

Shenzhen Anbotek Compliance Laboratory Limited Page 1 of 55 Report No.: SZAWW180524005-02S

#### **APPLICATION FOR RED DIRECTIVE**

On Behalf of

Wireless power bank Model: MSL-M617Q

Prepared For :

Prepared By

#### Shenzhen Anbotek Compliance Laboratory Limited

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Date of Test:May 24, 2018 to Jun. 05, 2018Date of Report:Jun. 05, 2018Report Number:SZAWW180524005-02S

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botek Anbote And	ek nbotek Anbor An notek Anboren Anbo
Ant hotek Anbotek Anbo	TEST REPORT
Anbo stek anbotek An	EN 60950-1
And Inform	ation technology equipment – Safety –
tek Anbore An hotek	Part 1: General requirements
Reference No	: SZAWW180524005-02S
Compiled by (+ signature)	: Yoli Peng
Approved by (+ signature)	: Smile Tian
Date of issue	: Jun. 05, 2018
Contents	: 55 pages
Testing laboratory	FICE
Name	: Shenzhen Anbotek Compliance Laboratory Limited
Address	: 1/F, Building D, Sogood Science and Technology Park, Sanwei
	community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102
Testing location	Anbo
Applicant	Callo 20 00010
Name	
Address	····
npoten Anbo k.	<u>k</u>
Test specification	
Standard	: EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
Test procedure	
And And tek anbo'sk	EN 60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013
Procedure deviation	: N.A. A. And
Non-standard test method	: N.A. Anbotek Anbotek Anbotek Anbotek Anbotek
Toet itom	otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek
Test item Description	: Wireless power bank
Trademark	
Model and/or type reference	MSL M6170
Model and/or type reference	: MSL-M617Q Model And
Address	· · ·
Address	tek
Factory	: Same as manufacturer
Address	: Same as manufacturer
Rating(s)	LISE Output: 5V - 2A
	Type-C Output: 5V 2A Wireless Output: 5V 1A
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Test item particulars:	And tek nootek Anboot An
Equipment mobility	Movable Hand-held Transportable Stationary For building-in Direct plug-in
Connection to the mains	<ul> <li>Pluggable equipment Type A Type B</li> <li>Permanent connection</li> <li>Detachable power supply cord</li> <li>Non-detachable power supply cord</li> <li>Not directly connected to the mains</li> <li>built-in component, consider in end system</li> </ul>
Operating condition:	<ul> <li>Continuous</li> <li>Rated operating / resting time:</li> </ul>
Over voltage category (OVC):	<ul> <li>OVC I</li> <li>OVC II</li> <li>OVC III</li> <li>OVC IV</li> <li>✓ Other:</li> </ul>
Mains supply tolerance (%) or absolute mains supply values	N.A.tek Anbotek Anbotek Anbotek
Tested for IT power systems	Yes No
IT testing, phase-phase voltage (V)	N.A.
Class of equipment	Class I Class II Class III
Considered current rating of protective device as part of the building installlation (A)	Not directly connected to the mains
Pollution degree (PD)	🔲 PD 1 🛛 PD 2 🔲 PD 3
Pollution degree (PD) IP protection class	IPX0 oten Andrew Andrew Andrew
Altitude during operation (m)	2000 tek house house borek
Altitude of test laboratory (m)	<500
Mass of equipment (kg)	Approx. 0.152Kg
Possible test case verdicts:	notek Anbotek A
- test case does not apply to the test object::	
- test object does meet the requirement:	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing	Anborek Anborek Anbore
Date of receipt of test item:	May 24, 2018
Date(s) of performance of tests:	May 24, 2018 to Jun. 05, 2018
General remarks This test report shall not be reproduced except in full w	10 P
The test results presented in this report relate only to th "(see remark #)" refers to a remark appended to the rep	ek nooten Ando

"(see appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

Note: Before placing the products in the different countries, the manufacturer must ensure that: 1. Operating Instructions, Ratings Labels and Warnings Labels written in an Accepted or Official Language

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of the county in question.

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2. The equipment complies with the National Standards and/or Electrical Codes of the country in question.

3. According to the EU directives which have been aligned with EU NLF (new legislative framework), both of manufacturer and importer's name and address shall be affixed on the product or, where that is not possible, on its packaging or in a document accompanying the product before the product is placed on the EU market. **Remark:** 

1. The EUT, class III equipment is used for information technology equipment.

2. The EUT can operate with full load at ambient temperature up to 35°C.

3. The EUT powered by a suitable rated and certified DC power supply or internal rechargeable Li-ion battery (3.7V, 5000mAh).

#### Copy of marking plate:

Wireless power bank Model: MSL-M617Q Input: 5V== 2A USB Output: 5V== 2A Type-C Output: 5V== 2A Wireless Output: 5V== 1A

Manufacturer:

Address:

(The label should be attached to the back of the product.)

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- The above markings are the minimum requirements required by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.

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Clause	Requirement – Test	Result - Remark	Verdic
abotek	Antionomic Loci	not hoter Anboter	Vorune
A. note	GENERAL MARK MARK	ote Ann otek Anbotek	Pup
Pu	otek Anbotek Anbo ok botek A	nboten And atek nbot	ek I
.5 Ant	Components	Anbotek Anbot At	otek P
1.5.1	General	Anbotek Anbot An	"otP
Anbotek	Comply with IEC 60950-1 or relevant component standard	(see appended table 1.5.1)	Anbote
.5.2	Evaluation and testing of components	len Anbo An hotek	Rup
I.5.3 Anbou	Thermal controls	No thermostat and temperature limiter used for thermal control circuit	K N p
.5.4	Transformers	See annex C	abot N
.5.5	Interconnecting cables	No interconnecting cables.	Ne
.5.6	Capacitors bridging insulation	No such capacitors used within the EUT	Ann Anb
.5.7 Anbo	Resistors bridging insulation	No such resistors used within the EUT	N
.5.7.1	Resistors bridging functional, basic or supplementary insulation		N
.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits	Anb neek nbotek	Anboic
.5.7.3	Resistors bridging double or reinforced insulation between a.c. mains and antenna or coaxial cable	ote. Anbotek Anbotek	Noc
.5.8 Anbo	Components in equipment for IT power systems	Not directly connected to the mains	ote <sup>k</sup> N <sup>A</sup>
.5.9	Surge suppressors	Anbor Anbor An	boteN
.5.9.1	General Mark Market Market	nbotek Anbore k	N
.5.9.2	Protection of VDRs	K spotek Anbote	N
.5.9.3	Bridging of functional insulation by a VDR	ak botek Anboten	N
.5.9.4	Bridging of basic insulation by a VDR	ote Ant potek Anbotek	N
.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR	hobotek Anbotek Anbo	Le <sup>X</sup> N
nbotek	Antoon ok hotek	·	
.6 botek	Power interface		Р
.6.1 Anbotek	AC power distribution systems	Not directly connected to the mains	PN
.6.2 Anbo	Input current	(see appended table 1.6.2)	<sub>e</sub> ⊮ P
.6.3	Voltage limit of hand-held equipment	<250V	P
.6.4	Neutral conductor	And K sotek Al	N.

Shenzhen Anbotek Compliance Laboratory Limited 55-26066440 Fax: (86)755-26014772 www.ant Tel: (86)755-26066440 www.anbotek.com



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Ju-	EN 60950-1	And tek abotek	Anbor
Clause	Requirement – Test	Result - Remark	Verdict
Auporo	An An Andrew Ander An	rek Anboten Anb	
1.7.1.1	Power rating marking	See below	P <sup>nu</sup>
tek Anbo	Multiple mains supply connections	Anbotek Anbotek Anbot	o <sup>tek</sup>
botek Ar	Rated voltage(s) or voltage range(s) (V):	See label	R
botek	Symbol for nature of supply, for d.c. only:	== All Anboten	Anbo P
All	Rated frequency or rated frequency range (Hz) :	hotek	PUN
Ant	Rated current (mA or A):	See label	Rupe
1.7.1.2	Identification markings	potek Anbu ek abote	* P
ek Anbo	Manufacturer's name or trade-mark or identification mark:	Manufacturer: Shenzhen Mossloo Industrial Co., Ltd	otek P
rek h	Model identification or type reference:	See page 1	Inboten P
Anbolt	Symbol for Class II equipment only	Class III equipment	AntNice
Anbore	Other markings and symbols:	Additional symbol or marking	Ribo
ek Anbot	Anbotek Anbotek	does not give rise to misunderstanding used.	A
1.7.1.3	Use of graphical symbols		Р
1.7.2	Safety instructions and marking		Р
1.7.2.1	General	Anb K hotek	AnbPro
1.7.2.2	Disconnect devices	sk nbore And otek	Npo
1.7.2.3	Overcurrent protective device	ote Anuotes And	N
1.7.2.4	IT power distribution systems	Not connected to IT power distribution systems	tek N
1.7.2.5	Operator access with a tool	No such area	hoteN
1.7.2.6	Ozone	No ozone	N
1.7.3	Short duty cycles	Continuous operation	Ann
1.7.4 botek	Supply voltage adjustment:	No such device	PN
K Anbote	Methods and means of adjustment; reference to installation instructions	obotek Anbotek Anbotek	N <sup>An</sup>
1.7.5	Power outlets on the equipment:	No such device	N
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference)	No Fuse	N
1.7.7	Wiring terminals	No wiring terminal	N
1.7.7.1	Protective earthing and bonding terminals	No such terminals	N
1.7.7.2 Mainton	Terminals for a.c. mains supply conductors	wotek Anbotek Anbou	N Yo
1.7.7.3	Terminals for d.c. mains supply conductors	No such terminals	N
1.7.8	Controls and indicators	Anbo kek abotek Ar	N
1.7.8.1	Identification, location and marking:	Anbor An	Anboten



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Clause	Requirement – Test	Result - Remark	Verdict
1702	Anto Antolet Antolet Antol A	tek Anbote And	NINDO
1.7.8.2	Colours	notek Anboten Anbo	Nor
1.7.8.3	Symbols according to IEC 60417	no stek Anborek Anbor	NP
1.7.8.4	Markings using figures:	No figures markings	o <sup>ver</sup> N
1.7.9	Isolation of multiple power sources	Only one power sources	Photo N
1.7.10	Thermostats and other regulating devices	No such regulating device	Ntek
1.7.1100ter	Durability	Rubbing test for 15 s with water then for 15 s with petroleum spirit	P Anbo
1.7.12	Removable parts	bo At hotek Anbote	N AS
1.7.13	Replaceable batteries	Anborn K notek Ant	oter N
born bu	Language(s)	Anboton Anbo	nbotek
1.7.14	Equipment for restricted access locations::		Niek
Anboten	Augo w .K ~000 Aug	10°	p
2 Anbotek	PROTECTION FROM HAZARDS		Р
2.1	Protection from electric shock and energy hazards		Р
2.1.1	Protection in operator access areas		Р
2.1.1.1	Access to energized parts	Class III equipment, SELV circuit only.	P
nbotek	Test by inspection	ek abotek Anbote	N
potek	Test with test finger (Figure 2A):	ter Anboten	N
K pote	Test with test pin (Figure 2B):	bot Ant botek Anbote	NAN
jotek Ant	Test with test probe (Figure 2C):	No TNV circuit within the equipment	botek N
2.1.1.2	Battery compartments	abotek Anboto A	Nor
2.1.1.3	Access to ELV wiring	No internal wiring at ELV	And N
Anbotek	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm)	(See appended tables 2.10.2 and 2.10.5)	Anto
2.1.1.4 Anbor	Access to hazardous voltage circuit wiring	abotek Anbote And	Kek N
2.1.1.5	Energy hazards:	hotek Anboten Anbo	P
2.1.1.6	Manual controls	No such control	Ν
2.1.1.7	Discharge of capacitors in equipment		N
Annatek	Measured voltage (V); time-constant (s):	r dek abote	Þ <u>or</u>
2.1.1.8	Energy hazards – d.c. mains supply	otek Anbor Ar notek	Nab
Aupor	a) Capacitor connected to the d.c. mains supply:	nbotek Anbol And	N N
otek Anb	b) Internal battery connected to the d.c. mains supply	Anbotek Anbotek An	bote <sup>K</sup> N
2.1.1.9	Audio amplifiers:	Anbos Al potek	Anboton
2.1.2	Protection in service access areas	No services access areas	ANOTE



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Inport P	EN 60950-1	Anbote Ann wotek	Anbotek
Clause	Requirement – Test	Result - Remark	Verdict
2.1.3 Antipotek	Protection in restricted access locations	Equipment not intended to used in restricted access locations	N <sup>nbc</sup>

2.2	SELV circuits		AnbotP
2.2.1	General requirements	Anthotek	AnPten
2.2.2	Voltages under normal conditions (V) :	Within SELV limits	Pnbote
2.2.3 Anbote	Voltages under fault conditions (V)	Within SELV limits	P N
2.2.4	Connection of SELV circuits to other circuits:	Connect to SELV circuits only	P

2.3	TNV circuits		Anbor N
2.3.1	Limitstek Anbour And Sotek Anbour	No TNV circuits	Ant
Anbo	Type of TNV circuits:		Anbote
2.3.2 March 2.3.2	Separation from other circuits and from accessible parts		N Aupo
2.3.2.1	General requirements		N P
2.3.2.2	Protection by basic insulation		N
2.3.2.3	Protection by earthing	Anb	Non
2.3.2.4	Protection by other constructions	ek nboter Anb	Npotek
2.3.3 Anboter	Separation from hazardous voltages	ote. Anuotek Anbu	N
ek anbo	Insulation employed	ibotek Anbot	AK Prin
2.3.4	Connection of TNV circuits to other circuits	ato anbotek Anb	N
pr pr	Insulation employed	Anbo ek abotek A	nbote-
2.3.5	Test for operating voltages generated externally	Anbor Ann dek	Non

2.4 Anbotek	Limited current circuits	otek Anbotek Anbote	Nnbot
2.4.1 Anbola	General requirements	No limited current circuits	Ket N N
2.4.2 And	Limit values	kn botek Anboten Anb	N
hotek p	Frequency (Hz)		
un botek	Measured current (mA):		
Ann	Measured voltage (V):	r tek abote	P.a.r.
Anostel	Measured circuit capacitance (nF or µF):	oten Anbo Lek botek	Anboth
2.4.3 And	Connection of limited current circuits to other circuits	nbotek Anbotek Anbo	lek N Ant
Nex	abotek Anbot k sotek unbotek	Anbo ek botek Ar	pote

2.5	Limited power sources	Anbotek	Anbor Ar potek	Anbote
Anbo	a) Inherently limited output	ek abotek	Anbort An otek	Noten



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Clause	Requirement – Test	Result - Remark	Verdict
Anbore	Ann Anbor An	tek Anboten Anos	Ninbe
Anboten	b) Impedance limited output	hotek Anbotek Anbo	Nov
stek Anbo	c) Regulating network limited output under normal operating and single fault condition	nbotek Anbotek Anbot	PA
botek Ar	Use of integrated circuit (IC) current limiters	A. botek Anbote An	N
	d) Overcurrent protective device limited output	All tek Anbotek	Anb <sup>C</sup> N
Anbotek	Max. Output voltage (V), max. Output current (A), max. Apparent power (VA)	(See table 2.5)	Anbo
Anboten	Current rating of overcurrent protective device (A).:	botek Anbotek Anbote	K - AL
ten Aup	Use of integrated circuit (IC) current limiters	Anbotek Anbo tek	otek
ibotok An	sor A botek Anboten Anb	Anbotek Anbot An	potek
2.6	Provisions for earthing and bonding	nbotek Anbote.	Niek
2.6.1	Protective earthing	Class III equipment	N
2.6.2	Functional earthing		Ň
ek Anbotr	Use of symbol for functional earthing		N AC
2.6.3	Protective earthing and protective bonding conductors		Ν
2.6.3.1	General	And k hotek	AnbRto
2.6.3.2	Size of protective earthing conductors	en note k portek	Noot
Anbore ek abote	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG	poter Anuotek Anbe	-An
2.6.3.3	Size of protective bonding conductors	hotek Anbr	N
nbotek	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG	Anbotek Anbotek A	nbotek_
Anbotek	Protective current rating (A), cross-sectional area (mm <sup>2</sup> ), AWG	k Anbotek Anboten	Anbote
2.6.3.4	Resistance of earthing conductors and their terminations; resistance $(\Omega)$ , voltage drop (V), test current (A), duration (min):	otek Anbotek Anbotek Anbotek Anbotek Anbotek	NAnt
2.6.3.5	Colour of insulation	hotek Anbor Ali	_se <sup>V</sup> N
2.6.4	Terminals		N
2.6.4.1	General		N
2.6.4.2	Protective earthing and bonding terminals	tok botek Anbol	N
K Anbotel	Rated current (A), type, nominal thread diameter (mm)	nbotek Anbotek Anbotek	_Anb
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors	Anbotek Anboten Anbo	pote <sup>K</sup> N
2.6.5	Integrity of protective earthing	Anbote Ano otek	an <sup>botek</sup>
2.6.5.1	Interconnection of equipment	aboter And	Note



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Clause	Requirement – Test	Result - Remark	Verdict
aboten	And k solek Andors And	tek spoten Anbo	- P**
2.6.5.2	Components in protective earthing conductors and protective bonding conductors	botek Anbotek Anboten	N
2.6.5.3	Disconnection of protective earth	abotek Anbote And	otek N
2.6.5.4	Parts that can be removed by an operator	An hotek Anboten An	N
2.6.5.5	Parts removed during servicing	Am stek Anbotek	Anbo N
2.6.5.6	Corrosion resistance	s nbotek	Pup.
2.6.5.7	Screws for protective bonding	len Anberek	N <sup>po</sup>
2.6.5.8	Reliance on telecommunication network or cable distribution system	botek Anbotek Anbote	K N AT

2.7	Overcurrent and earth fault protection in primary ci	rcuits	knbot N
2.7.1	Basic requirements	Class III equipment	otek AntNter
Anbo	Instructions when protection relies on building installation		Nipote
2.7.2	Faults not simulated in 5.3.7		N Ant
2.7.3	Short-circuit backup protection		N
2.7.4	Number and location of protective devices		N
2.7.5	Protection by several devices	Ano	atek anbN°
2.7.6	Warning to service personnel	anboten Anb	Note Note

2.8 Anbote	Safety interlocks	ibotek Anbolo	N
2.8.1	General principles	No safety interlocks	N
2.8.2	Protection requirements	Anbourtek Anbotek A	obote N K
2.8.3	Inadvertent reactivation	Anbor tek abotek	Anboro
2.8.4	Fail-safe operation	Anbor Lek abotek	<sub>A</sub> N <sup>oter</sup>
Anbor	Protection against extreme hazard	otek Anbore Ant hotel	N <sub>Anbot</sub>
2.8.5	Moving parts of Antonio Market	abotek Anbote Ano	Lek N An
2.8.6	Overriding	hotek Anboten Ann	N∛exe
2.8.7	Switches and relays and their related circuits		N
2.8.7.1	Separation distances for contact gaps and their related circuits (mm):	tek abore	N . A <sup>n-</sup>
2.8.7.2	Overload test	otek Anbou ok notek	N_nbot
2.8.7.3	Endurance test	nbotek Anbots Ano	lek N Ant
2.8.7.4	Electric strength test	anbotek Anboter Anbo	ote <sup>K</sup> N
2.8.8	Mechanical actuators	Autoken Anboten Ar	N

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aboten	Anbo K sotek Anbots Ano	tak botek Anbou	p
2.9	Electrical insulation		Nnbc
2.9.1	Properties of insulating materials	Anbote And otek anbo	Ver N An
2.9.2	Humidity conditioning	Anboten Anbo	pote <sup>K</sup> N
nboten	Relative humidity (%), temperature (°C)	Anboten Anbo	abotek
2.9.3	Grade of insulation	-ten Anbor	Ntek
2.9.4	Separation from hazardous voltages	den nov Anbou	N N
nod	Method(s) used	werk hotek Anbota	Pur

2.10	Clearances, creepage distances and distances thr	ough insulation	o <sup>ter</sup> N
2.10.1	General	Class III equipment, SELV circuits only within the EUT	unbotek hotek
2.10.1.1	Frequency	tok "pote	Ann
2.10.1.2	Pollution degrees		N
2.10.1.3	Reduced values for functional insualtion		N AO
2.10.1.4	Intervening unconnected conductive parts		N
2.10.1.5	Insulation with varying dimensions		N
2.10.1.6	Special separation requirements	Anb	No
2.10.1.7	Insulation in circuits generating starting pulses	ek nboten Anbo	Noot
2.10.2	Determination of working voltage	ote. Anuoten Anbo	N
2.10.2.1	General	ibotek Anbo	N N
2.10.2.2	RMS working voltage	ate nbotek Anb	N
2.10.2.3	Peak working voltage	Anbo otek anbotek A	obot N.K
2.10.3	Clearances	Anbor tek abotek	Anboro
2.10.3.1	General	Anbor ek abotek	PN00
2.10.3.2	Mains transient voltages	otek Anbour An notek	Nant
Aupor	a) AC mains supply:	nbotek Anbote Ant	Ke <sup>K</sup> N
otek Anb	b) Earthed d.c. mains supplies:	hotek Anboto Am	e <sup>V</sup> N
abotek P	c) Unearthed d.c. mains supplies		N
potek	d) Battery operation:		N
2.10.3.3	Clearances in primary circuits	K hotek Anboth	Ň
2.10.3.4	Clearances in secondary circuits	oter Ann sotek Anbotek	Nanb
2.10.3.5	Clearances in circuits having starting pulses	nboten Anbo stek nbo	e <sup>w</sup> N P
2.10.3.6	Transients from a.c. mains supply	Anboten Anbo stek	po <sup>tek</sup> N
2.10.3.7	Transients from d.c. mains supply	Anboten Anbo ek	NooN
2.10.3.8	Transients from telecommunication networks and	anbotek Anbou	Note



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Ack	EN 60950-1	All tek spoter	Ano
Clause	Requirement – Test	Result - Remark	Verdict
Auporo	cable distribution systems	tek Anboten Anbo	Anbe
2.10.3.9	All hoter Anbo	hotek Anboten Anbo	sk h st
2.10.3.9	Measurement of transient voltage levels	notek Anbotek Anbo	N P
notek Ar	a) Transients from a mains suplply	And atek Andatek Ant	oter N
np tet	For an a.c. mains supply	Anbo tek nbotek	N <sup>bot</sup> N
Anbo	For a d.c. mains supply	An	Ntek
Anbor	b) Transients from a telecommunication network.:	en Anbo An hotek	N N
2.10.4 100 <sup>161</sup>	Creepage distances	potek Anbote And	Ň
2.10.4.1	General	abotek Anboter Anbo	N
2.10.4.2	Material group and caomparative tracking index	All hotek Anbotek Ant	N
notek	CTI tests	Anu votek Anbotek	hpor-
2.10.4.3	Minimum creepage distances	Anbe tok spotek	AntN
2.10.5	Solid insulation		Nipo
2.10.5.1	General		N
2.10.5.2	Distances through insulation		κN
2.10.5.3	Insulating compound as solid insulation		Ν
2.10.5.4	Semiconductor devices		Ν
2.10.5.5	Cemented joints	k hotek Anbotek	Anbo
2.10.5.6	Thin sheet material	atek nbotek	Noor
2.10.5.7	Separable thin sheet material	pote. Anu tek potel	NAN
Anb	Number of layers (pcs):	ibo. pr.	tek
2.10.5.8	Non-separable thin sheet material	Anbote. Anbout Ahr	note N
2.10.5.9	Thin sheet material – standard test procedure	nbotek Anbots A	N
abotek	Electric strength test	K sbotek Anboten	Anb-
2.10.5.10	Thin sheet material – alternative test procedure	An hotek Anbotek	N
k hote	Electric strength test	ote And sotek Anbotek	Ant
2.10.5.11	Insulation in wound components	unboton Anbe otek unbo	Kek N
2.10.5.12	Wire in wound components	noten Anby A	- <sup>xeK</sup> N
Inpoton P	Working voltage		N
Anbotek	a) Basic insulation not under stress:		N
Anbotek	b) Basic, supplemetary, reinforced insulation:	stek unbotek Anbote	N
K Anbote	c) Compliance with Annex U	nbotek Anbotek Anboten	e <sup>k</sup> N
nbotek Anb	Two wires in contact inside wound component; angle between 45° and 90°	Anbotek Anbotek An	oote <sup>k</sup> N
2.10.5.13	Wire with solvent-based enamel in wound	Anbotek Anbo	Note



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atok	EN 60950-1	Att spotek	Anbu
Clause	Requirement – Test	Result - Remark	Verdict
Anbore	components	tek Anboten Anbo	Aupe
Anbote	Electric strength test	botek Anboten Anbo	N N
tok Anbe	Routine test	hotek Anbotek Anbo	N.
2.10.5.14	Additional insulation in wound components	And wotek Anbotek An	o <sup>ter</sup> N
2.10.5.14	Ant Ant	And tek anbotek	Anbot N
Anbe	Working voltage	A. potek	Anblek
Anbo	- Basic insulation not under stress	ler Anbe An abotek	N N
Anbor	- Supplemetary, reinforced insulation	potek Anboro Ant	N
2.10.6	Construction of printed boards	anbotek Anbote, And	N N
2.10.6.1	Uncoated printed boards	Ann hotek Anboten Ant	N
2.10.6.2	Coated printed boards	Ame totek Ambotek	InporN
2.10.6.3	Insulation between conductors on the same inner surface of a printed board	And ek wotek	AntNic
2.10.6.4	Insulation between conductors on different layers of a printed board		N
ek Anbo	Distance through insulation		<sup>k</sup> N
potek An	Number of insulation layers (pcs):		N
2.10.7	Component external terminations		N
2.10.8	Tests on coated printed boards and coated components	ek Anbotek Anboten	Anbor N
2.10.8.1	Sample preparation and preliminary inspection	Note: Anvoten Anbo	N
2.10.8.2	Thermal conditioning	iboten Anbo	Ket N
2.10.8.3	Electric strength test	Lote Anbotek And	N
2.10.8.4	Abrasion resistance test	Amber anbotek A	N N K
2.10.9	Thermal cycling	Anbo tek abotek	Anbote
2.10.10	Test for Pollution Degree 1 environment and insulating compound	atek Anbotek Anbotek	PN
2.10.11 prov	Tests for semiconductor devices and cemented joints	nbotek Anbotek Anbote	Kek N
2.10.12	Enclosed and sealed parts	hotek Aupor An	N
Anbotok I	Lingor An bolek	1	I
3 Mboter	WIRING, CONNECTIONS AND SUPPLY		N
3.1 mbotek	General	ek sootek Anbort	N
3.1.1	Current rating and overcurrent protection	The cross-sectional area of	N
	tek Anbolen Anbourtek abotek	internal wires is adequate for the current they are intended	iek b
	notek Anbotek Anbor An	to be carried	potek
3.1.2	Protection against mechanical damage	Anbotek Anbor Al	NooN
3.1.3	Securing of internal wiring	h hotek Anbore	Note

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Diathore	EN 60950-1	Deput Demark	Vardiet
Clause	Requirement – Test	Result - Remark	Verdict
3.1.4	Insulation of conductors	den Anbo h. nbotek	Napo
3.1.5	Beads and ceramic insulators	Albotek Anbos tek abot	<sup>sk</sup> N Þr
3.1.6	Screws for electrical contact pressure	No screws are used as electrical connections	otek N
3.1.7 ex	Insulating materials in electrical connections	No such materials	Anbold N
3.1.8	Self-tapping and spaced thread screws	No such screws	AnN
3.1.9	Termination of conductors	olen Anbo pit abotek	Nobot
Aupor	10 N pull test	spotek Anboro Att	K N N
3.1.10	Sleeving on wiring	abotek Anbote And	otek N
botek	Anboten Anno otek Mboten Anbot	Aut hotek Anboten Ant	tek
3.2 otek	Connection to a mains supply	And hotek Anbotek	N <sub>o</sub> k
3.2.1	Means of connection	And rok potek	Anbol
3.2.1.1	Connection to an a.c. mains supply		Niboli
3.2.1.2	Connection to a d.c. mains supply		N An
3.2.2	Multiple supply connections		<sup>K</sup> N
3.2.3	Permanently connected equipment		N
Anbotek	Number of conductors, diameter of cable and conduits (mm)	Anb- tek potek	Anbore
3.2.4	Appliance inlets	tot noo Au botek	PN <sup>bott</sup>
3.2.5	Power supply cords	hote Anvoir Annote hote	NAND
3.2.5.1	AC power supply cords	ipore Ann	tek N
oter p	Туре	: abote Anbote Anb	otek-
Anbotek	Rated current (A), cross-sectional area (mm <sup>2</sup> ), AWG	Anbotek Anbotek A	Anbotek
3.2.5.2	DC power supply cords	tok Anbor An hotek	PN <sup>ote</sup>
3.2.6	Cord anchorages and strain relief	Hotek Anboth Ant Sotek	Nanb
k Aupr	Mass of equipment (kg), pull (N)	pootek Anbote And	lek n
otek A	Longitudinal displacement (mm)	hotek Anboten Ano	-YeV
3.2.7	Protection against mechanical damage		N
3.2.8	Cord guards		N
Anbotek	Diameter or minor dimension D (mm); test mass (g)	optek Anbotek Anbote tek	A <u>n</u> -
Anbo	Radius of curvature of cord (mm)	hotek Anbotek Anbo	ek
3.2.9	Supply wiring space	print tek abotek Anbo	N

3.3	3 Wiring terminals for connection of external conductors	
3.3.1	Wiring terminals No such wiring	terminals N



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	Requirement – Test	Result - Remark	Verdict
Clause			Venuiot
3.3.2 Anbot	Connection of non-detachable power supply cords	botek Anbotek Anbotek	N <sup>nbote</sup>
3.3.3	Screw terminals	botek Anboten Anbo	N Yex
3.3.4	Conductor sizes to be connected	Ann hotek Anboten An	N
Anbotek	Rated current (A), cord/cable type, cross- sectional area (mm <sup>2</sup> ):	Anno tek Anbotek	Anbo. Anbotek
3.3.5	Wiring terminal sizes	len Anbo Anbo otek	Nabotel
Anbote ab	Rated current (A), type, nominal thread diameter (mm):	abotek Anbotek Anbote	k Aupr
3.3.6	Wiring terminal design	Anboro K And Ant	ote <sup>k</sup> N A
3.3.7	Grouping of wiring terminals	Anbote, Anb atek	nbotN
3.3.8	Stranded wire	Anboten Anbo	Niek
Anboten	And wak	10 × 10 × 10 ×	Annotek
0.4			DI
3.4 Mb0	Disconnection from the mains supply		Ñ
Pur	Disconnection from the mains supply General requirement	Class III equipment	N N <sup>Antoo</sup>
3.4.1	V SOLET	Class III equipment	040
3.4.1 3.4.2	General requirement	Class III equipment No such equipment	N Anbo
3.4.1 3.4.2 3.4.3	General requirement Disconnect devices		N AMA N A
3.4 3.4.1 3.4.2 3.4.3 3.4.4 3.4.5	General requirement         Disconnect devices         Permanently connected equipment		N AMA
3.4.1 3.4.2 3.4.3 3.4.4 3.4.5	General requirement         Disconnect devices         Permanently connected equipment         Parts which remain energized	No such equipment	N Andre N As N Andr N
3.4.1 3.4.2 3.4.3 3.4.4 3.4.5 3.4.6	General requirement         Disconnect devices         Permanently connected equipment         Parts which remain energized         Switches in flexible cords         Number of poles – single-phase and d.c.	No such equipment	N Anno
3.4.1 3.4.2 3.4.3 3.4.4	General requirement         Disconnect devices         Permanently connected equipment         Parts which remain energized         Switches in flexible cords         Number of poles – single-phase and d.c. equipment	No such equipment	N Anto N A N Anto N Anto N Anto N
3.4.1 3.4.2 3.4.3 3.4.4 3.4.5 3.4.6 3.4.7	General requirement         Disconnect devices         Permanently connected equipment         Parts which remain energized         Switches in flexible cords         Number of poles – single-phase and d.c. equipment         Number of poles – three-phase equipment	No such equipment	N Ambe N A N N Nootek N Ambo
3.4.1 3.4.2 3.4.3 3.4.4 3.4.5 3.4.6 3.4.7 3.4.8	General requirement         Disconnect devices         Permanently connected equipment         Parts which remain energized         Switches in flexible cords         Number of poles – single-phase and d.c. equipment         Number of poles – three-phase equipment         Switches as disconnect devices	No such equipment	N Anthe N At N Ante N Antoot N Antoot N Antoot N

3.5	Interconnection of equipment	Anbo tek Anbotek Anbr	P
3.5.1	General requirements	368 · 81 ·	P
3.5.2	Types of interconnection circuits:	Connect to SELV circuits	Р
3.5.3	ELV circuits as interconnection circuits	No ELV circuit	N
3.5.4	Data ports for additional equipment	ptek Anbote And	N <sub>nb</sub> ot

4.ek Anbe	PHYSICAL REQUIREMENTS	Anbo h. Anbotek Anbo	P
4.1 tek	Stability And	And sotek Anbotek Ar	N
Annotek	Angle of 10°	Approx. 0.152Kg	Anbon
Annotek	Test force (N)	Anbo tek abotek	P.N.

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nboro A	EN 60950-1	Anboten Anbo	Anbotek
Clause	Requirement – Test	Result - Remark	Verdict
Anboton	And set potek Anbou And	tek photen Anbo	p. note
4.2 botek	Mechanical strength	ak hotek Anbote.	Pnb
4.2.1	General	hote k hotek Anbot	<sup>sk</sup> P Anb
4.2.2	Steady force test, 10 N	Anboter Ann otek Ant	otek P
4.2.3	Steady force test, 30 N	Anboten Anbo	N
4.2.4	Steady force test, 250 N	-tek Anbo	Potek
4.2.5 poten	Impact test	len anbo Anbolo K	A"N note
nbotek	Fall test	tek sbotek Anbote	Ň
ek no	Swing test	bor An hotek Anbote	N And
4.2.6	Drop test; height (mm)	1m,3 times	oten P P
4.2.7	Stress relief test	70℃, 7h	nboteP
4.2.8	Cathode ray tubes	Anboten Anbo	NICK
Anboten	Picture tube separately certified:	100	Notel
4.2.9 Million	High pressure lamps	No high pressure lamps in the equipment.	N
4.2.10	Wall or ceiling mounted equipment; force (N):	Not intended to be mounted on a wall or ceiling.	<sup>K</sup> N P
4.2.11	Rotating solid media		Ν
Ann	Test to cover on the door:	Anb ok botek	Anbor

4.3 And	Design and construction		PAnbo
4.3.1 And	Edges and corners	The outer surface of the equipment is smooth	otek P A'
4.3.2	Handles and manual controls; force (N):	Ambor ek abotek A	nbote N
4.3.3	Adjustable controls	No adjustable controls	AnbNer
1.3.4	Securing of parts	ek Anbote Am otek	Rotek
.3.5 Anbore	Connection by plugs and sockets	botek Anbote And atek	Nnbo
.3.6 Anbo	Direct plug-in equipment	hotek Anboten Anbo	N
stek Ar	Torque	And sotek Anbotek Anbo	NOK P
nbotek	Compliance with the relevant mains plug standard		N
.3.7	Heating elements in earthed equipment	No such elements	Ν
.3.8 moter	Batteries	The battery meets the requirements of IEC 62133.	P
Anbo	- Overcharging of a rechargeable battery	Anbotek Anbor An abo	ICK P AT
hotek An	- Unintentional charging of a non-rechargeable battery	Anbotek Anbotek An	pote <sup>K</sup> N
np. stek	- Reverse charging of a rechargeable battery	Anburgek hanbotek	Anbolo.
Anbo	- Excessive discharging rate for any battery	Anbor Att	A Poten



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Clause 4.3.9 4.3.10 4.3.11 4.3.12 4.3.12	Requirement – Test         Oil and grease         Dust, powders, liquids and gases         Containers for liquids or gases         Flammable liquids	Result - Remark No oil and grease No dust, powders, liquids and gases No such containers	Verdict N N
4.3.10 4.3.11 4.3.12	Dust, powders, liquids and gases Containers for liquids or gases	No dust, powders, liquids and gases	N.
4.3.10 4.3.11 4.3.12	Dust, powders, liquids and gases Containers for liquids or gases	No dust, powders, liquids and gases	N.
4.3.12	Not volo	Dep	
Anbotek	Not volo		N
1.3.13	by	No flammable liquid	Anboten N
ł.3.13	Quantity of liquid (I):	Am	AnN
1.3.13	Flash point (°C)	len Anbu Ant hotek	Napo
	Radiation	botek Anbote And	× N N
1.3.13.1	General	abotek Anboten Anbo	otek N
1.3.13.2	Ionizing radiation	No ionizing radiation	N
botek	Measured radiation (pA/kg):	Ant hotek Anbotek	nboek
hotek	Measured high-voltage (kV):	pint	Aupor
Anv	Measured focus voltage (kV):		Aupo
And	CRT markings:		P.
.3.13.3	Effect of ultraviolet (UV) radiation on materials	No ultraviolet radiation	N
otek Ant	Part, property, retention after test, flammability classification		Ν
.3.13.4	Human exposure to ultraviolet (UV) radiation:	Anbe tek abotek	Anboth
1.3.13.5	Lasers (including laser diodes) and LEDs	ek nootek	PNOOT
1.3.13.5.1	Lasers (including laser laser diodes)	poter Anvor An	Npo
Aupor	Laser class	Class I	tek
1.3.13.5.2	Light emitting diodes (LEDs)	abote Anbote And	wotek-
4.3.13.6	Other types	Anbotek Anboten A	N.V.
abotek	Anbotek Anbotek Anbotek Anbot	K botek Anboten	Anbo
1.4 botek	Protection against hazardous moving parts	An botek Anboten	PN
1.4.1 Jole	General	ote, Ann otek unbotek	NAU
1.4.2	Protection in operator access areas:	Inboten Anbo	<sup>Vek</sup> N
botek And	Household and home/office document/media shredders	(see Annex EE)	_ve <sup>V</sup> N
1.4.3	Protection in restricted access locations:		Ν
1.4.4	Protection in service access areas	r tek aboto	₽ <b>N</b>
.4.5	Protection against moving fan blades	otek Anbor An botek	Nanh
.4.5.1 Anbou	General	nbotek Anbote And	e <sup>k</sup> N
stek Anbo	Not considered to cause pain or injury. a):	anbotek Anboter Anti-	oteKN
botek Al	Is considered to cause pain, not injury. b) :	And Andrew Andrew An	N
Anbotek	Considered to cause injury. c)	Anbotek Anbotek	Anbot N

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Clause	Requirement – Test	Result - Remark	Verdict
.4.5.2	Protection for users	dek Anbor An	Nnbc
Aupor	Use of symbol or warning:	botek Anbote And	A N
4.5.3	Protection for service persons	botek Anboten Anbo	o <sup>tek</sup> N
hotek Al	Use of symbol or warning:	An- hotek Anbotek Ant	N
wotek.		And stek subotek	anboun
4.5 aboten		hotek	Pnbote
DI.	Thermal requirements	ter Anby An botek	Pnbo
1.5.1 Anboten	General Annotation Annotation	potek Anbote Ant	Y.
.5.2	Temperature tests	botek Anboten Anbo	P P'
otek An	Normal load condition per Annex L	And hotek Anbotek Ant	
1.5.3	Temperature limits for materials	(see appended table 4.5)	nbotP
.5.4	Touch temperature limits	(see appended table 4.5)	AntPren
1.5.5	Resistance to abnormal heat:		Noo
Anboit	Pr. Notek		
.6 Anbot	Openings in enclosures		N
.6.1	Top and side openings		Ν
atek	Dimensions (mm):		
.6.2	Bottoms of fire enclosures	Anbu ok hotek	AnbN
Anbou	Construction of the bottomm, dimensions (mm):	ok nbote Anti otek	Anoot
.6.3 Anbolo	Doors or covers in fire enclosures	Note: Anuoten Anbo	N
6.4 Anboth	Openings in transportable equipment	iboten Anbor	N
.6.4.1	Constructional design measures	ate: nbotek Anbr	N
.tek	Dimensions (mm):	Anbor Al botek A	nboter_
.6.4.2	Evaluation measures for larger openings	Anbors Ab hotek	AnbN
.6.4.3	Use of metallized parts	ek Anbotes And	Note
.6.5 MOOLE	Adhesives for constructional purposes	otek Anboten Anbo	N
Anbote	Conditioning temperature (°C), time (weeks):	otek Anbotek Anbo	alt -
stek anb	otek Anbor Anborek Anbore	Antek nbotek Anbe	,V.
1.7 Joh	Resistance to fire	~0° ×.	P
I.7.1	Reducing the risk of ignition and spread of flame		Р
Anborek	Method 1, selection and application of components wiring and materials	(see appended table 4.7)	P
Anbote	Method 2, application of all of simulated fault condition tests	nbotek Anbotek Anboten	ek N <sup>Anb</sup>
.7.2 And	Conditions for a fire enclosure	anbotek Anbote Anb	otekP
.7.2.1	Parts requiring a fire enclosure	A" hotek Anboten Ar	
.7.2.2	Parts not requiring a fire enclosure	Ant tek botek	Anbou N .el

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nbor A	EN 60950-1	Anboto K Ant Lotek	Anbotek
Clause	Requirement – Test	Result - Remark	Verdict
aboton	And K sotek Anbot An	tek boten Anbo	- Pr-
4.7.3	Materials Materials	k hotek anboten	Pupe
4.7.3.1	General	(see appended table 1.5.1)	<sup>sk</sup> P P
4.7.3.2	Materials for fire enclosures	(see appended table 1.5.1)	otek P
4.7.3.3	Materials for components and other parts outside fire enclosures	Anbotek Anbot An	AnbotN
4.7.3.4	Materials for components and other parts inside fire enclosures	(see appended table 1.5.1)	Anipor
4.7.3.5 motor	Materials for air filter assemblies	No air filter assemblies.	N
4.7.3.6	Materials used in high-voltage components	No high-voltage components	N

5	ELECTRICAL REQUIREMENTS AND SIMULATE	D ABNORMAL CONDITIONS	nboteP	
5.1	Touch current and protective conductor current	Anbor An hotek	AntN	64
5.1.1	General	245 <sup>1</sup>	N	0 <sup>0%</sup>
5.1.2 Anbole	Configuration of equipment under test (EUT)		N	- nt
5.1.2.1	Single connection to an a.c. mains supply		κN	12
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N	
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply	Anb- hotek Anbotek	AnbN	
5.1.3	Test circuit	otek Anbotek	N	20.
5.1.4	Application of measuring instrument	pote Ann atek nbote	N	Anb
5.1.5	Test procedure	100 tek	ote <sup>K</sup> N	1
5.1.6	Test measurements	Anbote. Anbor An	Naton	
Anbotek	Supply voltage (V)	anbotek Anbote A	notes	Y-
nbotek	Measured touch current (mA):	k apotek Anbote	Pur-	de
nbotel	Max. Allowed touch current (mA)	tek abotek Anboten	AUD	
K Pr	Measured protective conductor current (mA):	on An hotek Anboter	P	~up
All	Max. Allowed protective conductor current (mA):	inbote Ant sotek Anbr	lek	P
5.1.7	Equipment with touch current exceeding 3,5 mA	hoter And	-* <sup>eX</sup> N	
5.1.7.1	General:		N	
5.1.7.2	Simultaneous multiple connections to the supply		N	
5.1.8 Anboten	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	otek Anbotek Anbotek Anbotek	N	,nbr
5.1.8.1 M	Limitation of the touch current to a telecommunication network or to a cable distribution system	Anbotek Anbotek Anbo	poteKN	P
. otek	Supply voltage (V)	An-	Aupor	X



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Clause	Requirement – Test	Result - Remark	Verdict
abotek	Amoto An wotek Anboten Ambo	tek botek Anbote	Anu
A. botel	Measured touch current (mA):	An hotek Anboten	Aupo
Ar.	Max. Allowed touch current (mA):	hote Ant wotek Anbot	er Ar
5.1.8.2	Summation of touch currents from telecommunication networks	Anbotek Anbotek An	pote <sup>K</sup> N
hotek	a) EUT with earthed telecommunication ports:	Ann stek Anbotek	Anboun N
Anbotek	b) EUT whose telecommunication ports have no reference to protective earth	len Anber k Anbotek	AnN Note
anbotek	Anbos Anno Anno	tek abotek Anbote	Par
5.2	Electric strength	nbor An botek Anboth	N AN
5.2.1	General	Anbore K Ant otek Ant	o <sup>tek</sup> N
5.2.2	Test procedure	Anbote. And otek	nbo <sup>t</sup> N
Anbote	And atek anbotek Anbou An hotek	Anboten Anbo	, botek
5.3 Anboten	Abnormal operating and fault conditions	No.	P.ot
5.3.1 Anboten	Protection against overload and abnormal operation	(see appended table 5.3)	P
5.3.2	Motors	(see appended Annex B)	<sup>k</sup> N
5.3.3	Transformers		N
5.3.4	Functional insulation:	By Short circuit	P
5.3.5	Electromechanical components	K hotek Anbotek	Anbu N .e
5.3.6	Audio amplifiers in ITE:	otek unbotek	N
5.3.7	Simulation of faults	bote. Anu stek anbote	PAnb
5.3.8	Unattended equipment	top. A.	tek N P
5.3.9	Compliance criteria for abnormal operating and fault conditions	Anbote: Anbotek A	nboteP
5.3.9.1	During the tests	Anbu tek Anbotek	Anbote
5.3.9.2	After the tests	No hazards.	Pore
Anbor	K botek Anboten Anbo	potek Anbore Ant hotek	Anb
Anbou	CONNECTION TO TELECOMMUNICATION NET	WORKS	Kek N
6.1 Ant	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment	notek Anboten Ano	_xe <sup>V</sup> N
6.1.1	Protection from hazardous voltages	r tek boto	PN
6.1.2 Anbote	Separation of the telecommunication network from earth	otek Anbotek Anbotek	N.nbr
6.1.2.1	Requirements	Not connect to telecommunication networks	hotek N P
notet p	Supply voltage (V):	hotek Anbor An	No.

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Inpoter	And hotek Anbotek	EN 60950	D-11tek Anbotek Ant	otek Anbotek
Clause	Requirement – Test	tek Anbo Ak	Result - Remark	Verdict
aboten	And	Lotek Anbor	An rek poten	Anot
6.1.2.2	Exclusions	nu sootek	Anbour An otek	Anboten N <sup>nbo</sup>

6.2	Protection of equipment users from overvoltages or	n telecommunication networks	o <sup>tek</sup> N
6.2.1	Separation requirements	Anbotek Anbou An	N
6.2.2	Electric strength test procedure	-tek Anborr	Ntek
6.2.2.1	Impulse test	en aby Anboten	A <sup>nb</sup> N
6.2.2.2	Steady-state test	Ath hotek Anboten	N
6.2.2.3	Compliance criteria	pote Ant otek Anbot	N Ant
6.3	Protection of the telecommunication wiring system	from overheating	otek N
iboten Ar	Max. Output current (A):	Anbotek Anbo At	botek
Anbotek	Current limiting method:	anbotek Anbous	http://www.

7	npotek	CONNECTION TO CABLE DISTRIBUTION SYST	EMS	N
7.1	Anbot	General	Not connect to cable distribution system	N Anb
7.2	btek An	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment	And tek nbotek	N Anbore
7.3	Anbotek	Protection of equipment users from overvoltages on the cable distribution system	ote. Anvotek Anbotek	IN <sup>poto</sup>
7.4	Anbote	Insulation between primary circuits and cable distribution systems	, botek Anbor	otek NAM
7.4.1	Ant	General	Anbote: Anbos tak	boteN
7.4.2	2 <sup>ek</sup>	Voltage surge test	nbotek Anbour A	Nev
7.4.3	Botek	Impulse test	k sbotek Anboten	Ant N stek

abo.	A' A DOLE' AND	rek bor An	
A hote	ANNEX A, TESTS FOR RESISTANCE TO HEAT	AND FIRE	NAnbe
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)	knbotek Anbotek Anbr	rek N Aug
A.1.1	Samples:		
Anboro	Wall thickness (mm):	r v ote	5 <u>0</u> 2
A.1.2, 100101	Conditioning of samples; temperature (°C)	otek Anboten Anbo	N
A.1.3 Anbote	Mounting of samples	otek Anbotek Anbo	N
A.1.4	Test flame (see IEC 60695-11-3)	nbo tek nbotek Anbo	N AU
kek fr	Flame A, B, C or D	Anbor Ar botek Ar	poter
A.1.5	Test procedure	Anbore Anthotek	Anbo
A.1.6	Compliance criteria	Anboto And	Notek



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a hoton	EN 60950-1	D I Dtek Anbor	NA DOL
Clause	Requirement – Test	Result - Remark	Verdict
And rek	Sample 1 burning time (s)	tek Anbor An	Anbo
Aupor	Sample 2 burning time (s):	botek Anbote, Ano	- ×
tek Anbo	Sample 3 burning time (s)		-tek
A.2 M	Flammability test for fire enclosures of movable eq	N NO DA	N
Anbotek	not exceeding 18 kg, and for material and compon enclosures (see 4.7.3.2 and 4.7.3.4)		Anboth
A.2.1	Samples, material:	en Anbo Anbo vek	
Anboten	Wall thickness (mm):	otek nnbotek Anbot	A Pr.
A.2.2	Conditioning of samples; temperature (°C):		N AS
A.2.3	Mounting of samples	Anbour An hotek Ant	oter N
A.2.4	Test flame (see IEC 60695-11-4)	Anbota, Anti otek	nboten
Anboton	Flame A, B or C	Anbotes Anbo	obotek
A.2.5	Test procedure	10 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	N
A.2.6	Compliance criteria		N
ek hote	Sample 1 burning time (s):		- An
ingk k	Sample 2 burning time (s):		
born bu	Sample 3 burning time (s):		
A.2.7	Alternative test acc. To IEC 60695-11-5, cl. 5 and 9	k hotek Anbotek	AnbNo
Annotek	Sample 1 burning time (s):	atek unbotek	Pupor
Annote	Sample 2 burning time (s)	poter Annu tek potel	Aul
en Anos	Sample 3 burning time (s)	ipo yak wa	tek
A.3 Anto	Hot flaming oil test (see 4.6.2)	anbote. Anbou All	, ote N
A.3.1	Mounting of samples	Anbotek Anbote A	N.K
A.3.2	Test procedure	k hotek Anboten	ANDN
A.3.3	Compliance criterion	Ann stek snbotek	PN
Ann	K subotek Anbour K sotek An	poter And tek potek	Ant
B Anbo	ANNEX B, MOTOR TESTS UNDER ABNORMAL 5.3.2)	CONDITIONS (see 4.7.2.2 and	Ke <sup>K</sup> N
B.1	General requirements		N
tun-tek	Position:	Inside enclosure	
Anbo	Manufacturer	(see appended table 1.5.1)	Alle.
Anbors	Туре	(see appended table 1.5.1)	10
k Anbote	Rated values	(see appended table 1.5.1)	ex
B.2	Test conditions	ne stek nbotek Anbo	N
B.3	Maximum temperatures	Ando kek abotek Ar	N N
B.4	Running overload test	Anbor An Lotek	Anboin
B.5 <sup>100ter</sup>	Locked-rotor overload test	anboten Anbo	Note



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lause	Requirement – Test	Result - Remark	Verdict
anbotek	Anbor All hotek Anboten Ano	tek abotek Andols	Ann
hote	Test duration (days)	Al motek Anboter	Ano
Pr.	Electric strength test: test voltage (V):	ibolo Ant sotek Anbot	- Aup
B.6	Running overload test for d.c. motors in secondary circuits	Anbotek Anbotek Ant	o <sup>tek</sup> N p
B.6.1	General	And stek Anbotek	AUDO N
B.6.2	Test procedure	k abotek	ANN
B.6.3	Alternative test procedure	len Anby Ar hotek	Nobote
B.6.4 Mabo	Electric strength test; test voltage (V):	botek Anbolo Ant	K N Anbo
B.7 Anb	Locked-rotor overload test for d.c. motors in secondary circuits	Anbotek Anbote Ant	otek N A
B.7.1	General Model And	Anbou Ann Sotek	nboten
B.7.2	Test procedure	Anbote, And Atek	Neek
B.7.3	Alternative test procedure	10N -10U	Nyotek
B.7.4 http://boter	Electric strength test; test voltage (V):		Ň
B.8	Test for motors with capacitors	(see appended table 5.3)	N Ant
B.9	Test for three-phase motors	(see appended table 5.3)	N P
B.10	Test for series motors		N
Anboro	Operating voltage (V):	And rek	nboro
Anbote.	And stek enbotek Anbor An	ek anboten Anbo	botek
C Anboten	ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3	3) te. Anbor	N
an ho	Position:	bo h ,botek Anbote	Anu
rek n	Manufacturer:	hotek Anbr	ter An
Dor Pr	Type	Anboto Ant otek	nboten_
Anboro	Rated values:	Anbote, And stek	abotek
Anboten	Method of protection	k Anboten Anbo	botek
C.1 Anbotek	Overload test	stek subotek Amboti	N
C.2	Insulation his safet provide Ant	tek abotek Anbote	NAND
rek pr	Protection from displacement of windings:	inbor An hotek Anbo	N AN
05	hotek Anboten Anbo A.	Note Ann	_10K
No. No.		DUCH-CURRENT TESTS	N
Dibotek Dibotek	ANNEX D, MEASURING INSTRUMENTS FOR TO (see 5.1.4)		¥

pE <sup>ek</sup>	ANNEX	E, TEMPERAT	URE RISE C	OF A WINDING	(see 1.4.13)	Anbor	P. M. OreKN
npotek	Anbor	An. wotek	Anboten	Anbo	h. botek	Anbore	Ant

	ANNEX F, MEASUREMEN	T OF CLEAR	ANCES ANI	D CREEPAGE D	DISTANCES	And N
- ak	(see 2.10 and Annex G)	An	nboten	Anbe	n botek	Anbore
		LCC.	1/5/		AV	



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a hotek	EN 60950-1	ND II Stek Antolie	Anv
Clause	Requirement – Test	Result - Remark	Verdict
Anbo	Anbotek Anbote Anto otek An	botek Anbor An botek	Anbo
G Anbo	ANNEX G, ALTERNATIVE METHOD FOR DETE CLEARANCES		er N Pr
G.1	Clearances	Anbo ok botek An	P <sup>oter</sup> N
G.1.1	General house house house	Anbois K An sotek	nbotN
G.1.2	Summary of the procedure for determining minimum clearances	Anbotek	AndNtek
G.2 hotek	Determination of mains transient voltage (V)	por All Lotek Anboten	Nupp
G.2.1	AC mains supply	Anboten Anbotek anbot	N AP
G.2.2	Earthed d.c. mains supplies	Anbotek Anboy ek al	ote <sup>K</sup> N
G.2.3	Unearthed d.c. mains supplies	nbotek Anbote An	N
G.2.4	Battery operation	K abotek Anboten	N.ek
G.3 Anbotek	Determination of telecommunication network transient voltage (V)		Anbot Anbot
G.4 Anbor	Determination of required withstand voltage (V)		N
G.4.1 Ambo	Mains transients and internal repetitive peaks	:	k N
G.4.2	Transients from telecommunication networks	:	N
G.4.3	Combination of transients		N
G.4.4	Transients from cable distribution systems	Anbu tek abotek	AnbRic
G.5 MOL	Measurement of transient voltages (V)	ster inbor Ar notek	Noote
Aupor	a) Transients from a mains supply	abote Anvote Ant	N N
sk Aupor	For an a.c. mains supply	iboten Ano	Kek N
otek An	For a d.c. mains supply	hoter Anboten Anb	N
otek	b) Transients from a telecommunication network	Anu otek anbotek A	abot N
G.6	Determination of minimum clearances	Anbu tek botek	AnDN
Anbu	An notek Anbote. And atek and	otek Anbor An botek	Anbote
H Anbor	ANNEX H, IONIZING RADIATION (see 4.3.13)	abotek Anbote And ate	N
Anboth	And stek sphotek Anbour A	hotek Anboten Anbo	rek.
Jtek Ant	ANNEX J, TABLE OF ELECTROCHEMICAL PO	TENTIALS (see 2.6.5.6)	N
dek	Metal(s) used	: Steel	
Anberrek	abotek Anbota		
K Anbor	ANNEX K, THERMAL CONTROLS (see 1.5.3 an	nd 5.3.8)	N
K.1 Anbote	Making and breaking capacity	No thermostat and temperatrue limiter used for thermal control circuit	N Anb
K.2 Anb	Thermostat reliability; operating voltage (V)	abotek Anboten Anbo	ote <sup>K</sup> N
K.3	Thermostat endurance test; operating voltage	Anbotek Anboten A	NK



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Clause	Requirement – Test	Result - Remark	Verdic
abotok	Anbort All wotek Anborten Anbo	tok abotek Anbote	And
K.4 Anbotek	Temperature limiter endurance; operating voltage (V)	botek Anbotek Anboten	N <sup>nb</sup>
K.5 Ambo	Thermal cut-out reliability	botek Anbote And	Ker N
K.6	Stability of operation	An hotek Anboten An	N
to tek	Amboten Ambo wak worken Ambote	And stek anbotek	Anbor
Anbotek	ANNEX L, NORMAL LOAD CONDITIONS FOR SOBUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)	OME TYPES OF ELECTRICAL	AnPro
L.1 Anboten	Typewriters	otek Anbotek Anbot	N
2 nbo	Adding machines and cash registers	be tek nbotek Anbot	N
3	Erasers	Anbo Lek abotek Ant	N
4	Pencil sharpeners	Anboy An notek	nb <sup>oten</sup>
1.5°°°	Duplicators and copy machines	Anbort, Am. An.	AntNtek
6Anbole	Motor-operated files	10°, 20°,	Npo
7 Anboton	Other business equipment		Р
sk Anbot	And		K
N <sub>te</sub> k an	ANNEX M, CRITERIA FOR TELEPHONE RINGIN	IG SIGNALS (see 2.3.1)	Ν
VI.1 tek	Introduction		Ν
VI.2	Method A	Anb tek botek	AntoNto
M.3	Method B	ok nbor An notek	Noo
M.3.1 Anto V	Ringing signal	pote. Anvote Anti-	N
M.3.1.1 Anbol	Frequency (Hz)	ibote. And	,tek
M.3.1.2	Voltage (V):	hote. Anboten Anb	tek-
M.3.1.3	Cadence; time (s), voltage (V)	All sotek Anboten A	nbo ek
M.3.1.4	Single fault current (mA)	Anu otek Anbotek	Anbor
M.3.2	Tripping device and monitoring voltage	And tek anbotek	PN00
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage	otek Anbotek Anbotek Anbotek	NAM
M.3.2.2	Tripping device	knotek knotek Anbo	N
M.3.2.3	Monitoring voltage (V):	70.M. 16, 17	N
tup-	abotek Anbote		
N Anbot	ANNEX N, IMPULSE TEST GENERATORS (see 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)	1.5.7.2, 1.5.7.3, 2.10.3.9,	N
N.1	ITU-T impulse test generators	bek shotek Anboten	NAN
N.2	IEC 60065 impulse test generator	nbor An hotek Anbo	N
br Pur	ak hoten Anbu h. tek	abore And	otek



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Clause	Requirement – Test	Result - Remark	Verdict
apoten	And k otek anbou An	tok shoten Anbo	
Q	ANNEX Q, Voltage dependent resistors (VDRs) (s	ee 1.5.9.1)	Napo
Pur.	- Preferred climatic categories:	Considered	N PL
oro. An	- Maximum continuous voltage:	Anboten Anbo	o <sup>tek</sup> N
nboten	Body of the VDR Test according to IEC60695-11- 5	Anbotek Anbor An	Anboth
Antotek	Body of the VDR. Flammability class of material (min V-1)	en and Andotek	N <sup>n</sup> A

ibp.RK Anbo	ANNEX R, EXAMPLES OF REQUIREMENTS FOR PROGRAMMES	R QUALITY CONTROL	N AM
R.1 A	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)	Anbotek Anbotek	anbotek N
R.2	Reduced clearances (see 2.10.3)	And tok botek	NnA

S And	ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)	N Anb
S.1	Test equipment	K N D
S.2	Test procedure	N
S.3	Examples of waveforms during impulse testing	N
hunotek	Anboten And tek nootek Anboten Anotek Anboten	Anbor
- Plan	ANNEX T OURANGE ON PROTECTION ACAINOT INOREGO OF WATER	, boy

T	ANNEX T, GUI	DANCE ON	PROTEC	TION A	GAINST ING	RESS O	F WATE	Roter	N
	(see 1.1.2)							All stek	
	16 A.Y.			1 (h) h	and the second s		LON'	-0-	

Utek P	ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)						DAY ANY ANY ANY		Notek
Anbote	kno otek	Anbotek	Anbou	A. hotek	(see appended	table 1.5.1)	aborek		
Anboten	And	abotek	Anborsk	An	K Anbotek	Anbo	-bott		
V spoter	ANNEX V. A	C POWER	DISTRIBUTION	SYSTEMS	S (see 1.6.1)	Anbot	N		

V Anbore	ANNEX V, AC POWER DISTRI	BUTION SYS	TEMS	6 (see 1.6. <sup>-</sup>	1)oote	And	N	hote
V.1	Introduction	Anboten	Aur	otek	anbotek	Anbor	N	
V.2	TN power distribution systems	Anboten	1	nbc tek	nbotek	Anbo	N	Pur

W	ANNEX W, SUMMATION OF TOUCH CURRENTS	N
W.1.100	Touch current from electronic circuits	N
W.1.1.10000	Floating circuits	stek N nbo
W.1.2 MOO	Earthed circuits	ek N
W.2	Interconnection of several equipments	Anbo
W.2.1	Isolation	Propos Nr
W.2.2	Common return, isolated from earth	Anbon



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W.2.3	Common return, connected to protective earth	tek Anboten Ano	N <sup>nbc</sup>
Aupo	Anno Anno Anno Anno Anno Anno Anno Anno	nbotok Anbote And	en A
X An	ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)	Anbotek Anbotek An	o <sup>tek</sup> N
X.1 dek	Determination of maximum input current	Anbo tek anbotek	Anboter N. K
X.2	Overload test procedure	A. nbotek	Ann
Aupo	ak unbotek Anbou Att notek Anbo	ten Anbu Al. Al.	Anbo
Y Anbo	ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING	G TEST (see 4.3.13.3)	N N
Y.1	Test apparatus	anbotek Anbote Any	otek N
Y.2	Mounting of test samples	An Anboten Anboten An	Ň
Y.3 oten	Carbon-arc light-exposure apparatus:	An botek Anboten	Nek
Y.4 potek	Xenon-arc light exposure apparatus:	All rok polok	N N
All' note	ik Anbotok I	1	Aupo
Z	ANNEX Z, OVERVOLTAGE CATEGORIES (see 2	2.10.3.2 and Clause G.2)	N PO
ten Pur	atek anbotek	, ,	k
AA	ANNEX AA, MANDREL TEST (see 2.10.5.8)		N
Anbotek	Anbor Ar bolek Ar ten	and r	noto
BBAnbotek	ANNEX BB, CHANGES IN THE SECOND EDITIO	N nbotek Anbote	prov-
nbote	Anbold An hotek	wotek Anbote	Pao
CC	ANNEX CC, Evaluation of integrated circuit (IC) cu	urrent limiters	NAM
CC.1	General	hotek Anb	N N
CC.2	Test program 1:	Anbote K Ann otek	Notek
CC.3	Test program 2:	Anboten Anbo	nb N <sup>K</sup>
Anbote	And stek anbotek Anbot An An	ek Anboten Anbo	abote
DD Anbote	ANNEX DD, Requirements for the mounting mean	ns of rack-mounted equipment	N
DD.1	General General	tek potek Anbote	NAM
DD.2	Mechanical strength test, variable N:	knbot An botek Anbr	N
DD.3	Mechanical strength test, 250N, including end stops	Noto Alin	<sup>-xen</sup> N
	Compliance		N
DD.4	Anboten And tek aboten And	K sotek Anbots	Aur
And hotel		nt/media shredders	N.nb
Anbe	ANNEX EE, Household and home/office document		
EE Anbotek	ANNEX EE, Household and home/office documen General	hbotek Anbote An	N P
EE Antotek EE.1 Anto	Pr. Ner Mar	Anbotek Anbotek Anbo	te <sup>k</sup> N p
DD.4 EE EE.1 EE.2	General	Anbotek Anbotek Anbotek Anbo	T. T. T.



N.	EN 60950-1	Anbote K And wotek
)	Requirement – Test	Result - Remark
poter	Anor K sotek Anborn And	sk boten Anoo
hote	Inadvertent reactivation test	poor An sotek Anbote
Anna	Disconnection of power to hazardous moving parts	Arbotek Anbotek Anb
P	Use of markings or symbols	Ant otek Anbotek P
<sup>e</sup> K	Protection against hazardous moving parts	And tek anbotek
Nor	Test with test finger (Figure 2A)	

Test with wedge probe (Figure EE1 and EE2) ....:

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₀∘ <sup>v</sup> Pa	ige	28 c	of 55	Report No.	: SZAWV	V1805240	005-02S	

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#### Shenzhen Anbotek Compliance Laboratory Limited Page 29 of 55 Report No.: SZAWW180524005-02S

Anboten	Anbo otek Anbotek	EN 60950-1	Anbotek Anbou	hunbotek
Clause	Requirement – Test	Anbort An.	Result - Remark	Verdict
1× C	14	V ofen Vub-	No.	P.C.

#### ATTACHMENT TO TEST REPORT IEC 60950-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Information technology equipment – Safety –

nation technology equipment – Sale

Part 1: General requirements

Differences according to.....: IEC 60950-1:2005+A1:2009+A2:2013

Attachment Form No...... EU\_GD\_IEC60950\_1E

Master Attachment Date 2013-09

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#### IEC 60950-1:2005+A1:2009+A2:2013

lause	Requirement + Test	Result - Remark	Verdict
otek A	Clauses, subclauses, notes, table IEC60950-1 and it's amendmets a	es and figures which are additional to those in are prefixed "Z"	
Contents	Add the following annexes: Annex ZA (normative)	Normative references to international publications with their corresponding European publications	Anbore Anbore
	Annex ZB (normative)	Special national conditions	*ok
	Annex ZD (informative)	IEC and CENELEC code designations	poro
42:2013)	for Anboten Anbo	flexible cords	Anbotek
Seneral	according to the following list:	he reference document (IEC 60950-1:2005)	AnbP
Anbotek	1.4.8 Note 2 1.5.1 1.5.8 Note 2 1 Note 4, 5 & 6	Note 2 & 3         1.5.7.1         Note           1.5.9.4         Note         1.7.2.1	sk An
	2.2.3 Note 2.2.4	Note 2.3.2 Note	poten
		Note 2         2.6.3.3	-18K
	2.7.1 <b>Note</b> 2.10.3.2	<b>Note</b> 2 2.10.5.13 <b>Note</b>	
	3.2.1.1         Note         3.2.4           4.3.6         Note 1 & 2         4.7           Note         1000000000000000000000000000000000000	Note 3.         2.5.1         Note 2           Note 4         4.7.2.2	K An-
		5.1.7.1 <b>Note</b> 3 & 4 5.3.7	Jolek Ar
	6 Note 2 & 5 6.1.2.1 Note	Note 2 6.1.2.2	hotek
		Note 2 6.2.2.2	

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50.H	EN 60950-1	sk anbore
Clause	Requirement – Test Result - Remark	Verdict
boter	And the notek Andore And ook botek And	Do. Br.
	1 & 2 poten And a potek And	aboten Anbi
Anbo	G.2.1 Note 2 Annex H Note 2	pri
Seneral A1:2010)	Delete all the "country" notes in the reference document (IEC 60950-	Anbol P A
	1:2005/A1:2010) according to the following list:	Anboter
	1.5.7.1 Note 6.1.2.1 Note 2	K wotek
woter.	6.2.2.1 Note 2 EE.3 Note	And
Seneral	Delete all the "country" notes in the reference document (IEC 60950-	otek AnPter
42:2013)	1:2005/A2:2013) according to the following list:	od to
	2.7.1 Note * 2.10.3.1 Note 2	Autoro Aut
	6.2.2. Note	potek Al
	* Note of secretary: Text of Common Modification remains unchanged.	Ann
	potek Anbor An otek Anboten Ano ok notek	Anbore
yo. Pr	tek aboten Andre K atek Andore An	t hoten
.1.1tek	Replace the text of NOTE 3 by the following.	P.ex
A1:2010)	NOTE 3 The requirements of EN 60065 may also be used to meet safety requirements for mul equipment. See IEC Guide 112, Guide on the safety of multimedia equipment. For television s	Itimedia
Anbou	60065 applies.	
.3.Z1	Add the following subclause:	N
	1.3.Z1 Exposure to excessive sound pressure	Ar
	The apparatus shall be so designed and	6
	constructed as to present no danger when used	
	for its intended purpose, either in normal	
	operating conditions or under fault conditions,	
	particularly providing protection against exposure	stek anbout
	to excessive sound pressures from headphones	not not
	or earphones.	nbore Ans
	NOTE Z1 A new method of measurement is described	hoteh An
	in EN 50332-1, Sound system equipment: Headphones and earphones associated with portable	Ann
	audio equipment - Maximum sound pressure level	Anbore
	measurement methodology and limit considerations -	botek
	Part 1: General method for "one package equipment",	AUD
	and in EN 50332-2, Sound system equipment: Headphones and earphones associated with portable	tek anbore
	audio equipment - Maximum sound pressure level	N wot
	measurement methodology and limit considerations -	boter And
	Part 2: Guidelines to associate sets with headphones	notek ant
12:2011	coming from different manufacturers.	And
(12:2011)	In EN 60950-1:2006/A12:2011	Anbotek N
	Delete the addition of 1.3.Z1 / EN 60950-1:2006	_tek
	Delete the definition of 1.2.3.Z1 / EN 60950-	
botek P	1:2006/A1:2010	
1, botek 5.1, botek	1:2006/A1:2010	N
.5.100tek	1:2006/A1:2010       Add the following NOTE:	bote An-
.5.1.000K	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU:	bote An-
	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC	hote N Ante Ante
Added info*)	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC         New Directive 2011/65/11 *	Anbotek Ant
Added info*)	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC         New Directive 2011/65/11 *         In addition, for a PORTABLE SOUND SYSTEM,	bote Ann Annotek Ant Annotek Ant
Added info*)	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC         New Directive 2011/65/11 *         In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that	Anbotek Ant
Added info*)	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC         New Directive 2011/65/11 *         In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that excessive sound pressure from earphones and	Anbotek Ant
.5.1 Added info*) .7.2.1 A1:2010) .7.2.1	1:2006/A1:2010         Add the following NOTE:         NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC         New Directive 2011/65/11 *         In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a warning that	Anbotek Anb

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ause	Requirement – Test	Result - Remark	Verdict
ause	Requirement – Test	Result - Remark	Verdici
12:2011)	Delete NOTE Z1 and the addition for Portable	tok Anbor An-	, nbo
nbotel	Sound System.	tek botek Anbor	p.v.
	Add the following clause and annex to the	ibore Ant tek abo	er Ar
	existing standard and amendments.	hotek Anbois An	Yer
	Zx Protection against excessive sound pressur	e from personal music	
	players		botek
botek	Zx.1 General	tek Anborb	N.ex
	This sub-clause specifies requirements for	s notek	Anbor
	protection against excessive sound pressure from	ten Anbe And	tod.
	personal music players that are closely coupled	k sotek Anbore	Ann
	to the ear. It also specifies requirements for	boter Ante Ante not	ek An
	earphones and headphones intended for use with	atek Anboten Anbo	You
	personal music players.	Anor A. stek an	ote
	A personal music player is a portable equipment	aboten Anbo A	hotek
	for personal use, that:	A" stek suboten	AUD. K
	is designed to allow the user to listen to recorded	Anbor An Atek	anboten
	or broadcast sound or video; and primarily users	and Mas	P
	headphones or earphones that can be worn in or		Anbo
	on or around the ear; and allows the user to walk		1
	around while in use.		PI
	NOTE 1 Examples are hand-held or body-worn		h.
	portable CD players, MP3 audio players, mobile		
	phones with MP3 type features, PDA's or similar equipment.		
		And real	noto
	A personal music player and earphones or headphones intended to be used with personal	k notek anboten	Anv
	music players shall comply with the requirements	sh np h notek	Anbore
	of this sub-clause.	ater Anvoten Anbe	, n .
	The requirements in this sub-clause are valid for	by h. notek nabote	Anc
	musci or video mode only.	No. K	tek .
	The requirements do not apply:	ate suboten Anb	N.
	aler ho	Anboy An atek	aboter
	while the personal music player is connected to an external amplifier; or	aboten Anbo	atek
	NOT AT ANY	All stek subotek	Anbo
	while the headphone or earphones are not used.	K Anbor An tek	abote
aboten	NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening	rek botek Anbor	Pro
	device, but which is intended to play the music as a	or Ann tek stote	Anb
	standalone music player.	botek Anbor An	Kek.
	The requirements do not apply to:	kni jek botek Anb	P
	hearing aid equipment and professional	Hore Ann	_tek
	equipment;		
	NOTE 3 Professional equipment is equipment sold		
	through special sale s channels. All products sold		
	through normal electronics stores are considered not to	K wotek anbore	Aur
	professional equipment.	oten Anbour A. atel	- nbc
	analogue personal music players (personal music	tek spoten Anbo	N. Pr.
	players without any kind of digital processing of	nbor All stek nbc	ler A
	the sound signal) that are brought to the market	botek Anboy An	stek
Not	before the end of 2015.	Ann let motek A	por
	NOTE 4 This exemption has been allowed because	Anbour Ann ok	NK
	this technology is falling out of use and it is expected	N bolo	QU.

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NOV-	EN 60950-1	All noter	RUP
Clause	Requirement – Test	Result - Remark	Verdict
anb <sup>oter</sup>	And an hotek Anbolt An	ok spotek Anbo	
	exemption will not be extended to other technologies.	All tek aboter	Aupo
	For equipment which is clearly designed or	notek Anbor An	No
	intended for use by young children, the limits of	no k sotek Anbo	P
	EN 71-1 apply.	aboten Anbe	otek
1ek	Zx.2 Equipment requirements	All boton Ar	N
	No safety provision is required for equipment that	Anbore An	boten
	complies with the following:	tek nbolo	Ann
	equipment provided as a package (personal	A. stek	nbote.
	music player with its listening device), where the	Anbo.	P
		And K otek	Anbo
	acoustic output $L_{Aeq,T}$ , is $\leq 85$ dBA measured	tek boten Anos	19
	while playing the fixed "programme simulation	about Att. bot	er pr
	noise" as described in EN 50332-1; and a	stek suboto Ant	X
	personal music player provided with an analogue	And hatek and	OTO
	electrical output socket for a listening device,	hoten Anbo	.tek
	where the electrical output is $\leq 27 \text{ mV}$	And K wotek	Lupo.
	measured as described in EN 50332-2, while	, aboter And	Notek
	playing the fixed "programme simulation noise" as	All tek shoten	Anos
	described in EN 50332-1.		hot
	NOTE 1 Wherever the term acoustic acoustic output is		Ann
	used in this clause, the 30 s A-weighted equipment		- 0
	sound pressure level LAeq,T, is meant.		Pr.
	See also Zx.5 and Annex Zx.		6
	All other equipment shall:		
	a) protect the user from unintentional acoustic		
	outputs exceeding those mentioned above; and		
	b) have a standard acoustic output level not	Anbe	nboro
	exceeding those mentioned above, and	K boten Anbo	per ste
	automatically return to an output level not	a notek notek	Anbo.
	exceeding those mentioned above when the	ate nuote And	
	power is switched off; and	bo At tek pote	AUI
	c) provide a means to actively inform the user of	ipo. Air	V.e.V.
	the increased sound pressure when the	botek Anb	0
	equipment is operated with an acoustic output	abote. Ano	otek
	exceeding those mentioned above. Any means	An ok boten	up.
	used shall be acknowledged by the user before	Antone Antonek	hotek
	activating a mode of operation which allows for	Ai stek subote	AUD
		ek Aupor Air tek	bote
	an acoustic output exceeding those mentioned	at hotek anbor	Pr.
	above. The acknowledgement does not need to	potek Anbor k An.	e ont
	be repeated more than once every 20 h of	tek aboten Anbo	N. Pr
	cumulative listening time; and	Anbour An-	den 1
	NOTE 2 Examples of means include visual or audible signals. Action from the user is always required.	otek Anboro Ano	~X
	NOTE 3 The 20 h listening time is the accumulative	NO. Pr	746.4
	listening time, independent how often and how long the		
	personal music player has been switched off.		
	d) have a warning as specified in Zx.3; and		
		r wet hote	Au-
	e) not exceed the following:	stek suboto And	( L
	1) equipment provided as a package (player with	hek abote	And
	Its listening device), the acoustic output shall be $\leq$	sotek Anbor An	e.K
	100 dBA measured while playing the fixed	Anu- K stek snoc	P
	"programme simulation noise" described in EN	boten Anbour An	1ek
	50332-1; and	Any wet notek a	abor.
	2) a personal music player provided with an	abote, Ano	Lotek
	analogue electrical output socket for a listening	All Lek boten	Anbu
	device, the electrical output shall be $\leq 150 \text{ mV}$	N NOLO DINY	10

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Clause	Requirement – Test	Result - Remark	Ver
botek	Anbors Ano otek anboren Anbo	K hotek Anborts	Pur
Pr.	measured as described in EN 50332-2, while	de Anna K note	14
	playing the fixed "programme simulation noise"	tek aboten And	No. 1
	described in EN 50332-1.	hor All tok ab	oter
	For music where the average sound pressure	otek Anbore An	Yay
	(long term $L_{Aeq,T}$ ) measured over the duration of	Anbe	nporo
	the song is lower than the average produced by	botek Anbo	10
	the programme simulation noise, the warning	Ant botek	Anbo
	does not need to be given as long as the average	And K	
	sound pressure of the song is below the basic	poter	PUP
	limit of 85 dBA. In this case T becomes the	ster And All te	4
	duration of the song.	k botek Anbort	P
	NOTE 4 Classical music typically has an average	boten Anbe	tek
	sound pressure (long term $L_{Aeq,T}$ ) which is much lower	the boten Anb	
	than the average programme simulation noise.	Anbore Ann	hoten
	Therefore, if the player is capable to analyse the song	tek nbote p	'un
	and compare it with the programme simulation noise,	Anbo An tek	npote
	the warning does not need to be given as long as the	hotek anbot	100
	average sound pressure of the song is below the basic	An-	Anbo
	limit of 85 dBA.	101 State	8
	For example, if the player is set with the programme		P
	simulation noise to 85 dBA, but the average music		
	level of the song is only 65 dBA, there is no need to		
	give a warning or ask an acknowledgement as long as		6
tek.	the average sound level of the song is not above the basic limit of 85 dBA.		
p <sup>o-</sup> P	Zx.3 Warning		
	The warning shall be placed on the equipment, or	Anbo	nbo
	on the packaging, or in the instruction manual	k botek Anbo	Pri
	and shall consist of the following:	to notek notek	D.Y
	the symbol of Figure 1 with a minimum height of 5	ate nuoto Anu	
	mm; and the following wording, or similar:	po Artek nbo	Ke
	"To prevent possible hearing damage, do not	100 21	*ek
	listen at high volume levels for long periods."	potek At	100
	in tek	abote And	potek
	mbore A Ambo	At tek abotet	PUP
	tek	Anboy Ar sek	pot
	Anbo	k hotek Anbor	Pr.
	hotek A hotek abot	And And wotek	20
		tek aboten Anbo	N.
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	por All Lok ho	ler
		Lotek Anbore And	10 Mar
	beek ant boten	know here arek	boro
		noter Anbo A.	-vek
	Figure 1 – Warning label (IEC 60417-6044)		
	Alternatively, the entire warning may be given		
	through the equipment display during use, when		
	the user is asked to acknowledge activation of the	200	An
poter	higher level.	the notek Anbor	br.
Pur	Zx.4 Requirements for listening devices (head)	phones and earphones)	ek -
k pho	Zx.4.1 Wired listening devices with analogue	stek suboter And	N N
	input model And ak notek	Anbor An Ak	ooler
	With 94 dBA sound pressure output LAeq,T, the	kotek Anbore An	Ya
	input voltage of the fixed "programme simulation	And	Achoro
	noise" described in EN 50332-2 shall be $\geq$ 75 mV.	boten Anbo	Pro al
	This requirement is applicable in any mode where		Anbor
	the headphones can operate (active or passive),	ale, and	187

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#### Shenzhen Anbotek Compliance Laboratory Limited Page 34 of 55 Report No.: SZAWW180524005-02S

EN 60950-1				
Clause	Requirement – Test	Result - Remark	Verdict	
boter	Anbo k sotek Anbote And	ok botek Anbo	A	
	including any available setting (for example built-	an Am sek shotek	Anbo	
	in volume level control).	otek Anboro Ant	X	
	lek anbour All Lok boten P	Noo hotek noot	P.	
	NOTE The values of 94 dBA - 75 mV correspond with	hotek Anbo A.	Nex	
N.	85dBA – 27 mV and 100 dBA – 150 mV.	And botek An	00.	
	Zx.4.2 Wired listening devices with digital	Anbote Ant	hoth	
	input And set botek	At stek subote.	And	
	With any playing device playing the fixed	A	aboter	
	"programme simulation noise" described in EN	Anbor	Pr.	
	50332-1 (and respecting the digital interface	ore And And And Botek	Anbo	
	standards, where a digital interface standard	stek nboten And	N.	
	exists that specifies the equivalent acoustic level),	hor An tek pot	an An	
	the acoustic output $L_{Aeq,T}$ of the listening device	hotek Anbor An	*ak	
	shall be ≤ 100 dBA.	And K sotek Ant	or	
	This requirement is applicable in any mode where	boten Anbo	dek	
	the headphones can operate, including any	All tak botek	Aupo	
	available setting (for example built-in volume level		hotek	
	control, additional sound feature like equalization,	here bote	AUD	
	etc.).		nbot	
	Anbo		Pre	
	NOTE An example of a wired listening device with digital input		An	
ek no	is a USB headphone.		10°	
	Zx.4.3 Wireless listening devices		N	
	In wireless mode:			
	with any playing and transmitting device playing			
	the fixed programme simulation noise described	20° ~ V	oto.	
	in EN 50332-1; and	All boten	Anbo	
	respecting the wireless transmission standards,	tek nobore Am	botte	
	where an air interface standard exists that	otek Anbolt	Pu.	
	specifies the equivalent acoustic level; and with	bote. Any	4 ant	
sk abot	volume and sound settings in the listening device	boten Anbo	10 P	
	(for example built-in volume level control,	botek Anb	oten	
	additional sound feature like equalization, etc.)	Ante Antonio Ant	No.Y	
	set to the combination of positions that maximize	Anbe	abore	
	the measured acoustic output for the	boten Anbo	ate <sup>K</sup>	
	abovementioned programme simulation noise,	All boten	Anbo	
	the acoustic output LAeq,T of the listening device	ak Anbore Ant	note	
	shall be $\leq$ 100 dBA. NOTE An example of a wireless	atek nabote	Pur	
And	listening device is a Bluetooth headphone.	totek Anbo A. del	000	
	Zx.5 Measurement methods	ak boten Anbo	N <sup>⊳</sup>	
	Measurements shall be made in accordance with	anbore Ann ak w	tek p	
	EN 50332-1 or EN 50332-2 as applicable.	atek subote And	-V-	
	Unless stated otherwise, the time interval T shall		_*0K	
	be 30 s.			
	boten Anb			
	NOTE Test method for wireless equipment provided without			
271 motek	listening device should be defined.	tek apolo	P P	
2.7.1 Anbou	Replace the subclause as follows:	ptek Anbor An	P	
	Basic requirements	-K sotek Anbolc	PUL	
	To protect against excessive current, short-	aboten Anbe	lek .	
	circuits and earth faults in PRIMARY CIRCUITS,	per poten Anbo	P	
	protective devices shall be included either as	Anbour Ann ok	boten	
		otek nbote Al	No. No.	
	integral parts of the equipment or as parts of the building installation, subject to the following, a), b)	Anbu A. tek	anboten	
		N N	15.35	

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det.	EN 60950-1	An tek aboten	PUD
Clause	Requirement – Test	Result - Remark	Verdict
Anbote Anbotel	a) except as detailed in b) and c), protective devices necessary to comply with the requirements of 5.3 shall be included as parts of the equipment;	tok Anbotek Anbotek Anbotek	ek Anbo
	<ul> <li>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short- circuit and earth fault protection may be provided by protective devices in the building installation;</li> </ul>	Anborek Anborek Anborek	Anbotek Anbotek
ek Anbotek botek Anbo	c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.	Anbotek	otek nbotek
Anbotek Anbotek ak Anbot	If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.	100 <sup>10</sup>	Antoot Anbot
2.7.2	This subclause has been declared 'void'.		N
3.2.3	Delete the NOTE in Table 3A, and delete also in this table the conduit sizes in parentheses.	Anb- rek nbotek	Anbo
3.2.5.1	Replace "60245 IEC 53" by "H05 RR-F"; "60227 IEC 52" by "H03 VV-F or H03 VVH2-F"; "60227 IEC 53" by "H05 VV-F or H05 VVH2-F2".	pote Anborek Anbotek	Anb
	In Table 3B, replace the first four lines by the following: Up to and including 6   0,75 a)	Anbotek Anbotek A	Anbotek
	Over 6 up to and including 10  (0,75) b)         1,0             Over 10 up to and including 16  (1,0) c)         1,5	otek Anbotek Anbotek	Anbote
	In the conditions applicable to Table 3B delete the words "in some countries" in condition <sup>a)</sup> . In NOTE 1, applicable to Table 3B, delete the second sentence.	hotek Anbotek Anbot	tek p
Anbotek	In Table 3D, delete the fourth line: conductor sizes for 10 to 13 A, and replace with the following: Over 10 up to and including 16   1,5 to 2,5   1,5 to 4   Delete the fifth line: conductor sizes for 13 to 16 A	otek Anbotek Anbote otek Anbotek Anbotek	N An- Anb
4.3.13.6 A1:2010)	<b>Replace</b> the existing NOTE by the following: NOTE Z1 Attention is drawn to: 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz, and	Anbotek Anbotek Anbo	Anbotek

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Anbotet	EN 60950-1	Anboten Anbo	nbotek
Clause	Requirement – Test	Result - Remark	Verdict
K Anboten	2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of	botek Anbotek Anbotek	Anbot Anbot
otek Anb	workers to risks arising from physical agents (artifical optical radiation).	Anbotek Anbotek Anbo	otek
	Standards taking into account mentioned Recommendation and Directive which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.	Anbotek Anbote An	N Anboten Anbotek
Annex H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 $\mu$ Sv/h (0,1 mR/h) (see NOTE). Account is taken of the background level.	botek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbot	Niboli k otek
Anbotek Anbotek	Replace the notes as follows: NOTE These values appear in Directive 96/29/Euratom. Delete NOTE 2.	Anbotek Anbotek	Anbotek
Bibliography	Additional EN standards.		

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# NORMATIVE REFERENCES TO INTERNATIONAL PUBLICATIONS WITH THEIR CORRESPONDING EUROPEAN PUBLICATIONS

#### 1.1 ZB ANNEX (normative)

Clause	Requirement + Test	Result - Remark	Verdict
1.2.4.1	In <b>Denmark</b> , certain types of Class I appliances (see 3.2.1.1) may be provided with a plug not establishing earthing conditions when inserted into Danish socket-outlets.	Anbotek And Anbotek Anbotek A	nboteN Anbotek
1.2.13.14	In <b>Norway</b> and <b>Sweden</b> , for requirements see 1.7.2.1 and 7.3 of this annex.	otek Anbotek Anbotek	PN0
1.5.7.1 botek Anbotek	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.1. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.	nbotek Anbotek Anbote Notek Anbotek Anb	NAM <sup>a</sup> te <sup>k</sup> A
1.5.8	In <b>Norway</b> , due to the IT power system used (see annex V, Figure V.7), capacitors are required to be rated for the applicable line-to-line voltage (230 V).	optek Anbotek Anbotek	N An-
1.5.9.4	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , the third dashed sentence is applicable only to equipment as defined in 6.1.2.2 of this annex.	Anbotek Anbotek Anbo	le <sup>k</sup> N Ar
1.7.2.1	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall,	Anbotek Anbotek A	Anbotek

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lause	Requirement – Test	Anbe	Resul	t - Remark	Antek	Verdict
aboter	And	Anboto	Ann	botek	Anbo	p.c.
	if safety relies on connect if surge suppressors are network terminals and ac marking stating that the connected to an earthed	connected betweet ccessible parts, have equipment must be	n the /e a			ak Al
	The marking text in the a be as follows:	applicable countries	shall			Anbotek
	In <b>Finland</b> : "Laite on liite varustettuun pistorasiaa		milla			Anbor
	In <b>Norway</b> : "Apparatet m stikkontakt"	nå tilkoples jordet	Anbe			K An
	In <b>Sweden</b> : "Apparaten : uttag"	skall anslutas till jor	dat Anbote			otek
7.2.1 11:2009)	In <b>Norway</b> and <b>Sweden</b> distribution system is nor entrance of the building equipotential bonding sy Therefore the protective installation need to be is a cable distribution system	rmally not earthed a and there is normal stem within the buil earthing of the buil olated from the scre	at the Ily no Iding. ding	nbotek P		Anbotek Anbotek Anbot
	It is however accepted to external to the equipmer interconnection cable wir may be provided by e.g. The user manual shall th	nt by an adapter or a th galvanic isolator, a retailer.	an which	Anbotek		Anbote
	similar information in No language respectively, d country the equipment is	rwegian and Swedi epending on in wha	sh at			Ant
	"Equipment connected to of the building installation connection or through ot connection to protective distribution system using	n through the mains her equipment with earthing – and to a	a cable			nbotek Anbotek
	some circumstances cre Connection to a cable di therefore to be provided providing electrical isolat	ate a fire hazard. stribution system ha through a device	ashinota			Anbote
ek An	frequency range (galvan 60728-11)."		al ho	lek Anbo	ek Anbr	rer b

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Clause	Requirement – Test		Result - Remark	Verdict
botek	Anbort Ant	K Anbotek Anbo	ak hotek Anbote	prov
tek Anbot	cable distribution systems,		stek subote Ani	Anbotek Anbotek
	Translation to Norwegian also be accepted in Nor		Anbotek Anbotek	Anbotek
		net jordtilkoplet utstyr – V nett, kan forårsake dette skal det ved abel-TV nettet installeres		k Anbote otek Anb
	nettet."	llom utstyret og kabel- T	V Anbotek Anbotek	Anbotek
	Translation to Swedish: "Utrustning som är kopp jordat vägguttag och/elle		Anbotek Anbotek	Anbote Anbote
	och samtidigt är kopplad vissa fall medfőra risk fő detta skall vid anslutning	l till kabel-TV nät kan i r brand. Főr att undvika		Anbr
ek Anb	kabel-TV nät galvanisk i utrustningen och kabel-	solator finnas mellan ГV nätet."		r F
1.7.2.1 A2:2013)	other equipment or a ne on connection to protect	ntended for connection to twork shall, if safety relie	s Anbe rek anbotek	Anbore
	terminals and accessible stating that the equipme an earthed mains socke	nt must be connected to	nbote. Anvotek Anbo	nbotek Ar
jotek A	In Denmark: "Apparatet	mark shall be as follows s stikprop skal tilsluttes som giver forbindelse til	Anbotek Anbotek	Anbotek Anbotek
1.7.5 Anbotek	In <b>Denmark</b> , socket-out other equipment shall be Heavy Current Regulation	lets for providing power to e in accordance with the ons, Section 107-2-D1, a, DK 1-5a or DK 1-7a,	tek anbotek Anbo	tek Anbol
	when used on Class I eo STATIONARY EQUIPM	quipment. For	Anbotek Anbote Ar	Anbotek
	D.1.	he socket outlet shall be		

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Clause	Requirement – Test	Result - Remark	Verdict
horek	Anbater Andre tek above	Anbolo Kincolek An	botek Puper
I. <b>7.5</b> A2:2013)	In <b>Denmark</b> , socket-outlets for provide other equipment shall be in accordar DS 60884-2-D1:2011.		Anbotek Nnbo
	For class I equipment the following S Sheets are applicable: DK 1-3a, DK DK 1-1d, DK 1-5a or DK 1-7a, with th	1-1c, ne exception	Anbotek Anbotek Anbotek
	for STATIONARY EQUIPMENT whe socket-outlets shall be in accordance Standard Sheet DK 1-1b, DK 1-1c, D DK 1-5a.	e with	Anbotek Anbot
	Socket outlets intended for providing Class II apparatus with a rated current shall be in accordance with DS 6088 standard sheet DKA 1-4a. Other curr socket outlets shall be in compliance DS 60884-2-D1 Standard Sheet DKA	nt of 2,5 A 4-2-D1 rent rating with by	Anbotek Anbotek ek Inbotek Anbotek
Anber Anbotr .2.4	DKA 1-3b. Justification the Heavy Current Regulations, 6c In Norway, for requirements see 1.7		Anb <sup>o</sup> Ar
.3.2	and 6.1.2.2 of this annex. In Finland, Norway and Sweden the additional requirements for the insula 6.1.2.1 and 6.1.2.2 of this annex.	ere are	ote <sup>k</sup> An <sup>bote</sup>
.3.4	In <b>Norway</b> , for requirements see 1.7 and 6.1.2.2 of this annex.	.2.1, 6.1.2.1	unbotek Noo
.6.3.3 Anto	In the <b>United Kingdom</b> , the current circuit shall be taken as 13 A, not 16	A.	Anbore PAn
nbotek	In the <b>United Kingdom</b> , to protect age excessive currents and short-circuits PRIMARY CIRCUIT of DIRECT PLU EQUIPMENT, tests according to 5.3	in the G-IN shall be	Ant Anbotek
	conducted, using an external protect rated 30 A or 32 A. If these tests fail, protective devices shall be included a parts of the DIRECT PLUG-IN EQUII that the requirements of 5.3 are met.	suitable as integral PMENT, so	nbotek Anbot Anbotek An
.10.5.13	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , th additional requirements for the insula 6.1.2.1 and 6.1.2.2 of this annex.	ere are	Anbo _tekN

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Clause	Requirement – Test	Result -	Remark	Verdict
abotek	Anbor An otek inpoten	Anber	botek Anbots	Prov
ex Anbo	In <b>Switzerland</b> , supply cords of equipme having a RATED CURRENT not exceeding shall be provided with a plug complying we 1011 or IEC 60884-1 and one of the follow	ng 10 A vith SEV		otek A
	dimension sheets:	And		Anbore
	SEV 6532-2.1991 Plug Type 15 3P+N+PE 250/400 V, 10 A	Anboten Anbo		Anboto
	SEV 6533-2.1991 Plug Type 11 L+N 250 V, 10 A	holen		K Anbe
	SEV 6534-2.1991 Plug Type 12 L+N+PE 250 V, 10 A	and Andotek		otek Ar
	In general, EN 60309 applies for plugs for currents exceeding 10 A. However, a 16 and socket-outlet system is being introdu Switzerland, the plugs of which are accorr the following dimension sheets, published February 1998:	A plug ced in ding to	ek Anbotek Anb potek Anbotek tek -botek	Anbotek Anbotek Anbotek
	SEV 5932-2.1998: Plug Type 25 , 3L+N+ 230/400 V, 16 A	PE		Ano
	SEV 5933-2.1998:Plug Type 21, L+N, 25	0 V, 16A		
	SEV 5934-2.1998: Plug Type 23, L+N+P 250V, 16 A	E Anboten Ant	otek anbotek	Anbote
3.2.1.1	In <b>Denmark</b> , supply cords of single-phas equipment having a rated current not exceeding13 A shall be provided with a p according to the Heavy Current Regulation Section 107-2-D1.	lug sole	Anvotek Anbotek	hbotek Ant
	CLASS I EQUIPMENT provided with soc outlets with earth contacts or which are in to be used in locations where protection a indirect contact is required according to the rules shall be provided with a plug in according with standard sheet DK 2-1a or DK 2-5a.	ntended against he wiring ordance		Anbotek Anbotek Anbote
	If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply with a plug, this plug shall be in accordant the Heavy Current Regulations, Section 2 or EN 60309-2.	cord coe with		bolek I

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Clause	Requirement – Test	Result - Remark	Verdict
Jause	Intequirement – rest	I Vesuit - I Verhärk	
3.2.1.1 A2:2013)	In <b>Denmark</b> , supply cords of single-p equipment having a rated current not 13 A shall be provided with a plug acc	exceeding	hbotek Nnbr
	DS 60884-2-D1. CLASS I EQUIPMENT provided with	socket-	Anbotek
	outlets with earth contacts or which a to be used in locations where protecti indirect contact is required according	ion against to the wiring	tek Anbote
	rules shall be provided with a plug in with standard sheet DK 2-1a or DK 2-	-5a. And	botek Anbo
	If a single-phase equipment having a CURRENT exceeding 13 A or if a pol equipment is provided with a supply of	y-phase cord with a	Anbou A
	plug, this plug shall be in accordance standard sheets DK 6-1a in DS 60884 EN 60309-2.		ek nbotek
Anboten	Justification the Heavy Current Regulations, 6c	0 <sup>1</sup> /1	Anbo
.2.1.1 Ant	In <b>Spain</b> , supply cords of single-phas having a rated current not exceeding be provided with a plug according to b	10 Å shall	N P
	20315:1994. Supply cords of single-phase equipm rated current not exceeding 2,5 A sha provided with a plug according to UN	all be hind hind have had	atek Anbote
	50075:1993. CLASS I EQUIPMENT provided with outlets with earth contacts or which a	re intended	Anbotek An
	to be used in locations where protecti indirect contact is required according rules, shall be provided with a plug in	to the wiring	Anbotek
	with standard UNE 20315:1994. If poly-phase equipment is provided v cord with a plug, this plug shall be in a		k Anboten
Anbote 3.2.1.1	with UNE-EN 60309-2.	All Albertek Anboten Anb	nbotel NAM
Anbr	In the <b>United Kingdom</b> , apparatus w with a flexible cable or cord and is de- connected to a mains socket conform	signed to be	Anbotek
	1363 by means of that flexible cable of plug, shall be fitted with a 'standard p accordance with Statutory Instrument	lug' in	76 G v.
	- The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted to regulations.		oto An-
	NOTE 'Standard plug' is defined in SI 176 essentially means an approved plug confe		nbore An

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Clause	Requirement – Test	Result - Remark	Verdict
hin hotek	Anboten Anbo	Ambors K rotek An	poter Anbo
.2.1.1 Anbo ek Anbotek	In <b>Ireland</b> , apparatus which is fitted with a cable or cord and is designed to be conner a mains socket conforming to I.S. 411 by of that flexible cable or cord and plug, sha fitted with a 13 A plug in accordance with Statutory Instrument 525:1997 - National Standards Authority of Ireland (section 28 Plugs and Conversion Adaptors for Dome Use) Regulations 1997.	ected to means Ill be ) (13 A	Anbotek Nnbo Anbotek An ek Anbotek potek Anbotek
.2.4 Anbo	In <b>Switzerland</b> , for requirements see 3.2. this annex.	1.1 of Modek Anbotek	Anbotek An
.2.5.1	In the <b>United Kingdom</b> , a power supply of conductor of 1,25 mm <sup>2</sup> is allowed for equi with a rated current over 10 A and up to a including 13 A.	pment	Antotek N Antotek N
.3.4 Anbotek Anbot	In the <b>United Kingdom</b> , the range of con sizes of flexible cords to be accepted by t for equipment with a RATED CURRENT of 10 A up to and including 13 A is: • 1,25 mm <sup>2</sup> to 1,5 mm <sup>2</sup> nominal cross-sec area.	erminals of over	oten An <b>N</b> Anbot An
3.6 	In the <b>United Kingdom</b> , the torque test is performed using a socket outlet complying BS 1363 part 1:1995, including Amendme 1:1997 and Amendment 2:2003 and the p of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.1 except that the test of 12.17 is performed less than 125 °C. Where the metal earth p replaced by an Insulated Shutter Opening (ISOD), the requirements of clauses 22.2 also apply.	g with ent blug part be 12.3, 7, at not bin is Device	N otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek
3.6° Anbote	In Ireland, DIRECT PLUG-IN EQUIPMEN known as plug similar devices. Such devic comply with Statutory Instrument 526:199 National Standards Authority of Ireland (S 28) (Electrical plugs, plug similar devices sockets for domestic use) Regulations, 19	ces shall 7 - ection and	Anbotek ANbotek Anb

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Clause	Requirement – Test	Result - Remark	Verdict
boten	Anbou Autok Anbotek	Anos wotek Anos	per per
5.1.7.1	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> TOUCH CURRENT measurement results exceedi	ng 3,5 Notes Andrew A	nbotek Nnb
	mA r.m.s. are permitted only for the follow equipment:	otek Anboten Anbe	Anupotek
	STATIONARY PLUGGABLE EQUIPME TYPE A that is intended to be used in RESTRICTED ACCESS LOCATION whe	a botek Anboten Anbo	Anbotek
	equipotential bonding has been applied, f example, in a telecommunication centre;	or	tek Anbou
	has provision for a permanently connecte PROTECTIVE EARTHING CONDUCTOR	d m <sup>oo</sup> R; and o <sup>olek</sup> m <sup>oolek</sup>	hoter And
	is provided with instructions for the installathat conductor by a SERVICE PERSON;	otek Anbore Ant otek	Anbotek
	• STATIONARY PLUGGABLE EQUIPME TYPE B;	Anbotek Anbotek	unbotek
Anbenbotek	STATIONARY PERMANENTLY CONNE EQUIPMENT.	ECTED <sup>®</sup> And the And	lek Anboter
.1.2.1 A1:2010)	In <b>Finland</b> , <b>Norway</b> and <b>Sweden</b> , add the following text between the first and secon		N <sup>100</sup>
	paragraph of the compliance clause:		P.
	If this insulation is solid, including insulation forming part of a component, it shall at lead consist of either		
	- two layers of thin sheet material, each o shall pass the electric strength test below		ek Anbore
	<ul> <li>one layer having a distance through insu at least 0,4 mm, which shall pass the elec strength test below.</li> </ul>		potek Anbo
	Alternatively for components, there is no through insulation requirements for the in- consisting of an insulating compound com filling the casing, so that CLEARANCES a	sulation pletely	Anbotek Anbotek
	CREEPAGE DISTANCES do not exist, if component passes the electric strength te accordance with the compliance clause b and in addition	the offer house house	ek Anboten Jotek Anbot
	- passes the tests and inspection criteria ( 2.10.11 with an electric strength test of 1, multiplied by 1,6 (the electric strength test	5 kV	Anbotek An
	2.10.10 shall be performed using 1,5 kV),	and	_10
	<ul> <li>- is subject to ROUTINE TESTING for ele strength during manufacturing, using a ter voltage of 1,5 kV.</li> </ul>		

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Clause	Requirement – Test	Anbo	Resul	lt - Remark	Verdict
Anbote	Anu Anu Andrew Andrew Andrew	tek Anbor	All an offer	Anboten Anb	wotek Nnb
	It is permitted to bridge optocoupler complying				upo k
	It is permitted to bridge capacitor complying w subclass Y2.	e this insulation v	with a		Anbotak Anbotak
	A capacitor classified S EN 60384-14:2005, m under the following co	ay bridge this ins	sulation		otek Anbotel
	- the insulation require having a capacitor clas EN 60384-14, which ir is tested with an impul EN 60950-1:2006, 6.2	ssified Y3 as def addition to the ` se test of 2,5 kV	ined by Y3 testing,		Anbotek Anbo
	- the additional testing the test specimens as				Anbotek
	- the impulse test of 2, before the endurance sequence of tests as d	test in EN 60384	-14, in the	run rok -pc	Anbor Anbor
0.1.2.2	In <b>Finland</b> , <b>Norway</b> are are applicable for PER EQUIPMENT, PLUGG B and equipment inten RESTRICTED ACCES	MANENTLY CC ABLE EQUIPME ided to be used i	ONNECTED ENT TYPE in a		N pi
	equipotential bonding telecommunication cer provision for a perman	ntre, and which h ently connected	nas Anbore P	Anbotek Anbo	tek Anbote
K Anboten	PROTECTIVE EARTH provided with instruction that conductor by a SE	ons for the instal RVICE PERSO	lation of	Anuotek Ar	Anbotek Ar
.2 An	In <b>Finland</b> , <b>Norway</b> ar requirements see 6.1.2 annex.		of this Andrew Andrew	ote Anbotek	Anbores N Anborek
	The term TELECOMM 6.1.2 being replaced b DISTRIBUTION SYST	y the term CABL			ek Anbotek

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#### Tables

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1.5.1 hote	TABLE: List of critical	components			tek P pot
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition / year)	Mark(s) of conformity <sup>1</sup> )
PCB	Interchangeable	Interchang eable	<b>V-0, 130℃</b>	UL 94	UL Anbotek
Plastic enclosure	Shenzhen Asian Plastics Technology Co., Ltd.	APTFHPS- 1106	PS, V-0	UL 94	UL Anboten tek Anbotek
Coil	Interchangeable	Interchang eable	130 °C	UL 1446	UL Anbote
Cylindrical Lithium-ion Cell	Shenzhen ZhouNeng New Energy Technology CO., LTD	SZNS1865 0- 2500mAh	3.6V, 2500mAh	IEC 62133: 2012	CB JPTUV- 059773
IC.ek Anbr	INJOINIC TECHNOLOGY	IP5310	5V DC	EN 60950-1	Tested with appliance
(-Alternative)	XySemi Inc	XB8086	5V DC	EN 60950-1	Tested with appliance
(-Alternative)	STMicroelectronics	STM8S103	5V DC	EN 60950-1	Tested with appliance
MOS	Alpha & Omega Semiconductor	9926	5V DC	EN 60950-1	Tested with appliance
(-Alternative)	Alpha & Omega Semiconductor	4953	5V DC	EN 60950-1	Tested with appliance

1.6.2 And	TABLE: ele	ectrical data te	est (in norn	nal conditio	ons)	Anvou An An botek PAn
fuse #	I rated (A)	U (V)	P (W)	I (A)	I fuse (A)	condition
poter P	2.0	Anboten 5	9.0	1.8	Anbote	Normal operation and Max. Loaded.
Anbot Anbotek	2.0	Anboten 5 Anbotek	6.76	1.352	ek Anb	Normal operation and supplied by 5V DC source, chargered ar empty battery. Charged mode.
Anbote	Anb otek - Anbo	4.2 mbols	4.85	1.157	Anbotek	Normal operation and supplied by internal full battery. Discharged mode.

2. <sup>-</sup> 1)	1.1.5 c)	TABLE: m	nax. V, A, VA test	oten Anb		k hoto	P .
	Voltage ( (V)	rated)	Current (rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (ma (VA)	x.)
- oto	ek 50	ptek Ar	2.0	5.14	3.1	15.5	-K AT
Re	emark:	npotek	Anbor An	hotek Anboten	Aupo	abotek Ar	bore

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2.1.1.5 c) 2)	TABLE: s	tored energy	Anbotek Anbotek	Anbote Anbote	Anbote Anbote	otek Anbo	tek Anbore
Capacitance C (µF)		Voltage U (V)			Energy E (J)		
oro An	wotek	Anbotek Anb	- Welt	botek A	nbote. P	Inp Tek	nbotek I
Remark:	numotek	Anbotek A	nbor An	potek	Anboten	Anbo	n potek

1. C.M.	<sup>o</sup> da a				6	200 <sup>1-</sup>	D'II.
2.2 M	ABLE: evaluat	on of voltage limiting	component	s in SELV	circuits	Annotek	N <sub>nbote</sub>
Locat	tion	Voltage measur	rement (V) Comments				
Component (r	neasured betwe	en)		ltage (V) operation)	Voltage	ELimiting C	omponents
Transformer	Location		V peak	V d.c.	]		
Ann	Anbotek	unbo. A. Lotek	Anboter	Ano	1.0X	, botek	Anbort
Fault test perf	ormed on voltag	e limiting components	Vo		sured (V) peak or \	in SELV cir / d.c.)	cuits
otek Anbote	Aupr	k					k Pr.
Remark:	Jotek Anbo	18K					P

2.5 TABL	E: limited power source me	asurement	ight ibot	ek Anboro	AnP
Condition	Output voltage (Uoc) (V)	Output curre	nt (Isc) (A)	Apparent power (S) (VA)	
		Meas.	limit	Meas	limit
Normal operation	5.14	3.1	8	15.5	100 p
R32 short circuit	Manager 0.00 And	<sup>MO</sup> otek	8010	Anboo ok	100
U1 pin3-24	0.00	0	8 potek	P.O.	100

2.10.2	TABLE	E: Working v	oltage measu	rement		Anbor Air otek	N
Compone	ent	From	То	V rms	V peak	Remark	
Anbotek	Anboro	Arr.	(eK				

Remark:

2.10.3 and 2.10.4	TABLE: Clearar	nce and cre	epage dista	ince measurei	ments probo	tek Anbor	olek N Ar
	l) and creepage at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:	Anbotek Anb	o. p.	hotek	Anbote	Ann	abotek	Anbou
Anupotek	- Anbotek	nbore	Anbotek	Anboten	Anbo-	Anbotek	Aupoter

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Tables										
Basic/supple	ementary:	botek	Anbotek	Anbort	ek An	botek	Anboten	Anbo	ptek p.	Anbot
Anbour	oten	Anbotek	Aaboten	ek Anbu	pote <sup>K</sup>	Anbotek	Anbo	Ann	nbotek	- An
Reinforced:	otek	Anboth	Anbo.	rok p.	botek	Anbote	P/C	tek.	npotek	
inbote, I	Anu nbotek	Ant	sotek An	cortek	Anbotek	Anb	oten	Anbo	Anbot	ek.
Supplement 1) Max. ope 2) Thickness	rating altit	ude up t					on factor	of Cl. is 1.48	B Ant	onbot

2.10.5	TABLE: Dist	ance throu	gh insulatio	n measurem	ents	Am.	nbotenN	P
distance	hrough insulatior	n di at/of:	U peak (V)	U rms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)	
An	K Anvotek	Anbo	w ~ ~ ~	K - Anbot	Any re	K -botek	Anbor	16
Remark:	ek botek		·	·	•	•	Anbo	60

4.3.8	TABLE: E	Batteries							Р
The tests of data is not a		applicable o	only when app	propriate b	attery		10		Р
ls it possible	e to install t	he battery	in a reverse p	olarity pos	ition?	Ann	×8	hotek	Aupor
Ano	Non-re	chargeable	e batteries		F	Rechargeat	ole batteri	es	
	Discharging		Un-	Cha	rging	Discha	arging	Reverse	d chargin
ek Aupc	Meas. current	Manuf. Specs.	intentional charging	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.	Meas. current	Manuf. Specs.
Max. current during normal condition	Anbotek Anbotek	Anboten Anbot	Anbu ek Anbote potek Anb	1352mA	5000mA	1157mA	5000m A	otek A	Anbotek Anbo <u>t</u> ek
Max. current during fault condition	lek Ar botek	Anbotek Anbotek	Anbote A Anb <u>ot</u> ek	2000mA	5000mA	2000mA	5000m A	Anbotek Anbo	tek Ant
botek	Anboter	Ann	<sup>2</sup> K						
Test results:	Anboten					See below	/		Verdict
- Chemical I	eaks	ek Ant	,0 <sup>1-</sup>	noter	Anb	No leakag	ed	abote	A.P.
- Explosion	of the batte	ery	Anbore A	nu	nbote	No explos	ion	A. notek	Panb
- Emission o	of flame or	expulsion o	of molten meta	al Anbo	4	No fire	Inporo.	Ann	ex P
- Electric str	ength tests	of equipm	ent after com	pletion of t	ests	No damag	jed volue	AUPO	P

4.5

TABLE: Thermal requirements

Shenzhen Anbotek Compliance Laboratory Limited Tel: (86)755-26066440 Fax: (86)755-26014772 www.anbotek.com Ρ

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Anbo				
Anboten	Supply voltage (V):	5Vdc	4.2Vdc	
Anboten	Ambient T <sub>min</sub> (°C):	35.0	Knbotek 35.0 Anbot	
tek anbo	Ambient T <sub>max</sub> (°C)	35.0	nbo 35.0 Anbo	
Maximum me	easured temperature T of part/at:	Т (	(°C)	Allowed T <sub>max</sub> (°C)
Anboten Anbotek Anbotek	Anbotek Anbotek Anbotek Anbo	(normal operation and supplied by 5V DC source, chargered an empty battery)	(normal operation and supplied by internal full battery)	Anbotek Anbot
PCB near U1	And tek abotek A	75.1	73.5 And	130
Battery surfac	ertek Anbourgek shotek	45.3 M	44.7 M	Ref.
Enclosure out	tside tek Anbor Andrek	And 45.3 And	44.4	Ref.
Enclosure ins	ide botek Anbote Anti-	43.6	42.6	95
Remark:	phi botek I	1 181	• • • • • • • • • • • • • • • • • • •	Anbote

4.5.5	TABLE: Ball pressure test of thermoplastics	TABLE: Ball pressure test of thermoplastics					
Anboten	required impression diameter (mm):	≤ 2 mm					
part		test temperature (°C)	impression diamete (mm)				
Remark:	ek Anbotek Anbotek Anbotek	hbote. Anuotek	Anboten Anbo				

4.7	TABLE:	Resistance to fire	potek (	nboten	Anbu	h. botek	AnbolP
Pa	rt	Manufacturer of material	Type of	naterial	Thickness (mm)	Flammability class	Evidence
Refer to ta	ble 1.5.1 f	or details	Anboten	Anbo	rek no	otek Anbot	Ann
Supplemen	ntary infor	mation:	hote	Anbr	Dr. Dr.	hotek Ant	poten And

5.1.6	TABLE:	Touch current r	neasurement	<sup>4</sup> 911. 7 a.	54	N
Condition		$L \rightarrow \text{terminal A}$ (mA)	$N \rightarrow \text{terminal A}$ (mA)	Limit (mA)	Comments	
Anbotel	Aup	kek - abot	ek Anbote	Ann	Mbotek Anbor	Mr. An
Remark:	stek A	nbo. A.	otek Anboter	And	abotek Ant	Alle Alle

5.2	TABLE: Electric strength tests,	impulse tests and voltage sur	ge tests	And Nek
Test volta	age applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No

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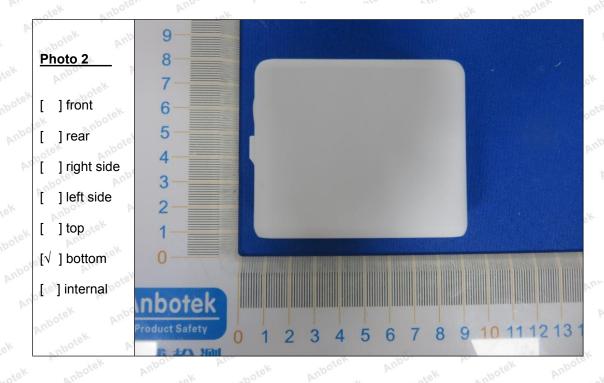
5.3.5		TABLE: Fault condition tests					hotek Anbote A	no Pek	
botek		ambient temperature (°C):					25°C Mode		
Annotek		model/type of power supply:					See below		
- P	manufacturer of power supply						See page 1		
tek	h.	rated markings of power supply:					See rating label		
No.	Componen t No.		Fault	Test voltage (V)	Test time	Fuse #.	Fuse current (A)	Result	
Anu 1	U1 pin 4- 23		SC	5Vdc	10min	lek	Anboten	After SC, unit shut down immediately. No damage, no hazards.	
2	U1 pin 9- 24		SC	5Vdc	10min			After SC, unit shut down immediately. No damage, no hazards.	
6'3	Battery		Overchar ge	⊳ 5Vdc	7h			Temperature stability and no hazards.	
1 <sup>botek</sup> 4	Battery		Over- discharg e	5Vdc	7h			Temperature stability and no hazards.	
5 AT	Battery		SC	5Vdc	10min	iek	Anboto.	The short circuit current dropped to 0A immediately, no component damage, no high temperature, no fire generation	
6	Battery		Reverse	5Vdc	7h	tek	abc	The short circuit current dropped to 0A immediately, no component damage, no high temperature, no fire generation	
p7ek	R32		SC	5Vdc	10min	he.	otek	Unit shut down immediately. No damage, no hazards.	

1) SC: short-circuit.

Photos

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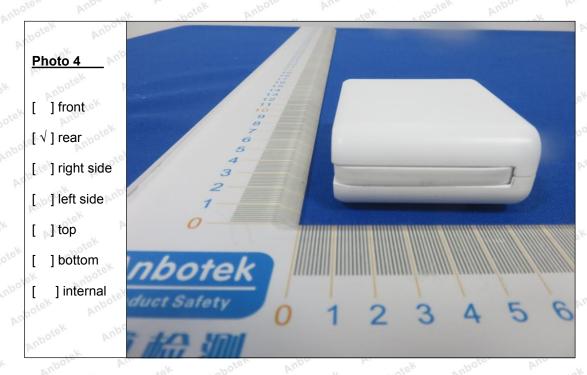




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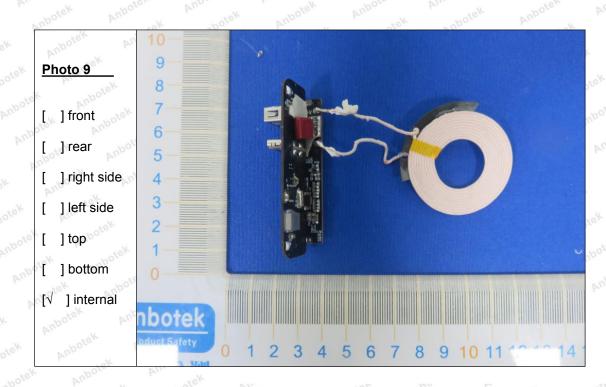
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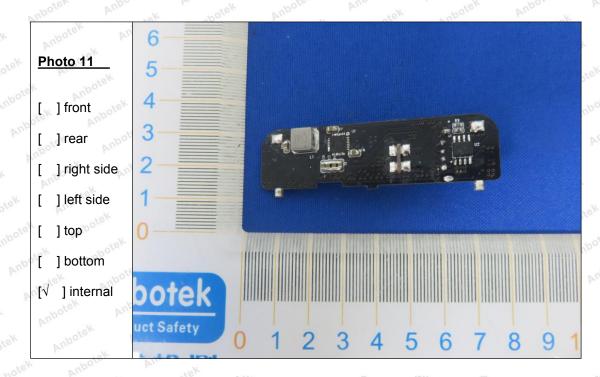
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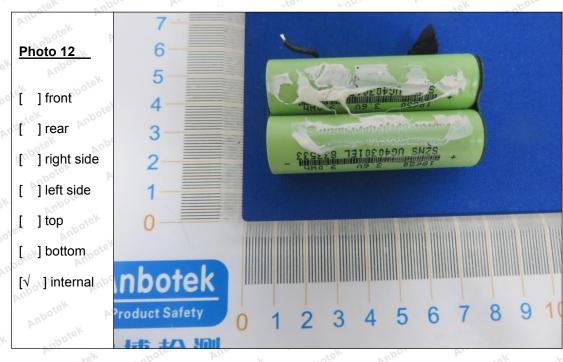




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\*\*\*End of report\*\*\*