

TEST REPORT

Applicant : Jiangxiyateng Electronic technology limited.
Address : 1f, building 6, poverty alleviation workshop, Xijiang Town, Huichang County, Ganzhou City, Jiangxi Province.
Manufacturer : Jiangxiyateng Electronic technology limited.
Address : 1f, building 6, poverty alleviation workshop, Xijiang Town, Huichang County, Ganzhou City, Jiangxi Province.
Product Name : AC AIR DUSTER
Brand Name : Svinkal, Dorobeen, Atenge US
Model No. : TAD08, CD08, TAD081, TAD08A
Ratings : See the copy of marking plate on page 3
Standard : Vacuum Cleaners, Blower Cleaners, and Household Floor Finishing Machines Standard UL 1017, Edition 10

Date of Receiver : November 16, 2021
Date of Test : November 16, 2021 to November 29, 2021
Date of Issue : November 29, 2021
Test Report Form No : NTCS-UL 1017-E10-01
Test Result : Pass *

This Test Report is Issued Under the Authority of :

Compiled by



Leo Xia / Engineer

Approved by



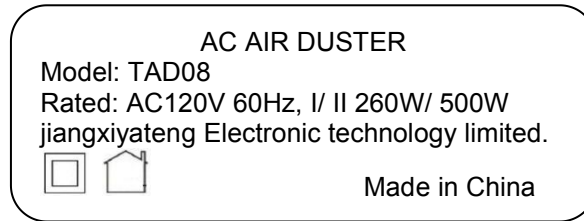
Vic Wang / Manager

*Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of Shenzhen Nore Testing Center Co., Ltd. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

[illegible]

Copy of marking plate:



Note: - The trade mark or Manufacturer name and its address should be marked on the label or on the enclosure surface.

Summary of testing:

If not otherwise specified and make an agreement with the manufacturer, main tests were carried out on model of TAD08.

Test item particulars..... :

Equipment mobility..... : ☐ movable ☒ hand-held ☐ transportable
☐ stationary ☐ for building-in ☐ direct plug-in

Connection to the mains..... : ☒ pluggable equipment ☒ type A ☐ type B
☐ permanent connection
☐ detachable power supply cord
☒ non-detachable power supply cord
☐ not directly connected to the mains

Access location : ☒ operator accessible
☐ service access area
☐ restricted access location

Over voltage category (OVC) : ☐ OVC I ☒ OVC II ☐ OVC III ☐ OVC IV
☐ other:

Mains supply tolerance (%) or absolute mains supply values : $\pm 10\%$ (As agreement with the manufacturer)

Tested for IT power systems : ☐ Yes ☒ No

IT testing, phase-phase voltage (V) : N/A

Class of equipment : ☐ Class I ☒ Class II ☐ Class III
☐ Not classified

Considered current rating (A) : N/A

Pollution degree (PD) : ☐ PD 1 ☒ PD 2 ☐ PD 3

IP protection class : IP20

Altitude during operation (m) : 2000

Altitude of test laboratory (m) : Below 2000m

Mass of equipment (kg) : About 1.63kg

Possible test case verdicts:

- test case does not apply to the test object..... : N (Not Applicable)
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement.....: F (Fail)

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

When determining for test conclusion, measurement uncertainty of tests has been considered.

The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid.

The test sample(s) was(were) provided by client.

The clause which indicated with * is the subcontract test item. (if there is subcontracting test)

Factory: Jiangxiyateng Electronic technology limited.

Address: 1f, building 6, poverty alleviation workshop, Xijiang Town, Huichang County, Ganzhou City, Jiangxi Province.

General product information:

Model difference:

Description of the difference between the main inspection and the additional model of the main inspection:
TAD08, CD08, TAD081, TAD08A have exactly the same hardware and structure, only the software setting parameters are different, only the charging connection method is different;

4	Construction		P
4.1	Components		P
4.1.2	Class 2 power supply	There is no such structure	N
4.1.2.3	A non-Class 2 power supply shall comply with:		N
4.1.2.4	Printed wiring boards, including the coatings, shall comply with C22.2 No. 0.17 and UL 796, and have a minimum HB flame rating. Those printed wiring boards providing direct support of live parts shall additionally comply with the direct-support requirements for insulating materials in C22.2 No. 0.17 and UL 746C.	V-0	N
4.1.2.5	A power switching semiconductor device that is relied upon to provide isolation to ground shall comply with UL 1577. If considered necessary, the dielectric voltage withstand tests required by UL 1577	No such switching.	N
4.1.2.6	An optical isolator that is relied upon to provide isolation between primary and secondary circuits or between other circuits as required by this end product standard shall comply with UL 1577.	No such circuit.	N
4.1.2.7	Component requirements are not specified for small electronic components on printed wiring boards, including diodes, transistors, resistors, inductors, integrated circuits, and capacitors not directly connected to the supply source.		P
4.1.2.8	General-purpose transformers shall comply with C22.2 No. 66.1 and UL 5085-1, and C22.2 No. 66.2 and UL 5085-2.		P
4.1.2.9	Class 2 and Class 3 transformers shall comply with C22.2 No. 66.1 and UL 5085-1, and C22.2 No. 66.3 and UL 5085-3.		P
4.2	Enclosures		P
4.2.1	Mechanical strength and flammability		P
	The frame and enclosure of an appliance shall have the necessary strength and rigidity to resist the abuses likely to be encountered during normal service. The degree of resistance inherent in the unit shall preclude total or partial collapse with the attendant reduction of spacings, loosening or displacement of parts, and other defects that alone or in combination constitute a risk of fire, electric shock, or injury to persons.		P
4.2.1.3	An enclosure of sheet metal shall be judged with respect to size, shape, thickness of metal, and acceptability for the application considering the intended use of the appliance. Sheet steel shall have a minimum thickness of 0.66 mm (0.026 in); aluminum shall have a minimum thickness of 0.91 mm (0.036 in); and copper or brass shall have a minimum thickness of 0.84 mm		P

4.2.1.4	Factors that shall be taken into consideration when judging the acceptability of magnesium and nonmetallic material other than a polymeric material are resistance		P
4.2.1.5	Polymeric parts employed to enclose uninsulated live parts or insulated live parts whose insulation is less than 0.7 mm (0.028 in), or equivalent, shall be subjected to the tests in Clause 5.21 and shall have a flammability rating as noted below in accordance with C22.2 No. 0.17 and UL 94	V-0	P
4.2.3	Openings in enclosures	Cannot touch the moving part	P
4.2.4	Adhesives used to secure parts	Without used	N
4.2.4.1	An adhesive that is relied upon to reduce a risk of fire, electric shock, or injury to persons shall comply with the requirements for adhesives in Clause 5.23.		N
4.2.5	Accessibility of live parts		P
4.3	Mechanical assembly	Cannot touch the moving part and live part	P
4.3.1	An appliance shall be so assembled that the vibration of normal operation will not result in a risk of electric shock, fire, or injury to persons.		P
4.4	Corrosion protection	Screw and metal part	P
4.4.1	Iron and steel parts shall be protected against corrosion by enameling, galvanizing, plating, or other equivalent means if the corrosion of such unprotected parts would be likely to result in a risk of fire, electric shock, or injury to persons.		P
4.5	Supply connections		P
4.5.1	Cord-connected equipment	Non-removable power cord	P
4.5.2	Pin terminals		N
4.5.3	Strain relief	See clause 5.14.	P
4.5.4	Bushings		P
4.5.5	Permanently connected equipment	Non-removable power cord	N
	An appliance intended to be fastened or secured in position shall be provided with field-wiring terminals or leads for the connection of power-supply conductors, and shall have means for connection of a permanent wiring system.		N
4.6	Current-carrying parts	Copper	P
	A current-carrying part shall be of silver, copper, a copper alloy, stainless steel or other similar metal acceptable for the application.		P
	Ordinary iron or steel shall not be used as a current-carrying part.		P
4.7	Internal wiring and external interconnections	UL 758	P
4.7.1	Mechanical protection – Internal wiring		P
4.7.2	Polarization of connectors – Internal wiring		P
4.7.3	Splices and connections – Internal wiring		P
4.7.4	Separation of circuits – Internal wiring		P

4.7.6	External interconnections		P
4.8	Electrical insulation	Enclosure	P
4.8.1	Current-carrying parts shall be supported on heat-resistant and moisture absorption-resistant insulating materials such as porcelain or phenolic composition.		P
4.8.3	Thermoplastic parts employed to support live parts shall be subjected to the mold stress-relief distortion test, Clause 5.21.3. As a result of the test, required spacings shall be maintained and the live parts shall remain reliably secured in place.		P
4.8.4	Fiber shall not be used as the sole support for uninsulated current-carrying parts if shrinkage, moisture absorption, or warping can introduce current leakage or a risk of electric shock, fire, or injury to persons. Untreated fiber shall not be used in contact with live parts where moisture absorption can result in a leakage current greater than that specified in Clauses 5.3 and 5.4.		P
4.8.5	Small molded parts such as brush caps shall be constructed so as to have adequate mechanical strength and rigidity to withstand the most severe stresses that they are liable to be subjected to in service. As an alternative, such parts may have additional mechanical protection. (		P
4.9	Motors	UL 1004	P
4.9.1.1	Motors shall comply with the requirements in Clauses 4.9.1.2 – 4.9.1.5, and shall be of a type suitable for the particular application. They shall be capable of carrying the normal load (see Clause 5.2) without exceeding the permissible temperatures when the appliance is tested in accordance with the temperature test, Clause 5.8.		P
4.10	Switches, relays, and similar controls	Switch	P
4.10.1.1	Switches, relays, and similar controls shall be suitable for their particular application, and shall have current, voltage, and load ratings not less than those of the circuits controlled.		P
4.10.2	Ratings		P
4.10.3	Switches and controls for use in Vacuum cleaners with a steam-cleaning attachment		P
4.10.4	Flexible switch actuators		N
4.11	Controls – End product test parameters	Without control	N
4.11.1	Spacings of controls shall comply with the electrical spacing or clearances and clearance distance requirements of Clause 4.15.		N
4.11.2	Auxiliary controls		N
4.11.3	Operating controls (regulating controls)		N
4.11.4	Electronic controls for safety-critical functions		N

4.11.5	Controls using a temperature sensing device		N
4.12	Capacitors		P
4.13	Lampholders	No such Lampholder	N
4.1.4	Receptacles		P
4.15	Spacings		P
4.15.1	Except as permitted in Clauses 4.15.1.5 and 4.15.1.6, spacings shall not be less than those specified in Table 5 or Table 6. If uninsulated live parts are not rigidly supported by means other than friction or if movable noncurrent-carrying metal parts are in proximity to uninsulated live parts, the construction shall be such that the minimum spacings specified will be maintained under all conditions.		P
4.15.2	Spacings at wiring terminals to which supply connections are made in the field shall comply with Table 5		P
4.16	Grounding and bonding	Without Grounding	N
4.17	Protective devices		P
4.17.1	The screw shell of a plug type fuseholder and the cap end of an extractor post type fuseholder shall be connected toward the load.	A fuse cannot be replaced by a user, but must be operated by a professional	N
4.17.2	A protective device, such as a fuse, the normal function of which requires renewal or replacement, shall be in a readily accessible location, other than as noted in Clause 4.17.4.	See above.	N
4.17.3	A protective device shall be wholly inaccessible from outside the appliance without opening a door or cover.	See above.	N
4.17.4	The protective device mentioned in Clause 4.17.2 need not be in a readily accessible location	See above.	N
4.17.5	Fuses shall comply with C22.2 No. 248.1 and UL 248-1, and the applicable Part 2 (e.g., C22.2 No.248.5 and UL 248-5). Defined use fuses that comply with C22.2 No. 248.1 and UL 248-1, and another appropriate CSA and UL standard for the fuse are considered to fulfill this requirement.		P
4.17.6	Fuseholders that are accessible to the user shall comply with C22.2 No. 4248.1, UL 4248-1, and the applicable Part 2 (e.g., C22.2 No. 4248.9 and UL 4248-9).	No such part.	N
4.17.7	Supplementary protectors that function in that capacity shall comply with C22.2 No. 235 and UL 1077.		N
4.17.8	Ground-fault circuit-interrupters (GFCI) for protection against electrical shock shall comply with C22.2 No. 144.1 and UL 943. The following statement, or equivalent, shall be included as a marking near the GFCI, or as an instruction in the manual: "Press the TEST button (then RESET button) every month to assure proper operation."		N

4.17.9	Appliance-leakage-current interrupters (ALCI) for protection against electrical shock shall comply with UL 943B.		N
4.17.10	Equipment ground-fault protective devices shall comply with C22.2 No. 144.1 and UL 1053, and the applicable requirements of C22.2 No. 144.1 and UL 943.		N
4.17.11	When required by this end-product standard, an arc-fault circuit-interrupter (AFCI) or leakage-current detector-interrupter (LCDI) shall be installed as an integral part of the attachment plug or located in the supply cord within 102 mm (4 in) of the attachment plug.		N
4.17.12	Arc-fault circuit-interrupters (AFCI) shall comply with UL 1699.		N
4.17.13	Leakage-current detector-interrupters (LCDI) and any shielded cord between the LCDI and appliance shall comply with UL 1699.		N
4.17.14	Arc fault detection testing shall include the applicable UL 1699 tests required for cord-type arc-fault circuit-interrupters.		N
4.17.15	An AFCI or LCDI provided as part of an appliance intended for outdoor use shall comply with the applicable outdoor use requirements of this end product standard.		N
4.18	Heating elements – Vacuum with steam-cleaning attachment		N
4.18.1	A heating element used in a Vacuum cleaner with a steam-cleaning attachment shall comply with the applicable requirements of C22.2 No. 72, and UL 1030 or UL 499. Aluminum sheathed elements shall not be used.		N
4.19.1	Thermal links		P
4.20	Protection against injury to persons		P
4.20.2	Sharp edges		P
4.20.2.1	An enclosure, a frame, a guard, a handle, or the like shall not be sufficiently sharp to constitute a risk of injury to persons during normal maintenance and use.		P
4.20.3	Enclosures and guards		P
4.20.4	Surface temperatures		P
4.20.5	Stability		N
4.20.6	Strength of handles		P
4.20.7	Interlocks, switches, and controls	Switch	P
4.20.8	Blower Cleaner Impellers		P
4.20.9	Parts subject to pressure – Vacuum with steam-cleaning attachment		N
4.20.10	Floor sweepers		N
5	Tests		P
5.2	Normal loads		P
5.3	Leakage current	See the table	P

5.4	Leakage current following humidity conditioning	See the table	P
5.5	Leakage current – Abnormal operating conditions	See the table	P
5.6	Starting current	See the table	P
5.7	Rating	See the table	P
5.8	Temperature	See the table	P
5.9	Severe operating conditions		P
5.10	Abnormal operation	See the table	P
5.11	Dielectric voltage-withstand test	See the table	P
5.12	Resistance to moisture	See the table	P
5.13	Stability		N
5.14	Strain relief		P
5.15	Switches, relays, and similar controls	See the table	P
5.16	Cord reel flexing		P
5.17	Power-supply cord flexing		P
5.18	Internal wiring and interconnecting cord flexing	See the table	P
5.19	Physical abuse	See the table	P
5.20	Strength of handles	See the table	P
5.21	Polymeric enclosure parts	See the table	P
5.22	Polymeric materials used as structural support		P
5.23	Adhesives		N
5.24	Thermoplastic motor insulation systems		N
5.25	End-product arc resistance	See the table	P
5.26	Abnormal overload	See the table	P
5.27	Glow-wire end-product test	See the table	P
5.28	Blower cleaner impeller tests		N
5.29	Integral insulation		P
5.30	Testing of temperature control devices used in a vacuum with a steam-cleaning attachment		N
5.31	Mechanical valve endurance test		N
5.32	General purpose transformers		N
5.33	Interlock system endurance – Floor sweepers		N
6	Double Insulation		P
6.1.1	These requirements apply to appliances marked as being provided with double insulation and to appliances that employ double insulation in place of grounding in accordance with the Exception to Clause 4.14.1. These requirements supplement those contained elsewhere in this standard.		N
6.3	Construction – general		N

6.3.1	The appliance shall be so constructed that double insulation is interposed between all live parts and each of the following: a) All accessible surfaces of the appliance; and b) Parts that are conductively connected to accessible noncurrent-carrying metal parts or surfaces.		N
6.3.2	The thickness and the resistance to deterioration with aging of a material employed as supplementary insulation shall not be less than that required for the same material employed as basic insulation.		N
6.3.3	The insulation qualities and resistance to deterioration with aging of a material employed as reinforced insulation shall not be less than the combination of basic and supplementary insulation.		N
6.3.4	The appliance shall be so constructed that the added protection against a risk of electric shock provided by the supplementary or reinforced insulation is not reduced by the abuses likely to be encountered during normal service (see Clauses 6.15, resistance to impact test, and 6.16, abnormal operation test).		N
6.3.5	The appliance shall be so constructed that the following parts are not accessible: a) A live part; b) A noncurrent-carrying metal part that is insulated from live parts by basic insulation only, unless it is reinforced insulation as described in Clause 6.4; and c) Basic insulation itself, unless it is reinforced insulation as described in Clause 6.4.		N
6.3.6	The appliance shall be constructed so that all parts – straps, screws, nuts, washers, springs, and the like – are secured so that they are not likely to become loosened or displaced if such loosening or displacement reduces the spacings to values below those specified in Table 14.		N
6.3.7	Parts secured by two independent fastenings or by means of screws or nuts provided with lockwashers are considered not likely to become loose, if these fastening means are not required to be removed during routine servicing.		N
6.3.8	Leakage, rupture or overfilling of a reservoir, pipe, tube, or the like for storing or conducting water or other fluid associated with the appliance shall not render either basic, reinforced, or supplementary insulation ineffective or result in deterioration of the insulation.		N
6.4	Reinforced insulation		P
6.4.2	Brush caps and brush holders		P
6.4.3	Brush holders in enclosures of insulating material		P
6.4.4	Brush holders in enclosures of conductive material		P

6.4.5	Commutator and end turns of the armature winding		P
6.4.6	Switches		P
6.4.7	Flexible cord		P
6.4.8	Internal wiring		P
6.5	Power supply cord		P
	A power supply cord shall not include a grounding conductor.		P
	Inside the appliance, the insulated individual conductors of a power supply cord shall not contact an accessible noncurrent-carrying metal part.		P
6.6	Strain relief		P
	If an accessible metal strain-relief clamp is employed, it shall be provided with supplementary insulation located between the clamp and the flexible cord.		P
6.7	Bushings		P
	A bushing of insulating material shall be provided at each point at which a flexible cord passes through a noncurrent-carrying metal part. A bushing of rubber, neoprene, polyvinyl chloride, or similar material shall not be used for this application.		P
6.8	Capacitors		P
	The dielectric in a capacitor shall not be depended upon as supplementary insulation.		P
6.9	Extra-low voltage circuits		N
	If an extra-low voltage circuit, see Clause 3.18, is conductively connected to an accessible noncurrent-carrying metal part, or terminal or outlet for connection of circuits external to the appliance, the circuit shall be considered to be accessible noncurrent-carrying metal.		N
6.10	Spacings		P
	Spacings shall be in accordance with Table 14.		P
6.11	Internal wiring		P
6.12	Leakage-current test		P
6.13	Dielectric voltage-withstand test		N
6.14	Insulation resistance		P
6.15	Resistance to impact test		P
6.16	Abnormal operation test		P
6.17	Overload test on motors		P
6.18	Investigation of armature employing reinforced insulation		N
6.19	Investigation of armature employing reinforced insulation		P
7	Rechargeable Battery-Powered Appliances		P

7.1	Products covered by this clause of the standard that are powered by rechargeable batteries either solely or as an alternative or in conjunction with other sources shall meet the requirements of UL 2595, with the conditions and specifications as required by Appendix D of that standard as indicated in Clauses 7.2 – 7.16 below.		P
7.3	With respect to Indent B of Appendix D of UL 2595, users are not considered to be wet during the use of these products except for wet pick up and extractor type appliances		P
7.4	With respect to Indent C of Appendix D of UL 2595, LT specification is required for batteries for products not marked intended for indoor use; see Table 18 of this end product standard, and ELT: -35°C specification for products not marked “Use Indoors” or “Store Indoors”.		P
7.5	With respect to Indent D of Appendix D of UL 2595, during the heating test, portable Vacuum cleaners shall be operated without detachable hoses and attachments and with no additional restriction on the intake of air.		P
7.6	With respect to Indent E of Appendix D of UL 2595, the temperature limits listed in Table 9.1 of UL 2595 are considered suitable.		P
7.7	With respect to Indent F of Appendix D of UL 2595, during the abnormal tests of the of Appendix D of UL 2595, the appliance shall be operated with the intake ports uncovered and with no additional mechanical load for those tests where applicable.		P
7.8	With respect to Indent G of Appendix D of UL 2595, additional or alternative safety-critical functions (SCFs) are identified in Table 30 of this end product standard.		N
7.9	With respect to Indent H of Appendix D of UL 2595, the impact surface may be conducted on hardwood or concrete.		N
7.10	With respect to Indent I of Appendix D of UL 2595, products covered by this end-product standard are not required to have this special switching arrangement.		N
7.11	With respect to Indent J of Appendix D of UL 2595, battery-operated appliances that can also be operated or charged by mains or a non-isolated sources as described in UL 2595, shall also meet the requirements of this end-product standard that apply to the risk of electric shock. For these types of appliances, the exempted requirements specified in Clause 7.2(b) of this end-product standard might be applicable.		N
7.12	The requirements in Clauses 7.13 – 7.16 of this end-product standard additionally apply to automatic battery-powered Vacuum cleaners (e.g., robot vacuums and their docking stations).		N

7.13	In the application of UL 2595, Section 6.7, an automatic battery-powered Vacuum cleaner shall be marked "For use only with ____ docking station," or the equivalent. The docking station may be identified by a catalog number, series identification, or the equivalent. Alternatively, the statement "See Instruction for Additional Docking Stations," or the equivalent, may be employed in addition to at least one docking station referenced by catalog number.		N
7.14	With respect to Indent A of Appendix D of UL 2595, in the application of Clauses 12.2.6 and 12.2.7 of this end-product standard, an automatic battery-powered Vacuum cleaner shall also be provided with the following cautionary instructions or the equivalent regarding proper room preparation before using the appliance: a) Place the cords from other appliances out of the area to be cleaned. b) Do not operate the vacuum in a room where an infant or child is sleeping. c) Do not operate the vacuum in an area where there are lit candles or fragile objects on the floor to be cleaned. d) Do not operate the vacuum in a room that has lit candles on furniture that the vacuum may accidentally hit or bump into. e) Do not allow children to sit on the vacuum. f) Do not use the vacuum on a wet surface.		P
7.15	With respect to Indent D of Appendix D of UL 2595, during the heating test, automatic battery-powered Vacuum cleaners shall be operated on the test carpet described in Clause 5.2.1.2 of this end-product standard. A border or frame measuring 1.5 m by 1.5 m (5-ft by 5-ft) shall be used on the carpet to limit the area of operation. The air inlet shall be unobstructed.		N
7.16	With respect to Indent G of Appendix D of UL 2595, additional safety-critical functions (SCFs) for automatic battery-powered Vacuum cleaners are in Table 31 of this end-product standard.		N
7.17	With respect to Indent H of Appendix D of UL 2595, the robot vacuum part of an automatic rechargeable battery-powered Vacuum cleaner shall be subjected to an evenly distributed load of 60 kg (130-lbs) placed on top of the vacuum for a period of one minute. This test shall be conducted on three samples of the vacuum. As a result of the testing, no short circuit shall occur, and there shall not be any condition that would increase the risk of fire or personal injury resulting from operation of the appliance.		N
8	Current-carrying hoses and accessory electrified wall valves		N
8.2	Construction		N
8.3	Tests		N

	Unless otherwise specified, each sample that is subjected to the tests described in Clauses 8.4 – 8.16 shall be of the length intended for normal use.		N
8.4	Dielectric voltage-withstand test		N
8.5	Leakage-current test		N
8.6	Oven conditioning test		N
8.7	Voltage drop test		N
8.8	Temperature test		N
8.9	Overload test		N
8.10	Limited overcurrent test		N
8.11	Crushing test		N
8.12	Thermal shock test		N
8.13	Flexing test		N
8.14	Abrasion test		N
8.15	Wet pick-up		N
8.16	Endurance test		N
8.17	Marking		N
9	Appliances Generating Ultraviolet (UV) Radiation		N
9.2	Construction		N
9.3	Protection against injury to persons		N
9.4	Performance		N
9.5	Markings		N
9.6	Instructions		N
11	Marking		P

Accessibility of live parts (4.2.5)

4.2.5 Test pin (During the test)				P
Bare parts of ELV or hazardous parts accessible?	ELV circuits or hazardous parts protected by lacquer, cotton... accessible?	Functional or basic insulation of parts or wiring in ELV or hazardous voltage accessible?	Unearthed conductive parts separated from ELV or hazardous parts by functional insulation or basic insulation accessible?	Bare parts of TNV circuits accessible?
Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Test pin				

4.2.5	Articulate probe with web stop (During the test)	P
Are bare live parts at hazardous voltages accessible?		
Yes / No		
Test Finger		

4.2.5	Accessibility probe		P
Finger used:	Parts for testing	Result	
test probe	Contacts of connectors accessible?	Yes / No	

Spacings (26)

26	Spacings						P
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Primary circuit to Enclosure	<250	120	4.0	6.0	5.0	6.0	
Primary part. to Enclosure	<250	120	4.0	6.0	5.0	6.0	
Supplementary information							
Note(s): --							

Leakage Current Test (5.3)

5.3	Leakage Current Test			P
Test voltage:120V 60Hz				
Measured point:		U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface		0.087	0.174	0.5
Neutral and accessible enclosure surface		0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				

5.3	Leakage Current Test		P
Test voltage:120V 60Hz			
Measured point:	U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface	0.087	0.174	0.5
Neutral and accessible enclosure surface	0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester			

Leakage Current Following Humidity Conditioning (5.4)

5.4	Humidity Conditioning Test			P
Test: 48h, 90%R.H., 32°C				
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				
5.4	Leakage Current Test			Pass
Test voltage: 120V/ 60Hz				
Measured point:		U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface		0.087	0.174	0.5
Neutral and accessible enclosure surface		0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				

5.4	Leakage Current Test			P
Test voltage: 120V/ 60Hz				
Measured point:		U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface		0.087	0.174	0.5
Neutral and accessible enclosure surface		0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				

Leakage Current – Abnormal operating conditions (5.5)

5.5	Humidity Conditioning Test			P
Test: After lock motor				
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				
5.5	Leakage Current Test			Pass
Test voltage: 120V/ 60Hz				
Measured point:		U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface		0.087	0.174	0.5
Neutral and accessible enclosure surface		0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				

5.4	Leakage Current Test			P
Test voltage: 120V/ 60Hz				
Measured point:		U ₂ (mV)	(mA)	Limit (mA)
Line and accessible enclosure surface		0.087	0.174	0.5
Neutral and accessible enclosure surface		0.087	0.174	0.5
Oscilloscope, Measuring circuit for touch current according to Annex D, Leakage Current Tester				

Starting Current Test (5.6)

Method:

EUT is operating at: $U=U_n$, $F=F_n$.

Load of the EUT is under normal load.

The input current to the EUT shall be measured.

Multiple rated voltages or rated voltage range, each rated voltage shall be measured.

The performance is unacceptable if the fuse opens or an overload protector provided as part of the product trips.

Result:

5.6	TABLE: Electrical data (in normal conditions)					Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
120V(I)	2.535	--	256	F1	2.535	Normal work
120V(II)	3.443	--	402	F1	3.443	Normal work
Supplementary information:						

Method:

The performance is unacceptable if the fuse opens or an overload protector provided as part of the product trips.

Result:

5.7	TABLE: Electrical data (in normal conditions)					N
U (V)	I (A)	I rated (A)	P (W)	Fuse #	Ifuse (A)	Condition/status
--	--	--	--	--	--	--
Supplementary information:						

5.8	TABLE: Thermal requirements						Pass
	Supply voltage (V)	120V		--	--	--	—
	Ambient Tmin (°C)	23.7	--	--	--		—
	Ambient Tmax (°C)	23.7	--	--	--		—
	Max. load	Normal work	--	--	--		
Maximum measured temperature T of part/at::		T (°C)					Allowed Tmax (°C)
Ambient temperature		40.0	--	--	--	--	Ref.
Supply cord		46.9	--	--	--	--	80
Ambient of power switch		48.2	--	--	--	--	65
Internal wire to motor		51.7	--	--	--	--	105
X CAP.		56.3	--	--	--	--	100
Motor winding 1		53.7	--	--	--	--	100
Motor winding 2		83.0	--	--	--	--	100
Motor winding 3		62.4	--	--	--	--	100
Motor winding 4		54.8	--	--	--	--	100
Motor support		50.6	--	--	--	--	115
Motor enclosure		51.3	--	--	--	--	65
Handle		43.8	--	--	--	--	65
Supplementary information:							
Temperature T of winding:	t1 (°C)	R1 (Ω)	t2 (°C)	R2 (Ω)	T (°C)	Allowed T _{max} (°C)	Insulation class
--	--	--	--	--	--	--	--
Supplementary information:							

Abnormal Operation Tests (5.10)

Method:

EUT is operating under normal load, $U=U_n$, $F=F_n$. A fault is then introduced. One fault only at one time. Ventilation openings shall be blocked; Semiconductors shall be short-circuited or open-circuited one at a time; Transformer secondary windings are short-circuited one at a time (other windings are normal loaded); Transformer secondary windings are overloaded one at a time (other windings are normal loaded); Fan is locked; Operational insulation which clearances or creepage distances are less than requirement, is short-circuited; Motors are locked.

The input current, fuse rating current, test duration and observation shall be recorded.

The test is continued until a protection device opened the circuit (fuse) or steady state conditions.

Overload test and fault condition which the current is more than normal current, shall wait until thermal stable, coil temperature of transformer shall be recorded.

Result:

5.10	Fault condition tests (Continued)		Pass
Requirement		Result	Remarks
During the test:			
Fire propagates beyond the EUT?		No	
Molten metal emitted?		No	
Enclosures deform to cause non-compliance with the standard?		No	

5.10	TABLE: Fault condition tests					Pass
Ambient temperature (°C): 25.0 °C					—	
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	current (A)	Observation
Motor	lock	120V(unit powered by Battery, normal operation)	10min	--	--	No damage, no hazards Winding of motor: 89.4°C
Supplementary information:						
S: Short-circuited; O: Open-circuited; O/L: Overloaded						

5.10	Electric strength test		Pass
Test voltage applied between:		Test voltage (V)	Breakdown
Input and plastic enclosure		2500V	No
Input and Switch		2500V	No

Dielectric Voltage-Withstand Test (5.11)

Method:

The test is made while the EUT is still in well-heated condition

Make sure the power switch of the EUT is in ON position.

Thin material can be tested in room temperature.

The test voltage is a.c. of 50 or 60 Hz or d.c. voltage equal to peak value of the a.c. voltage.

Test voltage is applied gradually raised from zero to the specified voltage and held at that value for 60s.

Insulation breakdown is: Current flows through the insulation rapidly increases in an uncontrolled

manner; that is the insulation does not restrict the flow of the current.
Corona discharge or a single momentary flashover is not regarded as insulation breakdown.
A test incorporating reinforced insulation and lower grades insulation (BI, SI), care is taken not to overstress BI or SI.
Where capacitors (X or Y capacitors) are across the insulation, d.c. voltage is recommended for the test.
Discharge resistors shall be disconnected before testing.

Result:

5.11	Electric strength test		Pass
Test voltage applied between:		Test voltage (V)	Breakdown
Input and plastic enclosure		2500V	No
Input and Switch		2500V	No
--			

Stability Test (5.13)

5.13	TABLE: Test at 10° to the horizontal	Pass
Test condition		Result
Placed on a plane, inclined at 10° to the horizontal		P

Strain Relief Test (5.14)

Pull Location	Samples	Force	Observations	N/A	
				Pass	Fail
Power cord	--	35lbs (156N)	No damaged, no breakage, without displacement	--	
Power cord	--	35lbs (156N)	No damaged, no breakage, without displacement	--	
Power cord	--	20lbs (89N)	No damaged, no breakage, without displacement	--	
Power cord	--	20lbs (89N)	No damaged, no breakage, without displacement	--	
Power cord	--	20lbs (89N)	No damaged, no breakage, without displacement	--	
Power cord	--	20lbs (89N)	No damaged, no breakage, without displacement	--	

Switches, relays, and similar controls (5.15)

5.15	Cycles test		Pass
Test part:		Times	Result
Switch		6000 cycles	Still can work
--			
5.15	Electric strength test		Pass
Test voltage applied between:		Test voltage (V)	Breakdown
Input and plastic enclosure		2500V	No
Input and Switch		2500V	No
--			
--			

Cord reel flexing (5.16)

5.16	Cycles test		N/A
Test part:		Times	Result
Cord		6000 cycles	--
--			
5.16	Electric strength test		N/A
Test voltage applied between:		Test voltage (V)	Breakdown
Input and plastic enclosure		2500V	--
--			
--			

Internal wiring and interconnecting cord flexing (5.18)

5.18	Cycles test		Pass
Test part:		Times	Result
Internal wire		9000 cycles	No damaged
Remark:			
5.18	Electric strength test		Pass
Test voltage applied between:		Test voltage (V)	Breakdown
Conductor and Insulation		2500V	No
--			
--			

Drop test (5.19)

5.19	TABLE: Drop Test				Pass
Model		Test location	Test temperature (° C)	Duration (h)	Results
--		Enclosure	25	0.91m	P
--		Enclosure	25	0.91m	P
--		Enclosure	25	0.91m	P
5.19	Electric strength test				Pass
Test voltage applied between:				Test voltage (V)	Breakdown
Input and plastic enclosure				2500V	No
Input and Switch				2500V	No
--					
--					

Impact test (5.19)

5.19	TABLE: Impact test				Pass
Model		weighing	Test temperature (° C)	Duration (Hight)	Results
Enclosure		1.63kg	25	610mm	P
Enclosure		1.63kg	25	610mm	P
Enclosure		1.63kg	25	610mm	P
5.19	Electric strength test				Pass
Test voltage applied between:				Test voltage (V)	Breakdown
Input and plastic enclosure				2500V	No
Input and Switch				2500V	No
--					
--					

Strength of Handles (5.20)

34	TABLE: Strength of Handles			Pass
Weight	Time	Force(N)	Result	
1.63kg	1min	60N	No damaged	
Notes:				
1) Force=three times the weight,				

Resistance to Moisture Test (5.21)

Method:

The test is made while the EUT is still in well-heated condition

Make sure the power switch of the EUT is in ON position.

Thin material can be tested in room temperature.

The test voltage is d.c. 500 voltage

Test voltage is applied gradually raised from zero to the specified voltage and held at that value for 60s.

5.21	TABLE: Insulation resistance measurements		Pass
Insulation resistance R between:		R (MΩ)	Required R (Ω)
Plastic enclosure		>100 MΩ	50000Ω
--			

5.21	TABLE: Glow-wire Test						Pass
Object/ Part No.	Material	Manufacturer/ trademark	Burning Time	Material ignited, Yes/No	Layer under Test Sample ignited, Yes/No	Verdict	
Enclosure	--	--	30s	No	No	650°C	
Supplementary information:							

			Durable and legible	
Object/ Part No.	Tem,	time	Pass	Fail
Enclosure	70°C	7h	✓	--

5.25	TABLE: VW-1 Flame Test					P
Object/ Part No.	Material	Manufacturer/ trademark	Burning Time	Material ignited, Yes/No	Layer under Test Sample ignited, Yes/No	Verdict
Enclosure of adaptor	--	--	30s	No	No	--
PCB	--	--	30s	No	No	--
Supplementary information:						

5.25	TABLE: HB Flame Test					P
Object/ Part No.	Material	Manufacturer/ trademark	Burning Time	Material ignited, Yes/No	Layer under Test Sample ignited, Yes/No	Verdict
Enclosure	--	--	30s	No	No	--
	--	--	--	--	--	--
Supplementary information:						

Photo documentation

Photo 1 Overall view



Photo 2 Over view



*******End of Test Report*******