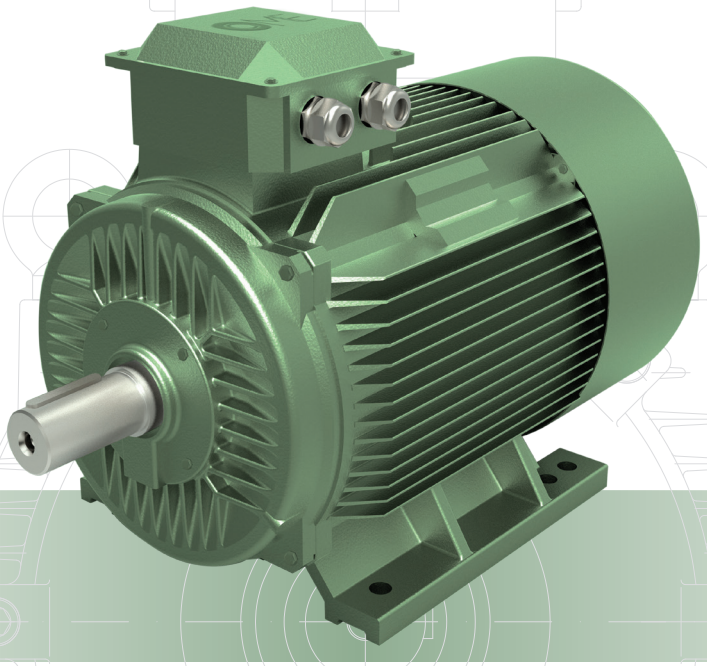
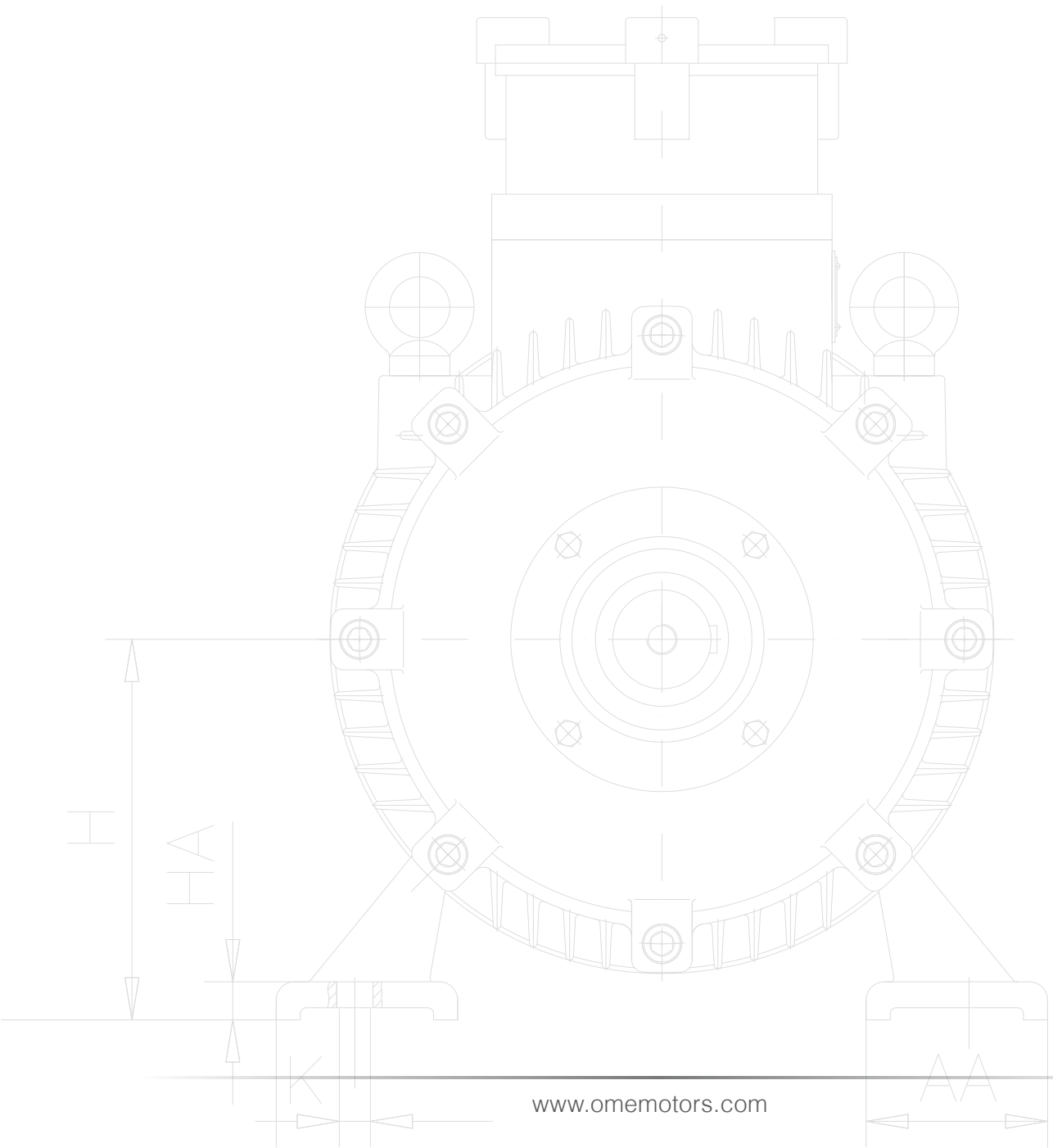
STANDARD SERIES

SUPER PREMIUM EFFICIENCY THREE PHASE ELECTRIC MOTOR LOW VOLTAGE

www.omemotors.com



ISO14000 ISO9001


H
HA
K
AA

GENERAL INFORMATION

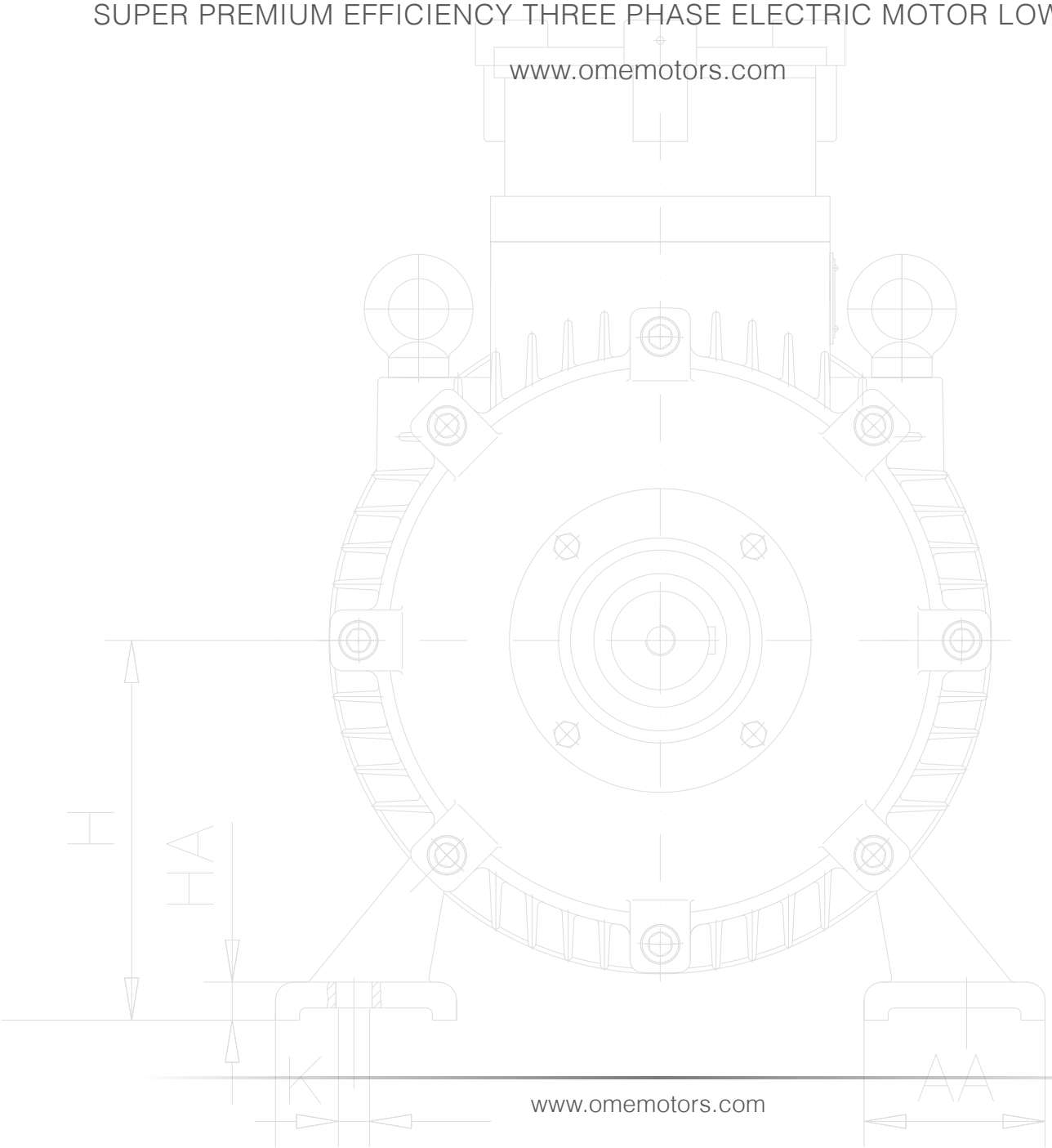
STANDARD AC MOTORS

APPENDIX

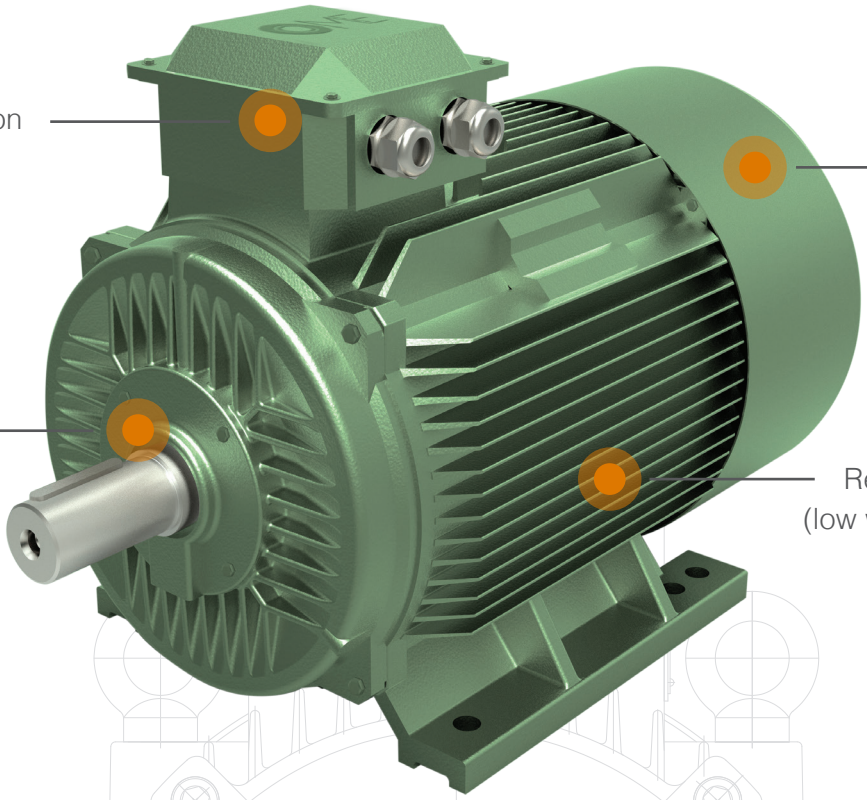
STANDARD SERIES

SUPER PREMIUM EFFICIENCY THREE PHASE ELECTRIC MOTOR LOW VOLTAGE

www.omemotors.com



STANDARD SERIES
SUPER PREMIUM EFFICIENCY
THREE PHASE ELECTRIC MOTOR LOW VOLTAGE



Super premium efficiency • Reliability • Long life • Easy Manutenction

- Standard low voltage motors - or IEC motors - designed and manufactured by OME are low voltage motors that offer high efficiency and at the same time effective energy savings, in line with environmental regulations.

- OME high efficiency motors ensure significant optimisation of energy consumption, safeguarding the environment and ensuring substantial savings in operating costs.

OME Electric Motors

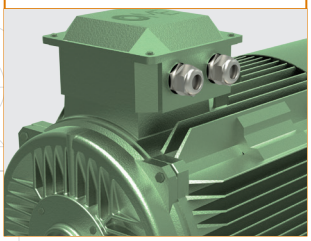
OME IEC low voltage motors are suitable for all industrial sectors and applications, complying with national and international mandatory efficiency rules.
OME's motors help our customers increase their productivity, save energy, improve quality and generate power.

- High quality components including superior copper, metal cable glands and SKF bearings.
Thanks to their high quality, OME electric motors are perfectly suitable for heavy duty applications, with Long lasting performances.

High quality production

- OME also pays exceptional care and to the design attention of its electric motors.
This increase the cooling efficiency and also the looking of the product.

Modern design



- Customized packaging that provides increased protection during transport and an easyer handling.

Superior packaging

OME Electric Motors and Orsatti Group

OME is a well-established global reality born from the Orsatti family's long experience in the electrical machinery sector and characterized by a history in continuous evolution.

The key points that distinguish the Orsatti Group are in particular:

- Technical experience of over 50 years
- The continuous research for new solutions to increase the performance of our electric motors
- Development of technical solutions in compliance with current standards
- The tailor-made service to customize the motors on customer request
- The wide range of production to meet any market need
- The constant research for suitable solutions to increase the efficiency of our electric motors
- Compliance with the standards required for energy saving and environmental protection

MISSION

Our mission is to be a leading company in the production of electric motors at an international level.

VISION

Our vision is to design and manufacture highly customized motors, meeting the most varied customer requirements, managing to make competitive even the smallest realities.

VALUES

- The high quality of production, sales, service and maintenance;
- Intelligent and low costs logistics;
- Providing motors, services and expertise to save energy and improve customer processes throughout the life cycle of our products and beyond.

STANDARDS AND REGULATIONS

General specifications for rotating electrical machines	IEC 60034-1 IEC 60085	DIN EN 60034-1
Specifications of the losses and efficiency of rotating electrical machines	IEC 60034-2	DIN EN 60034-2
Asynchronous AC motors for general use with standardized dimensions and outputs	IEC 60072	DIN EN 50347
Restart caracteristics for rotating electrical machines	IEC 60034-12	DIN EN 60034-12
Terminal designations and direction of rotation for rotating electrical machines	IEC 60034-8	DIN EN 60034-8
Designation for type of construction, installation and terminal box position	IEC 60034-7	DIN EN 60034-7
Entry to terminal box	-	DIN 42925
Built-in thermal protection	IEC 60034-11	DIN EN 60034-11
Noise limit values for rotating electrical machines	IEC 60034-9	DIN EN 60034-9
IEC standard voltages	IEC 60038	DIN IEC 60038
Cooling methods for rotating electrical machines	IEC 60034-6	DIN EN 60034-6
Vibration severity of rotating electrical machines	IEC 60034-14	DIN EN 60034-14
Vibration limits	-	DIN ISO 10816-3
Degrees of protection of rotating electrical machines	IEC 60034-5	DIN EN 60034-5

The motors comply with the appropriate standards and regulations, especially those listed in the table above in relevant parts.

OVERVIEW OF THE PRODUCT

VOLTAGE AND FREQUENCY

The tolerances of voltage and frequency of the power line are regulated by EN 60034-1. In range A a combination of voltage difference (±5%) and frequency difference (±2%) is acceptable. In range B a not combination of voltage difference (±10%) and frequency difference (+3%/-5%) is acceptable. TThe motors are marked with the rated voltage according to EN 60034-1. 230V/400V 50Hz or 265V/460V 60Hz - 400V/690V 50Hz or 460V/795V 60Hz

INSULATION

All motors are produced with class F insulation. In rated power and line operation the motors are working in class is B. Windings have tropicalized insulation

POWER

The nominal power is referred to continuous duty in accordance with DIN EN 60034-1 at a frequency of 50 Hz, a coolant temp. of 40°C and an altitude up to 1000m above sea level.

DEGREE OF PROTECTION

All motors are in protection class IP55 in accordance with DIN EN 60529. All motor types with driving-end direction to the bottom (i.e.V1) shall be ordered with protection hood.

DESIGN OF HOUSING

The Type OM is made of Aluminium-die-casting. The type OM is made of cast iron. The terminal box mounted on top at all B3-motors. At the SA types the position is variable. The motors of the OM types with a size of 56 till 132 have removable feet which can also be fixed on the side.

MECHANICAL BALANCE QUALITY

All rotors are balanced with half key inserted in the shaft. The vibration severity grade is A (normal), according to DIN EN 6034-14. Referring to DIN ISO 8821 the balancing with half inserted key in the shaft is required.

BEARINGS

All motors are fitted with high quality, lifetime-lubricated bearings from the manufacturer SKF.
The nominal rating life of the bearings used in horizontal mounted motors without any axial load is 40.000 operating hours, for Power take-off via shaft-coupling. Under the use of maximal load the lifetime of the bearings is min. 20.000 operating hours.
From framesize 250 all motors have open bearings and lubrication devices.

The lubrication intervals are in this catalogue. Option: reinforced bearings.

Frame size	Poles	horizontal (B3)		Vertikal | vertical (B5)	
		AS | DE	NS | NDE	AS | DE	NS | NDE
63	2/4/6/8	6201 2RS/C3		6201 2RS/C3	
71	2/4/6/8	6202 2RS/C3		6202 2RS/C3	
80	2/4/6/8	6204 2RS/C3		6204 2RS/C3	
90	2/4/6/8	6205 2RS/C3		6205 2RS/C3	
100	2/4/6/8	6206 2RS/C3		6206 2RS/C3	
112	2/4/6/8	6306 2RS/C3		6306 2RS/C3	
132	2/4/6/8	6308 2RS/C3		6308 2RS/C3	
160	2/4/6/8	6309 2RS/C3		6309 2RS/C3	
180	2/4/6/8	6311 2RS/C3		6311 2RS/C3	
200	2/4/6/8	6312 2RS/C3		6312 2RS/C3	
225	2	6312 2RS/C3		6312 2RS/C3	
	4/6/8	6313 2RS/C3		6313 2RS/C3	
250	2	6314/C3		6314/C3	7314B
	4/6/8	6314/C3		6314/C3	7314B
280	2	6316/C3		6316/C3	7316B
	4/6/8	6316/C3		6316/C3	7316B
315	2	NU316E/C3	6316/C3	6316/C3	7316B
	4/6/8	NU319E/C3	6319/C3	6319/C3	7319B
355	2	NU319E/C3	6319/C3	6319/C3	7319B
	4/6/8	NU322E/C3	6322/C3	6322/C3	7322B

COOLING AND VENTILATION

The motors are equipped with radial-flow-fans made of plastic or aluminium, which cools the motor independently of the direction of the rotating (IC 411 according to DIN EN 60034-6). The fan covers are made of sheet-steel.

COLOUR

Standard coating colour is RAL 7030 (stone grey). The coating is qualified for climate-group moderate according to IEC-Publication 721-2-1 for indoor- and outdoor installation.

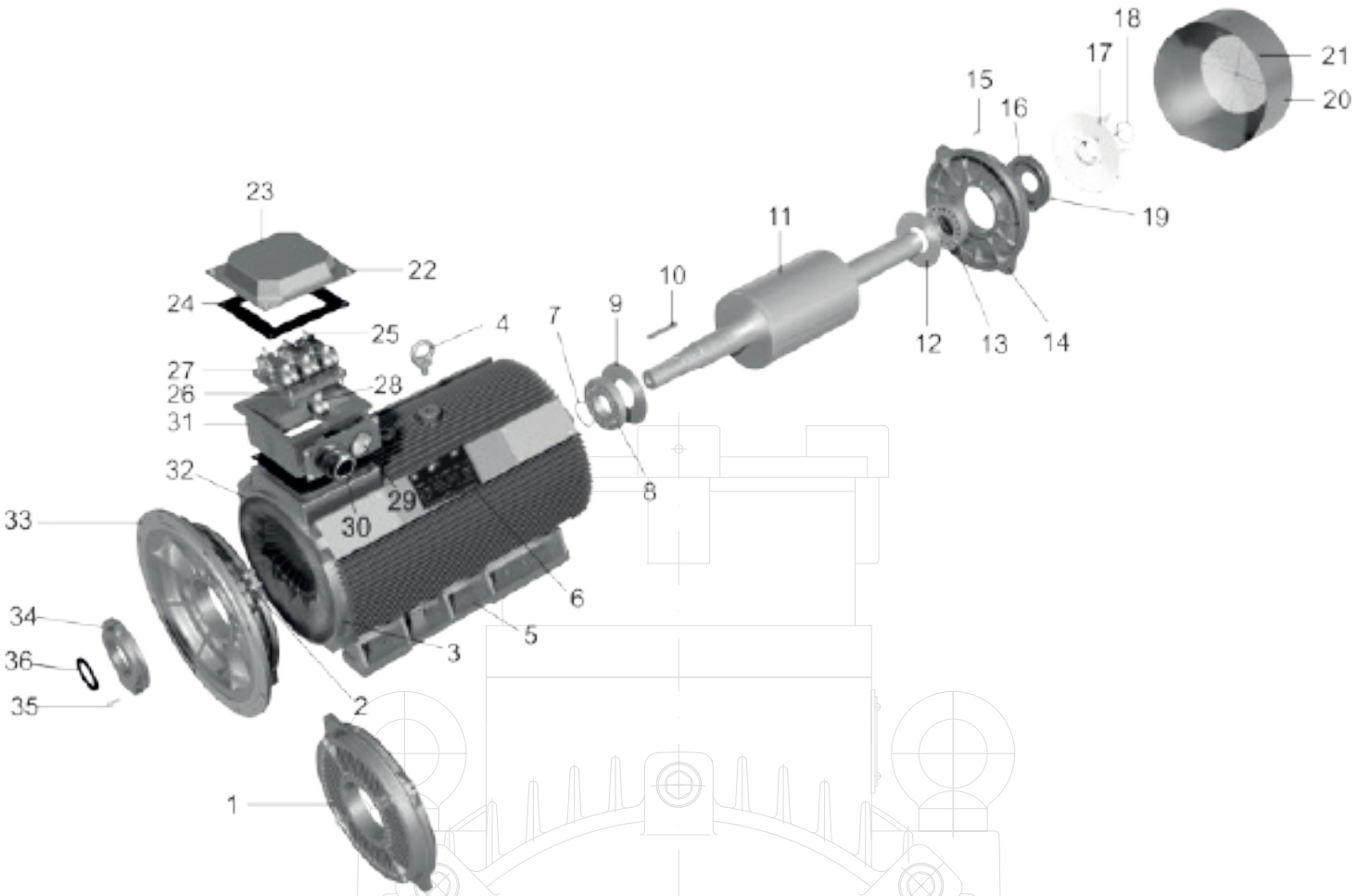
MOTORFEET

The types SA 56 – SA 132 have removable feet. The feet are fixed with two screws at the housing. The feet can also be fixed sideways to change the terminal box position top, left or right. The mounting into B35 and B34 can also be done. The motors from type SC 160 and larger have fixed feet and terminal box on the top. On request available with terminal box at the right or left side.

Sound power level LWA [dB(A)] / Sound pressure level LpA [dB(A)]

Frame size	2 Pol. at no load		4 Pol. at no load		6 Pol. at no load		8 Pol. at no load	
	LWA	LpA	LWA	LpA	LWA	LpA	LWA	LpA
63	70	61	61	52	59	50	-	-
71	73	64	64	55	61	52	59	50
80	76	67	67	58	63	54	61	52
90	77	68	70	61	66	57	65	56
100	78	69	73	64	70	61	68	59
112	83	74	74	65	72	63	70	61
132	86	77	80	71	78	69	73	64
160	84	75	78	69	72	63	68	59
180	88	79	81	72	80	71	71	62
200	88	79	81	72	75	66	69	60
225	88	79	81	72	78	69	73	64
250	88	79	84	75	81	72	73	64
280	87	78	83	74	82	73	79	70
315	94	85	88	79	84	75	82	73
355	99	90	89	80	85	76	86	77

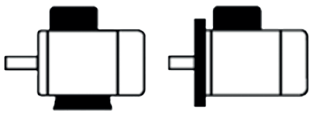
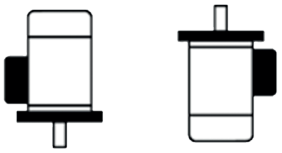
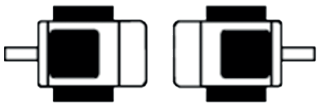
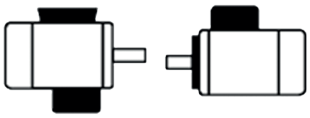
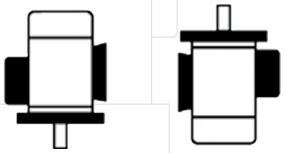
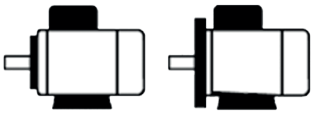
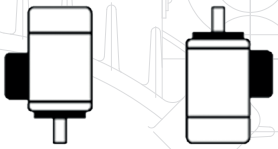
EXPLOSION DRAWING



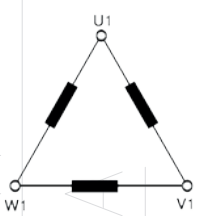
1.	Shield B3	19.	Fixing bolt
2.	Fixing bolt	20.	Cover fan
3.	Stator frame	21.	Fixing bolt
4.	Eyebolt	22.	Fixing bolt
5.	Feet	23.	Terminal box cover
6.	Nameplate	24.	Gasket terminal box cover
7.	Spring washer	25.	Connection material
8.	Bearing DE	26.	Terminal board
9.	Inner bearing cap DE	27.	Fixing bolt
10.	Key	28.	Terminal block PTC
11.	Rotor	29.	Blinder*
12.	Inner bearing cap NDE	30.	Cable gland
13.	Bearing NDE	31.	Terminal box base
14.	Shield NDE	32.	Winding
15.	Fixing bolt	33.	Flange B5
16.	Outer bearing cap NDE	34.	Outer bearing cap DE
17.	Fan	35.	Fixing bolt
18.	Circlip	36.	shaft seal

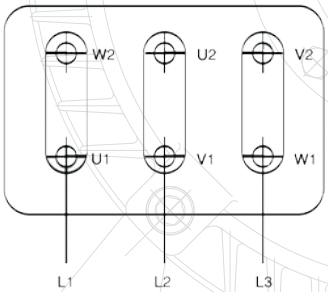
* Aluminium only - Cast Iron with two cable glands

TYPES OF CONSTRUCTION ACCORDING TO DIN IEC 34.CODE

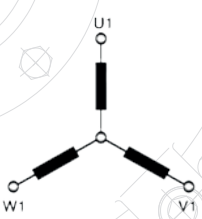
Types of Mounting	IEC34-7(1992) Code I	IEC34-7(1992) Code II	Types of Mounting	IEC34-7(1992) Code I	IEC34-7(1992) Code II
	IMB3	IM1001		IMV1	IM3001
	IMB5	IM3001		IMV3	IM3031
	IMB6	-		IMV5	IM1011
	IMB7	-		IMV6	IM1031
	IMB8	-		IMV15	IM2011
	IMB14	IM3601		IMV36	IM2031
	IMB34	IM2101		IMV18	IM3611
	IMB35	IM2001		IMV19	

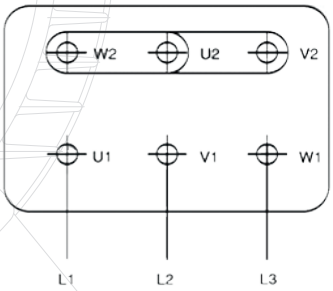
CONNECTION DIAGRAM



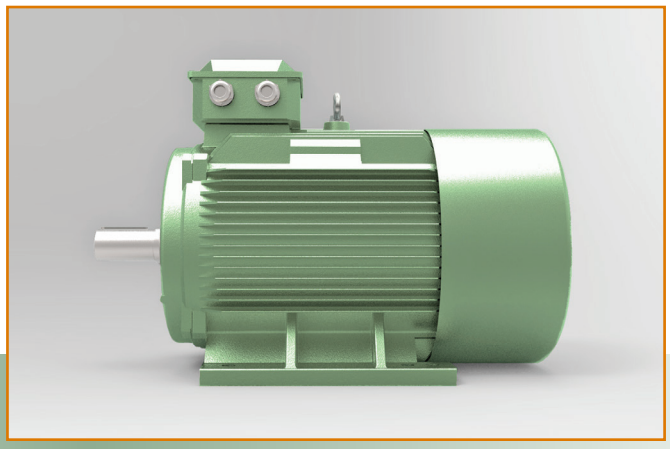


delta-connection





star-connection



Series OM4

SERIES PREMIUM EFFICIENCY MOTOR

IE4 ALUMINUM ELECTRIC MOTORS CATALOGUE

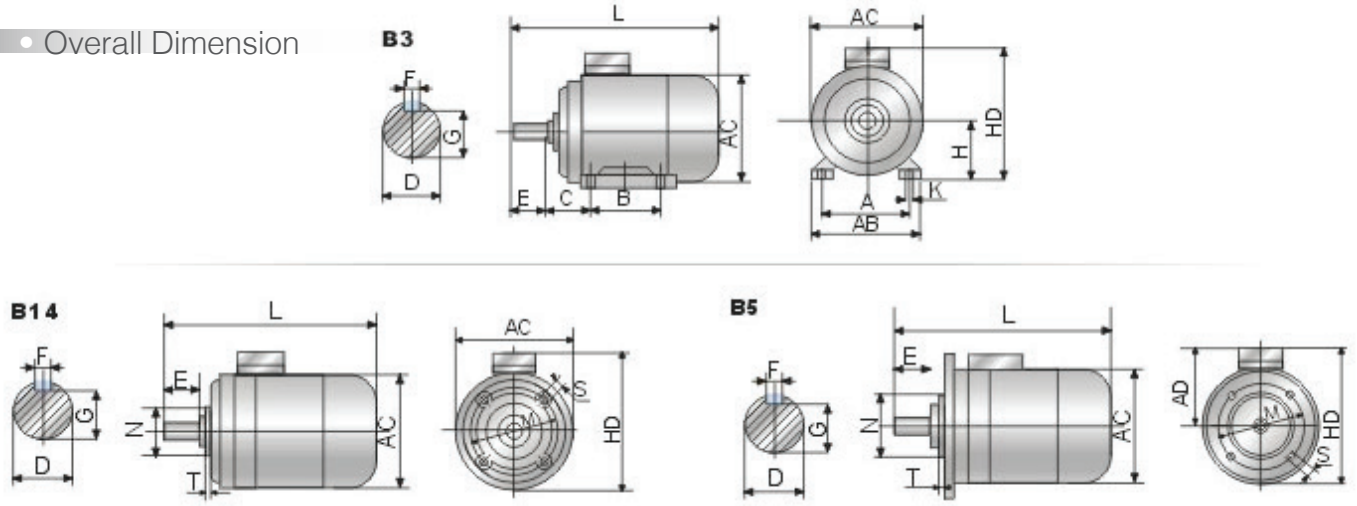
INTRODUCTION:

IE4 series motors are designed according to IEC standard. These series motors have features of efficiency improvement, new winding design and advanced manufacture process are applied to decrease motor loss and improve efficiency. These IE4 series motors can be applied to all kinds of machines, such as machine tool, air compressor, pump, ventilation, reduction gear, transmission belt, minding equipment, etc.

IE4 - Aluminum - Technical Data

Type	Output (Kw)	Running Current (A)	Starting Current (A)	Power Factor	Eff (%)	Speed (r/min)	Tstart/Tn	Tmax/Tn	Ist/In	Net Weight (Kg)
400V 50Hz Synchronous Speed 3000 r/min (2 Poles)										
OM4 80A2	0.75	1.6	8.80	0.83	84.9	2880	1.8	3.5	5.5	13
OM4 80B2	1.1	2.3	17.25	0.83	86.7	2880	2.6	3.5	7.5	14
OM4 90A2	1.5	3.1	22.01	0.83	87.5	2895	2.6	3.5	7.1	16
OM4 90B2	2.2	4.3	30.10	0.85	89.1	2895	2	3	7	17
OM4 100L2	3	5.8	49.88	0.87	89.7	2895	2	3.2	8.6	28
OM4 112M2	4	7.5	60.00	0.88	90.3	2905	1.8	2.9	8	34
OM4 132SA2	5.5	10	75	0.88	91.5	2930	2.1	2.5	7.5	48
OM4 132SB2	7.5	14	102.2	0.88	92.1	2930	2	3.5	7.3	55
400V 50Hz Synchronous Speed 1500 r/min (4 Poles)										
OM4 80A4	0.75	1.8	10.80	0.74	85.6	1420	2.9	3.6	6	15
OM4 90A4	1.1	2.7	17.55	0.74	87.4	1445	2.7	3.8	6.5	17
OM4 90B4	1.5	3.5	23.80	0.74	88.1	1445	3	3.6	6.8	19
OM4 100LA4	2.2	4.7	32.90	0.78	89.7	1440	2.5	3.5	7	28
OM4 100LB4	3	6.4	46.08	0.78	90.3	1440	2.6	3.5	7.2	32
OM4 112M4	4	8.2	57.40	0.80	90.9	1440	2.3	3.2	7	38
OM4 132S4	5.5	11	78.10	0.80	92.1	1460	2.7	3.5	7.1	50
OM4 132M4	7.5	14.6	105.12	0.82	92.6	1460	2.7	3.8	7.2	62
400V 50Hz Synchronous Speed 1000 r/min (6 Poles)										
OM4 90S6	0.75	2.1	9.45	0.72	83.1	930	2.2	2.4	4.5	17
OM4 90L6	1.1	2.9	13.05	0.73	84.1	940	2.4	2.6	4.5	19
OM4 100L6	1.5	3.7	15.54	0.75	86.2	940	1.8	2.2	4.2	29
OM4 112M6	2.2	5.2	23.4	0.76	87.1	950	2.3	2.8	4.5	38
OM4 132S6	3	6.95	31.275	0.76	88.7	955	1.8	2.4	4.5	48
OM4 132MA6	4	9.1	45.5	0.76	89.4	960	2.3	2.7	5	54
OM4 132MB6	5.5	12	66	0.77	89.7	960	1.9	2.8	5.5	60

Overall Dimension



Frame size	Installment dimension								
	A	B	C	D	E	F	G	H	K
80	125	100	50	19	40	6	16	80	10
90S	140	100	56	24	50	8	20	90	10
90L	140	125	56	24	50	8	20	90	10
100L	160	140	63	28	60	8	24	100	12
112M	190	140	70	28	60	8	24	112	12
132S	216	140	89	38	80	10	33	132	12
132M	216	178	89	38	80	10	33	132	12

Frame size	Installment dimension B5					Overall dimension (mm)				
	M	N	P	S	T	AB	AC	AD	HD	L
80	165	130	200	12	3.5	165	175	145	214	300
90S	165	130	200	12	3.5	180	195	155	250	345
90L	165	130	200	12	3.5	180	195	155	250	375
100L	215	180	250	15	4	205	215	180	270	433
112M	215	180	250	15	4	230	240	190	300	440
132S	265	230	300	15	4	270	275	210	345	510
132M	265	230	300	15	4	270	275	210	345	550

Operating - and maintenance instructions

• STORAGE AND TRANSPORT

The motors have to be protected against mechanical damages and if possible they are to be stored in closed and dry rooms. In case of short-term outdoor storage they have to be protected against all harmful influences. Never transport or store the motors on the fan cowl. During transportation the motors should be kept from any damage.

• MOUNTING - TRANSMISSION COMPONENTS

When pulling a transmission component onto the shaft it is necessary to use a pull-on device or to warm up the component to be pulled on. To prevent shaft, bearings and other parts from damages the transmission components must never be driven onto the shaft by hammer.

• MOUNTING - BALANCING

All components attached to the shaft end are to be balanced dynamically. On the part of the manufacturer the rotors are balanced with half key.

• MOUNTING - INSTALLATION

If possible, the motors are to be installed free from vibration. In the case of direct coupling the motor is to be accurately aligned to the driven machine. The axles of the machines must be in line and no stresses should occur.

• MOUNTING - VENTILATION

Vent holes and cooling fins are to be kept free and the required minimum distances must be observed. It is to be avoided that the heated up cooling air is taken in again. In case of outdoor-installation the motors have to be protected against influences (rain, snow and ice, freezing of the fan)

• COMMISSIONING - PREREQUISITES

- All operations have to be carried out by skilled staff with the motor in dead state
- The power supply has to correspond with the name plate.
  Voltage tolerance in acc. with EN 60034-1
- The dimensions of the connection cables have to be adapted to the rated motor currents.

COMMISSIONING - OVERLOAD PROTECTION

In case of direct starting, the motors are to be provided with triple-pole protection switch. A protection is also needed for Delta/Star starting. For motors with PTC-thermistors a tripping device is required. For motors with bi-metal thermistors it is needed to switch off the motor with a contactor in case of overload.

COMMISSIONING - ROTATION DIRECTION

The rotation direction is to be checked before coupling the machine. If necessary, the rotation direction can be altered by changing the connections of two phases.

COMMISSIONING - ROTATION DIRECTION

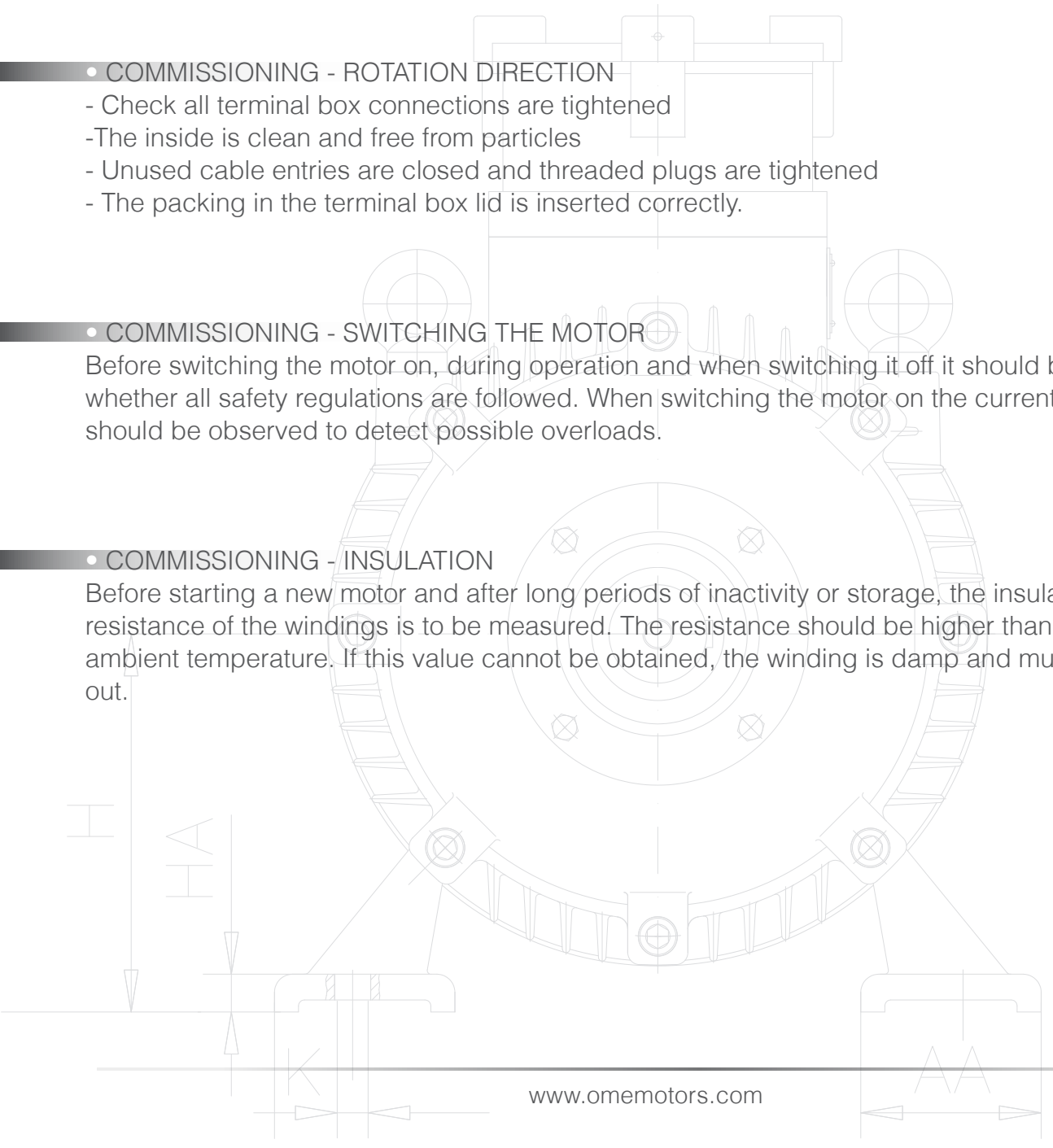
- Check all terminal box connections are tightened
-The inside is clean and free from particles
- Unused cable entries are closed and threaded plugs are tightened
- The packing in the terminal box lid is inserted correctly.

COMMISSIONING - SWITCHING THE MOTOR

Before switching the motor on, during operation and when switching it off it should be checked whether all safety regulations are followed. When switching the motor on the current under load should be observed to detect possible overloads.

COMMISSIONING - INSULATION

Before starting a new motor and after long periods of inactivity or storage, the insulation resistance of the windings is to be measured. The resistance should be higher than 5M at 25°C ambient temperature. If this value cannot be obtained, the winding is damp and must be dried out.



MAINTENANCE

The motor as well as possible accessories should always be kept clean, free from dust trace, oil or other grime.
- That the motor operates without any vibrations or anomalous noises
- That the tension of a possible driving belt is correct
- That the inlet of the ventilations circuits is not obscured causing overheating of the windings

BEARINGS

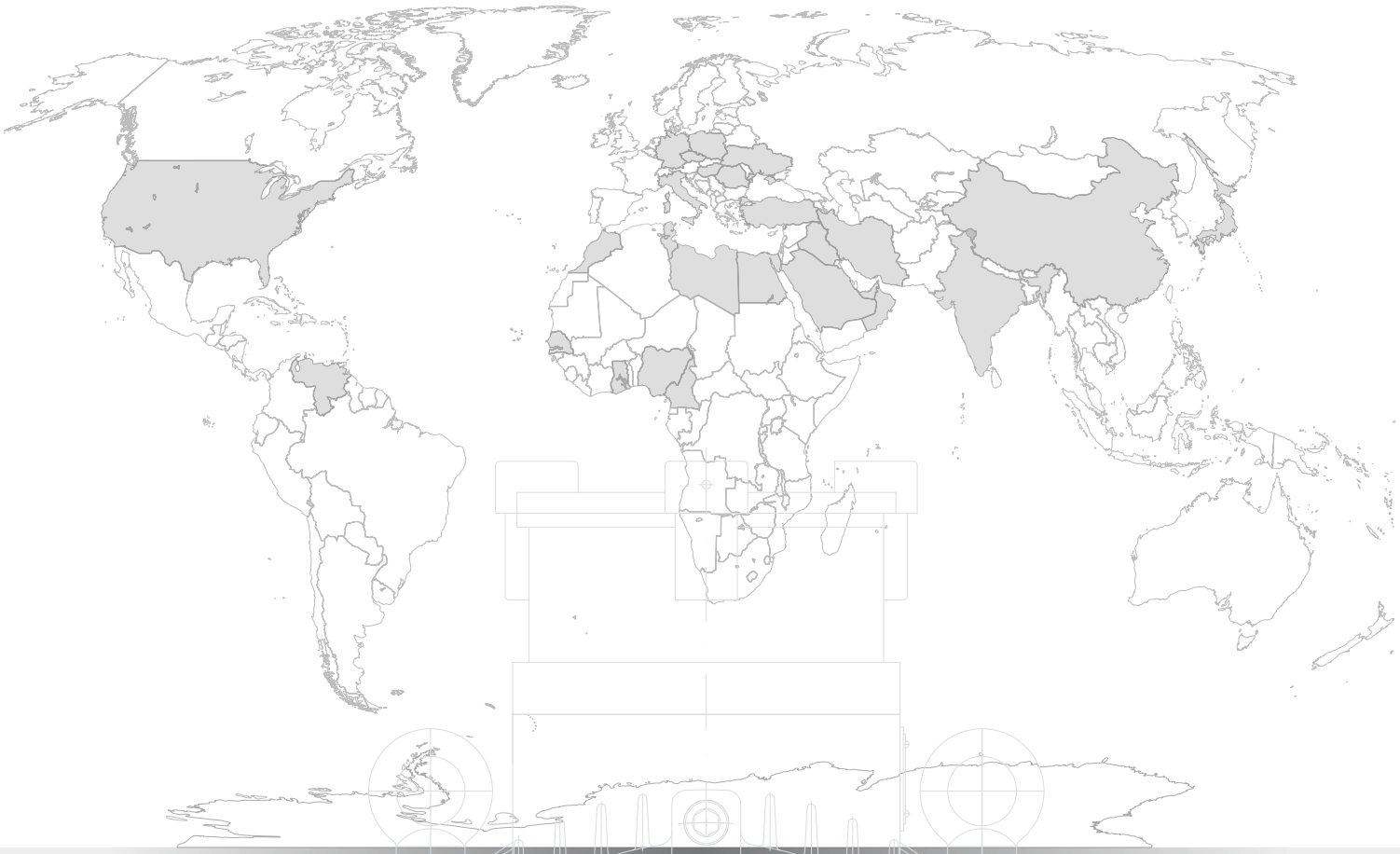
All motors are fitted with high quality, lifetime-lubricated bearings from the manufacturer SKF. The nominal rating life of the bearings used in horizontal mounted motors without any axial load is 40.000 operating hours, for Power take-off via shaft-coupling. Under the use of maximal load the lifetime of the bearings is min. 20.000 operating hours. From framesize 250 all motors have open bearings and lubrication devices. Option: reinforced bearings.

Lubrication intervals

6312/C3	2500	5500	7200	8500	20
6313/C3	2300	5300	7100	8400	23
6314/C3	2100	5200	7000	8200	26
6316/C3	1800	4900	6700	8000	33
6319/C3	1300	4600	6500	7800	51
6322/C3	1300	4600	6500	7800	60
NU314E/C3	1000	2500	3400	4000	26
NU316E/C3	800	2300	3200	3900	33
NU319E/C3	500	2200	3100	3800	51
NU322E/C3	300	2100	3000	3700	60
7314B	2000	4900	6600	7800	26
7316B	1700	4600	6300	7500	33
7319B	1200	3800	5700	7100	51
7322B	1200	3800	5700	7100	60

CATALOGUE

OM Standard Electric Motor



OME IN THE WORLD

since1967
ORSATTI
GROUP

OME Electric Motors srl

Sede - Via N. Tartaglia N.6b 25064 Gussago (Bs) Italy - Cod.Fisc. e Partita IVA: 03276210980 - Tel.+39 030 3737072 - Fax. +39 030 2411395 - info@omemotors.com

www.omemotors.com