THREE-PHASE MOTORS

Terminal boxes

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.

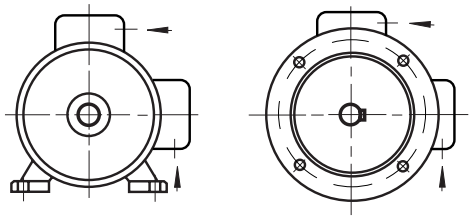
The position of the entry openings can be adjusted to suit the existing connection facilities by turning through 90°. Should special accessories be used (temperature detectors, anti-condensation heating, etc.) please enquire.

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).

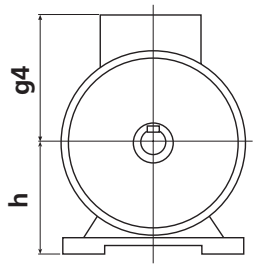
When using screened leads, a metal terminal box is required.

Direction of cable entries

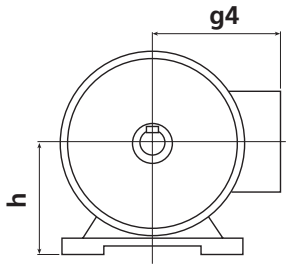


Frame size	Degree of protection	Thread for cable entry		Max. cable section	Terminal thread	Max. external cable diam.
		Metric [1]	Pg [2]	mm²		mm
56 - 71	IP 55	1 x M16/1 x M20	1 x Pg 11/1 x Pg 13.5	2.5	M4	12
80	IP 55	1 x M25/1 x M20	1 x Pg 13.5/1 x Pg 16	2.5	M4	16
90 - 112	IP 55	1 x M25/1 x M20	1 x Pg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

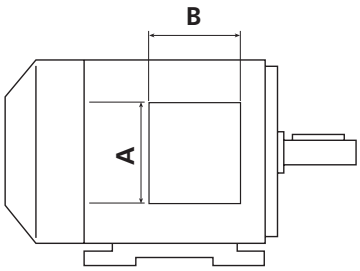
[1] Pitch 1.5
[2] Pg thread to DIN 40 430 (on request)
[3] Terminal box with unscrewable cable entry plate



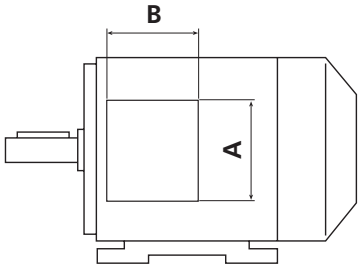
Terminal box on top



Terminal box at the side



left [1)]



right

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

Standard design

Frame size h	g4	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	263	204	180	Sheet Steel
200	330	258	265	Sheet Steel
225	357	258	265	Sheet Steel
250	385	258	265	Sheet Steel
280	419	258	265	Sheet Steel
315	510	400	300	Cast Iron

Special design

Frame size h	g4	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

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:

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

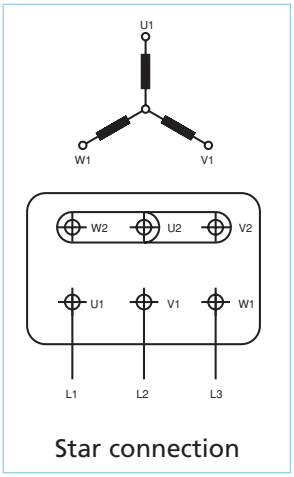
where I_n is the line current and U_n the line voltage referred to the star connection.

Delta connection

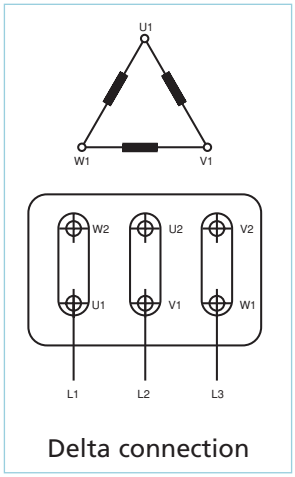
A delta connection is obtained by connecting the end of a phase to the beginning of the next phase.
The phase current I_{ph} and the phase voltage U_{ph} are:

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

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.

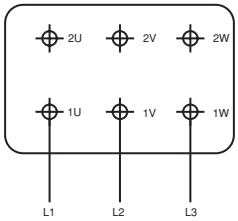
All motors can be supplied with windings designed for star-delta starting (for example: 400 V Δ / 690 V Y).

Pole-changing motors

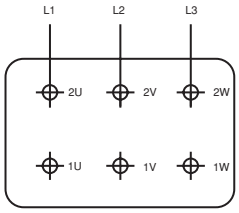
Standard pole-changing motors are designed for single voltage and direct-on-line starting.

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

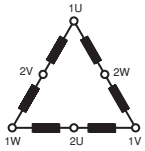


Low speed

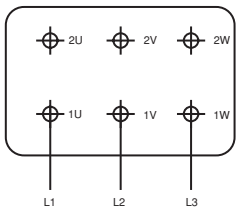


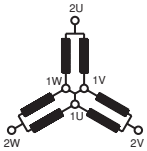
High speed

AM - Dahlander connection Δ / YY

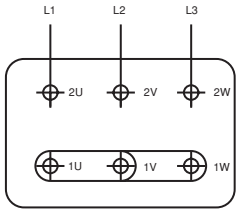


Low speed

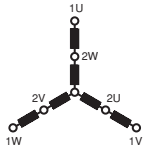




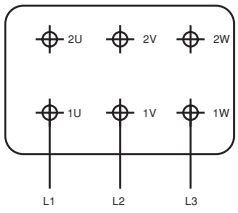
High speed

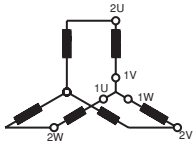


AMV - Dahlander connection Y / YY

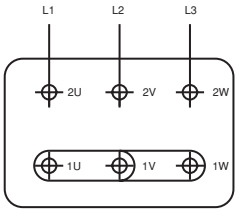


Low speed





High speed



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.

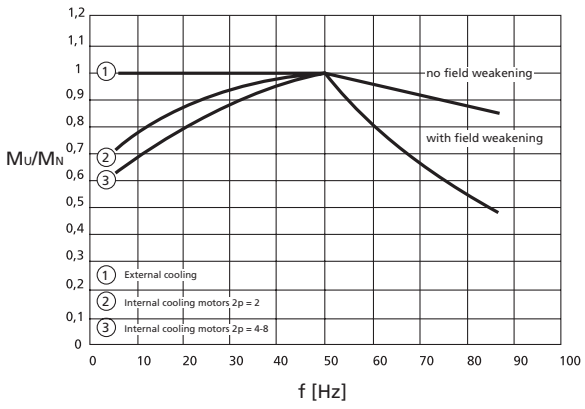
• With square characteristic of the load torque, motors can be driven with their rated torque.

• 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).

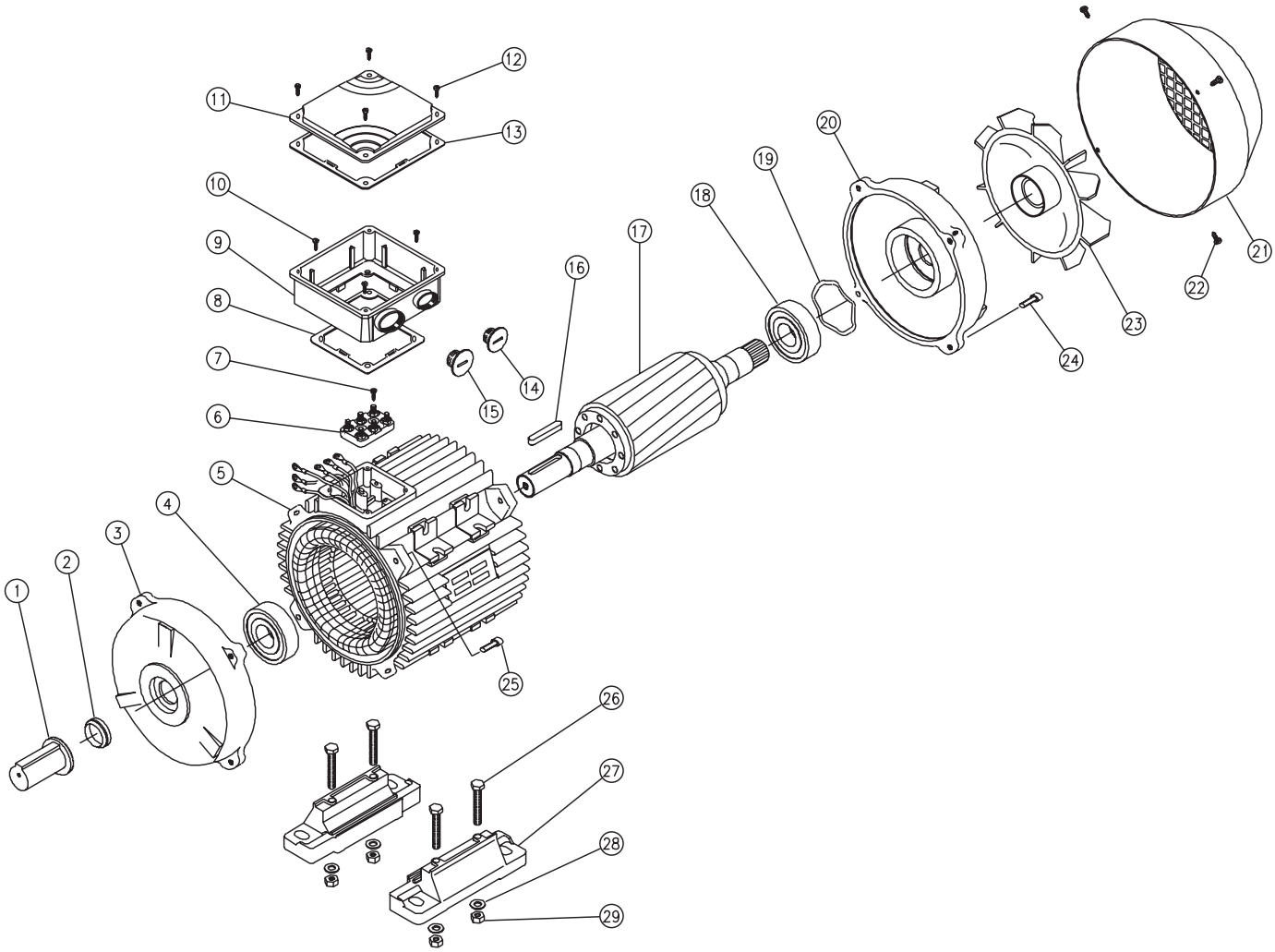
The electrical values and dimensions of the range AMI in frame size 56 to 112 are identical to AM motors (see data tables pages 41-44).



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.

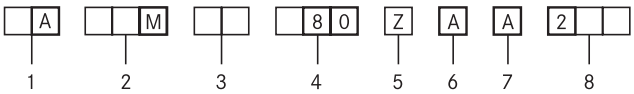
TYPE DESIGNATION

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.

Meaning of the symbols

Ref. point	Meaning	Description of symbols used for our motors	
1	Type of motor	A	Asynchronous motor
2	Cooling	M G MFV	Surface cooled with external fan, cooling fins Surface cooled without external fan, cooling fins Surface cooled with forced ventilation, cooling fins
3	Type of motor	blank V H HE I	Three-phase motor, standard efficiency IE1code Three-phase pole-changing motor for driving fans Three-phase motor, efficiency to EPACT regulations Three-phase motor, high efficiency IE2 code 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 M L	 Mechanical dimension (short) Mechanical dimension (medium) Mechanical dimension (long)
6	Mechanical design and output value	A B ... Z	
7	Frame material	A G	Aluminium frame Cast iron frame
8	Number of poles	2 - 4/2 4 - 8/4 6 - 4/6 8 - 6/8	

Example



1) Temperature rise to class F

* Higher output (progressive motor)

High efficiency motors - IE2 code/EFF1 from 280 to 315 frame size

Three-phase motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

IE1

For mains voltage to IEC 60038 400 V ± 10% - 50 Hz

Standard efficiency motors, IE1
Efficiency testing method IEC 60034-2-1;2007

Temperature rise to class B

Tipo		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	0.1	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	0.36	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	0.42	6.2
AM 71Z CA	**2***	0.75 [1]	1.0 [1]	2800	2.6	58.9	65.7	72.6	0.76	2.0	2.1	5.2	3.1	3.2	3.1	0.61	7.2
AM 80Z AA	**2**	0.75	1.0	2840	2.5	66.3	71.5	73.0	0.78	1.9	2.0	5.0	2.8	2.8	2.9	0.75	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	0.89	9.5
AM 80Z CA	**2***	1.5 [1]	2.0 [1]	2825	5.1	74.7	77.5	77.8	0.83	3.3	3.4	5.0	2.9	3.0	3.3	1.05	11.1
AM 90S AA	**2**	1.5	2.0	2830	5.1	75.6	78.7	78.6	0.82	3.4	3.5	5.0	3.1	2.9	3.0	1.37	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	1.37	12.7
AM 90L CA	**2**	2.2	3.0	2860	7.3	81.5	82.8	81.8	0.81	4.9	4.9	7.1	4.1	3.6	4.0	1.8	16.0
AM 90L DA	**2***	3 [1]	4.0 [1]	2860	10.0	78.7	81.8	82.2	0.80	6.6	6.8	7.2	3.9	3.4	3.8	2.09	18.7
AM 100L AA	**2**	3	4.0	2860	10.0	78.9	81.4	81.5	0.85	6.4	6.7	6.0	3.1	3.1	3.3	2.80	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	3.35	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	4.5	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	5.20	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	6.48	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	8.58	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	10.63	37.0
AM 132S ZA	**2**	7.5	10.0	2880	24.9	85.6	86.7	86.1	0.87	14.5	14.9	6.4	2.9	2.7	3.1	13.83	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	15.0	48.0
AM 132M RA	**2***	11	15.0	2880	36.5	87.1	88.1	88.0	0.85	21.3	21.7	6.9	3.2	2.8	3.8	17.13	52.5
AM 132M TA	**2***	15 [1]	20.0 [1]	2920	49.1	86.4	88.6	88.9	0.83	29.5	30.5	7.0	3.2	2.8	3.7	20.30	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	40.00	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	51.75	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	64.00	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	64.00	108.7
AM 180M XG	**2**	22	30	2925	71.8	88.2	89.8	89.9	0.86	41	42	7.4	2.5	2.3	3.2	65	130
AM 180M RG	**2***	30	40	2925	97.9	90.6	90.7	90.7	0.86	56	57.5	7.9	2.7	2.5	3.4	88	150
AM 200L LG	**2**	30	40	2945	97.3	88.3	90.2	90.7	0.85	56.2	57	7.8	2.2	2.0	3.0	120	212
AM 200L NG	**2**	37	50	2950	119.8	89.0	90.8	91.2	0.86	68.2	69	7.7	2.2	2.0	3.0	145	230
AM 225M NG	**2**	45	60	2945	145.9	90.0	91.5	91.7	0.89	80	82	7.8	2.4	1.9	2.8	270	310
AM 250M NG	**2**	55	75	2950	178.0	89.9	91.7	92.1	0.89	97	100	7.5	2.3	1.8	3.0	424	410
AMHE 280S G	**2**	75	100	2960	242.0	93.1	94.3	94.0	0.90	128	134	7.8	2.2	2.0	3.0	700	570
AMHE 280M G	**2**	90	125	2960	290.4	93.4	94.3	94.3	0.90	153	160	7.8	2.2	2.0	3.0	800	660
AMHE 315S G	**2**	110	150	2978	352.7	93.4	94.5	94.8	0.90	185	194	7.8	2.2	1.8	2.9	1400	800
AMHE 315M G	**2**	132	180	2978	423.3	93.2	94.8	95.1	0.90	223	233	7.8	2.2	1.8	2.9	1700	1000
AMHE 315M RG	**2**	160	220	2980	512.7	94.0	95.1	95.4	0.91	265	277	7.8	2.0	1.7	2.75	2600	1100
AMHE 315L G	**2**	200	270	2978	641.3	94.2	95.4	95.7	0.91	330	346	7.2	1.85	1.6	2.5	2800	1300

1) Temperature rise to class F

***** Higher output (progressive motor)

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

High efficiency motors - IE2 code from 280 to 315 frame size

Efficiency values are not comparable without knowing the efficiency testing method.

Three-phase motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

IE1

For mains voltage to IEC 60038 400 V ± 10% - 50 Hz

Standard efficiency motors, IE1
Efficiency testing method IEC 60034-2-1;2007

Temperature rise to class B

Tipo		kW	HP	min^{-1}	M_N Nm	IE1 η 50%	IE1 η 75%	IE1 η 100%	cos φ	I_N 400V	I_N 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	0.70	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	0.82	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	0.95	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	1.58	8.2
AM 80Z BA	**4**	0.75	1.0	1410	5.1	68.7	70.8	72.4	0.72	2.1	2.2	4.4	2.8	2.3	2.8	2.00	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	2.41	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	2.5	12.5
AM 90L BA	**4**	1.5	2.0	1400	10.2	77.6	77.8	77.5	0.78	3.6	3.7	5.7	2.8	2.6	3.0	3.13	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	3.13	14.5
AM 90L DA	**4***	2.2 [1]	3.0 [1]	1400	15.0	78.3	78.5	77.9	0.77	5.3	5.5	4.8	2.9	2.8	3.2	4.05	17.0
AM 100L AA	**4**	2.2	3.0	1435	14.6	76.5	79.1	79.9	0.74	5.4	5.6	5.3	2.5	2.4	2.7	4.6	19.5
AM 100L BA	**4**	3.0	4.0	1425	20.1	82.0	83.0	81.6	0.78	6.8	6.9	4.6	2.4	2.3	2.5	5.58	22.5
AM 100L CA	**4***	4.0 [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	6.05	25.0
AM 112M AA	**4**	4.0	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	12.2	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	15.2	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	22.40	41.9
AM 132M ZA	**4**	7.5	10.0	1440	49.7	87.3	87.2	86.2	0.83	15.3	15.5	6.8	3.1	2.7	3.1	29.25	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	37.25	65.0
AM 132M TA	**4***	11.0 [1]	15.0 [1]	1440	72.9	83.5	83.9	84.5	0.87	21.5	22.0	8.3	3.1	3.0	3.3	37.25	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	81.25	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	105.7	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	120.4	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	134.7	128.1
AM 180M XG	**4**	18.5	25	1460	121.0	89.0	89.8	89.3	0.84	35.5	36.5	7.2	2.7	2.2	3.0	105	125
AM 180L XG	**4**	22	30	1460	143.9	89.8	90.5	89.9	0.84	42	43.5	7.3	2.7	2.2	3.0	118	135
AM 180L RG	**4***	30	40	1455	196.9	89.0	90.0	90.0	0.82	58	60	7.8	3.0	2.4	3.2	150	150
AM 200L NG	**4**	30	40	1465	195.6	89.7	90.8	90.7	0.84	56.5	58.5	7.0	2.4	1.8	2.6	195	225
AM 200L FG	**4***	37	50	1465	241.2	90.3	91.0	91.0	0.83	69.5	71.5	7.4	2.6	2.0	2.8	248	255
AM 225S NG	**4**	37	50	1475	239.5	89.8	91.1	91.2	0.84	69.5	71.5	7.5	2.3	2.0	2.9	356	290
AM 225M NG	**4**	45	60	1475	291.3	90.8	91.8	91.7	0.86	81.5	85	7.6	2.3	2.0	2.9	461	330
AM 250M NG	**4**	55	75	1475	356.1	91.6	92.3	92.1	0.84	103	107	6.5	3.5	2.1	2.4	640	385
AM 250M KG	**4***	75	100	1470	487.2	90.7	91.8	92.0	0.82	142	146	7.3	3.9	2.3	2.7	812	440
AMHE 280S G	**4**	75	100	1475	485.6	93.5	94.5	94.3	0.88	131	138	7.4	2.4	1.9	2.7	1400	570
AMHE 280M G	**4**	90	125	1475	582.7	93.6	94.7	94.6	0.88	157	165	7.4	2.5	2.0	2.8	1600	660
AMHE 315S G	**4**	110	150	1480	709.8	93.8	95.0	95.0	0.88	191	201	7.7	2.4	2.0	2.6	3200	800
AMHE 315M G	**4**	132	180	1482	850.6	93.8	95.2	95.3	0.88	229	241	7.7	2.4	2.0	2.6	3700	1000
AMHE 315M RG	**4**	160	220	1487	1027.5	94.0	95.4	95.4	0.88	276	288	7.8	2.4	2.0	2.7	4700	1100
AMHE 315L G	**4**	200	270	1485	1286.1	94.0	95.4	95.5	0.88	345	360	7.6	2.3	1.9	2.6	5500	1300

1) Temperature rise to class F

***** Higher output (progressive motor)

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

High efficiency motors - IE2 code from 280 to 315 frame size

Efficiency values are not comparable without knowing the efficiency testing method.

Standard efficiency motors, IE1
Efficiency testing method IEC 60034-2-1;2007

Temperature rise to class B

Tipo		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	0.60	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	0.90	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	1.97	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	2.47	9.4
AM 90S AA	**6**	0.75	1.00	910	7.9	70.5	72.5	71.5	0.63	2.4	2.5	2.9	1.7	1.5	1.7	3.18	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	4.78	15.0
AM 100L AA	**6**	1.5	2.00	930	15.4	73.3	75.8	75.3	0.69	4.2	4.4	3.7	1.8	1.8	2.3	6.73	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	9.43	22.0
AM 112M AA	**6**	2.2	3.00	940	22.4	77.0	79.0	78.0	0.74	5.3	5.4	4.4	2.4	2.4	2.6	14.18	26.0
AM 112M CA	**6***	3	4.00	940	30.5	81.8	82.8	82.8	0.74	7.0	7.2	5.3	2.9	2.9	2.9	18.70	39.0
AM 132S ZA	**6**	3	4.00	950	30.2	79.5	81.5	81.3	0.72	7.4	7.5	4.9	2.0	1.8	2.4	23.53	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	29.50	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	37.75	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	54.10	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	137	113.6
AM 180L ZG	**6**	15	20	970	147.7	88.2	88.5	87.7	0.83	29.5	30	6.7	2.2	1.8	2.8	169	130
AM 200L PG	**6**	18.5	25	970	182.1	87.7	88.8	88.6	0.82	37.0	37	5.3	2.2	1.8	2.3	260	210
AM 200L RG	**6**	22	30	975	215.5	88.3	89.4	89.2	0.82	43.5	44	5.7	2.2	1.8	2.3	285	220
AM 225M PG	**6**	30	40	975	293.8	89.4	90.4	90.2	0.84	57.3	58	5.7	2.3	1.6	2.3	536	290
AM 250M PG	**6**	37	50	975	362.4	89.8	90.9	90.8	0.84	70	71	7.1	3.2	2.5	2.6	880	380
AM 280S G	**6**	45	60	985	436.3	90.3	91.3	91.4	0.84	85	88	6.0	2.5	1.8	2.0	2550	570
AM 280M G	**6**	55	75	985	533.2	90.7	91.7	91.9	0.83	104	107	6.1	2.5	1.9	2.0	2900	660
AM 315S G	**6**	75	100	985	727.1	91.3	92.4	92.8	0.84	139	144	7.0	3.0	2.1	2.6	5000	800
AM 315M G	**6**	90	125	985	872.6	91.8	92.7	93.0	0.85	164	172	7.0	3.0	2.1	2.6	6000	1000
AM 315M RG	**6**	110	150	985	1066.5	92.3	93.4	93.7	0.85	198	207	6.7	2.8	1.9	2.0	6100	1100
AM 315L G	**6**	132 [1]	175 [1]	985	1279.7	92.6	93.4	93.7	0.85	236	248	6.7	2.8	1.9	2.0	7300	1300

1) Temperature rise to class F

***** Higher output (progressive motor)

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

Efficiency values are not comparable without knowing the efficiency testing method.

Three-phase motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 50 Hz

Efficiency testing method IEC 60034-2;1996

Temperature rise to class B

Tipo		kW	HP	min^{-1}	M_N Nm	η 50%	η 75%	η 100%	cos φ	I_N 400V	I_N 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	0.82	6
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	1.97	8
AM 90S AA	**8**	0.37	0.50	680	5.2	52	58	59	0.53	1.7	1.8	2.1	1.4	1.3	1.6	3.18	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	4.78	15
AM 100L AA	**8**	0.75	1.0	690	10.4	59	64	65	0.65	2.6	2.8	3.0	1.6	1.5	1.7	6.72	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	15.93	22.6
AM 112M AA	**8**	1.5	2.0	696	20.6	66	69	70	0.66	4.6	4.8	4.0	1.8	2.0	2.4	16.70	35
AM 132S ZA	**8**	2.2	3.0	710	29.6	79.3	80.5	78.8	0.64	6.4	6.6	3.4	1.7	1.6	1.7	29.50	45.5
AM 132M ZA	**8**	3.0	4.0	710	40.4	81.3	82.0	79.8	0.67	8.1	8.4	3.6	1.7	1.6	1.9	37.75	54.5
AM 160M YA	**8**	4.0	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	75	75
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	92
AM 160L ZA	**8**	7.5	10.0	710	100.9	86.3	85.8	85.5	0.74	17.1	17.8	4.0	1.8	1.6	2.3	137	113
AM 180L ZG	**8**	11	15	725	144.9	86.7	87.8	86.9	0.74	25.0	25.5	4.6	2.1	1.4	1.9	215	150
AM 200L RG	**8**	15	20	730	196.2	87.2	88.8	88.5	0.76	32.0	33.5	5.3	2.3	1.9	2.5	285	220
AM 225S PG	**8**	18.5	25	730	242.0	88.6	89.9	89.5	0.77	39.0	41	5.2	2.3	1.9	2.2	438	255
AM 225M PG	**8**	22	30	730	287.8	88.7	89.9	89.5	0.77	46.6	48	5.6	2.5	2.0	2.3	538	285
AM 250M PG	**8**	30	40	730	392.4	88.7	90.2	90.2	0.78	61	65	6.5	3.2	2.5	2.6	1080	400
AM 280S G	**8**	37	50	735	480.7	91.5	92.5	92.5	0.75	77	81	6.0	1.7	1.6	2.4	2550	570
AM 280M G	**8**	45	60	735	584.7	91.6	92.8	93.0	0.75	93	98	6.0	1.7	1.4	2.4	2900	660
AM 315S G	**8**	55	75	740	709.8	92.0	93.3	93.5	0.75	113	119	6.0	2.5	1.5	2.0	5000	800
AM 315M G	**8**	75	100	740	967.9	92.2	93.9	94.1	0.76	151	159	6.0	2.5	1.5	2.0	6000	1000
AM 315M RG	**8**	90	125	740	1161.4	93.4	94.2	94.4	0.77	179	188	6.0	2.4	1.8	2.0	6100	1100
AM 315L G	**8**	110 [1]	150 [1]	740	1419.5	93.6	94.4	94.6	0.77	218	227	6.0	2.4	1.8	2.0	7300	1300

1) Temperature rise to class F

Efficiency values are not comparable without knowing the efficiency testing method.

High efficiency motors, IE2 code
Efficiency testing method IEC 60034-2-1;2007

Sovratemperatura in classe B

Tipo		kW	HP	min^{-1}	M_N Nm	IE2η 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)																
AMHE 80Z AA	**2**	0.75	1.0	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	2.0	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 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 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	61.0
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	91.1	91.8	91.5	0.88	39.5	7.7	2.5	2.3	3.2	70	135
AMHE 200L PG	**2**	30	40	2945	97.3	91.1	92.4	92.1	0.89	52.7	7.8	2.1	1.9	2.8	130	220
AMHE 200L RG	**2**	37	50	2950	119.8	91.5	92.9	92.6	0.89	65.0	7.6	2.2	2.0	2.8	156	240
AMHE 225M PG	**2**	45	60	2950	145.7	92.6	93.3	93.0	0.89	78.5	7.9	2.5	1.9	2.9	270	315
AMHE 250M PG	**2**	55	75	2955	177.7	92.8	93.9	93.6	0.9	94.5	7.7	2.4	1.8	3.0	424	410
AMHE 280S G	**2**	75	100	2960	242.0	93.1	94.3	94.0	0.9	128	7.8	2.2	2.0	3.0	700	570
AMHE 280M G	**2**	90	125	2960	290.4	93.4	94.3	94.3	0.9	153	7.8	2.2	2.0	3.0	800	660
AMHE 315S G	**2**	110	150	2978	352.7	93.4	94.5	94.8	0.9	185	7.8	2.2	1.8	2.9	1400	800
AMHE 315M G	**2**	132	180	2978	423.3	93.2	94.8	95.1	0.9	223	7.8	2.2	1.8	2.9	1700	1000
AMHE 315M RG	**2**	160	220	2980	512.7	94.0	95.1	95.4	0.91	265	7.8	2.0	1.7	2.75	2600	1100
AMHE 315L G	**2**	200	270	2978	641.3	94.2	95.4	95.7	0.91	330	7.2	1.85	1.6	2.5	2800	1300

***** Higher output (progressive motor)

High efficiency motors, IE2 code
Efficiency testing method IEC 60034-2-1;2007

Sovratemperatura in classe B

Tipo		kW	HP	min^{-1}	M_N Nm	IE2η 50%	IE2η 75%	IE2η 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)																
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
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	16.4
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	16.4
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	1460	121	90.8	91.7	91.3	0.84	35	7.5	2.8	2.3	3.1	112	130
AMHE 180L ZG	**4**	22	30	1465	143.4	91.5	92.1	91.8	0.84	41	7.8	3.0	2.4	3.2	132	140
AMHE 200L RG	**4**	30	40	1465	195.6	90.0	92.7	92.4	0.83	56.5	7.0	2.4	1.8	2.6	206	230
AMHE 225S PG	**4**	37	50	1475	239.5	92.5	93.0	92.9	0.85	68	7.7	2.3	2.0	2.9	356	290
AMHE 225M PG	**4**	45	60	1475	291.3	92.7	93.3	93.2	0.87	80.5	7.7	2.3	2.0	2.9	461	330
AMHE 250M PG	**4**	55	75	1475	356.1	93.4	94.0	93.7	0.83	103	6.8	3.8	2.3	2.6	677	400
AMHE 280S G	**4**	75	100	1475	485.6	93.5	94.5	94.3	0.88	131	7.4	2.4	1.9	2.7	1400	570
AMHE 280M G	**4**	90	125	1475	582.7	93.6	94.7	94.6	0.88	157	7.4	2.5	2.0	2.8	1600	660
AMHE 315S G	**4**	110	150	1480	709.8	93.8	95.0	95.0	0.88	191	7.7	2.4	2.0	2.6	3200	800
AMHE 315M G	**4**	132	180	1482	850.6	93.8	95.2	95.3	0.88	229	7.7	2.4	2.0	2.6	3700	1000
AMHE 315M RG	**4**	160	220	1487	1027.5	94.0	95.4	95.4	0.88	276	7.8	2.4	2.0	2.7	4700	1100
AMHE 315L G	**4**	200	270	1485	1286.1	94.0	95.4	95.5	0.88	345	7.6	2.3	1.9	2.6	5500	1300

Three-phase motors high efficiency according to EPAct

IE2

ENERGY

c UL us

For mains voltage 460 V - 60 Hz

Insulation class F
Temperature rise to class B
S.F. 1.15

Verified by UL Underwriters Laboratories Inc.

Type		kW	HP	min^{-1}	M_N Nm	η 50%	η 75%	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 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
AMH 180M ZG	**2**	22	30	3550	59.2	92.1	92.6	92.4	0.88	33.5	8.6	2.9	2.3	3.7	88	145
AMH 200L PG	**2**	30	40	3555	80.6	90.6	91.7	91.7	0.87	47	8.1	2.4	1.8	2.9	130	220
AMH 200L RG	**2**	37	50	3555	99.4	91.7	92.5	92.4	0.88	57.5	7.9	2.3	1.7	2.7	156	240
AMH 225M PG	**2**	45	60	3555	120.9	91.8	93.0	93.0	0.88	70	8.1	2.4	1.8	3.0	270	315
AMH 250M PG	**2**	55	75	3560	147.5	91.2	92.7	93.0	0.90	81.5	7.5	2.9	1.7	2.5	424	410
AMH 280S G	**2**	75	100	3580	200.1	92.8	93.2	93.6	0.89	110	7.6	2.2	1.7	3.4	700	570
AMH 280M G	**2**	90	125	3580	240.1	93.0	94.1	94.5	0.89	134	7.7	2.2	1.7	3.4	800	660
AMH 315S G	**2**	110	150	3585	293.0	93.3	94.4	94.5	0.89	165	8.2	2.8	1.5	3.0	1400	800
AMH 315M RG	**2**	150	200	3585	399.6	94.5	94.8	95.0	0.90	220	8.7	3.0	1.6	3.2	2600	1100
1800 min^{-1} (4 poles)																
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
AMH 180M G	**4**	18.5	25	1770	99.8	92.3	92.8	92.4	0.83	29	8.8	3.2	2.3	3.4	132	140
AMH 180L G	**4**	22	30	1770	118.7	92.2	92.7	92.4	0.84	36.5	8.6	3.2	2.3	3.4	150	155
AMH 200L RG	**4**	30	40	1780	160.9	92.3	93.2	93.0	0.82	49	7.7	2.9	2.2	3.0	248	255
AMH 225S PG	**4**	37	50	1780	198.5	92.2	93.2	93.0	0.85	60	7.8	2.3	2.0	2.8	356	290
AMH 225M PG	**4**	45	60	1780	241.4	93.4	93.9	93.6	0.84	72	7.9	2.3	2.0	2.8	461	330
AMH 250M PG	**4**	55	75	1775	295.9	91.2	93.8	94.1	0.80	91	8.5	4.6	2.7	3.2	750	420
AMH 280S G	**4**	75	100	1785	401.2	93.8	94.5	94.5	0.84	119	7.8	2.9	2.1	3.1	1400	570
AMH 280M G	**4**	90	125	1785	481.5	94.1	94.6	94.5	0.84	143	7.7	2.9	2.1	3.1	1600	660
AMH 315S G	**4**	110	150	1785	588.5	93.6	94.7	95.0	0.87	170	7.8	2.2	1.6	2.8	3200	800
AMH 315M RG	**4**	150	200	1785	802.5	94.1	94.9	95.0	0.88	228	8.0	2.4	1.6	2.9	4700	1100

Three-phase pole-changing motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
AM 180M ZG	**4/2**	15/19.5	20/26.5	1465/2955	97.8/63	89/87	0.80/0.88	30/36.5	31.5/38.5	5.8/7.2	2.0/1.8	112	130.0
AM 180L ZG	**4/2**	17.5/23	24/31	1465/2950	114.1/74.5	90/88	0.81/0.86	34.5/43	36.5/46	6.5/7.5	2.0/1.8	132	140.0
AM 200L PG	**4/2**	24/29	32.5/39	1470/2955	155.9/93.7	91/89.5	0.83/0.89	46/52	48/55	6.2/7.8	2.1/2.5	206	230.0
AM 200L RG	**4/2**	26/33	35/45	1470/2955	168.9/106.6	91.5/89.5	0.84/0.91	50/59	52/62	6.4/7.9	2.0/2.2	248	255.0
AM 225S P	**4/2**	30/38	40/52	1470/2965	194.9/122.4	92/91	0.85/0.91	55/66	58/70	5.8/7.8	1.7/1.8	356	325.0
AM 225M P	**4/2**	34/46 [1]	46/63 [1]	1475/2960	220.1/148.4	92/91	0.85/0.90	63/81	66/85	6.6/7.8	1.9/1.8	428	330.0
AM 250M P	**4/2**	50/58	68/79	1470/2965	324.8/186.8	93/92.5	0.85/0.90	92/100	96/104	5.8/8.6	3.0/3.5	750	465.0
AM 280S G	**4/2**	60/72 [1]	82/98 [1]	1480/2975	387.1/231.1	94/93	0.85/0.91	108/122	114/129	5.9/8.5	2.0/2.2	1200	580.0
AM 280M G	**4/2**	70/84 [1]	95/114 [1]	1480/2975	451.7/269.6	94/93	0.85/0.91	126/142	133/150	5.9/8.5	2.0/2.2	1400	620.0
AM 315S G	**4/2**	85/115	116/156	1485/2970	546.6/369.8	94.5/93	0.86/0.91	150/195	156/203	6.0/7.4	1.6/1.5	2200	860.0
AM 315M G	**4/2**	100/125	136/170	1485/2970	643.1/401.9	95/94	0.87/0.91	175/210	182/217	6.6/7.9	1.7/1.6	3100	940.0
AM 315L G	**4/2**	120/150	163/204	1485/2970	771.7/482.3	95/94	0.87/0.91	210/255	219/264	6.6/7.9	1.7/1.6	3100	1120.0

1) Temperature rise to class F

Three-phase pole-changing motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
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
AM 180L ZG	**8/4**	11/18	15/24	730/1465	143.9/117.3	87/89	0.72/0.90	26/32	27/34	5.8/6.8	2.0/1.6	215.0	150.0
AM 200L PG	**8/4**	15/23	20/31	730/1465	196.2/149.9	88/88	0.77/0.92	33.5/41	34/43	5.3/7.0	2.0/2.3	285.0	220.0
AM 200L RG	**8/4**	18/29	24/39	735/1470	233.9/188.4	89/89	0.73/0.91	40/51	42/54	5.6/7.5	2.6/2.4	375.0	255
AM 225S PG	**8/4**	21/32	28/43	735/1475	272.8/207.2	89/90	0.79/0.92	44/55	45/59	5.8/7.4	2.2/2.0	576.0	310.0
AM 225M PG	**8/4**	26/37 [1]	35/50 [1]	735/1475	337.8/239.5	90/90	0.78/0.91	53/65	56/68	5.4/7.2	2.1/2.1	577.0	315.0
AM 250M PG	**8/4**	32/46 [1]	43/63 [1]	730/1470	418.6/298.8	90/90.5	0.77/0.91	67/81	70/85	6.0/8.8	2.8/2.8	1320.0	490.0
AM 280S G	**8/4**	44/60 [1]	60/82 [1]	740/1485	567.8/385.8	91/91	0.80/0.91	88/105	93/110	5.8/8.2	2.1/2.3	2000.0	580.0
AM 280M G	**8/4**	52/70 [1]	71/95 [1]	740/1485	671.1/450.1	91/91	0.80/0.91	105/122	110/128	5.8/8.2	2.1/2.3	2320.0	620.0
AM 315S ZG	**8/4**	60/100	82/136	735/1480	779.6/645.2	93/93	0.75/0.88	117/170	123/180	6.6/7.5	2.2/2.2	3100.1	790.0
AM 315M ZG	**8/4**	75/120	100/163	735/1480	974.4/774.3	93/93	0.76/0.89	152/205	160/215	6.6/7.7	2.3/2.3	3600.0	860.0
AM 315L ZG	**8/4**	90/150	120/200	735/1480	1169.3/967.9	94/94	0.76/0.89	180/253	190/266	6.9/7.9	2.3/2.5	4300.0	990.0

1) Temperature rise to class F

Three-phase pole-changing motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
AM 180L ZG	**4/6**	16.5/11	22.5/15	1475/985	106.8/106.6	89/86	0.87/0.76	31/24	32.5/25.5	7.6/7.8	2.0/2.4	215.0	150.0
AM 200L PG	**4/6**	21/14	28/19	1470/980	136.4/136.4	88/87	0.88/0.81	39/28.5	41/30	6.0/6.4	1.8/2.2	285.0	220.0
AM 200L RG	**4/6**	26/18	35/24	1475/985	168.3/174.5	89.5/88.5	0.88/0.81	48/36	50/38	7.2/7.4	2.0/2.5	375.0	255.0
AM 225S PG	**4/6**	30/21	40/28	1475/985	194.2/203.6	91/89	0.89/0.81	53/42	56/44	6.8/7.4	1.9/2.6	583.0	310.0
AM 225M PG	**4/6**	37/25 [1]	50/34 [1]	1475/985	239.5/242.4	90.5/89	0.90/0.83	66/49	69/51	6.2/6.8	1.8/2.2	583.0	315.0
AM 250M PG	**4/6**	45/30	60/40	1475/980	291.3/292.3	91/90.5	0.90/0.86	79/56	83/59	8.5/7.6	2.8/3.0	1320.0	490.0
AM 280S G	**4/6**	65/45 [1]	88/60 [1]	1485/988	418/435	91.5/92	0.88/0.83	117/86	123/90	7.0/6.8	1.7/2.3	1200.0	580.0
AM 280M G	**4/6**	80/54 [1]	109/73 [1]	1485/988	514.5/521.9	91.5/91	0.88/0.83	144/105	151/110	7.0/6.8	1.7/2.3	1400.0	620.0
AM 315S G	**4/6**	87/58	117/78	1480/985	561.4/562.3	93/93	0.90/0.85	150/105	157/110	7.8/7.8	1.9/2.2	3100.0	790.0
AM 315M G	**4/6**	95/65	129/88	1480/985	613/630.2	93/93	0.90/0.85	165/118	171/124	7.8/7.8	2.0/2.2	3600.0	860.0
AM 315L G	**4/6**	105/72	141/96	1480/985	677.5/698	94/94	0.93/0.87	175/127	183/135	7.8/8.0	2.0/2.3	4300.0	990.0

1) Temperature rise to class F

Three-phase pole-changing motors designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
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
AM 180L ZG	**6/8**	11/8.5	15/11.5	985/730	106.6/111.2	86/83	0.76/0.74	24/20	26/22	6.8/5.5	2.0/2.1	215.0	150.0
AM 200L PG	**6/8**	15/11.5	20/15.6	980/735	146.2/149.4	88/86.5	0.82/0.74	30.5/25.5	32/27	5.8/4.8	1.8/2.3	285.0	220.0
AM 200L RG	**6/8**	19/14.5	26/19.7	980/735	185.1/188.4	89/86.5	0.83/075	37/32	39/34	6.0/5.5	1.9/2.3	375.0	255.0
AM 225S PG	**6/8**	23/18	31/24	985/735	223/233.9	89/88	0.83/0.78	45/38	47/40	6.2/5.2	1.9/2.0	583.0	310.0
AM 225M PG	**6/8**	28/21 [1]	38/28 [1]	985/735	271.5/272.8	90/88.5	0.82/0.78	54/45	57/47	5.8/5.0	1.9/1.9	583.0	315.0
AM 250M PG	**6/8**	31/24	42/32.5	985/735	300.5/311.8	91/91	0.84/0.79	59/49	62/51	8.4/7.5	2.6/3.4	1320.0	490.0
AM 280S G	**6/8**	44/33 [1]	59.5/45 [1]	988/738	425.3/427	91/90	0.81/0.75	87/70	91/74	5.2/5.0	1.4/1.7	1200.0	580.0
AM 280M G	**6/8**	55/42 [1]	75/57 [1]	988/738	531.6/543.5	91/90	0.81/0.75	108/90	113/95	5.2/5.0	1.5/2.1	1400.0	620.0
AM 315S G	**6/8**	65/48	87/64	988/740	628.3/619.4	92.0/92.0	0.87/0.81	117/90	121/94	7.5/7.4	2.0/2.2	3100.0	790.0
AM 315M G	**6/8**	75/55	100/74	988/740	724.9/709.8	92.5/92.0	0.87/0.81	135/105	140/109	7.5/7.4	2.1/2.3	3600.0	860.0
AM 315L G	**6/8**	90/70	120/94	988/740	869.9/903.3	93.0/92.5	0.87/0.81	160/135	166/140	7.5/7.5	2.2	4300.0	990.0

1) Temperature rise to class F

Three-phase pole-changing motors for fan drives designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
AMV 180M ZG	**4/2**	5/20	6.7/27	1470/2950	32.5/64.7	89/88	0.83/0.89	10/37.5	10.5/38.5	5.5/7.5	2.0/2.1	112.0	130.0
AMV 180L ZG	**4/2**	6/24	8/32	1470/2940	39/78	90/89	0.83/0.88	11.5/45	13/47	5.5/7.5	2.0/2.1	132.0	140.0
AMV 200L PG	**4/2**	6.5/30	8/40	1480/2950	41.9/97.1	91.5/90	0.81/0.89	12.2/53	12.6/55	7.1/7.7	2.6/2.3	206.0	230.0
AMV 200L RG	**4/2**	7/35	9.5/47	1480/2950	45.2/113.3	91.5/90	0.82/0.89	14/62	14.8/64	7.1/7.7	2.6/2.3	248.0	255.0
AMV 225M PG	**4/2**	8.0/40	10.7/54	1485/2970	51.4/128.6	92/91	0.81/0.89	15.5/70	16.1/73	7.5/8.5	2.3/2.1	428.0	330.0
AMV 250M PG	**4/2**	11.0/55	14.7/75	1485/2965	70.7/177.1	93/92.5	0.82/0.92	21/92	22/96	7.4/8.4	3.6/3.4	750.0	465.0
AMV 280S G	**4/2**	13/67	17/90	1485/2980	83.6/214.7	93.5/93	0.83/0.88	24.5/118	26/122	8.4/8.9	2.9/2.5	1200.0	580.0
AMV 280M G	**4/2**	16/80	21/107	1485/2980	102.9/256.4	93.5/93	0.83/0.88	29.5/140	32/144	8.4/8.9	2.9/2.5	1400.0	620.0
AMV 315S G	**4/2**	20/100	27/134	1492/2975	128/321	93.5/93	0.84/0.90	37/174	39/180	7.4/8.3	1.9/1.6	2200.0	860.0
AMV 315M G	**4/2**	23/120	31/160	1492/2975	147.2/385.2	94.5/94	0.84/0.90	42/207	45/213	7.8/8.6	2.0/1.8	2500.0	940.0
AMV 315L G	**4/2**	28/145	38/195	1492/2975	179.2/465.4	94.5/94	0.84/0.90	51/250	54/257	8.0/8.7	2.0/1.8	3100.0	1120.0

1) Temperature rise to class F

Three-phase pole-changing motors for fan drives designed for range of rated voltage 380-420 V ± 5% - 50 Hz

For mains voltage to IEC 60038 400 V ± 10% - 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
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
AMV 180M ZG	**8/4**	4/17	5.5/23	730/1465	52.3/110.8	84/90	0.61/0.83	11.5/33	13/34.5	4.0/7.2	1.7/2.3	112.0	130.0
AMV 180L ZG	**8/4**	5/20	6.8/27	730/1470	65.4/129.9	84/90	0.61/0.83	14.5/39	15/41	4.2/7.6	1.7/2.3	132.0	140.0
AMV 200L PG	**8/4**	6/24	8/32.5	735/1480	78/154.9	87.5/90.5	0.62/0.82	15.5/50	16.5/52	3.6/7.6	1.6/2.4	206.0	230.0
AMV 200L RG	**8/4**	7/28	9.5/38	735/1480	90.9/180.7	88/91	0.60/0.85	19/55	20/58	3.5/7.7	1.7/2.6	248.0	255.0
AMV 225M PG	**8/4**	8.5/36	11.5/49	735/1480	110.4/232.3	89.5/92	0.62/0.82	22/72	23/75	4.0/8.7	1.8/2.5	430.0	330.0
AMV 250M PG	**8/4**	11/46	15/62	740/1475	142/297.8	91.5/92	0.79/0.88	22/81	23/85	5.3/8.4	2.4/2.9	1110.0	490.0
AMV 280S G	**8/4**	16/66	22/88	740/1485	206.5/424.4	90/93	0.62/0.85	42/121	44/127	3.3/7.0	1.5/2.4	1200.0	580.0
AMV 280M G	**8/4**	19/78	26/106	740/1485	245.2/501.6	91/93	0.62/0.85	49/143	51/150	3.3/7.0	1.5/2.4	1400.0	620.0
AMV 315S G	**8/4**	26/105	35/140	743/1480	334.2/677.5	92.5/94.0	0.60/0.87	68/185	75/193	4.1/5.5	1.1/1.6	1900.0	800.0
AMV 315M G	**8/4**	33/132	45/177	743/1480	424.1/851.7	93.0/95.0	0.60/0.87	85/230	92/243	4.3/5.7	1.0/1.5	2500.0	940.0
AMV 315L G	**8/4**	40/165	55/220	743/1480	514.1/1064.6	93.0/95.5	0.61/0.88	103/285	109/300	4.2/6.0	1.2/1.6	3100.0	1120.0

1) Temperature rise to class F

Three-phase pole-changing motors for fan drives designed for range of rated voltage 380-420 V ± 5% - 50 HZ

For mains voltage to IEC 60038 400 V ± 10% - 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
AMV 180L ZG	**4/6**	17/5.5	23/7.5	1470/975	110.4/53.9	89.5/86	0.86/0.84	31/11	33/11.5	7.6/5.5	1.9/1.5	215.0	150.0
AMV 200L PG	**4/6**	21/7	28/9.5	1470/985	136.4/67.9	88/87	0.88/0.84	39/14	41/14.5	6.0/6.2	1.8/2.2	285.0	220.0
AMV 200L RG	**4/6**	26/9	35/12	1475/985	168.3/87.3	89.5/88	0.88/0.85	48/17	50/18	7.0/6.2	2.0/2.1	375.0	255.0
AMV 225M PG	**4/6**	33/11	45/15	1475/985	213.7/106.6	90/89	0.89/0.85	60/21	63/22	7.0/6.8	2.0/2.4	583.0	315.0
AMV 250M PG	**4/6**	50/18	68/24	1470/985	324.8/174.5	91/90	0.90/0.85	89/34.5	93/36	8.5/8.5	2.8/3.2	1110.0	490.0
AMV 280S G	**4/6**	63/22	84/29	1490/992	403.8/211.8	92.5/91	0.88/0.85	111/42	117/44	7.7/8.3	1.9/2.5	1200.0	580.0
AMV 280M G	**4/6**	73/27	98/36	1490/992	467.9/259.9	92.5/91	0.87/0.85	131/50	137/53	7.7/8.3	1.9/2.5	1400.0	620.0
AMV 315S G	**4/6**	90/31	121/42	1492/995	576/297.5	93/90.5	0.88/0.88	160/58	167/62	8.3/8.0	2.2/2.5	3100.0	790.0
AMV 315M G	**4/6**	115/36	154/48	1492/995	736.1/345.5	93/90.5	0.88/0.87	200/67	209/71	8.3/8.0	2.2/2.5	3600.0	860.0
AMV 315L G	**4/6**	135/43	180/58	1490/993	865.2/413.5	93.5/90	0.88/0.87	235/79	245/83	8.0/7.8	2.3/2.6	4300.0	990.0

1) Temperature rise to class F

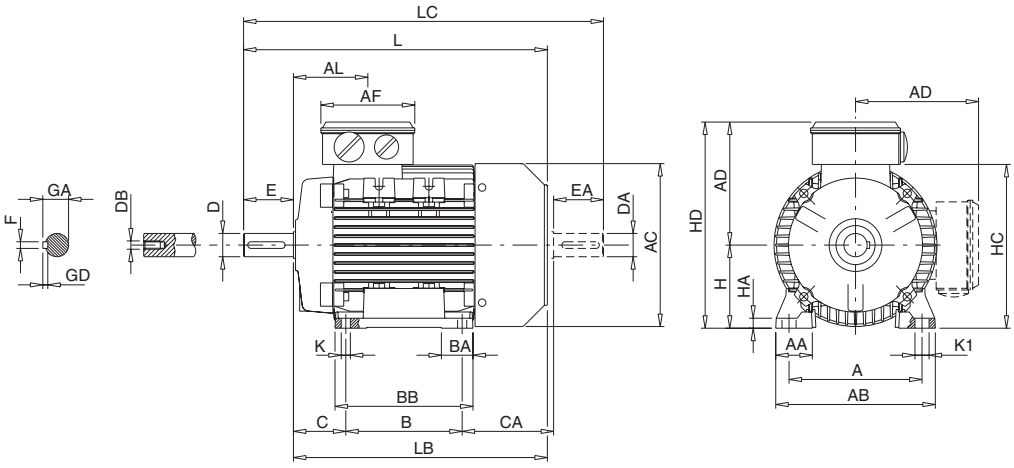
Three-phase pole-changing motors for fan drives designed for range of rated voltage 380-420 V ± 5% - 50 HZ

For mains voltage to IEC 60038 400 V ± 10% - 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
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
AMV 180L ZG	**6/8**	12/6	16/8	985/735	116.3/78	87/84	0.76/0.72	26/14.5	27.5/15	7.2/6.0	2.1/2.1	215.0	150.0
AMV 200L PG	**6/8**	17/8.5	23/11.5	980/735	165.7/110.4	89/85	0.80/0.74	35/19.5	36.5/20.5	5.6/5.6	1.9/2.3	285.0	220.0
AMV 200L RG	**6/8**	22/11	30/15	980/735	214.4/142.9	89.5/86	0.81/0.75	43/24.5	46/26	6.3/5.7	2.3/2.5	375.0	255.0
AMV 225M PG	**6/8**	26/13	35/17.5	985/740	252.1/167.8	90.5/87	0.80/0.74	52/28.5	55/30	6.6/6.2	2.2/2.3	583.0	315.0
AMV 250M PG	**6/8**	38/19	52/26	985/735	368.4/246.9	92/90	0.87/0.81	69/38	72/40	8.0/7.5	2.7/3.2	1110.0	490.0
AMV 280S G	**6/8**	43/22	58/29	990/475	414.8/442.3	92/90	0.80/0.77	84/46	88/48	5.8/6.0	1.5/2.2	1200.0	480.0
AMV 280M G	**6/8**	54/27	72/36	990/745	520.9/346.1	92/90	0.80/0.77	104/57	110/60	5.8/6.1	1.5/2.2	1400.0	620.0
AMV 315S G	**6/8**	73/35	98/47	988/745	705.6/448.6	92.5/91	0.87/0.81	130/68	137/71	7.3/7.3	2.0/2.2	3100.0	790.0
AMV 315M G	**6/8**	85/40	114/54	988/745	821.6/512.7	93/92	0.87/0.81	150/77	158/81	7.5/7.4	2.1/2.3	3600.0	860.0
AMV 315L G	**6/8**	105/50	140/167	988/745	1014.9/640.9	93.5/92	0.87/0.82	185/95	193/100	7.5/7.5	2.4/2.2	4300.0	990.0

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



IEC DIN	H h	A b	B a	C w_1	K[1] s	AB f	BB e	CA	AD[2] g_4	HD[2]	AC m_1	HC g	HA
56	56	90	71	36	6	109	90	65	98	154	112	110	8
63	63	100	80	40	7	126	105	72	103	166	125	125	8
71	71	112	90	45	7	144	109	83	112	183	142	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
100L	100	160	140	63	11	192	166	110	145	245	196	198	12
112M	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 DIN	K1 c	L k	LB	LC k_1	AL	AF	BA m	AA n	D/DA d/d_1	E/EA l/l_1	F/FA u/u_1	GD	GA/GC t/t_1	DB[3] d_6/d_7
56	12	190	170	211	62	93	22	22	9	20	3	3	10.2	M3
63	12	213	190	238	63	93	26	26	11	23	4	4	12.5	M4
71	17	245	215	278	69	93	22	30	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 180 - 315 IM B3
CAST IRON FRAME

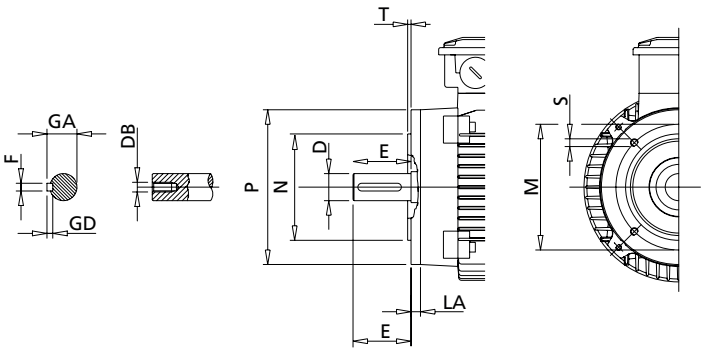
	IEC DIN	H h	A b	B a	C w_1	K[1] s	AB f	BB e	CA	AD[2] g_4	HD[2]	AC	HC m_1	HA g	K1 c
180M		180	279	241	121	14.5	330	316	256	263	443	355	360	15	18
180L		180	279	279	121	14.5	330	316	218	263	443	355	360	15	18
200L		200	318	305	133	18.5	380	360	237	330	530	379	398	18	18
225S	**2 - 4/2**	225	356	286	149	18.5	420	375	318	357	582	443	447	22	18.5
	≥4	225	356	286	149	18.5	420	375	318	357	582	443	447	22	18.5
225M	**2 - 4/2**	225	356	311	149	18.5	420	375	318	357	582	443	447	22	18.5
	≥4	225	356	311	149	18.5	420	375	318	357	582	443	447	22	18.5
250M	**2 - 4/2**	250	406	349	168	24	500	425	321	385	635	494	500	45	28
	≥4	250	406	349	168	24	500	425	321	385	635	494	500	45	28
280S	**2 - 4/2**	280	457	368	190	24	560	450	357	419	699	494	564	50	28
	≥4	280	457	368	190	24	560	450	357	419	699	494	564	50	28
280M	**2 - 4/2**	280	457	419	190	24	560	500	357	419	699	494	564	50	28
	≥4	280	457	419	190	24	560	500	357	419	699	494	564	50	28
315S YE	**2 - 4/2**	315	508	406	216	28	630	533	438	510	874	640	666	37	28
	≥4	315	508	406	216	28	630	533	438	510	874	640	666	37	28
315S ZE	**2 - 4/2**	315	508	406	216	28	630	533	438	510	874	640	666	37	28
	≥4	315	508	406	216	28	630	533	438	510	874	640	666	37	28
315M	**2 - 4/2**	315	508	457	216	28	630	533	387	510	874	640	666	37	28
	≥4	315	508	457	216	28	630	533	387	510	874	640	666	37	28
315L	**2 - 4/2**	315	508	508	216	28	630	583	386	510	874	640	666	37	28
	≥4	315	508	508	216	28	630	583	386	510	874	640	666	37	28

	IEC DIN	L k	LB	LC k_1	AL	AF	BA m	AA n	D/DA d/d_1	E/EA l/l_1	F/FA u/u_1	GD	GA/GC t/t_1	DB [3] d_6/d_7
180M		712	602	838	260.5	180	91	66	48	110	14	9	51.5	M16
180L		712	602	838	260.5	180	91	66	48	110	14	9	51.5	M16
200L		779	669	895	285.5	265	90	79	55	110	16	10	59	M20
225S	**2 - 4/2**	857.5	747.5	973	304.5	265	95	90	55	110	16	10	59	M20
	≥4	887.5	747.5	1033	304.5	265	95	90	60	140	18	11	64	M20
225M	**2 - 4/2**	857.5	747.5	973	304.5	265	95	90	55	110	16	10	59	M20
	≥4	887.5	747.5	1033	304.5	265	95	90	60	140	18	11	64	M20
250M	**2 - 4/2**	970	830	1118	342.5	265	120	135	60	140	18	11	64	M20
	≥4	970	830	1118	342.5	265	120	135	65	140	18	11	69	M20
280S	**2 - 4/2**	1036	896	1195	374	265	135	122	65	140	18	11	69	M20
	≥4	1036	896	1195	374	265	135	122	75	140	20	12	79.5	M20
280M	**2 - 4/2**	1087	947	1246	258	265	135	122	65	140	18	11	69	M20
	≥4	1087	947	1246	258	265	135	122	75	140	20	12	79.5	M20
315S YE	**2 - 4/2**	1190	1050	1340	439	300	123	110	65	140	18	11	69	M20
	≥4	1220	1050	1400	439	300	123	110	80	170	22	14	85	M20
315S ZE	**2 - 4/2**	1190	1050	1340	439	300	123	110	65	140	18	11	69	M20
	≥4	1220	1050	1400	439	300	123	110	80	170	22	14	85	M20
315M	**2 - 4/2**	1190	1050	1340	439	300	123	110	65	140	18	11	69	M20
	≥4	1220	1050	1400	439	300	123	110	80	170	22	14	85	M20
315L	**2 - 4/2**	1240	1100	1390	464	300	123	110	65	140	18	11	69	M20
	≥4	1270	1100	1450	464	300	123	110	80	170	22	14	85	M20

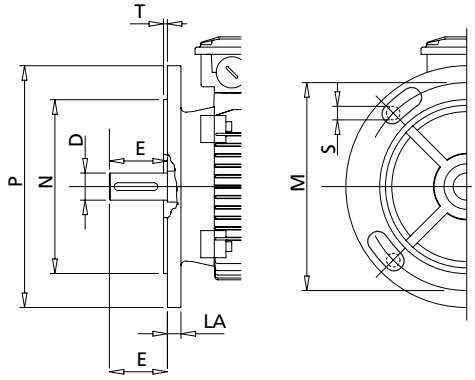
1) Clearance hole for screw
2) Maximum dimension
3) Centering holes in shaft extensions to DIN 332 part 2

THREE-PHASE FRAME SIZE 56 - 160 IM B14, IM B5
ALUMINIUM ALLOY FRAME

IM B14

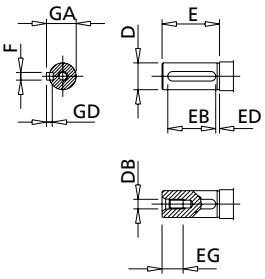


IM B5



	Small flange B14						Large flange B14						Flange B5					
IEC DIN	P a_1	N b_1	LA c_1	M e_1	T f_1	S s_1	P a_1	N b_1	LA c_1	M e_1	T f_1	S s_1	M e_1	N b_1	P a_1	T f_1	LA c_1	S[1] s_1
56	80	50		65	3	M5	105	70	8	85	2.5	M6	100	80	120	2.5	5.5	M6
63	90	60	9	75	2.5	M5	120	80	8	100	2.5	M6	115	95	140	3	9	M8
71	105	70	11	85	2.5	M6	140	95	8	115	2.5	M8	130	110	160	3.5	10	M8
80	120	80	8	100	3	M6	160	110	8.5	130	3.5	M8	165	130	200	3.5	10	M10
90S-L	140	95	10	115	3	M8	160	110	9	130	3.5	M8	165	130	200	3.5	12	M10
100L	160	110	10	130	3.5	M8	200	130	12	165	3.5	M10	215	180	250	4	14	M12
112M	160	110	10	130	3.5	M8	200	130	12	165	3.5	M10	215	180	250	4	14	M12
132S-M	200	130	30	165	3.5	M10	250	180	12	215	4	M12	265	230	300	4	14	M12
160M-L	250	180	12	215	4	M12	300	230	12	265	5	M16	300	250	350	5	15	M16

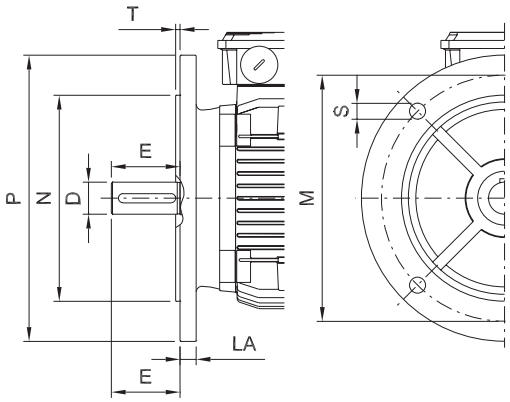
1) Clearence hole for screw. Hole as standard for 132 to 160 frame size



IEC DIN	D d	E l	F h9 u	GD	GA t	DB[1] d_6	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
90S-L	24 j6	50	8	7	27	M8	19	40	4
100L	28 j6	60	8	7	31	M10	22	50	4
112M	28 j6	60	8	7	31	M10	22	50	4
132S-M	38 k6	80	10	8	41	M12	28	70	4
160M-L	42 k6	110	12	8	45	M16	36	100	4

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

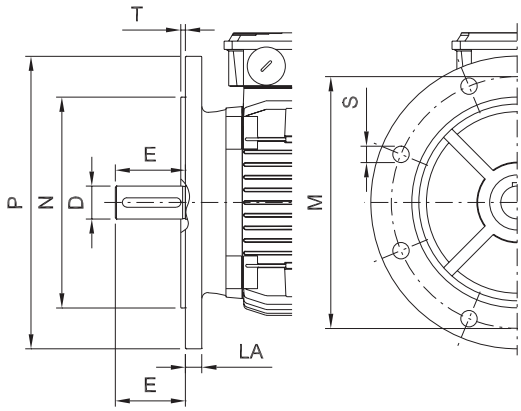
IM B5 - 180/200



IEC DIN	M e_1	N b_1	P a_1	T f_1	LA c_1	S[1] s_1
180M/L	300	250	350	5	13	M16
200L	350	300	400	5	15	M16

1) Clearance hole for screw

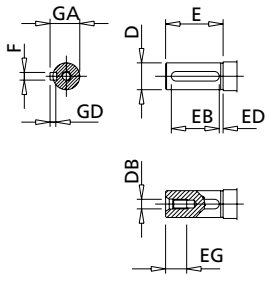
IM B5 - 225/315



IEC DIN	M e_1	N b_1	P a_1	T f_1	LA c_1	S[1] s_1
225S/M	400	350	450	5	16	M16
250M	500	450	550	5	18	M16
280S/M	500	450	550	5	18	M16
315S/M/L	600	550	660	6	22	M20

1) Clearance hole for screw

IEC DIN	Poli	D d	E l	F h9 u	GD	GA t	DB[2] d_6	EG	EB	ED
180M/L		48 k6	110	14	9	51.5	M16	36	100	5
200L		55 m6	110	16	10	59	M20	42	100	5
225S	**2 - 4/2**	55 m6	110	16	10	59	M20	42	100	5
	≥4	60 m6	140	18	11	64	M20	42	110	20
225M	**2 - 4/2**	55 m6	110	16	10	59	M20	42	100	5
	≥4	60 m6	140	18	11	64	M20	42	110	20
250M	**2 - 4/2**	60 m6	140	18	11	64	M20	42	110	20
	≥4	65 m6	140	18	11	69	M20	42	110	20
280S	**2 - 4/2**	65 m6	140	18	11	69	M20	42	125	7.5
	≥4	75 m6	140	20	12	79.5	M20	42	125	7.5
280M	**2 - 4/2**	65 m6	140	18	11	69	M20	42	125	7.5
	≥4	75 m6	140	20	12	79.5	M20	42	125	7.5
315S/M/L	**2 - 4/2**	65 m6	140	18	11	69	M20	42	125	10
	≥4	80 m6	170	22	14	85	M20	50	140	25



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