

SINGLE-PHASE MOTORS



TERMINAL BOX

The location of the terminal box (viewed from drive end) in standard design is on top; on the right or on the left are possible.

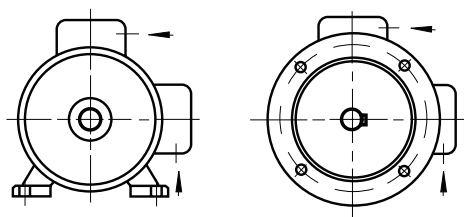
For motors with mountings IM B6, IM B7, IM B8, IM V5, IM V6 the location of the terminal box is related to an IM B3 mounting.

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.

The dimension tables always show the maximum distance to the outermost edge of the available terminal boxes. This maximum value may, however, be smaller, depending on the design of the terminal box. If the space for mounting is very limited, please enquire.

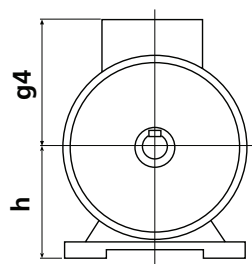
Direction of cable entries



Frame size	Degree of protection	Thread for cable		Max. external cable diameter mm
		Metric ¹⁾	Pg ²⁾	
56 - 71	IP 55	1 x M16	1 x Pg 11	12
80 - 100	IP 55	1 x M20	1 x Pg 13.5	16

1) Pitch 1.5

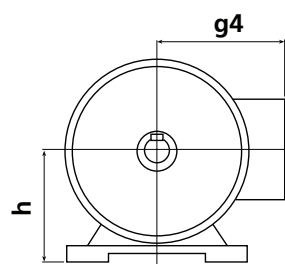
2) Pg thread to DIN 40 430 (on request)



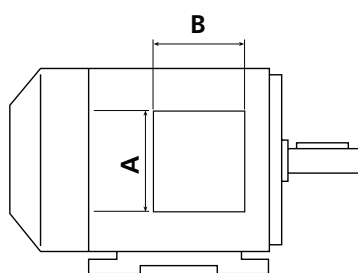
Terminal box on top

STANDARD DESIGN

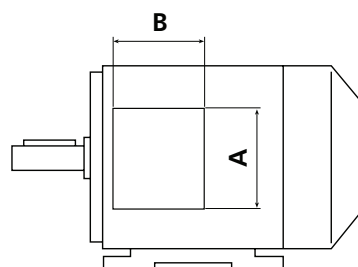
Frame size h	g ₄	A	B	Material
56	115	120	148	Plastic UL 94 V0
63	120	120	148	Plastic UL 94 V0
71	129	120	148	Plastic UL 94 V0
80	150	135	173	Plastic UL 94 V0
90	160	135	173	Plastic UL 94 V0
100	166	135	173	Plastic UL 94 V0



Terminal box at the side



left ¹⁾



right

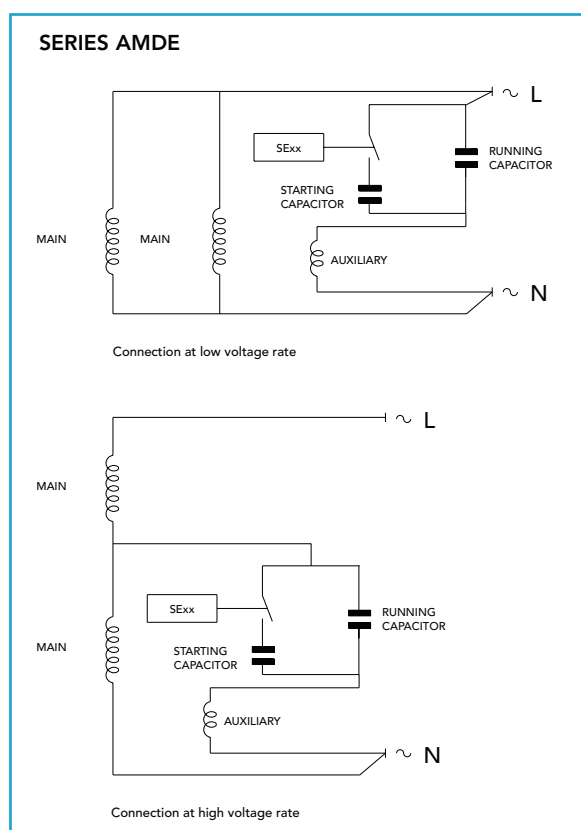
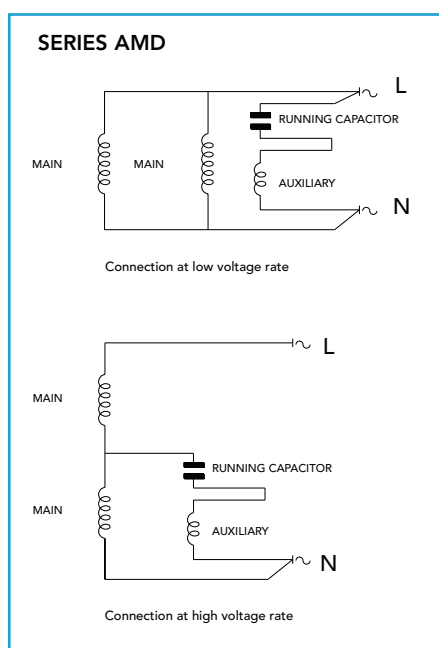
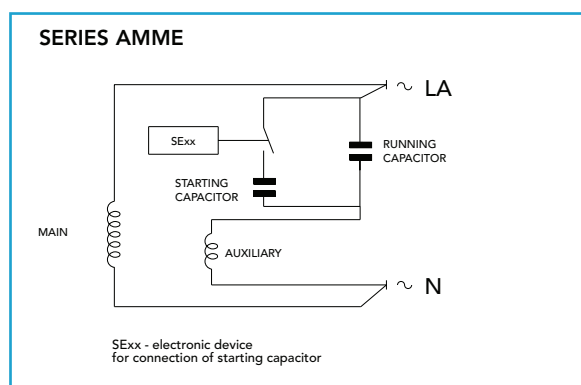
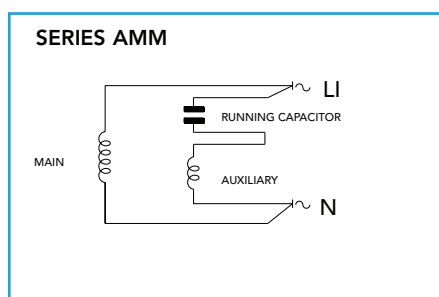
1) Frame size 80-100 the position of the terminal box is close to drive end

CONNECTION DIAGRAMS

Single-phase motors AMM and AMME series are designed for single-rated voltage; motors AMD and AMDE series for dual voltage. The windings (main and auxiliary winding) are connected to the capacitor supplied with the motor.

The direction of rotation can be reversed by inverting the winding ends as follows:

- main winding for motors with one supply voltage
- auxiliary winding for dual voltage motors



The supplied capacitors are according to the following operating classes (refer to the marking on the capacitor case):

Operating classes and climatic categories IEC/EN 60252-1

Operating classes of capacitors for single-phase motors refer to EN 60252-1 Standards (June 2002) and are identified as follows:

a) Life expectancy

	30.000h Class a	10.000h Class B	3000h Class C	1000h Class D
Failure % max	3%	3%	3%	3%

b) Climatic category

25	/	85	/	21
Min. permissible temperature		Max. permissible temperature		Damp heat days

c) Class of safety protection

P0	No safety protection
P1	Safety achievable by external means (fuse)
P2	With internal safety protect

Misapplication, such as exceeding the design limits, use for applications different from those indicated in the catalogue or use for applications inappropriate for the characteristics of the capacitor used, may result in failure of the capacitor or in expulsion of the capacitor element from the case.

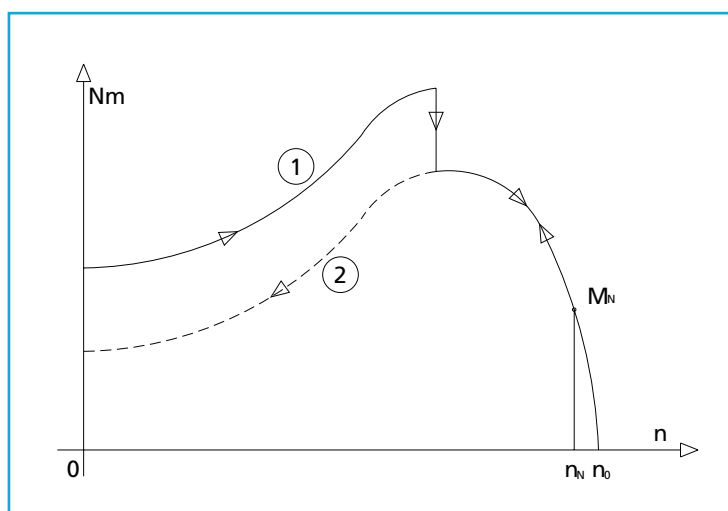
Normal end of life failure is characterized by loss of capacitance increase in dissipation factor and/or permanent open circuit.

The user is therefore cautioned to provide whatever additional protection or enclosure necessary to avoid possible damage or injury in case of failure.

Single-phase motors with one single capacitor generally have lower starting torques than the full load torque. When higher starting torques are required, the motor is equipped with an additional starting electrolytic capacitor. It is connected by the electronic starting device (SE XX) in the moment of starting and disconnected automatically proximate to the pull-out torque (see figure). At this point the torque characteristic for the running capacitor (characteristic 2) applies again.

Characteristic 1 is not reversible. The starting capacitor is reconnected only when restarting the motor. In case of overload, characteristic 2 has to be applied.

Time between stop and restart of the motor must be higher than 15 s.



STARTING ELECTROLYTIC CAPACITORS

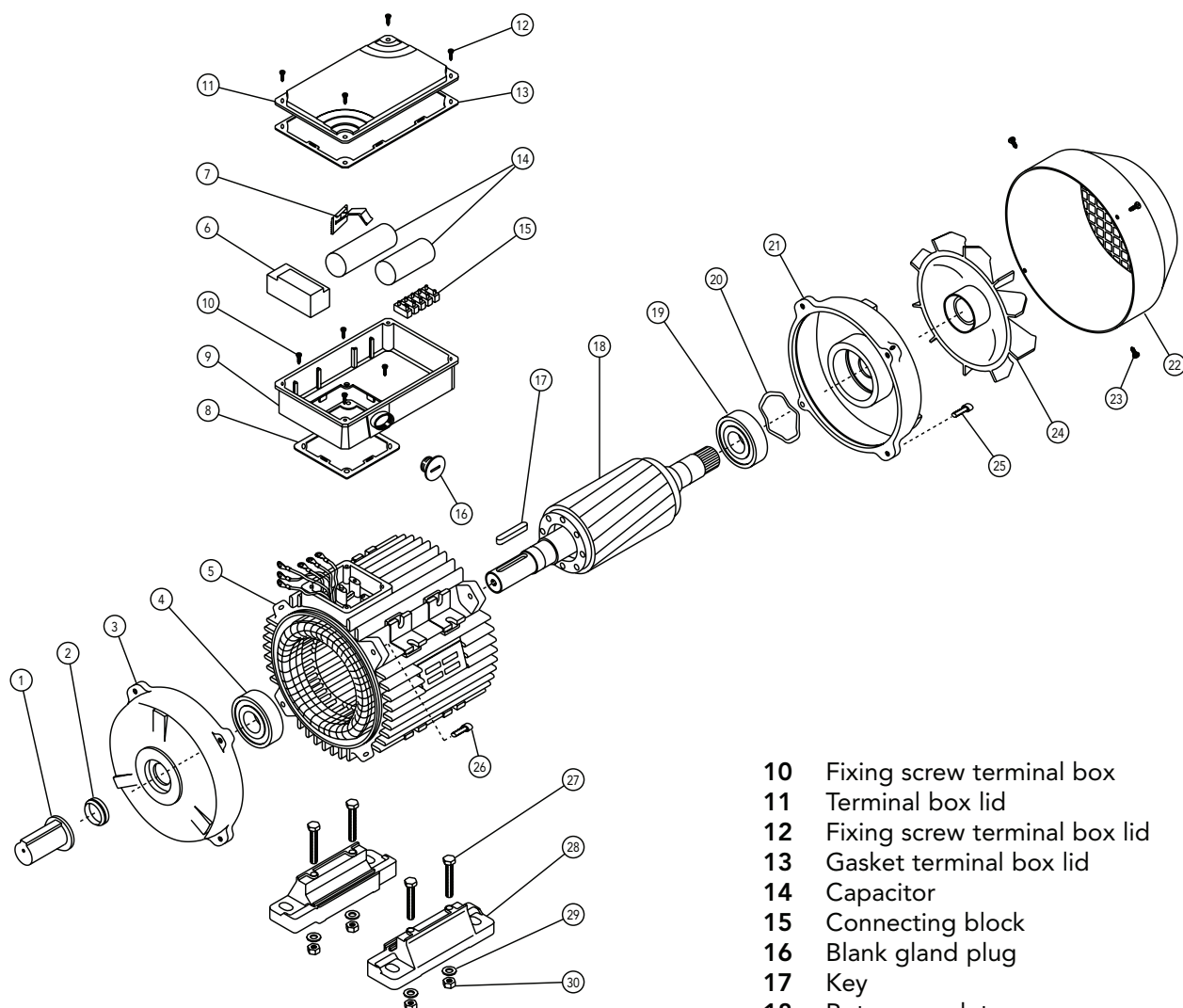
Electrolytic capacitors are normally employed in single-phase induction motors in order to increase the value of their starting torque. It is necessary that such starting should take place in a fraction of a second or at the most in a few seconds and with the contribution of an high reactive power.

Because of its reduced size, high capacitance value, the electrolytic capacitor is suitable for this type of application.

A typical duty cycle (refer to the marking on the nameplate) is the following:

3'/1.7%: 3s ON / 3min OFF

Misapplication, such as exceeding the design limits, use for applications different from those indicated in the catalogue or use for applications inappropriate for the characteristics of the capacitor used, may result in failure of the capacitor or in expulsion of the capacitor element from the case.



PART DESCRIPTION

- 1 Shaft protection
- 2 Dust seal drive end
- 3 Endshield drive end
- 4 Bearing drive end
- 5 Stator frame
- 6 Starter
- 7 Fixing device capacitor
- 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 Capacitor
- 15 Connecting block
- 16 Blank gland plug
- 17 Key
- 18 Rotor complete
- 19 Bearing non-drive end
- 20 Pre-load washer
- 21 Endshield non-drive end
- 22 Fan cover
- 23 Fixing screw fan cover
- 24 Fan
- 25 Fixing bolt endshield non-drive end
- 26 Fixing bolt endshield drive end
- 27 Fixing bolt motor feet
- 28 Motor feet
- 29 Fixing washer motor feet
- 30 Fixing nut motor feet

In enquires and orders for spare parts please state always:

Designation of spare part, motor type, mounting arrangement, motor serial number (Product No. (E-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
3	Type of motor	M	Single-phase motor
		ME	Single-phase motor with starting capacitor
		D	Single-phase dual-voltage motor
		DE	Single-phase dual-voltage motor with starting capacitor
4	Shaft centre height	56, 63, 71, 80, 90, 100	
5	Frame length	Z	
		S	Mechanical dimension (short)
		M	Mechanical dimension (medium)
		L	Mechanical dimension (long)
6	Mechanical design and output value	A	
		B	
		C	
		D	
7	Frame material	A	Aluminium frame
8	Number of poles	2	
		4	
		6	

Examples

<div>1</div> <div>A</div>	<div>2</div> <div>M</div>	<div>3</div> <div>M</div>	<div>4</div> <div>80</div>	<div>5</div> <div>Z</div>	<div>6</div> <div>A</div>	<div>7</div> <div>A</div>	<div>8</div> <div>2</div>
<div>1</div> <div>A</div>	<div>2</div> <div>M</div>	<div>3</div> <div>ME</div>	<div>4</div> <div>100</div>	<div>5</div> <div>L</div>	<div>6</div> <div>B</div>	<div>7</div> <div>A</div>	<div>8</div> <div>4</div>

SINGLE-PHASE MOTORS

DESIGNED FOR RANGE
OF RATED VOLTAGE
220-240 V \pm 5% - 50 HZ

FOR MAINS VOLTAGE
230 V - 50 HZ

Type		kW	HP	min ⁻¹	M _N Nm	η 100%	cos φ	I_N 230V 220-240V		I _A /I _N	M _A /M _N	M _K /M _N	J 10 ⁻³ kgm ²	kg
3000 min ⁻¹ (2 poles)														
AMM 56Z AA	2	0.12	0.16	2600	0.4	47	0.90	1.2	1.3	1.3	1.3	1.8	0.09	3
AMM 63Z AA	2	0.18	0.25	2710	0.6	58.5	0.98	1.2	1.3	3	1.2	1.8	0.14	5
AMM 63Z BA	2	0.25	0.33	2760	0.9	68.6	0.95	1.7	1.9	3.2	1	1.6	0.18	5.5
AMM 71Z AA	2	0.37	0.50	2780	1.3	57.6	0.89	3.1	3.3	3.1	0.8	1.9	0.41	7.1
AMM 71Z BA	2	0.55	0.75	2740	1.9	69	0.89	3.9	4.1	3.5	0.7	1.7	0.55	8.5
AMM 80Z AA	2	0.75	1	2800	2.6	65	0.95	5.3	5.5	4.1	0.6	2	1.05	11.4
AMM 80Z BA	2	1.1	1.5	2730	3.8	74	0.97	6.5	6.6	3.6	0.5	1.6	1.08	11.8
AMM 90S AA	2	1.1	1.5	2830	3.7	68	0.94	7.5	8	4	0.4	2	1.62	15.3
AMM 90L BA	2	1.5	2	2835	5.1	73	0.90	9.3	9.6	3.9	0.5	2.1	1.87	17.3
AMM 90L CA	2	1.8	2.5	2790	6.2	73	0.99	10.8	11.2	4	0.6	2	2.09	18.7
AMM 90L DA	2	2.2 ¹⁾	3 ¹⁾	2770	7.6	73	0.90	14.6	15.4	4.3	0.2	1.8	2.11	19.3
AMM 100L AA	2	2.2	3	2795	7.5	75	0.98	12.8	13.1	4.3	0.4	1.5	4.05	24.5
1500 min ⁻¹ (4 poles)														
AMM 56Z AA	4	0.09	0.12	1340	0.6	45	0.89	1	1.1	1.9	0.5	1.2	0.14	3.5
AMM 63Z AA	4	0.12	0.16	1385	0.8	50	0.97	1	1.1	2.8	0.7	1.5	0.27	4.5
AMM 63Z BA	4	0.18	0.25	1280	1.3	50	0.97	1.6	1.7	2	0.8	1.2	0.34	4.9
AMM 71Z AA	4	0.25	0.33	1270	1.9	52.1	0.89	2.5	2.7	2.4	0.7	1.5	0.82	7.2
AMM 71Z BA	4	0.37	0.50	1370	2.6	62	0.88	2.8	3.1	2.9	0.8	1.2	1.08	8.5
AMM 80Z AA	4	0.37	0.50	1390	2.5	60	0.96	2.8	2.9	3.2	0.5	1.9	2	9.8
AMM 80Z BA	4	0.55	0.75	1390	3.8	67	0.88	4	4.2	3.2	0.5	1.8	2.41	11.3
AMM 80Z CA	4	0.75	1	1445	5.0	73	0.90	4.9	5.1	4.4	0.3	1.9	2.7	12.8
AMM 90L AA	4	1.1	1.5	1415	7.4	70	0.93	7.4	7.8	3.6	0.5	1.5	3.13	15.4
AMM 90L BA	4	1.5 ¹⁾	2 ¹⁾	1430	10.0	79	0.94	9	9.3	4.3	0.5	1.7	3.73	17.6
AMM 100L AA	4	1.8	2.5	1380	12.5	70	0.96	12	12.4	3.6	0.3	1.5	5.83	22.8
AMM 100L BA	4	2.2 ¹⁾	3 ¹⁾	1450	14.5	81	0.97	12.5	12.7	4.6	0.4	1.7	6	23.8
1000 min ⁻¹ (6 poles)														
AMM 71Z AA	6	0.18	0.25	840	2.0	48.0	0.87	1.9	2	2.7	0.8	1.6	0.90	6.3
AMM 80Z AA	6	0.25	0.33	900	2.7	56	0.95	2.2	2.4	2.3	0.3	1.8	2	8.8
AMM 80Z BA	6	0.37	0.50	925	3.8	60	0.96	2.8	3	2.6	0.4	1.3	2.47	10
AMM 90L AA	6	0.55	0.75	950	5.5	72	0.95	3.4	3.5	3.4	0.4	1.2	5.2	16.5
AMM 90L BA	6	0.75	1	890	8.0	71	0.96	4.8	4.9	3.2	0.5	1.5	5.85	18
AMM 100L AA	6	1.1	1.5	950	11.1	69	0.96	7.1	7.7	2.9	0.2	1.3	6.73	19
AMM 100L BA	6	1.5 ¹⁾	2 ¹⁾	870	16.5	66	0.98	10	10.2	2.5	0.4	1.4	9.43	22.5

1) Temperature rise to class F

SINGLE-PHASE MOTORS WITH STARTING CAPACITOR

DESIGNED FOR RANGE
OF RATED VOLTAGE
220-240 V ± 5% - 50 HZ

FOR MAINS VOLTAGE
230 V - 50 HZ

Type		kW	HP	min ⁻¹	M _N Nm	η 100%	cos φ	I_N 230V 220-240V		I _A /I _N	M _A /M _N	M _K /M _N	J 10 ⁻³ kgm ²	kg
3000 min ⁻¹ (2 poles)														
AMME 63Z AA	2	0.12	0.16	2810	0.4	67.1	0.90	0.9	1	2.5	1.9	1.5	0.11	4.5
AMME 63Z BA	2	0.18	0.25	2800	0.6	58.5	0.98	1.2	1.3	3	1.6	1.8	0.14	5
AMME 63Z CA	2	0.25	0.33	2760	0.9	68.6	0.95	1.7	1.9	3.2	1.7	1.6	0.18	5.5
AMME 71Z AA	2	0.37	0.50	2780	1.3	57.6	0.89	3.1	3.3	3.1	2.5	1.9	0.41	7.1
AMME 71Z BA	2	0.55	0.75	2740	1.9	69	0.89	3.9	4.1	3.5	1.9	1.7	0.55	8.5
AMME 80Z AA	2	0.75	1	2800	2.6	65	0.95	5.3	5.5	5.3	2.9	2	1.05	11.4
AMME 80Z BA	2	1.1	1.5	2730	3.8	74	0.97	6.5	6.6	4	2.9	1.6	1.08	11.8
AMME 90S AA	2	1.1	1.5	2830	3.7	68	0.94	7.5	8	5.2	2.4	2	1.62	15.3
AMME 90L BA	2	1.5	2	2835	5.1	73	0.90	9.3	9.6	5.1	2.5	2.1	1.87	17.3
AMME 90L CA	2	1.8	2.5	2790	6.2	73	0.99	10.8	11.2	3.7	1.6	2.0	2.09	18.7
AMME 90L DA	2	2.2 ¹⁾	3 ¹⁾	2770	7.6	73	0.90	14.6	15.4	4	1.8	1.8	2.11	19.3
AMME 100L AA	2	2.2	3	2795	7.5	75	0.98	12.8	13.1	4.3	1.8	1.8	4.05	24.5
1500 min ⁻¹ (4 poles)														
AMME 63Z AA	4	0.12	0.16	1385	0.8	50	0.97	1	1.1	2.8	1.2	1.5	0.27	4.5
AMME 63Z BA	4	0.18	0.25	1280	1.3	50	0.97	1.6	1.7	2	1.9	1.2	0.34	4.9
AMME 71Z AA	4	0.25	0.33	1270	1.9	52.1	0.89	2.5	2.7	2.4	3	1.5	0.82	7.2
AMME 71Z BA	4	0.29	0.39	1275	2.2	56.1	0.95	2.4	2.5	4	3	1.6	0.95	7.8
AMME 71Z CA	4	0.37	0.50	1370	2.6	62	0.88	2.8	3.1	2.9	2.5	1.2	1.08	8.5
AMME 80Z AA	4	0.37	0.50	1390	2.5	60	0.96	2.8	2.9	2.5	1.8	1.9	2	9.8
AMME 80Z BA	4	0.55	0.75	1390	3.8	67	0.88	4	4.2	3.3	2.3	1.8	2.41	11.3
AMME 80Z CA	4	0.75	1	1445	5.0	73	0.90	4.9	5.1	5.4	2.4	2	2.7	12.8
AMME 90L AA	4	1.1	1.5	1415	7.4	70	0.93	7.4	7.8	4.8	2	1.5	3.13	15.4
AMME 90L BA	4	1.5 ¹⁾	2 ¹⁾	1430	10.0	79	0.94	9	9.3	4.7	1.8	1.7	3.73	17.6
AMME 100L AA	4	1.8	2.5	1380	12.5	70	0.96	12	12.4	3.2	1.5	1.5	5.83	22.8
AMME 100L BA	4	2.2 ¹⁾	3 ¹⁾	1450	14.5	81	0.97	12.5	12.7	4.6	1	1.7	6	23.8
1000 min ⁻¹ (6 poles)														
AMME 71Z AA	6	0.15	0.20	865	1.7	43	0.83	1.8	1.9	1.8	1.9	1.2	1.24	8
AMME 80Z AA	6	0.25	0.33	900	2.7	56	0.95	2.2	2.4	2.3	1.3	1.8	2	8.8
AMME 80Z BA	6	0.37	0.50	925	3.8	60	0.96	2.8	3	2.7	2	1.3	2.47	10
AMME 90L AA	6	0.55	0.75	950	5.5	72	0.95	3.4	3.5	3.8	2.5	1.2	5.2	16.5
AMME 90L BA	6	0.75	1	890	8.0	71	0.96	4.8	4.9	3	3.4	1.5	5.85	18
AMME 100L AA	6	1.1	1.5	950	11.1	69	0.96	7.1	7.7	2.4	1.4	1.3	6.73	19
AMME 100L BA	6	1.5 ¹⁾	2 ¹⁾	870	16.5	66	0.98	10	10.2	2.5	2	1.4	9.43	22.5

1) Temperature rise to class F

FOR MAINS VOLTAGE
115-230 V - 50 HZ

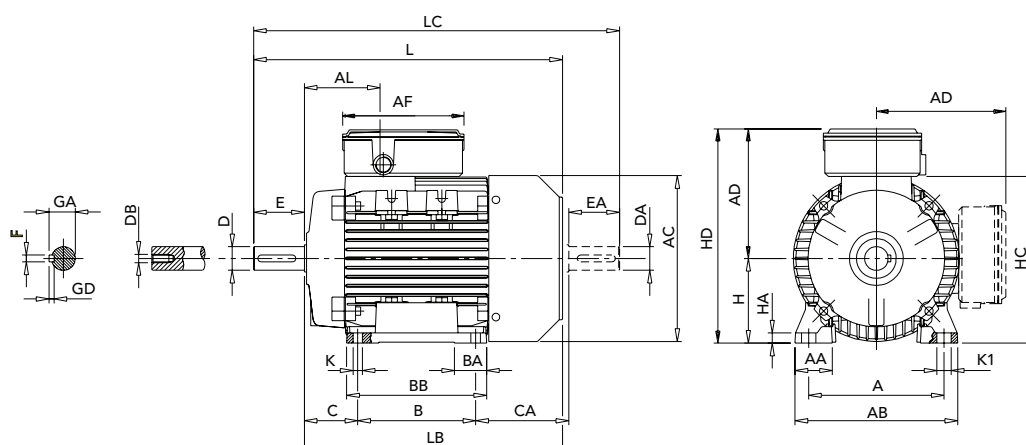
Type		kW	HP	min ⁻¹	M _N Nm	η 100%	cos φ	I _N 115-230V	I _A /I _N	M _A /M _N	M _K /M _N	J 10 ⁻³ kgm ²	kg
3000 min ⁻¹ (2 poles)													
AMD 63Z AA	2	0.11	0.15	2760	0.4	52	0.93	2-1	2.8	0.6	1.5	0.11	4.5
AMD 63Z BA	2	0.18	0.25	2800	0.6	55	0.98	2.9-1.45	3	0.5	1.6	0.14	5
AMD 63Z CA	2	0.24	0.32	2815	0.8	56	0.98	3.8-1.9	3.1	0.6	1.8	0.18	5.5
AMD 71Z AA	2	0.37	0.50	2730	1.3	55	0.90	6.6-3.3	3.3	0.9	2	0.41	7.1
AMD 71Z BA	2	0.55	0.75	2840	1.8	64	0.94	8-4	4.2	0.5	1.9	0.55	8.5
AMD 80Z AA	2	0.75	1	2800	2.6	60	0.78	13.8-7	3.5	0.4	2.1	1.05	11.4
AMD 80Z BA	2	1.1	1.5	2770	3.8	72	0.93	14.2-7.2	3.5	0.5	1.6	1.08	11.8
AMD 90S AA	2	1.1	1.5	2815	3.7	70	0.78	17.5-8.8	3.8	0.4	1.9	1.62	15.3
AMD 90L BA	2	1.5	2	2800	5.1	69	0.87	22-11	3.6	0.4	1.8	1.87	17.3
AMD 90L CA	2	1.8	2.5	2810	6.1	70	0.89	25-12.5	3.7	0.3	1.9	2.09	18.7
AMD 90L DA	2	2.2 ¹⁾	3 ¹⁾	2880	7.3	76	0.93	27.2-13.6	5	0.3	1.9	2.10	19.3
AMD 100L AA	2	2.2	3	2810	7.5	75	0.92	28-14	4.6	0.2	1.8	4.05	24.5
1500 min ⁻¹ (4 poles)													
AMD 63Z AA	4	0.11	0.15	1370	0.8	53	0.89	2.2-1.1	2	0.8	1.6	0.27	4.5
AMD 63Z BA	4	0.18	0.25	1340	1.3	51	0.9	3.3-1.7	1.9	0.6	1.3	0.34	4.9
AMD 71Z AA	4	0.24	0.32	1300	1.8	51	0.81	5.1-2.55	2.5	0.7	1.4	0.82	7.2
AMD 71Z BA	4	0.29	0.39	1340	2.1	61	0.84	4.9-2.45	2.6	0.6	1.6	0.95	7.8
AMD 71Z CA	4	0.37	0.5	1370	2.6	58	0.85	6.5-3.25	3.4	0.5	1.5	1.08	8.5
AMD 80Z AA	4	0.37	0.5	1375	2.6	54	0.94	6.3-3.15	2.5	0.7	1.5	2	9.8
AMD 80Z BA	4	0.55	0.75	1360	3.9	66	0.84	8.6-4.3	3.4	0.6	1.7	2.41	11.3
AMD 80Z CA	4	0.75	1	1435	5.0	62	0.91	11.5-5.75	4.1	0.4	1.9	2.7	12.8
AMD 90L AA	4	1.1	1.5	1425	7.4	69	0.81	17-8.5	3.9	0.3	1.9	3.13	15.4
AMD 90L BA	4	1.5 ¹⁾	2 ¹⁾	1415	10.1	72	0.88	20.5-10.25	3.4	0.3	1.4	3.73	17.6
AMD 100L AA	4	1.8	2.5	1430	12.0	70	0.86	26-13	3.2	0.3	1.6	5.83	22.8
AMD 100L BA	4	2.2 ¹⁾	3 ¹⁾	1440	14.6	72	0.86	31-15.5	3.2	0.2	1.3	6	23.8
1000 min ⁻¹ (6 poles)													
AMD 71Z AA	6	0.15	0.20	910	1.6	58	0.80	2.8-1.4	2.2	0.5	1.4	1.24	8
AMD 80Z AA	6	0.25	0.33	930	2.6	61	0.85	4.2-2.1	2.3	0.4	1.2	2	8.8
AMD 80Z BA	6	0.37	0.50	940	3.8	61	0.82	6.4-3.2	2.9	0.4	1.6	2.47	10
AMD 90L AA	6	0.55	0.75	950	5.5	68	0.83	8.5-4.25	2.7	0.6	1.3	5.2	16.5
AMD 90L BA	6	0.75	1	950	7.5	58	0.79	14.2-7.1	3	0.4	1.6	5.85	18
AMD 100L AA	6	1.1	1.5	935	11.2	72	0.88	15-7.5	3.1	0.3	1.4	6.73	19
AMD 100L BA	6	1.5 ¹⁾	2 ¹⁾	890	16.1	74	0.98	18-9	2.9	0.5	1.4	9.43	22.5

1) Temperature rise to class F

FOR MAINS VOLTAGE
115-230V - 50 HZ

Type		kW	HP	min ⁻¹	M _N Nm	η 100%	cos φ	I _N 115-230V	I _A /I _N	M _A /M _N	M _K /M _N	J 10 ⁻³ kgm ²	kg
3000 min ⁻¹ (2 poles)													
AMDE 63Z AA	2	0.11	0.15	2760	0.4	52	0.93	2-1	2.8	1.9	1.5	0.11	4.5
AMDE 63Z BA	2	0.18	0.25	2800	0.6	55	0.98	2.9-1.45	3	1.6	1.6	0.14	5
AMDE 63Z CA	2	0.24	0.32	2815	0.8	56	0.98	3.8-1.9	3.1	1.8	1.8	0.18	5.5
AMDE 71Z AA	2	0.37	0.50	2730	1.3	55	0.90	6.6-3.3	3.3	2.5	2	0.41	7.1
AMDE 71Z BA	2	0.55	0.75	2840	1.8	64	0.94	8-4	4.2	1.3	2	0.55	8.5
AMDE 80Z AA	2	0.75	1	2800	2.6	60	0.78	13.8-7	3.5	1.3	2.2	1.05	11.4
AMDE 80Z BA	2	1.1	1.5	2770	3.8	72	0.93	14.2-7.2	3.5	1.4	1.6	1.08	11.8
AMDE 90S AA	2	1.1	1.5	2815	3.7	70	0.78	17.5-8.75	3.8	2.6	1.9	1.62	15.3
AMDE 90L BA	2	1.5	2	2800	5.1	69	0.87	22-11	3.6	2.6	1.8	1.87	17.3
AMDE 90L CA	2	1.8	2.5	2810	6.1	70	0.89	25-12.5	3.7	1.6	1.9	2.09	18.7
AMDE 90L DA	2	2.2	3	2880	7.3	76	0.93	27.2-13.6	5	2.5	1.9	2.10	19.3
AMDE 100L AA	2	2.2 ¹⁾	3 ¹⁾	2810	7.5	75	0.92	28-14	4.6	1.8	1.8	4.05	24.5
1500 min ⁻¹ (4 poles)													
AMDE 63Z AA	4	0.11	0.15	1370	0.8	53	0.89	2.2-1.1	2	1.9	1.6	0.27	4.5
AMDE 63Z BA	4	0.18	0.25	1340	1.3	51	0.9	3.3-1.7	1.9	1	1.3	0.34	4.9
AMDE 71Z AA	4	0.24	0.32	1300	1.8	51	0.81	5.1-2.55	2.5	2.3	1.4	0.82	7.2
AMDE 71Z BA	4	0.29	0.39	1340	2.1	61	0.84	4.9-2.45	2.6	1.7	1.6	0.95	7.8
AMDE 71Z CA	4	0.37	0.5	1370	2.6	58	0.85	6.5-3.25	3.4	1.4	1.5	1.08	8.5
AMDE 80Z AA	4	0.37	0.5	1375	2.6	54	0.94	6.3-3.15	2.5	1.8	1.5	2	9.8
AMDE 80Z BA	4	0.55	0.75	1360	3.9	66	0.84	8.6-4.3	3.4	2.1	1.7	2.41	11.3
AMDE 80Z CA	4	0.75	1	1435	5.0	62	0.91	11.5-5.75	4.1	2	1.9	2.7	12.8
AMDE 90L AA	4	1.1	1.5	1425	7.4	69	0.81	17-8.5	3.9	2	1.9	3.13	15.4
AMDE 90L BA	4	1.5 ¹⁾	2 ¹⁾	1415	10.1	72	0.88	20.5-10.25	3.4	2	1.4	3.73	17.6
AMDE 100L AA	4	1.8	2.5	1430	12.0	70	0.86	26-13	3.2	2.1	1.6	5.83	22.8
AMDE 100L BA	4	2.2 ¹⁾	3 ¹⁾	1440	14.6	72	0.86	31-15.5	3.2	1.5	1.3	6	23.8
1000 min ⁻¹ (6 poles)													
AMDE 71Z AA	6	0.15	0.20	910	1.6	58	0.80	2.8-1.4	2.2	1.9	1.4	1.24	8
AMDE 80Z AA	6	0.25	0.33	930	2.6	61	0.85	4.2-2.1	2.3	1.3	1.2	2	8.8
AMDE 80Z BA	6	0.37	0.50	940	3.8	61	0.82	6.4-3.2	2.9	1.9	1.6	2.47	10
AMDE 90L AA	6	0.55	0.75	950	5.5	68	0.83	8.5-4.25	2.7	3	1.3	5.2	16.5
AMDE 90L BA	6	0.75	1	950	7.5	58	0.79	14.2-7.1	3	3.4	1.6	5.85	18
AMDE 100L AA	6	1.1	1.5	935	11.2	72	0.88	15-7.5	3.1	1.9	1.4	6.73	19
AMDE 100L BA	6	1.5 ¹⁾	2 ¹⁾	890	16.1	74	0.98	18-9	2.9	2	1.4	9.43	22.5

1) Temperature rise to class F



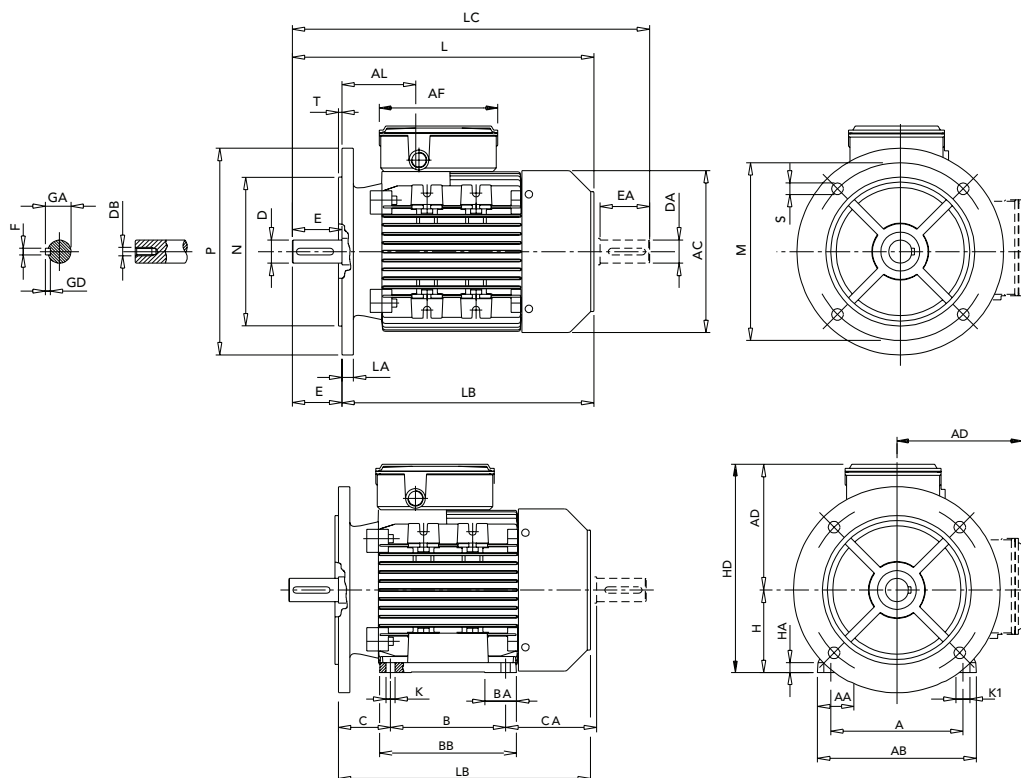
	IEC	H	A	B	C	K ¹⁾	AB	BB	CA	AD ²⁾	HD ²⁾	AC	HC	HA	K1
56		56	90	71	36	6	107	86	64	116	172	110	109	8	9
63		63	100	80	40	7	120	100	72	120	183	124	120	8	11
71		71	112	90	45	8	135	108	83	134	205	139	142	9	11
80		80	125	100	50	10	153	125	89	150	230	160	162	9.5	14
90S		90	140	100	56	10	170	150	116	160	250	180	181	11	15
90L		90	140	125	56	10	170	150	91	160	250	180	181	11	15
100		100	160	140	63	11	192	166	110	166	266	196	198	12	17

	IEC	L	LB	LC	AL	AF	BA	AA	D/DA	E/EA	F/FA	GD	GA/GC	DB ³⁾
56		188	168	211	61	147	27	27	9 j6	20	3	3	10.2	M3
63		211	188	238	63	147	29	30	11 j6	23	4	4	12.5	M4
71		246	216	278	69	147	28	31	14 j6	30	5	5	16	M5
80		272	232	319	79	173	28.5	34.5	19 j6	40	6	6	21.5	M6
90S		317	267	372	85	173	28/53	37	24 j6	50	8	7	27	M8
90L		317	267	372	85	173	28/53	37	24 j6	50	8	7	27	M8
100		366	306	433	91	173	38	44	28 j6	60	8	7	31	M10

1) Clearance hole for screw

2) Maximum dimension

3) Centering holes in shaft extensions to DIN 332 part 2



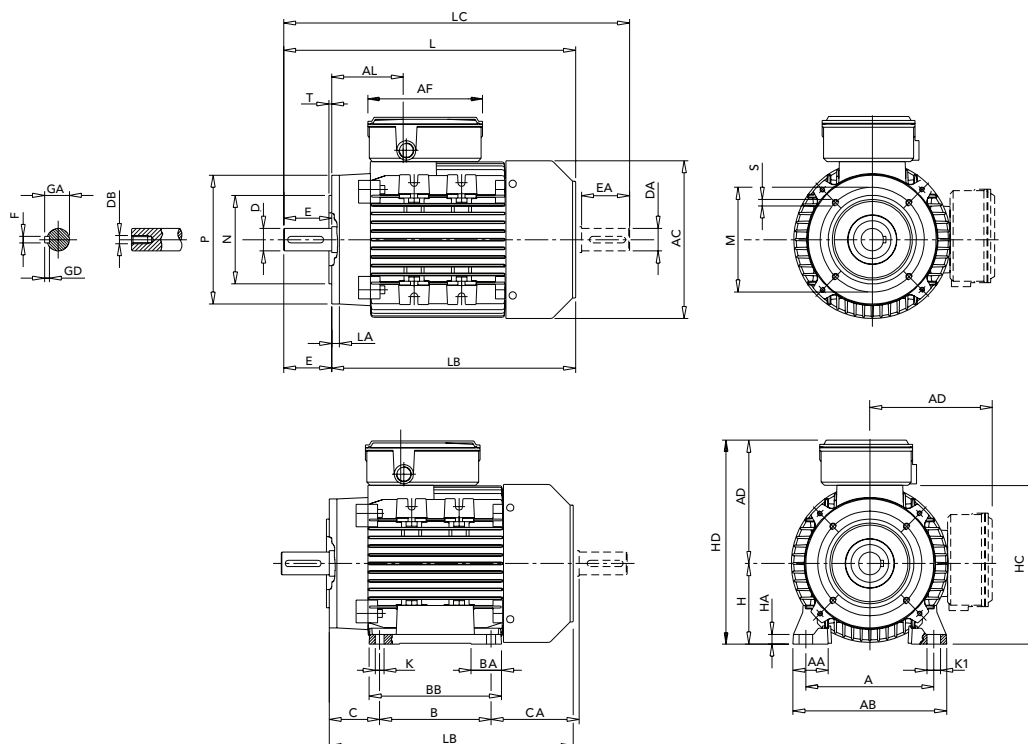
IEC	M	N	P	T	LA	S	H	A	B	C	K ¹⁾	CA	BB	AA	AB	BA
56	100	80	120	2.5	7	7	56	90	71	36	6	64	86	27	107	27
63	115	95	140	3	8	9.5	63	100	80	40	7	72	100	30	120	29
71	130	110	160	3.5	10	9.5	71	112	90	45	8	83	108	31	135	28
80	165	130	200	3.5	10	11.5	80	125	100	50	10	89	125	34.5	153	28.5
90S	165	130	200	3.5	12	11.5	90	140	100	56	10	116	150	37	170	28/53
90L	165	130	200	3.5	12	11.5	90	140	125	56	10	91	150	37	170	28/53
100	215	180	250	4	14	14	100	160	140	63	11	110	166	44	192	38

IEC	AD ²⁾	HD ²⁾	AC	HA	K1	L	LB	LC	AL	AF	D/DA	E/EA	F/FA	GD	GA/GC	DB ³⁾
56	116	172	110	8	9	188	168	211	61	147	9 j6	20	3	3	10.2	M3
63	120	183	124	8	11	211	188	238	63	147	11 j6	23	4	4	12.5	M4
71	134	205	139	9	11	246	216	278	69	147	14 j6	30	5	5	16	M5
80	150	230	160	9.5	14	272	232	319	79	173	19 j6	40	6	6	21.5	M6
90S	160	250	180	11	15	317	267	372	85	173	24 j6	50	8	7	27	M8
90L	160	250	180	11	15	317	267	372	85	173	24 j6	50	8	7	27	M8
100	166	266	196	12	17	366	306	433	91	173	28 j6	60	8	7	31	M10

1) Clearance hole for screw

2) Maximum dimension

3) Centering holes in shaft extensions to DIN 332 part 2



SMALL FLANGE							LARGE FLANGE															
IEC	P	N	LA	M	T	S	P	N	LA	M	T	S	L	LB	LC	AL	AF	D/DA	E/EA	F/FA		
56	80	50	8	65	2.5	M5	105	70	8	85	2.5	M6	188	168	211	61	147	9j6	20	3		
63	90	60	8	75	2.5	M5	120	80	8	100	2.5	M6	211	188	238	63	147	11j6	23	4		
71	105	70	8	85	2.5	M6	140	95	8	115	3	M8	246	216	278	69	147	14j6	30	5		
80	120	80	9	100	3	M6	160	110	8.5	130	3.5	M8	272	232	319	79	173	19j6	40	6		
90S	140	95	9	115	3	M8	160	110	9	130	3.5	M8	317	267	372	85	173	24j6	50	8		
90L	140	95	9	115	3	M8	160	110	9	130	3.5	M8	317	267	372	85	173	24j6	50	8		
100	160	110	10	130	3.5	M8	200	130	12	165	3.5	M10	366	306	433	91	173	28j6	60	8		

IEC	GD	GA/GC	DB ³⁾	H	A	B	C	K ¹⁾	AB	BB	AA	BA	CA	AD ²⁾	HD ²⁾	AC	HC	HA	K1
56	3	10.2	M3	56	90	71	36	6	107	86	27	27	64	116	172	110	109	8	9
63	4	12.5	M4	63	100	80	40	7	120	100	30	29	72	120	183	124	120	8	11
71	5	16	M5	71	112	90	45	8	135	108	31	28	83	134	205	139	142	9	11
80	6	21.5	M6	80	125	100	50	10	153	125	34.5	28.5	89	150	230	160	162	9.5	14
90S	7	27	M8	90	140	100	56	10	170	150	37	28/53	116	160	250	180	181	11	15
90L	7	27	M8	90	140	125	56	10	170	150	37	28/53	91	160	250	180	181	11	15
100	7	31	M10	100	160	140	63	11	192	166	44	38	110	166	266	196	198	12	17

1) Clearance hole for screw

2) Maximum dimension

3) Centering holes in shaft extensions to DIN 332 part 2