



**TEST REPORT
IEC 61010-1
Safety requirements for electrical equipment for measurement,
control, and laboratory use
Part 1: General requirements**

Report Number : SHES160300197701
Date of issue : 2016-05-03
Total number of pages..... : 81

Applicant's name..... : Zhejiang CHINT Instrument & Meter Co., Ltd
Address : Wenzhou Bridge Industrial Zone, Yueqing, Wenzhou, Zhejiang, P.R. China

Test specification:
Standard..... : IEC 61010-1:2010 (Third Edition)
Test procedure : SGS CSTC
Non-standard test method : N/A

Test Report Form No. : IEC61010_1J
Test Report Form(s) Originator : VDE Testing and Certification Institute
Master TRF..... : 2013-11

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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description : AC Ammeter
Trade Mark..... : CHINT
Manufacturer : Same as applicant
Model/Type reference : NP48-A, NP72-A, NP96-A
Ratings : Max. measurement range:
Direct connection method: 5A max.
Via transformer connection method: 10kA max.

Testing procedure and testing location:	
<input checked="" type="checkbox"/> CB Testing Laboratory:	
Testing location/ address	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China
<input type="checkbox"/> Associated CB Laboratory:	
Testing location/ address	
Tested by (name + signature)	Lancer Lei
Approved by (name + signature)	Cherry Sun
<input type="checkbox"/> Testing procedure: TMP	
Testing location/ address	
Tested by (name + signature)	
Approved by (name + signature)	
<input type="checkbox"/> Testing procedure: WMT	
Testing location/ address	
Tested by (name + signature)	
Witnessed by (name + signature)	
Approved by (name + signature)	
<input type="checkbox"/> Testing procedure: SMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (name + signature)	
Supervised by (name + signature)	
<input type="checkbox"/> Testing procedure: RMT	
Testing location/ address	
Tested by (name + signature)	
Approved by (name + signature)	
Supervised by (name + signature)	

List of Attachments (including a total number of pages in each attachment)		
Document No.	Documents included / attached to this report (description)	Page No.
Attachment 1	Photos documents.	7

Documents referenced by this report (available on request):		
Document Name or No.	Documents description	Page No.
None		

Summary of testing:

Unless specially specified, the submitted samples are tested and found in compliance with the standard of IEC 61010-1:2010 (Third Edition) / EN 61010-1:2010.

The equipment under test (EUT) is evaluated at maximum temperature 60°C specified in manual provided by manufacturer.

This test report does not evaluate the transformer of the Via transformer connection method, the transformer will be evaluated separately.

All test data were copy from original test report No.: SHES130400131401, issue date: 2013-09-10, no additional test was considered necessary.

Clause	Comment

Test Report History:

This report may consist of more than one report and is valid only with additional or previous issued reports:

Ref. No.	Item
None	

Tests performed (name of test and test clause):

- Clause 5.3, Durability of markings
- Clause 6.2, Determination of accessible parts
- Clause 6.3, Limit values for accessible parts
- Clause 6.4, Primary means of protection
- Clause 6.5, Additional means of protection in case of single fault conditions
- Clause 6.7, Insulation requirements
- Clause 6.8, Procedure for dielectric strength tests
- Clause 7, Protection against mechanical hazards
- Clause 8, Resistance to mechanical stresses
- Clause 10, Equipment temperature limits and resistance to heat

Testing location:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Summary of compliance with National Differences

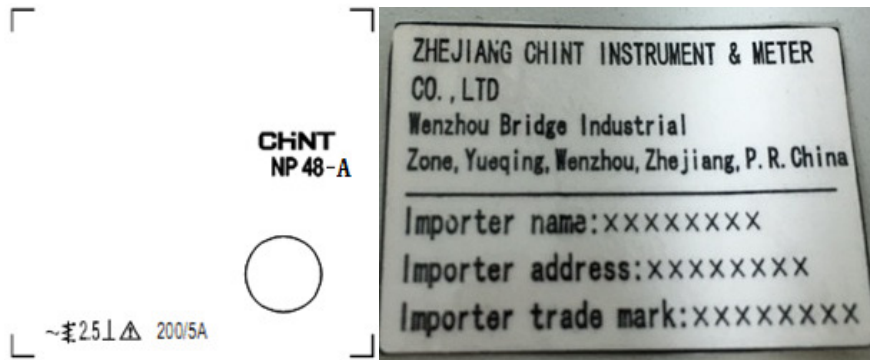
List of countries addressed:

European Group Differences.

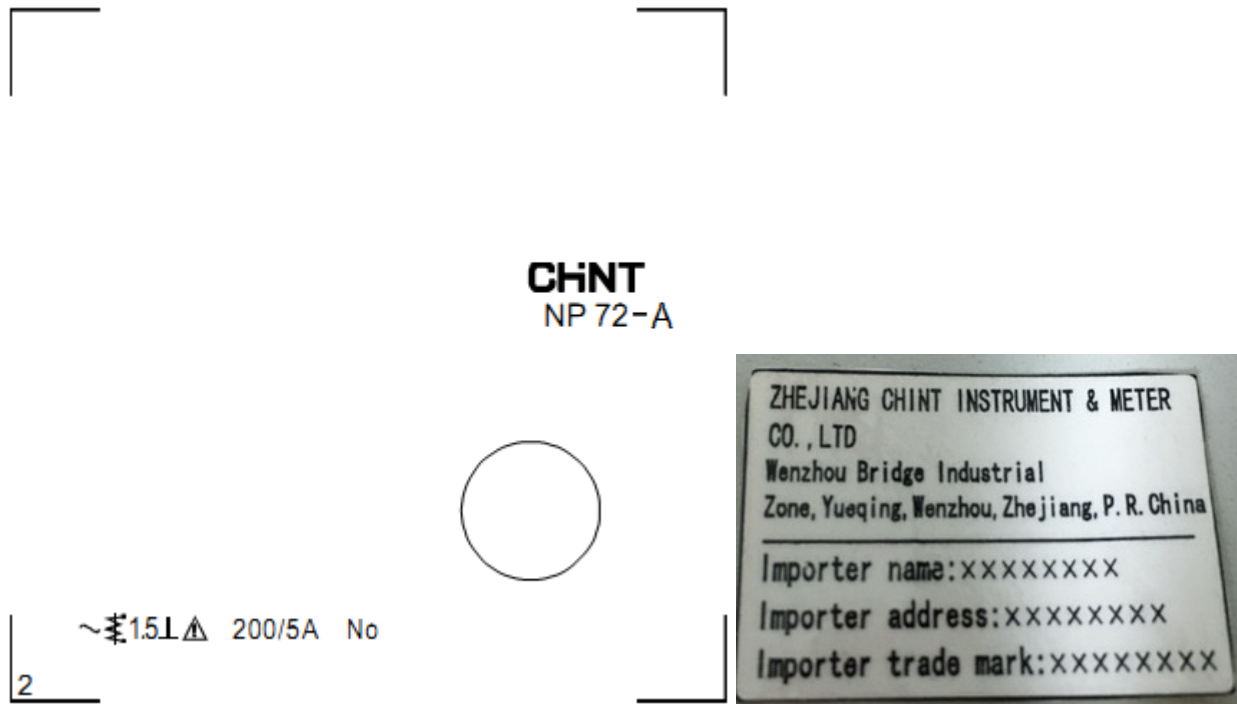
The product fulfils the requirements of EN 61010-1:2010.

Copy of marking plate:

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



Label of NP48-A

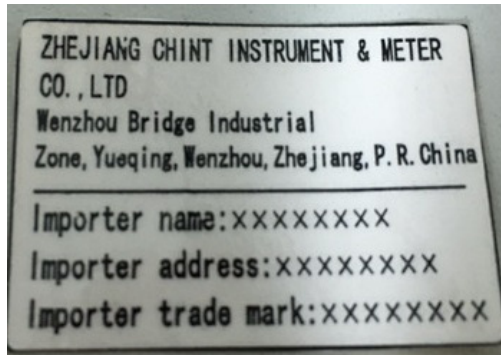
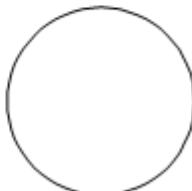


Label of NP72-A

CHINT
NP 96-A

~  1.5   100/5A

2



Label of NP96-A

Test item particulars:

Type of item	: Measurement equipment
Description of equipment function	: AC Ammeter
Connection to MAINS supply	: N/A
Overvoltage category	: III
POLLUTION DEGREE	: 2
Means of protection.....	: N/A
Environmental conditions	: 2000m
For use in wet locations.....	: No
Equipment mobility	: Building-in
Operating conditions	: Continuous
Overall size of equipment (W x D x H)	: NP48-A: 47mm x 47mm x 65mm NP72-A: 72mm x 72mm x 65mm NP96-A: 95mm x 95mm x 65mm
Mass of equipment (kg)	: NP48-A: 68g NP72-A: 145g NP96-A: 203g
Marked degree of protection to IEC 60529.....	: IPX0

Possible test case verdicts:

- Test case does not apply to the test object : N/A (Not Applicable)
- Test object does meet the requirement..... : P (Pass)
- Test object does not meet the requirement..... : F (Fail)

Testing:

Date of receipt of test item	: 2013-04-28
Date (s) of performance of tests	: 2013-04-28 to 2013-09-10

General remarks:

The test results presented in this report relate only to the object tested.
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 "(See Enclosure #)" refers to additional information appended to the report.
 "(See appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.
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Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60384-14:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... : Yes Not applicable

When differences exist; they shall be identified in the general product information section.

Factory Location:
 Zhejiang CHINT Instrument & Meter Co., Ltd
 Wenzhou Wenzhou Bridge Industrial Zone, Yueqing, Wenzhou, Zhejiang, P.R. China

General product information:

Description of unit:

The EUT is a series of building-in AC Ammeter, detailed as below:

Type	Max. measurement range	Connection method
NP48-A	5A	Direct
NP72-A	5A	
NP96-A	5A	
NP48-A	10kA	Via transformer
NP72-A	10kA	
NP96-A	10kA	

Description of model differences.

N/A

Description of special features.
 (HV circuits, high pressure systems etc.)

N/A

IEC 61010-1			
Clause	Requirement + Test	Result - Remark	Verdict
4	TESTS		P
4.4	Testing in SINGLE FAULT CONDITIONS		P
4.4.1	Fault tests	See Form A.1	P
4.4.2	Application of SINGLE FAULT CONDITIONS		P
4.4.2.1	SINGLE FAULT CONDITIONS not covered by 4.4.2.2 to 4.4.2.14		—
4.4.2.2	PROTECTIVE IMPEDANCE	No protective impedance.	N/A
4.4.2.3	PROTECTIVE CONDUCTOR		N/A
4.4.2.4	Equipment or parts for short-term or intermittent operation		N/A
4.4.2.5	Motors		—
	– stopped while fully energized		N/A
	– prevented from starting		N/A
	– one phase interrupted (multi-phase)		N/A
4.4.2.6	Capacitors	No such capacitor.	N/A
4.4.2.7	MAINS transformers	No transformer.	N/A
4.4.2.7.2	Short circuit		N/A
4.4.2.7.3	Overload		N/A
4.4.2.8	Outputs	No such port.	N/A
4.4.2.9	Equipment for more than one supply		N/A
4.4.2.10	Cooling		—
	– air holes closed	No air hole.	N/A
	– fans stopped	No fan.	N/A
	– coolant stopped	No coolant used.	N/A
	– loss of cooling liquid		N/A
4.4.2.11	Heating devices	No heating device.	N/A
	– timer overridden		N/A
	– temperature controller overridden		N/A
4.4.2.12	Insulation between circuits and parts		P
4.4.2.13	Interlocks	No interlock.	N/A
4.4.2.14	Voltage selectors	No such device.	N/A
4.4.3	Duration of tests		—
4.4.4	Conformity after application of fault conditions		P
5	MARKING AND DOCUMENTATION		P
5.1.1	Required equipment markings		—
	– visible from the exterior; or		P
	– visible after removing cover or opening door		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	– visible after removal from a rack or panel		N/A
	Not put on parts which can be removed by an operator		P
	Letter symbols (IEC 60027) used		P
	Graphic symbols (IEC 61010-1: Table 1) used		P
5.1.2	Identification		P
	Equipment is identified by:		—
	a) Manufacturer's or supplier's name or trademark	See Copy of marking plate.	P
	b) Model number, name or other means	NP48-A, NP72-A, NP96-A	P
	Manufacturing location identified	Only one manufacturing location.	N/A
5.1.3	MAINS supply	Not conductively connected to Mains for EUT	N/A
	Equipment is marked as follows:		—
	a) Nature of supply:		—
	1) a.c. RATED MAINS frequency or range of frequencies		—
	2) d.c. with symbol 1		—
	b) RATED supply voltage(s) or range.....		—
	c) Max. RATED power (W or VA) or input current.....		—
	The marked value not less than 90 % of the maximum value	(see Form A.2)	N/A
	If more than one voltage range:		—
	Separate values marked; or		N/A
	Values differ by less than 20 %		N/A
	d) OPERATOR-set for different RATED supply voltages:		—
	Indicates the equipment set voltage		N/A
	Portable equipment indication is visible from the exterior		N/A
	Changing the setting changes the indication		N/A
	e) Accessory MAINS socket-outlets accepting standard MAINS plugs are marked:	No mains socket-outlet.	—
	With the voltage if it is different from the MAINS su		—
	For use only with specific equipment		N/A
	If not marked for specific equipment it is marked with:		—
	The maximum rated current or power; or		N/A
	Symbol 14 with full details in the documentation		N/A
5.1.4	Fuses	No fuse.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Operator replaceable fuse marking (see also 5.4.5)		—
5.1.5	TERMINALS, connections and operating devices		P
5.1.5.1	General		—
	Where necessary for safety, indication of purpose of TERMINALS, connectors, controls and indicators marked		P
	If insufficient space, symbol 14 used		N/A
	Push-buttons and actuators of emergency stop devices and indicators:	Not used.	—
	– used only to indicate a warning of danger; or		N/A
	– the need for urgent action		N/A
	– coloured red		N/A
	– coded as specified in IEC 60073		N/A
	Supplementary means of coding provided, if meaning of colour relates (see IEC 60073):	Not used.	—
	– to safety of persons; or		N/A
	– safety of the environment		N/A
5.1.5.2	TERMINALS		—
	MAINS supply TERMINAL identified		N/A
	Other TERMINAL marking:		—
	a) FUNCTIONAL EARTH TERMINALS (symbol 5 used)		N/A
	b) PROTECTIVE CONDUCTOR TERMINALS:		—
	Symbol 6 is placed close to or on the TERMINAL; or		N/A
	Part of appliance inlet		N/A
	c) TERMINALS of control circuits (symbol 7 used)	No such terminal.	N/A
	d) HAZARDOUS LIVE TERMINALS supplied from the interior	No such terminal.	N/A
	Standard MAINS socket outlet; or		N/A
	RATINGS marked; or		N/A
	Symbol 14 used		N/A
5.1.6	Switches and circuit breakers		N/A
	If disconnecting device, off position clearly marked		N/A
	If push-button used as power supply switch:		—
	– symbol 9 and 15 used for on-position		N/A
	– symbol 10 and 16 used for off-position		N/A
	– pair of symbols 9, 15 and 10, 16 close together		N/A
5.1.7	Equipment protected by DOUBLE INSULATION or REINFORCED INSULATION		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Protected throughout (symbol 11 used)		N/A
	Only partially protected (symbol 11 not used)		N/A
5.1.8	Field-wiring TERMINAL boxes	No such part.	N/A
	If TERMINAL or ENCLOSURE exceeds 60 °C:	(see Form A.26A)	—
	Cable temperature RATING marked.....		—
	Marking visible before and during connection or beside TERMINAL		N/A
5.2	Warning markings		P
	Visible when ready for NORMAL USE		P
	Are near or on applicable parts		P
	Symbols and text correct dimensions and colour:		—
	a) symbols min 2,75 mm and text 1,5 mm high and contrasting in colour with background		P
	b) symbols and text moulded, stamped or engraved in material min. 2,0 mm high and		P
	0,5 mm depth or raised if not contrasting in colour		P
	If necessary marked with symbol 14		P
	Statement to isolate or disconnect if access by using a tool to HAZARDOUS LIVE parts is permitted		N/A
5.3	Durability of markings		P
	The required markings remain clear and legible in NORMAL USE	(see Form A.3)	P
5.4	Documentation		P
5.4.1	General		P
	Equipment is accompanied by documentation for safety purposes for OPERATOR or RESPONSIBLE BODY		P
	Safety documentation for service personnel authorized by the manufacturer		P
	Documentation necessary for safe operation is provided in printed media or		P
	in electronic media if available at any time		N/A
	Documentation includes:		—
	a) intended use		P
	b) technical specification		P
	c) name and address of manufacturer or supplier	Marked on equipment.	P
	d) information specified in 5.4.2 to 5.4.6		P
	e) information to mitigate residual RISK (see also subclause 17)		N/A
	f) accessories for safe operation of the equipment specified		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	g) guidance provided to check correct function of the equipment, if incorrect reading may cause a HAZARD from harmful or corrosive substances of HAZARDOUS live parts		N/A
	h) instructions for lifting and carrying		N/A
	Warning statements and a clear explanation of warning symbols:		—
	– provided in the documentation; or		N/A
	– information is marked on the equipment		N/A
5.4.2	Equipment ratings		P
	Documentation includes:		—
	a) Supply voltage or voltage range.....		—
	Frequency or frequency range.....		—
	Power or current rating		—
	b) Description of all input and output connections in accordance to 6.6.1 a)		P
	c) RATING of insulation of external circuits in accordance to 6.6.1 b)		N/A
	d) Statement of the range of environmental conditions (see 1.4)		P
	e) Degree of protection (IEC 60529)		N/A
	f) If impact rating less than 5 J:		—
	IK code in accordance to IEC 62262 marked; or		N/A
	symbol 14 of table 1 marked, with		N/A
	RATED energy level and test method stated		N/A
5.4.3	Equipment installation		P
	Documentation includes instructions for:		—
	a) assembly, location and mounting requirements		P
	b) protective earthing		N/A
	c) connections to supply		N/A
	d) PERMANENTLY CONNECTED EQUIPMENT:		—
	1) Supply wiring requirements		N/A
	2) If external switch or circuit-breaker, requirements and location recommendation		N/A
	e) ventilation requirements		N/A
	f) special services (e. g. air, cooling liquid)		N/A
	g) instructions relating to sound level	No hazardous sound power level.	N/A
5.4.4	Equipment operation		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Instructions for use include:		—
	a) identification and description of operating controls		P
	b) positioning for disconnection		N/A
	c) instructions for interconnection		P
	d) specification of intermittent operation limits		N/A
	e) explanation of symbols used		N/A
	f) replacement of consumable materials	No consumable material.	N/A
	g) cleaning and decontamination		N/A
	h) listing of any poisonous or injurious gases and quantities		N/A
	i) RISK reduction procedures relating to flammable liquids (see 9.5)		N/A
	j) RISK reduction procedures relating burn from surfaces permitted to exceed limits of 10.1		N/A
	Additional precautions for IEC 60950 conforming equipment in regard to moistures and liquids		N/A
	A statement about protection impairment if used in a manner not specified by the manufacturer		N/A
5.4.5	Equipment maintenance and Service		N/A
	Instructions for RESPONSIBLE BODY include:		—
	Instructions sufficient in detail permitting safe maintenance and inspection and continued safety:		—
	Instruction against the use of detachable MAINS supply cord with inadequate rating		N/A
	Specific battery type of user replaceable batteries	No such user replaceable batteries.	N/A
	Any manufacturer specified parts		N/A
	Rating and characteristics of fuses		N/A
	Instructions include following subjects permitting safe servicing and continued safety:	Not required.	—
	a) product specific RISKS may affect service personnel		N/A
	b) protective measures for these RISKS		N/A
	c) verification of the safe state after repair		N/A
5.4.6	Integration into systems or effects resulting from special conditions	Not required.	N/A
	Aspects described in documentation		N/A
6	PROTECTION AGAINST ELECTRIC SHOCK		P

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Clause	Requirement + Test	Result - Remark	Verdict
6.1	General	The equipment is for building-in. However, the side of panel is considered being accessible to an operator. Other part should be evaluated in the final system. (see Form A.14 and A.15)	P
6.1.1	Requirements		P
	Protection against electric shock maintained in NORMAL CONDITION and SINGLE FAULT CONDITION		P
	ACCESSIBLE parts not HAZARDOUS LIVE		P
	Voltage, current, charge or energy below the limits in NORMAL CONDITION and in SINGLE FAULT CONDITION between:		—
	ACCESSIBLE parts and earth		P
	two ACCESSIBLE parts on same piece of the equipment within a distance of 1,8 m		N/A
	Conformity is checked by the determination of 6.2 and 6.3 followed by the tests of 6.4 to 6.11		P
6.1.2	Exceptions	No such part.	N/A
	Following HAZARDOUS LIVE parts may be ACCESSIBLE to an OPERATOR:		—
	a) parts of lamps and lamp sockets after lamp removal		N/A
	b) parts to be replaced by OPERATOR only by the use of tool and warning marking		N/A
	Those parts not HAZARDOUS LIVE 10 s after interruption of supply	(see Form A.5)	N/A
	Capacitance test if charge is received from internal capacitor	(see Form A.4 and A.5)	N/A
6.2	Determination of ACCESSIBLE parts	(see Form A.4)	P
6.2.1	General		P
	Unless obviously determination of ACCESSIBLE parts as specified in 6.2.2 to 6.2.4		P
6.2.2	Examination		P
	– with jointed test finger (as specified B.2)		P
	– with rigid test finger (as specified B.1) and a force of 10 N		P
6.2.3	Openings above parts that are HAZARDOUS LIVE	No such opening.	N/A
	– test pin with length of 100 mm and 4 mm in diameter applied		N/A
6.2.4	Openings for pre-set controls	No such opening.	N/A
	– test pin with length of 100 mm and 3 mm in diameter applied		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
6.3	Limit values for ACCESSIBLE parts		P
6.3.1	Levels in NORMAL CONDITION	(see Form A.5)	—
	a) Voltage limits less than 33 V r.m.s. and 46,7 V peak or 70 V d.c.		P
	for WET LOCATIONS voltage limits less than 16 V r.m.s. and 22,6 V peak or 35 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—
	b) Current less than 0,5 mA r.m.s. for sinusoidal, 0,7 mA peak non-sinusoidal or mixed frequencies or 2 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A
	for WET LOCATIONS measuring circuit A.4 used		N/A
	70 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	or		—
	c) Levels of capacitive charge or energy less:		—
	1) 45 µC for voltages up to 15 kV peak or d.c. or line A of Figure 3		N/A
	2) 350 mJ stored energy for voltages above 15 kV peak or d.c.		N/A
6.3.2	Levels in SINGLE FAULT CONDITION		—
	a) Voltage limits less than 55 V r.m.s. and 78 V peak or 140 V d.c.		P
	for WET LOCATIONS voltage limits less than 33 V r.m.s. and 46,7 V peak or 70 V d.c.		N/A
	Voltages are not HAZARDOUS LIVE the levels of:		—
	b) Current less than 3,5 mA r.m.s. for sinusoidal, 5 mA peak non-sinusoidal or mixed frequencies or 15 mA d.c. when measured with measuring circuit A.1 or A.2 if less than 100 Hz		N/A
	for WET LOCATIONS measuring circuit A.4 used		N/A
	500 mA r.m.s. when measured with circuit A.3 for higher frequencies		N/A
	or		—
	c) Levels of capacitive charge or energy less line B of Figure 3		N/A
6.4	Primary means of protection		P
6.4.1	ACCESSIBLE parts prevented from being HAZARDOUS LIVE by one or more of following means:		—
	a) ENCLOSURES or PROTECTIVE BARRIERS (see 6.4.2)		P
	b) BASIC INSULATION (see 6.4.3)		P

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Clause	Requirement + Test	Result - Remark	Verdict
	c) Impedance (see 6.4.4)		N/A
6.4.2	ENCLOSURES or PROTECTIVE BARRIERS	(see Form A.15 and A.16)	—
	– meet rigidity requirements of 8.1		P
	– meet requirements for BASIC INSULATION, if protection is provided by insulation		P
	– meet requirements of 6.7 for CREEPAGE and – CLEARANCES between ACCESSIBLE parts and – HAZARDOUS live parts, if protection is provided by – limited access		P
6.4.3	BASIC INSULATION	(see Form A.15 and A.16)	—
	– meet CLEARANCE, CREEPAGE DISTANCE and solid – insulation requirements of 6.7		P
6.4.4	Impedance		—
	Impedance used as primary means of protection meets all of following requirements:		—
	a) limits current or voltage to level of 6.3.2		N/A
	b) RATED for maximum WORKING VOLTAGE and the amount of power it will dissipate		N/A
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of BASIC INSULATION of 6.7		N/A
6.5	Additional means of protection in case of SINGLE FAULT CONDITION		P
6.5.1	ACCESSIBLE parts are prevented from becoming HAZARDOUS live by the primary means of protection and supplemented by one of:		—
	a) PROTECTIVE BONDING (see 6.5.2)		N/A
	b) SUPPLEMENTARY INSULATION (see 6.5.3)		N/A
	c) automatic disconnection of the supply (see 6.5.5)		N/A
	d) current- or voltage-limiting device (see 6.5.6)		N/A
	Alternatively one of the single means of protection is used:		—
	e) REINFORCED INSULATION (see 6.5.3)		P
	f) PROTECTIVE IMPEDANCE (see 6.5.4)		N/A
6.5.2	PROTECTIVE BONDING		N/A
6.5.2.1	ACCESSIBLE conductive parts, may become HAZARDOUS LIVE in SINGLE FAULT CONDITION:		—
	Bonded to the PROTECTIVE CONDUCTOR TERMINAL; or		N/A
	Separated by conductive screen or barrier bonded to PROTECTIVE CONDUCTOR TERMINAL		N/A
6.5.2.2	Integrity of PROTECTIVE BONDING		—

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Clause	Requirement + Test	Result - Remark	Verdict
	a) PROTECTIVE BONDING consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses		N/A
	b) Soldered connections:	No soldered connection.	—
	Independently secured against loosening		N/A
	Not used for other purposes		N/A
	c) Screw connections are secured		N/A
	d) PROTECTIVE BONDING not interrupted; or		N/A
	exempted as removable part carries MAINS SUPPLY input connection		N/A
	e) Any movable PROTECTIVE BONDING connection specifically designed, and meets 6.5.2.4		N/A
	f) No external metal braid of cables used (not regarded as PROTECTIVE BONDING)	Not used.	N/A
	g) IF MAINS SUPPLY passes through:	No such part.	—
	Means provided for passing protective conductor;		N/A
	Impedance meets 6.5.2.4		N/A
	h) Protective conductors bare or insulated, if insulated, green/yellow		N/A
	Exceptions:		—
	1) earthing braids;	No such part.	N/A
	2) internal protective conductors etc.;		N/A
	Green/yellow not used for other purposes		N/A
	TERMINAL suitable for connection of a PROTECTIVE CONDUCTOR, and meets 6.5.2.3		N/A
6.5.2.3	PROTECTIVE CONDUCTOR TERMINAL	No such part.	—
	a) Contact surfaces are metal		N/A
	b) Appliance inlet used		N/A
	c) For rewirable cords and PERMANENTLY CONNECTED EQUIPMENT, PROTECTIVE CONDUCTOR TERMINAL is close to MAINS supply TERMINALS	Not such equipment.	N/A
	d) If no MAINS supply is required, any PROTECTIVE CONDUCTOR TERMINAL:		—
	Is near terminals of circuit for which protective earthing is necessary		N/A
	External if other terminals external		N/A
	e) Equivalent current-carrying capacity to MAINS supply TERMINALS	(see Form A.7)	N/A
	f) If plug-in, makes first and breaks last		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	g) If also used for other bonding purposes, PROTECTIVE CONDUCTOR:	Not used for other bonding purpose.	—
	Applied first;		N/A
	Secured independently;		N/A
	Unlikely to be removed by servicing		N/A
	h) PROTECTIVE CONDUCTOR of measuring circuit:	No measuring circuit.	—
	1) Current RATING equivalent to measuring circuit TERMINAL;		N/A
	2) PROTECTIVE BONDING: not interrupted by any switch or interrupting device		N/A
	i) FUNCTIONAL EARTH TERMINALS allow independent connection		N/A
	j) If a binding screw used for PROTECTIVE CONDUCTOR TERMINAL:		—
	Suitable size for bond wire		N/A
	Not smaller than M 4		N/A
	At least 3 turns of screw engaged		N/A
	Passes tightening torque test	(see Form A.8)	N/A
	k) Contact pressure not capable being reduced by deformation of materials		N/A
6.5.2.4	Impedance of PROTECTIVE BONDING of plug-connected equipment		—
	Impedance between PROTECTIVE CONDUCTOR TERMINAL and each ACCESSIBLE part where PROTECTIVE BONDING is specified, is:		—
	– less than 0,1 Ohm; or		N/A
	– less than 0,2 Ohm if equipment is provided with non-detachable cord		N/A
6.5.2.5	Bonding impedance of PERMANENTLY CONNECTED EQUIPMENT		—
6.5.2.6	Transformer PROTECTIVE BONDING screen		—
	Transformer provided with screen for PROTECTIVE BONDING:		—
	screen bonding consists of directly connected structural parts or discrete conductors or both; and withstands thermal and dynamic stresses (see 6.5.2.2 a)		N/A
	screen bonding with soldered connection (see 6.5.2.2 b) is:		N/A
	– Independently secured against loosening		N/A
	– Not used for other purposes		N/A
6.5.3	SUPPLEMENTARY and REINFORCED INSULATION		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Meet CLEARANCE, CREEPAGE DISTANCE and solid insulation requirements of 6.7		P
6.5.4	PROTECTIVE IMPEDANCE	Not used.	N/A
	Limits current or voltage to level of 6.3.1 in NORMAL and to level of 6.3.2 in SINGLE FAULT CONDITION		N/A
	CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of DOUBLE or REINFORCED INSULATION of 6.7		N/A
	The PROTECTIVE IMPEDANCE consists of one or more of the following:		—
	a) appropriate single component suitable for safety and reliability for protection, it is:		—
	1) RATED twice the maximum WORKING VOLTAGE		N/A
	2) resistor RATED for twice the power dissipation for maximum WORKING VOLTAGE		N/A
	b) combination of components		N/A
	Single electronic device not used as PROTECTIVE IMPEDANCE		N/A
6.5.5	Automatic disconnection of the supply	Not used.	N/A
	a) RATED to disconnect the load within time specified in Figure 2		N/A
	b) RATED for the maximum load conditions of the equipment		N/A
6.5.6	Current- or voltage-limiting devices	Not used.	N/A
	Device complies with all of:		—
	a) RATED to limit the current or voltage to the level of 6.3.2		N/A
	b) RATED for the maximum WORKING VOLTAGE; and		N/A
	RATED for the maximum operational current if applicable		N/A
	c) CLEARANCE, CREEPAGE DISTANCE between terminations of the impedance meet requirements of SUPPLEMENTARY INSULATION of 6.7		N/A
6.6	Connections to external circuits	Not connect to external circuit.	N/A
6.6.1	Connections do not cause ACCESSIBLE parts of the following to become HAZARDOUS LIVE in NORMAL CONDITION or SINGLE FAULT CONDITION:		—
	– the external circuits		N/A
	– the equipment		N/A
	Protection achieved by separation of circuits; or		N/A
	short circuit of separation does not cause a HAZARD		N/A
	Instructions or markings for each terminal include:		—
	a) RATED conditions for TERMINAL		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Required RATING of external circuit insulation		N/A
6.6.2	TERMINALS for external circuits	No such terminal.	N/A
	TERMINALS which receive a charge from an internal capacitor are not HAZARDOUS LIVE after 10 s of interrupting supply connection		N/A
6.6.3	Circuits with terminals which are HAZARDOUS LIVE	No such terminal.	N/A
	These circuits are:		—
	Not connected to ACCESSIBLE conductive parts; or		N/A
	Connected to ACCESSIBLE conductive parts, but are not MAINS CIRCUITS and have one TERMINAL contact at earth potential		N/A
	No ACCESSIBLE conductive parts are HAZARDOUS LIVE		N/A
6.6.4	ACCESSIBLE terminals for stranded conductors	No such terminal.	N/A
	No RISK of accidental contact because:		—
	– Located or shielded		N/A
	– Self-evident or marked whether or not connected to ACCESSIBLE conductive parts		N/A
	ACCESSIBLE TERMINALS will not work loose		N/A
6.7	Insulation requirements	(see Form A.14)	P
6.7.1	The nature of insulation		—
6.7.1.1	Insulation between ACCESSIBLE parts or between separate circuits consist of CLEARANCES, CREEPAGE DISTANCES and solid insulation if provided as protection against a HAZARD	The equipment is for building-in. However, the side of panel is considered being accessible to an operator. Other part should be evaluated in the final system.	P
6.7.1.2	CLEARANCES		—
	Required CLEARANCES reflecting factors of 6.7.1.1	(see Form A.14 and A.15)	P
	Equipment rated for operating altitude greater than 2000 m correction factor of Table 3 of 61010-1 applied		N/A
6.7.1.3	CREEPAGE DISTANCES		—
	Required CREEPAGE DISTANCES reflecting factors of 6.7.1.1 a) to d)	(see Form A.14 and A.15)	P
	CTI material group reflected by requirements	The materials are considered as material group IIIb without test.	P
	CTI test performed		N/A
6.7.1.4	Solid insulation		—
	Required solid insulation reflecting factors of 6.7.1.1 a) to d)	(see Form A.14 and A.15)	P
6.7.1.5	Requirements for insulation according to type of circuit	(see Form A.14 and A.15)	—

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Clause	Requirement + Test	Result - Remark	Verdict
	a) 6.7.2 MAINS circuits of OVERVOLTAGE CATEGORY II up to nominal supply voltage of 300 V		N/A
	b) 6.7.3 secondary circuits separated from circuits defined in a) by transformer	No such insulation.	N/A
	c) K.1 MAINS circuits of OVERVOLTAGE CATEGORY III and IV or OVERVOLTAGE CATEGORY II over 300 V		P
	d) K.2 secondary circuits separated from circuits defined in c) by transformer	No such insulation.	N/A
	e) K.3 circuits having one or more of:	No such insulation.	—
	1) maximum TRANSIENT OVERVOLTAGE is limited to known level below the level of MAINS CIRCUIT		N/A
	2) maximum TRANSIENT OVERVOLTAGE above the level of MAINS CIRCUIT		N/A
	3) WORKING VOLTAGE is the sum of more than one circuit or a mixed voltage		N/A
	4) WORKING VOLTAGE includes recurring peak voltage, may include non-sinusoidal or non-periodic waveform		N/A
	5) WORKING VOLTAGE with a frequency above 30 kHz		N/A
6.7.2	Insulation for MAINS CIRCUITS of OVERVOLTAGE CATEGORY II with a nominal supply voltage up to 300 V	Overvoltage category III.	N/A
6.7.2.1	CLEARANCES and CREEPAGE DISTANCES	(see Form A.14 and A.15)	—
	Values for MAINS CIRCUITS of Table 4 are met		N/A
	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H	Not used.	N/A
6.7.2.2	Solid insulation		—
6.7.2.2.1	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4		N/A
	Equipment passed voltage tests of 6.8.3 with values of Table 5	(see Form A.18)	N/A
	Complies as applicable:		—
	a) ENCLOSURE or PROTECTIVE BARRIER of Clause 8		N/A
	b) moulded and potted parts requirements of 6.7.2.2.2		N/A
	c) inner layers of printed wiring boards requirements of 6.7.2.2.3		N/A
	d) thin-film insulation requirements of 6.7.2.2.4		N/A
6.7.2.2.2	Moulded and potted parts		—
	Conductors between same two layers are separated by at least 0,4 mm after moulding is completed		N/A
6.7.2.2.3	Inner insulating layers of printed wiring boards		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Separated by at least 0,4 mm between same two layers		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness of insulation is at least 0,4 mm		N/A
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of minimum two separate layers, where the combination is rated for test voltage of Table 5 for REINFORCED INSULATION		N/A
6.7.2.2.4	Thin-film insulation		—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.2.1		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness through the insulation at least 0,4 mm		N/A
	b) insulation is assembled of min two separate layers, each RATED for test voltage of Table 5 for BASIC INSULATION		N/A
	c) insulation is assembled of min three separate layers, where the combination of two layers passed voltage tests of 6.8.3 with values of Table 5 for REINFORCED INSULATION		N/A
6.7.3	Insulation for secondary circuits derived from MAINS CIRCUITS of OVERVOLTAGE CATEGORY II up to 300 V		N/A
6.7.3.1	Secondary circuits where separation from MAINS CIRCUITS is achieved by a transformer providing:		—
	– REINFORCED INSULATION		N/A
	– DOUBLE INSULATION		N/A
	– screen connected to the PROTECTIVE CONDUCTOR TERMINAL		N/A
6.7.3.2	CLEARANCES		—
	a) meet the values of Table 6 for BASIC INSULATION and SUPPLEMENTARY INSULATION; or		N/A
	twice the values of Table 6 for REINFORCED INSULATION		N/A
	or		—
	b) pass the voltage tests of 6.8 with values of Table 6;	(see Form A.18)	—
	with following adjustments:		—
	1) values for reinforced insulation are 1,6 times the values for basic insulation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	2) if operating altitude is greater than 2000 m values of CLEARANCES multiplied with factor of Table 3		N/A
	3) minimum CLEARANCE is 0,2 mm for POLLUTION DEGREE 2 and 0,8 mm for POLLUTION DEGREE 3		N/A
6.7.3.3	CREEPAGE DISTANCES		—
	Based on WORKING VOLTAGE meets the values of Table 7 for BASIC and SUPPLEMENTARY INSULATION		N/A
	Values for REINFORCED INSULATION are twice the values of BASIC INSULATION		N/A
	Coatings to achieve reduction to POLLUTION DEGREE 1 comply with requirements of Annex H		N/A
6.7.3.4	Solid insulation		—
6.7.3.4.1	Withstands electrical and mechanical stresses in normal use and all RATED environmental conditions of 1.4		—
	a) Equipment passed voltage test of 6.8.3.1 for 5 s with VALUES of Table 6 for BASIC and SUPPLEMENTARY INSULATION	(see Form A.18)	N/A
	values for REINFORCED INSULATION are 1,6 times the values of BASIC INSULATION		N/A
	b) if WORKING VOLTAGE exceeds 300 V, equipment passed voltage test of 6.8.3.1 for 1 min with a test voltage of 1,5 times working voltage for BASIC or SUPPLEMENTARY INSULATION	(see Form A.18)	N/A
	value for REINFORCED INSULATION are twice the WORKING VOLTAGE		N/A
	Complies as applicable:		—
	1) ENCLOSURE or PROTECTIVE BARRIER of Clause 8		N/A
	2) moulded and potted parts requirements of 6.7.3.4.2		N/A
	3) inner layers of printed wiring boards requirements of 6.7.3.4.3		N/A
	4) thin-film insulation requirements of 6.7.3.4.4		N/A
6.7.3.4.2	Moulded and potted parts		—
	Conductors between same two layers are separated by applicable distances of Table 8		N/A
6.7.3.4.3	Inner insulation layers of printed wiring boards		—
	Separated by at least by applicable distances of Table 8 between same two layers		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) insulation is assembled of minimum two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min two separate layers, where the combination is RATED for 1,6 times the test voltage of Table 6		N/A
6.7.3.4.4	Thin-film insulation		—
	Conductors between same two layers are separated by applicable CLEARANCES and CREEPAGE DISTANCE of 6.7.3.2 and 6.7.3.3		N/A
	REINFORCED INSULATION have adequate electric strength; one of following methods used:		—
	a) thickness at least applicable distance of Table 8		N/A
	b) insulation is assembled of min. two separate layers, each RATED for test voltage of Table 6 for BASIC INSULATION		N/A
	c) insulation is assembled of min. three separate layers, where the combination of two layers passed voltage tests with 1,6 time values of Table 6:	(see Form A.18)	—
	a.c. test of 6.8.3.1; or		N/A
	d.c. test of 6.8.3.2 for circuits stressed only by d.c. voltages		N/A
6.8	Procedure for dielectric strength tests	(see Form A.14 and A.18)	P
6.9	Constructional requirements for protection against electric shock		P
6.9.1	If a failure could cause a HAZARD:		—
	a) security of wiring connections		P
	b) screws securing removable covers	No such screw.	N/A
	c) accidental loosening		P
	d) CLEARANCES and CREEPAGE DISTANCES not reduced below the values of basic insulation by loosening of parts or wires		P
6.9.2	Insulating materials		P
	Material not to be used for safety relevant insulation:		—
	a) easily damaged materials not used		P
	b) non-impregnated hygroscopic materials not used		P
6.9.3	Colour coding		P
	Green-and-yellow insulation shall not be used except:		—
	a) protective earth conductors;		N/A
	b) PROTECTIVE BONDING conductors;		N/A
	c) potential equalization conductors;		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	d) functional earth conductors		N/A
6.10	Connection to MAINS supply source and connections between parts of equipment		N/A
6.10.1	MAINS supply cords	No power supply cord.	—
	RATED for maximum equipment current (see 5.1.3 c)		N/A
	Cable complies with IEC 60227 or IEC 60245		N/A
	Heat-resistant if likely to contact hot parts		N/A
	Temperature RATING (cord and inlet).....		—
	Green/yellow used only for connection to PROTECTIVE CONDUCTOR TERMINALS		N/A
	Detachable cords with IEC 60320 MAINS connectors:		—
	Conform to IEC 60799; or		N/A
	Have the current RATING of the MAINS connector		N/A
6.10.2	Fitting of non-detachable MAINS supply cords		—
6.10.2.1	Cord entry		—
	a) inlet or bushing with a smoothly rounded opening; or		N/A
	b) insulated cord guard protruding >5 D (diameter)		N/A
6.10.2.2	Cord anchorage		—
	Protective earth conductor is the last to take the strain		N/A
	a) cord is not clamped by direct pressure from a screw		N/A
	b) knots are not used		N/A
	c) cannot push the cord into the equipment to cause a HAZARD		N/A
	d) no failure of cord insulation in anchorage with metal parts		N/A
	e) not to be loosened without a tool		N/A
	f) cord replacement does not cause a HAZARD and method of strain relief is clear		N/A
	Push-pull and or torque test	(see Form A.19)	N/A
6.10.3	Plugs and connectors		N/A
	MAINS supply plugs, connectors etc., conform with relevant specifications		N/A
	If equipment supplied at voltages below 6.3.2.a) or from a sole source:	Not such equipment.	—
	Plugs of supply cords do not fit MAINS sockets above rated SUPPLY voltage		N/A
	MAINS type plugs used only for connection to MAINS supply		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Plug pins which receive a charge from an internal capacitor	(see Form A.5)	N/A
	Accessory MAINS socket outlets:	No mans socket-outlet.	—
	a) marking if accepts a standard MAINS supply plug (see 5.1.3e)		N/A
	b) input has a protective earth conductor if outlet has EARTH TERMINAL CONTACT		N/A
6.11	Disconnection from supply source		N/A
6.11.1	Disconnects all current-carrying conductors		N/A
6.11.2	Exceptions		N/A
6.11.3	Requirements according to type of equipment		—
6.11.3.1	PERMANENTLY CONNECTED EQUIPMENT and multi-phase equipment	Not such equipment.	N/A
	Employs switch or circuit-breaker		N/A
	If switch or circuit-breaker is not part of the equipment, documentation requires:		—
	a) switch or circuit-breaker to be included in building installation		N/A
	b) suitable location easily reached		N/A
	c) marking as disconnecting for the equipment		N/A
6.11.3.2	Single-phase cord-connected equipment		N/A
	Equipment is provided with one of the following:		—
	a) switch or circuit-breaker		N/A
	b) appliance coupler (disconnectable without tool)		N/A
	c) separable plug (without locking device)		N/A
6.11.4	Disconnecting devices		N/A
6.11.4.1	Disconnecting device part of equipment		N/A
	Electrically close to the SUPPLY		N/A
	Power-consuming components not electrically located between the supply source and the disconnecting device		N/A
	Except electromagnetic interference suppression circuits permitted to be located on the supply side of the disconnecting device		N/A
6.11.4.2	Switches and circuit-breakers		N/A
	When used as disconnection device:		—
	Meets IEC 60947-1 and IEC 60947-3		N/A
	Marked to indicate function.....		—
	Not incorporated in MAINS cord		N/A
	Does not interrupt PROTECTIVE EARTH CONDUCTOR		N/A
6.11.4.3	Appliance couplers and plugs		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Where an appliance coupler or separable plug is used as the disconnecting device (see 6.11.3.2):		—
	Readily identifiable and easily reached by the operator		N/A
	Single-phase portable equipment cord length not more than 3 m		N/A
	PROTECTIVE EARTH CONDUCTOR connected first and disconnected last		N/A

7	PROTECTION AGAINST MECHANICAL HAZARDS		P
7.1	Equipment does not cause a mechanical HAZARD in NORMAL nor in SINGLE FAULT CONDITION		P
	Conformity is checked by 7.2 to 7.7		P
7.2	Sharp edges		P
	Easily touched parts are smooth and rounded	No sharp edge on easily-touched part.	P
	Do not cause injury during NORMAL USE and		P
	Do not cause injury during SINGLE FAULT CONDITION		P
7.3	Moving parts	No moving part.	N/A
7.3.1	HAZARDS from moving parts limited to a tolerable level with the conditions specified in 7.3.2 and 7.3.5	No hazardous moving part.	N/A
	RISK assessment in accordance with 7.3.3 carried out		N/A
7.3.2	Exceptions		N/A
	Access to HAZARDOUS moving parts permitted under following circumstances:		—
	a) obviously intended to operate on parts or materials external of the equipment		N/A
	inadvertent touching of moving parts minimized by equipment design (e.g. guards or handles)		N/A
	b) If OPERATOR access is unavoidable outside NORMAL USE following precautions have been taken:		—
	1) access requires TOOL		N/A
	2) statement about training in the instructions		N/A
	3) warning markings on covers prohibiting access by untrained OPERATORS		N/A
	or symbol 14 with full details in documentation		N/A
7.3.3	RISK assessment for mechanical HAZARDS to body parts	No hazard.	N/A
	RISK is reduced to a tolerable level by protective measures as specified in table 12		N/A
	Minimum protective measures:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	A. Low level measures		N/A
	B. Moderate measures		N/A
	C. Stringent measures		N/A
7.3.4	Limitation of force and pressure	(see Form A.20)	N/A
	Following levels are met in NORMAL and SINGLE FAULT CONDITION:		—
	Continuous contact pressure below 50 N / cm ² with force below 150 N		N/A
	Temporary force below 250 N for an area at least of 3 cm ² for a maximum duration of 0,75 s		N/A
7.3.5	Gap limitations between moving parts	(see Form A.20)	N/A
7.3.5.1	Access normally allowed		—
	If levels of 7.3.4 exceeded and body part may be inserted minimum gap as specified in table 13 assured in NORMAL and in SINGLE FAULT CONDITION		N/A
7.3.5.2	Access normally prevented		—
	Maximum gap as specified in table 14 assured in NORMAL and in SINGLE FAULT CONDITION		N/A
7.4	Stability		N/A
	Equipment not secured to building structure is physical stable	Building-in equipment.	N/A
	Stability maintained after opening of drawers etc. by automatic means, or		N/A
	warning marking requires the application of means		N/A
	Compliance checked by following tests as applicable:		—
	a) 10° tilt test for other than handheld equipment		N/A
	b) multi-directional force test for equipment exceeds height of 1 m and mass of 25 kg		N/A
	c) downward force test for floor-standing equipment		N/A
	d) overload test with 4 times maximum load for castor or support that supports greatest load		N/A
	e) castor or support that supports greatest load removed from equipment		N/A
7.5	Provisions for lifting and carrying		N/A
7.5.1	Equipment more than 18 kg :		—
	Has means for lifting or carrying; or		N/A
	Directions in documentation		N/A
7.5.2	Handles and grips		—
	Handles or grips withstand four times weight		N/A
7.5.3	Lifting devices and supporting parts		—

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Clause	Requirement + Test	Result - Remark	Verdict
	RATED for maximum load; or		N/A
	tested with four times maximum static load		N/A
7.6	Wall mounting		N/A
	Mounting brackets withstand four times weight		N/A
7.7	Expelled parts	No expelled part.	N/A
	Equipment contains or limits the energy		N/A
	Protection not removable without the aid of a tool		N/A

8	RESISTANCE TO MECHANICAL STRESSES		P
8.1	Equipment does not cause a HAZARD when subjected to mechanical stresses in NORMAL USE		P
	Normal protection level is 5 J		P
	Levels below 5 J but not less than 1 J are acceptable if all of following criteria are met:	Not used.	—
	a) lower level justified by RISK assessment of manufacturer		N/A
	b) equipment installed in its intended application is not easily touched		N/A
	c) only occasional access during NORMAL USE		N/A
	d) IK code in accordance to IEC 62262 marked or symbol 14 used with full information in the documentation		N/A
	for non-metallic ENCLOSURES rated below 2 °C ambient temperature value chosen for minimum RATED temperature		N/A
	impact energies between IK values, the IK code marked for nearest lower value		N/A
	Conformity is checked by performing following tests:		—
	1) static test of 8.2.1		P
	2) impact test of 8.2.2 with 5 J except for HAND-HELD EQUIPMENT		P
	if impact energy not selected to 5 J alternate method of IEC 62262 used		N/A
	3) drop test of 8.3.1 or 8.3.2 except for FIXED EQUIPMENT and equipment with mass over 100 kg		N/A
	Equipment RATED with an impact rating of IK 08 that obviously meets the criteria		N/A
	After the tests inspection with following results:		—
	– HAZARDOUS LIVE parts above the limits of 6.3.2 not ACCESSIBLE		P
	– insulation pass the voltage tests of 6.8	(see Form A.30)	P
	i) no leaks of corrosive and harmful substances		P

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Clause	Requirement + Test	Result - Remark	Verdict
	ii) ENCLOSURE shows no cracks resulting in a HAZARD		P
	iii) CLEARANCES not less than their permitted values		P
	iv) insulation of internal wiring remains undamaged		P
	v) PROTECTIVE BARRIERS not damaged or loosened	No protective barrier.	N/A
	vi) No moving parts exposed, except permitted by 7.3	No moving part.	N/A
	vii) no damage which could cause spread of fire		P
8.2	ENCLOSURE rigidity test		P
8.2.1	Static test	(see Form A.21A)	P
	– 30 N with 12 mm rod to each part of ENCLOSURE		P
	– in case of doubt test conducted at maximum RATED ambient temperature		P
8.2.2	Impact test	(see Form A.21A)	P
	Impact applied to any part of ENCLOSURE causing a HAZARD if damaged		P
	Impact energy level and corresponding IK code.....		—
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C	Rated -25-60°C	P
8.3	Drop test		N/A
8.3.1	Other than HAND-HELD and DIRECT-PLUG-IN EQUIPMENT		N/A
	Tests conducted with a drop height or angle of		—
8.3.2	HAND-HELD and DIRECT-PLUG-IN EQUIPMENT		—
	Non-metallic ENCLOSURES cooled to minimum RATED ambient temperature if below 2 °C		N/A
	Drop test conducted with an height of 1 m		N/A
9	PROTECTION AGAINST THE SPREAD OF FIRE		P
9.1	No spread of fire in NORMAL and SINGLE FAULT CONDITION		P
	MAINS supplied equipment meets requirements of 9.6 additionally		N/A
	Conformity is checked by minimum one or a combination of the following (see Figure 11):	(see Form A.22)	—
	a) SINGLE FAULT test of 4.4; or	(see Form A.1)	P
	b) Application of 9.2 (eliminating or reducing the sources of ignition); or		N/A
	c) Application of 9.3 (containment of fire within the equipment)		N/A
9.2	Eliminating or reducing the sources of ignition within the equipment	Not used.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	a) 1) Limited-energy circuit (see 9.4); or		N/A
	b) 2) BASIC INSULATION provided for parts of different potential; or	(see Form A.14 and A.18)	N/A
	Bridging the insulation does not cause ignition	(see Form A.1)	N/A
	c) Surface temperature of liquids and parts (see 9.5)		N/A
	d) No ignition in circuits designed to produce heat	(see Form A.1)	N/A
9.3	Containment of the fire within the equipment, should it occur		N/A
9.3.1	Spread of fire outside equipment reduced to a tolerable level if:		—
	a) Energizing of the equipment is controlled by an OPERATOR held switch		N/A
	b) ENCLOSURE is conform with constructional requirements of 9.3.2; and		N/A
	Requirements of 9.5 are met	No flammable liquid.	N/A
9.3.2	Constructional requirements		—
	a) Connectors and insulating material have flammability classification V-2 or better	(see TABLE 1)	N/A
	b) Insulated wires and cables are flame retardant (VW-1 or equivalent)	(see TABLE 1)	N/A
	c) ENCLOSURE meets following requirements:	(see Form A.22)	—
	1) Bottom and sides in arc of 5 ° (see Figure 13) to non-limited circuits (9.4) meets:		—
	i) no openings; or		N/A
	ii) perforated as specified in table 16; or		N/A
	iii) metal screen with a mesh; or		N/A
	iv) baffles as specified in Figure 12		N/A
	2) Material of ENCLOSURE and any baffle or flame barrier is made of:		—
	Metal (except magnesium); or	Bottom is of metal.	N/A
	Non-metallic materials have flammability classification V-1 or better	(see TABLE 1)	N/A
	3) ENCLOSURE and any baffle or flame barrier have adequate rigidity		N/A
9.4	Limited-energy circuit		N/A
	a) Potential not more than 30 r.m.s. and 42,4 V peak, or 60 V dc		N/A
	b) Current limited by one of following means:		—
	1) Inherently or by impedance (see table 17); or		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	2) Overcurrent protective device (see table 18); or		N/A
	3) A regulating network limits also in SINGLE FAULT CONDITION (see table 17)		N/A
	c) Is separated by at least BASIC INSULATION		N/A
	Fuse or a nonadjustable electromechanical device is used		N/A
9.5	Requirements for equipment containing or using flammable liquids	No flammable liquid.	N/A
	Flammable liquids contained in or specified for use with equipment do not cause spread of fire	(see Form A.25)	N/A
	Risk is reduced to a tolerable level:		—
	a) The temperature of surface or parts in contact with flammable liquids is 25 °C below fire point		N/A
	b) The quantity of liquid is limited		N/A
	c) Flames are contained within the equipment		N/A
	Detailed instructions for RISK-reduction provided		N/A
9.6	Overcurrent protection		N/A
9.6.1	MAINS supplied equipment protected		N/A
	BASIC INSULATION between MAINS parts of opposite polarity provided		N/A
	Devices not in the protective conductor		N/A
	Fuses or single-pole circuit-breakers not fitted in neutral (multi-phase)		N/A
9.6.2	PERMANENTLY CONNECTED EQUIPMENT		N/A
	Overcurrent protection device:		—
	Fitted within the equipment; or		N/A
	Specified in manufacturer's instructions		N/A
9.6.3	Other equipment		—
	Protection within the equipment		N/A

10	EQUIPMENT TEMPERATURE LIMITS AND RESISTANCE TO HEAT		P
10.1	Surface temperature limits for protection against burns		P
	Easily touched surfaces within the limits in NORMAL and in SINGLE FAULT CONDITION:	(see Form A.26A)	—
	– at an specified ambient temperature of 40 °C		N/A
	– for equipment rated above 40 °C ambient temperature limits not exceeded raised by the difference to 40 °C		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Heated surfaces necessary for functional reasons exceeding specified values:	No such surface.	—
	– Are recognizable as such by appearance or function; or		N/A
	– Are marked with symbol 13		N/A
	– Guards are not removable without tool		N/A
10.2	Temperatures of windings		P
	Limits not exceeded in:	(see Form A.26A)	—
	NORMAL CONDITION		P
	SINGLE FAULT CONDITION		P
10.3	Other temperature measurements		P
	Following measurements conducted if applicable:	(see Form A.26A)	—
	a) Value of 60 °C of field-wiring terminal box not exceeded		N/A
	b) Surface of flammable liquids and parts in contact with this liquids		N/A
	c) Surface of non-metallic ENCLOSURES		N/A
	d) Parts made of insulating material supporting parts connected to MAINS supply		N/A
	e) Terminals carrying a current more than 0,5 A		P
10.4	Conduct of temperature tests		P
10.4.1	Tests conducted under reference test conditions and manufacturer's instructions	(see Form A.26A)	P
10.4.2	Temperature measurement of heating equipment	Not heating equipment.	N/A
	Tests conducted in test corner		N/A
10.4.3	Equipment intended for installation in a cabinet or wall	Not such equipment.	N/A
	Equipment built in as specified in installation instructions		N/A
10.5	Resistance to heat		P
10.5.1	Integrity of CLEARANCE and CREEPAGE DISTANCES	(see Form A.16)	P
10.5.2	Non-metallic ENCLOSURES	(see Form A.27)	P
	Within 10 min after treatment:		—
	Equipment subjected to suitable stresses of 8.2 and 8.3 complying with criteria of 8.1		P
10.5.3	Insulating material		P
	a) Parts supporting parts connected to MAINS supply		N/A
	b) TERMINALS carrying a current more than 0,5 A		P
	Examination of material data; or		N/A
	in case of doubt:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	1) Ball pressure test; or	See Form A.28	P
	2) Vicat softening test of ISO 306		N/A

11	PROTECTION AGAINST HAZARDS FROM FLUIDS		N/A
11.1	Protection to OPERATORS and surrounding area provided by EQUIPMENT		N/A
	All fluids specified by manufacturer considered	No cleaning process specified.	N/A
11.2	Cleaning	(see Form A.30)	N/A
11.3	Spillage	(see Form A.30)	N/A
11.4	Overflow		N/A
11.5	Battery electrolyte		N/A
	Battery electrolyte leakage presents no HAZARD		N/A
11.6	Specially protected equipment		N/A
11.7	Fluid pressure and leakage	No fluid.	N/A
11.7.1	Maximum pressure.....		—
	Maximum pressure of any part does not exceed P_{RATED}		N/A
11.7.2	Leakage and rupture at high pressure		—
	Fluid-containing parts subjected to hydraulic test if	(see Form A.31)	—
	a) product of pressure and volume > 200 kPal; and		N/A
	b) pressure > 50 kPa		N/A
	Parts of refrigerating systems meets pressure-related requirements of IEC 60335-24 or IEC 60335-2-89		N/A
11.7.3	Leakage from low-pressure parts	(see Form A.32)	N/A
11.7.4	Overpressure safety device		N/A
	Does not operate in NORMAL USE		N/A
	a) Connected as close as possible to parts intended to be protected		N/A
	b) Easy access for inspection, maintenance and repair		N/A
	c) Adjustment only with TOOL		N/A
	d) No discharge towards person		N/A
	e) No HAZARD from deposit of discharged material		N/A
	f) Adequate discharge capacity		N/A
	No shut-off valve between overpressure safety device and protected parts		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
12	PROTECTION AGAINST RADIATION, INCLUDING LASER SOURCES, AND AGAINST SONIC AND ULTRASONIC PRESSURE		N/A
12.1	Equipment provides protection		N/A
12.2	Equipment producing ionizing radiation	No ionizing radiation.	N/A
12.2.1	Ionizing radiation		N/A
12.2.1.1	Equipment meets the following requirements:		—
	a) if intended to emit radiation meets requirements of 12.2.1.2; or		N/A
	tested, classified and marked in accordance to IEC 60405		N/A
	b) if only emits stray radiation meets requirements of 12.2.1.3		N/A
12.2.1.2	Equipment intended to emit radiation		—
	Effective dose rate of radiation measured		—
	If dose rate exceeds 5 µSv/h marked with the following:		—
	a) symbol 17 (ISO 361)		N/A
	b) abbreviations of the radionuclides		—
	c) with maximum dose at 1 m; or.....		—
	with dose rate value between 1 µSv/h and 5 µSv/h in m		—
12.2.1.3	Equipment not intended to emit radiation	(see Form A.34)	—
	Limit for unintended stray radiation of 1 µSv/h at any easily reached point kept		—
12.2.2	Accelerated electrons	No such part.	—
	Compartments opened only by the use of a TOOL		N/A
12.3	Ultraviolet (UV) radiation	No such radiation.	N/A
	No unintentional HAZARDOUS escape of UV radiation:		—
	– checked by inspection; and		N/A
	– evaluation of RISK assessment documentation		N/A
12.4	Microwave radiation	No such radiation.	N/A
	Power density does not exceed 10 W/m ²		N/A
12.5	Sonic and ultrasonic pressure		N/A
12.5.1	Sound level	(see Form A.35)	—
	No HAZARDOUS sound emission		N/A
	Maximum sound pressure level measured and calculated for maximum sound power level as specified in ISO 3746 or ISO 9614-1		N/A
	Instruction describes measures for protection		N/A
12.5.2	Ultrasonic pressure	(see Form A.36)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Equipment not intended to emit ultrasound does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A
	Equipment intended to emit ultrasound:		N/A
	Outside useful beam does not exceed limit of 110 dB between 20 kHz and 100 kHz		N/A
	If inside useful beam above values exceeded:		—
	Marked with Symbol 14 of table 1		N/A
	and following information in the documentation:		—
	a) dimensions of useful beam		N/A
	b) area where ultrasonic pressure exceed 110 dB		N/A
	c) maximum sound pressure inside beam area		N/A
12.6	Laser sources		N/A
	Equipment meets requirements of IEC 60825-1		N/A

13	PROTECTION AGAINST LIBERATED GASES AND SUBSTANCES, EXPLOSION AND IMPLOSION		N/A
13.1	Poisonous and injurious gases and substances	The equipment does not liberate poisonous or injurious gas.	N/A
	No poisonous or injurious gases or substances liberated in NORMAL CONDITION		N/A
	Attached data/test reports demonstrate conformity		N/A
13.2	Explosion and implosion		N/A
13.2.1	Components		N/A
	Components liable to explode:		—
	Pressure release device provided; or		N/A
	Apparatus incorporates operator protection (see also 7.7)		N/A
	Pressure release device:		—
	Discharge without danger		N/A
	Cannot be obstructed		N/A
13.2.2	Batteries and battery charging	(see Form A.37)	—
	If explosion or fire HAZARD could occur:		—
	Protection incorporated in the equipment; or		N/A
	Instructions specify batteries with built-in protection		N/A
	In case of wrong type of battery used:		—
	No HAZARD; or		N/A
	Warning by marking and within instructions		N/A
	Equipment with means to charge rechargeable batteries:	No means provided.	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Warning against the charging of non-rechargeable batteries; and		N/A
	Type of rechargeable battery indicated; or		N/A
	Symbol 14 used		N/A
	Battery compartment design		N/A
	Single component failure	(see Form A.37)	N/A
	Polarity reversal test		N/A
13.2.3	Implosion of cathode ray tubes		N/A
	If maximum face dimensions > 160 mm.....		—
	Intrinsically protected and correctly mounted; or		N/A
	ENCLOSURE provides protection:		N/A
	If non-intrinsically protected:		—
	Screen not removable without TOOL		N/A
	If glass screen, not in contact with surface of tube		N/A

14	COMPONENTS AND SUBASSEMBLIES		P
14.1	Where safety is involved, components and subassemblies meet relevant requirements	(see TABLE 1)	P
14.2	Motors	No motor.	N/A
14.2.1	Motor temperatures		N/A
	Does not present a HAZARD when stopped or prevented from starting; or		N/A
	Protected by over-temperature or thermal protection device conform with 14.3		N/A
14.2.2	Series excitation motors	No such motor.	N/A
	Connected direct to device, if overspeeding causes a HAZARD		N/A
14.3	Overtemperature protection devices	No overtemperature protection device.	N/A
	Devices operating in a SINGLE FAULT CONDITION		N/A
	a) Reliable function is ensured		N/A
	b) RATED to interrupt maximum current and voltage		N/A
	c) Does not operate in NORMAL USE		N/A
	If self-resetting device used to prevent a HAZARD, protected part requires intervention before restarting		N/A
14.4	Fuse holders	No such device.	N/A
	No access to HAZARDOUS LIVE parts		N/A
14.5	MAINS voltage selecting devices	No such device.	N/A
	Accidental change not possible		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
14.6	MAINS transformers tested outside equipment		N/A
14.7	Printed circuit boards	Not used.	N/A
	Data shows conformity with V-1 of IEC 60695-11-10 or better; or		N/A
	Test shows conformity with V-1 of IEC 60695-11-10 or better		N/A
	Not applicable for printed wiring boards with limited-energy circuits (9.4)		N/A
14.8	Circuits or components used as TRANSIENT OVERVOLTAGE limiting devices		N/A
	Test conducted between each pair of MAINS SUPPLY TERMINALS		N/A
	No HAZARD resulting from rupture or overheating of the component:		—
	– no bridging of safety relevant insulation		N/A
	– no heat to other parts above the self-ignition points		N/A
15	PROTECTION BY INTERLOCKS		N/A
15.1	Interlocks are designed to remove a HAZARD before OPERATOR exposed	No interlock.	N/A
15.2	Prevention of reactivation		N/A
15.3	Reliability		N/A
	Single fault unlikely to occur; or		N/A
	Cannot cause a HAZARD		N/A
16	HAZARDS RESULTING FROM APPLICATION		P
16.1	REASONABLY FORESEEABLE MISUSE	No hazard will arise due to foreseeable misuse.	P
	No HAZARDS arising from settings not intended and not described in the instructions		P
	Other cases of REASONABLY FORESEEABLE MISUSE addressed by RISK assessment		N/A
16.2	Ergonomic aspects	No hazard.	N/A
	Factors giving rise to a HAZARD the RISK assessment is reflecting those aspects:		—
	a) limitation of body dimensions		N/A
	b) displays and indicators		N/A
	c) accessibility and conventions of controls		N/A
	d) arrangement of TERMINALS		N/A
17	RISK ASSESSMENT		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	RISK assessment conducted, if HAZARD might arise and not covered by Clauses 6 to 16		N/A
	TOLERABLE RISK achieved by iterative documented process covering the following:		—
	a) RISK analysis		N/A
	Identifies HAZARDS and estimates RISK		N/A
	b) RISK evaluation		N/A
	Plan to judge acceptability of resulting RISK level based on the estimated severity and likelihood of a RISK		N/A
	c) RISK reduction		N/A
	Initial RISK reduced by counter measures;		N/A
	Repeated RISK evaluation without new RISKS introduced		N/A
	RISKS remaining after RISK assessment addressed in instructions to RESPONSIBLE BODY:		—
	Information contained how to mitigate these RISKS		N/A
	Following principles in methods of RISK reduction applied by manufacturer in given order:		—
	1) RISKS eliminated or reduced as far as possible		N/A
	2) Protective measures taken for RISKS that cannot be eliminated		N/A
	3) User information about residual RISK due to any defect of the protective measures		N/A
	Indication of particular training is required		N/A
	Specification of the need for personal protective equipment		N/A
	Conformity checked by evaluation of the RISK assessment documentation		N/A

ANNEX F	ROUTINE TESTS		N/A
	Manufacturer 's declaration		N/A

ANNEX H	QUALIFICATION OF CONFORMAL COATINGS FOR PROTECTION AGAINST POLLUTION		N/A
H.1	General	Not used.	N/A
	Conformal coatings meet the requirements of Clause H.2 and H.3.		N/A
H.2	Technical properties		N/A
	Technical properties of conformal coatings are suitable for the intended application. In particular:		—
	a) Manufacturer indicate that it is a coating for PWBs;		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) RATED operating temperature include the temperature range of the indicated application;		N/A
	c) CTI, insulation resistance and dielectric strength are suitable for the intended application;		N/A
	d) Coating have adequate UV resistance, if it is exposed to sunlight;		N/A
	e) Flammability RATING of the coating is at least the required flammability RATING of the applied PWB.		N/A
H.3	Qualification of coatings	(see Form A.42)	N/A
	Coating complies with the conformity requirements.		N/A
ANNEX K	INSULATION REQUIREMENTS NOT COVERED BY CLAUSE 6.7		P

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Clause	Requirement — Test			Result — Remark	Verdict
4.4	TABLE: Testing in SINGLE FAULT CONDITION – Results			Form A.1	P
Test subclause	Fault No.	Fault description	Td 4.4.3 (NOTE)	How was test terminated Comments	Meets 4.4.4
NP48-A:					
4.4.1	1	Coil of current meter short-circuited	10 min	No hazard, no excessive temperature rise.	P
NP72-A:					
4.4.1	1	Coil of current meter short-circuited	10 min	No hazard, no excessive temperature rise.	P
NP96-A:					
4.4.1	1	Coil of current meter short-circuited	10 min	No hazard, no excessive temperature rise.	P
NOTE Td = Test duration in hh:mm:ss Record dielectric strength test on Form A.18 and temperature tests on Form A.26A and or A.26B. Record in the comments column for each test whether carried out during or after SINGLE FAULT CONDITION.					
Supplementary information:					

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Clause	Requirement — Test	Result — Remark	Verdict			
5.1.3c)	TABLE: MAINS supply	Form A.2	N/A			
	Marked rating	V	—			
	Phase		—			
	Frequency	Hz	—			
	Current	A	—			
	Power	W	—			
	Power	VA	—			
Test No.	Voltage [V]	Frequency [Hz]	Current [A]	Power		Comments
				[W]	[VA]	
NOTE – Measurements are only required for marked ratings.						
Supplementary information:						

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Clause	Requirement — Test			Result — Remark	Verdict
5.3	TABLE: Durability of markings			Form A.3	P
Marking method (see NOTE)			Agent		
1) Adhesive label			A Water		
2) Ink printed			B Isopropyl alcohol 70%		
3) Moulded			C (specify agent)		
4)			D (specify agent)		
5)			E (specify agent)		
NOTE – Where applicable include print method, label material, ink or paint type, fixing method, adhesive and surface to which marking is fixed.					
Marking location			Marking method (see above)		
Identification (5.1.2)			1)		
MAINS supply (5.1.3)			N/A		
Fuses (5.1.4)			N/A		
Terminals and operating devices (5.1.5.2)			N/A		
Switches and circuit breakers (5.1.6)			N/A		
Double/reinforced equipment (5.1.7)			N/A		
Field wiring Terminal boxes (5.1.8)			N/A		
Warning marking (5.2)			2) 3)		
Battery charging (13.2.2)			N/A		
Method	Test agent	Remains legible	Label loose	Curled edges	Comments
		Verdict	Verdict	Verdict	
1)	A, B	Pass	Pass	Pass	--
2)	A, B	Pass	N/A	N/A	--
3)	A, B	Pass	N/A	N/A	--
Supplementary information:					

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Clause	Requirement — Test	Result — Remark	Verdict
6.2	TABLE: List of ACCESSIBLE parts	Form A.4	P
6.1.2	Exceptions		—
6.2	Determination of ACCESSIBLE parts		—
Item	Description	Determination method (NOTE 5)	Exception under 6.1.2 (NOTE 4)
1	Enclosure	V, R, J	N/A
NOTE 1 – Test fingers and pins are to be applied without force unless a force is specified (see 6.2.2) NOTE 2 – Special consideration should be given to inadequate insulation and high voltage parts (see 6.2) NOTE 3 – Parts are considered to be ACCESSIBLE if they could be touched in the absence of any covering which is not considered to provide suitable insulation (see 6.4). NOTE 4 – Capacitor test may be required (see Form A.5). NOTE 5 – The determination methods are: V = visual; R = rigid test finger; J = jointed test finger; P3 = pin 3 mm diameter; P4 = pin 4 mm diameter.			
Supplementary information:			

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Clause	Requirement — Test	Result — Remark	Verdict
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6	TABLE: Values in NORMAL CONDITION	Form A.5	P
6.1.2	Exceptions	11.2 Cleaning and decontamination	—
6.3.1	Values in NORMAL CONDITION (see NOTE 1)	11.3 Spillage	—
6.6.2	Terminals for external circuit	11.4 Overflow	—
6.10.3	Plugs and connections		—

Item (see Form A.4)	Voltage			Current				Capacitance		10 s / 5 s test (NOTE)			Comments
	V r.m.s.	V peak	V d.c.	Test circuit A1/A2/A3	mA r.m.s.	mA peak	mA d.c.	µC	mJ	V	µC	mJ	
1	0.2	1.3	--	--	--	--	--	--	--	--	--	--	--

NOTE – A 10 s test is specified in 6.1.2 a) b). A. 5 s test is specified in 6.10.3. The capacitance level versus voltage below the limits given from figure 3 of IEC 61010-1.
 Supplementary information:

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Clause	Requirement — Test	Result — Remark	Verdict

6.3.2	TABLE: Values in SINGLE FAULT CONDITION											Form A.6	N/A
Item (see Form A.4)	Subclause and fault No. (see Form A.1)	Voltage			Transient (see NOTE)		Current			Capacitance	Comments		
	V r.m.s.	V peak	V d.c.	V	s	Test circuit A1/A2/A3	mA r.m.s.	mA peak	mA d.c.	μF (see NOTE)			

NOTE – Transient voltages must be below the limits given from Figure 2 and the capacitance below the limits from figure 3 of IEC 61010-1.

Supplementary information:

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Clause	Requirement — Test	Result — Remark	Verdict
6.5.2.2	TABLE: Cross-sectional area of bonding conductors		Form A.7
			N/A
Conductor location	CROSS-SECTIONAL AREA [mm ²]		Verdict
Supplementary information:			
6.5.2.3	TABLE: Tightening torque test		Form A.8
			N/A
Conductor location	Size of screw	Tightening torque [Nm]	Verdict
Supplementary information:			

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Clause	Requirement — Test		Result — Remark	Verdict
6.5.2.4	TABLE: Bonding impedance of plug connected equipment			Form A.9
				N/A
	ACCESSIBLE part under test	Test current	Voltage attained after 1 min	Calculated resistance
		[A]	[V]	(Maximum 0,1 or 0,2 Ω)
				[Ω] (NOTE 1)
NOTE 1 – For none-detachable power cord the impedance between protective conductor plug pin of MAINS cord and each ACCESSIBLE part shall not exceed 0,2 Ohm.				
Supplementary information:				
6.5.2.5	TABLE: Bonding impedance of permanently connected equipment			Form A.10
				N/A
	ACCESSIBLE part under test	Test current	Voltage attained after 1 min	Verdict
		[A]	(maximum 10 V)	
			[V]	
Supplementary information:				
6.5.2.6	TABLE: Transformer PROTECTIVE BONDING screen			Form A.11
				N/A
	ACCESSIBLE part under test	Test current	Voltage attained after 1 min	Calculated resistance
		(see NOTE)	(maximum 10 V)	(maximum 0,1 Ω)
		[A]	[V]	[Ω]
NOTE – Test current must be twice the value of the overcurrent protection means of the winding. Test is specified in 6.5.2.6 a) or b).				
Supplementary information:				

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

6.5.4	TABLE: protective impedance	Form A.12	N/A
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A single component							
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Component	Location	Measured		Calculated	Rated		Verdict	Comments
		Working voltage [V]	Current [A]	Power dissipation [W]	Working voltage [V]	Power dissipation [W]		

A combination of components		
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Component	Location	Comments

NOTE – A PROTECTIVE IMPEDANCE shall not be a single electronic device that employs electron conduction in a vacuum, gas or semiconductor.

Supplementary information:

IEC 61010-1

Clause	Requirement — Test	Result — Remark	Verdict
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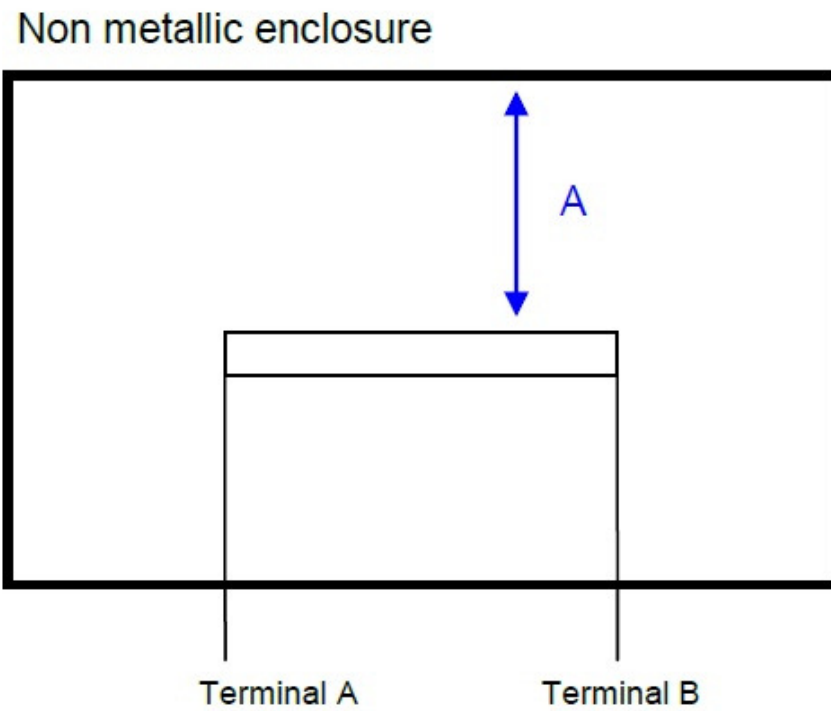
6.5.6	TABLE: Current- or voltage-limiting device	Form A.13	N/A
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Component	Location	Measured		Rated		Verdict	Comments
		Working voltage [V]	Current [A]	Working voltage [V]	Current [A]		

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

6.7	TABLE: Insulation requirements- Block diagram of system	Form A.14	P
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Pollution degree : 2 Overvoltage category..... : III

Area	Location	Insulation type (NOTE 1)	WORKING VOLTAGE			Test voltage (NOTE 2) [V]	Comments (NOTE 3)
			RMS [V]	Peak [V]	Frequency [kHz]		
A	Internal circuit – Enclosure (Top and Side)	RI	500	710	50-60	5400Vac	--

NOTE 1 – Type of insulation:
 BI = BASIC INSULATION
 DI = DOUBLE INSULATION
 PI = PROTECTIVE IMPEDANCE
 RI = Reinforced INSULATION
 SI = Supplementary INSULATION
 see also Form A.15 for further details

NOTE 2 - Types of voltage
 Peak impulse test voltage (pulse)
 r.m.s.
 d.c.
 peak

NOTE 3 - OVERVOLTAGE CATEGORIES or POLLUTION DEGREES which differ should be shown under "Comments"

Supplementary Information:

For models NP48-A, NP72-A, NP96-A.

IEC 61010-1												
Clause		Requirement — Test					Result — Remark					Verdict
6.7		TABLE: Insulation requirements- Clearances and Creepage					Form A.15					P
6.2.2		Examination					6.5.4		Protective impedance			—
6.4.2		ENCLOSURES and protective barriers					6.5.6		Current- or voltage-limiting device			—
6.4.4		Impedance					9.6.1		BASIC INSULATION between opposite polarity			—
Area	Location (See Form A.14)	Insulation type (NOTE 1)	WORKING VOLTAGE (NOTE 2)			Clearance		Creepage		CTI	Verdict	Comments
			RMS [V]	Peak [V]	Frequency [kHz]	Required [mm]	Measured [mm]	Required [mm]	Measured [mm]			
A	Internal circuit – Enclosure (Top and Side)	RI	500	710	50-60	15	12	15	12	--	P	For model NP48-A
A	Internal circuit – Enclosure (Top and Side)	RI	500	710	50-60	15	12	15	12	--	P	For model NP72-A
A	Internal circuit – Enclosure (Top and Side)	RI	500	710	50-60	15	12	15	12	--	P	For model NP96-A
NOTE 1 – refer to Form A.14 for type of insulation shown in the insulation diagram						NOTE 2 - to be used for definition of required insulation (see Form A.14)						
Input supply voltage.....:		500	V	50-60	Hz							
Supplementary information:												

IEC 61010-1													
Clause		Requirement — Test						Result — Remark				Verdict	
6.7	TABLE: Insulation requirements- Clearances and Creepages											Form A.16	P
6.4.2	ENCLOSURES or PROTECTIVE BARRIERS						9.6.1	Overcurrent protection basic insulation between MAINS parts				—	
8	Mechanical resistance to shock and impact						10.5.1	Integrity of CLEARANCES and CREEPAGE distances				—	
Area	Location (See Form A.14)	Insulation type	Mechanical tests (NOTE)					Test at max.	Measured after test (if required)		Verdict	Comments	
			Applied force	Rigidity (8.2)		Drop (8.3)		RATED ambient	Clearance	Creepage distance			
			N	Static (8.2.1)	Impact (8.2.2)	Normal (8.3.1)	Hand-held/ Plug-in	(10.5.1)	mm	mm			
A	Internal circuit – Enclosure (Side)	RI	10	30N	5J	--	--	60°C	15	15	P	For model NP48-A	
A	Internal circuit – Enclosure (Side)	RI	10	30N	5J	--	--	60°C	15	15	P	For model NP72-A	
A	Internal circuit – Enclosure (Side)	RI	10	30N	5J	--	--	60°C	15	15	P	For model NP96-A	
NOTE – Refer to Form A.18 for dielectric strength tests following the above tests.													
Supplementary information:													

IEC 61010-1							
Clause	Requirement – Test			Result — Remark		Verdict	
6.7.2.2.2	TABLE: Reliability of potted components			Form A.17 (optional)		N/A	
14.1 b)	Components and subassemblies					N/A	
Temperature Cycling Test							
Manufacturer							
Type.....							
Construction							
Potting compound							
CREEPAGE distances measured							
CLEARANCES measured							
Thickness through insulation.....							
Adhesive test Pass/Fail							
Test temperature T °C.....							
Cycles at U= AC 500 V				Leakage current (500 V) mA			
Number of cycles	Date			68 h /	1 h /	2 h /	1 h /
				125 °C	25 °C	0 °C	25 °C
1. Cycle from		to					
2. Cycle from		to					
3. Cycle from		to					
4. Cycle from		to					
5. Cycle from		to					
6. Cycle from		to					
7. Cycle from		to					
8. Cycle from		to					
9. Cycle from		to					
10. Cycle from		to					
After Cycling Test :							
Humidity conditioning				48 h			
Requirements for dielectric strength (s. insulation diagram)				Test voltage V r.m.s		Verdict	
Basic insulation _____ V r.m.s.							
Supplementary insulation _____ V r.m.s.							
Reinforced insulation _____ V r.m.s.							
NOTE - to be used for evaluation of components containing insulation through solid insulation, when the component standard require thermal cycling test. Ref Clause 14.1 and Figure 15, option b)							
Supplementary information:							

IEC 61010-1						
Clause	Requirement — Test			Result — Remark		Verdict
6.8	TABLE: Dielectric strength tests				Form A.18	P
4.4.4.1 b)	Conformity after application of SINGLE FAULT CONDITIONS ¹					N/A
6.4	Primary means of protection ²					P
6.6	Connections to external circuits					N/A
6.7.	Insulation requirements ² (see Annex K)					P
6.10.2	Fitting of non-detachable MAINS supply cords ¹					N/A
9.2 a) 2)	Eliminating or reducing the sources of ignition within the equipment					N/A
9.4 c)	Limited-energy circuit					N/A
9.6.1	Overcurrent protection basic insulation between MAINS - parts					N/A
	Test site altitude.....:			<2000m		—
	Test voltage correction factor (see table 10)			1.00		—
Location or references from Forms A.1 and A.14	Clause or sub-clause	Humidity	Working voltage	Test voltage	Comments (NOTE)	Verdict
		Yes/No	V	r.m.s./peak/d.c.		
A of Form A.14 (model NP48-A)	6.4, 6.7	Yes	500	5400Vac	No flash over or insulation breakdown.	P
A of Form A.14 (model NP72-A)	6.4, 6.7	Yes	500	5400Vac	No flash over or insulation breakdown.	P
A of Form A.14 (model NP96-A)	6.4, 6.7	Yes	500	5400Vac	No flash over or insulation breakdown.	P
¹ Record the fault, test or treatment applied before the dielectric strength test. ² Humidity preconditioning required. NOTE: Test duration may be recorded.						
Supplementary information:						

IEC 61010-1							
Clause	Requirement — Test			Result — Remark		Verdict	
6.10.2	TABLE: Cord anchorage					Form A.19	N/A
Location	Mass [kg]	Pull [N]	Verdict	Torque [Nm]	Verdict	Comment	
Dielectric strength test for 1 min. (6.8.3.1)..... :				V r.m.s.			
Supplementary information:							

IEC 61010-1															
Clause	Requirement — Test											Result — Remark			Verdict
7.	TABLE: Protection against mechanical HAZARDS													Form A.20	N/A
7.3.4	Limitation of force and pressure														—
7.3.5	Gap limitations between moving parts														—
Part / Location	Clause 7.3.4		Clause 7.3.5.1								Clause 7.3.5.2			Verdict	Comments
	Continuous	Temporary	Minimum gaps [mm]								Maximum gaps [mm]				
	Contact pressure max. 50 N /cm ² @ max. 150 N	max. 250 N / 3 cm ² @ max. 0,75 s	Torso 500	Head 300	Leg 180	Foot 120	Toes 50	Arm 120	Hand 100	Finger 25	Head 120	Foot 35	Finger 4		
Supplementary information:															

IEC 61010-1			
Clause	Requirement – Test	Result - Remark	Verdict
8.2	ENCLOSURE rigidity test	Form A.21A	P
8.2.1	Static test		P
	Material of enclosure	Non-metallic	—
	Preparation for the test:		—
	Operated at ambient temperature	60 °C 12 h	—
	Location	Comments	Verdict
	Four sides of enclosure	No visible damage, no hazard	P
Supplementary information: Tested for models NP48-A, NP72-A, NP96-A.			
8.2.2	Dynamic test		P
	Material of enclosure	Non-metallic	—
	Corresponding IK-code.....	N/A	—
	Preparation for the test:		—
	Cooled to (temperature)	-25 °C	—
	Location	Comments	Verdict
	Four sides of enclosure	No visible damage, no hazard	P
Supplementary information: Tested for models NP48-A, NP72-A, NP96-A.			

IEC 61010-1			
Clause	Requirement – Test	Result - Remark	Verdict
8.3	Drop test	Form A.21B	N/A
8.3.1	Other equipment		N/A
	Location	Raised up to	Comments
		[mm] 30 °	—
			N/A
Supplementary information:			
8.3.2	Hand-held EQUIPMENT and direct plug-in equipment		N/A
	Material of enclosure	Metal / non-metallic	—
	Preparation for the test:		—
	Cooled to (temperature)	°C	—
	Location	Comments	Verdict
	1) Side		
	2) Edge		
	3) Corner		
Supplementary information:			

IEC 61010-1				
Clause	Requirement — Test		Result — Remark	Verdict
9	TABLE: Protection against the spread of fire			Form A.22
				P
Item	Source of HAZARD or area of the equipment considered (circuit, component, liquid etc.)	Protection Method (9.1 a, b or c)	Protection details	Verdict
1	Internal circuit	9a	No hazard, no excessive temperature rise.	P
Supplementary information: Tested for models NP48-A, NP72-A, NP96-A.				

IEC 61010-1									
Clause	Requirement — Test	Result — Remark				Verdict			
9.3.2	TABLE: Constructional requirements	Form A.23				N/A			
14.7	Printed circuit boards					N/A			
Material tested									
Generic name									
Material manufacturer									
Type									
Colour									
Conditioning details.....									
				Sample					
				1	2	3	4	5	6
Thickness of specimen	mm								
Duration of flaming after first Application	s								
Duration of flaming plus glowing After second application	s								
Specimen burns to holding clamp	Yes/No								
Cotton ignited	Yes/No								
Sample result	Pass/Fail								
Supplementary information:									

IEC 61010-1

Clause	Requirement — Test	Result — Remark	Verdict
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9.4	TABLE: Limited-energy circuit	Form A.24	N/A
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Item or Location (see Form A.22)	9.4 a)	9.4 b) Current limitation (NOTE)		9.4 c)	Decision	Comments
	Maximum potential in circuit voltage r.m.s./d.c. [V]	Maximum available current [A]	Overload protection after 120 s [A]	Circuit separation	Yes/No	

NOTE – Maximum values see Tables 17 and 18 of IEC 61010-1

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
9.5	TABLE: Requirements for equipment containing or using flammable liquids		Form A.25
	Type of liquid	9.5 Flammable liquids	
		b) Quantity	c) Containment
Supplementary information:			

IEC 61010-1						
Clause	Requirement — Test			Result — Remark	Verdict	
10.	TABLE : Temperature Measurements			Form A.26A	P	
10.1	Surface temperature limits – NORMAL CONDITION and / or SINGLE FAULT CONDITION				P	
10.2	Temperature of windings – NORMAL CONDITION and / or SINGLE FAULT CONDITION				P	
10.3	Other temperature measurements				N/A	
Operating conditions:		normal condition				
Frequency..... :	60 Hz	Test room ambient temperature (ta)...		23,5 °C		
Voltage..... :	500 V	Test duration..... :		4 h 10 min		
Part / Location		t_m [°C]	t_c [°C]	t_{max} [°C]	Verdict	Comments
For model NP48-A						
Side of panel		24.6	61,1	80	P	
Plastic enclosure		24.8	61,3	80	P	
Coil of current meter		34.0	70,5	130	P	
For model NP72-A						
Side of panel		23.8	60,3	80	P	
Plastic enclosure		24.4	60,9	80	P	
Coil of current meter		33.1	69,6	130	P	
For model NP96-A						
Side of panel		23.7	60,2	80	P	
Plastic enclosure		24.1	60,6	80	P	
Coil of current meter		33.2	69,7	130	P	
NOTE 1 - t_m = measured temperature $t_c = t_m$ corrected ($t_m - t_a + 40$ °C or max. RATED ambient) t_{max} = maximum permitted temperature NOTE 2 - see also 14.1 with reference to component operating conditions NOTE 3 - Record values for NORMAL CONDITION and / or SINGLE FAULT CONDITION in this Form use additional form if necessary NOTE 4 - see Form A.26B for details of winding temperature measurements						
Supplementary information:						

IEC 61010-1					
Clause	Requirement — Test	Result — Remark		Verdict	
10.5.2	TABLE: Resistance to heat of non-metallic ENCLOSURES	Form A.27		P	
	Test method used:	a)		—	
	Non-operative treatment	[]		P	
	Empty ENCLOSURE	[]		P	
	Operative treatment	[]		N/A	
	Temperature during tests.....	72°C		—	
Description	Material	Comments		Verdict	
Non-metallic enclosure	Plastic, Glass	No deformation		Pass	
Dielectric strength test (6.8).....		5400	V	r.m.s./peak/d.c-	r.m.s.
NOTE – Within 10 minutes of the end of treatment suitable tests in acc. to 8.2 and 8.3 must be conducted and pass criteria of 8.1.					
Supplementary information:					

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
10.5.3	TABLE: Insulating Materials	Form A.28	P
10.5.3 1)	Ball-pressure test		P
	Max. allowed impression diameter :	2mm	—
Part	Test temperature [°C]	Impression diameter [mm]	Verdict
Plastic enclosure	125	1.8	P
Supplementary information:			
10.5.3 2)	Vicat softening test (ISO 306)	Form A.29	N/A
Part	Vicat softening temperature [°C]	Thickness of sample [mm]	Verdict
Supplementary information:			

IEC 61010-1												
Clause	Requirement — Test								Result — Remark			Verdict
8	TABLE: Mechanical resistance to shock and impact										Form A.30	P
11	Protection against HAZARDS from fluids											N/A
Voltage tests can be carried out once after performing the tests of clause 8 and clause 11. However, if voltage tests are carried out separately after each set of tests, two forms can be used.												
Location (see Form A.14)	Clause 8 tests				Clause 11 tests				Working voltage [V]	Test voltage [V]	Verdict	Comments
	Static (8.2.1) 30 N	Impact (8.2.2)	Normal (8.3.1)	Handheld Plug-in	Cleaning (11.2)	Spillage (11.3)	Overflow (11.4)	IEC 60529 (11.6)				
A Internal circuit – Enclosure (Side)	P	P	N/A	N/A	N/A	N/A	N/A	N/A	500	5400Vac	P	For model NP48-A
A Internal circuit – Enclosure (Side)	P	P	N/A	N/A	N/A	N/A	N/A	N/A	500	5400Vac	P	For model NP72-A
A Internal circuit – Enclosure (Side)	P	P	N/A	N/A	N/A	N/A	N/A	N/A	500	5400Vac	P	For model NP96-A
NOTE – Use r.m.s., d.c. or peak to indicate the used test voltage.												
Supplementary information:												

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

11.7.2	TABLE: Leakage and rupture at high pressure					Form A.31	N/A
Part	Maximum permissible working pressure [MPa]	Test pressure [MPa]	Leakage Yes / No	Deformation Yes / No	Burst Yes / No	Comments	

NOTE – see also Annex G with requirements for USA and Canada.
 Supplementary information:

11.7.3	Leakage from low-pressure parts			Form A.32	N/A
Part	Test pressure [MPa]	Leakage Yes / No	Comments		

Supplementary information:

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
12.2.1	TABLE: Ionizing radiation	Form A.33	N/A
12.2.1.2	Equipment intended to emit radiation		N/A
Locations tested	Measured values [μSv/h]	Verdict	Comments
Supplementary information:			
12.2.1.3	Equipment not intended to emit radiation	Form A.34	N/A
	Max. allowed effective dose rate at 100 mm.....:	1 μSv/h	—
Locations tested	Measured values [μSv/h]	Verdict	Comments
Supplementary information:			

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
12.5.1	TABLE: Sound level	Form A.35	N/A
Locations tested	Measured maximum sound pressure level dB(A)	Calculated maximum sound power level	
At operator's normal position and at bystanders' positions			
a)			
b)			
c)			
d)			
e)			
f)			
Supplementary information:			
12.5.2	Ultrasonic pressure	Form A.36	N/A
Locations tested	Measured values		Comments
	[dB]	[kHz]	
At operator's normal position			
At 1 m from the ENCLOSURE			
a)			
b)			
c)			
d)			
e)			
NOTE – No limit is specified at present, but a limit of 110 dB above the reference pressure value of 20 µPa is under consideration for applicable frequencies between 20 kHz and 100 kHz.			
Supplementary information:			

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
13.2.2	TABLE: Batteries	Form A.37	N/A
	Battery load and charging circuit diagram:		
	Battery type		—
	Battery manufacturer/model/catalogue No.		—
	Battery ratings		—
	Reverse polarity instalment test		N/A
Single component failures		Verdict	
Component		Open circuit	Short circuit
Supplementary information:			

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict
4.4.2.7	TABLE: MAINS transformer	Form A.39	N/A
4.4.2.7.2	Short circuit		N/A
14.6	MAINS transformers tested outside equipment		N/A
Type			—
Manufacturer.....			—
Test in equipment			
Test on bench			
Test repeated inside equipment (see 14.6)			
Optional – Insulation class (IEC 60085) of the lowest rated winding			—
Winding identification			
Type of Protector for winding (NOTE 1)			
Elapsed time			
Current, A	primary		
	secondary		
Winding temperature, °C	primary		
(see NOTE 2)	secondary		
Tissue paper / cheesecloth OK ? (Pass / Fail)			
Voltage tests (see NOTE 3)			
Primary to secondary	V rms		
Primary to core	V rms		
Secondary to secondary	_____ V _____		
Secondary to core	_____ V _____		
Verdict			
NOTE 1:	Primary fuse	- PF / ()	A
	Secondary fuse	- SF / ()	A
	Overtemperature protection	- OP / ()	°C
	Impedance protection	- Z	
NOTE 2:	Indicate method of measurement	- TC = with thermocouple	
		- R = resistance method	
	If resistance method is used, record resistance in cold and warm condition in FormA.26B.		
NOTE 3:	Record the voltage applied and the type of voltage (r.m.s. / d.c. / peak) and for results use NB = no breakdown or B = breakdown		
Supplementary information:			

IEC 61010-1				
Clause	Requirement — Test	Result — Remark		Verdict
4.4.2.7	TABLE: MAINS transformer	Form A.40		N/A
4.4.2.7.3	Overload tests (for MAINS transformers)			N/A
14.6	MAINS transformers tested outside equipment			N/A
Type				—
Manufacturer				—
Test in equipment				
Test on bench				
Test repeated inside equipment (see 14.6)				
Optional – Insulation class (IEC 60085) of the lowest rated winding				—
Winding identification				
Type of Protector for winding (NOTE 1)				
Elapsed time				
Current, A primary				
secondary				
Winding temperature, °C primary				
(see NOTE 2) secondary				
Tissue paper / cheesecloth OK ? (Pass / Fail)				
Voltage tests (see NOTE 3)				
Primary to secondary	_____ V _____			
Primary to core	_____ V _____			
Secondary to secondary	_____ V _____			
Secondary to core	_____ V _____			
Verdict				
NOTE 1:	Primary fuse	- PF / ()	A	
	Secondary fuse	- SF / ()	A	
	Overtemperature protection	- OP / ()	°C	
	Impedance protection	- Z		
NOTE 2:	Indicate method of measurement	TC = with thermocouple		
		R = resistance method		
NOTE 3:	If resistance method is used, record resistance in cold and warm condition in FormA.26B.			
	Record the voltage applied and the type of voltage (r.m.s. / d.c. / peak) and for results use NB = no breakdown or B = breakdown			
Supplementary information:				

IEC 61010-1											
Clause		Requirement – Test				Result — Remark				Verdict	
Annex H		TABLE: Qualification of conformal coating for protection against pollution						Form A.42		N/A	
Technical properties											
Manufacturer										—	
Type										—	
Meet requirements of ANSI / UL 746E		[yes / no]									
Manufacturer declaration of coating material		[yes / no]									
Operating temperature of coating		[] °C									
Comparative tracking index (CTI)		[]									
Insulation resistance		[] Ω									
Dielectric strength		[] V									
UV resistance (if required)		[yes / no]									
Flammability rating											
Preparation of the test specimens conducted		[yes / no]									
Item	Test conditioning	Parameter	Td h	Samples						Verdict	Comments
				1	2	3	4	5	6		
1	Scratch resistance										
	Visual inspection										
2	Cold		24								
3	Dry heat		48								
4	Rapid temp. change										
5	Damp heat		24								
6	Adhesion of coating	5 N									
	Visual inspection										
7	Humidity		48								
8	Insulation resistance	>= 100 Ω									
	Visual inspection										
NOTE Td = Test duration time											
Supplementary information:											

IEC 61010-1						
Clause	Requirement — Test			Result — Remark		Verdict
TABLE 1: - List of components and circuits relied on for safety						P
Unique component reference or location	Application/function	Manufacturer / trademark (NOTE 1)	Type / model	Technical data (NOTE 2)	Standard	Mark(s) of conformity evidence of acceptance (NOTE 3 and 4)
Plastic enclosure	Protective enclosure	CHI MEI CORPORATION	PA-747	HB, min. 1.5 mm thickness	UL 94	E56070
NP48-A:						
Coil of current meter	Measuring	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	Φ1.08mm x 22Ts Class B	IEC 61010-1: 2010 EN 61010-1: 2010	Tested with appliance
-- Magnet wire	Wire of current meter	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	130°C	UL 1446	E206121
-- Bobbin	Bobbin of current meter	FUZHOU JIA WEI TECH CO LTD	1520	V-0, min. 0.8 mm thickness	UL 94	E221630
NP72-A:						
Coil of current meter	Measuring	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	Φ1.2mm x 24Ts Class B	IEC 61010-1: 2010 EN 61010-1: 2010	Tested with appliance
-- Magnet wire	Wire of current meter	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	130°C	UL 1446	E206121
-- Bobbin	Bobbin of current meter	FUZHOU JIA WEI TECH CO LTD	1520	V-0, min. 0.8 mm thickness	UL 94	E221630

IEC 61010-1			
Clause	Requirement — Test	Result — Remark	Verdict

TABLE 1: - List of components and circuits relied on for safety						P
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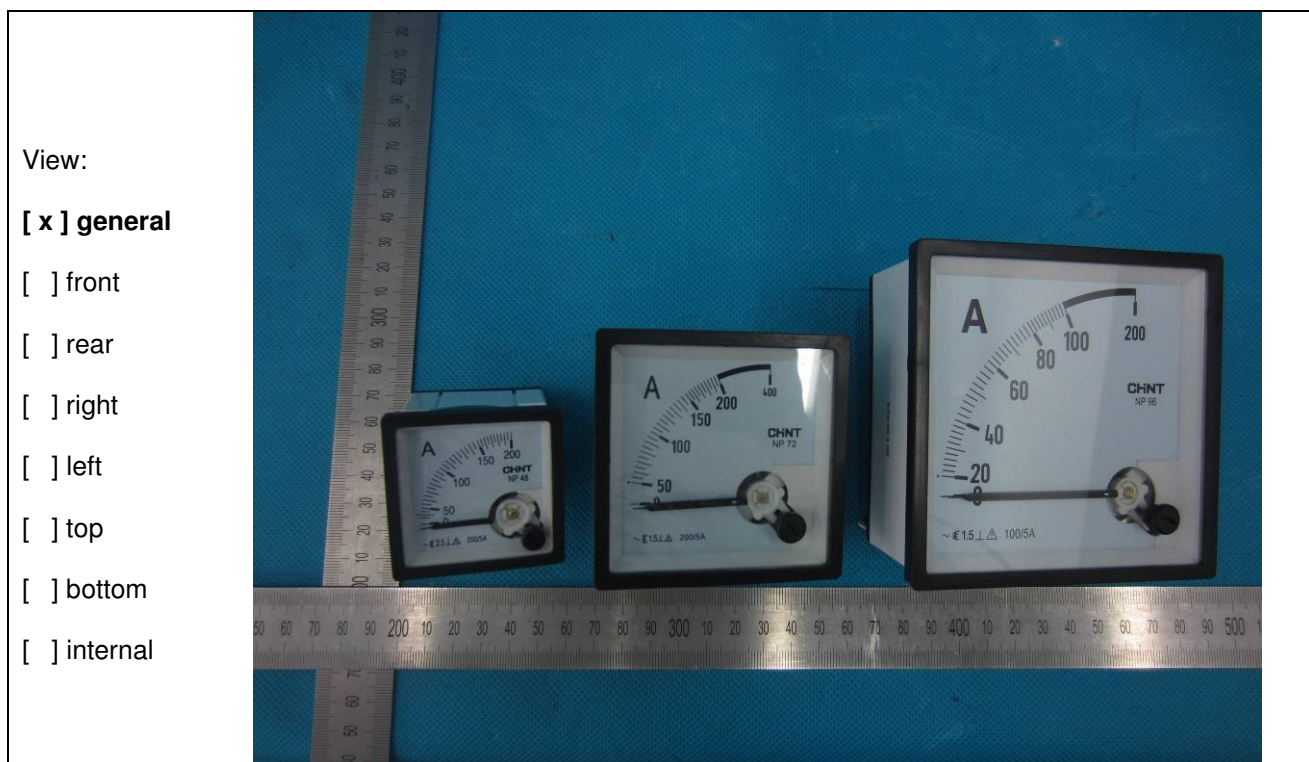
Unique component reference or location	Application/function	Manufacturer / trademark (NOTE 1)	Type / model	Technical data (NOTE 2)	Standard	Mark(s) of conformity evidence of acceptance (NOTE 3 and 4)
NP96-A:						
Coil of current meter	Measuring	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	Φ1.2mm x 24Ts Class B	IEC 61010-1: 2010 EN 61010-1: 2010	Tested with appliance
-- Magnet wire	Wire of current meter	ZHEJIANG GREATWALL ELECTRIC SCIENCE & TECHNOLOGY CO LTD	UEW/130	130°C	UL 1446	E206121
-- Bobbin	Bobbin of current meter	FUZHOU JIA WEI TECH CO LTD	1520	V-0, min. 0.8 mm thickness	UL 94	E221630

NOTE → 1 List all different manufacturers of the above components → 4 asterisk indicates mark assuring agreed level of surveillance
 → 2 May include electrical, mechanical values
 → 3 List licence no or method of acceptance

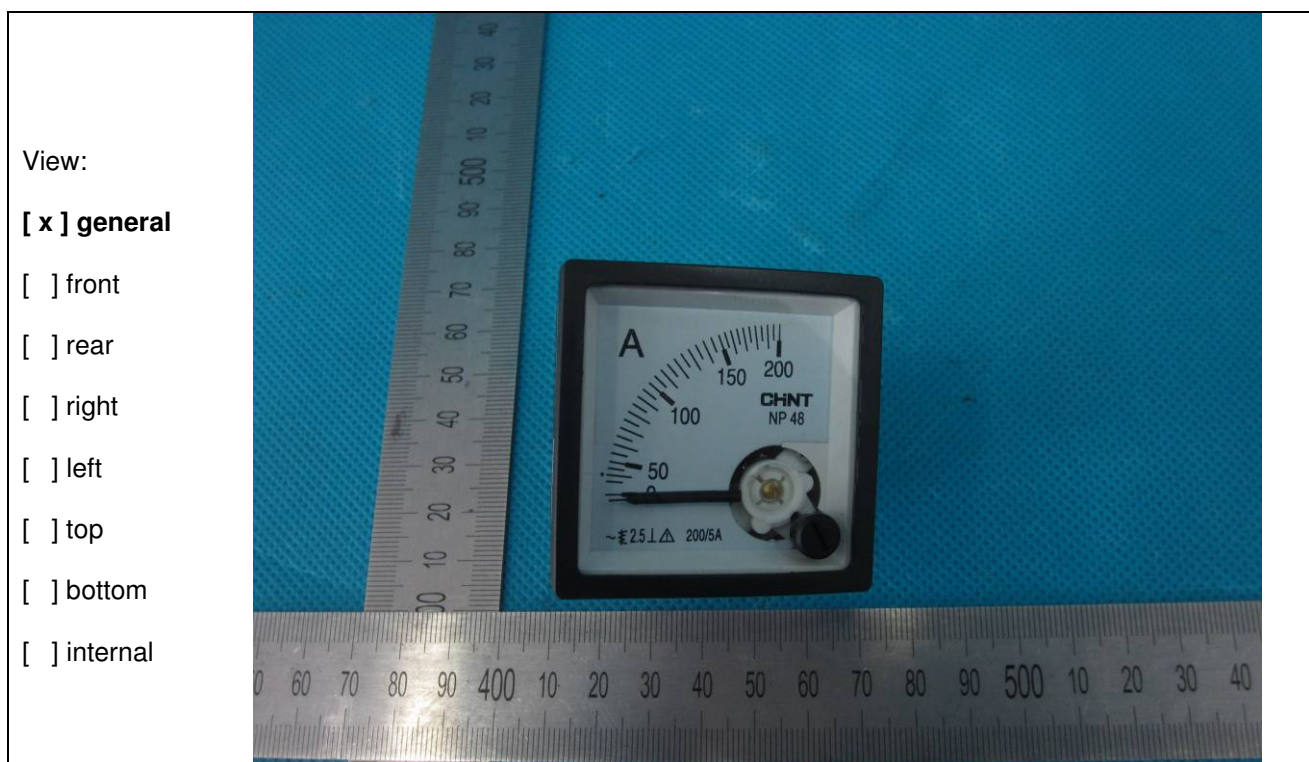
*) Three thermal fuses provided in primary winding.

- End of TEST REPORT IEC 61010-1 -

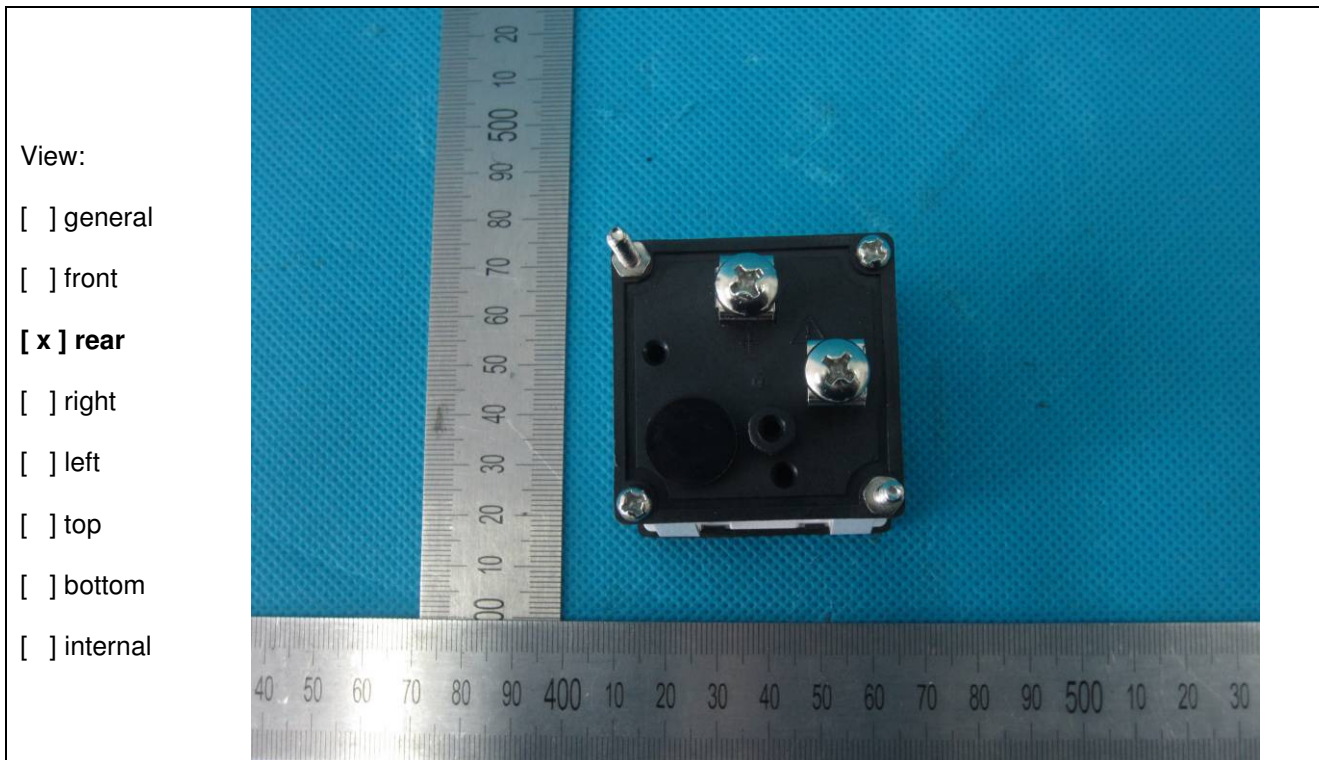
Details of: NP48-A, NP72-A, NP96-A



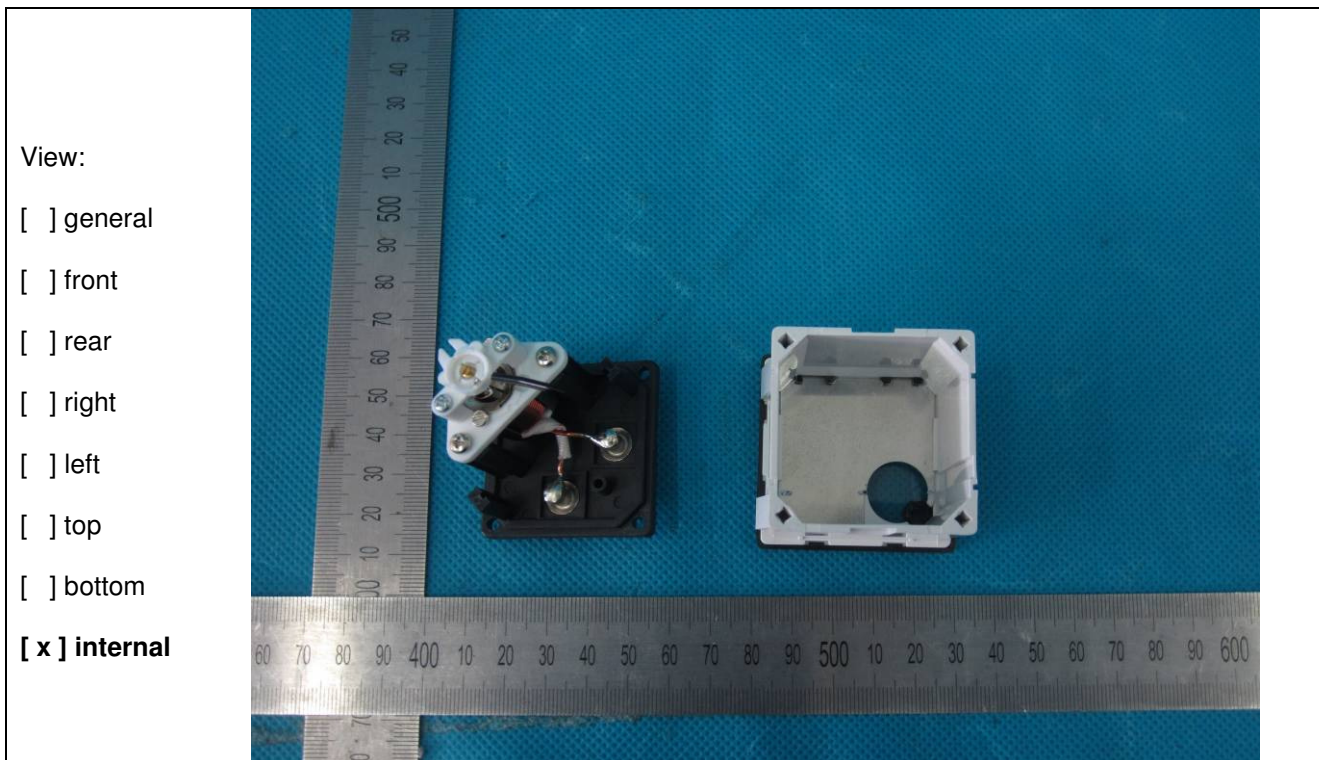
Details of: NP48-A



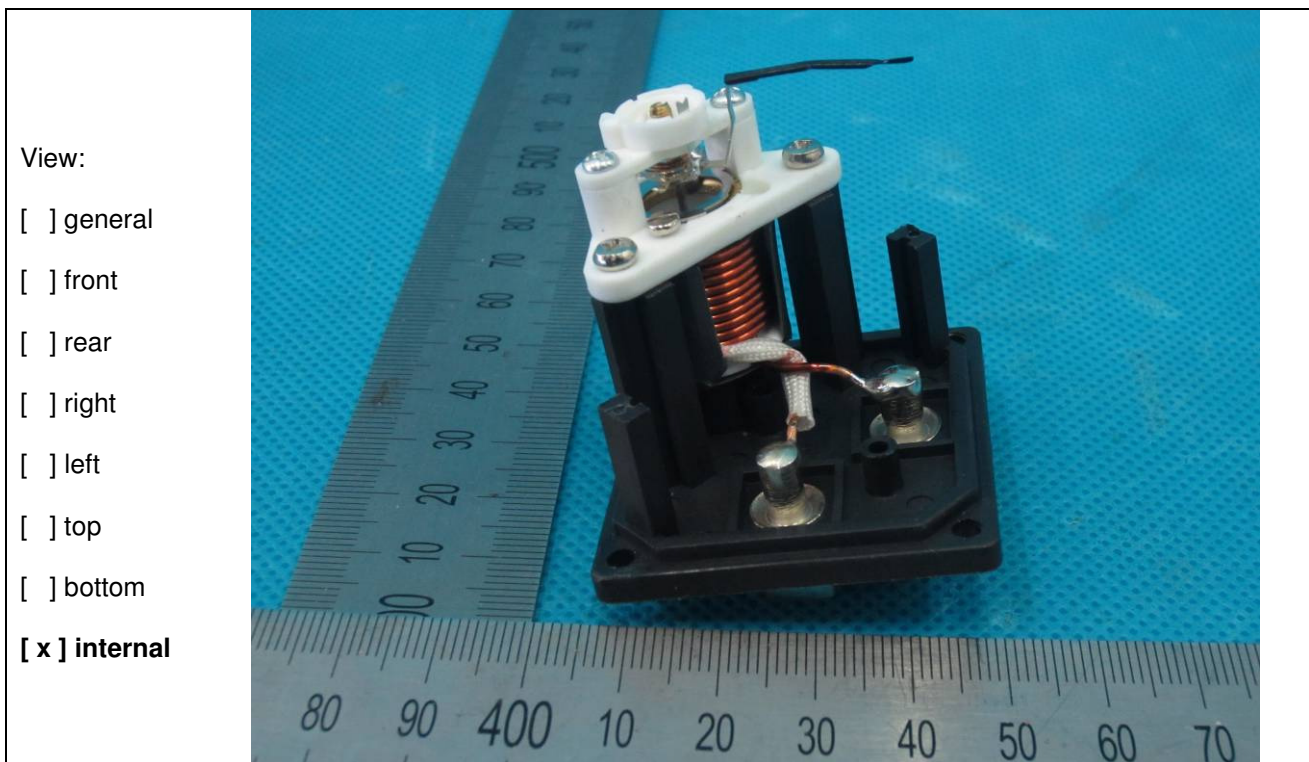
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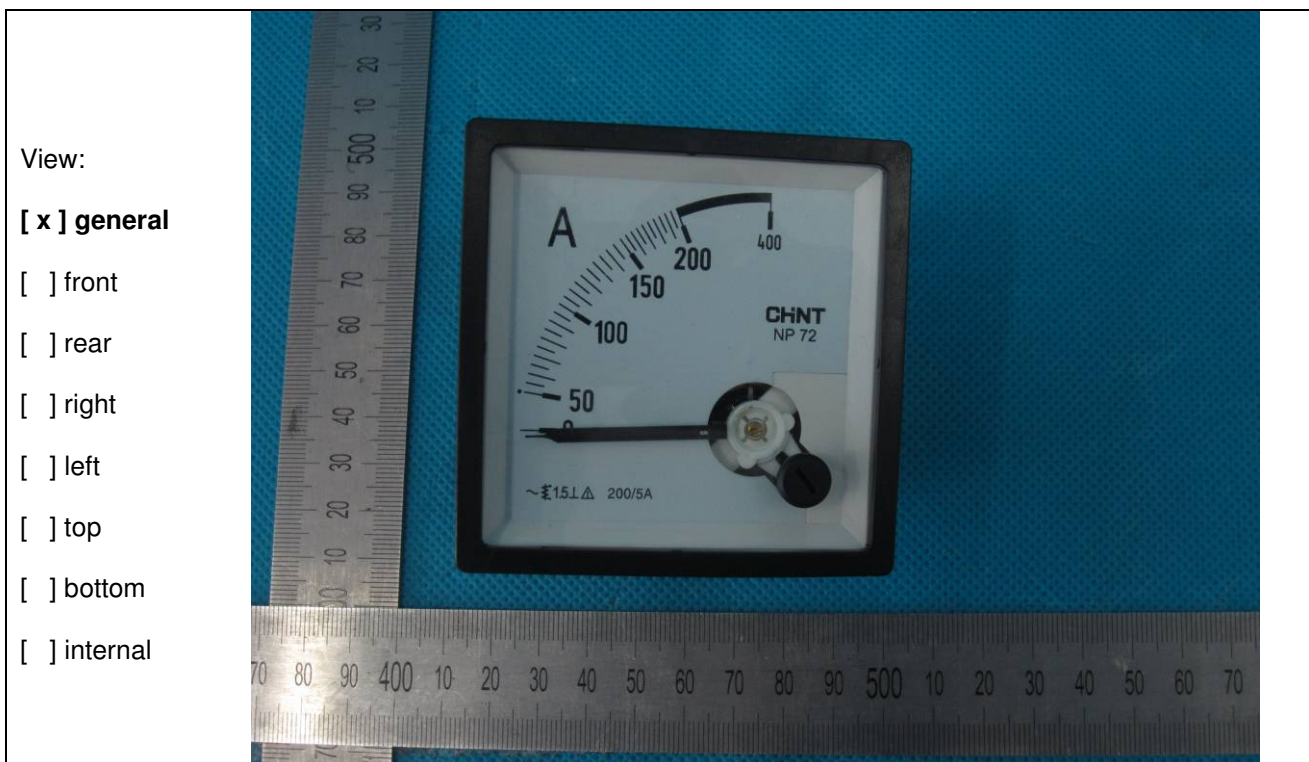
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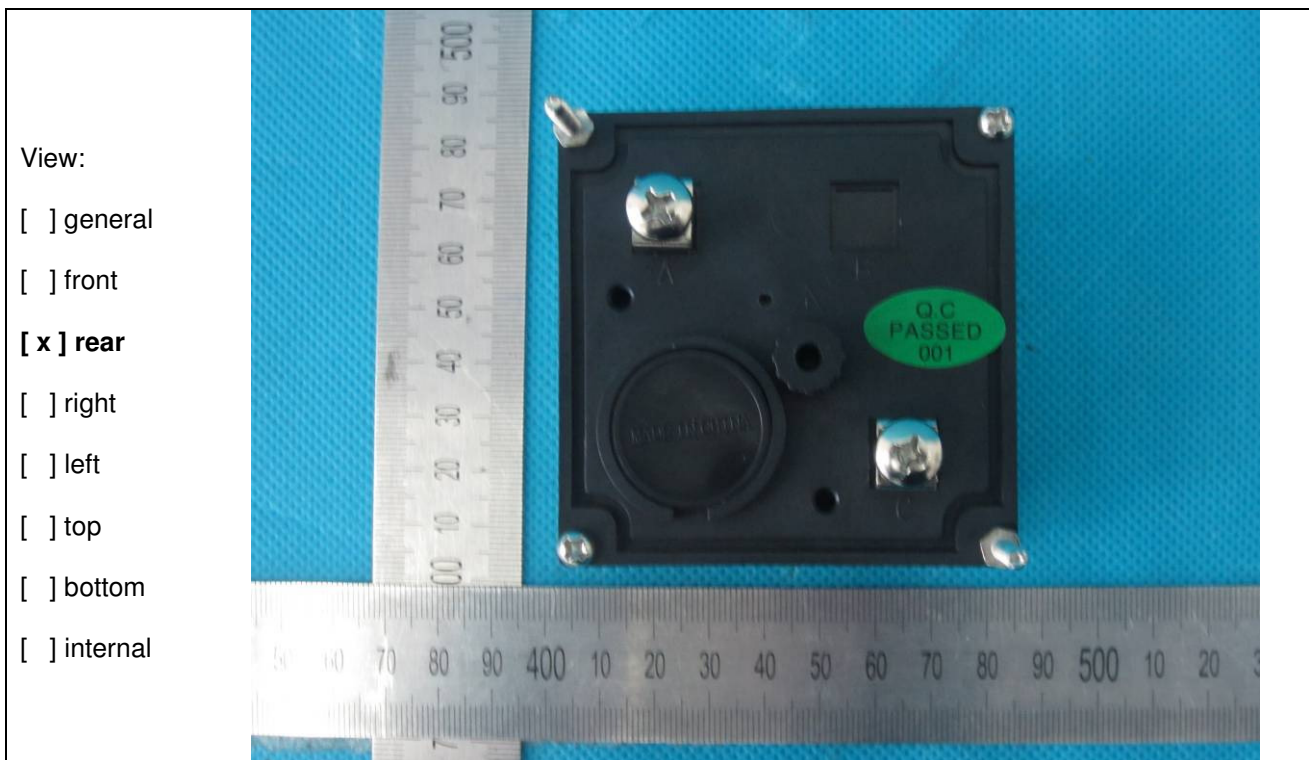
Details of: NP48-A



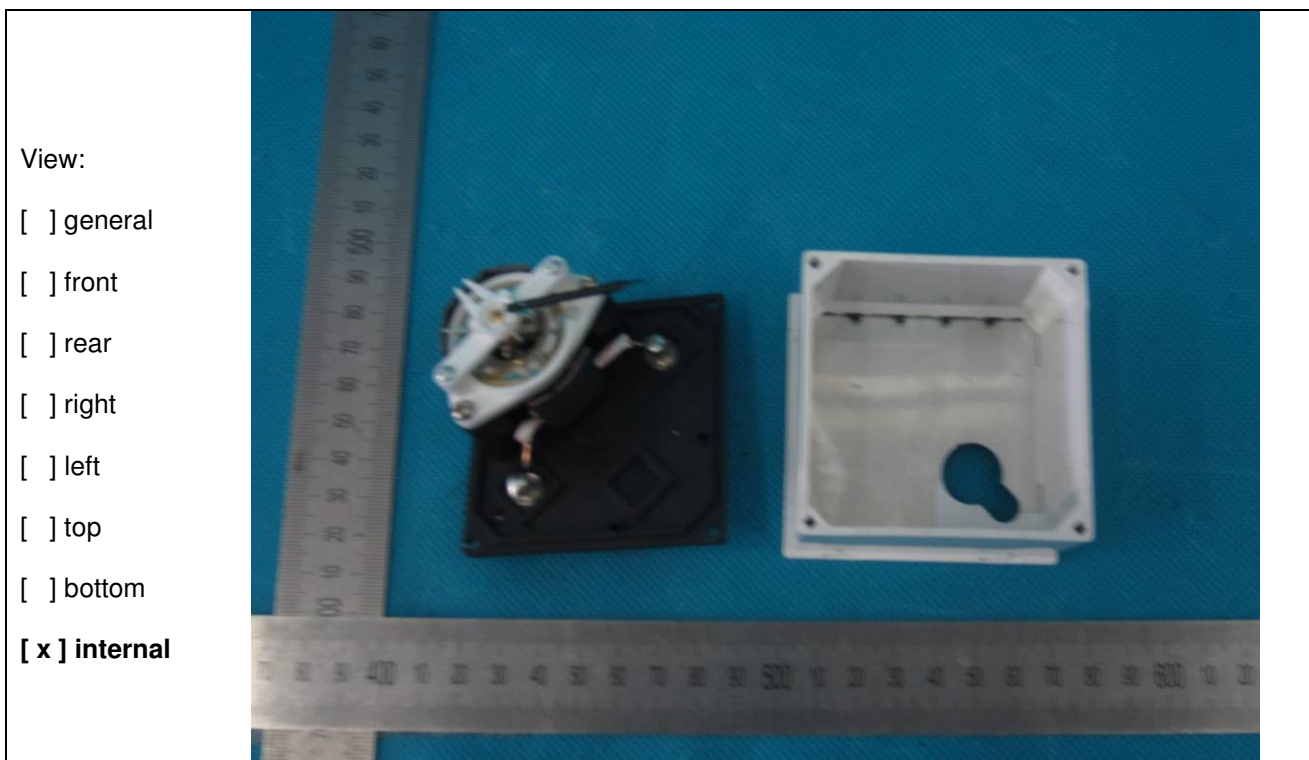
Details of: NP72-A



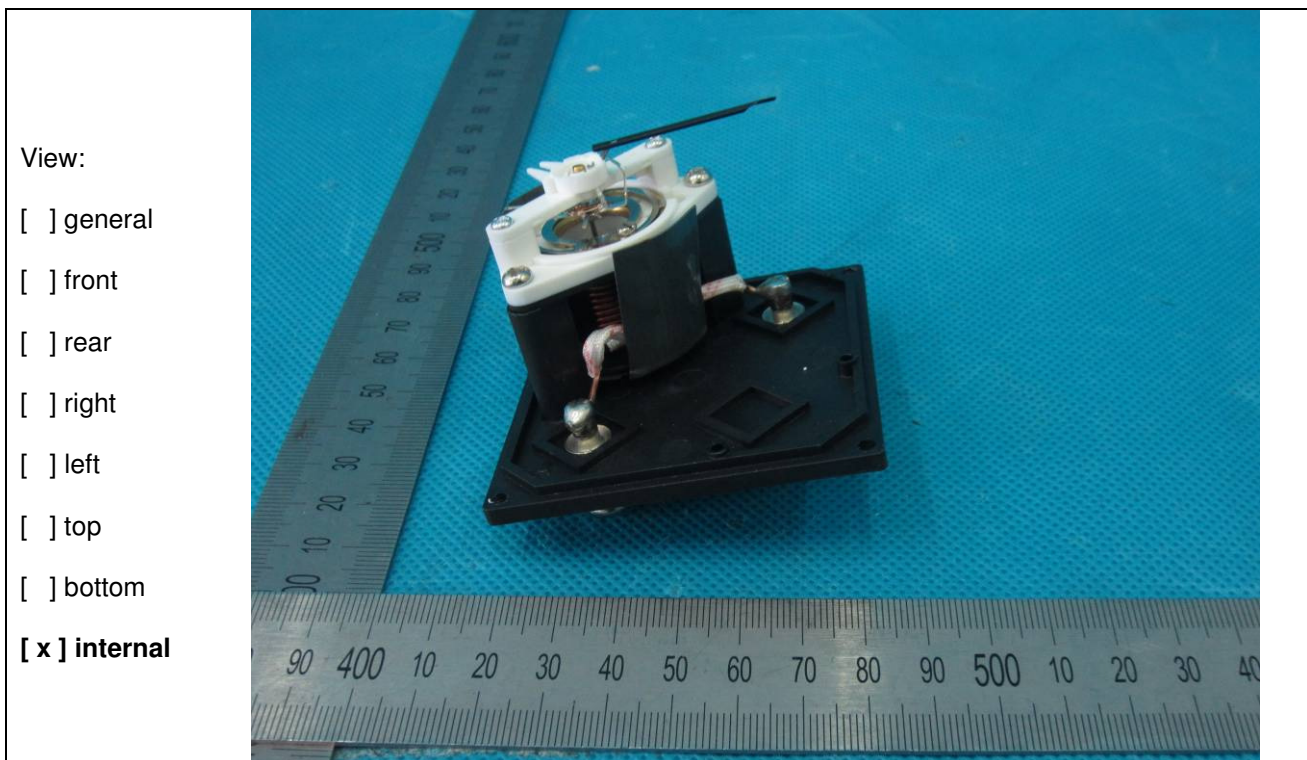
Details of: NP72-A



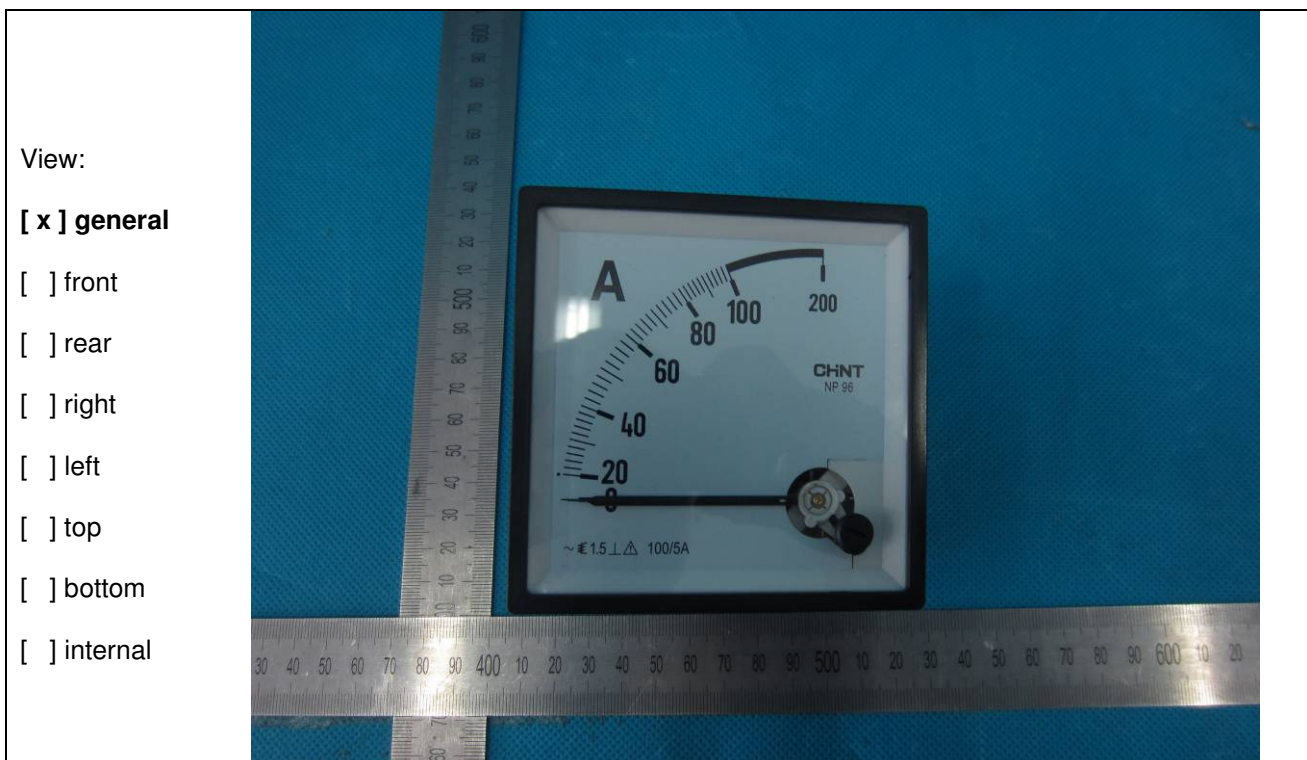
Details of: NP72-A



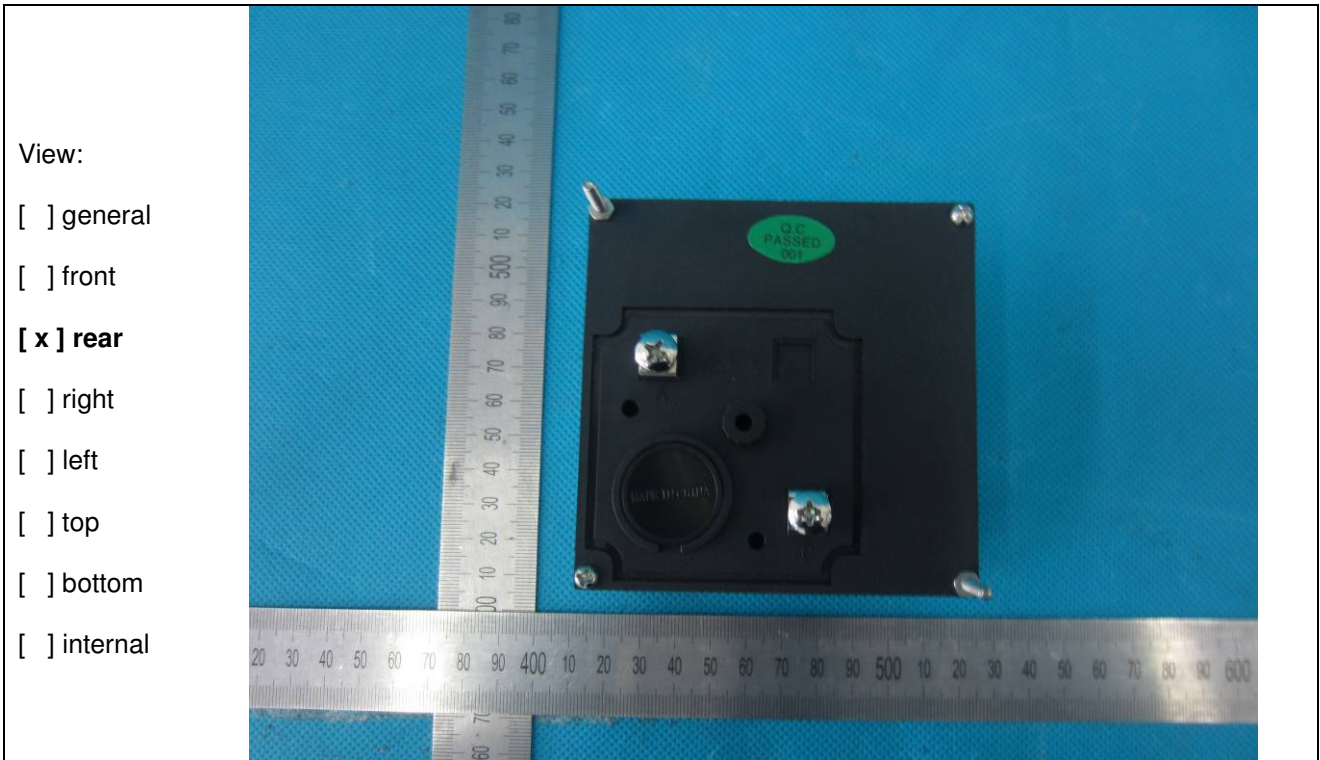
Details of: NP72-A



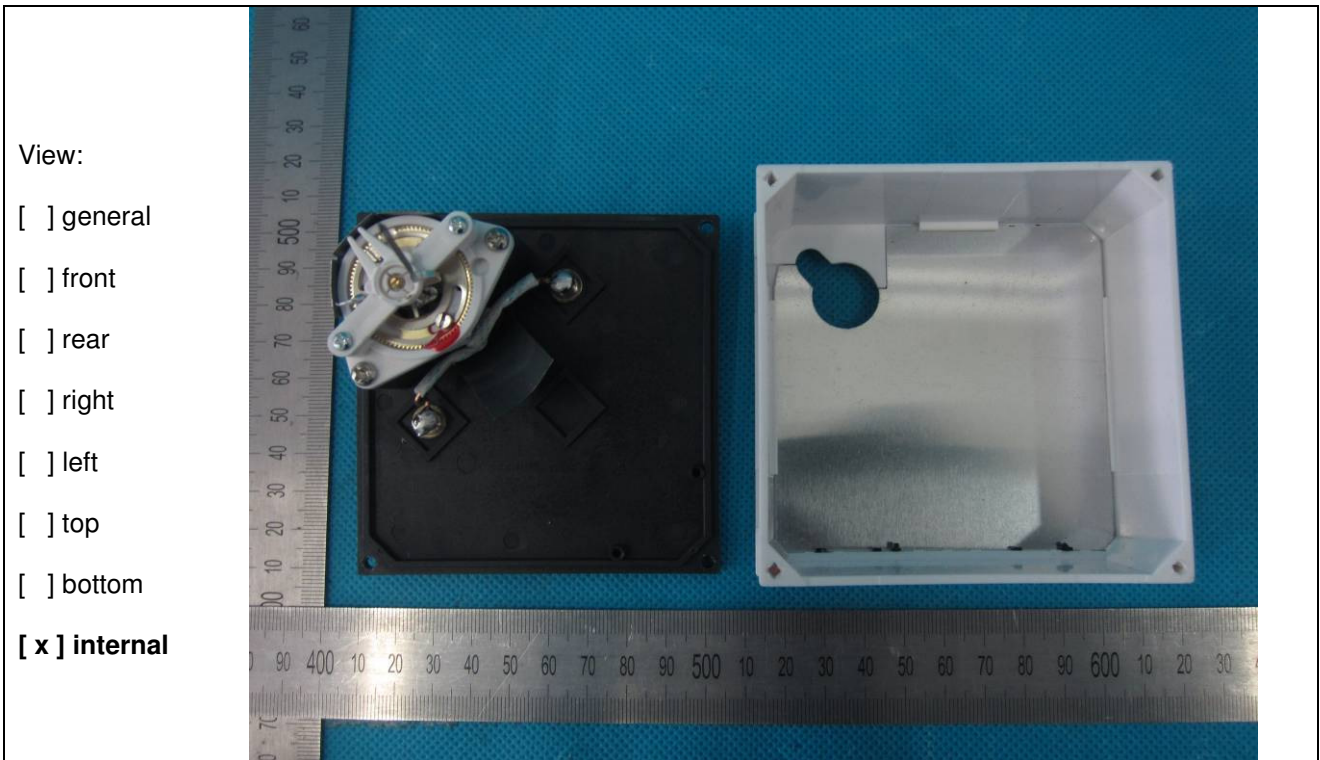
Details of: NP96-A



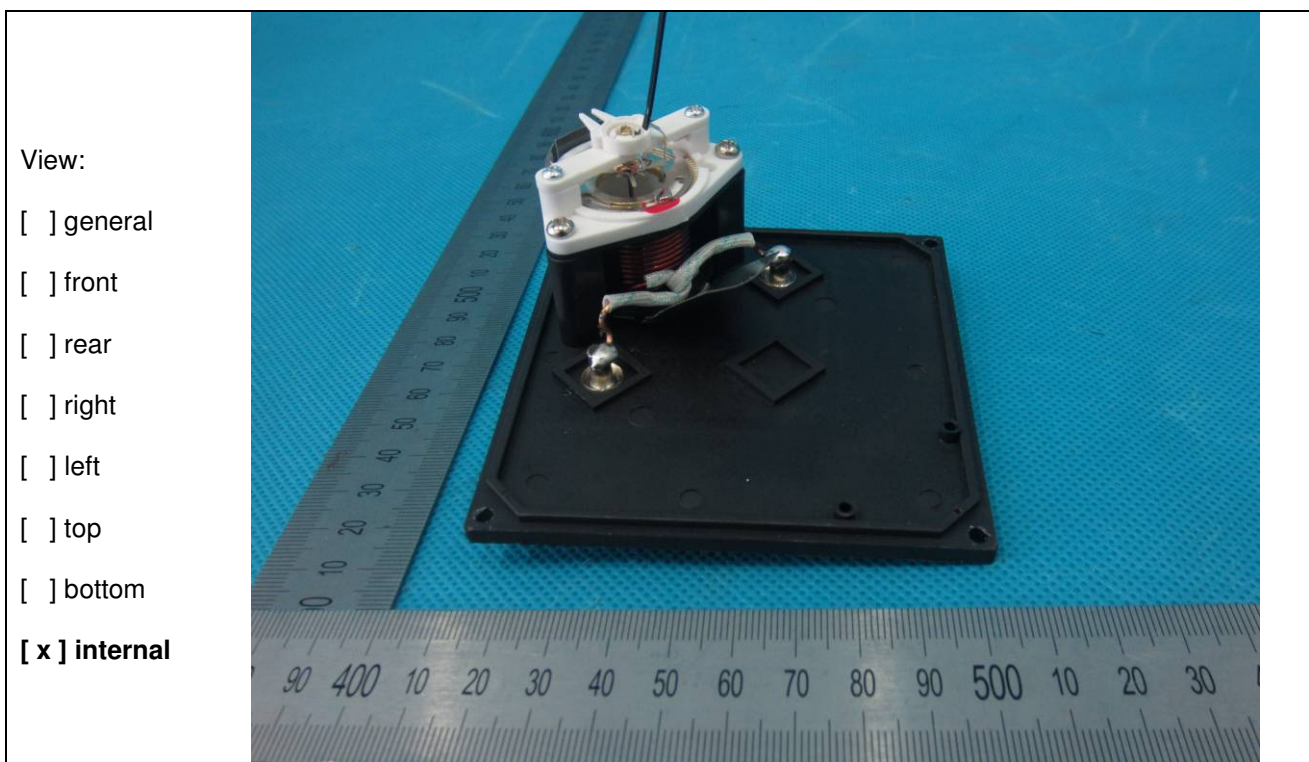
Details of: NP96-A



Details of: NP96-A



Details of: NP96-A



*****End of attachment 1*****