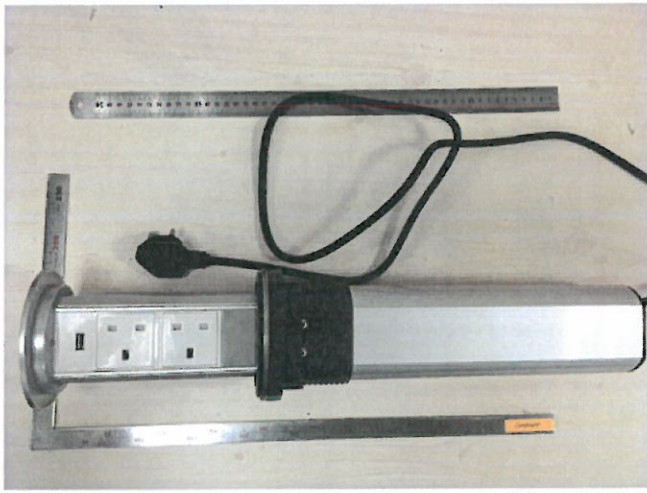



Prüfbericht-Nr.: <i>Test Report No.:</i>	15082600 001 Part 1 of 2	Auftrags-Nr.: <i>Order No.:</i>	154095817	Seite 1 von 35 <i>Page 1 of 35</i>
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	20.04.2015	
Auftraggeber: <i>Client:</i>	Zhejiang Huagong Electric Co., Ltd. Shang Mi' Ao Village, Yuecheng Town Yueqing City, Zhejiang P.R. China			
Prüfgegenstand: <i>Test item:</i>	Multiple socket-outlet with cord extension set and USB power board			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	HGZN-NS006			
Auftrags-Inhalt: <i>Order content:</i>	CE-LVD approval			
Prüfgrundlage: <i>Test specification:</i>	BS 5733:2010+A1:2014			
Wareneingangsdatum: <i>Date of receipt:</i>	20.04.2015			
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000260943-001 to A000260943-024			
Prüfzeitraum: <i>Testing period:</i>	20.04.2015 – 29.09.2015			
Ort der Prüfung: <i>Place of testing:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
<i>19.10.2015</i>	Zhuang Mingjie / PE	<i>Zhuang Mingjie</i>	<i>19.10.2015</i>	Paulus Hou / TC
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>
				Unterschrift <i>Signature</i>
Sonstiges / Other:				
This report was created for the type tests of Multiple socket-outlet with cord extension set and USB power board, model HGZN-NS006.				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>		
* Legende:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n)	2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	3 = befriedigend N/A = nicht anwendbar	4 = ausreichend N/T = nicht getestet
Legend:	1 = very good P(ass) = passed a.m. test specification(s)	2 = good F(ail) = failed a.m. test specification(s)	3 = satisfactory N/A = not applicable	4 = sufficient N/T = not tested
<p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p>				

TEST REPORT
BS 5733
Specification for General requirements for electrical accessories

Report Reference No.....:	15082600 001 Part 1 of 2	
Tested by (name and signature).....:	See cover page
Approved by (name and signature) ..:	See cover page
Date of issue.....:	See cover page	
Content.....:	See cover page	
Testing Laboratory.....:	TÜV Rheinland (Shanghai) Co., Ltd	
Address.....:	B1-13F No.177,Lane 777,West Guangzhong Road, Zhabei District, Shanghai, CHINA	
Applicant's name	Zhejiang Huagong Electric Co., Ltd.	
Address.....:	Shang Mi' Ao Village, Yuecheng Town Yueqing City, Zhejiang P.R. China	
Test specification:		
Standard	BS 5733: 2010+A1:2014	
Test Report Form No.....:	BS 5733_2014Edition 1.1	
TRF Originator.....:	TÜV Rheinland	
Test item description	Multiple socket-outlet with cord extension set and USB power board	
Trade Mark.....:		
Manufacturer.....:	Same as applicant	
Model/Type reference.....:	HGZN-NS006	
Ratings.....:	13A 250V~, Max. 3120W	

Summary of testing:

This test report complies with BS 5733:2010+A1:2014.

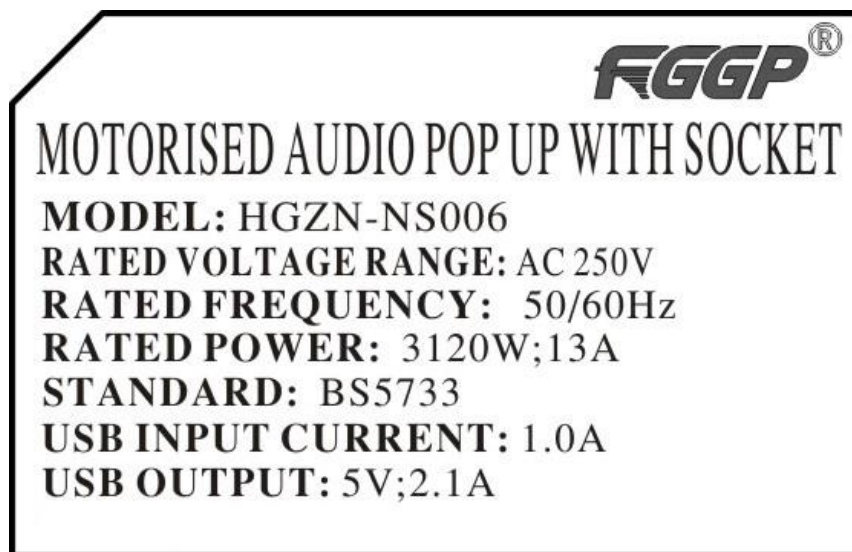
Appendix 1: Additional tests for socket part according to BS 1363-2:1995 + A4:2012 have been considered and passed.

This test report only refers to the tests of Multiple socket-outlet with cord extension set; it should be used in conjunction with the test report 15082600 001 Part 2 of 2 for USB portion.

Remark:

1. The samples for each group of testing were selected randomly from the samples provided by the manufacturer.

Copy of marking plate:



Possible test case verdicts:

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

General remarks:

The test results presented in this report relate only to the object tested.

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

Description of products:


13A, 250V~ Max. 3120W Multiple socket-outlet with cord extension set and USB power board, for table mounting, incorporated with 2 way of BS 1363 shuttered socket-outlet and USB power board: HG-YW2944.

Name and address of factory (ies):

Same as applicant.

Critical Components for socket-outlet portion:

Object/part No.	Manufacturer/ trademark	Type/ model	Technical data	Standard	Mark(s) of conformity
Socket cover Shutter body Outer frame Contact base Back cover	SHANGHAI JUNER NEW MATERIALS CO.LTD	-	PC	BS 5733 EN 60950-1	Acceptance tested
Enclosure	Shanghai Yiben Metal Products Co., Ltd.	6063 series	Aluminium alloy	BS 5733 EN 60950-1	Acceptance tested
Contacts	YUEQING OUKAI ELECTRONIC APPLIANCE CO., LTD.	QSn6.5- 0.1	>60% copper content	BS 5733 EN 60950-1	Acceptance tested
Earthing terminal (for enclosure)	Yueqing seven e-lord fittings factory	304	Steel	BS 5733 EN 60950-1	Acceptance tested
Screw for Earthing terminal (for enclosure)	Wenzhou standard electric co., LTD.	Q235A	Steel	BS 5733 EN 60950-1	Acceptance tested
Gasket for Earthing terminal (for enclosure)	Wenzhou standard electric co., LTD.	65Mn	Steel	BS 5733 EN 60950-1	Acceptance tested
Cable	Shangyu Jintao Electron Co., Ltd.	H05VV-F	3G1,5mm ²	EN50525-2- 11	VDE
Plug	Shangyu Jintao Electron Co., Ltd.	JT006A	13A 250V~	BS 1363-1	ASTA
Switch mode power supply unit	Zhejiang Huagong Electric Co., Ltd.	TSDY-01	Input: AC 100- 250V; 50/60Hz; 1,0A Output: DC14V; 1,5A	EN 61558-1/ -2-16	Acceptance tested Based on test report: 15087026 001

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
5	General requirements		—
6	Type testing		—
7	Ratings		—
8	Marking		—
8.1	Information to be marked on accessories		P
	a) trade mark / manufacturer		P
	b) number of British Standard	BS 5733	P
	c) for rough-use plug & portable socket -outlet, number of standard followed by		N/A
	d) terminal identification		N/A
	e) rated current	13A	P
	f) rated voltage	250V	P
	g) nature of supply	~	P
	h) for fused accessories, word	FUSE / FUSED	N/A
	i) IP no.	IP20 for the main body; IP44 only achieved when remove all plugs from the socket-outlets and in closed position.	P
	j) size of cord anchorage	mm ² - mm ²	N/A
	k) for accessories incorporating screwless terminals, length of insulation to be removed		N/A
	l) maintenance free accessories		N/A
	m) for accessories incorporating screwless terminals where the maximum conductor size is not in conformity with Table 2		N/A
8.2	Safety information		P
	by marking on the accessory itself		P
	in instructions which may accompany		P
8.3	Visibility of marking		P
	marking specified in 8.1 were visible		P
	marking specified in 8.2, if on the accessory		P
8.4	Symbols used: as required in the standard		P
8.5	Marking of rated current, voltage and nature of supply		—

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	a) for a.c. accessories		P
	b) for d.c. accessories		N/A
	c) for dual voltage		N/A
	d) for different current of a.c. and d.c		N/A
	e) for different rating of a.c. and d.c		N/A
8.6	Inspection		—
	Conformity to clause 8.1 to 8.5.		P
8.7	Durability and legibility of markings		—
	Markings shall not be placed on screws, markers or other removable parts.		P
	When tested by this method, the marking shall remain legible	Engraving / Moulding / Label / Printing	P
9	Dimensions		—
	Where products have interchangeability with other standard, the relevant dimensions shall be within the tolerances specified		P
	Standard no. ref. for measurement	BS 1363	P
10	Clearances, creepage distances and solid insulation		—
10.1	The distance between lead wires in the pinch of a neon lamp with external resistor shall be a minimum of 1mm		N/A
10.2	Clearances		—
10.2.1	Default pollution degree (Width X)	2 (1,0mm)	P
	Pollution degree declared by manufacturer (Width X)	1 / 3 (0,25mm / 1,5mm)	N/A
	Default rated impulse voltage (overvoltage category)	4000V (III)	P
	Declared rated impulse voltage (overvoltage category)	1500 / 2500 (I / II)	N/A
10.2.2	Clearances for basic insulation	>4,0mm	P
10.2.3	Clearances for functional insulation	>4,0mm	P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
10.2.4	Clearances for supplementary insulation		N/A
10.2.5	Clearances for reinforced insulation		N/A
10.2.6	The minimum contact gap shall be 1,2mm in the open position		N/A
10.3	Creepage distances		—
10.3.1	Default pollution degree (Width X)	2 (1,0mm)	P
	Pollution degree declared by manufacturer (Width X)	1 / 3 (0,25mm / 1,5mm)	N/A
	Min. CTI/PTI (material group)	100 (IIIb)	N/A
	Declared material group	I/II / IIIa	P
	Corresponding CTI/PTI of declared material group	175 ≤ CTI/PTI < 400	P
10.3.2	Creepage distances for basic insulation	>4,0mm	P
10.3.3	Creepage distances for functional insulation	>4,0mm	P
10.3.4	Creepage distances for supplementary insulation		N/A
10.3.5	Creepage distances for reinforced insulation		N/A
10.4	Solid insulation		P
10.4.1	No minimum thickness for solid insulation		P
	Basic, supplementary, reinforced solid insulation shall withstand the required impulse voltage declared by manufacturer of the accessory		P
	The insulation shall continue to conform to the electric strength test with clause 19.3		P
10.4.2	Basic, supplementary and functional solid insulation		—
	Impulse test voltage	4800V	P
	Electric strength test		—
	- Basic solid insulation	1500V	P
	- Supplementary solid insulation:		N/A
	During the test, no breakdown or flashover occurred		P
10.4.3	Reinforced solid insulation		—
	Impulse test voltage		N/A
	Electric strength test		—
	- Reinforced solid insulation:	3000V	N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	During the test, no breakdown or flashover occurred		N/A
11	Accessibility of live parts		—
11.1	Accessories shall be so constructed and enclosed not contact with live parts		P
	When tested using test probe 11 applied with a force 5N, in every position with smallest conductor		P
	no contact between the test probe and live part		P
	test repeated with conductors of the largest c.s.a. no contact between the test probe & live parts		N/A
	For accessories incorporation (plug-pins/socket-contacts) not conforming British Standard, test probe 11 shall be applied		N/A
	no contact between test probe & live parts		N/A
11.2	live parts protected by the shutters are not accessible with the test pin (fig. 8)	With a force of 5N	P
	live parts are automatically screened by a shutter		P
	When tested by applying the test pin to each shutter with a force, applied perpendicular		P
	not possible to touch live parts		P
11.3	a) associated earthing plug-pin shall be prevented from making contact with a current carrying socket-contact		P
	b) associated current-carrying plug-pin shall be prevented from making contact with a current-carrying socket-contact while any other plug pin is accessible.		P
11.4	earthing plug-pin shall make contact with earthing socket contact before the current-carrying plug-pins make contact with the current carrying socket-contacts.		P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	earthing plug-pin shall break contact with earthing socket contact after the current-carrying plug-pins break contact with the current carrying socket-contacts.		P
11.5	For accessory intended to be inserted into accessory incorporating socket-contact and it is supplied with a flexible cord:		N/A
	the free end of the flexible cord shall be encapsulated in insulating material		N/A
11.6	For portable plug-in fused accessories, not possible to gain access to the fuse-link		N/A
11.7	other fused accessories, possible to remove and replace the fuse-link safely.		N/A
	Instructions shall be provided		N/A
	not possible to touch live parts with the test probe during removal or replacement of the fuse-link.		N/A
11.8	The base and cover of non-rewirable portable accessories shall be permanently attached		P
11.9	The base and cover of rewirable portable accessories shall be firmly secured to each other		N/A
	A pull shall be exerted upon each cover fixing screw for 60s at a temperature of 70 °C.		N/A
	After test, screw thread shall be capable of performing its intended function		N/A
	No insert shall have removed to such an extend		N/A

12	Provision for earthing		—
12.1	With the exception of accessories conforming to 12.2, provision shall be made for the effective earthing of all metal parts		P
	The earthing resistance between earthing terminal and various parts shall be measured		—
	Parts	Measured (Ω)	Required (Ω)
	a) accessible metal parts	Max. 0,02	$\leq 0,05$
			P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	b) for plugs	≤ 0,05	N/A
	c) for socket-outlets	Max. 0,01 ≤ 0,05	P
	d) for adaptors	≤ 0,05	N/A
	e) incoming and outgoing terminals	≤ 0,05	N/A
	f) earthing of cord	≤ 0,05	N/A
12.2	such accessories are not intended to provide earthing continuity for class 1 equipment		N/A
	test, using the method described in Clause 19 but with an electric strength test voltage of (4 000 ±120) V.		N/A

13	Construction		—
13.1	Current-carrying parts shall be made of brass		P
13.2	For sealing compounds		N/A
13.3	Boxes can not readily be deformed		N/A
	can not be brought into contact with any live parts		N/A
	did not allow access to any live parts		N/A
13.4	Boxes, not within the scope of other British Standards, shall conform to the relevant clauses of this standard		N/A
	Non-metallic boxes shall have provision for securing an earthing terminal and allow the proper connection of conductors		N/A
13.5	The internal connections shall be designed to maintain correct polarity		P
13.6	A length of insulation, of approximately 4mm, shall be removed from the end of a flexible conductor.		N/A
	The cross-sectional area of cord	mm ²	N/A
	One wire of the standard conductor shall be left free and the other wires fully inserted into the clamped in the terminal.		N/A
	The free wires shall be bent in every possible direction but without making sharp bends.		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	The free wire of the conductor connected to a live terminal shall not touch any live part that is accessible or is connected to an accessible metal part.		N/A
	Furthermore, the free wire of the conductor connected to a live terminal shall not reduce the creepage distances and clearances to accessible surfaces to less than 1,3mm.		N/A
	The free wire of a conductor connected to an earthing terminal shall not touch live part.		N/A
	Terminals of portable rewireable accessories, conductor escape but no risk of accidental connection between live parts and accessible external surfaces		N/A
	or of a stray wire bypassing fuse-link		N/A
13.7	Fuse contacts shall be made from material conforming to 13.1 (brass).		N/A
	Fuse contacts shall conformed to 15.3.		N/A
	A solid link manufactured from stainless steel shall be used for the test of inherently resilient contact	BS 646 / BS 1362 /	N/A
	After the test, the stainless steel solid test link shall be replaced by a solid link of negligible impedance having dimensions of (type b / type d / min. dimension according to their relevant standard sheets).		N/A
13.8	switch contacts come to rest only in a state giving adequate contact of the contacts		N/A
	switch contacts come to rest only in a state giving adequate separation of the contacts		N/A
13.9	Multi-pole switches constructed that all contacts make and break with one movement of the actuating member.		N/A
13.10	Switches, other than those for a.c., shall be of the quick make and break (snap action) type		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	the speed of contact making and breaking shall be independent of the speed at which the actuating member was operated.		N/A
13.11	the switch complied with clauses 18 & 19 of BS EN 60669-1:1999+A2		N/A
13.12	Socket-contacts shall withstand, without excessive wear or other harmful effects, the electrical and mechanical stresses occurring in use		P
	tested at rated current at rated voltage	13A 250V	P
	Sockets shall be operated by mechanically withdrawing and inserting the plug	15000 / 300 times	P
	After the test, the plug and socket device shall not show wear impairing its operation		P
	the inlet opening in the cover of the socket portion shall not show appreciable damage		P
	Shutters shall still operating satisfactorily and the socket-contacts safely shielded		P
	The plug and socket device conform to clause 19 and 20		P
13.13	For accessory incorporates fuse-link which may be withdrawn or replaced on load		N/A
	the fuse contacts shall make and break the rated current, by insertion and removal of a solid link, in accordance with 13.7		N/A
	all metal parts not in contact with line contacts shall be to the earth pole of the test circuit		N/A
	After the test, the accessory shall be serviceable		N/A
13.14	The female contacts and the contacts of a male connector of a lighting distribution unit shall withstand, the electrical and mechanical stresses occurring in use		N/A
	The male connector shall be operated by mechanically withdrawing and inserting the female contact with		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	a) an inductive load	A; 100 times	N/A
	b) a tungsten filament lamps load	5 x 100W 250V; 100 times	N/A
	After the test, they shall not show wear impairing its operation		N/A
	The female contact and contact of male conform to clause 19 and 20		N/A
13.15	Maintenance free accessories incorporate screwless terminals complied with clauses 14.3 and 14.5 and cable clamps complied with clause 16		N/A
	Maintenance free accessories incorporate plug pins and socket contacts shall be provided with retaining means which engage automatically and capable of disengagement for disconnecting		N/A
	Maintenance free accessories not provided with other devices or components		N/A
13.16	For accessory incorporate plug pins shall not impose undue strains on fixed socket outlets		N/A
	engagement with socket outlets complied with clauses 13.10 of BS 1363-3:1995+A3		N/A

14	Terminals and terminations		—
14.1	Rewireable accessories shall be provided with terminal having screw clamping		N/A
	Rewireable accessories shall be provided with screwless terminals		N/A
	The means for clamping the conductors in the terminals shall not serve to fix other component		N/A
14.2	Terminals with screw clamping for copper conductors		N/A
14.2.1	Terminals shall properly connect copper conductors having nominal C.S.A.	- mm ²	N/A
14.2.2	Terminals with screw clamping, the conductor can be connected without special preparation except as permitted in 14.2.12.		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
14.2.3	Terminals with screw or nuts for clamping conductors shall have an ISO metric thread or a thread comparable in pitch and mechanical strength.		N/A
	Screws shall not be of metal which was soft or liable to creep. (Refer tests of 14.2.6 and 14.2.8)		N/A
14.2.4	Terminals with screw clamping shall be resistant to corrosion.		N/A
14.2.5	Terminals with screw clamping, clamped the conductors without undue damage		N/A
	The terminal shall be fitted with a rigid conductors, first with the smallest C.S.A.	mm ²	N/A
	the clamping screws or nuts being tightened	Nm	N/A
	Each conductor in turn shall be subjected separately to two circular motion as specified in the standard.	H = mm	N/A
	During the circular motion, the conductor shall be subjected to a pull (see table 4).	N	N/A
	no conductor come out		N/A
	no break at the terminal		N/A
	The terminal shall be then fitted with a rigid conductors, with the largest C.S.A.	mm ²	N/A
	the clamping screws or nuts being tightened	Nm	N/A
	Each conductor in turn shall be subjected separately to two circular motion as specified in the standard.	H = mm	N/A
	During the circular motion, the conductor shall be subjected to a pull (see table 4).	N	N/A
	no conductor come out		N/A
	no break at the terminal		N/A
14.2.6	Terminals with screw clamping, clamped the conductor securely and between metal surfaces.		N/A
	The test shall be carried out with conductors of the smallest C.S.A.	mm ²	N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	The terminal screws being tightened with a torque (2/3 × value from table 3).	Nm	N/A
	Each conductor shall be then subjected to a pull (from table 4)	N	N/A
	no conductor move noticeably in the terminal		N/A
	The test shall be carried out with conductors of the largest C.S.A.	mm ²	N/A
	The terminal screws being tightened with a torque (2/3 × value from table 3).	Nm	N/A
	Each conductor shall be then subjected to a pull (from table 4)	N	N/A
	no conductor move noticeably in the terminal		N/A
14.2.7	Terminals with screw clamping, neither a rigid solid conductor nor a wire of a stranded conductor nor a strand of flexible conductor can slip out		N/A
	The terminals shall be fitted with rigid conductors or flexible conductors having the largest C.S.A.	mm ²	N/A
	Terminal intended for the connection of rigid conductors shall be checked with solid conductors and with stranded conductors.		N/A
	Terminal intended for the looping-in of two or three conductors shall be checked and fitted with the max. permissible number of conductors.		N/A
	The conductor(s) shall be installed in the clamping part of the terminal in a manner appropriate to the terminal design.		N/A
	The clamping screw shall be tightened with a torque (2/3 × value from table 3).	Nm	N/A
	After the test, no conductor shall have escaped from the retaining device of the clamping part		N/A
14.2.8	Terminals with screw clamping shall be so fixed or located within the accessory		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	when the clamping screws are tightened, or loosened, the terminals shall not work loose from their fixings to the accessory		N/A
	A solid rigid copper conductor of the largest C.S.A. shall be placed in the terminal.	mm ²	N/A
	The screws under the test shall be tightened and loosened five times, applying torque (see table 3).	Nm	N/A
	A new conductor end shall be used each time the screw is loosened.		N/A
	After the test, terminals shall not work loose		N/A
	no damage that impaired the further use of the terminals.		N/A
14.2.9	Clamping screws of earthing terminals with screw clamping shall be designed to resist accidental loosening		N/A
	and it shall not be possible to loosen them without the aid of a tool.		N/A
14.2.10	Earthing terminals shall be of the materials specified in 15.5		N/A
14.2.11	For pillar terminals, the distance between the clamping screw and the end of the conductor, when fully inserted (Fig. 1)	mm	N/A
	For mantle terminals, distance (Fig. 5)	mm	N/A
14.2.12	Lug terminal shall be used, ($\geq 45A$)	A	N/A
14.3	Screwless terminals for copper conductors		N/A
14.4	Terminations for non-rewirable accessories		P
	provided with soldered, welded, crimped or similar terminations	Soldered	P
	crimped connections not pre-soldered		P
	no more than one strand or 5% fractured during connection		P
	tested by exerting a pull in the longitudinal axis	30 N for 60 s	P
	no deterioration of joints		P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
14.5	Terminals for use within maintenance free accessories		N/A
15	Screws, current-carrying parts and connections		—
15.1	Connections, electrical or mechanical shall withstand the mechanical stresses occurring		P
	Screws or nuts which transmit electrical contact pressure shall be of metal		N/A
	and shall be in engagement with a metal thread.		N/A
	Screws or nuts in engagement with thread of insulating material shall be completely removed and reinserted each time as specified in 14.2.8.		N/A
15.2	For screws in engagement with a thread of insulating, correct introduction into the screw hole or nut shall be ensured.		N/A
15.3	contact pressure of electrical connections is not transmitted through insulating material		P
15.4	Screws and rivets which serve as electrical as well as mechanical connections shall be locked against loosening or turning.		P
	In addition, the terminals of accessories containing earthing and neutral plug pin as:		—
	a) formed as one piece with the pin, or		N/A
	b) permanently connected to it in such a way that efficient electrical connection is made that cannot work loose in use.	Soldered	P
	The other contact for the fuse-link shall be similarly connected to the corresponding plug-pin		N/A
	connections shall not be made by means of screws.		N/A
	The line terminal or termination provided with effectively clamping and securing conductors		P
	connections to fuse-clips within accessories not containing terminals made by means of screws.		N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
15.5	Current-carrying parts, including those of terminals (also earthing terminals) shall be metal resistant to corrosion		P
15.6	Current-carrying parts which may be subjected to mechanical wear shall not be made of steel which has an electroplated coating.		P
15.7	Metals showing a great difference of electrochemical potential with respect to each other shall not be used in contact with each other.		P
15.8	Thread-forming screws shall not be used for the connection of current-carrying parts.		N/A

16	Provisions for cables and cords		—
16.1	Accessories intended for fixed install shall have terminals as specified in clause 13.		P
	The entry to the accessory, for the installation of insulated conductors, connected without exposing the based conductors (clause 10)		P
	The entry causes no damage to the insulation of the conductors or to the sheath of the cable.		P
16.2	Accessories intended for use with a flexible cord or cable enter the accessory through a suitable hole, groove or gland.		P
	The entry accept the maximum dimensions of the outer sheath of the appropriate flexible cord or cable, having conductors of the C.S.A. specified, according to the rating of the accessory.		P
	The entry shall be so shaped as to prevent damage to the flexible cord or cable.		P
	An anchorage shall be provided		P
	The anchorage shall contain the sheath and shall be either of insulating material or metal provided with insulating lining fixed to the metal		P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	Anchorage shall anchor the cord or cable securely to the accessory.		P
	Rewireable accessories shall be designed as follows:		—
	a) the anchorage cannot be released from the outside without the use of a tool		N/A
	b) clamping the cord or cable does not require the use of a special purpose tool.		N/A
	All accessories shall be designed as follows:		—
	1) anchorage restraint is not affected by a metal part bearing directly on cord or cable		P
	2) at least one part of the anchorage is securely fixed		P
	Anchorage clamping screws shall not be used to secure other components.		P
	Test:		—
	Rewireable accessories shall be fitted with a 2-core flexible cord having nominal conductor C.S.A. of 0,5mm ² or minimum designated	mm ²	N/A
	The anchorage shall be used in the normal way, the clamping screws were tightened to a torque of $\frac{2}{3} \times$ value from table 3.	Nm	N/A
	After the preparation, it shall not be possible to push the flexible cord or cable into the accessory,		N/A
	or into its box to such an extent as to impair safety, or so that the anchorage was loosened.		N/A
	The flexible cord shall then pulled for 25 times		P
	Immediately afterwards, the flexible cord shall be subjected for 60s to a torque.		P
	insulation of the flexible cord shall not be damaged		P
	The above test shall then be repeated, the accessory being fitted with the largest appropriate flexible cord or cable specified in 16.2, the forces for the pull and torque according to table 6	Cord size: mm ² Force : N Torque : Nm	N/A

BS 5733 : 2010 + A1:2014					
Clause	Requirement – Test			Result - Remark	Verdict
	For non-rewireable accessories, the test shall be carried out with the flexible cable or cord with which the accessory is supplied. The conductors of the flexible cord shall be severed at the point of termination prior to the test.			Cord size: 1,5mm ² Force : 45N Torque : 0,15Nm	P
	Test voltage shall be applied between the conductors			3750 V	P
	After the tests, the displacement of flexible cord shall be measured				P
	Sample	C.S.A. (mm ²)	Displacement (mm)	Required (mm)	—
	1	1,5	0,2	≤ 2	P
				≤ 2	N/A
				≤ 2	N/A
	2	1,5	0,1	≤ 2	P
				≤ 2	N/A
				≤ 2	N/A
	3	1,5	0,2	≤ 2	P
				≤ 2	N/A
				≤ 2	N/A
	insulation of the flexible cord was not damaged				P
16.3 & 16.4	Non-rewireable portable accessories shall be provided with appropriate flexible cord.				P
	The method of connection within the accessory shall conform to 14.4.				P
	The retention of the flexible cord prevented excessive bending where it enters the accessory.				P
	The flexible cable or cord shall be loaded with a mass			20 / 40 N	P
	A current equal to the rated current shall be passed through the conductors			13A	P
	The voltage between the conductors shall be approximate equal to the rated voltage			250V	P
	Earthing conductors shall be connected at the end to the neutral conductor.				P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	subjected to number of flexing	10000 times	P
	during the test, no short-circuit between the conductors		P
	After the test, no interruption of current		P
17	Resistance to ageing		—
17.1	Accessories shall be resistant to ageing		P
17.2	Accessories other than ordinary shall be test after having been mounted and assembled as 18.1.2.1.		P
	test in the cabinet	70°C, 168 h	P
	After the test, the samples shall not show cracks and		P
	complied with remaining tests in the series as specified in 6.3b)		P
18	Resistance to harmful ingress of water and resistance to humidity		—
18.1	Resistance to ingress of water	IP20 for the main body; IP44 only achieved when remove all plugs from the socket-outlets and in closed position.	P
18.2	Resistance to humidity		P
	The humidity treatment shall be carried	23°C, 93%RH,	P
	Duration for the samples shall be kept in the cabinet	48 / 168 h	P
	After the test, the insulation and the electric strength complied with clause 19.		P
	The samples shall not show signs of damage		P
19	Insulation resistance and electric strength		—
19.1	The insulation resistance and electric strength shall be tested in accordance with 18.2, followed immediately by 19.2 and 19.3 in the humidity cabinet.		P
19.2	The insulation resistance shall be measured	500 V d.c. for 60 s	P

BS 5733 : 2010 + A1:2014				
Clause	Requirement – Test	Result - Remark		Verdict
	Parts between	Measured (MΩ)	Required (MΩ)	—
	a) parts of opposite polarities	> 10	≥ 5	P
	b) parts of opposite polarity connected together and other parts insulated, including earthed metal	> 10	≥ 5	P
	c1) switch contacts opened - L		≥ 2	N/A
	c2) switch contacts opened - N		≥ 2	N/A
19.3	The insulation shall be subjected for 60s to a voltage: 2000V for 60 s			—
	a) Between live parts of opposite polarity			P
	b) between parts of opposite polarity connected together and:			—
	1) other parts insulated therefrom, including earthed metal;			P
	2) a sheet of metal foil in contact with the entire accessible external surface.			P

20	Temperature rise			—
	Accessories shall be so constructed that the temperature rise in normal use was in accordance with 20.4.3.			P
	Terminal screw torque:			N/A
20.2.1 & 20.2.3	Portable accessories shall be connected by flexible cords with test conductors of maximum size given in table 2 appropriate to the current-rating used.	mm ²		N/A
20.2.2 & 20.2.4	Fixed accessories shall be connected by flexible cords with test conductors of maximum size given in table 2 appropriate to the current-rating used.			N/A
20.2.5	For non-rewirable accessories, tested with flexible cord as supplied			P
20.2.6	For accessories having no provision for cords, intended use of the accessory			N/A
20.3.1	For surface mounted fixed accessories is mounted as in normal use			N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
20.3.2	Flush mounted fixed accessories shall be mounted in an appropriate flush mounting box placed in a block of wood simulating the conditions of normal use.		N/A
20.3.3	Portable accessories other than plugs and adaptors are placed in position as in normal use		P
20.3.4	Plug / Adaptors having provision for connection of flexible cords shall be inserted into a socket-outlet as specified in 20.3.1, 20.3.2 or 20.3.3, as appropriate.	Flush mounting box	N/A
20.3.5	For accessories having no provision for cords, test as appropriate to their design		N/A
20.3.6	When supply cables enter into mounting boxes for tests of fixed accessories, the circulation of air prevented	surface / flush mounted	N/A
20.4	Temperature rise shall be determined by means of	Fine-wire thermocouples	P
20.4.1- 20.4.3	All tests shall be carried out in a draught - free environment, with test voltage and current	15,6A 250V ~ For a period of 60 min	P
	Parts	Measured (K)	Required (K)
	terminal or termination	Max.18,2	≤ 52
	accessible external surface	Max.4,3	≤ 52
	Ambient temperature (°C)	23 °C	20 ± 5 °C

21	Mechanical strength		—
	Accessories shall be constructed as to withstand such handling as may be expected.		P
21.3.1	For surface mounting fixed accessories: checked by pendulum impact test		N/A
21.3.2	For flush mounted fixed accessories: checked by pendulum impact test	Table mounted in final use	P
21.3.3	For plugs fitted with 2-core / 3-core PVC sheathed cords, appropriate to the design and current rating of the accessory with length of 150mm	x mm ²	N/A

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	Terminals and cover screws shall be tightened with the torque (table 3).	Nm	N/A
	Plugs shall be tested in the tumbling barrel		—
	a) for rewirable plugs	1000 times	N/A
	b) for non-rewirable plugs	2500 times	N/A
	c) for rough-use plugs	5000 times	N/A
21.3.4	For single and twin portable socket-outlets.	Table mounted in final use	N/A
	fitted with 2-core / 3-core PVC sheathed cords, appropriate to the design and current rating of the accessory with length of 150mm	x mm ²	N/A
	Terminals and cover screws shall be tightened with the torque (table 3).	Nm	N/A
	they shall be tested in the tumbling barrel and each socket-outlet shall be dropped:	5000 times	N/A
21.3.5	For portable socket-outlets having more than two outlets.		P
	checked by falling test as Fig 16		P
21.3.6	For adaptors.		N/A
	tested in the tumbling barrel:	25 times	N/A
	checked by impact test		N/A
21.3.7	For other portable accessories	Table mounted in final use	N/A
	tested in the tumbling barrel:	300 times	N/A
21.3.8	For screw glands.		N/A
21.4	Assessment, after the accessories are tested in accordance with 21.3:		—
21.4.1	a) not show damage which might affect safety;		P
&	b) no live parts become accessible		P
	c) no parts become detached.		P
21.4.2	When examined in accordance with 21.4.1, accessories which pass shall be submitted to repeat tests in accordance with clause 19 and 20, but with the following modifications and without disturbing the terminals or terminations.		P
	The length of cords shall be increased by / reduced to 1000mm.	increased / reduced	P

BS 5733 : 2010 + A1:2014				
Clause	Requirement – Test	Result - Remark		Verdict
19	Insulation resistance and electric strength			—
19.1	The insulation resistance and the electric strength of accessories shall be adequate.			P
19.2	The insulation resistance shall be measured	500 V d.c. for 60 s		P
	Parts between	Measured (MΩ)	Required (MΩ)	—
	a) parts of opposite polarities	> 10	≥ 5	P
	b) parts of opposite polarity connected together and other parts insulated, including earthed metal	> 10	≥ 5	P
	c1) switch contacts opened - L		≥ 2	N/A
	c2) switch contacts opened - N		≥ 2	N/A
19.3	The insulation shall be subjected for 60s to a voltage: 2000V, for 60 s. No flashover or breakdown shall occur during the test.			—
	a) Between live parts of opposite polarity			P
	b) between parts of opposite polarity connected together and			P
	1) other parts insulated therefrom, including earthed metal;			P
	2) a sheet of metal foil in contact with the entire accessible external surface			P
20	Temperature rise			—
	Accessories shall be so constructed that the temperature rise in normal use is in accordance with 20.4.3.			P
	Terminal shall not be disturbed.			P
20.2.1 & 20.2.3	Portable accessories shall be connected by flexible cords with test conductors of maximum size given in table 2 appropriate to the current-rating used.	mm ²		N/A
20.2.2 & 20.2.4	Fixed accessories shall be connected by flexible cords with test conductors of maximum size given in table 2 appropriate to the current-rating used.			N/A
20.2.5	For non-rewirable accessories, tested with flexible cord as supplied			P
20.2.6	For accessories having no provision for cords, intended use of the accessory			N/A

BS 5733 : 2010 + A1:2014				
Clause	Requirement – Test	Result - Remark		Verdict
20.3.1	For surface mounted fixed accessories			N/A
20.3.2	Flush mounted fixed accessories shall be mounted in an appropriate flush mounting box placed in a block of wood simulating the conditions of normal use.			N/A
20.3.3	Portable accessories other than plugs and adaptors are placed in position as in normal use			P
20.3.4	Plug / Adaptors having provision for connection of flexible cords shall be inserted into a socket-outlet as specified in 20.3.1, 20.3.2 or 20.3.3, as appropriate.	Flush mounting box		N/A
20.3.5	For accessories having no provision for cords, test as appropriate to their design			N/A
20.3.6	When supply cables enter into mounting boxes for tests of fixed accessories, the circulation of air prevented	surface / flush mounted		N/A
20.4	Temperature rise shall be determined by means of	Fine-wire thermocouples		P
20.4.1- 20.4.3	All tests shall be carried out in a draught - free environment, with test voltage and current	15,6A 250V ~ For a period of 60 min		P
	Parts	Measured (K)	Required (K)	—
	terminal or termination	Max. 23,2	≤ 52	P
	accessible external surface	Max. 7,3	≤ 52	P
	Ambient temperature (°C)	23 °C	20 ±5 °C	—

22	Resistant to heat			—
22.1	With the exception of parts made from rubber and ceramics in fixed accessories			P
22.2	The sample shall be kept for 60 min. in a heating cabinet	70 °C, 60 min		P
	When tested in this way, there shall be no access to live parts which normally not accessible.			P
	After the test, the accessories shall not have undergone any change impairing further use.			P
	markings shall still be legible.			P

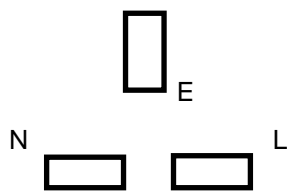
BS 5733 : 2010 + A1:2014					
Clause	Requirement – Test	Result - Remark			Verdict
22.3	The sample shall be subjected to a ball-pressure test	20 N			P
	For Fixed accessories				—
	Parts	Temperature (°C)	Measured \varnothing (mm)	Required (mm)	—
	a) retaining current-carrying parts (for Contact base)	125	Max.1,23	≤ 2	P
	b) 2mm width around the L & N pin entry hole of the front surface of fixed socket (for Socket cover)	125	Max.1,23	≤ 2	P
22.4	For the parts except those specified in clause 22.3				—
	Parts	Temperature (°C)	Measured \varnothing (mm)	Required (mm)	—
	a) not retaining current-carrying parts (for Outer frame / Shutter body / Back cover)	75 / T+40	Max.0,82	≤ 2	P
	b) portable accessories	75 / T+40		≤ 2	N/A
22.5	Portable accessories having external parts of resilient material.				P
	Tested by apparatus shown in fig 19				P

23	Resistance of insulation material to abnormal heat and to fire				—
23.1 – 23.2	Parts of insulating material which might impair the safety of the accessory shall not be unduly affected by normal heat and by fire.				P
	a) insulating material retain current-carrying parts	850 / 750 °C for Contact base / Socket cover			P
	- no visible flame and no sustained glowing				P
	- flames and glowing extinguish within 30 s after removal of glow-wire				N/A
	- no ignition of paper				P
	b) not retain current-carrying parts	650 °C for Outer frame / Shutter body / Back cover			P
	- no visible flame and no sustained glowing				P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
	- flames and glowing extinguish within 30 s after removal of glow-wire		N/A
	- no ignition of paper		P

BS 5733 : 2010 + A1:2014			
Clause	Requirement – Test	Result - Remark	Verdict
24	Deleted		—
25	Resistance to excessive residual stresses and to rusting		—
25.1	The current-carrying parts shall be subjected to the test of immersed in an aqueous solution of mercury (I) nitrate containing 10g of $Hg_2(NO_3)_2$ and 10ml of HNO_3 (relative density 1,42) per litre of solution for 30 min. at a temperature of 20°C		P
	after the treatment, no cracks visible		P
25.2	Ferrous parts, including covers and boxes, shall be subjected to the test of immersed for 10 min. in 10% solution of ammonium chloride in water at a temperature of 20°C.		P
	After the treatment, there shall be no signs of rust		P

Appendix 1: BS 1363-2:1995 + A4:2012

Clause	Requirement – Test	Result - Remark	Verdict																
Seq. 1	Inspection, measurement, gauging and manipulation		—																
13.1	The disposition of the socket contacts shall be as follow: 		P																
	Any steps or profile contours on the engagement surface shall not result in the surface deviating from the plane of engagement by more than 2mm.		P																
	Holes not exceeding 8mm diameter for the purpose of assembly fixing shall be deemed acceptable.		P																
	There shall be no projection on the engagement surface of a socket-outlet such as would prevent the full insertion of a plug.		P																
	No projection more than 0,5mm on the engagement surface of the socket-outlet.		P																
	The spacing of the socket contacts, 'Go' gauge is used shown in figure 11		P																
13.2	After testing with 'contact gauge', the line and neutral socket contact satisfactory with the corresponding pins of the plug.		P																
13.3	After testing with the "non-contact gauge", the travel of current-carrying pin in any position the socket contacts may occupy, not less than 9,6mm.	>9,6mm	P																
13.9	The apertures for line, neutral and earth plug pins		P																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Pole</th> <th>Spec (mm)</th> <th>Measured (mm)</th> <th>Verdict</th> </tr> </thead> <tbody> <tr> <td>Line</td> <td>≤ 7,2 × 4,8</td> <td>7,12 x 4,40</td> <td>P</td> </tr> <tr> <td>Neutral</td> <td>≤ 7,2 × 4,8</td> <td>7,04 x 4,37</td> <td>P</td> </tr> <tr> <td>Earthing</td> <td>≤ 8,8 × 4,8</td> <td>8,57 x 4,52</td> <td>P</td> </tr> </tbody> </table>	Pole	Spec (mm)	Measured (mm)	Verdict	Line	≤ 7,2 × 4,8	7,12 x 4,40	P	Neutral	≤ 7,2 × 4,8	7,04 x 4,37	P	Earthing	≤ 8,8 × 4,8	8,57 x 4,52	P		—
Pole	Spec (mm)	Measured (mm)	Verdict																
Line	≤ 7,2 × 4,8	7,12 x 4,40	P																
Neutral	≤ 7,2 × 4,8	7,04 x 4,37	P																
Earthing	≤ 8,8 × 4,8	8,57 x 4,52	P																
13.10	The distance from the apertures of line and neutral to the periphery of the engagement surface, Required : ≥ 9,5mm / 18,0mm	Measured: L (mm): Min. 10,26 N (mm): Min. 10,21	P																
13.12	Multiple socket-outlet simultaneous use by 'Go' gauge test.		P																

Appendix 1: BS 1363-2:1995 + A4:2012			
Clause	Requirement – Test	Result - Remark	Verdict
13.14	Conductive component parts of socket-outlet shall be so located and separated that, in normal use, they cannot be displaced so as to affect adversely the safety or proper operation of the socket-outlet.		P
13.15	For flush socket-outlets intended to be used in enclosures complying with BS 4662 shall be such that the clearance for the purpose of wiring between the base or bases and the inside walls of the box is not less than 6mm.		N/A
	The clearance between the overall depth of the base of the bottom of a 35mm deep box is not less than 14mm.		N/A
	There shall be no live metal protruding from or flush with the socket-outlet base.		N/A
13.16	Flush-mounted socket plates have provision for two M3,5 fixing screw		N/A
	Flush-mounted socket plates intended for mounting on boxes. The distance between the two screws at centre. required = 60,3mm ± 0,2mm for 1 gang = 120,6mm ± 0,3mm for 2 gang = 180,9mm ± 0,4mm for 3 gang	Measured dimension (mm): x	N/A
13.17	Dimension for flush socket-outlet plates either of insulating material or metal. required ≥ 82,5mm x 82,5mm for 1 gang ≥ 82,5mm x 142,5mm for 2 gang	Measured dimension (mm): x	N/A
13.18	The base and cover of non-rewirable portable socket-outlets shall be permanently attached to each other.		N/A
	The base and cover of rewirable portable socket-outlets shall be firmly secured to each other.		N/A

Appendix 1: BS 1363-2:1995 + A4:2012			
Clause	Requirement – Test	Result - Remark	Verdict
13.20	For non-rewirable portable socket-outlets means shall be provided to prevent loose strands of conductor connected to current-carrying parts from reducing the minimum insulation thickness requirements between such parts and all accessible external surface of the socket-outlet.		P
Seq. 2	General		P
13.13	The fuse link is fitted to a socket-outlet it shall comply with BS 1362 and shall be mounted in suitable contacts between the line terminal.		N/A
	The design shall be such that the fuse link can not be displaced accidentally during use.		N/A
	The contact for a fuse link connected to the line terminal shall be formed in one piece with a fixed part of the terminal.		N/A
13.4.1	a) Socket contacts shall have effective electrical contact with a corresponding plug pin. Required $\leq 25\text{mV}$	Measure: L: 15mV N: 13mV	P
	b) Socket contacts shall have effective mechanical contact with a corresponding plug pin.		P
13.5	Socket contacts shall withstand the stresses.		P
	1) Line socket contacts		P
	2) Neutral socket contacts		P
	After the test, the earth socket contacts shall retain the gauge (figure 16b) for 30s.		P
13.6	Earth socket contacts shall withstand the stresses.		P
	After the test, the earth socket contacts shall retain the gauge (figure 16a) for 30s.		P
Seq. 3	General		—
13.13	The fuse link is fitted to a socket-outlet it shall comply with BS 1362 and shall be mounted in suitable contacts between the line terminal.		N/A

Appendix 1: BS 1363-2:1995 + A4:2012			
Clause	Requirement – Test	Result - Remark	Verdict
	The design shall be such that the fuse link can not be displaced accidentally during use.		N/A
	The contact for a fuse link connected to the line terminal shall be formed in one piece with a fixed part of the terminal.		N/A
13.11	Switches shall be so constructed that undue arcing can not occur when the switch is operated slowly.		N/A
	The switch shall disconnect at least the supply to the line socket contact.		N/A
13.11.1	Following the test in clause 17, the circuit is broken a further 10 times, each time moving the actuating member by hand over a period of 2s in a manner such as to attempt to stop the moving contact in an intermediate position causing arcing.		N/A
	The actuating member shall be released after 2s of any arcing shall cease.		N/A

Seq. 4	General		—
13.19	Portable socket-outlet shall be so designed and constructed they can not be formed to allow access to live parts or to allow separated metal parts to be brought into contact with each other.		P
13.4.1a)	Socket contacts shall have effective electrical contact with a corresponding plug pin. Then the voltage drop between the terminal connecting strap at a point immediately adjacent to socket contact and the corresponding plug pin. Limit ≤ 40 mV	Measured: L (mV): 32 N (mV): 31	P
13.6	After the test, the earth socket contacts shall retain the gauge for 30s.		P
	Earth socket contacts shall withstand the stresses.		P
13.7	After the test in 13.6, the gauge and test pin shall be no possible to touch current-carrying parts. Compliance shall be checked by the tests of 13.7.1		P

Appendix 1: BS 1363-2:1995 + A4:2012

Clause	Requirement – Test	Result - Remark	Verdict
	It shall not be possible to operate a shutter by inserting a 2-pin plug into a 3-pin socket-outlet. Compliance shall be checked by the tests of 13.7.2		P
13.8	The construction of socket-outlets shall be such as to allow for easy withdrawal of the plug.		P
	Force required to pull the plug out. Required ≤ 36 N	<36N	P