Three-phase asynchronous electric motors for lifting mechanisms and garage equipment

1. Application

To operate a lifting mechanism for garage equipment.

2. Technical Data

Degree of protection - IP40
Thermal Resistance Class of Insulation – F (155^{o}C)
Thermal Protection - 130°C
The end cables of the stator winding are drawn in a hole on the rear bearing shield. The length of the end cables is 500mm. It is possible that the terminals are drawn on the terminal board mounted on rear bearing shield. The terminal box is protected by a plastic cap.
The motors can be produced with a built-in electromagnetic brake.
The motors can be manufactured for different voltage and frequency.

3. Construction

The motor is without housing.
The bearing shields are made of aluminum or cast iron.
Bearings:
Front bearing
- 6206 2Z - when cylindrical driving shaft end
- 6007 2Z – when the shaft is with grooves type “J” DIN 7868
Rear bearing
- 6204 2Z - AT 80 BB4, AT 80 BX4, AT 90 LA4, AT 90 LB4, AT 90 LX4, AT 90 LZ4
- 6205 2Z - AT 100 LB6, AT 100 LX4

In the front bearing, a spring 62b is mounted.
The cage rotor has no fan.
The motors can be manufactured in two ways:
• cylindrical shaft - ∅ 28 x 74 with a key – index CS next to the name of the motor
• shaft with grooves type “J” DIN 7868- Index RS next to the name of the motor
The joining dimensions of the flange can be 3 x M8 of 120^{o} or 4 x M8 at 90^{o} and are produced on customer's request.

TECHNICAL DATA TABLES

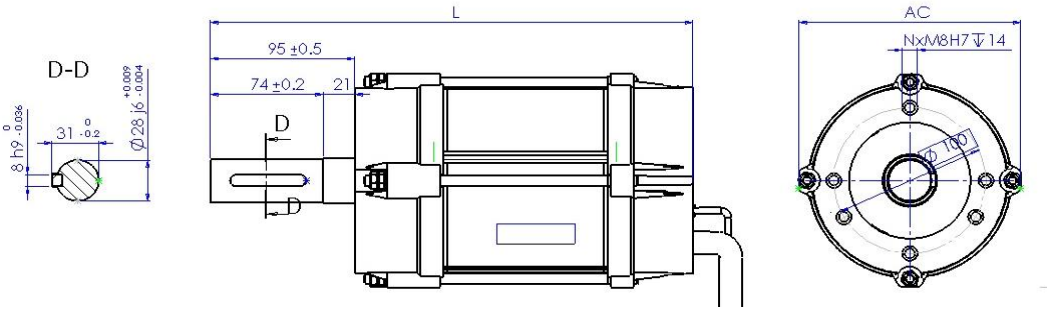
At 400 V, 50 Hz

Type Typ	Rated Output Bemessungs -leistung	Duty Cycle Betriebsart	Parameters at rated output Betriebswerte bei Bemessungsleistung			Starting performance Anlaufverhalten			Weight Gewicht
	P_n		N_n	I_n	cos	I_s	M_s	M_{max}	kg
	kW		min^{-1}	A	-	A	N.m	N.m	
AT 80 BB4	1.5	S2-5min S3-20%	1340	6.8	0.72	35	42	47	13.4
AT 80 BX4	2.4			7.2	0.72	35	42	47	
AT 90 LX4	3.0	S2-5min	1360	8.0	0.74	50	65	75	20.0
		S3-20%		8.5	0.72				
			1720	17.5	0.66	88	38	43	
		S2-5min	1360	8.5	0.72	50	65	75	
AT 90 LA4	2.4	S3-20%	1390	7.2		40	45	50	16.0
AT 90 LB4	1.8	S3-15%	1400	7.3	0.66		55	60	18.0
AT 90 LZ4	3.5	S3-20%	1390	8.9	0.75	50	80	81	22.6
AT 100 LB6	3.0	S3-20%	920	8.9	0.70		58	63	23.5
AT 100 LX4	4.0		1350	8.8	0.85		47	65	27.0

Overall and Joining Dimensions

Cylindrical Shaft:

TYP, TYPE	L	AC	N
AT 80 BX4 CS	317	146	3x120° or 4x90°
AT90LX4 CS	349	166	3x120° or 4x90°
AT 100 LB6 CS	357	180	3x120° or 4x90°
AT 100 LX4 CS	377		



Shaft with grooves type “J” DIN 7868:

TYP, TYPE	L	E	W	AC	N
AT 80 BB4 RS	288	66	21	146	3x120° or 4x90°
AT 80 BX4 RS	293	73	21		3x120° or 4x90°
AT90LA4 RS	309	83	31	166	3x120° or 4x90°
AT90LB4 RS	340	83	31	166	3x120° or 4x90°
AT90LX4 RS	325	73	21	166	3x120° or 4x90°
AT90LZ4 RS	369	83	31	166	3x120° or 4x90°