



BALKANSKO ECHO

BULGARIA

PRODUCTION OF
ELECTRIC HOISTS, ELECTRIC MOTORS,
CRANES AND CRANE COMPONENTS

CATALOGUE THREE-PHASE INDUCTION ELECTRIC MOTORS



www.balkanskoecho.com



THREE-PHASE INDUCTION ELECTRIC MOTORS

BALKANSKO ECHO

CERTIFICATES



THE COMPANY

Dear customers, colleagues and friends,

In front of you is the catalogue which contains valuable and useful information about the manufacturing activity and high-quality production of one of the leading companies for travel and hoist systems worldwide.

“Balkansko Echo” company is unique with its three separate factories situated on a total manufacturing area of over 20 000 m², more than 600 metal-working machines and more than 550 dedicated and highly qualified specialists, as all this makes the company independent from outer subcontractors and cooperative deliveries.

The company is designing, constructing, manufacturing, assembling and servicing the following:

- electric wire rope hoists of “T” and “MT” series with a lifting capacity of up to 50 t and a lifting height of up to 120 m, which are to be known for their exceptional reliability and durability;
- electric chain hoists, with a lifting capacity from 0,125 t to 2 t;
- single and double girder electric traveling cranes with a control from the cabin and from the ground with a lifting capacity of up to 100 t;
- bracket electric cranes with a lifting capacity from 1 t to 10 t and outrigger length of 10 m;
- induction cone hoist motors, single and double- speeded, with a built-in brake and a thermo-protection from 0,12 kW to 30 kW;



THE COMPANY

- induction, three-phase cylindrical electric motors from 0,55 kW to 37 kW;
- geared motors for setting in motion the running gears of travel and hoist systems;
- lifting capacity limiting devices for all kinds of hoists and crane travel and hoist systems;
- complete spare parts range for all products.

All company's products are manufactured in a general-industry, fire-safe and explosion-proof execution, and they can operate in different climate zones, including chemically aggressive environment.

The company's system for quality management and control has been certified according to ISO 9001:2008 by TÜV Rheinland.

The company's production has been certified according to the requirements of the countries where it is used.

By the end of 2010, "Balkansko Echo" had manufactured and sold more than 20 000 electric hoists, including over 5000 explosion-proof ones, more than 600 cranes and over 50 000 general-industry and explosion-proof electric motors.

The production of "Balkansko Echo" company proves every day its high-tech qualities, security and reliability in different countries, like Russia, Kazakhstan, Belarus, Ukraine, Czech Republic, Slovakia, Turkey, Iran, etc. We are proud to announce that our goods are the only ones in the world with a 36-month warranty.

The aim of this catalogue is to provoke your interest to the goods we manufacture with great responsibility.

By this catalogue we would like to turn to you, our customers, and declare our willingness to make the most suitable product for your manufacturing, and also to assure you that you will make the best choice.

Please use the following telephone numbers for a twenty-four-hour contact with us: +35967302220; +359885000555; +359888223344 or you can write to us at balkanskoecho@abv.bg

THREE-PHASE INDUCTION ELECTRIC MOTORS

TECHNICAL CHARACTERISTICS

Three-phase induction electric motors with a short-circuited rotor and external blowing by their own fan, according to БДC EN 60034-6.

They are powered by a three-phase grid - 380/220V at connection of Y/ Δ and frequency of 50 Hz.

Upon the client's request, the electric motors can be produced for different voltages and frequency of 60Hz.

The maximum voltage for which the electric motors can be produced is 690V, upon connecting the stator coil at „Y“.

Acceptable deviation of the supply voltage - $\pm 5\%$.

The electric motors are designed for a long-term operational mode - S1, according to БДC EN 60034-1, under the following environmental conditions:

- moderate climatic zone;
- relative humidity – up to 80% at 25°C;
- temperature from -25 to +40°C;
- altitude - not more than 1000 m;

For operation of the electric motors at a temperature different from the above, Table 1 should be considered:

Table 1

Ambient temperature	40°C	45°C	50°C	60°C
Power at the new temperature, compared to the nominal power	100%	96%	92%	80%

For operation of the electric motors at an altitude of more than 1000 m, Table 2 should be considered:

Table 2

Altitude /m/	1000	2000	3000	4000	5000
Power at the new altitude, compared to the nominal power	100%	95%	90%	85%	80%

In deviations in both the ambient temperature and altitude, the percentage of power used is obtained by multiplying both factors.

The electric motors can be also executed for operation in tropical climate zones - "T".

The electric motors are made with an insulation system of class "F".

The level of protection of the electric motors is IP 54 or IP 55, according to БДC EN 60034-5.

The electric motors can also operate in other modes of operation different from S1, where the nominal power must be adjusted by a coefficient according to Table 3:



THREE-PHASE INDUCTION ELECTRIC MOTORS



Table 3

Number of poles	Repeated intermittent mode of operation S2		Interrupted periodic mode of operation S3			
	Duration of the cycle in min		Relative duration of switching in %			
	30min	60 min	15%	25%	40%	60%
2, 4	1,20	1,10	1,45	1,30	1,10	1,07
6, 8	1,20	1,07	1,40	1,25	1,08	1,05

The electric motors are produced with single-row ball bearings - according to Table 4:

Table 4

Height of the axis of rotation /mm/	Series of electric motors	Front bearing	Tail bearing
132	AD, AM	6308-2Z C3	6308-2Z C3
160	AD, AM, MO(2p=2)	6309-2Z C3	6309-2Z C3
160	MO(2p=4,6,8)	N 310	6309 C3
180	MOM	6310 C3	6309 C3
180	MO(2p=2)	6311 C3	6311 C3
180	MO(2p=4,6,8)	6312 C3	6311 C3
200	MOM	6312 C3	6311 C3

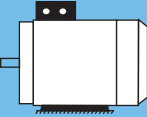
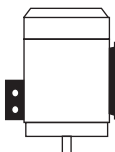
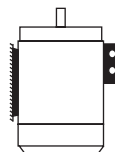
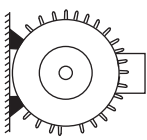
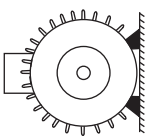
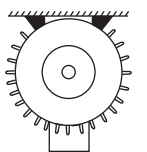
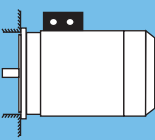
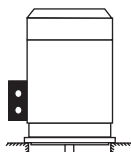
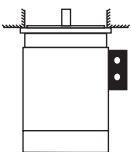
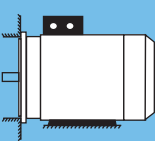
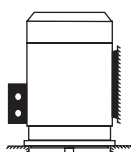
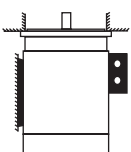
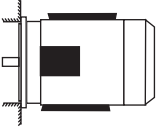
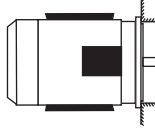
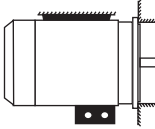
Normally, the electric motors are produced with a cylindrical shaft end without an internal thread. Upon the client's request, the operating end of the shaft can be executed with an internal thread with a centering cone according to DIN 322, form DS - according to Table 5:

Таблица 5

Diameter of the operating end of the shaft /mm/	Thread /mm/
over 30 to 38	M12 x 28
over 38 to 50	M16 x 36
over 50 to 85	M20 x 42

There is an option for other executions of the operating end of the shaft. The motors can be also produced with two output shaft necks. The electric motors are balanced dynamically together with a spline supplied as a set with the electric motors.

MECHANICAL DESIGNS AND METHODS OF ASSEMBLY ACCORDING TO БДС EN 60034-7

Main execution	Design variants					
IM B3 IM 1001 	IM V5 IM 1011 	IM V6 IM 1031 	IM B6 IM 1051 	IM B7 IM 1061 	IM B8 IM 1071 	
IM B5 IM 3001 	IM V1 IM 3011 	IM V3 IM 3031 				
IM B35 IM 2001 	IM V15 IM 2011 	IM V36 IM 2031 	IM 2051 	IM 2061 	IM 2071 	

THREE-PHASE SINGLE-SPEED INDUCTION ELECTRIC MOTORS

ADE, MOM SERIES		TECHNICAL DATA AT 380V, 50HZ							
		Nominal data				Starting characteristics			Weight kg
Power kW HP	Motor type	Speed of revolution	Rated current	Coefficient of efficiency	Power factor	$I_{\text{triggering}} / I_n$	$M_{\text{triggering}} / M_n$	M_{max} / M_n	
		min ⁻¹	A	%	cosφ	-	-	-	

3000 min⁻¹

5.5	7.5	AD 132 SK-2	2910	10.8	82.0	0.89	7.0	2.7	2.7	56.0
7.5	10.0	AD 132 S-2	2910	14.5	83.5	0.89	7.5	2.8	2.9	61.0
9.2	12.5	AD 132 ML-2	2910	17.3	86.0	0.89	7.5	3.0	2.9	70.0
11.0	15.0	AD 132 MLL-2	2910	20.7	87.0	0.88	7.6	3.0	2.9	75.0
11.0	15.0	AD 160 MK-2	2920	20.2	86.5	0.91	7.0	3.0	2.7	94.0
15.0	20.0	AD 160 M-2	2920	26.8	88.0	0.92	7.0	2.9	2.9	115.0
18.5	25.0	AD 160 L-2	2920	32.3	89.0	0.93	7.5	2.9	2.8	130.0
22.0	30.0	AD 160LL-2	2920	39.1	88.0	0.92	8.0	3.0	2.8	135.0
22.0	30.0	MOM 180 M-2	2925	39.2	90.0	0.90	6.5	2.4	2.2	155.0
30.0	40.0	MOM 200 LM-2	2930	53.3	91.0	0.89	7.0	2.6	2.3	227.0
37.0	50.0	MOM 200 L-2	2940	65.4	90.5	0.90	7.5	2.5	2.2	243.0

1500 min⁻¹

5.5	7.5	AD 132 S-4	1450	10.9	85.5	0.85	7.0	2.6	2.6	61.0
7.5	10.0	AD 132 M-4	1450	14.2	86.0	0.85	6.5	2.6	2.6	73.0
9.2	12.5	AD 132 ML-4	1440	18.1	86.0	0.85	7.0	2.6	2.5	76.0
11.0	15.0	AD 160 M-4	1460	21.5	89.0	0.83	6.0	2.4	2.3	105.0
15.0	20.0	AD 160 L-4	1460	28.3	90.0	0.85	6.5	2.6	2.5	130.0
18.5	25.0	AD 160 LL-4	1450	35.5	89.0	0.84	7.0	2.4	2.0	132.0
18.5	25.0	MOM 180 M-4	1460	34.8	90.0	0.85	7.2	2.0	2.2	145.0
22.0	30.0	MOM 180 L-4	1460	41.1	90.0	0.86	7.2	2.1	2.3	160.0
30.0	40.0	MOM 200 L-4	1470	58.0	91.0	0.89	7.5	2.2	2.5	234.0
37.0	50.0	MOM 200 LL-4	1460	69.5	91.0	0.89	7.5	1.8	2.2	250.0
45.0	60.0	MOM 200 LLL-4	1460	82.5	91.0	0.89	6.5	1.7	2.2	302.0

1000 min⁻¹

15.0	20.0	MOM 180 L-6	970	30.0	88.0	0.82	6.5	2.0	2.2	160.0
18.5	25.0	MOM 200 LM-6	975	34.4	89.0	0.87	7.0	1.8	2.0	227.0
22.0	30.0	MOM 200 L-6	975	40.0	90.0	0.88	7.5	2.5	3.5	244.0

750 min⁻¹

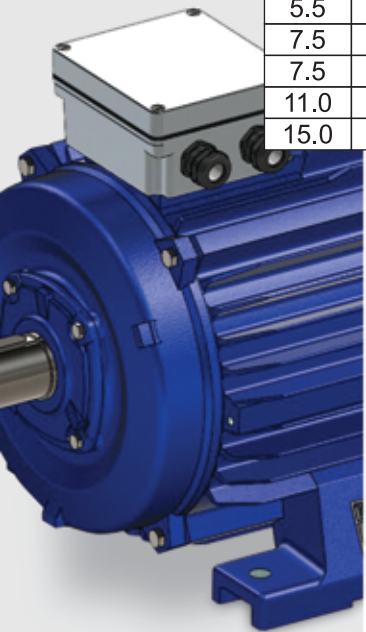
11.0	15.0	MOM 180 L-8	725	25.5	86.5	0.72	5.5	1.9	2.2	160.0
15.0	20.0	MOM 200 L-8	725	31.0	87.5	0.80	6.0	1.8	2.0	235.0
18.5	25.0	MOM 200 LL-8	725	38.0	88.0	0.80	6.5	1.8	2.0	250.0



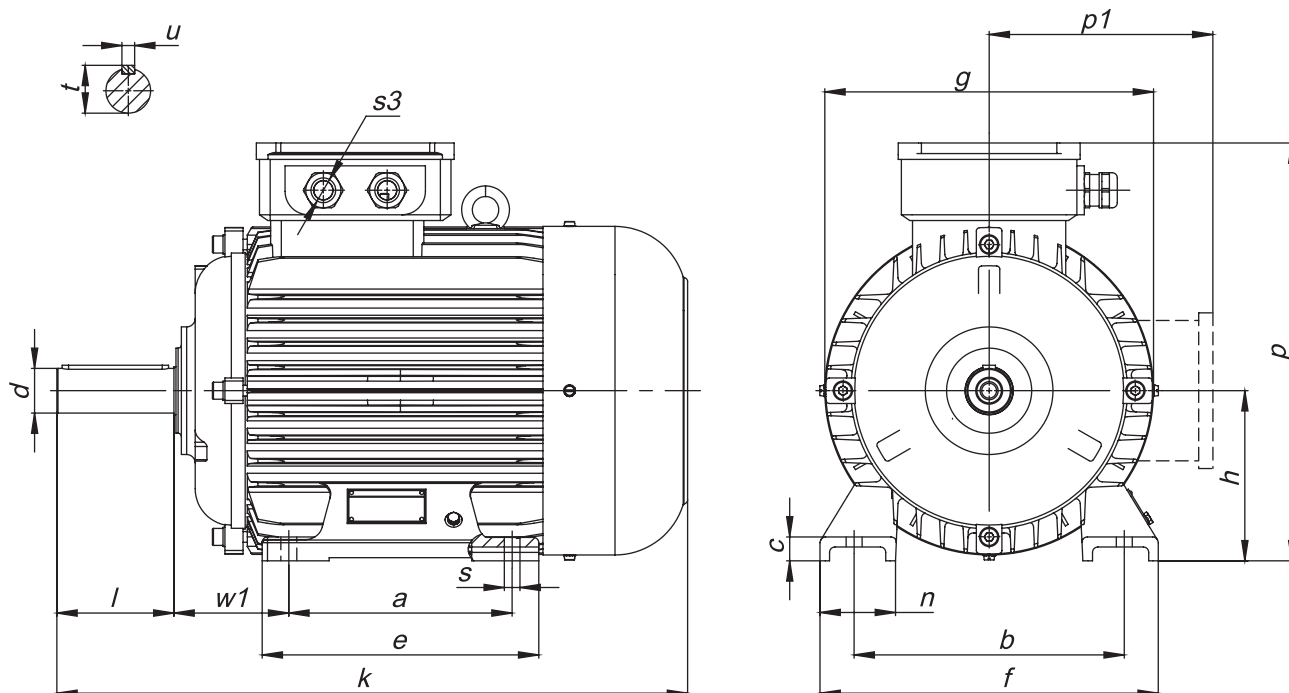
THREE-PHASE SINGLE-SPEED INDUCTION ELECTRIC MOTORS

THREE-PHASE INDUCTION ELECTRIC MOTORS

AM, MO, AOP SERIES			TECHNICAL DATA AT 380V, 50HZ							
			Nominal data				Starting characteristics			Weight
Power		Motor type	Speed of revolution	Rated current	Coefficient of efficiency	Power factor	$I_{trigging} / I_n$	$M_{trigging} / M_n$	M_{max} / M_n	kg
kW	HP		min ⁻¹	A	%	cosφ	-	-	-	
3000 min⁻¹										
15.0	20.0	MO 160 S-2	2925	28.4	88.0	0.91	6.5	1.7	2.4	114.0
18.5	25.0	MO 160 M-2	2925	34.4	88.5	0.92	7.4	1.8	2.2	126.0
22.0	30.0	MO 180 S-2	2925	41.9	88.5	0.90	7.5	2.4	2.0	178.0
30.0	40.0	MO 180 M-2	2930	56.4	90.5	0.89	7.5	2.6	2.2	207.0
1500 min⁻¹										
15.0	20.0	AOP 160 LM-4	1450	30.2	88.0	0.85	7.2	2.6	2.2	123.0
15.0	20.0	MO 160 S-4	1450	28.9	88.5	0.89	6.3	1.7	2.4	114.0
18.5	25.0	MO 160 M-4	1450	35.2	89.5	0.89	7.0	1.8	2.2	132.0
22.0	30.0	MO 180 S-4	1470	41.6	90.0	0.89	6.5	1.7	2.2	185.0
30.0	40.0	MO 180 M-4	1470	57.4	91.0	0.87	7.0	1.8	1.9	214.0
1000 min⁻¹										
3.0	4.0	AM 132 S-6	960	7.1	82.0	0.76	5.5	2.1	2.4	56.0
4.0	5.5	AM 132 MK-6	960	9.0	84.0	0.77	6.5	2.2	2.6	66.0
5.5	7.5	AM 132 M-6	960	11.9	86.0	0.78	6.5	2.4	2.9	76.0
7.5	10.0	AM 160 M-6	970	15.8	87.0	0.79	7.5	2.4	3.0	106.0
11.0	15.0	AM 160 L-6	970	22.0	89.0	0.81	7.5	2.5	3.0	135.0
11.0	15.0	MO 160 S-6	965	22.5	86.0	0.86	5.5	1.5	2.2	116.0
15.0	20.0	MO 160 M-6	965	29.9	87.5	0.87	6.0	1.6	2.0	142.0
18.5	25.0	MO 180 M-6	975	36.6	88.0	0.87	6.0	1.8	2.0	207.0
750 min⁻¹										
2.2	3.0	AM 132 S-8	715	5.7	79.0	0.70	4.5	1.7	2.0	56.0
3.0	4.0	AM 132 M-8	715	7.7	80.0	0.70	4.5	1.8	2.4	67.0
4.0	5.5	AM 160 MK-8	725	9.7	84.0	0.71	5.5	1.7	2.2	95.0
5.5	7.5	AM 160 M-8	725	13.1	85.0	0.71	5.5	2.0	2.3	108.0
7.5	10.0	AM 160 L-8	725	17.7	86.0	0.71	5.8	2.1	2.5	136.0
7.5	10.0	MO 160 S-8	725	17.6	86.0	0.75	5.8	1.7	2.2	115.0
11.0	15.0	MO 160 M-8	725	25.2	87.0	0.76	5.8	1.5	2.2	141.0
15.0	20.0	MO 180 M-8	725	31.9	87.0	0.82	6.0	1.6	1.7	215.0



EXECUTION MODE - IM B3

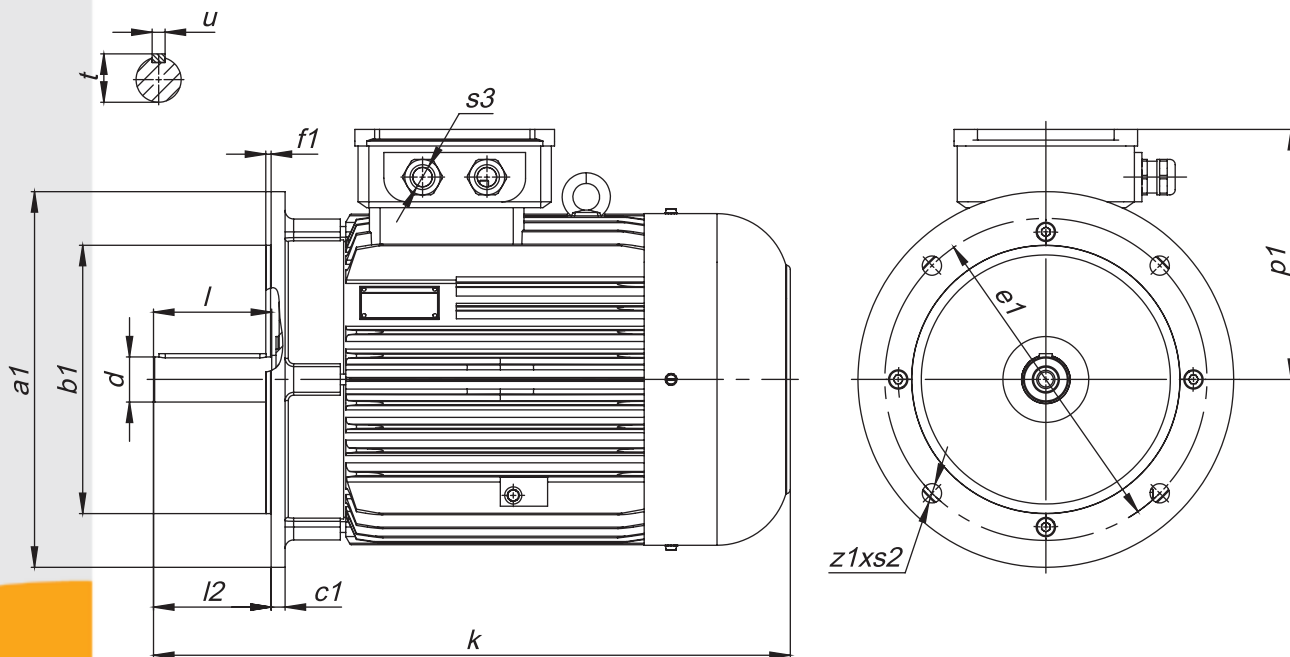


Type	Dimensions in mm																	
	DIN IEC	a B	b A	c HA	e BB	f AB	g AC	h H	k L	n AA	p HD	p1 AD	s K	s3 UB	w1 C	d D	l E	t GA
AD 132 Sk,S	140	216	19.5	180	260	258	132	448	57	325	-	12	Pg21	89	38	80	41	10
AD 132 M,ML,MLL	178	216	19.5	218	260	258	132	486	57	325	-	12	Pg21	89	38	80	41	10
AD 160 MK, M	210	254	22	260	318	310	160	594	71	395	-	15	Pg21	108	42	110	45	12
AD 160 L, LL	254	254	22	303	318	310	160	638	71	395	-	15	Pg21	108	42	110	45	12
MOM 180 M	241	279	30	300	350	333	180	680	70	408	-	15	Pg29	121	48	110	51.5	14
MOM 180 L	279	279	30	340	350	333	180	680	70	408	-	15	Pg29	121	48	110	51.5	14
MOM 200 LM, L,LL	305	318	32	355	398	388	200	767	80	460	-	19	Pg29	133	55	110	59	16
AM 132 S	140	216	22	174	274	272	132	445	56	306	-	12	Pg16	89	38	80	41	10
AM 132 MK,M	178	216	22	212	274	272	132	483	56	306	-	12	Pg16	89	38	80	41	10
AM 160 MK, M	210	254	25	262	316	312	160	595	60	357	-	15	Pg21	108	42	110	45	12
AM 160 L	254	254	25	308	316	312	160	640	60	357	-	15	Pg21	108	42	110	45	12
AOP 160 LM	210	254	25	260	316	312	160	595	60	315	221	15	Pg21	108	42	110	45	12
MO 160 S-2	178	254	24	218	315	358	160	624	60	430	-	15	Pg36	108	42	110	45	12
MO 160 S-4,6,8	178	254	24	218	315	358	160	624	60	430	-	15	Pg36	108	48	110	51.5	14
MO 160 M-2	210	254	24	250	315	358	160	667	60	430	-	15	Pg36	108	42	110	45	12
MO 160 M-4,6,8	210	254	24	250	315	358	160	667	60	430	-	15	Pg36	108	48	110	51.5	14
MO 180 S-2	203	279	34	264	360	400	180	675	80	435	-	15	Pg29	121	48	110	51.5	14
MO 180S-4	203	279	34	264	360	400	180	675	80	435	-	15	Pg29	121	55	110	59	16
MO 180 M-2	241	279	34	302	360	400	180	735	80	435	-	15	Pg29	121	48	110	51.5	14
MO 180 M-4,6,8	241	279	34	302	360	400	180	735	80	435	-	15	Pg29	121	55	110	59	16

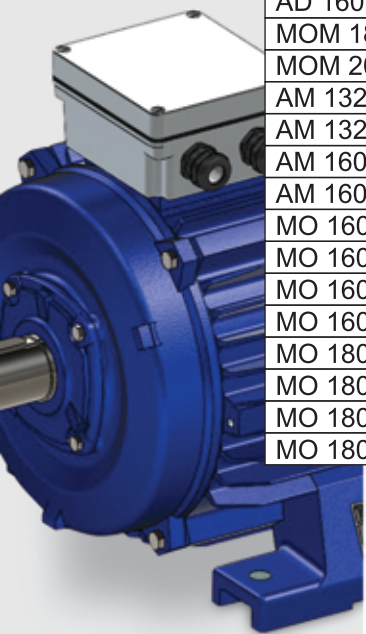


EXECUTION MODE - IM B5

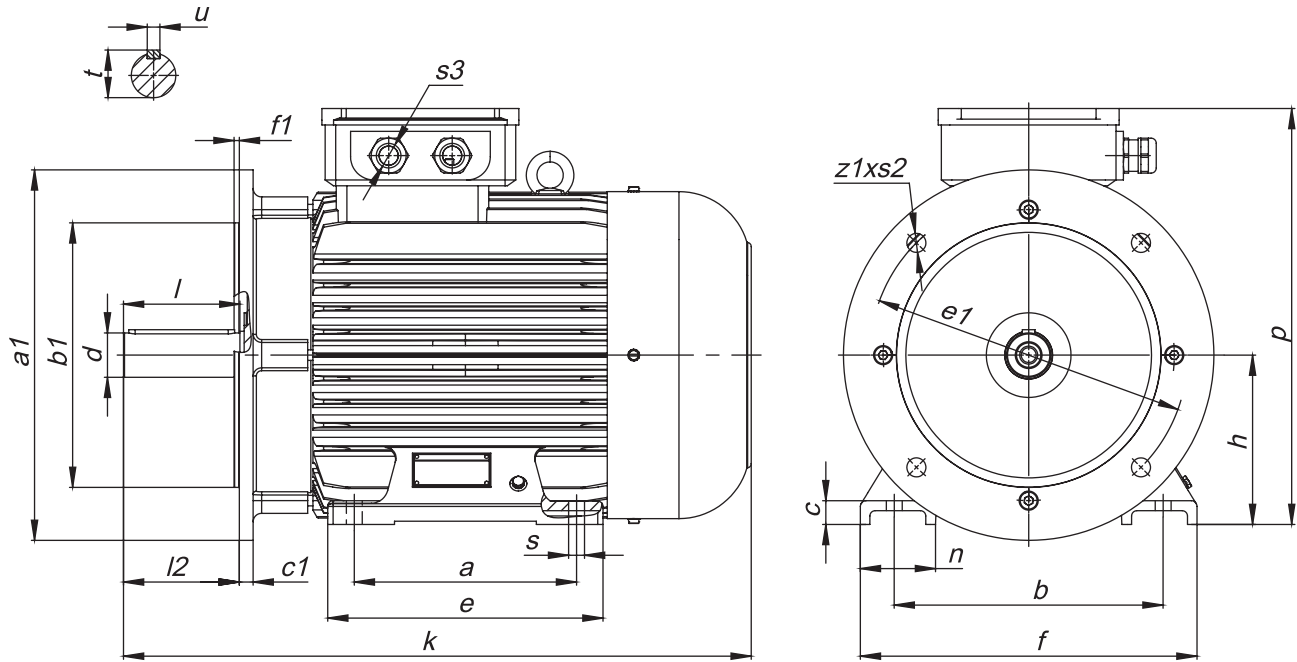
THREE-PHASE INDUCTION ELECTRIC MOTORS



Type	Dimensions in mm															
	DIN IEC	a1 P	b1 N	c1 LA	e1 M	f1 T	l2 -	s2 S	z1 Z	k L	p1 AD	s3 UB	d D	l E	t GA	u F
AD 132 Sk, S	300	230	12	265	4	80	14	4	448	193	Pg21	38	80	41	10	
AD 132 ,ML,MLL	300	230	12	265	4	80	14	4	486	193	Pg21	38	80	41	10	
AD 160 MK, M	350	250	13	300	5	110	18	4	594	235	Pg21	42	110	45	12	
AD 160 L, LL	350	250	13	300	5	110	18	4	638	235	Pg21	42	110	45	12	
MOM 180 M, L	350	250	18	300	5	110	19	4	680	233	Pg29	48	110	51.5	14	
MOM 200 LM,L	400	300	20	350	5	110	19	4	767	260	Pg29	55	110	59	16	
AM 132 S	300	230	15	265	4	80	15	4	445	174	Pg16	38	80	41	10	
AM 132 ,MK,M	300	230	15	265	4	80	15	4	483	174	Pg16	38	80	41	10	
AM 160 MK, M	350	250	15	300	5	110	19	4	595	197	Pg21	42	110	45	12	
AM 160 L	350	250	15	300	5	110	19	4	640	197	Pg21	42	110	45	12	
MO 160 S-2	350	250	18	300	5	110	19	4	624	235	Pg29	42	110	45	12	
MO 160 S-4,6,8	350	250	18	300	5	110	19	4	624	235	Pg29	48	110	51.5	14	
MO 160 M-2	350	250	18	300	5	110	19	4	667	235	Pg29	42	110	45	12	
MO 160 M-4,6,8	350	250	18	300	5	110	19	4	667	235	Pg29	48	110	51.5	14	
MO 180 S-2	400	300	18	350	5	110	19	4	675	235	Pg29	48	110	51.5	14	
MO 180 S-4	400	300	18	350	5	110	19	4	675	235	Pg29	55	110	59	16	
MO 180 M-2	400	300	18	350	5	110	19	4	735	235	Pg29	48	110	51.5	14	
MO 180 M-4,6,8	400	300	18	350	5	110	19	4	735	235	Pg29	55	110	59	16	



EXECUTION MODE - IM B35



Type	Dimensions in mm																							
	DIN	a1	b1	c1	e1	f1	l2	s2	z1	a	b	c	e	f	h	n	k	p	s	s3	d	l	t	u
	IEC	P	N	LA	M	T	-	S	Z	B	A	HA	BB	AB	H	AA	L	HD	K	UB	D	E	GA	F
AD 132 Sk, S	300	230	12	265	4	80	14	4	140	216	19.5	180	260	132	57	448	325	12	Pg21	38	80	41	10	
AD 132M,ML,MLL	300	230	12	265	4	80	14	4	178	216	19.5	218	260	132	57	486	325	12	Pg21	38	80	41	10	
AD 160 MK, M	350	250	13	300	5	110	18	4	210	254	22	260	318	160	71	594	395	15	Pg21	42	110	45	12	
AD 160 L, LL	350	250	13	300	5	110	18	4	254	254	22	303	318	160	71	638	395	15	Pg21	42	110	45	12	
MOM 200 LM,L	400	300	20	350	5	110	19	4	305	318	32	355	398	200	80	767	460	19	Pg29	55	110	59	16	
AM 132 S	300	230	15	265	4	80	15	4	140	216	22	174	274	132	56	445	306	12	Pg16	38	80	41	10	
AM 132MK,M	300	230	15	265	4	80	15	4	178	216	22	212	274	132	56	483	306	12	Pg16	38	80	41	10	
AM 160 Mk, M	350	250	15	300	5	110	19	4	210	254	25	262	316	160	60	595	357	15	Pg21	42	110	45	12	
AM 160 L	350	250	15	300	5	110	19	4	254	254	25	308	316	160	60	640	357	15	Pg21	42	110	45	12	
MO 160 S-2	350	250	18	300	5	110	19	4	178	254	24	218	315	160	60	624	430	15	Pg29	42	110	45	12	
MO 160 S-4,6,8	350	250	18	300	5	110	19	4	178	254	24	218	315	160	60	624	430	15	Pg29	48	110	51.5	12	
MO 160 M-2	350	250	18	300	5	110	19	4	210	254	24	250	315	160	60	667	430	15	Pg29	42	110	45	14	
MO 160 M-4,6,8	350	250	18	300	5	110	19	4	210	254	24	250	315	160	60	667	430	15	Pg29	48	110	51.5	12	
MO 180 S-2	400	300	18	350	5	110	19	4	203	279	34	264	360	180	80	675	435	15	Pg29	48	110	51.5	14	
MO 180 S-4	400	300	18	350	5	110	19	4	203	279	34	264	360	180	80	675	435	15	Pg29	55	110	59	16	
MO 180 M-2	400	300	18	350	5	110	19	4	241	279	34	302	360	180	80	735	435	15	Pg29	48	110	51.5	14	
MO 180 M-4,6,8	400	300	18	350	5	110	19	4	241	279	34	302	360	180	80	735	435	15	Pg29	55	110	59	16	



THREE-PHASE INDUCTION ELECTRIC MOTORS

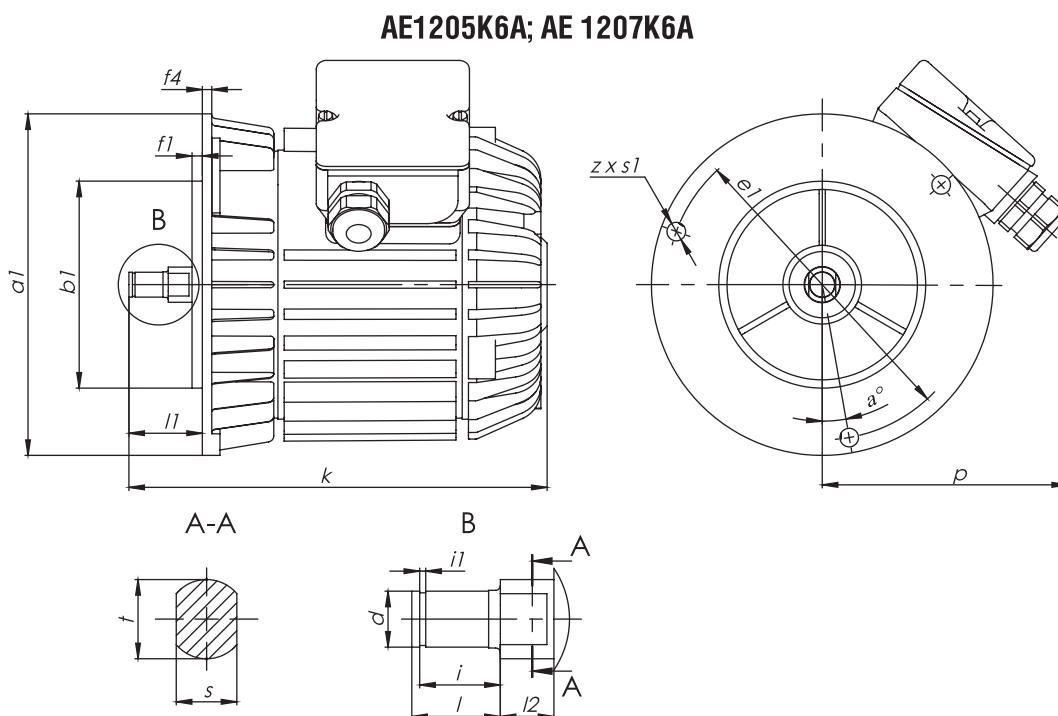
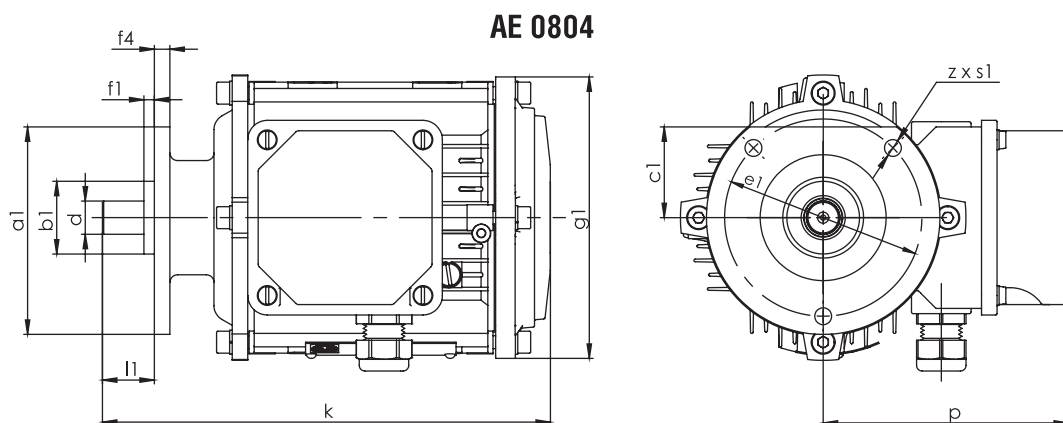
AE SERIES

FOR RUNNING GEARS

TECHNICAL DATA AT 380V, 50HZ

Power	Motor type	Speed of revolution	Mode of operation		Current	Starting torque	Braking torque	Weight
kW		min ⁻¹	%	h ⁻¹	A	Nm	Nm	kg
0.04	AE 0804-6	930	40	120	0.37	1.3	-	2.9
0.04	AE 0804-6 EM	930	40	120	0.37	1.3	0.37÷0.42	3.2
0.25	AE 1205K6A	840	40	240	1.1	5.5	-	6.7
0.37	AE 1207K6A	840	40	240	1.6	8.5	-	8.2

OVERALL DIMENSIONS:



Type	Dimensions in mm																			
	a1	b1	c1	e1	f1	f4	l1	g1	k	p	z x s1	α°	d	l	l2	i	i1	t	s	
AE 0804-6	90	28	35	76	4	6	20	110	173	94.5	3x6.5	-	12.8	-	-	-	-	-	-	-
AE 0804-6EM	90	28	35	76	4	6	20	110	207	94.5	3x6.5	-	12.8	-	-	-	-	-	-	-
													Z=10,m=1							
AE 1205K6A	165	100	-	150	5	5	35.5	-	182	120	3x9	10	12	19	10	17.3	1.3	17	13	
AE 1207K6A	165	100	-	150	5	5	35.5	-	202	120	3x9	10	12	19	10	17.3	1.3	17	13	

WE ALSO MANUFACTURE

T- electric wire rope hoists

The electric wire rope hoists of T Series are the most famous and well-sold hoists worldwide. More than 1 800 000 pieces have already been produced, which have been marketed in more than 40 countries. Their main advantages are: high reliability, durability, simple maintenance. These advantages in combination with the broad range of lifting capacities, lift and move speeds, construction executions, and ability to be used in different conditions, make the electric hoists of this series preferred to the other executions, despite their 30-year-old history.

MT- electric wire rope hoists

The wire rope hoists of MT Series are the inheritors of the world's most popular series of electric wire rope hoists T. By keeping the basic technical features and thanks to the use of a new body construction, contemporary steel ropes, hooks, etc., we offer our customers a series of electric hoists with much extended opportunities like lifting capacity, lift speed and conveying speed. All this expands new opportunities for a more efficient operation of our products.

BT- electric explosion-proof wire rope hoists

Based on the basic construction decisions of electric wire rope hoists series T and keeping its technical features, series BT electric explosion-proof wire rope hoists is intended to operate in an explosion hazardous environment.

The electrical equipment included in these goods, such as: electric motors, electric appliances panel, control panel, overtravel limit switches, etc., is manufactured in the so called "explosion-proof" execution, and it is marked by: (Ex) d IIB T5 and (Ex) d IIC T5.

BMT- electric explosion-proof wire rope hoists

The electric wire rope hoists BMT series are based on the basic technical solutions being used in BT and MT series. Based on the higher technical parameters of MT series and the already proven technical decisions of BT series regarding explosion proof, we have created an electric explosion-proof wire rope hoist having much better operational features, such as lifting capacity, lift speed and conveying speed. The electrical equipment is identical to BT series, which presupposes the identical explosion-proof execution and marking: (Ex) d IIB T5 and (Ex) d IIC T5.

Induction electro-motors

1. With built-in brakes, for the main lift of electric chain and wire rope hoists and other running gears - from 0.75 kW up to 30 kW. Explosion-proof execution as an option.
2. With built-in brakes, for running gears of electric chain hoists and wire rope hoists and other lifting parts - from 0.12 kW to 3 kW. Explosion-proof execution as an option.

Weight-lifting cranes

1. Single-girder underslung traveling cranes - lifting capacity from 1 to 16 t and a span from 3 to 25 m.
 2. Single-girder stationary traveling cranes - lifting capacity from 1 to 16 t and a span from 4.5 to 25.5 m.
 3. Double-girder stationary traveling cranes - lifting capacity from 5 to 100 t and a span from 10.5 to 50 m.
 4. Bracket stationary and wall-mounted cranes - lifting capacity from 1 to 10 t and an outrigger spread from 3 to 10 m.
- Ground and cabin control. Explosion-proof execution as an option.

Crane components

1. Reduction gears and geared motor groups - intended for driving the running gears of girder cranes and other lifting equipment. These are available in a great variety of output revolutions and torques. They are driven by electric motors with built-in cone brakes. Explosion-proof execution as an option.
2. Front girders for stationary traveling cranes - diameters of traveling wheels from 160 to 400 mm, load of the traveling wheel from 4000 to 19 500 kg, conveying speeds from 8 to 32 m/min. Explosion-proof execution as an option.
3. Cable trolleys - intended for carrying supply and operation cables of traveling cranes. Available in executions for traveling onto profile or straight steel rope.



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