



Test Report issued under the responsibility of:



**TEST REPORT
IEC 60601-1-11
MEDICAL ELECTRICAL EQUIPMENT –**

Part 1-11: General requirements for basic safety and essential performance – Collateral Standard: Requirements for medical electrical equipment and medical electrical systems used in the home healthcare environment

Report Number.....: 161200816SHA-002
Date of issue.....: 2017-04-17
Total number of pages 26

Name of Testing Laboratory preparing the Report Intertek Testing Services Shanghai

Applicant's name GlobTek, Inc.
Address 186 Veterans Dr. Northvale, NJ 07647 USA

Test specification:

Standard.....: IEC 60601-1-11:2015 (Second Edition) for use in conjunction with IEC 60601-1:2012 (Third Edition) + A1:2012
Test procedure: CB Scheme
Non-standard test method: N/A

Test Report Form No.: IEC60601_1_11C
Test Report Form(s) Originator: UL(US)
Master TRF.....: 2015-03

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Test item description	Medical Power Supply
Trade Mark	
Manufacturer	Same as applicant
Model/Type reference	GT*961200P**** and GT*96900P****and GT*41133-**** (Refer to page 7-8 for details.)
Ratings	GT*961200P**** and GT*96900P****, Input:100-240V~,50-60Hz, 1.5A; GT*41133-****,Input:100-240V~, 50-60Hz or 50-400Hz, 1.5A; Output: Refer to page 8 for details.

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

<input checked="" type="checkbox"/>	CB Testing Laboratory:	
	Testing location/ address	Intertek Testing Services Shanghai Building No.86, 1198 Qinzhou Road (North), 200233 Shanghai, China
<input type="checkbox"/>	Associated CB Testing Laboratory:	
	Testing location/ address	
	Tested by (name, function, signature)	Francis Cai (Project engineer)
	Approved by (name, function, signature)	Justin Yu (Mandated reviewer)

<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
	Testing location/ address	
	Tested by (name, function, signature)	
	Approved by (name, function, signature) ...:	

<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
	Testing location/ address	
	Tested by (name + signature)	
	Witnessed by (name, function, signature) .:	
	Approved by (name, function, signature) ...:	

<input type="checkbox"/>	Testing procedure: CTF Stage 3	
<input type="checkbox"/>	Testing procedure: CTF Stage 4	
	Testing location/ address	
	Tested by (name, function, signature)	
	Witnessed by (name, function, signature) .:	

Approved by (name, function, signature)... :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):

See IEC 60601-1 Test Report

Summary of testing:**Tests performed (name of test and test clause):**

4.2.2 Environmental condition test of transport and storage between uses
4.2.3.1 Environmental operating condition test
10.1.2 a) Shock test
10.1.3 b) Vibration test

The sample tested complies with the requirements of IEC 60601-1-11:2015.

Testing location:

Intertek Testing Services Shanghai
Building No. 86, 1198 Qinzhou Road (North),
200233 Shanghai, China

Summary of compliance with National Differences:**List of countries addressed**

The requirements of USA and Canada have been also checked and found to include no national differences or deviations from the IEC 60601-1-11:2015.

Group- and national differences for the CENELEC countries according to EN 60601-1-11:2015.

According to EN 60601-1-11:2015, the text of the International Standard IEC 60601-1-11:2015 was approved by CENELEC as a European Standard without any modification.

The product fulfils the requirements of IEC 60601-1-11: 2015 (Second Edition)

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.

See IEC 60601-1 Test Report

Test item particulars	See IEC 60601-1 Test Report
Classification of installation and use	Portable for power adapter model. Final determination in end product evaluation for open frame model.
Intended use (Including type of patient, application location)	Lay operator / Home healthcare environment PSU (external power adapter or internal power supply board)
Mode of operation	Continuous
Supply Connection	Appliance coupler for power adapter model. Final determination in end product evaluation for open frame model.
Accessories and detachable parts included	None
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	
2016-12-26	
Date (s) of performance of tests	
2016-12-26 to 2017-03-17	
- Normal condition	N.C.
- Single fault condition	S.F.C.
- Means of Operator protection	MOOP
- Means of Patient protection	MOPP
General remarks:	
<p>"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. This report shall not be reproduced except in full without the written approval of the testing laboratory. List of test equipment must be kept on file and available for review. Additional test data and/or information provided in the attachments to this report.</p> <p>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. This Test Report Form is intended for the evaluation of medical electrical equipment and medical electrical systems used in the home healthcare environment in accordance with IEC 60601-1-11. This Test Report Form can be used to complement the IEC 60601-1 Test Report.</p> <p>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.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60601-1:	
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 :	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable

When differences exist; they shall be identified in the General product information section.
Name and address of factory (ies) : See IEC 60601-1 Test Report
General product information: See IEC 60601-1 Test Report

IEC 60601-1-11			
Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		
4.1	Characteristics of SUPPLY MAINS specified in 4.10.2 of Part 1 applied, except ME EQUIPMENT or ME SYSTEMS intended for HOME HEALTHCARE ENVIRONMENT complied with the following:		P
	– SUPPLY MAINS in the HOME HEALTHCARE ENVIRONMENT did not exceed 110 % or was not below 85 % of NOMINAL voltage between any of the conductors of the system or between any of these conductors and earth (% V)	85-264Vac	—
	– For ME EQUIPMENT OR ME SYSTEMS intended to actively keep alive or resuscitate a PATIENT, SUPPLY MAINS in the HOME HEALTHCARE ENVIRONMENT did not exceed 110 % or was not below 80 % of NOMINAL voltage between any of the conductors of the system or between any of these conductors and earth (% V)	Not for such intended use	—
	- RATED range of NOMINAL voltage did include at least 12.4 V to 15.1 V for operation from a 12 V dc supply mains	No such condition	N/A
	- RATED range of NOMINAL voltage did include at least 24.8 V to 30.3 V for operation from a 12 V dc supply mains	No such condition	N/A
	The equipment maintained BASIC SAFETY and ESSENTIAL PERFORMANCE during and following a 30 s dip to 10 V from a 12 V dc SUPPLY MAINS	No such condition	N/A
	The equipment maintained BASIC SAFETY and ESSENTIAL PERFORMANCE during and following a 30 s dip to 20 V from a 24 V dc SUPPLY MAINS	No such condition	N/A
4.2.2	Environmental conditions of transport and storage between uses, indicated in instructions for use		P
	ME EQUIPMENT, except STATIONARY EQUIPMENT, after being removed from its protective packaging, and subsequently between uses, operated within its specified NORMAL USE after transport or storage in the specified environmental conditions		P
	temperature range:-25 °C to + 5 °C	-40°C to 80°C 0 RH % to 93 RH % 700 hPa to 1060 hPa	P
	temperature range:+5 °C to +35 °C at a non-condensing relative humidity up to 90 %		P
	temperature range: >35 °C to 70 °C at a water vapour pressure up to 50 hPa		P
	For more restricted range of environmental transport and storage conditions between uses, the environmental conditions are specified		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	– Justified in the RISK MANAGEMENT FILE		N/A
	– Marked on the ME EQUIPMENT		N/A
	When not practicable, the more restricted range is disclosed in the instructions for use		N/A
	– Marked on the carrying case when the instructions for use indicate the ME EQUIPMENT is intended to be transported or stored in a carrying case between uses		N/A
	Symbol 5.3.5 (ISO 7000-0534), 5.3.6 (ISO 7000-0533), or 5.3.7 (ISO 7000-0632) of ISO 15223-1:2012 used to mark temperature range		N/A
	Symbol 5.3.8 (ISO 7000-2620) of ISO 15223-1:2012 used to mark humidity range		N/A
	Symbol 5.3.9 (ISO 7000-2621) of ISO 15223-1:2012 used to mark atmospheric pressure range		N/A
	Where ME EQUIPMENT used different marking for conditions of transport and storage between uses, continuous operating conditions and transient operating conditions, markings accompanied by supplementary markings except where the respective applicability was obvious		N/A
	Environmental transport and storage test		
	a) ME EQUIPMENT prepared for transportation or storage according to instructions for use		P
	b) ME EQUIPMENT exposed to its lowest specified environmental transport and storage conditions (temperature $\overset{\square}{\square}$ °C) (°C)	-40 °C	P
	– For at least 16 h or, ensure ME EQUIPMENT reached THERMAL STABILITY for at least 2 h		P
	c) Then ME EQUIPMENT exposed to 34 °C \pm 4 °C and 90 % - 0% + 6% relative humidity until the test chamber reached equilibrium and held for at least 2 hours. The transition from low to high temperature was made slowly enough to provide a non-condensing environment.	34°C and 90% relative humidity	P
	d) ME EQUIPMENT exposed to its highest specified environmental transport and storage conditions, not requiring a water vapour pressure greater than 50 hPa (temperature $\overset{+4}{\square}$ °C); (°C, \pm %)	80 °C,50hpa	P
	– For at least 16 h or, ensured ME EQUIPMENT reached THERMAL STABILITY for at least 2 h		P
	e) At the end of this conditioning period, ME EQUIPMENT allowed to return and stabilize at the operating conditions of NORMAL USE		P

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Clause	Requirement + Test	Result - Remark	Verdict
	f) ME EQUIPMENT evaluated to its specifications and ensured it provides BASIC SAFETY and ESSENTIAL PERFORMANCE		P
4.2.3.1	Environmental operating conditions - Continuous operating conditions		
	Instructions for use indicated permissible environmental operating conditions of the ME EQUIPMENT		P
	ME EQUIPMENT complied with its specifications and all requirements of the standard when operated in NORMAL USE within temperature + 5 °C to +40 °C,	0 °C to +40 °C	P
	Relative humidity range of 15 % to 90%, non-condensing, but not requiring a water vapour partial pressure greater than 50 hPa; and	15 % to 93%	P
	An atmospheric pressure range of 700 hPa to 1060 hPa	700 hPa to 1060 hPa	P
	For more restricted range of environmental operating conditions		N/A
	- justified in the risk management file;		N/A
	-marked on the equipment; or were not practical in the instructions for use.....:		N/A
	– Marked on the carrying case when the instructions for use indicate the ME EQUIPMENT is intended to be operated in a carrying case		N/A
	Symbol 5.3.5 (ISO 7000-0534), 5.3.6 (ISO 7000-0533), or 5.3.7 (ISO 7000-0632) of ISO 15223-1:2012 used to mark temperature range		N/A
	Symbol 5.3.8 (ISO 7000-2620) of ISO 15223-1:2012 used to mark humidity range		N/A
	Symbol 5.3.9 (ISO 7000-2621) of ISO 15223-1:2012 used to mark atmospheric pressure range		N/A
	Where ME EQUIPMENT used different marking for conditions of continuous operating conditions and transient operating conditions, markings accompanied by supplementary markings		N/A
	Environmental operating conditions test		P
	a) ME EQUIPMENT was set up for operation according to INTENDED USE		P
	b) ME EQUIPMENT exposed to 20 °C ± 4 °C for at least 6 h or, ensured ME EQUIPMENT reached THERMAL STABILITY for at least 2 h, (h)	6h	P
	c) ME EQUIPMENT evaluated to its specifications and ensured it continued to provide BASIC SAFETY and ESSENTIAL PERFORMANCE		P

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Clause	Requirement + Test	Result - Remark	Verdict
	d) ME EQUIPMENT evaluated to its specifications and ensured it continued to provide BASIC SAFETY and ESSENTIAL PERFORMANCE while at the lowest specified atmospheric pressure.		P
	e) ME EQUIPMENT evaluated to its specifications and ensured it continued to provide BASIC SAFETY and ESSENTIAL PERFORMANCE while at the highest specified atmospheric pressure.		P
	f) Pressure in chamber relieved		P
	g) ME EQUIPMENT cooled to its lowest specified environmental operating conditions		P
	h) ME EQUIPMENT held at lowest specified environmental operating conditions for at least 6 h or, ensured the ME EQUIPMENT reached THERMAL STABILITY for at least 2 h	6h	P
	i) ME EQUIPMENT met its specifications and BASIC SAFETY and ESSENTIAL PERFORMANCE		P
	j) ME EQUIPMENT warmed to its highest specified continuous environmental operating conditions		P
	k) ME EQUIPMENT held the conditions of j) for at least 6 h or, ensured the ME EQUIPMENT reached THERMAL STABILITY for at least 2 h	6h	P
	l) ME EQUIPMENT met its specifications and BASIC SAFETY and ESSENTIAL PERFORMANCE		P
4.2.3.2	Environmental shock to TRANSIT-OPERABLE EQUIPMENT		N/A
	TRANSIT-OPERABLE EQUIPMENT with a stated wider range of continuous environmental operation conditions maintained BASIC SAFETY and ESSENTIAL PERFORMANCE in the presence of condensation and thermal shock from rapid changes in environmental temperature and humidity during INTENDED USE when test in accordance with 4.2.3.2 a)-j).	Not TRANSIT-OPERABLE EQUIPMENT	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

5	GENERAL REQUIREMENTS FOR TESTING ME EQUIPMENT		
	In addition to the requirements of 5.9.2.1 of with IEC 60601-1 standard, accessibility determined as indicated below:		p
	ACCESSIBLE parts of ME EQUIPMENT identified by inspection and, when necessary, by testing		P
	When in doubt, an ACCESSIBLE PART of ME EQUIPMENT determined by a test with the small finger probe of Fig 1, applied in a bent or straight position as follows:		P
	– for all positions of the ME EQUIPMENT operating in NORMAL USE	No opening	N/A
	– after opening ACCESS COVERS and removal of parts, including lamps, fuses, and fuse holders when:	No such parts	N/A
	i) the ACCESS COVERS could be opened without the use of a TOOL, or		N/A
	ii) the instructions for use instructed a LAY OPERATOR to open the relevant ACCESS COVER		N/A

6	CLASSIFICATION OF ME EQUIPMENT AND ME SYSTEMS		
	ME EQUIPMENT intended for HOME HEALTHCARE ENVIRONMENT classified as follows, except for PERMANENTLY INSTALLED EQUIPMENT and as required by Part 1, Sub-clause 6.2:		P
	– CLASS II or INTERNALLY POWERED	CLASS II	P
	– Not provided with a FUNCTIONAL EARTH TERMINAL		P
	– When equipped with APPLIED PARTS, they are TYPE BF or CF	No APPLIED PARTS	N/A

7	ME EQUIPMENT IDENTIFICATION, MARKING AND DOCUMENTS		
7.1	USABILITY of identification, marking, and ACCOMPANYING DOCUMENTS intended for LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION evaluated by an OPERATOR whose PROFILE included minimum eight years of education	USABILITY ENGINEERING should be considered in end product	N/A
	ME EQUIPMENT and ME SYSTEMS intended for HOME HEALTHCARE ENVIRONMENT are simple to use and do not require referencing complex ACCOMPANYING DOCUMENTS		N/A
7.2	In addition to requirements of 7.2.9 of the general standard, the carrying case provided some or all of the ingress protection against water or particulate matter, The ENCLOSURE is marked with the safety sign ISO 7010-W001 and “keep dry” or	IP20	N/A
	Symbol ISO 15223-1:2012, 5.3.4 (ISO 7000-0626)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	A carrying case marked with degree of protection	No carrying case	N/A
	Carrying case inspected, and tests and criteria of 7.1.2 and 7.1.3 of Part 1 applied	No carrying case	N/A
7.3	ACCOMPANYING DOCUMENTS		P
7.3.1	ACCOMPANYING DOCUMENTS indicate the LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION should contact the MANUFACTURER or MANUFACTURER'S representative on the following issues:	Accompany documents are provided for some critical issue like technical data, safety warnings, necessary information to set up, but further evaluation is needed on end product level.	P
	– Assistance in setting up, using, or maintaining the ME EQUIPMENT or ME SYSTEM when needed, or		P
	– To report unexpected operation or events		P
	ACCOMPANYING DOCUMENTS include a postal address and either a phone number or web address for the LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION to contact the MANUFACTURER or MANUFACTURER'S representative		P
7.3.2	ACCOMPANYING DOCUMENTS include necessary details for healthcare professional to brief the LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION on any known contraindication(s) to the use of ME EQUIPMENT or ME SYSTEM and any precautions to be taken, including the following:	Accompany documents are provided for some critical issue like technical data, safety warnings, necessary information to set up, but further evaluation is needed on end product level.	N/A
	– Precautions to be taken in the event of changes in the performance of ME EQUIPMENT or ME SYSTEM		N/A
	– Precautions to be taken regarding the exposure of the ME EQUIPMENT or ME SYSTEM to reasonably foreseeable environmental conditions		N/A
	– Adequate information regarding medicinal substances that ME EQUIPMENT is designed to administer, including any limitations in the choice of substances to be delivered as indicated below:		N/A
	– Information on any medicinal substances or human blood derivatives incorporated into the ME EQUIPMENT or ACCESSORIES as an integral part; and		N/A
	– The degree of accuracy claimed for ME EQUIPMENT with a measuring FUNCTION		N/A
7.4	Instructions for use		P
7.4.1	Nature of the HAZARD, likely consequences that could occur if the advice is not followed, and precautions for reducing the RISK described in instructions for use corresponding to each warning and safety sign	See RISK MANAGEMENT Table 7.4.1	P

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Clause	Requirement + Test	Result - Remark	Verdict
	The instructions for use address the following issues, as applicable:		P
	– Strangulation due to cables and hoses, particularly due to excessive length		P
	– Inhalation or swallowing of small parts		P
	– Potential allergic reactions to accessible materials used in the ME EQUIPMENT		P
	– Contact injuries		P
	The instructions for use include warnings to the effect that the following actions could be unsafe as applicable:		P
	– Use of ACCESSORIES, detachable parts, and materials not described in the instructions for use (see 7.9.2.14 of Part 1)		P
	– Interconnection of this equipment to other equipment not described in the instructions for use (see 16.2 c) indent 9) of Part 1)		P
	– Modification of the equipment		P
	– Use of the ME EQUIPMENT outside its carrying case when some part of the protection required by this standard is provided by that carrying case (see 8.3.1 and 10.1)		P
7.4.2	When BASIC SAFETY or ESSENTIAL PERFORMANCE depends on the INTERNAL ELECTRICAL POWER SOURCE, the instructions for use describes the following:	No INTERNAL ELECTRICAL POWER SOURCE	N/A
	– Typical operation time or number of procedures .. :		N/A
	– Typical service life of the INTERNAL ELECTRICAL POWER SOURCE; and..... :		N/A
	– Behaviour of ME EQUIPMENT while the rechargeable INTERNAL ELECTRICAL POWER SOURCE is charging..... :		N/A
7.4.3	Instructions for use for ME EQUIPMENT intended for use by a LAY OPERATOR include easily understood diagrams, illustrations, or photographs of the fully assembled and ready-to-operate ME EQUIPMENT including all controls, visual INFORMATION SIGNALS, and indicators provided (see 7.1)	Necessary information to set up was provided in the instruction. USABILITY ENGINEERING should be considered in end product	P
7.4.4	Additional requirements for ME EQUIPMENT start-up PROCEDURE:		N/A
	– Easily understood diagrams, illustrations, or photographs showing proper connection of the PATIENT to the ME EQUIPMENT, ACCESSORIES and other equipment (see 7.1)	No connection to PATIENT	N/A
	– the time from switching “ON” until the ME EQUIPMENT is ready for NORMAL USE, when it exceeds 15 s (see 15.4.4 of Part 1) (s)..... :	No such feature.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	-the time required for ME EQUIPMENT to warm from the minimum storage temperature between uses until it is ready for intended use; and	No such conditions	N/A
	-the time required for ME EQUIPMENT to cool from the maximum storage temperature between uses until it is ready for intended use; and	No such conditions	N/A
7.4.5	Instructions for use for ME EQUIPMENT intended for use by a LAY OPERATOR include a description of generally known conditions in the HOME HEALTHCARE ENVIRONMENT that can unacceptably affect the BASIC SAFETY and ESSENTIAL PERFORMANCE of the ME EQUIPMENT	Further evaluation is needed on end product level.	N/A
	The steps that can be taken by the LAY OPERATOR to identify and resolve the above conditions		N/A
	At least the following issues are also included as applicable		
	- The effects of lint, dust, light (including sunlight), etc.		N/A
	- A list of known devices or other sources that can potentially cause interference problems		N/A
	- The effects of degraded sensors and electrodes, or loosened electrodes, that can degrade performance or cause other problems		N/A
	- The effects caused by pets, pests or children		N/A
	The instructions for use explain the meaning of the IP classification marked on the ME EQUIPMENT, and on any carrying case provided with the ME EQUIPMENT as applicable		N/A
7.4.6	Instructions for use include a troubleshooting guide for use when there are indications of a ME EQUIPMENT malfunction during start-up or operation	No need of such guide for power supply. But final determination in the end product.	N/A
	Troubleshooting guide discloses the necessary steps in the event of an TECHNICAL ALARM CONDITION		N/A
7.4.7	Instructions for use for ME EQUIPMENT, ME SYSTEMS, parts, and ACCESSORIES for other than single use that can be contaminated by contact with PATIENT, body fluids, or expired gases, during INTENDED USE, indicate the following:	No cleaning, disinfection and sterilization required for power supply. But final determination in the end product.	N/A
	– Frequency of cleaning, cleaning and disinfection, or cleaning and sterilization, as appropriate, for ME EQUIPMENT, ME SYSTEMS, parts, and ACCESSORIES used on the same PATIENT including rinsing methods, drying, handling, and storage between uses (see 8.1 and 8.2); and		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	– It is necessary to clean and disinfect, clean and sterilize the ME EQUIPMENT, ME SYSTEMS, parts, and ACCESSORIES for multiple PATIENT use between uses on different PATIENTS, including rinsing methods, drying, handling, and storage until re-use (see 8.1 and 8.2), or		N/A
	– ME EQUIPMENT, ME SYSTEMS and ACCESSORIES require professional hygienic maintenance prior to re-use and provide contact details for the source of these services (see 7.5.2)		N/A
7.4.8	Instructions for use include:		P
	– EXPECTED SERVICE LIFE of the ME EQUIPMENT :	10 years	P
	– EXPECTED SERVICE LIFE of parts and ACCESSORIES shipped with the ME EQUIPMENT :	10 years	P
	– SHELF LIFE of parts and ACCESSORIES shipped with ME EQUIPMENT when SHELF LIFE is less than the EXPECTED SERVICE LIFE :	No such parts	N/A
7.4.9	Instructions for use include:		N/A
	– A statement indicating the LAY RESPONSIBLE ORGANIZATION must contact its local authorities to determine the proper method of disposal of potentially bio hazardous parts and ACCESSORIES, as applicable	Not applicable for power supply	N/A
7.4.10	Instructions for use includes the recommended placement of the remote parts of the DISTRIBUTED ALARM SYSTEM, when applicable, to ensure the OPERATOR can be notified at all times by an appropriate element of DISTRIBUTED ALARM SYSTEM within its specified range	Not applicable for power supply	N/A
7.5	Technical description		N/A
7.5.1	The technical description for PERMANENTLY INSTALLED CLASS I ME EQUIPMENT includes:	Not PERMANENTLY INSTALLED CLASS I ME EQUIPMENT	N/A
	– A warning indicating the ME EQUIPMENT installation, including a correct PROTECTIVE EARTH CONNECTION, must only be carried out by qualified SERVICE PERSONNEL		N/A
	– Specifications of the PERMANENTLY INSTALLED PROTECTIVE EARTH CONDUCTOR		N/A
	– A warning to verify the integrity of the external protective earthing system		N/A
	– A warning to connect and verify that the PROTECTIVE EARTH TERMINAL of the PERMANENTLY INSTALLED ME EQUIPMENT is connected to the external protective earthing system		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
7.5.2	Technical description includes methods for cleaning and disinfection or cleaning and sterilization for ME EQUIPMENT and ACCESSORIES requiring professional hygienic maintenance prior to reuse (see 7.4.7):	No cleaning, disinfection and sterilization required for power supply. But final determination in the end product.	N/A
	– Before and after any type of service PROCEDURE		N/A
	– When the ME EQUIPMENT is transferred to another PATIENT		N/A
8	PROTECTION AGAINST EXCESSIVE TEMPERATURES AND OTHER HAZARDS		N/A
8.1	A LAY OPERATOR in the HOME HEALTHCARE ENVIRONMENT can perform the cleaning or cleaning and disinfection PROCESSES when intended (see 7.4.7)	No cleaning, disinfection and sterilization required for power supply. But final determination in the end product.	N/A
	USABILITY of each such PROCESS pertaining to a LAY OPERATOR was investigated by the USABILITY ENGINEERING PROCESS		N/A
8.2	A LAY OPERATOR in the HOME HEALTHCARE ENVIRONMENT can perform the cleaning and sterilization PROCESSES when intended (see 7.4.7)	No sterilization required for power supply. But final determination in the end product.	N/A
	USABILITY of each such PROCESS pertaining to a LAY OPERATOR was investigated by the USABILITY ENGINEERING PROCESS		N/A
8.3	Additional requirements for ingress of water or particulate matter into ME EQUIPMENT and ME SYSTEMS		P
8.3.1	TRANSIT-OPERABLE, HANDHELD, and BODY-WORN ME EQUIPMENT maintained BASIC SAFETY and ESSENTIAL PERFORMANCE after undergoing the test of IEC 60529 for at least IP 22	Not such ME Equipment	N/A
	All other ME EQUIPMENT maintained BASIC SAFETY and ESSENTIAL PERFORMANCE after undergoing the test of IEC 60529 for at least IP21	IP21	P
	For PORTABLE ME EQUIPMENT intended to be used only while in a carrying case, IP21 met with the ME EQUIPMENT in its the carrying case	No such condition	N/A
	Maintenance of BASIC SAFETY and ESSENTIAL PERFORMANCE VERIFIED		P
8.3.2	ENCLOSURES of the non-ME EQUIPMENT parts of the ME SYSTEMS provide the degree of protection against harmful ingress of water or particulate matter equivalent to equipment complying with their respective IEC or ISO safety standards		N/A
	Tests of IEC 60529:1989 conducted with the equipment placed in the least favourable position of NORMAL USE and the ENCLOSURES inspected		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
8.4	Additional requirements for interruption of the power supply/SUPPLY MAINS to ME EQUIPMENT and ME SYSTEM		N/A
	ME EQUIPMENT or ME SYSTEM with ESSENTIAL PERFORMANCE intended to actively keep alive or resuscitate a PATIENT maintained its ESSENTIAL PERFORMANCE for a sufficient time or for a sufficient number of PROCEDURES when loss or failure of SUPPLY MAINS or near depletion INTERNAL ELECTRICAL POWER SOURCE occurred	Not such ME Equipment	N/A
	The time or number of PROCEDURES remaining allowed alternative life-supporting methods to be employed		N/A
	Optionally, an INTERNAL ELECTRICAL POWER SOURCE was used to maintain ESSENTIAL PERFORMANCE		N/A
	Optionally, independent means were used to provide ESSENTIAL PERFORMANCE		N/A
	Instructions for use disclose the time or number of procedures available following a loss or failure of the SUPPLY MAINS or near depletion of the INTERNAL ELECTRICAL POWER SOURCE		N/A
	Instructions for use describes the alternative life-supporting methods to be employed		N/A
	The technical description describes methods that can be employed for longer periods		N/A
	ME EQUIPMENT or ME SYSTEM with ESSENTIAL PERFORMANCE intended to actively keep alive or resuscitate a PATIENT with no INTERNAL ELECTRICAL POWER SOURCE is equipped with an ALARM SYSTEM that includes at least a MEDIUM PRIORITY ALARM CONDITION indicating power failure	Not such ME Equipment	N/A
	ME EQUIPMENT or ME SYSTEM with ESSENTIAL PERFORMANCE intended to actively keep alive or resuscitate a PATIENT with an INTERNAL ELECTRICAL POWER SOURCE is equipped with an automatic switchover to INTERNAL ELECTRICAL POWER SOURCE	Not such ME Equipment	N/A
	ME EQUIPMENT or ME SYSTEM with ESSENTIAL PERFORMANCE intended to actively keep alive or resuscitate a PATIENT with an INTERNAL ELECTRICAL POWER SOURCE is equipped with an ALARM SYSTEM that includes at least a MEDIUM PRIORITY TECHNICAL ALARM CONDITION indicating the INTERNAL ELECTRICAL POWER SOURCE is nearing insufficient remaining power for operation	Not such ME Equipment	N/A
	TECHNICAL ALARM CONDITION provides sufficient time or sufficient number of procedures for a LAY OPERATOR to act		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	A TECHNICAL ALARM CONDITION of at least LOW PRIORITY remained active until the INTERNAL ELECTRICAL POWER SOURCE returned to a level above the ALARM LIMIT or until depleted		N/A
	It was not possible to inactivate the visual ALARM SIGNAL of this TECHNICAL ALARM CONDITION		N/A
	Functional tests conducted, and the RISK MANAGEMENT FILE inspected		N/A
8.5	Additional requirements for an INTERNAL ELECTRICAL POWER SOURCE		N/A
8.5.1	ME EQUIPMENT provided with a means for the OPERATOR to determine state of the INTERNAL ELECTRICAL POWER SOURCE when the is essential for BASIC SAFETY or ESSENTIAL PERFORMANCE or to control risks associated with loss of ESSENTIAL PERFORMANCE	No INTERNAL ELECTRICAL POWER SOURCE	N/A
	State of INTERNAL ELECTRICAL POWER SOURCE indicated by:		N/A
	- number of PROCEDURES remaining;		N/A
	-remaining operating time;		N/A
	-percentage of the remaining operating time or energy; or		N/A
	-"fuel" gauge		N/A
	Instructions described method to determine state of INTERNAL ELECTRICAL POWER SOURCE		N/A
8.5.2	Means, other than labelling, provided to prevent RISK of swallowing coin/button cells		N/A
	Replacement of button cell require use of TOOL		N/A
9	ACCURACY OF CONTROLS AND INSTRUMENTS AND PROTECTION AGAINST HAZARDOUS OUTPUTS		N/A
	The RISKS associated with USABILITY in the HOME HEALTHCARE ENVIRONMENT for OPERATOR PROFILES including a LAY OPERATOR when performing the USABILITY ENGINEERING PROCESS include at least the following considerations:		N/A
	- changes of controls		N/A
	- unexpected movement		N/A
	- potential for misconnection		N/A
	- potential for improper operation, or unsafe use		N/A
	- potential for confusion as to current operational mode		N/A
	- change in the transfer of energy or substance		N/A
	- exposure to environmental conditions specified in this standard		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	– exposure to biological materials, and		N/A
	– small parts being inhaled or swallowed		N/A
	Particular emphasis placed on the limited training of a LAY OPERATOR with respect to the ability to intervene and maintain BASIC SAFETY and ESSENTIAL PERFORMANCE.		N/A
	The MANUFACTURER’S USABILITY ENGINEERING PROCESS included the least capable intended LAY OPERATOR or LAY RESPONSIBLE ORGANIZATION		N/A
	USABILITY ENGINEERING FILE inspected for compliance		N/A

10	CONSTRUCTION OF ME EQUIPMENT		P
10.1	Additional requirements for mechanical strength		P
10.1.1	Additions to Table 28 Mechanical strength test of the base standard, conducted as indicated in Table 1, Mechanical strength test applicability, non-TRANSIT-OPERABLE, and Table 2, Mechanical strength test applicability, TRANSIT-OPERABLE		P
10.1.2	ME EQUIPMENT, its parts, and mounting ACCESSORIES, intended for non-TRANSIT-OPERABLE use displayed adequate mechanical strength when subjected to mechanical stress caused by NORMAL USE, including pushing, impact, dropping and rough handling (not applicable to FIXED and STATIONARY ME EQUIPMENT)	Non-transit-operable and portable	P
	ME EQUIPMENT maintained BASIC SAFETY and ESSENTIAL PERFORMANCE after mechanical tests		P
	OPERATOR-re-settable protective devices that can be reset without the use of a TOOL were, optionally, reset prior to the evaluation of BASIC SAFETY and ESSENTIAL PERFORMANCE	No such device	N/A
	a) Shock tests conducted in accordance with IEC 60068-2-27:2008	See Appended Table 10.1.2a	P
	b) Broad-band random vibration tests conducted in accordance with IEC 60068-2-64:2008, using the following conditions	See Appended Table 10.1.2b	P
10.1.3	ME EQUIPMENT, parts, and mounting ACCESSORIES for TRANSIT-OPERABLE use displayed adequate mechanical strength when subjected to pushing, impact, dropping, rough handling, and rigorous conditions of PATIENT movement in NORMAL USE as well as transportation by trolleys, carts, road vehicles, trains, ships, and aircraft	Not transit-operable ME EQUIPMENT	N/A
	ME EQUIPMENT maintained BASIC SAFETY and ESSENTIAL PERFORMANCE after the following tests:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	a) Shock tests conducted on other than HAND-HELD ME EQUIPMENT, parts, and mounting ACCESSORIES in accordance with IEC 60068-2-27:2008		N/A
	1) Test type: Type 1..... :		N/A
	2) Test type: Type 2..... :		N/A
	b) Shock tests conducted on HAND-HELD ME EQUIPMENT, parts, and mounting ACCESSORIES in accordance with IEC 60068-2-27:2008		N/A
	1) Test type: Type 1..... :		N/A
	2) Test type: Type 2..... :		N/A
	c) Broad-band random vibration test conducted on ME EQUIPMENT, parts, and mounting ACCESSORIES in accordance with IEC 60068-2-64:2008 :		N/A
	d) Free fall tests conducted on PORTABLE and MOBILE ME EQUIPMENT, parts, and mounting ACCESSORIES per IEC 60068-2-31:2008, using PROCEDURE 1 :		N/A
	BASIC SAFETY and ESSENTIAL PERFORMANCE were maintained		N/A
10.2	Controls of ME EQUIPMENT intended for use by a LAY OPERATORY that can affect BASIC SAFETY or ESSENTIAL PERFORMANCE protected from accidental or unauthorized changes or adjustments	No such control	N/A
	OPERATOR-adjustable controls used for calibration include a means to prevent unintentional changes from the intended position	No such control	N/A

11	PROTECTION AGAINST STRANGULATION OR ASPHYXIATION		P
	Means provided to control the RISK of strangulation and asphyxiation of the PATIENT and others to an acceptable level		P
	EQUIPMENT and RISK MANAGEMENT FILE inspected :	See RISK MANAGEMENT Table 11	P

12	ADDITIONAL REQUIREMENTS FOR ELECTROMAGNETIC EMISSIONS OF ME EQUIPMENT AND ME SYSTEMS		N/A
	ME EQUIPMENT and ME SYSTEMS intended for HOME HEALTHCARE ENVIRONMENT are Class B according to CISPR 11:2009..... :	Not applicable to component power supply system; to be determined in the end product	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
13	ADDITIONAL REQUIREMENTS FOR ALARM SYSTEMS OF ME EQUIPMENT AND ME SYSTEMS		N/A
13.1	Each HIGH PRIORITY and MEDIUM PRIORITY ALARM CONDITION causes generation of auditory ALARM SIGNALS per IEC 60601-1-8:2006 and IEC 60601-1-8:2006/AMD1:2012, except when equipment is connected to a DISTRIBUTED ALARM SYSTEM intended for confirmed deliver of ALARM CONDITIONS including the generation of auditory ALARM SIGNALS per IEC 60601-1-8:2006 and IEC 60601-1-8:2006/AMD1:2012	The acceptability of risk of the power supply is determined as part of the end product.	N/A
13.2	For ME EQUIPMENT and ME SYSTEMS intended to actively keep alive or resuscitate a PATIENT, reducing the auditory ALARM SIGNAL volume T below audible levels resulted in the following was not possible, except when the ALARM SYSTEM was connected to a DISTRIBUTED ALARM SYSTEM that included generation of auditory ALARM SIGNALS per IEC 60601-1-8:2006 and IEC 60601-1-8:2006/AMD1:2012		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.2.2	RM RESULTS TABLE: Permissible environmental conditions of transport and storage, between uses, indicated in instructions for use		N/A
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks	Verdict
4.2	--	--	
4.3			
4.4			

4.2.3.1	RM RESULTS TABLE: Environmental operating conditions - Continuous operating conditions		N/A
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks	Verdict
4.2	--	--	
4.3			
4.4			

7.4.1	RM RESULTS TABLE: Additional requirements for warning and safety notices		P
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks	Verdict
4.2	<GT-RM2017-001> A.0 Clause 6.1.1	Intended use is identified	P
4.3	<GT-RM2017-001> A.0 Clause 6.2.1	Mechanical energy hazard is identified.	P
4.4	<GT-RM2017-001> A.0 Clause 6.4 OP3	The severity of the harm has been estimated as "5". The probability of occurrence of the harm has been estimated in "2".	P
5	<GT-RM2017-001> A.0 Section 7	The risk is evaluated as "UACC".	P
6.2	<GT-RM2017-001> A.0 Clause 8.1	Use product specification or user manual to warn.	P

7.4.5	RM RESULTS TABLE: : Additional requirements for operating instructions		N/A
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks	Verdict
4.3	--	--	
4.4			
5			
6.2			

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Clause	Requirement + Test	Result - Remark	Verdict

8.4	RM RESULTS TABLE: Additional requirements for interruption of power supply / supply mains to ME Equipment and ME Systems		N/A
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks	Verdict
4.2	--	--	
4.3			
5			
6.2			
6.3			
6.4			
6.5			
6.6			
6.7			

10.1.2a	TABLE: Shock test (IEC 60068-2-27:2008), using the following conditions*:		P
	Peak acceleration	150 m/s ² (15 g)	
	Duration	11 ms	
	Pulse shape	half-sine	
	Number of shocks	3 shocks per direction per axis (18 total)	
Direction Shock Applied	Axis Shock Applied	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Positive	X axis ²	Yes	The enclosure shows no cracks and there is no damaged or loosing part inside the product after test. The EUT worked as normal and passed the dielectric strength test.
Negative	X axis ²	Yes	
Positive	Y axis ²	Yes	
Negative	Y axis ²	Yes	
Positive	Z axis ²	Yes	
Negative	Z axis ²	Yes	
Supplementary information: *(NOTE 1 This represents Class 7M1 as described in IEC TR 60721-4-7:2001 [6])			

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Clause	Requirement + Test	Result - Remark	Verdict

10.1.2b	TABLE: Broad-band random vibration test (IEC 60068-2-64:2008) using the following conditions*:		P
1	Acceleration amplitude..... :	10 Hz to 100 Hz: 1,0 (m/s ²)/Hz	
2	Acceleration amplitude..... :	100 Hz to 200 Hz: – 3 db per octave	
3	Acceleration amplitude..... :	200 Hz to 2 000 Hz: 0,5 (m/s ²)/Hz	
	Duration	30 min per perpendicular axis (3 total)	

Perpendicular axis subjected to broad-band random vibration test	Acceleration amplitude	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
1	1	Yes	The enclosure shows no cracks and there is no damaged or loosing part inside the product after test. The EUT worked as normal and passed the dielectric strength test.
2	1	Yes	
3	1	Yes	
1	2	Yes	
2	2	Yes	
3	2	Yes	
1	3	Yes	
2	3	Yes	
3	3	Yes	

Supplementary information:

* (NOTE 2 This represents Class 7M1 and 7M2 as described in IEC TR 60721-4-7:2001)

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Clause	Requirement + Test	Result - Remark	Verdict
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10.1.3a1	TABLE: Shock test (IEC 60068-2-27:2008) for other than HAND-HELD EQUIPMENT, parts, and mounting ACCESSORIES under the following conditions (Test Type 1):		N/A
	Peak acceleration	150 m/s ² (15 g)	
	Duration.....	11 ms	
	Pulse shape	half-sine	
	Number of shocks.....	3 shocks per direction per axis (18 total)	
Direction Shock Applied	Axis Shock Applied	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information: * (NOTE 3 This represents Class 7M2 as described in IEC/TR 60721-4-7:2001 [6])			

10.1.3a2	TABLE: Shock test (IEC 60068-2-27:2008) on other than HAND-HELD ME EQUIPMENT, parts, and mounting ACCESSORIES under the following conditions (Test Type 2):		N/A
	Peak acceleration	300 m/s ² (15 g)	
	Duration.....	6 ms	
	Pulse shape	half-sine	
	Number of shocks.....	3 shocks per direction per axis (18 total)	
Direction Shock Applied	Axis Shock Applied	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information:			

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Clause	Requirement + Test	Result - Remark	Verdict

10.1.3b1	TABLE: Shock test (IEC 60068-2-27:2008) on HAND-HELD ME EQUIPMENT parts, and mounting ACCESSORIES using the following conditions (Test Type 1):		N/A
	Peak acceleration	300 m/s ² (30 g)	
	Duration.....	11 ms	
	Pulse shape	half-sine	
	Number of shocks.....	3 shocks per direction per axis (18 total)	
Direction Shock Applied	Axis Shock Applied	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information: *(NOTE 4 This represents Class 7M3 as described in IEC/TR 60721-4-7:2001. (Test Type 1)			

10.1.3b2	TABLE: Shock test (IEC 60068-2-27:2008) on HAND-HELD ME EQUIPMENT parts, and mounting ACCESSORIES using the following conditions (Test Type 2):		N/A
	Peak acceleration	1000 m/s ² (100 g)	
	Duration.....	6 ms	
	Pulse shape	half-sine	
	Number of shocks.....	3 shocks per direction per axis (18 total)	
Direction Shock Applied	Axis Shock Applied	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information:			

10.1.3c	TABLE: Broad-band random vibration test (IEC 60068-2-64:2008) on ME EQUIPMENT, parts, and mounting ACCESSORIES using the following conditions*:		N/A
1	Acceleration amplitude	10 Hz to 100 Hz: 1,0 (m/s ²) ² /Hz	
2	Acceleration amplitude	100 Hz to 200 Hz: - 3 db per octave	
3	Acceleration amplitude	200 Hz to 2 000 Hz: 0,5 (m/s ²) ² /Hz	
	Duration	30 min per perpendicular axis (3 total)	
Perpendicular axis subjected to broad-band random vibration test	Acceleration amplitude	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information: *(NOTE 5 This represents Class 7M1 and 7M2 as described in IEC/TR 60721-4-7:2001)			

IEC 60601-1-11			
Clause	Requirement + Test	Result - Remark	Verdict

10.1.3d	TABLE: Free fall test (IEC 60068-2-31:2008), using PROCEDURE 1, on PORTABLE and MOBILE ME EQUIPMENT, parts, and mounting ACCESSORIES (with carrying case if intended), under the following conditions*:			N/A
1	Fall height for mass ≤ 1 kg	0,25 m		
2	Fall height for mass > 1 kg and ≤ 10 Kg	0,1 m		
3	Fall height for mass > 10 kg and ≤ 50 Kg	0,05 m		
4	Fall height for mass > 50 kg	0,01 m		
Specified altitude (m)	Mass (Kg)	Fall No.	BASIC SAFETY and ESSENTIAL PERFORMANCE maintained? Yes/No	Remarks
Supplementary information: (*NOTE 6 This represents Class 7M2 as described in IEC/TR 60721-4-7:2001)				

11.0	RM RESULTS TABLE: PROTECTION AGAINST STRANGULATION AND ASPHYXIATION			P
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph)	Result - Remarks		Verdict
4.3	<GT-RM2017-001> A.0 Clause 6.2.1	Mechanical hazard is identified		P
4.4	<GT-RM2017-001> A.0 Clause 6.4 OP3	The severity of the harm has been estimated as "5". The probability of occurrence of the harm has been estimated in "2".		P
5	<GT-RM2017-001> A.0 Section 7	The risk is evaluated as "NACC".		P
6.2	<GT-RM2017-001> A.0 Clause 8.1	Use product specification or user manual to warn.		P
6.3	<GT-RM2017-001> A.0 Clause 8.1	Production specifications or manual.		P
Supplementary information:				