

Client Name: Jiangsu DINGS' Intelligent Control Technology Co., LTD  
 Client Address: No. 2850 Luheng Road, Economic Development Zone, Changzhou, Jiangsu, 213025 China

Sample Name: Brushless DC Motor  
 Tested Basic Model No.: 86ZWS101X-1  
 Client Ref. Information: 12/16/22/28/36/42/57/60/86/110/130

The above sample(s) and information were provided by the client.

SGS Job No.: SHP26-012507  
 Sample Receiving Date: Apr 18, 2026  
 Verification Period: Apr 18, 2026 ~ Apr 29, 2026  
 Verification Requested: With reference to RoHS Directive (EU) 2015/863 amending 2011/65/EU.  
 Verification Method(s): Please refer to next page(s).  
 Verification Result(s): Please refer to next page(s).

**Test Result Summary:**

Test Items	Conclusion
EU RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU - Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)	Pass

Signed for and on behalf of  
 SGS-CSTC Standards Technical Services (Qingdao) Co., Ltd.

*Alice Sun*

Alice Sun  
 Approved Signatory

Scan to see the report



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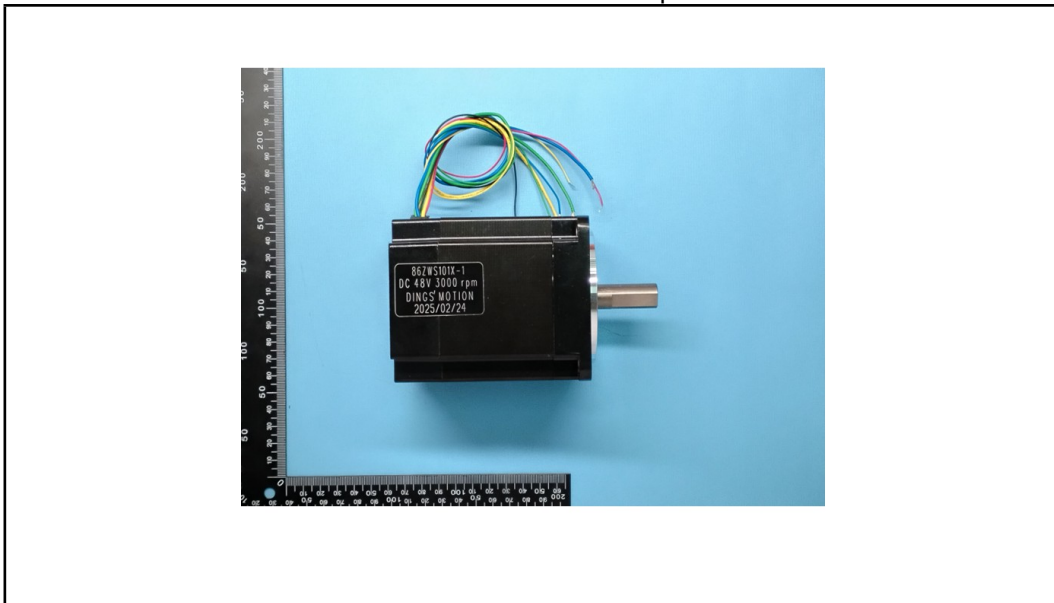
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Photo of Submitted Sample



**Verification Method(s):**

1. With reference to IEC 62321-2:2021, disassembly and disjointment were performed for the submitted samples.
2. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in this report.
  - (1) With reference to IEC 62321-3-1:2013, screening by EDXRF spectroscopy.
  - (2) Wet chemical test method: With reference to IEC 62321-4:2013+A1:2017, IEC62321-5:2013, IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-12:2023, IEC 62321-6:2015 and IEC62321-8:2017 , analyzed by ICP-OES,UV-Vis and GC-MS.



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Verification Part Description:

SN ID	Sample No.	SGS Sample ID	Description
SN1	A1	TAO26-0038480-0001.C001	Black coating
SN2	A2	TAO26-0038480-0001.C002	Silvery metal
SN3	A3	TAO26-0038480-0001.C003	Silvery metal
SN4	A4	TAO26-0038480-0001.C004	Black/white plastic(label)
SN5	A5	TAO26-0038480-0001.C005	Transparent adhesive
SN6	A6	TAO26-0038480-0001.C006	Green PCB
SN7	A7	TAO26-0038480-0001.C007	Black body
SN8	A8	TAO26-0038480-0001.C008	Silvery metal(soldering tin)
SN9	A9	TAO26-0038480-0001.C009	Black metal
SN10	A10	TAO26-0038480-0001.C010	Black metal
SN11	A11	TAO26-0038480-0001.C011	Black plastic(pyrocondensation tube)
SN12	A12	TAO26-0038480-0001.C012	Copper enamelled wire
SN13	A13	TAO26-0038480-0001.C013	White plastic
SN14	A14	TAO26-0038480-0001.C014	Blue adhesive
SN15	A15	TAO26-0038480-0001.C015	Silvery metal
SN16	A16	TAO26-0038480-0001.C016	Transparent paste
SN17	A17	TAO26-0038480-0001.C017	Golden metal
SN18	A18	TAO26-0038480-0001.C018	Silvery metal
SN19	A19	TAO26-0038480-0001.C019	Silvery metal
SN20	A20	TAO26-0038480-0001.C020	Silvery metal
SN21	A21	TAO26-0038480-0001.C021	Silvery metal(steel ball)
SN22	A22	TAO26-0038480-0001.C022	Silvery metal
SN23	A23	TAO26-0038480-0001.C023	Silvery metal
SN24	A24	TAO26-0038480-0001.C024	Silvery metal
SN25	A25	TAO26-0038480-0001.C025	Silvery metal
SN26	A26	TAO26-0038480-0001.C026	Blue plastic(jacket)
SN27	A27	TAO26-0038480-0001.C027	Black plastic(jacket)
SN28	A28	TAO26-0038480-0001.C028	Yellow plastic(jacket)
SN29	A29	TAO26-0038480-0001.C029	Green plastic(jacket)
SN30	A30	TAO26-0038480-0001.C030	Red plastic(jacket)
SN31	A31	TAO26-0038480-0001.C031	Blue plastic(jacket)
SN32	A32	TAO26-0038480-0001.C032	Green plastic(jacket)
SN33	A33	TAO26-0038480-0001.C033	Yellow plastic(jacket)
SN34	A34	TAO26-0038480-0001.C034	Silvery metal(inner core)
SN35	A35	TAO26-0038480-0001.C035	Black rubber



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**Verification Result(s):**

(Unless otherwise specified, the unit is mg/kg).

Test Item(s)	A1	A2	A3	A4	A5	A6	A7	A8
Pb	BL	735	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	ND	BL	BL	BL	BL	BL
PBB	BL	---	---	BL	BL	ND	BL	---
PBDE	BL	---	---	BL	BL	ND	BL	---
DEHP	BL	---	---	BL	BL	ND	BL	---
BBP	BL	---	---	BL	BL	ND	BL	---
DBP	BL	---	---	BL	BL	ND	BL	---
DIBP	BL	---	---	BL	BL	ND	BL	---
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A9	A10	A11	A12	A13	A14	A15	A16
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	BL	BL	BL	BL	BL	ND	BL
PBB	---	---	BL	BL	BL	BL	---	BL
PBDE	---	---	BL	BL	BL	BL	---	BL
DEHP	---	---	BL	BL	BL	BL	---	BL
BBP	---	---	BL	BL	BL	BL	---	BL
DBP	---	---	BL	BL	BL	BL	---	BL
DIBP	---	---	BL	BL	BL	BL	---	BL
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A17	A18	A19	A20	A21	A22	A23	A24
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	BL	ND	ND	BL	BL	BL	BL	BL
PBB	---	---	---	---	---	---	---	---
PBDE	---	---	---	---	---	---	---	---
DEHP	---	---	---	---	---	---	---	---
BBP	---	---	---	---	---	---	---	---
DBP	---	---	---	---	---	---	---	---
DIBP	---	---	---	---	---	---	---	---
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A25	A26	A27	A28	A29	A30	A31	A32
Pb	BL	BL	BL	BL	BL	BL	BL	BL
Hg	BL	BL	BL	BL	BL	BL	BL	BL
Cd	BL	BL	BL	BL	BL	BL	BL	BL
Cr(VI)▼	ND	BL	BL	BL	BL	BL	BL	BL
PBB	---	BL	BL	BL	BL	BL	BL	BL



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Test Item(s)	A25	A26	A27	A28	A29	A30	A31	A32
PBDE	---	BL	BL	BL	BL	BL	BL	BL
DEHP	---	BL	BL	BL	BL	BL	BL	BL
BBP	---	BL	BL	BL	BL	BL	BL	BL
DBP	---	BL	BL	BL	BL	BL	BL	BL
DIBP	---	BL	BL	BL	BL	BL	BL	BL
Conclusion	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

Test Item(s)	A33	A34	A35
Pb	BL	BL	BL
Hg	BL	BL	BL
Cd	BL	BL	BL
Cr(VI)▼	BL	BL	BL
PBB	BL	---	BL
PBDE	BL	---	BL
DEHP	BL	---	BL
BBP	BL	---	BL
DBP	BL	---	BL
DIBP	BL	---	BL
Conclusion	PASS	PASS	PASS



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**Notes:**

- (1) Interpretation of screening results by X-ray fluorescence spectrometry (XRF):  
 (a) Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2013 Annex A as below table.

Element	Polymers	Metals	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	Not applicable	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

- (b) If the maximum allowed level restricts PBB/PBDE and Cr(VI) rather than Br and Cr, the exceptions are the XRF determinations of Br and Cr. If the quantitative results for the elements Br and/or Cr are higher than the limit (for Br calculated based on the stoichiometry of Br in the most common congeners of PBB/PBDE), the sample is "inconclusive".
- (c) Results are obtained by EDXRF for primary screening, LOD = Limit of Detection, BL = Below Limit, OL= Over Limit, IN (The symbol X marks the region)=Inconclusive, where further investigation is necessary, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBB/PBDE) are recommended to be performed.
- (d) The EDXRF screening test for elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
- (2) Screening results of Phthalates (PHTH) below the limits are shown as "BL". Further chemical testing by GC-MS is to be performed if the results exceed limits.

Test Items	CAS No.
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7
Butyl benzyl phthalate (BBP)	85-68-7
Dibutyl phthalate (DBP)	84-74-2
Diisobutyl phthalate (DIBP)	84-69-5

- (3) Interpretation of results by chemical tests:  
 (a) mg/kg = 0.0001%, MDL=Method detection Limit, ND = Not Detected (<MDL), --- = Not Applicable.  
 (b) Unit and MDL in wet chemical test

Test Items	Pb	Hg	Cd	DEHP	BBP	DBP	DIBP
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
MDL	10	10	10	100	100	100	100

The MDL for single compound of PBB and PBDE is 100 mg/kg,  
 MDL of Cr(VI) for polymer, composite and leather sample is 10 mg/kg.  
 MDL of Cr(VI) for metal sample is 0.10 µg/cm².

- (c) ▼ =Metal sample
- The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13 µg/cm². The sample coating is considered to contain Cr(VI).
  - The sample is negative for Cr(VI) if Cr(VI) is ND (concentration less than 0.10 µg/cm²). The coating is considered a non-Cr(VI) based coating
  - The result between 0.10 µg/cm² and 0.13 µg/cm² is considered to be inconclusive-unavoidable coating variations may influence the determination

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.



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- (4) Restricted substances and maximum concentration values tolerated by weight in homogeneous materials under RoHS Directive: Cd: 0.01%, Pb/Hg/Cr(VI)/PBB/PBDE/DEHP/BBP/DBP/DIBP: 0.1%. The limit is quoted from RoHS Directive (EU) 2015/863.
- (5) IEC 62321 series is equivalent to EN 62321 series.

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule ( $w=0$ ) stated in ILAC-G8:09/2019.



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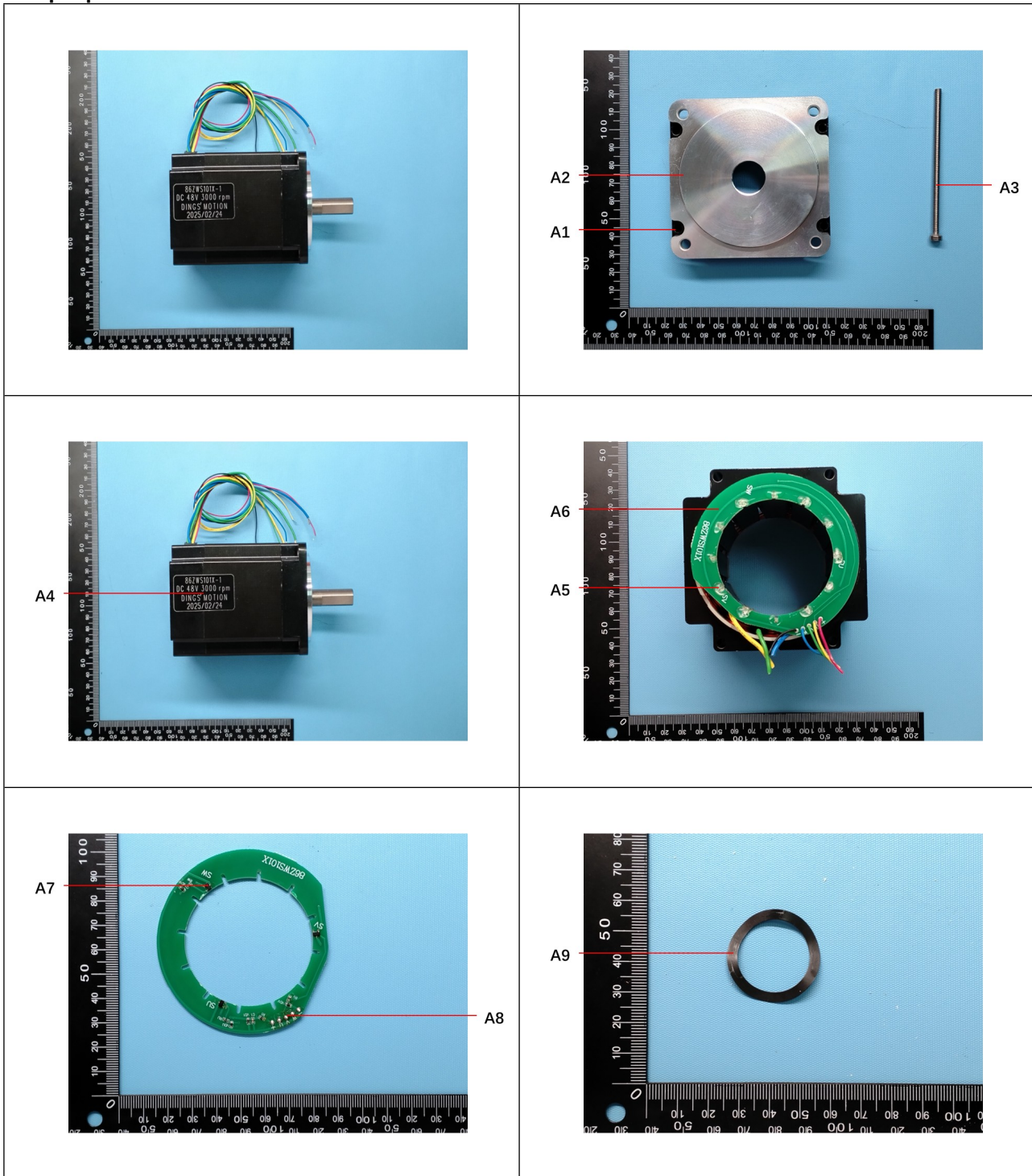
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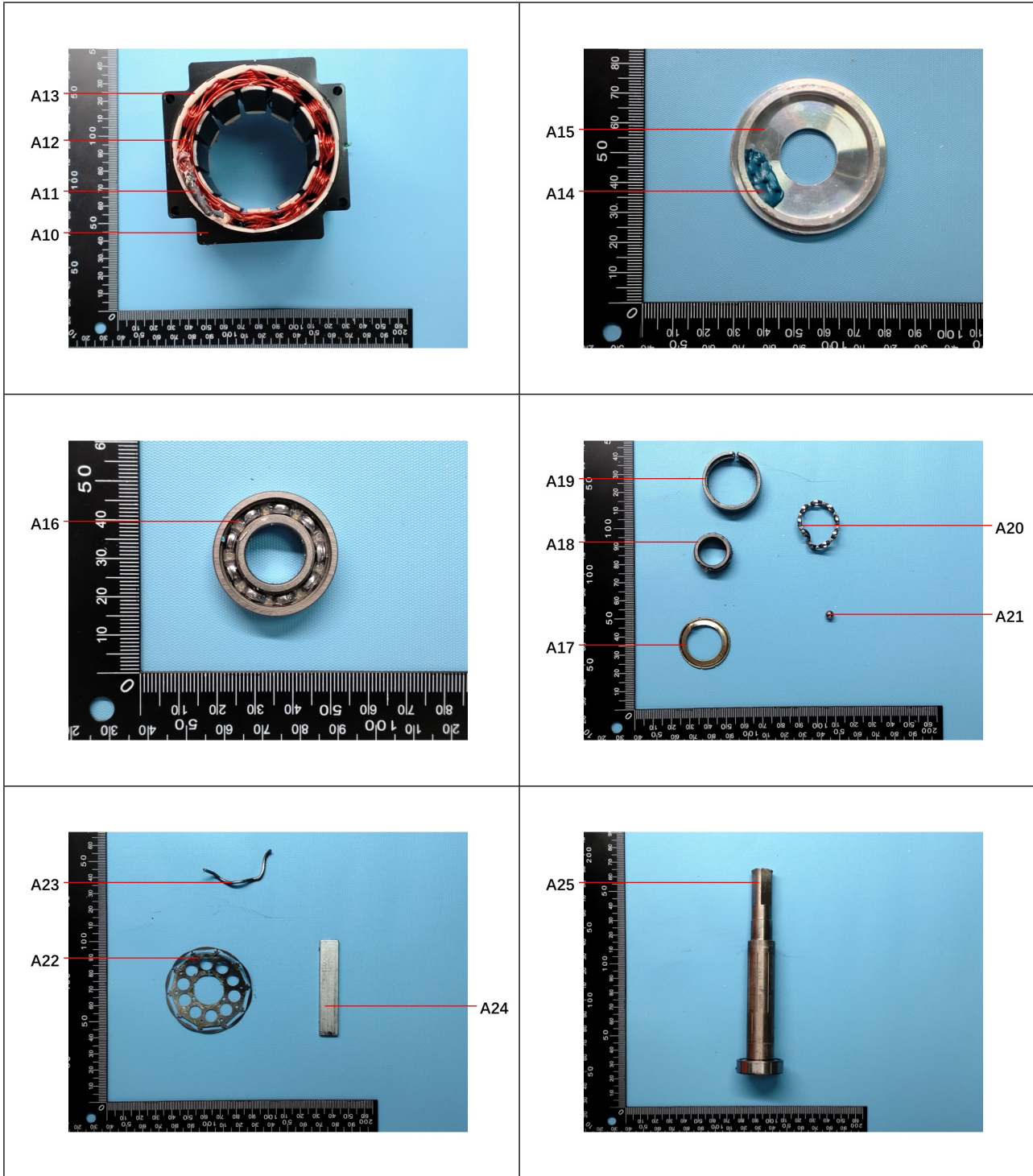
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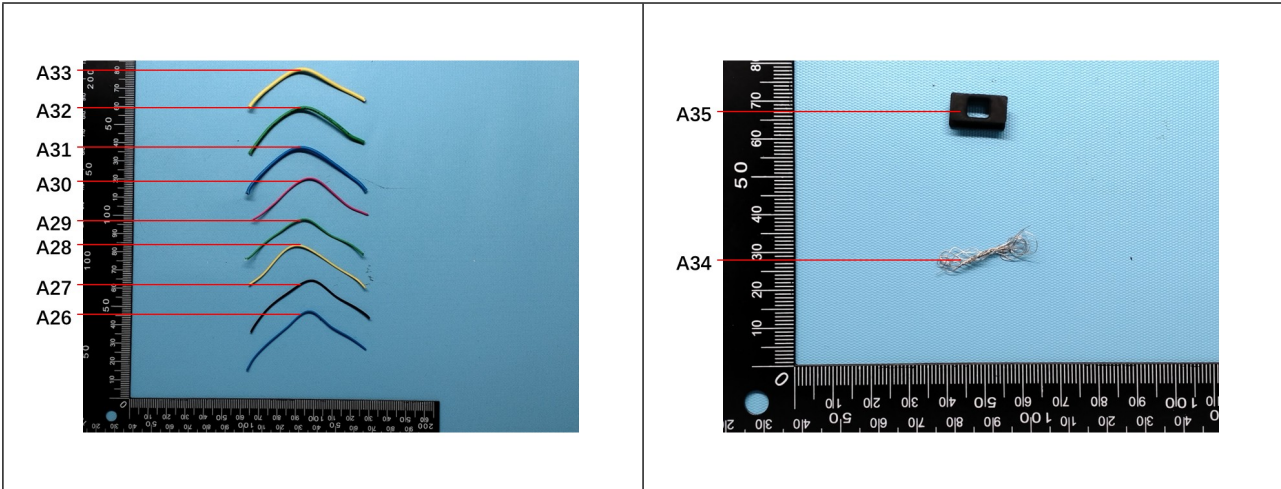
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