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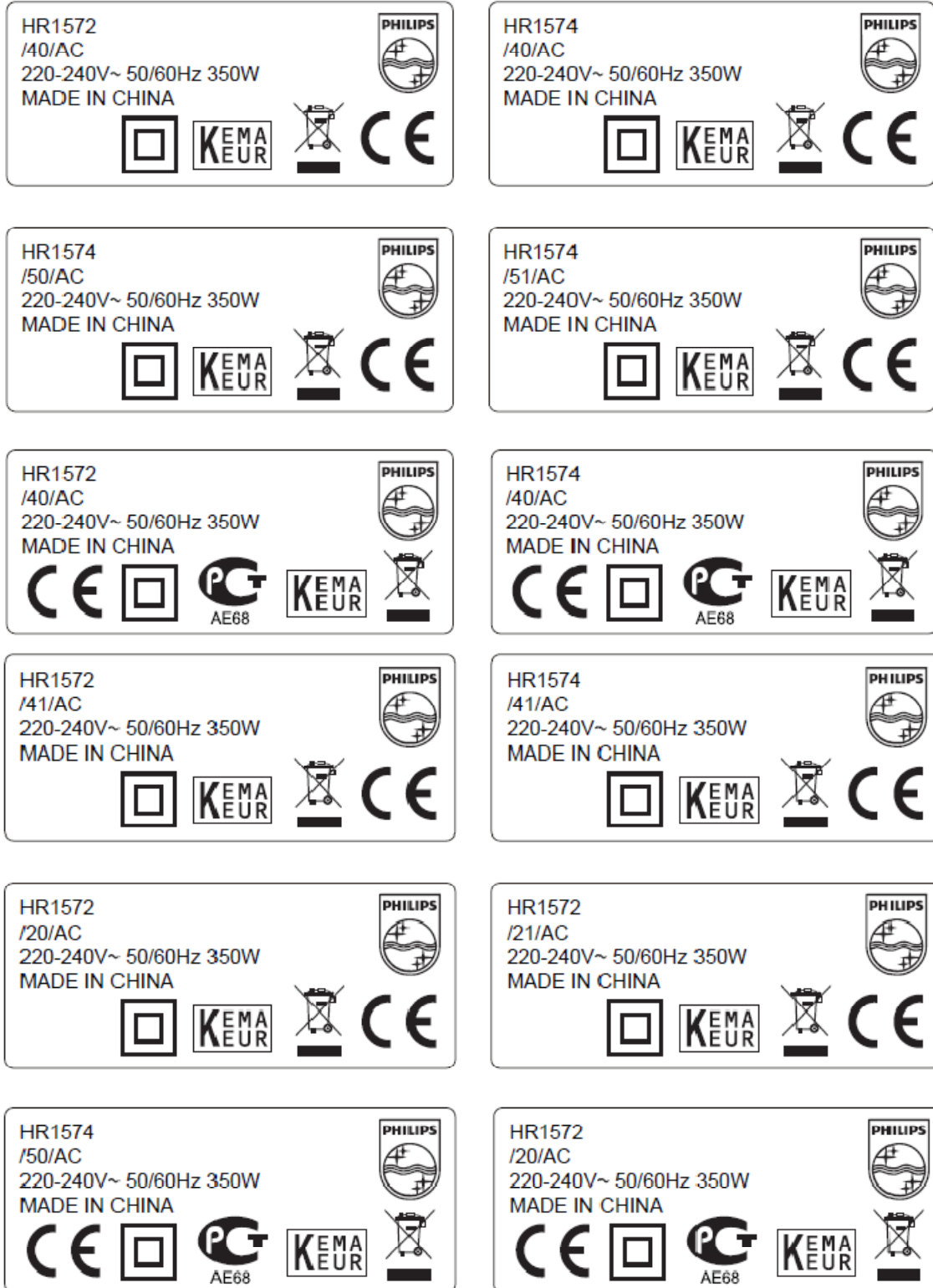
TEST REPORT IEC 60335-2-14 Household and similar electrical appliances – Safety – Part 2-14: Particular requirements for kitchen machines	
Report Reference No	3019600.50C
Date of issue	2013-06-14
Total number of pages	44 pages
CB Testing Laboratory	DEKRA Certification Hong Kong Limited
Address	Unit 1-14, 6/F., Fuk Shing Commercial Building, 28 On Lok Mun Street, On Lok Tsuen, Fanling, New Territories, Hong Kong
Applicant's name	Philips Consumer Lifestyle B.V.
Address	Building TC, Tussendiepen 4, 9206 AD Drachten, The Netherlands
Test specification:	
Standard	IEC 60335-2-14:2006 (Fifth Edition) + A1:2008 (In conjunction with IEC 60335-1:2001 (Fourth Edition) + A1: 2004 + A2: 2006)
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No	IEC60335_2_14L
Test Report Form(s) Originator	CQC
Master TRF	Dated 2012-12
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Test item description	Hand Mixer and Blender
Trade Mark	PHILIPS
Manufacturer	Philips Consumer Lifestyle B.V. Building TC, Tussendiepen 4, 9206 AD Drachten, The Netherlands
Factory	Artreal (HuiYang) Manufacturing Limited Lilin, Huicheng District, Huizhou City, Guangdong, PRC
Model/Type reference	HR1572; HR1574; HR1575; HR1577
Ratings	220-240 V~; 50/60 Hz; 350 W; 550 W; Class II; IPX0

Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB Testing Laboratory: Testing location/ address.....:	DEKRA Certification Hong Kong Limited Unit 1-14, 6/F., Fuk Shing Commercial Building, 28 On Lok Mun Street, On Lok Tsuen, Fanling, New Territories, Hong Kong
<input type="checkbox"/> Associated CB Test Laboratory: Testing location/ address.....:	Tested by (name + signature): C. S. Man Approved by (+ signature): Ken Wan
<input type="checkbox"/> Testing procedure: TMP Tested by (name + signature): Approved by (+ signature): Testing location/ address.....:	
<input type="checkbox"/> Testing procedure: WMT Tested by (name + signature): Witnessed by (+ signature).....: Approved by (+ signature): Testing location/ address.....:	
<input type="checkbox"/> Testing procedure: SMT Tested by (name + signature): Approved by (+ signature): Supervised by (+ signature): Testing location/ address.....:	
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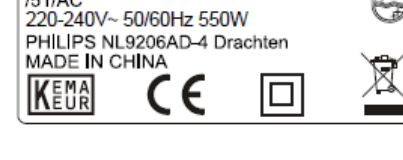
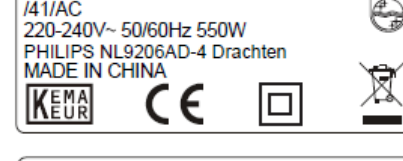
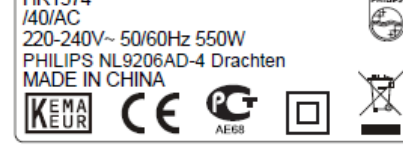
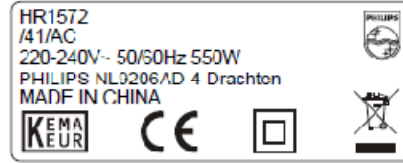
<p>List of Attachments (including a total number of pages in each attachment):</p> <p>This test report contains three separate parts as follows:</p> <p>Test report 3019600.50A: IEC 60335-1 (Total 64 pages)</p> <p>Test report 3019600.50B: EN Group Differences and National Differences, EMF Appendix of EN 60335-1 (Total 12 pages)</p> <p>Test report 3019600.50C: IEC 60335-2-14 (Total 44 pages)</p> <p>Test report 3019600.50D: EN Group Differences and National Differences of EN 60335-2-14 (Total 1 page)</p>	
<p>Summary of testing:</p> <p>The appliance is deemed to comply with the standards listed below:</p> <p>IEC 60335-2-14:2006 (Fifth Edition) + A1:2008</p> <p>IEC 60335-1:2001 (Fourth Edition) + A1:2004 + A2:2006</p> <p>EN 60335-2-14:2006 + A1:2008</p> <p>EN 60335-1:2002 + A11:2004 + A1:2004 + A12:2006+ A2:2006 + A13:2008 + A14:2010 +A15:2011</p> <p>EN 62233:2008</p> <p>In addition, the following clauses from the 3rd edition of IEC60335-1 have been complied</p> <ul style="list-style-type: none"> - Cl.13, 16 Dielectric strength: 3750 V for reinforced insulation in additional to 3000 V - Cl. 29 Clearances, Creepage distances 	
<p>Tests performed (name of test and test clause):</p> <p>For 3009410.50A/B/C:</p> <p>Full test</p> <p>For 3012344.50A/B/C/D:</p> <p>Add approved UK plug and update A15 :EN60335-1 cl.25 and table 24.1 is updated</p> <p>For 3015567.50A/B/C/D: Add new models with new accessories, Cl.10, 11, 20, 21, 25, 30 were checked.</p> <p>For 3019600.50A/B/C/D: new model is added, cl.7 was checked</p>	<p>Testing location:</p> <p>DEKRA Certification Hong Kong Limited Unit 1-14, 6/F., Fuk Shing Commercial Building, 28 On Lok Mun Street, On Lok Tsuen, Fanling, New Territories, Hong Kong</p>
<p>Summary of compliance with National Differences:</p> <p>EN Group Differences and National Differences are under consideration in separate report no. 3019600.50B/D.</p>	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Copy of marking plate:



Test item particulars																																										
Classification of installation and use.....		Portable appliance																																								
Supply Connection		Flexible cord fitted with a plug																																								
Possible test case verdicts:																																										
- test case does not apply to the test object.....		N/A(Not Applicable)																																								
- test object does meet the requirement.....		P(Pass)																																								
- test object does not meet the requirement.....		F(Fail)																																								
Testing																																										
Date of receipt of test item		2013-06-10																																								
Date (s) of performance of tests		2013-06-13																																								
General remarks:																																										
<p>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 appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator.</p> <p>This report is full test report and derived from previous test report 3009410.50A/B/C, 3012344.50A/B/C/D and 3015567.50A/B/C/D. It concerns the following modifications:</p> <p>1) Add new model HR1575 which is all identical to existing model HR1574, except for the model number and commercial purpose.</p> <p>Due to the addition above, clause cl.7 is updated.</p>																																										
General product information:																																										
<p>The captioned appliances are intended for household use only. Model HR1577, HR1572, HR1575 and HR1574 are constructional and electrical identical except the difference as shown in the table below.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Model</th> <th>HR1577</th> <th>HR1572</th> <th>HR1574 / HR1575**</th> </tr> </thead> <tbody> <tr> <td>FlexMix switch</td> <td>No</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Plastic bar blender</td> <td>Yes</td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Metal bar blender</td> <td>No</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Cover of storage beaker</td> <td>No</td> <td>No</td> <td>Yes</td> </tr> <tr> <td>Mini chopper (with gear)</td> <td>Yes</td> <td>No</td> <td>No</td> </tr> <tr> <td>Direct-driven mini chopper</td> <td>Option*</td> <td>Option*</td> <td>Option*</td> </tr> </tbody> </table> <p>*A direct-driven mini chopper (without gear) was also available for all models but need to order from manufacturer service centre. ** Where HR1575 and HR1574 are all identical with each other, except for the model number and commercial purpose. Model HR1574 is selected for full test. Model HR1572 and HR1577 are selected for partial tests.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Commission Regulation (EC) No 1275/2008; (EN50564)</th> </tr> <tr> <th rowspan="2">Model</th> <th colspan="2">Power consumption measurement (W)</th> </tr> <tr> <th>Standby mode</th> <th>Off mode*</th> </tr> </thead> <tbody> <tr> <td>HR1572, HR1574, HR1577; HR1575</td> <td>N/A</td> <td>0,05 W</td> </tr> </tbody> </table> <p>* S2 slide switch at "0" and turbo switch off</p>				Model	HR1577	HR1572	HR1574 / HR1575**	FlexMix switch	No	No	Yes	Plastic bar blender	Yes	Yes	No	Metal bar blender	No	No	Yes	Cover of storage beaker	No	No	Yes	Mini chopper (with gear)	Yes	No	No	Direct-driven mini chopper	Option*	Option*	Option*	Commission Regulation (EC) No 1275/2008; (EN50564)			Model	Power consumption measurement (W)		Standby mode	Off mode*	HR1572, HR1574, HR1577; HR1575	N/A	0,05 W
Model	HR1577	HR1572	HR1574 / HR1575**																																							
FlexMix switch	No	No	Yes																																							
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HR1572, HR1574, HR1577; HR1575	N/A	0,05 W																																								

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
5	GENERAL CONDITIONS FOR THE TESTS		
5.6	Speed controls are adjusted in accordance with the instructions. (IEC 60335-2-14)		P
6	CLASSIFICATION		
6.1	Class II or class III for hand-held kitchen machines. (IEC 60335-2-14)		P
	Class 0 or class I if their rated voltage does not exceed 150 V. (IEC 60335-2-14)		N/A
7	MARKING AND INSTRUCTIONS		
7.1	Rated power input is marked. (IEC 60335-2-14)		P
	Stands provided with cordless blenders are marked with: (IEC 60335-2-14)		—
	- the name, trademark or identification mark of the manufacturer or responsible vendor		N/A
	- the model or type reference		N/A
7.12	Instructions include the operating times and speed settings for accessories (IEC 60335-2-14)		P
	Accessories, other than those supplied with the appliance, include instructions for their safe use. (IEC 60335-2-14)		N/A
	Adequate instruction for use for slicing machines provided with a base having a plain surface underneath the sliding feed table (IEC 60335-2-14)		N/A
	The instructions for food processors and blenders warn against misuse (IEC 60335-2-14)		P
	Instructions for hand-held blenders : (IEC 60335-2-14)		—
	- always disconnect the blender from the supply if it is left unattended and before assembling, disassembling or cleaning		P
	- do not allow children to use the blender without supervision.		P
	The instructions for centrifugal juicers shall include the substance of the following: (IEC 60335-2-14)		—
	Do not use the appliance if the rotating sieve is damaged.		N/A
	The instructions for cordless blenders state that the blender is only to be used with the stand provided. (IEC 60335-2-14)		N/A
	The blender and stand of the cordless blender can be lifted together by gripping the handle of the blender, the instructions include the substance of the following: (IEC 60335-2-14)		—

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
	CAUTION: Ensure that the blender is switched off before removing it from the stand.		N/A
	The instructions include details on how to clean surfaces in contact with food (IEC 60335-2-14)		P
	The instructions for appliances incorporating a switch necessary for compliance with 22.40 include the substance of the following: (IEC 60335-2-14)		—
	Switch off the appliance and disconnect from supply before changing accessories or approaching parts that move in use		P
10	POWER INPUT AND CURRENT		
10.1	A representative period is a time period of 2 min or the time specified in 11.7 for one cycle of operation, whichever is shorter. (IEC 60335-2-14)		P
11	HEATING		
11.7	The appliance is operated for the period specified and where relevant the number of cycles specified (IEC 60335-2-14/A1:2008)	(see appended tables)	P
	If the period exceeds that stated in the instructions and if the temperature rise limits of Table 3 are exceeded, the test is carried out for the number of cycles specified and using the maximum quantity of the load to be processed stated in the instructions for: (IEC 60335-2-14/A1:2008)		—
	— the maximum period stated in the instructions plus 1 min, for specified operating periods not exceeding 7 min		P
	— the maximum period stated in the instructions, for specified operating periods exceeding 7 min		N/A
	If it is necessary to perform a number of operations to obtain these periods, the rest periods are equal to, where relevant, the time taken to empty and refill the container with the maximum quantity of ingredients stated in the instructions (IEC 60335-2-14/A1:2008)		P
	Appliances incorporating a timer are operated for the maximum period allowed by the timer (IEC 60335-2-14/A1:2008)		N/A
11.8	For ice-cream machines for use in refrigerators and freezers, the temperature rise values are increased by 30 K. (IEC 60335-2-14)		N/A
15	MOISTURE RESISTANCE		

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
15.2	Appliances supplied at rated voltage and operated for 15 s with the solution still in the container: the leakage current shall not exceed the values specified in clause 13. (IEC 60335-2-14)		N/A
	Saline solution is then added to the liquid container until it is completely full again. A further quantity equal to 15% of the capacity of the container or 0.25 l is poured in steadily over a period of 1 min: (IEC 60335-2-14)		N/A
	Water outlets for potato peelers are blocked. (IEC 60335-2-14)		N/A
	For cordless blenders, the test is carried out on a horizontal surface with the blender both on and off its stand. (IEC 60335-2-14)		N/A
15.101	Connecting devices of stands for cordless blenders are not affected by water. (IEC 60335-2-14)		N/A
	Compliance is checked by the following test.		N/A
	The stand withstands the dielectric strength test of 16.3.		N/A

19	ABNORMAL OPERATION		
19.1	Test of 19.7 only applicable to berry-juice extractors, blenders for food, centrifugal juicers, churns, food mixers, food processors, ice-cream machines, mincers, and noodle makers. (IEC 60335-2-14)		P
	Coffee mills and grain grinders subjected to the tests of 19.101, and to 19.102 unless they have to be kept switched on by hand. (IEC 60335-2-14)		N/A
19.7	Coffee mills that have to be kept switched on by hand, berry-juice extractors, blenders for food, centrifugal juicers for fruit and vegetables, food mixers, food processors, and mincers are operated for 30 s. (IEC 60335-2-14)		P
	Other coffee mills, grain grinders and noodle makers are tested for 5 min. (IEC 60335-2-14)		N/A
	Churns and ice-cream machines are operated until steady conditions are established. (IEC 60335-2-14)		N/A
19.10	Test repeated with accessories in position but without additional load. (IEC 60335-2-14)		P
	Coffee mills and grain grinders are only tested for 30 s. (IEC 60335-2-14)		N/A
19.101	Coffee mills and grain grinders are supplied at rated voltage and operated under normal operation five times with rest periods. (IEC 60335-2-14)		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
19.102	Coffee mills and grain grinders subjected to the test as specified in IEC 60335-2-14 and carried out on three additional appliances. (IEC 60335-2-14)		N/A
	If any of the motors stall, original appliance subjected to the test of 19.7	Not stalled	N/A

20	STABILITY AND MECHANICAL HAZARDS		
20.2	Detachable accessories are removed and covers are opened except that for : (IEC 60335-2-14)		—
	- centrifugal juicers, the cover and the container for collecting the residue are in position		N/A
	- graters and shredders, this is only applicable to accessories that are removed while the appliance is in operation		N/A
	Test probe not applied to: (IEC 60335-2-14)		—
	- appliances specified in the list	Food mixer , hand held blender	P
	– the following parts of other appliances:		N/A
	smooth shafts having a diameter not exceeding 8 mm, rotating at a speed not exceeding 1 500 rev/min and driven by motors having an input not exceeding 200 W		N/A
	outlet sides of grating and shredding disks rotating at a speed not exceeding 1 500 rev/min		N/A
	projections from the surface of grinding disks, cones and similar parts having a height less than 4 mm		N/A
	Test probe not applied to feed openings having a throat with following dimensions: (IEC 60335-2-14)		N/A
	- a height of at least 100 mm, measured from the upper edge of the cutting blade		N/A
	- an average of the maximum and minimum cross-sectional dimensions of the feed opening that does not exceed 65.5 mm		N/A
	- a maximum cross-sectional dimension of the feed opening that does not exceed 76 mm		N/A
	For blenders, detachable parts, except lids, are not removed. Test carried out with a test probe similar to that of test probe B of IEC 61032 but with circular stop face as specified. (IEC 60335-2-14)		P

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
20.101	Accessories for cream whippers, egg beaters and hand-held food mixers have no knife edges, unless a suitable guard prevents accidental contact with their rotating parts (IEC 60335-2-14)		P
	Hand-held food mixer: not possible to release the working tools while rotating at a speed exceeding 1500rev/min		P
20.102	Blades of hand-held blenders are completely screened from above and are not able to touch a flat surface while rotating (IEC 60335-2-14)		P
	Not possible to touch the blades with the end of the test rod (diameter 8 mm) and checked by inspection		P
20.103	Biased-off switch of hand-held blenders recessed or otherwise guarded: Test with a cylindrical rod having a diameter of 40 mm and hemispherical end: appliance does not operate. (IEC 60335-2-14)	Handheld food mixer provided with blender attachment	P
20.104	Not possible to operate the cutting blades of blenders, other than hand-held blenders, while they are accessible: test with test finger specified for blender. (IEC 60335-2-14)		N/A
	With detachable parts removed, if the cutting blades of the blender can be touched with the test probe specified for blenders in 20.2, it shall not be possible to operate the appliance.		N/A
	Switches, other than biased-off switches, are placed in the on position and two simultaneous or sequential applications of test probe B of IEC 61032 are applied to biased-off switches, including interlock switches, with a force not exceeding 20 N in an attempt to operate the cutting blades.		N/A
	During the test, it shall not be possible to operate the appliance.		N/A
20.105	Centrifugal juicers (IEC 60335-2-14)		—
	- lids and covers do not open due to vibration		N/A
	- rotating parts adequately secured against becoming loose during operation		N/A
	- If speed of rotating parts >5000rev/min: lids and covers can only be closed after removal of tools		N/A
	- teeth of grating disks do not exceed 1,5mm in height		N/A
	- Ejectors on filter drums shall not project by more than 4 mm.		N/A
	- feed pusher provided, of a size that fills the throat of the hopper		N/A
	- lids and covers do not open by force test of 5N		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
20.106	For appliances having a feed screw: (IEC 60335-2-14) - the maximum cross-sectional dimension of the hopper not exceed 45 mm.		N/A
	- provide a feed pusher and the feed screw of the appliance is not accessible to test probe B of IEC 61032 with the pusher in position (IEC 60335-2-14/A1:2008)		N/A
20.107	Slicing machines, other than fixed appliances and those having a biased-off switch, incorporate means to hold the appliance in place and allow it to be released after use: no move on glass plate when subjected to test as specified. (IEC 60335-2-14)		N/A
20.108	slicing machines: (IEC 60335-2-14)		—
	- provided with a guard surrounding the knife and its edge		N/A
	- guard opening as small as permitted by effective use		N/A
	- edge of knife guarded as shown in Fig.101		N/A
	Knife guards shall be non-detachable unless the motor cannot be switched on after their removal.		N/A
	It shall not be possible to operate interlocks by means of test probe B of IEC 61032.		N/A
	Angle of the upper part of guard opening not exceed 75°		N/A
	The angle may be increased to 90° if the exposed part of the knife exceeding 75° is screened from above.		N/A
	Radial distance not exceed 2 mm, if the guard is flush with the plane of the knife; or		N/A
	3 mm, if the guard projects at least 0,2 mm beyond the plane of the knife.		N/A
	Distance between the outer circumference of the knife and the plate that sets the thickness of the slices shall not exceed 6 mm.		N/A
	Distance between the plate that sets the thickness of the slices and any other protecting part shall not exceed 5 mm.		N/A
	Additional guard provided if slices thicker than 15mm allowed		N/A
	Slicing machines shall incorporate a sliding feed table with a hand rest, a thumb guard and a piece holder.		N/A
	Sliding feed table adequately designed (f_30mm, d_5mm, thumb guard projects radially by at least 8mm beyond the blades)		N/A
	Piece holder enables small pieces to be sliced		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
	Dimensions of spikes or similar as specified		N/A
	Support of sliding table not usable for supplying food without the table in position; verified dash Nos.		N/A
20.109	Slicing machines constructed so that accidental operation of the appliance is prevented. (IEC 60335-2-14)		N/A
	Actuating member of push-button, toggle, rocker or slide switch recessed and actuated with force at least 2N.		N/A
	Actuating member of slide switch located so that unintentional actuation is unlikely and actuated with force at least 5N.		N/A
20.110	The cutting blades of bean slicers: (IEC 60335-2-14)		—
	- are at least 30 mm from the plane of the inlet opening.		N/A
	- length of the major and minor axis of the inlet and outlet openings not exceed 30 mm and 15 mm		N/A
	- dimensions of outlet openings not limited if compliance with test specified.		N/A
20.111	The rotating parts of graters and shredders: - are secured so that they are not liable to become loose during operation. (IEC 60335-2-14)		N/A
	- a feed pusher shall be provided which fills the throat of the hopper		N/A
20.112	The cutting blade of food processors stopped within 1,5 s after the lid has been opened or removed. (IEC 60335-2-14)		P
20.113	The lid interlock of food processors shall be constructed so that accidental operation of the appliances is prevented (IEC 60335-2-14)		N/A
	Lid interlock switches shall be biased-off switches		N/A
	If there is an interlock between the lid and the main switch, the lid shall be locked when the switch is in the on position		N/A
	When the lid is not correctly closed , the switch shall be locked in the off position		N/A
20.114	Access to dangerous moving parts of food processors prevented for all combinations of assembly of detachable parts that allow the motor to operate: comply with test as specified (IEC 60335-2-14)		P

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
20.115	Knives shall incorporate a biased-off switch that is recessed or guarded to prevent accidental operation. (IEC 60335-2-14)		N/A
	Appliance don't operate when applying a cylindrical rod with diameter 40mm to the switch		N/A
20.116	Centrifugal juicers for fruit and vegetables shall be constructed so that parts cannot become disengaged when the appliance is operated at high speed. (IEC 60335-2-14)		N/A
	Lid removed, appliance supply at rated voltage and highest speed (10 times): no part of appliance disengaged		N/A
	Lid in position, when the speed reaches its maximum value, attempt is made to remove the lid (10 times): no part of appliance disengaged		N/A
20.117	Centrifugal juicers shall withstand the stresses resulting from parts rotating at high speed (IEC 60335-2-14)		N/A
	Compliance is checked by the following test which is carried out on three new appliance)		N/A
	Or by testing the sieve in accordance with Annex AA.		N/A
	The rim of plastic material retaining the rotating sieve is cut		N/A
	If the sieve retains its structure, the rim is cut further and the test repeated until disintegration takes place		N/A
	During the test, parts shall not be ejected from the appliance.		N/A
20.118	The operation of cordless appliances incorporating cutting blades that are accessible to test probe B of IEC 61032 shall require two separate movements, unless (IEC 60335-2-14)		N/A
	The control device is not directly accessible to the probe.		N/A
20.119	Bowl and cutting blades of food blenders and hand-held blenders shall have adequate mechanical strength. (IEC 60335-2-14)		P
	After the test, the bowl and cutting blades shall not be broken.		P

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict

21	MECHANICAL STRENGTH		
21.1	Test also carried out on detachable parts that are necessary for protection against mechanical hazards. (IEC 60335-2-14)		P

22	CONSTRUCTION		
22.40	Any switch controlling the motor also disconnect electronic circuits, the malfunction of which would impair compliance with this standard (checked during the tests of Clause 19). (IEC 60335-2-14)		P
22.101	Appliances constructed so that lubricants are prevented from polluting food compartments (IEC 60335-2-14)		P
22.102	Appliances constructed so that food or liquids are prevented from penetrating into places that could cause electrical or mechanical faults. (IEC 60335-2-14)		P
22.103	The appliance coupler of cordless blenders shall be constructed to withstand the stresses occurring during normal use. (IEC 60335-2-14)		N/A
	The two live pins of the blender are connected together and an external resistive load is connected in series with the supply. The external load is such that the current is 1,1 times rated current.		N/A
	The blender is placed on its stand and withdrawn 10 000 times at a rate of approximately 10 times per minute. The test is continued for a further 10 000 times without current flowing.		N/A
	If the connection contacts cannot be energized when making or breaking the connection, instead of the above sequence, the test is carried out 20 000 times without current.		N/A
	After the test, the blender shall be suitable for further use and compliance with 8.1, 16.3, 27.5 and Clause 29 shall not be impaired.		N/A

24	COMPONENTS		
24.1.3	Switches incorporated in the following appliances are tested for 3 000 cycles of operation: (IEC 60335-2-14)		—
	- bean slicers;		N/A
	- liquid blenders;		P
	- cheese graters;		N/A
	- graters;		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict

	- ice-cream machines for use in refrigerators and freezers;		N/A
	- sieving machines;		N/A
	- shredders.		N/A

25	SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CORDS		
25.1	Ice-cream machines for use in refrigerators and freezers and hand-held appliances: no appliance inlet. (IEC 60335-2-14)		N/A
25.5	Type Z attachment allowed for : (IEC 60335-2-14)		—
	- can openers		N/A
	- coffee mills and grain grinders having a mass not exceeding 1.5 kg		N/A
	- cream whippers		N/A
	- egg beaters		N/A
	- ice-cream machines including those for use in refrigerators and freezers		N/A
	- knife sharpeners		N/A
	Type X attachments, other than those with a specially prepared cord, not used for ice-cream machines for use in refrigerators and freezers. (IEC 60335-2-14)		N/A
25.7	Polyvinyl chloride sheathed supply cords of ice-cream machines for use in refrigerators and freezers are resistant to low temperatures: comply with tests 8.1, 8.2 and 8.3 of IEC 60811-1-4, carried out at a temperature of $-25\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$. (IEC 60335-2-14)		N/A
25.14	Hand-held blenders and hand-held mixers subjected to 2000 flexings as specified in IEC 60335-2-14, while mounted on an apparatus similar to that of Figure 8. (IEC 60335-2-14)		P
25.22	- located so that pollution by food or liquid is unlikely to occur during normal use. (IEC 60335-2-14)		P

29	CLEARANCES, CREEPAGE DISTANCES AND SOLID INSULATION		
29.2	Microenvironment is pollution degree 3 (IEC 60335-2-14)		P
	unless insulation enclosed or located so that it is unlikely to be exposed to pollution during normal use of the appliance (IEC 60335-2-14)		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict
30	RESISTANCE TO HEAT AND FIRE		
30.1	For ice-cream machines for use in refrigerators and freezers, temperature of 40 °C instead of 10 °C. (IEC 60335-2-14)		N/A
30.2	For churns and ice-cream machines, 30.2.3 is applicable. (IEC 60335-2-14)		N/A
C	ANNEX C (NORMATIVE) AGEING TEST ON MOTORS		
	The value of p in Table C.1 is 2 000, (IEC 60335-2-14)		N/A
	except for the following appliances for which it is 500: bean slicers, blenders, can openers, cheese graters, citrus-fruit squeezers, graters, ice-cream machines for use in refrigerators and freezers, knife sharpeners, knives, sieving machines, shredders. (IEC 60335-2-14)		N/A

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict

10.1	TABLE: Power input deviation					P
Input deviation of/at:		P rated (W)	P measured (W)	dP (%)	Required dP(%)	Remark
HR1572						
230 V 50 Hz		350	134,1	-61,7	+15	flour + water (kneading hooks)
230 V 60 Hz		350	132,6	-62,1	+15	flour + water (kneading hooks)
230 V 50 Hz		350	243,4	-30,5	+15	carrots + water (plastic bar blender)
230 V 60 Hz		350	239,8	-31,5	+15	carrots + water (plastic bar blender)
230 V 50 Hz		350	100,7	-71,2	+15	water (wire beaters)
230 V 60 Hz		350	100,1	-71,4	+15	water (wire beaters)
230 V 50 Hz		350	103,4	-70,5	+15	water (strip beaters)
230 V 60 Hz		350	103,3	-70,5	+15	water (strip beaters)
230 V 50 Hz		350	301,3	-13,9	+15	recipe (strip beaters, turbo)
230 V 60 Hz		350	300,2	-14,2	+15	recipe (strip beaters, turbo)
HR1574						
230 V		350	161,6	-53,8	+15	flour + water (kneading hooks)
230 V		350	161,7	-53,8	+15	flour + water (kneading hooks)
230 V 50 Hz		350	253,6	-27,6	+15	carrots + water (metal bar blender)
230 V 60 Hz		350	248,6	-28,9	+15	carrots + water (metal bar blender)
230 V 50 Hz		350	106,3	-69,6	+15	water (wire beaters)
230 V 60 Hz		350	103,9	-70,3	+15	water (wire beaters)
230 V 50 Hz		350	107,2	-69,4	+15	water (strip beaters)

IEC 60335-2-14					
Clause	Requirement + Test		Result - Remark		Verdict
230 V 60 Hz	350	105,7	-69,8	+15	water (strip beaters)
230 V 50 Hz	350	304,6	-13,0	+15	recipe (strip beaters, turbo)
230 V 60 Hz	350	302,9	-13,5	+15	recipe (strip beaters, turbo)
HR1577					
230 V 50 Hz	550	546,2	-0,01	+15	Beef with direct driven chopper
230 V 60 Hz	550	560,7	+1,95	+15	
230 V 50 Hz	550	327,7	-40,4	+15	Beef with gear chopper
230 V 60 Hz	550	325,2	-59,2	+15	

10.2	TABLE: Current deviation					N
Current deviation of/at:	I rated (A)	I measured (A)	dl	Required dl	Remark	
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11.7	Table : normal operation					P
Test condition	Load (ingredients)	Duration	Number of operation	Accessory	Remark	
A	400 g carrots + 600 g water	On: 1 min; Off: 1 min	5 cycles	metal bar blender	Test standard	
B	400 g carrots + 600 g water	On: 1 min; Off: 1 min	5 cycles	metal bar blender	Test standard	
C	500 g flour + 360 g water	On: 5 min	1 cycle	kneading hooks	Test standard	
D	250 g flour + 150 g rye flour + 250 g honey (cold) + 150 g sugar + 11 g yeast + 4 g cinnamon + 50 ml milk + 1 egg	On: 120 sec; Off: 20 min; On: 70 sec	1 cycle	strip beaters	Recipe (turbo speed)	
E	250 g flour + 150 g rye flour + 250 g honey (cold) + 150 g sugar + 11 g yeast + 4 g cinnamon + 50 ml milk + 1 egg	On: 120 sec; Off: 20 min; On: 70 sec	1 cycle	strip beaters	Recipe (speed control 1)	
F	250 g flour + 150 g rye flour + 250 g honey (cold) + 150 g sugar + 11 g yeast + 4 g cinnamon + 50 ml milk + 1 egg	On: 120 sec; Off: 20 min; On: 70 sec	1 cycle	strip beaters	Recipe (speed control 3)	
G	500 g flour + 360 g water	On: 5 min	1 cycle	kneading hooks	Test standard	

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict

H	120 g frozen beef cude	On: 5 sec	1 cycle	Direct driven chopper	Recipe (turbo)
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11.8	TABLE: temperature rise measurements									P
	Test condition:	A	B	C	D	E	F	G	H	--
	Test voltage (V):	254,4	206,8	254,4	254,4	206,8	206,8	206,8	254,4	--
temperature rise dT of part/at:		dT (K)								required dT (K)
Ambient temperature (t1/t2....°C)		23,0/ 22,6	24,5/ 25,5	24,1/ 24,1	23,4/ 23,3	22,6/ 23,3	24,3/ 23,3	22,5/ 23,0	21,6 /21,5	–
Separation of supply cord		6,8	6,5	8,2	4,6	1,9	2,2	5,2	3,1	50
X-capacitor		8,9	6,7	12,2	5,5	2,2	2,4	7,4	3,1	100-25=75
Closed-end connector		11,6	8,4	17,0	7,0	2,5	3,0	10,3	3,5	105-25=80
Ambient of micro switch S1		21,3	12,9	30,5	12,3	3,4	4,0	16,1	6,2	125-25=100
Ambient of micro switch S5		24,9	14,9	35,4	22,6	3,8	5,4	20,2	3,9	125-25=100
Ambient of micro switch between S3 and S4		14,5	14,6	10,2	12,1	6,6	7,8	8,9	3,0	125-25=100
Internal wire near motor		16,6	11,6	13,6	13,0	8,0	8,8	10,9	14,3	80-25=55
Core of motor		41,4	29,8	31,4	35,8	35,5	37,8	27,3	28,0	Ref
Bobbin near stator winding		41,8	30,2	31,4	35,4	39,5	41,8	28,3	75,1	cl.30
Motor carbon brush holder		4,5	3,7	2,0	4,3	1,9	4,4	4,2	14,0	cl.30
Y-capacitor of motor		28,6	20,6	21,9	24,6	16,0	17,3	17,9	12,5	85-25=60
S2 switch knob inside		25,8	15,5	31,4	17,0	4,9	6,0	19,1	2,6	cl.30
S2 switch inside transparent plastic		25,5	15,6	33,4	16,5	7,4	6,2	20,2	2,9	cl.30
Blender connector plastic		32,9	24,3	25,5	29,8	18,9	20,6	20,9	3,9	cl.30
Inner enclosure side near motor		25,3	17,2	21,2	17,8	8,1	10,6	16,6	3,8	cl.30

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Clause	Requirement + Test					Result - Remark			Verdict
Inner enclosure upper near motor	23,0	16,9	18,0	21,8	10,4	11,4	14,6	5,0	cl.30
Inner enclosure bottom near motor	21,3	13,7	13,5	9,8	6,5	7,4	11,9	14,9	cl.30
Turbo button surface	13,8	8,1	12,6	7,0	2,7	3,1	10,5	2,2	50
Handle surface	20,0	15,3	17,8	17,0	8,2	8,8	14,2	0,6	50
S2 switch surface	15,4	9,8	20,6	10,7	3,0	3,0	12,2	1,5	60
Blender lock surface	6,0	3,4	3,8	4,1	2,7	3,8	3,5	0,8	60
FlexMix switch surface	15,4	10,2	21,4	11,9	4,4	7,4	13,3	1,6	60
Outside enclosure side near motor	20,7	13,8	18,6	13,8	6,4	8,2	14,1	5,1	65
Outside enclosure back near motor	18,2	12,1	19,5	12,2	4,9	5,5	14,1	1,5	65
Stator winding	58,2	42,7	36,6	64,7	77,9	77,4	36,1	85,8	115-10=105
Rotor winding	61,0	47,9	45,6	67,9	34,2	40,0	35,1	--	115-10=105
temperature rise dT of winding:			R ₁ (Ω)		R ₂ (Ω)		dT (K)		required dT (K)
A) Stator winding point C-D			17,93		22,701		69,0		115
A) Rotor winding			37,95		48,92		74,9		115
B) Stator winding point C-D			17,93		21,71		53,6		115
B) Rotor winding			37,95		46,602		58,1		115
C) Stator winding point G-D			13,45		15,951		48,1		115
C) Rotor winding			37,95		45,968		54,7		115
D) Stator winding point G-D			13,45		17,406		76,0		115
D) Rotor winding			37,95		49,783		80,6		115
E) Stator winding point A-D			45,36		60,896		87,4		115
E) Rotor winding			37,95		44,971		46,9		115
F) Stator winding point A-D			45,36		61,027		90,4		115
F) Rotor winding			37,95		45,219		50,6		115
G) Stator winding point A-D			45,36		52,996		42,8		115
G) Rotor winding			37,95		45,169		48,4		115
H) Stator winding point C-D			17,93		24,06		87,6		115

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Clause	Requirement + Test	Result - Remark	Verdict

H) Rotor winding	37,95	51,3	90,0	115	155
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13.2	TABLE: Leakage current			P
	Heating appliances: 1.15 x rated input.....:	-		—
	Motor-operated and combined appliances: 1.06 x rated voltage	254,4 V		—
Leakage current between		I (mA)	Max. allowed I (mA)	
Live parts and accessible enclosure		0,003	0,25	
Live parts and metal accessory		0,003	0,25	

13.3	TABLE: Electric strength			P
Test voltage applied between:		Voltage (V)	Breakdown (Yes/No)	
Live parts and motor core		1000	No	
Motor core and accessible enclosure		1750 / 2750	No	
Live parts and accessible enclosure		3000 / 3750	No	

14	TABLE: Transient overvoltages					N
Clearance between:		CI (mm)	Required CI (mm)	Rated impulse voltage (V)	Impulse test voltage (V)	Flashover (Yes/No)

16.2	TABLE: Leakage current			P
	Single phase appliances: 1.06 x rated voltage	254,4 V		—
	Three phase appliances 1.06 x rated voltage divided by $\sqrt{3}$:	--		—
Leakage current between		I (mA)	Max. allowed I (mA)	
Live parts and accessible enclosure		0,0036	0,25	
Live parts and metal accessory		0,0032	0,25	

16.3	TABLE: Electric strength			P
Test voltage applied between:		Voltage (V)	Breakdown (Yes/No)	
Live parts and motor core		1250	No	
Motor core and accessible enclosure		1750 / 2500	No	
Live parts and accessible enclosure		3000 / 3750	No	

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Clause	Requirement + Test	Result - Remark	Verdict

19.7	TABLE: Abnormal operation, locked motor/moving parts		P
	Test voltage (V)	240 V	—
	Ambient, t_1 (°C)	22,6	—
	Ambient, t_2 (°C)	22,7	—
	Test condition.....	Locked motor for 30 sec.	—
temperature rise dT of part/at:		dT (K)	required dT (K)
Stator winding (Thermocouple method)		175,4	240-10-25=205
Stator winding (resistance method)		187,0	240-25=215
Separation of supply cord		1,4	150
Inner enclosure		22,8	Cl. 30
Observation: No flame and deformation are found. No hazard.			

cl.19.10 – tested at 312 V and operated for 1 min
Observation: No parts become loosen and no hazardous situation is found. No hazard.
cl.19.11- tested at 240 V and short-circuit D1
Observation: No flame and deformation are found. No hazard.
cl.19.11- tested at 240 V and short-circuit D2
Observation: No flame and deformation are found. No hazard.

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Clause	Requirement + Test	Result - Remark	Verdict

24.1	TABLE: COMPONENTS					P
object/part No.	manufac-turer/trademark	type/model	technical data	standard	mark(s) of conformity ¹⁾	
EU plug (for 350 W)	Lee Yuen	LY-21	250 V, 2,5 A, C5	IEC 60884	VDE	
(Alt.) EU plug (for 350 W)	Unirise Electric Wire & Cable Co., Ltd.	UE-211	250 V, 2,5 A, C5	IEC 60884	VDE	
(Alt.) EU plug (for 350 W)	Various	Various	250 V, 2,5 A, C5	IEC 60884	VDE	
EU plug (for 550 W)	Lee Yuen	LY-13	250 V, 16 A, C6	IEC 60884	VDE	
(Alt.) EU plug (for 550 W)	Unirise Electric Wire & Cable Co., Ltd.	UE-212	250 V, 16 A, C6	IEC 60884	VDE	
(Alt.) EU plug (for 550 W)	Various	Various	250 V, 16 A, C6	IEC 60884	VDE	
UK plug	Sun Fai	SF-638	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	BS1363	ASTA	
(Alt.) UK plug	Lee Yuen	LY-13AS	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	BS1363	ASTA	
(Alt.) UK plug	Unirise Electric Wire & Cable Co., Ltd.	UE-324	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	BS1363	ASTA	
(Alt.) UK plug	Various	Various	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	BS1363	ASTA; BSI	
Singapore plug	Sun Fai	SF-638	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	SS 145-1	PSB	
(Alt.) Singapore plug	Various	Various	250 V ; 13 A (fitted with 3 A for 350 W) or 13 A fuse for all ratings)	SS 145-1	PSB	

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Clause	Requirement + Test		Result - Remark		Verdict
Australia plug	Unirise Electric Wire & Cable Co., Ltd.	UE-231	250 V; 10 A	AS/NZS3112	NSW, Office of Fair Trading (18626/4)
(Alt.) Australia plug	Various	Various	250 V; 10 A	AS/NZS3112	Office of Fair Trading
Supply cord	Lee Yuen	H03VVH2-F	2 x 0,75 mm ²	IEC 60227	VDE
(Alt.) Supply cord	Unirise Electric Wire & Cable Co., Ltd.	H03VVH2-F	2 x 0,75 mm ²	IEC 60227	VDE
(Alt.) Supply cord	Various	H03VVH2-F	2 x 0,75 mm ²	IEC 60227	VDE
Close-end connector	HEAVY POWER CO LTD	CE2	300 V, 105 °C, V-2, PA66	IEC 60335-2-14 UL 94	Tested in appliance UL E113650
C1, X-capacitor	Chiefcon Electronics Co. Ltd.	CKX	X1, 0,33 µF (334K), GMF, 300 V, 100 °C	IEC 60384-14	VDE
(Alt.) C1, X-capacitor	Various	Various	X1, 0,33 µF (334K), GMF, 300 V, 100 °C	IEC 60384-14	VDE
R1, Discharge resistor	Various	Various	1,2 MΩ, 1/2 W	IEC 60335-2-14	Tested in appliance
S1, S3, S4, S5, Micro switch	BAOKEZHEN	SC7303	3(3)A, 250 V~, T125, 5E4, PTI 175	IEC 61058	KEMA ENEC
(Alt.) S1, S3, S4, S5, Micro switch	TRANTEK ELECTRICS CO., LTD.	16503	3(3) A, 125/250 V~, T 125, 5E4, PTI 175 V	IEC 61058	NEMKO ENEC
S2, Slide switch & bracket	SABIC INNOVATIVE PLASTICS	244R	PC, 240 V, 350 W	IEC 60335-2-14	Tested in appliance
Motor (for HR1572; HR1577)	Chiaphua Component	UH-35R-0003	230 V, 50 Hz, Class 155 (F)	IEC 60335-2-14	Tested in appliance
Motor (for HR1574)	Chiaphua Component	UH-35R-0004	230 V, 50 Hz, Class 155 (F)	IEC 60335-2-14	Tested in appliance
Motor bobbin and carbon brush holder	TORAY INDUSTRIES INC	A504X90	PPS, V-0, 200 °C	IEC 60335-2-14 UL 94	Tested in appliance, UL E41797
Internal wire	Vitar	3367	200 °C, 300 V, 22AWG	IEC 60335-2-14 UL 758	Tested in appliance
(Alt.) Internal wire	Various	Various	200 °C, 300 V, 22AWG	IEC 60335-2-14	Tested in appliance

IEC 60335-2-14					
Clause	Requirement + Test			Result - Remark	Verdict
Shrinkable tube	Various	Various	600 V, 125 °C	IEC 60335-2-14	Tested in appliance
Main housing	Chi Mei	PA-757(+)	ABS, HB, 80 °C,	IEC 60335-2-14 UL 94	Tested in appliance UL E56070
Remark : *) components are not for European					

IEC 60335-2-14			
Clause	Requirement + Test	Result - Remark	Verdict

28.1	TABLE: Threaded part torque test			N
Threaded part identification	Diameter of thread (mm)	Column number (I, II, or III)	Applied torque (Nm)	
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29.1	TABLE: Clearances			P
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Overvoltage category:		II				—
		Type of insulation:				
Rated impulse voltage (V):	Min. cl (mm)	Basic	Functional	Supplementary	Reinforced	Verdict / Remark
330	0,5	--	--	--	--	N
500	0,5	--	--	--	--	N
800	0,5	--	--	--	--	N
1 500	1,0	--	--	--	--	N
2 500	1,5	P	P	P	--	P
4 000	3,0	--	--	--	P	P
6 000	5,5	--	--	--	--	N
8 000	8,0	--	--	--	--	N
10 000	11,0	--	--	--	--	N

29.2	TABLE: Creepage distances, basic, supplementary and reinforced insulation										P
Working voltage (V)	Creepage distance(mm) Pollution degree										
	1	2			3			Type of insulation			
		Material group			Material group						
		I	II	IIIa/IIIb	I	II	IIIa/IIIb	B ^{*)}	S ^{*)}	R ^{*)}	Verdict
≤50	0,2	0,6	0,9	1,2	1,5	1,7	1,9	--	—	—	N
≤50	0,2	0,6	0,9	1,2	1,5	1,7	1,9	—	--	—	N
≤50	0,4	1,2	1,8	2,4	3,0	3,4	3,8	—	—	--	N
>50 and ≤125	0,3	0,8	1,1	1,5	1,9	2,1	2,4		—	—	N
>50 and ≤125	0,3	0,8	1,1	1,5	1,9	2,1	2,4	—		—	N
>50 and ≤125	0,6	1,6	2,2	3,0	3,8	4,2	4,8	—	—		N
>125 and ≤250	0,6	1,3	1,8	2,5	3,2	3,6	<u>4,0</u>	P	—	—	P
>125 and ≤250	0,6	1,3	1,8	2,5	3,2	3,6	<u>4,0</u>	—	P	—	P
>125 and ≤250	1,2	2,6	3,6	5,0	6,4	7,2	<u>8,0</u>	—	—	P	P
>250 and ≤400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	--	—	—	N
>250 and ≤400	1,0	2,0	2,8	4,0	5,0	5,6	6,3	—	--	—	N
>250 and ≤400	2,0	4,0	5,6	8,0	10,0	11,2	12,6	—	—	--	N
>400 and ≤500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	--	—	—	N

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Clause	Requirement + Test							Result - Remark			Verdict
>400 and ≤500	1,3	2,5	3,6	5,0	6,3	7,1	8,0	—	--	—	N
>400 and ≤500	2,6	5,0	7,2	10,0	12,6	14,2	16,0	—	—	--	N
>500 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	--	—	—	N
>500 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	—	--	—	N
>500 and ≤800	3,6	6,4	9,0	12,6	16,0	18,0	20,0	—	—	--	N
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	--	—	—	N
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	—	--	—	N
>800 and ≤1000	4,8	8,0	11,2	16,0	20,0	22,0	25,0	—	—	--	N
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	--	—	—	N
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	—	--	—	N
>1000 and ≤1250	6,4	10,0	14,2	20,0	25,0	28,0	32,0	—	—	--	N
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	--	—	—	N
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	—	--	—	N
>1250 and ≤1600	8,4	12,6	18,0	25,0	32,0	36,0	40,0	—	—	--	N
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	--	—	—	N
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	—	--	—	N
>1600 and ≤2000	11,2	16,0	22,0	32,0	40,0	44,0	50,0	—	—	--	N
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	--	—	—	N
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	—	--	—	N
>2000 and ≤2500	15,0	20,0	28,0	40,0	50,0	56,0	64,0	—	—	--	N
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	--	—	—	N
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	—	--	—	N
>2500 and ≤3200	20,0	25,0	36,0	50,0	64,0	72,0	80,0	—	—	--	N
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	--	—	—	N
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	—	--	—	N
>3200 and ≤4000	25,0	32,0	44,0	64,0	80,0	90,0	100,0	—	—	--	N
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	--	—	—	N
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	—	--	—	N
>4000 and ≤5000	32,0	40,0	56,0	80,0	100,0	112,0	126,0	—	—	--	N
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	--	—	—	N
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	—	--	—	N
>5000 and ≤6300	40,0	50,0	72,0	100,0	126,0	142,0	160,0	—	—	--	N
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	--	—	—	N
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	—	--	—	N
>6300 and ≤8000	50,0	64,0	90,0	126,0	160,0	180,0	200,0	—	—	--	N
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	--	—	—	N
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	—	--	—	N
>8000 and ≤10000	64,0	80,0	112,0	160,0	200,0	220,0	250,0	—	—	--	N
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	--	—	—	N
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	—	--	—	N

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Clause	Requirement + Test						Result - Remark			Verdict	
>10000 and ≤12500	80,0	100,0	142,0	200,0	250,0	280,0	320,0	—	—	--	N
*), B=Basic, S=Supplementary and R=Reinforced											

29.2	TABLE: Creepage distances, functional insulation								P
Working voltage (V)	Creepage distance (mm)								
	Pollution degree								
	1	2			3				
		Material group			Material group				
		I	II	IIIa/IIIb	I	II	IIIa/IIIb	Verdict / Remark	

≤50	0,2	0,6	0,8	1,1	1,4	1,6	1,8	N
>50 and ≤125	0,3	0,7	1,0	1,4	1,8	2,0	2,2	N
>125 and ≤250	0,4	1,0	1,4	2,0	2,5	2,8	3,2	P
>250 and ≤400	0,8	1,6	2,2	3,2	4,0	4,5	5,0	N
>400 and ≤500	1,0	2,0	2,8	4,0	5,0	5,6	6,3	N
>500 and ≤800	1,8	3,2	4,5	6,3	8,0	9,0	10,0	N
>800 and ≤1000	2,4	4,0	5,6	8,0	10,0	11,0	12,5	N
>1000 and ≤1250	3,2	5,0	7,1	10,0	12,5	14,0	16,0	N
>1250 and ≤1600	4,2	6,3	9,0	12,5	16,0	18,0	20,0	N
>1600 and ≤2000	5,6	8,0	11,0	16,0	20,0	22,0	25,0	N
>2000 and ≤2500	7,5	10,0	14,0	20,0	25,0	28,0	32,0	N
>2500 and ≤3200	10,0	12,5	18,0	25,0	32,0	36,0	40,0	N
>3200 and ≤4000	12,5	16,0	22,0	32,0	40,0	45,0	50,0	N
>4000 and ≤5000	16,0	20,0	28,0	40,0	50,0	56,0	63,0	N
>5000 and ≤6300	20,0	25,0	36,0	50,0	63,0	71,0	80,0	N
>6300 and ≤8000	25,0	32,0	45,0	63,0	80,0	90,0	100,0	N
>8000 and ≤10000	32,0	40,0	56,0	80,0	100,0	110,0	125,0	N
>10000 and ≤12500	40,0	50,0	71,0	100,0	125,0	140,0	160,0	N

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TABLE 30		RESISTANCE TO HEAT, FIRE AND TRACKING												P	
Component		Manufacturer	Type	Ball pressure test			Tracking test [CTI/ PTI]	Glow wire test					Needle-flame test	Verdict	
			75 °C	cl. 11 +40 °C	125 °C	cl. 19 +25 °C		GWT 550 °C	GWT 650 °C	GWT 750 °C	GWFI 850 °C	GWIT			
Enclosure		Chi Mei	PA-757(+)	0,92 mm	—	—	—	P	P	—	—	—	—	—	P
Bobbin and carbon brush holder of motor		TORAY INDUSTRIES INC	A504X90	—	—	0,88 mm	—	P	P	—	—	—	—	—	P
Micro-switch bracket		BAOKEZHEN	SC7303	—	—	1,04 mm	—	P	P	—	—	—	—	—	P
Micro-switch bracket		TRANTEK ELECTRICS	16503	—	—	1,26 mm	—	P	P	—	—	—	—	—	P
S2 slide switch plastic and inside transparent plastic		SABIC INNOVATIVE PLASTICS	244R	—	—	1,1 mm	—	P	P	—	—	—	—	—	P
1) surrounding parts are subjected to the needle-flame test of Annex E															

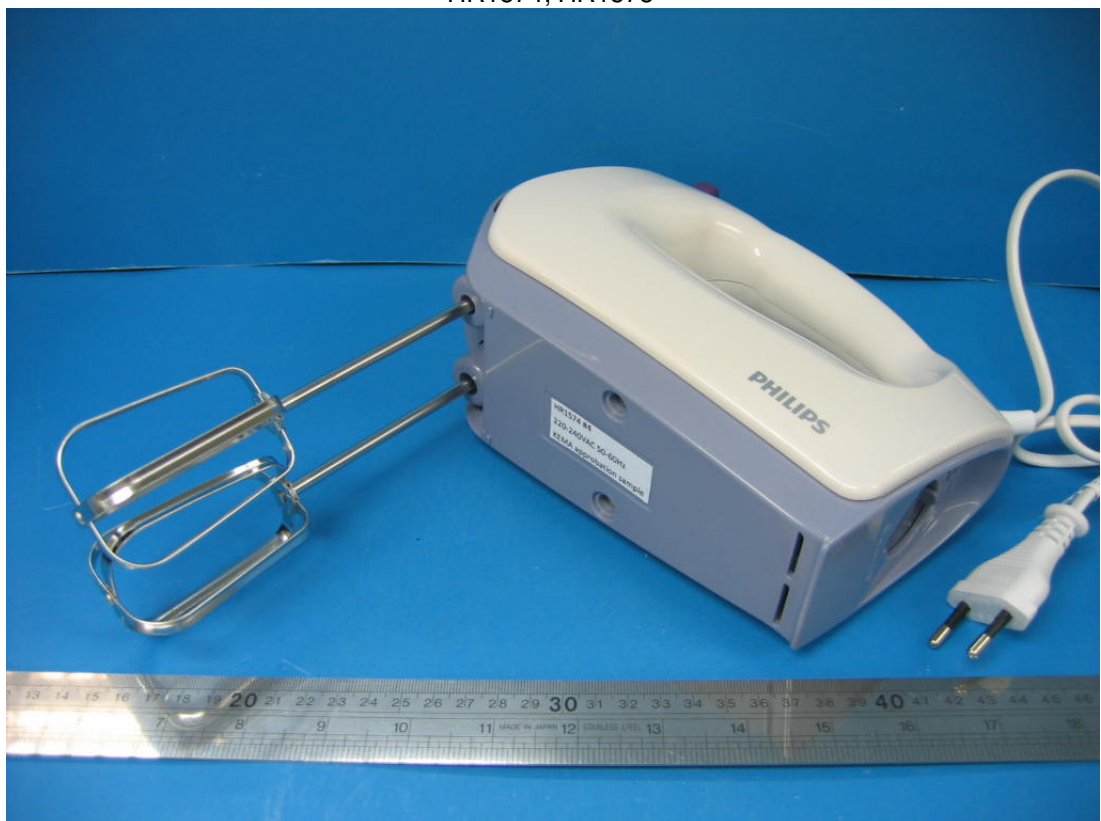
Photos:



TRF No. IEC 60335_2_14L



HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



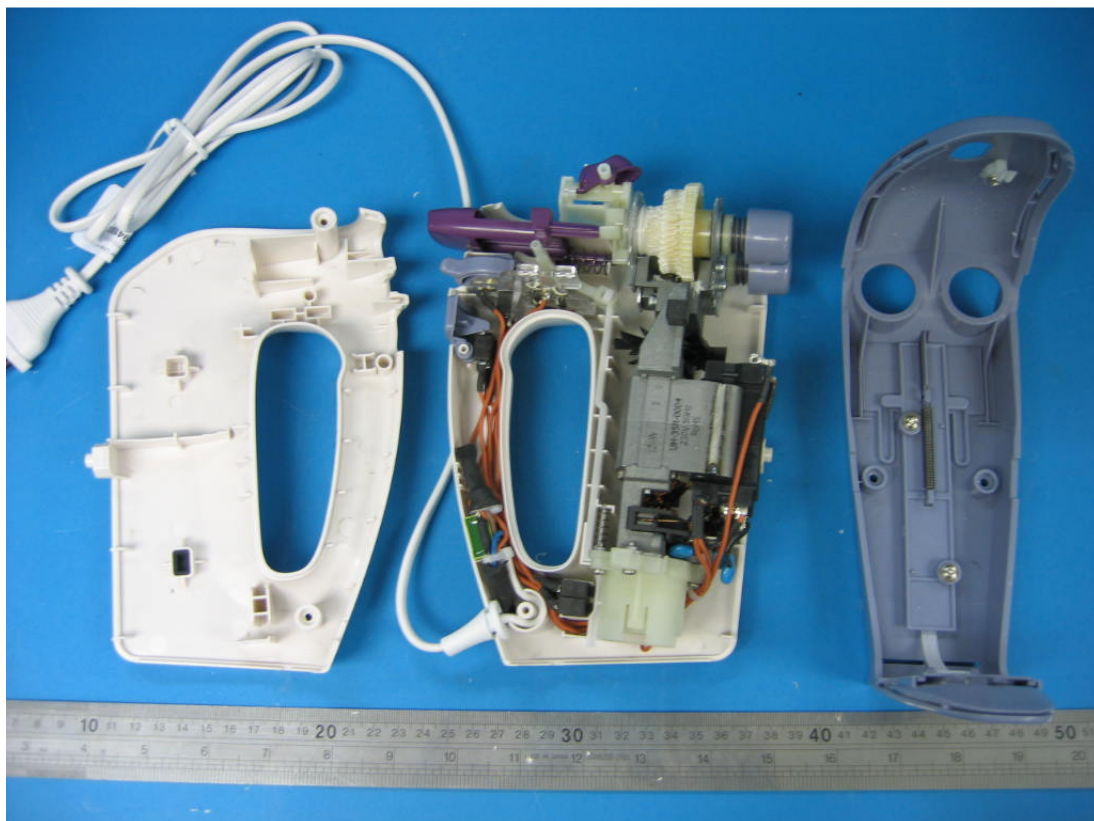
HR1574; HR1575



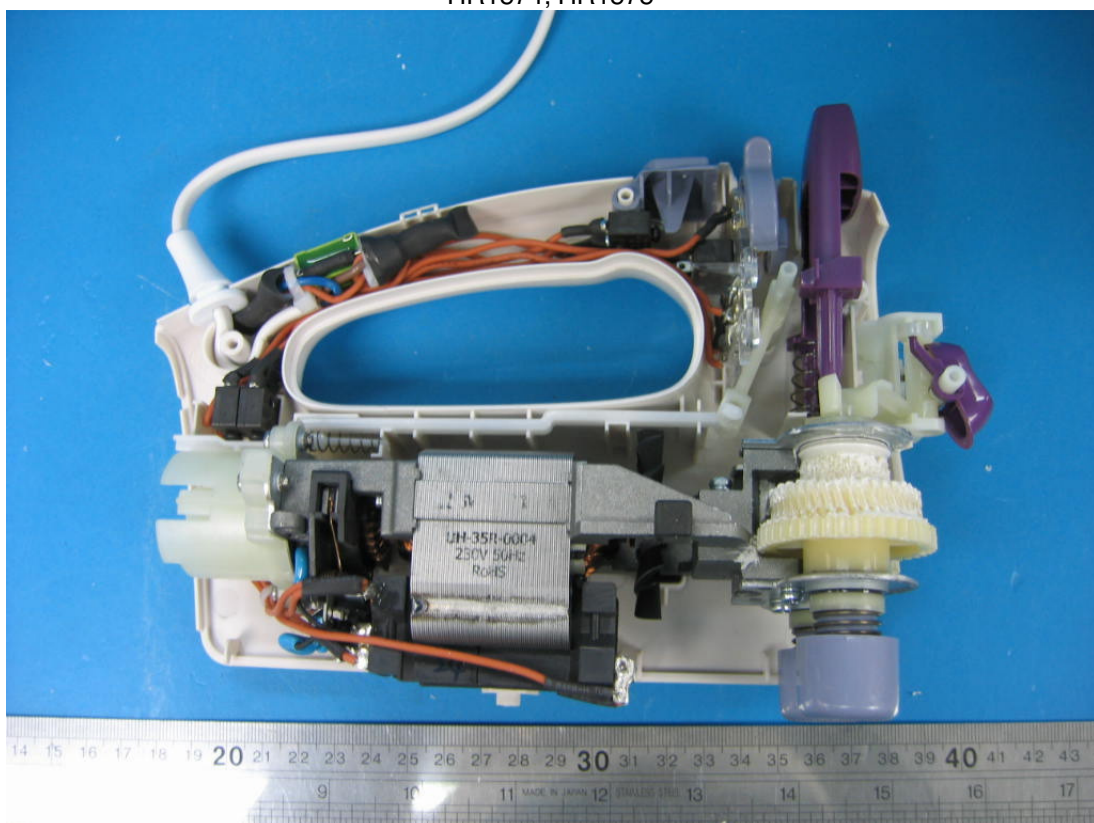
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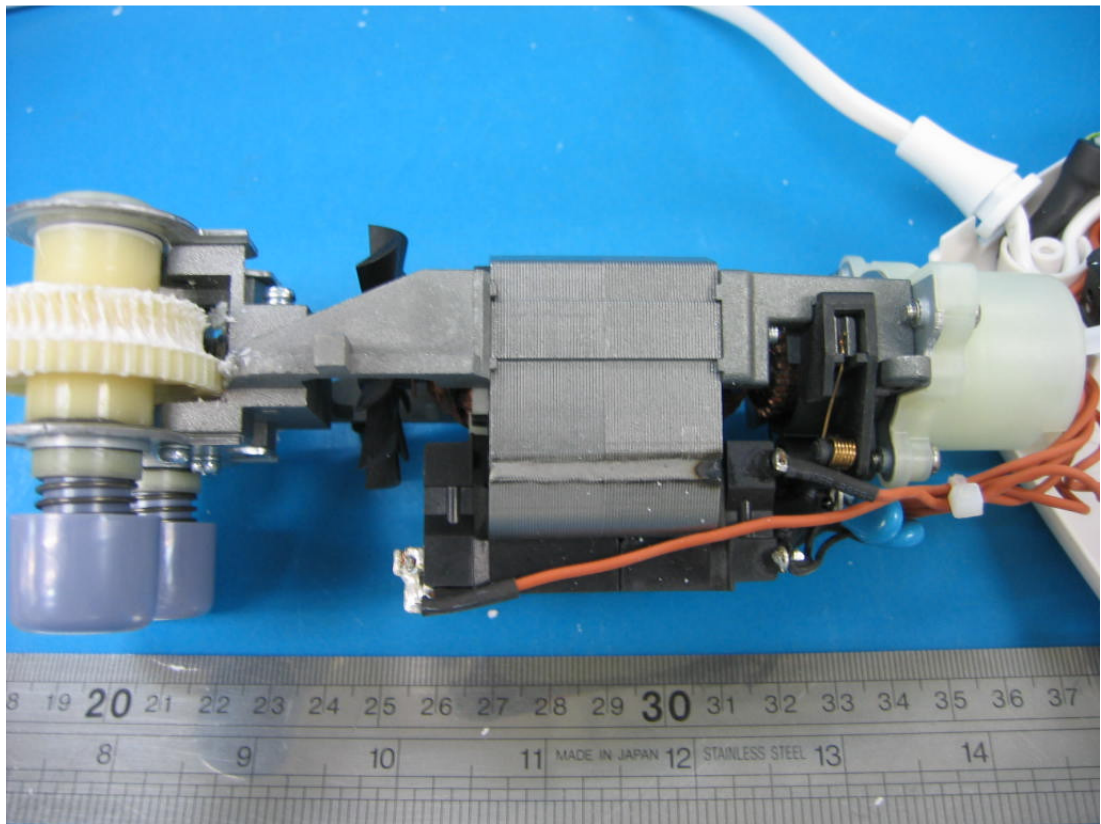
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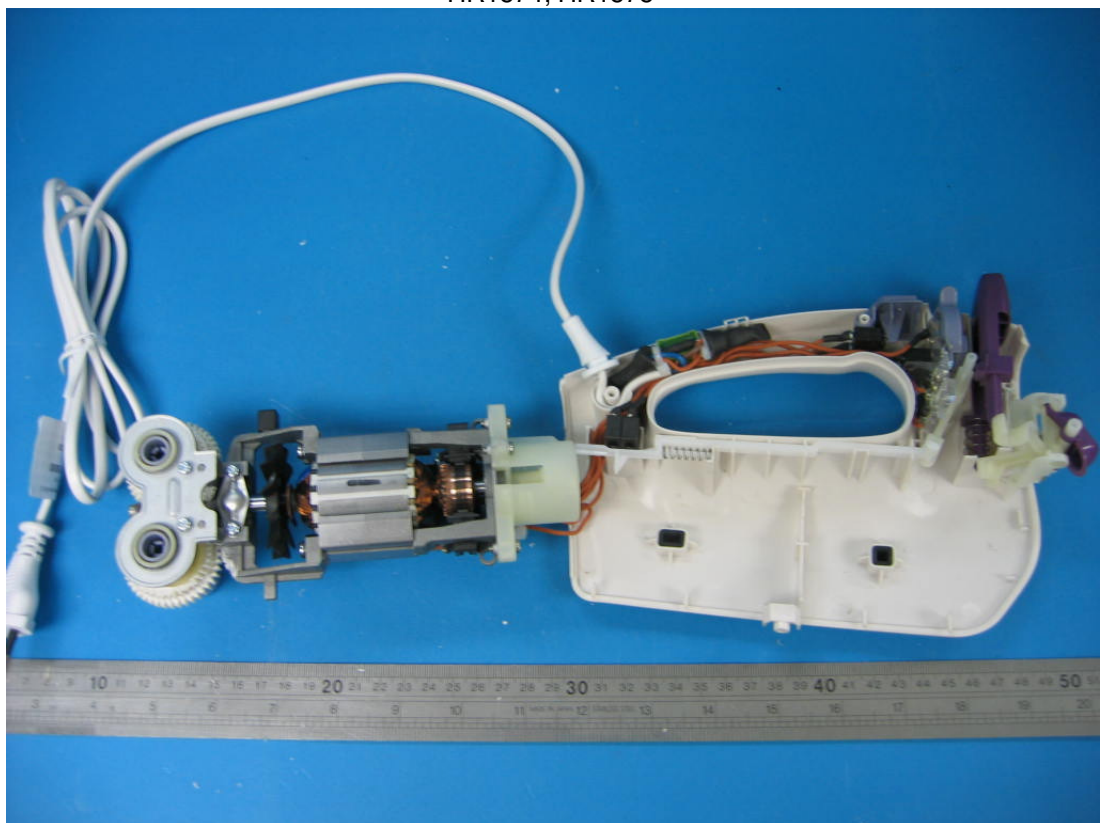
HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



HR1574; HR1575



HR1572



HR1572



HR1572



HR1572



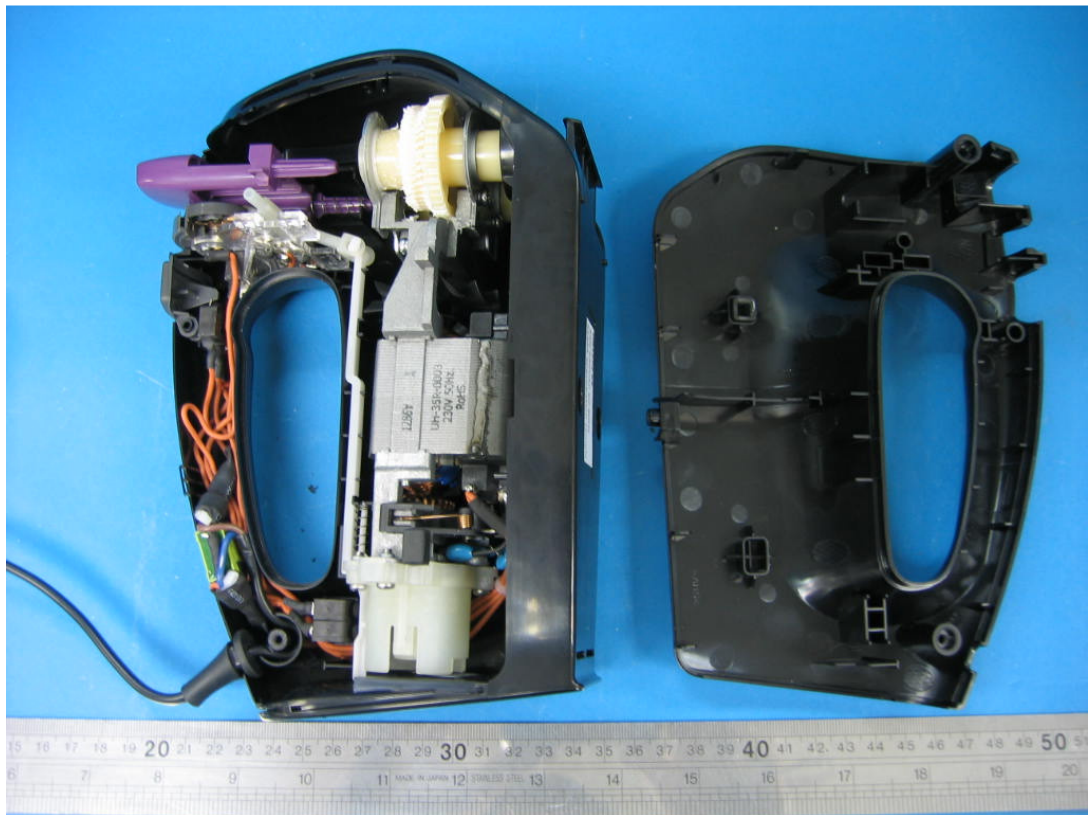
HR1572



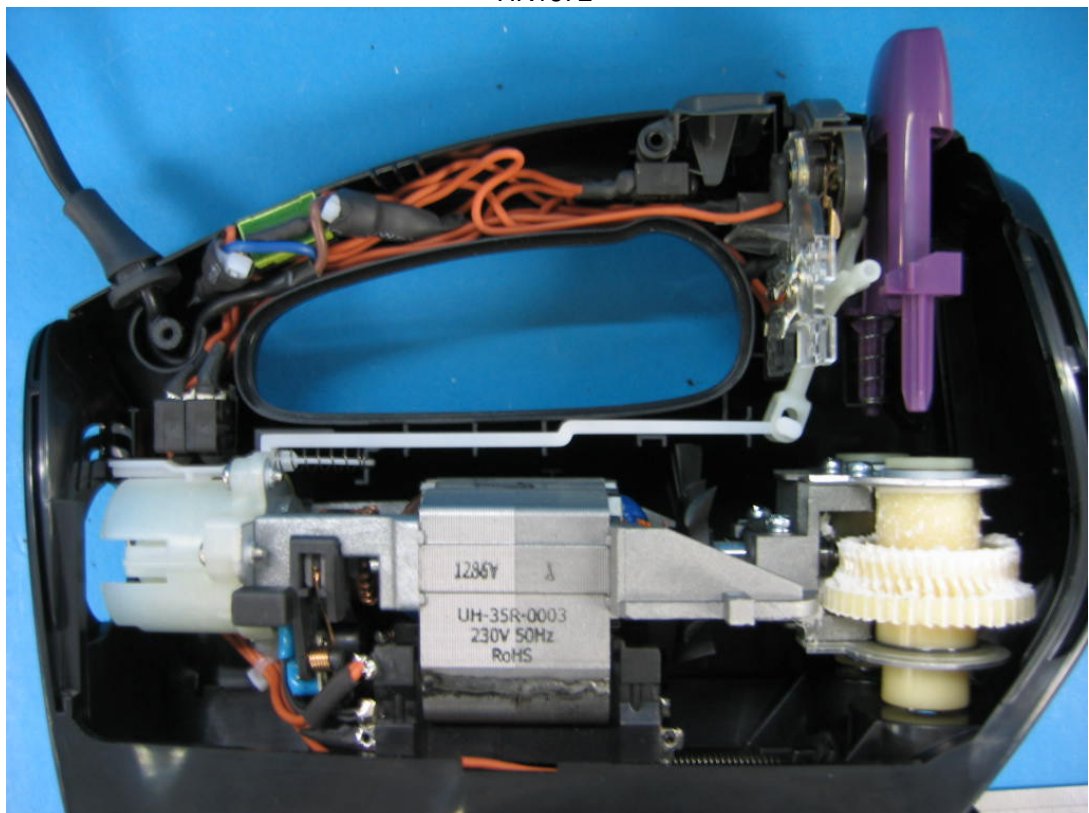
HR1572



HR1572



HR1572



HR1572



Main unit with mini chopper



Direct-driven chopper



Mini chopper with gear



Alternative colour version