LAFERTGROUP
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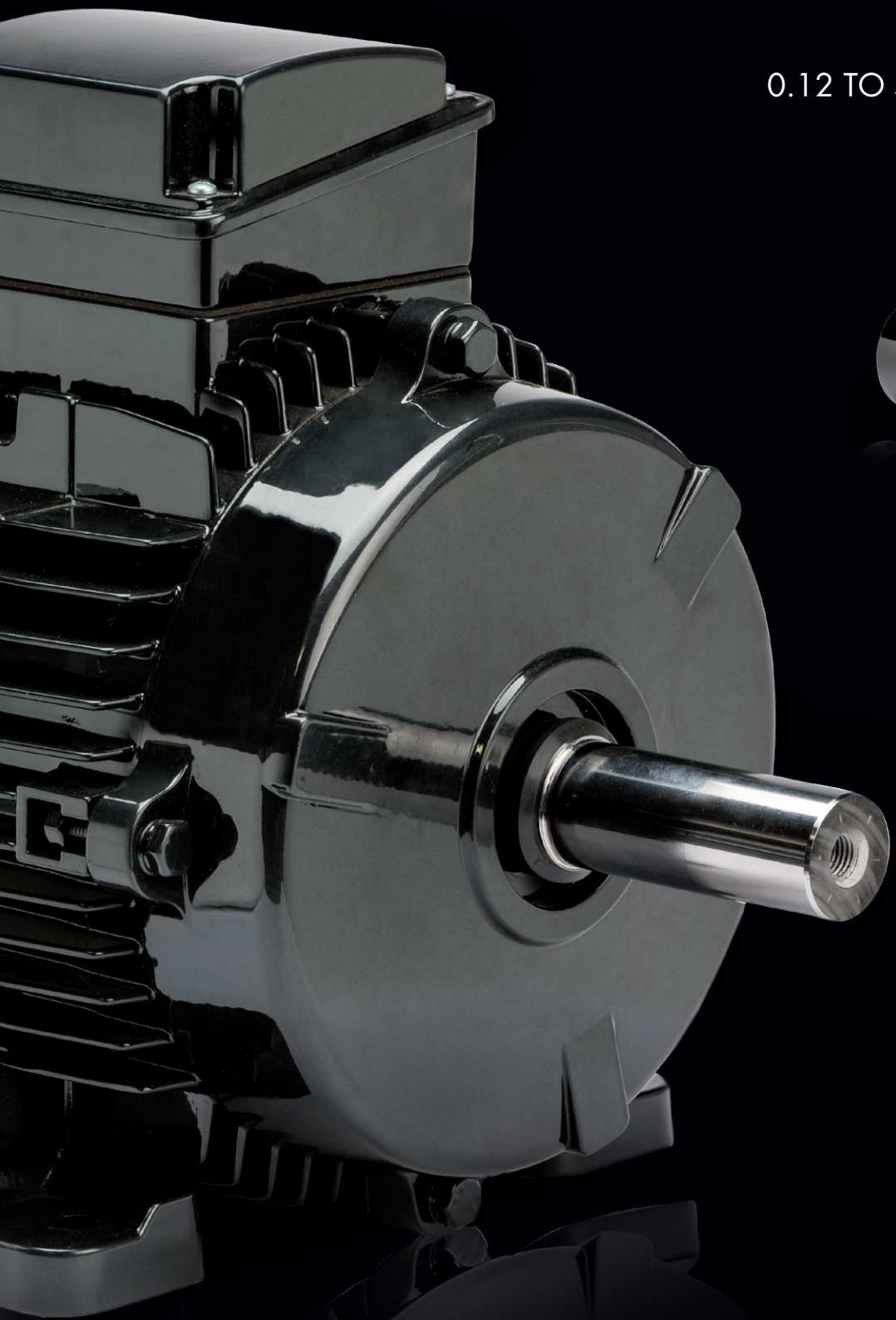
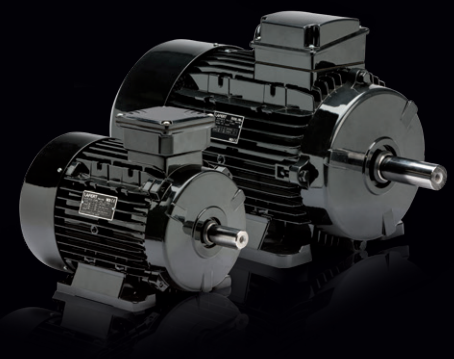
PREMIUM EFFICIENCY MOTORS

THREE-PHASE MOTORS
0.12 TO 55 KW | 400V - 50HZ





IE3

BROCHURE 2026

IE3 c UL us

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30-1:2014
EFFICIENCY TESTING METHOD IEC 60034-2-1;2014

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE3 CODE @ 400 V - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

IE3

TEMPERATURE RISE TO CLASS B

Type		kW	HP	rpm	M_N Nm	IE3 η 50%	IE3 η 75%	IE3 η 100%	cos φ	I_N 400V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm²	kg
3000 rpm (2 poles)																
ALUMINIUM DESIGN																
AMPE 56Z BA	**2**	0.12	0.16	2650	0.4	49.1	55.8	60.8	0.68	0.45	3.5	3.4	3.4	3.5	0.09	3.4
AMPE 56Z CA	**2***	0.18	0.24	2650	0.6	57.0	61.8	65.9	0.73	0.60	3.9	3.8	3.8	3.9	0.1	3.5
AMPE 63Z AA	**2**	0.18	0.25	2735	0.6	55.4	61.9	65.9	0.73	0.55	3.7	3.0	3.0	3.1	0.14	3.6
AMPE 63Z BA	**2**	0.25	0.33	2810	0.9	57.0	65.3	69.7	0.62	0.86	4.5	3.2	3.2	3.3	0.17	4.1
AMPE 63Z CA	**2***	0.37	0.50	2720	1.3	65.4	69.9	73.8	0.73	1.05	4.6	3.4	3.3	3.4	0.2	4.4
AMPE 71Z XA	**2**	0.37	0.50	2810	1.3	70.3	74.2	73.8	0.76	0.95	4.7	3.6	3.4	3.6	0.32	5.8
AMPE 71Z YA	**2**	0.55	0.75	2850	1.9	73.3	77.7	77.8	0.73	1.40	4.8	3.2	3.1	3.3	0.37	6.2
AMPE 71Z AA	**2***	0.75	1	2880	2.5	76.5	80.8	80.7	0.70	1.9	5.5	3.1	3.0	3.2	0.7	8.2
AMPE 80Z AA	**2**	0.75	1	2910	2.5	77.8	81.2	82.0	0.78	1.7	8.9	4.7	4.5	4.8	0.7	9.5
AMPE 80Z BA	**2**	1.1	1.5	2870	3.7	78.7	81.7	82.7	0.76	2.4	9.3	5.0	4.9	5.3	0.9	11.1
AMPE 80Z CA	**2***	1.5	2	2810	5.1	78.8	82.2	84.2	0.76	3.6	7.8	4.9	3.7	4.3	1.1	13.5
AMPE 90S AA	**2**	1.5	2	2875	5.0	83.2	84.8	84.2	0.85	3.0	8.4	3.6	3.2	3.8	1.6	14.0
AMPE 90L BA	**2**	2.2	3	2880	7.3	85.0	86.2	86.5	0.82	4.6	9.2	4.0	3.8	4.2	1.8	16.0
AMPE 90L DA	**2***	3	4	2865	10.0	85.2	86.3	87.1	0.80	6.3	8.7	4.5	4.0	4.6	2.0	18.0
AMPE 100L AA	**2**	3	4	2900	9.9	82.3	85.8	87.1	0.89	5.6	8.8	5.5	3.5	4.5	4.1	22.8
AMPE 100L BA	**2***	4	5.5	2920	13.1	85.4	87.2	88.1	0.81	8.2	10.9	6.1	5.2	5.7	7.3	26.5
AMPE 112M AA	**2**	4	5.5	2910	13.1	86.8	87.8	88.1	0.93	7.0	9.6	3.6	3.0	4.0	6.5	27.4
AMPE 112M BA	**2***	5.5	7.5	2935	17.9	85.6	88.3	89.2	0.87	10.2	11.2	4.2	3.5	4.3	8.6	33.6
AMPE 112M CA	**2***	7.5	10	2930	24.5	88.0	89.7	90.1	0.84	14.4	10.4	4.5	3.5	4.6	10.5	36.0
AMPE 132S ZA	**2**	5.5	7.5	2920	18.0	88.0	88.5	89.2	0.90	10.0	8.9	3.0	2.5	3.6	14.0	46.0
AMPE 132S TA	**2**	7.5	10	2910	24.6	88.6	89.2	90.1	0.92	13.1	8.9	3.0	2.6	3.6	16.0	53.0
AMPE 132M ZA	**2**	9.2	12.4	2930	30.0	88.6	89.8	90.7	0.89	16.5	10.1	3.7	3.3	4.0	17.5	58.0
AMPE 132M RA	**2***	11	15	2935	35.8	90.0	90.8	91.2	0.89	19.9	9.7	4.4	3.5	4.6	25.0	59.0
AMPE 132M TA	**2***	15	20	2915	49.2	91.0	92.2	91.9	0.88	26.8	9.6	3.7	2.6	3.8	28.0	68.0
AMPE 160M YA	**2**	11	15	2950	35.6	87.4	89.8	91.2	0.89	19.7	9.1	4.0	3.0	4.2	51.7	87.8
AMPE 160M ZA	**2**	15	20	2940	48.7	91.0	91.3	91.9	0.89	26.7	9.7	4.7	3.5	4.8	53.4	88.9
AMPE 160L ZA	**2**	18.5	25	2950	59.9	91.6	92.8	92.4	0.88	33.0	10.7	4.6	3.1	4.7	64.0	104.0
AMPE 160L TA	**2***	22	30	2950	71.3	92.2	93.7	92.7	0.87	39.4	10.4	4.5	3.0	4.6	64.0	104.0
AMPE 180M AB	**2**	22	30	2950	71.3	92.2	93.7	92.7	0.87	39.4	10.4	4.5	3.0	4.6	64	127
CAST IRON DESIGN																
AMPE 200L PG	**2**	30	40	2960	96.8	91.4	93.3	93.3	0.89	52.1	7.6	2.0	1.8	2.3	124	246
AMPE 200L RG	**2**	37	50	2960	119.4	91.8	93.7	93.7	0.89	64.0	7.6	2.0	1.8	2.3	139	265
AMPE 225M PG	**2**	45	60	2965	144.9	92.1	94.0	94.0	0.90	76.8	7.7	2.0	1.8	2.3	233	322
AMPE 250M PG	**2**	55	75	2970	176.9	92.4	94.3	94.3	0.90	93.5	7.7	2.0	1.8	1.8	312	413

* Higher output (Progressive motor)

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30-1:2014
EFFICIENCY TESTING METHOD IEC 60034-2-1;2014

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE3 CODE @ 400 V - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

IE3

TEMPERATURE RISE TO CLASS B

Type		kW	HP	rpm	M_N Nm	η 50%	η 75%	η 100%	cos φ	I_N 400V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm²	kg
1500 rpm (4 poles)																
ALUMINIUM DESIGN																
AMPE 63Z AA	**4**	0.12	0.16	1370	0.8	58.3	64.1	64.8	0.70	0.4	2.4	2.0	1.9	2.0	0.2	3.3
AMPE 63Z BA	**4**	0.18	0.25	1360	1.3	61.8	67.0	69.9	0.66	0.6	2.3	1.9	1.8	1.9	0.3	4.1
AMPE 71Z AA	**4**	0.25	0.33	1420	1.8	69.9	74.6	73.5	0.70	0.7	3.2	1.9	1.8	2.0	0.6	5.7
AMPE 71Z BA	**4**	0.37	0.50	1410	2.6	73.2	76.5	77.3	0.70	1.0	3.3	2.2	2.1	2.2	0.8	6.0
AMPE 80Z XA	**4**	0.55	0.75	1440	3.8	75.6	80.7	80.8	0.75	1.3	6.0	2.8	2.5	2.6	1.4	8.2
AMPE 80Z AA	**4**	0.75	1	1435	5.0	80.7	81.5	82.5	0.74	1.8	5.5	2.7	2.6	2.8	2.5	11.0
AMPE 90S AA	**4**	1.1	1.5	1440	7.3	83.3	84.3	84.1	0.75	2.5	7.1	4.3	3.4	4.4	3.6	15.8
AMPE 90L BA	**4**	1.5	2	1430	10.0	84.1	85.2	85.3	0.72	3.6	6.6	4.3	3.8	4.4	3.7	16.4
AMPE 90L CA	**4**	1.8	2.4	1430	12.0	83.5	86.1	86.0	0.69	4.5	8.5	4.3	3.7	4.4	3.9	20.0
AMPE 100L AA	**4**	2.2	3	1455	14.5	86.0	87.0	86.7	0.78	4.8	9.0	3.1	3.0	3.5	8.9	21.5
AMPE 100L BA	**4**	3	4	1460	19.5	86.1	87.8	87.7	0.82	6.0	8.5	2.5	2.4	3.0	14.9	29.0
AMPE 112M BA	**4**	4	5.5	1450	26.4	87.2	88.3	88.6	0.80	8.2	8.5	2.7	2.4	3.5	16.4	36
AMPE 132S AA	**4**	5.5	7.5	1460	35.9	90.6	91.3	89.6	0.84	10.6	8.6	2.5	2.1	3.5	33.0	49
AMPE 132M BA	**4**	7.5	10	1465	48.9	90.8	91.5	90.4	0.84	14.2	8.6	2.5	2.1	3.5	36.0	54
AMPE 132M CA	**4**	9.2	12.4	1460	60.1	91.0	91.6	91.0	0.84	17.3	8.7	2.4	2.0	3.6	45.0	62
AMPE 132M DA	**4***	11	15	1470	71.7	90.6	91.5	91.4	0.8	21.8	8.7	2.4	2.0	3.6	57.0	71
AMPE 160M AA	**4**	11	15	1475	71.3	91.6	92.4	91.4	0.83	21.0	8.2	2.1	1.7	2.8	89.0	100
AMPE 160L BA	**4**	15	20	1465	97.8	92.2	92.7	92.1	0.83	28.5	7.8	2.3	2.0	3.1	105.0	105
AMPE 160L CA	**4***	18.5	25	1470	122	92.0	92.8	92.6	0.78	37.0	7.1	2.1	1.9	2.6	120.7	110
AMPE 160L DA	**4***	22	30	1470	143.9	92.4	93.1	93.0	0.81	41.0	8.0	2.2	1.9	3.0	128.1	115
AMPE 180M AB	**4**	18.5	25	1470	122	92.0	92.8	92.6	0.78	37.0	7.1	2.1	1.9	2.6	120.7	127
AMPE 180M BB	**4**	22	30	1470	143.9	92.4	93.1	93.0	0.81	41.0	8.0	2.2	1.9	3.0	128.1	127
CAST IRON DESIGN																
AMPE 200L RG	**4**	30	40	1475	194.2	91.7	93.6	93.6	0.86	53.8	7.3	2.0	1.9	2.3	262	284
AMPE 225S PG	**4**	37	50	1485	237.9	92.0	93.9	93.9	0.86	66.1	7.4	2.0	1.9	2.3	406	328
AMPE 225M PG	**4**	45	60	1485	289.4	92.3	94.2	94.2	0.86	80.2	7.4	2.0	1.9	2.3	469	363
AMPE 250M PG	**4**	55	75	1485	353.7	92.7	94.6	94.6	0.86	97.6	7.4	2.2	2.1	2.3	660	442

* Higher output (Progressive motor)

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30-1:2014
EFFICIENCY TESTING METHOD IEC 60034-2-1;2014

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE3 CODE @ 400 V - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

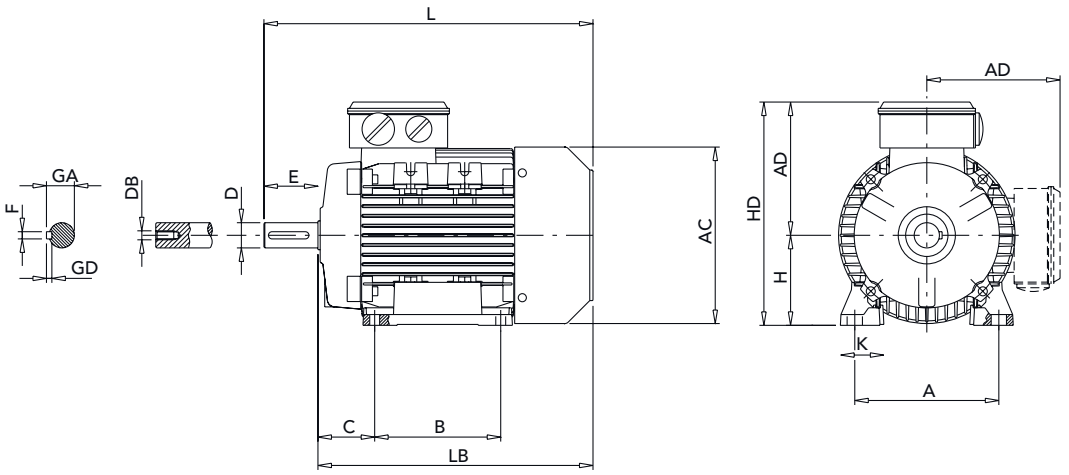
IE3

TEMPERATURE RISE TO CLASS B

Type		kW	HP	rpm	M_N Nm	η 50%	η 75%	η 100%	cos φ	I_N 400V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm²	kg
1000 rpm (6 poles)																
ALUMINIUM DESIGN																
AMPE 71Z AA	**6**	0.18	0.25	910	2.0	60.9	66.1	63.9	0.63	0.6	2.2	1.6	1.5	1.6	1.0	6.1
AMPE 71Z BA	**6**	0.25	0.33	900	2.7	61.4	66.2	68.6	0.64	0.9	2.5	1.7	1.6	1.7	1.2	6.6
AMPE 80Z AA	**6**	0.37	0.5	940	3.8	70.9	72.1	73.5	0.72	1.0	2.7	1.6	1.6	2.1	1.8	8.0
AMPE 90S XA	**6**	0.55	0.75	940	5.6	73.4	77.2	77.2	0.67	1.5	4.5	1.6	1.5	1.8	4.8	15.0
AMPE 90S AA	**6**	0.75	1	940	7.6	78.1	79.2	78.9	0.62	2.2	4.6	1.7	1.6	1.8	6.0	18.1
AMPE 90L BA	**6***	1.1	1.5	935	11.2	79.1	81.2	81.0	0.64	3.1	4.2	1.8	1.7	2.3	6.5	19.0
AMPE 100L AA	**6**	1.1	1.5	960	10.9	78.9	81.3	81.0	0.65	3.0	6.2	2.2	1.8	2.8	11.6	25.0
AMPE 100L BA	**6**	1.5	2	920	15.6	81.1	82.7	82.5	0.68	3.8	5.7	1.7	1.3	2.3	14.2	26.0
AMPE 112M BA	**6**	2.2	3	920	22.8	83.3	85.1	84.3	0.68	5.4	5.3	2.0	1.8	2.4	20.1	34.2
AMPE 132S YA	**6**	3	4	975	29.4	84.1	85.8	85.6	0.65	8.0	5.5	2.1	1.9	3.1	37.7	42
AMPE 132M YA	**6**	4	5.5	975	39.2	85.2	87.1	86.8	0.70	9.6	5.4	2.2	1.7	3.2	44.4	46
AMPE 132M TA	**6***	5.5	7.5	975	53.9	87.1	88.1	88.0	0.64	14.2	5.4	2.1	1.8	2.9	54.1	48
AMPE 160M YA	**6**	5.5	7.5	975	53.9	87.5	88.5	88.0	0.77	11.8	8.6	2.2	1.8	2.8	103.0	84
AMPE 160M ZA	**6**	7.5	10	980	73.1	88.3	89.3	89.1	0.78	15.7	8.7	2.4	1.9	3.1	132.0	97
AMPE 160L ZA	**6**	9.2	12.4	970	87.6	88.9	90.1	89.8	0.74	19.9	8.3	3.1	2.2	3.5	136.0	105
AMPE 160L TA	**6**	11	15	970	108.3	89.1	90.4	90.3	0.78	22.9	8.0	2.7	2.4	3.2	136.0	105
CAST IRON DESIGN																
AMPE 180L ZG	**6**	15	20	978	146.5	89.4	91.2	91.2	0.81	28.2	7.3	2.0	2.0	2.1	207	197
AMPE 200L PG	**6**	18.5	25	980	180.3	89.9	91.7	91.7	0.81	34.7	7.3	2.0	2.0	2.1	315	234
AMPE 200L RG	**6**	22	30	980	214.4	90.4	92.2	92.2	0.81	41.0	7.4	2.0	2.0	2.1	360	251
AMPE 225M PG	**6**	30	40	980	292.3	91.0	92.9	92.9	0.83	54.1	6.9	2.0	2.0	2.1	547	308
AMPE 250M PG	**6**	37	50	985	358.7	91.4	93.3	93.3	0.84	65.7	7.1	2.0	2.0	2.1	843	383
AMPE 280S G	**6**	45	60	985	436.3	91.8	93.7	93.7	0.85	78.6	7.3	2.0	2.0	2.0	1390	501
AMPE 280M G	**6**	55	75	985	533.2	92.2	94.1	94.1	0.86	94.6	7.3	2.0	2.0	2.0	1650	573

* Higher output (Progressive motor)

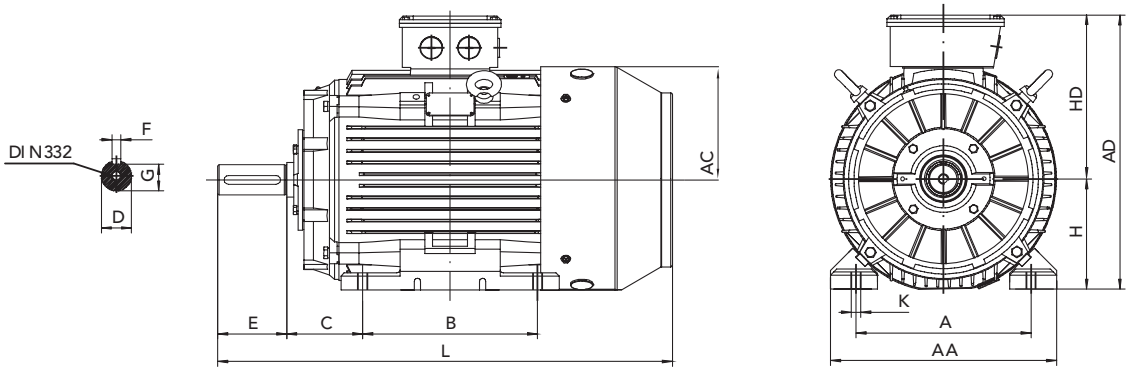
ALUMINIUM ALLOY FRAME



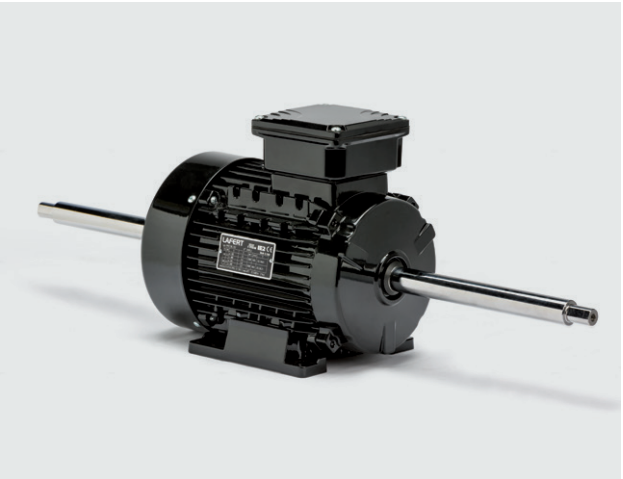
IEC	Poles	kW	H	A	B	C	AD [1]	HD [1]	AC	L	LB	D	E	F	GD	GA	DB [2]
56	**2 - 4**	**all**	56	90	71	36	92	148	110	188	168	9	20	3	3	10.2	M3
63	**2 - 4**	**all**	63	100	80	40	96	159	124	211	188	11	23	4	4	12.5	M4
71	**2 - 4 - 6**	**all**	71	112	90	45	110	181	139	246	216	14	30	5	5	16	M5
80	**2 - 4**	**all**	80	125	100	50	129	209	160	272	232	19	40	6	6	21.5	M6
90S	**2 - 4 - 6**	**all**	90	140	100	56	138	228	180	317	267	24	50	8	7	27	M8
90L	**2**	**2.2**	90	140	125	56	138	228	180	317	267	24	50	8	7	27	M8
	2	**3**	90	140	125	56	138	228	180	340	290	24	50	8	7	27	M8
	4	**1.8**	90	140	125	56	138	228	180	340	290	24	50	8	7	27	M8
	4 - 6	**all**	90	140	125	56	138	228	180	317	267	24	50	8	7	27	M8
100L	**2**	**all**	100	160	140	63	145	245	196	366	306	28	60	8	7	31	M10
	4 - 6	**all**	100	160	140	63	145	245	198	366	306	28	60	8	7	31	M10
112M	**2**	**4 - 5.5**	112	190	140	70	160	272	225	388	328	28	60	8	7	31	M10
	2	**7.5**	112	190	140	70	160	272	222	410	350	28	60	8	7	31	M10
	4 - 6	**all**	112	190	140	70	160	272	225	388	328	28	60	8	7	31	M10
132S	**2**	**5.5**	132	216	140	89	195	326	248	445	365	38	80	10	8	41	M12
	2	**7.5**	132	216	140	89	195	326	248	465	385	38	80	10	8	41	M12
	4	**5.5**	132	216	140	89	195	326	248	445	365	38	80	10	8	41	M12
	6	**all**	132	216	140	89	195	326	248	445	365	38	80	10	8	41	M12
132M	**2**	**9.2 - 11**	132	216	178	89	195	326	248	505	425	38	80	10	8	41	M12
	2	**15**	132	216	178	89	195	326	248	556	476	38	80	10	8	41	M12
	4	**7.5**	132	216	178	89	195	326	248	485	405	38	80	10	8	41	M12
	4	**9.2**	132	216	178	89	195	326	248	505	425	38	80	10	8	41	M12
	4	**11**	132	216	178	89	195	326	248	556	476	38	80	10	8	41	M12
	6	**4**	132	216	178	89	195	326	248	485	405	38	80	10	8	41	M12
	6	**5.5**	132	216	178	89	195	326	248	505	425	38	80	10	8	41	M12
160M	**2 - 4 - 6**	**all**	160	254	210	108	238	398	317	608	498	42	110	12	8	45	M16
160L	**2 - 4 - 6**	**all**	160	254	254	108	238	398	317	652	542	42	110	12	8	45	M16
180M	**2 - 4**	**all**	180	279	241	121	238	418	317	608	498	42	110	12	8	45	M16
180L	**4**	**all**	180	279	279	121	238	418	317	608	498	42	110	12	8	45	M16

1) Maximum distance
2) Centering holes in shaft extensions to DIN 332 part 2

CAST IRON FRAME



IEC	Poles	H	A	B	C	K	AD	HD	AC	L	AA	D	E	F	G
180L	**6**	180	279	279	121	15	451	271	355	699	349	48	110	14	42.5
200	**2-4-6**	200	318	305	133	19	500	300	397	757	388	55	110	16	49
225S	**≥ 4**	225	356	286	149	19	548	323	445	798	431	60	140	18	53
225M	**2**	225	356	311	149	19	548	323	445	823	431	55	110	16	49
	≥ 4	225	356	311	149	19	548	323	445	823	431	60	140	18	53
250	**2**	250	406	349	168	24	609	359	485	900	484	60	140	18	53
	≥ 4	250	406	349	168	24	609	359	485	900	484	65	140	18	58



SPECIAL APPLICATIONS

The quality of Lafert motors is generated by the constant search for innovative solutions and from our natural propensity for customization and co-engineering. Lafert specializes in designing and manufacturing customized electric motors, created to meet the needs of each customer. **More than 90% of Lafert products are non-standard motors.**

Thanks to our strong approach to the market, experience in special applications and the wide range of solutions, we can offer an electric and mechanical design perfect for every application need. **The co-designing approach from our engineers** and the skillful expertise of our technical office to adapt the motor to specific market segments allows us to offer an exceptionally high level of customization, efficiency and reliability.

To ensure the maximum performance of our motors **we produce every component internally**. This allows us to tailor every element of our proposals by developing infinite solutions for all applications.
From flange design to special windings, from the degree of protection to the fan cooling, we customize everything to create the perfect motor that maximizes the performance and energy savings of the final application.

TARGET APPLICATIONS

AIR TECHNOLOGY	MAIN FEATURES
COMPRESSORS, VACUUM PUMPS, BLOWERS	• Special flanges and shafts • Dedicated electrical design to deliver required performances

HVAC - VENTILATION	MAIN FEATURES
AIR COOLED RADIATORS FOR HEAVY INDUSTRIAL APPLICATIONS; CENTRIFUGAL AND AXIAL FANS FOR INDUSTRIAL AND COMMERCIAL ENVIRONMENT	• High corrosion protection level (according to ISO 12944) • Special insulation system/voltage/frequency • Wide ambient temperature range • Without ventilation (IC418 – TEAO design) • Special flanges and shafts • Pad mounting design

WATER & WASTEWATER	MAIN FEATURES
WATER PUMPS FOR INDUSTRIAL AND COMMERCIAL ENVIRONMENT	• Special shafts design • High corrosion protection level (according to ISO 12944) • Pad mounting design

WIND ENERGY	MAIN FEATURES
MOTORS FOR YAW DRIVE & PITCH DRIVE, COOLING & VENTILATION, HYDRAULIC & POWER PACKS	• High reliability, low maintenance • High corrosion protection level (according to ISO 12944) • Special insulation system/voltage/frequency

LAFERTGROUP
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