

Test Report issued under the responsibility of:



TEST REPORT IEC 60601-1

Part 1: General requirements for basic safety and essential performance

Report Number. 191201633SHA-001

Date of issue: 2020-04-21

Modification 1: 2020-08-24

Total number of pages...... 157

Name of Testing Laboratory Intertek Testing Services Shanghai

preparing the Report....:

.....

Applicant's name.....: GlobTek, Inc.

Address 186 Veterans Dr. Northvale, NJ 07647 USA

Test specification:

Standard...... IEC 60601-1:2005 (Third Edition) + CORR. 1 (2006) + CORR. 2

(2007) + AM1 (2012) or IEC 60601-1 (2012 reprint)

Test procedure: CB Scheme

Non-standard test method: N/A

Test Report Form No...... IEC60601_1J_PS

 Test Report Form(s) Originator:
 UL(US)

 Master TRF......
 2014-09

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Manufacturer Same as applicant Model/Type reference GT*96300-****** Input: 100-240V~, 50-60Hz, 1.0A Output: 5-56VDC, Max 36W	
Model/Type reference	
Model/Type reference	
Ratings: Input: 100-240V~, 50-60Hz, 1.0A	
TOUDUL DECOVER. MAX SOVV	
Culpul Corps, max corr	
Testing procedure and testing location:	
☐ CB Testing Laboratory: Intertek Testing Services Shanghai	
Testing location/ address: Building No.85 and 86, 1198 Qinzhou Road (North), 200233 Shanghai, China	
Associated CB Testing Laboratory:	
Testing location/ address:	
Tested by (name + signature): Yann Yan	
(Engineer)	
Approved by (name + signature): Jack Cheng	
(Mandated Reviewer)	
Testing procedure: CTF Stage 1:	
Testing location/ address:	
Tested by (name + signature):	
Approved by (name + signature):	
☐ Testing procedure: CTF Stage 2:	
Testing procedure. 511 Stage 2.	
Testing location/ address:	
Tested by (name + signature):	
Witnessed by (name + signature):	
Approved by (name + signature):	
Testing procedure: CTF Stage 3 or 4:	
Testing location/ address:	
Tested by (name + signature):	
Witnessed by (name + signature):	
Approved by (name + signature):	
Supervised by (name + signature):	



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List of Attachments	(including	a total number	r of pages	in each attachment):
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Attachment 1: Photo of EUT: 30 pages

Attachment 2: Circuit Diagram / Layout: 5 pages

Attachment 3: USA national difference: 4 pages

Attachment 4: Canada national differences: 8 pages

Attachment 5: Switzerland national differences: 1 page

Attachment 6: Construction diagram of optional output connector: 1 page

Summary of testing

lests performed (name of test and test clause):	lesting location:
N/A	N/A

Summary of compliance with National Differences

List of countries addressed:

Canada, USA, Switzerland

The group and national differences for CENELEC countries, and the national differences for Canada, USA, Switzerland have been checked.

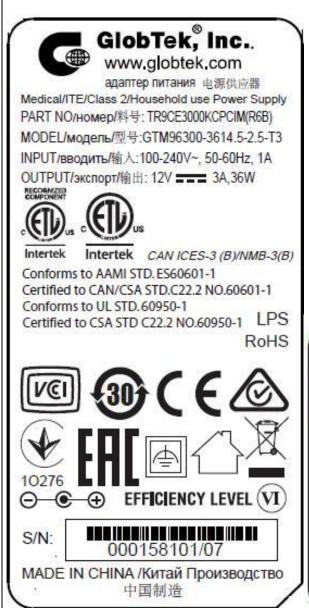
☑ The product fulfils the requirements of IEC 60601-1: 2005 + CORR. 1:2006 + CORR. 2:2007 + AM1: 2012.

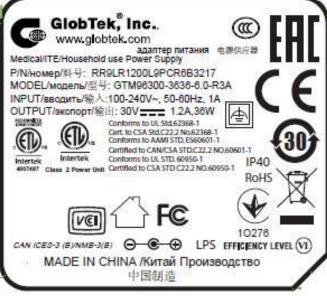


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Copy of marking plate

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.





Note: Other models are with similar label as corresponding above models except different model name and ratings.



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Modification 1: 2020-08-24 **GENERAL INFORMATION** Test item particulars (see also Clause 6): Classification of installation and use: portable for power adapter model. Device type (component/sub-assembly/ equipment/ system): Component PSU (external power adapter or internal Intended use (Including type of patient, application location): power supply board) Mode of operation: Continuous appliance coupler for power adapter model. Supply connection..... Accessories and detachable parts included: None Other options include: None **Testing** Date of receipt of test item(s)....: No test required Dates tests performed....: No test required Possible test case verdicts: - test case does not apply to the test object: N/A - test object does meet the requirement: Pass (P) - test object was not evaluated for the requirement.....: N/E (collateral standards only) - test object does not meet the requirement: Fail (F) Abbreviations used in the report: - normal condition: N.C. - single fault condition: S.F.C. - means of Operator protection: MOOP - means of Patient protection: MOPP



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General remarks:						
"(See Attachment #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. The tests results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the 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.						
Throughout this report a \square comma / \boxtimes point is us	sed as the decimal separator.					
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Additional test data and/or information may be provided Note: This report is not valid unless used in conjunction						
Manufacturer's Declaration per sub-clause 4.2.5 of I	ECEE 02:2012					
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:						
When differences exist; they shall be identified in th	e General product information section.					
Name and address of factory (ies)::	Factory 1					
	GlobTek, Inc.					
	186 Veterans Dr. Northvale, NJ 07647 USA					
	Factory 2					
	GlobTek (Suzhou) Co., Ltd					
	Building 4, No. 76, Jin Ling East Rd., Suzhou Industrial Park, Suzhou, JiangSu 215021, China					

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General product information:

Product covered by this report is medical power supply module.

All models have the same circuit diagram, PCB layout and transformer.

All models can be output Max. 36W power, all electronic components are mounted on minimum V-1 PWB and housed sealed inside the plastic enclosure.

The power supplies are provided with suitable external enclosure. The top and bottom parts of the enclosure are ultrasonic welded.

The products were tested to be suitable for connection to \leq 16 A (IEC) and \leq 20 A (USA) branch circuit in series. The unit is approved for TN mains star connections. The unit provides internally one or two fuses. The power supplies are rated class I, class II or class II with functional earth.

All the types are designed for continuous operation.

Model similarity:

GT*96300-*****:

The 1st "*" part can be 'M' or '-' or 'H' for market identification and not related to safety.

The 2nd "*" denotes the rated output wattage designation, which can be "01" to "36", with interval of 1.

The 3rd "*" denotes the standard rated output voltage designation, which can be "07.5", "10.5", "14.5", "19.5", "24", "36", "48", "54" or "56".

The 4th "*" is optional deviation, subtracted from standard output voltage, which can be "-0.01" to "-11.9" with interval of 0.01, or blank to indicate no voltage different.

The 3rd "*" and 4th "*" together denote the output voltage, with a range of 5 - 56 volts.

The 5th "*" =-T2 means desktop class II with C8 AC inlet

- =-T2A means desktop class II with C18 AC inlet
- =-T3 means desktop class I or class II with functional earth with C14 AC inlet
- =-T3A means desktop class I or class II with functional earth with C6 AC inlet
- =-R2 means hybrid desktop housing class II with C8 AC inlet
- =-R3A means hybrid desktop housing class I or class II with functional earth with C6 AC inlet

The 6th "*" = Blank or -AP or -PP or -SP

- -AP (with baby board) stands for Active POE (full IEEE compliant)
- -PP (no baby board) stands for Passive POE
- -SP (no baby board) stands for Simple POE

The last "*" can be any six character consist 0 to 9 or A to Z or ()[] or – or blank for marketing purpose.

Ratings:

Input: 100-240V~, 50-60Hz, 1.0A Output: 5-56VDC, Max 36W

When the model with POE, the output voltage is Max. 56Vdc, others will be up to 48Vdc.

GT*96300-***-T2/T2A/T3/T3A/R2/R3A* Desktop or hybrid desktop models

Model	Output Voltage	Max. output current	Max. output power
GT*96300-*07.5*-T2/T2A/T3/T3A/R2/R3A*	5-7.5Vdc	4.5A	23W
GT*96300-*10.5*-T2/T2A/T3/T3A/R2/R3A*	7.6-9Vdc	3.94A	30W
GT*96300-*10.5*-T2/T2A/T3/T3A/R2/R3A*	9.1-10.5Vdc	3.95A	36W
GT*96300-*14.5*-T2/T2A/T3/T3A/R2/R3A*	10.6-14.5Vdc	3.39A	36W
GT*96300-*19.5*-T2/T2A/T3/T3A/R2/R3A*	14.6-19.5Vdc	2.46A	36W
GT*96300-*24*-T2/T2A/T3/T3A/R2/R3A*	19.6-24Vdc	1.83A	36W
GT*96300-*36*-T2/T2A/T3/T3A/R2/R3A*	24.1-36Vdc	1.49A	36W
GT*96300-*48*-T2/T2A/T3/T3A/R2/R3A*	36.1-48Vdc	0.99A	36W



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OT+00000 +++ TO/T	OA/TO/TOA	/DO/DOA A	D/DD/OD*
GT*96300-***-T2/T	ZA/ L3/ L3A/	RZ/R3A-A	P/PP/5P

Model	Output Voltage	Max. output current	Max. output power
GT*96300-*19.5-1.5- T2/T2A/T3/T3A/R2/R3A-AP/PP/SP*	18Vdc	2A	36W
GT*96300-*24-T2/T2A/T3/T3A/R2/R3A- AP/PP/SP*	24Vdc	1.5A	36W
GT*96300-*36-T2/T2A/T3/T3A/R2/R3A- AP/PP/SP*	36Vdc	1A	36W
GT*96300-*48-T2/T2A/T3/T3A/R2/R3A- AP/PP/SP*	48Vdc	0.75A	36W
GT*96300-*54-T2/T2A/T3/T3A/R2/R3A- AP/PP/SP*	54Vdc	0.66A	36W
GT*96300-*56-T2/T2A/T3/T3A/R2/R3A- AP/PP/SP*	56Vdc	0.64A	36W

Technical Considerations:

Scope of Power Supply evaluation defers the following clauses to be determined as part of the end product investigation:

- Clause 7.5 (Safety Signs),
- Clause 7.9 (Accompanying Documents),
- Clause 9 (ME Hazard), except 9.1 and 9.3 are evaluated,
- Clause 10 (Radiation),
- Clause 14 (PEMS),
- Clause 16 (ME Systems)
- Risk Management was excluded from this investigation.

Modification 1:

The original test report ref. No. 191201633SHA-001 dated 2020-04-21, was modified on 2020-08-24 to include the following changes and/or additions:

1. Only added construction diagram of optional output connector in ATTACHMENT as required by applicant. Concerning above changes, no test is required.



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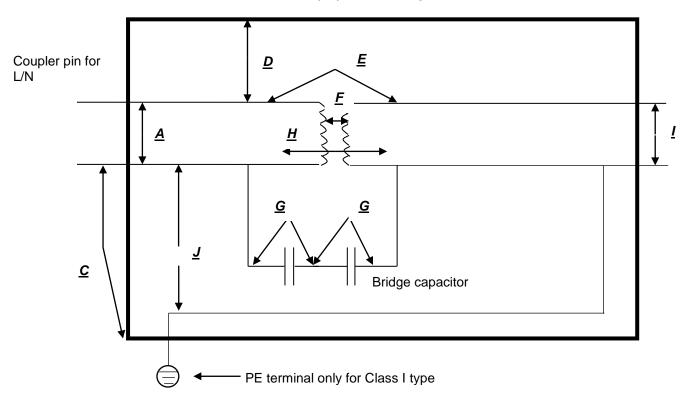
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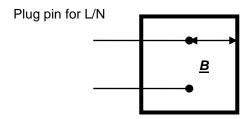
	IEC 60601-1				
(Clause	Requirement + Test	Result - Remark	Verdict	

INSULATION DIAGRAM

Plastic enclosure >0.4mm thick

(E1) Earthed output





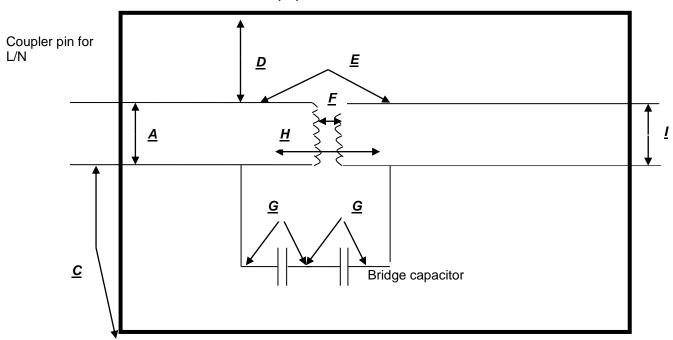


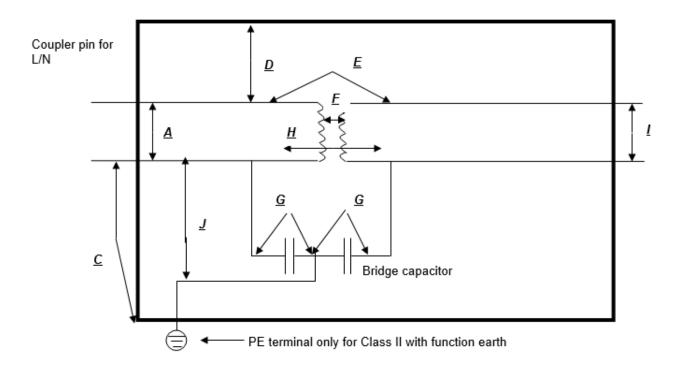
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IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict	

(F1) Class II / Double insulated





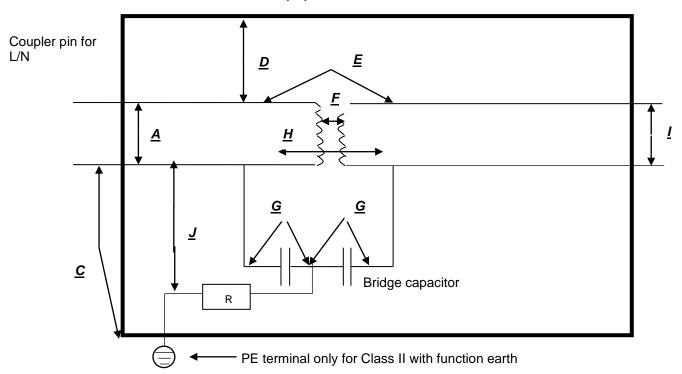


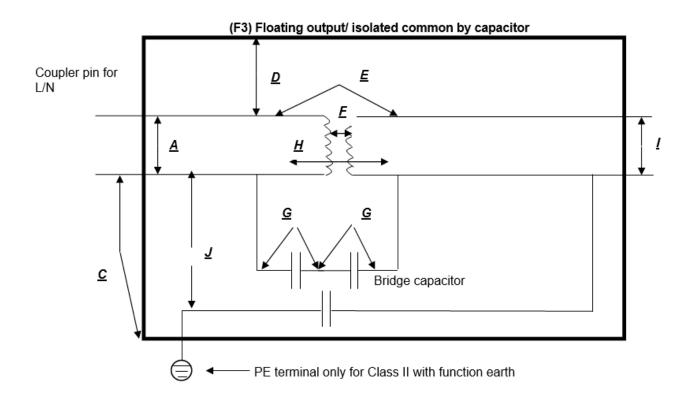
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IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict	

(F2) Isolated functional earth





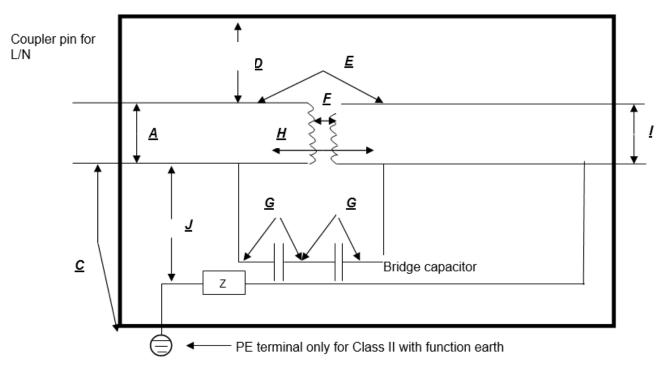


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IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict	

(E2) Class II, FE, Earthed output





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IEC 60601-1										
Claus	e Requiren	nent + 7	Γest			R	esult - Remar	k		Verdict
TADI	E: INSULATIO	N DIAC	·D A M							Р
	tion degree				2					F
										_
	/oltage catego									_
	de				⊠ None	☐ Areae				_
	ional details or plied parts					☐ Areas e 4.6 for d				_
Area	Number and type of Means of Protection: MOOP, MOPP	СТІ		king age V _{pk}	Required creepage (mm)			Measured clearance (mm)		Remarks
Α	1MOOP	IIIb	240	340	2.96	2.96	3.75	3.75	ро	pposite larity of ains part
В	2МООР	IIIb	240		5.92	5.92	8	8	on co sic ac pa plu is po the wit po	ug pin-out the nnector de to cessible rt when the ug portion plugged in e socket thout the wer supply rrectly ached.
С	2MOOP	IIIb	240		5.92	5.92	9	9	(pl to en (ad po	nins part lug portion) outer closure ccessible sition iring normal e)
D	2МООР	IIIb	240	340	5.92	5.92	9	9	pa ac ou	ernal mains rt to cessible ter closure
E	2MOPP	IIIb	240		7.68	6.45	9.7	7.5	se cir	nins part to condary cuits ptocoupler)
F	2MOPP	IIIb	290		9.07	9.03	9.66	9.66	se	ains part to condary cuits



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		Modification 1. 2	20 00 2 1		
	IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict		

									(Transformer)
G	1MOPP (Each) x 2	IIIb	130		3	1.6	6	6	Mains part to secondary circuits (Y capacitor x 2)
Н	2MOPP	IIIb	240		7.68	6.45	8.2	8.2	Mains part to secondary circuits (Along PCB trace)
I	2MOOP	IIIb		Max. 48Vdc					Accessible part per 8.4.2 c)
J	1MOPP	IIIb	240		4	3.225	4.8	4.8	Line/Neutral to PE terminal trace (for Class I) (floating for class II, shall be evaluated in end product)

Supplementary Information:

- 1) Multiplication factor for MOOP: 1.48; Multiplication factor for MOPP: 1.29.
- 2) Linear interpolation is applied to the determination of required creepage.
- The working voltage is highest measured value which acquired by testing all the models listed in the report at the rated input voltage, but not less than the rated input voltage.
- 4) The minimum creepage and clearance is selected from all the types of optocouplers.
- 5) The transformer core regarded as primary conductor is wrapped with 2 layers of insulating tape and the secondary pin-out adopts the jump lead wire soldering.
- There is a slot min. 1 mm wide between two sides of pads of components.
- 7) A CREEPAGE DISTANCE cannot be less than the required air clearance.

INSULATION DIAGRAM CONVENTIONS and GUIDANCE:

A measured value must be provided in the value columns for the device under evaluation. The symbol > (greater than sign) must not be used. Switch-mode power supplies must be re-evaluated in the device under evaluation therefore N/A must not be used with a generic statement that the component is certified.

Insulation diagram is a graphical representation of equipment insulation barriers, protective impedance and protective earthing. If feasible, use the following conventions to generate the diagram:

- All isolation barriers are identified by letters between separate parts of diagram, for example separate transformer
- windings, optocouplers, wire insulation, creepage and clearance distances.
- Parts connected to earth with large dots are protectively earthed. Other connections to earth are functional
- Applied parts are extended beyond the equipment enclosure and terminated with an arrow.
- Parts accessible to the operator only are extended outside of the enclosure, but are not terminated with an arrow.



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

4	GENERAL REQUIREMENTS		Р
4.1	Requirements of this standard applied in NORMAL USE and reasonably foreseeable misuse		Р
4.2	RISK MANAGEMENT PROCESS FOR ME EQUIPMENT OR ME SYSTEMS	See Appended RM Results Table 4.2	Р
4.3	Performance of clinical functions necessary to achieve intended use or that could affect the safety of the ME EQUIPMENT or ME SYSTEM were identified during RISK ANALYSIS.	No essential performance	N/A
4.4	EXPECTED SERVICE LIFE stated in RISK MANAGEMENT FILE:	Risk Management Report 6.1.19 5years	Р
4.5	Alternative means of addressing particular RISKS considered acceptable based on MANUFACTURER'S justification that RESIDUAL RISKS resulting from application of alternative means are comparable to the RESIDUAL RISKS resulting from requirements of this standard	No alternative risk control method.	N/A
4.6	RISK MANAGEMENT PROCESS identifies parts that can come into contact with PATIENT but not defined as APPLIED PARTS, subjected to the requirements for APPLIED PARTS, except for Clause 7.2.10	No such parts.	N/A
4.7	ME EQUIPMENT remained SINGLE FAULT SAFE, or the RISK remained acceptable as determined by Clause 4.2	See the attachment PFMEA GTFMP01009 A.2	Р
	Failure of any one component at a time that could result in a HAZARDOUS SITUATION, including those in 13.1, simulated physically or theoretically	See the attachment PFMEA GTFMP01009 A.2	Р
	RISK associated with failure of component during EXPECTED SERVICE LIFE of ME EQUIPMENT taken into account to evaluate if a component should be subjected to failure simulation	See Appended Table 13.2 for simulated physical test	Р
4.8	All components and wiring whose failure could result in a HAZARDOUS SITUATION used according to their applicable ratings, unless specified:		N/A
	Components and wiring exception in the standard or by RISK MANAGEMENT PROCESS		P P
	Reliability of components used as MEANS OF PROTECTION assessed for conditions of use in ME EQUIPMENT, and they complied with one of the following		N/A
	a) Applicable safety requirements of a relevant IEC or ISO standard		N/A



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IEC 60601-1				
Requirement + Test	Result - Remark	Verdict		
b) Requirements of this standard applied in the absence of a relevant IEC or ISO standard		N/A		
A COMPONENT WITH HIGH-INTEGRITY CHARACTERISTICS provided because a fault in a particular component can generate an unacceptable RISK:		N/A		
COMPONENTS WITH HIGH-INTEGRITY CHARACTERISTICS selected and evaluated consistent with their conditions of use and reasonable foreseeable misuse during EXPECTED SERVICE LIFE of ME EQUIPMENT by reviewing RISK MANAGEMENT FILE		N/A		
Power supply		Р		
ME EQUIPMENT is suitable for connection to a SUPPLY MAINS, specified to be connected to a separate power supply, can be powered by an INTERNAL ELECTRICAL POWER SOURCE, or a combination of the three:	Suitable for connection to a SUPPLY MAINS.	Р		
Maximum rated voltage for ME EQUIPMENT intended to be connected to SUPPLY MAINS:		Р		
- 250 V for hand-held me equipment (V):	Not hand-held equipment.	N/A		
- 250 V d.c. or single-phase a.c., or 500 V polyphase a.c. for ME EQUIPMENT and ME SYSTEMS with a RATED input ≤ 4 kVA (V):	100-240Vac, single phase, less than 4KVA	Р		
- 500 V for all other ME EQUIPMENT and ME SYSTEMS	100-240Vac, single phase, less than 4KVA	N/A		
Power input		Р		
Steady-state measured input of ME EQUIPMENT or ME SYSTEM at RATED voltage and at operating settings indicated in instructions for use didn't exceed marked rating by more than 10%:	See appended Table 4.11	Р		
- Measurements on ME EQUIPMENT or a ME SYSTEM marked with one or more RATED voltage ranges made at both upper and lower limits of the range:	See appended Table 4.11	P		
Measurements made at a voltage equal to the mean value of the range when each marking of RATED input was related to the mean value of relevant voltage range	No such marking.	N/A		
Power input, expressed in volt-amperes, measured with a volt-ampere meter or calculated as the product of steady state current (measured as described above) and supply voltage:	See appended Table 4.11	Р		
	b) Requirements of this standard applied in the absence of a relevant IEC or ISO standard A COMPONENT WITH HIGH-INTEGRITY CHARACTERISTICS provided because a fault in a particular component can generate an unacceptable RISK	b) Requirements of this standard applied in the absence of a relevant IEC or ISO standard A COMPONENT WITH HIGH-INTEGRITY CHARACTERISTICS provided because a fault in a particular component can generate an unacceptable RISK		



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

5	GENERAL REQUIREMENTS FOR TESTING ME E	QUIPMENT	Р
5.1	TYPE TESTS determined in consideration of Clause 4, in particular 4.2		Р
	Test not performed when analysis indicated condition being tested was adequately evaluated by other tests or methods:		N/A
	RISK MANAGEMENT FILE identified combinations of simultaneous independent faults that could result in a HAZARDOUS SITUATION.		N/A
5.2	TYPE TESTS conducted on one representative sample under investigation; multiple samples used simultaneously when validity of results was not significantly affected	Type test on single representative sample.	Р
5.3	a) Tests conducted within the environmental conditions specified in technical description		Р
	Temperature (°C), Relative Humidity (%):		-
	Atmospheric Pressure (kPa):		_
	b) ME EQUIPMENT shielded from other influences that might affect the validity of tests		Р
	c) Test conditions modified and results adjusted accordingly when ambient temperature could not be maintained	Considered in temperature test	Р
5.4	a) ME EQUIPMENT tested under least favourable working conditions specified in instructions for use		N/A
	b) ME EQUIPMENT with adjustable or controlled operating values by anyone other than SERVICE PERSONNEL adjusted to values least favourable for the relevant test per instructions for use	EUT is component power supply, not adjustable.	N/A
	c) When test results influenced by inlet pressure and flow or chemical composition of a cooling liquid, tests performed within the limits in technical description	No cooling liquid used.	N/A
	d) Potable water used for cooling	No cooling water used.	N/A
5.5	a) Supply voltage during tests was the least favourable of the voltages specified in 4.10.2 or voltages marked on ME EQUIPMENT (V)	90/264V considered	Р
	b) ME EQUIPMENT marked with a RATED frequency range tested at the least favourable frequency within the range (Hz):	60Hz considered	Р



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IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict	
	c) ME EQUIPMENT with more than one RATED voltage, both a.c./ d.c. or both external power and INTERNAL ELECTRICAL POWER SOURCE tested in conditions (see 5.4) related to the least favourable voltage, nature of supply, and type of current	90/264V, 60Hz considered	Р	
	d) ME EQUIPMENT intended for only d.c. supply connection tested with d.c. and influence of polarity considered:	No d.c supply connection	N/A	
	e)ME EQUIPMENT tested with alternative ACCESSORIES and components specified in ACCOMPANYING DOCUMENTS to result in the least favourable conditions:	No alternative accessory	N/A	
	f) ME EQUIPMENT connected to a separate power supply as specified in instructions for use	No separate power supply used	N/A	
5.6	When failure occurred or probability of future failure detected during sequence of tests, per agreement with manufacturer, all tests affecting results conducted on a new sample	No such condition	N/A	
	Alternatively, upon repair and modification of the sample, only the relevant tests conducted	No such condition	N/A	
5.7	ME EQUIPMENT or parts thereof affected by climatic conditions were set up completely, or partially, with covers detached and subjected to a humidity preconditioning prior to tests of Clauses 8.7.4 and 8.8.3:	No additional testing should be considered.	Р	
	Manually detachable parts removed and treated concurrently with major parts and manually removable ACCESS COVERS were opened and detached	No such part.	N/A	
	ME EQUIPMENT heated to a temperature between T and T + 4°C for at least 4 h and placed in a humidity chamber (relative humidity 93%±3%) and an ambient within 2 °C of T in the range of + 20 °C to + 32 °C for 48 h for units rated IPX0		Р	
	- For units rated higher than IPX0 test time extended to 168 h:	Pre-condition performed: 26°C, 93%RH for 168 h	Р	
5.8	Unless stated otherwise, tests in this standard sequenced as in Annex B to prevent influencing results of any subsequent test		Р	
5.9	Determination of APPLIED PARTS and ACCESSIBLE PARTS		Р	
5.9.1	APPLIED PARTS identified by inspection and reference to ACCOMPANYING DOCUMENTS:	See clause 4.6 Remark	N/A	
5.9.2	ACCESSIBLE PARTS			



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Clause	Requirement + Test	Result - Remark	Verdict		
5.9.2.1	Accessibility, when necessary, determined using standard test finger of Fig 6 applied in a bent or straight position	See Appended Table 5.9.2	Р		
	Openings preventing entry of test finger of Fig. 6 mechanically tested with a straight un-jointed test finger of the same dimensions with a force of 30 N		Р		
	When the straight un-jointed test finger entered, test with the standard test finger (Fig 6) was repeated, if necessary, by pushing the finger through the opening	Straight un-jointed test finger can't enter opening.	N/A		
5.9.2.2	Test hook of Fig. 7 inserted in all openings of ME EQUIPMENT and pulled with a force of 20 N for 10 s	Test hook can't enter opening	N/A		
	All additional parts that became accessible checked using standard test finger and by inspection	Test hook can't enter opening	N/A		
5.9.2.3	Conductive parts of actuating mechanisms of electrical controls accessible after removal of handles, knobs, levers and the like regarded as ACCESSIBLE PARTS:	No such part.	N/A		
	Conductive parts of actuating mechanisms not considered ACCESSIBLE PARTS when removal of handles, knobs, etc. required use of a TOOL .:	No such part.	N/A		

6	CLASSIFICATION OF ME EQUIPMENT AND ME S	SYSTEMS	Р
6.2	CLASS I ME EQUIPMENT, externally powered	Class I or Class II construction for power adapter model.	Р
	CLASS II ME EQUIPMENT, externally powered	Class I or Class II construction for power adapter model.	Р
	INTERNALLY POWERED ME EQUIPMENT	Not internally powered	N/A
	EQUIPMENT with means of connection to a SUPPLY MAINS complied with CLASS I or CLASS II ME EQUIPMENT requirements when so connected, and when not connected to SUPPLY MAINS with INTERNALLY POWERED ME EQUIPMENT requirements		N/A
	TYPE B APPLIED PART	No applied part	N/A
	TYPE BF APPLIED PART	No applied part	N/A
	TYPE CF APPLIED PART	No applied part	N/A
	DEFIBRILLATION-PROOF APPLIED PARTS	No applied part	N/A



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Clause	Requirement + Test	Result - Remark	Verdict		
6.3	ENCLOSURES classified according to degree of protection against ingress of water and particulate matter (IPN1N2) as per IEC 60529:	IP20 for adapter model.	N/A		
6.4	ME EQUIPMENT or its parts intended to be sterilized classified according to method(s) of sterilization in instructions for use:	No sterilization required	N/A		
6.5	ME EQUIPMENT and ME SYSTEMS intended for use in an OXYGEN RICH ENVIRONMENT classified for such use and complied with 11.2.2	Power supply not investigated for OXYGEN RICH ENVIRONMENT	N/A		
6.6	CONTINUOUS OF Non-CONTINUOUS OPERATION:	Continuous operation	Р		

7	ME EQUIPMENT IDENTIFICATION, MARKING, A	ND DOCUMENTS	Р
7.1.2	Legibility of Markings Test for Markings specified in Clause 7.2-7.6	See Appended Table 7.1.2	Р
7.1.3	Required markings can be removed only with a TOOL or by appreciable force, are durable and remain CLEARLY LEGIBLE during EXPECTED SERVICE LIFE OF ME EQUIPMENT IN NORMAL USE		Р
	a) After tests, adhesive labels didn't loosen up or curl up at edges and markings complied with requirements in Clause 7.1.2:	See appended Tables 7.1.3 and 8.10	Р
	b) Markings required by 7.2-7.6 remained CLEARLY LEGIBLE after marking durability test:	See appended Tables 7.1.3 and 8.10	Р
7.2	Marking on the outside of ME EQUIPMENT or ME EQUIPMENT parts		Р
7.2.1	At least markings in 7.2.2, 7.2.5, 7.2.6 (not for PERMANENTLY INSTALLED ME EQUIPMENT), 7.2.10, and 7.2.13 were applied when size of EQUIPMENT, its part, an ACCESSORY, or ENCLOSURE did not permit application of all required markings	See attached copy of Marking Plate	Р
	Remaining markings fully recorded in ACCOMPANYING DOCUMENTS:	All required marking provided on name plate.	N/A
	Markings applied to individual packaging when impractical to apply to ME EQUIPMENT	No such condition	N/A
	A material, component, ACCESSORY, or ME EQUIPMENT intended for a single use, or its packaging marked "Single Use Only", "Do Not Reuse" or with symbol 28 of Table D.1 (ISO 7000-1051, DB:2004-01):	No part intended for a single use.	N/A
7.2.2	ME EQUIPMENT marked with:		Р
	- the name or trademark and contact information of the MANUFACTURER	See marking plate	Р
	- a MODEL OR TYPE REFERENCE	See attached copy of Marking Plate	Р



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Clause	Requirement + Test	Result - Remark	Verdict
	– a serial number or lot or batch identifier; and	See marking plate	P
	- the date of manufacture or use by date	See marking plate	 P
	Detachable components of the ME EQUIPMENT not marked; misidentification does not present an unacceptable risk, or	occ maning plane	N/A
	Detachable components of the ME EQUIPMENT are marked with the name or trademark of the MANUFACTURER, and	See marking plate	Р
	– a MODEL OR TYPE REFERENCE	See marking plate	Р
	Software forming part of a PEMS identified with a unique identifier, such as revision level or date of release/issue, and identification are available to designated persons	No software	N/A
7.2.3	Symbol 11 on Table D.1 (ISO 7000-1641, DB: 2004-01) used, optionally, advice to OPERATOR to consult ACCOMPANYING DOCUMENTS	See the marking label.	Р
	Safety sign 10 on Table D.2 (safety sign IEC 60878 Safety 01) used, advising OPERATOR that ACCOMPANYING DOCUMENTS must be consulted	No such safety sign used.	N/A
7.2.4	Accessories marked with name or trademark and contact information of their MANUFACTURER, and	No accessory.	N/A
	- with a MODEL or TYPE REFERENCE		N/A
	- a serial number or lot or batch identifier		N/A
	- the date of manufacture or use by date		N/A
	Markings applied to individual packaging when not practical to apply to ACCESSORIES		N/A
7.2.5	ME EQUIPMENT intended to receive power from other electrical equipment in an ME SYSTEM and compliance with the requirements of this standard is dependent on that other equipment, one of the following is provided:	Component; final determination to be performed in the end-product	N/A
7.2.6	Connection to the Supply Mains		Р
	Except for PERMANENTLY INSTALLED ME EQUIPMENT, marking appearing on the outside of part containing SUPPLY MAINS connection and, adjacent to connection point		Р
	For PERMANENTLY INSTALLED ME EQUIPMENT, NOMINAL supply voltage or range marked inside or outside of ME EQUIPMENT, preferably, adjacent to SUPPLY MAINS connection	Not for permanently installed.	N/A
	- RATED supply voltage(s) or RATED voltage range(s) with a hyphen (-) between minimum and maximum voltages (V, V-V):	100-240V	Р



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Clause	Requirement + Test	Result - Remark	Verdict
	Multiple RATED supply voltages or multiple RATED supply voltage ranges are separated by (V/V):	Not so marked.	N/A
	- Nature of supply (e.g., No. of phases, except single-phase) and type of current:	Single phase, AC.	Р
	Symbols 1-5, Table D.1 (symbols of IEC 60417-5032, 5032-1, 5032-2, 5031, and 5033, all 2002-10) used, optionally, for same parameters:	'~' is used.	Р
	- RATED supply frequency or RATED frequency range in hertz:	50-60Hz	Р
	- Symbol 9 of Table D.1 (symbol IEC 60417-5172, 2003-02) used for CLASS II ME EQUIPMENT:	Symbol 9 is used for Class II adapter model.	Р
7.2.7	RATED input in amps or volt-amps, (A, VA):	1.0A	Р
	RATED input in amps or volt-amps, or in watts when power factor exceeds 0.9 (A, VA, W):		N/A
	RATED input for one or more RATED voltage ranges provided for upper and lower limits of the range or ranges when the range(s) is/are greater than ± 10 % of the mean value of specified range (A, VA,W)	100-240V~	Р
	Input at mean value of range marked when range limits do not differ by more than 10 % from mean value (A, VA, W):	No such range provided.	N/A
	Marking includes long-time and most relevant momentary volt-ampere ratings when provided, each plainly identified and indicated in ACCOMPANYING DOCUMENTS (VA)	No such rating provided.	N/A
	Marked input of ME EQUIPMENT provided with means for connection of supply conductors of other electrical equipment includes RATED and marked output of such means (A, VA, W):	No such rating provided.	N/A
7.2.8	Output connectors		Р
7.2.8.1	See 16.9.2.1 b) for MULTIPLE SOCKET-OUTLETS integral with ME EQUIPMENT	No MSO	N/A
7.2.8.2	Output connectors are marked, except for MULTIPLE SOCKET-OUTLETS or connectors intended for specified ACCESSORIES or equipment		Р
	Rated Voltage (V), Rated Current (A):	See model similarity	_
	Rated Power (W), Output Frequency (Hz):	See model similarity	
7.2.9	ME EQUIPMENT or its parts marked with the IP environmental Code per IEC 60529 according to classification in 6.3 (Table D.3, Code 2), marking optional for ME EQUIPMENT or parts rated IPX0:	IP20	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
7.2.10	Degrees of protection against electric shock as classified in 6.2 for all APPLIED PARTS marked with relevant symbols as follows (not applied to parts identified according to 4.6)	No Applied Parts in power supply	N/A
7.2.11	ME EQUIPMENT not marked to the contrary assumed to be suitable for CONTINUOUS OPERATION		Р
	DUTY CYCLE for ME EQUIPMENT intended for non- CONTINUOUS OPERATION appropriately marked to provide maximum "on" and "off" time:	Continuous operation.	N/A
7.2.12	Type and full rating of a fuse marked adjacent to ACCESSIBLE fuse-holder	No accessible fuse-holder	N/A
	Fuse type::		_
	Voltage (V) and Current (A) rating:		_
	Operating speed (s) and Breaking capacity:		_
7.2.13	A safety sign CLEARLY LEGIBLE and visible after INSTALLATION in NORMAL USE applied to a prominent location of EQUIPMENT that produce physiological effects capable of causing HARM to PATIENT OR OPERATOR not obvious to OPERATOR	EUT is component power supply only, no physiological effect	N/A
	Nature of HAZARD and precautions for avoiding or minimizing the associated RISK described in instructions for use:	Component, to be determined as part of end product.	N/A
7.2.14	HIGH VOLTAGE TERMINAL DEVICES on the outside of ME EQUIPMENT accessible without the use of a TOOL marked with symbol 24 of Table D.1 (symbol IEC 60417-5036, 2002-10)	No such high voltage terminal device.	N/A
7.2.15	Requirements for cooling provisions marked (e.g., supply of water or air):	Component, to be determined as part of end product.	N/A
7.2.16	ME EQUIPMENT with limited mechanical stability	Component, to be determined in end-product evaluation.	N/A
7.2.17	Packaging marked with special handling instructions for transport and/or storage:	Component, to be determined as part of end product.	N/A
7.2.18	RATED maximum supply pressure from an external source marked on ME EQUIPMENT adjacent to each input connector, and:	No external pressure source.	N/A
7.2.19	Symbol 7 of Table D.1 (IEC 60417-5017, 2002-10) marked on FUNCTIONAL EARTH TERMINAL:	No FE terminal.	N/A
7.2.20	Protective means, required to be removed to use a particular function of ME EQUIPMENT with alternate applications, marked to indicate the necessity for replacement when the function is no longer needed	Component, to be determined as part of end product.	N/A
	No marking applied when an interlock provided		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
7.3	Marking on the inside of ME EQUIPMENT or ME EQUIPMENT parts		Р
7.3.1	Maximum power loading of heating elements or lamp-holders designed for use with heating lamps marked near or in the heater (W):	No heating element, no lamp holder.	N/A
	A marking referring to ACCOMPANYING DOCUMENTS provided for heating elements or lamp-holders designed for heating lamps that can be changed only by SERVICE PERSONNEL using a TOOL	No heating element, no lamp holder.	N/A
7.3.2	Symbol 24 of Table D.1 (symbol IEC 60417-5036, 2002-10), or safety sign 3 of Table D.2 used to mark presence of HIGH VOLTAGE parts:	No such HV part.	N/A
7.3.3	Type of battery and mode of insertion when applicable is marked:	No battery.	N/A
	An identifying marking provided referring to instructions in ACCOMPANYING DOCUMENTS for batteries intended to be changed only by SERVICE PERSONNEL using a TOOL	No battery.	N/A
	A warning provided indicating replacement of lithium batteries or fuel cells when incorrect replacement by inadequately trained personnel would result in an unacceptable RISK (e.g., excessive temperatures, fire or explosion):	No battery.	N/A
	An identifying marking also provided referring to instructions in ACCOMPANYING DOCUMENTS:	No battery.	N/A
7.3.4	Fuses, replaceable THERMAL CUT-OUTS and OVER-CURRENT RELEASES, accessible by use of a TOOL		Р
	Identified by specification adjacent to the component, or		Р
	by reference to ACCOMPANYING DOCUMENTS		Р
	Voltage (V) and Current (A) rating:		_
	Operating speed(s), size & breaking capacity.:		_
7.3.5	PROTECTIVE EARTH TERMINAL marked with symbol 6 of Table D.1 (IEC 60417-5019, 2002-10), except for the PROTECTIVE EARTH TERMINAL in an APPLIANCE INLET according to IEC 60320-1		N/A
	Markings on or adjacent to PROTECTIVE EARTH TERMINALS not applied to parts requiring removal to make the connection, and remained visible after connection made		N/A
7.3.6	Symbol 7 of Table D.1 (IEC 60417-5017, 2002 -10) marked on FUNCTIONAL EARTH TERMINALS	No FE terminal.	N/A
7.3.7	Terminals for supply conductors marked adjacent to terminals,	Risk management report Page 12	Р
		No hazard	



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Clause	Requirement + Test	Result - Remark	Verdict
	Terminal markings included in ACCOMPANYING DOCUMENTS when ME EQUIPMENT too small to accommodate markings	Marked on EUT	N/A
	Terminals exclusively for neutral supply conductor in PERMANENTLY INSTALLED ME EQUIPMENT marked with Code 1 of Table D.3 (Code in IEC 60445)	Not permanently installed	N/A
	Marking for connection to a 3-phase supply, if necessary, complies with IEC 60445	Not 3-phase	N/A
	Markings on or adjacent to electrical connection points not applied to parts requiring removal to make connection, and remained visible after connection made		Р
7.3.8	"For supply connections, use wiring materials suitable for at least X °C" (where X > than max temperature measured in terminal box or wiring compartment under NORMAL USE), or equivalent, marked at the point of supply connections	No such high temperature	N/A
	Statement not applied to parts requiring removal to make the connection, and CLEARLY LEGIBLE after connections made		N/A
7.4	Marking of controls and instruments		N/A
7.4.1	The "on" & "off" positions of switch to control power to ME EQUIPMENT or its parts, including mains switch, marked with symbols 12 and 13 of Table D.1 (IEC 60417-5007, 2002-10, and IEC 60417-5008, 2002-10), or	No power switch	N/A
	- indicated by an adjacent indicator light, or		N/A
	- indicated by other unambiguous means		N/A
	The "on/off" positions of push button switch with bi-stable positions marked with symbol 14 of Table D.1 (IEC 60417-5010 2002-10), and		N/A
	- status indicated by adjacent indicator light		N/A
	status indicated by other unambiguous means		N/A
	The "on/off" positions of push button switch with momentary on position marked with symbol 15 of Table D.1 (symbol 60417-5011 2002-10), or		N/A
	- status indicated by adjacent indicator light		N/A
	- status indicated by other unambiguous means		N/A
7.4.2	Different positions of control devices/switches indicated by figures, letters, or other visual means	No such device.	N/A



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Requirement + Test	Result - Remark	Verdict	
Controls provided with an associated indicating device when change of setting of a control could result in an unacceptable RISK to PATIENT in NORMAL USE:	No such device.	N/A	
or an indication of direction in which magnitude of the function changes	No such device.	N/A	
Control device or switch that brings the ME EQUIPMENT into the "stand-by" condition marked with symbol IEC 60417-5009 (2002-10) (Table D.1, Symbol 29).	No stand-by switch	N/A	
Numeric indications of parameters on ME EQUIPMENT expressed in SI units according to ISO 80000-1 except the base quantities listed in Table 1 expressed in the indicated units	No numeric indications of parameters.	N/A	
ISO 80000-1 applied for application of SI units, their multiples, and certain other units		N/A	
All Markings in Sub-clause 7.4 complied with tests and criteria of 7.1.2 and 7.1.3:		N/A	
Safety signs		N/A	
Safety sign with established meaning used.	No safety sign used.	N/A	
Markings used to convey a warning, prohibition or mandatory action mitigating a RISK not obvious to OPERATOR are safety signs from ISO 7010		N/A	
Affirmative statement together with safety sign placed in instructions for use if insufficient space on ME EQUIPMENT		N/A	
Specified colours in ISO 3864-1 used for safety signs:		N/A	
Symbols		Р	
Meanings of symbols used for marking described in instructions for use:	Accompanying documents have been checked.	Р	
Symbols required by this standard conform to IEC or ISO publication referenced	IEC 60417-5172: "CLASS II equipment" symbol is used. IEC 60417-5957: "For indoor use only" symbol is used.	Р	
Symbols used for controls and performance conform to the IEC or ISO publication where symbols are defined, as applicable	No such symbol is used.	N/A	
Colours of the insulation of conductors	•		
PROTECTIVE EARTH CONDUCTOR identified by green and yellow insulation	Class I model provides PE conductor	Р	
	Requirement + Test Controls provided with an associated indicating device when change of setting of a control could result in an unacceptable RISK to PATIENT in NORMAL USE	Controls provided with an associated indicating device when change of setting of a control could result in an unacceptable RISK to PATIENT in NORMAL USE	



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Clause	Requirement + Test	Result - Remark	Verdict	
7.7.2	Insulation on conductors inside ME EQUIPMENT forming PROTECTIVE EARTH CONNECTIONS identified by green and yellow at least at terminations	Class I model provides PE conductor	Р	
7.7.3	Green and yellow insulation identify only following conductors:		Р	
	- PROTECTIVE EARTH CONDUCTORS		N/A	
	- conductors specified in 7.7.2		Р	
	- POTENTIAL EQUALIZATION CONDUCTORS		N/A	
	- FUNCTIONAL EARTH CONDUCTORS		N/A	
7.7.4	Neutral conductors of POWER SUPPLY CORDS are "light blue" specified in IEC 60227-1 or IEC 60245-1	No power supply cord	N/A	
7.7.5	Colours of conductors in POWER SUPPLY CORDS in accordance with IEC 60227-1 or IEC 60245-1	No power supply cord	N/A	
7.8	Indicator lights and controls		Р	
7.8.1	Red indicator lights mean: Warning (i.e., immediate response by OPERATOR required)		N/A	
	Yellow indicator lights mean: Caution (i.e., prompt response by OPERATOR required)		N/A	
	Green indicator lights mean: Ready for use		Р	
	Other colours, if used: Meaning other than red, yellow, or green (colour, meaning):		N/A	
7.8.2	Red used only for emergency control		N/A	
7.9	ACCOMPANYING DOCUMENTS	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.	Р	

8	PROTECTION AGAINST ELECTRICAL HAZARDS FROM ME EQUIPMENT		Р
8.1	Limits specified in Clause 8.4 not exceeded for ACCESSIBLE PARTS and APPLIED PARTS in NORMAL or SINGLE FAULT CONDITIONS	RM report page 11 EL1	Р
	NORMAL CONDITION considered as simultaneous occurrence of situations identified in 8.1a)		Р



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Clause	Requirement + Test	Result - Remark	Verdict
	SINGLE FAULT CONDITION considered to include the occurrences as specified in Clause 8.1b):	The following needs to be considered in the end product: - interruption of any one power-carrying conductor - unintended movement of a component - accidental detachment of conductors and connectors	N/A
	ACCESSIBLE PARTS determined according to 5.9		Р
	LEAKAGE CURRENTS measured according to 8.7		Р
8.2	Requirements related to power sources		N/A
8.2.1	Connection to a separate power source		N/A
	When ME EQUIPMENT specified for connection to a separate power source other than SUPPLY MAINS, separate power source considered as part of ME EQUIPMENT or combination considered as an ME SYSTEM	Connection to mains only	N/A
	Tests performed with ME EQUIPMENT connected to separate power supply when one specified		N/A
	When a generic separate power supply specified, specification in ACCOMPANYING DOCUMENTS examined		N/A
8.2.2	No HAZARDOUS SITUATION as described in 13.1 developed when a connection with wrong polarity made for ME EQUIPMENT from an external d.c. source	Component, to be determined in end-product evaluation	N/A
	ME EQUIPMENT connected with correct polarity maintained BASIC SAFETY and ESSENTIAL PERFORMANCE	Component, to be determined in end-product evaluation	N/A
	Protective devices that can be reset by anyone without a TOOL returns to NORMAL CONDITION on reset	Component, to be determined in end-product evaluation	N/A
8.3	Classification of APPLIED PARTS	No Applied Parts	N/A
8.4	Limitation of voltage, current or energy		Р
8.4.1	PATIENT CONNECTIONS intended to deliver Current		Р
	Limits in 8.4.2 not applied to currents intended to flow through body of PATIENT to produce a physiological effect during NORMAL USE	No such currents.	Р
8.4.2	ACCESSIBLE PARTS and APPLIED PARTS		Р
	b) LEAKAGE CURRENTS from, to, or between ACCESSIBLE PARTS did not exceed limits for TOUCH CURRENT in Cl. 8.7.3 c) when measured per Clause 8.7.4 (mA):	See appended Table 8.7	Р



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Clause	Requirement + Test	Result - Remark	Verdict
	c) Limits specified in b) not applied to parts when probability of a connection to a PATIENT, directly or through body of OPERATOR, is negligible in NORMAL USE, and the OPERATOR is appropriately instructed	The likelihood of the current flowing through body of OPERATOR to be determined in end-product evaluation	Р
	- accessible contacts of connectors		Р
	 contacts of fuseholders accessible during replacement of fuse 	No such part.	N/A
	 contacts of lampholders accessible after removal of lamp 	No such part.	N/A
	 parts inside an ACCESS COVER that can be opened without a TOOL, or where a TOOL is needed but the instructions for use instruct an OPERATOR other than SERVICE PERSONNEL to open the relevant ACCESS COVER 	No such part.	N/A
	Voltage to earth or to other ACCESSIBLE PARTS did not exceed 42.4 V peak a.c. or 60 V d.c. for above parts in NORMAL or single fault condition (V a.c. or d.c.):	See appended Table 8.4.2	Р
	Limit of 60 V d.c. applied with no more than 10% peak-to-peak ripple, and when ripple larger than specified value, 42.4 V peak limit applied (V d.c.):	See appended Table 8.4.2	Р
	Energy did not exceed 240 VA for longer than 60 s or stored energy available did not exceed 20 J at a potential of 2 V or more (VA or J):	See appended Table 8.4.2	Р
	LEAKAGE CURRENT limits referred to in 8.4.2 b) applied when voltages higher than limits in 8.4.2 c) were present (mA):	See appended Table 8.4.2	Р
	d) Voltage and energy limits specified in c) above also applied to the following:	No such part.	N/A
	 internal parts, other than contacts of plugs, connectors and socket-outlets, touchable by test pin in Fig 8 inserted through an opening in an ENCLOSURE; and 	No internal part is touchable for adapter model.	N/A
	- internal parts touchable by a metal test rod with a diameter of 4 mm and a length 100 mm, inserted through any opening on top of ENCLOSURE or through any opening provided for adjustment of pre-set controls by the RESPONSIBLE ORGANIZATION in NORMAL USE using a TOOL		N/A
	Test pin or the test rod inserted through relevant openings with minimal force of no more than 1 N	No opening for adapter model.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Test rod inserted in every possible position through openings provided for adjustment of pre-set controls that can be adjusted in NORMAL USE, with a force of 10 N		N/A
	Test repeated with a TOOL specified in instructions for use		N/A
	Test rod freely and vertically suspended through openings on top of ENCLOSURE		N/A
	e) Devices used to de-energize parts when an ACCESS COVER opened without a TOOL gives access to parts at voltages above levels permitted by this Clause comply with 8.11.1 for mains isolating switches and remain effective in SINGLE FAULT CONDITION	No such part for adapter model.	N/A
	A TOOL is required when it is possible to prevent the devices from operating		N/A
8.4.3	Worst case voltage between pins of plug and between either supply pin and ENCLOSURE did not exceed 60 V one sec after disconnecting the plug of ME EQUIPMENT or its parts (V)::	See appended Table 8.4.3	Р
	When voltage exceeded 60 V, calculated or measured stored charge didn't exceed 45 μC:	See appended Table 8.4.3	Р
8.4.4	Residual voltage of conductive parts of capacitive circuits, having become accessible after ME EQUIPMENT was de-energized after removal of ACCESS COVERS, didn't exceed 60V or calculated stored charge didn't exceed 45µC:	No such part.	N/A
	A device manually discharging capacitors used when automatic discharging was not possible and ACCESS COVERS could be removed only with aid of a TOOL		N/A
	Capacitor(s) and connected circuitry marked with symbol 24 of Table D.1 (IEC 60417-5036, 2002-10), and manual discharging device specified in technical description:		N/A
8.5	Separation of parts		Р
3.5.1	MEANS OF PROTECTION (MOP)		Р
8.5.1.1	Two MEANS of PROTECTION provided for ME EQUIPMENT to prevent APPLIED and other ACCESSIBLE PARTS from exceeding limits in 8.4		Р
	Each MEANS OF PROTECTION categorized as a MEANS OF PATIENT PROTECTION or a MEANS OF OPERATOR PROTECTION, taking into account Clause 4.6, and flow chart in Fig A.12		Р



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Clause	Requirement + Test	Result - Remark	Verdict
	Varnishing, enamelling, oxidation, and similar protective finishes and coatings with sealing compounds re-plasticizing at temperatures expected during operation and sterilization disregarded as MEANS OF PROTECTION		Р
	Components and wiring forming a MEANS OF PROTECTION comply with 8.10		Р
	Insulation, CREEPAGE, CLEARANCES, components or earth connections not complying with 8.5.1.2 and 8.5.1.3 not considered as MEANS OF PROTECTION, and failure of these parts regarded as NORMAL CONDITION		Р
8.5.1.2	MEANS OF PATIENT PROTECTION (MOPP)		Р
	Solid insulation forming a MEANS OF PATIENT PROTECTION complied with dielectric strength test of Clause 8.8 at test voltage of Table 6		Р
	CREEPAGE and CLEARANCES forming a MEANS OF PATIENT PROTECTION complied with Table 12		Р
	PROTECTIVE EARTH CONNECTIONS forming a MEANS OF PATIENT PROTECTION complied with Cl. 8.6	Class I power adapter models have been checked.	Р
	A Y (Y1 or Y2) capacitor complying with IEC 60384-14 considered one MEANS OF PATIENT PROTECTION	See Appended Tables 8.8.3 and 8.10	Р
	Single Y1 capacitor used for two MEANS OF PATIENT PROTECTION when the working voltage is less than 42,4 V peak a.c. or 60 V d.c	See Appended Tables 8.8.3 and 8.10	Р
	Two capacitors used in series, each RATED for total WORKING VOLTAGE across the pair and have the same NOMINAL capacitance	Two identical Y1 used in series	Р
	Voltage _{Total Working} (V) and C _{Nominal} (μF):	250V or 500V, 2200pF	_
8.5.1.3	MEANS OF OPERATOR PROTECTION (MOOP)		Р
	Solid insulation forming a MEANS OF OPERATOR PROTECTION complied with:		Р
	 dielectric strength test of 8.8 at test voltage of Table 6; or 		Р
	- requirements of IEC 60950-1 for INSULATION CO-ORDINATION		Р
	CREEPAGE and CLEARANCES forming a MEANS OF OPERATOR PROTECTION complied with:		Р
	- limits of Tables 13 to 16 (inclusive); or		Р
	- requirements of IEC 60950-1 for INSULATION CO-ORDINATION		Р
	PROTECTIVE EARTH CONNECTIONS forming a MEANS OF OPERATOR PROTECTION complied with CI. 8.6		N/A



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	- or with requirements and tests of IEC 60950-1 for protective earthing:		N/A
	A Y2 (IEC 60384-14) capacitor is considered one MEANS OF OPERATOR PROTECTION:		N/A
	A Y1 (IEC 60384-14) capacitor is considered two MEANS OF OPERATOR PROTECTION:		N/A
	Two capacitors used in series each RATED for total WORKING VOLTAGE across the pair and have the same NOMINAL capacitance		N/A
	Voltage _{Total Working} (V) and C _{Nominal} (μF):		_
	Points at which impedances of components, CREEPAGE, CLEARANCES, PROTECTIVE EARTH CONNECTIONS or insulation, prevent ACCESSIBLE PARTS from exceeding limits in 8.4 examined whether a failure at any of these points is to be regarded as a NORMAL or SINGLE FAULT CONDITION		P
	A MEANS OF PROTECTION protecting APPLIED PARTS, or parts identified by 4.6 as parts subject to the same requirements, considered MEANS OF PATIENT PROTECTION:	See the insulation diagram.	Р
	A MEANS OF PROTECTION protecting other parts considered MEANS OF OPERATOR PROTECTION:	See the insulation diagram.	Р
8.5.2	Separation of PATIENT CONNECTIONS	No PATIENT CONNECTIONS	N/A
8.5.3	MAXIMUM MAINS VOLTAGE		Р
	- MAXIMUM MAINS VOLTAGE determined to be the highest RATED supply voltage for single-phase or d.c. SUPPLY MAINS powered ME EQUIPMENT, as well as INTERNALLY POWERED ME EQUIPMENT with a means of connection to a SUPPLY MAINS (V):	240Vac	Р
	When less than 100 V, MAXIMUM MAINS VOLTAGE was 250 V	No such condition.	N/A
	- MAXIMUM MAINS VOLTAGE was the highest RATED phase to neutral supply voltage for poly-phase ME EQUIPMENT (V):	No poly-phase supply	N/A
	- for other INTERNALLY POWERED ME EQUIPMENT, maximum mains voltage was 250 V	Not internally powered	N/A
8.5.4	WORKING VOLTAGE		Р
	- Input supply voltage to ME EQUIPMENT was RATED voltage or voltage within RATED range resulting in highest measured value (V):	240Vac	Р
	- WORKING VOLTAGE for d.c. voltages with superimposed ripple was average value when peak-to-peak ripple less than 10% of average value or peak voltage when peak-to-peak ripple exceeding 10% of average value (V)::	See Insulation Diagram and Insulation Table	Р



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	- WORKING VOLTAGE for each MEANS OF PROTECTION forming DOUBLE INSULATION was voltage DOUBLE INSULATION, as a whole, subjected to (V):	See Insulation Diagram and Insulation Table	P	
8.5.5	DEFIBRILLATION-PROOF APPLIED PARTS	No DEFIBRILLATION-PROOF APPLIED PARTS	N/A	
8.6	Protective and functional earthing and potential	equalization of ME EQUIPMENT	Р	
8.6.1	Requirements of 8.6.2 to 8.6.8 applied		Р	
	Parts complying with IEC 60950-1 for protective earthing and serving as MEANS OF OPERATOR PROTECTION but not PATIENT PROTECTION exempted from requirements of 8.6.2 to 8.6.8	No such parts	N/A	
8.6.2	PROTECTIVE EARTH TERMINAL is suitable for connection to an external protective earthing system by a PROTECTIVE EARTH CONDUCTOR in a POWER SUPPLY CORD and a suitable plug or by a FIXED PROTECTIVE EARTH CONDUCTOR	Appliance coupler	Р	
	Clamping means of PROTECTIVE EARTH TERMINAL of ME EQUIPMENT for FIXED supply conductors or POWER SUPPLY CORDS comply with 8.11.4.3, and cannot be loosened without TOOL	No such construction.	N/A	
	Screws for internal PROTECTIVE EARTH CONNECTIONS completely covered or protected against accidental loosening from outside:	No such construction.	N/A	
	Earth pin of APPLIANCE INLET forming supply connection to ME EQUIPMENT regarded as PROTECTIVE EARTH TERMINAL		Р	
	PROTECTIVE EARTH TERMINAL not used for mechanical connection between different parts of ME EQUIPMENT or securing components not related to protective or functional earthing	No such construction.	N/A	
8.6.3	PROTECTIVE EARTH CONNECTION not used for a moving part	No such construction.	N/A	
8.6.4	a) PROTECTIVE EARTH CONNECTIONS carried fault currents reliably and without excessive voltage drop:	See appended Table 8.6.4	Р	
	b) Allowable TOUCH CURRENT and PATIENT LEAKAGE CURRENT in SINGLE FAULT CONDITION were not exceeded, when impedance of PROTECTIVE EARTH CONNECTIONS exceeded values in 8.6.4 a) and Table 8.6.4, due to limited current capability of relevant circuits:		N/A	
8.6.5	Surface coatings		N/A	
	Poorly conducting surface coatings on conductive elements removed at the point of contact	No such surface coating.	N/A	



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Clause	Requirement + Test	Result - Remark	Verdict	
	Coating not removed when requirements for impedance and current-carrying capacity met		N/A	
8.6.6	Plugs and sockets		Р	
	PROTECTIVE EARTH CONNECTION where connection between SUPPLY MAINS and ME EQUIPMENT or between separate parts of ME EQUIPMENT made via a plug and socket was made before and interrupted after supply connections	Certified appliance coupler or plug.	Р	
	- applied also where interchangeable parts are PROTECTIVELY EARTHED		N/A	
3.6.7	Terminal for connection of a POTENTIAL EQUALIZATION	TION CONDUCTOR	N/A	
	- Terminal is accessible to OPERATOR with ME EQUIPMENT in any position of NORMAL USE	No potential equalization conductor.	N/A	
	-accidental disconnection avoided in NORMAL USE		N/A	
	- Terminal allows conductor to be detached without a TOOL		N/A	
	- Terminal not used for a PROTECTIVE EARTH CONNECTION		N/A	
	- Terminal marked with symbol 8 of Table D.1		N/A	
	- Instructions for use contain information on function and use of POTENTIAL EQUALIZATION CONDUCTOR together with a reference to requirements of this standard		N/A	
	Power supply cord does not incorporate a POTENTIAL EQUALIZATION CONDUCTOR		N/A	
3.6.8	FUNCTIONAL EARTH TERMINAL not used to provide a PROTECTIVE EARTH CONNECTION		N/A	
3.6.9	Class II ME EQUIPMENT		N/A	
	Third conductor of POWER SUPPLY CORD connected to protective earth contact of MAINS PLUG provided with CLASS II ME EQUIPMENT with isolated internal screens used as functional earth connection to the screen's FUNCTIONAL EARTH TERMINAL, coloured green and yellow	To be further evaluated in end product	N/A	
	ACCOMPANYING DOCUMENTS include a statement that the third conductor in the POWER SUPPLY CORD is only a functional earth.		N/A	
	Two MEANS OF PROTECTION provided between insulation of internal screens and all internal wiring connected to them and ACCESSIBLE PARTS		N/A	
8.7	LEAKAGE CURRENTS and PATIENT AUXILIARY CURRENTS		Р	



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Clause	Requirement + Test	Result - Remark	Verdict
8.7.1	a) Electrical isolation providing protection against electric shock limits currents to values in 8.7.3:	See appended Tables 8.7	Р
	b) Specified values of EARTH LEAKAGE, TOUCH, PATIENT LEAKAGE, and PATIENT AUXILIARY CURRENTS applied in combination of conditions in appended Table 8.7:	See appended Tables 8.7	Р
8.7.2	Allowable values specified in 8.7.3 applied under SINGLE FAULT CONDITIONS of 8.1 b), except		Р
	 where insulation used in conjunction with a PROTECTIVE EARTH CONNECTION, insulation short circuited only under conditions in 8.6.4 b) 		N/A
	 the only SINGLE FAULT CONDITION for EARTH LEAKAGE CURRENT was interruption of one supply conductor at a time 		N/A
	LEAKAGE CURRENTS and PATIENT AUXILIARY CURRENT not measured in SINGLE FAULT CONDITION of short circuiting of one constituent part of DOUBLE INSULATION		Р
	SINGLE FAULT CONDITIONS not applied at same time as special test conditions of MAXIMUM MAINS VOLTAGE ON APPLIED PARTS and non-PROTECTIVELY EARTHED parts of ENCLOSURE		Р
8.7.3	Allowable Values		Р
	a) Allowable values in 8.7.3 b), c), and d) measured based on, and are relative to currents in Fig 12 a), or by a device measuring frequency contents of currents as in Fig 12 b.:	See appended Table 8.7	Р
	b) Allowable values of PATIENT LEAKAGE and AUXILIARY CURRENTS are according to Tables 3 & 4, and values of a.c. are relative to currents having a frequency not less than 0.1Hz:		N/A
	c) Touch current did not exceed 100 µA in NORMAL CONDITION and 500 µA in SINGLE FAULT CONDITION (I _{TNC} , I _{TSFC}):	See appended Table 8.7	Р
	d) EARTH LEAKAGE CURRENT did not exceed 5 mA in NORMAL CONDITION and 10 mA in SINGLE FAULT CONDITION (I _{ENC} , I _{ESFC}):	See appended Table 8.7	Р
	Higher values of EARTH LEAKAGE CURRENT permitted for PERMANENTLY INSTALLED ME EQUIPMENT connected to a supply circuit supplying only this ME EQUIPMENT according to local regulations or IEC 60364-7-710:	Not permanently installed ME equipment.	N/A
	e) LEAKAGE CURRENTS, regardless of waveform and frequency, did not exceed 10 mA r.m.s. in NORMAL or in SINGLE FAULT CONDITION (measured with a non-frequency-weighted device:	See appended Table 8.7	Р



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	f) LEAKAGE CURRENTS that can flow in a FUNCTIONAL EARTH CONDUCTOR in a non-PERMANENTLY INSTALLED ME EQUIPMENT are 5 mA in NORMAL CONDITION and 10 mA in SINGLE FAULT CONDITION	No such condition	N/A	
8.7.4	LEAKAGE and PATIENT AUXILIARY CURRENTS measurements:	See appended Table 8.7	Р	
8.8	Insulation		Р	
8.8.1	Insulation relied on as MEANS OF PROTECTION, including REINFORCED INSULATION subjected to testing		Р	
	Insulation exempted from test (complies with clause 4.8)		Р	
	Insulation forming MEANS OF OPERATOR PROTECTION and complying with IEC 60950-1 for INSULATION CO-ORDINATION not tested as in 8.8	No such parts	N/A	
8.8.2	Distance through solid insulation or use of thin sheet material		Р	
	Solid insulation forming SUPPLEMENTARY or REINFORCED INSULATION for a PEAK WORKING VOLTAGE greater than 71 V provided with:		Р	
	a) 0.4 mm, min, distance through insulation, or	Enclosure is 2.0mm thick	Р	
	b) does not form part of an ENCLOSURE and not subject to handling or abrasion during NORMAL USE, and comprised of:		Р	
	- at least two layers of material, each passed the appropriate dielectric strength test:	See appended Table 8.8.3	Р	
	 or three layers of material, for which all combinations of two layers together passed the appropriate dielectric strength test 		N/A	
	Dielectric strength test for one or two layers was same as for one MEANS OF PROTECTION for SUPPLEMENTARY INSULATION		N/A	
	Dielectric strength test for one or two layers was same as for two MEANS OF PROTECTION for REINFORCED INSULATION	See appended Table 8.8.3	Р	
	BASIC, SUPPLEMENTARY, and REINFORCED INSULATION required between windings of wound components separated by interleaved insulation complying with a) or b), or both, except when		N/A	
	c) Wire with solid insulation, other than solvent based enamel, complying with a)		N/A	
	d) Wire with multi-layer extruded or spirally wrapped insulation complying with b) and complying with Annex L		N/A	



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	e) Finished wire with spirally wrapped or multi- layer extruded insulation, complying with Annex L	Certified triple insulated wire is used	Р
	BASIC INSULATION: minimum two wrapped layers or one extruded layer		N/A
	- SUPPLEMENTARY INSULATION: minimum two layers, wrapped or extruded		N/A
	- REINFORCED INSULATION: minimum three layers, wrapped or extruded		Р
	In d) and e), for spirally wrapped insulation with CREEPAGE DISTANCES between layers less than in Table 12 or 16 (Pollution Degree 1) depending on type of insulation, path between layers sealed as a cemented joint in 8.9.3.3 and test voltages of TYPE TESTS in L.3 equal 1.6 times of normal values		N/A
	Protection against mechanical stress provided where two insulated wires or one bare and one insulated wire are in contact inside wound component, crossing at an angle between 45° and 90° and subject to winding tension:	Additional protection by insulating tape.	Р
	Finished component complied with routine dielectric strength tests of 8.8.3:		N/A
	Tests of Annex L not repeated since material data sheets confirm compliance:	See Table 8.10 and Material Information Attachment	Р
8.8.3	Dielectric Strength		Р
	Solid insulating materials with a safety function withstood dielectric strength test voltages:	See appended Table 8.8.3	Р
8.8.4	Insulation other than wire insulation		Р
8.8.4.1	Resistance to heat retained by all insulation and insulating partition walls during EXPECTED SERVICE LIFE of ME EQUIPMENT		Р
	ME EQUIPMENT and design documentation examined:		Р
	RISK MANAGEMENT FILE examined in conjunction with resistance to moisture, dielectric strength, and mechanical strength tests:	See also RM clauses in 11 and 15 Page 13 EL4	Р
	Satisfactory evidence of compliance provided by manufacturer for resistance to heat:	No evidence provided	N/A
	Tests conducted in absence of satisfactory evidence for resistance to heat:	Ball pressure test performed	Р
	a) ENCLOSURE and other external parts of insulating material, except insulation of flexible cords and parts of ceramic material, subjected to ball-pressure test using Fig 21 apparatus:	See Table 8.8.4.1	Р



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	b) Parts of insulating material supporting uninsulated parts of MAINS PART subjected to ball-pressure test in a), except at 125 °C ± 2 ° C or ambient indicated in technical description ±2°C plus temperature rise determined during test of 11.1 of relevant part, if higher (°C):	See Table 8.8.4.1	P	
	Test not performed on parts of ceramic material, insulating parts of commutators, brush-caps, and similar, and on coil formers not used as REINFORCED INSULATION	No such material	N/A	
8.8.4.2	Resistance to environmental stress		Р	
	Insulating characteristics and mechanical strength of all MEANS OF PROTECTION not likely to be impaired by environmental stresses including deposition of dirt resulting from wear of parts within EQUIPMENT, potentially reducing CREEPAGE and CLEARANCES below 8.9		P	
	Ceramic and similar materials not tightly sintered, and beads alone not used as SUPPLEMENTARY OF REINFORCED INSULATION	No such material	N/A	
	Insulating material with embedded heating conductors considered as one MEANS OF PROTECTION but not two MEANS OF PROTECTION	No heating conductor	N/A	
	Parts of natural latex rubber aged by suspending samples freely in an oxygen cylinder containing commercial oxygen to a pressure of 2.1 Mpa ± 70 kPa, with an effective capacity of at least 10 times volume of samples	No such material	N/A	
	There were no cracks visible to naked eyes after samples kept in cylinder at 70 °C ± 2 °C for 96h, and afterwards, left at room temperature for at least 16h	No such material	N/A	
8.9	CREEPAGE DISTANCES and AIR CLEARANCES		Р	
8.9.1.1	CREEPAGE DISTANCES and AIR CLEARANCES are ≥ to values in Tables 12 to 16 (inclusive), except as specified in Clauses 8.9.1.2 to 8.9.1.15		Р	
	- Insulation between parts of opposite polarity of the MAINS PART on the supply mains side of any mains fuse or over-current release, one MEANS OF OPERATOR PROTECTION are ≥ to values in Table 13, Table 14 and Table 16		Р	
8.9.1.2	Tables 12 to 16 (inclusive) not applied to CREEPAGE and CLEARANCES forming MEANS OF OPERATOR PROTECTION per IEC 60950-1 for INSULATION CO-ORDINATION and used under conditions compliance was tested	No such part	N/A	



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Clause	Requirement + Test	Result - Remark	Verdict
8.9.1.3	Specified min CLEARANCE applied as min CREEPAGE for CREEPAGE DISTANCES across glass, mica, ceramic and other inorganic insulating materials with similar tracking characteristics	No such material	N/A
8.9.1.4	When min CREEPAGE derived from Tables 12 to 16 (inclusive) was less than min applicable CLEARANCE, value of min CLEARANCE applied as min CREEPAGE DISTANCE	Noted, but no such condition	N/A
8.9.1.5	ME EQUIPMENT RATED to operate at an altitude of 2000 m		N/A
	ME EQUIPMENT RATED to operate at an altitude specified by MANUFACTURER (m):	5000m	Р
	Operating altitude corresponding to actual air pressure for ME EQUIPMENT intended for pressurized environments (e.g., aircraft) used to determine multiplication factor from Table 8, and AIR CLEARANCE was multiplied by this factor		Р
	CREEPAGE DISTANCES not subjected to multiplication factors, but were at least as large as the resulting value for AIR CLEARANCE		Р
8.9.1.6	When WORKING VOLTAGE was between those in Tables 12 to 16 (inclusive), CREEPAGE and CLEARANCES calculated as follows:		Р
	- CREEPAGE DISTANCES determined by linear interpolation between the nearest two values, and the calculated spacing rounded off to the next higher 0.1 mm increment (mm):	See Insulation Diagram and Table	Р
	- CLEARANCES for PEAK WORKING VOLTAGES above 2800 V peak or d.c. determined by linear interpolation between the nearest two values, and the calculated spacing rounded off to the next higher 0.1 mm increment (mm):	No such high voltage.	N/A
	- for AIR CLEARANCES corresponding to PEAK WORKING VOLTAGE up to 2800 V peak or d.c., the higher of the two values applied	See Insulation Diagram and Table	Р
8.9.1.7	Material groups classified in accordance with Table 9 (Material Group):	Material group IIIb was assumed.	N/A
	Material group evaluated using 50 drops of solution A based on test data for material according to IEC 60112:	Material group IIIb was assumed.	N/A
	Material of unknown group considered IIIb		Р
8.9.1.8	Pollution degree 1: Micro-environment sealed to exclude dust and moisture	Pollution degree 2	N/A
	 Pollution degree 2: Micro-environment with non-conductive pollution, except occasional conductivity caused by condensation 		Р



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	- Pollution degree 3: Micro-environment subject to conductive pollution, or dry non- conductive pollution that could become conductive due to expected condensation	Pollution degree 2	N/A
	Pollution degree 4: Micro-environment where continuous conductivity occurs due to conductive dust, rain, or other wet conditions	Pollution degree 2	N/A
	Pollution degree 4 not used for insulation providing a MEANS OF PROTECTION	Pollution degree 2	N/A
	Where insulation between MAINS PART and earth might be compromised, measures such as maintenance ensure that micro-environment is mitigated to a lower pollution degree	No such construction.	N/A
	Means employed according to Annex M to reduce the pollution degree:		N/A
8.9.1.9	Overvoltage category classification; value of MAINS TRANSIENT VOLTAGE determined from overvoltage category per IEC60664-1 and NOMINAL a.c. MAINS VOLTAGE using Table 10		Р
	V _{MT} Peak (V):	2500	_
	V _{MN} r.m.s (V):	300	_
8.9.1.10	AIR CLEARANCE for MAINS PARTS (operating on RATED MAINS VOLTAGES up to 300 V) were values for r.m.s. or d.c. RATED MAINS VOLTAGE in Table 13 plus additional CLEARANCE in Table 14 for PEAK WORKING VOLTAGE		Р
8.9.1.11	SUPPLY MAINS overvoltage category II applied according to IEC 60664-1		Р
	For ME EQUIPMENT intended for overvoltage category III, Tables 13 to 15 (inclusive) not used for clearance, instead values in the next MAINS TRANSIENT VOLTAGE column upwards used	No overvoltage category III	N/A
	When PATIENT protection (Table 12) is required for use of ME EQUIPMENT on overvoltage category III SUPPLY MAINS, guidance provided on values required in the rationale for CI. 8.9 used	No overvoltage category III	N/A
8.9.1.12	A SECONDARY CIRCUIT derived from a SUPPLY MAINS, normally, considered to be overvoltage category I according to IEC 60664-1 when the MAINS PART is overvoltage category II (Table 15)	No measurement is taken.	N/A
	Table 15 applied to earthed SECONDARY CIRCUIT or INTERNALLY POWERED ME EQUIPMENT		N/A
	Requirements for primary circuits in Tables 13 and 14 used for an unearthed SECONDARY CIRCUIT derived from a SUPPLY MAINS		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Table 15 applied when SECONDARY CIRCUIT was separated from MAINS PART by a functionally earthed or PROTECTIVELY EARTHED metal screen or transients in SECONDARY CIRCUIT were below the levels expected for overvoltage category I		N/A
	Table 15 column for circuits not subject to transient over-voltages applied to:		N/A
	 d.c. SECONDARY CIRCUITS reliably connected to earth and have capacitive filtering limiting peak-to-peak ripple to 10 % of d.c. voltage, and 		N/A
	- circuits in INTERNALLY POWERED ME EQUIPMENT		N/A
8.9.1.13	For PEAK WORKING VOLTAGES above 1400 V peak or d.c. Table 15 not applied since all the following conditions were met:	No such high peak working voltage.	N/A
	- CLEARANCE was at least 5 mm		N/A
	– insulation complied with dielectric strength test of 8.8.3 using an a.c. test voltage with an r.m.s. value equal to 1.06 times PEAK WORKING VOLTAGE, or		N/A
	 a d.c. test voltage equal to peak value of a.c. test voltage with an r.m.s. value equal to 1.06 times PEAK WORKING VOLTAGE, and 		N/A
	– CLEARANCE path was partly or entirely through air or along the surface of an insulating material of material group I		N/A
	Dielectric strength test conducted only across part(s) of the path that are through air when CLEARANCE path was also partly along surface of a non- group I material		N/A
8.9.1.14	Minimum CREEPAGE DISTANCES for two MEANS OF OPERATOR PROTECTION obtained by doubling values in Table 16 for one MEANS OF OPERATOR PROTECTION		Р
8.9.1.15	CREEPAGE DISTANCES and AIR CLEARANCES for DEFIBRILLATION-PROOF APPLIED PARTS are 4 mm or more to meet 8.5.5.1	No DEFIBRILLATION- PROOF APPLIED PARTS.	N/A
8.9.2	a) Short circuiting of each single one of CREEPAGE DISTANCES and CLEARANCES in turn did not result in a HAZARDOUS SITUATION described in 13.1 for insulation in MAINS PART between parts of opposite polarity, therefore, min CREEPAGE and CLEARANCES not applied:	The spacing between parts of opposite polarity fulfils the values of Table 11.	N/A
	b) Contribution to CREEPAGE DISTANCES of grooves or air gaps less than 1 mm wide limited to widths		Р



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Clause	Requirement + Test	Result - Remark	Verdict
	c) Relative positioning of CLEARANCE providing a MEANS OF PROTECTION is such that the relevant parts are rigid and located by moulding, or there is no reduction of a distance below specified value by deformation or movement of parts		Р
	Normal or likely limited movements of relevant parts taken into consideration when calculating minimum AIR CLEARANCE		Р
8.9.3	Spaces filled by insulating compound	,	Р
8.9.3.1	Only solid insulation requirements applied where distances between conductive parts filled with insulating compound were such that CLEARANCES and CREEPAGE DISTANCES don't exist	Certified optocoupler.	Р
	Thermal cycling, humidity preconditioning, and dielectric strength tests in 8.9.3.2 and 8.9.3.4 or 8.9.3.3 and 8.9.3.4 conducted	Certified optocoupler has conformed to these tests.	Р
8.9.3.2	For insulating compound forming solid insulation between conductive parts, a single sample subjected to thermal cycling PROCEDURE of 8.9.3.4 followed by humidity preconditioning per 5.7 (for 48 hours), followed by dielectric strength test (clause 8.8.3), test voltage multiplied by 1.6	Certified optocoupler.	P
	Cracks or voids in insulating compound affecting homogeneity of material didn't occur	Certified optocoupler has conformed to these tests.	Р
8.9.3.3	Where insulating compound forms a cemented joint with other insulating parts, three samples tested for reliability of joint	No such construction.	N/A
	A winding of solvent-based enamelled wire replaced for the test by a metal foil or by a few turns of bare wire placed close to cemented joint, and three samples tested as follows:		N/A
	- One sample subjected to thermal cycling PROCEDURE of 8.9.3.4, and immediately after the last period at highest temperature during thermal cycling, it was subjected to dielectric strength test of 8.8.3 except at 1.6 times the test voltage		N/A
	- The other two samples subjected to humidity preconditioning of 5.7, except for 48 hours only followed by a dielectric strength test of 8.8.3 at 1.6 times the test voltage		N/A
8.9.3.4	One sample containing the cemented joint subjected to a sequence of temperature cycling tests for 10 times:	No need.	N/A
8.10	Components and wiring		Р



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Clause	Requirement + Test	Result - Remark	Verdict
8.10.1	Components of ME EQUIPMENT likely to result in an unacceptable RISK by their movements mounted securely as indicated in RISK MANAGEMENT FILE	Risk management report Page 12 EL3	Р
8.10.2	Conductors and connectors of ME EQUIPMENT adequately secured or insulated to prevent accidental detachment in a HAZARDOUS SITUATION:	Final determination in the end- product	Р
	Conductors and connectors of ME EQUIPMENT when breaking free at their joint are not capable of touching circuit points resulting in a HAZARDOUS SITUATION described in 13.1		Р
	Breaking free of one means of mechanical restraint considered a SINGLE FAULT CONDITION	No such construction.	N/A
	Stranded conductors are not solder-coated when secured by clamping means to prevent HAZARDOUS SITUATIONS described in 13.1 due to poor contact	No stranded conductor.	N/A
8.10.3	Flexible cords detachable without a TOOL used to interconnect different parts of ME EQUIPMENT provided with means for connection to comply with requirements for metal ACCESSIBLE PARTS of 8.4 when a connection is loosened or broken as shown by measurement or test finger:	No such cord.	N/A
8.10.4	Cord-connected HAND-HELD parts and cord-connectes	ected foot-operated control	N/A
8.10.4.1	Control devices of ME EQUIPMENT and their connection cords contain only conductors and components operating at 42.4 V peak a.c., max, or 60 V d.c. in circuits isolated from MAINS PART by two MEANS OF PROTECTION	No cord connected hand-held control device; no cord connected foot-operated control device.	N/A
	d.c. limit of 60 V applied to d.c. with no more than 10 % peak-to-peak ripple		N/A
	42.4 V peak limit applied when ripple exceeded 10 % peak-to-peak limit		N/A
8.10.4.2	Connection and anchorage at both ends of a flexible cord to a HAND-HELD or foot-operated control device of ME EQUIPMENT at both ends of cable to control device complied with 8.11.3 when breaking free or shorting between conductors could result in a HAZARDOUS SITUATION described in 13.1	No cord connected hand-held control device; no cord connected foot-operated control device.	N/A
	This requirement applied to other HAND-HELD parts when disturbance or breaking of one or more of connections could result in a HAZARDOUS SITUATION described in 13.1		N/A
8.10.5	Mechanical protection of wiring		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	a) Internal cables and wiring adequately protected against contact with a moving part or from friction at sharp corners and edges where damage to insulation could result in a HAZARDOUS SITUATION described in 13.1	No internal moving part.	N/A
	b) Wiring, cord forms, or components are not likely to be damaged during assembly or during opening or closing of ACCESS COVERS where such damage could result in a HAZARDOUS SITUATION described in 13.1	No access covers	N/A
8.10.6	Guiding rollers of insulated conductors prevent bending of movable insulated conductors around a radius of less than five times the outer diameter of the lead concerned in NORMAL USE	No guiding roller.	N/A
8.10.7	a) Insulating sleeve that can only be removed by breaking or cutting, or secured at both ends, is used on internal wiring of when needed:	See the table 8.10.	Р
	b) Sheath of a flexible cord not used as a MEANS OF PROTECTION inside ME EQUIPMENT when it is subject to mechanical or thermal stresses beyond its RATED characteristics	Within its rated characteristics. See the table 8.10.	Р
	c) Insulated conductors subject to temperatures > 70 °C in NORMAL USE provided with insulation of heat-resistant material when compliance is likely to be impaired due to deterioration of insulation:	No such high temperature is acquired by test indicated in 11.1.	Р
8.11	Mains parts, components and layout		Р
8.11.1	a) ME EQUIPMENT provided with means of electrically isolating its circuits from SUPPLY MAINS simultaneously on all poles:	Appliance coupler.	Р
	PERMANENTLY INSTALLED ME EQUIPMENT connected to a poly-phase SUPPLY MAINS equipped with a device not interrupting neutral conductor, provided local installation conditions prevent voltage on neutral conductor from exceeding limits in 8.4.2 c)	Not permanently installed.	N/A
	PERMANENTLY INSTALLED ME EQUIPMENT provided with means to isolate its circuits electrically from the SUPPLY MAINS are capable of being locked in the off position if reconnection would result in a HAZARDOUS SITUATION or		N/A
	- any OPERATOR including SERVICE PERSONNEL is unable to view the means of isolation from their intended position		N/A
	The locking mechanism by the RESPONSIBLE ORGANIZATION, and		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- the isolation device specified in the ACCOMPANYING DOCUMENTS	Final determination in the end- product	N/A
	b) Means of isolation incorporated in ME EQUIPMENT, or if external, described in technical description:	Appliance coupler.	Р
	c) A SUPPLY MAINS switch used to comply with 8.11.1 a) complies with CREEPAGE and CLEARANCES in IEC 61058-1 for a MAINS TRANSIENT VOLTAGE of 4 kV	No mains switch	N/A
	d) A SUPPLY MAINS switch not incorporated in a POWER SUPPLY CORD or external flexible lead	No mains switch	N/A
	e) Actuator of a SUPPLY MAINS switch used to comply with 8.11.1 a) complies with IEC 60447	No mains switch	N/A
	f) A suitable plug device such as an APPLIANCE COUPLER or a flexible cord with a MAINS PLUG used in non-PERMANENTLY INSTALLED ME EQUIPMENT with no SUPPLY MAINS switch to isolate it from SUPPLY MAINS considered to comply with 8.11.1 a):	See appended Table 8.10	Р
	g) A fuse or a semiconductor device not used as an isolating means		Р
	h) ME EQUIPMENT not provided with a device causing disconnection of ME EQUIPMENT from SUPPLY MAINS by producing a short circuit resulting in operation of an overcurrent protection device		Р
	i) Parts within ENCLOSURE of ME EQUIPMENT with a circuit > 42.4 V peak a.c. or 60 V d.c. that cannot be disconnected from its supply by an external switch or a plug device accessible at all times is protected against touch even after opening ENCLOSURE by an additional covering	No such part	N/A
	A clear warning notice is marked on outside of ME EQUIPMENT to indicate it exceeds allowable touch voltage (symbol 10 of Table D.1 is insufficient)		N/A
	For a part that could not be disconnected from supply by an external switch or a plug device accessible at all times, the required cover or warning notice complied with this clause		N/A
	Standard test finger of Fig 6 applied		N/A
8.11.2	MULTIPLE SOCKET-OUTLETS integral with ME EQUIPMENT complied with 16.2 d), second dash; and 16.9.2	No multiple socket-outlets.	N/A
8.11.3	POWER SUPPLY CORDS		N/A



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	IEC 60601-1	Modification 1:	
Clause	Requirement + Test	Result - Remark	Verdict
8.11.3.1	MAINS PLUG not fitted with more than one POWER SUPPLY CORD	No power supply cord.	N/A
8.11.3.2	Power supply cords are no less robust than ordinary tough rubber sheathed flexible cord (IEC 60245-1:2003, Annex A, designation 53) or ordinary polyvinyl chloride sheathed flexible cord (IEC 60227-1:1993, Annex A, design. 53):	No power supply cord.	N/A
	Only polyvinyl chloride insulated POWER SUPPLY CORD with appropriate temperature rating used for ME EQUIPMENT having external metal parts with a temperature > 75 °C touchable by the cord in NORMAL USE:		N/A
8.11.3.3	NOMINAL cross-sectional area of conductors of POWER SUPPLY CORDS of ME EQUIPMENT is not less than in Table 17 (mm ² Cu):	No power supply cord.	N/A
8.11.3.4	APPLIANCE COUPLERS complying with IEC 60320-1 are considered to comply with 8.11.3.5 and 8.11.3.6:	No power supply cord.	N/A
8.11.3.5	Cord anchorage (for APPLIANCE COUPLERS not complying with IEC 60320-1)		N/A
	a) Conductors of POWER SUPPLY CORD provided with strain relieve and insulation protected from abrasion at point of entry to ME EQUIPMENT or a MAINS CONNECTOR by a cord anchorage	No power supply cord.	N/A
	b) Cord anchorage of POWER SUPPLY CORD is made of and arranged as follows when a total insulation failure of POWER SUPPLY CORD caused conductive non-PROTECTIVELY EARTHED ACCESSIBLE PARTS to exceed limits of 8.4:	No power supply cord.	N/A
	- insulating material, or		N/A
	- metal, insulated from conductive ACCESSIBLE PARTS non-PROTECTIVELY EARTHED by a MEANS OF PROTECTION, or		N/A
	- metal provided with an insulating lining affixed to cord anchorage, except when it is a flexible bushing forming part of the cord guard in 8.11.3.6, and complying with the requirements for one MEANS OF PROTECTION		N/A
	c) Cord anchorage prevents cord from being clamped by a screw bearing directly on cord insulation	No power supply cord.	N/A
	d) Screws to be operated when replacing POWER SUPPLY CORD do not serve to secure any components other than parts of cord anchorage	No power supply cord.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	e) Conductors of POWER SUPPLY CORD arranged to prevent PROTECTIVE EARTH CONDUCTOR against strain as long as phase conductors are in contact with their terminals when cord anchorage fails	No power supply cord.	N/A
	f) Cord anchorage prevents POWER SUPPLY CORD from being pushed into ME EQUIPMENT OR MAINS CONNECTOR	No power supply cord.	N/A
	Conductors of POWER SUPPLY CORD supplied by MANUFACTURER disconnected from terminals or from MAINS CONNECTOR and cord subjected 25 times to a pull applied with no jerks, each time for 1 s, on sheath of the value in Table 18:		N/A
	Cord subjected to a torque in Table 18 for 1 min immediately after pull tests		N/A
	Cord anchorage did not allow cord sheath to be longitudinally displaced by more than 2 mm or conductor ends to move over a distance of more than 1 mm from their connected position		N/A
	CREEPAGE and CLEARANCES not reduced below limits in 8.9		N/A
	It was not possible to push the cord into ME EQUIPMENT or MAINS CONNECTOR to an extent the cord or internal parts would be damaged		N/A
8.11.3.6	POWER SUPPLY CORDS other than for STATIONARY ME EQUIPMENT protected against excessive bending at inlet opening of equipment or of MAINS CONNECTOR by means of an insulating cord guard or by means of an appropriately shaped opening	No power supply cord.	N/A
	Cord guard complied with test of IEC 60335-1:2001, Clause 25.14, or		N/A
	ME EQUIPMENT placed such that axis of cord guard projected at an angle of 45° with cord free from stress, and a mass equal 10 x D ² gram attached to the free end of cord (g):		N/A
	Cord guard of temperature-sensitive material tested at 23 $^{\circ}$ C \pm 2 $^{\circ}$ C, and flat cords bent in the plane of least resistance		N/A
	Curvature of the cord radius, immediately after mass attached, was not less than 1.5 x D:		N/A
8.11.4	Mains terminal devices		N/A
8.11.4.1	PERMANENTLY INSTALLED and ME EQUIPMENT with non-DETACHABLE POWER SUPPLY CORD replaceable by SERVICE PERSONNEL provided with MAINS TERMINAL DEVICES ensuring reliable connection	No mains terminal device.	N/A



Modification 1: 2020-08-24 IEC 60601-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Terminals alone are not used to keep conductors in position, except when barriers are provided such that CREEPAGE and CLEARANCES cannot be reduced below 8.9 if any conductor breaks away		N/A
	Terminals of components other than terminal blocks complying with requirements of this Clause and marked according to 7.3.7 used as terminals intended for external conductors		N/A
	Screws and nuts clamping external conductors do not serve to secure any other component, except they also clamp internal conductors when unlikely to be displaced when fitting the supply conductors		N/A
8.11.4.2	Arrangement of MAINS TERMINAL DEVICES		N/A
	a) Terminals provided for connection of external cords or POWER SUPPLY CORDS together with PROTECTIVE EARTH TERMINAL grouped to provide convenient means of connection	No mains terminal device.	N/A
	b) PROTECTIVE EARTH CONDUCTOR connections complied with 8.6		N/A
	c) Marking of MAINS TERMINAL DEVICES complied with 7.3		N/A
	d) MAINS TERMINAL DEVICES not accessible without use of a TOOL		N/A
	e) A MEANS OF PROTECTION are not short circuited when one end of a flexible conductor with NOMINAL cross-sectional area is stripped 8 mm and a single free wire is bent in each possible direction		N/A
8.11.4.3	Internal wiring not subjected to stress and CREEPAGE and CLEARANCES not reduced below 8.9 after fastening and loosening a conductor of largest cross-sectional area 10 times	No mains terminal device.	N/A
8.11.4.4	Terminals with clamping means for a rewireable flexible cord did not require special preparation of conductors and conductors were not damaged and did not slip out when clamping means tightened as verified by test of 8.11.3.4	No mains terminal device.	N/A
8.11.4.5	Adequate space provided inside ME EQUIPMENT designed for FIXED wiring or a rewireable POWER SUPPLY CORD to allow for connection of conductors, and covers fitted without damage to conductors or their insulation	No mains terminal device.	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Correct connection and positioning of conductors before ACCESS COVER was fitted verified by an installation test		N/A
8.11.5	Mains fuses and OVER-CURRENT RELEASES		Р
	A fuse or OVER-CURRENT RELEASE provided in each supply lead for CLASS I and CLASS II ME EQUIPMENT with a functional earth connection per clause 8.6.9, and in at least one supply lead for other single-phase CLASS II ME EQUIPMENT:	See appended Table 8.10. Fuse is provided for each lead for Class I model.	Р
	- neutral conductor not fused for PERMANENTLY INSTALLED ME EQUIPMENT	Not permanently installed.	N/A
	Effect of short-circuit fault conditions in other circuits VERIFIED before eliminating fuses or OVER-CURRENT RELEASES		N/A
	Protective devices have adequate breaking capacity to interrupt the maximum fault current including the available short-circuit:	See appended Table 8.10	Р
	A fuse or OVER-CURRENT RELEASE not provided in a PROTECTIVE EARTH CONDUCTOR		Р
	Fuses complying with IEC 60127 have high breaking capacity (1 500 A) and prospective short-circuit current > 35 A or 10 times current rating of the fuse, whichever is greater	EUT is only component, high breaking capacity fuse not used To be evaluated on end product	N/A
8.11.6	Internal wiring of the MAINS PART		Р
	a) Cross-sectional area of internal wiring in a MAINS PART between MAINS TERMINAL DEVICE or APPLIANCE INLET and protective devices is not less than minimum required for POWER SUPPLY CORD as in clause 8.11.3.3 (mm² Cu)::	Min. 0.85 mm ²	Р
	b) Cross-sectional area of other wiring in MAINS PART and sizes of tracks on printed wiring circuits sufficient to prevent fire in case of fault currents:	See appended Table 13.2.	Р
	When necessary, ME EQUIPMENT connected to a SUPPLY MAINS with max available short-circuit fault, and subsequent simulation of a fault in a single insulation in MAINS PART did not result in any of the HAZARDOUS SITUATIONS in 13.1.2		Р
9	PROTECTION AGAINST MECHANICAL HAZARDS OF ME EQUIPMENT AND ME SYSTEMS		Р
9.1	ME EQUIPMENT complies with Clause 4 for design and manufacture, and mechanical strength (15.3)		Р



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Clause	Requirement + Test	Result - Remark	Verdict
9.2	HAZARDS associated with moving parts	Final determination in the end product.	N/A
9.3	Rough surfaces, sharp corners and edges of ME EQUIPMENT that could result in injury or damage avoided or covered:	No rough surface / sharp edge.	Р
9.4	Instability HAZARDS	Component, to be determined as part of end product	N/A
9.5	Expelled parts HAZARD	No such parts	N/A
9.6	Acoustic energy (including infra- and ultrasound) and vibration	Component, to be determined as part of end product	N/A
9.7	Pressure vessels and parts subject to pneumatic and hydraulic pressure	No such parts	N/A
9.8	HAZARDS associated with support systems	Component, to be determined in the end product.	N/A
10	PROTECTION AGAINST UNWANTED AND EXCE	SSIVE RADIATION HAZARDS	N/A
	X-Radiation	Not applicable to component power supply	N/A
11	PROTECTION AGAINST EXCESSIVE TEMPERATURES AND OTHER HAZARDS		Р
11.1	Excessive temperatures in ME EQUIPMENT		Р
11.1.1	Temperatures on ME EQUIPMENT parts did not exceed values in Tables 22 and 23 operating in worst-case NORMAL USE at maximum rated ambient operating temperature T:	See appended Table 11.1.1.	Р
	Surfaces of test corner did not exceed 90 °C		Р
	THERMAL CUT-OUTS did not operate in NORMAL CONDITION	No thermal cut-out	N/A
11.1.2	Temperature of APPLIED PARTS	No such parts	N/A
11.1.3	Measurements not made when engineering judgment and rationale by MANUFACTURER indicated temperature limits could not exceed, as documented in RISK MANAGEMENT FILE:	See appended Table 11.1.3 Acceptability of obtained values to be determined in the end product.	N/A
	Test corner not used where engineering judgment and rationale by MANUFACTURER indicated test corner will not impact measurements, as documented in RISK MANAGEMENT FILE	Test corner used	N/A
11.1.4	GUARDS preventing contact with hot or cold accessible surfaces removable only with a TOOL	No such guards	N/A
11.2	Fire prevention		Р



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Clause	Requirement + Test	Result - Remark	Verdict	
11.2.1	ENCLOSURE has strength and rigidity necessary to prevent a fire caused by reasonably foreseeable misuse and met mechanical strength tests for ENCLOSURES in 15.3		Р	
11.2.2	Me equipment and me systems used in conjunction with OXYGEN RICH ENVIRONMENTS	Component, not evaluated for use with Oxygen Rich Environment	N/A	
11.2.3	SINGLE FAULT CONDITIONS related to OXYGEN RICH ENVIRONMENTS ME EQUIPMENT and ME SYSTEMS considered	Component, not evaluated for use with Oxygen Rich Environment	N/A	
11.3	Constructional requirements for fire ENCLOSURES	of ME EQUIPMENT	Р	
	ME EQUIPMENT met this clause for alternate means of compliance with selected HAZARDOUS SITUATIONS and fault conditions in 13.1.2:	Risk Management Report page 11 H2	Р	
	Constructional requirements were met, or		Р	
	a) Flammability classification of insulated wire within fire ENCLOSURE is FV-1, or better, based on IEC 60695 series as determined by examination of data on materials:	See appended Table 8.10	Р	
	Flammability classification of connectors, printed circuit boards, and insulating material on which components are mounted is FV-2, or better, based on IEC 60695-11-10 as decided by examination of materials data:	See appended Table 8.10	Р	
	If no FV Certification, FV tests based on IEC 60695-11-10 conducted on 3 samples of complete parts (or sections of it), including area with min. thickness, ventilation openings	UL 94 approved	N/A	
	b) Fire ENCLOSURE met following:		Р	
	1) No openings at bottom or, as specified in Fig 39, constructed with baffles as in Fig 38, or made of perforated metal as in Table 25, or a metal screen with a mesh ≤ 2 x 2 mm centre to centre and wire diameter of at least 0.45 mm	No openings on the enclosure.	Р	
	2) No openings on the sides within the area included within the inclined line C in Fig 39		Р	
	3) ENCLOSURE, baffles, and flame barriers have adequate rigidity and are made of appropriate metal or of non-metallic materials, except constructions based on Table 25 and a mesh; FV-2 or better for TRANSPORTABLE ME EQUIPMENT, FV-1 or better for fixed EQUIPMENT, or STATIONARY EQUIPMENT per IEC 60695-11-10, determined by ENCLOSURE examination or flammability classification based on 11.3a):	See appended Table 8.10	Р	



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Clause	Requirement + Test	Result - Remark	Verdict
11.4	ME EQUIPMENT and ME SYSTEMS intended for use with flammable anaesthetics	Not evaluated for use in the presence of flammable anaesthetics.	N/A
11.5	ME EQUIPMENT and ME SYSTEMS intended for use in conjunction with flammable agents	Not evaluated for use in the presence of flammable agent.	N/A
11.6	Overflow, spillage, leakage, ingress of water or particulate matter, cleaning, disinfection, sterilization and compatibility with substances used with the ME EQUIPMENT	Final determination to be competed in the end product	N/A
11.6.5	Ingress of water or particulate matter into ME EQ	UIPMENT and ME SYSTEMS	Р
	ME EQUIPMENT with IP Code placed in least favourable position of NORMAL USE and subjected to tests of IEC 60529 (IP Code):	IP20	Р
	ME EQUIPMENT met dielectric strength and LEAKAGE CURRENT tests and there were no bridging of insulation or electrical components that could result in the loss of BASIC SAFETY OR ESSENTIAL PERFORMANCE IN NORMAL CONDITION or in combination with a SINGLE FAULT CONDITION:	See appended Tables 8.7 8.8.3	Р
11.7	ME EQUIPMENT, ME SYSTEM, and ACCESSORIES coming into direct or indirect contact with biological tissues, cells, or body fluids assessed and documented per ISO 10993	Component, to be determined in end-product evaluation.	N/A
11.8	Interruption and restoration of power supply did not result in a loss of BASIC SAFETY or ESSENTIAL PERFORMANCE	Component, to be determined in end-product evaluation.	N/A
12	ACCURACY OF CONTROLS AND INSTRUMENTS AGAINST HAZARDOUS OUTPUTS	S AND PROTECTION	N/A
12.1	RISKS associated with accuracy of controls and instruments stated in RISK MANAGEMENT PROCESS confirmed by RISK MANAGEMENT FILE review:	Not applicable to component power supply	N/A
	PROTECTION AGAINST HAZARDOUS OUTPUT:	Not applicable to component power supply	N/A
13	HAZARDOUS SITUATIONS AND FAULT CONDIT	TIONS	P
13.1	Specific HAZARDOUS SITUATIONS		Р
13.1.1	None of HAZARDOUS SITUATIONS in 13.1.2-13.1.4, inclusive, occurred when SINGLE FAULT CONDITIONS applied, one at a time, as in 4.7 and 13.2		Р
13.1.2	Emissions, deformation of ENCLOSURE or exceed	ing maximum temperature	Р
	- Emission of flames, molten metal, poisonous or ignitable substance in hazardous quantities did not occur		Р



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Clause	Requirement + Test	Result - Remark	Verdict
	- Deformation of ENCLOSURE impairing compliance with 15.3.1 did not occur		Р
	- Temperatures of ME EQUIPMENT parts that are not APPLIED PARTS likely to be touched did not exceed values in Table 23 when measured and adjusted as in 11.1.3:	See appended Tables 11.1.1, 11.1.2.1, and 11.1.2.2	Р
	-Allowable values for "other components and materials" in Table 22 times 1.5 minus 12.5 °C were not exceeded		Р
	Limits for windings in Tables 26, 27, and 31 not exceeded		Р
	Table 22 not exceeded in all other cases		Р
	Temperatures measured according to 11.1.3		Р
	SINGLE FAULT CONDITIONS in 4.7, 8.1 b), 8.7.2, and 13.2.2 relative to emission of flames, molten metal, or ignitable substances, not applied to parts and components where:	Test wasn't exempted.	N/A
	Supply circuit was unable to supply 15 W one minute after 15 W drawn from supply circuit in SINGLE FAULT CONDITION: :		N/A
	- or secondary circuits mounted on materials with a minimum flame rating of FV1, and		N/A
	- Secondary circuits energized by less than 60 Vdc, 42.4 Vpeak in NC and SFC, and		N/A
	- Secondary circuits limited to 100 VA or 6000 J in NC and SFC, and		N/A
	- Wire insulation in secondary circuits of types PVC, TFE, PTFE, FEP, polychloroprene or polybromide		N/A
	- or components in the circuit have HIGH INTEGRITY CHARACTERISTICS:		N/A
	 or parts and components completely contained within a fire ENCLOSURE complying with 11.3 as verified by review of design documentation 		N/A
	After tests of this Clause, settings of THERMAL CUT-OUTS and OVER-CURRENT RELEASES did not change sufficiently to affect their safety function	Fuse only	Р
13.1.3	- limits for LEAKAGE CURRENT in SINGLE FAULT CONDITION based on 8.7.3 did not exceed:	See appended Table 8.7	Р
	- voltage limits for ACCESSIBLE PARTS including APPLIED PARTS in 8.4.2 did not exceed:	See appended Table 8.7	Р



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Clause	Requirement + Test	Result - Remark	Verdict
13.1.4	ME EQUIPMENT complied with the requirements of 9.1 to 9.8 for specific MECHANICAL HAZARDS	Component, to be determined in end product evaluation.	N/A
13. 2	SINGLE FAULT CONDITIONS		Р
13.2.1	During application of SINGLE FAULT CONDITIONS in 13.2.2 -13.2.13, inclusive, NORMAL CONDITIONS in 8.1 a) applied in least favourable combination:	See appended Table 13.2	Р
13.2.2 – 13.2.12	ME EQUIPMENT complied with 13.2.2 -13.2.12:	See appended Table 13.2 Final determination to be competed in the end product	Р
13.2.13	ME EQUIPMENT remained safe after tests of 13.2.13.2 to 13.2.13.4 (inclusive), and cooling down to within 3 °C of the temperature in the test environment		Р
	ME EQUIPMENT examined for compliance or appropriate tests such as dielectric strength of motor insulation according to 8.8.3 conducted		Р
	For insulation of thermoplastic materials relied upon as a MEANS OF PROTECTION (see 8.8), the ball-pressure test specified in 8.8.4.1 a) performed at a temperature 25 °C higher than temperature of insulation measured during tests of 13.2.13.2 to 13.2.13.4 (inclusive).		Р
13.2.13.2	ME EQUIPMENT with heating elements	No Heating Elements provided	N/A
13.2.13.3	ME EQUIPMENT with motors	No motors provided in power supply	N/A
13.2.13.4	ME EQUIPMENT RATED for NON-CONTINUOUS OPERATION		N/A
	ME EQUIPMENT (other than HAND-HELD) operated under normal load and at RATED voltage or at upper limit of RATED voltage range until increase in temperature was ≤ 5 °C in one hour, or a protective device operated	Continuous operation.	N/A
	When a load-reducing device operated in NORMAL USE, test continued with ME EQUIPMENT running idle		N/A
	Motor winding temperatures did not exceed values in 13.2.10:		N/A
	Insulation Class:		_
	Maximum temperature measured (°C):		_
14	PROGRAMMABLE ELECTRICAL MEDICAL SYST	TEMS (PEMS)	N/A
	Requirements of this clause not applied to power supply	No Such Parts/ PESS not relied upon for Basic Safety or Essential Performance	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
15	CONSTRUCTION OF ME EQUIPMENT		Р
15.1	RISKS associated with arrangement of controls and indicators of ME EQUIPMENT addressed through the application of a USABILITY ENGINEERING PROCESS in accordance with IEC 60601-1-6, when applicable:	No controls and indicators.	N/A
15.2	Parts of ME EQUIPMENT subject to mechanical wear, electrical, environmental degradation or ageing resulting in unacceptable RISK when unchecked for a long period, are accessible for inspection, replacement, and maintenance	No such parts.	N/A
	Inspection, servicing, replacement, and adjustment of parts of ME EQUIPMENT can easily be done without damage to or interference with adjacent parts or wiring		N/A
15.3	Mechanical strength		Р
15.3.1	Mould stress relief, push, impact, drop, and rough handling tests did not result in loss of BASIC SAFETY OR ESSENTIAL PERFORMANCE		Р
15.3.2	Push test conducted by subjecting external parts of ENCLOSURE to a steady force of 250 N ± 10 N for 5 s applied to a circular (30mm) plane surface, except bottom of ENCLOSURE of an ME EQUIPMENT >18 kg, using a suitable test tool:	See Appended Table 15.3. Final determination to be competed in the end product	Р
	No damage resulting in an unacceptable RISK sustained	See Appended Table 15.3.	Р
15.3.3	Impact test conducted by subjecting a complete ENCLOSURE or its largest non-reinforced area, except for HAND-HELD ME EQUIPMENT and parts, to a free falling 500 g ± 25 g solid smooth steel ball, pprox 50 mm in diameter from a height of 1.3 m	See Appended Table 15.3. Final determination to be competed in the end product	Р
	No damage resulting in an unacceptable RISK sustained	See Appended Table 15.3.	Р
15.3.4	Drop test		Р
15.3.4.1	Sample of HAND-HELD ME EQUIPMENT, ACCESSORIES and HAND-HELD part with SAFE WORKING LOAD allowed to fall freely once from each of 3 different positions as in NORMAL USE from height specified in ACCOMPANYING DOCUMENTS, or from 1 m onto a 50 mm ± 5 mm thick hardwood board lying flat on a concrete or rigid base	No HAND-HELD ME EQUIPMENT.	N/A
	No unacceptable RISK resulted		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
15.3.4.2	Sample of PORTABLE ME EQUIPMENT, ACCESSORIES and PORTABLE part with SAFE WORKING LOAD lifted to a height as in Table 29 above a 50 ± 5 mm thick hardwood board lying flat on a concrete floor or rigid base, dropped 3 times from each orientation in NORMAL USE (cm)	See Appended Table 15.3. Final determination to be competed in the end product	P
	No damage resulting in an unacceptable RISK sustained	No damage	N/A
15.3.5	Rough handling tests for MOBILE ME EQUIPMENT	Not mobile ME equipment.	N/A
15.3.6	Examination of ENCLOSURE made from moulded or formed thermoplastic material indicated that material distortion due to release of internal stresses by moulding or forming operations will not result in an unacceptable RISK		Р
	Mould-stress relief test conducted by placing one sample of complete ME EQUIPMENT, ENCLOSURE or a portion of larger ENCLOSURE, for 7 hours in a circulating air oven at 10°C over the max temperature measured on ENCLOSURE in 11.1.3, but no less than 70 °C	70 °C	P
	No damage resulting in an unacceptable RISK	No damage.	Р
15.3.7	INTENDED USE, EXPECTED SERVICE LIFE, and conditions for transport and storage were taken into consideration for selection and treatment of materials used in construction of ME EQUIPMENT	No such environmental influences.	N/A
	Based on review of EQUIPMENT, ACCOMPANYING DOCUMENTS, specifications and processing of materials, and MANUFACTURER'S relevant tests or calculations, corrosion, ageing, mechanical wear, degradation of biological materials due to bacteria, plants, animals and the like, will not result in an unacceptable RISK	Component, to be determined in end product evaluation.	N/A
15.4	ME EQUIPMENT components and general assembly	у	N/A
15.4.1	Incorrect connection of accessible connectors, removable without a TOOL, prevented where an unacceptable RISK exists, in particular:	No such connections	N/A
15.4.2	Temperature and overload control devices		N/A
15.4.2.1	a) THERMAL CUT-OUTS and OVER-CURRENT RELEASES with automatic resetting not used in ME EQUIPMENT when their use could lead to a HAZARDOUS SITUATION described in 13.1by resetting action as verified by review of the design documentation and RISK MANAGEMENT FILE	Risk Management report page 12 EL6	N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	b) THERMAL CUT-OUTS with a safety function that are reset by a soldering not fitted in ME EQUIPMENT	No such part.	N/A
	c) An additional independent non-SELF-RESETTING THERMAL CUT-OUT is provided where a failure of a THERMOSTAT could in a HAZARDOUS SITUATION described in 13.1; the temperature of operation of the additional device is outside that attainable at the extreme setting of the normal control device, but within the temperature limit for the ME EQUIPMENT:	No such part.	N/A
	d) Operation of THERMAL CUT-OUT OR OVER CURRENT RELEASE doesn't result in a HAZARDOUS SITUATION described in 13.1 or the loss of ESSENTIAL PERFORMANCE	No such part.	N/A
	e) Capacitors or other spark-suppression devices not connected between contacts of THERMAL CUT-OUTS	No such part.	N/A
	f) Use of THERMAL CUT-OUTS OR OVER-CURRENT RELEASES do not affect safety of ME EQUIPMENT as verified by following tests:		N/A
	Positive temperature coefficient devices (PTC's) complied with IEC 60730-1: 2010, Clauses 15, 17, J.15, and J.17 as applicable		N/A
	ME EQUIPMENT containing THERMAL CUT-OUTS and OVER-CURRENT RELEASES operated under the conditions of Clause 13:	See appended Table 13.2	N/A
	SELF-RESETTING THERMAL CUT-OUTS and OVER-CURRENT RELEASES including circuits performing equivalent functions (other than PTC's) Certified according to appropriate standards		N/A
	In the absence of Certification in accordance with IEC standards, SELF-RESETTING THERMAL CUT-OUTS and OVER-CURRENT RELEASES including circuits performing equivalent functions (other than PTC's) operated 200 times		N/A
	Manual reset THERMAL CUT-OUTS and OVER- CURRENT RELEASES Certified in accordance with appropriate IEC standards		N/A
	When certification based on IEC standards, or data from MANUFACTURER demonstrating reliability of component to perform its safety-related function is not available, manual reset THERMAL CUT-OUTS and OVER-CURRENT RELEASES operated 10 times		N/A
	Thermal protective devices tested separately from ME EQUIPMENT when engineering judgment indicated test results would not be impacted		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	g) Protective device, provided on ME EQUIPMENT incorporating a fluid filled container with heating means, operated when heater switched on with container empty and prevented an unacceptable RISK due to overheating	No such part.	N/A
	h) ME EQUIPMENT with tubular heating elements provided with protection against overheating in both leads where a conductive connection to earth could result in overheating as verified by review of design and RISK MANAGEMENT FILE:	No such part.	N/A
15.4.2.2	Temperature settings clearly indicated when means provided to vary setting of THERMOSTATS	Not applicable to component power supply	N/A
15.4.3	Batteries		N/A
15.4.3.1	Battery housings from which gases can escape during charging or discharging are ventilated to prevent unacceptable RISK from accumulation of gasses and possible ignition:	No batteries.	N/A
	Battery compartments designed to prevent accidental short circuiting of battery when this could result in a HAZARDOUS SITUATION as described in clause 13.1		N/A
15.4.3.2	Means provided to prevent incorrect connection of polarity when a HAZARDOUS SITUATION may develop by incorrect connection or replacement of a battery:		N/A
15.4.3.3	Overcharging of battery prevented by virtue of design when it could result in an unacceptable RISK as verified by review of design:		N/A
15.4.3.4	Primary lithium batteries comply with IEC 80086-4		N/A
	Secondary lithium batteries comply with IEC 62133		N/A
15.4.3.5	A properly RATED protective device provided within INTERNAL ELECTRICAL POWER SOURCE to protect against fire caused by excessive currents when (in case of a short circuit) layout of internal wiring, cross-sectional area, rating of connected components can result in a fire:		N/A
	Protective device has adequate breaking capacity to interrupt the maximum fault current		N/A
	Justification for OVER-CURRENT RELEASES OF FUSE exclusion is documented		N/A
	Short circuit test between the positive and negative poles of an INTERNAL ELECTRICAL POWER SOURCE between the output and protective device(s) omitted where 2 MOOPS provided, or		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Short circuit between the positive and negative poles of an INTERNAL ELECTRICAL POWER SOURCE between the output and protective device(s) does not result in any HAZARDOUS SITUATION described in clause 13.1		N/A
15.4.4	Indicator lights provided to indicate ME EQUIPMENT is ready for NORMAL USE, except when apparent to OPERATOR from normal operating position, and marking of 7.4.1 are insufficient for this purpose:	No such indicator.	N/A
	An additional indicator light provided on ME EQUIPMENT with a stand-by state or a warm-up state exceeding 15 s, except when apparent to OPERATOR from normal operating position		N/A
	Indicator lights provided on ME EQUIPMENT incorporating non-luminous heaters to indicate heaters are operational when a HAZARDOUS SITUATION could exist, except when apparent to OPERATOR from normal operating position		N/A
	Requirement not applied to heated stylus-pens for recording purposes		N/A
	Indicator lights provided on ME EQUIPMENT to indicate an output exists where an accidental or prolonged operation of output circuit could constitute a HAZARDOUS SITUATION		N/A
	Colours of indicator lights complied with 7.8.1		N/A
	Charging mode visibly indicated in ME EQUIPMENT incorporating a means for charging an INTERNAL ELECTRICAL POWER SOURCE		N/A
15.4.5	Pre-set controls	No such parts in power supply	N/A
15.4.6	Actuating parts of controls of ME EQUIPMENT	No such parts in power supply	N/A
15.4.7	Cord-connected HAND-HELD and foot-operated control devices	No such parts in power supply	N/A
15.4.8	Aluminium wires less than 16 mm ² in cross- sectional area are not used	No such wire.	N/A
15.4.9	Oil container in PORTABLE ME EQUIPMENT	No such parts in power supply	N/A
15.5	MAINS SUPPLY TRANSFORMERS OF ME EQUIPMENT and separation in accordance with 8.5	I transformers providing	Р
15.5.1	Overheating		Р
15.5.1.1	Transformers of ME EQUIPMENT are protected against overheating in the event of short circuit or overload of output windings and comply with this Clause and tests of 15.5.1.2 – 3:	See appended Tables 15.5.1.2 and 15.5.1.3	Р



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Clause	Requirement + Test	Result - Remark	Verdict
	During tests, windings did not open, no HAZARDOUS SITUATION occurred, and maximum temperatures of windings did not exceed values in Table 31		Р
	Dielectric strength test of 8.8.3 conducted on transformer after short circuit and overload tests:	See appended Table 15.5.2	Р
15.5.1.2	Transformer output winding short circuited, and test continued until protective device operated or THERMAL STABILITY achieved:	See appended Table 15.5.1.2	Р
	Short circuit applied directly across output windings for transformers not tested according to 5X frequency and 5X voltage test of 15.5.2 a) or 2x frequency and 2x voltage test of 15.5.2 b)		N/A
15.5.1.3	Multiple overload tests conducted on windings with more than one protective device to evaluate worst-case NORMAL USE loading and protection:	No more than one protective device	N/A
15.5.2	Transformers operating at a frequency above 1 kHz tested in accordance with clause 8.8.3:		N/A
	Transformer windings provided with adequate insulation to prevent internal short-circuits that could cause overheating which could result in a HAZARDOUS SITUATION		Р
	Dielectric strength tests were conducted in accordance with requirements of this clause with no breakdown of insulation system and no detectable deterioration of transformer:	See appended Table 15.5.2	Р
15.5.3	Transformers forming MEANS OF PROTECTION as required by 8.5 comply with:	Transformer evaluated according to the requirements of this standard.	Р
	- Means provided to prevent displacement of end turns beyond the inter-winding insulation		Р
	- protective earth screens with a single turn have insulated overlap not less than 3mm and the width of the screen is at least equal to the axial winding length of the primary side		Р
	- Exit of wires form internal windings of toroid transformers protected with double sleeving providing 2 MOPs and a total wall thickness of 0.3mm extending 20mm from the windings		Р
	- insulation between primary and secondary windings complies with 8.8.2		Р
	- CREEPAGE DISTANCES and AIR CLEARANCE comply with 8.9.4 and the exceptions of this sub-clause		Р



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Clause	Requirement + Test	Result - Remark	Verdict	
16	ME SYSTEMS		N/A	
	Evaluation of ME SYSTEMS:	Component power supply; compliance determined in the end product	N/A	
17	ELECTROMAGNETIC COMPATIBILITY OF ME ECSYSTEMS	QUIPMENT AND ME	Р	
	RISKS associated with items addressed in RISK MANAGEMENT PROCESS as confirmed by review.:		Р	
ANNEX G	PROTECTION AGAINST HAZARDS OF IGNITION ANESTHETIC MIXTURES	OF FLAMMABLE	N/A	
	Parts of CATEGORY APG ME EQUIPMENT in which a FLAMMABLE ANESTHETIC MIXTURE WITH AIR occurs	Not evaluated for use with Flammable Anesthetic Mixture	N/A	
ANNEX L	INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION			
L.1	BASIC, SUPPLEMENTARY, DOUBLE, and REINFORCED INSULATION in wound components without interleaved insulation complied with this Annex covering round winding wires between 0.05 mm and 5.00 mm diameters	Approved TIW is used in mains transformer.	N/A	
L.2	Wire construction		N/A	
	Overlap of layers when wire is insulated with two or more spirally wrapped layers of tape is adequate to ensure continued overlap during manufacture of wound component	Approved TIW is used in mains transformer.	N/A	
	Layers of spirally wrapped wire insulation are sufficiently secured to maintain the overlap		N/A	
L.3	Type Test		N/A	
	The wire subjected to tests of L.3.1 to L.3.4 at a temperature and a relative humidity specified	Approved TIW is used in mains transformer.	N/A	
	Temperature (°C)::		ı	
	Humidity (%):		_	
L.3.1	Dielectric strength		N/A	
	Dielectric strength test of Clause 8.8.3 for the appropriate type and number of MOP(s) conducted by preparing the sample according to IEC 60851-5:1996, Clause 4.4.1 for a twisted pair with test voltages at least twice Tables 6 & 7, but not less than below with no breakdown:	Approved TIW is used in mains transformer.	N/A	
	- 3000 V for BASIC and SUPPLEMENTARY INSULATION (V):		N/A	
	· · ·			



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Clause	Requirement + Test	Result - Remark	Verdict	
	- 6000 V for REINFORCED INSULATION (V):		N/A	
3.2	Flexibility and adherence		N/A	
	Sample subjected to flexibility and adherence test 8 of IEC 60851-3:1996, clause 5.1.1, using mandrel diameters of Table L.1	Approved TIW is used in mains transformer.	N/A	
	Sample examined according to IEC 60851-3: 1997, clause 5.1.1.4, followed by dielectric test of clause 8.8.3, except test voltage applied between wire and mandrel with no breakdown		N/A	
	Test voltage was at least the voltage in Tables 6 and 7but not less than the following:		N/A	
	- 1500 V for BASIC and SUPPLEMENTARY INSULATION (V):		N/A	
	- 3000 V for REINFORCED INSULATION (V):		N/A	
	Tension applied to wire during winding on mandrel calculated from the wire diameter equivalent to 118 Mpa ± 11.8 Mpa:		N/A	
3.3	Heat Shock		N/A	
	Sample subjected to heat shock test 9 of IEC 60851-6:1996, followed by dielectric strength test of clause 8.8.3, except test voltage applied between the wire and mandrel	Approved TIW is used in mains transformer.	N/A	
	Test voltage was at least the voltage in Tables 6 and 7, but not less than the following:		N/A	
	- 1500 V for BASIC and SUPPLEMENTARY INSULATION (V):		N/A	
	- 3000 V for REINFORCED INSULATION (V)::		N/A	
	Oven temperature based on Table L.2 (°C):		_	
	Mandrel diameter and tension applied as in clause L.3.2, (Mpa; N/mm²):		N/A	
	Dielectric strength test conducted at room temperature after removal from the oven		N/A	
3.4	Retention of electric strength after bending			
	Five samples prepared as in L.3.2 subjected to dielectric strength and bending tests	Approved TIW is used in mains transformer.	N/A	
	Test voltage was at least the voltage in Tables 6 and 7, but not less than the following:		N/A	
	- 1500 V for BASIC and SUPPLEMENTARY INSULATION (V):		N/A	
	- 3000 V for REINFORCED INSULATION (V)::		N/A	
	Test voltage applied between the shot and conductor.		N/A	



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Clause	Requirement + Test	Result - Remark	Verdict	
	Mandrel diameter and tension applied as in L.3.2, (Mpa; N/mm²):		N/A	
L.4	Tests during manufacture	•	N/A	
L.4.1	Production line dielectric strength tests conducted by the manufacture according to L.4.2 and L.4.3:	Approved TIW is used in mains transformer.	N/A	
L.4.2	Test voltage for routine testing (100 % testing) is at least the voltage in Tables 6 and 7 but not less than the following:	Approved TIW is used in mains transformer.	N/A	
	- 1500 V r.m.s. or 2100 V peak for BASIC and SUPPLEMENTARY INSULATION (V)		N/A	
	- 3000 V r.m.s. or 4200 V peak for REINFORCED INSULATION (V):		N/A	
L.4.3	Sampling tests conducted using twisted pair samples (IEC 60851-5:1996, clause 4.4.1):	Approved TIW is used in mains transformer.	N/A	
	Minimum breakdown test voltage at least twice the voltage in Tables 6 and 7 but not less than:		N/A	
	- 3000 V r.m.s. or 4200 V peak for BASIC and SUPPLEMENTARY INSULATION:		N/A	
	- 6000 V r.m.s. or 8400 V peak for REINFORCED INSULATION:		N/A	



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Clause	Requirement + Test	Result - Remark	Verdict

4.2.2	2.2 RM RESULTS TABLE: General requirements for RISK MANAGEMENT				
Clause of ISO 14971	Document Ref. in RMF (Result - Remarks	Verdict	
	General process	Particular Medical Device			
3.1	Risk management procedure GTQPR05000 A2. 5.0	— (excluding production and		Р	
3.2	Risk management procedure GTQPR05000 A2. 5.0	_	Adequate Resources	Р	
3.2	Risk management procedure GTQPR05000 A2. 5.0	_	Assignment of qualified personnel	Р	
3.2	Risk management procedure GTQPR05000 A2. 5.0	_	Policy for determining criteria for risk acceptability	Р	
3.3	_	Risk Management Report 2.0	Qualification of personnel	Р	
3.4a	_	Risk management plan GT-RMPLAN2018-004	Scope of risk management activities/identification and description of device/ applicable life-cycles	Р	
3.4b	_	Risk management plan GT-RMPLAN2018-004	Assignment of responsibilities and authorities	Р	
3.4c	_	Risk management plan GT-RMPLAN2018-004	Requirement for review of risk management activities	Р	
3.4d	_	Risk management plan GT-RMPLAN2018-004	Criteria for risk acceptability	Р	
3.4e	_	Risk management plan GT-RMPLAN2018-004	verification activities	Р	
3.5	_	Risk management plan GT-RMPLAN2018-004	RMF	Р	
4.1	_	Risk management procedure GTQPR05000 A 2 6.0	gement Documents produced during clause 4.2 and 4.4		
4.2	_	Risk Management Report GT-RM2018-004 6.1	Identification of characteristics	Р	
4.3	_	Risk Management Report GT-RM2018-004 6.2	Hazards identification	Р	



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

4.2.2	RM RESULTS TABLE: General requirements for RISK MANAGEMENT					
Clause of ISO 14971	Document Ref. in RMF paragraph/clause, vers		Result - Remarks	Verdict		
	General process	Particular Medical Device				
4.4	_	Risk Management Report GT-RM2018-004 6.4	Risk estimation	Р		
5	_	Risk Management Report GT-RM2018-004 7	Risk evaluation	Р		
6.2	_	Risk Management Report GT-RM2018-004 8.1	Risk control options	Р		
6.3	_	Risk Management Report GT-RM2018-004 8.1	Implementation/effectiveness of risk control	Р		
6.4	_	Risk Management Report GT-RM2018-004 8.2	Residual risk evaluation	Р		
6.5	_	Risk Management Report GT-RM2018-004 8.3	Risk/benefit analysis	Р		
6.6a	_	Risk Management Report GT-RM2018-004 8.1	Introduction of new risks due to risk control	Р		
6.6b	_	Risk Management Report GT-RM2018-004 8.2	Estimation of previously risk due to risk control	Р		
6.7	_	Risk Management Report GT-RM2018-004 8.1	Completeness of risk control	Р		
7	_	Risk Management Report GT-RM2018-004 10	Overall residual risk evaluation	Р		
8	_	Risk Management Report GT-RM2018-004 A0	Risk Management Report	Р		

Supplementary Information:

Document Ref should be with regards to the policy/procedure documents and documents containing device specific output.

4.3	TABLE: ESSENTIAL PERFORMANCE	N/A
4.5	RM RESULTS TABLE: Equivalent Safety for ME Equipment of ME System	N/A



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Clause	Requirement + Test	Result - Remark	Verdict		
4.6	RM RESULTS TABLE: ME Equipment	or system parts contacting the patient	N/A		
4.7	RM RESULTS TABLE: Single Fault Co	ndition for ME Equipment	N/A		
4.8	RM RESULTS TABLE: Components of	ME Equipment	N/A		
			1		
4.9	RM RESULTS TABLE: Use of compone	ents with high-integrity characteristics	N/A		



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

4.11	TABLE: Power Input					Р
Operati	ng Conditions / Ratings	Voltage (V)	Frequency (Hz)	Current (A)	Power (W or VA)	Power factor (cos φ)
Model: GTM	96300-2307.5-2.5-R3A	·				
Normal cond	lition	90	50/60	0.5931	31.03	<0.9
Normal cond	lition	100	50/60	0.5285	30.53	<0.9
Normal cond	lition	240	50/60	0.2643	30.59	<0.9
Normal cond	lition	264	50/60	0.2332	30.71	<0.9
Model: GTM	96300-3614.5-2.5-R3A	·				
Normal cond	lition	90	50/60	0.8171	43.36	<0.9
Normal cond	lition	100	50/60	0.7227	42.68	<0.9
Normal cond	lition	240	50/60	0.3547	42.07	<0.9
Normal cond	lition	264	50/60	0.3133	41.93	<0.9
Model: GTM	96300-3624-R3A	•				
Normal cond	lition	90	50/60	0.8007	42.30	<0.9
Normal cond	lition	100	50/60	0.7162	41.84	<0.9
Normal cond	lition	240	50/60	0.3407	40.80	<0.9
Normal cond	lition	264	50/60	0.3109	40.86	<0.9
Model: GTM	96300-3648-R3A	•				
Normal cond	lition	90	50/60	0.7682	41.46	<0.9
Normal cond	lition	100	50/60	0.6849	41.03	<0.9
Normal cond	lition	240	50/60	0.3343	39.91	<0.9
Normal cond	lition	264	50/60	0.3019	39.86	<0.9
Model: GT-9	6300-3656-T3-AP	·				
Normal cond	lition	90	50/60	0.7401	39.52	<0.9
Normal cond	lition	100	50/60	0.6853	39.21	<0.9
Normal cond	lition	240	50/60	0.3623	38.63	<0.9
Normal cond	lition	264	50/60	0.3372	38.71	<0.9
Supplement	tary Information:	·			-	



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

5.1	RM RESULTS TABLE: Type Tests			
Clause of ISO 14971	Document Ref. in RMF (Document No. & paragraph) Result - Remarks			
4.2				
4.3				
4.4				

5.9.2	TABLE: Determination of ACCESSIBLE parts						
Location		Determination method (NOTE1)	Comments				
Enclosure		Test finger, test hook	Can't insert				
• •	ntary informatio	n:	4. d 4. a4 fin and 4. a4 b a ab				

NOTE 1 - The determination methods are: visual; rigid test finger; jointed test finger; test hook.



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

7.1.2 TABLE:	TABLE: Legibility of Marking						
Markings tested		Ambient Illuminance (lx)	Remarks				
Outside Markings (Clause 7.2):		100-1500 lx	Clearly legible				
Inside Markings (Clause 7.3):		-	N/A				
Controls & Instruments (Clause 7.4):		-	N/A				
Safety Signs (Clause 7.5):		-	N/A				
Symbols (Clause 7.	6):	-	N/A				

Supplementary information:

Observer, with a visual acuity of 0 on the log Minimum Angle of Resolution (log MAR) scale or 6/6 (20/20) and is able to read N6 of the Jaeger test card in normal room lighting condition (~500lx), reads marking at ambient illuminance least favourable level in the range of 100 lx to 1,500 lx. The ME EQUIPMENT or its part was positioned so that the viewpoint was the intended position of the OPERATOR or if not defined at any point within the base of a cone subtended by an angle of 30° to the axis normal to the centre of the plane of the marking and at a distance of 1 m.

7.1.3	TABLE: Durability of marking test							
Characteris	Re	marks						
Material of	Marking Label:	See Table 8.10	Pass					
Ink/other p	rinting material or process:	See Table 8.10	ı	Pass				
Material (composition) of Warning Label:		-	N/A					
Ink/other p	rinting material or process::	-		N/A				
Other	:	-		N/A				

Supplementary information:

Marking rubbed by hand, first for 15 s with a cloth rag soaked with distilled water, then for 15 s with a cloth rag soaked with ethanol 96%, and then for 15 s with a cloth rag soaked with isopropyl alcohol.

7.2.2	RM RESULTS TABLE: Identification	N/A
7.2.13	RM RESULTS TABLE: Physiological effects (safety signs and warning)	N/A
7.2.17	RM RESULTS TABLE: Protective packaging	N/A
7.3.3	RM RESULTS TABLE: Batteries	N/A



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			IEC 606	01-1		Janioation 1. 20			
Clause F	Requirement +	Test	120 000		sult - Remark		Verdict		
7.3.7	RM RESULTS	S TABLE: Su	ipply terminals				N/A		
7.4.2	RM RESULTS	S TABLE: Co	ontrol devices				N/A		
7.5	RM RESULTS	S TABLE: Sa	lfety signs				N/A		
7.9.2.4	.4 RM RESULTS TABLE: Electrical power source								
7.9.3.2	7.9.3.2 RM RESULTS TABLE: Replacement of fuses, power supply cords, other parts								
8.1 b	.1 b RM RESULTS TABLE: Fundamental rule of protection against electric shock - accidental detachment of conductors and connectors								
8.4.2	TABLE: TAB	BLE: Working	g Voltage / Pow	er Measure	ment		Р		
Test supply	voltage/frequ	ency (V/Hz) ¹			:	264V / 60Hz			
Location From/To	Vrms	Vpk or Vdc	Measured value Peak-to- peak ripple ²	Power	Energy (J)	Rema	arks		
Transformer, primary to secondary Max For all model					5				
Optocoupler primary to secondary Max For all modes			For all models	S					
Y capacitor primary to secondary	Max. 240Vrms					For all models	6		
Secondary output		<60Vdc	<10%			For all models	6		

Supplementary Information:

connector

- 1. The input supply voltage to the ME EQUIPMENT was the RATED voltage or the voltage within the RATED voltage range which results in the highest measured value. See clause 8.5.4.

 2. If the d.c peak-to-peak ripple >10%, waveform considered as a.c. See clause 8.4.2.2



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								Modifi	cation 1:	2020-0	8-24	
				IEC 6	0601-1							
Clause	Requirement + Tes	st				Resu	lt - Rem	ark		Ve	erdict	
8.4.3	.4.3 TABLE: ME EQUIPMENT for connection to a power source by a plug - measurement of voltage or calculation of stored charge 1 s after disconnection of plug from mains supply										P	
Maximum	n allowable voltage (\	V)							: 60			
			Vo	ltage m	easured	I (V)						
Voltage N	Measured Between:	1	2	3	4	5	6	7	8	9	10	
Plug pins	s 1 and 2	6	5	6	5	5	6	5	5	6	5	
Plug pin	1 and plug earth pin											
Plug pin	2 and plug earth pin	-										
Plug pin	1 and enclosure											
Plug pin	Plug pin 2 and enclosure		-									
Maximun	n allowable stored cl	harge v	vhen me	easured	voltage	e excee	ded 60	v (μc)	: 45			
			Calcula	ated sto	red cha	rge (μc))					
Voltage N	Measured Between:	1	2	3	4	5	6	7	8	9	10	
Plug pins	s 1 and 2											
Plug pin	1 and plug earth pin											
Plug pin	2 and plug earth pin											
Plug pin	1 and enclosure											

Plug pin 2 and enclosure

Supplementary information:



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8.4.4	TABLE: Internal capacitive circuits – measurement of residual voltage or calculation of the stored charge in capacitive circuits (i.e., accessible capacitors or circuit parts) after de-energizing ME EQUIPMENT							
Maximum	allowable residual voltage	· (V):		60 V				
Maximum	allowable stored charge w	hen residual voltage	exceeded 60 V:	45 μC				
•	on of the capacitive circuit essible capacitor or circuit parts)	Measured residual voltage (V)	Calculated stored charge (μC)	Rem	arks			
Suppleme	entary information:							
8.5.2.2	RM RESULTS TABLE: Type B applied parts							
8.5.2.3	RM RESULTS TABLE: F	PATIENT Leads			N/A			
8.5.5.1a TABLE: defibrillation-proof applied parts – measurement of hazardous electrical energies								
8.5.5.1b TABLE: defibrillation-proof applied parts – verification of recovery time								
8.5.5.2	TABLE: DEFIBRILLATION-F DEFIBRILLATION-PROOF AP Energy delivered to a 10	PLIED PARTS - Energy			N/A			
8.6.3	RM RESULTS TABLE: F	Protective earthing of	moving parts		N/A			



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8.6.4	TABLE: Impedance and current-carrying capability of PROTECTIVE EARTH CONNECTIONS					
	of ME EQUIPMENT & impedance neasured between parts	Test current (A) /Duration (s)	Voltage drop measured between parts (V)	Maximum calculated impedance (mΩ)	Maximum allowable impedance (mΩ)	
impedance	LY INSTALLED ME EQUIPMENT, between PROTECTIVE EARTH ad a PROTECTIVELY EARTHED part				100	
impedance	NT with an APPLIANCE INLET, between earth pin in the NLET and a PROTECTIVELY EARTHED	25A/ 10s 40A/ 60s	0.4 0.8	13 20	100	
SUPPLY CORP	NT with a non-DETACHABLE POWER D, impedance between the PEARTHED PART EARTHED PART				200	

Supplementary information:

Permanently installed me equipment, impedance between protective earth terminal and a protectively earthed part - Limit 100 m Ω Me equipment with an appliance inlet, impedance between earth pin in the appliance inlet and a protectively earthed part - Limit 100 m Ω

ME EQUIPMENT with an APPLIANCE INLET, impedance between earth pin in the protective earth pin on the DETACHABLE POWER SUPPLY CORD and a PROTECTIVELY EARTHED part - Limit 200 m Ω

ME EQUIPMENT with a non-DETACHABLE POWER SUPPLY CORD, impedance between the protective earth pin in the MAINS PLUG and a PROTECTIVELY EARTHED part - Limit 200 m Ω



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8.7 TABLE: leakage current				Р
Type of leakage current and test condition (including single faults)	Supply voltage (V)	Supply frequency (Hz)	Measured max. value (µA)	Remarks
G*M96300-*****				
Fig. 13 - Earth Leakage (ER)	_	_	_	Maximum allowed values: 5 mA NC; 10 mA SFC
NC, S1=1, S5=0	264	60	45.2μA AC	
NC, S1=1, S5=1	264	60	41.1μA AC	For Class I model, with
SFC, S1=0, S5=0	264	60	84.2μA AC	frequency-weighted device
SFC, S1=0, S5=1	264	60	82.1μA AC	
NC, S1=1, S5=0	264	60	115.6μA AC	
NC, S1=1, S5=1	264	60	111.1μA AC	For Class I model, with Not-
SFC, S1=0, S5=0	264	60	124.2μA AC	frequency-weighted device
SFC, S1=0, S5=1	264	60	122.7μA AC	
Fig. 14 - Touch Current (TC)	_	_	_	Maximum allowed values: 100 μA NC; 500 μA SFC
NC, S1=1, S5=1, S7=1	264	60	<10μA AC	
NC, S1=1, S5=0, S7=1	264	60	<10μA AC	
SFC, S1=0, S5=1, S7=1	264	60	<10μA AC	For Class I model, with
SFC, S1=0, S5=0, S7=1	264	60	<10μA AC	frequency-weighted device
SFC, S1=1, S5=1, S7=0	264	60	<10μA AC	
SFC, S1=1, S5=0, S7=0	264	60	<10μA AC	
NC, S1=1, S5=1, S7=1	264	60	19.4μA AC	
NC, S1=1, S5=0, S7=1	264	60	18.4μA AC	
SFC, S1=0, S5=1, S7=1	264	60	147.2μA AC	
SFC, S1=0, S5=0, S7=1	264	60	147.3μA AC	For Class I model, with Not- frequency-weighted device
SFC, S1=1, S5=1, S7=0	264	60	156.4μA AC	
SFC, S1=1, S5=0, S7=0	264	60	151.2μA AC	
NC, S1=1, S5=1, S10=0	264	60	30.4μA AC	For Class II model, with
NC, S1=1, S5=0, S10=0	264	60	30.4μA AC	frequency-weighted device



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Clause	Requirement + Test			Result - Rer	mark	Verdict			
SFC, S1=0	, S5=1, S10=0	264	60	31.4μA AC					
SFC, S1=0	, S5=0, S10=0	264	60	31.4μA AC					
NC, S1=1,	S5=1, S10=0	264	60	60.7μA AC					
NC, S1=1, S5=0, S10=0		264	60	60.4μA AC	For Class II model,	with Not-			
SFC, S1=0, S5=1, S10=0		264	60	61.0μA AC	frequency-weighted	d device			
SFC, S1=0, S5=0, S10=0		264	60	61.4μA AC					

Supplementary information:

Note 1: For EARTH LEAKAGE CURRENT see 8.7.3 d) and 8.7.4.5;

Note 2: For TOUCH CURRENT see 8.7.3 c) and 8.7.4.6;

Note 3: For PATIENT LEAKAGE CURRENT SEE 8.7.3.b) and 8.7.4.7

Note 4: Total PATIENT LEAKAGE CURRENT values are only relative to equipment with multiple APPLIED PARTS of the same type. See 8.7.4.7 h). The individual APPLIED PARTS complied with the PATIENT LEAKAGE CURRENT values.

Note 5: In addition to conditions indicated in the Table, tests conducted at operating temperature and after humidity preconditioning of 5.7, EQUIPMENT energized in stand-by condition and fully operating, max rated supply frequency, at 110 % of the max RATED MAINS VOLTAGE, and after relevant tests of Clause 11.6 (i.e., overflow, spillage, leakage, ingress of water and particulate matter, cleaning & disinfection, & sterilization).

ER - Earth leakage current

TC - Touch current

MD - Measuring device

1 - Switch closed or set to normal polarity

0 - Switch open or set to reversed polarity

NC - Normal condition

SFC - Single fault condition

8.8.3		LE: Dielectric strength test of solid insulating materials with safety function LNS OF OPERATOR PROTECTION (MOOP) / MEANS OF PATIENT PROTECTION (MOPP)					
Inquiation	under teet	Inculation Type	Reference	Voltage	A.C. test	Dielectric	
Insulation under test (area from insulation diagram)		Insulation Type (1 or 2 MOOP/MOPP)	PEAK WORKING VOLTAGE (U) V peak	PEAK WORKING VOLTAGE (U) V d.c.	voltages in V r.m.s ¹	breakdown after 1 minute Yes/No ²	
B (Plug pin-out on the connector side to accessible part)		2MOOP	240	340	3000	No breakdown	
C (Mains part plug portion to outer enclosure)		2MOOP	240		3000	No breakdown	
D (Internal mains part to accessible outer enclosure)		2MOOP	240	340	3000	No breakdown	
E (Mains part to secondary circuits) (Optocoupler)		2MOPP	240		4000	No breakdown	
F (Mains p		2MOPP	240		4000	No breakdown	



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G (Mains part to secondary circuits) (Y capacitor x 2)	1MOPP (Each) x 2	240		4000	No breakdown
H (Mains part to secondary circuits) (Along PCB trace)	2MOPP	240		4000	No breakdown
J (Line/Neutral to PE terminal trace)	1MOPP	240		1500	No breakdown

Supplementary information:

² A) Immediately after humidity treatment of 5.7, ME EQUIPMENT de-energized, B) after required sterilization PROCEDURE, ME EQUIPMENT de-energized, C) after reaching steady state operating temperature as during heating test of 11.1.1, and D) after relevant tests of 11.6 (i.e., overflow, spillage, leakage, ingress of water, cleaning, disinfection, and sterilization).

8.8.4.1	TABLE: Resistance to heat - Ball pressure test of thermoplastic parts				
	Allowed impression diameter (mm) ≤ 2 mm			_	
	Force (N)	20			_
Part/mater	ial		Test temperature (°C)		ression eter (mm)
Enclosure					
SE1X			125		1.4
SE1			125		1.4
SE100			125		1.4
C2950			125		1.4
CX7211			125		1.4
EXCY0098			125		1.3
945			125		1.3
HF500R			125		1.4
LN-1250P			125		1.3
LN-1250G			125		1.3
Bobbin of	Mains transformer				
T375J			125		1.3
T375HF			125		1.2
4130			125		1.3
PM-9820			125		1.4
CP-J-8800			125		1.4
Supplemer	ntary information: Approved materials are used. Refer t	o lis	st of safety critical com	ponents.	

¹ Alternatively, per the Table (i.e., __dc), a d.c. test voltage equal to the peak value of the a.c. test voltage used.



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Clause	Requirement + Test	R	esult - Remark		Verdict				
8.8.4.1	1 RM RESULTS TABLE: Mechanical strength and resistance to heat								
8.9.2	TABLE: Short circuiting of each single one of the CREEPAGE DISTANCES and AIR CLEARANCES for insulation in the MAINS PART between parts of opposite polarity in lieu of complying with the required measurements in 8.9.4								
-	areas of circuits short- ed and test conditions	Test in lieu of CREEPAGE DISTANCE OF AIR CLEARANCE ¹	observe shock h	RDOUS SITUATION ed (i.e., fire hazard, nazard, explosion, rge of parts, etc.)? Yes/No	R	emarks			
circuited and test conditions Supplementary information:		CLEARANCE ¹	dischar	ge of parts, etc.)?		<u></u>			



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		IEC 60601-1					
Clause	Requirement + Test		Result - Rem	nark	Verdict		
8.9.3.2	Table: Thermal cycling tests solid insulation between con		insulating co	mpound forming	N/A		
Test Sequence No.	Each test duration and temperature	(V = Test vol	Dielectric test voltage (V = Test voltage in 8.8.3 times 1.6) Dielectric streng humidity precond cl. 5.7 except for Breakdown:				
	68 h at T1 ± 2 °C =°C 1						
1	1 h at 25 °C ± 2 °C						
1	2 h at 0 °C ± 2 °C						
	1 or more h at 25 °C ± 2 °C						
	68 h at T1 ± 2 °C =°C ¹						
2	1 h at 25 °C ± 2 °C						
2	2 h at 0 °C ± 2 °C						
	1 or more h at 25 °C ± 2 °C						
	68 h at T1 ± 2 °C =°C 1						
3	1 h at 25 °C ± 2 °C						
3	2 h at 0 °C ± 2 °C						
	1 or more h at 25 °C ± 2 °C						
	68 h at T1 ± 2 °C =°C 1						
4	1 h at 25 °C ± 2 °C						
4	2 h at 0 °C ± 2 °C						
	1 or more h at 25 °C ± 2 °C						

Supplementary information:

¹ T1 = 10 °C above the maximum temperature of relevant part determined per 11.1.1, or 85 °C, the higher of the two. 10 °C not added to T1 when temperature measured by an embedded thermocouple. Used gradual transition from one temperature to another.



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8.9.3.4	Table: Thermal cycling tests on o	ne sample of cemented join	t (see 8.9.3.3)	N/A
Test Sequence No.	Each test duration and temperature	Dielectric test voltage (V = Test voltage in 8.8.3 times 1.6)	Dielectric strengthumidity precond cl. 5.7 except for Breakdown:	itioning per 48 h only,
	68 h at T1 ± 2 °C =°C1			
1	1 h at 25 °C ± 2 °C			
'	2 h at 0 °C ± 2 °C			
	1 or more h at 25 °C ± 2 °C			
	68 h at T1 ± 2 °C =°C ¹			
	1 h at 25 °C ± 2 °C			
2	2 h at 0 °C ± 2 °C			
	1 or more h at 25 °C ± 2 °C			
	68 h at T1 ± 2 °C =°C ¹			
	1 h at 25 °C ± 2 °C			
3	2 h at 0 °C ± 2 °C			
	1 or more h at 25 °C ± 2 °C			
	68 h at T1 ± 2 °C =°C ¹			
	1 h at 25 °C ± 2 °C			
4	2 h at 0 °C ± 2 °C			
	1 or more h at 25 °C ± 2 °C			

Supplementary information:

 $^{^1}$ T1 = 10 °C above the maximum temperature of relevant part determined per 11.1.1, or 85 °C, the higher of the two. 10 °C not added to T1 when temperature measured by an embedded thermocouple. Used gradual transition from one temperature to another.



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8.10	TABLE: List of critica	al components			Р
Object/part No	. Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity ¹)
PCB	WALEX ELECTRONIC (WUXI) CO LTD	T2 T2A T2B T4	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E154355
Alt. use	GUANGDE BOYA XINXING ELECTRONIC TECHNOLOGY CO LTD	BY-1	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	UL E475783
Alt. use	DONGGUAN HE TONG ELECTRONICS CO LTD	CEM1 2V0 FR4	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E243157
Alt. use	CHEERFUL ELECTRONIC (HK) LTD	02 03 03A	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E199724
Alt. use	DONGGUAN DAYSUN ELECTRONIC CO LTD	DS2	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E251754
Alt. use	SUZHOU CITY YILIHUA ELECTRONICS CO LTD	YLH-1	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E251781
Alt. use	DAFENG AREX ELECTRONIC TECHNOLOGY CO LTD (M1)	02V0 04V0 03V0	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E186016
Alt. use	BRITE PLUS ELECTRONICS (SUZHOU) CO LTD	DKV0-3A DGV0-3A	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E177671
Alt. use	KUOTIANG ENT LTD	C-2 C-2A	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E227299
Alt. use	SHENZHEN TONGCHUANGXI N ELECTRONICS CO LTD	TCX	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E250336



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					<u> </u>
Alt. use	PACIFIC WIN INDUSTRIAL LTD	PW-02 PW-03	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E228070
Alt. use	YUANMAN PRINTED CIRCUIT CO LTD	1V0	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E74757
Alt. use	SUZHOU XINKE ELECTRONICS CO LTD	XK-2, XK-3	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E231590
Alt. use	KUNSHAN CITY HUA SHENG CIRCUIT BOARD CO LTD	HS-S	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E229877
Alt. use	JIANGSU DIFEIDA ELECTRONICS CO LTD	DFD-1	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E213009
Alt. use	HUIZHOU SHUNJIA ELECTRONICS CO LTD	SJ-B	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E320884
Alt. use	JIANGXI ZHONG XIN HUA ELECTRONICS INDUSTRY CO LTD	ZXH-2	Min. 1,6 mm thickness, min. V-0, 130°C	IEC 60601-1 UL 796	Tested with appliance UL E331298
Fuse (F1, F2) (F2 is optional)	Conquer Electronics Co., Ltd.	MST series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017118 UL E82636
Alt. use	Ever Island Electric Co., Ltd. And Walter Electric	2010, ICP	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40018781 UL E220181
Alt. use	Bel Fuse Ltd.	RST-Serie(s)	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40011144 UL E20624
Alt. use	Cooper Bussmann LLC	SS-5	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40015513 UL E19180



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L	-		l l		
Alt. use	Shenzhen Lanson Electronics Co. Ltd. Das & Sons International Ltd.	SMT 385T series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14 IEC 60127-1 IEC 60127-3	VDE 40012592 UL E221465 VDE 40008524 UL E205718
				UL 248-1 UL 248-14	
Alt. use	Dongguan Better Electronics Technology Co., Ltd.	932	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40033369 UL E300003
Alt. use	Hollyland Company Limited	5ET	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40015669 UL E156471
Alt. use	Sunny East Enterprise Co. Ltd.	CFD-Serie(s)	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40030246 UL E133774
Alt. use	Conquer Electronics Co., Ltd.	MET series	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017157 UL E82636
Alt. use	Zhongshan Lanbao Electrical Appliances Co., Ltd.	RTI-10 Serie(s)	T3.15A, 250V	IEC 60127-1 IEC 60127-3 UL 248-1 UL 248-14	VDE 40017009 UL E213695
Y capacitor (CY1, CY2) (optional)	TDK-EPC Corporation, Capacitors Group Circuit Devices Business Group	CD	Y1, AC250V, max 2200pF, 25/085/21/B	IEC/EN 60384- 14 UL 60384-14 UL 1414	UL E37861
Alt. use	Success Electronics Co., Ltd.	SE	Y1, Min. AC250V, or AC500V, max 2200pF, 40/125/56/C (M1)	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40037211 VDE 40020002 UL E114280



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T			Ī.,,		
Alt. use	Success Electronics Co.,	SB	Y1, Min.AC250V,	IEC/EN 60384- 14	VDE 40037221
	Ltd.		max 2200pF,	UL 60384-14	VDE 40020001
			40/125/56/C		UL E114280
			(M1)	UL 1414	
Alt. use	Murata Mfg. Co., Ltd.	KX	Y1, AC250V, max 2200pF,	IEC/EN 60384- 14	VDE 40002831
	Liu.		25/125/21/B	UL 60384-14	UL E37921
				UL 1414	
Λ.Ι	Walsin	A11	V4_AC050V		VDE 40004004
Alt. use	Technology Corp.	AH	Y1, AC250V, max 2200pF,	IEC/EN 60384- 14	VDE 40001804
	0,		25/125/21/C	UL 60384-14	UL E146544
				UL 1414	
Alt. use	JYA-NAY Co., Ltd.	JN	Y1, AC250V,	IEC/EN 60384-	VDE 40001831
7 1111 400	017111111 001, 2101		max 2200pF,	14	UL E201384
			25/125/21/C	UL 60384-14	0L L201004
				UL 1414	
Alt. use	Haohua Electronic	CT 7	Y1, AC250V,	IEC/EN 60384-	VDE 40003902
	Co.		max 2200pF, 30/125/56/C	14	UL E233106
			30/123/30/C	UL 60384-14	
				UL 1414	
Alt. use	Jyh Chung	JD	Y1, AC250V,	IEC/EN 60384-	VDE 137027
	Electronic Co., Ltd.		max 2200pF, 40/085/21/C	14	UL E187963
	110.		10,000,21,0	UL 60384-14	
				UL 1414	
Alt. use	Jerro Electronics	JX-series	Y1, AC250V, max 2200pF,	IEC/EN 60384- 14	VDE 40032158
	Corp.		40/125/21/C	UL 60384-14	UL E333001
				UL 1414	
X capacitor (CX1)	Cheng Tung Industrial Co., Ltd.	CTX	Min. 300VAC, Max.	IEC/EN 60384- 14	VDE 40022642
(optional)			0.47µF,110 °C,	UL 60384-14	UL E193049
(Spaintal)			X1 or X2	UL 1414	
Alt. use	Tenta Electric	MEX	Min. 250VAC,	IEC/EN 60384-	VDE 119119
	Industrial Co. Ltd.	IVILA	Max. 0.47µF,	14	
			40/100/21/B, X1	UL 60384-14	UL E222911
			or X2	UL 1414	
				_ =	



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		T	1	Т	
Alt. use	Joey Electronics (Dong Guan) Co., Ltd.	MPX	Min. 250VAC, Max. 0.47μF, 40/105/21/B, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40032481 UL E216807
Alt. use	Ultra Tech Xiphi Enterprise Co. Ltd.	HQX	Min. 250VAC, Max. 0.47μF, 40/100/21/C, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40015608 UL E183780
Alt. use	Yuon Yu Electronics Co. Ltd.	MPX	Min. 250VAC, Max. 0.47μF, 40/100/21/C, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40032392 UL E200119
Alt. use	Sinhua Electronics (Huzhou) Co., Ltd.	MPX	Min. 250VAC, Max. 0.47μF, 40/100/21/C, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40014686 UL E237560
Alt. use	Jiangsu Xinghua Huayu Electronics Co., Ltd.	MPX - Series	Min. 250VAC, Max. 0.47μF, 40/100/21/C, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40022417 UL E311166
Alt. use	Dain Electronics Co., Ltd.	MEX, MPX, NPX	Min. 250VAC, Max. 0.47μF, 40/100/21/C, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40018798 UL E147776
Alt. use	Shenzhen Jinghao Capacitor Co., Ltd.	CBB62B	Min. 250VAC, Max. 0.47μF, 40/110/56/B, X1 or X2	IEC/EN 60384- 14 UL 60384-14 UL 1414	VDE 40018690 UL E252286
Photo coupler U3	Everlight Electronics Co., Ltd.	EL817	Dti=0.5mm Int. , dcr=6.0mm EXT.dcr=7.7m m, thermal cycling test,110°C	IEC/EN 60747- 5-2	VDE 132249



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

Alt. use	COSMO Electronics Corporation	K1010 / KP1010	Dti=0.6mm Int. , dcr=4.0mm EXT.dcr=5.0m m, thermal cycling test,115°C	IEC/EN 60747- 5-2	VDE 101347
Alt. use	Lite-On Technology Corporation	LTV-817	Dti=0.8mm Int. , EXT.dcr=7.8m m, thermal cycling test,110°C	IEC/EN 60747- 5-2	VDE 40015248
Alt. use	Fairchild Semiconductor Pte Ltd.	H11A817B / FOD817B	Insulation voltage: 850V; Transient overvoltage: 6000V; CTI175; Int. Cr/ Ext. Cr: ≥7,0/ 7,0 mm; 30/110/21	IEC/EN 60747- 5-2	VDE 40026857
Alt. use	Sharp Corporation Electronic Components and Devices Group	PC817	Insulation voltage: 890V; Transient overvoltage: 9000V Int. Cr/ Ext. Cr: 7.62/ 7.62 mm; 30/100/21	IEC/EN 60747- 5-2	VDE 40008087
Alt. use	Bright Led Electronics Corp.	BPC-817 A/B/C/D/L BPC- 817 M BPC-817 S	Dti=0.4mm EXT.dcr=7.0m m, thermal cycling test,110°C	IEC/EN 60747- 5-2	VDE 40007240
Alt. use	Toshiba Corporation Semiconductor & Storage Products Company	TLP781F	Dti > 0.4mm, Ext cr > 8.0mm, Isolation 3000Vac min., 110°C min., Thermal cycling test	IEC/EN 60747- 5-2	VDE 40021173
Varistor MOV1 (optional)	Thinking Electronic Industrial Co., Ltd.	TVR10471K, TVR14471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 005944



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

	-				
Alt. use	Centra Science Corp.	10D471K, 14D471K	Max. Continuous voltage: min	IEC 61051-1 IEC 61051-2	VDE 4008220
			300Vac(rms), 85°C, the coating is V-0	IEC 61051-2-2	
Alt. use	Success Electronics Co., Ltd.	SVR10D471K SVR14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40030401
Alt. use	Walsin Technology Co., Ltd.	14D471K 10D471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40010090
Alt. use	Lien Shun Electronics Co., Ltd.	14D471K 10D471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40005858
Alt. use	Ceramate Techn. Co., Ltd.	GNR10D471K GNR14D471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40031745
Alt. use	Brightking (Shenzhen) Co., Ltd.	14D471K 10D471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 40027827
Alt. use	Joyin Co., Ltd.	JVR10N471K JVR14N471K	Max. Continuous voltage: min 300Vac(rms), 85°C, the coating is V-0	IEC 61051-1 IEC 61051-2 IEC 61051-2-2	VDE 005937
Appliance inlet CON1/CN1 Class I units (C6 type)	Zhejiang LECI Electronics Co., Ltd.	DB-6	2.5A, 250Vac	IEC/EN 60320-1	VDE 40032465
Alt. use	Rich Bay Co., Ltd.	R-30790	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030381
Alt. use	Sun Fair Electric Wire & Cable (HK) Co. Ltd.	S-02	2.5A, 250Vac	IEC/EN 60320-1	VDE 40034448



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

L	·		L		
Alt. use	TECX-UNIONS Technology Corporation	TU-333	2.5A, 250Vac	IEC/EN 60320-1	ENEC 00633
Alt. use	Rong Feng Industrial Co., Ltd.	RF-190	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030379
Alt. use	Inalways Corporation	0724	2.5A, 250Vac	IEC/EN 60320-1	ENEC 2010080
Alt. use	Zhe Jiang Bei Er jia	ST-A04-002	2.5A, 250Vac	IEC/EN 60320-1	VDE 40016045
Alt. use	Shenzhen Delikang Electronics Technology Co. Ltd.	CDJ-2	2.5A, 250Vac	IEC/EN 60320-1	VDE 40015580
Appliance inlet CON1 Class I units (C14 type)	Zhejiang LECI Electronics Co., Ltd.	DB-14	10A, 250Vac	IEC/EN 60320-1	VDE 40032137
Alt. use	Rich Bay Co., Ltd.	R-301SN	10A, 250Vac	IEC/EN 60320-1	VDE 40030228
Alt. use	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-03	10A, 250Vac	IEC/EN 60320-1	VDE 40034447
Alt. use	TECX-UNIONS Technology Corporation	TU-301-S, TU-301-SP	10A, 250Vac	IEC/EN 60320-1	ENEC 00647
Alt. use	Rong Feng Industrial Co., Ltd.	SS-120	10A, 250Vac	IEC/EN 60320-1	VDE 40028101
Alt. use	Inalways Corporation	0711	10A, 250Vac	IEC/EN 60320-1	ENEC 2010084
Alt. use	Zhe Jiang Bei Er jia	ST-A01-003J	10A, 250Vac	IEC/EN 60320-1	VDE 40013388
Appliance inlet CON1 Class II units (C8 type)	Zhejiang LECI Electronics Co., Ltd.	DB-8	2.5A, 250Vac	IEC/EN 60320-1	VDE 40032028
Alt. use	Rich Bay Co., Ltd.	R-201SN90	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030384
Alt. use	Sun Fair Electric Wire & Cable (HK)Co. Ltd.	S-01	2.5A, 250Vac	IEC/EN 60320-1	VDE 40034449
Alt. use	TECX-UNIONS Technology Corporation	SO-222	2.5A, 250Vac	IEC/EN 60320-1	VDE 40043268
Alt. use	Rong Feng Industrial Co., Ltd.	RF-180	2.5A, 250Vac	IEC/EN 60320-1	VDE 40030168
Alt. use	Inalways Corporation	0721	2.5A, 250Vac	IEC/EN 60320-1	ENEC 2010087



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

Alt. use	Zhe Jiang Bei Er jia	ST-A03-005	2.5A, 250Vac	IEC/EN 60320-1	VDE 40014833
Alt. use	Shenzhen Delikang Electronics Technology Co. Ltd.	CDJ-8	2.5A, 250Vac	IEC/EN 60320-1	VDE 40025531
Appliance inlet CON1 Class II units (C18 type)	HCR ELECTRONICS CO., LTD	SK05	10A,250Vac	IEC 60320- 1:2015	ENEC(NO4018)
Alt. use	Rong Feng Industrial Co.,Ltd	SS-120	10A,250Vac	IEC 60320- 1:2015	VDE 40028101
Earthing wire	KUNSHAN NEW ZHICHENG ELECTRONICS TECHNOLOGIES CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E237831
Alt. use	ZHUANG SHAN CHUAN ELECTRICAL PRODUCTS (KUNSHAN) CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E333601
Alt. use	DONGGUAN CHUANTAI WIRE PRODUCTS CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E315628
Alt. use	YONG HAO ELECTRICAL INDUSTRY CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E240426
Alt. use	DONGGUAN GUNEETAL WIRE & CABLE CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E204204
Alt. use	SHENG YU ENTERPRISE CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E219726
Alt. use	KUNSHAN XINGHONGMEN G ELECTRONIC CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E315421
Alt. use	SUZHOU YEMAO ELECTRONIC CO LTD	1015, 1007, 1185	Min. 20 AWG, Min. 300V, Min. 80°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E353532



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

			•		-
Heat-shrinkable tubing	SHENZHEN WOER HEAT- SHRINKABLE MATERIAL CO LTD	RSFR-H RSFR RSFR-HPF	600V, 125°C	IEC 60601-1 IEC/EN 60950-1	Tested with appliance UL E3203950
Alt. use	QIFURUI ELECTRONICS CO	QFR-h	600V, 125°C	IEC 60601-1 IEC/EN 60950-1 UL 224	Tested within appliance UL E225897
Alt. use	DONGGUAN SALIPT CO LTD	SALIPT S-901- 300 SALIPT S-901- 600	Min. 300V, 125°C	IEC 60601-1 IEC/EN 60950-1 UL 224	Tested within appliance UL E209436
Alt. use	GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+) K-2 (CB)	Min. 300V, 125°C	IEC 60601-1 IEC/EN 60950-1 UL 224	Tested within appliance UL E214175
Alt. use	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-HFT	Min. 300V, 125°C	IEC 60601-1 IEC/EN 60950-1 UL 224	Tested within appliance UL E180908
Transformer (T1)	GlobTek BOAM HAOPUWEI /ENG	See attachment table of transformer model	Class B, with critical component listed below	IEC 60601-1 IEC 60950-1	Tested with appliance
Magnet wire	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWN/U	MW28-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E201757
Alt. use	PACIFIC ELECTRIC WIRE & CABLE (SHENZHEN) CO LTD	UEWS/U	MW75-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E201757
Alt. use	JUNG SHING WIRE CO LTD	UEW-4	MW75C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E174837
Alt. use	JUNG SHING WIRE CO LTD	UEY-2	MW28-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E174837
Alt. use	JIANGSU HONGLIU MAGNET WIRE TECHNOLOGY CO LTD	2UEW/130	MW75-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E335065
Alt. use	CHANGZHOU DAYANG WIRE & CABLE CO LTD	2UEW/130	MW75-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E158909



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IEC 60601-1				
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			l .		
Alt. use	WUXI JUFENG COMPOUND LINE CO LTD	2UEWB	MW75#, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E206882
Alt. use	JIANGSU DARTONG M & E CO LTD	UEW	MW 75-C, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E237377
Alt. use	SHANDONG SAINT ELECTRIC CO LTD	UEW/130	MW75#, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E194410
Alt. use	ZHEJIANG LANGLI ELECTRIC EQUIPMENTS CO LTD	UEW	MW 79#, 130°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E222214
Triple-insulated wire (Secondary)	Great Leoflon Industrial Co., Ltd.	TRW (B) Serie(s)	Class B, reinforced insulation	IEC 60950-1 UL 2353 UL 60601-1	VDE 136581 UL E211989
Alt. use	COSMOLINK CO. Ltd.	TIW-M Serie(s)	Class B, reinforced insulation	IEC 60950-1 UL 2353 UL 60601-1	VDE 138053 UL E213764
Alt. use	Furukawa Electric Co., Ltd. Electronics & Automotive Systems Company Global Business Development Division	TEX-E	Class B, reinforced insulation	IEC 60950-1 UL 2353 UL 60601-1	VDE 006735 UL E206440
Alt. use	TOTOKU ELECTRIC CO LTD	TIW-2	Reinforced insulation, rated 130° C (Class B)	UL 2353 UL60950-1 UL 60601-1	VDE 40005152 UL E249037
Alt. use	E&B TECHNOLOGY CO LTD	E&B-XXXB E&B-XXXB-1	Reinforced insulation, Class B	IEC 60950-1 UL 2353 UL 60601-1	VDE 40023473 UL E315265
Alt. use	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TIW	Reinforced insulation, Class B	IEC 60601-1 IEC 60950-1 UL 2353 UL 60601-1	Tested with appliance UL E249037



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

Alt. use	SHENZHEN JIUDING NEW MATERIAL CO LTD	DTIW-B	Reinforced insulation, Class B	IEC 60950-1 UL 2353 UL 60601-1	VDE 40037495 UL E357999
Bobbin	CHANG CHUN PLASTICS CO LTD	T375J T375HF	V-0, 150°C, thickness 0,45 mm min.	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E59481
Alt. use	CHANG CHUN PLASTICS CO LTD	4130	V-0, 140°C, thickness 0,74 mm min.	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E59481
Alt. use	SUMITOMO BAKELITE CO LTD	PM-9820	V-0, 150°C, thickness 0,45 mm min.	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E41429
Alt. use	HITACHI CHEMICAL CO LTD	CP-J-8800	V-0, 150°C, thickness 0,45 mm min.	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E42956
Insulating tape	3M COMPANY ELECTRICAL MARKETS DIV (EMD)	1350F-1 1350T-1 44	Min.130°C	IEC 60601-1 IEC 60950-1 UL 510	Tested with appliance UL E17385
Alt. use	BONDTEC PACIFIC CO LTD	370S	Min.130°C	IEC 60601-1 IEC 60950-1 UL 510	Tested with appliance UL E175868
Alt. use	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	PZ CT WF	Min.130°C	IEC 60601-1 IEC 60950-1 UL 510	Tested with appliance UL E165111
Alt. use	JINGJIANG JINGYI ADHESIVE PRODUCT CO LTD	JY25-A	Min.130°C	IEC 60601-1 IEC 60950-1 UL 510	Tested with appliance UL E246950
Alt. use	CHANG SHU LIANG YI TAPE INDUSTRY CO LTD	LY-XX	Min.130°C	IEC 60601-1 IEC 60950-1 UL 510	Tested with appliance UL E246820



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

PTFE tubing	GREAT HOLDING INDUSTRIAL CO LTD	TFT TFS	Min. 300V, 200°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E156256
Alt. use	SHENZHEN WOER HEAT- SHRINKABLE MATERIAL CO LTD	WF	600V, 200°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E203950
Alt. use	CHANGYUAN ELECTRONICS (SHENZHEN) CO LTD	CB-TT-T CB-TT-S	Min. 300V, 200°C	IEC 60601-1 IEC 60950-1	Tested with appliance UL E180908
Enclosure (all parts)	SABIC INNOVATIVE PLASTICS B V	SE1X SE1	PPE+PS, Min. V-1, Min. thickness: 2.0mm, 105°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	SE100	PPE+PS, Min. V-1, Min. thickness: 2.0mm, 95°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	C2950	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 85°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	CX7211 EXCY0098	PC/ABS, Min. V-1, Min. thickness: 2.0mm, 90°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	940 945	PC, Min. V-1, Min. thickness: 2.0mm, 120°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329
Alt. use	SABIC INNOVATIVE PLASTICS B V	HF500R	PC, V-0, Min. thickness: 2.0mm, 125°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E45329



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		Modification 1. 2	20 00 2 1		
IEC 60601-1					
Clause	Requirement + Test	Result - Remark	Verdict		

Alt. use	TEIJIN CHEMICALS LTD	LN-1250P LN-1250G	PC, Min. V-0, Min. thickness: 2.0mm, 115°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E50075
Alt. use	CHI MEI CORPORATION	PA-765A PA-540	PC, Min. V-0, Min. thickness: 2.0mm, 115°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E56070
Alt. use	SABIC JAPAN L L C	SE100 SE1X SE1	PPE+PS, Min. V-1, Min. thickness: 2.0mm, 95°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E207780
Alt. use	SABIC INNOVATIVE PLASTICS B V	C2950	PC/ABS, Min. V-0, Min. thickness: 2.0mm, 85°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E207780
Alt. use	SABIC INNOVATIVE PLASTICS B V	CX7211 EXCY0098	PC/ABS, Min. V-1, Min. thickness: 2.0mm, 90°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E207780
Alt. use	SABIC INNOVATIVE PLASTICS B V	940 945	PC, Min. V-1, Min. thickness: 2.0mm, 120°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E207780
Alt. use	SABIC INNOVATIVE PLASTICS B V	HF500R	PC, V-0, Min. thickness: 2.0mm, 125°C	IEC 60601-1 IEC 60950-1 UL 94 UL 746 A/B/C/D	Tested with appliance UL E207780
Label	DONGGUAN XIANGQUAN PRINTING CO LTD	XQ03	Rated min 80°C Suitable for use on the plastic enclosure	IEC/EN 60601-1 UL 969	Tested with appliance UL MH27594
Alt. use	FAN JA PAPER PRINTING CO LTD	FJ-03-3	Rated min 80°C Suitable for use on the plastic enclosure	IEC/EN 60601-1 UL 969	Tested with appliance UL MH19546



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			•		•
Alt. use	FAN JA PAPER PRINTING CO LTD	FJ07	Rated min 80°C Suitable for use on the plastic enclosure (PC or ABS)	IEC/EN 60601-1 UL 969	Tested with appliance UL MH19546
Alt. use	DONGGUAN XIANGQUAN PRINTING CO LTD	XQ004-B	Rated min 80°C Suitable for use on the plastic enclosure	IEC/EN 60601-1 UL 969	Tested with appliance UL MH47303
Alt. use	E-LIN ADHESIVE LABEL CO LTD	EL-15	Rated min 80°C Suitable for use on the plastic enclosure	IEC/EN 60601-1 UL 969	Tested with appliance UL MH45549
Alt. use	SHENZHEN CORWIN PRINTING CO LTD	CW-01	Rated min 80°C Suitable for use on the plastic enclosure	IEC/EN 60601-1 UL 969	Tested with appliance UL MH47077
Alt. use	YUEN CHANG SPECIAL PRINTING (SHENZHEN) CO LTD	JL-08 JL-02	Rated min 80°C Suitable for use on the plastic enclosure (PC or ABS)	IEC/EN 60601-1 UL 969	Tested with appliance UL MH29752
Alt. use	GlobTek		Engraving, silkscreen or laser printing	IEC/EN 60601-1	Tested with appliance
Alt. use	SUZHOU HAIRONG PACKING PRODUCTION CO LTD	HR-01 HR-02	Rated min 80°C Suitable for use on the plastic enclosure (PC or ABS)	IEC/EN 60601-1 UL 969	UL MH48692
Non-critical comp	ponent list				
Output cord	Interchangeable	Interchangeable	Min. 24AWG, min. 300Vac, min. 80°C	IEC/EN 60950-1 UL 758	Tested with appliance UL approved

Attachment for transformer as below:

Product Model	Voltage	Transformer
	Range	model
GT*96300	5-8.9V	TF038
	9-11.9V	TF057
	12-14.9V	TF039
	15-24V	TF040
	24.1-48V	TF041
GT*96300 POE	18V	TF068
	24V	TF069
	36V	TF070
	48V	TF051
	54V, 56V	TF051



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					Modification 1: 2	2020-08-24	
			IEC 60601-1				
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8.10.1	RM RESULTS T	ABLE: Fixing of o	components			N/A	
		_					
8.11.3.5	TABLE: Cord an	chorages				N/A	
Cord und	Cord under test Mass of Pull (N) Torque Nm) Re equipment (kg)					marks	
			-				
Suppleme	entary information:						
8.11.3.6	TABLE: Cord gu	ard				N/A	
Cord und	ler test	Test mass	Measure	d curvature	Remai	rks	
				-			
Suppleme	entary information:	•					
9.2.1	RM RESULTS T	ABLE: HAZARDS	associated wi	th moving pa	arts - General	N/A	
9.2.2.2	TABLE: Measure	ement of gap "a" a	according to Ta	able 20 (ISO	13852: 1996)	N/A	
9.2.3.2	TABLE: Over	-travel End Stop 1	est			N/A	
9.2.4	RM RESULTS	TABLE: Emerge	ncy stopping d	levices		N/A	
			, ,,				
9.2.5	RM RESULTS T	ABLE: Release of	patient			N/A	
	Г						
9.4.2.1	TABLE: Instability	-overbalance in	transport posi	tion		N/A	
0.4.0.0	TABLE: In atability					NI/A	
9.4.2.2	TABLE: Instability	—overbalance ex	cluding transp	ort position		N/A	
9.4.2.3	TABLE: Instability	—overhalance fro	om horizontal a	and vertical f	orces	N/A	
J.4.2.J	TABLE: Ilistability		m nonzontar e	TITA VEITIGAI I	01003	IV/A	
9.4.2.4.2	TABLE: Castors a	nd wheels – Force	e for propulsio	n		N/A	
			' '				
9.4.2.4.3	9.4.2.4.3 TABLE: Castors and wheels – Movement over a threshold N/A						
0.464	TABLE IN CASE	£	-4			A 1/A	
9.4.3.1	TABLE: Instability from unwanted lateral movement (including sliding) in transport position						



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9.4.3.2		lateral movement (including sliding)	N/A
9.4.4	TABLE: Grips and other handling devi	ces	N/A
9.5.1	RM RESULTS TABLE: Protective m	eans	N/A
9.6.1	RM RESULTS TABLE: Acoustic ene	ergy - General	N/A
9.6.2.2	RM RESULTS TABLE: Infrasound a	nd ultrasound energy	N/A
9.7.2	RM RESULTS TABLE: Pneumatic a	nd hydraulic parts	N/A
9.7.5	TABLE: Pressure vessels		N/A
9.7.7	RM RESULTS TABLE: Pressure-reli	ef device	N/A
9.8.1	RM RESULTS TABLE: Hazards asso	ociated with support systems - General	N/A
9.8.2	RM RESULTS TABLE: Tensile safet	y factor	N/A
9.8.3.1	RM RESULTS TABLE: Strength of passes and systems - General	patient or operator support or suspension	N/A
9.8.3.2	TABLE: PATIENT support/suspension	on system - Static forces	N/A
9.8.3.3	TABLE: Support/Suspension Syste persons	m - Dynamic forces due to loading from	N/A
9.8.5	RM RESULTS TABLE: Systems with	nout mechanical protective devices	N/A
10.1.1	TABLE: Measurement of X - radiation	1	N/A
10.1.2	RM RESULTS TABLE: ME equipment therapeutic X-radiation	nt intended to produce diagnostic or	N/A
10.2	RM RESULTS TABLE: Alpha, beta,	gamma, neutron & other particle radiation	N/A
10.5	RM RESULTS TABLE: Other visible	electromagnetic radiation	N/A



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	IEC 60601-1				
Clause	Requirement + Test	Result - Remark	Verdict		
10.6	10.6 RM RESULTS TABLE: RISK associated with infrared radiation other than emitted by lasers and LEDS				
10.7	RM RESULTS TABLE: RISK associated with ult emitted by lasers and LEDS	traviolet radiation other than	N/A		

11.1.1	TABLE: E	ABLE: Excessive temperatures in ME EQUIPMENT						Р
Model No		:	1	2				
Test ambie	nt (°C)	:	40	40				
Test supply	Test supply voltage/frequency (V/Hz)4:			264/60				
Model No.	Thermo-		cation ³	Max allowal temperature ¹ Table 22, 23 or RM file for (°C)	from or 24	temp	measured perature ² , (°C)	Remarks
		G	TM96300	-2307.5-2.5-R2				
1	1	T1 winding		110			106	1
1	2	T1 core					98	-
1	3	C1		105			95	T marking on capacitor body
1	4	U3		100			96	See table 8.10
1	5	MOV1		85			66	See table 8.10
1	6	CY1		125			90	See table 8.10
1	7	CX1		100			75	See table 8.10
1	8	РСВ		130			88	See table 8.10
1	9	External enclosure		71			69	Table 23 used, enclosure is likely to be touched for 1s to 10s.
1	10	Inlet body	Inlet body				61	-
2	1	T1 winding		110			102	
2	2	T1 core	T1 core				93	
2	3	C1		105			84	T marking on capacitor body



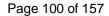
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		IEC	60601-1	Modification	1: 2020-08-24
Clause	Requireme	ent + Test	Result - F	Remark	Verdict
2	4	U3	100	90	See table 8.10
2	5	MOV1	85	55	See table 8.10
2	6	CY1	125	86	See table 8.10
2	7	CX1	100	63	See table 8.10
2	8	РСВ	130	84	See table 8.10
2	9	External enclosure	71	70	Table 23 used, enclosure is likely to be touched for 1s to 10s.
2	10	Inlet body		54	
	1	GTM96300-	·3614.5-2.5-R3A		
1	1	T1 winding	110	105	
1	2	T1 core		105	
1	3	C1	105	103	T marking on capacitor body
1	4	U3	100	97	See table 8.10
1	5	MOV1	85	72	See table 8.10
1	6	CY1	125	107	See table 8.10
1	7	CX1	100	85	See table 8.10
1	8	РСВ	130	96	See table 8.10
1	9	External enclosure	71	70	Table 23 used, enclosure is likely to be touched for 1s to 10s.
1	10	Inlet body		61	
2	1	T1 winding	110	98	
2	2	T1 core		98	
2	3	C1	105	81	T marking on capacitor body
2	4	U3	100	92	See table 8.10
2	5	MOV1	85	56	See table 8.10
2	6	CY1	125	99	See table 8.10
2	7	CX1	100	64	See table 8.10
2	8	РСВ	130	88	See table 8.10



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		IFC (60601-1	Woomcation	1: 2020-08-24				
Clause	Requireme		Result - Re	emark	Verdict				
2	9	External enclosure	71	68	Table 23 used, enclosure is likely to be touched for 1s to 10s.				
2	10	Inlet body		50					
GTM96300-3624-R2									
1	1	T1 winding	110	105					
1	2	T1 core		105					
1	3	C1	105	103	T marking on capacitor body				
1	4	U3	100	92	See table 8.10				
1	5	MOV1	85	72	See table 8.10				
1	6	CY1	125	98	See table 8.10				
1	7	CX1	100	89	See table 8.10				
1	8	PCB	130	95	See table 8.10				
1	9	External enclosure	71	69	Table 23 used, enclosure is likely to be touched for 1s to 10s.				
1	10	Inlet body		72					
2	1	T1 winding	110	88					
2	2	T1 core	-	91					
2	3	C1	105	76	T marking on capacitor body				
2	4	U3	100	87	See table 8.10				
2	5	MOV1	85	54	See table 8.10				
2	6	CY1	125	87	See table 8.10				
2	7	CX1	100	62	See table 8.10				
2	8	PCB	130	81	See table 8.10				
2	9	External enclosure	71	66	Table 23 used, enclosure is likely to be touched for 1s to 10s.				
2	10	Inlet body		55					
	<u>, </u>	GTM9630	0-3648-R3A						
1	1	T1 winding	110	103					
1	2	T1 core		101					





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		IEC	60601-1	Wodingation	1: 2020-08-24	
Clause	Requireme			Result - Remark		
1	3	C1	105	100	T marking on capacitor body	
1	4	U3	100	98	See table 8.10	
1	5	MOV1	85	67	See table 8.10	
1	6	CY1	125	95	See table 8.10	
1	7	CX1	100	79	See table 8.10	
1	8	PCB	130	104	See table 8.10	
1	9	External enclosure	71	69	Table 23 used, enclosure is likely to be touched for 1s to 10s.	
1	10	Inlet body		58		
2	1	T1 winding	110	90		
2	2	T1 core		90		
2	3	C1	105	76	T marking on capacitor body	
2	4	U3	100	90	See table 8.10	
2	5	MOV1	85	52	See table 8.10	
2	6	CY1	125	86	See table 8.10	
2	7	CX1	100	58	See table 8.10	
2	8	PCB	130	86	See table 8.10	
2	9	External enclosure	71	70	Table 23 used, enclosure is likely to be touched for 1s to 10s.	
2	10	Inlet body		50		

Supplementary information:

- ¹ Maximum allowable temperature on surfaces of test corner is 90 °C
- ² Max temperature determined in accordance with 11.1.3e)
- ³ When thermocouples used to determine temperature of windings, limits of Table 22 reduced by 10 °C.
- ⁴ Supply voltage:
 - ME EQUIPMENT with heating elements 110 % of the maximum RATED voltage;
 - Motor operated ME EQUIPMENT least favourable voltage between 90 % of the minimum RATED and 110 % of
 - the maximum RATED voltage. ME EQUIPMENT operated under normal load and normal DUTY CYCLE.
- Combined heating and motor operated and other ME EQUIPMENT tested both at 110 % of the maximum RATED voltage and at 90 % of the minimum RATED voltage.
- ⁵ **APPLIED PARTS** intended to supply heat to a **PATIENT S**ee RISK MANAGEMENT FILE containing temperatures and clinical effects. Also, see instructions for use.



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			IEC	60601-1		Modific	ation 1: 202	20-08-24
Clause	Requirement + Test Result - Remark							Verdict
11.1.1	11.1.1 RM RESULTS TABLE: Maximum temperature during normal use (Table 23 or 24)							N/A
11.1.2.1	RM RESULTS T	ABLE: App	olied parts	intended to	supply he	at to patier	nt	N/A
11.1.2.2	RM RESULTS T	ABLE: App	olied parts	not intende	ed to supply	y heat to pa	atient	N/A
11.1.3	TABLE: Tempera	ture of win	dings by c	hange-of-re	esistance n	nethod		N/A
Temperate	ure T of winding:	t ₁ (°C)	R ₁ (Ω)	t ₂ (°C)	R ₂ (Ω)	T (°C)	Allowed T _{max} (°C)	Insulatio n class
Suppleme	ntary information:							
11.1.3	RM RESULTS T	ABLE: Mea	asurements	3				N/A
11.2.2.1	RM RESULTS T	ABLE: Ris	k of fire in a	an oxygen	rich enviro	nment		N/A
11.2.2.1	TABLE: Alternati ignition source	ve method	to 11.2.2.1	a) 5) to det	ermine exi	stence of a	ın	N/A
11.3	RM RESULTS T equipment	ABLE: Coi	nstructiona	l requireme	ents for fire	e enclosure	es of ME	N/A
11.5	RM RESULTS 1			nt and ME	systems ii	ntended fo	r use in	N/A
	TABLE: overflow, s sterilization, comp				er, cleaning	, disinfecti	on,	N/A
11.6.3	RM RESULTS T	ABLE: Spi	llage on ME	equipmer	nt and ME s	system		N/A
11.6.5	RM RESULTS T EQUIPMENT an			er or partic	ulate matte	er into ME		N/A
11.6.7	RM RESULTS T	ABLE: Ste	rilization of	ME equipr	ment and M	IE systems	i .	N/A
11.6.8	RM RESULTS T	ABLE: Cor	npatibility v	with substa	ances used			N/A
12.1	RM RESULTS T	ABLE: Acc	curacy of co	ontrols and	equipmen	t		N/A



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			IEC 606	601-1		
Clause	Requirement	+ Test			Result - Remark	Verdict
12.4.1	RM RESUL	TS TABLE: Intenti	ional excee	eding of s	afety limits	N/A
12.4.2	RM RESUL	TS TABLE: Indica	tion of para	ameters r	elevant to safety	N/A
12.4.3	RM RESUL	TS TABLE: Accide	ental select	tion of ex	cessive output values	N/A
12.4.4	RM RESUL	TS TABLE: Incorr	ect output			N/A
12.4.5.3	RM RESUL	TS TABLE: Radio	therapy equ	uipment		N/A
12.4.5.4	RM RESUL		ME equipm	nent prod	ucing diagnostic or	N/A
12.4.6	RM RESUL	TS TABLE: Diagn	ostic or the	erapeutic	acoustic pressure	N/A
13.1.2	waive SINGLE		in 4.7, 8.1 b	o), 8.7.2, a	ion in parts & components and 13.2.2 relative to stances	s to N/A
Power dis	ssipated less th	an (W)	:	15		
Energy di	issipated less t	han (J)	:	900		
Part or component Measured power dissipated (W)		Calculated energy dissipated (J)		SINGLE FAULT CONDITIONS waived (Yes/No)	Remarks	



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		meanication ii 2	020 00 2 1				
	IEC 60601-1						
Clause	Requirement + Test	Result - Remark	Verdict				
13.2	13.2 TABLE: SINGLE FAULT CONDITIONS in accordance with 13.2.2 to 13.2.13, inclusive						

Clause No.	Description of SINGLE FAULT CONDITION	Results observed	HAZARDOUS SITUATION (Yes/No)
13.2.2	Electrical SINGLE FAULT CONDITIONS per Clause 8.1:	_	_
	C4 short-circuited	EUT protected immediately	No
	Q1 pinD-S short-circuited	EUT protected immediately	No
	Q1 pinG-S short-circuited	EUT shut down immediately, fuse opened	No
	D2 short-circuited	EUT protected immediately	No
	T1 pin1-2 short-circuited	EUT protected immediately	No
	T1 pinTA-TB short-circuited	EUT shut down, fuse opened	No
	C1 short-circuited	EUT protected immediately	No
	BD1 short-circuited	EUT shut down, fuse opened	No
13.2.3	Overheating of transformers per Clause 15.5:	_	_
		See 15.5	No
13.2.4	Failure of THERMOSTATS according to 13.2.13 & 15.4.2, overloading - THERMOSTATS short circuited or interrupted, the less favourable of the two:	_	_
		No thermostat used	N/A
13.2.5	Failure of temperature limiting devices according to 13.2.13 & 15.4.2, overloading, THERMOSTATS short circuited or interrupted, the less favourable of the two:	_	-
		No temperature limiting device	N/A
13.2.7	Impairment of cooling that could result in a HAZARD using test method of 11.1:	_	_
	Single ventilation fans locked consecutively	No fan used	N/A
	Ventilation openings on top and sides impaired by covering openings on top of ENCLOSURE or positioning of ME EQUIPMENT against walls	No ventilation opening	N/A
	Simulated blocking of filters	No filter	N/A
	Flow of a cooling agent interrupted	No cooling agent used	N/A
13.2.8	Locking of moving parts – Only one part locked at a time – Also see 13.2.10 below:	_	_
		No moving part	N/A



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

Clause No.	Description of SINGLE FAULT CONDITION	Results observed	HAZARDOUS SITUATION (Yes/No)
13.2.9	Interruption and short circuiting of motor capacitors – Motor capacitors short & open circuited ¹ – Also see 13.10	_	_
		No such motor	N/A
		No such motor	N/A
13.2.10	Additional test criteria for motor operated ME EQUIPMENT in 13.2.8 &13.2.9:	_	_
	For every test in SINGLE FAULT CONDITION of 13.2.8 and 13.2.9, motor-operated EQUIPMENT stared from COLD CONDITION at RATED voltage or upper limit of RATED voltage range for specified time:	No motor	N/A
	Temperatures of windings determined at the end of specified test periods or at the instant of operation of fuses, THERMAL CUT-OUTS, motor protective devices	No motor	N/A
	Temperatures measured as specified in 11.1.3 d)	No motor	N/A
	Temperatures did not exceed limits of Table 26	No motor	N/A
13.2.12	Failure of parts that might result in a MECHANICAL HAZARD (See 9 & 15.3):	_	_
		To be checked on end product	N/A

Supplementary information:

¹ Test with short-circuited capacitor not performed when motor provided with a capacitor complying with IEC 60252-1 and the ME EQUIPMENT not intended for unattended use including automatic or remote control. See Attachment # and appended Table 8.10.



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	IEC	60601-1	
Clause	Requirement + Test	Result - Remark	Verdict
13.2.6	RM RESULTS TABLE: Leakage of li	quid	N/A
14.1	RM RESULTS TABLE: Programmab	le electrical medical systems - General	N/A
14.6.1	RM RESULTS TABLE: Identification	of known and foreseeable hazards	N/A
14.6.2	RM RESULTS TABLE: Risk control		N/A
14.7	RM RESULTS TABLE: Requirement	specification	N/A
14.8	RM RESULTS TABLE: Architecture		N/A
14.10	RM RESULTS TABLE: Verification		N/A
14.11	RM RESULTS TABLE: PEMS validate	ion	N/A
14.13	RM RESULTS TABLE: Connection to other equipment	of PEMS by NETWORK/DATA COUPLING	N/A

15.3	TABLE: Mechanical S	ABLE: Mechanical Strength tests 1)				
Clause	Name of Test	Test conditions	Observed results/Remarks			
15.3.2	Push Test	Force = 250 N ± 10 N for 5 s	No visible damage.			
15.3.3	Impact Test	Steel ball (50 mm in dia., 500 g ± 25 g) falling from a 1.3 m	No visible damage.			
15.3.4.1	Drop Test (hand- held)	Free fall height (m) =	N/A			
15.3.4.2	Drop Test (portable)	Drop height (cm) = 5	No visible damage.			
15.3.5	Rough handling test	Travel speed (m/s) =	N/A			
15.3.6	Mould Stress Relief	7 h in oven at temperature (°C) = 70	No visible damage.			
Supplem	entary information: 1)A	s applicable Push Impact Drop Moul	d Stross Poliof and Pa	nuah .		



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			IEC 606	601-1					
Clause	Requirement	+ Test		Result - F	Remar	k		Ve	erdict
15.4.1	RM RESUL	TS TABLE: Cons	truction of o	connectors				N	N/A
15.4.2.1 a	RM RESUL	TS TABLE: THER	MAL CUT-OUTS	s and OVER-CURRE	NT REL	EASES		N	N/A
15.4.2.1 c	RM RESUL	TS TABLE: Indep	endent nor	1-SELF-RESETTING T	HERMA	AL CUT-	ОИТ	N	N/A
15.4.2.1 d	RM RESUL	TS TABLE: Loss	of function	Of ME EQUIPMENT				N	N/A
15.4.2.1 h	RM RESUL	TS TABLE: ME EG	QUIPMENT wit	th tubular heating	elem	ents		N	N/A
15.4.3.1	RM RESUL	TS TABLE: Hous	ing					N	N/A
15.4.3.2	RM RESUL	TS TABLE: Conn	ection					N	N/A
15.4.3.3	RM RESUL	TS TABLE: Prote	ection agains	st overcharging				N	N/A
15.4.4	RM RESUL	TS TABLE: Indicate	ators					N	N/A
15.4.5	RM RESUL	TS TABLE: Pre-s	et controls					N	N/A
15.4.6	TABLE: actu	uating parts of co	ntrols of ME	EQUIPMENT – torqu	ie & ax	kial pu	II tests	N	N/A
15.5.1.2				ort-circuit applied					P
Primary vo voltage)(V)	• `	dverse value fror	n 90 % to 11	0 % of rated	:	26	4Vac	•	_
		Hz)			:		60		_
Winding tested	Class of insulation (A, B, E, F, or H)	Type of protective device (fuse, circuit breaker) /Ratings	Protective device operated Yes/No	Time to THERMAL STABILITY (when protective device did not operate)(Min)	allo temp Tab	imum wed from le 31 C)	Maximu windin temp measure (°C)	g A	ambien t (ºC)
TF038	В	N/A ²	No	5min	16	65 ³	102		25

Supplementary information: ¹ Loads on other windings between no load and their NORMAL USE load. Short-circuit applied at end of windings or at the first point that could be short circuited under SINGLE FAULT CONDITION.

² SMPS current limiting circuits operated immediately.

³Thermocouples are used, so the limit is to be reduced by10 °C.



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		IEC 60601-1				
Clause R	Requirement + Test Result - Remark				Verdict	
15.5.1.3 TABLE: transformer overload test – conducted only when protective device under short-circuit test operated				•	Р	
Primary voltage, most adverse value between 90 % to 110 % of RATED voltage (V)1:					264	
RATED input frequency (Hz):				60		
Test current just below minimum current that would activate protective device & achieve THERMAL STABILITY under method a) (A):				See below		
Test current based on Table 32 when protective device that operated under method a) is external to transformer, and it was shunted (A):				N/A		
Winding test	Class of insulation (A, B, E, F, H)	Type of protective device used (fuse, circuit breaker)/Ratings	Maximum allowed temp from Table 31 (°C)	Maximum winding temp measured (°C)		Ambient (°C)
TF038	В	Fuse 1.6A (OL current 0.803A)	165 ²	94		25

Supplementary information:

Time durations: - IEC 60127-1 fuse: 30 min at current from Table 32.

Non IEC 60127-1 fuse: 30 min at the current based on characteristics supplied by fuse manufacturer, specifically, 30 min clearing-time current. When no 30 min clearing-time current data available, test current from Table 32 used until THERMAL STABILITY achieved.

- Other types of protective devices: until THERMAL STABILITY achieved at a current just below minimum current operating the protective device in a). This portion concluded at specified time or when a second protective device opened.
- ²Thermocouples are used, so the limit is to be reduced by10 °C.

15.5.2	TABLE	TABLE: Transformer dielectric strength after humidity preconditioning of 5.7				Р
Transformer Model/Type/ Part No		Test voltage applied between	Test voltage, (V)	Test frequency (Hz)	Breakdown Yes/No	Deterioratio n Yes/No
All mod	lels	Primary & secondary windings	4000	50	No	No
All mod	lels	Primary winding & frame	1500	50	No	No
All mod	lels	Secondary winding & frame	1500	50	No	No

Supplementary information: Tests conducted under the conditions of 11.1, in ME EQUIPMENT or under simulated conditions on the bench. See Clause 15.5.2 for test parameters & other details

16.1	RM RESULTS TABLE: General requirements for ME Systems		
16.6.1	TABLE: LEAKAGE CURRENTS IN ME SYSTEM _ TOUCH CURRENT MEASUREMENTS		
16.9.1	RM RESULTS TABLE: Connection terminals and connectors	N/A	

¹ Loads on other windings between no load and their NORMAL USE load.



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

17	RM RESULTS TABLE: Electromagnetic compatibility of ME equipment and	N/A
	ME systems	

SP	TABLE: Additional or special tests conducted			
Clause and Name of Test		Test type and condition	Observed results	
Supplementary information:				



Attachment 1: Photo of EUT



External view







External view







External view





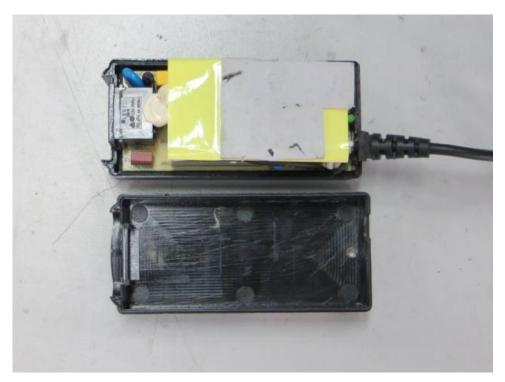


External view





Internal view (Class I)

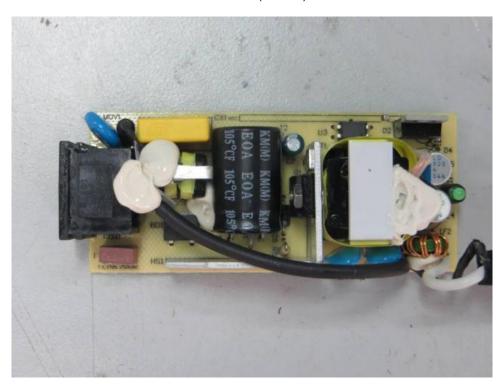


Internal view (Class I)

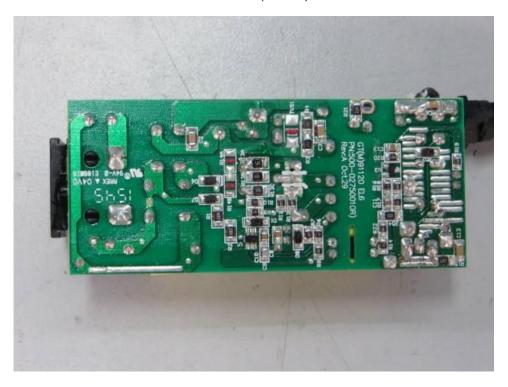




PCB view (Class I)



PCB view (Class I)







Internal view (Class II)

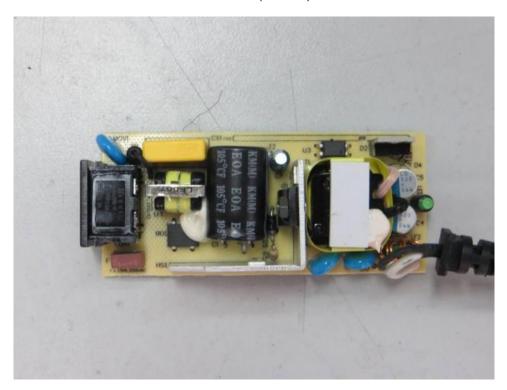


Internal view (Class II)

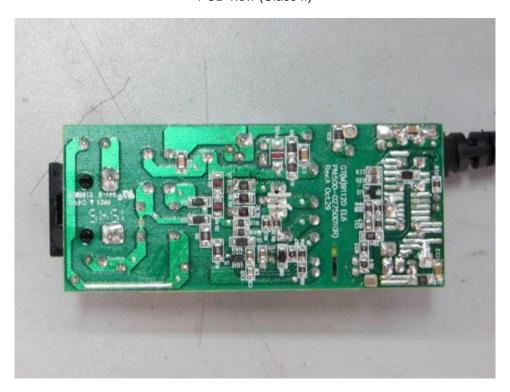




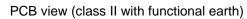
PCB view (Class II)



PCB view (Class II)









PCB view (class II with functional earth)

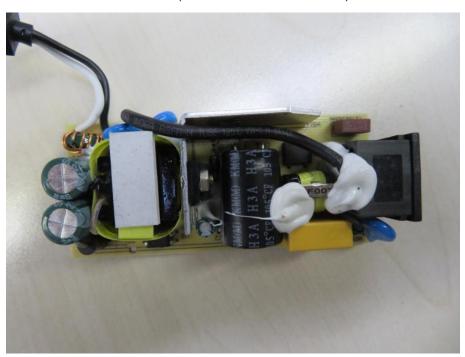




PCB view (class II with functional earth)

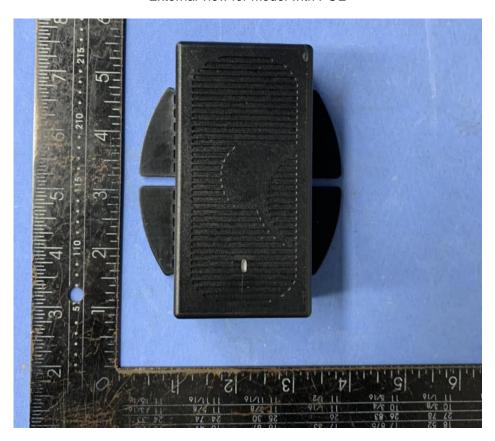


PCB view (class II with functional earth)

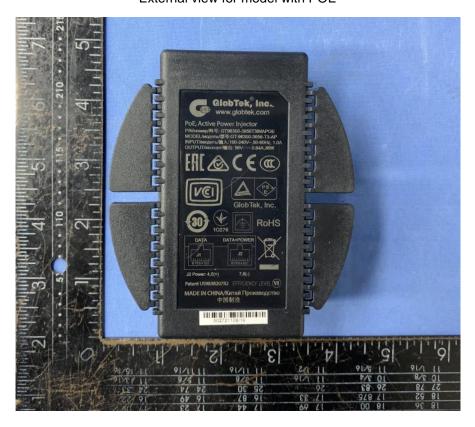




External view for model with POE



External view for model with POE

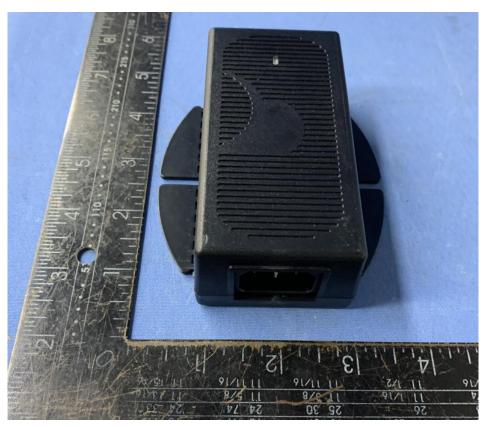




External view for model with POE



External view for model with POE





External view for model with POE

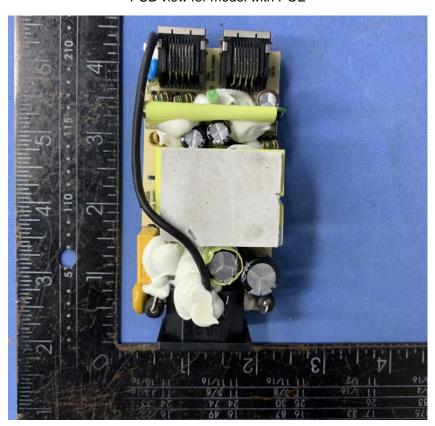


External view for model with POE

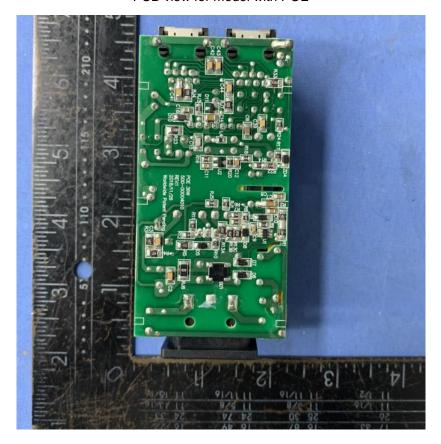




PCB view for model with POE



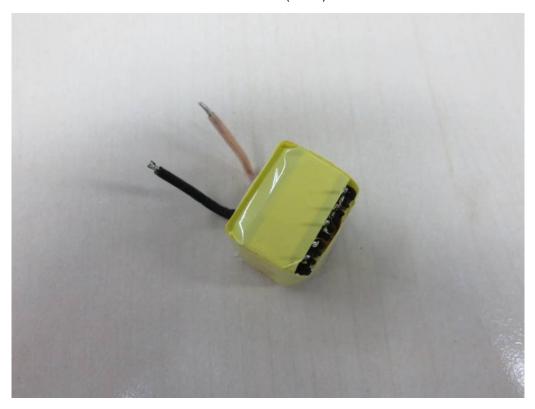
PCB view for model with POE







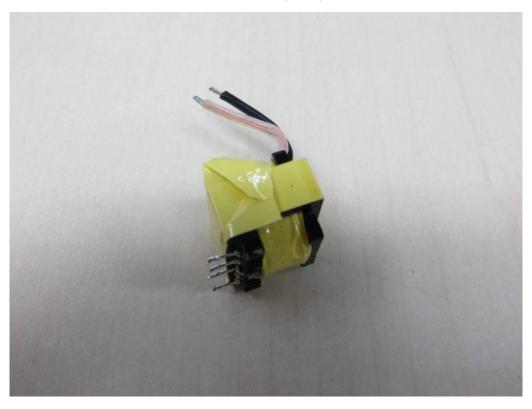
Transformer (EE22)



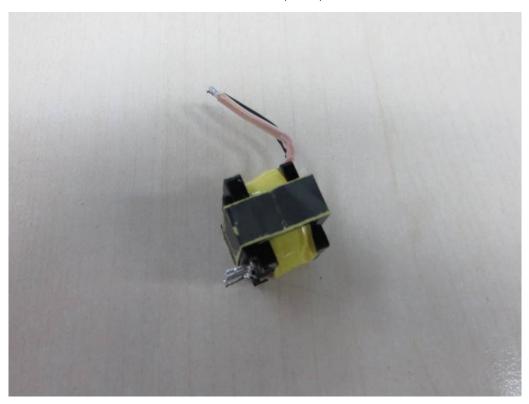




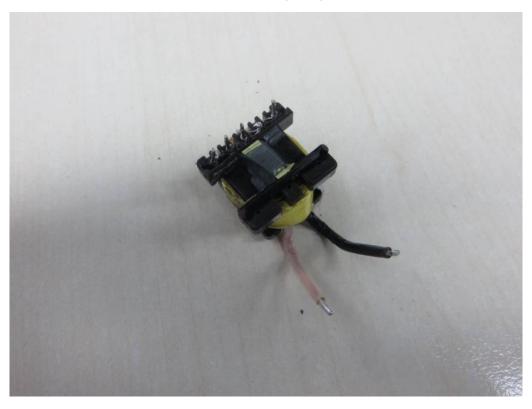
Transformer (EE22)



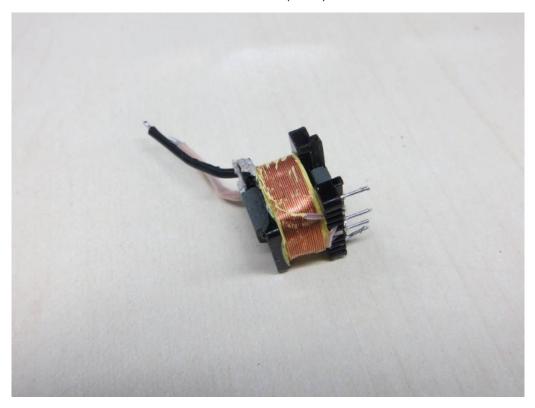




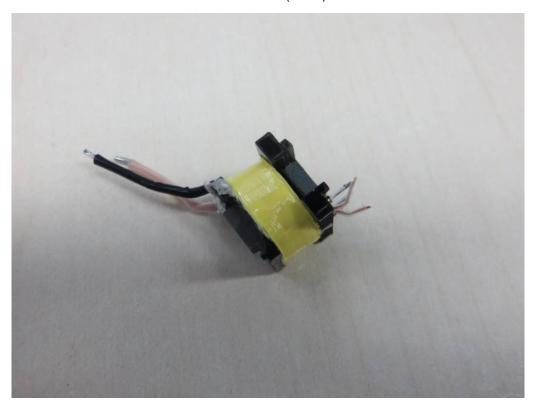
Transformer (EE22)



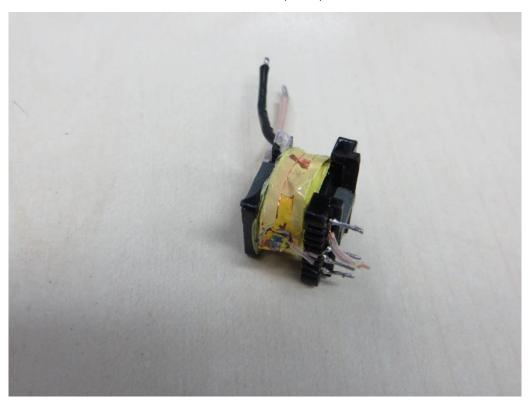




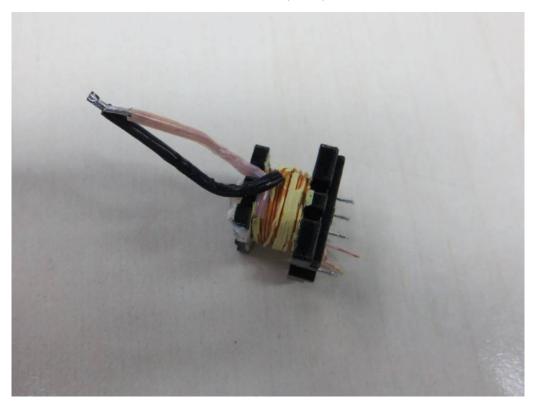
Transformer (EE22)



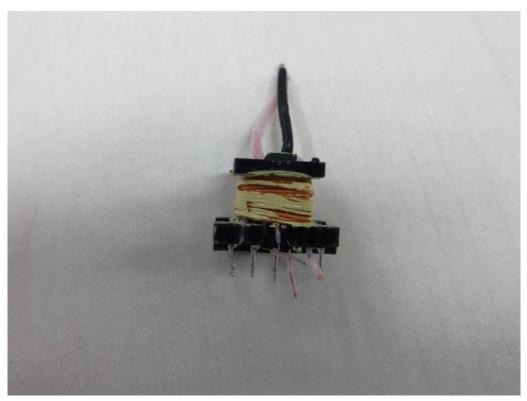




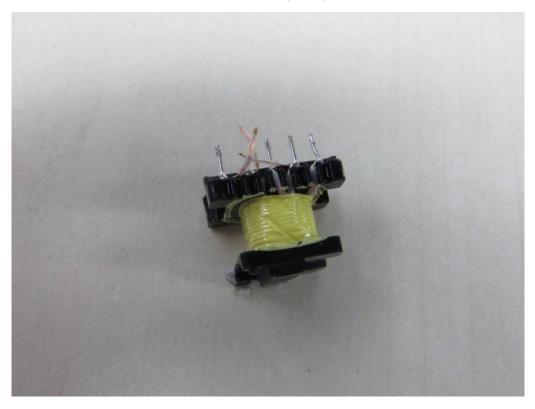
Transformer (EE22)



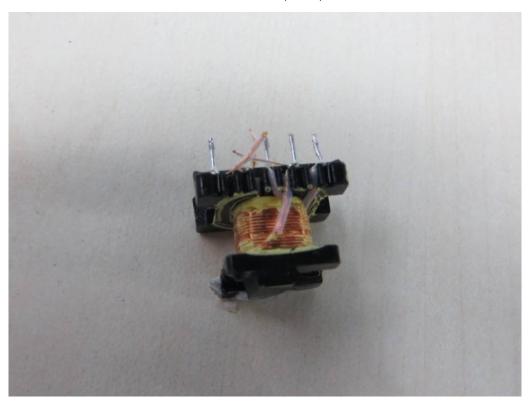




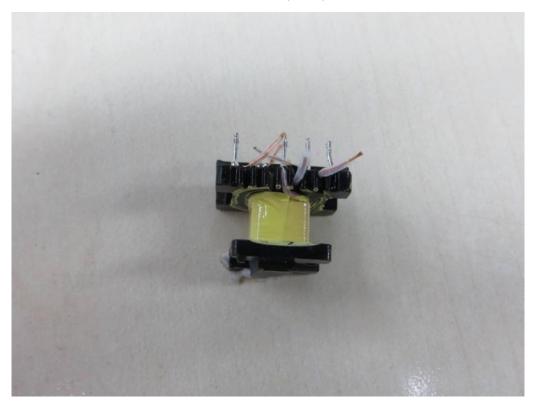
Transformer (EE22)



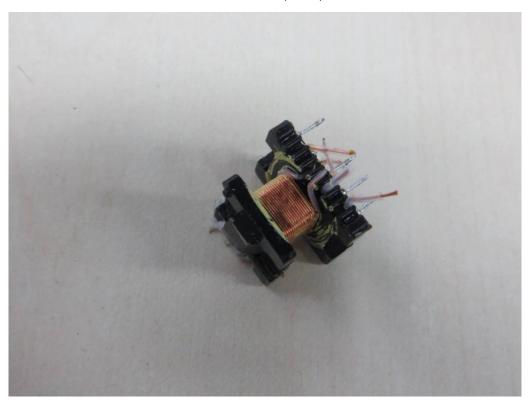




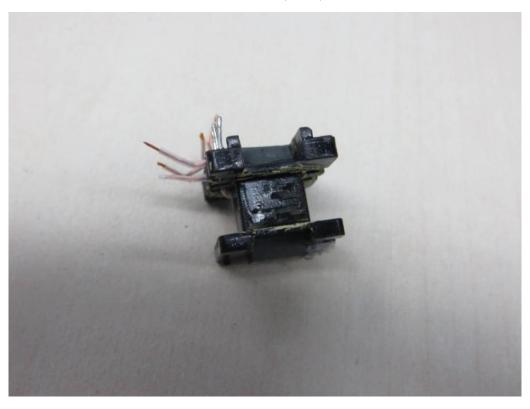
Transformer (EE22)



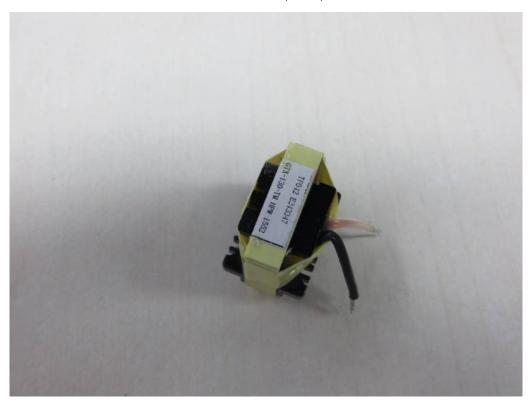




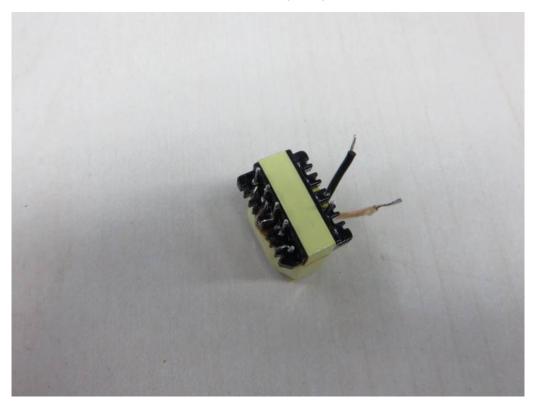
Transformer (EE22)



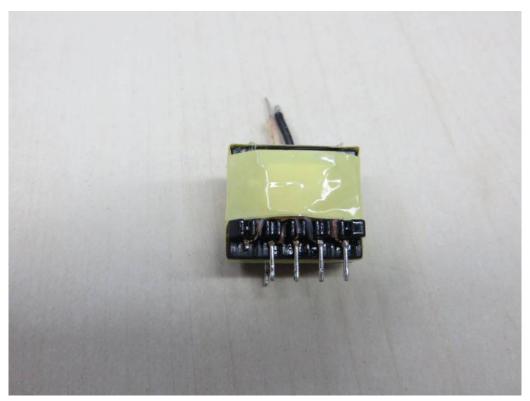




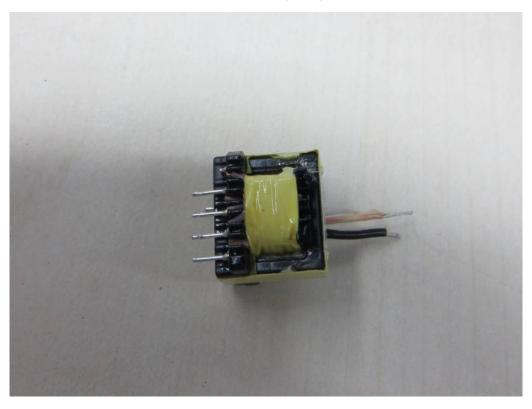
Transformer (EE16)



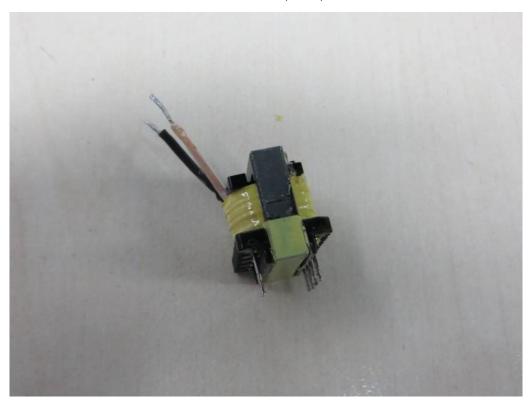




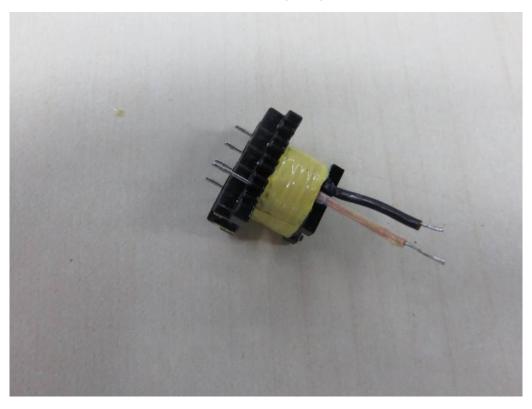
Transformer (EE16)



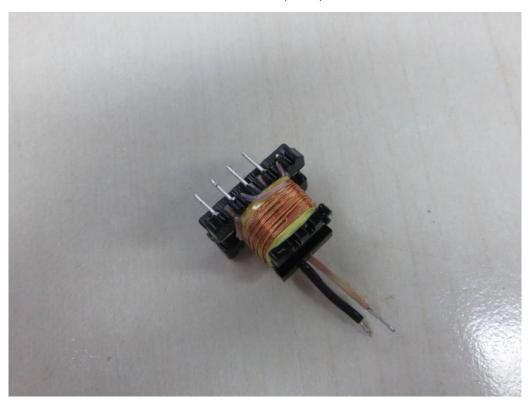




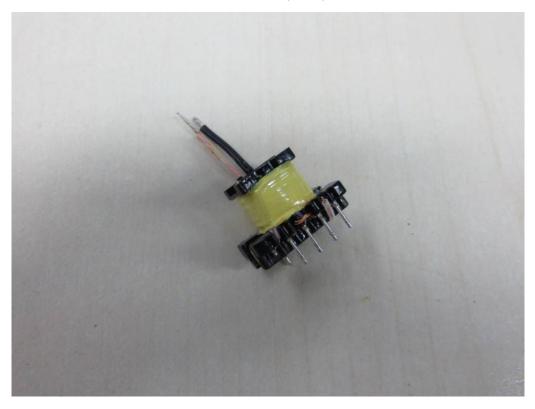
Transformer (EE16)



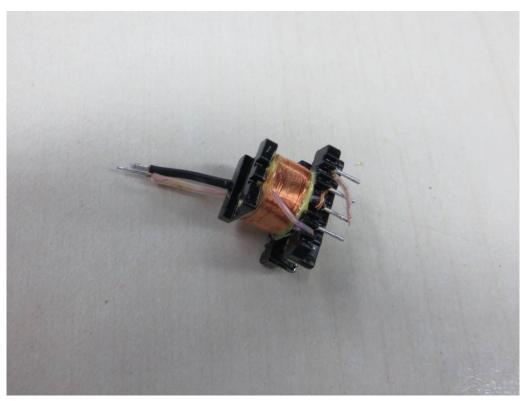




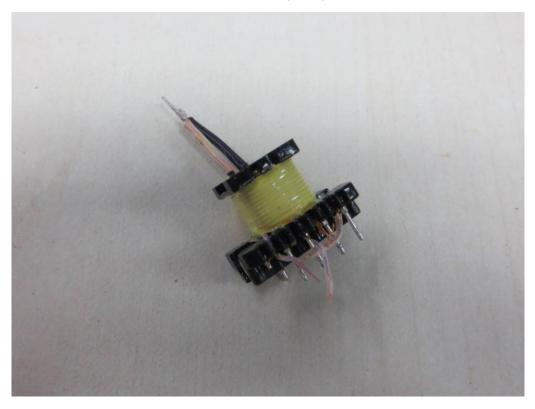
Transformer (EE16)



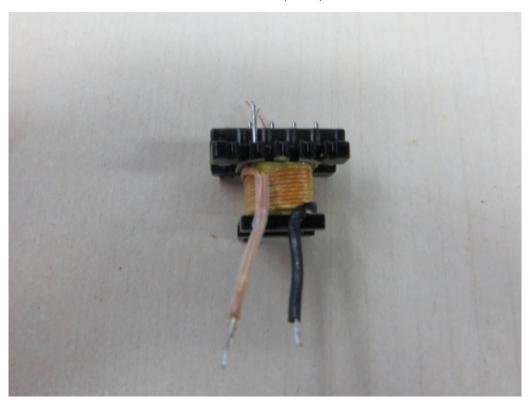




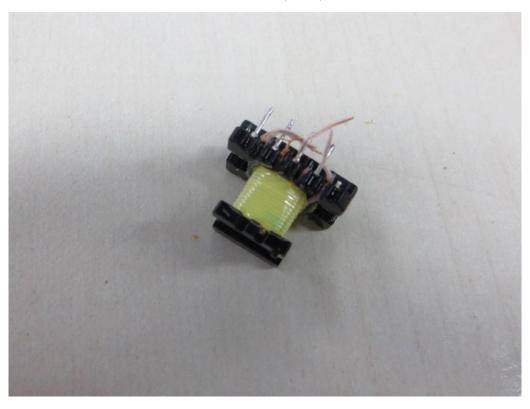
Transformer (EE16)







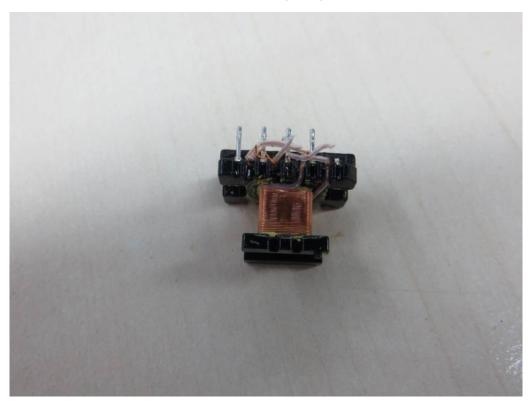
Transformer (EE16)

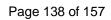






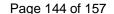
Transformer (EE16)













IEC 60601-1_ Attachment 3				
Clause	Requirement + Test		Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-1:2005 + AMD 1:2012 US NATIONAL DIFFERENCES

Medical electrical equipment - Part 1: General requirements for basic safety and essential

performance

Attachment Form No. US_ND_IEC60601_1P

Attachment Originator....: UL(US)

Master Attachment.....: 2019-09-02

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	National Differences		Р
4.8	Components of ME EQUIPMENT		Р
	b) where there is no relevant IEC/ISO standard, the relevant ANSI standard applied; if no relevant ANSI standard exists, the requirements of this standard were applied.		Р
	(Replacement of clause 4.8 b)		
4.10.2	SUPPLY MAINS FOR ME EQUIPMENT AND ME SYSTEMS		Р
	(Replacement to reflect agreement with the National Electrical Code (NEC):		Р
	The reference to "500 V" replaced with "600 V" in the second and third dashes.		P
	(Addition to reflect agreement with the NEC)		
	In the text of the second-to-last dash of this sub- clause, "and the NEC" added after reference to "IEC 60364-4-41"		N/A
6.0	Classification of ME EQUIPMENT and ME SYSTEMS		N/A
6.6	Mode of operation		N/A
	(Addition to reflect agreement with NFPA 70)	Not X-ray system	N/A
	X-Ray systems are classified as long time operation (> 5 min) or momentary operation (< 5 sec).		
7.0	ME EQUIPMENT identification, marking and docu	uments	N/A
7.2.11	Mode of operation		N/A
	(Addition to reflect agreement with NFPA 70)	Not X-ray system	N/A
	X-Ray systems are marked as long time operation or momentary operation.		





IEC 60601-1_ Attachment 3				
Clause	Requirement + Test		Result - Remark	Verdict

	(Addition of new item)		
7.2.22	Colours of medical gas cylinders		N/A
	To reflect agreement with NFPA 99: Cylinders containing medical gases and their connection points are coloured in accordance with the requirements of NFPA 99.	No medical gas	N/A
8.0	Protection against electrical hazards from ME EQU	JIPMENT	Р
8.2	Requirements related to power sources		N/A
	(Addition to reflect agreement with the NEC)	Direct plug-in	N/A
	All fixed me equipment and permanently installed me equipment are class i me equipment.		
8.6.1	Application of requirements		N/A
	(Addition to reflect agreement with NFPA 99)	Not X-ray system	N/A
	The enclosure of X-ray ME EQUIPMENT operating over 600 Vac, 850 Vdc MAINS VOLTAGE, or containing voltages up to 50 V peak and enclosed in protectively earthed enclosure as well as connections to X-ray tubes and other high voltage components that include high voltage shielded cables are PROTECTIVELY EARTHED.		
	(Addition to reflect agreement with NFPA 99)	Not X-ray system	N/A
	Non-current carrying conductive parts of X-Ray ME EQUIPMENT likely to become energized are PROTECTIVELY EARTHED		
8.7.3	Allowable values		Р
	(Deletion to reflect agreement with NFPA 99 which does not allow for allowance greater than the stated values)	See table 8.7.	Р
	Delete the second sentence and note to sub- clause 8.7.3 d) so that it reads:		
	d) The allowable values of the EARTH LEAKAGE CURRENT are 5 mA in NORMAL CONDITION and 10 mA in SINGLE FAULT CONDITION		
8.11	MAINS PARTS, components and layout		N/A
	(Addition to reflect agreement with the NEC)	Not permanently connected.	N/A
	Permanently connected ME EQUIPMENT has provision for the connection of one of the wiring systems that is in accordance with the NEC.		





	IEC 60601-1_ Attachmer	nt 3	
Clause	Requirement + Test	Result - Remark	Verdict
	Exception: Fixed and stationary X-ray ME EQUIPMENT supplied from a branch circuit rated at 30 A or less, and ME EQUIPMENT that is not strictly portable but obviousl is intended to be stationary, may be acceptable if provided with a length of attached hard service flexible cord - such as Type S, or the equivalent, for supply connection.		N/A
	The installation of connecting cords between EQUIPMENT parts meets the requirements of the NEC, as applicable. Cable used as external interconnection between units are as follows:	No such cable.	N/A
	1) If exposed to abuse, the cables are Type SJT, SJTO, SJO, ST, SO, STO, or equivalent flexible cord or similar multiple-conductor appliance-wiring material such as computer cable	No such cable.	N/A
	2) If not exposed to abuse, the cables are as indicated in item 1) above or are:i) Type SPT-2, SP-2, or SPE-2, or equivalent,	No such cable.	N/A
	ii) Type SVr, SVRO, SVE, or equivalent flexible cord or similar multiple-conductor appliance		
	wiring material, or iii) An assembly of insulated wires each with a nominal insulation thickness of 0.8 mm (1/32 inch) or more, enclosed in acceptable insulating tubing having a nominal wall thickness of 0.8 mm (1/32 inch) or more.		
	Receptacles provided as part of ME EQUIPMENT or ME SYSTEMS for use in the patient care areas of paediatric wards, rooms, or areas are listed tamper resistant or employ a listed tamper resistant cover in accordance with the NEC.	No such cable.	N/A
	b) For ME EQUIPMENT provided with NEMA configuration non-locking plug types 120 V/15 A, 125 V/20 A, 250 V/15 A, 250 V/20 A "Hospital Grade" mains plug is provided and the POWER SUPPLY CORD is marked.	No such cable.	N/A
8.11.3.2	(Addition to reflect agreement with the NEC) The flexible cord is of a type that is acceptable for the particular application. It is acceptable for use at a voltage not less than the rated voltage of the appliance and has an ampacity, as given in the NEC, not less than the current rating of the appliance	No such cord.	N/A
8.11.3.3	Cross-sectional area of POWER SUPPLY CORDS		N/A





IEC 60601-1_ Attachment 3				
Clause	Requirement + Test		Result - Remark	Verdict

(Addition to reflect agreement with NFPA 99)	Not X-ray equipment.	N/A
For X-Ray ME EQUIPMENT with an attachment plug, the current rating on a hospital grade plug should be 2X the maximum input current of the equipment.		
 If exposed to abuse, the cables are Type SJT, SJTO, SJO, ST, SO, STO, or equivalent flexible cord or similar multiple-conductor appliance-wiring material such as computer cable. 		N/A
If not exposed to abuse, the cables are as indicated in item 1) above or are:		N/A
i) Type SPT-2, SP-2, or SPE-2, or equivalent,		
ii) Type SVr, SVRO, SVE, or equivalent flexible cord or similar multiple-conductor appliance wiring material, or		
iii) An assembly of insulated wires each with a nominal insulation thickness of 0.8 mm (1/32 inch) or more, enclosed in acceptable insulating tubing having a nominal wall thickness of 0.8 mm (1/32 inch) or more.		
Receptacles provided as part of ME EQUIPMENT or ME SYSTEMS for use in the patient care areas of paediatric wards, rooms, or areas are listed tamper resistant or employ a listed tamper resistant cover in accordance with the NEC.		N/A
b) For ME EQUIPMENT provided with NEMA configuration non-locking plug types 120 V/15 A, 125 V/20 A, 250 V/15 A, 250 V/20 A "Hospital Grade" mains plug is provided and the POWER SUPPLY CORD is marked.		N/A



IEC 60601-1_ Attachment 4				
Clause	Requirement + Test		Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-1:2005, COR1:2006, COR2:2007, AMD:1:2012. CANADIAN NATIONAL DIFFERENCES

Medical electrical equipment — Part 1: General requirements for basic safety and essential performance

Differences according to CAN/CSA-C22.2 No. 60601-1:14

Attachment Form No. CA_ND_IEC60601_1P

Attachment Originator CSA Group
Master Attachment 2019-06-18

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Note *: IEC CANADIAN NATIONAL DIFFERENCES in Canada are called CANADIAN DEVIATIONS.

	National Differences	
1	Scope, object and related standards	Р
1.1	Scope	Р
	[Replace the first paragraph with the following]	Р
	This Standard applies to the BASIC SAFETY and	
	ESSENTIAL PERFORMANCE OF MEDICAL ELECTRICAL	
	EQUIPMENT and MEDICAL ELECTRICAL SYSTEMS	
	designed to be used in accordance with CSA	
	C22.1 (Canadian Electrical Code, Part I) and	
	CSA Z32.	
	[Add the following note]	_
	Note 4.4 to the IEO COCO4 Oten dende contra	
	Note 1A: In the IEC 60601 Standards series	
	adopted for use in Canada, the Canadian	
	standards may modify, replace, or delete	
	requirements contained in the IEC standard as appropriate to the ME EQUIPMENT and ME SYSTEMS	
	under evaluation, and they may add other BASIC	
	SAFETY and ESSENTIAL PERFORMANCE requirements.	
1.3	Collateral standards	Р
1.5	[Replace this clause with the following]	P
	[Neplace this clause with the following]	1
	Applicable Canadian 60601 collateral standards	
	become normative at the date of their publication	
	and apply together with this Standard.	
1.4	Particular standards	Р
	[Replace this clause with the following]	Р
	Applicable Canadian 60601/80601 particular	
	standards may modify, replace, or delete	
	requirements contained in this Standard. The	
	requirement of a Canadian 60601/80601 particular	
	safety standard takes priority over this Standard.	

2	Normative references	Р
	[Add the following]	Р



Verdict





	IEC 60601-1_ Attachment 4				
Clause	Requirement + Test	Result - Remark	Verdict		
	PTC 25-2008 Pressure Relief Devices CGA (Compressed Gas Association) V-1-2013 Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections V-5-2008 (reaffirmed 2013) Diameter Index Safety System (Noninterchangeable Low Pressure Connections for Medical Gas Applications) ISO (International Organization for Standardization) 32:1977 Gas cylinders for medical use — Marking for identification of content 407:2004 Small medical gas cylinders — Pin-index yoke- type valve connections 9170-2:2008 Terminal units for medical gas pipeline systems — Part 2: Terminal units for anaesthetic gas				
	scavenging systems				
3	Terminology and definitions		N/A		
3.41	HIGH VOLTAGE		N/A		
	Replace this clause with the following] voltage above 750 V, as defined in the Canadian Electrical Code, Part I	Noted, but no such HV in EUT	N/A		
4.	General requirements		Р		
7.	[Add the following clause]		P		
4.1A	General requirements applicable to ME EQUIPMENT and ME SYSTEMS are provided in CAN/CSA-C22.2 No. 0.				
4.8	Components of ME EQUIPMENT		Р		
	[Replace Items a) and b) and Note 2 with the following]a) the applicable safety requirements of a relevant CSA Group, IEC, or ISO Standard; or	UL approved.	Р		
	b) where there is no relevant CSA Group, IEC, or ISO Standard, the requirements of this Standard shall be applied.		Р		
4.10.2	Note 2: If there are neither requirements in this Standard nor in a CSA Group, IEC, or ISO Standard, any other applicable source (e.g., standards for other types of devices, national standards) could be used to demonstrate compliance with the RISK MANAGEMENT PROCESS. SUPPLY MAINS for ME EQUIPMENT and ME SYSTEMS		- P		





N/A

No power cord

	IEC 60601-1_ Attachme	nt 4	
Clause	Requirement + Test	Result - Remark	Verdict
	[Replace the first sentence with the following] ME EQUIPMENT intended to be connected to SUPPLY MANN is in accordance with the Connection Floatists		Р
	MAINS is in accordance with the Canadian Electrical Code, Part I, and the following RATED voltages are not be exceeded:		
	Hot be exceeded.		
7.	ME EQUIPMENT identification, marking and docum	nents	Р
7.7	[Replace Clauses 7.7.1 to 7.7.5 with the following]		Р
	Colours of the insulation of conductors are in accordance with the Canadian Electrical Code, Part I.		
	A PROTECTIVE EARTH CONDUCTOR or a PROTECTIVE EARTH CONNECTION of any insulation on conductors is identified by either green or green and yellow colours at least at the termination of the conductors.	UL approved.	P
	Identification by green or green and yellow insulation are only used for		Р
	- PROTECTIVE EARTH CONDUCTORS (see 8.6.2);		P
	- conductors as specified in 7.7.2;		Р
	Note: In other safety standards such as IEC 60950-1, internal connections between conductive parts and the main protective earth are called "protective bonding conductors".		
	- POTENTIAL EQUALIZATION CONDUCTORS (see 8.6.7);		Р
	- FUNCTIONAL EARTH CONDUCTORS (see 8.6.9).		Р
	Colours of neutral conductors and POWER SUPPLY CORD conductors are in accordance with the Canadian Electrical Code, Part I, CSA C22.2 No. 21, and CSA C22.2 No. 49.		Р
8	Protection against electrical HAZARDS from ME E	OLUDMENT	Р
8.7.3	[Add the following paragraph]	ACOLI MIEMI	P
	Allowable values are also in accordance with the Canadian Electrical Code, Part I.		
8.11.3.2	[Replace this clause with the following] The following requirements for POWER SUPPLY CORDS apply:	No power cord	N/A
	a) The MAINS PLUG of non-PERMANENTLY INSTALLED EQUIPMENT is	No power cord	N/A
	 i) if moulded-on type, a hospital-grade mains plug complying with CSA C22.2 No. 21; 	No power cord	N/A

ii) a hospital-grade disassembly attachment

plug type complying with CSA C22.2 No. 42;





IEC 60601-1_ Attachment 4			
Clause	Requirement + Test	Result - Remark	Verdic
	iii) Class II equipment having fuses on the line side(s), and the neutral may use a nonpolarized attachment plug or a polarized attachment plug. CSA configuration type 1-15P is required and meets all applicable requirements in CSA C22.2 No. 21 and CSA C22.2 No. 42. Where a polarized attachment plug is used, the POWER SUPPLY CORD is connected to the wiring of the EQUIPMENT on the ungrounded side of the line when any of the following devices are used in the primary circuit:		N/A
	the centre contact of an Edison base lampholder;	No power cord	N/A
	2) a single pole switch;	No power cord	N/A
	an automatic control with a marked off position;	No power cord	N/A
	4) a solitary fuse/fuse holder; or	No power cord	N/A
	any other single pole overcurrent protective device.	No power cord	N/A
	b) A detachable POWER SUPPLY CORD for non- PERMANENTLY INSTALLED EQUIPMENT (cord- connected equipment) is of a type	No power cord	N/A
	 i) that can be shown to be unlikely to become detached accidentally, unless it can be shown that detachment will not constitute a safety HAZARD to a PATIENT or OPERATOR; 	No power cord	N/A
	ii) for which it can be shown that the impedance of the earth (ground) circuit contacts will not constitute a safety HAZARD to a PATIENT or OPERATOR; and	No power cord	N/A
	iii) that has a terminal configuration or other constructional feature that will minimize the possibility of its replacement by a detachable POWER SUPPLY CORD which could create a HAZARDOUS SITUATION.	No power cord	N/A
	c) The detachable POWER SUPPLY CORD	No power cord	N/A
	i) comply with the applicable requirements of CSA C22.2 No. 21; and	No power cord	N/A
	ii) not be smaller than No. 18 AWG, and the mechanical serviceability is not less than:	No power cord	N/A
	Type SJ or equivalent for ME EQUIPMENT that is mobile or exposed to abuse; and	No power cord	N/A
	2) Type SV or equivalent for ME EQUIPMENT	No power cord	N/A
	that is not exposed to abuse (or Type HPN if required because of temperature).	No power cord	N/A





IEC 60601-1_ Attachment 4				
Clause	Requirement + Test	Result - Remark	Verdict	
	Note: See CSA C22.2 No. 49 for requirements for the cord types mentioned in Sub-item 2).			
	d) Installation of POWER SUPPLY CORDS are meeting the requirements of the Canadian Electrical Code, Part I, as applicable	No power cord	N/A	
8.11.5	Mains fuses and OVER-CURRENT RELEASES		Р	
	[Replace this clause with the following] Installation of overcurrent protective devices are in accordance with the Canadian Electrical Code,	See the table 8.10.	Р	
	Part I.			

9	Protection against MECHANICAL HAZARDS of ME EQUIPMENT and ME SYSTEMS		N/A
9.7.5	[Replace this clause with the following]	No pressure vessel	N/A
	Pressure vessels comply with the requirements of CSA B51, as applicable		
9.7.7	[Replace this clause with the following]	No pressure relief device	N/A
	A pressure-relief device comply, as applicable, with the requirements of ASME PTC 25 or equivalent Canadian requirements.		

15	Construction of ME EQUIPMENT.		Р
15.4.1	[Add the following item] bA) The point of connection of gas cylinders to ME EQUIPMENT is gas-specific and clearly identified so that errors are avoided when a replacement is made. Medical gas inlet connectors on ME EQUIPMENT is	No gas connection	N/A
	i)as-specific, yoke type, or nut and nipple type valve connections complying with CGA V-1 for pressures over 1380 kPa (200 psi); or	g No gas connection	N/A
	ii)	No gas connection	N/A
	Note: Users of this Standard should consult the CSA Z305 series of Standards, CAN/CSA-Z9170-1, ISO 9170-2, CAN/CSA-Z10524, and CAN/CSA-Z15002 for further information regarding inlet connectors; ISO 407 for requirements addressing yoke type valve connections; and ISO 32 for colour coding.		_





IEC 60601-1_ Attachment 4			
Clause	Requirement + Test	Result - Remark	Verdic
15.4.8	[Add the following paragraph] Flexible cords and equipment wire of ME EQUIPMENT are in accordance with the Canadian Electrical Code, Part I	PE connection wire is approved by UL. See the table 8.10.	Р
16	ME SYSTEMS		N/A
16.1	[Replace the paragraph that starts with "An ME SYSTEM shall provide:" with the following] An ME SYSTEM provide		N/A
	- within the PATIENT ENVIRONMENT, the level of safety equivalent to ME EQUIPMENT complying with this CSA Group Standard; and	Not medical system	N/A
	outside the PATIENT ENVIRONMENT, the level of safety equivalent to equipment complying with their respective CSA Group, IEC, or ISO safety Standards.	Not medical system	N/A
	[Replace the third-last paragraph with the following] Non-ME EQUIPMENT, when used in an ME SYSTEM, complies with the CSA Group, IEC, or ISO safety Standards that are relevant to that equipment.	Not medical system	N/A
16.9.2.1	d) If the MULTIPLE SOCKET OUTLET is combined with a separating transformer, the following additional requirements apply:		-
	 The separating transformer complies with this Standard. Alternatively, the separating transformer may comply with the requirements of CAN/CSA-E61558-2-1, except that the requirements of maximum RATED output power of 1 kVA and degree of protection IPX4 do not apply. 	No MSO	N/A
	Note 1: As a separating transformer is not a MAINS SUPPLY TRANSFORMER, it does not require more than BASIC INSULATION.	No MSO	N/A
	Note 2: Limitation of output power is not explained in CAN/CSA-E61558-2-1 and the RATED output power is defined by the fuse in the installation and by the allowable power supply cable used. However, the characteristics of the separating transformer need to be carefully selected, taking into account the variations in the load current of the ME SYSTEM to ensure that the voltage supplied to the various items of the ME SYSTEM remains within the limits specified for the equipment.	No MSO	N/A
	The separating transformer assembly is a CLASS I construction.	No MSO	N/A





IEC 60601-1_ Attachment 4			
Clause	Requirement + Test	Result - Remark	Verdict
	- The degree of protection against ingress of water as given in IEC 60529 is specified.	No MSO	N/A
	 The separating transformer assembly is marked according to the requirements of 7 and 7.3. 	No MSO	N/A
	- The MULTIPLE SOCKET OUTLET is permanent connected to the separating transformer, of the socket-outlet of the separating transformer assembly is of a type that can accept MAINS PLUGS of any of the kinds identified in Canadian Electrical Code, Part (see Figure I.1 and Figure I.2 of this Standard)	ot	N/A
	[Add the following item] dA) The MULTIPLE SOCKET OUTLET complies with the requirements of CSA C22.2 No. 42, CSA C22.2 No. 49, and Item d) of this Standard, as applicable.	No MSO	N/A





IEC 60601-1_ Attachment 5				
Clause	Requirement + Test		Result - Remark	Verdict

	National standard reference: SN EN 60601-1:2006		
4	Ordinance on environmentally hazardous substances SR 814.081, Annex 1.7, Mercury - Annex 1.7 of SR 814.81 applies for mercury. Switches containing mercury such as thermostats, relays and level controllers are not allowed. Ordinance on chemical hazardous risk reduction SR 814.81, Annex 2.15 Batteries Annex 2.15 of SR 814.81 applies for batteries containing cadmium and mercury. Note: Ordinance relating to environmentally hazardous substances, SR 814.013 of 1986-06-09 is not longer in force and superseded by SR 814.81 of 2009-02-01 (ChemRRV).	No such component.	N/A
4	Supply cords of portable electrical appliances having a rated current not exceeding 10 A shall be provided with a plug complying with IEC 60884-1(3.ed.) + am1, SEV 1011 and one of the following dimension sheets: - SEV 6533-2:2009 Plug type 11, L + N, 250V 10A - SEV 6534-2:2009 Plug type 12, L + N + PE, 250V 10A - SEV 6532-2:2009 Plug type 15, 3L + N + PE, 250/400V 10A Supply cords of portable electrical appliances having a rated current not exceeding 16 A shall be provided with a plug complying with IEC 60884-1(3.ed.) + am1, SEV 1011 and one of the following dimension sheets: - SEV 5933-2:2009 Plug type 21 L + N, 250 V, 16A - SEV 5934-2:2009 Plug type 23 L + N + PE, 250 V, 16A - SEV 5932-2:2009 Plug type 25 3L + N + PE, 250/400V 16A NOTE 16 A plugs are not often used in Swiss domestic installation system. See TRF template regulatory requirements Switzerland on IECEE Website R.R. TRF templates.	No supply cord.	N/A



Attachment 6: Construction diagram of optional output connector

