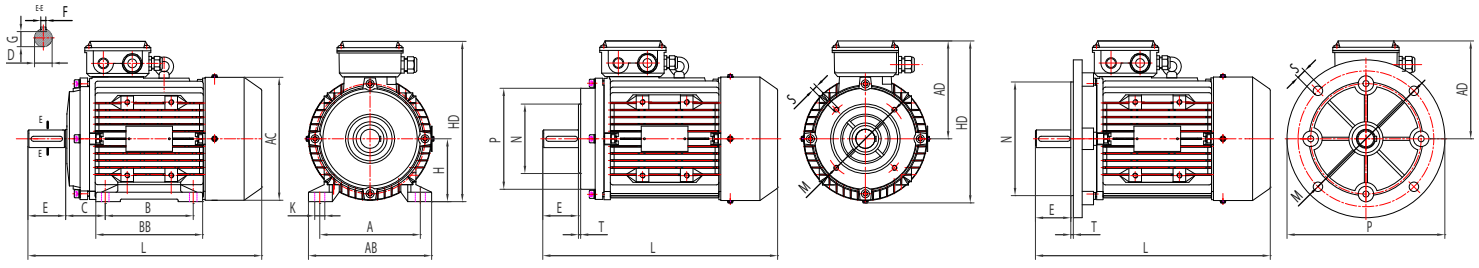
AMA/AM-HO IE2 & IE3 (High output)

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMAH-IE2 63G2	0.37	0.80	0.46		2830	0.78	64.8	1.2	7	3.2	3.3	52	5.5
AMAH-IE3 71G2	0.75	2.94	1.7		2900	0.79	80.7	2.5	8	2.8	2.6	54	8.7
AMAH-IE3 80G2	1.5	5.30	3.06		2900	0.84	84.2	7.21	8.7	2.2	3	58	14.7
AMAH-IE3 90L2	3		5.71	3.30	2910	0.87	87.1	9.85	8.5	2.2	3	62	22
AMAH-IE3 100LX2	4		7.8	4.50	2910	0.9	88.1	13.1	8.5	2.2	2.3	65	32
AMAH-IE3 112M2	5.5		10.6	6.12	2920	0.9	89.2	18	8.5	2	2.3	67	42
AMAH-IE3 132M2	9.2		16.7	9.64	2930	0.88	90.6	30	8.8	2.2	3.2	70	55
AMAH-IE3 132MX2	11		19.6	11.32	2945	0.88	91.2	35.7	8.8	2.2	3.6	70	77
AM3H-IE3 160LX2	22		38.5	22.23	2945	0.89	92.7	71.3	9	2.7	3.2	71	153
AM3H-IE3 180LX2	30		52.1	30.00	2950	0.89	93.3	97.1	8.5	2.7	3.2	77	194
AM3H-IE3 200LX2	45		77.8	45.00	2970	0.89	94.0	145	8.5	2.6	3	81	270
AM3H-IE3 225MX2	55		94.6	54.62	2965	0.89	94.3	177	9	2.5	3	81	326
AM3H-IE3 250MX2	75		128	74.5	2970	0.89	94.7	241	9	2.5	2.8	82	425
AMAH-IE2 63G4	0.25	1.30	0.75		1380	0.7	68.5	1.7	4.5	2.2	2.4	41	5.5
AMAH-IE2 71G4	0.55	2.48	1.43		1400	0.72	77.1	3.8	5	2.4	2.8	45	8.7
AMAH-IE3 80G4	1.1	4.30	2.48		1430	0.76	84.1	7.35	7.2	2.5	2.8	49	15.5
AMAH-IE3 90L4	2.2	7.83	4.52		1455	0.81	86.7	14.4	8.1	2.2	2.5	54	23
AMAH-IE3 100L4	4		7.95	4.59	1455	0.82	88.6	26.3	8.8	2.5	3	56	36
AMAH-IE3 132M4	9.2		14.3	8.26	1460	0.84	90.9	60.2	8.6	3	3.2	61	41
AM3H-IE3 160LX4	18.5		33.5	19.34	1465	0.86	92.6	121	8.6	2.5	3.2	63	145
AM3H-IE3 180LX4	30		53.8	31.06	1475	0.86	93.6	194	9.2	3	3.6	69	216
AM3H-IE3 200L4	37		97.6	56.34	1485	0.86	94.6	238	8.5	2.6	3.2	70	285
AM3H-IE3 200LX4	45		80.2	46.5	1480	0.86	94.2	290	8.5	2.6	3.2	71	289
AM3H-IE3 225MX4	55		97.6	56.6	1485	0.86	94.6	354	8.5	2.6	3	71	358

AMA/AM1-HO IE2 & IE3 (High output)

AMTECS



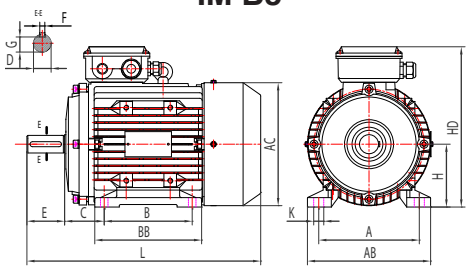
Frame Size	A	B	C	D	E	F	G	H	K	IM B14 M	IM B14 N	IM B14 P	IM B14 S	IM B14 T	IM B14L M	IM B14L N	IM B14L P	IM B14L S	IM B14L T	IM B5 M	IM B5 N	IM B5 P	IM B5 S	IM B5 T	AB	BB	AC	AD	HD	L
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	100	80	120	M6	3	115	95	140	10	3	125	122	120	105	168	218
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	115	95	140	M8	3	130	110	160	10	3.5	138	115	139	115	186	250
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	130	110	160	M8	3.5	165	130	200	12	3.5	159	123	158	126	206	307
90L2	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	177	156	175	132	222	363
90L4	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	177	156	175	132	222	373
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	205	177	198	147	247	427
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	222	180	219	170	282	430
132M	216	178	89	38	80	10	33	132	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	257	218	268	188	320	530
160L	254	254	108	42	110	12	37	160	15	-	-	-	-	-	-	-	-	-	-	300	250	350	18.5	5	314	363	314	264	424	654
180L	279	279	121	48	110	14	42.5	180	14.5	-	-	-	-	-	-	-	-	-	-	300	250	350	18.5	5	349	350	354	283	463	724
200L	318	305	133	55	110	16	49	200	18.5	-	-	-	-	-	-	-	-	-	-	350	300	400	18.5	5	388	366	396	312	512	769
225M	356	311	149	55	110	16	49	225	18.5	-	-	-	-	-	-	-	-	-	-	400	350	450	18.5	5	431	388	445	333	558	848
250M	406	349	168	60	140	18	53	250	24	-	-	-	-	-	-	-	-	-	-	500	450	550	18.5	5	484	445	484	367	617	909

We make all efforts to better our products. Versions, technical data and figures could be changed therefore. They are not binding before written confirmation.30/10/2023

AMA-B IE2 & IE3 (Aluminium Brake Motor)

AMTECS

IM B3



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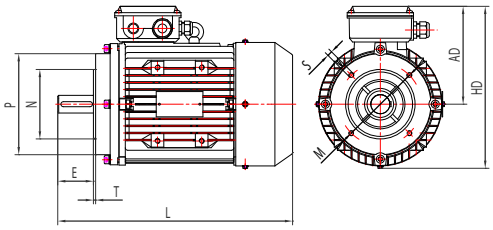
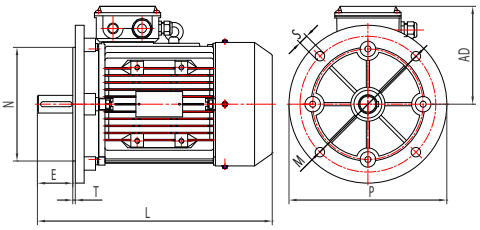


IM B5



Frame Size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
										IM B14					IM B14L					IM B5										
56	90	71	36	9	20	3	7.2	56	5.8	65	50	80	M5	2.5	85	70	105	M6	2.5	100	80	120	7	3	108	89	110	100	156	
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	100	80	120	M6	3	115	95	140	10	3	125	103	120	109	172	250
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	115	95	140	M8	3	130	110	160	10	3.5	140	113	140	110	181	290
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	130	110	160	M8	3.5	165	130	200	12	3.5	155	122	158	135	215	337
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	145	235	385
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	145	235	385
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	205	176	196	155	255	445
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	235	180	220	170	282	455
132S	216	140	89	38	80	10	33	132	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	266	180	260	190	322	540
132M	216	178	89	38	80	10	33	132	12	165	130	200	M10	3.5	215	180	250	M12	4	265	230	300	14.5	4	266	218	260	190	322	580

Aluminium and cast iron three-phase squirrel cage induction brake motors with hand release according to IEC/DIN.Aluminium and Aluminium high output have multi-mount design, with removable feet.Voltage 220-240/380-420V or 380-420/660-720V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, Colour RAL5010,
DC Brake with halfwave rectifier.
Flange motors B5, B14 small available up to and including size 160. B14 large to 132.

AMAB IE2 & IE3 (Aluminium Brake Motor) : 2 - Pole - 3000 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Brake Voltage	Static braking torque	No-load brake response time	Brake power	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (φ)	100% (η)	V (Vdc)	(Nm)	(ms)	(W)	M_N	I_S/I_N	M_S/M_N	M_k/M_N	dB(A) 1 meter (no load)	kg
AMAB-IE2 56G2	0.12	0.79	0.46		2780	0.71	53.6	110	2	0.20	14	0.4	4.55	3.1	3	49	
AMAB-IE2 63K2	0.18	0.9	0.55		2830	0.78	60.4	110	4	0.25	22	0.4	4.94	2.8	2.8	52	
AMAB-IE2 63G2	0.25	1.24	0.71		2830	0.78	64.8	110	4	0.25	22	0.8	5.6	3.3	3.4	52	
AMAB-IE2 71K2	0.37	1.65	0.95		2800	0.81	69.5	110	4	0.25	22	1.3	4.89	2.8	2.1	54	
AMAB-IE2 71G2	0.55	2.27	1.31		2820	0.82	74.1	110	4	0.25	22	1.86	7	2.3	2.2	64	8.3
AMA3HB 71G2	0.75	2.93	1.69		2820	0.83	77.4	110	6	0.25	22						
AMAB-IE3 80K2	0.75	2.85	1.64		2900	0.82	80.7	110	8	0.25	26	2.47	7	2.3	2.3	65	11.6
AMAB-IE3 80G2	1.1	4.02	2.31		2910	0.83	82.7	110	8	0.25	26	3.61	7.6	2.2	2.3	65	12.6
AMA3HB 80G2	1.5							110	8	0.25	26						
AMAB-IE3 90S2	1.5	5.32	3.06		2900	0.84	84.2	110	16	0.38	39	4.94	7.9	2.2	2.3	67	19
AMAB-IE3 90L2	2.2	7.56	4.35		2915	0.85	85.9	110	16	0.38	39	7.21	7.9	2.2	2.3	67	23
AMA3HB 90L2	3	10.1	5.84		2910	0.85	87.1	110	16	0.38	39	9.85	8	2.2	2.3	67	25
AMAB-IE3 100L2	3	9.94	5.71	3.31	2910	0.87	87.1	110	32	0.35	37	9.85	8.5	2.2	2.3	74	31
AMA3HB 100LX2	4							186	32	0.35	37						
AMAB-IE3 112M2	4		7.45	4.32	2920	0.88	88.1	186	60	0.48	50	13.1	8.5	2.2	2.3	77	45
AMA3HB 112M2	5.5							186	60	0.48	50						
AMAB-IE3 132S2	5.5		10.11	5.86	2920	0.88	89.2	186	80	0.5	52	18	8.5	2	2.3	79	64
AMAB-IE3 132SX2	7.5		13.7	7.91	2925	0.88	90.1	186	80	0.5	52	24.5	8.5	2	2.3	79	69
AMA3HB 132M2	9.2		16.66	9.66	2930	0.88	90.6	186	80	0.5	52		8.5	2	2.3		
AMA3HB 132MX2	11		19.56	11.34	2945	0.89	91.2	186	80	0.5	52	35.67	8.5	2	2.3	79	90
AMAB-IE3 160M2	11							186									
AMAB-IE3 160MX2	15							186									
AMAB-IE3 160L2	18.5							186									

AMAB IE2 & IE3 (Aluminium Brake Motor) : 4 - Pole - 1500 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Brake Voltage	Static braking torque	No-load brake response time	Brake power	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (φ)	100% (η)	V (Vdc)	(Nm)	(ms)	(W)	M_N	I_S/I_N	M_S/M_N	M_k/M_N	dB(A) 1 meter (no load)	kg
AMAB-IE2 63K4	0.12	0.73	0.42		1360	0.7	59.1	110	4	0.25	22						
AMAB-IE2 63G4	0.18	1.00	0.57		1360	0.7	64.7	110	4	0.25	22	1.26	5.2	2.2	2.4	60	7.3
AMAB-IE2 71K4	0.25	1.31	1.31		1380	0.7	68.5	110	4	0.25	22						
AMAB-IE2 71G4	0.37	1.80	1.03		1380	0.7	72.7	110	4	0.25	22	2.56	5.2	2.4	2.8	64	8.3
AMA2HB 71G4	0.55	2.49	1.43		1400	0.72	77.1	110	6	0.25	22	3.67	6	2.3	2.3	64	9.2
AMAB-IE3 80K4	0.55	2.37	2.39		1400	0.72	80.8	110	8	0.25	26		6.5	2.3	2.3		
AMA3-IE3 80G4	0.75	3.04	1.75		1445	0.75	82.5	110	8	0.25	26	24.5	6.5	2.3	2.3	67	14.5
AMA3HB 80G4	1.1							110									
AMAB-IE3 90S4	1.1	4.32	2.48		1445	0.76	84.1	110	16	0.38	39	7.27	6.8	2.3	2.3	70	22
AMAB-IE3 90L4	1.5	5.73	3.30		1445	0.77	85.3	110	16	0.38	39	9.91	7	2.3	2.3	70	27
AMA3HB 90L4	2.2							110									
AMAB-IE3 100L4	2.2	7.86	4.52		1455	0.81	86.7	110	32	0.35	37	14.4	7.5	2.3	2.3	72	35
AMAB-IE3 100LX4	3	10.5	6.02	3.49	1450	0.82	87.7	110	32	0.35	37	19.8	7.5	2.3	2.3	72	41
AMAB-IE3 112M4	4		7.95	4.61	1455	0.82	88.6	186	60	0.48	50	26.3	7.8	2.2	2.3	75	51
AMAB-IE3 132S4	5.5		10.7	6.19	1460	0.83	89.6	186	80	0.5	52	36	8	2	2.3	75	66
AMAB-IE3 132M4	7.5		14.3	8.26	1460	0.84	90.4	186	80	0.5	52	49.1	8	2	2.3	75	76
AMA3HB 132MX4	9.2		17.39	10.08	1460	0.84	90.9	186	120	0.67	69		8	2	2.3		
AMAB-IE3 160M4	11							186									
AMAB-IE3 160L4	15							186									

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ATEX Categories and Designations

AMTECS

Potentially explosive areas

Conditions and Zone classification			Required marking on the equipment			
Flammable materials	**Temporary behaviour** of explosive atmosphere	**Classification** of hazardous areas	**Group** as defined in directive 2014/34/EU	**Equipment category** as defined in directive 2014/34/EU	**Equipment group** as defined in EN IEC 60079-0	**Equipment protection level** (EPL) as defined in EN IEC 60079-0
Gases Vapours	is present continuously or for long periods or frequently	Zone 0	II	1G	II	Ga
	arises in normal operation occasionally	Zone 1	II	2G or 1G	II	Gb or Ga
	is not likely to arise in normal operation, or if it does, will persist for a short time only	Zone 2	II	3G or 2G or 1G	II	Gc or Gb or Ga
Dusts	is present in the form of a cloud continuously, or for long periods or frequently	Zone 20	II	1D	III	Da
	occasionally develops into a cloud during normal operation	Zone 21	II	2D or 1D	III	Db or Da
	is not likely to develop into a cloud during normal operation, or if it does, for a short time only	Zone 22	II	3D or 2D or 1D	III	Dc or DB or Da

Subdivisions and classification of gases and vapours

Gases and vapours			Assignment of gases and vapours accordance to the ignition temperature	Temperature class	Maximum surface temperature (equipment)	Permitted Temperature classes (equipment)
Ammonia, methane, ethane, propane	Town gas, acrylnitril	Hydrogen	> 450 °C	T1	450 °C	T1 to T6
n-butane	Ethylene, ethylene oxide, Ethyl alcohol	Ethine (Acetylene)	> 300 °C ... < 450 °C	T2	300 °C	T2 to T6
Gasoline, n-hexane, cyclohexane	hydrogen sulphide		> 200 °C ... < 300 °C	T3	200 °C	T3 to T6
Acetaldehyde	Ethyl ether		> 135 °C ... < 200 °C	T4	135 °C	T4 to T6
			> 100 °C ... < 135 °C	T5	100 °C	T5 to T6
Ethyl nitrite		carbon disulphide	> 085 °C ... < 100 °C	T6	85 °C	T6

Groups		
IIA	IIB	IIC
Permitted Equipment groups		
IIA, IIB, IIC	IIB, IIC	IIC

ATEX

Gases/Vapours	NB[2]	II 2G	Ex db eb	IIC	T6	Gb	NB[2] 18 ATEX 1234 X
Dusts	NB[2]	II 2G	Ex db eb	IIC	T80 °C	Db	NB[2] 18 ATEX 1234 X

IECEXX

Gases/Vapours		Ex db eb	IIB	T6	Gb	IECEx ExCB[3] 11.1234 X
Dusts		Ex tc	IIIB	T120 °C	Dc	IECEx ExCB[3] 11.1234 X

Protection principle/types of protection

Applications	Flammable materials	Protection principle	Type of protection	Marking in accordance with the equipment protection level: very high level of protection	high level of protection	enhanced level of protection	Standards
All applications	Gases, vapours (G) and dusts (D)	-	General requirements	+	+	+	EN IEC 60079-0
Control stations, motors, fuses, switchgear, power electronics, *catalytic gas detectors only	Gases and vapours (G)	Propagation of an explosion inside to the outside is excluded	Flameproof enclosure	Ex da*	Ex db	Ex dc	EN IEC 60079-1
Junction and connection boxes, enclosures, motors, luminaires, terminals	Gases and vapours (G)	Avoidance of arcs, sparks and excessive temperature	Increased safety	-	Ex eb	Ex ec	EN IEC 60079-7
Junction and connection boxes, enclosures, motors, luminaires, switch and control cabinets, plugs	Dusts (D)	Explosive dust atmosphere keep at a distance from the ignition source	Protection by enclosure	Ex ta	Ex tb	Ex tc	EN IEC 60079-31
Measurement and control technology, automation technology, sensors, actuators	Gases, vapours (G) and dusts (D)	Limitation of energy as well as arcs and temperature	Intrinsic safety	Ex ia	Ex ib	Ex ic	EN IEC 60079-11 EN IEC 60079-25
Switch and control stations, motors, analyzers, computers	Gases, vapours (G) and dusts (D)	Explosive atmosphere keep at a distance from the ignition source	Pressurization	-	Ex pxb, Ex pyb	Ex pzc	EN IEC 60079-2
Coils of motors or relays, solenoid valves, connection systems	Gases, vapours (G) and dusts (D)	Explosive atmosphere keep at a distance from the ignition source	Encapsulation	Ex ma	Ex mb	Ex mc	EN IEC 60079-18
Transformers, relays, control stations, magnetic contactors	Gases and vapours (G)	Explosive atmosphere keep at a distance from the ignition source	Liquid immersion	-	Ex ob	Ex oc	EN IEC 60079-6
Capacitors, transformers, relays	Gases and vapours (G)	A propagation of an explosion inside to the outside is excluded	Powder filling	-	Ex q	+	EN IEC 60079-5
Applications for zone 2	Gases and vapours (G)	Protection principles adapted for zone 2	Enclosed construction Restricted breathing	-	-	Ex nC Ex nR	EN IEC 60079-15
Optical devices, laser scanners, light barriers, fibre-optic systems	Gases, vapours (G) and dusts (D)	Limitation of optical energy radiating in the explosive atmosphere	Inherent safe optical radiation	Ex op is	+	+	EN IEC 60079-28
Fibre-optic systems	Gases, vapours (G) and dusts (D)	Ex atmosphere is kept distant from the ignition source	Protected optical radiation	-	Ex op pr	+	EN IEC 60079-28
Fibre-optic systems	Gases, vapours (G) and dusts (D)	Ex atmosphere is kept distant from the ignition source	Optical system with interlocking	-	Ex op sh	+	EN IEC 60079-28

- means: Not possible to use.
+ means: Possible to use.

[1] Identification number of the Notified Body responsible for the surveillance of the manufacturer's quality system (Cat. 1 and 2).
[2] Notified Body (NB) that has tested and certified the product (Cat. 1 and 2).
[3] Certification Body (CB) that has tested and certified the product (EPL a, b and c).

ATEX is in the European Union a mandatory and IECEx a voluntary certification procedure.
For the correct application of the certification procedures, please follow the corresponding regulations guidelines and standards.

Application area (equipment) depending on either G or D		
Zone 0/20 Zone 1/21 Zone 2/22	Zone 1/21 Zone 2/22	Zone 2/22

Use of the operating equipment

Marking	Conditions
without X or U	Equipment can be operated without restrictions
with X	Specific conditions of use of the equipment
with U	Component certificate (uncompleted), conformity is certified when used in an overall equipment

Max. permissible surface temperature of the equipment

Temperature limitation because of dust layer $T_{5\,mm}$: Minimum ignition temperature of 5 mm layer of dust	$T_{max.}$ < T5 mm - 75°C
Temperature limitation because of dust cloud T_{CL}: Minimum ignition temperature of the cloud of dust	$T_{max.}$ < 2/3 T_{CL}
Max. permissible surface temperature of the equipment:	lowest outcome of the $T_{max.}$ values

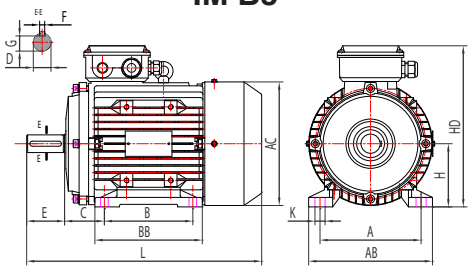
Subdivision of dusts

Permitted Equipment groups	Groups	Dusts
IIIA, IIIB, IIIC	IIIA	combustible flyings
IIIB, IIIC	IIIB	non-conductive
IIIC	IIIC	conductive

RL Zone 1/21 2GD ATEX (Dimensions)

AMTECS

IM B3



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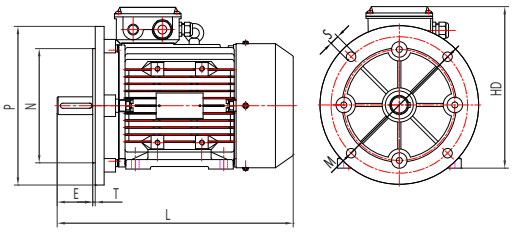
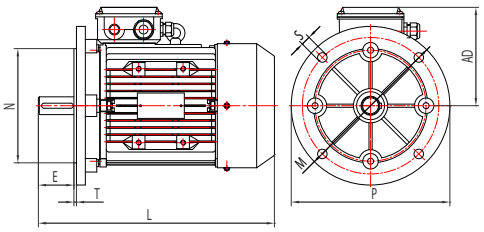


IM B5



Frame size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	AB	AD	HD	L
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	125	142	205	268
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	142	142	213	267
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	155	151	213	299
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	180	158	248	354
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	180	158	248	354
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	200	188	288	407.5
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	229	200	310	423
132S	216	140	89	38	80	10	33	132	12	165	130	200	M10	3.5	250	257	389	550.5
132M	216	178	89	38	80	10	33	132	12	165	130	200	M10	3.5	250	257	389	550.5
160M	254	210	108	42	110	12	37	160	15	215	180	250	M12	4	310	285	445	664.50
160L	254	254	108	42	110	12	37	160	15	215	180	250	M12	4	310	285	445	664.50

Aluminium three-phase induction motors according to IEC/DIN, terminal box top mounted, removeable feet.
Voltage 220-240/380-420V or 380-420/660-720V, 50Hz, Insulation class F, PTC Fitted as standard, Colour RAL 5010.
Flange motors B5, B14S, B34S & B35 available on all sizes.
Motors are certified for ATEX II 2G Ex db eb IIC T5 Gb/ 2D Ex tb IIIC T100°C Db IP66
IEC EX availiable by request.
Availiable in IE2 and IE3 efficiency.

RL Zone 1/21 2GD ATEX : 2 - Pole - 3000 min^{-1}

AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (φ)	100% (η)	M_N	I_S/I_N	M_S/M_N	dB(A) 1 meter (no load)	kg
2RL 63B	0.18	0.87	0.5		2850	0.74	60.4	0.6	3.6	3.8	78	7
2RL 63B	0.25	1.07	0.62		2840	0.8	64.8	0.9	4.3	3.5	78	7
2RL 71A	0.37	1.56	0.9		2850	0.8	69.5	1.3	4.8	3	78	7
2RL 71B	0.55	2.6	1.5		2810	0.8	74.1	2.1	3.8	3	78	8
3RL 80A	0.75	3.11	1.8		2820	0.85	80.7	2.6	5	2.4	78	10
3RL 80B	1.1	4.15	2.4		2850	0.88	82.7	3.8	5.8	3	78	11
3RL 90S	1.5	5.88	3.4		2800	0.86	84.2	5.2	5	2.9	78	16
3RL 90L	2.2	7.5	5.4		2860	0.84	85.9	7.5	5.4	3	78	20.5
3RL 100LB	3	9.52	5.5		2880	0.84	87.1	10.2	6	2.6	78	23
3RL 112M	4		7.4	4.3	2880	0.85	88.1	13.2	5.8	2.6	78	36.8
3RL 132SA	5.5		10.21	5.9	2938	0.9	89.2	18.3	6.7	2.6	78	54
3RL 132SB	7.5		13.3	7.7	2920	0.91	90.1	24.7	6.9	2.9	78	61
3RL 160MA	11		19.03	11.0	2930	0.9	91.2	36	7.9	2.8	78	98
3RL 160MB	15		26.3	15.2	2950	0.9	91.9	49	8.4	3.1	78	110
3RL 160L	18.5		33.04	19.10	2940	0.88	92.4	60	8	3.1	78	115

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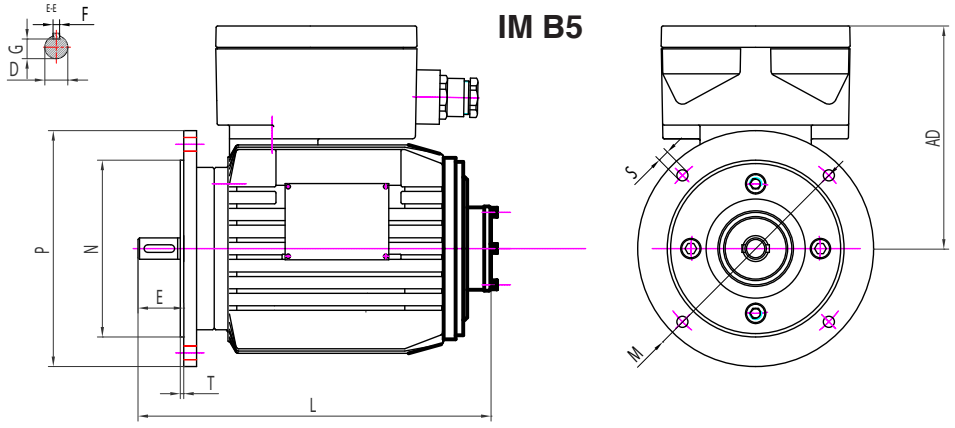
RL Zone 1/21 2GD ATEX : 4 - Pole - 1500 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	dB(A) 1 meter (no load)	kg
2RL 63A	0.12	0.88	0.51		1430	0.6	59.1	0.9	3.3	3	78	6
2RL 63B	0.18	0.92	0.53		1410	0.66	64.7	0.66	3.5	2.2	78	6.5
2RL 71A	0.25	1.38	0.8		1415	0.63	68.5	1.8	3	2.2	78	6.5
2RL 71B	0.37	1.9	1.1		1400	0.65	72.7	2.6	3.4	2.4	78	7.5
2RL 80A	0.55	2.6	1.5		1410	0.7	77.1	3.8	4.4	2.2	78	10
3RL 80B	0.75	3.46	2		1440	0.7	82.5	5.2	4.9	1.9	78	12
3RL 90S	1.1	4.67	2.7		1440	0.7	84.1	7.7	4.2	2.3	78	16
3RL 90L	1.5	5.71	3.3		1420	0.8	85.3	10.4	5	3	78	17.5
3RL 100LA	2.2	9.52	5.5		1440	0.8	86.7	15.1	5	2.3	78	23
3RL 100LB	3	11.33	6.55		1435	0.8	87.7	20.1	6	2.6	78	29
3RL 112M	4		8.2	4.67	1440	0.8	88.6	26.8	6	2.7	78	35
3RL 132SB	5.5		11.94	6.9	1457	0.79	89.6	37.86	6.1	2.4	78	66
3RL 132SMB	7.5		14.4	8.3	1450	0.84	90.4	49.5	6.6	2.4	78	71
3RL 160M	11		21.97	12.7	1460	0.85	91.4	72	5.5	2.6	78	125
3RL 160L	15		27.5	15.8	1450	0.85	92	96.2	5.8	2.6	78	115

RL Zone 1/21 2GD ATEX : 6 - Pole - 1000 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Sound pressure level	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	dB(A) 1 meter (no load)	kg
2RL 63B	0.12	0.95	0.55		930	0.5	50.6	1.3	2.6	2.6	78	7
2RL 71A	0.18	1.31	0.76		925	0.6	56.6	2.0	2.8	2.4	78	7.5
2RL 71B	0.25	1.73	1.0		920	0.6	61.6	2.7	2.9	3.1	78	8.5
2RL 80A	0.37	2.16	1.25		935	0.61	67.6	3.8	3.9	2.6	78	10
2RL 80B	0.55	2.02	1.7		930	0.7	73.1	5.8	3.5	2.8	78	13
3RL 90S	0.75	4.15	2.5		930	0.7	78.9	7.9	3.5	2.3	78	17.5
3RL 90L	1.1	5.2	3		910	0.7	81	11.6	3.7	2.3	78	17.5
3RL 100LB	1.5	6.57	3.8		940	0.75	82.5	15.2	3.8	1.7	78	31
3RL 112M	2.2	9.3	5.4		950	0.75	84.3	22.4	4.7	1.8	78	35
3RL 132SB	3		6.75	3.9	960	0.8	85.6	30.3	4.5	1.7	78	64
3RL132MB	4		8.64	5	950	0.8	86.8	39.00	4.5	1.8	78	65
3RL 132ML	5.5		11.5	6.6	950	0.8	88	55	4.6	1.8	78	73
3RL 160MB	7.5		15.9	9	965	0.8	89.1	75.6	4.5	1.8	78	106
3RL 160L	11		23.5	13.6	955	0.86	90.3	110	4.6	1.8	78	118

4KTS IP68 Ex db e IIB T4 Zone 1: 4 - Pole - 1500 min^{-1} AMTECS



Frame size	D	E	F	G	H	M	N	P	S	T	LC	L
90	24	50	8	20	90	165	130	200	12	3.5	10	323
100L	28	60	8	24	100	215	180	250	14	4	11	359
112M	28	60	8	24	112	215	180	250	14	4	11	378
132M	38	80	10	33	132	265	230	300	14	4	12	469
160L	42	110	12	37	160	300	250	350	18	5	14	604
180M	48	110	14	42.5	180	300	250	350	18	5	14	627
132M	38	80	10	33	132	265	230	300	14	4	266	218
160L	42	110	12	37	160	300	250	350	18	5	312	300
180M	48	110	14	42.5	180	300	250	350	18	5	350	333
180L	48	110	14	42.5	180	300	250	350	18	5	350	333

Cast Iron three-phase Flameproof squirrel cage induction motors, Motor suitable for continuous running in air and upto 12 meters under water. Totaly enclosed, non ventilated. Voltage 220-240/380-420V or 380-420/660-720V, 50Hz, Insulation class F, Protection IP68, Thermal overload protection PTC, Colour RAL 5010, Motors are B5 flange mounted as standard, Flanges B14 small, large, and B35 availiable by request.
II 2G Ex db e IIB T4 Gb or IIC 2G Ex db e IIB T4 Gb.
Certification ATEX and IECEx.

4KTS IP68 Ex db e IIB T4 Zone 1: 4 - Pole - 1500 min^{-1} AMTECS

Frame size	Rated output power	Rated current at			Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Rotor inertia	Weight foot mounted
	P_N (KW)	220V I_N (A)	400V I_N (A)	690V I_N (A)	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S/I_N	M_S/M_N	M_K/M_N	J (kgm^2)	kg
4KTS 90S4	0.55	2.2	1.3		1420	0.82	86.2	3.7	6.6	2.5	2.7	0.00204	32
4KTS 90L4	0.75	2.95	1.7		1430	0.80	87.2	5	6.6	2.8	3.2	0.00206	35
4KTS 100LB4	1.5	2.95	1.7		1430	0.80	82.6	10	6.6	2.5	2.4	0.00206	35
4KTS 132S4	2.2	7.8	4.5		1448	0.84	82.8	14.5	6.2	2.6	2.7	0.02113	84
4KTS 160 M4	3.7	12.5	7.2		1470	0.86	86.5	24	7.1	3.0	3.0	0.05417	159
4KTS 180 M4	7.5	24.9	14.4		1465	0.87	84.1	48.8	6.7	3.1	2.2	0.1129	215
4KTS 180 L4	11	35.8	20.7		1465	0.88	87.3	71.6	6.6	2.9	2.2	0.1339	236

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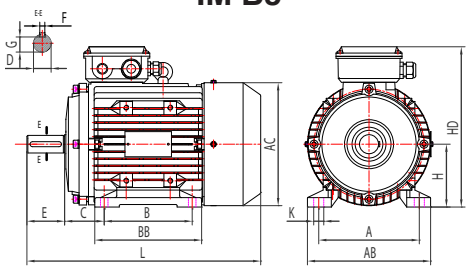
AMAS-R (Cap Run) 1 Phase

AMTECS

IM B3



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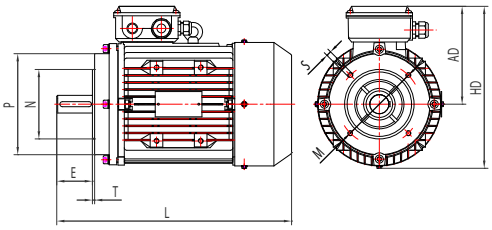

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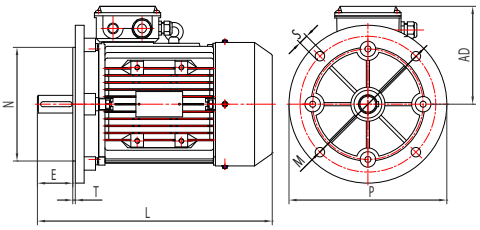

Frame size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
										IM B14					IM B14L					IM B5										
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	100	80	120	M6	3.0	115	95	140	10	3	125	103	120	122	185	215
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	115	95	140	M8	3.0	130	110	160	10	3.5	138	113	140	135	205	245
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	130	110	160	M8	3.5	165	130	200	12	3.5	159	122	158	145	225	285
90S	140	100/125*	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	150	240	330
90L	140	100/125*	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	150	240	330
100L	160	140	63	28	60	8	24	100	215	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	205	176	196	165	265	375

Aluminium three-phase squirrel cage induction single phase with running capacitor motors according to IEC/DIN, multi-mount design with removable feet, Black plastic ABS terminal boxes house the run capacitor, High running torque M_a => 60-70%, Voltage 220-240V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, Colour RAL 5010, Cast iron drive end shield frame 100 and above.
Flange motors B5, B14 small and large available on all sizes.
**Feet have mounting holes for both s and L*

AMAS-R (Cap Run) 2 & 4 Pole

AMTECS

Frame size	Rated output power	Rated current at	Run Capacitor	Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	230V I_N (A)	µf/V	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMAS-R 63K2	0.18	1.48	8µf/450V	2800	0.92	60	0.63	5	0.40	1.7	70	3.9
AMAS-R 63G2	0.25	1.96	12µf/450V	2800	0.92	63	0.87	7	0.40	1.7	70	4.4
AMAS-R 71K2	0.37	2.73	16µf/450V	2800	0.92	67	1.29	10	0.35	1.7	75	6.2
AMAS-R 71G2	0.55	3.88	20µf/450V	2800	0.92	70	1.95	15	0.35	1.7	75	6.5
AMAS-R 80K2	0.75	5.15	25µf/450V	2800	0.92	72	2.58	20	0.33	1.7	75	8.3
AMAS-R 80G2	1.10	7.02	30µf/450V	2800	0.95	75	3.66	30	0.33	1.7	78	11
AMAS-R 90S2	1.50	9.44	40µf/450V	2800	0.95	76	5.13	45	0.3	1.7	83	15
AMAS-R 90L2	2.20	13.67	60µf/450V	2800	0.95	77	7.52	65	0.3	1.7	83	17
AMAS-R 63K4	0.12	1.10	10µf/450V	1400	0.92	55	0.87	3.5	0.4	1.7	65	4
AMAS-R 63G4	0.18	1.62	10µf/450V	1400	0.92	56	1.27	5	0.4	1.7	65	4.7
AMAS-R 71K4	0.25	2.02	14µf/450V	1400	0.92	61	1.75	7	0.35	1.7	65	6.3
AMAS-R 71G4	0.37	2.95	20µf/450V	1400	0.92	62	2.60	10	0.35	1.7	70	7
AMAS-R 80K4	0.55	4.25	25µf/450V	1400	0.92	64	3.75	15	0.35	1.7	70	9.5
AMAS-R 80G4	0.75	5.45	35µf/450V	1400	0.92	68	5.11	20	0.32	1.7	70	11.6
AMAS-R 90S4	1.10	7.45	45µf/450V	1400	0.95	71	7.58	30	0.32	1.7	73	14
AMAS-R 90L4	1.50	9.83	60µf/450V	1400	0.95	73	10.29	45	0.3	1.7	78	17
AMAS-R 100L4	2.20	11.7	90µf/450V	1400	0.98	83	15.13	56.7	0.3	1.9	86	23

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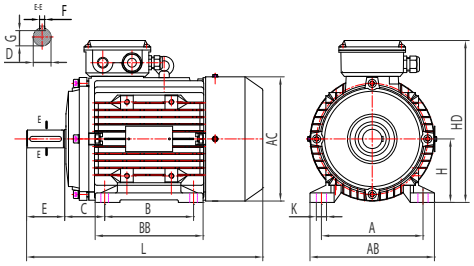
AMAS-SR (Cap Start/Cap Run) 1 Phase

AMTECS

IM B3



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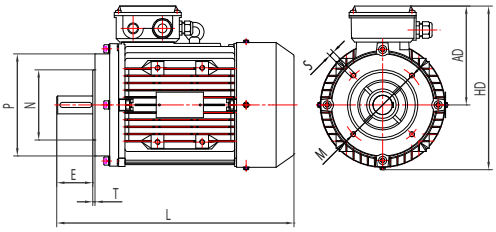

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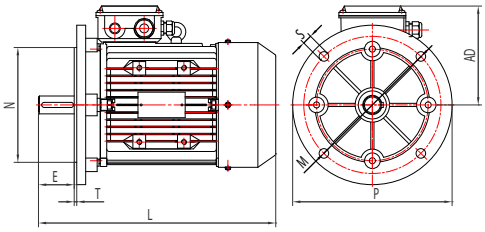

Frame size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
										IM B14					IM B14L					IM B5										
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	100	80	120	M6	3.0	115	95	140	10	3	138	113	140	135	205	250
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3.0	115	95	140	M8	3.0	130	110	160	10	3.5	159	122	158	145	225	301
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	155	240	334
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	175	155	175	155	245	360
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	130	110	160	M8	3.5	165	130	200	12	3.5	205	176	196	165	265	401
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	222	180	220	180	292	442

Aluminium three-phase squirrel cage induction single phase with starting and running capacitor motors according to IEC/DIN, multi-mount design with removable feet, Black plastic ABS terminal boxes house the both the start and run capacitor, centrifugal mechanical switch design, high starting & running torque M_a=> 180%.
Voltage 220-240V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, Colour RAL 5010, Cast iron drive end shield frame 100 and above.
Flange motors B5, B14 small and large available on all sizes.
**Feet have mounting holes for both s and L*

AMAS-SR (Cap Start/Cap Run) : 2 & 4 - Pole

AMTECS

Frame size	Rated output power	Rated current at	Start Capacitor	Run Capacitor	Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	230V I_N (A)	μf/V	μf/V	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMAS-SR 71K2	0.37	2.73	75μf/300V	16μf/450V	2800	0.92	67	1.29	16	2.3	1.8	72	6
AMAS-SR 71G2	0.55	3.88	100μf/300V	20μf/450V	2800	0.92	70	1.94	21	2.5	1.8	72	7
AMAS-SR 80K2	0.75	5.15	100μf/300V	25μf/450V	2800	0.92	72	2.60	30	2.5	1.8	75	10
AMAS-SR 80G2	1.10	7.02	150μf/300V	30μf/450V	2800	0.95	75	3.81	40	2.5	1.8	75	11
AMAS-SR 90S2	1.50	9.44	200μf/300V	40μf/450V	2800	0.95	76	5.22	55	2.5	1.8	78	14
AMAS-SR 90L2	2.20	13.67	300μf/300V	60μf/450V	2800	0.95	77	7.44	80	2.5	1.8	78	19
AMAS-SR 100L2	3.00	18.2	400μf/300V	60μf/450V	2800	0.95	79	10.44	110	2.5	1.8	91	23
AMAS-SR 112M2	3.70	22.85	600μf/300V	50μf/450V	2800	0.946	80	13.53	133	2.5	1.8	91	40
AMAS-SR 71K4	0.25	1.99	50μf/300V	10μf/450V	1400	0.92	62	1.74	12	2.5	1.8	67	6.4
AMAS-SR 71G4	0.37	2.81	75μf/300V	14μf/450V	1400	0.92	65	2.61	16	2.5	1.8	67	7
AMAS-SR 80K4	0.55	4.0	100μf/300V	25μf/450V	1400	0.92	68	3.83	21	2.5	1.8	70	10
AMAS-SR 80G4	0.75	5.22	150μf/300V	30μf/450V	1400	0.92	71	5.22	30	2.5	1.8	70	11.5
AMAS-SR 90S4	1.10	7.2	150μf/300V	30μf/450V	1400	0.95	73	7.66	40	2.5	1.8	73	15
AMAS-SR 90L4	1.50	9.57	200μf/300V	40μf/450V	1400	0.95	75	10.44	55	2.5	1.8	73	17
AMAS-SR 100L4	2.20	13.9	300μf/300V	60μ/450V	1400	0.95	76	15.31	60	2.5	1.8	86	23
AMAS-SR 100LX4	3.00	17.1	400μf/300V	60μ/450V	1400	0.96	78	20.88	70	2.5	1.8	86	30
AMAS-SR 112M4	3.70	22.01	600μf/300V	50μ/450V	1400	0.90	81	25.04	101	2.4	1.8	91	43

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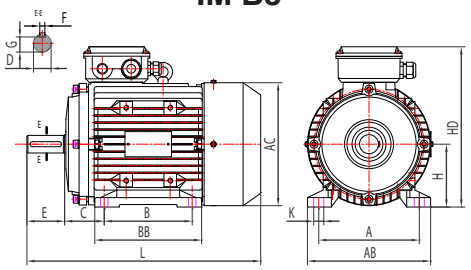
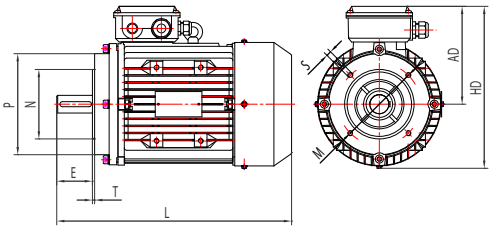
AMAS-R-IE2 (Cap Run) 1 Phase

AMTECS

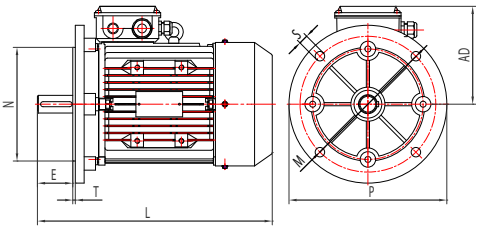
IM B3



IM B14



IM B5



Frame size	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
										IM B14					IM B14L					IM B5										
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	100	80	120	M6	3.0	115	95	140	10	3	125	108	120	120	183	248
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	115	95	140	M8	3.0	130	110	160	10	3.5	138	113	138	130	201	255
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	130	110	160	M8	3.5	165	130	200	12	3.5	159	122	158	148	228	295
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	159	122	158	148	228	295
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	130	110	160	M8	3.5	165	130	200	12	3.5	177	155	175	151	241	328
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	205	176	198	170	270	396

IE2 Efficiency Aluminium three-phase squirrel cage induction single phase with running capacitor motors according to IEC/DIN, multi-mount design with removable feet, Improved Aluminium terminal boxes house the run capacitor, Manually resettable thermal trip fitted as standard. High running torque M_a => 60-70%, Voltage 220-240V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, Colour RAL 5010, Cast iron drive end shield frame 100 and above.
Flange motors B5, B14 small and large available on all sizes.
**Feet have mounting holes for both s and L*

AMAS-R-IE2 (Cap Run) 2 & 4 Pole

AMTECS

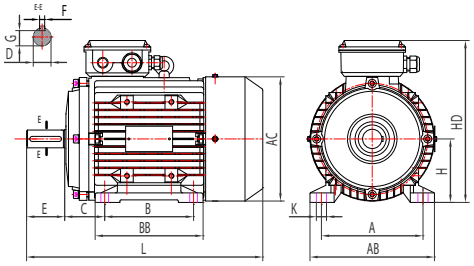
Frame size	Rated output power	Rated current at	Run Capacitor	Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	230V I_N (A)	µf/V	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_S	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMAS-R-IE2 63K2	0.18	1.36	6uf/450V	2790	0.95	60.4	0.62	4.5	0.5	1.8	65	4.4
AMAS-R-IE2 63G2	0.25	1.71	12uF/450V	2780	0.98	64.8	0.86	6	0.5	2	65	4.6
AMAS-R-IE2 71K2	0.37	2.44	14uf/450V	2800	0.95	69.5	1.26	8.5	0.4	1.7	70	6.3
AMAS-R-IE2 71G2	0.55	3.3	20uf/450V	2800	0.98	74.1	1.88	12	0.5	1.7	70	7.3
AMAS-R-IE2 80K2	0.75	4.3	25uf/450V	2830	0.98	77.4	2.53	20	0.35	1.9	75	9.8
AMAS-R-IE2 80G2	1.10	6.13	30uf/450V	2850	0.98	79.6	3.69	30	0.4	1.9	75	11.2
AMAS-R-IE2 90S2	1.50	8.3	40uf/450V	2850	0.97	81.3	5.03	45	0.34	2	78	15
AMAS-R-IE2 90L2	2.20	11.7	60uf/450V	2850	0.98	83.2	7.37	60	0.35	2	78	19
AMAS-R-IE2 63K4	0.12											
AMAS-R-IE2 63G4	0.18	1.3	10uf/450V	1400	0.94	64.7	1.23	4.5	0.45	1.7	65	5.2
AMAS-R-IE2 71K4	0.25	1.67	10uf/450V	1400	0.95	68.5	1.71	7	0.35	1.7	70	6.7
AMAS-R-IE2 71G4	0.37	2.3	16uf/450V	1420	0.97	72.7	2.49	9	0.4	1.7	70	7.3
AMAS-R-IE2 80K4	0.55	3.3	20uf/450V	1420	0.94	77.1	3.7	15	0.4	1.7	75	11.6
AMAS-R-IE2 80G4	0.75	4.4	25uf/450V	1400	0.94	79.6	5.12	20	0.32	1.7	75	13.8
AMAS-R-IE2 90S4	1.10	6.2	30uf/450V	1400	0.95	81.4	7.5	27	0.4	1.9	78	16.7
AMAS-R-IE2 90L4	1.50	8.3	40uf/450V	1400	0.95	82.8	10.23	38	0.45	1.8	78	19
AMAS-R-IE2 100L4	2.20											

We make all efforts to better our products. Versions, technical data and figures could be changed therefore. They are not binding before written confirmation.30/10/2023

AMAS-SR-IE2 (Cap Start/Cap Run) 1 Phase

AMTECS

IM B3



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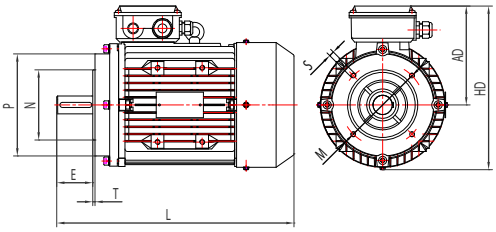

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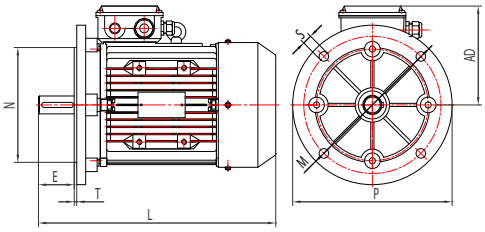

Frame size	A	B	C	D	E	F	G	H	K	IM B14 M	IM B14 N	IM B14 P	IM B14 S	IM B14 T	IM B14L M	IM B14L N	IM B14L P	IM B14L S	IM B14L T	IM B5 M	IM B5 N	IM B5 P	IM B5 S	IM B5 T	AB	BB	AC	AD	HD	L
71K	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	100	80	120	M6	3.0	115	95	140	10	3	138	113	140	134	205	248
71G	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	100	80	120	M6	3.0	115	95	140	10	3	138	113	140	134	205	270
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3.0	115	95	140	M8	3.0	130	110	160	10	3.5	159	122	159	145	225	305
80K4	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3.0	115	95	140	M8	3.0	130	110	160	10	3.5	159	122	159	145	225	326
90S2	140	100	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	177	155	175	155	245	334
90S4	140	100	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	177	155	175	155	245	360
90L2	140	100	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	177	155	175	155	245	372
90L4	140	125	56	24	50	8	20	90	10	115	95	140	M8	3.0	130	110	160	M8	3.5	165	130	200	12	3.5	177	155	175	155	245	395
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	130	110	160	M8	3.5	165	130	200	12	3.5	205	176	198	170	270	422
112M2	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	222	180	219	190	290	428
112M4	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	165	130	200	M10	3.5	215	180	250	14.5	4	222	180	219	190	290	460

IE2 Efficiency Aluminium three-phase squirrel cage induction single phase with starting and running capacitor motors according to IEC/DIN, multi-mount design with removable feet, Improved Aluminium terminal boxes house the both the start and run capacitor, centrifugal mechanical switch design, high starting & running torque M_a=> 180%.
Voltage 220-240V, 50Hz, Insulation class F, Class B Temperature rise, Protection IP55, Manually resettable thermal trip fitted as standard, Colour RAL 5010, Cast iron drive end shield frame 100 and above.
Flange motors B5, B14 small and large available on all sizes.
**Feet have mounting holes for both s and L*

AMAS-SR-IE2 (Cap Start/Cap Run) : 2 & 4 - Pole

AMTECS

Frame size	Rated output power	Rated current at	Start Capacitor	Run Capacitor	Full-load speed rpm	Full-load power factor	Full-load efficiency	Full-load torque	Starting current	Starting torque	Pull-out torque	Sound pressure level	Weight foot mounted
	P_N (KW)	230V I_N (A)	μf/V	μf/V	n_N (min^{-1})	cos (ϕ)	100% (η)	M_N	I_s	M_S/M_N	M_K/M_N	dB(A) 1 meter (no load)	kg
AMAS-SR-IE2 71K2	0.37	2.44	75uf/250V	14uf/450V	2780	0.95	69.5	1.27	8.5	2.3	1.8	70	6.6
AMAS-SR-IE2 71G2	0.55	3.3	100uf/250V	20uf/450V	2780	0.98	74.1	1.89	12	2.5	1.7	70	7.5
AMAS-SR-IE2 80K2	0.75	4.3	100uf/250V	25uf/450V	2850	0.98	77.4	2.51	20	2.5	2	73	10.2
AMAS-SR-IE2 80G2	1.10	6.13	150uf/250V	30uf/450V	2850	0.98	79.6	3.69	30	2.5	1.8	75	11.6
AMAS-SR-IE2 90S2	1.50	8.2	200uf/250V	40uf/450V	2880	0.98	81.3	4.97	45	2.3	2.1	78	15.5
AMAS-SR-IE2 90L2	2.20	11.7	300uf/250V	60uf/450V	2880	0.98	83.2	7.3	70	2.3	2.1	78	20.5
AMAS-SR-IE2 100L2	3.00	15.7	500uf/250V	40uf/450V	2900	0.98	84.6	9.88	130	2.5	1.9	83	31.7
AMAS-SR-IE2 112M2	3.70	21.3	600uf/250V	40uf/450V	2900	0.95	85.8	13.17	140	2.2	1.7	83	36.3
AMAS-SR-IE2 63K4	0.18	1.31	50uf/250V	10uf/450V	1400	0.92	64.7	1.23	5	2	1.7	65	6.3
AMAS-SR-IE2 71K4	0.25	1.67	50uf/250V	10uf/450V	1400	0.95	68.5	1.71	7	2.5	1.7	65	7.1
AMAS-SR-IE2 71G4	0.37	2.33	75uf/250V	16uf/450V	1400	0.95	72.7	2.52	12.5	2.1	1.7	67	7.9
AMAS-SR-IE2 80K4	0.55	3.3	100uf/250V	20uf/450V	1400	0.94	77.1	3.75	15	2.5	1.7	70	12.8
AMAS-SR-IE2 80G4	0.75	4.4	150uf/250V	25uf/450V	1400	0.94	79.6	5.12	20	2.4	1.8	70	14.5
AMAS-SR-IE2 90S4	1.10	6.18	150uf/250V	30uf/450V	1400	0.95	81.4	7.5	30	2.5	1.9	73	17.2
AMAS-SR-IE2 90L4	1.50	8.3	200uf/250V	40uf/450V	1400	0.95	82.8	10.23	45	2.5	2	73	20.5
AMAS-SR-IE2 100L4	2.20	11.8	400uf/250V	50uf/450V	1450	0.96	84.3	14.49	85	2.5	1.9	78	29.4
AMAS-SR-IE2 100LX4	3.00	15.9	250uf/250V	60uf/450V	1450	0.96	85.5	19.76	110	2.1	1.8	78	33.8
AMAS-SR-IE2 112M4	3.70	19.4	600uf/250V	70uf/450V	1400	0.96	86.6	27.29	150	2.5	1.8	78	41.5

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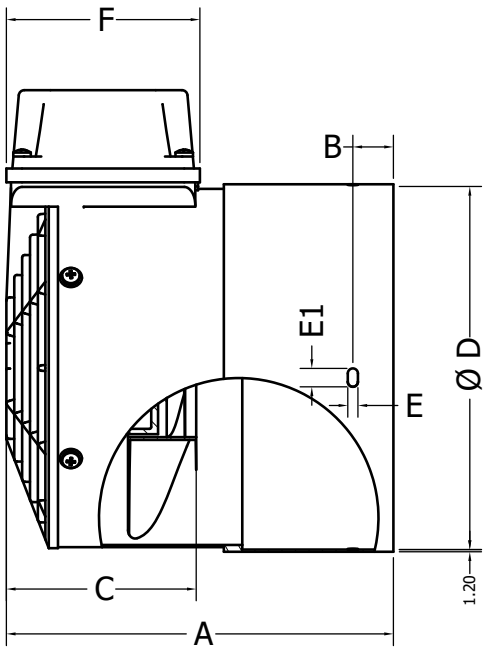
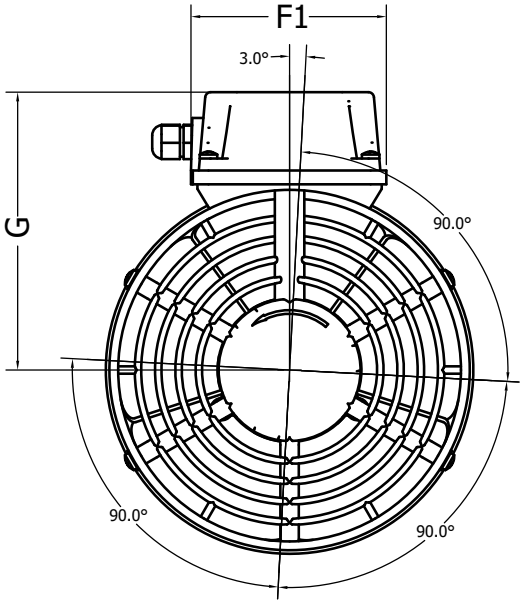
FVU (Force Ventilation Unit)

AMTECS



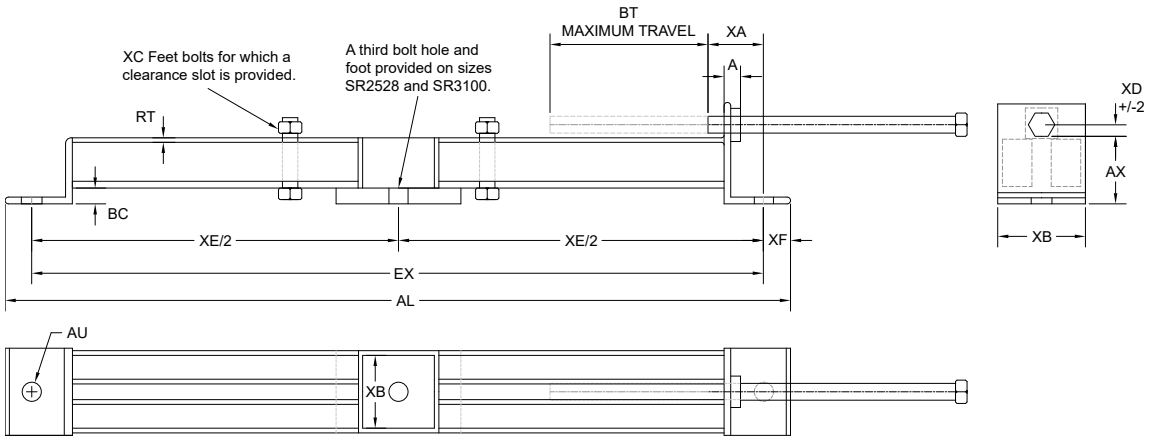


Frame size	D	A	B	C	E	E1	F	F1	G	Supply	Voltage (V)	Full-load Curent (A)	Power (W)	Speed (min^{-1})	Air flow (m^3/h)	Air pressure (Pa)
63	118	155	15	95	4.5	6	96	105	116.5	1~ (1.5μF)	220-277	0.105	25	2950	54	
										3~Δ	200-303	0.14	25			
										3~Y	346-525	0.08	25			
71	138	175	15	95	4.5	6	96	105	124.5	1~ (1.5μF)	220-277	0.105	25	2950	78	
										3~Δ	200-303	0.15	30			
										3~Y	346-525	0.08	30			
80	157	185	12	94	4.5	6	105	105	133	1~ (1.5μF)	220-277	0.12	28	2950	128	
										3~Δ	200-303	0.14	30			
										3~Y	346-525	0.08	30			
90	174	195	12	104	4.5	6	105	105	143	1~ (3μF)	220-277	0.30	55	2950	216	
										3~Δ	200-303	0.40	75			
										3~Y	346-525	0.23	75			
100	197	210	22	104	5.5	10	105	105	152	1~ (3μF)	220-277	0.30	58	2950	278	
										3~Δ	200-303	0.40	78			
										3~Y	346-525	0.23	78			
112	218	235	15	104	5.5	10	105	105	164	1~ (3μF)	220-277	0.29	60	2950	355	
										3~Δ	200-303	0.40	80			
										3~Y	346-525	0.23	80			
132	257	260	25	125	5.5	10	105	105	183.5	1~ (6μF)	220-277	0.38	105	2950	550	
										3~Δ	200-303	0.40	90			
										3~Y	346-525	0.24	90			
160	311	315	20	151	7	12	105	105	210	1~ (6μF)	220-277	0.69	165	2800	980	
										3~Δ	200-303	0.40	140			
										3~Y	346-525	0.23	140			
180	352	427	40	217		5					230/400V		180	1400	686	55
200	394	461	40	251		6					230/400V		250	1400	1679	65
225	442	466	45	236		6					230/400V		250	1400	1786	70
250	481	483	55	238		6					230/400V		370	1400	1813	80
280	543	542	64	277		9					230/400V		550	1400	2415	85
315	616	620	75	275		13					230/400V		750	1400	2820	110
355	694	700	114	320		13					230/400V		1100	1400	4000	110

Force air ventilation units suitable for the AmTecs range of Cast Iron and Aluminium motors, Availiable in single phase 230V 50Hz for size 63 to 100 and 220-240/380-420V or 380-420/660-720V, 50Hz three phase for all sizes. Colour RAL 5010.

SR (Motor Slide Rails)

AMTECS



Type	AL	A	AU	AX	BC	XF	XA	XB	RT	XD	XE	Bolt Size	Frame Size	BT	XC Motor Foot Bolts
SR0809	355	8	10	30	10	15	35	30	2	6	325	M10x130	63/71	90	M8x40
SR0809	355	8	10	30	10	15	35	30	2	6	325	M10x130	80	95	M8x40
SR0809	355	8	10	30	10	15	35	30	2	6	325	M10x200	90	80	M8x40
SR1013	470	10	12	44	12	20	36	45	3	6	430	M10x200	100	171	M10x60
SR1013	470	10	12	44	12	20	36	45	3	6	430	M10x200	112	137	M10x60
SR1013	470	10	12	44	12	20	36	45	3	6	430	M12x220	132	106	M10x60
SR1618	615	12	15	64	14	25	52	57	3.15	12	565	M12x220	160	160	M12x80
SR1618	615	12	15	64	14	25	52	57	3.15	12	565	M16x270	180	125	M12x80
SR2022	785	16	19	82	16	30	80	82	4	12	725	M16x270	200	210	M16x110
SR2022	785	16	19	82	16	30	80	82	4	12	725	M16x270	225	140	M16x110
SR2528	945	20	24	82	20	30	58	102	3.2 Box Section	16	885	M20x300	250	250	M20x130
SR2528	945	20	24	82	20	30	58	102		16	885	M20x300	280	190	M20x130
SR3100	1215	25	28	100	15	50	70	102	75x38 Channel	20	1115	M24c375	315	330	M24x150
SR3100	1215	25	28	100	15	50	70	102		20	1115	M24x375	355	330	M24x150

SPB (Motor Slide Bases) - Mono Plate

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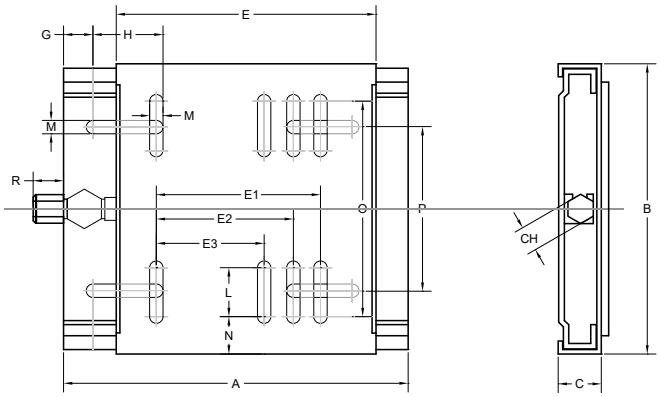

Type	Frame size	A	B	C	Ch	E	E3	E2	E1	G	H	L	M	N	O	P	R	Weight (kg)
SPB 90/112	90-100-112	307	213	33	19	255	140	160	190	28	50	50	10.5	25.5	162	108	30	4.1
SPB 100/132-2	100-112-132	340	290	40	22	286	160	190	216	28	63	47.5	12.5	37.5	215	165	30	7.9
SPB 100/132	100-112-132	430	290	40	22	286	160	190	216	28	63	47.5	12.5	37.5	215	165	30	8.9
SPB 160/180-2	160-180	430	370	40	22	380		254	279	30	62	62	12.5	41.5	287	248	30	12
SPB 160/180	160-180	490	370	40	22	380		254	279	30	62	62	12.5	41.5	287	248	30	12.7
SPB 180/200	160-180	490	410	40	22	418		279	318	30	60	60	17	40.5	389	285	30	14.9
SPB 200/225	200-225	585	450	50	22	468		318	356	30	60	60	17	49	352	300	30	23.7
SPB 250*	250	600	470	65	22	515			406	30	60	60	22	50.5	369	320	30	28.1
SPB 280*	280	735	570	65	22	585			457	30	70	70	22	55	460	420	30	38.2

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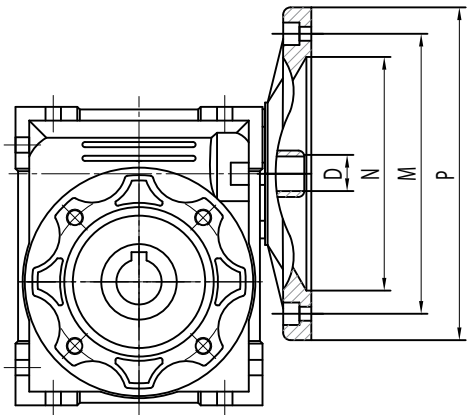
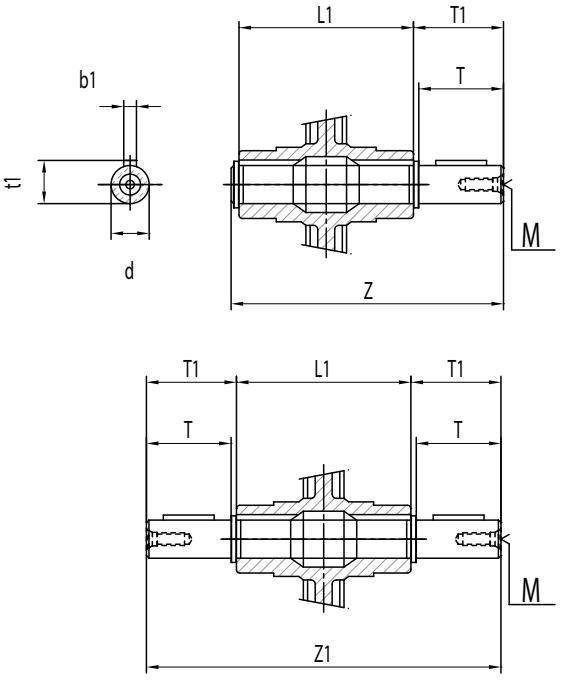
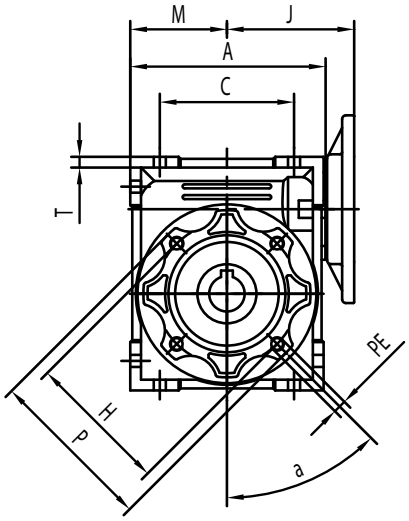
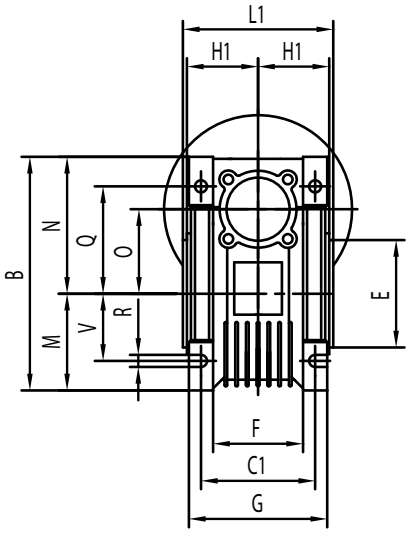
Size	Motor Frame	N		M		P		5	7.5	10	15	20	25	30	40	50	60	80	100
		B5	B14S	B5	B14S	B5	B14S												
030	56B5/B14S	80	50	100	65	120	80	9	9	9	9	9	9	9	9	9	9	9	-
	63B5/B14S	95	60	115	75	140	90	11	11	11	11	11	11	11	11	11	-	-	-
040	56B5	80	-	100	-	120	-	-	-	-	-	-	-	-	-	9	9	9	9
	63B5/B14S	95	60	115	75	140	90	11	11	11	11	11	11	11	11	11	11	11	11
	71B5/B14S	110	70	130	85	160	105	14	14	14	14	14	14	14	14	-	-	-	-
050	63B5	95	-	115	-	140	-	-	-	-	-	-	-	-	11	11	11	11	11
	71B5/B14S	110	70	130	85	160	105	14	14	14	14	14	14	14	14	14	14	14	-
	80B5/B14S	130	80	165	100	200	120	19	19	19	19	19	19	19	-	-	-	-	-
063	71B5/B14S	110	70	130	85	160	105	-	-	-	-	-	-	-	14	14	14	14	14
	80B5/B14S	130	80	165	100	200	120	-	19	19	19	19	19	19	19	19	19	-	-
	90B5/B14S	130	95	165	115	200	140	-	24	24	24	24	24	24	-	-	-	-	-
075	71B5	110	-	130	-	160	-	-	-	-	-	-	-	-	-	14	14	14	14
	80B5/B14S	130	80	165	100	200	120	-	-	-	-	19	19	19	19	19	19	19	19
	90B5/B14S	130	95	165	115	200	140	-	24	24	24	24	24	24	-	-	-	-	-
	100B5/B14S	180	110	215	130	250	160	-	28	28	28	-	-	-	-	-	-	-	-
	112B5/B14S	180	110	215	130	250	160	-	28	28	28	-	-	-	-	-	-	-	-
090	80B5/B14S	130	80	165	100	200	120	-	-	-	-	-	-	-	19	19	19	19	19
	90B5/B14S	130	95	165	115	200	140	-	24	24	24	24	24	24	24	24	24	-	-
	100B5/B14S	180	110	215	130	250	160	-	28	28	28	28	28	28	-	-	-	-	-
	112B5/B14S	180	110	215	130	250	160	-	28	28	28	28	28	28	-	-	-	-	-
110	80B5/B14S	130	-	165	-	200	-	-	-	-	-	-	-	-	-	-	-	19	19
	90B5/B14S	130	-	165	-	200	-	-	-	-	-	-	24	24	24	24	24	24	24
	100B5/B14S	180	-	215	250	-	-	-	28	28	28	28	28	28	28	28	28	-	-
	112B5/B14S	180	-	215	250	-	-	-	28	28	28	28	28	28	28	28	28	-	-
	132B5/B14S	230	-	265	300	-	-	-	38	38	38	38	-	-	-	-	-	-	-
130	90B5	130	-	165	-	200	-	-	-	-	-	-	-	-	-	-	-	24	24
	100B5/B14S	180	-	215	-	250	-	-	-	-	-	-	28	28	28	28	28	28	28
	112B5/B14S	180	-	215	-	250	-	-	-	-	-	-	28	28	28	28	28	28	28
	132B5	230	-	265	-	300	-	-	38	38	38	38	38	38	38	-	-	-	-
150	100B5	180	-	215	-	250	-	-	-	-	-	-	-	-	-	28	28	28	28
	112B5	180	-	215	-	250	-	-	-	-	-	-	-	-	-	28	28	28	28
	132B5	230	-	265	-	300	-	-	-	-	-	38	38	38	38	38	38	-	-
	160B5	250	-	300	-	350	-	-	42	42	42	42	42	-	-	-	-	-	-

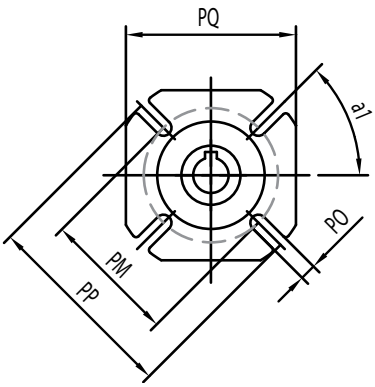


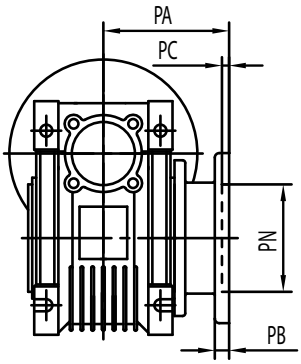
Size	Output Shaft Dimensions (SS, DS) Metric								
	d	T	T1	L1	Z	Z1	M	b1	t1
030	14(g6)	30	32.5	63	102	128	M6	5	16
040	18(h6)	40	43	78	128	164	M6	6	20.5
050	25(h6)	50	53.5	92	153	199	M10	8	28
063	25(h6)	50	53.5	12	173	219	M10	8	28
075	28(h6)	60	63.5	20	192	247	M10	8	31
090	35(h6)	80	84.5	40	234	309	M12	10	38
110	42(h6)	80	84.5	55	249	324	M16	12	45
130	45(h6)	80	85	70	265	340	M16	14	48.5
150	50(h6)	82	87	200	297	374	M16	14	53.5

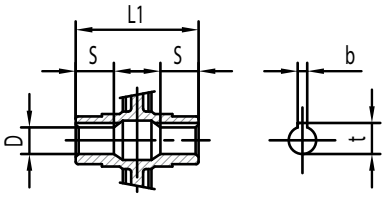












Size	A	B	C	C1	D	E	F	G	H	H1	J	L1	M	N	O	P	Q	R
030	81	97	54	44	14(h8)	55(h8)	32	56	65	29	55	63	40	57	30	75	44	6.5
040	101	121.5	70	60	18(h8)	60(h8)	43	71	75	36.5	70	78	50	71.5	40	87	55	6.5
050	121	144	80	70	25(h8)	70(h8)	49	85	85	43.5	80	92	60	84	50	100	64	8.5
063	146	174	100	85	25(h8)	80(h8)	67	103	95	53	95	112	72	102	63	110	80	8.5
075	174	205	120	90	28(h8)	95(h8)	72	112	115	57	115.5	120	86	119	75	140	93	11.5
090	208	238	140	100	35(h8)	110(h8)	74	130	130	67	129.5	140	103	135	90	160	102	13
110	252.5	295	170	115	42(h8)	130(h8)	-	144	165	74	160	155	127.5	167.5	110	200	125	14
130	292.5	335	200	120	45(h8)	180(h8)	-	155	215	81	180	170	147.5	187.5	130	250	140	16
150	340	400	240	145	50(h8)	180(h8	-	185	215	96	210	200	170	230	150	250	180	18

Size	S	T	V	PA	PB	PC	PE	PM	PN	PO	PP	PQ	b	t	a	a1	kg
030	21	5.5	27	54.5	6	4	M6 (n=4)	68	50(h8)	6.5(n=4)	80	70	5	16.3	0°	45°	1.2
040	26	6.5	35	67	7	4	M6 (n=4)	75	60(h8)	9(n=4)	110	95	6	20.8	45°	45°	2.3
050	30	7	40	90	9	5	M8 (n=4)	85	70(h8)	11(n=4)	125	110	8	28.3	45°	45°	3.5
063	36	8	50	82	10	6	M8 (n=8)	150	115(h8)	11(n=4)	180	142	8	28.3	45°	45°	6.2
075	40	10	60	111	13	6	M8 (n=8)	165	130(h8)	14(n=4)	200	170	8	31.3	45°	45°	9
090	45	11	70	111	13	6	M10 (n=8)	175	152(h8)	14(n=4)	210	200	10	38.3	45°	45°	13
110	50	14.5	85	131	15	6	M10 (n=8)	230	170(h8)	14(n=8)	280	260	12	45.3	45°	45°	35
130	60	16	100	140	15	7	M12 (n=8)	255	180(h8)	16(n=8)	320	290	14	48.8	45°	22.5°	48
150	72.5	18	120	155	15	7	M12 (n=8)	255	180(h8)	18(n=8)	320	290	14	53.8	45°	22.5°	

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AMRV: Worm Reduction Unit Output Flange

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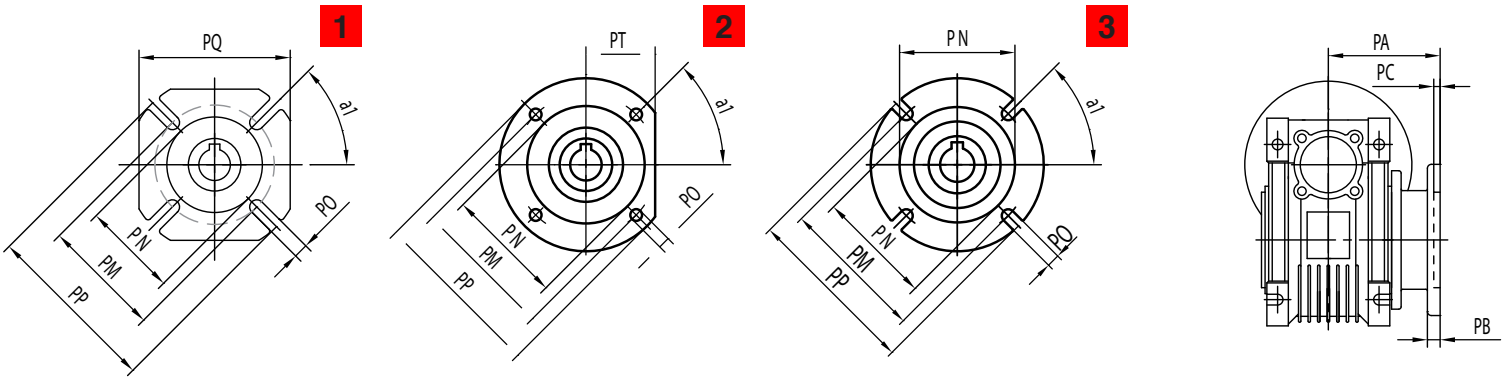

Size	030	040	050	063	075	090	110	130	150
FA	1	1	1	1	1	1	1	1	1
FB	-	1	1	1	3	2	1	-	-
FC	-	2	2	2	-	3	-	-	-

Size	PA	PB	PC	PN	PM	PO	PP	PQ	a1	PA	PB	PC	PN	PM	PO	PP	PQ	PT	a1	PA	PB	PC	PN	PM	PO	PP	PT	a1
	FA									FB										FC								
030	54.5	6	4	50	68	6.5(n=4)	80	70	45°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
040	67	7	4	60	75	9(n=4)	110	95	45°	97	7	4	60	75	9(n=4)	110	95	-	45°	80	9	5	95	115	9.5(n=4)	140	56	45°
050	90	9	5	70	85	11(n=4)	125	110	45°	120	9	5	70	85	11(n=4)	125	110	-	45°	89	10	5	110	130	9.5(n=4)	160	66	45°
063	82	10	6	115	150	11(n=4)	180	142	45°	112	10	6	115	150	11(n=4)	180	142	-	45°	98	10	5	130	165	11(n=4)	200	80	45°
075	111	13	6	130	165	14(n=4)	200	170	45°	90	13	6	130	130	11(n=4)	130	-	-	45°	-	-	-	-	-	-	-	-	-
090	111	13	6	152	175	14(n=4)	210	200	45°	122	18	6	180	215	14(n=4)	250	-	105	45°	110	17	6	130	165	11(n=4)	200	-	45°
110	131	15	6	170	230	14(n=8)	280	260	45°	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
130	140	15	6	180	255	16(n=8)	320	290	22.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150	155	15	6	180	255	18(n=8)	320	290	22.5°	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

AMRV: Worm Reduction Unit Torque Arm Dimensions

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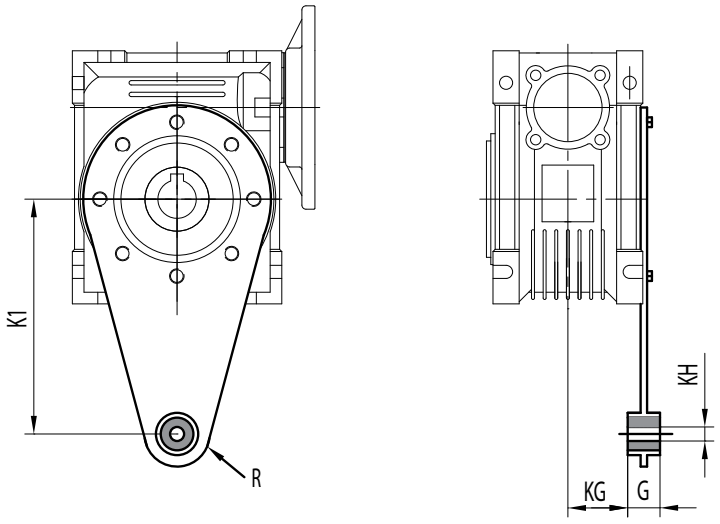

Size	030	040	050	063	075	090	110	130	150
K1	85	100	100	150	200	200	250	250	250
G	14	14	14	14	25	25	30	30	30
KG	24	31.5	38.5	49	47.5	57.5	62	69	84
KH	8	10	10	10	20	20	25	25	25
R	15	18	18	18	30	30	35	35	35

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AMRV: Worm Reduction Unit Loadings

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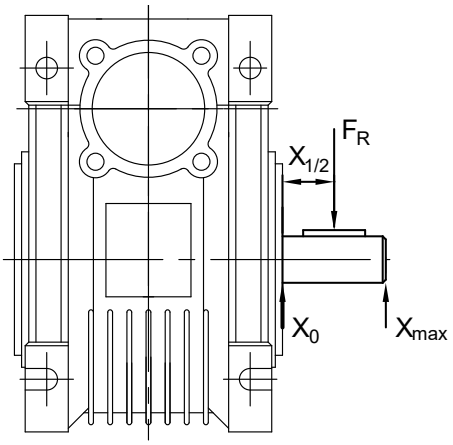
i	n2	030	040	040	063	075	090	110	130
5	280	599	1149	1586	2062	2428	2687	3389	4433
7.5	186	691	1325	1829	2378	2799	3098	3908	5112
10	140	758	1454	2007	2609	3072	3400	4288	5610
15	94	868	1665	2298	2988	3518	3893	4910	6424
20	70	954	1829	2525	3283	3865	4277	5395	7057
25	56	1033	1981	2735	3556	4187	4633	5844	7645
30	47	1088	2087	2881	3745	4410	4880	6155	8052
40	35	1204	2309	3188	4145	4880	5401	6812	8912
50	28	1296	2485	3431	4461	5252	5812	7331	9590
60	24	1381	2649	3658	4756	5599	6196	7815	10224
80	18	1516	2907	4014	5218	6144	6799	8576	11219
100	14	1638	3142	4338	5639	6639	7348	9268	12124



The information in the table above shows the permissible loading force on the midpoint of output shaft.

When the reducer is with double output shafts, the resultant radial force at the edge of the shaft should not exceed the values specified in the table above.

The maximum axial thrust permitted is 1/5 of radial force while the radial force and axial force are affected together.

AMRV: Worm Reduction Gearbox Exploded View

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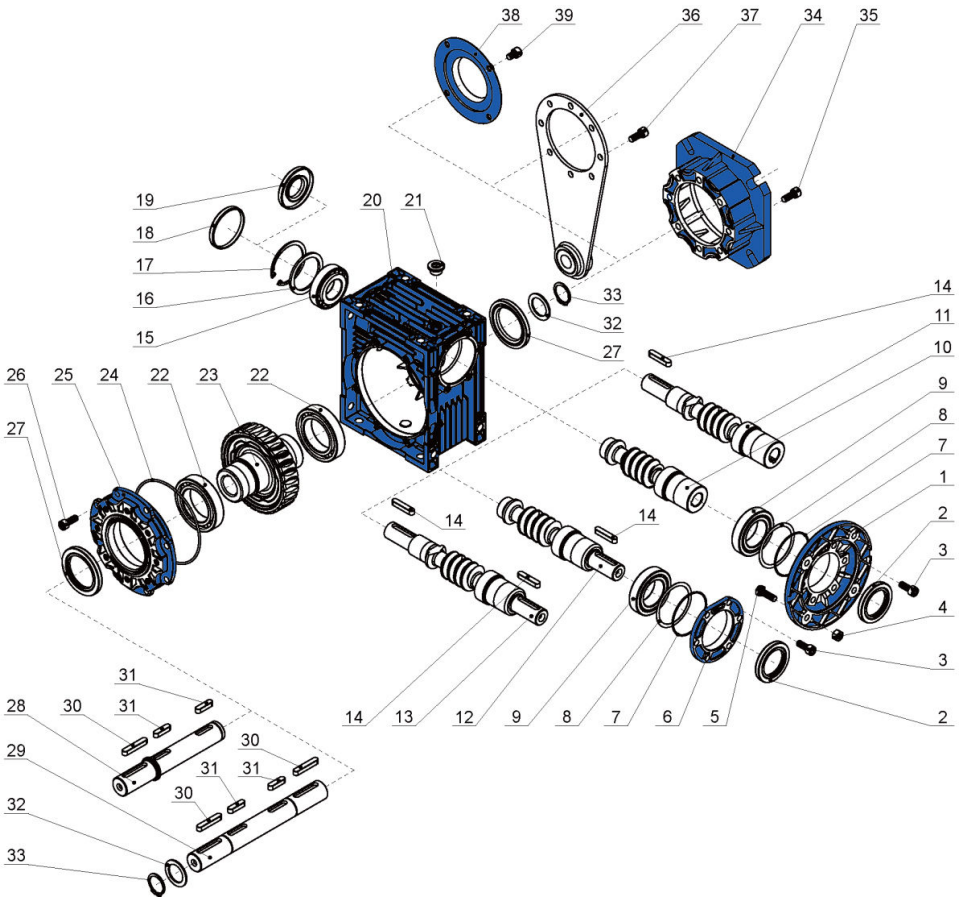

1	Flange PAM	11	Double ext. PAM worm	21	Plug cock
2	Oli seal	12	RV worm	22	Bearing
3	Hexagon socket head cap screw	13	Double ext. RV worm	23	Worm wheel
4	Hexagon nuts	14	Parallel key	24	O-ring
5	Hexagon bolt	15	Bearing	25	Bearing support cover
6	Gear unit cover	16	Gasket	26	Hexagon socket head cap screw
7	O-ring	17	Circlip for hole	27	Oli seal
8	Spacer shim	18	Cap	28	single output shaft
9	Bearing	19	Oli seal	29	Double output shaft
10	PAM worm	20	Casing	30	Parallel key

31	Parallel key	34	Output flange
32	SB Gasket	35	Hexagon socket head cap screw
33	Circlip for shaft	36	Torque arm
34	Output flange	37	Hexagon socket head cap screw
35	Hexagon socket head cap screw	38	Protection cap
36	Torque arm	39	Hexagon socket head cap screw

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Nominal Efficiency IE1, IE2 & IE3

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Rated output power	Nominal efficiency (%) for IE1 50Hz			Nominal efficiency (%) for IE2 50Hz			Nominal efficiency (%) for IE3 50Hz		
P_N(kW)	2 Pole	4 Pole	6 Pole	2 Pole	4 Pole	6 Pole	2 Pole	4 Pole	6 Pole
0.75	75.0	73.0	69.0	77.4	79.6	75.9	80.7	82.5	78.9
1.1	77.0	75.0	72.0	79.6	81.4	78.1	82.7	84.1	81.0
1.5	79.0	78.0	76.0	81.3	82.8	79.8	84.2	85.3	82.5
2.2	81.0	80.0	79.0	83.2	84.3	81.8	85.9	86.7	84.3
3	83.0	82.0	81.0	84.6	85.5	93.3	87.1	87.7	85.6
4	85.0	84.0	82.0	85.8	86.6	84.6	88.1	88.6	86.8
5.5	86.0	96.0	84.0	87.0	87.7	86.0	89.2	89.6	88.0
7.5	87.0	87.0	86.0	88.1	88.7	87.2	90.1	90.4	89.1
11	88.0	88.0	87.5	89.4	89.8	88.7	91.2	91.4	90.3
15	89.0	89.0	89.0	90.3	90.6	89.7	91.9	92.1	91.2
18.5	90.0	90.5	90.0	90.9	91.2	90.4	92.4	92.6	91.7
22	90.5	91.0	90.0	91.3	91.6	90.9	92.7	93.0	92.2
30	91.2	92.0	91.5	92.0	92.3	91.7	93.3	93.6	92.9
37	92.0	92.5	92.0	92.5	92.7	92.2	93.7	93.9	93.3
45	92.3	92.8	92.5	92.9	93.1	92.7	94.0	94.2	93.7
55	92.5	93.0	92.8	93.2	93.5	93.1	94.3	94.6	94.1
75	93.0	93.8	93.5	93.8	94.0	93.7	94.7	95.0	94.6
90	93.8	94.2	93.8	94.1	94.2	94.0	95.0	95.2	94.9
110	94.0	94.4	94.0	94.3	94.5	94.3	95.2	95.4	95.1
132	94.5	94.6	94.2	94.6	94.7	94.6	95.4	95.6	95.4
160	94.6	94.7	94.5	94.8	94.8	94.8	95.6	95.8	95.6

Maximum safe rpm

AmTecs

Safe running speeds for squirrel-cage induction motors. Unless the nameplate states otherwise, all AmTecs 3 phase induction motors smaller than 315 frame, can safely run continuously at the speed in the following table.

Frame Size	2 Pole	4 Pole	6 Pole
≤ 100	5200	3600	2400
112	5200	3600	2400
132	4500	2700	2400
160	4500	2700	2400
180	4500	2700	2400
200	4500	2300	1800
225	3600	2300	1800
250	3600	2300	1800
280	3600	2300	1800
315	3600	2300	1800

Note: Motors can run above the rated speed when used in conjunction with a frequency inverter. However, noise and vibration will increase. It can be nessecary to have the motors corrected to support continued running above the speeds stated above. Prolonged running at higher speed will effect the bearing life and where applicable the re-greasing intervals.

Maximum A-weighted sound power level

AMTECS

Maximum A-weighted sound power level, LwA in dB, at no-load.
For single speed three-phase cage induction motors IC01, IC11, IC21, IC411, IC511, IC611

Frame size	2 Pole	4 Pole	6 Pole	8 Pole
	2 Pole	4 Pole	6 Pole	8 Pole
	Sound pressure LWA (dB)	Sound pressure LWA (dB)	Sound pressure LWA (dB)	Sound pressure LWA (dB)
90	78	66	63	63
100	82	70	64	64
112	83	72	70	70
132	85	75	73	71
160	87	77	73	72
180	88	80	77	76
200	90	83	80	79
225	92	84	80	79
250	92	85	82	80
280	94	88	85	82
315	98	94	89	88
355	100	95	94	92

Note 1: Motors with cooling method IC01,IC11,IC21 may present higher sound Power levels: 2 and 4 poles +7dB(A), - 6 and 8 poles +4dB(A).
Note 2: Sound power levels for 2 and 4 poles, frame sizes greater than 315 are valid for unidirectional fans. All other sound Power levels are valid for bidirectional fans.
Note 3: The values for 60 Hz motors should be increased as follows : 2 poles +5dB(A) ; 4, 6 and 8 poles +3dB(A).

Maximum Expected increase over no load condition

AMTECS

Maximum expected increase, over no-load condition, in A-weighted sound power levels, ΔLWA in dB, for rated load condition.

Frame Size	2 Pole	4 Pole	6 Pole	8 Pole
90 -160	2	5	7	8
180-200	2	4	6	7
225-280	2	3	6	7
315	2	3	5	6
355	2	2	4	5

Note 1: This table provides the maximum expected increment at rated load conditions to be added to any declared no-load value.
Note 2: the values apply to both 50 Hz and 60 Hz supplies.

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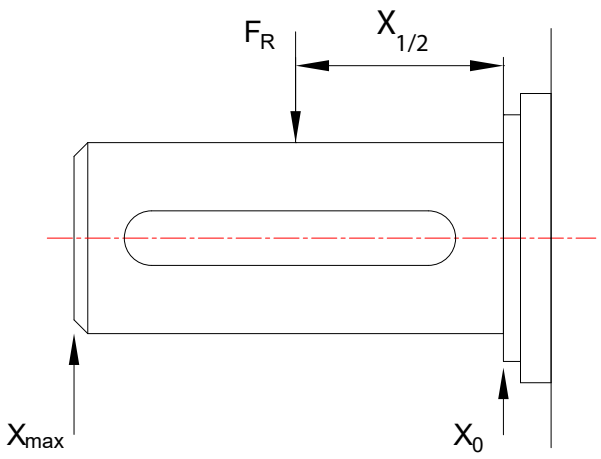
Permissible Radial Loads B3 and V1



The following table gives the permissible radial forces in Newtons, assuming zero axial force. This table shows loadings for standard ball bearings. For higher radial loads than given a reinforced bearing should be fitted.

The Values are based on normal operating conditions at 50Hz and calculated at 20,000 working hours for 2 pole and 40,000 working hours for 4, 6, and 8 pole motors. At 60Hz the values should be reduced by 10%.

The minimum pulley diameter can be calculated with the following formula:

$$D = \frac{1.9 \times 10^7 \times k \times P_N}{n_N \times F_R}$$

D = Diameter of the pulley (mm)
P_N = Power of the motor (kW)
n_N = Motor rated speed (r/min)
k = Belt tension factor, k=2.5 for V-belt
F_R = Permissible radial force (N)

Frame size	Pole	Maximum radial force (F_R)		
		X0	X 1/2	X Max
56	2	250	180	100
56	4	250	180	100
63	2	260	300	230
63	4	260	300	230
71	2	470	400	320
71	4	470	400	320
71	6	470	400	320
80	2	670	610	550
80	4	730	650	590
80	6	830	750	680
80	8	920	820	750
90	2	740	660	590
90	4	800	710	630
90	6	920	810	730
90	8	1010	890	800
100	2	1030	920	820
100	4	1110	990	890
100	6	1270	1130	1020
100	8	1400	1240	1120
112	2	1490	1330	1200
112	4	1600	1430	1290
112	6	1840	1640	1480
112	8	2020	1800	1630
132	2	2160	1900	1690
132	4	2330	2040	1820
132	6	2670	2340	2080
132	8	2940	2570	2290
160	2	2800	2440	2170
160	4	3000	2630	2330
160	6	3440	3010	2670
160	8	3850	3410	3060
180	2	3930	3500	3150
180	4	4240	3770	3390
180	6	4890	4390	3980
180	8	5380	4830	4380
200	2	4480	4050	3700
200	4	4820	4360	3980
200	6	5520	5000	4560
200	8	6080	5500	5020
225	2	5000	4540	4160
225	4	5360	4720	4210
225	6	6180	5480	4920
225	8	6750	5940	5310
250	2	5680	5100	4620
250	4	6120	5490	4980
250	6	7000	6280	5700
250	8	7710	6920	6270
280	2	5620	5080	4640
280	4	7790	7050	6430
280	6	8920	8060	7360
280	8	9820	8880	8100
315	2	7370	6840	6390
315	4	9150	8370	7720
315	6	10480	9590	8830
315	8	11530	10550	9720
355*	2	16330	15390	8730
355*	4	28300	25860	14290
355*	6	32400	29600	16350
355*	8	35660	32500	18000

Permissible Axial Loads B3 and V1

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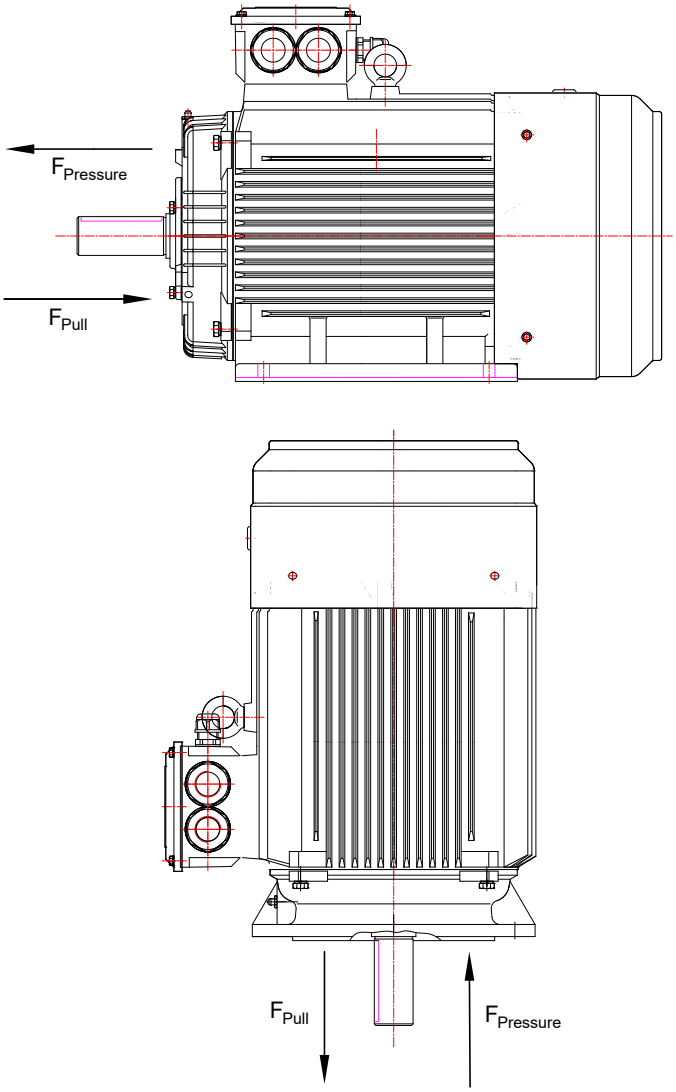

The following table gives the permissible axial forces in Newtons, assuming zero radial force. This table shows loadings for standard ball bearings. For higher axial loads an angular contact bearing should be fitted.

The Values are based on normal operating conditions at 50Hz and calculated at 20,000 working hours for 2 pole and 40,000 working hours for 4, 6, and 8 pole motors. At 60Hz the values should be reduced by 10%.
$F_{Pressure}$ is calculated for a fixed drive end bearing.

Frame size	Pole	Maximum axial force (F_A)			
		B3 F Pressure	B3 F Pull	V1 F Pressure	V1 Pull
56	2	200	200	230	180
56	4	240	240	260	200
63	2	250	250	260	230
63	4	280	280	300	260
71	2	270	270	290	255
71	4	350	350	370	320
71	6	440	440	460	420
80	2	380	380	400	360
80	4	470	470	490	450
80	6	590	590	620	560
80	8	620	620	650	595
90	2	440	440	470	410
90	4	550	550	600	510
90	6	620	620	680	460
90	8	640	640	700	580
100	2	610	610	670	570
100	4	750	750	840	710
100	6	880	880	970	820
100	8	895	895	970	845
112	2	1220	1220	1300	1170
112	4	1440	1440	1520	1370
112	6	1650	1650	1740	1580
112	8	1780	1780	1880	1710
132	2	1500	1500	1620	1430
132	4	1780	1780	1970	1610
132	6	1820	1820	2000	1660
132	8	1920	1920	2100	1760
160	4	2100	2100	2470	1720
160	6	2450	2450	2800	2050
160	8	2650	2650	3050	2210
180	2	2100	2100	2450	1720
180	4	2600	2600	3200	2000
180	6	2900	2900	3510	2280
180	8	3170	3170	3780	2550
200	2	2400	2400	2940	1840
200	4	3120	3120	3550	2390
200	6	3480	3480	4350	2610
200	8	3950	3950	4810	3090
225	2	2720	2720	3420	2020
225	4	3480	3480	4370	2590
225	6	3890	3890	5040	2820
225	8	4330	4330	5330	3330
250	2	3100	3100	3940	2260
250	4	3900	3900	5000	2800
250	6	4450	4450	5570	3230
250	8	4980	4980	6380	3580
280	2	5300	3100	6500	2100
280	4	6300	4400	7800	3000
280	6	6700	4300	7900	2900
280	8	7100	5020	9100	3520
315	2	5900	3800	8000	2000
315	4	7100	5100	10700	3150
315	6	7600	5800	11800	3500
315	8	8100	6300	12500	4400
355*	2	6100	1850	14000	1800
355*	4	9800	3900	18300	2500
355*	6	10500	4700	20700	3500
355*	8	12500	6000	21500	3600

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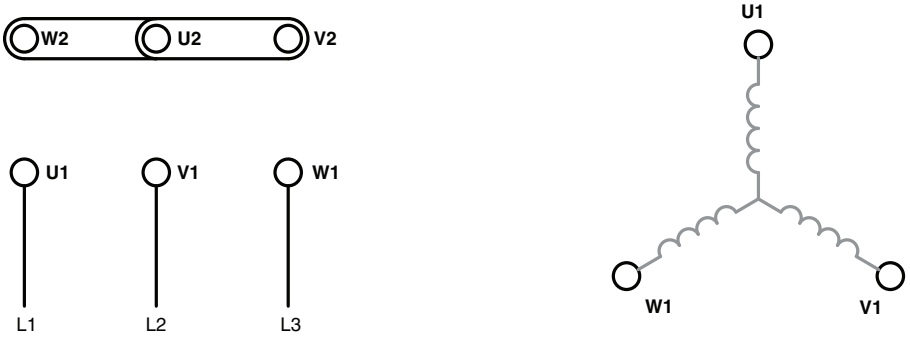
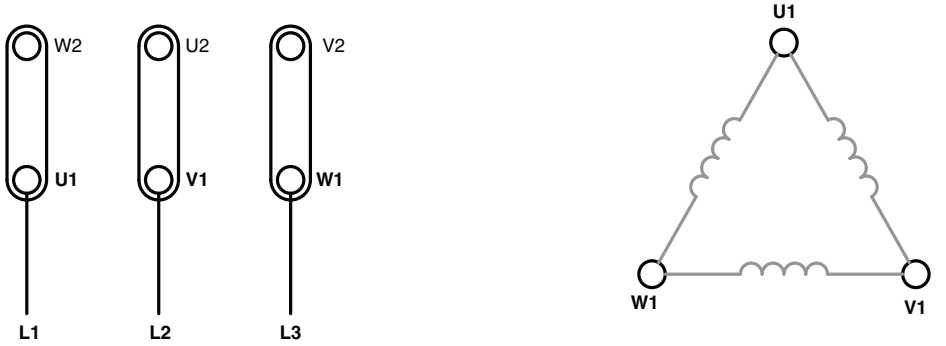
Connection Diagrams

AMTECS

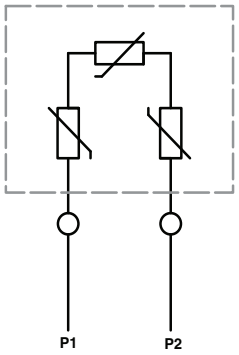
Star Connection



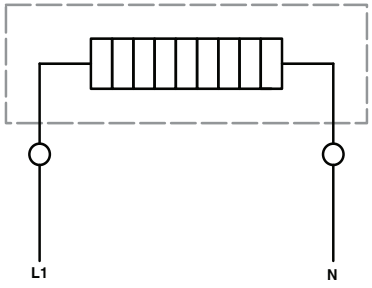
Delta Connection



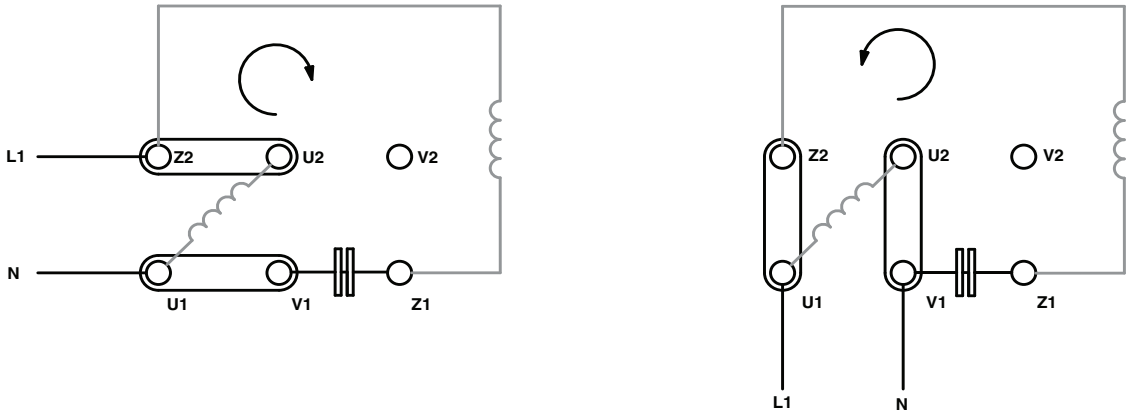
Thermistor (PTC)



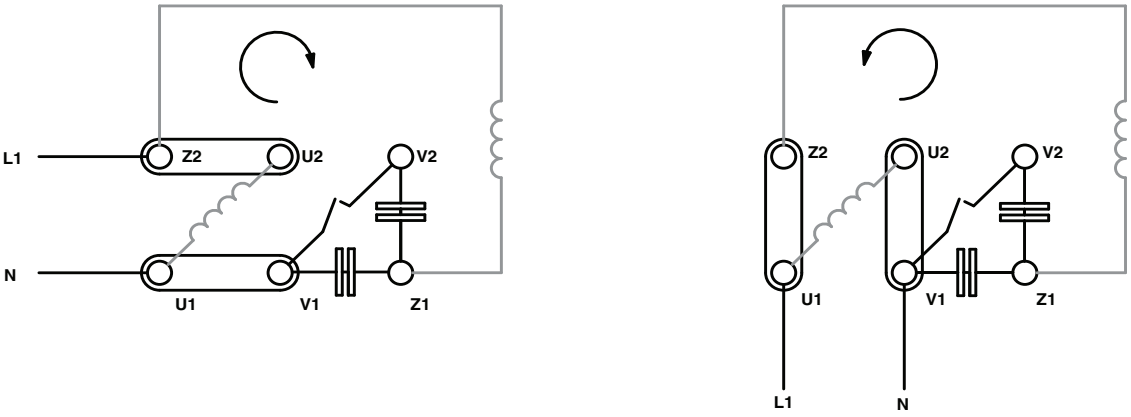
Anti Condensation Heaters



Single Phase Permanent Capacitor



Single Phase Capacitor Start/Capacitor Run



Insulation Class

AmTecs motors are built using a class F insulation system. On request insulation class H may also be supplied. Thermal class F allows temperature increases (according to the resistance variation method) of 105°C with a maximum ambient temperature of 40°C and maximum temperatures of 155°C.
In addition, the process of impregnation with a tropicalized varnish confers a higher degree of protection to the motor, against damaging atmospheric agents, including a high level of humidity (up to 90%), temperature changes, parasites, etc.
In the special case of class H windings, motors can be used in high-temperature environments or in extreme conditions.

Overheating

Below, we show data regarding permitted overheating for indirect air-cooled machines, for the power range up to 200kW calculated according to the “superposition” test method. It is thus possible to exceed the temperature rise limits by 5°C, for classes A, E, B, F.
The maximum limit temperatures of the insulation classes defined in regulation EN 60034-1 are shown.

Class	ΔT (°C)	Temperature limit °C
A	60+5°	105
E	75+5°	120
B	80+5°	130
F	105+5°	155
H	125+5°	180

In general, AmTecs motors are built in order not to exceed a temperature-rise limit of 80°C under normal conditions of use (at ambient temperature of 40°C, altitude of less than 1000meters, rated load, rated voltage and frequency). Use at extreme values of voltage (± 10% of nominal voltage) results in overheating of less than 10%.
According to regulation EN 60034-1, the temperature rise should be calculated using the winding-resistance method, using the following equation. This guarantees a good margin of safety under normal conditions of use:

$$\Delta T = \frac{R_2 - R_1}{R_1} (235 + T_1)$$

R_1: Resistance cold, measured at ambient temperature T_1
R_2: Resistance stabilised hot, measured at ambient temperature T_2
235: coefficient corresponding to a copper winding.

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Degrees of Protection

AMTECS

Protection against penetration of water or dust is ensured by a seal mounted behind the endshield. The seals have good resistance to vibration and good thermal stability, and are resistant to mineral oils and dilute acids. On request, seals are available in Viton.

1st number	Protection against contact and ingress of foreign bodies definition
0	No Protection
1	Protection against foreign bodies larger than 50mm (Example: Inadvertent contact with the hand)
2	Protection against foreign bodies larger than 12mm (Example: Inadvertent contact with the fingers)
3	Protection against foreign bodies larger than 2.5mm (Example: Small tools)
4	Protection against foreign bodies larger than 1mm (Example: Small tools, Wires)
5	Protection against dust (harmful deposits of dust)
6	Complete protection against dust

2nd number	Protection against ingress of water definition
0	No Protection
1	Protection against vertically falling water drops (condensation)
2	Protection against dripping water when inclined by up to 15°
3	Protection against water spray at up to 60° from vertical
4	Protection against water splashed from any direction
5	Protection against water projected by a nozzle from any direction
6	Protection against heavy seas or water projected in powerful jets
7	Protection when submerged between 0.15m and 1m
8	Protection when continuously submerged in water at conditions agreed between the manufacturer and the user

Voltage and Frequency

AMTECS

Motors are normally wound for a rated supply of 380-415Volts and a frequency of 50Hz. However, motors for any standard supply from 110V to 660V at frequencies of 50Hz and 60Hz may be supplied on request.

Motors will operate satisfactorily with a voltage band of ±6% of the rated voltage. In case of continuous operation at the extreme voltage limits specified above, the temperature rise limits permitted for various insulation classes may be exceeded by 10K maximum.

Motors wound for 50Hz may generally be connected to a 60Hz supply. In this case the speed will increase by 20% with reference to rated voltages at 50Hz, the approximate multipliers to obtain the new performance values at 60Hz are given in the following table.

50Hz	60Hz performance data at full load						
Rated voltage (V)	Supply voltage (V)	Rated output power P_N (kW)	Full-load speed n_N (min^{-1})	Rated current I_N (A)	Full-load torque M_N	Starting current I_S/I_N	Starting torque M_A/M_N
230 Voltage (220-240)	220	1	1.2	1	0.83	0.83	0.72
	240	1	1.2	1	0.83	0.91	0.78
	255	1.1	1.2	1	0.92	0.96	0.90
	265	1.15	1.2	1	0.96	1	0.93
	277	1.2	1.2	1	1	1.03	0.98
400 Voltage (380-415)	380	1	1.2	1	0.83	0.83	0.72
	415	1	1.2	1	0.83	0.91	0.78
	440	1.1	1.2	1	0.92	0.96	0.90
	460	1.15	1.2	1	0.96	1	0.93
	480	1.2	1.2	1	1	1.06	0.98

Environmental Conditions

AMTECS

If our standard range motors are operated at an ambient temperature beyond 40°C and altitude over 1000m above sea level, their rated outputs will change at the ratios given below.

If ambient temperature and altitude both vary, multiply the rated output with its respective factors to obtain the new permitted output. If the output reduction exceeds 15%, please consult us as the operating characteristics of the motor will become unfavourable due to its utilization factor.

Ambient temp	°C	≤30	30..40	45	50	55	60
Rated output	%	107	100	95	90	85	80

Altitude	M	1000	2000	3000	4000
Rated output	%	100	95	90	80

At altitudes over 1000m, the rated output of a motor will remain unchanged if the ambient temperature of 35°C drops by 1.0°C for insulation class F, 1.25°C for insulation class H for every 100m increment of altitude.

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