



LVD TEST REPORT

For

JASM SERIES AC SERVO MOTOR

Model Number: See page 4



Prepared for : SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.

Building B, Jiayu Science Park, Jin'an Road, Matian Street,
Guangming District, Shenzhen China.

Prepared By : Guangdong Lintek Certification Group Co., Ltd.

Room 318, No.116-2, Guanlan Road, Fucheng Street, Longhua
District, Shenzhen, Guangdong, China

Report Number : LTR24052271S01

Date of Receipt : May 07, 2024

Date of Test : May 07, 2024 to May 30, 2024

Date of Report : May 30, 2024



CERTIFICATION

APPLICANT	:	SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.
ADDRESS	:	Building B, Jiayu Science Park, Jin'an Road, Matian Street, Guangming District, Shenzhen China.
MANUFACTURER:		SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.
ADDRESS	:	Building B, Jiayu Science Park, Jin'an Road, Matian Street, Guangming District, Shenzhen China.
FACTORY	:	SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.
ADDRESS	:	Building B, Jiayu Science Park, Jin'an Road, Matian Street, Guangming District, Shenzhen China.
PRODUCT	:	JASM SERIES AC SERVO MOTOR
TRADEMARK	:	 杰美康机电 JIA MEI KANG JIAN DIAN
MODEL(S)	:	See page 4

Test Standards

EN 60034-1:2010

Rotating electrical machines — Part 1: Rating and performance

This report shows that the product technically complies with the Council LVD **2014/35/EU** requirements.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Tested by :



Date : May 30, 2024

Checked by :

Date : May 30, 2024

Approved by :

(Maarten Hou)

Date : May 30, 2024



EN 60034-1:2010	
Rotating electrical machines — Part 1: Rating and performance	
Testing laboratory-----	Guangdong Lintek Certification Group Co., Ltd.
Address-----	Room 318, No.116-2, Guanlan Road, Fucheng Street, Longhua District, Shenzhen, Guangdong, China
Testing location-----	Guangdong Lintek Certification Group Co., Ltd.
Applicant-----	SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.
Address -----	Building B, Jiayu Science Park, Jin'an Road, Matian Street, Guangming District, Shenzhen China.
Standard -----	EN 60034-1:2010
Test result -----	Compliance with the standard requirement.
Procedure deviation-----	N.A
Non-standard test method ----	N.A.
Type of test object -----	JASM SERIES AC SERVO MOTOR
Trademark -----	 杰美康机电 JASM MOTION CONTROL
Models/Type reference -----	See page 1
Rating -----	See page 5
Factory -----	SHENZHEN JUST MOTION CONTROL ELECTROMECHANICS CO.,LTD.
Address -----	Building B, Jiayu Science Park, Jin'an Road, Matian Street, Guangming District, Shenzhen China.
Test item particulars:	
Operation condition -----	Continuous
Class of equipment -----	Class I

**Possible test case verdicts:**

Test case does not apply to the object-----:N

Test object does meet the requirement -----: P

Test object does not meet the requirement-----: F

General remarks:

1.“ (see remark #) ”refers to a remark appended to the report.

2.Throughout this report a point is used as the decimal separator.

3.The test results presented in this report relate only to the object tested.

Model different see below. The model 130JASM530220K-17BCW was selected to be tested

Model Lists												
Motor Model	Voltage (V)	Power (W)	Holding Torque (N·M)	Max. Torque (N·M)	Current (A)	Max. Current (A)	Speed (RPM)	Max. Speed (RPM)	thermal class	Duty type (S)	Engine base size (mm)	Weight (kg)
40JASM501230K-17BCY	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.75
40JASM501230K-M17BCY	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.75
40JASM501230K-17BCY-SC	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.85
40JASM501230K-M17BCY-SC	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.85
40JASM501230K-17BCY-P	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.75
40JASM501230K-	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.75



M17B CY-P													
40JA SM50 1230 K- 17BC Y-P- SC	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.85	
40JA SM50 1230 K- M17B CY-P- SC	230V ~ 50/60 Hz	100	0.32	0.96	1	3	3000	6000	B	S1	40	0.85	
40JA SM50 1230 K- M23B Q	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.75	
40JA SM50 1230 K- M17B CQ	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.75	
40JA SM50 1230 K- M17B CQ- SC	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.85	
40JA SM50 1230 K- 17BC Q	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.75	
40JA SM50 1230 K- 17BC Q-SC	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.85	
40JA SM50 1230 K- M23B Q-SC	230V ~ 50/60 Hz	100	0.32	0.96	0.8	2.4	3000	6000	B	S1	40	0.85	
60JA SM50 2230 K-	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1	



17BC Z												
60JA SM50 2230 K- M17B CZ	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1
60JA SM50 2230 K- 17BC Z-SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 2230 K- M17B CZ- SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 2230 K- 17BC Q	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1
60JA SM50 2230 K- M17B CQ- SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 2230 K- 17BC Q-SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 2230 K- M17B CQ	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1
60JA SM50 4230 K- 17BC Z	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45
60JA SM50 4230 K- M17B	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45



CZ												
60JA SM50 4230 K- 17BC Z-SC	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9
60JA SM50 4230 K- M17B CZ- SC	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9
60JA SM50 4230 K- 17BC Q	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45
60JA SM50 4230 K- M17B CQ- SC	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9
60JA SM50 4230 K- 17BC Q-SC	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9
60JA SM50 4230 K- M17B CQ	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45
60JA SM50 6230 K- 17BC Z	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.1
60JA SM50 6230 K- M17B CZ	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.1
60JA SM50 6230 K- 17BC Z-SC	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.7



60JA SM50 6230 K- M17B CZ- SC	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.7
60JA SM50 2230 K- 17BC Z-P	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1
60JA SM50 2230 K- M17B CZ-P	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1
60JA SM50 2230 K- 17BC Z-P- SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 2230 K- M17B CZ-P- SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.4
60JA SM50 4230 K- 17BC Z-P	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45
60JA SM50 4230 K- M17B CZ-P	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.45
60JA SM50 4230 K- 17BC Z-P- SC	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9
60JA SM50 4230 K- M17B	230V ~ 50/60 Hz	400	1.27	3.81	2.6	7.8	3000	6000	B	S1	60	1.9



CZ-P-SC												
60JA SM50 6230 K- 17BC Z-P	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.1
60JA SM50 6230 K- M17B CZ-P	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.1
60JA SM50 6230 K- 17BC Z-P- SC	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.7
60JA SM50 6230 K- M17B CZ-P- SC	230V ~ 50/60 Hz	600	1.91	5.73	4.0	12.0	3000	6000	B	S1	60	2.7
60JA SM50 2230 K- M23B -T	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	1.6
60JA SM50 2230 K- M23B -T-SC	230V ~ 50/60 Hz	200	0.64	1.92	1.1	3.3	3000	6000	B	S1	60	2.1
60JA SM50 4230 K- M23B -T	230V ~ 50/60 Hz	400	1.27	3.81	2.8	8.4	3000	6000	B	S1	60	2.07
60JA SM50 4230 K- M23B -T-SC	230V ~ 50/60 Hz	400	1.27	3.81	2.8	8.4	3000	6000	B	S1	60	2.6
60JA SM50 4230 K- M23B	230V ~ 50/60 Hz	400	1.27	3.81	2.8	8.4	3000	6000	B	S1	60	2.07



Z												
80JA SM50 7230 K- M17B CQ	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6
80JA SM50 7230 K- 17BC Q-SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- 17BC Q	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6
80JA SM50 7230 K- M17B CQ- SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- 17BC Z	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6
80JA SM50 7230 K- M17B CZ	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6
80JA SM50 7230 K- 17BC Z-SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- M17B CZ- SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- 17BC Z-P	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6



80JA SM50 7230 K- M17B CZ-P	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	2.6
80JA SM50 7230 K- 17BC Z-P- SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- M17B CZ-P- SC	230V ~ 50/60 Hz	750	2.39	7.17	4.5	13.5	3000	6000	B	S1	80	3.2
80JA SM50 7230 K- M23B -T	230V ~ 50/60 Hz	750	2.39	7.17	4.2	12.6	3000	6000	B	S1	80	3.4
80JA SM50 7230 K- M23B -T-SC	230V ~ 50/60 Hz	750	2.39	7.17	4.2	12.6	3000	6000	B	S1	80	3.7
80JA SM50 7230 K- M23B Z	230V ~ 50/60 Hz	750	2.39	7.17	4.2	12.6	3000	6000	B	S1	80	3.4
80JA SM51 0230 K- M23B -T	230V ~ 50/60 Hz	1000	3.18	9.54	5.15	15.45	3000	6000	B	S1	80	4
80JA SM51 0230 K- M23B -T-SC	230V ~ 50/60 Hz	1000	3.18	9.54	5.15	15.45	3000	6000	B	S1	80	4.5
80JA SM51 0230 K- 17BC Z-P	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8
80JA	230V	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8



SM51 0230 K- M17B CZ-P	~ 50/60 Hz												
80JA SM51 0230 K- 17BC Z-P- SC	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	
80JA SM51 0230 K- M17B CZ-P- SC	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	
80JA SM51 0230 K- 17BC Q	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8	
80JA SM51 0230 K- M17B CQ- SC	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	
80JA SM51 0230 K- M17B CQ	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8	
80JA SM51 0230 K- 17BC Q-SC	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	
80JA SM51 0230 K- 17BC Z	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8	
80JA SM51 0230 K- M17B CZ	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	2.8	
80JA	230V	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	



SM51 0230 K- 17BC Z-SC	~ 50/60 Hz												
80JA SM51 0230 K- M17B CZ- SC	230V ~ 50/60 Hz	1000	3.18	11.43	4.8	14.4	3000	6000	B	S1	80	3.6	
110J ASM1 2230 K- 17BC W	230V ~ 50/60 Hz	1200	4	12	5	15	3000	6000	B	S1	110	3.6	
110J ASM1 2230 K- M17B CW	230V ~ 50/60 Hz	1200	4	12	5	15	3000	6000	B	S1	110	3.6	
110J ASM1 2230 K- 17BC W-SC	230V ~ 50/60 Hz	1200	4	12	5	15	3000	6000	B	S1	110	4.8	
110J ASM1 2230 K- M17B CW- SC	230V ~ 50/60 Hz	1200	4	12	5	15	3000	6000	B	S1	110	4.8	
110J ASM1 5230 K- 17BC W	230V ~ 50/60 Hz	1500	5	15	6	18	3000	6000	B	S1	110	3.8	
110J ASM1 5230 K- M17B CW	230V ~ 50/60 Hz	1500	5	15	6	18	3000	6000	B	S1	110	3.8	
110J ASM1 5230 K- 17BC W-SC	230V ~ 50/60 Hz	1500	5	15	6	18	3000	6000	B	S1	110	5	
110J ASM1	230V ~	1500	5	15	6	18	3000	6000	B	S1	110	5	



5230 K- M17B CW- SC	50/60 Hz											
110J ASM5 13230 K- M23B -T	230V ~ 50/60 Hz	1300	4.2	12.6	6.5	19.5	3000	6000	B	S1	110	6
110J ASM5 13230 K- M23B -T-SC	230V ~ 50/60 Hz	1300	4.2	12.6	6.5	19.5	3000	6000	B	S1	110	7.6
110J ASM5 16220 K- M23B -T	230V ~ 50/60 Hz	1600	7.5	22.5	8	24	2000	4000	B	S1	110	7.85
110J ASM5 16220 K- M23B -T-SC	230V ~ 50/60 Hz	1600	7.5	22.5	8	24	2000	4000	B	S1	110	9.3
130J ASM5 15215 K- 17BC W	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5
130J ASM5 15215 K- M17B CW	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5
130J ASM5 15215 K- 17BC W-SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15215 K- M17B CW- SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15215	230V ~ 50/60	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5



K-17BC WH	Hz											
130J ASM5 15215 K- M17B CWH	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5
130J ASM5 15215 K- 17BC WH- SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15215 K- M17B CWH- SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15215 K- 17BC T	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5
130J ASM5 15215 K- M17B CT	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	7.5
130J ASM5 15215 K- 17BC T-SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15215 K- M17B CT- SC	230V ~ 50/60 Hz	1500	9.55	19.1	6.2	18.6	1500	2500	B	S1	130	9.2
130J ASM5 15220 K- 17BC W	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4
130J ASM5 15220	230V ~ 50/60	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4



K-M17B CW	Hz												
130J ASM5 15220 K- 17BC W-SC	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	
130J ASM5 15220 K- M17B CW- SC	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	
130J ASM5 15220 K- 17BC WH	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4	
130J ASM5 15220 K- M17B CWH	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4	
130J ASM5 15220 K- 17BC WH- SC	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	
130J ASM5 15220 K- M17B CWH- SC	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	
130J ASM5 15220 K- 17BC T	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4	
130J ASM5 15220 K- M17B CT	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	6.4	
130J ASM5 15220	230V ~ 50/60	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	



K-17BC T-SC	Hz												
130J ASM5 15220 K- M17B CT- SC	230V ~ 50/60 Hz	1500	7.16	14.32	7.8	23.4	2000	2500	B	S1	130	8.1	
130J ASM5 15230 K- 17BC W	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5	
130J ASM5 15230 K- M17B CW	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5	
130J ASM5 15230 K- 17BC W-SC	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6	
130J ASM5 15230 K- M17B CW- SC	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6	
130J ASM5 15230 K- 17BC WH	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5	
130J ASM5 15230 K- M17B CWH	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5	
130J ASM5 15230 K- 17BC WH- SC	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6	
130J ASM5 15230	230V ~ 50/60	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6	



K- M17B CWH- SC	Hz											
130J ASM5 15230 K- 17BC T	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5
130J ASM5 15230 K- M17B CT	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	5
130J ASM5 15230 K- 17BC T-SC	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6
130J ASM5 15230 K- M17B CT- SC	230V ~ 50/60 Hz	1500	4.77	9.54	5.8	17.4	3000	6000	B	S1	130	6.6
130J ASM5 15240 K- 17BC W	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8
130J ASM5 15240 K- M17B CW	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8
130J ASM5 15240 K- 17BC W-SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 15240 K- M17B CW- SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 15240	230V ~ 50/60	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8



K-17BC WH	Hz											
130J ASM5 15240 K-M17B CWH	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8
130J ASM5 15240 K-17BC WH-SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 15240 K-M17B CWH-SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 15240 K-17BC T	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8
130J ASM5 15240 K-M17B CT	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	4.8
130J ASM5 15240 K-17BC T-SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 15240 K-M17B CT-SC	230V ~ 50/60 Hz	1500	3.6	7.2	6.5	19.5	4000	6000	B	S1	130	6.4
130J ASM5 20220 K-17BC W	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5
130J ASM5 20220	230V ~ 50/60	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5



K-M17B CW	Hz											
130J ASM5 20220 K- 17BC W-SC	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2
130J ASM5 20220 K- M17B CW- SC	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2
130J ASM5 20220 K- 17BC WH	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5
130J ASM5 20220 K- M17B CWH	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5
130J ASM5 20220 K- 17BC WH- SC	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2
130J ASM5 20220 K- M17B CWH- SC	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2
130J ASM5 20220 K- 17BC T	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5
130J ASM5 20220 K- M17B CT	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	7.5
130J ASM5 20220	230V ~ 50/60	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2



K-17BC T-SC	Hz											
130J ASM5 20220 K- M17B CT- SC	230V ~ 50/60 Hz	2000	9.55	19.1	10.2	30.6	2000	4000	B	S1	130	9.2
130J ASM5 20230 K- 17BC W	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4
130J ASM5 20230 K- M17B CW	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4
130J ASM5 20230 K- 17BC W-SC	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1
130J ASM5 20230 K- M17B CW- SC	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1
130J ASM5 20230 K- 17BC WH	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4
130J ASM5 20230 K- M17B CWH	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4
130J ASM5 20230 K- 17BC WH- SC	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1
130J ASM5 20230	230V ~ 50/60	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1



K- M17B CWH- SC	Hz												
130J ASM5 20230 K- 17BC T	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4	
130J ASM5 20230 K- M17B CT	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	6.4	
130J ASM5 20230 K- 17BC T-SC	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1	
130J ASM5 20230 K- M17B CT- SC	230V ~ 50/60 Hz	2000	6.4	12.8	8.5	25.5	3000	6000	B	S1	130	8.1	
130J ASM5 30220 K- 17BC W	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9	
130J ASM5 30220 K- M17B CW	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9	
130J ASM5 30220 K- 17BC W-SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6	
130J ASM5 30220 K- M17B CW- SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6	
130J ASM5 30220	230V ~ 50/60	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9	



K-17BC WH	Hz											
130J ASM5 30220 K-M17B CWH	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9
130J ASM5 30220 K-17BC WH-SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6
130J ASM5 30220 K-M17B CWH-SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6
130J ASM5 30220 K-17BC T	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9
130J ASM5 30220 K-M17B CT	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	10.9
130J ASM5 30220 K-17BC T-SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6
130J ASM5 30220 K-M17B CT-SC	230V ~ 50/60 Hz	3000	14.3	28.6	14.3	42.9	2000	4000	B	S1	130	12.6
130J ASM5 30230 K-17BC W	230V ~ 50/60 Hz	3000	9.55	19.1	16.0	48.0	3000	6000	B	S1	130	10.9
130J ASM5 30230	230V ~ 50/60	3000	9.55	19.1	16.0	48.0	3000	6000	B	S1	130	10.9



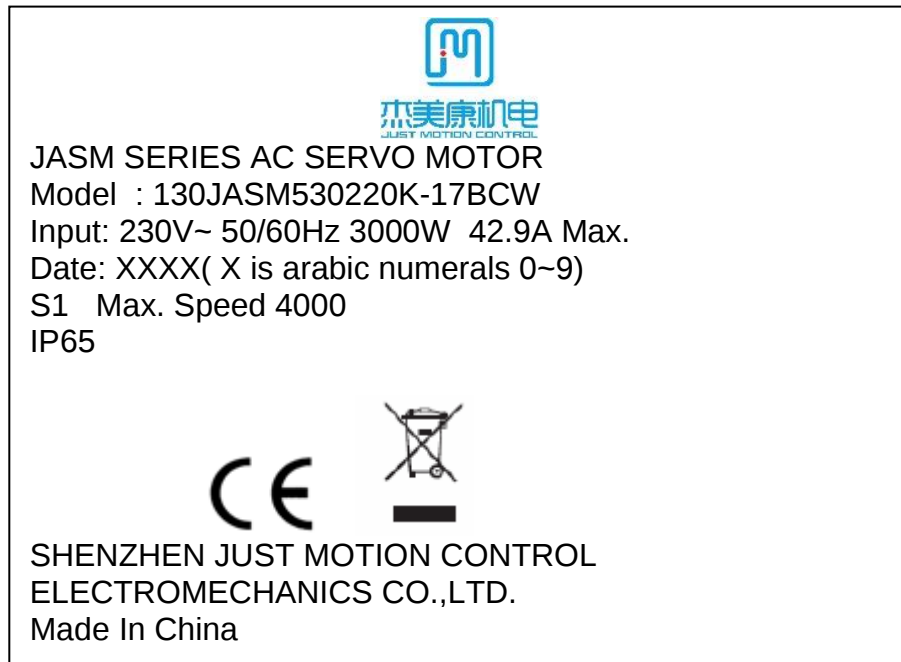
K-M17B CW	Hz											
130J ASM5 30230 K- 17BC W-SC	230V ~ 50/60 Hz	3000	9.55	19.1	16.0	48.0	3000	6000	B	S1	130	12.6
130J ASM5 30230 K- M17B CW- SC	230V ~ 50/60 Hz	3000	9.55	19.1	16.0	48.0	3000	6000	B	S1	130	12.6
130J ASM5 15215 K- M23B -T	230V ~ 50/60 Hz	1500	9.55	19.1	10	30	1500	2500	B	S1	130	8.2
130J ASM5 15215 K- M23B -T-SC	230V ~ 50/60 Hz	1500	9.55	19.1	10	30	1500	2500	B	S1	130	11.2
130J ASM5 15220 K- M23B -T	230V ~ 50/60 Hz	1500	7.5	15	9	27	2000	3000	B	S1	130	7.2
130J ASM5 15220 K- M23B -T-SC	230V ~ 50/60 Hz	1500	7.5	15	9	27	2000	3000	B	S1	130	10.2
130J ASM5 15230 K- M23B -T-M	230V ~ 50/60 Hz	1500	5	15	6.4	19.2	3000	6000	B	S1	130	6.4
130J ASM5 15230 K- M23B CW	230V ~ 50/60 Hz	1500	5	15	6.4	19.2	3000	6000	B	S1	130	6.6
130J ASM5 15230 K- M23B	230V ~ 50/60 Hz	1500	5	15	6.4	19.2	3000	6000	B	S1	130	6.6



CWH												
130J ASM5 15230 K- M23B -T-M- SC	230V ~ 50/60 Hz	1500	5	15	6.4	19.2	3000	6000	B	S1	130	8.4
130J ASM5 20230 K- M23B -T	230V ~ 50/60 Hz	2000	6.4	19.2	11.5	34.5	3000	6000	B	S1	130	13.7
130J ASM5 20230 K- M23B -T-SC	230V ~ 50/60 Hz	2000	6.4	19.2	11.5	34.5	3000	6000	B	S1	130	15.7
130J ASM5 30220 K- M23B -T	230V ~ 50/60 Hz	3000	14.6	29.2	17	51	2000	3000	B	S1	130	14
130J ASM5 30220 K- M23B -T-SC	230V ~ 50/60 Hz	3000	14.6	29.2	17	51	2000	3000	B	S1	130	16



Artwork of Marking Label





EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict

1	Scope		P
	Applicable to all rotating electrical machines		P

2	Normative references		P
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4	Duty		P
4.1	Declaration of duty		P
	It is the responsibility of the purchaser to declare the duty. The purchaser may describe the duty by one of the following:		P
	a) numerically, where the load does not vary or where it varies in a known manner;		N
	b) as a time sequence graph of the variable quantities;		N
	c) by selecting one of the duty types S1 to S10 that is no less onerous than the expected duty.	The duty types S1	P
4.2	Duty types		P
4.2.1	Duty type S1 – Continuous running duty		P
	Operation at a constant load maintained for sufficient time to allow the machine to reach thermal equilibrium.		P
4.2.2	Duty type S2 – Short-time duty		N
	Operation at constant load for a given time, less than that required to reach thermal equilibrium, followed by a time de-energized and at rest of sufficient duration to re-establish machine temperatures within 2 K of the coolant temperature		N
4.2.3	Duty type S3 – Intermittent periodic duty		N
	A sequence of identical duty cycles, each including a time of operation at constant load and a time de-energized and at rest, see Figure 3. In this duty, the cycle is such that the starting current does not significantly affect the temperature rise.		N
4.2.4	Duty type S4 – Intermittent periodic duty with starting		N
	A sequence of identical duty cycles, each cycle including a significant starting time, a time of operation at constant load and a time de-energized and at rest.		N
4.2.5	Duty type S5 – Intermittent periodic duty with electric braking		N



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Clause	Requirement Test	Result - Remark	Verdict
	A sequence of identical duty cycles, each cycle consisting of a starting time, a time of operation at constant load, a time of electric braking and a time de-energized and at rest, see Figure 5.		N
4.2.6	Duty type S6 – Continuous-operation periodic duty		N
	A sequence of identical duty cycles, each cycle consisting of a time of operation at constant load and a time of operation at no-load. There is no time de-energized and at rest, see Figure 6.		N
4.2.7	Duty type S7 – Continuous-operation periodic duty with electric braking		N
	A sequence of identical duty cycles, each cycle consisting of a starting time, a time of operation at constant load and a time of electric braking. There is no time de-energized and at rest, see Figure 7.		N
4.2.8	Duty type S8 – Continuous-operation periodic duty with related load/speed changes		N
	A sequence of identical duty cycles, each cycle consisting of a time of operation at constant load corresponding to a predetermined speed of rotation, followed by one or more times of operation at other constant loads corresponding to different speeds of rotation (carried out, for example, by means of a change in the number of poles in the case of induction motors). There is no time de-energized and at rest (see Figure 8).		N
4.2.9	Duty type S9 – Duty with non-periodic load and speed variations		N
	A duty in which generally load and speed vary non-periodically within the permissible operating range. This duty includes frequently applied overloads that may greatly exceed the reference load (see Figure 9).		N
4.2.10	Duty type S10 – Duty with discrete constant loads and speeds		N
	A duty consisting of a specific number of discrete values of load (or equivalent loading) and if applicable, speed, each load/speed combination being maintained for sufficient time to allow the machine to reach thermal equilibrium, see Figure 10. The minimum load within a duty cycle may have the value zero (no-load or de-energized and at rest).		N
5	Rating		P



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
5.1	Assignment of rating		P
	The rating, as defined in 3.2, shall be assigned by the manufacturer. In assigning the rating the manufacturer shall select one of the classes of rating defined in 5.2.1 to 5.2.6.		P
5.2	Classes of rating		P
5.2.1	Rating for continuous running duty		P
	A rating at which the machine may be operated for an unlimited period, while complying with the requirements of this standard.		P
5.2.2	Rating for short-time duty		N
	A rating at which the machine may be operated for a limited period, starting at ambient temperature, while complying with the requirements of this standard.		N
5.2.3	Rating for periodic duty		N
	A rating at which the machine may be operated on duty cycles, while complying with the requirements of this standard.		N
5.2.4	Rating for non-periodic duty		N
	A rating at which the machine may be operated non-periodically while complying with the requirements of this standard.		N
5.2.5	Rating for duty with discrete constant loads and speeds		N
	A rating at which the machine may be operated with the associated loads and speeds of duty type S10 for an unlimited period of time while complying with the requirements of this standard.		N
5.2.6	Rating for equivalent loading		N
	A rating, for test purposes, at which the machine may be operated at constant load until thermal equilibrium is reached and which results in the same stator winding temperature rise as the average temperature rise during one load cycle of the specified duty type.		N
5.3	Selection of a class of rating		P
	A machine manufactured for general purpose shall have a rating for continuous running duty and be capable of performing duty type S1.	Duty type S1	P
	When a machine is intended to have a rating for short-time duty, the rating shall be based on duty type S2, see 4.2.2.		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
	When a machine is intended to supply varying loads or loads including a time of no-load or times where the machine will be in a state of de-energized and at rest, the rating shall be a rating for periodic duty based on a duty type selected from duty types S3 to S8, see 4.2.3 to 4.2.8.		N
	When a machine is intended non-periodically to supply variable loads at variable speeds, including overloads, the rating shall be a rating for non-periodic duty based on duty type S9, see 4.2.9.		N
	When a machine is intended to supply discrete constant loads including times of overload or times of no-load (or de-energized and at rest) the rating shall be a rating with discrete constant loads based on duty type S10, see 4.2.10.		N
5.4	Allocation of outputs to class of rating		P
	For duty types S1 to S8, the specified value(s) of the constant load(s) shall be the rated output(s), see 4.2.1 to 4.2.8.		P
	For duty types S9 and S10, the reference value of the load based on duty type S1 shall be taken as the rated output, see 4.2.9 and 4.2.10.		N
5.5	Rated output		P
5.5.1	DC generators		N
	The rated output is the output at the terminals and shall be expressed in watts (W).		N
5.5.2	AC generators		N
	The rated output is the apparent power at the terminals and shall be expressed in voltamperes (VA) together with the power factor.		N
	The rated power factor for synchronous generators shall be 0,8 lagging (over-excited), unless otherwise specified by the purchaser.		N
5.5.3	Motors		P
	The rated output is the mechanical power available at the shaft and shall be expressed in watts (W).		P
5.5.4	Synchronous condensers		N
	The rated output is the reactive power at the terminals and shall be expressed in volt-amperes reactive (var) in leading (under-excited) and lagging (over-excited) conditions.		N
5.6	Rated voltage		P
5.6.1	DC generators		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
	For d.c. generators intended to operate over a relatively small range of voltage, the rated output and current shall apply at the highest voltage of the range, unless otherwise specified, see also 7.3.		N
5.6.2	AC generators		P
	For a.c. generators intended to operate over a relatively small range of voltage, the rated output and power factor shall apply at any voltage within the range, unless otherwise specified, see also 7.3.		P
5.7	Co-ordination of voltages and outputs		N
	It is not practical to build machines of all ratings for all rated voltages. In general, for a.c. machines, based on design and manufacturing considerations, preferred voltage ratings above 1 kV in terms of rated output are as shown in Table 1.		N
5.8	Machines with more than one rating		N
	For machines with more than one rating, the machine shall comply with this standard in all respects at each rating.		N

6	Site operating conditions		P
6.1	General		P
	Unless otherwise specified, machines shall be suitable for the following site operation conditions.		P
6.2	Altitude		P
	The altitude shall not exceed 1 000 m above sea-level.		P
6.3	Maximum ambient air temperature		P
	The ambient air temperature shall not exceed 40 °C.		P
6.4	Minimum ambient air temperature		P
	The ambient air temperature shall not be less than -15 °C for any machine.		P
	The ambient air temperature shall be not less than 0 °C for a machine with any of the following:		N
	a) rated output greater than 3 300 kW (or kVA) per 1 000 min ⁻¹ ;		N
	b) rated output less than 600 W (or VA);		N
	c) a commutator;		N
	d) a sleeve bearing;		N
	e) water as a primary or secondary coolant.		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict

6.5	Water coolant temperature		N
	The water coolant temperature at the inlet to a machine or heat exchanger, or the ambient water (in the case of submersible machines with surface cooling or machines with water jacket cooling) shall not exceed +25 °C nor be less than +5 °C.		N
6.6	Storage and transport		P
	When temperatures lower than specified in 6.4 are expected during transportation, storage, or after installation, the purchaser shall inform the manufacturer and specify the expected minimum temperature.		P
6.7	Purity of hydrogen coolant		N
	Hydrogen cooled machines shall be capable of operating at rated output under rated conditions with a coolant containing not less than 95 % hydrogen by volume.		N

7	Electrical operating conditions		P
7.1	Electrical supply		P
	For three-phase a.c. machines, 50 Hz or 60 Hz, intended to be directly connected to distribution or utilisation systems, the rated voltages shall be derived from the nominal voltages given in IEC 60038.		P
7.2	Form and symmetry of voltages and currents		P
7.2.1	AC motors		P
7.2.1.1	AC motors rated for use on a power supply of fixed frequency, supplied from an a.c. generator (whether local or via a supply network) shall be suitable for operation on a supply voltage having a harmonic voltage factor (HVF) not exceeding:		P
	0,02 for single-phase motors and three-phase motors, including synchronous motors but excluding motors of design N (see IEC 60034-12), unless the manufacturer declares otherwise.		P
	0,03 for design N motors.		P
7.2.1.2	AC motors supplied from static converters have to tolerate higher harmonic contents of the supply voltage, see IEC 60034-17 for the case of cage motors within the scope of IEC 60034-12.		P
7.2.2	AC generators		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
	Three-phase a.c. generators shall be suitable for supplying circuits which, when supplied by a system of balanced and sinusoidal voltages:		N
	a) result in currents not exceeding a harmonic current factor (HCF) of 0,05, and		N
	b) result in a system of currents where neither the negative-sequence component nor the zero-sequence component exceed 5 % of the positive-sequence component.		N
7.2.3	Synchronous machines		N
	Unless otherwise specified, three-phase synchronous machines shall be capable of operating continuously on an unbalanced system in such a way that, with none of the phase currents exceeding the rated current, the ratio of the negative-sequence component of current (I_2) to the rated current (I_N) does not exceed the values in Table 2 and under fault conditions shall be capable of operation with the product of $(I_2/I_N)^2$ and time (t) not exceeding the values in Table 2.		N
7.2.4	DC motors supplied from static power converters		N
	In the case of a d.c. motor supplied from a static power converter, the pulsating voltage and current affect the performance of the machine.		N
7.3	Voltage and frequency variations during operation		P
	For a.c. machines rated for use on a power supply of fixed frequency supplied from an a.c. generator (whether local or via a supply network), combinations of voltage variation and frequency variation are classified as being either zone A or zone B, in accordance with Figure 11 for generators and synchronous condensers, and Figure 12 for motors.		P
7.4	Three-phase a.c. machines operating on unearthed systems		N
	Three-phase a.c. machines shall be suitable for continuous operation with the neutral at or near earth potential.		N
7.5	Voltage (peak and gradient) withstand levels		N
	For a.c. motors the manufacturer shall declare a limiting value for the peak voltage and for the voltage gradient in continuous operation.		N

8	Thermal performance and tests		P
8.1	Thermal class		P



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
	A thermal class in accordance with IEC 62114 shall be assigned to the insulation systems used in machines.		P
8.2	Reference coolant		N
	The reference coolant for a given method of cooling the machine is specified in Table 4.		N
8.3	Conditions for thermal tests		P
8.3.1	Electrical supply		P
	During thermal testing of an a.c. motor the HVF of the supply shall not exceed 0,015 and the negative-sequence component of the system of voltages shall be less than 0,5 % of the positive-sequence component, the influence of the zero-sequence component being eliminated.		P
8.3.2	Temperature of machine before test		P
	If the temperature of a winding is to be determined from the increase of resistance, the initial winding temperature shall not differ from the coolant by more than 2 K.		P
8.3.3	Temperature of coolant		N
	A machine may be tested at any convenient value of coolant temperature.		N
8.3.4	Measurement of coolant temperature during test		N
8.4	Temperature rise of a part of a machine		P
8.5	Methods of measurement of temperature		P
8.5.1	General		P
	Three methods of measuring the temperature of windings and other parts are recognized:		P
	- resistance method;		P
	- embedded temperature detector (ETD) method;		N
	- thermometer method.		N
8.5.2	Resistance method		P
8.5.3	Embedded temperature detector (ETD) method		N
8.5.4	Thermometer method		N
8.6	Determination of winding temperature		N
8.6.1	Choice of method		P
	In general, for measuring the temperature of the windings of a machine, the resistance method in accordance with 8.5.1 shall be applied (but see also 8.6.2.3.3).		P



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
8.6.2	Determination by resistance method		P
8.6.2.1	Measurement		P
	One of the following methods shall be used:		P
	direct measurement at the beginning and the end of the test, using an instrument having a suitable range;		P
	measurement by d.c. current/voltage in d.c. windings, by measuring the current in and the voltage across the winding, using instruments having suitable ranges;		N
	measurement by d.c. current/voltage in a.c. windings by injecting direct current into the winding when de-energized;		N
	superposition method without interruption of the a.c. load current by superimposing on the load current a small d.c. measuring current, in accordance with IEC 60279.		N
8.6.2.2	Calculation		P
8.6.2.3	Correction for stopping time		N
8.6.2.3.1	General		N
8.6.2.3.2	Short stopping time		N
8.6.2.3.3	Extended stopping time		N
8.6.2.3.4	Windings with one coil-side per slot		N
8.6.3	Determination by ETD method		N
8.6.3.1	General		N
8.6.3.2	Two or more coil-sides per slot		N
8.6.3.3	One coil-side per slot		N
8.6.3.4	End windings		N
8.6.4	Determination by thermometer method		N
8.7	Duration of thermal tests		P
8.7.1	Rating for continuous running duty		P
8.7.2	Rating for short-time duty		N
8.7.3	Rating for periodic duty		N
8.7.4	Ratings for non-periodic duty and for duty with discrete constant loads		N
8.8	Determination of the thermal equivalent time constant for machines of duty type S9		N
8.9	Measurement of bearing temperature		N
8.10	Limits of temperature and of temperature rise		P
8.10.1	Indirect cooled windings		P



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict

8.10.2	Direct cooled windings		N
8.10.3	Adjustments to take account of hydrogen purity on test		N
8.10.4	Permanently short-circuited windings, magnetic cores and all structural components (other than bearings) whether or not in contact with insulation		N
8.10.5	Commutators and sliprings, open or enclosed and their brushes and brushgear		N

9	Other performance and tests		P
9.1	Routine tests		P
9.2	Withstand voltage test		P
9.3	Occasional excess current		N
9.3.1	General		N
9.3.2	Generators		N
9.3.3	Motors		P
9.3.4	Commutator machines		N
9.4	Momentary excess torque for motors		N
9.4.1	Polyphase induction motors and d.c. motors		N
9.4.2	Polyphase synchronous motors		N
9.4.3	Other motors		N
9.5	Pull-up torque		P
9.6	Safe operating speed of cage induction motors		P
9.7	Overspeed		P
9.8	Short-circuit current for synchronous machines		N
9.9	Short-circuit withstand test for synchronous machines		N
9.10	Commutation test for commutator machines		N
9.11	Total Harmonic Distortion (THD) for synchronous machines		N
9.11.1	General		N
9.11.2	Limits		N
9.11.3	Tests		N

10	Rating plates		P
10.1	General		P
10.2	Marking		P



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Clause	Requirement Test	Result - Remark	Verdict
	a) The manufacturer's name or mark.		P
	b) The manufacturer's serial number, or identification mark.		P
	c) Information to identify the year of manufacture.		P
	d) The manufacturer's machine code.		P
	e) For a.c. machines, the number of phases.		P
	f) The number(s) of the rating and performance standard(s) which are applicable (IEC 60034-X and/or equivalent national standard(s)). If IEC 60034 is marked, this implies compliance with all the other relevant standards of the IEC 60034 series.		P
	g) The degree of protection provided by the integral design of the rotating electrical machine (IP code) in accordance with IEC 60034-5		N
	h) For motors within the scope of IEC 60034-30, the efficiency class (IE code) and the rated efficiency as specified in IEC 60034-30		N
	i) The thermal class and the limit of temperature or of temperature rise (when lower than that of the thermal class) and, if necessary, the method of measurement, followed in the case of a machine with a water-cooled heat exchanger by 'P' or 'S', depending on whether the temperature rise is measured above the primary or secondary coolant respectively (see 8.2). This information shall be given for both stator and rotor (separated by a slash) when their thermal class differ		N
	j) The class(es) of rating of the machine if designed for other than rating for continuous running duty S1 , see 5.2.		P
	k) The rated output(s) or range of rated output		N
	l) The rated voltage(s) or range of rated voltage		P
	m) For a.c. machines the rated frequency or range of rated frequency		N
	n) For synchronous machines excited by permanent magnets the open circuit voltage at rated speed		P
	o) The rated current(s) or range of rated current		P
	p) The rated speed(s) or range of rated speed		P
	q) The permissible overspeed if other than specified in 9.7		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict

	r) For d.c. machines with separate excitation or with shunt excitation and for synchronous machines, the rated field voltage and the rated field current.		N
	s) For a.c. machines, the rated power factor(s)		P
	t) For wound-rotor induction machines, the rated open-circuit voltage between slip-rings and the rated slip-ring current.		N
	u) For d.c. motors with armatures intended to be supplied by static power converters, the identification code of the static power converter in accordance with IEC 60971 . Alternatively, for motors not exceeding 5 kW, the rated form factor and the rated alternating voltage at the input terminals of the static power converter, when this exceeds the rated direct voltage of the motor armature circuit.		N
	v) The maximum ambient air temperature, if other than 40 °C		N
	w) The minimum ambient air temperature if other than specified in 6.4		N
	x) The altitude for which the machine is designed (if exceeding 1 000 m above sea-level).		N
	y) For hydrogen-cooled machines, the hydrogen pressure at rated output		N
	z) When specified, the approximate total mass of the machine, if exceeding 30 kg.		N

11	Miscellaneous requirements		N
11.1	Protective earthing of machines		N
11.2	Shaft-end key(s)		N

12	Tolerances		N
12.1	General		N
12.2	Tolerances on values of quantities		N

13	Electromagnetic compatibility (EMC)		P
13.1	General		P
	The following requirements apply to rotating electrical machines with rated voltages not exceeding 1 000 V a.c. or 1 500 V d.c. and which are intended for operation in industrial environments		P
13.2	Immunity		P



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict

13.2.1	Machines not incorporating electronic circuits		N
13.2.2	Machines incorporating electronic circuits		P
13.3	Emission		P
13.3.1	Machines without brushes		P
13.3.2	Machines with brushes		N
13.4	Immunity tests		P
13.5	Emission tests		P
13.5.1	Machines without brushes		P
13.5.2	Machines with brushes		N

14	Safety		P
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Annex A	Guidance for the application of duty type S10 and for establishing the value of relative thermal life expectancy TL		N
A.1	The load of the machine at any moment is equivalent to duty type S1 corresponding to 4.2.1 . However, the load cycle may comprise loads other than the rated load based on duty type S1 . A load cycle comprising four discrete constant load/speed combinations is shown in Figure 1 0.		N
A.2	Depending on the value and duration of the different loads within one cycle, the relative life expectancy of the machine based on the thermal ageing of the insulation system can be calculated by the following equation:		N
A.3	The quantity TL is an integral part of the unambiguous identification of the class of rating.		N
A.4	The value of the quantity TL can be determined only when, in addition to information concerning the load cycle according to Figure 1 0, the value k for the insulation system is known. This value k has to be determined by experiments in conformity with IEC 60034-1 8 for the whole temperature range within which the load cycle takes place according to Figure 1 0.		N



EN 60034-1			
Clause	Requirement Test	Result - Remark	Verdict
A.5	TL can be stated sensibly as a relative value only. This value can be used by approximation to assess the real change in the machine thermal life expectancy as compared to duty type S1 with rated output, because it may be assumed that in consideration of the varying loads existing within a cycle the remaining influences over the lifetime of the machine (e.g. dielectric stress, environmental influences) are approximately the same as in the case of duty type S1 with rated output.		N
A.6	The manufacturer of the machine is responsible for the correct compilation of the various parameters for determining the value of TL.		N
Annex B	Electromagnetic compatibility (EMC) limits		P

ATTACHED (PHOTOS)



Photo 1

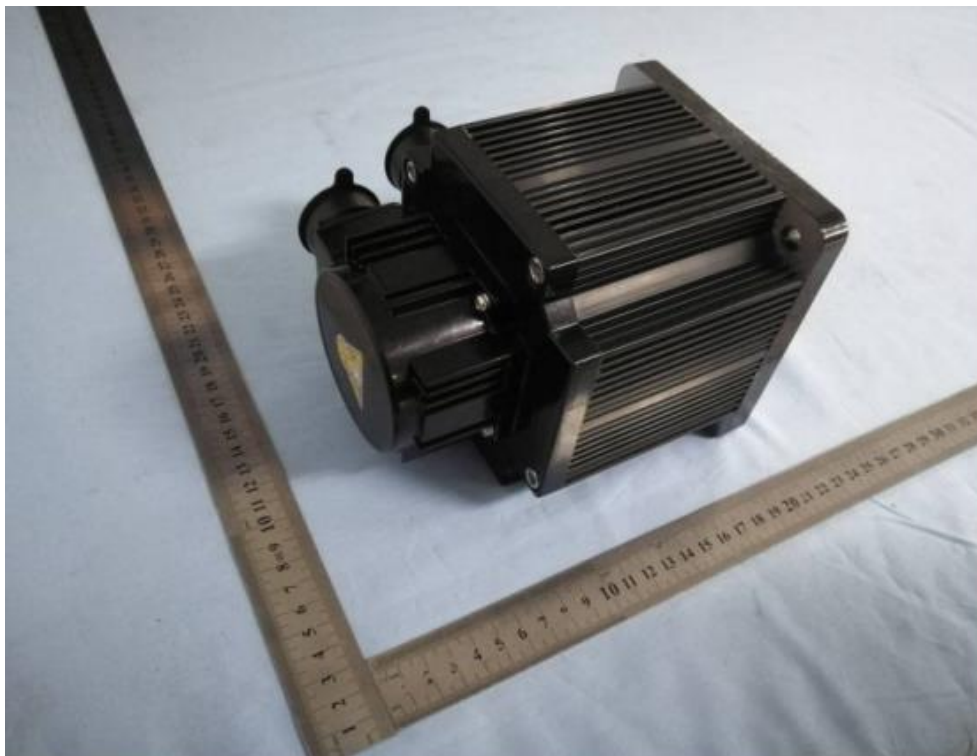


Photo 2



Photo 3



Photo 4

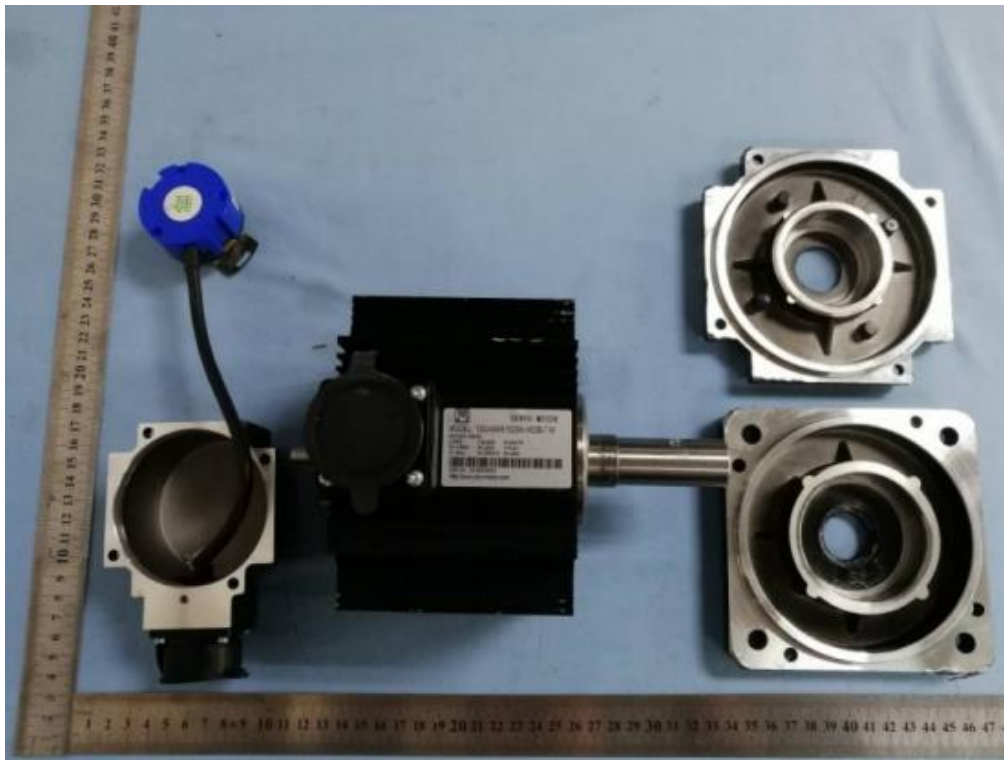


Photo 5



Photo 6



Photo 7

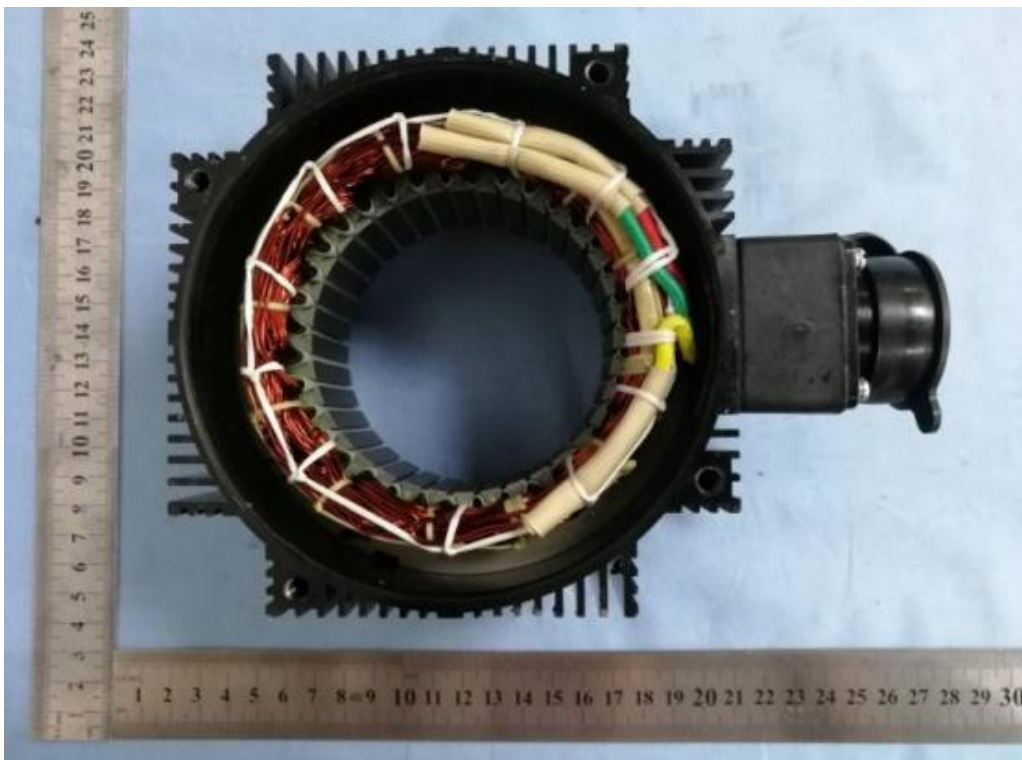


Photo 8

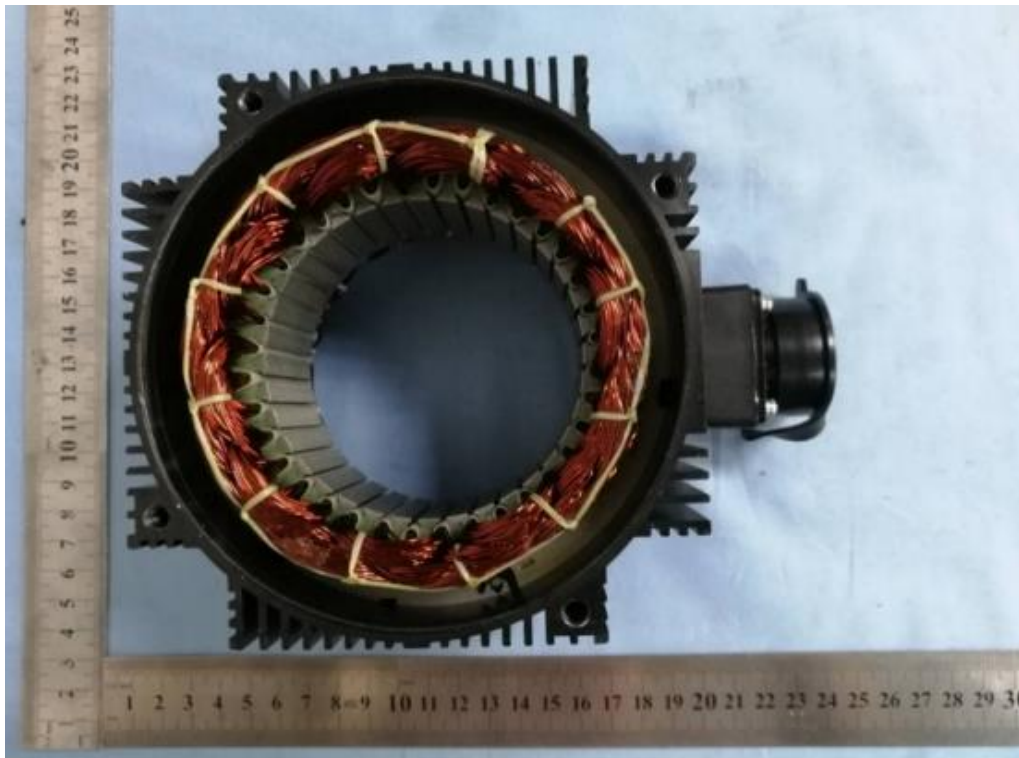


Photo 9

***** END OF REPORT *****