

TEST REPORT IEC 60335-2-17 similar electrical ap

Household and similar electrical appliances - Safety Part 2-17: Particular requirements for blankets, pads and similar flexible heating appliances

Report Number:	190328059GZU-001
Date of issue:	23 July, 2019, Amendment 3: 25 October, 2021
Total number of pages	Test report 41 pages
Name of Testing Laboratory preparing the Report	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Applicant's name:	Shanghai Bailaifu Appliance Manufacture Co., Ltd
Address:	No 859 Shenglong Rd, Jiu Fu Development Area, JiuTing Town, Songjiang, Shanghai, China
Test specification:	
Standard:	IEC 60335-2-17:2012, AMD1:2015 to be used in conjunction with IEC 60335-1:2010, AMD1:2013
Test procedure:	
Non-standard test method	N/A
Test Report Form No	IEC60335_2_17G
Test Report Form(s) Originator :	IMQ S.p.A.
Master TRF:	Dated 2016-12
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Test item description:	Electric Underblanket
Trade Mark:	OEM (for models TT-AA, TTF-AA, TT-AAS, TTF-AAS, TT-BB, TTF-BB, TT-BBS, TTF-BBS, TT-CC, TTF-CC, TT-CCS, TTF-CCS, TT-DD, TTF-DD, TT-DDS, TTF-DDS, TT-EE, TTF-EE, TT-EES, TTF-EES, TT-FF, TTF-FF, TT-FFS, TTF-FFS, PLA0543, PLA0545, PLA0544, PLA0546, PLA0547, PLA1044, PLA1045 Necessities [®] (for models SRO8219, SRO8221)
	EVANTAI (for models SRO8222, SRO8223, SRO8224, SRO8225, SRO8226, SRO8227, EEB187W, SRO8291)
Manufacturer	Same as applicant
Model/Type reference:	TT-AA, TTF-AA, TT-AAS, TTF-AAS, TT-BB, TTF-BB, TT-BBS, TTF-BBS, TT-CC, TTF-CC, TT-CCS, TTF-CCS, TT-DD, TTF-DD, TT-DDS, TTF-DDS, TT-EE, TTF-EE, TT-EES, TTF-EES, TT-FF, TTF-FF, TT-FFS, TTF-FFS PLA0543, PLA0545, PLA0544, PLA0546, PLA0547, PLA1044, PLA1045, SRO8219, SRO8221, SRO8222, SRO8223, SRO8224, SRO8225, SRO8226, SRO8227, EEB187W, SRO8291
Ratings:	220-240V~, 50Hz; TT-AA, TTF-AA, TT-AAS, TTF-AAS: 60W; TT-BB, TTF-BB, TT-BBS, TTF-BBS, PLA0544, PLA0546, PLA1044, PLA1045, SRO8223, SRO8224, SRO8226, SRO8227, EEB187W: 2x60W; TT-CC, TTF-CC, TT-CCS, TTF-CCS, PLA0543, SRO8222, SRO8225, SRO8291:70W; TT-DD, TTF-DD, TT-DDS, TTF-DDS: 2x70W; TT-EE, TTF-EE, TT-EES, TTF-EES, PLA0545, SRO8221: 90W; TT-FF, TTF-FF, TT-FFS, TTF-FFS, SRO8219: 40W



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Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):				
CB Testing Laboratory:				
Testing location/ address:	Intertek Testing Service Branch	s Shenzhen Ltd. Guangzhou		
	Room 02, & 101/E201/E301/E401/E501/E601/ E701/E801 of Room 01 1-8/F., No. 7-2. Caipin Road, Science City, GETDD, Guangzhou, Guangdong, China			
Tested by (name, function, signature):	Simon Zhou/ Engineer	Sinnon Zmon. Acht		
Approved by (name, function, signature):	Allen Zheng /	rao		
	Sr. Project Engineer	7 J		
Testing procedure: CTF Stage 1:	N/A			
Testing location/ address:				
Tested by (name, function, signature):				
Approved by (name, function, signature):				
Testing procedure: CTF Stage 2:	N/A			
Testing location/ address:				
Tested by (name + signature):				
Witnessed by (name, function, signature) .:				
Approved by (name, function, signature):				
Testing procedure: CTF Stage 3:	N/A			
Testing procedure: CTF Stage 4:	N/A			
Testing location/ address:				
Tested by (name, function, signature):				
Witnessed by (name, function, signature) .:				
Approved by (name, function, signature):				
Supervised by (name, function, signature) :				



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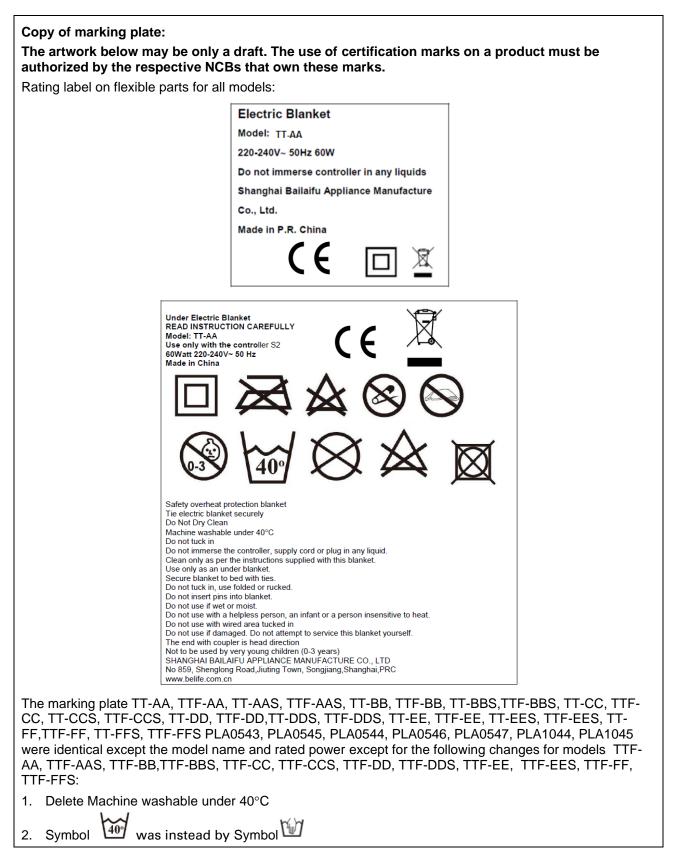
Summary of testing: 1. The submitted samples were tested and found to compliance with requirements of EN 60335-2-17:2013 +A11:2019+A1:2020 used in conjunction with EN 60335-1: 2012 +A11:2014+ A13: 2017+ A1:2019+A14:2019 +A2:2019. 2. The product has been tested and complied with the standard EN 62233:2008 for EMF. Tests performed (name of test and test Testing location: clause): Intertek Testing Services Shenzhen Ltd. **Original:** Guangzhou Branch Room 02, & 101/E201/E301/E401/E501/E601/ All tests were conducted on models E701/E801 of Room 01 1-8/F., No. 7-2. Caipin TT-AAS, TT-BB, TT-DD, TT-EE, TT-EES, TT-FF. Road, Science City, GETDD, Guangzhou, Clause 7, 10, 11.8 and construction check were Guangdong, China conducted on model TT-CC, TT-DD. Clause 10 and construction check were conducted on model TT-AA. Clause 7 and construction check were conducted on model other models. Amendment 1: EN 60335-2-17:2013/A11:2019 were performed. EN 60335-1:2012/ A1:2019+ A2:2019 + A14:2019 were performed. Clause 22, 24 were performed. Amendment 2: clause 19.102 was conducted on model TT-AA, TT-AAS, TT-BB, TT-DD, TT-EE, TT-EES, TT-FF, and the deviation of EN 60335-2-17:2013/ A1:2020 was evaluated. Amendment 3: Clause 22, 24 were evaluated. Summary of compliance with National Differences (List of countries addressed):

EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES were considered.



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TRF No. IEC60335_2_17G

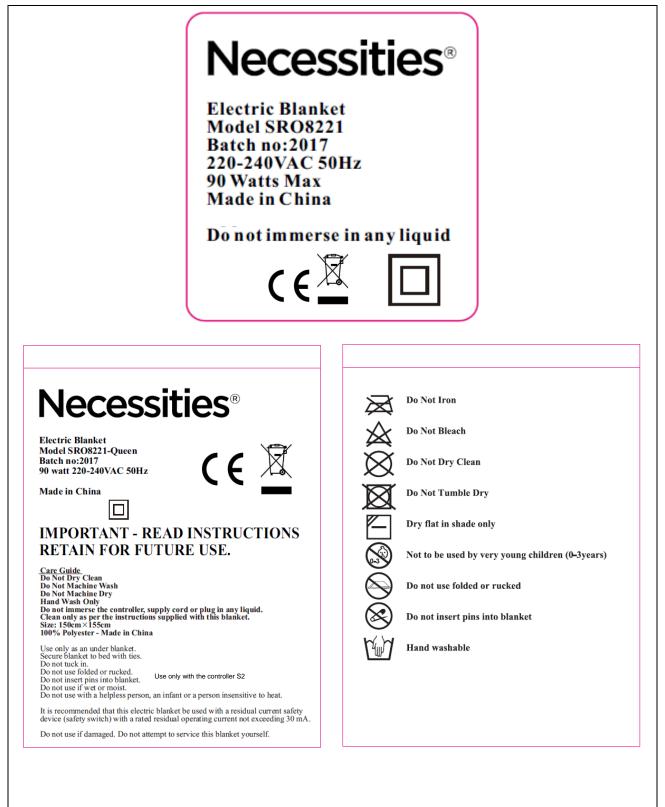


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	Neces	ssiti	es®	
	Electric Blank Model SRO821 Batch no:2017 220-240VAC 50 40 Watts Max Made in China	19 0Hz		
	Do not immers	e in any	liquid	
	(€)	X [
			Do Not Iron	
INECESSITI	€S®			
Necessitie	es [®]		Do Not Bleach	
Electric Blanket	€S®	X X X		
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz	V F	X X X X X X X X	Do Not Bleach	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China	X	<u></u> ⊡⊠⊗≫ №	Do Not Bleach Do Not Dry Clean	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China		©⊡⊠∞≫ №	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China IMPORTANT - READ IN RETAIN FOR FUTURE Care Guide Do Not Dry Clean		Ø®⊡⊠XXX	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only Not to be used by very young children (0-3years)	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China IMPORTANT - READ IN RETAIN FOR FUTURE Care Guide Do Not Dry Clean Do Not Machine Wash Do Not Machine Dry Hand Wash Only	STRUCTIONS USE.	\mathbb{Z}	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China Image: State	ISTRUCTIONS USE.	N A A A A A A A	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only Not to be used by very young children (0-3years)	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China IMPORTANT - READ IN RETAIN FOR FUTURE Do Not Dry Clean Do Not Machine Wash Do Not Machine Dry Hand Wash Only Do not immerse the controller, supply cord or Clean only as per the instructions supplied wit	STRUCTIONS USE. plug in any liquid. h this blanket.	$\mathbb{E}\otimes \mathbb{O}\otimes \mathbb{D}\boxtimes \mathbb{O}\otimes \mathbb{N}$	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only Not to be used by very young children (0-3years) Do not use folded or rucked	
Electric Blanket Model SRO8219-Small Single Batch no:2017 40 watt 220-240VAC 50Hz Made in China Important - READ IN RETAIN FOR FUTURE Do Not Dry Clean Do Not Dry Clean Do Not Dry Clean Do Not Machine Dry Hand Wash Only Do not immerse the controller, supply cord or Clean only as per the instructions supplied wit Size: 60em ×140cm 100% Polyester - Made in China Use only as an under blanket. Secure blanket to bed with ties. Do not tuck in. Do not inser time to blanket. Use only with th	STRUCTIONS USE. Plug in any liquid. h this blanket. e controller S2 person insensitive to heat. ed with a residual current safety	$\mathbb{E}\otimes \mathbb{O}\otimes \mathbb{D} \boxtimes \mathbb{O} \otimes \mathbb{N}$	Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only Not to be used by very young children (0-3years) Do not use folded or rucked Do not insert pins into blanket	



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	Electric Blank Model SRO822 Batch no:2017 220-240VAC 5 70 Watts Max Made in China	et 22 0Hz
	Do not immers	
Electric Blanket Model SRO8222-Large Single Batch no:2017 70 watt 220-240VAC 50Hz Made in China Made in China MPORTANT- READ INS RETAIN FOR FUTURE U Lie only with the controller \$2 Care Guide Do Not Dry Clean Do Not Tury Clean Do Not Tury Clean Do Not Tury Clean Do Not Tury Clean Do Not Tyry Clean Do Not Thurble Dry Warm Hand Wash in Neutral Detergent Gentle Machine Wash - 40 Degree Max Do not immerse the controller, supply cord or ph Clean only as per the instructions supplied with the Secure blanket to bed with skirt. Do not use folded or rucked. Do not use folded or rucked. Do not use folded or rucked. Do not use if wet or moist.	USE. ug in any liquid.	Do Not IronDo Not BleachDo Not Dry CleanDo Not Tumble DryDo Not Tumble DryDo ry flat in shade onlyDo not to be used by very young children (0-3years)Do not use folded or ruckedDo not insert pins into blanketDo not insert pins into blanket



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	Electric Blanket Model SRO8223 Batch no:2017 220-240VAC 501 2x 60 Watts Ma Made in China	t Hz X	quid	
Electric Blanket Model SRO8223-Queen Batch no:2017 2×60 watt 220-240VAC 50Hz Made in China Made in China Made in China Made in China Made in China Made in China MUDERATATE READ INS RETAIN FOR FUTURED Use only with the controller S2 Care Guide Do Not Dry Clean Do Not Tumble Dry Warm Hand Wash in Neutral Detergent Gentie Machine Wash - 40 Degree Max Do not immerse the controller, supply cord or pl Clean only as per the instructions supplied with Size: 152cm × 203cm × 50cm 100%/Pdyester - Made in China Use only as an under blanket. Secure blanket to bed with skirt. Do not use folded or rucked. Do not inser fpins into blanket. So not use if wet or moist. Do not use with a helpless person, an infant or a per It is recommended that this electric blanket to used device (safety switch) with a rated residual operating Do not use if damaged. Do not attempt to service th	JSE. ug in any liquid. this blanket. rson insensitive to heat. with a residual current safety g current not exceeding 30 mA.		Do not use fold	ean e Dry de only by very young children (0-3years) led or rucked bins into blanket



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Electric Blan Model SRO8 Batch no:201 220-240VAC 2x 60 Watts M Made in Chir	nket 224 17 50Hz Max
Do not immer C C Evantaic Electric Blanket Model SR08224-King Batch no:2017 2×60 watt 220-240VAC 50Hz Made in China IMPORTANT- READ INSTRUCTIONS RETAIN FOR FUTURE USE. Use only with the controller S2	Do Not Iron Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only
Care Guide Do Not Dry Clean Do Not Tumble Dry Warm Hand Wash in Neutral Detergent Gentle Machine Wash - 40 Degree Max Do not immerse the controller, supply cord or plug in any liquid. Clean only as per the instructions supplied with this blanket. Size: 165cm × 203cm × 50cm 100%Polyester - Made in China Use only as an under blanket. Secure blanket to bed with skirt. Do not tuck in. Do not use folded or rucked. Do not use if wet or moist. Do not use with a helpless person, an infant or a person insensitive to heat. It is recommended that this electric blanket be used with a residual current safety device (safety switch) with a rated residual operating current not exceeding 30 mA. Do not use if damaged. Do not attempt to service this blanket yourself.	Not to be used by very young children (0-3years) Do not use folded or rucked Do not insert pins into blanket Image: Comparison of the second s



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Electric Blank Model SRO822 Batch no:2017 220-240VAC 5 70 Watts Max Made in China Do not immers	ket 25 60Hz
<text><text><text><text></text></text></text></text>	Not IronNot IronNot IronNot IronNot IronNot IronNot IronNot Iron IronNot Iron



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	26 0 Hz
Every and the provided of the p	Do Not IronDo Not BleachDo Not Dry CleanDoDo Not Tumble DryDry flat in shade onlyDry flat in shade onlyDo not to be used by very young children (0-3years)Do not use folded or ruckedDo not insert pins into blanketDir

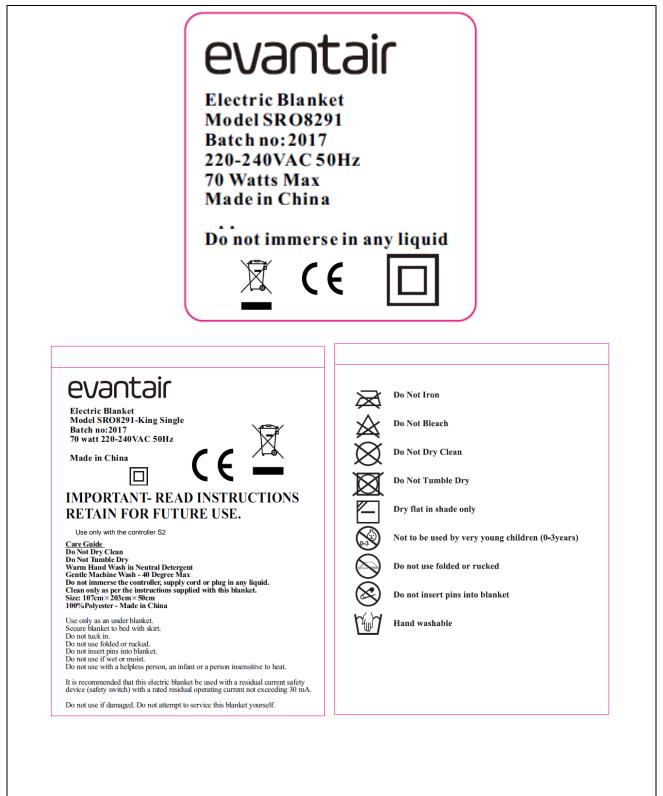


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Electric Blank Model SRO822 Batch no:2017 220-240VAC 50 2x60 Watts Ma Made in China Do not immers	tet 27 0 Hz 0 X
<section-header> Evential and the first end of the</section-header>	Note IronNote IronNote IronNote IronNote IronNote IronNote IronNote Iron Iron IronNote Iron Iron IronNote Iron Iron Iron IronNote Iron Iron Iron IronNote Iron Iron Iron IronNote Iron Iron IronNote Iron Iron IronNote Iron <th< th=""></th<>



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Electric Bla Model EEB Batch no:20 220-240VAO 2x 60 Watts Made in Ch	nket 187W 017 C 50Hz Max ina
Boon and the control of the con	erse in any liquid CE Do Not Iron Do Not Bleach Do Not Dry Clean Do Not Tumble Dry Dry flat in shade only Not to be used by very young children (0-3years) Do not use folded or rucked Do not use folded or rucked Do not insert pins into blanket Hand washable
It is recommended that this electric blanket be used with a residual current safety device (safety switch) with a rated residual operating current not exceeding 30 mA. Do not use if damaged. Do not attempt to service this blanket yourself.	



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Test item particulars:		
Classification of installation and use:	Portable appliance for household indoor use	
Supply Connection:	Non-detachable supply cord and plug	
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)	
Testing:		
Date of receipt of test item:	26 August, 2021	
Date (s) of performance of tests:	26 August, 2021 – 23 October, 2021	
General remarks:		
"(See Enclosure #)" refers to additional information ap "(See appended table)" refers to a table appended to the		
Throughout this report a $igtimes$ comma / $igcup$ point is used	as the decimal separator.	
Determination of the test conclusion is based on IEC uncertainty.	Guide 115 in consideration of measurement	
This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.		
The test report only allows to be revised only within the regulation was withdrawn or invalid.	report defined retention period unless standard or	
Manufacturer's Declaration per sub-clause 4.2.5 of	IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	 ☐ Yes ☑ Not applicable 	
When differences exist; they shall be identified in t	he General product information section.	
Name and address of factory (ies):	Shanghai Bailaifu Appliance Manufacture Co., Ltd. No 859 Shenglong Rd, Jiu Fu Development Area, JiuTing Town, Songjiang, Shanghai, China	



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General product information:

Portable Electric heating underblanket for household and indoor use only.

The other model difference was below table:

Model no.	Power	Dimension	Heating	Coupler	Heating element	Length of
		(cm)	area(cm)	or	resistance	heating
				Fixed box	(Ω/m)	element
				on the		(m)
				blanket		-
TT-AA	60W	150 x 70 or	145x 65	Coupler	A: 52Ω/m±5%;	A: 17,1 m
	(Single bed)	80 x 150			B: 104Ω/m±7%	B: 17,1 m
TT-BB	2 x60W	150 x 140 or	145x135	Coupler	A: 52Ω/m±5%;	A: 34,2 m
	(Double bed)	150 x 200 or			B: 104Ω/m±7%	B: 34,2 m
		140 x 160				
TTF-AA	60W	150 x 70	145x 65	Fixed box	A: 52Ω/m±5%;	A: 17,1 m
	(Single bed)				B: 104Ω/m±7%	B: 17,1 m
TTF-BB	2 x60W	150 x 140	145x135	Fixed box	A: 52Ω/m±5%;	A: 34,2 m
	(Double bed)				B: 104Ω/m±7%	B: 34,2 m
TT-CC	70W	190 x 90	145x 85	Coupler	A: 38Ω/m±5%;	A: 20,3 m
	(Single bed)				B: 76Ω/m±7%	B: 20,3 m
TTF-CC	70W	190 x 90	145x 85	Fixed box	A: 38Ω/m±5%;	A: 20,3 m
	(Single bed)				B: 76Ω/m±7%	B: 20,3 m
TT-DD	2 x70W	203X180	170X150	Coupler	A: 36Ω/m±5%;	A: 43,4 m
	(Double bed)				B: 72Ω/m±7%	B: 43,4m
TTF-DD	2 x70W	203X180	170X150	Fixed box	A: 36Ω/m±5%;	A: 43,4 m
	(Double bed)				B: 72Ω/m±7%	B: 43,4m
TT-EE	90W	150X140	145x 135	Coupler	A: 19Ω/m±5%;	A: 30,5 m
	(Single bed)			-	B: 38Ω/m±7%	B: 30,5 m
TTF-EE	90W	150X140	145x 135	Fixed box	A: 19Ω/m±5%;	A: 30,5 m
	(Single bed)				B: 38Ω/m±7%	B: 30,5 m
TT-FF	40W	140X60 or	135X55	Coupler	A: 118Ω/m±5%;	A: 10,9 m
	(Single bed)	135x72 or			B: 236Ω/m±7%	B: 10,9 m
		152x72				-
TTF-FF	40W	140X60	135X55	Fixed box	A: 118Ω/m±5%;	A: 10,9 m
	(Single bed)				B: 236Ω/m±7%	B: 10,9 m

PLA0543, SRO8222, SRO8225, SRO8291 were identical to model TT-CC except the model name. PLA0545, SRO8221 were identical to model TT-EE except the model name.

PLA0544, PLA0546, PLA1044, PLA1045, SRO8223, SRO8224, SRO8226, SRO8227, EEB187W were

identical to model TT-BB except the model name.

PLA0547 were identical to model TT-DD except the model name.

SRO8219 were identical to model TT-FF except the model name.

The models with the Coral velvet:

The TT-AAS is same as the TT-AA, the difference lie in the TT-AAS with the coral velvet.

The TT-BBS is same as the TT-BB, the difference lie in the TT-BBS with the coral velvet.

The TTF-AAS is same as the TTF-AA, the difference lie in the TTF-AAS with the coral velvet.

The TTF-BBS is same as the TTF-BB, the difference lie in the TTF-BBS with the coral velvet.

The TT-CCS is same as the TT-CC, the difference lie in the TT-CCS with the coral velvet.

The TTF-CCS is same as the TTF-CC, the difference lie in the TTF-CCS with the coral velvet.

The TT-DDS is same as the TT-DD, the difference lie in the TT-DDS with the coral velvet.

The TTF-DDS is same as the TTF-DD, the difference lie in the TTF-DDS with the coral velvet.

The TT-EES is same as the TT-EE, the difference lie in the TT-EES with the coral velvet.

The TTF-EES is same as the TTF-EE, the difference lie in the TTF-EES with the coral velvet.

The TT-FFS is same as the TT-FF, the difference lie in the TT-FFS with the coral velvet.

The TTF-FFS is same as the TTF-FF, the difference lie in the TTF-FFS with the coral velvet.

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PCB 1, PCB 2, PCB 3 were identical except PCB layout was different.

Amendment 1:

This report was appended to the test report 190328059GZU-001 because of the following changes:

1.Add alternative blanket Dimension for model TT-FF. See General product information for detail.

2. Standard was update to EN 60335-2-17:2013 +A11:2019 used in conjunction with EN 60335-1: 2012 + A11:2014+ A13: 2017+ A1:2019 +A2:2019+A14:2019.

For necessary test, refer to "Tests performed".

This report will only be valid used in conjunction with the test report 190328059GZU-001.

Amendment 2:

This report was appended to the test report 190328059GZU-001, 190328059GZU-001 Amendment 1, because of the following changes:

1. Updated the standard to EN 60335-2-17:2013+A11:2019+A1:2020.

This report is valid in conjunction with 190328059GZU-001, 190328059GZU-001 Amendment 1.

Amendment 3:

This report was appended to the test report 190328059GZU-001, 190328059GZU-001 Amendment 1, Amendment 2, because of the following changes:

1. Added alternative blanket Dimension for model TT-AA and TT-BB, Heating area is not changed. See General product information for detail.

2. Added alternative plug and supply cord, refer to table 24.1 for details.

For necessary test, refer to "Tests performed."

This report will only be valid in conjunction with the test report 190328059GZU-001, 190328059GZU-001 Amendment 1, Amendment 2



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IEC 60335-2-17			
Clause	Requirement + Test	Result - Remark	Verdict
22	CONSTRUCTION		
22.1	Appliance marked with the first numeral of the IP system, relevant requirements of IEC 60529 are fulfilled		N/A
22.2	Stationary appliance: means to ensure all-pole disco provided:	onnection from the supply being	
	- a supply cord fitted with a plug, or		N/A
	- a switch complying with 24.3, or		N/A
	- a statement in the instruction sheet that a disconnection incorporated in the fixed wiring is to be provided, or		N/A
	- an appliance inlet		N/A
	Singe-pole switches and single-pole protective devices for the disconnection of heating elements in single-phase, permanently connected class 01 and class I appliances, connected to the phase conductor		N/A
22.3	Appliance provided with pins: no undue strain on socket-outlets		N/A
	Applied torque not exceeding 0.25 Nm		N/A
	Pull force of 50N to each pin after the appliance has being placed in the heating cabinet; when cooled to room temperature the pins are not displaced by more than 1mm		N/A
	Each pin subjected to a torque of 0.4Nm; the pins are not rotating, unless		N/A
	rotating does not impair compliance with this standard		N/A
22.4	Appliance for heating liquids and appliance causing undue vibration not provided with pins for insertion into socket-outlets		N/A
22.5	No risk of electric shock when touching the pins of the plug, for appliances having a capacitor with rated capacitance equal to or greater than $0,1\mu$ F, the appliance being disconnected from the supply at the instant of voltage peak	No capacitor	Р
	Voltage not exceeding 34 V (V)		N/A
	If compliance relies on the operation of an electronic circuit, the electromagnetic phenomena tests of 19.11.4.3 and 19.11.4.4 are applied		N/A
	The discharge test is then repeated three times, voltage not exceeding 34 V (V)		N/A



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
22.6	Electrical insulation not affected by condensing water or leaking liquid		N/A		
	Electrical insulation of Class II appliances not affected if a hose ruptures or seal leaks		N/A		
	In case of doubt, test as described		N/A		
22.7	Adequate safeguards against the risk of excessive pressure in appliances containing liquid or gases or having steam-producing devices		N/A		
22.8	Electrical connections not subject to pulling during cleaning of compartments to which access can be gained without the aid of a tool, and that are likely to be cleaned in normal use		Р		
22.9	Insulation, internal wiring, windings, commutators and slip rings not exposed to oil, grease or similar substances, unless		P		
	the substance has adequate insulating properties		N/A		
22.10	Not possible to reset voltage-maintained non-self- resetting thermal cut-outs by the operation of an automatic switching device incorporated within the appliance, if:		N/A		
	- a non-self-resetting thermal cut-out is required by the standard, and		N/A		
	- a voltage maintained non-self-resetting thermal cut-out is used to meet it		N/A		
	Non-self-resetting thermal motor protectors have a trip-free action, unless		N/A		
	they are voltage maintained		N/A		
	Reset buttons of non-self-resetting controls so located or protected that accidental resetting is unlikely		N/A		
22.11	Reliable fixing of non-detachable parts that provide the necessary degree of protection against electric shock, moisture or contact with moving parts		Р		
	Obvious locked position of snap-in devices used for fixing such parts		N/A		
	No deterioration of the fixing properties of snap-in devices used in parts that are likely to be removed during installation or servicing		N/A		
	Tests as described		Р		
22.12	Handles, knobs etc. fixed in a reliable manner		Р		



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
	Fixing in wrong position of handles, knobs etc. indicating position of switches or similar components not possible		Р		
	Axial force 15 N applied to parts, the shape being so that an axial pull is unlikely to be applied		Р		
	Axial force 30 N applied to parts, the shape being so that an axial pull is likely to be applied		N/A		
22.13	Unlikely that handles, when gripped as in normal use, make the operator's hand touch parts having a temperature rise exceeding the value specified for handles which are held for short periods only		Р		
22.14	No ragged or sharp edges creating a hazard for the user in normal use, or during user maintenance		Р		
	No exposed pointed ends of self-tapping screws or other fasteners, likely to be touched by the user in normal use or during user maintenance		Р		
22.15	Storage hooks and the like for flexible cords smooth and well rounded		N/A		
22.16	Automatic cord reels cause no undue abrasion or damage to the sheath of the flexible cord, no breakage of conductors strands and no undue wear of contacts		N/A		
	Cord reel tested with 6000 operations, as specified		N/A		
	Electric strength test of 16.3, voltage of 1000 V applied		N/A		
22.17	Spacers not removable from the outside by hand or by means of a screwdriver or a spanner		N/A		
22.18	Current-carrying parts and other metal parts resistant to corrosion		Р		
22.19	Driving belts not relied upon to provide the required level of insulation, unless		N/A		
	constructed to prevent inappropriate replacement		N/A		
22.20	Direct contact between live parts and thermal insulation effectively prevented, unless		N/A		
	material used is non-corrosive, non-hygroscopic and non-combustible		N/A		
22.21	Wood, cotton, silk, ordinary paper and fibrous or hygroscopic material not used as insulation, unless		N/A		
	impregnated		N/A		



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
	This requirement does not apply to magnesium oxide and mineral ceramic fibres used for the electrical insulation of heating elements		N/A		
22.22	Appliances not containing asbestos		Р		
22.23	Oils containing polychlorinated biphenyl (PCB) not used		N/A		
22.24	Bare heating elements, except in class III appliances or class III constructions that do not contain live parts, adequately supported		N/A		
	In case of rupture, the heating conductor is unlikely to come in contact with accessible metal parts		N/A		
22.25	Sagging heating conductors, except in class III appliances or class III constructions that do not contain live parts, cannot come into contact with accessible metal parts		N/A		
22.26	For class III constructions the insulation between parts operating at safety extra-low voltage and other live parts complies with the requirements for double or reinforced insulation		N/A		
22.27	Parts connected by protective impedance separated by double or reinforced insulation		N/A		
22.28	Metal parts of Class II appliances conductively connected to gas pipes or in contact with water, separated from live parts by double or reinforced insulation		N/A		
22.29	Class II appliances permanently connected to fixed wiring so constructed that the required degree of access to live parts is maintained after installation		N/A		
22.30	Parts serving as supplementary or reinforced insulation fixed so that they cannot be removed without being seriously damaged, or		Р		
	so constructed that they cannot be replaced in an incorrect position, and so that if they are omitted, the appliance is rendered inoperable or manifestly incomplete		N/A		
22.31	Neither clearances nor creepage distances over supplementary and reinforced insulation reduced below values specified in clause 29 as a result of wear		Р		
	Neither clearances nor creepage distances between live parts and accessible parts reduced below values for supplementary insulation if wires, screws etc. become loose		P		



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IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict	
22.32	Supplementary and reinforced insulation constructed or protected against pollution so that clearances or creepage distances are not reduced below the values in clause 29		Р	
	Supplementary insulation of natural or synthetic rubber resistant to ageing, or arranged and dimensioned so that creepage distances are not reduced below values specified in 29.2		N/A	
	Ceramic material not tightly sintered, similar materials or beads alone not used as supplementary or reinforced insulation		N/A	
	Ceramic and similar porous material in which heating conductors are embedded is considered to be basic insulation, not reinforced insulation		N/A	
	Oxygen bomb test at 70 °C for 96 h and 16 h at room temperature		N/A	
22.33	Conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts are not in direct contact with live parts, or		N/A	
	unearthed metal parts separated from live parts by basic insulation only		N/A	
	Electrodes not used for heating liquids		N/A	
	For class II constructions, conductive liquids that are or may become accessible in normal use and conductive liquids that are in contact with unearthed accessible metal parts, not in direct contact with basic or reinforced insulation, unless		N/A	
	the reinforced insulation consists of at least 3 layers		N/A	
	For class II constructions, conductive liquids which are in contact with live parts, not in direct contact with reinforced insulation, unless		N/A	
	the reinforced insulation consists of at least 3 layers		N/A	
	An air layer not used as basic or supplementary insulation in a double insulation system if likely to be bridged by leaking liquid		N/A	
22.34	Shafts of operating knobs, handles, levers etc. not live, unless		Р	
	the shaft is not accessible when the part is removed		N/A	



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
22.35	For other than class III constructions, handles, levers and knobs, held or actuated in normal use, not becoming live in the event of a failure of basic insulation		P		
	Such parts being of metal, and their shafts or fixings are likely to become live in the event of a failure of basic insulation, are either adequately covered by insulation material or their accessible parts are separated from their shafts or fixings by supplementary insulation		N/A		
	This requirement does not apply to handles, levers and knobs on stationary appliances and cordless appliances, other than those of electrical components, provided they are reliably connected to an earthing terminal or earthing contact, or separated from live parts by earthed metal		N/A		
	Insulating material covering metal handles, levers and knobs withstand the electric strength test of 16.3 for supplementary insulation		N/A		
22.36	For appliances other than class III, handles continuously held in the hand in normal use so constructed that when gripped as in normal use, the operators hand is not likely to touch metal parts, unless		N/A		
	they are separated from live parts by double or reinforced insulation		N/A		
22.37	Capacitors in Class II appliances not connected to accessible metal parts and their casings, if of metal, separated from accessible metal parts by supplementary insulation, unless		N/A		
	the capacitors comply with 22.42		N/A		
22.38	Capacitors not connected between the contacts of a thermal cut-out		N/A		
22.39	Lamp holders used only for the connection of lamps		N/A		
22.40	Motor-operated appliances and combined appliances intended to be moved while in operation, or having accessible moving parts, fitted with a switch to control the motor. The actuating member of the switch being easily visible and accessible		N/A		



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	IEC 60335-2-17	1	
Clause	Requirement + Test	Result - Remark	Verdict
	If the appliance cannot operate continuously, automatically or remotely without giving rise to a hazard, appliances for remote operation being fitted with a switch for stopping the operation. The actuating member of the switch being easily visible and accessible		N/A
22.41	No components, other than lamps, containing mercury		Р
22.42	Protective impedance consisting of at least two separate components		N/A
	Values specified in 8.1.4 not exceeded if any one of the components are short-circuited or open-circuited		N/A
	Resistors checked by the test of 14.1 a) in IEC 60065		N/A
	Capacitors checked by the tests for class Y capacitors in IEC 60384-14		N/A
22.43	Appliances adjustable for different voltages, accidental changing of the setting of the voltage unlikely to occur		N/A
22.44	Appliances not having an enclosure that is shaped or decorated like a toy		Р
22.45	When air is used as reinforced insulation, clearances not reduced below the values specified in 29.1.3 due to deformation as a result of an external force applied to the enclosure		P
22.46	For programmable protective electronic circuits used to ensure compliance with the standard, the software contains measures to control the fault/error conditions in table R.1		N/A
	Software that contains measures to control the fault/error conditions specified in table R.2 is to be specified in parts 2 for particular constructions or to address specific hazards		N/A
	These requirements are not applicable to software used for functional purpose or compliance with clause 11		N/A
22.47	Appliances connected to the water mains withstand the water pressure expected in normal use		N/A
	No leakage from any part, including any inlet water hose		N/A
22.48	Appliances connected to the water mains constructed to prevent backsiphonage of non- potable water		N/A



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
22.49	For remote operation, the duration of operation is to be set before the appliance can be started, unless		N/A		
	the appliance switches off automatically or can operate continuously without hazard		N/A		
22.50	Controls incorporated in the appliance take priority over controls actuated by remote operation		N/A		
22.51	There is a control on the appliance manually adjusted to the setting for remote operation before the appliance can be operated in this mode		N/A		
	There is a visual indication showing that the appliance is adjusted for remote operation		N/A		
	These requirements not necessary on appliances th without giving rise to a hazard:	at can operate as follows,	N/A		
	- continuously, or		N/A		
	- automatically, or		N/A		
	- remotely		N/A		
22.52	Socket-outlets on appliances accessible to the user in accordance with the socket-outlet system used in the country in which the appliance is sold		N/A		
22.53	Class II appliances and class III appliances that incorporate functionally earthed parts have at least double insulation or reinforced insulation between live parts and the functionally earthed parts		N/A		
22.54	Button cells and batteries designated R1 not accessible without the aid of a tool, unless		N/A		
	the cover of their compartment can only be opened after at least two independent movements have been applied simultaneously		N/A		
22.101	Void (IEC 60335-2-17)		N/A		
22.102	Void (IEC 60335-2-17)		N/A		
22.103	Heating elements, electro-conductive textiles and internal wiring retained in their intended position (IEC 60335-2-17)		Р		
	Heating element located so that there are no crossover points (IEC 60335-2-17)		Р		
	Separate layer of enclosure supporting heating element or electro-conductive textile firmly secured to prevent rucking (IEC 60335-2-17)		Р		



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IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict	
	No crossing of internal wires or where such unavoidable, additional anchorage to prevent relative movement (IEC 60335-2-17)		Р	
22.104	Breaking of stitching does not result in significant change in position of heating element or electrodes (IEC 60335-2-17)		Р	
22.105	Thermostats and thermal cut-outs are enclosed in insulating material (IEC 60335-2-17)		N/A	
22.106	Void (IEC 60335-2-17)		N/A	
22.107	Void (IEC 60335-2-17)		N/A	
22.108	Detachable cover of adequate size (IEC 60335-2-17)		N/A	
22.109	Control units prevented from dangerous penetration of objects on floor or table (IEC 60335-2-17)		Р	
	Distance at least 6mm: (IEC 60335-2-17)		Р	
22.110	Do not possible the replacement of thermal and fuse link (IEC 60335-2-17)		Р	
22.111	Duvet have to adequate thermal proprieties: temperature rise exceed 40K (IEC 60335-2-17)		N/A	
22.112	Manual switch: (IEC 60335-2-17)		Р	
	No continuously rotation in the same direction (IEC 60335-2-17)		Р	
	Off position marked at both end (IEC 60335-2-17)		N/A	
	On position indicated with lamp (IEC 60335-2-17)		Р	
22.113	Void (IEC 60335-2-17)		N/A	
22.114	Wraps and pads intended to be used in close contact with the human body in order to provide heat to create moisture for cosmetic purposes, moisture-proof appliances or flexible part in Class III construction (IEC 60335-2-17)		N/A	
22.115	Appliances incorporating a functional earth with at least double insulation or reinforced insulation between live parts and earthed parts (IEC 60335-2-17)		N/A	
	At least basic insulation between earthed parts and accessible parts (IEC 60335-2-17)		N/A	
22.116	Blankets having a detachable cord for the connection of the flexible part washable (IEC 60335-2-17)		N/A	

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IEC 60335-2-17			
Clause	Requirement + Test	Result - Remark	Verdict
24	COMPONENTS		
24.1	Components comply with safety requirements in relevant IEC standards		Р
	List of components	(see appended table)	Р
	Motors not required to comply with IEC 60034-1, they are tested as part of the appliance		N/A
	Relays tested as part of the appliance, or		N/A
	alternatively acc. to IEC 60730-1, and meeting the additional requirements in IEC 60335-1		Р
	The requirements of Clause 29 apply between live parts of components and accessible parts of the appliance		Р
	Components can comply with the requirements for clearances and creepage distances for functional insulation in the relevant component standard		Р
	30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections		Р
	Components that have not been previously tested to comply with the IEC standard for the relevant component are tested according to the requirements of 30.2		Р
	Components that have been previously tested to comply with the resistance to fire requirements in the IEC standard for the relevant component need not be retested provided the specified conditions are met		P
	If these conditions are not satisfied, the component is tested as part of the appliance.		Р
	Power electronic converter circuits not required to comply with IEC 62477-1, they are tested as part of the appliance		N/A
	If components have not been tested and found to comply with relevant IEC standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9		Р
	For components mentioned in 24.1.1 to 24.1.9 no additional tests specified in the relevant component standard are necessary other than those specified in 24.1.1 to 24.1.9		Р



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
	Components not tested and found to comply with relevant IEC standard and components not marked or not used in accordance with its marking, tested under the conditions occurring in the appliance		Р		
	Lampholders and starterholders that have not being tested and found to comply with the relevant IEC standard, tested as a part of the appliance and additionally according to the gauging and interchangeability requirements of the relevant IEC standard		N/A		
	No additional tests specified for nationally standardized plugs such as those detailed in IEC/TR 60083 or connectors complying with the standard sheets of IEC 60320-1 and IEC 60309		N/A		
24.1.1	Capacitors likely to be permanently subjected to the supply voltage and used for radio interference suppression or for voltage dividing, complying with IEC 60384-14		N/A		
	If the capacitors have to be tested, they are tested according to Annex F		N/A		
24.1.2	Transformers in associated switch mode power supplies comply with Annex BB of IEC 61558-2-16		N/A		
	Safety isolating transformers comply with IEC 61558-2-6		N/A		
	If they have to be tested, they are tested according to Annex G		N/A		
24.1.3	Switches complying with IEC 61058-1, the number of cycles of operation being at least 10 000		N/A		
	If they have to be tested, they are tested according to Annex H		Р		
	Switches are tested for 6 000 cycles of operation (IEC 60335-2-17)		Р		
	If the switch operates a relay or contactor, the complete switching system is subjected to the test		N/A		
	If the switch only operates a motor staring relay complying with IEC 60730-2-10 with the number of cycles of a least 10 000 as specified, the complete switching system need not be tested		N/A		
24.1.4	Automatic controls complying with IEC 60730-1 with number of cycles of operation being at least:	the relevant part 2. The			
	- thermostats: (IEC 60335-2-17) 100 000		N/A		
	- temperature limiters: 1 000		N/A		



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IEC 60335-2-17					
Clause	Requirement + Test	Result - Remark	Verdict		
	- self-resetting thermal cut-outs: 10 00 (IEC 60335-2-17)	0	N/A		
	- voltage maintained non-self-resetting 1 00 thermal cut-outs:	0	N/A		
	- other non-self-resetting thermal cut-outs: 3	0	N/A		
	- timers: 3 00	0	N/A		
	- energy regulators: 10 00	0	N/A		
	The number of cycles for controls operating during clause 11 need not be declared, if the appliance meets the requirements of this standard when the are short-circuited		N/A		
	Thermal motor protectors are tested in combinatio with their motor under the conditions specified in Annex D	n	N/A		
	For water valves containing live parts and that are incorporated in external hoses for connection of ar appliance to the water mains, the degree of protection declared for subclause 6.5.2 of IEC 60730-2-8 is IPX7		N/A		
	Thermal cut-outs of the capillary type comply with the requirements for type 2.K controls in IEC 60730-2-9		N/A		
24.1.5	Appliance couplers complying with IEC 60320-1		Р		
	However, for class II appliances classified higher than IPX0, the appliance couplers complying with IEC 60320-2-3		N/A		
	Interconnection couplers complying with IEC 60320-2-2		N/A		
	Appliance couplers used for supplying the flexible part complying with the requirements of IEC 60320-1 as far as they reasonably apply (IEC 60335-2-17)		P		
24.1.6	Small lamp holders similar to E10 lampholders complying with IEC 60238, the requirements for E10 lampholders being applicable		N/A		
24.1.7	For remote operation of the appliance via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is IEC 62151		N/A		
24.1.8	The relevant standard for thermal links is IEC 60691	Certified component	Р		



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
	Thermal links not complying with IEC 60691 are considered to be an intentionally weak part for the purposes of Clause 19		N/A		
24.1.9	Contactors and relays, other than motor starting relays, tested as part of the appliance		N/A		
	They are also tested in accordance with Clause 17 of IEC 60730-1, the number of cycles of operations in 24.1.4 selected according to the contactor or relay function in the appliance		N/A		
24.2	Appliances not fitted with:				
	- switches or automatic controls in flexible cords		N/A		
	- devices causing the protective device in the fixed wiring to operate in the event of a fault in the appliance		Р		
	- thermal cut-outs that can be reset by soldering, unless		Р		
	the solder has a melding point of at least 230 °C		N/A		
	Appliances provided with switch and control unit in flexible cord (IEC 60335-2-17)		Р		
24.3	Switches intended for all-pole disconnection of stationary appliances are directly connected to the supply terminals and have a contact separation in all poles, providing full disconnection under overvoltage category III conditions		N/A		
24.4	Plugs and socket-outlets for extra-low voltage circuits and heating elements, not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1 or with connectors and appliance inlets complying with the standard sheets of IEC 60320-1		N/A		
24.5	Capacitors in auxiliary windings of motors marked with their rated voltage and capacitance, and used accordingly		N/A		
	Voltage across capacitors in series with a motor winding does not exceed 1,1 times rated voltage, when the appliance is supplied at 1,1 times rated voltage under minimum load		N/A		
24.6	Working voltage of motors connected to the supply mains and having basic insulation that is inadequate for the rated voltage of the appliance, not exceeding 42 V		N/A		
	In addition, the motors comply with the requirements of Annex I		N/A		



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	IEC 60335-2-17		
Clause	Requirement + Test	Result - Remark	Verdict
24.7	Detachable hose-sets for connection of appliances to the water mains comply with IEC 61770		N/A
	They are supplied with the appliance		N/A
	Appliances intended to be permanently connected to the water mains not connected by a detachable hose-set		N/A
24.8	Motor running capacitors in appliances for which 30.2.3 is applicable and that are permanently connected in series with a motor winding, not causing a hazard in event of a failure		N/A
	One or more of the following conditions are to be me	et:	N/A
	- the capacitors are of class P2 according to IEC 60252-1		N/A
	- the capacitors are housed within a metallic or ceramic enclosure		N/A
	- the distance of separation of the outer surface to adjacent non-metallic parts exceeds 50 mm		N/A
	- adjacent non-metallic parts within 50 mm withstand the needle-flame test of Annex E		N/A
	- adjacent non-metallic parts within 50 mm classified as at least V-1 according to IEC 60695- 11-10		N/A



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		IEC 60335-2-17		
Clause	Requirement + Test		Result - Remark	Verdict



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Clause Requirement + Test

Result - Remark

Verdict

	IEC 60335-2-17:2012/AMD1:2015				
22	CONSTRUCTION				
22.103	Heating element located so that there are no crossover points (IEC 60335-2-17)		Р		
22.104	Breaking of stitching does not result in significant change in position of heating element or electrodes (IEC 60335-2-17)		Ρ		
22.116	Blankets having a detachable cord for the connection of the flexible part washable (IEC 60335-2-17)		Р		



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Clause Requirement + Test

Result - Remark

Verdict

ATTACHMENT TO TEST REPORT IEC 60335-2-17 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Part 2-17: Particular requirements for blankets, pads and

similar flexible heating appliances

Differences according to	:	EN 60335-2-17:2013 +A11:2019+ A1:2020 used in conjunction with EN 60335-1: 2012 +A11:2014+ A13: 2017+ A1:2019+A14:2019 +A2:2019 EN 62233:2008
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	CENELEC COMMON MODIFICATIONS	
24.1	Components comply with the safety requirements specified in the relevant standards as far as they reasonably apply	Р
	The requirements of Clause 29 of this standard apply between live parts of components and accessible parts of the appliance.	Р
	The requirements of 30.2 of this standard apply to parts of non-metallic material in components including parts of non-metallic material supporting current-carrying connections inside components	Ρ
	Components that have not been previously tested or do not comply with the standard for the relevant component are tested according to the requirements of 30.2	Р
	Components that have been previously tested and shown to comply with the resistance to fire requirements in the standard for the relevant component need not be retested provided that:	Р
	- the severity specified in the component standard is not less than the severity specified in 30.2, and	Р
	- the test report for the component states whether it complied with the standard for the relevant component with or without flame, flames not exceeding 2 s during the test are ignored	Р
	Unless components have been previously tested and found to comply with the relevant standard for the number of cycles specified, they are tested in accordance with 24.1.1 to 24.1.9	Р
	For components mentioned in 24.1.1 to 24.1.9, no additional tests specified in the relevant standard for the component are necessary other than those specified in 24.1.1 to 24.1.9	Р
	Components that have not been separately tested and found to comply with the relevant standard, and	Р



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	IEC 60335-2-17	Amendment 3: 25	
Clause	Requirement + Test	Result - Remark	Verdict
	components that are not marked or not used in accordance with their marking,		Р
	are tested in accordance with the conditions occurring in the appliance, the number of samples being that required by the relevant standard		Р
	Lamp holders and starter holders that have not been previously tested and found to comply with the relevant standard are tested as a part of the appliance and additionally comply with the gauging and interchangeability requirements of the relevant standard under the conditions occurring in the appliance		N/A
	Where the relevant standard specifies these gauging and interchangeability requirements at elevated temperatures, the temperatures measured during the tests of Clause 11 are used		N/A
	Plugs and socket-outlets and other connecting devices of interconnection cords are not interchangeable with plugs and socket-outlets listed in IEC/TR 60083 or IEC 60906-1, or		N/A
	with connectors and appliance inlets complying with the standard sheets of IEC 60320-1,		N/A
	if direct supply to these parts from the supply mains gives rise to a hazard		N/A
24.1.7	If the remote operation of the appliance is via a telecommunication network, the relevant standard for the telecommunication interface circuitry in the appliance is EN 41003		N/A
	Compliance with Clause 8 of this standard is not impaired by connecting the appliance to a device covered by EN 41003		N/A
24.Z1	For motor running capacitors (IEC 60252-1 type P2) with a metallic enclosure having an overpressure fuse the flame testing of internal plastic parts supporting current carrying connections as required in 30.2.2 and 30.2.3.1 is not necessary		N/A

	Variations to EN 60335-1:2012/ A1:2019					
	Components shall comply with the safety requirements specified in the relevant EN standards as far as they reasonably apply.	Р				

Variations to EN 60335-1:2012/ A2:2019



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	IEC 60335-2-17				
Clause	Requirement + Test	Result - Remark	Verdict		
22.12	Delete Note Z1 Hazard includes ingestion or a choking hazard for vulnerable people .		Р		
24.Z1	Replacement Type S2 and S3 capacitors according to EN 60252- 1 are not required to undergo the testing as required by 30.2.2 and 30.2.3.1.		N/A		

	Variations to EN 60335-1:2012/ A14:2019				
22.12	Add: Other parts that are intended to be detached during use, maintenance or cleaning (examples are batteries, battery covers, lids, attachments, steam nozzles) are not considered as parts providing a similar function as handles, knobs, grips, levers.		Ρ		
22.17	Add: This is not applicable to built-in appliances .		N/A		
24.1	Add: NOTE Z3 For details of plugs used in CENELEC countries listed in IEC TR 60083 see Annex ZH.		Р		



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IEC 60335-2-17

Clause Requirement + Test

Result - Remark

Verdict

24.1	TABLE: Compon	ents			P
Object / part No.	Manufacturer/ trademark ²⁾	Type / model ²⁾	Technical data	Standard	Mark(s) of conformity ¹⁾
Plug	Anhui dinatong wire Co.,Ltd.	DNT-11	AC 250V, 2,5A	DIN VDE 0620-1	VDE*
Alternative	Ningbo Qiaopu Electric Co.,Ltd	D-01	AC 250V, 2,5A	DIN VDE 0620-1	VDE*
Alternative	Shanghai Shujie Cable& Wire Co., Ltd	SJ-3	AC 250V, 16A	DIN VDE 0620-1	VDE*
Supply cord	Anhui Dinatong wire Co.,Ltd	H03VVH2-F or H05VV-F	2X0,75 mm ²	EN 50525-2-11	VDE*
Alternative	Ningbo Qiaopu Electric Co.,Ltd	H03VVH2-F	2X0,75mm ² or 2X0,5mm ² (L<2m)	EN 50525-2-11	VDE*
Alternative	Shanghai Shujie Cable& Wire Co., Ltd	H03VVH2-F Or H05VV-F	2X0,75 mm²	EN 50525-2-11	VDE*
Alternative	Shanghai Shujie Cable& Wire Co., Ltd	H05RN-F	2X0,75 mm²	EN 50525-2-11	VDE*
Interconnection cord between blanket and controller	Ningbo Xuanhua Electric Co., Ltd	H03VV-F	4X0,5mm ²	EN 50525-2-11	VDE*
Alternative	Ningbo Yaoda electric appliance Co.,Ltd	H03VV-F	4X0,5mm ²	EN 50525-2-11	VDE*
Alternative	Unielec Electric Wire and cable corp	H03VV-F	4X0,5mm ²	EN 50525-2-11	KEMA*
Alternative	Shanghai Yusheng Enterprise Development Co.,Ltd.	H03VV-F	4X0,5mm ²	EN 50525-2-11	VDE*
Alternative	Anhui Dinatong wire Co.,Ltd	H03VV-F	4X0,5mm ²	EN 50525-2-11	VDE*
Alternative	Kenic Electric Mfg.Co.,Ltd.	H03VV-F	4X0,5mm ²	EN 50525-2-11	VDE*
Coupler (connector) (only for TT- series)	Shanghai Bailaifu Appliance Manufacture Co.	BSJ-4E-A	AC 250V; 1,5A	EN 60320-1	TUV RH*



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IEC 60335-2-17										
Clause Requirement + Test				sult - Remark	Verdict					
Coupler(inlet) (only for TT- series)	Shanghai Bailaifu Appliance Manufacture Co.	BSJ-4E-B	AC 250V; 1,5A	EN 60320-1	TUV RH*					
Fixed box on the blanket (only for TTF series)	Shanghai Bailaifu Appliance Manufacture Co.,Ltd	BLF-AH4232 BLF-AH4233	AC 250V; 1,5A	EN 60335-1 EN 60335-2-17	Tested with appliance					
- Enclosure material	Shanghai Bailaifu Appliance Manufacture Co.	ABS	Thickness: 2,0mm	EN 60335-1 EN 60335-2-17	Tested with appliance					
Alternative	Chi Mei Corporation	ABS+PC mixed 757K	Thickness: 2,0mm	EN 60335-1 EN 60335-2-17	Tested with appliance					
-Terminal cover material	Shanghai Bailaifu Appliance Manufacture Co.	PVC	Thickness: 2,0mm	EN 60335-1 EN 60335-2-17	Tested with appliance					
Blanket materia contacted with heating elemer (only for TT-XXS series and TTF XXS series)	ZUOWANG t textiles Co.,Ltd	Coral velvet	Polyester	EN 60335-1 EN 60335-2-17	Tested with appliance					
Blanket materia contacted with heating elemen	Lai Fu	Non-Woven	polyester 450g/m ²	EN 60335-1 EN 60335-2-17	Tested with appliance					
Heating element (for TT-AA)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 60W; A heating wire: 52Ω/m±5%; 17,1m; B heating wire: 104Ω/m±7%; 17,1n	EN 00333-2-17	Tested with appliance					
Heating element (for TT-BB)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 2X60W; A heating wire: 52Ω/m±5%; 34,2m; B heating wire: 104Ω/m±7%; 34,2n	EN 00335-2-17	Tested with appliance					
Heating element (for TT-CC)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 70W; A heating wire: 38Ω/m±5%; 20,3m; B heating wire: 76Ω/m±7%; 20,3m	EN 60335-1 EN 60335-2-17	Tested with appliance					



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		IEC	C 60335-2-17				
Clause	Requirement + Test	equirement + Test			ılt - Remark		Verdict
Heating element (for TT-DD)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 2X70W; A heating wire: $36\Omega/m\pm5\%$; 43, B heating wire: $72\Omega/m\pm7\%$; 43,		^{n;} EN 60335-2-17 apr		ed with ance
Heating element (for TT-EE)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 90W; A heating wire: 19Ω/m±5%; 30, B heating wire: 38Ω/m±7%; 30,		EN 60335-1 Tested wir EN 60335-2-17 appliance		
Heating element (for TT-FF)	Changshu Dong Gang Electrical Cable Factory	Nickel and Copper Alloy	230V; 40W; A heating wire: 118Ω/m±5%; 10 B heating wire: 236Ω/m±7%; 10	0,9m; EN 60335-1 EN 60335-2-17		Tested with appliance	
Control unit	Shanghai Bai Lai Fu Appliance Manufacture Co., LTD	S2	AC 250V, 2A		EN 60335-1 EN 60335-2-17		ed with ance
PCB Materia	Zhejiang Zapon Electric Technology Co., Ltd.	Z-M, J-D	V-0, 130 ^o C, Thickness: 1,5mm		UL94	UL E253641	
Alternative	Kunshan City Suyuan Electron Co Ltd	SY	V-0, 130 ^o C, Thickness: 1,5n	nm	UL94	UL E	233870
Thermal Link	Uchihashi Estec Co., Ltd.	12Y	AC 250V, 2A/, Tf76°C		EN 60691	VDE	*
Alternative	Xiamen Set Electronics Co., Ltd.	HO	76ºC, 250Vac, 2	2A	EN 60691	VDE	*
Enclosure of control unit, switch knob	Shanghai Bailaifu Appliance Manufacture Co.,Ltd	ABS	Thickness: 2,0n	nm	EN 60335-1 EN 60335-2-17		ed with ance
	indicates a mark whic ailable upon request f		•	urveilla	ance		



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Photo documentation

Overall view for model TT-AA:



Remark: Alternative blanket Dimension for model TT-AA have the same Heating area except for different Dimension.



Overall view for model TT-BB;

Remark: Alternative blanket Dimension for model TT-BB have the same Heating area except for different Dimension. (End of report)