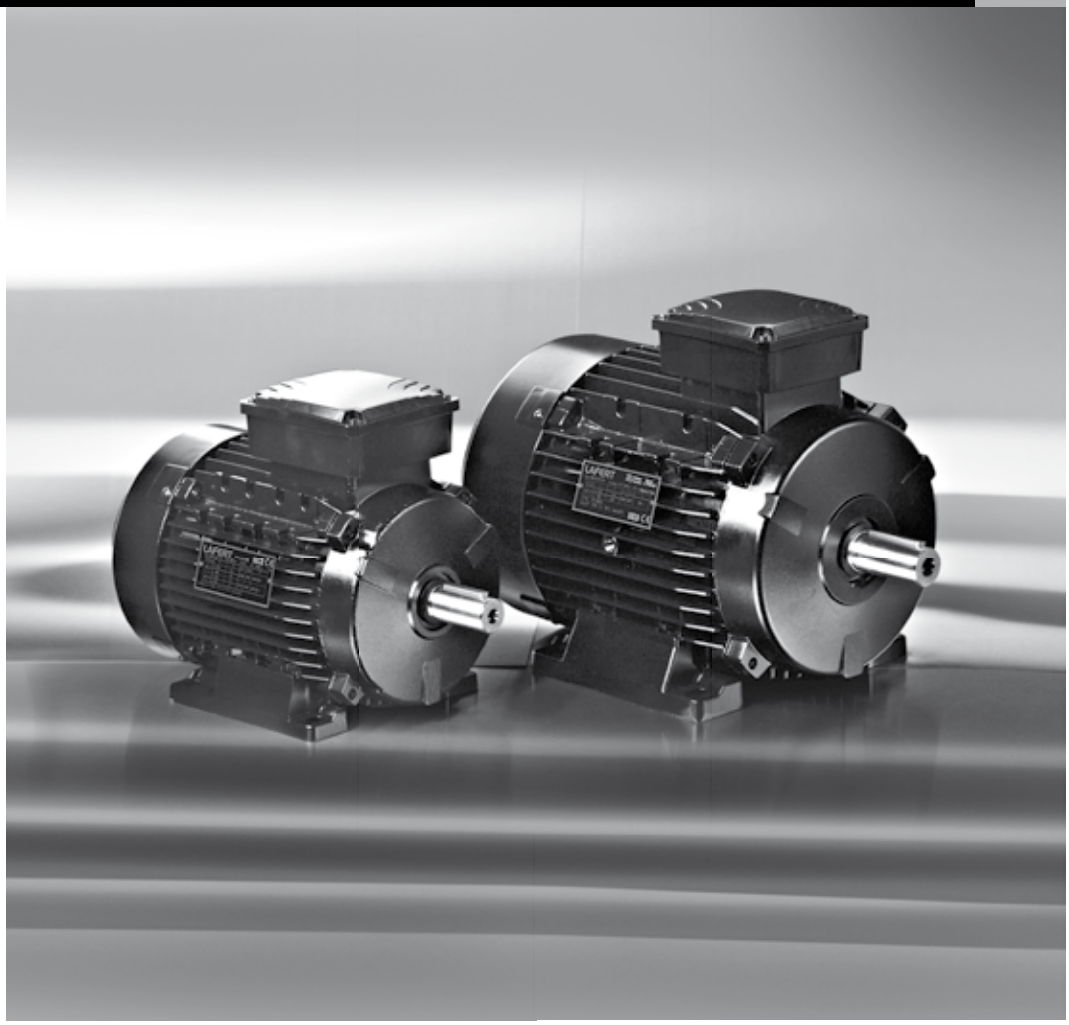
THREE-PHASE MOTORS



TERMINAL BOX

The location of the terminal box in standard design is on top; on the right or on the left are possible.

Motors 71-160 frame size have removable feet for easy change of terminal box position

For motors with mountings IM B6, IM B7, IM B8, IM V5, IM V6 the location of the terminal box is related to an IM B3 mounting.

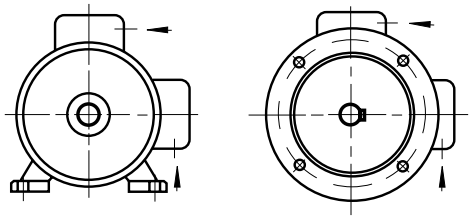
The position of the entry openings can be adjusted to suit the existing connection facilities by turning through 90°. Should special accessories be used (temperature detectors, anti-condensation heating, etc.) please enquire.

For motors in standard design, the cable gland does not belong to our scope of delivery.

For plastic terminal boxes, only plastic glands may be used (shock protection).

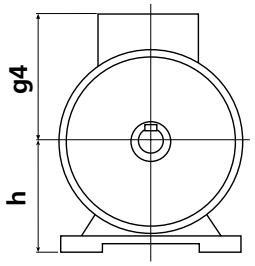
When using screened leads, a metal terminal box is required.

Direction of cable entries

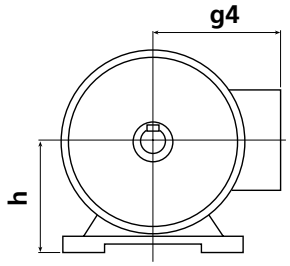


Frame size	Degree of protection	Thread for cable entry		Max. cable section	Terminal thread	Max. external cable diam.
		Metric [1]	Pg [2]	mm²		mm
56 - 71	IP 55	1 x M16/1 x M20	1 x Pg 11/1 x Pg 13.5	2.5	M4	12
80	IP 55	1 x M25/1 x M20	1 x Pg 13.5/1 x Pg 16	2.5	M4	16
90 - 112	IP 55	1 x M25/1 x M20	1 x Pg 13.5/1 x Pg 16	4	M5	16
132	IP 55	2 x M32	2 x Pg 21	4	M5	20
160	IP 55	2 x M40	2 x Pg 29	16	M6	28
180	IP 55	2 x M40/1 x M20		35	M8	28
200	IP 55	2 x M40/1 x M25		35	M8	34
225	IP 55	2 x M50/1 x M25		50	M10	34
250 - 280	IP 55	2 x M50/1 x M25		50	M10	40
315	IP 55	2 x M63/1 x M25 [3]		185	M12	48

1) Pitch 1.5
2) Pg thread to DIN 40 430 (on request)
3) Terminal box with unscrewable cable entry plate



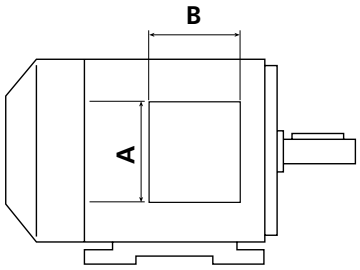
Terminal box on top



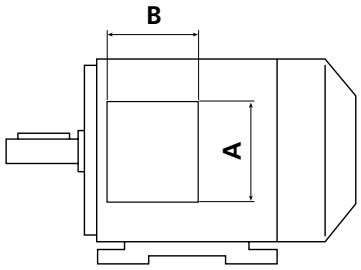
Terminal box at the side

STANDARD DESIGN

Frame size h	g_4	A	B	Material
56	98	91	93	Plastic UL 94 V0
63	103	91	93	Plastic UL 94 V0
71	112	91	93	Plastic UL 94 V0
80	129	111	116	Plastic UL 94 V0
90	138	111	116	Plastic UL 94 V0
100	145	111	116	Plastic UL 94 V0
112	161	111	116	Plastic UL 94 V0
132	198	133	133	Aluminium
160	238	150	150	Aluminium
180	268	187	162	Cast Iron
200	300	233	186	Cast Iron
225	335	233	186	Cast Iron
250	366	260	218	Cast Iron
280	408	260	218	Cast Iron
315	530	320	280	Cast Iron



left [1)]



right

SPECIAL DESIGN

Frame size h	g_4	A	B	Material
56	100	94	94	Aluminium
63	105	94	94	Aluminium
71	114	94	94	Aluminium
80	139	110	110	Aluminium
90	148	110	110	Aluminium
100	155	110	110	Aluminium
112	171	110	110	Aluminium
180	285	209	220	Cast Iron
200	310	241	246	Cast Iron
225	334	272	254	Cast Iron
250	375	272	254	Cast Iron
280	409	272	254	Cast Iron

1) On frame size 56-63 the terminal box is supplied displaced towards the non-drive end

CONNECTION DIAGRAMS

Windings of standard three-phase single speed motors can be connected either in star or delta connection.

STAR CONNECTION

A star connection is obtained by connecting W2, U2, V2 terminals to eachother and the U1, V1, W1 terminals to the mains. The phase current and voltage are:

$I_{ph} = I_n$; $U_{ph} = U_n / \sqrt{3}$

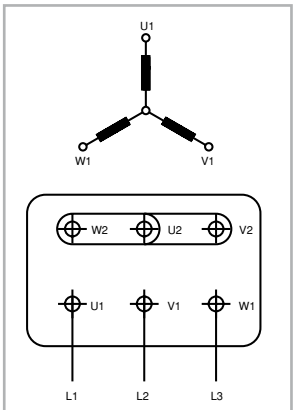
where I_n is the line current and U_n the line voltage referred to the star connection.

DELTA CONNECTION

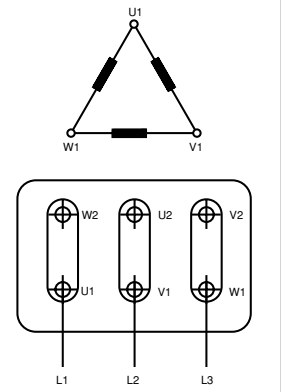
A delta connection is obtained by connecting the end of a phase to the beginning of the next phase.
The phase current I_{ph} and the phase voltage U_{ph} are:

$I_{ph} = I_n / \sqrt{3}$; $U_{ph} = U_n$

where I_n and U_n are referred to the delta connection.



Star connection



Delta connection

STAR-DELTA STARTING

Star-delta starting allows a peak current reduction. It can be used only when the reduced starting torque obtained is higher than the resistant torque. Actually, it should be noted that the torque of an induction squirrel-cage motor is directly proportional to the square of the voltage. Motors whose rated voltage with delta connection corresponds to the mains voltage, can be started with the star-delta method.

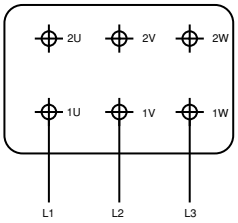
All motors can be supplied with windings designed for star-delta starting (for example: 400 V Δ / 690 V Y).

POLE-CHANGING MOTORS

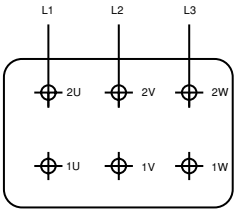
Standard pole-changing motors are designed for single voltage and direct-on-line starting.

When the ratio between the two speeds is from 1 to 2, the standard motors have one single winding (Dahlander connection). For the other speeds, the motors have two separate windings.

AM/AMV - two separate windings

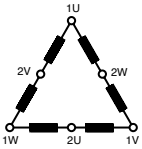


Low speed

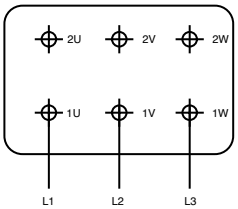


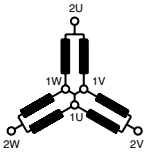
High speed

AM - Dahlander connection Δ/YY

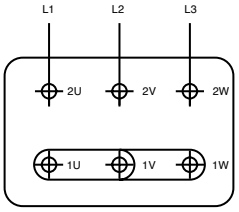


Low speed

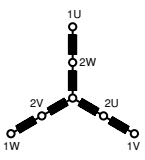




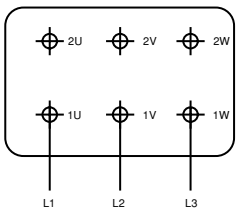
High speed

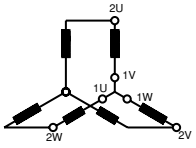


AMV - Dahlander connection Y/YY

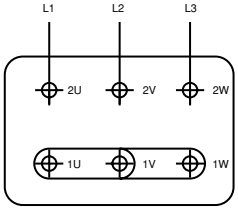


Low speed





High speed



CAGE MOTORS DRIVEN BY FREQUENCY CONVERTERS

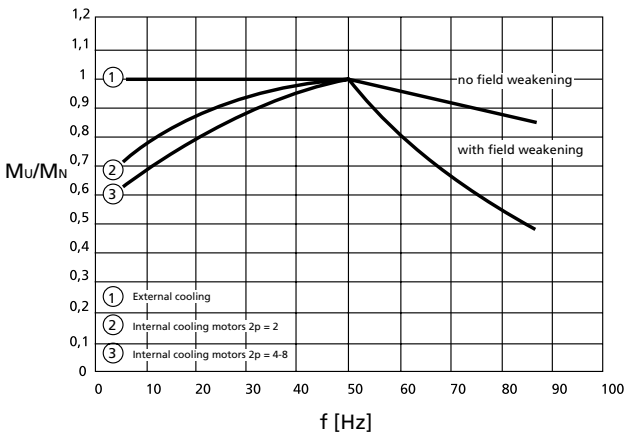
Motors frame sizes 90 upwards in standard design are suitable for operation on static frequency converters, taking into account the following remarks:

- Maximum converter output voltage 500V at peak voltages $\hat{U} \leq 1460V$ and $du/dt \leq 13$ kV/us. For higher converter output voltages or stresses, a special insulation is required.
- With square characteristic of the load torque, motors can be driven with their rated torque.
- For constant torque, the rated torque of motors with internal cooling must be reduced due to reduced cooling air inlet. Depending on the control range, the use of an external fan would be advisable.
- The motors frame sizes 90 – 112 are suitable for a maximum output frequency of the converter of 60 Hz (e.g. applications with square torque, control range 1:10, such as pumps and fans). For higher frequencies, a special range with type designation AMI is available on request. From frame size 132 upwards, motors designed Δ/Y 230/400 V, 50 Hz can be operated in delta with a maximum frequency of 87 Hz (observe mechanical limit speed).

The motors frame size 56 – 80 can be operated on single-phase converters up to maximum 60 Hz. (Special range with type designation AMI for operation on three-phase converters with output voltage ≥ 400 V and output frequency > 60 Hz).

The electrical values and dimensions of the range AMI in frame size 56 to 112 are identical to AM motors (see data tables pages 49-51).

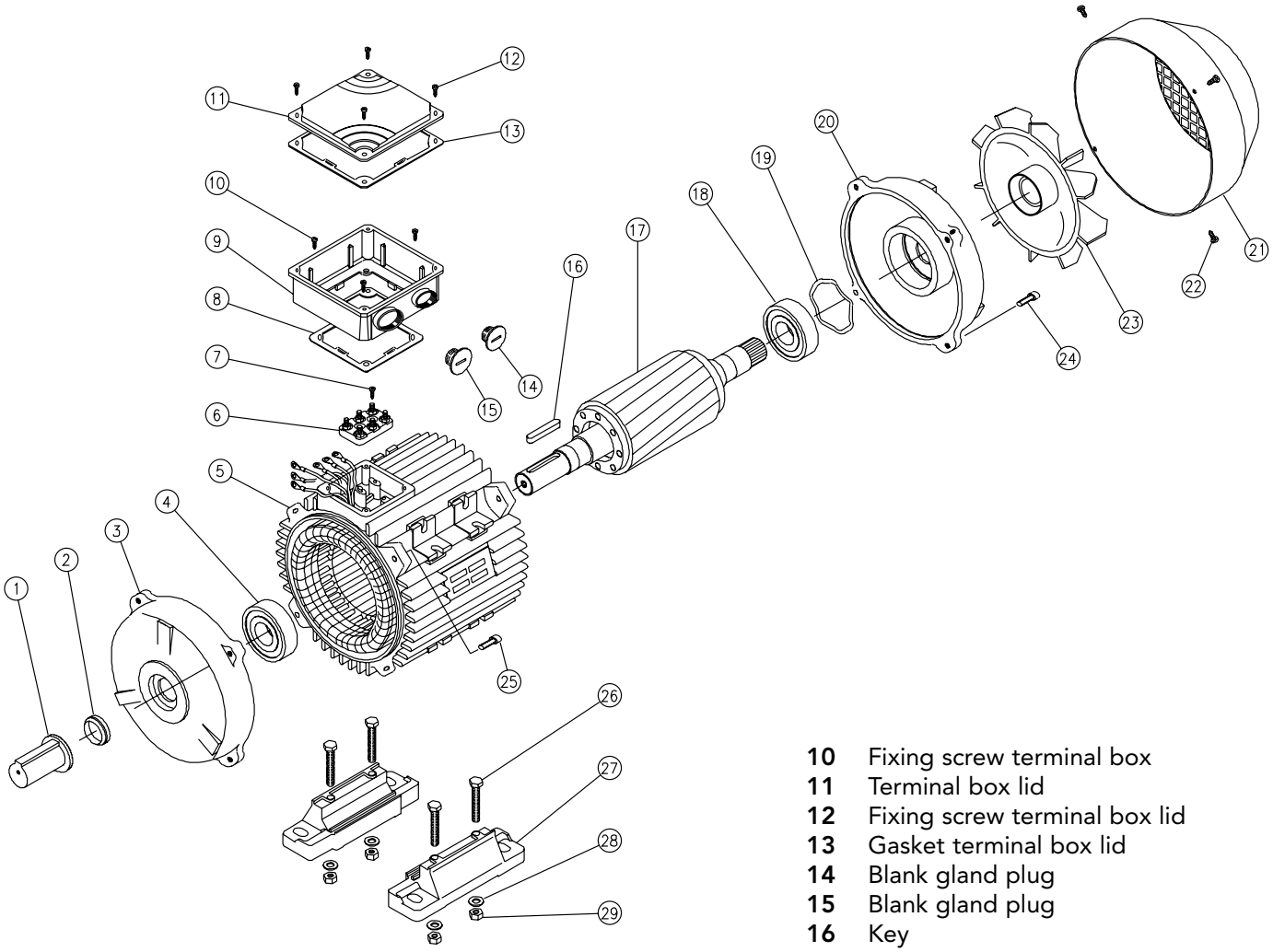
Note: 75 kW, 2 poles and up - insulated bearing are recomended when inverter fed.



Torque caracteristics of three-phase motors driven by frequency converters.

NOISE

Depending on the operating point and converter type, converter-fed motors produce between approx. 4 - 10 dB(A) higher noise values than when supplied from the mains. For motors driven with a frequency over 50 Hz, more fan noise is produced. We recommend the use of an external fan.



PART DESCRIPTION

1 Shaft protection
2 Dust seal drive end
3 Endshield drive end
4 Bearing drive end
5 Stator frame
6 Terminal board
7 Fixing screw terminal board
8 Gasket terminal box
9 Terminal box
10 Fixing screw terminal box
11 Terminal box lid
12 Fixing screw terminal box lid
13 Gasket terminal box lid
14 Blank gland plug
15 Blank gland plug
16 Key
17 Rotor complete
18 Bearing non-drive end
19 Pre-load washer
20 Endshield non-drive end
21 Fan cover
22 Fixing screw fan cover
23 Fan
24 Fixing bolt endshield non-drive end
25 Fixing bolt endshield drive end
26 Fixing bolt motor feet
27 Motor feet
28 Fixing washer motor feet
29 Fixing nut motor feet

Only motors 71-160 frame size have removable feet for easy change of terminal box position

In enquires and orders for spare parts please state always:
Designation of spare part, motor type, mounting arrangement, motor serial number (Product No. when available)
Enquires and orders cannot be handled without these data.

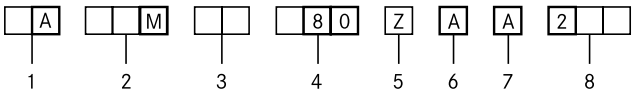
TYPE DESIGNATION

Apart from other information, it is necessary to specify the exact type designation in all enquiries, when ordering spare parts or replacement motors or when asking for documentary information.

The type designation of our motors comprises 8 points of reference, each of which may consist of several letters and/or numerals. The meaning of each symbol can be seen from the following table. For motors not included in our standard range, special symbols may be used which are not listed here.

Ref. point	Meaning	Description of symbols used for our motors	
1	Type of motor	A	Asynchronous motor
2	Cooling	M	Surface cooled with external fan, cooling fins
		G	Surface cooled without external fan, cooling fins
		MFV	Surface cooled with forced ventilation, cooling fins
3	Type of motor	blank	Three-phase motor, standard efficiency IE1code
		EE	Three-phase motor, high efficiency IE2 code
		H	Three-phase motor, efficiency to EPACT regulations
		HE	Three-phase motor, high efficiency IE2 code 50 - 60 Hz
		PE	Three-phase motor, premium efficiency IE3 code
		PH	Three-phase motor, premium efficiency EISA regulations
		V	Three-phase pole-changing motor for driving fans
		I	Special design for three-phase motor driven with frequency converter
4	Shaft centre height	56, 63, 71, 80, 90, 100, 112, 132,160, 180, 200, 225, 250, 280, 315	
5	Frame length	Z	
		S	Mechanical dimension (short)
		M	Mechanical dimension (medium)
		L	Mechanical dimension (long)
6	Mechanical design and output value	A	
		B	
		...	
		Z	
7	Frame material	A	Aluminium frame
		G	Cast iron frame
8	Number of poles	2 - 4/2	
		4 - 8/4	
		6 - 4/6	
		8 - 6/8	

Example



PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

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	min^{-1}	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} kgm^2	kg
3000 min^{-1} (2 poles)																
AMPE 90S AA	**2**	1.5	2	2910	4.9	80.1	83.8	85.0	0.72	3.5	9.1	3.9	4.3	4.6	1.6	14
AMPE 90L BA	**2**	2.2	3	2865	7.3	84.8	85.6	86.0	0.86	4.3	7.9	4.5	4.2	4.7	1.8	16
AMPE 100L AA	**2**	3	4	2900	9.9	84.6	86.8	87.1	0.85	5.8	10.9	5.5	3.5	4.5	4	22.8
AMPE 112M AA	**2**	3.7	5	2950	12.0	86.3	88.9	89.9	0.83	7.1	12.8	5.2	2.3	3.8	8.6	33.6
AMPE 112M BA	**2**	4	5.5	2945	13.0	86.9	88.4	90.1	0.85	7.5	12.6	4.7	2.3	3.8	8.6	33.6
AMPE 112M CA	**2**	5.5	7.5	2935	17.9	85.6	88.3	89.2	0.78	11.3	11.7	4.7	2.7	4	8.6	33.6
AMPE 132S ZA	**2**	5.5	7.5	2920	18.0	88.2	89.7	89.8	0.88	10.0	7.7	3.2	2.9	3.6	20.5	53
AMPE 132S TA	**2**	7.5	10	2930	24.4	89.4	91.0	91.1	0.88	13.5	7.7	3.6	3.3	4.2	22.8	56
AMPE 132M TA	**2**	9.2	12.4	2935	29.9	89.4	91.0	91.2	0.85	17.0	9.7	4.2	3.9	5.1	25	59
AMPE 132M RA	**2**	11	15	2935	35.8	89.2	90.8	91.2	0.81	21.4	9.5	4.2	3.7	4.9	25	59
AMPE 160M YA	**2**	11	15	2935	35.8	88.7	90.5	91.2	0.89	19.5	11.1	3.7	2.7	4.7	51.7	87.8
AMPE 160M ZA	**2**	15	20	2945	48.6	89.5	91.4	92.0	0.88	26.7	12.5	4.6	3.3	5.9	64	104
AMPE 160L ZA	**2**	18.5	25	2945	60.0	89.7	91.7	92.4	0.82	35.3	12.8	4.9	3.5	6.3	64	104
AMPE 160L TA	**2**	22	30	2930	71.7	91.6	92.6	92.7	0.85	40.2	10.9	4.1	3.0	5.3	64	104

For dimensions AMPE 2 poles motors, please see dimensions AMHE motors

Type		kW	HP	min^{-1}	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} kgm^2	kg
1500 min^{-1} (4 poles)																
AMPE 90S AA	**4**	1.1	1.5	1445	7.3	82.3	85.2	85.8	0.70	2.6	8.5	4.6	4.5	4.9	3.7	16.4
AMPE 90L BA	**4**	1.5	2	1420	10.1	84.7	85.4	85.7	0.76	3.3	7.8	4.1	4.0	4.3	3.7	16.4
AMPE 90L CA	**4**	1.8	2.4	1420	12.1	83.8	84.9	85.3	0.70	4.3	8.0	4.1	4.0	4.3	3.7	16.4
AMPE 112M AA	**4**	3.7	5	1450	24.4	87.7	88.6	88.8	0.80	7.5	9.9	3.3	2.7	4.9	16.4	36
AMPE 112M BA	**4**	4	5.5	1445	26.4	87.9	88.5	88.8	0.82	7.9	9.3	3.1	2.4	4.6	16.4	36
AMPE 132S ZA	**4**	5.5	7.5	1450	36.2	90.6	91.0	91.2	0.82	10.6	9.4	3.7	3.2	4.3	36	65
AMPE 132M ZA	**4**	7.5	10	1465	48.9	89.8	91.2	91.5	0.68	17.5	9.7	4.4	3.7	5.1	45	79
AMPE 132M TA	**4**	9.2	12.4	1455	60.4	90.6	91.2	91.3	0.74	19.7	9.8	4.9	4.2	5.8	57	98
AMPE 160M ZA	**4**	11	15	1470	71.5	92.2	92.6	92.9	0.79	21.6	10.1	4.6	3.3	4.9	120.7	114
AMPE 160L ZA	**4**	15	20	1465	97.8	92.1	92.5	92.8	0.78	29.9	10.1	4.4	3.2	4.7	135	120

For dimensions AMPE 4 poles motors, please consult us

PREMIUM EFFICIENCY THREE-PHASE MOTORS – IE3

EFFICIENCY LEVEL ACCORDING TO EISA
EFFICIENCY TESTING METHOD CSA C390-10
VERIFIED BY UL ENVIRONMENT

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO NEMA MG 1 - TABLE 12-12 (PREMIUM EFFICIENCY)

FOR MAINS VOLTAGE
460 V - 60 HZ

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE3 η 50%	IE3 η 75%	IE3 η 100%	cos φ	I_N 460V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
3600 min^{-1} (2 poles)																
AMPH 90S AA	**2**	1.5	2	3515	4.1	81.2	84.7	85.5	0.78	2.8	8.9	3.7	3.6	4.3	1.6	14.0
AMPH 90L BA	**2**	2.2	3	3480	6.0	83.6	86.1	86.5	0.84	3.8	7.7	4.4	4.0	4.4	1.8	16.0
AMPH 100L AA	**2**	3	4	3515	8.2	85.8	88.1	88.5	0.86	4.9	10.6	5.6	5.3	5.3	4.0	22.8
AMPH 112M AA	**2**	3.7	5	3550	10.0	84.0	87.6	88.5	0.86	6.1	12.5	5.1	1.9	5.2	8.6	33.6
AMPH 112M BA	**2**	4	5.5	3540	10.8	85.3	88.0	88.5	0.87	6.5	12.3	4.7	1.7	4.8	8.6	33.6
AMPH 112M CA	**2**	5.5	7.5	3530	14.9	86.2	89.0	89.5	0.86	8.9	11.4	4.5	2.5	4.3	8.6	33.6
AMPH 132S ZA	**2**	5.5	7.5	3540	14.8	87.3	89.6	89.5	0.88	8.8	7.5	3.0	2.6	3.3	20.5	53.0
AMPH 132S TA	**2**	7.5	10	3540	20.2	88.0	90.3	90.2	0.87	12.0	7.5	3.4	2.9	3.9	22.8	56.0
AMPH 132M TA	**2**	9.2	12.4	3545	24.8	87.7	90.1	90.2	0.88	14.5	9.4	4.0	3.5	4.7	25.0	59.0
AMPH 132M RA	**2**	11	15	3535	29.7	87.5	90.4	91.0	0.86	17.7	9.2	4.0	3.5	4.7	25.0	59.0
AMPH 160M YA	**2**	11	15	3550	29.6	86.6	90.0	91.0	0.89	17.0	10.8	3.5	2.5	4.5	51.7	87.8
AMPH 160M ZA	**2**	15	20	3555	40.3	90.1	92.0	91.0	0.85	24.4	12.2	4.4	3.1	5.6	64.0	104
AMPH 160L ZA	**2**	18.5	25	3555	49.7	90.0	92.2	91.7	0.82	31.0	12.5	4.6	3.3	6.0	64.0	104
AMPH 160L TA	**2**	22	30	3540	59.3	90.7	92.5	91.7	0.84	35.8	10.6	3.9	2.8	5.0	64.0	104

For dimensions AMPH 2 poles motors, please see dimensions AMH motors

Type		kW	HP	min^{-1}	M_N Nm	IE3 η 50%	IE3 η 75%	IE3 η 100%	cos φ	I_N 460V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
1800 min^{-1} (4 poles)																
AMPH 90S AA	**4**	1.1	1.5	1745	6.0	82.8	85.6	86.5	0.71	2.2	8.2	4.4	4.3	4.6	3.7	16.4
AMPH 90L BA	**4**	1.5	2	1735	8.2	83.5	86.2	86.5	0.74	2.9	7.5	3.8	3.7	4.0	3.7	16.4
AMPH 90L CA	**4**	1.8	2.4	1730	9.9	85.2	86.7	86.5	0.68	3.8	7.8	3.9	3.8	4.1	3.7	16.4
AMPH 112M AA	**4**	3.7	5	1765	20.0	87.3	89.3	89.5	0.80	6.5	9.6	3.1	2.5	4.6	16.4	36.0
AMPH 112M BA	**4**	4	5.5	1760	21.7	87.7	89.4	89.5	0.81	6.9	9.0	2.9	2.3	4.3	16.4	36.0
AMPH 132S ZA	**4**	5.5	7.5	1760	29.9	91.0	92.1	91.7	0.81	9.3	9.1	3.5	3.0	4.1	36.0	65.0
AMPH 132M ZA	**4**	7.5	10	1760	40.7	90.8	91.5	91.7	0.79	13.0	9.4	4.1	3.5	4.8	45.0	79.0
AMPH 132M TA	**4**	9.2	12.4	1760	49.9	90.9	91.6	91.7	0.73	17.2	9.5	4.7	4.0	5.5	57.0	98.0
AMPH 160M ZA	**4**	11	15	1770	59.4	91.5	92.5	92.4	0.80	18.7	9.8	4.4	3.1	4.6	120.7	114
AMPH 160L ZA	**4**	15	20	1765	81.2	92.4	93.0	93.0	0.77	26.3	9.8	4.2	3.0	4.4	135.0	120

For dimensions AMPH 4 poles motors, please consult us

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE2 CODE @ 400 V - 50 HZ; IE2 CODE @ 460 V - 60 HZ AND NEMA MG 1 - TABLE 12-11 (EPACT) @ 460 V - 60 HZ

Performance data referred @ 400 V - 50 Hz. For performance data @ 460 V - 60 Hz, please consult us.

FOR MAINS VOLTAGE
400 V - 50 HZ
460 V - 60 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 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 min^{-1} (2 poles)																
AMHE 71Z AA	**2***	0.75	1	2865	2.5	75.0	78.1	79.4	0.71	1.9	5.2	3.1	3.0	3.1	0.69	8.2
AMHE 80Z AA	**2**	0.75	1	2900	2.5	77.3	78.5	80.5	0.78	1.7	7.0	3.6	3.4	3.6	0.7	9.5
AMHE 80Z BA	**2**	1.1	1.5	2880	3.6	79.5	81.2	81.5	0.78	2.5	6.8	3.6	3.4	3.6	0.89	11.1
AMHE 80Z CA	**2***	1.5	2	2880	5.0	80.5	82.1	82.4	0.78	3.4	7.0	3.5	3.4	3.6	1.1	13.5
AMHE 90S AA	**2**	1.5	2	2880	5.0	81.0	82.8	82.8	0.80	3.2	8.1	3.6	3.1	4.0	1.56	14.0
AMHE 90L CA	**2**	2.2	3	2860	7.3	82.5	84.0	84.0	0.85	4.4	8.5	3.5	3.2	3.7	1.8	16.0
AMHE 90L DA	**2***	3	4	2880	9.9	85.0	86.0	85.6	0.82	6.1	8.5	3.5	3.3	3.8	2.0	18.0
AMHE 100L AA	**2**	3	4	2920	9.8	84.1	85.8	85.5	0.84	5.9	8.0	3.5	3.0	4.0	4.05	22.8
AMHE 100L BA	**2***	4	5.5	2920	13.1	85.2	86.4	86.1	0.86	7.8	8.2	3.3	3.0	3.8	4.1	22.8
AMHE 112M AA	**2**	4	5.5	2940	13.0	85.5	87.0	86.8	0.88	7.6	8.0	2.9	2.1	3.3	6.48	27.4
AMHE 112M BA	**2***	5.5	7.5	2920	18.0	85.8	87.4	87.3	0.88	10.4	8.0	3.0	2.1	3.2	8.58	34.0
AMHE 112M CA	**2***	7.5	10	2900	24.7	86.5	88.3	88.3	0.87	14.2	8.1	3.0	2.2	3.4	10.50	36.0
AMHE 132S YA	**2**	5.5	7.5	2900	18.1	86.0	88.0	87.9	0.89	10.2	7.3	2.7	2.3	3.2	14.0	46.0
AMHE 132S ZA	**2**	7.5	10	2900	24.7	86.3	88.6	88.4	0.89	13.8	7.5	2.8	2.5	3.3	16.0	53.0
AMHE 132M ZA	**2**	9.2	12.5	2920	30.1	88.4	89.9	90.0	0.87	16.9	8.8	3.2	3.0	3.8	17.5	58.0
AMHE 132M RA	**2***	11	15	2920	36.0	88.1	90.0	89.7	0.90	19.8	7.5	2.8	2.6	3.4	17.5	58.0
AMHE 132M TA	**2***	15	20	2920	49.1	88.9	90.6	90.3	0.89	27.0	7.5	3.0	2.8	3.5	21.0	75.0
AMHE 160M YA	**2**	11	15	2930	35.9	88.9	90.2	90.0	0.87	20.4	7.3	2.4	2.2	3.1	51.75	77.0
AMHE 160M ZA	**2**	15	20	2930	48.9	90.0	91.0	90.8	0.88	27.2	7.6	2.5	2.3	3.1	55.4	87.1
AMHE 160L ZA	**2**	18.5	25	2935	60.2	90.3	91.6	91.2	0.88	33.3	7.9	2.8	2.4	3.4	59.7	97.5
AMHE 160L TA	**2***	22	30	2935	71.6	91.0	91.7	91.5	0.90	38.6	8.3	3.0	2.6	3.7	64.0	108.7
AMHE 180M ZG	**2**	22	30	2930	71.7	90.9	91.8	91.4	0.89	39.04	7.5	2.3	2.0	2.8	98	163
AMHE 200L PG	**2**	30	40	2930	97.8	91.3	92.3	92.4	0.88	53.3	6.7	2.4	2.0	2.7	178	228
AMHE 200L RG	**2**	37	50	2930	120.6	91.6	92.9	92.8	0.90	64.0	6.3	2.3	2.0	2.7	204	242
AMHE 225M PG	**2**	45	60	2940	146.2	92.8	93.3	93.2	0.89	78.3	6.9	2.3	2.0	2.8	285	308
AMHE 250M PG	**2**	55	75	2950	178.0	92.9	93.8	93.7	0.90	94.1	8.0	2.3	1.9	2.7	411	405
AMHE 280S G	**2**	75	100	2960	242.0	93.2	94.5	94.1	0.90	127.8	8.0	2.2	1.9	2.7	791	542
AMHE 280M G	**2**	90	125	2960	290.4	93.6	94.3	94.4	0.91	151.2	7.7	2.2	1.9	2.6	907	596
AMHE 315S G	**2**	110	150	2970	353.7	93.7	94.6	94.8	0.90	186.0	7.7	2.0	1.8	2.3	1702	922
AMHE 315M G	**2**	132	180	2970	424.4	93.6	94.9	95.3	0.90	222.1	7.6	2.0	1.8	2.3	1908	1010
AMHE 315M RG	**2**	160	220	2970	514.5	94.1	95.2	95.3	0.91	266.3	7.8	2.0	1.8	2.3	2117	1085
AMHE 315L G	**2**	200	270	2975	642.0	94.1	95.3	95.4	0.90	336.2	7.9	2.0	1.8	2.3	2438	1220

* Higher output (progressive motor)

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE2 CODE @ 400 V - 50 HZ; IE2 CODE @ 460 V - 60 HZ AND NEMA MG 1 - TABLE 12-11 (EPACT) @ 460 V - 60 HZ

Performance data referred @ 400 V - 50 Hz. For performance data @ 460 V - 60 Hz, please consult us.

FOR MAINS VOLTAGE
400 V - 50 HZ
460 V - 60 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 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 min^{-1} (4 poles)																
AMHE 80Z AA	**4**	0.75	1	1430	5	79.2	80.3	80.2	0.76	1.8	5.5	2.8	2.7	3	2.5	11.0
AMHE 90S AA	**4**	1.1	1.5	1430	7.3	81.4	82.7	82.5	0.77	2.5	6.1	4.0	3.9	4.1	3.73	18.0
AMHE 90L BA	**4**	1.5	2	1430	10	82.0	83.5	83.0	0.77	3.4	6.4	3.9	3.8	4.0	3.73	19.0
AMHE 100L AA	**4**	2.2	3	1450	14.5	84.0	85.3	85.1	0.74	5.1	6.0	3.2	3.0	3.4	5.58	22.4
AMHE 100L BA	**4**	3	4	1440	19.9	85.3	86.6	86.4	0.77	6.5	6.3	3.4	3.1	3.6	7.3	26.5
AMHE 112M AA	**4**	4	5.5	1450	26.3	86.0	87.3	87.1	0.78	8.5	6.1	3.1	2.8	3.3	13.3	30.4
AMHE 132S RA	**4**	5.5	7.5	1450	36.2	87.5	88.3	88.1	0.84	10.8	7.4	3.0	2.4	3.3	30.0	55.0
AMHE 132M TA	**4**	7.5	10	1450	49.4	88.5	89.4	89.2	0.85	14.4	7.4	3.0	2.4	3.3	36.0	65.0
AMHE 160M ZA	**4**	11	15	1460	71.9	89.4	90.3	90.1	0.82	22.0	6.9	2.3	2.1	2.9	105.0	108.0
AMHE 160L ZA	**4**	15	20	1460	98.1	90.6	91.2	91.0	0.84	29.0	7.4	2.5	2.2	3.1	120.7	114.0
AMHE 180M ZG	**4**	18.5	25	1455	121.4	90.9	91.6	91.4	0.85	34.4	7.8	2.4	2.1	3.0	156	160
AMHE 180L ZG	**4**	22	30	1460	143.9	91.1	92.0	91.6	0.84	41.3	7.5	2.3	2.0	3.0	175	175
AMHE 200L RG	**4**	30	40	1460	196.2	90.2	92.8	92.5	0.88	53.2	7.9	2.4	2.0	2.7	281	238
AMHE 225S PG	**4**	37	50	1470	240.4	92.3	92.9	92.8	0.83	69.3	6.7	2.4	2.0	2.7	487	305
AMHE 225M PG	**4**	45	60	1480	290.4	92.5	93.2	93.3	0.83	83.9	7.0	2.3	2.0	2.8	575	310
AMHE 250M PG	**4**	55	75	1480	354.9	93.1	94.0	93.8	0.87	97.3	7.4	2.4	1.9	2.7	728	412
AMHE 280S G	**4**	75	100	1480	483.9	93.2	94.5	94.4	0.90	127.4	7.5	2.2	1.9	2.6	1741	560
AMHE 280M G	**4**	90	125	1480	580.7	93.4	94.8	94.7	0.90	152.4	7.7	2.2	1.9	2.6	2037	665
AMHE 315S G	**4**	110	150	1480	709.8	93.9	95.0	94.9	0.89	188.0	7.8	2.0	1.8	2.3	4026	910
AMHE 315M G	**4**	132	180	1480	851.8	94.0	95.2	95.1	0.90	222.6	7.8	2.0	1.8	2.3	4387	1120
AMHE 315M RG	**4**	160	220	1480	1032.4	94.2	95.3	95.3	0.90	269.3	7.9	2.0	1.8	2.3	4968	1185
AMHE 315LG	**4**	200	270	1480	1290.5	94.3	95.4	95.4	0.90	336.2	7.7	2.0	1.8	2.3	6488	1340

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

FOR MAINS VOLTAGE
400 V - 50 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	75%	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} kgm^2	kg
1000 min^{-1} (6 poles)																
AMEE 90S AA	**6**	0.75	1	925	7.7	75.3	75.8	76.2	0.65	2.2	4.6	1.7	1.6	1.8	4.78	15.0
AMEE 90L BA	**6**	1.1	1.5	935	11.2	78.5	78.7	78.9	0.67	3.0	4.2	1.8	1.8	2.3	6.45	20.3
AMEE 100L AA	**6**	1.1	1.5	950	11.1	75.7	77.6	79.5	0.67	3.0	5.5	1.9	1.9	2.4	7.48	19.4
AMEE 100L BA	**6**	1.5	2	950	15.1	78.5	79.4	79.8	0.77	3.5	6.7	2.4	2.4	2.8	11.6	27.1
AMEE 112M AA	**6**	2.2	3	960	21.9	79.4	81.0	81.8	0.73	5.3	10.4	2.7	1.5	3.7	18.7	39.0
AMEE 132S YA	**6**	3	4	960	29.8	82.3	82.9	83.5	0.58	8.9	9.5	2.2	1.4	3.2	37.7	55.8
AMEE 132M YA	**6**	4	5.5	955	40.0	84.1	84.8	85.2	0.66	10.3	8.9	2.1	1.2	2.9	44.4	65.5
AMEE 132M TA	**6**	5.5	7.5	970	54.1	85.0	86.2	86.5	0.75	12.2	8.4	1.9	1.1	2.7	54.1	64.1
AMEE 160M YA	**6**	5.5	7.5	975	53.9	84.7	85.6	86.1	0.71	13.0	9.2	3.3	3.1	4.2	75.2	70.5
AMEE 160M ZA	**6**	7.5	10	970	73.8	85.8	87.3	87.5	0.78	15.8	7.7	3.0	2.8	3.8	103	96.6
AMEE 160L ZA	**6**	9.2	12.4	965	91.0	86.3	87.4	87.8	0.83	18.1	8.3	3.1	2.7	4.1	125	103
AMEE 160L TA	**6**	11	15	965	108.9	87.9	88.2	88.7	0.79	22.5	9.1	3.1	2.9	3.9	156	129

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO IE2 CODE @ 400 V - 50 HZ; IE2 CODE @ 460 V - 60 HZ AND NEMA MG 1 - TABLE 12-11 (EPACT) @ 460 V - 60 HZ

Performance data referred @ 400 V - 50 Hz. For performance data @ 460 V - 60 Hz, please consult us.

FOR MAINS VOLTAGE
400 V - 50 HZ
460 V - 60 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	75%	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} kgm^2	kg
1000 min^{-1} (6 poles)																
AMHE 180LZG	**6**	15	20	965	148.45	88.5	90.3	90.1	0.83	29.0	7.0	2.3	2.1	2.9	285	172
AMHE 200LPG	**6**	18.5	25	965	183.09	88.9	90.8	90.6	0.84	35.1	7.0	2.4	2.1	3.2	405	225
AMHE 200LRG	**6**	22	30	970	216.6	89.3	91.4	91.2	0.85	41.0	7.0	2.3	1.9	3.1	471	275
AMHE 225MPG	**6**	30	40	975	293.85	89.6	91.7	91.9	0.86	54.8	7.0	2.2	1.9	2.7	801	312
AMHE 250MPG	**6**	37	50	975	362.41	90.7	92.4	92.5	0.84	68.7	7.0	2.3	2.1	2.7	992	386
AMHE 280SG	**6**	45	60	980	438.52	91.6	92.9	92.9	0.85	82.3	7.0	2.3	2.0	2.8	1785	560
AMHE 280MG	**6**	55	75	980	536.0	92.1	93.4	93.3	0.86	98.9	7.0	2.2	1.9	2.7	2208	593
AMHE 315SG	**6**	75	100	985	727.16	93.1	93.8	93.8	0.87	132.7	7.0	2.1	1.9	2.5	4632	741
AMHE 315MG	**6**	90	125	985	872.59	93.3	94.1	94.2	0.88	156.7	7.0	2.0	1.8	2.3	5525	920
AMHE 315MRG	**6**	110	150	980	1071.94	93.2	94.5	94.6	0.89	188.6	6.7	2.0	1.8	2.3	6896	1243
AMHE 315LG	**6**	132	160	980	1286.33	93.7	94.7	94.8	0.88	228.4	6.7	2.0	1.8	2.3	8023	1428

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO EPACT
EFFICIENCY TESTING METHOD CSA C390
VERIFIED BY UL UNDERWRITERS LABORATORIES INC.

NOMINAL FULL LOAD EFFICIENCY ACCORDING TO NEMA MG 1 - TABLE 12-11 (EPACT) AND IE2 CODE

FOR MAINS VOLTAGE
460 V - 60 HZ

IE2 ENERGY C UL US

TEMPERATURE RISE TO CLASS B
S.F. 1.15

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 η 100%	cos φ	I_N 460V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
3600 min^{-1} (2 poles)																
AMH 80Z AA	**2**	0.75	1	3480	2.1	77.1	81.5	83.2	0.80	1.5	6.0	4.5	4.5	4.8	1.1	9.5
AMH 80Z BA	**2**	1.1	1.5	3480	3.0	77.8	81.5	83.3	0.80	2.0	7.0	3.5	3.4	3.7	1.2	11.1
AMH 90S AA	**2**	1.5	2	3470	4.1	83.8	84.9	84.3	0.88	2.7	7.7	3.1	3	3.6	1.6	14
AMH 90L BA	**2**	2.2	3	3500	6.0	85.4	86.6	86.3	0.84	3.9	7.5	4.4	4	4.4	1.8	16
AMH 100L AA	**2**	2.2	3	3530	6.0	86.5	87.9	87.8	0.84	3.9	11.5	4.7	4.1	5.5	3.3	19.7
AMH 100L BA	**2**	3	4	3525	8.1	86.4	87.8	87.7	0.82	5	10.5	5.6	5.3	5.8	4.0	22.8
AMH 112M AA	**2**	3.7	5	3530	10.0	86.1	88.4	88.1	0.84	6.3	14.3	5.7	2.1	5.8	8.6	33.6
AMH 112M AA	**2**	4	5.5	3540	10.8	86.1	88.3	88.0	0.87	6.6	13.7	5.3	1.9	5.4	8.6	33.6
AMH 112M BA	**2***	5.5	7.5	3500	15.0	85.0	88.6	88.5	0.85	9.3	10.9	4.5	2.48	4.3	8.6	34
AMH 132S ZA	**2**	5.5	7.5	3520	14.9	86.1	88.2	88.5	0.87	9.2	7.9	3.3	2.9	3.7	20.5	53
AMH 132S TA	**2**	7.5	10	3510	20.4	89.7	90.1	89.5	0.91	11	8.1	3.4	2.9	3.9	20.5	53
AMH 132M TA	**2**	9.2	12.4	3520	25.0	88.8	89.9	89.5	0.91	14	8.1	3.3	2.9	3.9	25	59
AMH 160M YA	**2**	11	15	3550	29.6	90.1	91	91.0	0.88	17.3	8.7	2.8	2.2	3.6	51.7	87.8
AMH 160M ZA	**2**	15	20	3545	40.4	91.2	89.9	91.0	0.88	23.5	8.7	2.8	2.2	3.6	64	104
AMH 160L ZA	**2**	18.5	25	3550	49.8	91.5	92	91.7	0.87	28.8	8.9	2.8	2.2	3.6	64	105

* Higher output (progressive motor)

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 η 100%	cos φ	I_N 460V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
1800 min^{-1} (4 poles)																
AMH 80Z AA	**4**	0.75	1	1740	4.1	77.8	81.5	82.8	0.72	1.6	6.5	3.3	3.4	3.8	2.4	10.6
AMH 90L AA	**4**	1.1	1.5	1745	6.0	82.2	84.2	84.2	0.76	2.1	7.2	3.8	4	4.6	3.7	16.4
AMH 90L BA	**4**	1.5	2	1735	8.3	82.1	84.4	84.4	0.73	3.1	7.5	4	3.9	4.2	3.7	16.4
AMH 90L CA	**4**	1.8	2.4	1720	10.0	82.2	84.3	84.3	0.77	3.4	7.4	4.4	3.3	4	3.7	16.4
AMH 100L AA	**4**	2.2	3	1750	12.0	85.8	87.6	87.5	0.70	4.6	6.5	3.8	3.1	3.9	5.6	22.4
AMH 100L BA	**4**	3	4	1740	16.5	85.7	87.7	87.6	0.76	5.6	7.4	3	2.8	3.2	7.3	26.5
AMH 112M AA	**4**	3.7	5	1750	20.2	86.3	87.9	87.8	0.79	6.8	6.9	4.2	3.5	4.5	13.3	30.4
AMH 112M AA	**4**	4	5.5	1745	21.9	86.5	88.1	88.0	0.81	7	6.7	3.9	3.2	4.2	13.3	30.4
AMH 132S ZA	**4**	5.5	7.5	1755	29.9	88.8	89.8	89.5	0.84	9.4	7.9	3.4	2.8	3.7	30	56
AMH 132M ZA	**4**	7.5	10	1750	40.9	89.5	90.2	89.5	0.84	12.4	8.1	3.5	2.9	3.8	36	65
AMH 132M TA	**4**	9.2	12.4	1745	50.3	89.2	90	89.5	0.84	16	8.3	3.6	2.9	3.9	36	65
AMH 160M ZA	**4**	11	15	1770	59.3	90.8	91.4	91.0	0.84	18.5	8.6	3.2	2.3	3.4	105.7	108
AMH 160L ZA	**4**	15	20	1770	80.9	91.4	91.6	91.0	0.84	24	8.2	3.2	2.3	3.4	120.7	114

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

FOR MAINS VOLTAGE
400 V - 50 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	75%	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} kgm^2	kg
3000 min^{-1} (2 poles)																
AMEE 71Z AA2	**2***	0.75	1	2820	2.5	73.3	76.5	77.5	0.74	1.9	5.5	3.4	3.2	3.4	0.61	7.2
AMEE 80Z AA2	**2**	0.75	1	2825	2.5	71.7	76.1	77.4	0.74	1.9	5.8	3.4	3.0	3.5	0.75	8.4
AMEE 80Z BA2	**2**	1.1	1.5	2810	3.7	77.6	80.0	79.6	0.80	2.5	5.6	3.0	2.9	3.0	0.96	12.0
AMEE 80Z CA2	**2***	1.5	2	2880	5.0	80.5	82.1	82.4	0.78	3.4	7.0	3.5	3.4	3.6	1.1	13.5
AMEE 90S AA2	**2**	1.5	2	2850	5.0	79.1	81.4	81.3	0.78	3.4	5.0	3.0	3.0	3.1	1.37	12.7
AMEE 90L CA2	**2**	2.2	3	2890	7.3	80.5	83.2	83.6	0.81	4.7	6.8	3.0	3.0	3.2	1.8	16.0
AMEE 90L DA2	**2***	3	4	2870	10.0	82.4	84.5	84.60	0.78	6.6	6.4	3.4	3.4	3.3	2.1	18.7
AMEE 100L AA2	**2**	3	4	2905	9.9	83.5	84.6	84.6	0.87	5.9	6.1	2.1	2.1	2.5	3.3	19.7
AMEE 100L BA2	**2***	4	5.5	2910	13.1	85.3	86.7	86.6	0.83	8.0	6.5	3.2	2.7	3.7	4.1	22.8
AMEE 112M AA2	**2**	4	5.5	2880	13.3	82.8	85.2	85.8	0.79	8.5	6.8	3.2	3.2	3.5	12.2	29.5
AMEE 112M BA2	**2***	5.5	7.5	2920	18.0	85.8	87.4	87.3	0.88	10.4	8.0	3.0	2.1	3.2	8.58	34.0
AMEE 112M CA2	**2***	7.5	10	2900	24.7	86.5	88.3	88.3	0.87	14.2	8.1	3.0	2.2	3.4	10.5	36.0
AMEE 132S YA2	**2**	5.5	7.5	2910	18.0	85.9	87.8	87.8	0.82	11.0	8.2	2.7	2.7	3.2	10.63	37.0
AMEE 132S ZA2	**2**	7.5	10	2910	24.6	89.3	89.5	88.9	0.86	14.1	8.5	3.6	3.5	4.8	13.8	42.6
AMEE 132M ZA2	**2**	9.2	12.5	2920	30.1	89.1	90.4	90.4	0.85	17.2	7.6	3.2	3.1	3.6	16.0	53.0
AMEE 132M RA2	**2***	11	15	2920	36.0	88.1	90.0	89.7	0.90	19.8	7.5	2.8	2.6	3.4	17.5	58.0
AMEE 132M TA2	**2***	15	20	2920	49.1	88.9	90.6	90.3	0.89	27.0	7.5	3.0	2.8	3.5	21.0	61.0
AMEE 160M YA2	**2**	11	15	2935	35.8	87.7	89.4	89.6	0.81	22.0	8.2	2.9	2.2	3.1	40.0	77.0
AMEE 160M ZA2	**2**	15	20	2950	48.6	89.9	90.8	91.1	0.85	27.8	5.4	1.8	1.6	2.3	51.8	77.0
AMEE 160L ZA2	**2**	18.5	25	2930	60.3	89.0	90.6	90.9	0.81	36.3	6.8	2.5	2.2	3.0	53.4	88.9
AMEE 160L TA2	**2**	22	30	2935	71.6	91.0	91.7	91.5	0.90	38.6	8.3	3.0	2.6	3.7	64.0	108.7

* Higher output (progressive motor)

HIGH EFFICIENCY THREE-PHASE MOTORS – IE2

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

FOR MAINS VOLTAGE
400 V - 50 HZ

IE2

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 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} kgm^2	kg
1500 min^{-1} (4 poles)																
AMEE 80Z AA4	**4**	0.75	1	1425	5.0	80.0	81.5	81.5	0.74	1.8	5.0	2.5	2.4	2.7	2.3	9.9
AMEE 80Z BA4	**4***	1.1	1.5	1420	7.4	78.3	81.0	81.4	0.72	2.7	4.8	2.8	2.7	2.8	2.5	11.0
AMEE 90S AA4	**4**	1.1	1.5	1420	7.4	78.5	81.1	81.4	0.71	2.7	7.7	3.8	3.7	3.8	2.7	11.5
AMEE 90L BA4	**4**	1.5	2	1415	10.1	81.3	82.8	82.8	0.69	3.8	5.1	3.4	3.4	3.5	3.1	14.5
AMEE 90L CA4	**4**	1.8	2.4	1420	12.1	84.1	84.9	84.0	0.77	4.0	7.8	3.9	3.8	4.1	3.7	16.4
AMEE 100L AA4	**4**	2.2	3	1440	14.6	83.0	84.6	84.3	0.77	4.9	5.8	2.7	2.6	3.1	5.6	22.5
AMEE 100L BA4	**4**	3	4	1430	20.0	83.7	84.9	85.5	0.74	6.8	7.3	2.8	2.5	3.0	6.05	25.0
AMEE 112M AA4	**4**	4	5.5	1450	26.3	86.0	87.3	87.1	0.78	8.5	6.1	3.1	2.8	3.3	13.3	30.4
AMEE 112M BA4	**4***	5.5	7.5	1445	36.3	86.8	88.3	88.1	0.78	11.6	8.6	2.8	2.6	3.3	17.4	38.9
AMEE 132S RA4	**4**	5.5	7.5	1455	36.1	86.2	86.9	87.8	0.76	11.8	7.9	3.1	3.0	3.4	26.5	49.0
AMEE 132M TA4	**4**	7.5	10	1450	49.4	88.5	89.4	89.2	0.85	14.4	7.4	3.0	2.4	3.3	36.0	65.0
AMEE 132M ZA4	**4**	9.2	12.4	1450	60.5	86.9	89.2	89.3	0.77	19.5	8.4	3.6	2.9	3.9	42.0	76.0
AMEE 160M ZA4	**4**	11	15	1460	71.9	89.4	90.3	90.1	0.82	22.0	6.9	2.3	2.1	2.9	105.0	108.0
AMEE 160L ZA4	**4**	15	20	1460	98.1	90.6	91.2	91.0	0.84	29.0	7.4	2.5	2.2	3.1	120.7	114.0

* Higher output (progressive motor)

Type		kW	HP	min^{-1}	M_N Nm	IE2 η 50%	IE2 η 75%	IE2 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} kgm^2	kg
1000 min^{-1} (6 poles)																
AMEE 90S AA	**6**	0.75	1	925	7.7	75.3	75.8	76.2	0.65	2.2	4.6	1.7	1.6	1.8	4.78	15.0
AMEE 90L BA	**6**	1.1	1.5	935	11.2	78.5	78.7	78.9	0.67	3.0	4.2	1.8	1.8	2.3	6.45	20.3
AMEE 100L AA	**6**	1.1	1.5	950	11.1	75.7	77.6	79.5	0.67	3.0	5.5	1.9	1.9	2.4	7.48	19.4
AMEE 100L BA	**6**	1.5	2	950	15.1	78.5	79.4	79.8	0.77	3.5	6.7	2.4	2.4	2.8	11.6	27.1
AMEE 112M AA	**6**	2.2	3	960	21.9	79.4	81.0	81.8	0.73	5.3	10.4	2.7	1.5	3.7	18.7	39.0
AMEE 132S YA	**6**	3	4	960	29.8	82.3	82.9	83.5	0.58	8.9	9.5	2.2	1.4	3.2	37.7	55.8
AMEE 132M YA	**6**	4	5.5	955	40.0	84.1	84.8	85.2	0.66	10.3	8.9	2.1	1.2	2.9	44.4	65.5
AMEE 132M TA	**6**	5.5	7.5	970	54.1	85.0	86.2	86.5	0.75	12.2	8.4	1.9	1.1	2.7	54.1	64.1
AMEE 160M YA	**6**	5.5	7.5	975	53.9	84.7	85.6	86.1	0.71	13.0	9.2	3.3	3.1	4.2	75.2	70.5
AMEE 160M ZA	**6**	7.5	10	970	73.8	85.8	87.3	87.5	0.78	15.8	7.7	3.0	2.8	3.8	103	96.6
AMEE 160L ZA	**6**	9.2	12.4	965	91.0	86.3	87.4	87.8	0.83	18.1	8.3	3.1	2.7	4.1	125	103
AMEE 160L TA	**6**	11	15	965	108.9	87.9	88.2	88.7	0.79	22.5	9.1	3.1	2.9	3.9	156	129

STANDARD EFFICIENCY THREE-PHASE MOTORS – IE1

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

IE code not applicable to motors 2, 4, 6 poles with P_N < 0.75 kW. Efficiency testing method: IEC 60034-2;1996

FOR MAINS VOLTAGE
400 V - 50 HZ

IE1

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE1 η 50%	75%	100%	cos φ	I_N 400V	380-420V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
3000 min^{-1} (2 poles)																	
AM 56Z AA	**2**	0.09	0.12	2810	0.3	49.0	53.0	59.0	0.67	0.35	0.40	3.9	3.8	3.8	3.9	0.09	3.4
AM 56Z BA	**2**	0.12	0.16	2800	0.4	51.0	56.0	62.0	0.68	0.40	0.45	3.5	3.4	3.4	3.5	0.10	3.5
AM 63Z AA	**2**	0.18	0.25	2790	0.6	54	58	63.0	0.73	0.60	0.65	3.7	3.0	3.0	3.1	0.14	3.6
AM 63Z BA	**2**	0.25	0.33	2790	0.9	57	62	66.0	0.70	0.80	0.75	4.5	3.2	3.2	3.3	0.17	4.1
AM 63Z CA	**2***	0.37 [1]	0.50 [1]	2800	1.3	54	58	65.0	0.70	1.20	1.25	4.6	3.4	3.3	3.4	0.20	4.4
AM 71Z AA	**2**	0.37	0.50	2820	1.3	58.0	64.0	70.0	0.78	1.0	1.2	4.7	3.6	3.4	3.6	0.32	5.8
AM 71Z BA	**2**	0.55	0.75	2830	1.9	57.0	64.0	71.0	0.77	1.5	1.6	4.8	3.2	3.1	3.3	0.37	6.2
AM 71Z CA	**2***	0.75 [1]	1 [1]	2800	2.6	58.9	65.7	72.6	0.76	2.0	2.1	5.2	3.1	3.2	3.1	0.48	7.2
AM 80Z AA	**2**	0.75	1	2840	2.5	66.3	71.5	73.0	0.78	1.9	2.0	5.0	2.8	2.8	2.9	0.6	8.4
AM 80Z BA	**2**	1.1	1.5	2810	3.7	72.1	75.0	75.3	0.82	2.5	2.6	4.6	2.4	2.8	2.9	0.75	9.5
AM 80Z CA	**2***	1.5 [1]	2 [1]	2825	5.1	74.7	77.5	77.8	0.83	3.3	3.4	5.0	2.9	3.0	3.3	1.92	11.1
AM 90S AA	**2**	1.5	2	2830	5.1	75.6	78.7	78.6	0.82	3.4	3.5	5.0	3.1	2.9	3.0	1.23	12.7
AM 90S BA	**2***	1.8	2.5	2805	6.1	74.9	78.0	78.2	0.80	4.2	4.3	4.5	2.6	2.4	2.5	1.23	12.7
AM 90L CA	**2**	2.2	3	2860	7.3	81.5	82.8	81.8	0.81	4.9	4.9	7.1	4.1	3.6	4.0	1.68	16.0
AM 90L DA	**2***	3 [1]	4 [1]	2860	10.0	78.7	81.8	82.2	0.80	6.6	6.8	7.2	3.9	3.4	3.8	2.16	18.7
AM 100L AA	**2**	3	4	2860	10.0	78.9	81.4	81.5	0.85	6.4	6.7	6.0	3.1	3.1	3.3	2.36	19.3
AM 100L BA	**2***	4 [1]	5.5 [1]	2835	13.5	81.1	82.5	81.7	0.88	8.0	8.1	6.2	2.9	2.5	2.9	2.90	19.7
AM 100L CA	**2***	5.5 [1]	7.5 [1]	2865	18.3	83.7	84.6	83.3	0.86	11.1	11.3	7.2	3.5	3.4	4.1	3.90	25.9
AM 112M AA	**2**	4	5.5	2880	13.3	81.9	84.0	83.5	0.82	8.4	8.7	8.0	3.4	3.5	3.6	4.65	24.3
AM 112M BA	**2***	5.5	7.5	2900	18.1	83.6	84.7	85.0	0.86	10.9	11.2	7.8	3.5	3.4	3.6	5.80	27.4
AM 112M CA	**2***	7.5	10	2900	24.7	86.7	87.8	87.1	0.87	14.3	14.8	8.7	4.0	3.9	4.0	8.50	33.6
AM 132S YA	**2**	5.5	7.5	2890	18.2	83.2	84.7	85.0	0.83	11.3	11.4	6.0	2.2	2.1	2.3	9.50	37.0
AM 132S ZA	**2**	7.5	10	2880	24.9	85.6	86.7	86.1	0.87	14.5	14.9	6.4	2.9	2.7	3.1	12.30	42.6
AM 132M ZA	**2***	9.2	12.5	2900	30.3	84.7	86.8	87.0	0.84	18.4	18.8	7.0	2.8	2.4	3.2	13.20	48.0
AM 132M RA	**2***	11	15	2880	36.5	87.1	88.1	88.0	0.85	21.3	21.7	6.9	3.2	2.8	3.8	16.00	52.5
AM 132M TA	**2***	15 [1]	20 [1]	2920	49.1	86.4	88.6	88.9	0.83	29.5	30.5	7.0	3.2	2.8	3.7	21.20	59.0
AM 160M VA	**2**	11	15	2940	35.7	83.4	86.4	87.7	0.83	21.9	22.7	7.4	2.5	2.3	3.1	33.10	77.0
AM 160M XA	**2**	15	20	2940	48.7	87.3	88.9	88.9	0.85	28.6	29.2	8.1	3.1	2.6	3.7	43.90	94.0
AM 160L XA	**2**	18.5	25	2950	59.9	88.2	89.7	89.6	0.87	34.3	34.8	8.5	3.6	3.0	4.2	57.00	107.8
AM 160L RA	**2***	22	30	2940	71.5	88.7	90.5	90.4	0.90	39.1	39.4	8.4	3.0	2.6	3.7	57.00	108.7

1) Temperature rise to class F
* Higher output (progressive motor)

STANDARD EFFICIENCY THREE-PHASE MOTORS – IE1

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

IE code not applicable to motors 2, 4, 6 poles with P_N < 0.75 kW. Efficiency testing method: IEC 60034-2;1996

FOR MAINS VOLTAGE
400 V - 50 HZ

IE1

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE1 η 50%	75%	100%	cos φ	I_N 400V	380-420V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
1500 min^{-1} (4 poles)																	
AM 56Z AA	**4**	0.06	0.08	1300	0.4	42.0	44.0	48.0	0.70	0.28	0.32	2.6	2.1	2.0	2.1	0.14	2.7
AM 56Z BA	**4**	0.09	0.12	1330	0.6	43.0	47.0	51.0	0.74	0.35	0.40	2.5	2.2	2.1	2.2	0.16	2.9
AM 63Z AA	**4**	0.12	0.16	1350	0.8	46.0	50.0	57.0	0.65	0.50	0.55	2.4	2.0	1.9	2.0	0.25	3.3
AM 63Z BA	**4**	0.18	0.25	1330	1.3	47.0	50.0	58.0	0.70	0.65	0.70	2.3	1.9	1.8	1.9	0.27	4.1
AM 63Z CA	**4***	0.25	0.33	1360	1.8	49.0	52.5	58.0	0.74	0.85	0.90	2.7	2.2	2.0	2.1	0.30	4.2
AM 71Z AA	**4**	0.25	0.33	1340	1.8	55.0	59.0	64.0	0.66	0.90	1.00	3.2	1.9	1.8	2.0	0.65	5.7
AM 71Z BA	**4**	0.37	0.50	1370	2.6	60.0	63.0	67.0	0.67	1.20	1.25	3.3	2.2	2.1	2.2	0.76	6.0
AM 71Z CA	**4***	0.55 [1]	0.75 [1]	1380	3.8	61.0	64.0	69.0	0.68	1.70	1.80	3.6	2.4	2.3	2.4	1.00	7.3
AM 80Z AA	**4**	0.55	0.75	1400	3.8	67.0	69.0	70.0	0.72	1.6	1.7	3.6	2.6	2.5	2.6	1.38	8.2
AM 80Z BA	**4**	0.75	1	1410	5.1	68.7	70.8	72.4	0.72	2.1	2.2	4.4	2.8	2.3	2.8	1.78	9.3
AM 80Z CA	**4***	1.1 [1]	1.5 [1]	1385	7.6	73.4	75.7	75.2	0.77	2.8	2.9	4.4	2.5	2.5	2.6	2.18	10.6
AM 90S AA	**4**	1.1	1.5	1400	7.5	75.8	76.0	75.4	0.78	2.7	2.9	5.2	2.5	2.4	2.8	2.20	12.5
AM 90L BA	**4**	1.5	2	1400	10.2	77.6	77.8	77.5	0.78	3.6	3.7	5.7	2.8	2.6	3.0	2.80	14.5
AM 90L CA	**4**	1.8 [1]	2.5 [1]	1380	12.5	76.3	76.5	75.9	0.81	4.2	4.3	5.5	2.7	2.5	2.9	3.35	14.5
AM 90L DA	**4***	2.2 [1]	3 [1]	1400	15.0	78.3	78.5	77.9	0.77	5.3	5.5	4.8	2.9	2.8	3.2	3.65	17.0
AM 100L AA	**4**	2.2	3	1435	14.6	76.5	79.1	79.9	0.74	5.4	5.6	5.3	2.5	2.4	2.7	4.50	19.5
AM 100L BA	**4**	3	4	1425	20.1	82.0	83.0	81.6	0.78	6.8	6.9	4.6	2.4	2.3	2.5	5.75	22.5
AM 100L CA	**4***	4 [1]	5.5 [1]	1400	27.3	80.8	81.8	80.4	0.78	9.2	9.3	6.0	2.6	2.4	2.9	6.30	25.0
AM 112M AA	**4**	4	5.5	1430	26.7	83.2	83.9	83.1	0.82	8.5	8.8	6.3	2.2	2.0	2.8	10.70	29.5
AM 112M BA	**4***	5.5 [1]	7.5 [1]	1430	36.7	84.1	84.8	84.0	0.83	11.4	11.7	6.5	2.2	2.0	2.9	13.50	34.0
AM 132S ZA	**4**	5.5	7.5	1430	36.7	87.2	87.1	86.1	0.82	11.3	11.7	5.8	3.0	2.7	3.0	21.20	41.9
AM 132M ZA	**4**	7.5	10	1440	49.7	87.3	87.2	86.2	0.83	15.3	15.5	6.8	3.1	2.7	3.1	27.80	51.0
AM 132M RA	**4**	9.2	12.5	1440	61.0	86.5	87.5	87.3	0.86	17.7	17.9	8.0	3.5	3.2	3.5	31.50	65.0
AM 132M TA	**4***	11.0 [1]	15 [1]	1440	72.9	83.5	83.9	84.5	0.87	21.5	22.0	8.3	3.1	3.0	3.3	31.50	65.0
AM 160M XA	**4**	11	15	1460	71.9	88.5	89.3	88.7	0.80	22.4	22.7	7.5	2.5	2.2	3.1	66.8	88.5
AM 160L XA	**4**	15	20	1460	98.1	89.4	90.2	89.6	0.84	28.8	29.6	7.0	2.5	2.2	3.3	87.8	106.5
AM 160L ZA	**4***	18.5	25	1460	121.8	89.9	90.7	90.1	0.84	35.4	36	7.6	2.5	2.2	3.3	100.50	117.3
AM 160L RA	**4***	22	30	1460	143.9	90.4	91.2	90.6	0.86	41.0	42	7.8	2.4	2.2	3.2	112.50	128.1

1) Temperature rise to class F
* Higher output (progressive motor)

STANDARD EFFICIENCY THREE-PHASE MOTORS – IE1

EFFICIENCY LEVEL ACCORDING TO IEC 60034-30;2008
EFFICIENCY TESTING METHOD IEC 60034-2-1;2007

IE code not applicable to motors 2, 4, 6 poles with P_N < 0.75 kW. Efficiency testing method: IEC 60034-2;1996

FOR MAINS VOLTAGE
400 V - 50 HZ

IE1

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	IE1 η 50%	75%	100%	cos φ	I_N 400V	380-420V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
1000 min^{-1} (6 poles)																	
AM 71Z AA	**6**	0.18	0.25	880	2.0	46.0	48.0	53.0	0.60	0.85	0.9	2.2	1.6	1.5	1.6	1.00	6.1
AM 71Z BA	**6**	0.25 [1]	0.33 [1]	880	2.7	46.0	50.0	54.0	0.62	1.10	1.2	2.5	1.7	1.6	1.7	1.19	6.6
AM 80Z AA	**6**	0.37	0.5	920	3.8	47.0	58.0	60.0	0.70	1.25	1.3	2.7	1.6	1.6	2.1	1.83	8.0
AM 80Z BA	**6**	0.55	0.75	920	5.7	60.0	64.0	68.0	0.67	1.75	1.8	2.9	2.2	2.1	2.1	2.36	9.4
AM 90S AA	**6**	0.75	1	910	7.9	70.5	72.5	71.5	0.63	2.4	2.5	2.9	1.7	1.5	1.7	2.90	11.6
AM 90L BA	**6**	1.1	1.5	920	11.4	72.0	73.5	73.0	0.66	3.3	3.4	3.0	1.7	1.5	1.7	4.38	15.0
AM 100L AA	**6**	1.5	2	930	15.4	73.3	75.8	75.3	0.69	4.2	4.4	3.7	1.8	1.8	2.3	6.35	17.5
AM 100L BA	**6**	1.8	2.5	940	18.3	74.6	77.1	76.6	0.67	5.1	5.3	4.2	2.4	2.4	2.8	9.00	22.0
AM 112M AA	**6**	2.2	3	940	22.4	77.0	79.0	78.0	0.74	5.3	5.4	4.4	2.4	2.4	2.6	12.85	26.0
AM 112M CA	**6***	3	4	940	30.5	81.8	82.8	82.8	0.74	7.0	7.2	5.3	2.9	2.9	2.9	17.90	39.0
AM 132S ZA	**6**	3	4	950	30.2	79.5	81.5	81.3	0.72	7.4	7.5	4.9	2.0	1.8	2.4	21.40	36.7
AM 132M YA	**6**	4	5.5	950	40.2	81.4	83.1	82.7	0.71	9.9	10.5	4.5	2.2	2.0	2.5	28.90	42.5
AM 132M ZA	**6**	5.5	7.5	950	55.3	82.2	83.6	83.6	0.71	13.5	13.5	4.1	2.2	1.9	2.2	37.40	55.5
AM 132M TA	**6***	7.5 [1]	10 [1]	960	74.6	82.8	83.5	82.9	0.75	17.4	17.6	5.0	2.3	1.9	2.8	46.70	64.1
AM 160M ZA	**6**	7.5	10	970	73.8	84.4	86.5	86.3	0.78	16.0	16.3	6.2	2.8	2.7	3.2	103	96.6
AM 160L ZA	**6**	11	15	960	109.4	88.1	88.5	87.8	0.78	23.4	24.0	6.0	2.5	2.2	3.5	136	113.6

1) Temperature rise to class F
* Higher output (progressive motor)

EFFICIENCY TESTING METHOD IEC 60034-2-1;1996

Type		kW	HP	min^{-1}	M_N Nm	η 50%	75%	100%	cos φ	I_N 400V	380-420V	I_A/I_N	M_A/M_N	M_S/M_N	M_K/M_N	J 10^{-3} kgm^2	kg
750 min-1 (8 poles)																	
AM 71Z AA	**8**	0.12	0.16	670	1.7	40	44	50	0.55	0.65	0.7	2.4	2.5	2.4	2.5	0.76	6.0
AM 80Z AA	**8**	0.25	0.33	680	3.5	40	47	51	0.62	1.1	1.2	2.2	1.8	1.9	2.0	1.83	8.0
AM 90S AA	**8**	0.37	0.5	680	5.2	52	58	59	0.53	1.7	1.8	2.1	1.4	1.3	1.6	2.91	11.4
AM 90L BA	**8**	0.55	0.75	680	7.7	52	58	59	0.54	2.5	2.7	2.1	1.4	1.3	1.6	4.40	15.0
AM 100L AA	**8**	0.75	1	690	10.4	59	64	65	0.65	2.6	2.8	3.0	1.6	1.5	1.7	6.35	17.6
AM 100L BA	**8**	1.1	1.5	690	15.2	59	67	68	0.62	3.9	4.0	3.0	1.9	1.3	1.6	9.00	22.6
AM 112M AA	**8**	1.5	2	696	20.6	66	69	70	0.66	4.6	4.8	4.0	1.8	2.0	2.4	15.35	35.0
AM 132S ZA	**8**	2.2	3	710	29.6	79.3	80.5	78.8	0.64	6.4	6.6	3.4	1.7	1.6	1.7	28.90	45.5
AM 132M ZA	**8**	3	4	710	40.4	81.3	82.0	79.8	0.67	8.1	9.2	3.6	1.7	1.6	1.9	37.40	54.5
AM 160M YA	**8**	4	5.5	700	54.6	84.9	84.5	84.4	0.72	9.5	9.7	4.5	1.8	1.6	2.2	76.70	75.0
AM 160M ZA	**8**	5.5	7.5	720	72.9	85.6	85.2	85.0	0.73	12.8	13.3	4.0	1.8	1.6	2.3	103.70	92.0
AM 160L ZA	**8**	7.5	10	710	100.9	86.3	85.8	85.5	0.74	17.1	17.8	4.0	1.8	1.6	2.3	136.00	113

DESIGNED FOR RANGE
OF RATED VOLTAGE
380-420 V ± 5% - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1500/3000 min^{-1} (4/2 poles) - Dahlander connection Δ/YY													
AM 63Z AA	**4/2**	0.20/0.30	0.27/0.40	1345/2700	1.4/1.1	56/65	0.65/0.81	0.8/0.83	0.89/0.88	2.4/3.2	2.1/2.1	0.40	4.6
AM 71Z AA	**4/2**	0.30/0.45	0.40/0.65	1374/2830	2.1/1.5	61/66	0.78/0.73	1.0/1.35	1.2/1.5	3.3/3.0	2.3/2.1	0.76	6.3
AM 80Z AA	**4/2**	0.45/0.60	0.65/0.80	1390/2760	3.1/2.1	64/68.8	0.75/0.80	1.4/1.6	1.5/1.7	3.8/4.0	2.3/2.2	1.58	8.3
AM 80Z BA	**4/2**	0.55/0.75	0.75/1.0	1435/2850	3.7/2.5	70/71.2	0.67/0.77	1.7/2.0	1.8/2.1	4.5/5.0	2.6/2.8	2.00	11.5
AM 80Z CA	**4/2**	0.8/1.1	1.1/1.5	1425/2830	5.4/3.7	76.1/77.2	0.70/0.79	2.2/2.6	2.5/2.8	4.5/4.9	2.5/2.7	2.41	14.7
AM 90L AA	**4/2**	1.2/1.55	1.6/2.1	1435/2850	8/5.2	77.4/78.3	0.71/0.79	3.2/3.7	3.4/3.9	4.7/5.1	2.6/2.7	3.10	15.6
AM 90L BA	**4/2**	1.6/2.0 [1]	2.15/2.7 [1]	1390/2810	11/6.8	73.5/75.5	0.78/0.86	4.0/4.6	4.1/4.7	4.1/5.5	2.7/2.6	3.73	17.1
AM 100L AA	**4/2**	1.8/2.5	2.5/3.35	1420/2865	12.1/8.3	78.5/77.4	0.76/0.84	4.5/5.6	4.7/5.8	5.2/5.5	2.2/2.2	4.60	21.4
AM 100L BA	**4/2**	2.2/3.0	3.0/4.0	1410/2830	14.9/10.1	74.6/71.4	0.72/0.82	5.9/7.4	6.1/7.7	4.2/4.3	1.8/2.0	4.60	22.5
AM 100L CA	**4/2**	2.6/3.3	3.5/4.4	1430/2890	17.4/10.9	82.6/78.6	0.78/0.76	5.9/8.0	6.1/8.5	4.7/5.5	1.9/2.2	5.58	23.2
AM 112M AA	**4/2**	3.3/4.4	4.4/5.9	1410/2800	22.4/15	77.4/75.4	0.82/0.85	7.5/9.9	7.8/10.6	4.5/5.1	2.1/2.4	13.30	36.1
AM 132S ZA	**4/2**	4.4/5.5	6.0/7.5	1450/2925	29/18	83.0/84.6	0.70/0.87	11.0/10.8	12.0/11.8	4.4/7.2	2.2/2.7	13.83	42.6
AM 132M ZA	**4/2**	6.6/8.1	9.0/11.0	1460/2920	43.2/26.5	85.4/84.5	0.76/0.90	14.7/15.4	15.5/16.4	5.5/7.5	2.6/2.9	17.13	51.4
AM 160M ZA	**4/2**	8.8/11.0	12.0/15.0	1460/2940	57.6/35.7	87.1/87.5	0.79/0.91	18.5/20.0	19.0/21.0	5.5/7.5	2.0/1.9	51.75	94.0
AM 160L ZA	**4/2**	12.5/15.0	17.0/20.4	1470/2955	81.2/48.5	89.4/90.0	0.74/0.90	27.4/26.8	29.0/28.2	4.8/7.4	2.1/2.3	64.00	108.7

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
750/1500 min^{-1} (8/4 poles) - Dahlander connection Δ/YY													
AM 71Z AA	**8/4**	0.09/0.15	0.12/0.20	610/1310	1.4/1.1	40/56	0.61/0.75	0.53/0.52	0.59/0.57	2.5/3.2	1.6/1.6	0.71	6.3
AM 80Z AA	**8/4**	0.18/0.37	0.25/0.50	700/1370	2.5/2.6	43.2/58.7	0.63/0.83	1.0/1.1	1.1/1.2	2.6/3.4	1.8/1.6	1.97	7.9
AM 80Z BA	**8/4**	0.26/0.51	0.35/0.68	700/1360	3.5/3.6	44.1/61.2	0.60/0.88	1.2/1.4	1.3/1.5	2.5/3.6	2.0/1.6	2.47	9.2
AM 90S AA	**8/4**	0.37/0.75	0.50/1.0	690/1385	5.1/5.2	52.2/67.1	0.58/0.82	1.8/2.0	1.9/2.1	2.8/3.9	1.9/1.8	3.18	13.5
AM 90L BA	**8/4**	0.5/1.0	0.67/1.34	690/1410	6.9/6.8	52.2/72.5	0.58/0.80	2.4/2.4	2.5/2.5	3.3/4.0	2.3/1.9	4.78	15.7
AM 100L AA	**8/4**	0.7/1.4	0.94/1.9	700/1440	9.5/9.3	57.2/78.5	0.50/0.78	3.5/3.3	3.7/3.4	2.8/4.3	2.1/1.9	5.58	21.9
AM 100L BA	**8/4**	0.9/1.8 [1]	1.2/2.5 [1]	690/1415	12.5/12.1	62/76	0.56/0.87	3.8/4.0	4.0/4.3	2.5/4.5	1.9/1.8	6.00	23.7
AM 112M AA	**8/4**	1/1.8	1.34/2.5	710/1445	13.5/11.9	66.1/78.5	0.61/0.82	4.1/4.1	4.4/4.2	3.9/6.3	2.2/2.1	14.18	31.7
AM 112M BA	**8/4**	1.3/2.6 [1]	1.75/3.0 [1]	705/1420	17.6/17.5	70.0/76.3	0.65/0.88	4.6/5.7	4.8/5.9	3.2/4.8	2.1/2.0	16.70	34.2
AM 132S ZA	**8/4**	2.1/3.7	2.9/5.0	710/1440	28.2/24.5	70.2/76.1	0.66/0.84	6.5/8.4	6.7/8.6	4.0/5.2	1.9/1.7	29.50	42.5
AM 132M ZA	**8/4**	2.6/4.8	3.5/6.5	715/1450	34.7/31.6	71.6/78.8	0.60/0.80	8.8/11.0	9.8/12.0	4.3/5.5	2.3/1.8	37.75	55.5
AM 160M YA	**8/4**	4.0/6.3	5.5/8.6	710/1410	53.8/42.7	80.0/81.0	0.64/0.88	11.3/12.8	12.3/13.5	4.6/6.5	1.8/ 1.7	81.25	88.5
AM 160L YA	**8/4**	4.8/7.5	6.5/10.0	730/1470	62.8/48.7	80.0/85.0	0.65/0.85	13.2/15.0	14.0/16.0	4.5/6.5	1.8/1.6	105.75	106.5
AM 160L ZA	**8/4**	5.9/10.3	8.0/14.0	725/1450	77.7/67.8	81.0/87.0	0.66/0.88	16.1/19.5	17.0/20.4	5.0/6.0	1.9/1.6	127.50	110.5

1) Temperature rise to class F

DESIGNED FOR RANGE
OF RATED VOLTAGE
380-420 V ± 5% - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1500/1000 min^{-1} (4/6 poles) - separate windings													
AM 71Z AA	**4/6**	0.22/0.15	0.30/0.20	1430/900	1.5/1.6	61/44	0.7/0.64	0.78/0.68	0.83/0.73	1.9/3.4	1.5/1.8	0.73	6.2
AM 80Z AA	**4/6**	0.37/0.26	0.50/0.35	1385/905	2.6/2.7	61.4/48.1	0.82/0.80	1.1/1.0	1.1/1.1	3.7/2.6	1.7/1.3	1.97	8.3
AM 80Z BA	**4/6**	0.55/0.37	0.75/0.50	1380/900	3.8/3.9	60.5/51.1	0.64/0.82	1.5/1.3	1.6/1.4	3.7/2.7	1.6/1.2	2.47	10.0
AM 90S AA	**4/6**	0.75/0.5	1.0/0.67	1400/930	5.1/5.1	63/64	0.81/0.61	2.2/1.9	2.3/2.1	3.0/3.5	1.4/1.8	4.10	13.4
AM 90L BA	**4/6**	1/0.65	1.34/0.87	1380/920	6.9/6.7	68.8/67.1	0.81/0.62	2.6/2.3	2.8/2.5	2.9/3.4	1.1/1.6	4.78	16.4
AM 100L AA	**4/6**	1.2/0.8	1.6/1.07	1460/940	7.8/8.1	76.0/67.9	0.66/0.70	3.5/2.5	3.8/2.6	4.7/3.0	2.1/1.5	4.60	24.4
AM 100L BA	**4/6**	1.6/1.0	2.15/1.34	1445/935	10.6/10.2	77.6/69.5	0.73/0.63	4.1/3.3	4.3/3.5	5.8/3.0	2.8/1.7	5.58	33.2
AM 112M AA	**4/6**	1.8/1.3	2.5/1.75	1445/950	11.9/13.1	74.6/69.5	0.85/0.78	4.2/3.6	4.4/3.7	5.9/3.8	1.9/1.3	14.18	33.3
AM 112M BA	**4/6**	2.6/1.85	3.5/2.5	1445/950	17.2/18.6	73.8/71.6	0.86/0.73	6.0/5.2	6.2/5.4	6.1/4.4	2.0/1.7	17.53	37.0
AM 132S ZA	**4/6**	3.1/2.2	4.2/3.0	1440/965	20.6/21.8	80/78	0.80/0.74	7/5.5	7.5/6	5.8/5.6	2.1/2.0	22.4	41.9
AM 132M ZA	**4/6**	4.0/2.6	5.5/3.5	1470/975	26/25.5	81.0/79.3	0.83/0.74	8.6/6.4	9.3/7.0	7.7/5.2	2.0/1.9	29.25	51.0
AM 160M YA	**4/6**	5.5/3.7	7.5/5.0	1480/970	35.5/36.4	84.0/81.4	0.79/0.73	12.0/9.0	12.9/9.6	7.5/4.5	2.5/1.6	81.25	88.5
AM 160M ZA	**4/6**	7.5/4.8	10.2/6.5	1465/960	48.9/47.7	85.0/82.6	0.83/0.75	15..4/11.2	15.8/11.5	7.4/4.6	2.4/1.6	81.25	88.5
AM 160L ZA	**4/6**	11.0/6.6	15.0/9.0	1470/960	71.5/65.7	86.0/83.8	0.86/0.75	21.6/15.2	22.5/16.0	7.2/5.0	2.3/1.8	105.75	106.5

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1000/750 min^{-1} (6/8 poles) - separate windings													
AM 80Z AA	**6/8**	0.37/0.18	0.50/0.25	915/700	3.9/2.5	51.1/44.2	0.81/0.65	1.3/1.0	1.4/1.0	2.8/2.5	1.4/1.7	2.47	9.5
AM 90L AA	**6/8**	0.55/0.30	0.75/0.40	950/710	5.5/4	65.2/45.1	0.62/0.52	2.0/1.8	2.1/1.9	3.9/2.6	2.5/1.9	4.78	16.2
AM 100L AA	**6/8**	0.75/0.45	1.0/0.60	960/720	7.5/6	72.6/61.8	0.67/0.54	2.2/2.0	2.3/2.1	4.1/2.9	1.9/1.9	6.73	23.4
AM 112M AA	**6/8**	0.95/0.65	1.3/0.90	965/715	9.4/8.7	65.2/62.1	0.78/0.70	3.0/2.2	3.2/2.3	4.5/3.8	1.4/1.7	14.18	32.0
AM 112M BA	**6/8**	1.5/0.75	2.0/1.0	970/720	14.8/9.9	75.3/64.6	0.66/0.60	4.4/2.8	4.6/3.0	4.6/3.8	2.2/2.1	18.70	36.2
AM 132S ZA	**6/8**	2.2/1.2	3.0/1.6	970/730	21.7/15.7	73.5/66.0	0.69/0.60	6.3/4.4	6.6/4.8	4.5/3.7	1.6/1.7	29.5	42.5
AM 132M ZA	**6/8**	3.0/1.7	4.1/2.3	980/730	29.2/22.2	78.2/72.5	0.72/0.64	7.7/5.3	8.2/5.9	5.4/4.3	1.7/1.7	37.75	55.5
AM 160M YA	**6/8**	4.8/2.6	6.5/3.5	970/730	47.3/34	83.0/74.0	0.80/0.70	10.5/7.3	11.0/7.7	4.8/3.6	1.9/1.8	112.7	88.0
AM 160M ZA	**6/8**	5.9/3.3	8.0/4.5	970/730	58.1/43.2	83.2/73.0	0.76/0.60	13.5/10.9	14.5/11.4	6.5/5.0	2.2/2.1	150.25	97.5

DESIGNED FOR RANGE
OF RATED VOLTAGE
380-420 V ± 5% - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

TEMPERATURE RISE TO CLASS B

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1500/3000 min^{-1} (4/2 poles) - Dahlander connection Y/YY													
AMV 63Z AA	**4/2**	0.07/0.33	0.095/0.45	1350/2700	0.5/1.2	55/60	0.70/0.80	0.25/0.95	0.27/1.1	2.5/2.6	1.8/1.6	0.37	5.0
AMV 71Z AA	**4/2**	0.08/0.37	0.11/0.5	1350/2870	0.6/1.2	60/64	0.65/0.68	0.30/1.3	0.35/1.4	3.2/4.3	2.0/2.8	0.82	7.9
AMV 71Z BA	**4/2**	0.12/0.55	0.16/0.75	1430/2835	0.8/1.9	70/68	0.65/0.72	0.40/1.6	0.42/1.7	4.1/4.0	3/2.8	1.08	10.0
AMV 80Z AA	**4/2**	0.15/0.75	0.2/1.0	1400/2710	1/2.6	70/68	0.68/0.80	0.45/1.9	0.45/2.0	2.6/4.6	2.8/2.9	1.58	8.3
AMV 80Z BA	**4/2**	0.22/1.1	0.3/1.5	1420/2820	1.5/3.7	70/73	0.75/0.84	0.6/2.5	0.65/2.6	4.6/4.7	2.7/2.9	2.0	11.5
AMV 90L AA	**4/2**	0.30/1.5	0.4/2.0	1400/2830	2/5.1	69/70	0.70/0.84	0.9/3.5	1.0/3.7	4.7/5.0	2.7/3.0	3.13	15.6
AMV 90L BA	**4/2**	0.44/2.2	0.6/3.0	1430/2830	2.9/7.4	74/72	0.76/0.89	1.1/4.8	1.2/5.0	4.5/5.2	2.6/2.8	3.73	17.1
AMV 100L AA	**4/2**	0.50/2.5	0.67/3.3	1430/2840	3.3/8.4	72/73	0.77/0.88	1.3/5.3	1.4/5.6	4.6/5.0	2.2/2.3	4.6	21.4
AMV 100L BA	**4/2**	0.60/3.0	0.8/4.0	1440/2850	4/10.1	78/77	0.79/0.87	1.3/6.2	1.4/6.5	4.5/4.5	2.2/2.1	5.58	23.2
AMV 112M AA	**4/2**	0.75/3.70	1.0/5.0	1440/2850	5/12.4	74/72	0.80/0.90	1.7/7.9	1.9/2.2	4.5/5.1	2.0/2.4	13.3	36.1
AMV 112M BA	**4/2**	0.9/4.5	1.2/6.1	1440/2850	6/15.1	75/73	0.82/0.90	2.0/9.5	2.1/9.8	4.5/5.5	2.0/2.3	14.75	40.0
AMV 132S AA	**4/2**	1.1/5.5	1.5/7.5	1440/2880	7.3/18.2	81.5/84.8	0.78/0.90	2.5/10.4	2.6/11.0	5.0/6.0	2.1/2.8	13.83	42.6
AMV 132S BA	**4/2**	1.5/7 [1]	2/9.5 [1]	1440/2900	9.9/23.1	82.0/86.0	0.78/0.92	3.4/12.8	3.8/13.0	5.3/6.5	2.2/2.9	13.83	42.6
AMV 132M CA	**4/2**	1.9/8.0	2.6/10.9	1450/2930	12.5/26.1	83.7/88.0	0.82/0.87	4.0/15.1	4.0/16.0	5.5/7.0	2.2/3.0	17.13	51.4
AMV 160M AA	**4/2**	2.8/11	3.8/15.0	1440/2940	18.6/35.7	82.5/88.2	0.78/0.90	6.3/20.0	7.0/20.4	5.0/7.5	2.0/2.1	51.75	94
AMV 160M BA	**4/2**	3.3/13.5 [1]	4.5/18.3 [1]	1440/2920	21.9/44.2	83.0/88.5	0.80/0.92	7.2/24.0	7.5/24.0	5.5/7.5	2.0/2.2	51.75	94
AMV 160L CA	**4/2**	4.4/18.5 [1]	6.0/25.1 [1]	1450/2940	29/60.1	85.5/89.5	0.83/0.92	9.0/32.5	9.5/33.0	5.5/7.5	2.0/2.2	64.0	108.7

Type		kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
750/1500 min^{-1} (8/4 poles) - Dahlander connection Y/YY													
AMV 71Z AA	**8/4**	0.08/0.37	0.11/0.5	660/1370	1.2/2.6	26/57	0.63/0.72	0.60/1.25	0.65/1.35	2.8/3.4	1.9/1.7	1.24	6.8
AMV 80Z AA	**8/4**	0.12/0.55	0.16/0.75	685/1420	1.7/3.7	50/69	0.60/0.74	0.58/1.53	0.65/1.6	1.9/3.3	1.4/1.5	2.47	9.2
AMV 80Z BA	**8/4**	0.18/0.75	0.25/1.0	660/1380	2.6/5.2	53/67	0.73/0.81	0.65/1.9	0.7/2.0	2.0/3.5	1.6/1.7	2.41	10.6
AMV 90L AA	**8/4**	0.18/1.1	0.25/1.5	680/1400	2.5/7.5	60/70	0.65/0.82	0.9/2.7	1.0/2.8	2.8/4.0	1.5/2.0	2.98	15.7
AMV 90L CA	**8/4**	0.4/1.6	0.54/2.15	675/1400	5.7/10.9	61.5/75	0.64/0.79	1.8/4.0	1.8/4.1	3.1/5.0	1.6/2.2	3.70	19.6
AMV 100L AA	**8/4**	0.45/2.2	0.60/3.0	680/1420	6.3/14.8	63.1/75.3	0.60/0.80	1.7/5.0	1.9/5.3	2.7/4.7	1.7/2.0	5.58	21.9
AMV 100L BA	**8/4**	0.6/2.6	0.80/3.5	680/1435	8.4/17.3	64.0/76.2	0.63/0.75	2.2/6.5	2.3/6.7	2.7/4.8	1.7/2.2	6.00	23.7
AMV 112M AA	**8/4**	0.7/3.3	0.94/4.5	690/1420	9.7/22.2	62/78	0.70/0.80	2.2/7.4	2.3/7.6	3.4/6.5	1.8/2.4	16.70	34.2
AMV 112M CA	**8/4**	1.0/4.0	1.34/5.5	720/1420	13.3/26.9	60/77	0.70/0.82	3.1/8.6	3.3/9.0	3.5/5.0	2.3/1.9	19.50	40.0
AMV 132S AA	**8/4**	1.1/4.5	1.5/6.1	725/1450	14.5/29.6	77.0/85.5	0.58/0.82	3.6/9.3	4.0/9.7	3.5/5.4	2.2/2.7	22.4	41.9
AMV 132M BA	**8/4**	1.4/5.5	1.9/7.5	720/1440	18.6/36.5	78.0/86.0	0.62/0.82	4.2/11.3	4.5/12	3.6/5.5	2.0/2.5	29.25	51.0
AMV 132M CA	**8/4**	1.8/7.5	2.4/10.2	720/1450	23.9/49.4	78.2/86.5	0.64/0.86	5.2/14.6	5.5/15.0	4.6/6.0	2.0/2.5	37.25	65.0
AMV 160M ZA	**8/4**	2.2/10.0	3.0/13.0	720/1450	29.2/65.9	80.0/88.0	0.61/0.83	6.6/19.9	6.8/20.4	3.5/6.0	1.8/1.7	81.25	88.5
AMV 160L ZA	**8/4**	3.2/15.0 [1]	4.3/20.0 [1]	720/1450	42.4/98.8	81.0/90.0	0.61/0.88	9.4/27.3	9.8/28	3.5/6.5	1.7/1.8	105.75	106.5

1) Temperature rise to class F

DESIGNED FOR RANGE
OF RATED VOLTAGE
380-420 V ± 5% - 50 HZ

FOR MAINS VOLTAGE
400 V - 50 HZ

TEMPERATURE RISE TO CLASS B

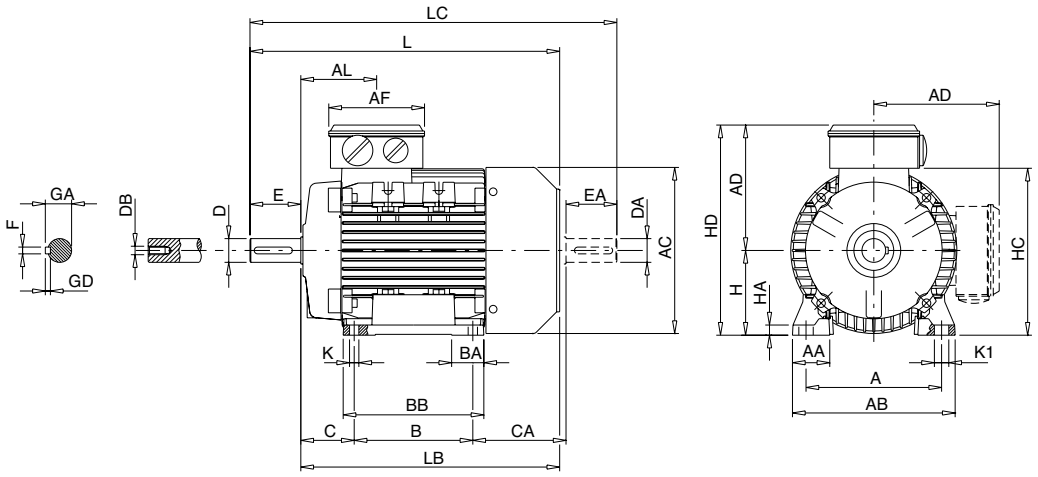
Type	kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1500/1000 min^{-1} (4/6 poles) - separate windings												
AMV 71Z AA 4/6	0.25/0.08	0.33/0.11	1370/900	1.7/0.4	60/40	0.80/0.70	0.75/0.4	0.8/0.45	3.0/2.5	1.6/1.6	1.15	6.7
AMV 71Z BA 4/6	0.37/0.13	0.50/0.18	1360/880	2.6/1.4	62/44	0.80/0.70	1.0/0.6	1.1/0.7	3.2/2.6	1.6/1.6	1.24	7.2
AMV 80Z AA 4/6	0.55/0.18	0.75/0.25	1380/920	3.8/1.9	60/42	0.83/0.82	1.60/0.75	1.7/0.8	3.5/2.4	1.6/1.0	1.97	8.3
AMV 80Z BA 4/6	0.75/0.25	1.0/0.33	1400/940	5.1/2.5	70/60	0.82/0.72	1.8/0.8	1.9/0.9	4.2/2.6	1.6/1.3	4.05	14
AMV 90S AA 4/6	0.75/0.24	1.0/0.32	1400/950	5.1/2.4	70/60	0.82/0.72	1.9/0.8	2.0/0.9	4.2/2.6	1.6/1.3	4.05	14
AMV 90L BA 4/6	1.1/0.37	1.5/0.50	1400/930	7.5/3.8	70/60	0.81/0.74	2.8/1.2	3.0/1.3	4.3/2.7	1.6/1.2	4.78	16.4
AMV 90L CA 4/6	1.5/0.5	2.0/0.67	1420/950	10.1/5	73/64	0.80/0.70	3.52/1.52	3.7/1.6	4.8/2.6	1.5/1.3	5.98	20.5
AMV 100L AA 4/6	1.85/0.60	2.5/0.75	1400/920	12.6/6.2	74/64	0.80/0.73	4.6/1.9	4.8/2.1	4.8/3.1	1.8/1.5	6.73	23.4
AMV 100L BA 4/6	2.2/0.75	3.0/1.0	1420/950	14.8/7.5	76/66	0.79/0.75	5.1/2.1	5.3/2.2	5.0/3.5	1.7/1.3	9.25	22.6
AMV 112M AA 4/6	3/1.0	4.0/1.34	1440/970	19.9/9.8	80/73	0.81/0.65	6.6/3.0	6.8/3.2	5.8/4.6	2.5/2.1	13.3	30.4
AMV 132S AA 4/6	3.8/1.3	5.2/1.8	1460/970	24.9/12.8	85.0/75.0	0.8/0.72	8.1/3.5	8.5/4	6.5/4.0	2.2/1.7	22.4	41.9
AMV 132M BA 4/6	4.4/1.5	6.0/2.0	1460/970	28.8/14.8	86.0/78.2	0.85/0.73	8.7/3.8	9.2/4.3	6.5/4.4	2.2/1.7	29.25	51.0
AMV 132M CA 4/6	5.5/1.8	7.5/2.4	1460/970	36/17.7	86.8/80.0	0.84/0.74	10.9/4.4	12.0/4.	7.0/4.7	2.6/1.8	37.25	65.0
AMV 132M DA 4/6	6.3/2.2 [1]	8.6/3.0 [1]	1460/970	41.2/21.7	86.8/81.0	0.84/0.73	12.5/5.4	13.5/5.	7.2/4.8	2.6/1.9	37.25	66.0
AMV 160M AA 4/6	7.5/2.5	10.0/3.4	1470/975	48.7/24.5	87.5/83.0	0.83/0.75	14.9/5.8	15.6/6.0	8.3/4.5	2.5/1.9	81.25	88.5
AMV 160L BA 4/6	11.0/3.7	15.0/5.0	1470/970	71.5/36.4	88.0/84.2	0.81/0.73	22.5/8.7	23.4/9.0	8.0/4.8	2.4/1.8	105.75	106.5
AMV 160L CA 4/6	13.0/4.0 [1]	17.7/5.4 [1]	1460/970	85/39.4	88.0/84.5	0.81/0.72	26.3/9.5	27.5/10	8.0/4.8	2.4/1.9	105.75	106.5

Type	kW	HP	min^{-1}	M_N Nm	η 100%	cos φ	I_N 400V	I_N 380-420V	I_A/I_N	M_A/M_N	J 10^{-3} kgm^2	kg
1000/750 min^{-1} (6/8 poles) - separate windings												
AMV 80Z AA 6/8	0.25/0.11	0.33/0.15	930/720	2.6/1.5	53/49	0.79/0.62	0.9/0.55	1.0/0.7	2.9/3.0	1.6/1.8	1.97	7.9
AMV 80Z BA 6/8	0.37/0.15	0.50/0.25	920/715	3.8/2	52/47	0.81/0.63	1.3/0.8	1.4/0.9	2.8/2.8	1.4/1.9	2.47	9.5
AMV 90L AA 6/8	0.55/0.22	0.75/0.30	960/740	5.5/2.8	65/47	0.62/0.51	2.0/1.4	2.1/1.5	3.9/2.9	2.5/2.1	4.78	16.2
AMV 90L BA 6/8	0.75/0.30	1.0/0.40	940/720	7.6/4	64/45.5	0.67/0.52	2.5/1.85	2.7/1.9	3.4/2.6	2.2/1.9	4.78	16.2
AMV 100L AA 6/8	1.1/0.45	1.5/0.60	950/710	11.1/6.1	70.6/58	0.71/0.67	3.1/1.7	3.3/1.8	4.3/2.8	2.0/1.3	9.43	22.0
AMV 112M AA 6/8	1.5/0.6	2.0/0.80	970/720	14.8/8	75.8/65	0.65/0.60	4.4/2.3	3.7/2.5	5.5/3.4	2.8/2.1	18.70	39.0
AMV 132S ZA 6/8	2.2/0.9	3.0/1.2	970/715	21.7/12	78.0/69.0	0.67/0.55	6.1/3.5	6.7/4.0	4.8/4.0	1.6/1.6	29.5	42.5
AMV 132M YA 6/8	3/1.2	4.0/1.6	960/715	29.8/16	80/72	0.7/0.55	7.8/4.4	8.2/4.8	4.8/4.1	1.6/1.6	37.75	55.5
AMV 132M ZA 6/8	4/1.6	5.5/2.2	960/715	39.8/21.4	81.0/74.0	0.78/0.6	9.2/5.2	9.8/5.6	5.3/4.4	1.7/1.7	44.5	64.1
AMV 160M YA 6/8	5.5/2.2	7.5/3.0	970/730	54.1/28.8	83/76	0.77/0.6	12.5/7	13.5/7.5	5.7/5.6	1.6/1.9	112.7	88.0
AMV 160M ZA 6/8	7/3	9.5/4.1	970/730	68.9/39.2	84/77	0.80/0.65	15/8.7	16/9.3	6.0/5.8	1.7/2.2	150.25	97.5

1) Temperature rise to class F

THREE-PHASE FRAME SIZE 80 - 160 IM B3
AMH - AMPH* SERIES - ALUMINIUM ALLOY FRAME

*Only AMPH 2 poles motors. For AMPH 4 poles motors, please consult us



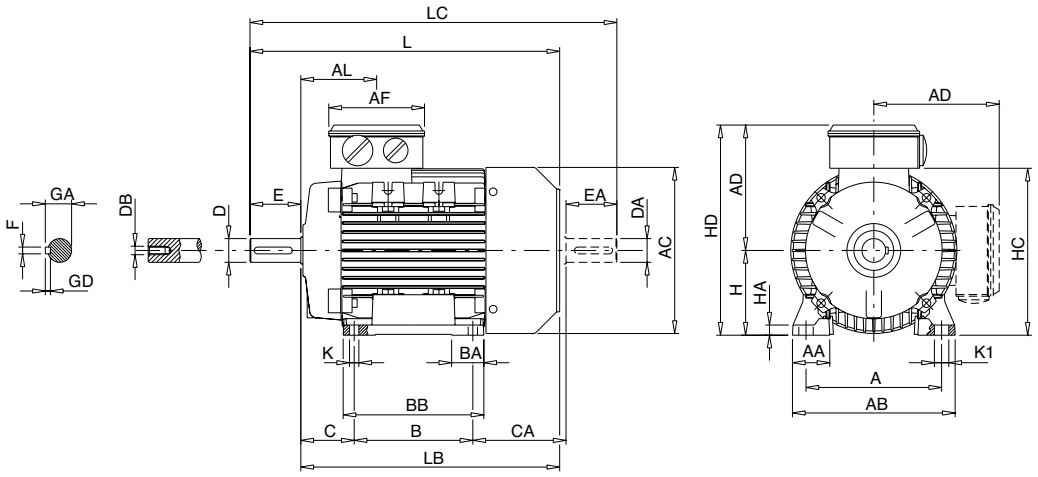
IEC	Poles	kW	H	A	B	C	K [1]	AB	BB	CA	AD [2]	HD [2]	AC	HC
80	2 - 4	all	80	125	100	50	10	153	125	89	129	209	160	162
90S	2 - 4	all	90	140	100	56	10	170	150	116	138	228	180	181
90L	2 - 4	all	90	140	125	56	10	170	150	91	138	228	180	181
100	2	all	100	160	140	63	11	192	166	110	145	245	196	198
	4	2.2	100	160	140	63	11	192	166	110	145	245	196	198
	4	3	100	160	140	63	11	192	166	144	145	245	194	198
112	2 - 4	all	112	190	140	70	12,5	220	176	126	160	272	225	225
132S	2	5.5	132	216	140	89	12	256	180	134	194	326	248	261
	2	7.5	132	216	140	89	12	256	180	154	194	326	248	261
	4	5.5	132	216	140	89	12	256	180	134	194	326	248	261
132M	2	all	132	216	178	89	12	256	218	156	194	326	248	261
	4	all	132	216	178	89	12	256	218	136	194	326	248	261
160M	2 - 4	all	160	254	210	108	14	320	270	180	238	398	317	316
160L	2 - 4	all	160	254	254	108	14	320	310	180	238	398	317	316

IEC	Poles	kW	HA	K1	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD/GF	GA/GC	DB/DC [3]
80	2 - 4	all	9.5	14	272	232	319	79	116	28.5	34.5	19	40	6	6	21.5	M6
90S	2 - 4	all	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
90L	2 - 4	all	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
100	2	all	12	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
	4	2.2	12	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
	4	3	12	17	400	340	467	91	116	38	44	28	60	8	7	31	M10
112	2 - 4	all	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
132S	2	5.5	17	20	445	365	523	100	133	45	59	38	80	10	8	41	M12
	2	7.5	17	20	465	385	543	100	133	45	59	38	80	10	8	41	M12
	4	5.5	17	20	445	365	523	100	133	45	59	38	80	10	8	41	M12
132M	2	all	17	20	505	425	583	120	133	45	59	38	80	10	8	41	M12
	4	all	17	20	485	405	563	120	133	45	59	38	80	10	8	41	M12
160M	2 - 4	all	23	18	608	498	668	146	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10
160L	2 - 4	all	23	18	652	542	712	168	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10

1) Clearance hole for screw
2) Maximun distance
3) Centering holes in shaft extensions to DIN 332 part 2

THREE-PHASE FRAME SIZE 71 - 160 IM B3
AMHE - AMPE* SERIES - ALUMINIUM ALLOY FRAME

*Only AMPE 2 poles motors. For AMPE 4 poles motors, please consult us

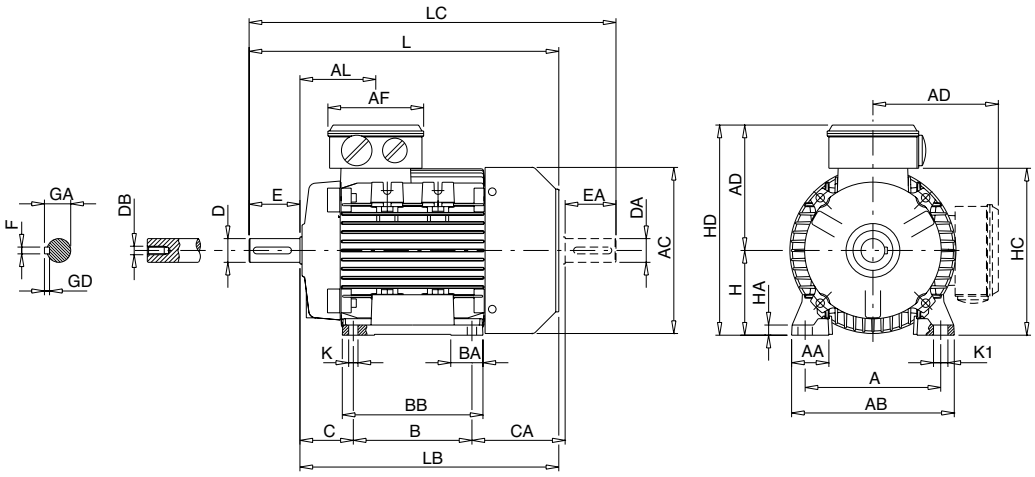


IEC	Poles	kW	H	A	B	C	K [1]	AB	BB	CA	AD [2]	HD [2]	AC	HC
71	2	0.75	71	112	90	45	8	135	108	83	110	181	139	142
80	2 - 4	all	80	125	100	50	10	153	125	89	129	209	160	162
90S	2 - 4	all	90	140	100	56	10	170	150	116	138	228	180	181
90L	2	2.2	90	140	125	56	10	170	150	91	138	228	180	181
	2	3	90	140	125	56	10	170	150	114	138	228	180	181
	4	1.5	90	140	125	56	10	170	150	91	138	228	180	181
100	2	all	100	160	140	63	11	192	166	110	145	245	196	198
	4	2.2	100	160	140	63	11	192	166	110	145	245	196	198
	4	3	100	160	140	63	11	192	166	144	145	245	194	198
112	2	4 - 5.5	112	190	140	70	12.5	220	176	126	160	272	225	225
	2	7.5	112	190	140	70	12.5	220	176	148	160	272	222	225
	4	all	112	190	140	70	12.5	220	176	126	160	272	225	225
132S	2	5.5	132	216	140	89	12	256	180	134	194	326	248	261
	2	7.5	132	216	140	89	12	256	180	154	194	326	248	261
	4	5.5	132	216	140	89	12	256	180	134	194	326	248	261
132M	2	9.2 - 11	132	216	178	89	12	256	218	156	194	326	248	261
	2	15	132	216	178	89	12	256	218	207	194	326	248	261
	4	all	132	216	178	89	12	256	218	136	194	326	248	261
160M	2 - 4	all	160	254	210	108	14	320	270	180	238	398	317	316
160L	2 - 4	all	160	254	254	108	14	320	310	180	238	398	317	316

IEC	Poles	kW	HA	K1	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD/GF	GA/GC	DB/DC [3]
71	2	0.75	9	11	246	216	278	69	92	28	31	14	30	5	5	16	M5
80	2 - 4	all	9.5	14	272	232	319	79	116	28.5	34.5	19	40	6	6	21.5	M6
90S	2 - 4	all	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
90L	2	2.2	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
	2	3	11	15	340	290	395	85	116	28/53	37	24	50	8	7	27	M8
	4	1.5	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
100	2	all	12	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
	4	2.2	12	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
	4	3	12	17	400	340	467	91	116	38	44	28	60	8	7	31	M10
112	2	4 - 5.5	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
	2	7.5	15	19	410	350	478	92	116	46	48	28	60	8	7	31	M10
	4	all	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
132S	2	5.5	17	20	445	365	523	100	133	45	59	38	80	10	8	41	M12
	2	7.5	17	20	465	385	543	100	133	45	59	38	80	10	8	41	M12
	4	5.5	17	20	445	365	523	100	133	45	59	38	80	10	8	41	M12
132M	2	9.2 - 11	17	20	505	425	583	120	133	45	59	38	80	10	8	41	M12
	2	15	17	20	556	476	634	120	133	45	59	38	80	10	8	41	M12
	4	all	17	20	485	405	563	120	133	45	59	38	80	10	8	41	M12
160M	2 - 4	all	23	18	608	498	668	146	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10
160L	2 - 4	all	23	18	652	542	712	168	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10

1) Clearance hole for screw 2) Maximun distance 3) Centering holes in shaft extensions to DIN 332 part 2

THREE-PHASE FRAME SIZE 71-160 IMB3
AMEE SERIES - ALLUMINIUM ALLOY FRAME

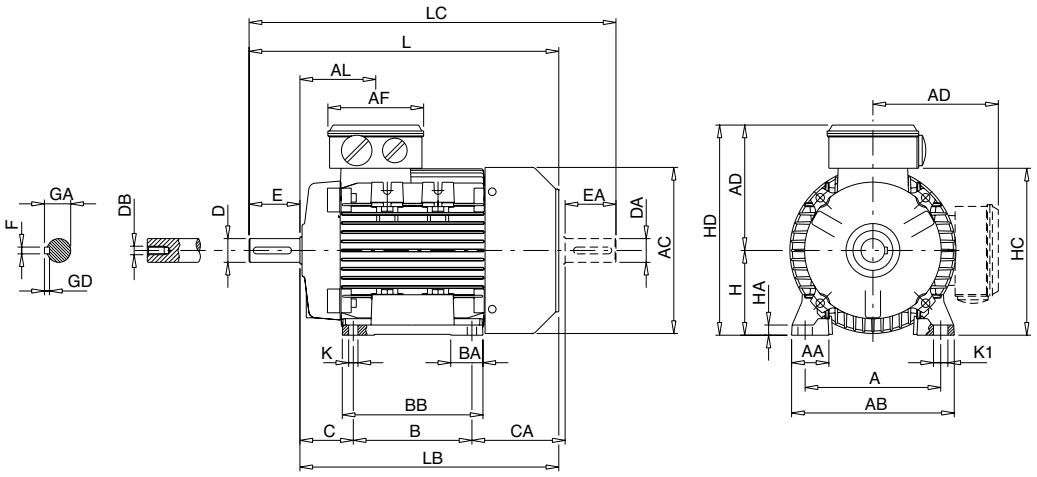


IEC	Poles	kW	H	A	B	C	K[1]	AB	BB	CA	AD[2]	HD[2]	AC	HC
71	2	0.75	71	112	90	45	8	135	107	81	110	181	139	142
80	2-4	all	80	125	100	50	10	153	125	89	129	209	160	162
90S	2-4-6	all	90	140	100	56	10	170	150	116	138	228	180	181
90L	2-4-6	all	90	140	125	56	10	170	150	91	138	228	180	181
100	2-4-6	all	100	160	140	63	11	192	166	110	145	245	196	198
112	**2**	**4-5.5**	112	190	140	70	12.5	220	176	126	160	272	225	225
	2	7.5	112	190	140	70	12.5	220	176	148	160	272	222	225
	4	4	112	190	140	70	12.5	220	176	126	160	272	225	225
	4	5.5	112	190	140	70	12.5	220	176	148	160	272	222	225
	6	all	112	190	140	70	12.5	220	176	126	160	272	225	225
132S	2-4-6	all	132	216	140	89	12	256	180	134	194	326	248	261
132M	2	9.2	132	216	178	89	12	256	218	136	194	326	248	261
	2	11	132	216	178	89	12	256	218	156	194	326	248	261
	2	15	132	216	178	89	12	256	218	207	194	326	248	261
	4	7.5	132	216	178	89	12	256	218	136	194	326	248	261
	4	9.2	132	216	178	89	12	256	218	136	194	326	248	261
	6	4	132	216	178	89	12	256	218	136	194	326	248	261
	6	5.5	132	216	178	89	12	256	218	136	194	326	248	261
160M	2-4-6	all	160	254	210	108	14	320	270	180	238	398	317	316
160L	2-4-6	all	160	254	254	108	14	320	310	180	238	398	317	316

IEC	Poles	kW	HA	K1	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD/GF	GA/GC	DB/DC[3]
71	2	0.75	9	11	246	216	278	69	92	28	31	14	30	5	5	16	M5
80	2-4	all	9.5	14	272	232	319	79	116	29	35	19	40	6	6	21.5	M6
90S	2-4-6	all	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
90L	2-4-6	all	11	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
100	2-4-6	all	12	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
112	2	4-5.5	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
	2	7.5	15	19	410	350	478	92	116	46	48	28	60	8	7	31	M10
	4	4	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
	4	5.5	15	19	410	350	478	92	116	46	48	28	60	8	7	31	M10
	6	all	15	19	388	328	456	92	116	46	48	28	60	8	7	31	M10
132S	2-4-6	all	17	20	445	365	523	102	133	45	59	38	80	10	8	41	M12
132M	2	9.2	17	20	485	405	563	122	133	45	59	38	80	10	8	41	M12
	2	11	17	20	505	425	583	122	133	45	59	38	80	10	8	41	M12
	2	15	17	20	556	476	634	122	133	45	59	38	80	10	8	41	M12
	4	7.5	17	20	485	405	563	122	133	45	59	38	80	10	8	41	M12
	4	9.2	17	20	505	425	583	122	133	45	59	38	80	10	8	41	M12
	6	4	17	20	485	405	563	122	133	45	59	38	80	10	8	41	M12
	6	5.5	17	20	505	425	583	122	133	45	59	38	80	10	8	41	M12
160M	2-4-6	all	23	18	608	498	668	146	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10
160L	2-4-6	all	23	18	652	542	712	168	150	65	76	42/28	110/60	12/8	8/7	45/31	M16/M10

1) Clearance hole for screw 2) Maximun distance 3) Centering holes in shaft extensions to DIN 332 part 2

THREE-PHASE FRAME SIZE 56 - 160 IM B3
AM SERIES - ALUMINIUM ALLOY FRAME



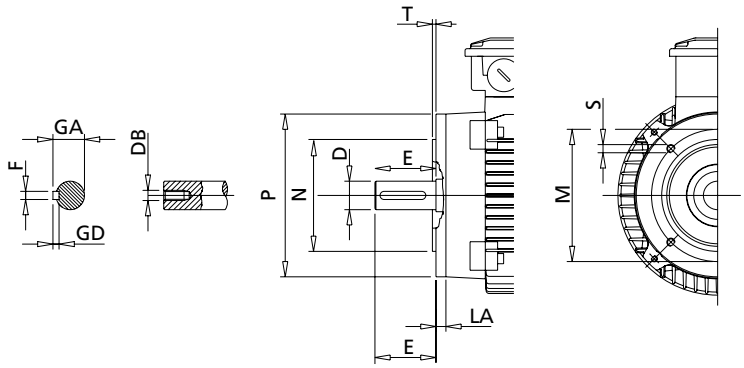
IEC	H	A	B	C	K [1]	AB	BB	CA	AD [2]	HD [2]	AC	HC	HA
56	56	90	71	36	6	107	86	64	92	148	110	109	8
63	63	100	80	40	7	120	100	72	96	159	124	120	8
71	71	112	90	45	8	135	108	83	110	181	139	142	9
80	80	125	100	50	10	153	125	89	129	209	160	162	9.5
90S	90	140	100	56	10	170	150	116	138	228	180	181	11
90L	90	140	125	56	10	170	150	91	138	228	180	181	11
100	100	160	140	63	11	192	166	110	145	245	196	198	12
112	112	190	140	70	12.5	220	175	126	161	273	225	226	15
132S	132	216	140	89	12	256	180	134	195	327	248	261	17
132M	132	216	178	89	12	256	218	136	195	327	248	261	17
132M [4]	132	216	178	89	12	256	218	166	195	327	248	261	17
160M	160	254	210	108	14	320	270	180	238	398	317	316	23
160L	160	254	254	108	14	320	310	180	238	398	317	316	23
160L [5]	160	254	254	108	14	320	310	210	238	398	317	316	23

IEC	K1	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD	GA/GC	DB [3]
56	9	188	168	211	61	92	27	27	9	20	3	3	10.2	M3
63	11	211	188	238	63	92	29	30	11	23	4	4	12.5	M4
71	11	246	216	278	69	92	28	31	14	30	5	5	16	M5
80	14	272	232	319	79	116	28.5	34.5	19	40	6	6	21.5	M6
90S	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
90L	15	317	267	372	85	116	28/53	37	24	50	8	7	27	M8
100L	17	366	306	433	91	116	38	44	28	60	8	7	31	M10
112M	19	388	328	456	91.5	116	46	48	28	60	8	7	31	M10
132S	20	442	362	523	100	133	45	59	38	80	10	8	41	M12
132M	20	482	402	563	120	133	45	59	38	80	10	8	41	M12
132M [4]	20	500	420	593	120	133	45	59	38	80	10	8	41	M12
160M	18	608	498	718	146	150	65	76	42	110	12	8	45	M16
160L	18	652	542	762	168	150	65	76	42	110	12	8	45	M16
160L [5]	18	678	568	678	168	150	65	76	42	110	12	8	45	M16

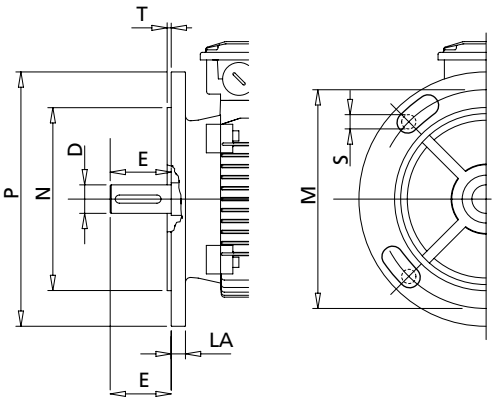
1) Clearance hole for screw
2) Maximum dimension
3) Centering holes in shaft extensions to DIN 332 part 2
4) Only for MT A2
5) Only for LR A4

THREE-PHASE FRAME SIZE 56 - 160 IM B14, IM B5
AM-AMHE-AMH-AMPE-AMPH SERIES - ALUMINIUM ALLOY FRAME

IM B14

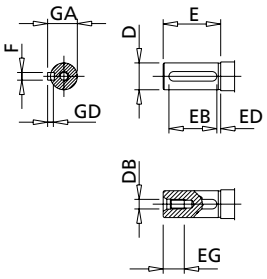


IM B5



	SMALL FLANGE B14						LARGE FLANGE B14						FLANGE B5					
IEC	**P**	**N**	**LA**	**M**	**T**	**S**	**P**	**N**	**LA**	**M**	**T**	**S**	**M**	**N**	**P**	**T**	**LA**	**S[1)]**
56	80	50	8	65	2.5	M5	105	70	8	85	2.5	M6	100	80	120	2.5	7	M6
63	90	60	8	75	2.5	M5	120	80	8	100	2.5	M6	115	95	140	3	8	M8
71	105	70	8	85	2.5	M6	140	95	8	115	3	M8	130	110	160	3.5	10	M8
80	120	80	9	100	3	M6	160	110	8.5	130	3.5	M8	165	130	200	3.5	10	M10
90	140	95	9	115	3	M8	160	110	9	130	3.5	M8	165	130	200	3.5	12	M10
100	160	110	10	130	3.5	M8	200	130	12	165	3.5	M10	215	180	250	4	14	M12
112	160	110	10	130	3.5	M8	200	130	12	165	3.5	M10	215	180	250	4	14	M12
132	200	130	30	165	3.5	M10	250	180	12	215	4	M12	265	230	300	4	14	M12
160	250	180	12	215	4	M12	300	230	12	265	5	M16	300	250	350	5	15	M16

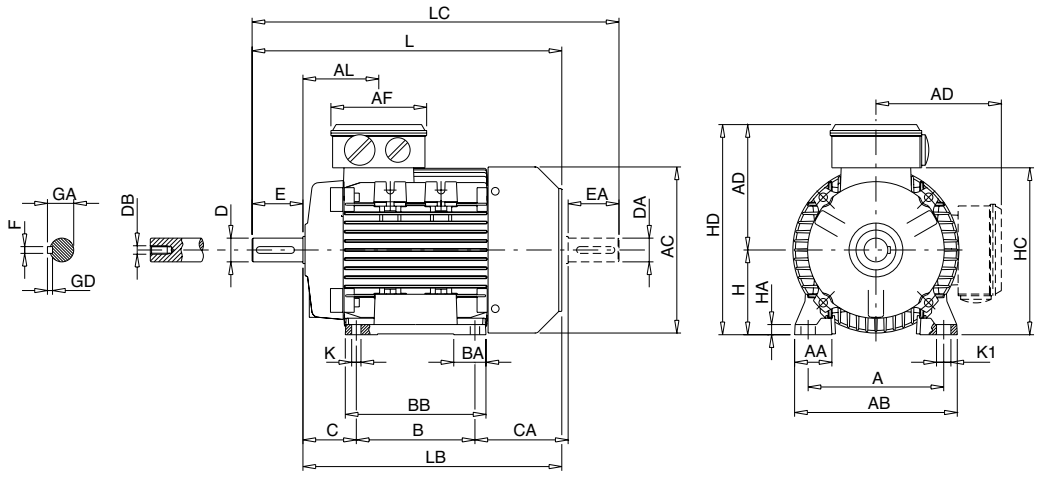
1) Clearence hole for screw. Hole as standard for 132 to 160 frame size



IEC	D	E	F h9	GD	GA	DB[1)]	EG	EB	ED
56	9 j6	20	3	3	10.2	M3	10	15	2.5
63	11 j6	23	4	4	12.5	M4	10	15	4
71	14 j6	30	5	5	16	M5	12.5	20	4
80	19 j6	40	6	6	21.5	M6	16	30	4
90	24 j6	50	8	7	27	M8	19	40	4
100	28 j6	60	8	7	31	M10	22	50	4
112	28 j6	60	8	7	31	M10	22	50	4
132	38 k6	80	10	8	41	M12	28	70	4
160	42 k6	110	12	8	45	M16	36	100	4

1) Centering holes in shaft extension to DIN 332 part 2

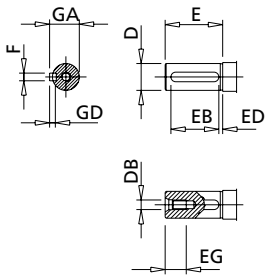
THREE-PHASE FRAME SIZE 180 - 315 IM B3
AMHE SERIES - CAST IRON FRAME

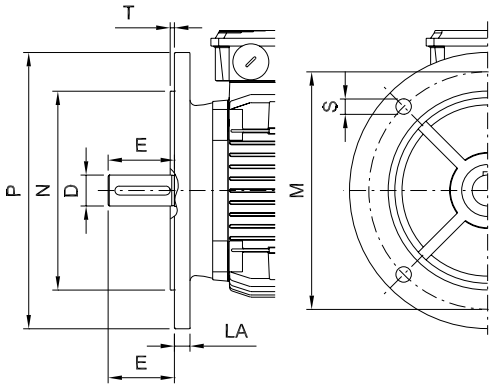


IEC	Poles	H	A	B	C	K [1]	AB	BB	AD	HD	AC
180M		180	279	241	121	15	354	311	259	439	360
180L		180	279	279	121	15	354	348	259	439	360
200		200	318	305	133	19	392	371	297	497	399
225S	≥ 4	225	356	286	149	19	436	361	328	553	465
225M	2	225	356	311	149	19	436	386	328	553	465
	≥ 4	225	356	311	149	19	436	386	328	553	465
250	2	250	406	349	168	24	484	443	366	616	506
	≥ 4	250	406	349	168	24	484	443	366	616	506
280S	2	280	457	368	190	24	557	459	388	668	559
	≥ 4	280	457	368	190	24	557	459	388	668	559
280M	2	280	457	419	190	24	557	510	388	668	559
	≥ 4	280	457	419	190	24	557	510	388	668	559
315S	2	315	508	406	216	28	630	590	525	840	680
	≥ 4	315	508	406	216	28	630	590	525	840	680
315M	2	315	508	457	216	28	630	672	525	840	680
	≥ 4	315	508	457	216	28	630	672	525	840	680
315L	2	315	508	508	216	28	630	672	525	840	680
	≥ 4	315	508	508	216	28	630	672	525	840	680

IEC	Poles	HA	L	LB	AL	AA	D	E	F	GD	GA	DB [2]
180M		27	687	577	261	75	48	110	14	9	51.5	M16
180L		27	725	615	261	75	48	110	14	9	51.5	M16
200		25	768	658	285	80	55	110	16	10	59	M20
225S	≥ 4	28	814	674	295	85	60	140	18	11	64	M20
225M	2	28	809	699	295	85	55	110	16	10	59	M20
	≥ 4	28	839	699	295	85	60	140	18	11	64	M20
250	2	30	918	778	342	80	60	140	18	11	64	M20
	≥ 4	30	918	778	342	80	65	140	18	11	69	M20
280S	2	34	984	844	400	100	65	140	18	11	69	M20
	≥ 4	34	984	844	400	100	75	140	20	12	79.5	M20
280M	2	34	1035	895	400	100	65	140	18	11	69	M20
	≥ 4	34	1035	895	400	100	75	140	20	12	79.5	M20
315S	2	45	1160	1020	292	120	65	140	18	11	69	M20
	≥ 4	45	1190	1020	292	120	80	170	22	14	85	M20
315M	2	45	1310	1170	292	120	65	140	18	11	69	M20
	≥ 4	45	1340	1170	292	120	80	170	22	14	85	M20
315L	2	45	1310	1170	292	120	65	140	18	11	69	M20
	≥ 4	45	1340	1170	292	120	80	170	22	14	85	M20

THREE-PHASE FRAME SIZE 180 - 315 IM B5
AMHE SERIES - CAST IRON FRAME





IEC	Poles	M	N	P	T	LA	S [1]
180M	≥ 4	300	250	350	5	15	19
180L	≥ 4	300	250	350	5	15	19
200	≥ 4	350	300	400	5	17	19
225S	≥ 4	400	350	450	5	20	19
225M	2	400	350	450	5	20	19
	≥ 4	400	350	450	5	20	19
250	2	500	450	550	5	20	19
	≥ 4	500	450	550	5	20	19
280S	2	500	450	550	5	22	19
	≥ 4	500	450	550	5	22	19
280M	2	500	450	550	5	22	19
	≥ 4	500	450	550	5	22	19
315S	2	600	550	660	6	22	24
	≥ 4	600	550	660	6	22	24
315M	2	600	550	660	6	22	24
	≥ 4	600	550	660	6	22	24
315L	2	600	550	660	6	22	24
	≥ 4	600	550	660	6	22	24

IEC	Poles	D	E	F	GD	GA	DB [2]
180M	≥ 4	48	110	14	9	51.5	M16
180L	≥ 4	48	110	14	9	51.5	M16
200	≥ 4	55	110	16	10	59	M20
225S	≥ 4	60	140	18	11	64	M20
225M	2	55	110	16	10	59	M20
	≥ 4	60	140	18	11	64	M20
250	2	60	140	18	11	64	M20
	≥ 4	65	140	18	11	69	M20
280S	2	65	140	18	11	69	M20
	≥ 4	75	140	20	12	79.5	M20
280M	2	65	140	18	11	69	M20
	≥ 4	75	140	20	12	79.5	M20
315S	2	65	140	18	11	69	M20
	≥ 4	80	170	22	14	85	M20
315M	2	65	140	18	11	69	M20
	≥ 4	80	170	22	14	85	M20
315L	2	65	140	18	11	69	M20
	≥ 4	80	170	22	14	85	M20

1) Clearence hole for screw. According to CEI EN 50347, 8 holes on the flange for 225 to 315 frame size
2) Centering holes in shaft extension to DIN 332 part 2