


<b>TEST REPORT</b> <b>UL 1004-1</b> <b>STANDARD FOR SAFETY</b> <b>Rotating Electrical Machines – General</b> <b>Requirements</b>	
Report Number. ....	22ITC0212010S
Tested by (name + signature) .....	Keyin Liu 
Approved by (name + signature) .....	Apple Huang 
Date of issue .....	Feb. 17, 2022
<b>Testing Laboratory Name</b> .....	ShenZhen iTC Product Testing Co., Ltd.
Address.....	Room 204, No.10, Phase 1, Xinhe Xinxing Third Industrial Area, Fuhai Road, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China
Testing location .....	Same as above
Applicant's name .....	Suzhou Toseven New Energy Technology Co., Ltd.
Address.....	No. 36, Tianedang Street, Yuexi Town, Wuzhong District, Suzhou City
Manufacturer's name.....	Suzhou Toseven New Energy Technology Co., Ltd.
Address.....	No. 36, Tianedang Street, Yuexi Town, Wuzhong District, Suzhou City
<b>Test specification:</b>	
Standard .....	UL 1004-1: 2018
<b>Test item description</b> .....	City car rear motor K7-135X
Trade Mark .....	N/A
Model Number .....	K7-135X 350W, K7-135X 250W, K7-135XR 350W, K7-135XR 250W
Ratings.....	36V=== 18A 350W
Date of receipt of test item.....	2022-02-12
Date (s) of performance of tests .....	From 2022-02-12 to 2022-02-17
Test conclusion .....	According to the applicant, we carried out from clause 6 to clause 47 of UL 1004-1:2018. The test results are in compliance with the above mentioned standards



**General product information:**

1. This report shall not be reproduced except in full without the written approval of the testing laboratory.
2. The test results presented in this report relate only to the item tested.
3. Possible test case verdicts:
  - test case does not apply to the test object: N(/A)
  - test object does meet the requirement: P (Pass)
  - test object does not meet the requirement: F(Fail)

**Copy of marking plate**

City car rear motor K7-135X  
Model: K7-135X 350W  
Input: 48V  18A 350W



Suzhou Toseven New Energy Technology Co., Ltd.  
No. 36, Tianedang Street, Yuexi Town, Wuzhong District, Suzhou City  
Made in China

UL 1004-1			
Clause	Requirment + Test	Result + Remark	Verdict
6	Current and Horsepower Relation		P
7	Motors Provided With Controls		N
8	Mechanical Assembly		P
9	Frame and Enclosure		P
9.1	General	Metallic enclosure	P
9.2	Cast metal enclosures		P
9.3	Sheet metal enclosures		N
9.4	Polymeric enclosures		N
10	Grounding	No grounding	N
11	Grounding Identification		N
12	Ventilation Openings	No opening	N
12.1	General		N
12.2	Barriers used with ventilation openings		N
13	Accessibility of Uninsulated Live Parts, Film-Coated Wire, and Moving Parts		P
14	Protection Against Corrosion		P
15	Cord-Connected Motors		N
15.1	The requirements in this Section apply to a motor that is intended to be connected to a source of supply in the field by means of a flexible cord and an attachment plug that are both provided with the motor.	No plug	N
16	Input and Output Connections		N
17	Factory Wiring Terminals and Leads		N
18	Spacings		P
19	Current-Carrying Parts		P
20	Internal Wiring		P
21	Bonding for Grounding	No bonding for Grounding	N
21.1	Bonding conductor		N
21.2	Bonding and grounding connections		N

UL 1004-1			
Clause	Requirment + Test	Result + Remark	Verdict
21.3	Resilient elastomeric mountings		N
22	Electrical Insulation		P
23	Insulation Systems		P
24	Windings		P
25	Brush Holders		N
26	Capacitors		P
27	Switches	No switch	N
28	Non-metallic Functional Parts		P
29	Traction Motors		N
30	General		P
31	Ratings Tests		P
31.1	Generator output test		N
31.2	Motor rating test		P
31.3	Air-over motor rating test		N
32	Temperature Test		P
33	Mechanical Tests		P
33.1	General		P
33.2	Pressure test		P
33.3	Impact test		P
33.4	Mold stress relief		N
33.5	Conduit hubs		N
33.6	Rain test		N
33.7	Lifting lugs	No such component	N
33.8	Vibration test for traction motors		N
34	Strain Relief Test		P
34.1	Power-supply cord		N
34.2	Interconnecting leads		P
34.3	Clamps	No Clamp	N

UL 1004-1			
Clause	Requirment + Test	Result + Remark	Verdict
35	Push-Back Relief Test		N
36	Resilient Elastomer Mounting Tests		P
36.1	General		P
36.2	Overcurrent test		P
36.3	Humidity conditioning test		P
36.4	Oven conditioning test		P
36.5	Ozone conditioning		N
36.6	Oil conditioning test	No such material	N
37	Dielectric Voltage-Withstand Test		P
37.1	As a routine production-line test, each unit shall withstand without electrical breakdown the application of an alternating-current potential at a frequency within the range of 40 – 70 hertz or a direct-current potential: a) Between the primary wiring, including connected components, and accessible dead metal parts that are capable of becoming energized; b) Between primary wiring and accessible low-voltage – 42.4 volts peak ac, 60 volts dc or less – metal parts, including terminals and connector contacts.		P
37A	Commutator Conditioning Test		P
38	Limited Short Circuit Test		P
39	Grounding Test		N
40	Oil Compatibility Test		N
41	Electrolytic Capacitor Overvoltage Test	No fire	P
42	Locked Rotor Test for Non-metallic Functional Parts		P
42.1	General		P
42.2	Motors not provided with thermal motor protection		P
42.3	Motors provided with thermal motor protection in the form of a thermal cutoff		N
42.4	Impedance protected motors	No softening, No warping, No cracking,	P
42.5	Motors provided with thermal motor protection in the form of an automatically reset thermal motor protector		N

UL 1004-1			
Clause	Requirement + Test	Result + Remark	Verdict
42.6	Motors provided with thermal motor protection in the form of an manually reset thermal motor protector, single-operation device, or a self-holding thermal motor protector		N
43	Production-Line Dielectric Voltage-Withstand Test		P
43.1	As a routine production-line test, each unit shall withstand without electrical breakdown the application of an alternating-current potential at a frequency within the range of 40 – 70 hertz or a direct-current potential: a) Between the primary wiring, including connected components, and accessible dead metal parts that are capable of becoming energized; b) Between primary wiring and accessible low-voltage – 42.4 volts peak ac, 60 volts dc or less – metal parts, including terminals and connector contacts.		P
44	General		P
45	Legibility and Permanence		P
45.1	Markings required by this Standard shall be permanent and shall be molded, die-stamped, paint-stenciled, stamped, or etched metal that is permanently secured, or indelibly stamped lettering on a pressure-sensitive label.		P
45.2	A pressure-sensitive label or a label that is secured by cement or adhesive and that is required to be permanent shall comply with the Standard for Marking and Labeling Systems, UL 969.		P
45.3	The marking shall be such that it presents the required information clearly and legibly under conditions of intended use and user servicing of the product.		P
46	Environmental Related Markings		P
46.1	Enclosures marked with a type may also be marked as follows: a) A Type 3, 3S, 4, 4X, 6, or 6P enclosure may be marked "raintight". b) A Type 3R enclosure may be marked "rainproof". c) A Type 4, 4X, 6, or 6P enclosure may be marked "watertight". d) A Type 4X or 6P enclosure may be marked "corrosion resistant". e) A Type 2, 5, 12, 12K, or 13 enclosure may be marked "driptight". f) A Type 3, 3S, 5, 12, 12K, or 13 enclosure may be marked "dust-tight".		P
47	General		P

**Appendix 1**  
**Photo documentation**



Fig. 1



Fig. 2

**Appendix 1**  
**Photo documentation**

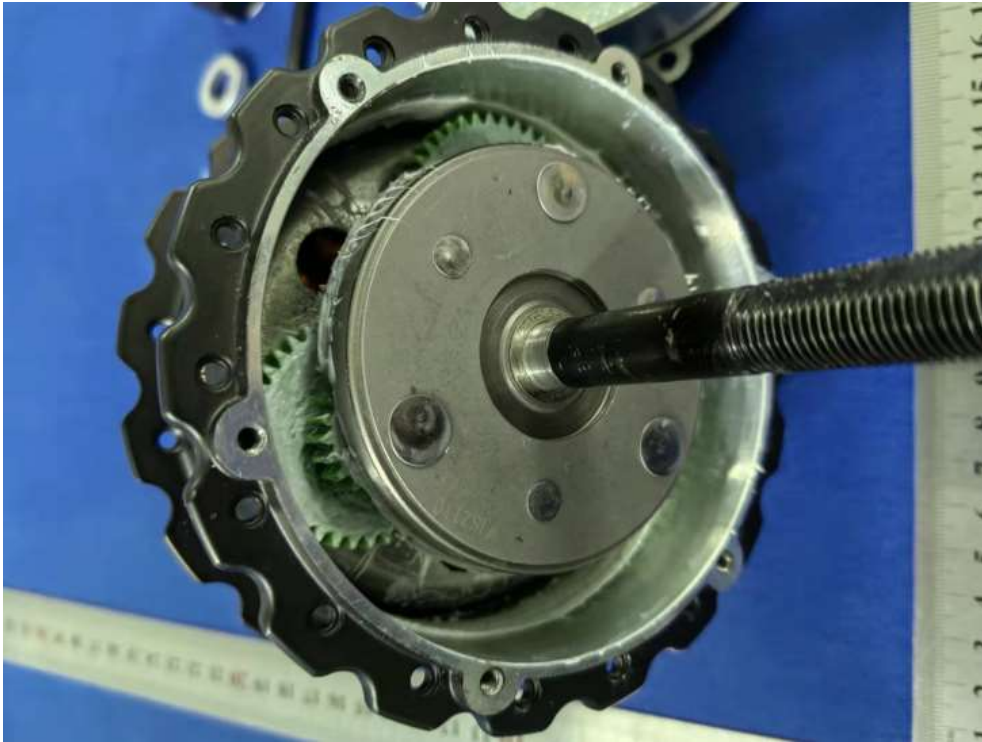


Fig. 3



Fig. 4



**Appendix 1**  
**Photo documentation**

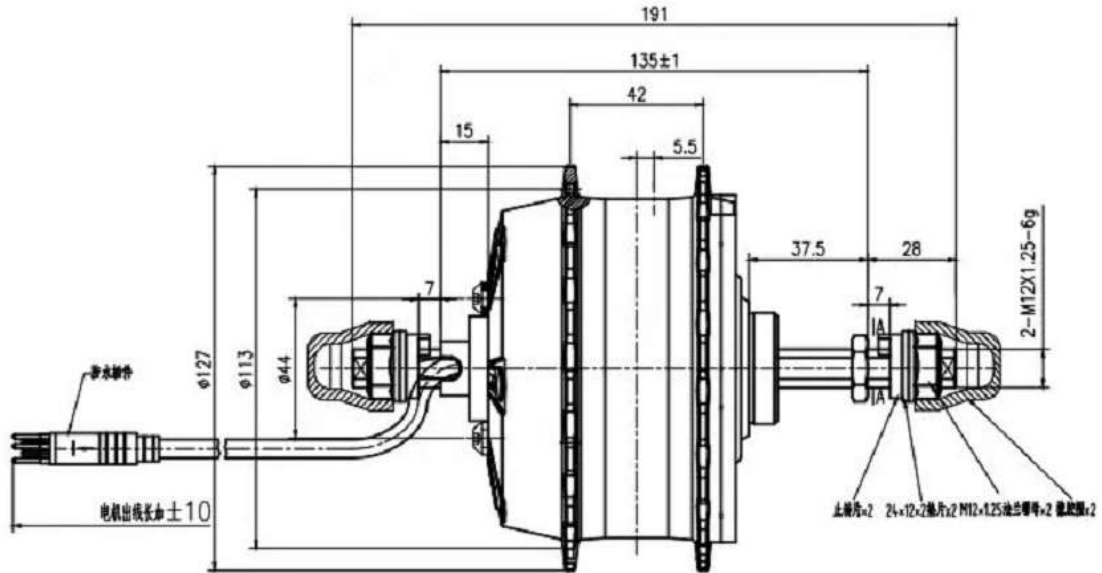


Fig. 5