HPT TESTING

NG

NG

NG

NG

HPT TEST



TEST REPORT IEC 61010-2-033

Safety Requirements for Electrical Equipment for Measurement, **Control and Laboratory Use**

Part 2-033: Particular Requirements for Hand-Held Multimeters for Domestic and Professional Use, Capable of Measuring Mains Voltage

HPT-231012L1413S Report Number....:

Date of issue....: Oct.18, 2023

Total number of pages.....: 25 Pages

Name of Testing Laboratory

Shenzhen Huapin Testing Technology Co., Ltd. preparing the Report....:

Applicant's name.....: Shenzhen Hongda Electronic Technology Co., Ltd

3rd Floor, Building A, Industrial Zone, Yingrenshi Station, Address....:

Bao'an District, Shenzhen

Test specification:

HPT TESTING EN IEC 61010-2-033:2021/A11:2021

EN 61010-1:2010/A1:2019

Test procedure....:: CE-LVD

Non-standard test method.....: N/A

IEC61010_2 033B Test Report Form No....:

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

Master TRF.....: 2020-03-20

Test item description.....: Multimeter

Trade Mark(s)....:: N/A

Manufacturer....: Same applicant

XL830L, MAS830L, DT830B, DT830D, DT9205A, VC830L, Model/Type reference.....:

DT266, 1AC-D, VC-890DL, DT9205A+

HPT TESTING

9VDC,1000mA from external battery

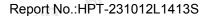
Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn

HPT TESTING



		HPT	Report No.	:HPT-231012L141
HPT	HPT TESTING	CTING H	IPT TEST	Page 2 of
Testing proced	ure and testing location:	HPTTES	OT TESTING	HA
Testing Labor	ratory	Shenzhen Huapin Te	sting Technology	Co., Ltd.
Address	NG TING	Room 302, Comprehe Park, No 4, Yangyong Community, YanluoSti	Industrial Road, T	angxiayong
Date of Test	NG HPT TES.	Oct.12, 2023 to Oct. 1	8, 2023	HPT TESTING
G HPT TES	NG HPT TESTING	TESTING P	Eran	Guo
Tested by (na	me + signature)	Evan Guo		
TEST	NG HPT TESTING	Kevi Cai	fevi	Cri
Reviewed by	(name + signature)	HP APPROVE	rec _{tring}	OT TESTING
Approved by(name + signature)	Lody Cul	1000g	UND TESTING
NG HPT TEST	NG HPT TESTING	Elody Guo	PTTESTING	HPT TESTING
	NG	UPT TESTING		HPT

HPT TESTING TESTING HPT TESTING .~TING Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn







List of Attachments (including a total number of pages in each attachment): Attachment 1: Photos, 3 pages. Summary of testing: Tests performed (name of test and test Testing location: Shenzhen Huapin Testing Technology Co., Ltd. clause): All applicable tests. Room 302, Comprehensive Building, Songbai Industrial Park, No 4, Yangyong Industrial Road, Tangxiayong Community, YanluoStreet, Bao'an District, Shenzhen. Summary of compliance with National Differences (List of countries addressed): European group differences. (No deviation) ★ The product fulfils the requirements of EN IEC 61010-2-033:2021/A11:2004

EN 64012 EN 61010-1:2010/A1:2019

Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn



Copy of marking plate:

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

Multimeter

Model: XL830L

Input: 9VDC,1000mA from external battery



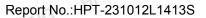
Shenzhen Hongda Electronic Technology Co., Ltd 3rd Floor, Building A, Industrial Zone, Yingrenshi Station, Bao'an District, Shenzhen

Made in China

Remark on above marking:

- 1, The height of CE symbols is more than 5 mm;
- 2, The height of WEEE symbols is more than 7 mm;

Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn







100	HPI		Report No.	:HP1-231012L14
BT A	GTING		TTESTIL	Page 5 o
	PT TES	-ING HI		
Test item particulars	701.	· Multimeter	G	HP7
Classification of installation			· TESTING	
	-C3'	118	e i	
Supply Connection		-11/10		NOT TEST
Possible test case verdicts	70.	, older III	TING	Eli
test case does not apply		: N/A	TESI	
test object does meet the	- TE3			ESTIN
test object does not mee		Tilla		HPT TE
Testing	101		CTING	
Date of receipt of test item			TTES.	
Date (s) of performance of		1.11	23-10-18	TESTIN
. (.)		-21113		10.
General remarks:	HP!		CTING	
(See Enclosure #)" refers to			ort.	las
(See appended table)" refer	rs to a table appended to	the report.		TESTIN
Γhroughout this report a [\square comma / $oxtimes$ point is :	used as the decim	al separator.	Hbi
JET TES	Hr.		ESTING	
Manufacturer's Declaration	462	4/4	TTE	lon-
Γhe application for obtaining ncludes more than one facto		☐ Yes	_	TEST
declaration from the Manufa	cturer stating that the	Not applicable ■ Not applicable Not app	e G	HA,
sample(s) submitted for eval representative of the produc			TESTING	
peen provided	and the second s	HP	7 10	
HI HI		-cTING		OT TES
When differences exist; th	197		- 4163	ection.
Name and address of fact	Olan-	: Same manutactu		
	PT TESTING			
				HPT TESTIN
	HPT		TTESTING	25.
Hb.I.	CTING		TESI	
	of TES.	HP HP	7	TETIN
General product informati		CLINC		HPT TES
 Battery supply: 9VDC, 		V.E.	TTESTING	
2. All the models are iden	ntical to testing model exc	cept for model name	TIEST	
. 47	PTTES	HY HY	*	ESTIN
-ING H).	TESTING FI		HPT TESTIN
HPT TESTING H	HPT	100	TESTING	4.**
Hbi	-cTING		TTES!"	
.37	PT TESTING	HY.	7	HPT TESTIN
TESTING H		TESTING H		UPT TES
TESTIN	UPT			

HPT TESTING HPT TESTING

TESTING HPT TESTING Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web : Http://www.hpt-lab.com.cn



Makin Ta	± 000,00	TES HP	Report No.	:HPT-231012L1413S
HUA	HPT	UPT TESTING	NG HPT TES	Page 6 of 25
HPTTE		IEC 610	10-2-033	HPTTE
	Clause	Requirement – Test	Result - Remark	Verdict
UPT TESTIN	no.	MPTTE	resting hi	UPT TESTING
27.	5	Marking and Documentation		Р

		·	I .	
Lline		HPT TE	10	TESTIN
	5	Marking and Documentation	· CAL	Р
	5.1.2	Identification	TEST	Р
III_{G}	5.1.5.1	General	HB	-CPN
	. IDT T	If necessary for safety, indication of the purpose of TERMINALS, connectors, controls, and indicators are marked	-ESTING HP	Р
dG	Astr	Where insufficient space, symbol 14 is used.	HPTTE	Pol
	5.1.5.2	TERMINALS		ESP
G	HPTT	d) HAZARDOUS LIVE TERMINALS supplied from the interior of the hand-held multimeter are marked with the voltage, current, charge or energy value or range, or;	HPT TESTING HP	P
Ī		- marked with symbol 12 of Table 1	.10	N/A
G	HPTT	aa) TERMINALS supplied from other TERMINALS which could be HAZARDOUS LIVE, with symbol 12 or 14 of Table 1	OT TESTING H	N/A
	5.1.5.101	Measuring circuit TERMINALS	Ast.	-SPIN
İ		Marked with rated voltage to earth	HP	N/A
	HPTT	Each pair or set of measuring circuit TERMINALS are marked with RATED voltage or current or both	TTESTING	Р
3		TERMINALS RATED for MAINS are marked "CAT III and/or "CAT IV"	CAT III	TESPIN
-	UPT T	Alternate markings are used for measuring circuit TERMINALS that do not exceed the levels of 6.3.1	-ESTING H	Р
100	4	Markings are not used for dedicated measuring circuit TERMINALS, but a means for identification is provided	HPT	TESTIN
	UPT T	TERMINALS markings are visible with connectors and TERMINALS mated	TESTING	Р
G	5.2	Warning markings	HPT	PN
İ		Warning markings are visible in NORMAL USE	.0	P
∫G	TTon	Warning marking is placed on or near the particular part	STING HP	Р
G	141	Symbols and text correct dimensions and colour:	UPT TE	
		a) Symbols min. 2,75 mm and text 1,5 mm high and contrasting in colour with background	HP	N/A
	HPT T	b) Symbols or text moulded, stamped or engraved in material min. 2,0 mm high	TESTING	N/A
10		0.5 mm depth or raised if not contrasting in colour	Hr.	N/A
NG	HPTT	ESTING HPT TESTING	HPT TESTING HP	Lin



	IEC 61010-2	-033	
Clause	e Requirement – Test	Result - Remark	Verdict
	HPTTE		
	If necessary, marked with symbol 14	HP	Р
H	Statement to isolate or disconnect if access busing a tool to HAZARDOUS LIVE parts is permit	The state of the s	Р
5.4.1	Hand-held multimeter is accompanied by documentation for safety purposes in an accelanguage for OPERATOR or RESPONSIBLE BODY		TTESPING
ig Hi	Safety documentation in a selected language service personnel authorized by the manufac		N/A
70	aa) indication that probe assemblies are appropriately RATED for MEASUREMENT CATEGO or IV and have a suitable voltage RATING for the circuit to be measured		TESPINE
G	bb) information about each relevant MEASURE CATEGORY (see 5.1.5.101)	MENT	P
NG H	If the hand-held multimeter has multiple MEASUREMENT CATEGORY RATINGS, the documentation clearly identifies MEASUREMEN CATEGORIES where the hand-held multimeter be used or must not be used		N/A
6	PROTECTION AGAINST ELECTRIC SHOCK	K	Р
6.5.1	General	.n/G Fr	Р
yG H	ACCESSIBLE parts are prevented from becomin HAZARDOUS LIVE by the primary means of prot and supplemented by one of:	tection	P
	a) SUPPLEMENTARY INSULATION (see 6.5.3)	HP	N/A
	b) Current or voltage limiting device (see 6.5.	6)	Р
G	c) REINFORCED INSULATION (see 6.5.3)	UPT TE	N/A
	d) PROTECTIVE IMPEDANCE (see 6.5.4)	TING	N/A
6.6	Connections to external circuits	HP HP	Р
6.6.10	Measuring circuit TERMINALS	TESTING	Р
(G	Conductive parts of unmated measuring circu		_
H	a) For TERMINALS with voltage RATING up to 1000Va.c. or 1500Vd.c. the applicable CLEAR, AND CREEPAGE DISTANCE of Table 101	ANCE	Р
/G	b) For TERMINALS with voltage RATING exceeding 1000Va.c. or 1500Vd.c., 2.8mm for the CLEAR and CREEPAGE DISTANCE.		N/A
yG H	These TERMINALS also withstand the voltage to 6.8 with voltage equal to the RATED voltage of TERMINAL multiple by 1.25		N/A
	CTING HP1	TING	TTESI
ING H	TESTING HE	HPT TESTING	



	IEC 61010-2-033	5 D.	
Clause		Result - Remark	Verdict
lac	DIG.	ku,	ESTING
6.6.102	Specialized measuring circuit TERMINALS	HPT	N/A
NG HPT T	Components, sensors, and devices for connecting to specialized measuring circuit TERMINALS are not both ACCESSIBLE and HAZARDOUS LIVE, in either NORMAL CONDITION or SINGLE-FAULT CONDITION	HPT TESTING	N/A
	Accessible parts did not exceed the levels of 6.3.1 and 6.3.2.	See appended Table 6.6.102	N/A
6.7.1.3	CREEPAGE DISTANCES	OT TES!	N/A
	CREEPAGE DISTANCES according to material group I used	HE	N/A
HPTT	CREEPAGE DISTANCES according to material group I used for the insulating materials of the TERMINALS connected only to a hand-held probe assembly complying with Part 031	HPT TESTING TH	N/A
6.7.1.5	Requirements for insulation according to type of circu	uit uoT	N/A
HPTT	A) 6.7.2 MAINS circuits of OVERVOLTAGE CATEGORY II up to nominal supply voltage of 300 V	TESTING	N/A
2	B) 6.7.3 secondary circuits separated from circuits defined in a) by transformer	HPT	N/A
,oT T	c) K.1 mains circuits of overvoltage category III and IV or overvoltage category II over 300 V	-STING HF.	N/A
	D) K.2 secondary circuits separated from circuits defined in c) by transformer	HPTTES	N/A
	E) K.3 circuits having one or more of:	HPT	N/A
HPTT	maximum TRANSIENT OVERVOLTAGE above the level of MAINS CIRCUIT	TIESTING	N/A
	WORKING VOLTAGE is the sum of more than one circuit or a mixed voltage	HP'	N/A
HPT T	 WORKING VOLTAGE includes recurring peak voltage, may include non-sinusoidal or non- periodic waveform 	TESTING HE	N/A
	WORKING VOLTAGE with a frequency above 30 kHz	HF.	N/A
UPT T	5) MEASURING CATEGORY do not apply to MEASURING CIRCUIT	-ESTING HI	N/A
3 33	f) K.101 for measuring circuits MEASUREMENT CATEGORY II AND IV	HPT	N/A
6.9.101	Hand Held multimeter RATINGS	HPT	N/A
HPTT	Measuring circuit TERMINALS are RATED min. 300 V a.c. r.m.s. to earth, and;	TESTING	N/A
C	MEASUREMENT CATEGORY III or IV.	HP	PNG
ING HPT T	STING HET TESTING	HPT TESTING HPT	res .



HPT TESTING

PT	TING HPT TESTING FI	TOPOLING	:HPT-231012L1413: Page 9 of 2
	IEC 610	010-2-033	
Clause	Requirement – Test	Result - Remark	Verdict
	HPTTE	-iniG	TESTING

The RATED voltage of measuring circuit TERMINALS is equal to or higher than the RATED voltage to earth 14 Components and subassemblies Probe assemblies and accessories Probe assemblies and accessories within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 102 General Probe assemblies and accessories meet IEC 61010-031. 103 Current measuring circuit does not interrupt the circuit being measured during range changing, or during the use of current transformers without internal protection (see 101.2) 103 Di Circuit develope measured during range changing, or during the use of current transformers without internal protection (see 101.2) 104 Di Circuit develope measured during range changing, or during the use of current transformers without internal protection (see 101.2) 105 Di Circuit develope measuring circuit TERMINAL in any possible manner (see 101.3) 106 Di Circuit develope measuring circuit TERMINAL in any possible manner (see 101.3) 107 Other HAZARDS results from REASONABLY FORESEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) 108 A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINAL does not cause a HAZARD 109 Other HAZARD are sults from REASONABLY FORESEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) 101.2 Current measuring circuits Protection against mismatches of inputs and ranges 101.3.1 No HAZARD arises when the highest RATED voltage or current is applied to any compat		Clause	Requirement – Test	Result - Remark	Verdict
equal to or higher than the RATED voltage to earth 14 Components and subassemblies 14.101 Probe assemblies and accessories within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-031. Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits P IO1.1 General The hand-held multimeter provides protection against HAZARDS resulting from NORMAL USE and REASONABLY FORESEABLE MISUSE as specified below. a) Current measuring circuit does not interrupt the circuit being measured during range changing, or during the use of current transformers without internal protection (see 101.2) b) Electrical quantity for any TERNINAL does not cause a HAZARD when it is applied to compatible TERNINAL in any possible manner (see 101.3) c) Any interconnection does not cause a HAZARD even if the documentation or markings prohibit the interconnection dees 6.6) d) Other HAZARDS results from REASONABLY FORESEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERNINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD. Current transformers without internal protection are adequately protected from interruption. 101.3 Protection against mismatches of inputs and ranges 101.3.1 No HAZARD arises when the highest RATED voltage or current is applied to any compatible TERMINAL		Siddsc	Troquirement Test	Troodic Tromain	VOIGIO
14.101 Probe assemblies and accessories Probe assemblies and accessories within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-2031. Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits Probe assemblies and accessories meet IEC 61010-031. 101 General Probe assemblies and accessories meet IEC 61010-031. 101 General Probe assemblies and accessories meet IEC 61010-031. 101 General Probe assemblies and accessories meet IEC 61010-031. 101 General Probe assemblies and accessories meet IEC 61010-031. In the part of the part of the probe of the	TES	4		ING HPT	N/A
Probe assemblies and accessories within the scope of IEC 61010-031, and current sensors within the scope of IEC 61010-2-032. Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits 101.1 General The hand-held multimeter provides protection against HAZARDS resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified below. a) Current measuring circuit does not interrupt the circuit being measured during range changing, or during the use of current transformers without internal protection (see 101.2) b) Electrical quantity for any TERMINAL does not cause a HAZARD when it is applied to compatible TERMINAL in any possible manner (see 101.3) c) Any interconnection does not cause a HAZARD even if the documentation or markings prohibit the interconnection (see 6.6) d) Other HAZARDS results from REASONABLY FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD. Current transformers without internal protection are adequately protected from interruption. 101.3 Protection against mismatches of inputs and ranges 101.3.1 No HAZARD arises when the highest RATED voltage or current is applied to any compatible TERMINAL		14	Components and subassemblies	-2119	Р
of IEC 61010-031, and current sensors within the scope of IEC61010-2-032. Probe assemblies and accessories meet IEC 61010-031. 101 Measuring circuits P 101.1 General The hand-held multimeter provides protection against HAZARDs resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified below. a) Current measuring circuit does not interrupt the circuit being measured during range changing, or during the use of current transformers without internal protection (see 101.2) b) Electrical quantity for any TERMINAL does not cause a HAZARD when it is applied to compatible TERMINAL in any possible manner (see 101.3) c) Any interconnection does not cause a HAZARD even if the documentation or markings prohibit the interconnection (see 6.6) d) Other HAZARDs results from REASONABLY FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD		14.101	Probe assemblies and accessories	Hr.	-SPNG
101 Measuring circuits		Tor	of IEC 61010-031, and current sensors within the	-ESTING HPT	N/A
The hand-held multimeter provides protection against HAZARDS resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified below		3		HPT	Р
The hand-held multimeter provides protection against HAZARDs resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified below		101	Measuring circuits		Р
against HAZARDS resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified below		101.1	General	-STING	Р
the circuit being measured during range changing, or during the use of current transformers without internal protection (see 101.2) b) Electrical quantity for any TERMINAL does not cause a HAZARD when it is applied to compatible TERMINAL in any possible manner (see 101.3) c) Any interconnection does not cause a HAZARD even if the documentation or markings prohibit the interconnection (see 6.6) d) Other HAZARDs results from REASONABLY FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD	10	i He	against HAZARDS resulting from NORMAL USE and REASONABLY FORESEEABLE MISUSE as specified	HPT TES	_
Cause a HAZARD when it is applied to compatible TERMINAL in any possible manner (see 101.3) c) Any interconnection does not cause a HAZARD even if the documentation or markings prohibit the interconnection (see 6.6) d) Other HAZARDS results from REASONABLY FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits P When range changing takes place, there is no interruption which could cause a HAZARD	70	HPTT	the circuit being measured during range changing, or during the use of current transformers without	HPT TESTING	P
even if the documentation or markings prohibit the interconnection (see 6.6) d) Other HAZARDS results from REASONABLY FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD		HPTT	cause a HAZARD when it is applied to compatible	TTESTING HP	Р
FORESEEABLE MISUSE are addressed by RISK assessment (see Clauses 16 and 17) e) A TEMPORARY OVERVOLTAGE or a TRANSIENT OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD			even if the documentation or markings prohibit the	HPT.	N/A
OVERVOLTAGE applied on the measuring circuit TERMINALS does not cause a HAZARD 101.2 Current measuring circuits When range changing takes place, there is no interruption which could cause a HAZARD		HPTT	FORESEEABLE MISUSE are addressed by RISK	HPTTESTING	N/A
When range changing takes place, there is no interruption which could cause a HAZARD		-7.7	OVERVOLTAGE applied on the measuring circuit	TING HPT	N/A
interruption which could cause a HAZARD Current transformers without internal protection are adequately protected from interruption		101.2	Current measuring circuits	NOT TEST	P
adequately protected from interruption				See appended Table 101.2	N/A
ranges 101.3.1 No HAZARD arises when the highest RATED voltage or current is applied to any compatible TERMINAL		HPTT		See appended Table 101.2	N/A
or current is applied to any compatible TERMINAL		101.3		HPI	TES PING
TING HPT TESTING		101.3.1		TING HP	Р
ESTING HPT TEST	ESTING	HP	TING HPT TESTING	HPT TES.	TESTING

HPT TESTING HPT TESTING TESTING HPT TESTING TING Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web : Http://www.hpt-lab.com.cn



LESTING TECHNOL	06,6	STILL	Report No.:HPT-23	31012L141
HPT	E S	OT TESTING	HPT TES	Page 10 of
A SALE		TING HP.	HPT	
		IEC 61010-2-033		
Cla	ause	Requirement – Test	Result - Remark	Verdict
100		HPT	1.	TESTING
	UPT TE	TERMINALS that are not similar types or TERMINALS that can be accessed only by use of a tool do not need to meet 101.3.1	TESTING HP!	Р
G		The hand-held multimeter provides one of the following protections against HAZARDS	HPT	_
	-T TF	a) Use of certified overcurrent protection device (see 101.3.2), or;	TING HP!	N/A
-	Hb.	b) Use of uncertified current limitation device, impedance, or combination of both (see 101.3.3)	HPT TES.	N/A
101	1.3.2	Protection by a certified overcurrent protection device	See appended Table 101.3.2	Р
G	HPTTI	Overcurrent protection device certified by an independent laboratory and all of the following requirements are met	HPTTESTING	N/A
	-	a) RATED at least as high as the highest a.c. and d.c. voltages of any measuring TERMINAL	NG HPT	N/A
G	HPTT	b) The RATED time-current characteristic (speed) is appropriate to prevent HAZARD from any possible combination of input voltages, TERMINALS, and range selection	HPT TESTING	P TESTING
	UPT TF	c) RATED breaking capacities exceed the possible a.c. and d.c. short-circuit currents	TESTING AT	Р
G	600	Additionally, spacings surrounding the overcurrent protection device are sufficiently large to prevent arcing	HPT	TESTING
101	1.3.3	Protection by uncertified current limitation devices or by impedances:	See appended Table 101.3.3	Р
ò		Devices are capable of safely withstanding, dissipating, or interrupting the energy in the case of REASONABLY FORESEEABLE MISUSE	HPT	ESTING
	HPT TF	An impedance used for limitation of current meets one or more of the following:	TESTING	N/A
G		a) Single component is constructed, selected, and tested for protection against relevant HAZARDS	HPI	N/A
	HPT TF	1) the component is RATED for the max voltage that may be present in NORMAL CONDITION or during the REASONABLY FORESEEABLE MISUSE event;	TTESTING HP	Р
JG		2) if a resistor, it is RATED for twice the power dissipation that may result in NORMAL CONDITION or from the REASONABLY FORESEEABLE MISUSE event;	HPT	N/A
\G	HPT T	3) meets the applicable CLEARANCE and CREEPAGE requirements of Annex K for BASIC INSULATION	HPT TESTING	N/A
		CTING HP	HPT	LES.
	HPT T	ESTING HE	UPT TESTING "	
ING	. 0755 0	3143846 Email: hpt@hpt-lab.com.cn Web : Http		. TING



	010G) CP	ESI.	Report No.:HPT-2	31012L14
H	PT	UPT TESTING	HPT	Page 11 c
	ALL STREET	TING	HPT	
		IEC 61010-2-033		
зG	Clause	Requirement – Test	Result - Remark	Verdic
-		HPT	11.	TESTIN
		b) A combination of components	HP1	N/A
√G	HPTT	withstands the max. voltage that may be present in NORMAL CONDITION or during the REASONABLY FORESEEABLE MISUSE event;	HPT TESTING	N/A
	-T.T	2) is able to dissipate the power that may result in NORMAL CONDITION or from the REASONABLY FORESEEABLE MISUSE event;	TING HPT	N/A
1G	Hr	3) meets the applicable CLEARANCE and CREEPAGE requirements of Annex K for BASIC INSULATION	HPT TES	N/A
	101.3.4	Test leads for the tests of 101.3.2 and 101.3.3	HA,	N/A
	UPT T	Test leads specified by the manufacturer are used	TESTING	Р
√G	3	If the manufacturer has not specified the test leads, tests performed with test leads that meet the following specifications	HPT	N/A
ļ	-7	a) length = 1 m;	TING	N/A
₫G	HbJ.	b) cross section of the conductor = 1,5 mm², stranded copper wire;	HPT TEST	N/A
		c) hand-held multimeter connector compatible with the measuring circuit TERMINALS;	HPT	N/A
√G	HPTT	d) connection to the test voltage source via bare wire into suitable screw TERMINALS or thimble connectors (twist-on wire connectors) or equivalent means of providing a low impedance connection;	HPT TESTING	N/A
		e) arranged as straight as possible;	IG HP1	N/A
3G	HPTT	Permanently connected test leads supplied by the manufacturer are used without modification	UPT TESTING	N/A
	101.4	Protection against MAINS overvoltages	*	TESTITE
	HPTT	Minimum CLEARANCE and CREEPAGE equivalent to BASIC INSULATION between MAINS -connected conductive parts of opposite polarity	OT TESTING HP	N/A
116	HPT T	Measuring circuit TERMINALS of a voltage measuring circuit withstand the applicable TRANSIENT OVERVOLTAGE with the voltage measurement function selectors set for the proper function and range, without damage which could cause a HAZARD	See appended Table 101.4	N/A
		Impulse voltage applied while circuit working under conditions of NORMAL USE in combination with the MAINS voltage	ING HPT	N/A
JG.	HPT	No HAZARD arise. No flashover of CLEARANCE or breakdown of solid insulation occurs during the test.	HPT TESTIL	N/A
		TING HPT TESTING	HPT	TESTIN
	-5T T	EZ. Hbj.		
	HAY	ESTING	UPTTED	
		23143846 Email: hpt@hpt-lab.com.cn Web : Http	ka,	TIN



\$100p	S. H	Report No.:	HPT-231012L1413
IPT &	TESTING	HPT TES	Page 12 of 2
A COLOR	TING	TESTING	HPT TES,
	IEC	61010-2-033	
Clause	Requirement – Test	Result - Remark	Verdict

G	Clause	Requirement – Test	Result - Remark	Verdict
TESTING		HPTTE	ING	TESTING
1	- 1	Partial discharge indicated by a step in the resu wave occur earlier successive impulse.	ilting	N/A
_	102	Indicating devices	TTEST	N/A
STINIC	102.1	General	alG Hr	N/A
	102.2	Battery Level	HPT	N/A
NG	HPT T	A voltage value displayed by the hand-held multimeters is not affected by the expected various of its battery voltage		N/A
	102.3	Over-range	ING	N/A
	OTT	The display gives unambiguous indication of orange value		N/A
ΝG	102.4	Permanent overvoltage	HPTTE	N/A
11.0	UPT T	The hand-held multimeter is able to withstand permanent overvoltages and continue to give an unambiguous indication of any HAZARD LIVE volt up to the max. RATED voltage	tages	N/A
G	4.0	The value of overvoltage applied to the TERMINA based on the TERMINALS' RATED voltage (V)		_
	HPTT	a) RATED voltage up to 1 000V a.c. r.m.s. the overvoltage value is RATED voltage multiplied by without exceeding 1 100V a.c. r. m. s.;	y 1.9	N/A
MG		b) RATED voltage above 1 000 Va.c. r. m. s., the overvoltage value is the RATED voltage multiplie 1.1;	ed by	N/A
	HPT T	c) RATED voltage d.c., the overvoltage value is the RATED voltage multiplied by 1.1.	he TESTING	N/A
TING		TEST	HP	TING

	HP.	RATED voltage multiplied by 1.1.	TESIM	
	3	TES!	HPI	TING
OT TES	Annex K.3	INSULATION FOR CIRCUITS NOT ADDRESSED IN	l 6.7, K.1, K.2 OR K.101	Р
Hr.	K.101	Insulation requirements for measuring circuits of MEAS	SUREMENT CATEGORIES III and	N/A
-in/C	K.101.1	General	MPTTE	N/A
TESTIN	K.101.2	CLEARANCES		Р
HPI	HPTT	For hand-held multimeter intended to be powered from the circuit being measured, CLEARANCES for MAINS CIRCUIT are designed according to the requirements of the RATED MEASUREMENT CATEGORY	HPT TESTING HP	N/A
HPT TEST		Additional marking requirements in 5.1.5.2 and 5.1.5.101	HPT	N/A
TIN	HPTT	CLEARANCES for measuring circuits of MEASUREMENT CATEGORIES II, III, IV meet Table K.101	HPT TESTING	Р
HPT TEST	oTT	ESTING HPT TESTING	-CTING HPTT	Es.
TING	3 Hr.	TESTING	HPT TES	TING
	Tel: 0755-2	23143846 Email: hpt@hpt-lab.com.cn Web : Http:	://www.hpt-lab.com.cn	

Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web : Http://www.hpt-lab.com.cn



1	IEC 61010-2-033							
-10	Clause	Requirement – Test	Result - Remark	Verdict				
TESTING		UPT TE	3	TESTIN				
PT	HPTT	Hand-held multimeter rated to operate at an altitude greater than 2000 m, correction factor of Table K.1 of 61010-1 applied	TESTING HPT	N/A				
TING		Voltage tests of 6.8.3.1 or 6.8.3.3 of 61010-1	HPT	N/A				
OT TES!	K.101.3	CREEPAGE DISTANCES	.70	Р				
	100	The requirements of K.2.3 of 61010-1 applied	olG HI	N/A				
Service Control of the K.101.4	Solid insulation	TESTING	Р					
CTING	K.101.4.1	General	HPI	N/A				
T TES	K.101.4.1. 1	Solid insulation withstands the electrical and mechanical stresses that may occur in NORMAL USE in all RATED environmental conditions (see 1.4) during the intended life of the hand-held multimeter	See appended Table K.101.4	N/A				
TESTI		The manufacturer should take the expected life of the hand-held multimeter into account when selecting insulating materials.	ING HPT	N/A				
-iniG	K.101.4.1. 2	Test voltage values for testing the long-term stress of solid insulation are calculated		N/A				
T TESTIN	K.101.4.1.	Solid insulation also meets the following requirement	ents as applicable	N/A				
-ING	HPTT	a) solid insulation used as an ENCLOSURE or PROTECTIVE BARRIER, the requirements of Clause 8	HPT TESTING	N/A				
TESI		b) moulded and potted parts, the requirements of K.101.4.2	HPT	N/A				
	HPTT	c) insulating layers of printed wiring boards, the requirements of K.101.4.3	TESTING	N/A				
TESTING		d) thin-film insulations, the requirements of K.101.4.4	3 HP	N/A				
,	K.101.4.2	Moulded and potted parts	alG HF	N/A				
TESTING	HPT	Conductors located between same two layers moulded together are separated by at least the applicable minimum distance of Table K.105	HPTTESTING	N/A				
100	K.101.4.3	Insulating layers of printed wiring boards	HPT	N/A				
TTESTING	HPT T	For BASIC INSULATION, SUPPLEMENTARY INSULATION and REINFORCED INSULATION, conductors located between the same two layers is separated by at least the applicable minimum distance of Table K.105.	HPT TESTING	N/A				
	TTOU	REINFORCED INSULATION have adequate electric strength; one of the following methods are used:	ESTING H	N/A				
TESTING	A.s.	a) thickness at least the applicable value of Table K.105.	HPT	N/A				
77 1		ESTING	TESTING HPT					
TING	HP7.	TESTING	UPT TES!					



THE TECHNOLOGY	EST. HP	Report N	lo.:HPT-231012L1413
HPT	TESTING	HPT TES.	Page 14 of 2
	ING HPI	TESTING	HPT TEST
	IEC 6	1010-2-033	
Clause	Requirement – Test	Result - Remark	Verdict
Ilan	HPTTE	-ING FI	TESTING
HPT T	b) insulation is assembled from at lease separate layers, each RATED for te Table K.102 to K.103 for BASIC INS	est voltage of	N/A
MG	c) insulation is assembled from at least separate layers, where the combin RATED for test voltage of Table K.1 for REINFORCED INSULATION	nation is	N/A
K.101.4.4	Thin-film insulation	TESTIL	N/A
TING	Conductors between same layers are at least the applicable CLEARANCES and DISTANCE of K.101.2 and K.101.3		N/A
HPTT	REINFORCED INSULATION have adequate strength; one of the following methods		N/A
NG	a) thickness at least the applicable va K.105	alue of Table	N/A
HPTT	b) insulation consists of at least two s layers, each RATED for test voltage K.102 to Table K.10 for BASIC INSU	e of Table	N/A
UNG	c) insulation consists of at least three layers, where the combination of to passed adequate voltage tests		N/A
TTGL	a.c. Voltage tests of K.101.4.1.1	ESTINO	N/A
ESTING	ESTING HPT TESTING	TTESTING HPT TE	HPT TESTING



The second second	3	TESTIN	HPT	CTING		
IEC 61010-2-033						
Clause	Requirement – Test		Result - Remark	Verdict		

ABLE: Te	sting in SINGLE FAULT CONDITION - Results	Miga	Form A.1	
Fault No.	Fault description	Td 4.4.3 (NOTE)	How was test terminated Comments	Meets 4.4.4
1	Protective impedance	-	HPI	Р
2	Protective conductor	Win	Fuses used	N/A
3	Equipment or parts for short-term or intermittent operation		Continuously operation	N/A
4	Motors		No motors	N/A
5	Capacitors	MG	No motors capacitors	N/A
6	Mains transformers attach drawing of mans Txs showing all protective devices		No mains transformers	N/A
7	Outputs		No outputs	N/A
8	Equipment for more than one supply	ING	Supply by 6V=== battery Supply by external circuit	Р
9	Cooling - air holes closed - fans stopped - coolant stopped		No cooling provisions	N/A
10	Heating devices - timer overridden - temperature controller overridden - loss of cooling liquid - overfilled or empty or both	ING	No heating devices	N/A
11	Insulation between circuits and parts		See appendix table 4.4	TTEP
12	Interlocks		No interlocks	N/A
13	Voltage selectors	MG	No voltage selectors	N/A
upplemen	tary information:		HA	TIN



	Report	No.:HPT-231012L1413S
HPT A S	TESTING HPT TES	Page 16 of 25
~1111	IEC 61010-2-033	
Clause Requirement – Test	Result - Remark	Verdict
HPTTE	TING	TESTING

	2			TOIL		
TABLE: Durability	of markings	HPTTE	-11	Form A.3	Р	
N	larking method (see NO		Agent			
1) Adhesive label	UDT TES		A Water	-50	LIVI	
2) Ink printed	3 70	TESTIN	B Isopropyl alco	hol 70%		
3) Laser marked		HPT	C (specify agent	t) ⁽³		
4) Film-coated (plas	ic foil control panel)		D (specify agent	t)	- 10	
5) Imprinted on plas	ic (moulded in)	m-	E (specify agent	t)	Llin	
MITTE	3	TESTIN		HPT		
	e include print method, label n		e,	100		
Markir	g location	Marking method (see above)				
Identification (5.1.2)	3	1), 3)		HPTTL		
MAINS supply (5.1.3)		N/A				
Fuses (5.1.4)	CATING	3)	OT TES			
Terminals and oper	ating devices (5.1.5.2)	3)			Libra	
Switches and circuit	breakers (5.1.6)	3)		HPT		
Double/reinforced e	quipment (5.1.7)	2)	-571	100		
Field wiring Termina	l boxes (5.1.8)	N/A	HPT TE		701	
Warning marking (5	2)	1), 2)			1111	
Battery charging (13	.2.2)	Non-chargeable battery used				
HPTTE	TING	Ass	TESTI	la-		
Method Test a	gent Remains legible	Label loose	Curled edges	Comments		
	Verdict	Verdict	Verdict			

HPT TESTING HPT TESTING TESTING HPT TESTING TING Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn







HPT	HPT 1	TESTING	HPT TESTING
	21112a	IEC 61010-2-033	2 1
Clause	Requirement – Test	Result - Remark	Verdict
	ING HPT TE	TESTING FI	UPT TESTING
	-CTIIN-	105 120	C TI

HPT TESTING		CTING HPT TE	TESTING H	HPT TESTING
	TABLE: List	of ACCESSIBLE parts	759	Form A.4
	Exceptions	TESTIL	HPT	_
DT TEST	Determinatio	n of ACCESSIBLE parts	-GTING	- TT0.
Hr.	Item	Description	Determination method (NOTE 5)	Exception under 6.1.2 (NOTE 4)
	a T	Enclosure	V,R,J	N/A
STIN	2	Scale panel	V,R,J	N/A
OT TES	3	Function selection switch	V,R,J	N/A
	4	Insulation part of measuring terminal	750	N/A
	5	Probe cable	V,R	N/A
	6	Probe handheld part	V,R,J	N/A
TESTIN	7	Battery(accessible part after open of the compartment with a screw driver)	TING HE	Exception in 6.1.2 b of EN 61010-1
HPI	8	Probe tip	TES	Exception in 6.1.1 b of EN 61010-031

NOTE 1 - Test fingers and pins are to be applied without force unless a force is specified (see 6.2.2)

Supplementary information:

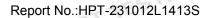
NOTE 2 - Special consideration should be given to inadequate insulation and high voltage parts (see 6.2)

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.





Page 18 of 25

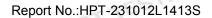
The same of the sa		TESTING	HPT	CTING				
	IEC 61010-2-033							
Clause	Requirement – Test		Result - Remark	Verdict				
	UPT	.nlG	TESTIII .	·				

Examination	sulation requirements- Clea	JG.		<u> </u>		6.5.4	Protective	impodanco			- 4	JP T	
	462				4	5.7		•		THIS CO.			
ENCLOSURE	s and protective barriers			ar.	JG.	6.5.6	Current- or	voltage-lin	niting device	9			
Impedance	IG .			ES III		9.6.1	BASIC INSUI	LATION betw	een opposi	ite pola	rity		
Area	Location	Insulation type	Wo	ORKING VO		Clea	rance	Cree	page	CTI	Verdict	Comme	nts
	(See Form A.14)	(NOTE 1)	RMS [V]	Peak [V]	Frequency [kHz]	Required [mm]	Measured [mm]	Required [mm]	Measured [mm]				
A	Between live parts in V, R or A to accessible edge	BI	OTT	1000V~	50Hz	8.0	8.8	10.0	12.6	<600	Р	-651	In'
В	Between parts of V and parts of GND under rotary switch	BI	-	1000V~	50Hz	8.0	8.7	10.0	12.6	<600	Р	HPT TE	
С	Between live parts and enclosure edge	RI		1000V~	50Hz	14.3	15.5	20.0	21.9	<600	Р		an'
D	Between live parts to fixing Screw for enclosure	RI	API	1000V~	50Hz	14.3	15.5	20.0	21.9	<600	Р	APT TES	
Е	Between live part inside probe and handheld part	RI		1000V~	50Hz	14.3	15.5	20.0	21.9	<600	Р		

input supply voltage.......

Supplementary information:

HPT TESTING



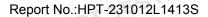


HPT	*	HPT TES	STING	Page 19 of 25
The state of the s		TESTING	HPT TES	CTING
		IEC 61010-2-033		
Clause	Requirement – Test	Result - Remar	k	Verdict

11	10			4 TE2					H.			-57	UR
TABLE: In	sulation requirements- (Clearances	and Cree	pages			- TE	STIME				Form A.16	Р
ENCLOSURE	S or PROTECTIVE BARRIERS	3 4 4 4				145	9.6.1	Overcurrent p	rotection ba	sic insulation	between	MAINS parts	_
/lechanica	I resistance to shock and	impact		-69	LIME		10.5.1 I	Integrity of CL	EARANCES a	ind CREEPAGE	≣ distance	s	_
Area	Location	Insulation type		Mech	anical test	ts (NOTE)		Test at max.		d after test quired)	Verdict	Commen	ts
	(See Form A.14)		Applied force		idity .2)		Orop (8.3)	RATED ambient	Clearance	Creepage distance			
			N	Static (8.2.1)	Impact (8.2.2)	Normal (8.3.1)	Hand- held/ Plug-ir		mm	mm			
Α	Between live parts in V, R or A to accessible edge	ВІ	10N	30N	LING.	-141	1m	40 °C	11.8	11.8	Р		NG
ES III	Between parts of V and parts of GND under	BI	10N	30N			1m	40 °C	12.8	12.8	Р	UPT TEST	

rotary switch Between live parts and NG С RI 30N 40 °C 21.6 10N 1m 21.6 Ρ enclosure edge Between live parts to D fixing Screw for RI 10N 30N 40°C 21.5 Р 1m 22.0 enclosure Between live part inside 24.3 Ε probe and handheld RΙ 30N 24.0 Ρ 10N 1m 40 °C part NOTE - Refer to Form A.18 for dielectric strength tests following the above tests.

TING Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web: Http://www.hpt-lab.com.cn





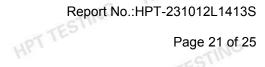
Page 20 of 25

S. Sales		TESTIN	HPT	TING
		IEC 61010-2-0	33	
Clause	Requirement – Test	Resu	lt - Remark	Verdict
	HPT	TING	TESTIL	
			101	

	HPT				TING	2.0				TESTI		1	
TABLE: Ins	ulation requirements-	Clearances	and Cree	pages				TING	HPI			Form A.16	P
ENCLOSURES	or PROTECTIVE BARRIER	STILLE				. 15	9.6.1	Overcurrent p	rotection ba	sic insulation	between M	AINS parts	_
Mechanical r	resistance to shock and	l impact			-miG	150	10.5.1 I	Integrity of CL	EARANCES a	ind CREEPAGI	E distances		_
Area	Location	Insulation type		Mech	anical test	ts (NOTE)		Test at max.		d after test quired)	Verdict	Comment	S
	(See Form A.14)		Applied force		idity .2)		Orop (8.3)	RATED ambient	Clearance	Creepage distance			
			N	Static (8.2.1)	Impact (8.2.2)	Normal (8.3.1)	Hand- held/ Plug-ir		mm	mm			
Supplement	ary information:	STINIC				-41	OTTE	-			iG Y	dk.,	

	G HPT	TING	INT TESTIN	-16
9	TABLE: Protection against the spread of fire		Form A.22	STIME
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
ESTIN	Measuring circuit	9c	Insulated wire of VW-1,PCB of V-0,Enclosure of V-0,insulation of probe assembly:V-0,Terminal insulation of V-0	STIPIG
2	Battery	9c	Battery compartment material of V-0	Р
3	Other circuit on PCB	9c	PCB of V-0,enclosure of V-0	Р
Supplement	tary information:	.nIG	ESTIN	

Tel: 0755-23143846 Email: hpt@hpt-lab.com.cn Web : Http://www.hpt-lab.com.cn







HPT	ING HPT TES	TESTING H	UPT TESTING
	24112	IEC 61010-2-033	
Clause	Requirement – Test	Result - Remark	Verdict
	TING HP!	TESTING	HPT TES!

ES	TING	HPI			STING		HPT TES	
	TABLE : Temperature Me	asurements		HAJ		-cTIN	Form A.26A	Р
54	Surface temperature limits	- NORMAL CON	IDITION an	d / or SIN	IGLE FAULT CONDITI	ON		B
ESTI	Temperature of windings –	NORMAL COND	ITION and	or SING	LE FAULT CONDITIO	N	TES	N/A
	Other temperature measur	HPI	Р					
-71	Operating conditions:				ng the current 10A ecified by the man		very each 15minut	es
5,,	Frequency::	Hz	Test roo	m ambie	25.0 °C			
	Voltage:	V	Test dur	ation	2 h 10 min			
	Part / Location	1	<i>t</i> _m [°C]	t _c [°C]	t _{max} [°C]	Verdict	Comment	S
:11	PCB	UPT	33.3		130+25-40=115	Р	-257	110
	Panel	1.0	29.1		80+25-40=65	Р	TOT	
	Batter body		28.0	107-75	Ref.	Р	G Fr	
	Enclosure(outside)		27.4	10,	60+25-40=45	P		
- 1	Enclosure (inside)		27.9		60+25-40=45	Р		94
			25.0					- A 3 1 7 3

HPT TES

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

HPT TESTING

Supplementary information:





HPT	ING HPT TES	TESTING H	HPT TESTING
	~411.	IEC 61010-2-033	
Clause	Requirement – Test	Result - Remark	Verdict
	CTING HP1	TTESTING	HPT TES!

		3 11		TIME		HPT TEL
	24.1 TAB	BLE: Components i	nformation	-65	TING	Р
:571	Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Mark(s)	of conformity ¹)
TEV	Enclosure	NINGBO LG YONGXING CHEMICAL CO LTD	FR-500A	V-0	TING	UL E203955
EST	PCB	MEIZHOU KEJIE INTEGRATED CIRCUIT CO LTD	KJ-1	V-0, 130°C		UL E255694
•	Test lead wire	HERWELL ELECTRIC WIRE CO LTD	1032	22AWG, VW-1, 90°C 1000vAC/1200VDC	TING	UL E301305
TEST	Plastic lens	SABIC INNOVATIVE PLASTICS US L L C	940(f1)	V-0	ING	UL E121562

NOTE

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





Photo.1



HPT TESTING





Photo.3

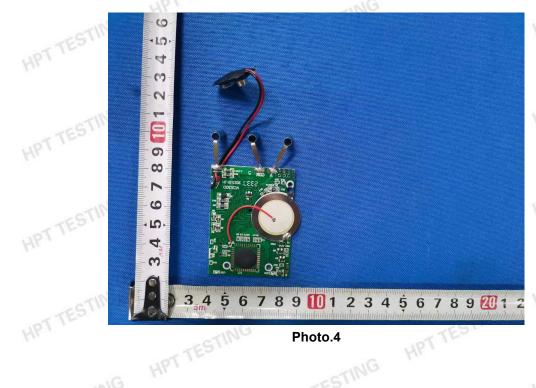


Photo.4 HPT TESTING





**** END OF REPORT ***