TEST REPORT SASO 2203
PLUGS AND SOCKET-OUTLETS FOR HOUSEHOLD AND SIMILAR PURPOSES-SAFETY REQUIREMENTS AND TEST METHODS 250 V/13A

Report Number..... :	BVUL-ESH-P25020956
Tested by (name, function, signature) ..... :	Project Engineer Yan CAO
Approved by (name, function, signature) ..... :	Product Line Manager Charlie CHEN
Date of issue ..... :	July 07, 2025
Total number of pages ..... :	149
Name of Testing Laboratory preparing the Report ..... :	LCIE CHINA COMPANY LIMITED Building 4, No. 518, Xin Zhuan Road, CaoHejing Songjiang High-Tech Park, Shanghai .R.C (201612)
Applicant's name..... :	LEGRAND SNC
Address ..... :	128, Avenue du Maréchal de Lattre de Tassigny 87045 LIMOGES Cedex-France
Test specification:	
Standard ..... :	SASO 2203:2018
Test procedure..... :	Testing
Non-standard test method..... :	N/A
Test Report Form No. ..... :	SASO 2203_V3.1

General disclaimer:

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Test item description ..... :	Switched socket-outlets for fixed installations
Trade Mark..... :	legrand (for all models exclude 838148), **tenby** (for models 838148)
Manufacturer..... :	LEGRAND FRANCE 128, Avenue du Maréchal de Lattre de Tassigny 87045 LIMOGES Cedex-France
Model/Type reference..... :	281172MW, 281172MB, 281172DS, 281172DB, 281172CH, 281172BB, 281172BA, 281173MW, 281173MB, 281173DS,

	281173DB, 281173CH, 281173BB, 281173BA, AA3330MW, AA3330MT, AA3330MB, AA3330CH, AA3330DB, AA3330RS, AA3331MW, AA3331MT, AA3331MB, AA3331CH, AA3331DB, AA3331RS, 618087, MEC33086WH, MEC33086SL, MEC33086CH, MEC33086BL, MEC33086RG, 282338, 282338-C, 282338-C1, 282338-C2, 282338-C3, 282339, 282339-C, 282339-C1, 282339-C2, 282339-C3, 838148, 730063, AR68137, AR68237, AR68337, AR68437, AR68037, AR68171, AR68271, AR68371, AR68471, AR68071, 077666L, 617593, 617594, 617595, MEC33097WH, MEC33097SL, MEC33097CH, MEC33097BL, MEC33097RG
Ratings..... :	13A 250V~ 50/60Hz

List of Attachments (including a total number of pages in each attachment):

- Attachment 1: Pictures of samples tested (63 pages from page 61 to 123)
  Pictures of main parts (7 pages from page 124 to 130)
  Pictures of cover plate (13 pages from page 131 to 143)
  Pictures of new items “AA3330CH, AA3330DB, AA3330RS, AA3331CH, AA3331DB, AA3331RS” (6 pages from page 144 to 149)

Summary of testing: The samples satisfy to the clauses examined.

Tests performed (name of test and test clause):

Clause 7 marking check on 6 new items.

Note: this report is issued to update previous test report BVUL-ESH-P24110935 dated 2024-12-19 due to adding 6 new items AA3330CH, AA3330DB, AA3330RS, AA3331CH, AA3331DB, AA3331RS, all new items are the same as previous items, the difference is on the color of enclosure.

All other test results were shared from previous test report.

History test programs:

Full test on model AA3331MW.

Sequence 1 and clause 21 on model MEC33097WH, AR68171

Sequence 1 on model, MEC33086BL, 281173MW, 618087, 617593, 838148, 282338, 730063, 077666L

Marking check on all other models.

Testing location:

LCIE CHINA COMPANY LIMITED

Building 4, No. 518, Xin Zhuan Road, CaoHejing Songjiang High-Tech Park, Shanghai P.R.C (201612)

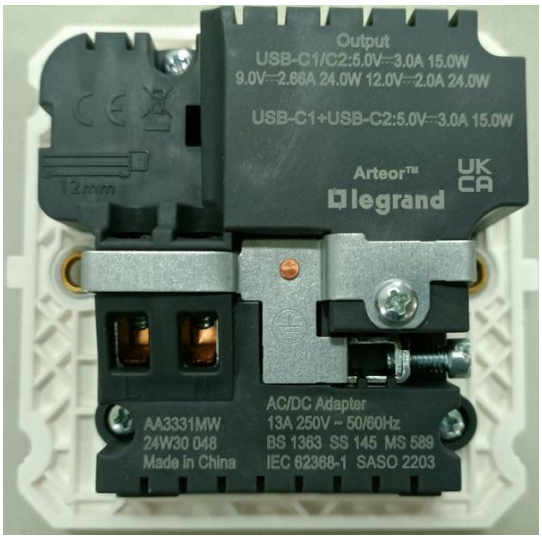
Copy of marking plate:

The artwork below may be only a draft.

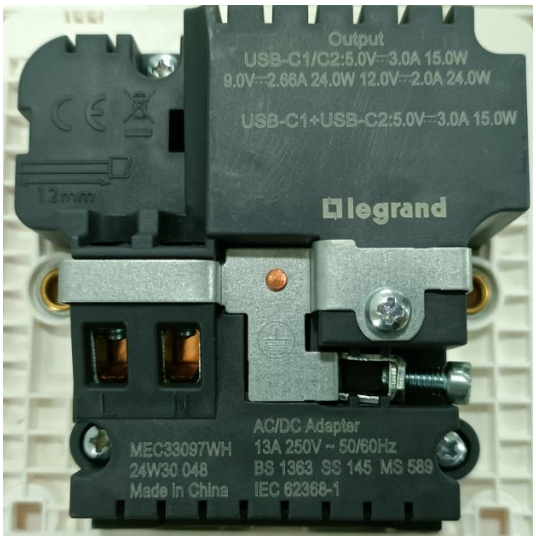
legrand (for all models exclude 838148)

tenby (for models 838148)

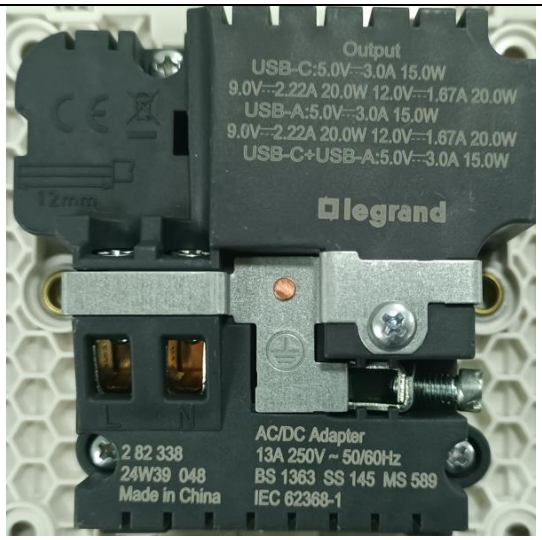
Trademark



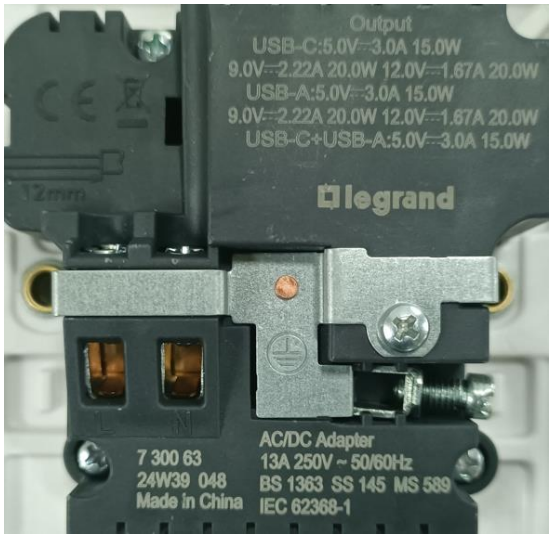
Model AA3331MW



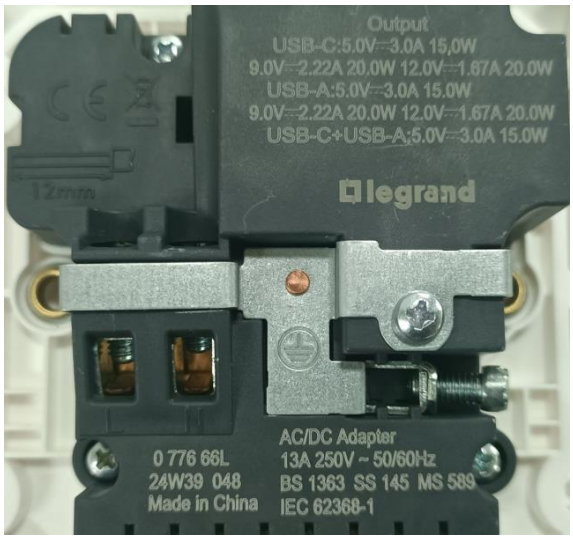
Model MEC33097WH



Model 282338



Model 730063



Model 077666L

Model AR68171

Optional symbol for UKCA

SASO 2203

Additional information

GCC mark on product

Note: The marking plate for other models are of the same pattern except model name.

Rated voltage (V):	250V~
Rated current (A):	13A
Degree of protection against access to hazardous parts and against harmful ingress of solid foreign objects:	IP2X
Degree of protection against harmful ingress of water:	IPX0
Provision for earthing:	With earthing contact
Method of connecting the cable:	rewirable
Type of cable:	-
Nominal cross-sectional areas:	-
Type of terminals:	Screw-type
Type of connections:	-
Socket-outlets:	
Method of application / mounting of the socket-outlet :	flush-type
Method of installation :	design A
Plugs:	
Class of equipment :	-

Possible test case verdicts:	
- test case does not apply to the test object..... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement..... :	F (Fail)
Testing ..... :	
Date of receipt of test item ..... :	February 28, 2025
Date (s) of performance of tests..... :	February 28, 2025 to March 07, 2025

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.

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

Name and address of factory (ies)..... :	Factory 1: Legrand Intelligent Electrical (Huizhou) Co.,Ltd. Address: Bldg. B1-B3, East No.39 Hechang 6th Rd., HZZK Hi-tech Industrial Development Zone, Huizhou 516001, Guangdong, CHINA Factory 2: Legrand Electric Ltd Address: Unit 12 No. 1 Industrial Estate Medomsley Road Consett County Durham DH8 6SR, United Kingdom Factory 3: LEGRAND Address: Avenue du Parc Alata - 60550 Verneuil en Halatte - FRANCE Factory 4: LEGRAND France Address 1: 128, Avenue du Marechal de Lattre de Tassigny 87045 LIMOGES Cedex FRANCE Address 2: 6 PLACE DU BREUIL 38680 PONT EN ROYANS FRANCE Factory 5: RAIS HASSAN SAADI Logistics Dubai Address: Jebal Ali Free Zone, P.O. Box 7 Dubai - UNITED ARAB EMIRATES Factory 6: NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PVT. LTD Address: A-2, MIDC AREA, MALEGAON VILLAGE, SINNAR, DIST. - NASHIK- 422113. MAHARASHTRA. INDIA

General product information:

13A 250V~ 50/60Hz double pole switched socket-outlet, with USB port A+C 20W or USB port C+C 24W.

Trademark for All models exclude 838148: legrand

Trademark for models 838148: **tenby**

See following table for details:

Reference	Range	Product description	With USB module
281172MW	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT WHITE	B006308AA
281172MB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT BLACK	B006308AA
281172DS	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W DARK SILVER	B006308AA
281172DB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W DARK BRONZE	B006308AA
281172CH	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W CHAMPAGNE	B006308AA
281172BB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W BRUSHED BLACK	B006308AA
281172BA	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W BRUSHED ALU	B006308AA
281173MW	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT WHITE	B006309AA
281173MB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT BLACK	B006309AA
281173DS	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W DARK SILVER	B006309AA
281173DB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W DARK BRONZE	B006309AA
281173CH	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W CHAMPAGNE	B006309AA
281173BB	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W BRUSHED BLACK	B006309AA
281173BA	MALLIA SENSES	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W BRUSHED ALU	B006309AA
AA3330MW	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT WHITE	B006308AA
AA3330MT	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT TITANIUM	B006308AA
AA3330MB	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT BLACK	B006308AA
AA3331MW	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT WHITE	B006309AA
AA3331MT	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT TITANIUM	B006309AA
AA3331MB	ALTAIR	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT BLACK	B006309AA
618087	ELOE	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
MEC33086WH	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT WHITE	B006308AA
MEC33086SL	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W BLACK	B006308AA
MEC33086CH	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W SILVER	B006308AA

MEC33086BL	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W CHAMPAGNE	B006308AA
MEC33086RG	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W ROSE GOLD	B006308AA
282338	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
282338-C	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT BLACK	B006308AA
282338-C1	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W ROSE GOLD	B006308AA
282338-C2	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W CHAMPAGNE	B006308AA
282338-C3	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W DARK SILVER	B006308AA
282339	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W WHITE	B006309AA
282339-C	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT BLACK	B006309AA
282339-C1	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W ROSE GOLD	B006309AA
282339-C2	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W CHAMPAGNE	B006309AA
282339-C3	GALION	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W DARK SILVER	B006309AA
838148	TENBY MODERN WHITE	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
730063	SYNERGY WHITE	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
AR68137	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W BRUSHED STEEL	B006308AA
AR68237	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W BRUSHED GOLD	B006308AA
AR68337	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W SATIN WHITE	B006308AA
AR68437	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W MATT BLACK	B006308AA
AR68037	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W CUSTOM	B006308AA
AR68171	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W BRUSHED STEEL	B006309AA
AR68271	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W BRUSHED GOLD	B006309AA
AR68371	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W SATIN WHITE	B006309AA
AR68471	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT BLACK	B006309AA
AR68071	ART D'ARNOULD	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W CUSTOM	B006309AA
077666L	MOSAIC KSA	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
617593	BELANKO S	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W WHITE	B006308AA
617594	BELANKO S	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W ANTHRACITE	B006308AA
617595	BELANKO S	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W IVORY	B006308AA
MEC33097WH	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W MATT WHITE	B006309AA

MEC33097SL	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W BLACK	B006309AA
MEC33097CH	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W SILVER	B006309AA
MEC33097BL	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W CHAMPAGNE	B006309AA
MEC33097RG	MILO BS	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W ROSE GOLD	B006309AA
AA3330CH	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W CHAMPAGNE	B006308AA
AA3330DB	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W DARK BRONZE	B006308AA
AA3330RS	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C 20W ROSE	B006308AA
AA3331CH	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W CHAMPAGNE	B006309AA
AA3331DB	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W DARK BRONZE	B006309AA
AA3331RS	Altair Customization	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C 24W ROSE	B006309AA

*The "range" denotes applicant's categorization

Additional information for AR68* series:**

Collection References - Univers EPURE					Mechanism references		Nb gang	USB Module	Switch poles
BRUSHED STEEL	BRUSHED GOLD	SATIN WHITE	MATT BLACK	CUSTOM	for CONFIGURED PRODUCTS	for CONFIGURED PRODUCTS			
AR68137	AR68237	AR68337	AR68437	AR68037	AG15203AA	AG15763AA	1	B006308AA	2
AR68171	AR68271	AR68371	AR68471	AR68071	AG15203AA	AG15764AA	1	B006309AA	2

Cover plates

Commercial ref				
BRUSHED STEEL	BRUSHED GOLD	SATIN WHITE	MATT BLACK	CUSTOM
AR-P68135	AR-P68235	AR-P68335	AR-P68435	Finition references

CONFIGURED PRODUCTS = Mechanism references (See table above) + Finition references (See table below)

Finition References = Style code & Plate finishes code & Mechanism finishes code

Style		Plate finishes Code		Mechanism finishes (Lever / Rocker)	
Code	Universe	Code	Finishes	Code	Finishes
1	Mémoire	60	Mirror polish gold	1	Chrome
2	Epure	61	Satin gold	2	Gold
3	Fusion	62	Brushed gold	3	Satin white
8	Retro	78	Pink brushed gold	4	Mat black
		81	Circular brushed gold	5	Black gun barel
		64	Mirror polish steel	6	Pink gold
		65	Satin steel	7	…
		66	Brushed steel		
		83	Circular brushed steel		
		70	Matt black		

		72	Satin white		
		68	Coated grey		
		59	Bronze		
		71	Brass		
		73	Laquered brushed brass		
		74	Brushed gunmetal		
		84	Circular brushed gunmetal		
		69	Hammered steel		
		75	Corten®		
		79	Gold leaves		
		80	Palladium leaves		

Additional information for AA33* series:**

Bottom Colours are indicated to show the factory locations for each reference and accessories in the table.

Factories	Address
LEGRAND Intelligent ELECTRICAL (HUIZHOU) CO., LTD	Bldg. B1-B3, East No.39 Hechang 6th Rd, HZZK Hi-tech Industrial Development Zone, Huizhou 516001, Guangdong, CHINA
LEGRAND Intelligent ELECTRICAL (HUIZHOU) CO., LTD	Bldg. B1-B3, East No.39 Hechang 6th Rd, HZZK Hi-tech Industrial Development Zone, Huizhou 516001, Guangdong, CHINA
NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PVT. LTD	A-2, MIDC AREA, MALEGAON VILLAGE, SINNAR, DIST. - NASHIK- 422113. MAHARASHTRA. INDIA
LEGRAND	Avenue du Parc Alata - 60550 Verneuil en Halatte - FRANCE
RAIS HASSAN SAADI Logistics Dubai	Jebal Ali Free Zone, P.O. Box 7 Dubai - UNITED ARAB EMIRATES
NOVATEUR ELECTRICAL & DIGITAL SYSTEMS PVT. LTD	A-2, MIDC AREA, MALEGAON VILLAGE, SINNAR, DIST. - NASHIK- 422113. MAHARASHTRA. INDIA

All the commercial references listed below may be supplemented with a prefix of type LG-, BT-, … (to indicate the brand) and/or suffix of type 0, 1, 2, 3, 4, FI, EX, …In this case, the products are technically the same.

references

Matt White	Matt Titanium	Matt Black				
Commercial ref	Commercial ref	Commercial ref	Mechanism ref	Mechanism ref	Description	USB module
AA3330MW	AA3330MT	AA3330MB	AG15203AA	T004118_A	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C	B006308AA
AA3331MW	AA3331MT	AA3331MB	AG15203AA	T004119_A	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C	B006309AA
Champagne	Dark bronze	Rose				
Commercial ref	Commercial ref	Commercial ref	Mechanism ref	Mechanism ref	Description	USB module
AA3330CH	AA3330DB	AA3330RS	AG15203AA	T004118_A	1G BS13A DOUBLE POLE SWITCHED SOCKET USB A+C	B006308AA

AA3331CH	AA3331DB	AA3331RS	AG15203AA	T004119_A	1G BS13A DOUBLE POLE SWITCHED SOCKET USB C+C	B006309AA

Commercial ref	Rated values	Switch	Actuating	Gang	Specificities
AA3330MW, AA3330MT, AA3330MB, AA3330CH, AA3330DB, AA3330RS	13A 250V~ USB: 5Vdc~12Vdc, Max. 20W	Double pole	Rocker	1	USB port: A+C
AA3331MW, AA3331MT, AA3331MB, AA3331CH, AA3331DB, AA3331RS	13A 250V~ USB: 5Vdc~12Vdc, Max. 24W	Double pole	Rocker	1	USB port: C+C

Altair Cover plates

Commercial ref								
Matt White	Matt Titanium	Matt Black	Frosted White	Frosted Black	Dark Aluminium	Brushed Stainless Steel	Night Blue	Solid Aluminium
AA1113MW	AA1113MT	AA1113MB	AA1113FW	AA1113FB	AA1113DA	AA1113BS	AA1113NB	AA1113SA
Champagne	Dark Bronze	Rose	Brushed Bronze	Brushed Antique Brass	Solid Dark Bronze	Solid Sand	Solid Black	Solid Rose
AA1113CH	AA1113DB	AA1113RS	AA1113BB	AA1113AB	AA1113SZ	AA1113SD	AA1113SB	AA1113SR
Solid Champagne								
AA1113SC								

Component list:

Components	Manufacturer	Type reference	Characteristics	standard	Certified
USB module	LEGRAND FRANCE	B006308AA, B006309AA	Input: 220-250V~, 50/60Hz, 0.5A For Model: B006309AA USB-C Output: 5.0VDC 3.0A; 9.0VDC 2.66A; 12.0VDC 2.0A Max. 24W USB-C+C total Output: 5.0VDC 3.0A 15W For model: B006308AA USB-C/A Output: 5.0VDC 3.0A; 9.0VDC 2.22A; 12.0VDC 1.67A Max. 20W USB-A+C total Output: 5.0VDC 3.0A 15W	IEC 62368-1:2018; EN IEC 62368-1:2020+A11:2020; BS EN IEC 62368-1:2020+A11:2020	LCIE test report No. ARLI-ESH-P25021348

List of material

Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Cover Plate	SABIC Innovative Plastics (China) Co., Ltd.	PC	-	SASO 2203	Test with appliance

	Covestro (Shanghai) Investment Co., Ltd.	PC	-	SASO 2203	Test with appliance
Frame/Rocker /Shutter Base	SABIC Innovative Plastics (China) Co., Ltd.	PC	-	SASO 2203	Test with appliance
	Covestro (Shanghai) Investment Co., Ltd.	PC	-	SASO 2203	Test with appliance
Under cover	Covestro Polymers (China) Co.,Ltd.	PC,FR6005	V-0, UL 94 UL E41613	SASO 2203	Test with appliance
	SABIC Innovative Plastics (China)Co., Ltd	PC,915R	V-0, UL 94 UL E207780	SASO 2203	Test with appliance
Shutter/Plunger	Kingfa Science & Technology Co.,Ltd	PA	-	SASO 2203	Test with appliance
	Guangdong Htaso New Materials Technology Co.,Ltd	PA	-	SASO 2203	Test with appliance
- Base	Shanghai Sunny Technology Co.,Ltd	PP,HFP1010-R	V-0, UL94 UL E200750	SASO 2203	Test with appliance
Spring	Huizhou Jingyisheng Precision Parts Co., Ltd.	Steel	-	SASO 2203	Test with appliance
	Ningbo Mingli Spring Co. Ltd..	Steel	-	SASO 2203	Test with appliance
	Xiamen Yize Precision Springs Co.,Ltd.	Steel	-	SASO 2203	Test with appliance
Rivet/Line Link/Neutral Link/Contact/	Beijing Jinpeng Zhenxing Copper Products Co., Ltd.	Brass/ Bronze	H62/H65/ QSn6.5-0.1/QSn0.1-8 copper: 62% for H62/ 65% for H65/ 92% for QSn6.5-0.1 91.5% for QSn0.1-8	SASO 2203	Test with appliance
	Huizhou Jinrui Precision Parts Co., Ltd.	Brass/ Bronze	H62/H65/ QSn6.5-0.1/QSn0.1-8 copper: 62% for H62/ 65% for H65/ 92% for QSn6.5-0.1 91.5% for QSn0.1-8	SASO 2203	Test with appliance
	Fudar Alloy Materials Technology Co. Lt	Brass/ Bronze	H62/H65/ QSn6.5-0.1/QSn0.1-8 copper: 62% for H62/ 65% for H65/ 92% for QSn6.5-0.1 91.5% for QSn0.1-8	SASO 2203	Test with appliance

	Wenzhou Hongfeng Electrical Alloy Co.,Ltd.	Brass/ Bronze	H62/H65/ QSn6.5-0.1/QSn0.1-8 copper: 62% for H62/ 65% for H65/ 92% for QSn6.5-0.1 91.5% for QSn0.1-8	SASO 2203	Test with appliance
	Ningbo JINTIAN copper (group) co. LTD	Brass/ Bronze	H62/H65/ QSn6.5-0.1/QSn0.1-8 copper: 62% for H62/ 65% for H65/ 92% for QSn6.5-0.1 91.5% for QSn0.1-8	SASO 2203	Test with appliance
Movable contact /FF Moving contact	SINO-PLATINUM METALS LONGSUN (SHANGHAI) NEW MATERIALS TECHNOLOGY CO., LTD.	Brass+ Silver	-	SASO 2203	Test with appliance
	Zhejiang Fudar Alloy Materials Technology Co., Ltd.	Copper + Silver	-	SASO 2203	Test with appliance
Silver tip	Wenzhou Hongfeng Electrical Alloy Co.,Ltd.	Copper + Silver	T2+AgNi(15) copper:>99%	SASO 2203	Test with appliance
	Fudar Alloy Materials Technology Co. Lt	Copper + Silver	T2+AgNi(15) copper:>99%	SASO 2203	Test with appliance
	GUIYAN ZHONGXI (Shanghai) new material technology	Copper + Silver	T2+AgNi(15) copper:>99%	SASO 2203	Test with appliance
Earth Link	Huizhou Runhehui Industrial Co., Ltd.	Steel	-	SASO 2203	Test with appliance
	JINYISHENG Huizhou precision components co. LTD	Steel	-	SASO 2203	Test with appliance
	Zhejiang NUOJIN electric appliance co. LTD	Steel	-	SASO 2203	Test with appliance
	Guangdong Homelan Electrical Co., Ltd.	Steel	-	SASO 2203	Test with appliance
Terminal	FoShan Shunde Leliu Baishun Electric Appliances Co.,Ltd.	Steel	-	SASO 2203	Test with appliance
	Zhejiang NUOJIN electric appliance co. LTD	Steel	-	SASO 2203	Test with appliance
	Guangdong Homelan Electrical Co., Ltd.	Steel	-	SASO 2203	Test with appliance
Metal shell (For Mallia	LO'S METAL TECHNOLOGY (DONGUAN) LTD.	aluminium	-	SASO 2203	Test with appliance

Senses)	ShenZhen ZhenDong Precision metal CO., LTD	aluminium	-	SASO 2203	Test with appliance
Metal Frame (For Mallia Senses, SYNERGY2 SLEEK DESIGN and ART)	Qihua(HUIZHOU) plastic and metal manufacturing Co., LTD	Steel	SAE1012	SASO 2203	Test with appliance
	Gaungdong Saifeng metal products Co., LTD	Steel	SAE1012	SASO 2203	Test with appliance
	Huizhou RUNHEHUI industrial co., LTD	Steel	SAE1012	SASO 2203	Test with appliance
	Huizhou Jinrui Precision Parts Co., Ltd.	Steel	SAE1012	SASO 2203	Test with appliance
Metal plate (For SYNERGY2 SLEEK DESIGN and SYNERGY2 AUTHENTIC)	Legrand UK Co., LTD	Steel	-	SASO 2203	Test with appliance
Plate (For SYNERGY2 WHITE	Liyang Josen Plastic Co., LTD	UF	-	SASO 2203	Test with appliance
Rocker shell (For SYNERGY2 SLEEK DESIGN)	Legrand UK Co.,LTD	Steel	-	SASO 2203	Test with appliance
Rocker (For ART)	Legrand UK Co.,LTD	ABS	-	SASO 2203	Test with appliance
Metal plate (For ART)	Legrand UK Co.,LTD	aluminium	-	SASO 2203	Test with appliance

SASO 2203			
Clause	Requirement – Test	Result	Verdict

4.0	**MATERIALS, DESIGN AND CONSTRUCTION**			P
4.1	**Materials and construction**			P
4.1.1	The materials used in the component parts shall be in accordance with Table (1)			P
	PART	MATERIAL		—
	Non resilient base and cover of a plug, socket-outlet plate (non-metallic).	Moulded, tough, non ignitable insulating material.		P
	Resilient base or resilient covers of a plug.	Rubber or other insulating materials free from blisters, cracks, embedded impurities and defects likely to affect insulating and mechanical protecting properties.		NA
	Socket-outlet plates (metallic).	Sheet metal, cast metal or die-cast metal. Provision shall be made for the effective earthing of all metal parts that may become live in the event of failure of insulation of the socket-outlet and are being touched during normal operation.		P
	Socket-outlet base.	An insulating material with rigid mechanical characteristics and no flame propagating characteristics like suitable grade of Polly Carbonates (PC), Urea and/or suitable equivalent material.		P
	Current carrying parts.	Brass, phosphor-bronze, and/or suitable equivalent material.		P
	Shutter.	Moulded, tough, non-ignitable insulating material.		P
4.1.2	Moulded insulating material and the vitrified ceramic material shall be nonhygroscopic and shall be resistant to the formation of carbonized paths.			NA
4.1.3	Parts made of ferrous material shall be treated to resist rusting.			P
4.1.4	Conformity shall be checked by inspection and/or relevant tests in this standard and the reference standards.			P
4.2	**Terminals**			P
4.2.1	Terminals and terminations shall provide for effective clamping and securing of conductors connected to them, so that efficient electrical connection is made.			P
4.2.2	Conformity shall be checked by inspection and/or relevant tests in this standard and the reference standards.			P
4.3	**Plugs**			NA
4.3.1	Plugs shall comply with the relevant dimensional standard figures in the reference standard BS 1363-1:2016.			NA
4.3.2	Conformity shall be checked by inspection, measurement, by the use of the gauges and/or relevant tests as described in this standard and the reference standard BS 1363-1:2016.			NA

SASO 2203			
Clause	Requirement – Test	Result	Verdict
4.3.3	**Fuses**		NA
4.3.3.1	Fuses shall have rating not exceeding 13A		NA
4.3.3.2	Conformity shall be checked by inspection and/or relevant tests in this standard and the reference standard BS 1362:1973.		NA
4.4	**Socket-outlets**		P
4.4.1	Socket-outlets shall comply with the relevant dimensional standard figures in the reference standard BS 1363-2:2016.	See annex 1	P
4.4.2	The socket-outlet shall be either of the following :		P
	a) Single or double	Single	P
	b) With or without a switch	With	P
	c) With or without an indication lamp	without	P
	d) Flush or surface mounted	Flush	P
	e) With or without USB outlet	With	P
	f) IP rated or not, and for IP rated socket-outlets there are two categories:	IP20	P
	•Socket-outlets having an IP rating with the plug inserted.		P
	•Socket-outlets having an IP rating only when no plug is inserted.		P
	•Socket-outlets having a declared IP rating shall be tested as a complete assembly (socket-outlet and enclosure).		P
4.4.3	Conformity shall be checked by inspection, measurement, by the use of the gauges and/or relevant tests as described in this standard and the reference standard BS 1363-2:2016.	See annex 1	P
4.4.4	**Switches**		P
4.4.4.1	If the socket-outlet is provided with a switch, the switch shall be a double pole.		P
4.4.4.2	Conformity shall be checked by inspection, measurement, by relevant tests as described in this standard and the reference standard BS 1363-2:2016.	Refers to annex 1	P
4.4.5	**USB Outlet**		P
4.4.5.1	the socket-outlet is provided with a USB outlet, the outlet shall be of the characteristics of the USB outlet specified in Annex I from BS 1363-2:2016.		P
4.4.5.2	cormity shall be checked by inspection, measurement, by relevant tests as described in this standard and Annex I from BS 1363-2:2016.	Refers to annex 1	P
4.4.6	**Shutters**		P
4.4.6.1	Socket-outlets shall be provided with shutters.		P
4.4.6.2	Conformity shall be checked by inspection, measurement, by the use of the gauges and/or relevant tests as described in this standard and the reference standard BS 1363-2:2016.	Refers to annex 1	P
4.4.7	**Boxes**		NA
4.4.7.1	Socket-outlets shall be put in use by fixing them on suitable surfaces using suitable boxes, these boxes shall comply with SASO IEC 60670-1.		NA

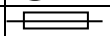
SASO 2203			
Clause	Requirement – Test	Result	Verdict
4.4.7.2	Conformity shall be checked by inspection, measurement, or relevant tests as described in this standard and the reference standard SASO IEC 60670-1.		NA
4.5	**Clearance and creepage distances**		P
4.5.1	Clearance and creepage distances shall comply with the relevant clause/sub clauses in the reference standards.	Refers to annex 1	P
4.5.2	Conformity shall be checked by inspection, measurement, and/or relevant tests as described in this standard and clause 8 in the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.0	**RATING AND CHARACTERISTICS**		P
5.1	**Rating, shape and dimensions**		P
	The rating, shape and dimensions of plugs and socket-outlets shall be as follows:		P
5.1.1	13A maximum two-pin plug with earthing pin.		NA
5.1.2	13A two pin shuttered socket-outlet with earthing contact.		P
5.1.3	Conformity shall be checked by inspection, measurement by the use of the gauges and/or relevant tests as described in this standard and clause 6 of the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.2	**Protection against electric shock**		P
5.2.1	Plugs and socket-outlets shall be so constructed that when they are mounted and wired as in normal use, live parts are not accessible.		P
5.2.2	Conformity shall be checked by inspection, measurement, by the use of the gauges and/or relevant tests as described in this standard and the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.3	**Insulation resistance**		P
5.3.1	The insulation resistance for the plugs and socket-outlets shall be not less than the relevant values specified in BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.3.2	Conformity shall be checked by relevant tests as described in this standard and clause 15 of the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.4	**Electrical strength**		P
5.4.1	Plugs and socket-outlets shall withstand a high voltage test and pass a momentary high voltage without any flash over or breakdown of insulation.		P
5.4.2	Conformity shall be checked by relevant tests as described in this standard and clause 15 of the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.5	**Temperature rise**		P
5.5.1	The temperature rise measured for any part shall not exceed the relevant values specified in BS 1363-1:2016 for plugs and BS 1363-2:2016 for sockets.	Refers to annex 1	P
5.5.2	Conformity shall be checked by relevant tests as described in this standard and clause 16 of the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.6	**Contact resistance**		P

SASO 2203			
Clause	Requirement – Test	Result	Verdict
5.6.1	The resistance between the earthing terminal or termination of plug or socket-outlet and any other nominated metal part shall not exceed the relevant values specified in BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.6.2	Conformity shall be checked by relevant tests as described in this standard and the two reference standards BS 1363-1:2016 and BS 1363-2: 2016.	Refers to annex 1	P
5.7	**Current breaking capacity of socket-outlets**		—
5.7.1	The breaking capacity of socket contacts and switches incorporated in socket-outlets shall be adequate.		P
5.7.2	Conformity shall be checked by the tests described in the clause 17 of the reference standard BS 1363-2:2016 as applicable.	Refers to annex 1	P
5.8	**Normal operation**		P
5.8.1	Plugs and socket-outlets shall withstand, without excessive wear or other harmful effects, the electrical and mechanical stresses occurring in use.		P
5.8.2	Conformity shall be checked by the tests described in the clause 18 of the reference standards BS 1363-1:2016 and BS 1363-2:2016	Refers to annex 1	P
5.9	**Resistance to heat**		P
5.9.1	Plugs and socket-outlets shall be resistant to heat.		P
5.9.2	Conformity shall be checked by the tests described in the clause 22 of the reference standards BS 1363-1:2016 and BS 1361-2:2016.	Refers to annex 1	P
5.10	**Mechanical strength**		P
5.10.1	Plugs and socket-outlet shall have adequate mechanical strength and be so constructed as to withstand such handling as may be expected in normal use.		P
5.10.2	Conformity shall be checked by the tests described in the clause 20 of the reference standard BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.11	**Resistance to abnormal heat and fire**		—
5.11.1	Plugs and socket-outlets shall be proof against abnormal heat, fire and tracking.		P
5.11.2	Conformity shall be checked by the glow wire test described in the clause 23 of the reference standard BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.12	**Resistance to ageing and to humidity**		P
5.12.1	**Resistance to ageing**		P
5.12.1.1	Plugs and socket-outlets shall be resistance to aging.		P
5.12.1.2	Conformity shall be checked by the test described in the clause 14 of the reference standard BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
5.12.2	**Resistance to humidity**		P
5.12.2.1	Plugs and socket-outlets shall be proof against humid conditions which may occur in normal use		P
5.12.2.2	Conformity shall be checked by the test described in the clause 14 of the reference standard BS 1363-1:2016 and BS 1363-2:2016	Refers to annex 1	P
5.13	**Resistance to excessive residual stresses and to rusting**		P

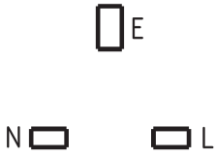
SASO 2203			
Clause	Requirement – Test	Result	Verdict
5.13.1	Press-formed or similar current-carrying parts of copper alloy containing less than 80% of copper shall be resistant to failure in use due to stress corrosion.		P
5.13.2	Ferrous parts, the rusting of which might cause the unit to become unsafe, shall be adequately protected against rusting.		P
5.13.3	Conformity shall be checked by the tests described in the clause 24 of the reference standard BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
6.0	**TESTS**		—
6.1	For all types of plugs and socket-outlets which are newly produced or delivered for the first time, a sample shall be selected at random for type approval.		P
6.2	Type tests shall be carried out on the samples selected in accordance with clause 5 of the two reference standards BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
6.3	Conformity shall be checked by the tests described in "Table 1 - schedule of tests" for plugs and socket-outlets from the reference standard BS 1363-1:2016 and BS 1363-2:2016.	Refers to annex 1	P
7.0	**MARKING**		P
7.1	Each plug or socket-outlet shall have the following information clearly and durably marked on it, in Arabic or English.		P
	a. Country of origin.		P
	b. Manufacturer's name or purchaser's name or trade-mark or both.		P
	c. Rated current in amperes: (plug, socket outlet and USB).		P
	d. Rated voltage in volts: (plug, socket outlet and USB).		P
	e. Identification of each of the live, the neutral and the earthed pole.		P
	f. For fused plugs, the word "Fuse" or "Fused" or symbol.		NA
	g. If symbols are used they shall be as follows:		P
	- Amperes : A		P
	- Volts : V		P
	- Fuse : 		P
	- Neutral or live : N or L		P
	- Earth : G or E or 		P
	- Fused live : L		NA
7.2	Conformity shall be checked by the inspection and tests described in the clause 7 of the reference standard BS 1363-1:2016 and BS 1363-2:2016	Refers to annex 1	P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
Set 1	**Inspection, measurement, gauging and manipulation**		P
6	All tests were type test		P
7.1	Classification and rating		P
	Socket-outlet shall be:		—
	• single	Models: All models	P
	• multiple	Models:	N/A
	• switched		P
	• unswitched		N/A
	• fused	Models:	N/A
	• unfused	Models: All models	P
	• fixed		P
	• portable		N/A
	• (if fixed) flush	Models: All	P
	• (if fixed) surface	Models:	N/A
	• (if fixed) panel-mounting	Models:	N/A
	• (if portable) rewireable	Models:	N/A
	• (if portable) non-rewireable	Models:	N/A
	• with indicator lamp	Models:	N/A
	• without indicator lamp	Models: All	P
	• for socket-outlets having an IP rating with the plug inserted;	IP20	N/A
	• for socket-outlets having an IP rating only when no plug is inserted	IP20	N/A
	• socket-outlets with screw-type terminals		P
	• socket-outlets with screwless terminals for rigid conductors only		N/A
	• socket-outlets with screwless terminals for flexible conductors only		N/A
	• socket-outlets with screwless terminals for rigid and flexible conductors		N/A
	• intended for electric vehicle charging, applicable to fixed socket-outlets only;		N/A
	• not intended for electric vehicle charging;		P
	• with electronic components;		P
	• without electronic components.		N/A
7.2	Rating		P
	The rated current of all socket-outlets shall be 13 A as given in Table 2.	13A	P
	The rated voltage of socket-outlets which do not incorporate any electronic components other than indicator lights shall be 250 V.	250V~	P
	The rated voltage of socket-outlets which incorporate electronic components shall be 230 V, 240 V or 250 V.		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	For fixed socket-outlets and portable socket-outlets other than IPS types, protected by a CBE, the rating of the CBE shall be not less than 13 A.		N/A
8	Marking and labelling		P
8.1	Socket-outlets were legibly & durably marked with the following information,		P
	shall not be placed on screws, removable washers or other easily removable parts, or upon parts intended for separate sale:		P
	a) the name, trade mark or identification mark	legrand, tenby	P
	b) the number of this British Standard	BS 1363	P
	c) portable socket-outlet no.	/A	N/A
	d) socket-outlets for electric vehicle charging	/EV	N/A
	e) rewireable socket-outlet terminals identified	L, N, ⏚	P
	f) fused socket-outlet	FUSE/FUSED/	N/A
	g) fixed fused multiple socket-outlets shall be marked on the engagement surface with the maximum rated current of 13 A (e.g. MAX. 13 A);		N/A
	h) for all socket		—
	h1) rated current	13A	P
	h2) rated volts	250V	P
	h3) nature of supply	~	P
	i) for socket-outlets with screwless terminals:		N/A
	1) an appropriate marking indicating the length of insulation to be removed before insertion of the conductor into the screwless terminal;		N/A
	2) an indication of the suitability to accept rigid conductors only for those socket-outlets having this restriction;		N/A
	3) an indication of the suitability to accept flexible conductors only for those socket-outlets having this restriction.		N/A
	j) where the declared IP classification is higher than IP20 then the IP classification shall be marked. The marking shall be discernible when the socket-outlet is mounted and wired as in normal use.		N/A
	k) or individually protected socket-outlets (IPS), the current rating for the fuse or overcurrent protective device shall be visible after installation on or adjacent to the protective device.		N/A
8.1.1	Rubbing test		P
	After the test, The marking shall remain legible.		P
8.2	Portable socket-outlets fitted with a flexible cable shall be supplied with a label or instruction		N/A
	Cores or conductors in the mains shall be coloured in accordance with the following code:		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- Green and yellow for Earth (if any)		N/A
	Blue for Neutral		N/A
	Brown for Line		N/A
8.3	Rewireable portable socket-outlets shall be provided with adequate instructions.		N/A
8.4	Symbols used shall be as follow:		—
	• amperes	A	P
	• volts	V	P
	• alternating current	~/a.c.	P
	• line	L	P
	• neutral	N	P
	• earth		P
	• fuse		N/A
	For screwless terminals suitable for rigid conductors only	r	N/A
	For screwless terminals suitable for flexible conductors only	f	N/A
	Degree of protection, where relevant	IPXX	N/A
8.5	Instructions for installation and use of socket-outlets having an IP classification greater than IP20 shall be provided.		N/A
10.1	Socket-outlets were so designed, live part are not accessible.		P
10.1.1	A test pin figure 1 was applied, it shall not be possible to touch live parts.		P
12.1	Terminals & terminations shall provide for effective clamping and securing of conductors.		P
12.2	Rewireable socket-outlets were provided with pillar terminal.		P
12.3	Non-rewireable portable socket-outlets.		—
	- Provided with soldered		N/A
	- Welded		N/A
	- Crimped		N/A
	For all these methods of termination		—
	- Not more than two stands of other sized conductors were fractured during connection.		N/A
	Screwed and ‘snap-on’ terminals not used.		N/A
	Crimped connections not soldered.		N/A
12.4	Terminals in rewireable portable socket-outlets permit the connection, without special preparation of flexible cords.		N/A
	Normal conductor cross-sectional area of 1,25mm^2 to 1,5mm^2.		N/A
12.5	Line and neutral terminals in fixed socket-outlets permit the connection		P
	- One 2,5mm^2 solidor or stranded conductor		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- Two 2,5mm^2 solid or stranded conductor		P
	- Three 2,5mm^2 solid or stranded conductor		P
	- One 4mm^2 stranded conductors		P
	- Two 4mm^2 stranded conductors		P
12.6	Earthing terminals in fixed socket-outlets permit the connection, without special preparation.		P
	- One 1,5 or 2,5mm^2 solid or stranded conductor		P
	- Two 1,5 or 2,5mm^2 solid or stranded conductor		P
	- Three 1,5 or 2,5mm^2 solid or stranded conductor		P
	- One 4mm^2 stranded conductors		P
	- Two 4mm^2 stranded conductors		P
12.7	Pillar terminals use clamping screws of sufficient length to extend to the far side of the conductor hole.		P
	The end of the screw were slightly rounded.		P
	Clearance between the sides of the major diameter of the clamping screw & the conductor hole.		P
	Cord connection, ≤0,4mm		N/A
	Fixed wiring, ≤0,6mm	0,2	P
12.8	Declared outside diameter of terminal screw, ≥3mm or 6 B.A.	3,9mm	P
	Thread cutting screws not used.		P
	Thread forming screws not used.		P
12.9	In rewirable portable socket-outlets terminals so located or shielded that should a stray of a flexible conductor escape no risk of accidental connection between live parts of accessible external surface.		N/A
	a) not touch any metal part by pass fuse link.		N/A
	b) not touch any accessible metal part.		N/A
	c) not reduce creepage and clearance to less than 1,3mm		N/A
	Free stand to earthing shall not touch any living part.		N/A
12.11	Terminals for panel-mounted socket-outlets shall be provided with screw type or screwless terminals, alternatively soldered or flat, quick-connect terminations in accordance with BS EN 61210.		N/A
12.12	Conformity of screw type terminals shall be checked by inspection and fitting the appropriate conductors.		N/A
	Conformity of screwless terminals shall be checked by the tests of 12.10.		N/A
	Conformity of flat, quick-connect terminations shall be checked by inspection and measurement.		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
10.2	Socket-outlet designed and constructed to protect against accidental contact with live parts.		P
10.4	A rigid metal pin, 1mm diameter and 60mm long was introduced through the earthing socket aperture or aperture of an enclosure, live parts was not touched.		P
11.1	When inserting the plug, earth connection was made before the current-carrying pins of the plug become live.		P
	When withdrawing the plug, the current-carrying parts was separated before the earth contact was broken.		P
11.4	Where fixed socket-outlets have more than one earth terminal for connecting to the earth socket contact(s), these terminals shall be reliably connected together.		P
14.1	The disposition of the socket contacts was 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 3mm.		P
	Holes not exceeding 8mm diameter for the purpose of assembly fixing shall be deemed acceptable.		N/A
	There shall be no projection on the engagement surface of the socket-outlet.		P
	No projection more than 0,5mm on the engagement surface of the socket-outlet.		P
	The spacing of the socket contacts, ‘Go’ gauge was used to test the contacts.		P
14.2	After testing with ‘contact gauge’, the line and neutral socket contact satisfactory with the corresponding pins of the plug.		P
14.3	After testing with the “non-contact gauge”, the travel of current-carrying pin in any position the socket contacts might occupy, not less than 9.6mm.		P
14.9	The apertures for line, neutral and earth plug pins		P
	Spec (mm)	Measured (mm)	—
	L (mm): 7,2 x 4,8	Max 7,0x4,6	P
	N (mm): 7,2 x 4,8	Max 7,0x4,6	P
	E (mm): 8,8 x 4,8	Max 8,5x4,6	P
14.10	The distance from the apertures of line and neutral to the periphery of the engagement face. Spec: ≥ 9,5mm	L (mm): >15; N (mm): >15	P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
14.12	Multiple socket-outlet simultaneous use by 'Go' gauge test.	Single socket-outlet	N/A
14.14	Conductive component parts of socket-outlet were so located and separated that, in normal use, they were not displaced so as to affect adversely the safety or proper operation of the socket-outlet.		P
14.15	For fixed flush mounted socket-outlets, all of the following requirements shall be met:		P
	a) The manufacturer shall specify the box or enclosure for the mounting of the socket-outlet in their instructions and/or literature.		P
	b) Cable entry shall be achievable from at least 1 cable entry on each face of the mounting box.		P
	c) The socket-outlet shall fit on the specified mounting box without distortion of the front plate.		P
	d) When mounted on a box specified by the manufacturer, there shall be adequate space between the socket-outlet base and the mounting box;		P
	There shall be no live metal protruding from or flush with the socket-outlet base.		P
14.16	Flush-mounted socket plates have provision for two M3,5 fixing screw		P
	Flush-mounted socket plates intended for mounting on boxes, The distance between the two screws at centre, Spec = 60,3mm ± 0,2mm for 1 gang = 120,6mm ± 0,3mm for 2 gang	1 gang: 60,1mm 2 gang: -	P
14.17	Dimension for flush socket-outlet pates either of insulating material or metal, Spec ≥ 82,5mm x 82,5mm for 1 gang ≥ 82,5mm x 142,5mm for 2 gang	1 gang: Min. 85,0mm x 85,0mm 2 gang: -	P
14.18	Non-rewireable portable socket-outlets were permanently attached to each other.		N/A
	The base and cover of rewireable portable socket-outlets were firmly secured to each other.		N/A
14.20	For non-rewireable portable socket-outlets means were 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.		N/A
14.21	For non-rewirable portable socket-outlets internal connections shall not be made by means of screws.	No screw used for internal connections	N/A
14.25	Electronic components incorporated in socket-outlets shall conform to Annex A.	Refer to Annex A With USB charger module	P
20.2	Cord anchorages rewirable portable socket-outlets shall anchor the cord securely to the socket-outlet.	Fixed socket-outlet	N/A
	a) the cord anchorage could not released from the outside without the use of a tool.		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	b) it was not possible to touch cord anchorage screws with test Probe B.		N/A
	c) the cord is not clamped by a matel part bearing directly on the flexible cord.		N/A
	d) at least one part of the anchorage was securely fixed to the socket-outlet.		N/A
	e) clamping the cord did not require the use of a special purpose tool.		N/A
	f) the cover was correctly fitted without damage.		N/A
20.3	Clamping screws shall not serve to fix other components.		N/A
20.4	Non-rewirable portable socket-outlets shall be fitted with 1,25mm^2 or 1,5 mm^2 3-core flexible cables s conforming to relevant BS standard		N/A
20.6	The cord entry to rewireable portable socket-outlets were so shaped as to prevent damage to the cord.		N/A
9	Clearances, creepage distances and solid insulation		P
	The distance between lead wires in the pinch of a neon lamp with external resistor shall be a minimum of 1mm	>1,5mm	P
9.1	Clearances		P
	Default pollution degree (Width X)	2 (1,0mm)	P
	Pollution degree declared by manufacturer (Width X)		N/A
	Default rated impluse voltage (overvoltage category)	4000V (III)	P
	Declared rated impluse voltage (overvoltage category)		N/A
9.1.1	Clearances for basic insulation	>3,0mm(by gauge)	P
9.1.2	Clearances for functional insulation	>3,0mm(by gauge)	P
9.1.3	Clearances for supplementary insulation	>3,0mm(by gauge)	N/A
9.1.4	Clearances for reinforced insulation	>6,0mm (by gauge)	P
9.1.5	Contact gap	>2,0mm(by gauge)	P
9.2	Creepage distances		P
	Default pollution degree (Width X)	2 (1,0mm)	P
	Pollution degree declared by manufacturer (Width X)		N/A
	Min. CTI/PTI (material group)		N/A
	Declared material group	IIIa	P
	Corresponding CTI/PTI of declared material group	175≤ CTI/PTI <400	P
9.2.1	Creepage distances for basic insulation	>3,0mm(by gauge)	P
9.2.2	Creepage distances for functional insulation	>3,0mm(by gauge)	P
9.2.3	Creepage distances for supplementary insulation	>3,0mm(by gauge)	N/A
9.2.4	Creepage distances for reinforced insulation	>6,0mm (by gauge)	P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
9.3	Solid insulation		P
9.3.1	Conformity shall be checked by tests in accordance with 16.1.3		P
	Functional insulation	1500V	P
	Basic solid insulation	1500V	P
	Supplementary solid insulation	1500V	N/A
	Reinforced solid insulation	3000V	P
	During the test, no breakdown or flashover occurred		P
9.4	Requirements for printed wiring boards and equivalent construction	Clearances and creepage distances for USB exceed 3mm	P
	Printed wiring boards and equivalent construction shall conform to BS EN 60664-5		N/A
	Where coating, potting or moulding is used articles shall conform to BS EN 60664-3		N/A
22	Screws, current-carrying parts and connections		P
22.1	Screwed connections, electrical and otherwise, did withstand the mechanical stresses		P
	Screws directly transmitting electrical contact pressure did screw into metal.		P
	Screws were not of metal which was soft and liable to creep.		N/A
	Screws shall not be of insulating material.		P
	Contact pressure in electrical connections within the plug and between the plug and the cable or flexible cord connected to it was not transmitted through insulating material.		P
22.1.1	Torque test:		P
	- 10 times for thread of insulating material .....:	2,9mm / 0,5Nm (applied on insulating material)	P
	- 5 times for others .....:	3,9mm / 1,2Nm (applied on Terminals)	P
	During the test, no damage impairing the further use of the screwed connection.		P
22.2	Thread-cutting and thread-forming screws were not used for the making of current-carrying or earth continuity connections.		N/A
	Screws which made a mechanical connection of the plug was locked against loosening, if the connection carried current.		N/A
	Rivets shall be locked against loosening.		P
22.3	Current-carrying parts and earthing contacts shall be brass, copper, phosphor bronze or other metal at least equivalent.		P
Set 2	**General**		**P**
6	All tests were type test		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
10.3	The resilient accessible external surface, no risk as a result of undue pressure, live parts could penerate the accessible surfaces.		N/A
	The design of the apparatus shall be steadied force of 240^{0}_{-10} N. 240^{0}_{-10}N		N/A
	A test voltage of 2000V±60V 50Hz is applied for 60^{+5}_{0}s between all live parts bonded together and the earthed test pressure block.		N/A
	During the test no flashover or breakdown occured.		N/A
	After the test it were not possible to touch live parts with Test Finger 11, applied 30^{0}_{-2}N		P
22.3	Current carrying parts and earthing contacts shall be of brass, copper, phosphor bronze or other metal at least equivalent	See list of materials	P
11.2	All accessible metal parts of socket-outlets were in effective electrical contact with the earthing socket contact.		P
11.2.1	a). for metal parts insulated from live parts, by the test described in clause 16.1.3.		N/A
	b). for metal parts connected to an earthing terminal, a current of 25 A ±0.75 A, is passed for 60^{+5}_{0} s	Test current: 25A	P
	c). the resistance between the earthing terminal and any other nominated part shall not exceed 0,05Ω	Max 0,02 Ω	P
11.3	The connection between the screw and earthing terminal shall be of low resistance.		N/A
11.3.1	Between the socket-outlet earthing terminals and any fixing screw in electrical contact with the earthing circuit shall be checked by clause 11.2.1b).	Test current: 25A Torque value: Nm Measured: Ω	N/A
11.4	Where fixed socket-outlets have more than one earth terminal for connecting to the earth socket contact(s), these terminals shall be reliably connected together.		N/A
11.4.1	Conformity shall be checked by inspection and by the test described in 11.2.1b) applied between each terminal.		N/A
11.2.1	b). between each earthing terminal, a current of 25 A ±0.75 A, is passed for 60^{+5}_{0} s	Test current: 25A	N/A
20.1	The cable anchorage shall be such that the conductors are relieved from strain, including twisting, where they are connected to the terminals or terminations.		N/A
	The cord anchorage did contain the sheath and were of insulating material.		N/A
	Tying the cord into a knot or tying the ends with string or the like not used		N/A
20.1.1 (a)	Rewireable portable socket-outlet shall be fitted with a 3-core flexible cord. The conductors were introduced into the terminals and the terminal screws tightened just sufficiently to prevent the		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	conductors easily changing their positions.				
	The flexible cable is then subjected 25 times to the pull given in Table 2.				N/A
(b)	For non-rewirable portable socket-outlets the test is carried out with the flexible cable with which it is supplied, using the appropriate load and torque as given in Table 2.				N/A
	During the test, the cord were not damaged.				N/A
	A voltage of 3750V±75V is applied for 60 between the conductors. Breakdown or flashover is considered to indicate damage to the flexible cable.				N/A
(c)	After the tests given in a) and b) the flexible cable shall not have been displaced by more than 2mm.				N/A
	Size of cord (mm^2)	Limit (mm)	Displacement (mm)		—
					N/A
					N/A
					N/A
	(supplied)	-	-		N/A
15.2	Socket-outlets shall be resistant to humid conditions which might occur in normal use.		25˚C, 93%, 48h		P
14.13	If a fuse link is fitted to a socket‑outlet it shall conform to BS 1362, Standard sheet 1.		No fuse used		N/A
	If a fuse link is fitted to an individually protected socket-outlets (IPS), shall conform to BS 1362 or BS EN 60127-2, Standard sheet 1 or Standard sheet 5.				N/A
	The design was such that the fuse link was not displaced accidentally during use or be left in incorrect contact when the fuse cover or fuse carrier is replaced and secured in position.				N/A
	The contact for a fuse link connected to the line terminal were formed in one piece with a fixed part of the terminal.				N/A
	Overcurrent protective devices other than fuses in individually protected socket-outlets (IPS) shall conform to BS EN IEC 60934 and shall be of the non-self-resetting type.				N/A
	Circuit breakers for equipment shall also be:				N/A
	a) trip free (positively trip free); or				N/A
	b) the operating means shall not be accessible without the use of a tool; or				N/A
	c) the operating means shall not be accessible unless the load is disconnected.				N/A
10.1.1	A test pin Figure 1 is applied, it shall not be possible to touch live parts with a force of 5^{0}_{-1}N				P
14.4.1	a) Socket contacts did have effective electrical contact with a corresponding plug pin. Spec ≤ 25mV		L(mV) Max 21	N(mV) Max 21	P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	b) Socket contacts did have effective mechanical contact with a corresponding plug pin.		P
	The socket contact shall retain the test gauge Figure 16(b) for not less than 30 s when the socket-outlet is held horizontally with the gauge hanging vertically downwards.		P
14.5	Line and neutral socket contacts shall withstand the stresses imposed upon them by the use of socket-outlet adaptors and the like.		P
	1) Line socket contacts		P
	a mass of 750g ± 5g is suspended from pin C for 30^{+5}_{0} s.		P
	The socket-outlet is rotated through 180°, the load applied to pin C for a further 30^{+5}_{0} s.		P
	After the test the socket contact shall retain the weight gauge shown in Figure 16(b) for not less than 30^{+5}_{0} s.		P
	2) Neutral socket contacts		P
	a mass of 750g ± 5g is suspended from pin C for 30^{+5}_{0} s.		P
	The socket-outlet is rotated through 180°, the load applied to pin C for a further 30^{+5}_{0} s.		P
	After the test the socket contact shall retain the weight gauge shown in Figure 16(b) for not less than 30^{+5}_{0} s.		P
14.6	Earth socket contacts did withstand the stresses.		P
	a mass of 750g ± 5g is suspended from pin D for 30^{+5}_{0} s.		P
	The socket-outlet is rotated through 180°, the load applied to pin D for a further 30^{+5}_{0} s.		P
	After the test the socket contact shall retain the weight gauge shown in Figure 16(a) for not less than 30^{+5}_{0} s.		P
	After the test, the earth socket contacts were found to retain the gauge for 30^{+5}_{0} s.		P
Set 3	**General**		P
6	All test were type test		P
14.13	If a fuse link is fitted to a socket-outlet it shall conform to BS 1362, Standard sheet 1.	No fuse used	N/A
	If a fuse link is fitted to an individually protected socket-outlets (IPS), shall conform to BS 1362 or BS EN 60127-2, Standard sheet 1 or Standard sheet 5.		N/A
	The design was such that the fuse link was not displaced accidentally during use or be left in incorrect contact when the fuse cover or fuse carrier is replaced and secured in position.		N/A
	The contact for a fuse link connected to the line terminal were formed in one piece with a fixed part of the terminal.		N/A
	Overcurrent protective devices other than fuses in individually protected socket-outlets (IPS) shall conform to BS EN IEC 60934 and shall be of the		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	non-self-resetting type.		
	Circuit breakers for equipment shall also be:		N/A
	a) trip free (positively trip free); or		N/A
	b) the operating means shall not be accessible without the use of a tool; or		N/A
	c) the operating means shall not be accessible unless the load is disconnected.		N/A
21.1.2	The fuse clips of a fused socket-outlet had adequate mechanical strength.		N/A
18	Breaking capacity of socket-outlets		P
18.1.2	The breaking capacity of socket contacts were adequate.		P
	Test current: 1,25 times rated current ±0.4 A test voltage: 250 V ±5 V, endurance time: 10 times	16,25A; 250V~; 10 times;	P
	After the test, the socket-outlet were capable of satisfying.		P
18.1.3	The breaking capacity of switches incorporated in socket outlets were adequate.		P
	Test current: 1,25 times rated current ±0.4 A test voltage: 275 V ±5 V endurance time: 10 times	16,25A; 275V~; 10 times;	P
	After the test, the socket-outlet were capable of satisfying.		P
18.1.4	The breaking capacity of fuse contacts incorporated in socket outlets were adequate.		N/A
	Test current:1,25/1,6 times rated current ±0.4 A test voltage: 275 V ±5 V endurance time: 10 times		N/A
	After the test, the socket-outlet were capable of satisfying.		N/A
18.2	For socket-outlets intended for electric vehicle charging the tests of 18.1.2 and 18.1.3 are performed at a power factor of $0,6^{0}_{-0,05}$ lagging.		N/A
14.11	Switches shall be so constructed that undue arcing cannot occur when the switch is operated slowly.		P
	The switch in any switched socket-outlet shall disconnect at least the supply to the line socket contact.		P
	Double pole switches shall make or break each pole with one movement of the actuator.		N/A
	The socket-outlet switch shall not be used to switch incorporated electronic components other than an indicator lamp.		P
14.11.1	Following the test in clause 18, the circuit was 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.		P
	The actuating member were released after 2s of any arcing did cease.		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

17	Temperature rise						P
17.1.2	The fixed socket-outlets and their surroundings shall not attain excessive temperatures in normal use.						P
	Test current (A):					Plug with connected load: 1 × 14A Balance of load: 6A	P
	Test voltage (V):					250V~	P
	Terminal screws: torque (Nm):					0,8	P
	USB battery charging outlets shall be loaded with current (A):					USB load: 20W / 24W	P
		Part	Temperature (K)			Limit (K)	—
			1	2	3	—	—
	1.	Terminal – L	Max. 38	Max. 38	Max. 38	≤ 52	P
	2.	Terminal - N	Max. 37	Max. 37	Max. 35	≤ 52	P
	3.	Accessible external surface including switch knob/rocker	Max. 21	Max. 20	Max. 25	≤ 52	P
17.1.3	The portable socket-outlets and their surroundings shall not attain excessive temperatures in normal use.						N/A
	The multiple portable socket-outlet, the test current being divided equally between a no. Of test plug, one inserted into each set of socket contacts in the portable socket-outlet.						N/A
	For portable socket-outlets with more than 4 outlets, the test shall be performed with 4 test plugs inserted into 4 sets of socket contacts, selected to give the most onerous conditions. The remaining outlets shall have nothing inserted into						N/A
	Test current (A):						N/A
	Test voltage (V):						N/A
	Terminal screws torque (Nm):						N/A
	USB battery charging outlets shall be loaded with current (A):						N/A
	The temperature rises at various parts were recorded as below:						—
	Case 1: Sample 1, 2, 3 (For single portable socket-outlet)						—
	Measurement point		CBE	Temp. Rise (K)		Limit (K)	—
	Terminal/Termination L		Short circuit			≤ 52	N/A
	Terminal/Termination N					≤ 52	N/A
	Accessible external surface including switch knob/rocker					≤ 52	N/A
	Ambient Temp. °C		—			—	—

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	Case 1: Sample1, 2, 3 (For multiple portable socket-outlets)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
17.1.4	Fixed and panel mounted socket-outlets with more than one terminal for line and/or neutral connections (i.e. internal connections could form part of an external ring circuit) or having screwless terminals shall be subjected to an additional temperature rise test.				N/A
	Test current (A), test voltage (V):				N/A
	Terminal screws: torque (Nm):				N/A
	USB battery charging outlets shall be loaded with current (A):				N/A

		Part	Temperature (K)			Limit (K)	
			1	2	3	—	—
	1.	Terminal – L					N/A
	2.	Terminal - N					N/A

Annex 1: BS 1362-2							
Clause	Requirement + Test				Result - Remark		Verdict
	3.	Accessible external surface including switch knob/rocker					N/A
	Ambient Temp. °C					—	—
	Between each line terminal and between each neutral terminal shall be in effective electrical contact.				Test current: 25A		N/A
	The resistance shall not exceed 0.05Ω.				Measured:		N/A
20.5	Non-rewireable socket outlet were so designed that the flexible cord is not subjected to excessive bonding.				Rewirable		N/A
	The socket outlet is fixed to the oscillating member of the apparatus as specified						N/A
	The flexible cable shall be loaded with a weight as given in Table 2.				2kg		N/A
	A current is passed through the line and neutral conductors, the earthing conductor connected to neutral conductor						N/A
	Test current (A); Test Voltage (V)				14,0A, 250V~		N/A
	The number of flexings 10000 at 60 per minute						N/A
	After 5000 flexings, plugs with cords of circular section are turned through 90° ±5° about the cord entry centreline.						N/A
	During the test, there no interruption of the current passing through the conductors and no short circuit between them.						N/A
	After the test there was less than 10% of total number of conductor strands broke and have not pierced the insulation of the cord.						N/A
	The insulation has been not pierced.						N/A
Set 4	**General**						**P**
6	All tests were type test						P
15.1	The socket-outlet was suspended freely in one oven at 70°C±5°C for 168^{+2}_{0} h. After the treatment, the socket-outlet was removed from the oven and and then show no damage which:				70˚C, 168h		P
	- would lead to non-conformity with this standard						P
	- would impair safety; or						P
	- would prevent further use.						P
16	Insulation resistance and electric strength						P
16.1.2	Insulation resistance of socket-outlets shall be adequate. (500 V d.c. for 1 min)						P
		Parts between		Insulation resistance (MΩ)		Spec. (MΩ)	—
	a)	Line and neutral		>199		≥5	P
	b)	Line/neutral and		-		≥5	—
		1. metal foil covered with the body		>199		≥5	P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

		2. earthing	>199	≥5	P
		3. metal part of a cord anchorage	-	≥5	N/A
	c)	Switch contacts – L	>199	≥2	P
		Switch contacts – N	>199	≥2	P

16.1.3	Insulation resistance and electric strength of socket outlets to a 50Hz voltage were adequate.		P
	Parts between		—
	a) Line and neutral	2000V, 60s	P
	b) Line/neutral and		—
	1. metal foil covered with the body	2000V, 60s	P
	2. earthing	2000V, 60s	P
	3. metal part of a cord anchorage		N/A
	c1) Switch contacts – L	2000V, 60s	P
	c2) Switch contacts – N		N/A
	During the test, no breakdown or flashover occurred.		P
16.2	Non-rewireable socket-outlet shall withstand high a.c. voltage between current carrying parts and accessible surface.	6000V, 5s	N/A
	During the test, no breakdown or flashover occurred.		N/A
19.1.2	The socket-outlet shall subject to make and break a current in a substantially non-inductive circuit.		P
	Test current (A); Test Voltage (V)	13A 250V~	P
	Endurance time:	15 000 cycles	P
	Rate:	6 cyclyes per minute	
	After the test the shutter shall be operating satisfactorily		P
	the socket contacts safely shielded		P
10.1	After the test, a test pin figure 1 was applied, it shall not be possible to touch live parts		P
17	Temperature rise		P
17.1.2	The fixed socket-outlets and their surroundings shall not attain excessive temperatures in normal use.		P
	Test current (A):	Plug with connected load: 1 × 14A Balance of load: 6A	P
	Test voltage (V):	250V~	P
	Terminal screws: torque (Nm):	0,8	P
	USB battery charging outlets shall be loaded with current (A):	USB load: 20W / 24W	P

	Part	Temperature (K)	Limit (K)	—

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

			1	2	3	—	—
	1.	Terminal – L	Max. 39	Max. 40	Max. 37	≤ 52	P
	2.	Terminal - N	Max. 39	Max. 40	Max. 38	≤ 52	P
	3.	Accessible external surface including switch knob/rocker	Max. 27	Max. 26	Max. 25	≤ 52	P

17.1.3	The portable socket-outlets and their surroundings shall not attain excessive temperatures in normal use.				N/A
	The multiple portable socket-outlet, the test current being divided equally between a no. Of test plug, one inserted into each set of socket contacts in the portable socket-outlet.				N/A
	For portable socket-outlets with more than 4 outlets, the test shall be performed with 4 test plugs inserted into 4 sets of socket contacts, selected to give the most onerous conditions. The remaining outlets shall have nothing inserted into				N/A
	Test current (A):				N/A
	Test voltage (V):				N/A
	Terminal screws torque (Nm):				N/A
	USB battery charging outlets shall be loaded with current (A):				N/A
	The temperature rises at various parts were recorded as below:				—
	Case 1: Sample 1, 2, 3 (For single portable socket-outlet)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 1: Sample1, 2, 3 (For multiple portable socket-outlets)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	Measurement point		CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L		Short circuit		≤ 52	N/A
	Terminal/Termination N				≤ 52	N/A
	Accessible external surface including switch knob/rocker				≤ 52	N/A
	Ambient Temp. °C		—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))					—
	Measurement point		CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L		Test With CBE		≤ 52	N/A
	Terminal/Termination N				≤ 52	N/A
	Accessible external surface including switch knob/rocker				≤ 52	N/A
	Ambient Temp. °C		—		—	—
17.1.4	Fixed and panel mounted socket-outlets with more than one terminal for line and/or neutral connections (i.e. internal connections could form part of an external ring circuit) or having screwless terminals shall be subjected to an additional temperature rise test.					N/A
	Test current (A), test voltage (V):					N/A
	Terminal screws: torque (Nm):					N/A
	USB battery charging outlets shall be loaded with current (A):					N/A
		Part	Temperature (K)		Limit (K)	—
			1	2	3	—
	1.	Terminal – L				N/A
	2.	Terminal - N				N/A
	3.	Accessible external surface including switch knob/rocker				N/A
	Ambient Temp. °C				—	—
	Between each line terminal and between each neutral terminal shall be in effective electrical contact.		Test current: 25A			N/A
	The resistance shall not exceed 0.05Ω.		Measured:			N/A
14.19	Portable socket-outlet were so designed and constructed they cannot be deformed to allow access to live parts or to allow separated metal parts to be brought into contact with each other.					N/A
16	Insulation resistance and electric strength					P

Annex 1: BS 1362-2				
Clause	Requirement + Test		Result - Remark	Verdict
16.1.2	Insulation resistance of socket-outlets shall be adequate. (500 V d.c. for 1 min)			P
		Parts between	Insulation resistance (MΩ)	Spec. (MΩ)	—
	a)	Line and neutral	>199	≥5	P
	b)	Line/neutral and	-	≥5	—
		1. metal foil covered with the body	>199	≥5	P
		2. earthing	>199	≥5	P
		3. metal part of a cord anchorage	-	≥5	N/A
	c)	Switch contacts – L	>199	≥2	P
		Switch contacts – N	>199	≥2	P
16.1.3	Insulation resistance and electric strength of socket outlets to a 50Hz voltage were adequate.				P
	Parts between				—
	a) Line and neutral		2000V, 60s		P
	b) Line/neutral and				—
	1. metal foil covered with the body		2000V, 60s		P
	2. earthing		2000V, 60s		P
	3. metal part of a cord anchorage				N/A
	c1) Switch contacts – L		2000V, 60s		P
	c2) Switch contacts – N				N/A
	During the test, no breakdown or flashover occurred.				P
16.2	Non-rewireable socket-outlet shall withstand high a.c. voltage between current carrying parts and accessible surface.		6000V, 5s		N/A
	During the test, no breakdown or flashover occurred.				N/A
14.4.1 a)	The voltage drop between any individual line or neutral socket contact and the corresponding plug pin is measured between the terminal connecting strap at a point immediately adjacent to the socket contact and the corresponding plug pin. Spec ≤40mV		L (mV) Max 36	N (mV) Max 37	P
11.2	All accessible metal parts of socket-outlets were in effective electrical contact with the earthing socket contact.				P
11.2.1	a). for metal parts insulated from live parts, by the test described in clause 16.1.3.				N/A
	b). for metal parts connected to an earthing terminal, a current of 25 A ±0.75 A, is passed for 60^{+5}_{0} s		Test current: 25A		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	c). the resistance between the earthing terminal and any other nominated part shall not exceed 0,05Ω	Max 0,02Ω	P
14.6	Earth socket contacts did withstand the stresses.		P
	a mass of 750g ± 5g is suspended from pin D for 30^{+5}_{0} s.		P
	The socket-outlet is rotated through 180°, the load applied to pin D for a further 30^{+5}_{0} s.		P
	After the test the socket contact shall retain the weight gauge shown in Figure 16(a) for not less than 30^{+5}_{0} s.		P
	After the test, the earth socket contacts were found to retain the gauge for 30^{+5}_{0} s.		P
14.7	The construction of the socket-outlet shall be such that when a plug is withdrawn from it, the current-carrying socket contacts are automatically screened by shutters.		P
	One socket aperture shutter shall not be capable of closing independently of the other aperture shutter.		P
	The shutters shall be operated either by the insertion of the earthing pin or by the simultaneous insertion of any two or more pins of the plug.	By insertion of earhing pin	P
	It shall not be possible to operate a shutter by inserting a 2-pin plug into a 3-pin socket-outlet.		P
14.7.1	the application of the gauge shown in Figure 16(b) and the test pin shown in Figure 1 shall not be possible to touch current-carrying parts.		P
14.7.2	Earth pin operated shutters and 3-pin operated shutters shall be deemed to conform to this requirement without testing.	Earth pin operted shutter	P
	A 2-pin plug conforming to BS EN 50075 applied to the socket line and neutral apertures, shall not make contact with live parts.		N/A
14.8	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. Spec ≤36N	< 36N	P
Set 5	**General**		—
6	All tests were type test		P
15.2	Socket-outlets were against humid conditions.	25˚C, 93%, 48h	P
	After the test, the samples showed no damage.		P
16	Insulation resistance and electric strength		P
16.1.2	Insulation resistance of socket-outlets shall be adequate. (500 V d.c. for 1 min)		P

		Parts between	Insulation resistance (MΩ)	Spec. (MΩ)	—
	a)	Line and neutral	>199	≥5	P

Annex 1: BS 1362-2					
Clause	Requirement + Test		Result - Remark		Verdict
	b)	Line/neutral and	-	≥5	—
		1. metal foil covered with the body	>199	≥5	P
		2. earthing	>199	≥5	P
		3. metal part of a cord anchorage	-	≥5	N/A
	c)	Switch contacts – L	>199	≥2	P
		Switch contacts – N	>199	≥2	P
16.1.3	Insulation resistance and electric strength of socket outlets to a 50Hz voltage were adequate.				P
	Parts between				—
	a) Line and neutral		2000V, 60s		P
	b) Line/neutral and				—
	1. metal foil covered with the body		2000V, 60s		P
	2. earthing		2000V, 60s		P
	3. metal part of a cord anchorage				N/A
	c1) Switch contacts – L		2000V, 60s		P
	c2) Switch contacts – N				N/A
	During the test, no breakdown or flashover occurred.				P
16.2	Non-rewireable socket-outlet did withstand high a.c. voltage between current carrying parts and accessible surface.		6000V, 3s		N/A
	During the test, no breakdown or flashover occurred.				N/A
19.1.3	The voltage drop across each switched pole. Spec ≤ 60 mV		L (mV) Max. 38	N (mV) Max. 33	P
	For switched socket-outlet, the switch was subjected to make and break a current.				P
	Test current (A); Test Voltage (V)		13A 250V~		P
	Endurance time:		15 000 cycles		P
	Rate:		6 cyclyes per minute		P
	At the end of the test, the switch shall capable of making and breaking the rated current of rated current at 250V.				P
	The voltage drop across each switched pole. Spec ≤ 75 mV		L (mV) Max. 50	N (mV) Max. 54	P
	Switches conforming to BS EN IEC 61058-1 or BS EN 60669-1 incorporated in socket-outlets do not need to be tested for normal operation provided that they have a rated voltage of at least 250 V a.c. and a rated current of at least 13 A.				N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Classifications of switches conforming to BS EN IEC 61058-1		N/A
16.1.3	Insulation resistance and electric strength of socket outlets to a 50Hz voltage were adequate.		P
	Parts between		—
	a) Line and neutral	1500V, 60s	P
	b) Line/neutral and		—
	1. metal foil covered with the body	1500V, 60s	P
	2. earthing	1500V, 60s	P
	3. metal part of a cord anchorage		N/A
	c1) Switch contacts – L	1500V, 60s	P
	c2) Switch contacts – N		N/A
	During the test, no breakdown or flashover occurred.		P
21	Mechanical strength		P
21.1.2	The fuse clips of a fused socket-outlet has adequate mechanical strength.		N/A
21.1.3	Fixed and panel mounted socket-outlets shall be tested with the impact test apparatus shown in Figure 21a).		P
	10 blows shall be applied to points evenly distributed over the socket-outlet.		P
	One of the 10 blows of the hammer shall be applied to the actuating member, if any.		P
	For socket-outlets higher than IPX0, the test is carried out with any lid open.		P
	The lid is then closed with additional three blows.		N/A
	After the test, the socket-outlet shall still be in accordance with clauses 9, 10 and 16.		P
	For socket-outlets greater than IP20 shall show no damage which impairs its ingress protection.		N/A
21.1.4	Rewireable single and twin portable socket-outlets and non-rewireable single was tested in the tumbling barrel shown in Figure 20.		N/A
	Rewirable single and twin portable socket-outlets are fitted with 3-core PVC 1.25 mm2 flexible cable	Torque for terminal =____ Nm Torque for cover screws =_____ Nm	N/A
	Non-rewirable single and twin portable socket-outlets are tested as delivered.		N/A
	The barrel shall be turned at a rate of approximately 5 r/min		N/A
	The number of drops shall be 5 000		N/A
	After the test the portable socket-outlet shall not show external damage which might affect the safety.		N/A
	Components did not have become detached.		N/A
	The portable socket-outlet did not satisfy the tests described in 14.4.1b and clause 16		N/A

Annex 1: BS 1362-2					
Clause	Requirement + Test		Result - Remark		Verdict
17	Temperature rise				N/A
17.1.3	The portable socket-outlets and their surroundings shall not attain excessive temperatures in normal use.				N/A
	The multiple portable socket-outlet, the test current being divided equally between a no. Of test plug, one inserted into each set of socket contacts in the portable socket-outlet.				N/A
	For portable socket-outlets with more than 4 outlets, the test shall be performed with 4 test plugs inserted into 4 sets of socket contacts, selected to give the most onerous conditions. The remaining outlets shall have nothing inserted into				N/A
	Test current (A):				N/A
	Test voltage (V):				N/A
	Terminal screws torque (Nm):				N/A
	USB battery charging outlets shall be loaded with current (A):				N/A
	The temperature rises at various parts were recorded as below:				—
	Case 1: Sample 1, 2, 3 (For single portable socket-outlet)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 1: Sample1, 2, 3 (For multiple portable socket-outlets)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—

17.1.4	Fixed and panel mounted socket-outlets with more than one terminal for line and/or neutral connections (i.e. internal connections could form part of an external ring circuit) or having screwless terminals shall be subjected to an additional temperature rise test.						N/A
	Test current (A), test voltage (V):						N/A
	Terminal screws: torque (Nm):						N/A
	USB battery charging outlets shall be loaded with current (A):						N/A
		Part	Temperature (K)			Limit (K)	—
			1	2	3	—	—
	1.	Terminal – L					N/A
	2.	Terminal - N					N/A
	3.	Accessible external surface including switch knob/rocker					N/A
	Between each line terminal and between each neutral terminal shall be in effective electrical contact.				Test current: 25A		N/A
	The resistance shall not exceed 0.05Ω.				Measured:		N/A
21.1.5	Rewireable portable socket-outlets with more than two outlets shall fitted with 3-core 1.25mm^2.						N/A
	Non-rewireable accessories shall be tested as delivered.						N/A
	The specimen was held so that the cable was horizontal and then it was allowed to fall on to a concrete floor eight times						N/A
	the flexible cable being rotated through approximately 45° and its fixing each time.						N/A
	After the test, the socket-outlet did not show external damage which might affect the safety.						N/A
	Components did not have become detached.						N/A
	The portable socket-outlet did satisfy the tests described in 14.4.1 b) and clause 16.						N/A
17	Temperature rise						N/A

Annex 1: BS 1362-2								
Clause	Requirement + Test					Result - Remark		Verdict
17.1.2	The fixed socket-outlets and their surroundings shall not attain excessive temperatures in normal use.							N/A
	Test current (A):							N/A
	Test voltage (V):							N/A
	Terminal screws: torque (Nm):							N/A
	USB battery charging outlets shall be loaded with current (A):							N/A
		Part	Temperature (K)				Limit (K)	—
			1	2	3		—	—
	1.	Terminal – L					≤ 52	N/A
	2.	Terminal - N					≤ 52	N/A
	3.	Accessible external surface including switch knob/rocker					≤ 52	N/A
17.1.3	The portable socket-outlets and their surroundings shall not attain excessive temperatures in normal use.							N/A
	The multiple portable socket-outlet, the test current being divided equally between a no. Of test plug, one inserted into each set of socket contacts in the portable socket-outlet.							N/A
	For portable socket-outlets with more than 4 outlets, the test shall be performed with 4 test plugs inserted into 4 sets of socket contacts, selected to give the most onerous conditions. The remaining outlets shall have nothing inserted into							N/A
	Test current (A):							N/A
	Test voltage (V):							N/A
	Terminal screws torque (Nm):							N/A
	USB battery charging outlets shall be loaded with current (A):							N/A
	The temperature rises at various parts were recorded as below:							—
	Case 1: Sample 1, 2, 3 (For single portable socket-outlet)							—
	Measurement point		CBE		Temp. Rise (K)		Limit (K)	—
	Terminal/Termination L		Short circuit				≤ 52	N/A
	Terminal/Termination N						≤ 52	N/A
	Accessible external surface including switch knob/rocker						≤ 52	N/A
	Ambient Temp. °C		—				—	—
	Case 1: Sample1, 2, 3 (For multiple portable socket-outlets)							—
	Measurement point		CBE		Temp. Rise (K)		Limit (K)	—

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Ambient Temp. °C	—		—	—
17.1.4	Fixed and panel mounted socket-outlets with more than one terminal for line and/or neutral connections (i.e. internal connections could form part of an external ring circuit) or having screwless terminals shall be subjected to an additional temperature rise test.				N/A
	Test current (A), test voltage (V):				N/A
	Terminal screws: torque (Nm):				N/A
	USB battery charging outlets shall be loaded with current (A):				N/A

		Part	Temperature (K)			Limit (K)	—
			1	2	3	—	—
	1.	Terminal – L					N/A
	2.	Terminal - N					N/A
	3.	Accessible external surface including switch knob/rocker					N/A
	Ambient Temp. °C					—	—

Annex 1: BS 1362-2				
Clause	Requirement + Test		Result - Remark	Verdict
	Between each line terminal and between each neutral terminal shall be in effective electrical contact.		Test current: 25A	N/A
	The resistance shall not exceed 0.05Ω.		Measured:	N/A
Set 6	**Materials**			—
6	All tests were type test			P
23	Resistance to heat			P
23.1.2	The socket-outlet were kept in a heating clamber 60^{+5}_{0} min, to test for resistance to heat. During the test, they did not undergo any change impairing their further use.		60min	P
	a) 70 °C ±5 °C for portable socket-outlets, mounting boxes, separate covers and separate cover plates; or		70 °C	N/A
	b) 100 °C ±5 °C for all other socket-outlets.		100 °C	P
	After the test, the socket-outlets shall satisfy the tests			P
	- clause 10.2.1)			P
	- clause 16.1.3			P
	- live parts not accessible by probe 11			P
23.1.3	Portable socket-outlets with external parts of resilient material shall subject to a pressure test of an apparatus.			N/A
	the test being made in a heating cabinet at a temperature of 70 °C ±5 °C		70 °C; 60 min	N/A
	After the test, the socket-outlets shall satisfy the tests			—
	- clause 16.1.2 b) i)			N/A
	- clause 16.1.3			N/A
	- accept the gauge (Fig. 11)			N/A
23.2	Parts of insulating material shall be sufficiently resistant to heat having particular regard to their location and function in the complete socket-outlet.			P
23.2.1	The diameter of the impression caused by the ball is measured and shall not exceed 2 mm.....:		See below	P
	Parts	Test temp (°C) / Spec (mm)	Diameter of impression (mm)	—
	Not retain live part	75 / ≤2	Max. 0,8	P
	Retain the live part	125 / ≤2	Max.1,3	P
Set 7	**Materials**			—
6	All tests were type test			P
24.2	The specimen was subjected to glow-wire test. Insulating parts were of material resistant to abnormal heat and fire.			P
	Not retain live part		650 °C	P
	- no visible flame and no sustained glowing			P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- flames and extingush within 30 s after removal of glow-wire		N/A
	- no ignition of tissue paper		P
	Retain one live part	~~750~~ / 850°C	P
	- no visible flame and no sustained glowing		P
	- flames and extingush within 30 s after removal of glow-wire		N/A
	- no ignition of tissue paper		P
8.2	Annex C: Determination of CTI & PTI		P
	Insulation materials resistant to tracking	PTI 175	P
Set 8	**Materials**		—
6	All tests were type test		P
25	Resistance to excessive residual stresses and to rusting		—
25.1	Press-formed or similar current-carrying parts of copper alloy containing less than 80% of copper were resistant to failure in use due to stress corrosion.		P
25.1.1	The sample was immersed in an aqueous solution of mercurous nitrate containing 10g of $Hg_2 (NO_3)_2$ and 10ml of HNO3 (relative density 1.42) per litre of suction for 30 min at a temperature of 27 °C.		P
	After the test, there were not cracks visible with normal or corrected vision without additional magnification.		P
25.2	The ferrous parts of the socket-outlet were subjected to a chemical test.		P
	After the test, their surface showed no signs of rust.		P
Set 9	**Positive break**		—
6	All tests were type tests		P
14.11.2	Actuating member of switch not at rest in the off position		P
	Actuating mechanism remain a position		P
	- giving adequate contact		P
	- adaequate seperation of contacts		P
14.11.4	Measured force F	< 50N	P
	After the test actuating member shall not remain at rest in the “OFF” position.		P
Set 10	**Ingress protection**		P
6	All tests were type tests		P
14.22	Socket-outlets having an IP classification higher than IP20 shall be so constructed so that when they are fixed and wired as in normal use there are no free openings in their enclosures according to their classification		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
14.23	Surface mounted socket-outlets having an IP classification higher than IP20 shall maintain their IP classification when fitted with conduits or with sheathed cables as in normal use.		N/A
	Fixed surface mounted socket-outlets having degrees of protection IPX4, IPX5 or IPX6 shall have provisions for opening a drain hole.		N/A
	If a socket-outlet is provided with a drain hole, it shall be not less than 5 mm in diameter, or 20 mm2 in area with a width and a length not less than 3 mm.		N/A
	If the design of the socket-outlet is such that only one mounting position is possible, the drain hole shall be effective in that position. Alternatively, the drain hole shall be effective in at least two positions of the socket-outlet when it is mounted on a vertical wall, one of these with the conductors entering at the top and the other with the conductors entering at the bottom.		N/A
	Lid springs, if any, shall be corrosion resistant.		N/A
14.24	Portable socket-outlets higher than IP20 shall be adequately enclosed when fitted with a flexible cable as for normal use and without a plug in engagement.		N/A
	Lid springs, if any, shall be corrosion resistant.		N/A
15.3	Protection provided by enclosures		P
15.3.2	Protection against access to hazardous parts and against harmful effects due to ingress of solid foreign objects	IP2X	P
15.3.2.1	General		P
15.3.2.2	Protection against access to hazardous parts		P
	The appropriate test according to BS EN 60529+A2:2013 shall be performed- IP5X		N/A
15.3.2.3	Protection against harmful effects due to ingress of solid foreign bodies	IP2X	P
	The appropriate test according to BS EN 60529+A2:2013 shall be performed. – IP5X		N/A
15.3.3	Protection against harmful effects due to ingress of water – IPX5	IPX0	N/A
	Socket-outlets having an IP classification with a plug inserted		N/A
	Socket-outlets having an IP classification with no plug inserted		N/A
16.1.3	Insulation resistance and electric strength of socket outlets to a 50Hz voltage were adequate.		N/A
	Parts between		—
	a) Line and neutral		N/A
	b) Line/neutral and		—
	1. metal foil covered with the body		N/A
	2. earthing		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	3. metal part of a cord anchorage		N/A
	c1) Switch contacts – L		N/A
	c2) Switch contacts – N		N/A
	if any water has entered, it shall not:		N/A
	a) be sufficient to interfere with the correct operation of the equipment or impair safety;		N/A
	b) deposit on parts of insulating material where it could lead to tracking along the creepage distances;		N/A
	c) reach live parts not designed to operate when wet;		N/A
	d) accumulate near the cable end or enter the cable if any.		N/A
Set 11	**Electric vehicle charging**		N/A
6	All tests were type test		N/A
15.1	The socket-outlet was suspended freely in one oven at 70°C±5°C for 168^{+2}_{0} h. After the treatment, the socket-outlet was removed from the oven and and then show no damage which:		N/A
	- would lead to non-conformity with this standard		N/A
	- would impair safety; or		N/A
	- would prevent further use.		N/A
18.2	Breaking capacity of socket-outlets intended for electric vehicle charging		N/A
18.1.2	The breaking capacity of socket contacts were adequate.		N/A
	Test current: 1,25 times rated current ±0.4 A test voltage: 250 V ±5 V, endurance time: 10 times power factor of $0,6^{0}_{-0,05}$ lagging		N/A
	After the test, the socket-outlet were capable of satisfying.		N/A
18.1.3	The breaking capacity of switches incorporated in socket outlets were adequate.		N/A
	Test current: 1,25 times rated current ±0.4 A test voltage: 275 V ±5 V endurance time: 10 times power factor of $0,6^{0}_{-0,05}$ lagging		N/A
	After the test, the socket-outlet were capable of satisfying.		N/A
19.2	Normal operation of socket-outlets intended for electric vehicle charging		N/A
19.1.2	The socket-outlet shall subject to make and break a current in a substantially non-inductive circuit.		N/A
	Test current (A); Test Voltage (V); power factor		N/A
	Endurance time:		N/A
	Rate:		N/A
	After the test the shutter shall be operating		N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	satisfactorily						
	the socket contacts safely shielded						N/A
19.1.3	For switched socket-outlet, the switch was subjected to make and break a current.						N/A
	Test current (A); Test Voltage (V); power facter						N/A
	Endurance time:						N/A
	Rate:						N/A
	At the end of the test, the switch shall capable of making and breaking the rated current of rated current at 250V.						N/A
	The voltage drop across each switched pole. Spec ≤ 75 mV	L (mV)		N (mV)			N/A
17	Temperature rise						N/A
17.1.2	The fixed socket-outlets and their surroundings shall not attain excessive temperatures in normal use.						N/A
	Test current (A):						N/A
	Test voltage (V):						N/A
	Terminal screws: torque (Nm):						N/A
	USB battery charging outlets shall be loaded with current (A):	USB load					N/A
		Part	Temperature (K)			Limit (K)	—
			1	2	3	—	—
	1.	Terminal – L				≤ 52	N/A
	2.	Terminal - N				≤ 52	N/A
	3.	Accessible external surface including switch knob/rocker				≤ 52	N/A
17.1.3	The portable socket-outlets and their surroundings shall not attain excessive temperatures in normal use.						N/A
	The multiple portable socket-outlet, the test current being divided equally between a no. Of test plug, one inserted into each set of socket contacts in the portable socket-outlet.						N/A
	For portable socket-outlets with more than 4 outlets, the test shall be performed with 4 test plugs inserted into 4 sets of socket contacts, selected to give the most onerous conditions. The remaining outlets shall have nothing inserted into						N/A
	Test current (A):						N/A
	Test voltage (V):						N/A
	Terminal screws torque (Nm):						N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

	USB battery charging outlets shall be loaded with current (A):				N/A
	The temperature rises at various parts were recorded as below:				—
	Case 1: Sample 1, 2, 3 (For single portable socket-outlet)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Case 1: Sample1, 2, 3 (For multiple portable socket-outlets)				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Short circuit		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
	Case 2: Sample1, 2, 3 (For individually protected socket-outlets (IPS))				—
	Measurement point	CBE	Temp. Rise (K)	Limit (K)	—
	Terminal/Termination L	Test With CBE		≤ 52	N/A
	Terminal/Termination N			≤ 52	N/A
	Accessible external surface including switch knob/rocker			≤ 52	N/A
17.1.4	Fixed and panel mounted socket-outlets with more than one terminal for line and/or neutral connections (i.e. internal connections could form part of an external ring circuit) or having screwless terminals shall be subjected to an additional temperature rise test.				N/A
	Test current (A), test voltage (V):				N/A
	Terminal screws: torque (Nm):				N/A
	USB battery charging outlets shall be loaded with current (A):				N/A
	Part	Temperature (K)		Limit (K)	—

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict

			1	2	3	—	—
	1.	Terminal – L					N/A
	2.	Terminal - N					N/A
	3.	External surface					N/A
	4.	Switch Knob					N/A
	Ambient Temp. °C					—	—
	Between each line terminal and between each neutral terminal shall be in effective electrical contact.			Test current: 25A			N/A
	The resistance shall not exceed 0.05Ω.			Measured:			N/A
Set 12	**Electric vehicle charging**						N/A
6	All tests were type test						N/A
27	Cyclic loading test						N/A
27.1	socket-outlets classified as being suitable for electric vehicle charging shall withstand the associated electrical and mechanical stresses.						N/A
27.1.2	The test shall be conducted for 28 continuous cycles.						N/A
	Test current (A); Test Voltage (V);						N/A
	At the end of the 28 continuous cycles,						N/A
	the socket-outlet shall be in accordance with Clause 16						N/A
	the socket-outlet shall accept the gauges of Figure 11						N/A
Set 13	**Additional tests for rewirable fixed socket-outlets with screwless terminals**						N/A
6	All tests were type test						N/A
15.1	The socket-outlet was suspended freely in one oven at 70°C±5°C for 168^{+2}_{0} h. After the treatment, the socket-outlet was removed from the oven and and then show no damage which:						N/A
	- would lead to non-conformity with this standard						N/A
	- would impair safety; or						N/A
	- would prevent further use.						N/A
12.10	Screwless terminals for fixed socket-outlets						N/A
12.10.2	Screwless terminals shall be so designed that they clamp the specified conductors with sufficient contact pressure and without undue damage to the conductor.						N/A
12.10.3	It shall be clear how the conductors are to be inserted and disconnected.						N/A
12.10.4	Screwless terminals which are intended to be used for the interconnection of two or more conductors						N/A
12.10.5	Screwless terminals shall be so designed that undue insertion of the conductor is prevented						N/A

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	and adequate insertion is obvious.		
12.10.6	Screwless terminals shall be properly fixed to the socket-outlet.		N/A
12.10.7	the conductor shall be subjected to a pull of 30^{0}_{-1} N, 60±5s		N/A
	During the application of the pull, the conductor shall not come out of the screwless terminal and the terminal shall not have become detached from the socket-outlet.		N/A
12.10.8	Screwless terminals shall withstand the electrical and thermal stresses occurring in normal use.		N/A
	a) The screwless terminals shall be connected with 1 m long conductors havinga cross-sectional area of 1.5 mm2 and loaded for 60 ±1 min with an alternating current of 19 A.		N/A
	In no case shall the voltage drop exceed 15 mV.		N/A
	b) The terminals shall be subjected to 192 temperature cycles,		N/A
	In no case shall the voltage drop exceed 22.5 mV.		N/A
	the conductor shall be subjected to a pull of 30N, 60s		N/A
	All samples shall withstand the mechanical stress test.		N/A
Set 14	**Overloads**		**N/A**
6	All tests were type test		N/A
26.1	Individually protected socket-outlets shall withstand the associated electrical and mechanical stresses.		N/A
26.1.2	Test current (A):		N/A
	Test Voltage (V):		N/A
	Test time (h):		N/A
26.2	If an overcurrent device releases before 4 h the current shall be reduced in 5% steps in order to achieve the stable conditions above.		N/A
	Test current (A):		N/A
	Test Voltage (V):		N/A
	Test time (h):		N/A
26.3	IPS fitted with BS EN 60127 fuses shall withstand overload currents, which could occur due to overload, without creating a risk of contact with live parts.		N/A
26.3.2	The IPS shall be subjected to a test current of 20.8 A for 60 min or until the fuse in the plug operates (if less than 60 min).		N/A
	The IPS shall be subjected to a test current of 24.7 A for 30 min or until the fuse in the plug operates (if less than 30 min).		N/A
26.3.4	It shall not reveal any damage to the IPS which would impair its safety within the requirements of BS 1363-1:2023.		N/A

Annex 1: BS 1362-2				
Clause	Requirement + Test	Result - Remark		Verdict
10.1	Socket-outlets were so designed, live part are not accessible.			N/A
10.1.1	A test pin figure 1 was applied, it shall not be possible to touch live parts.			N/A
14.4.1	a) Socket contacts did have effective electrical contact with a corresponding plug pin. Spec ≤ 25mV	L(mV)	N(mV)	N/A
	b) Socket contacts did have effective mechanical contact with a corresponding plug pin.			N/A
	The socket contact shall retain the test gauge Figure 16(b) for not less than 30 s when the socket-outlet is held horizontally with the gauge hanging vertically downwards.			N/A
14.11	Switches shall be so constructed that undue arcing cannot occur when the switch is operated slowly.			N/A
	The switch in any switched socket-outlet shall disconnect at least the supply to the line socket contact.			N/A
	Double pole switches shall make or break each pole with one movement of the actuator.			N/A
	The socket-outlet switch shall not be used to switch incorporated electronic components other than an indicator lamp.			N/A
14.11.1	Following the test in clause 18, the circuit was 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 were released after 2s of any arcing did cease.			N/A
Annex A Requirements for incorporated electronic components				
A.1	**General**			P
A.1.1	**Electromagnetic compatibility (EMC) requirements**			P
	Socket-outlets incorporating electronic circuits, apart from inherently benign components, shall conform to the immunity and emission requirements of the relevant product or generic BS EN 61000 standard series. In particular:			P
	• BS EN 61000-6-1; and • BS EN 61000-6-3.	Test report No. ARLI-ESH-P24081572B-1-A1 / ARLI-ESH-P24081572B-2-A1		P
	No additional EMC immunity or emission tests are required if the following conditions are fulfilled.			P
	a) the incorporated devices and components conform to the requirements for EMC as required by the relevant product or generic EMC standard.			P
	b) the internal installation and wiring is carried out in accordance with the devices and component manufacturer's instructions			P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	(arrangement with regard to mutual influences, cable, screening, earthing etc.).		
	In all other cases the EMC requirements are to be verified by tests, in particular as per BS EN 61000-6-1; and BS EN 61000-6-3		P
A.2	**USB circuits intended for charging portable devices**		P
	USB circuits incorporated in a socket‑outlet shall conform to the requirements of:		—
	BS EN 62368-1; or	Test report No. ARLI-ESH-P25021348	P
	BS EN 61558-2-16 and BS EN 61558-2-6		N/A
A.2.1.1	**Power rating and identification markings**		P
	The input voltage rating of the USB circuit shall not be marked on the socket-outlet and shall not be less than the rated voltage of the socket-outlet.		P
	Marking of the USB circuit output:		—
	The following marking shall be visible after the socket-outlet has been installed as in normal use:		—
	symbol for nature of supply, for d.c. only;		P
	rated output power of USB port in watts, unless the output rating is expressed in volts and amperes.		P
A.2.2	**Overcurrent and earth fault protection in primary circuits**		P
	Overcurrent protection shall be provided on the primary side of the USB circuit.	Fuse used	P
	Where overcurrent protection is not provided within the USB circuit itself, provision shall be made for appropriate overcurrent protection in the supply to the USB circuit within the socket-outlet.		N/A
	The USB circuit shall not rely on the building or installation protection device for overcurrent protection.		P
A.2.2.1	**Number and location of protective devices**		P
	A single overcurrent protection device shall be provided and it shall be located in the line circuit, either within the USB circuit or in the supply to the USB circuit within the socket-outlet.	Located in the line ciruict	P
A.2.2.2	**Electrical insulation**		P
	Double or reinforced insulation shall be provided between the primary and secondary circuits of the USB circuit.		P
	The output of the USB circuit shall be SELV or equivalent.		P
	When installed in the socket-outlet, double or reinforced insulation shall be provided between the primary circuit and accessible parts of the socket-outlet.		P
A.2.2.3	**Clearances, creepage distances and**		P

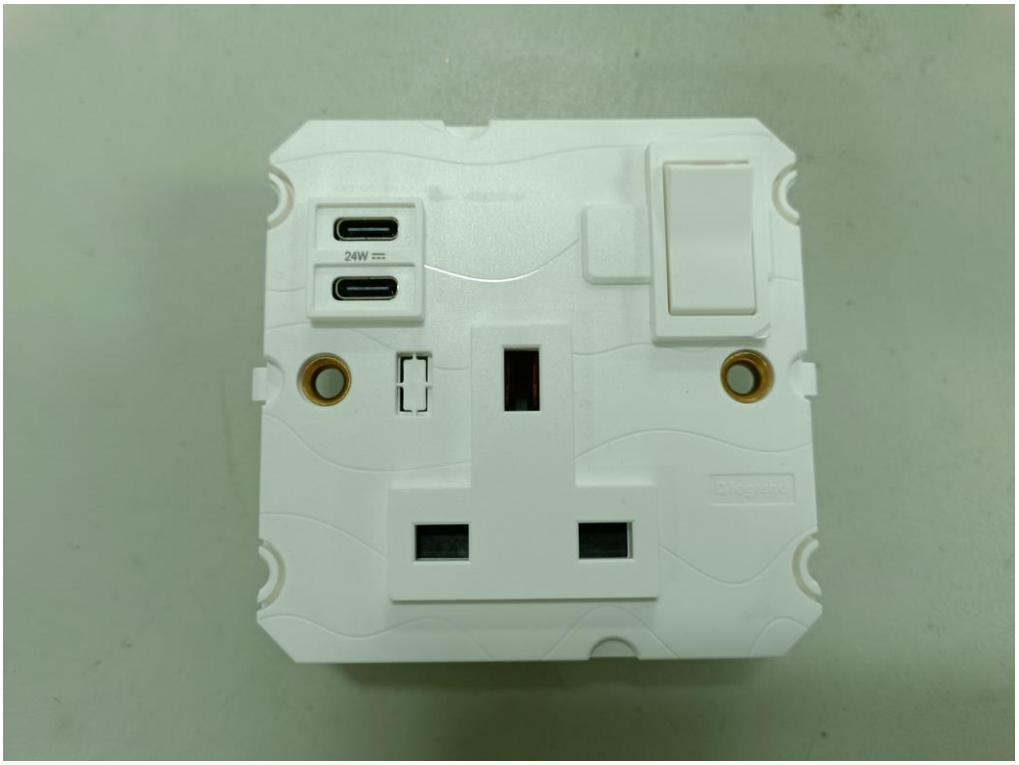
Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	distances through insulation		
	The USB circuit shall be designed and constructed to conform to the requirements of Overvoltage Category III.		P
A.2.3	**Disconnection from the mains supply**		P
	The requirement in BS EN 62368-1:2014+A11:2017 for the provision of a disconnect device shall not apply		P
A.2.4	**Mechanical strength**		P
	The requirements of BS 1363-2:2023, Clause **21** shall be applied to the USB circuit when incorporated in the socket-outlet.	Refer to clause 21	P
	The mechanical strength requirements of BS EN 62368-1:2014+A11:2017 are not applicable		P
A.2.4.1	**Reducing the risk of ignition and spread of flame**		P
	Method 1: A fire enclosure shall be provided which meets the requirements of BS EN 62368-1:2014+A11:2017; or		P
	Method 2: Assessment and testing of all possible single fault tests shall be applied.		N/A
	Whichever method is selected, the material requirements of BS 1363-2:2023, Clauses **23** and **24** are also applicable.	Refer to clause 23, 24	P
A.2.5	**Abnormal conditions**		P
	Socket-outlets containing USB circuits shall not create a hazard under abnormal loading conditions.		P
	No part shall reach such a temperature that there is danger of fire to the surroundings of the socket-outlet and there shall be no risk of electric shock or exposure to live parts.		P
	a) Short circuit of USB outputs		P
	A short circuit shall be applied across the power pins of each USB outlet in turn.		P
	b) Overload of USB outputs		P
	USB outlets shall be loaded with the maximum current they are capable of continuously supplying without the output entering any shutdown or current limiting mode for the duration of this test.		P
	For multiple socket-outlets it might be necessary to repeat the test multiple times with the loading on different outlets to cover all maximum loading on different USB outlet combinations.		P
	c) Component failure conditions		P
	Component failure conditions defined in BS EN 62368-1 or BS EN 61558-2-16 shall be applied.		P
	During the test of a), b) and c) above:		P
	- No emission of flames or burning particles shall occur.		P

Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- The operating temperature of electronic components marked with a rated operating temperature shall not exceed that temperature during the test.		P
	Additionally, no part shall reach such a temperature that there is danger of fire to the surroundings of the electronic switches during the test and temperatures shall remain within the limits defined in Clause 17.		P
	Protection against electric shock is required during and after the test even though an electronic socket is being used or has been used under abnormal conditions.		P
A.2.6	Conformity		P
	Conformity to A.3.1 to A.3.5 shall be checked by inspection of conformity evidence or by test.		P
A.3	**Surge protective devices**		N/A
A.3.1	**General**		—
	Surge protective devices incorporated in BS 1363-2:2023 socket-outlets shall conform to the requirements in A.3.2.		N/A
A.3.2	**Requirements**		N/A
	The following types of SPD of the appropriate category shall be considered acceptable:		N/A
	• metal oxide varistors conforming to BS EN 61643-331;		N/A
	• gas discharge tubes conforming to BS EN 61643-321;		N/A
	• avalanche breakdown diodes conforming to BS EN 61643-311.		N/A
	VDRs conforming to BS IEC 61051-2 and having the following characteristics shall be considered acceptable:		N/A
	1) Preferred climatic categories:		N/A
	- Lower category temperature −10 °C		N/A
	- Upper category temperature +85 °C		N/A
	- Duration of damp heat, steady state test: 21 days		N/A
	2) Maximum continuous voltage:		N/A
	The maximum continuous a.c. voltage shall be not less than 315 V.		N/A
	3) Pulse current (BS IEC 61051-2, Table 1, Group 1)		N/A
	Combination pulses of 6 kV/3 kA of alternating polarity are used, having a pulse shape of 1.2/50 µs for voltage and 8/20 µs for current.		N/A
	In addition to the performance requirements of BS IEC 61051-2, Table 1 Group 1, the clamping voltage after the test shall not have changed by more than 10%, when measured with the manufacturer’s specified current.		N/A

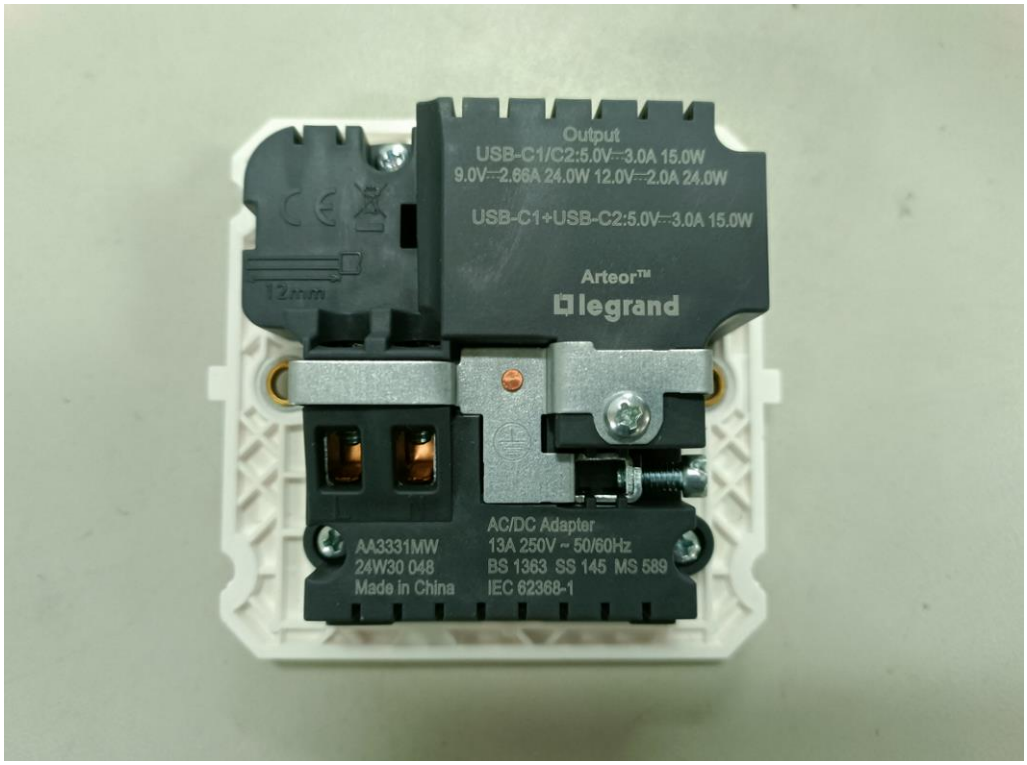
Annex 1: BS 1362-2			
Clause	Requirement + Test	Result - Remark	Verdict
A.3.3	**Conformity**		N/A
	Conformity to A.3.2 shall be checked by inspection of component conformity evidence.		N/A
A.3.4	**Incorporation of VDRs in socket-outlets**		N/A
	A circuit interrupting device having adequate breaking capacity shall be connected in series with the VDR to provide protection against:		N/A
	a) temporary overvoltages above the maximum continuous voltage;		N/A
	b) thermal overload due to leakage current within the VDR;		N/A
	c) burning and bursting of the VDR in the event of a short-circuit fault.		N/A
	The following methods of VDR incorporation are permitted:		N/A
	1) Between L and N		N/A
	Where not protected by a BS 1362:1973+A3:2021 fuse, a circuit interrupting device having adequate breaking capacity shall be incorporated within the product in series with the VDR.		N/A
	2) Between L and E		N/A
	A VDR is permitted between L and protective E provided that it is protected by a BS 1362:1973+A3:2021 fuse in the socket-outlet and is connected in series with a spark gap/gas discharge tube meeting the requirements for basic insulation, or		N/A
	where not protected by a BS 1362:1973+A3:2021 fuse a VDR is permitted between line and protective earth provided it is located in series with a circuit interrupting device having adequate breaking capacity, and is connected in series with a spark gap/gas tube meeting the requirements for basic insulation		N/A
A.3.5	**Conformity**		N/A
A.4	**Electronic switches**		N/A
A.4.1	**General**		N/A
	Electronic switches incorporated in socket-outlets shall conform to BS EN 60669-2-1		N/A
A.4.2	**Conformity**		N/A
	Conformity to A.4.1 shall be checked by inspection of conformity evidence or by test.		N/A

Attachement 1

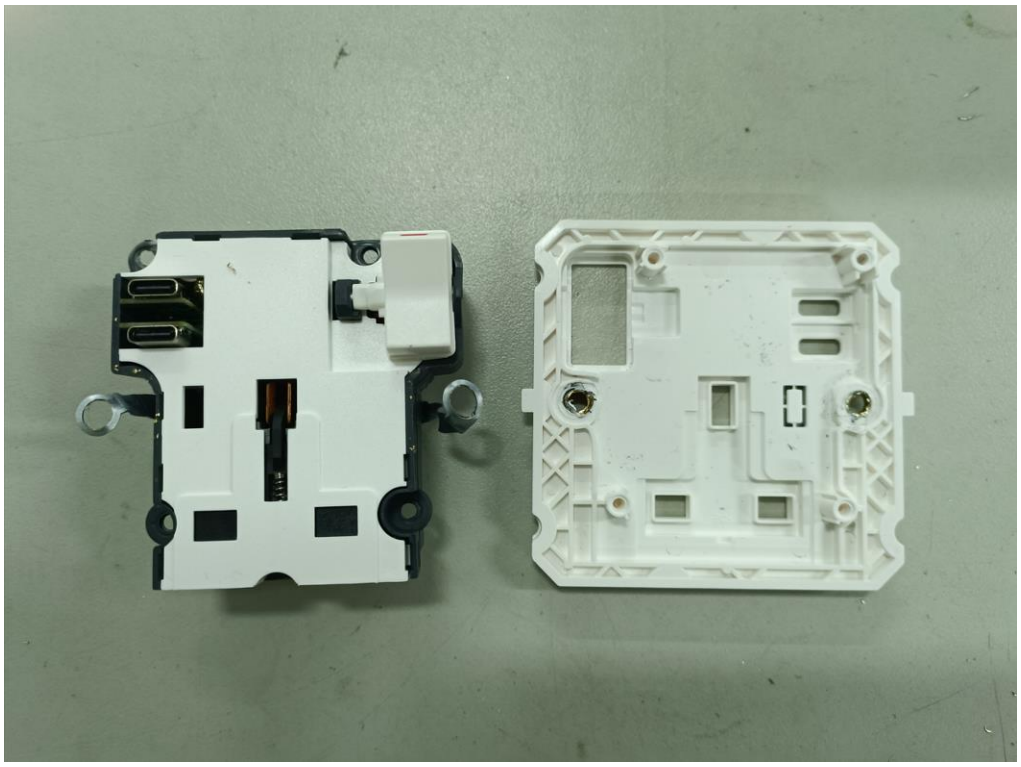
Pictures of samples tested



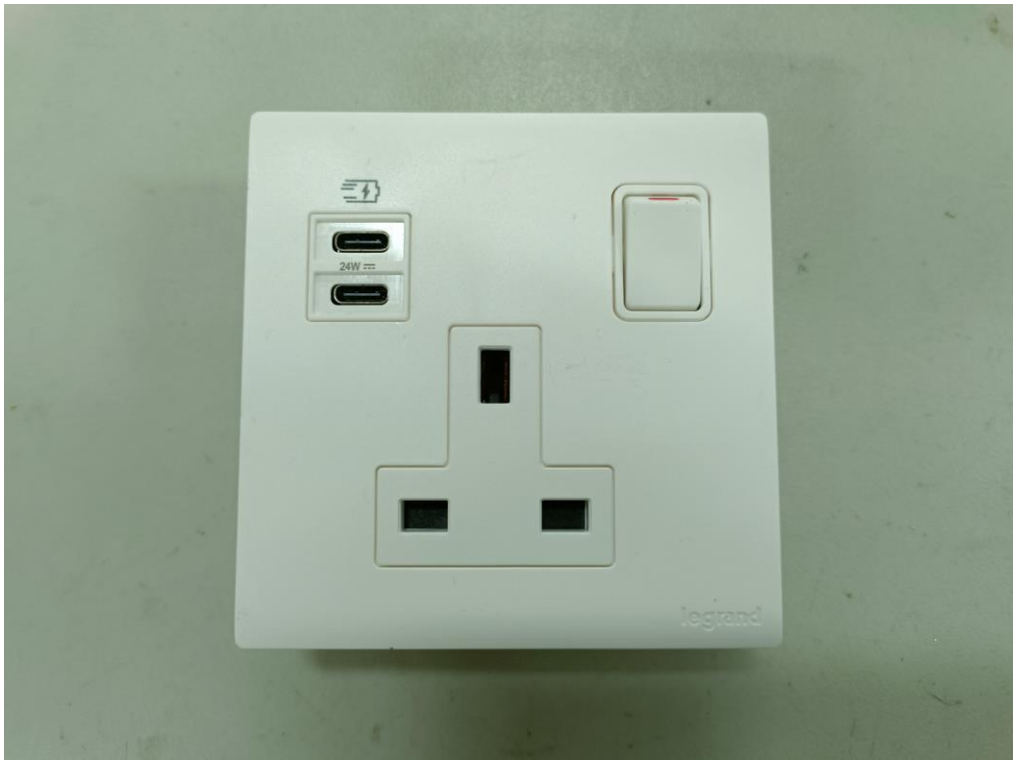
AA3331MW



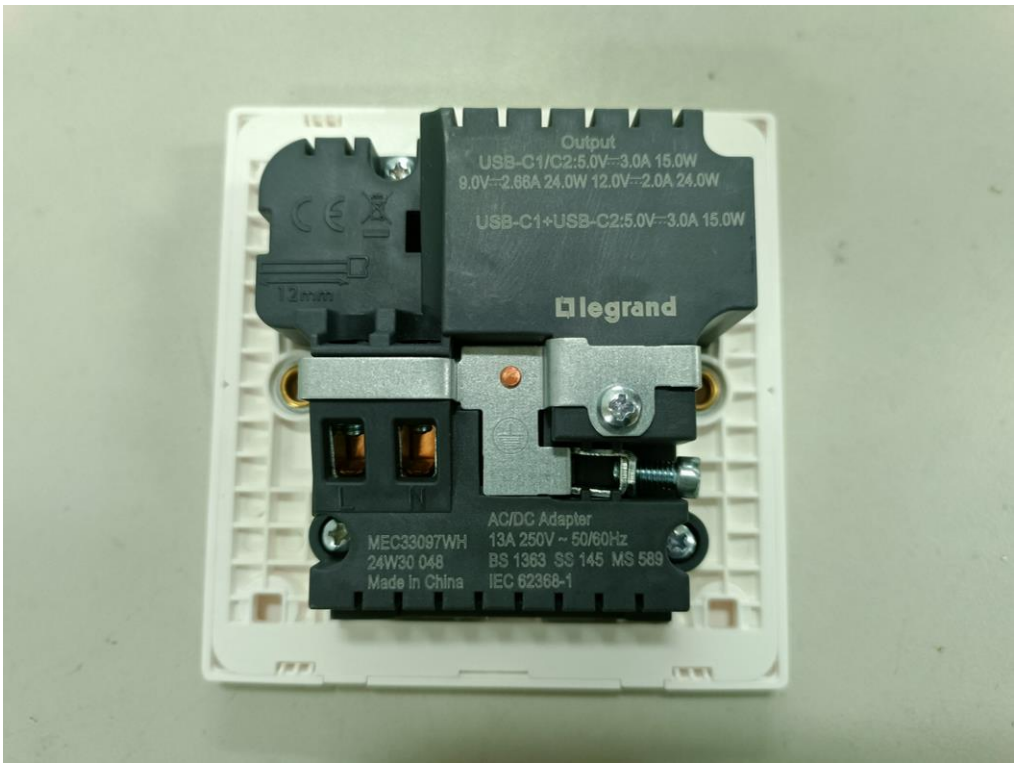
AA3331MW



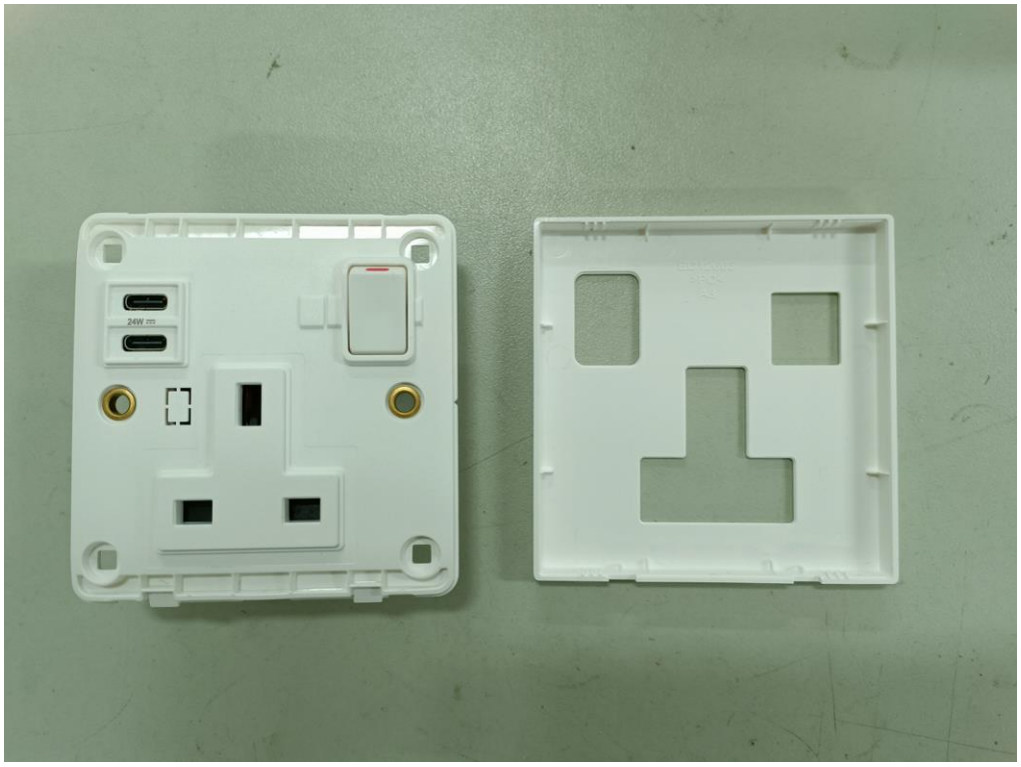
AA3331MW



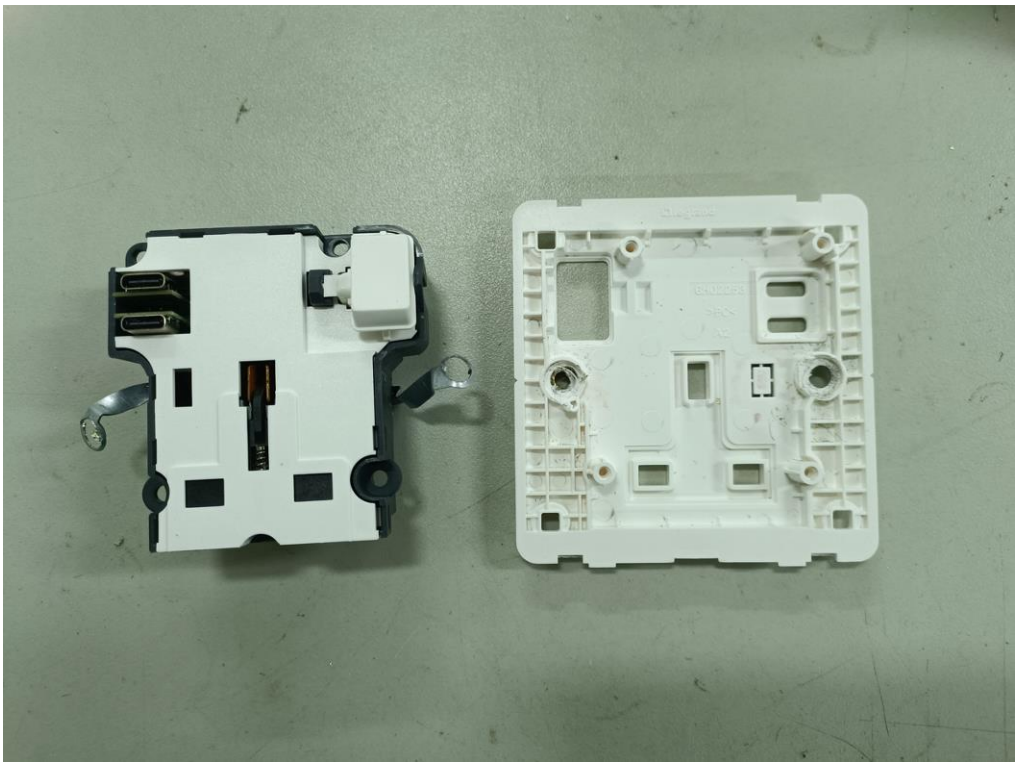
MEC33097WH



MEC33097WH

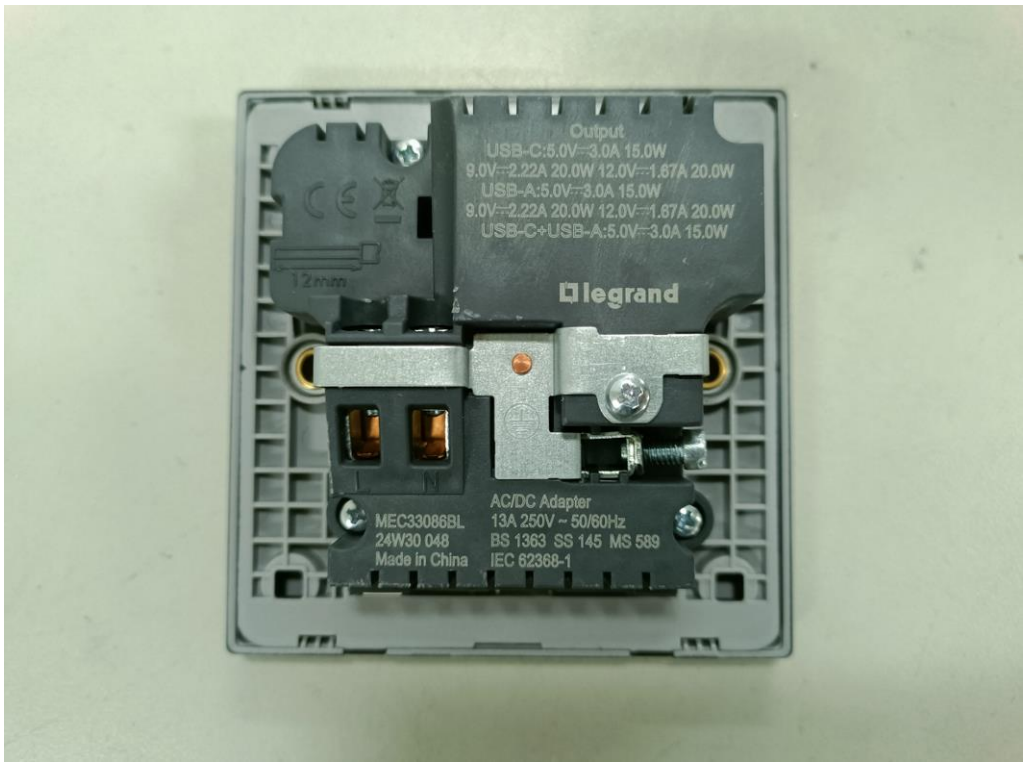


MEC33097WH



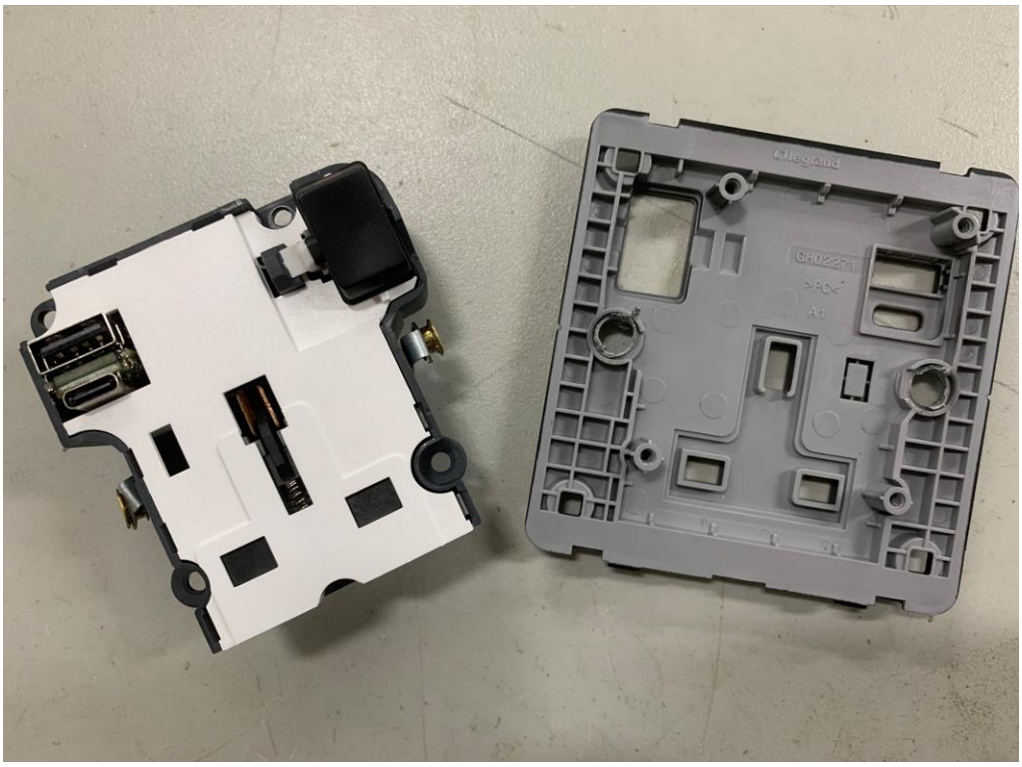
MEC33097WH

MEC33086BL

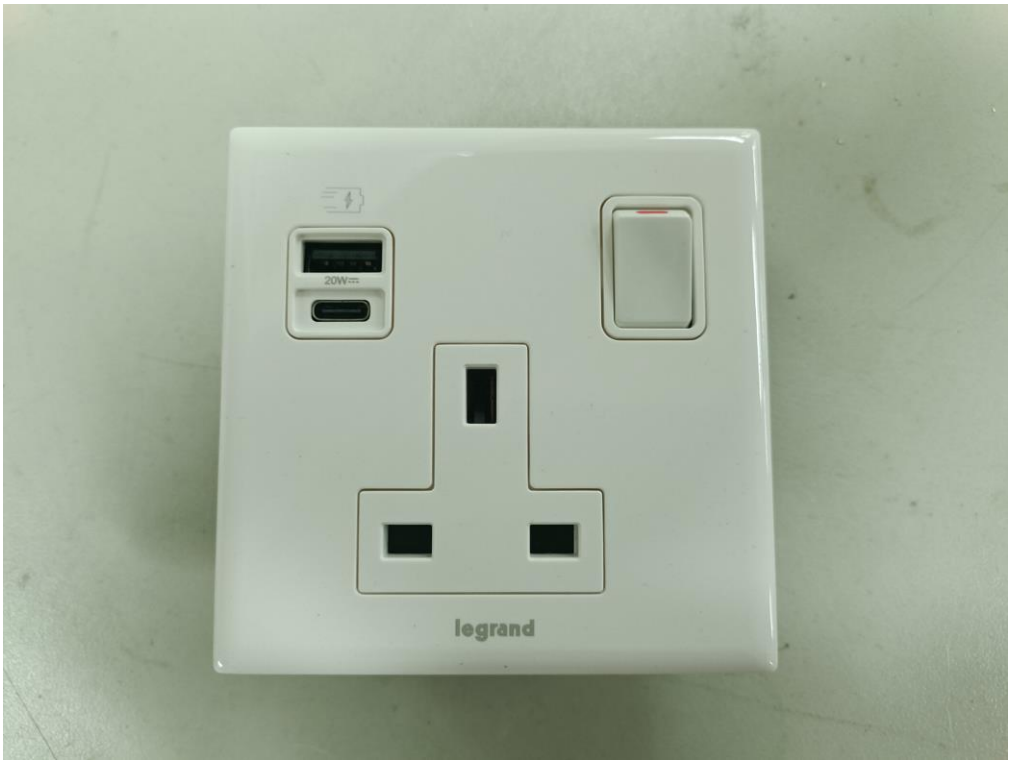


MEC33086BL

MEC33086BL

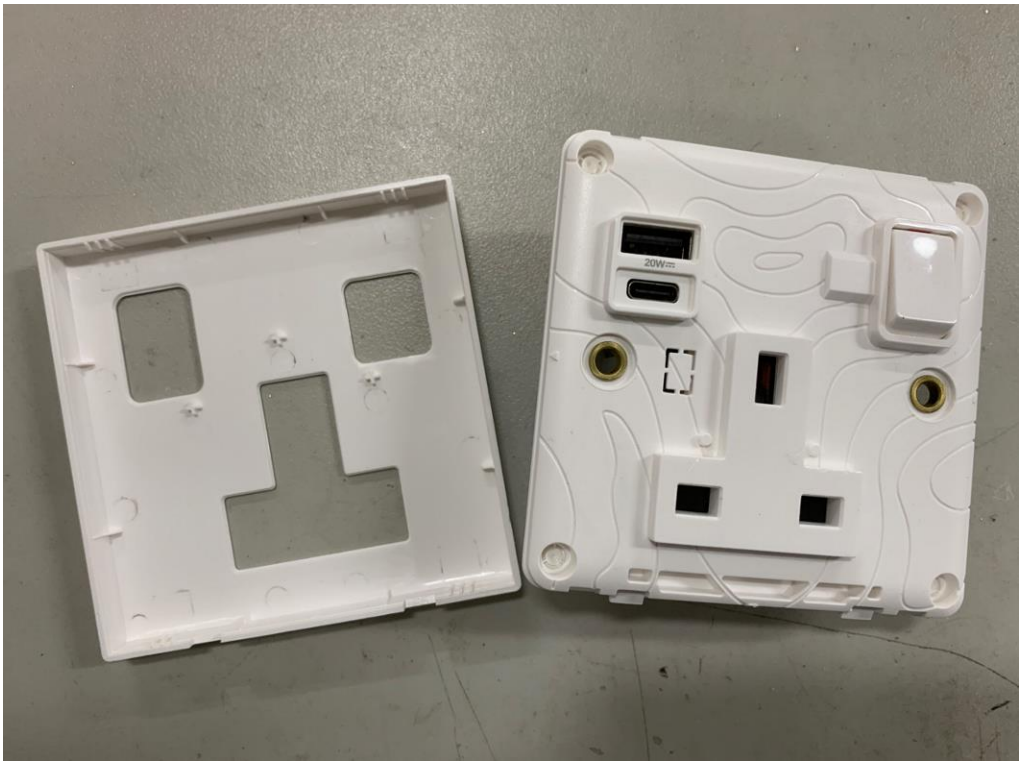


MEC33086BL

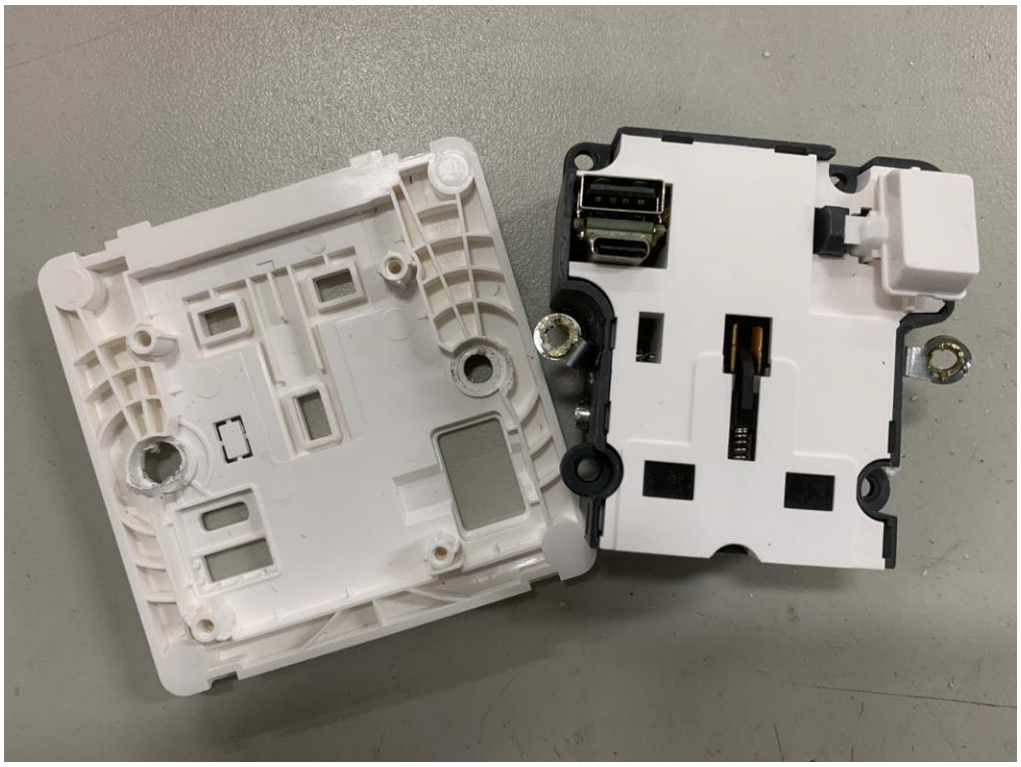


618087

618087



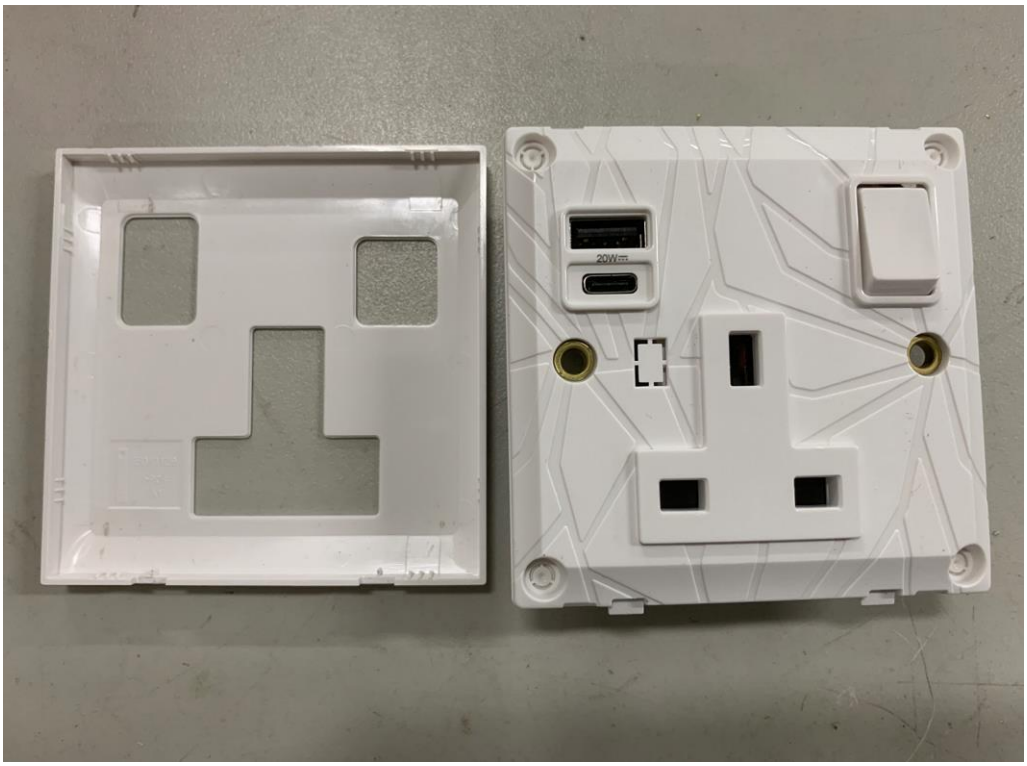
618087



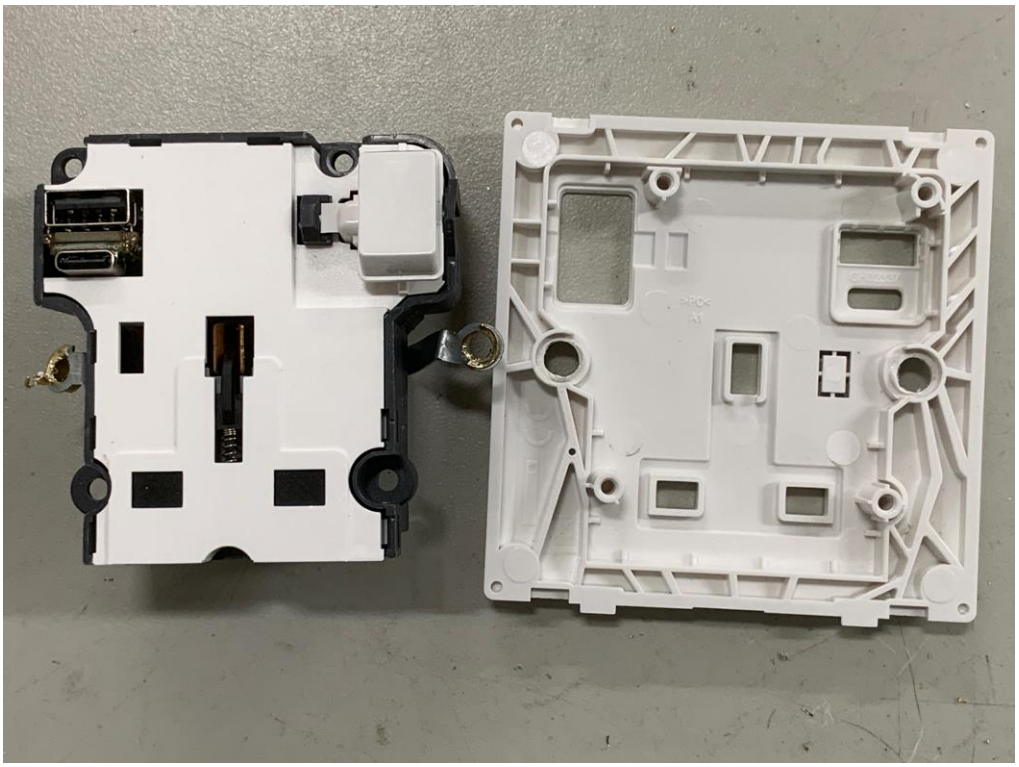
618087

617593

617593



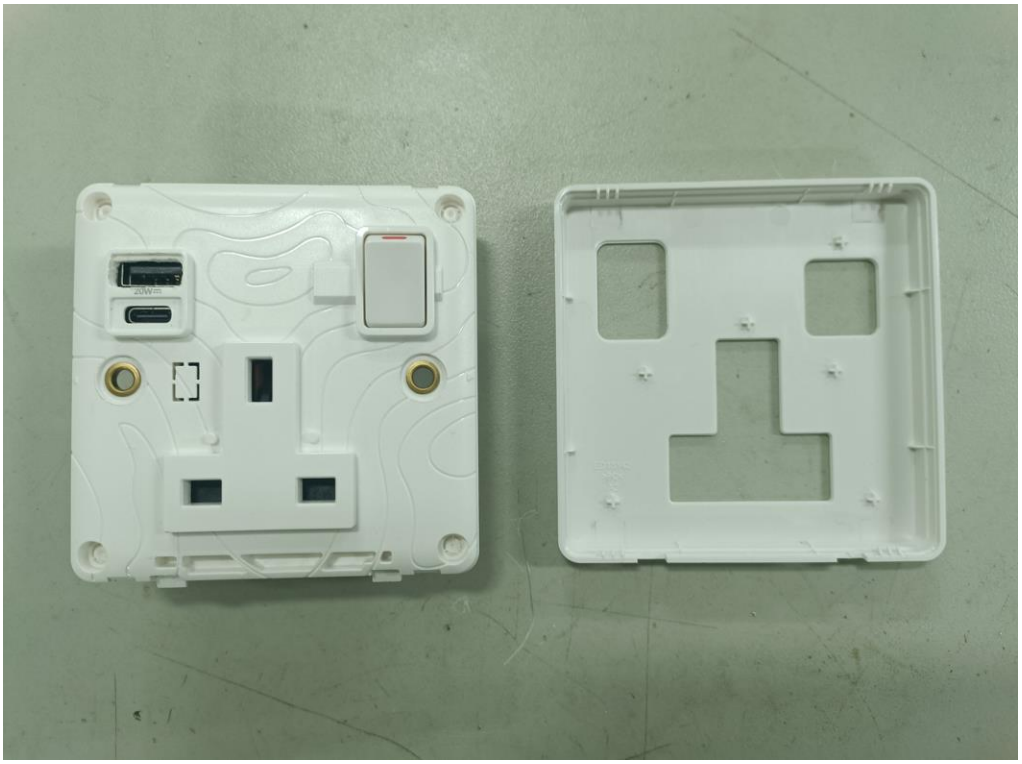
617593



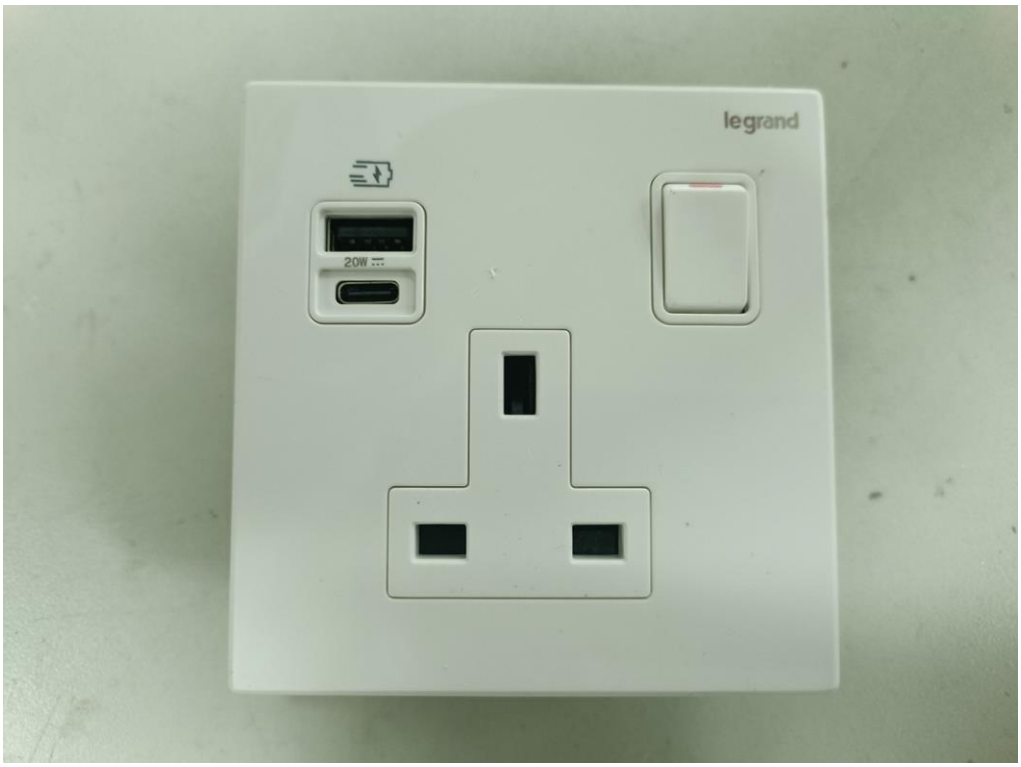
617593

838148

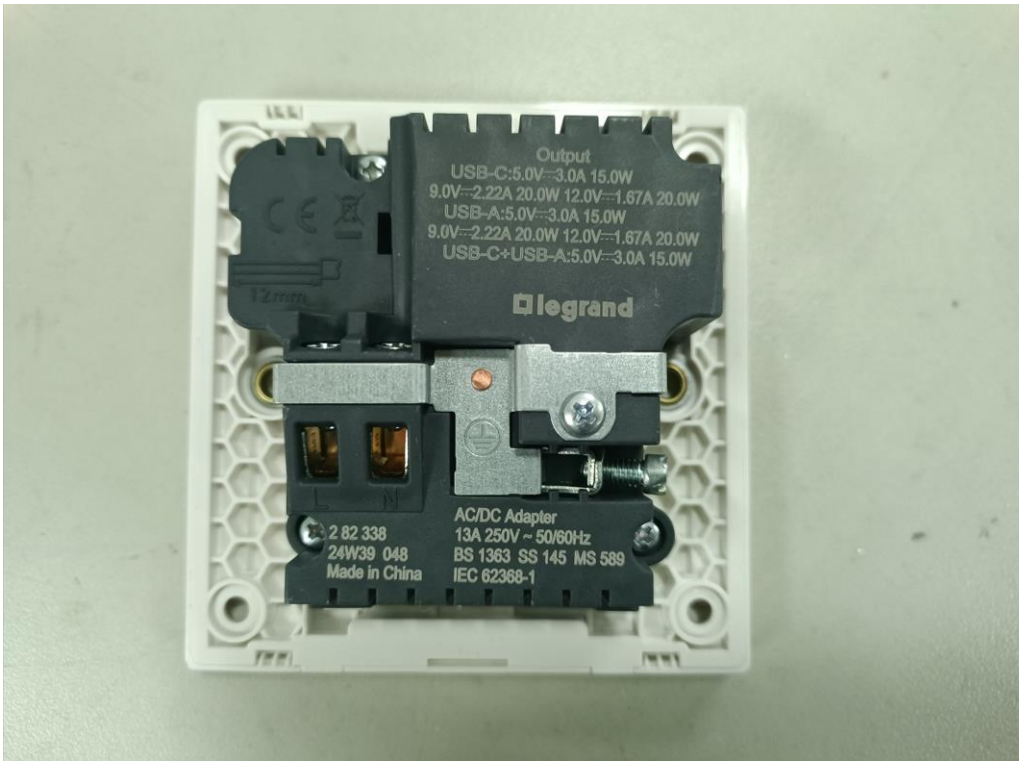
838148



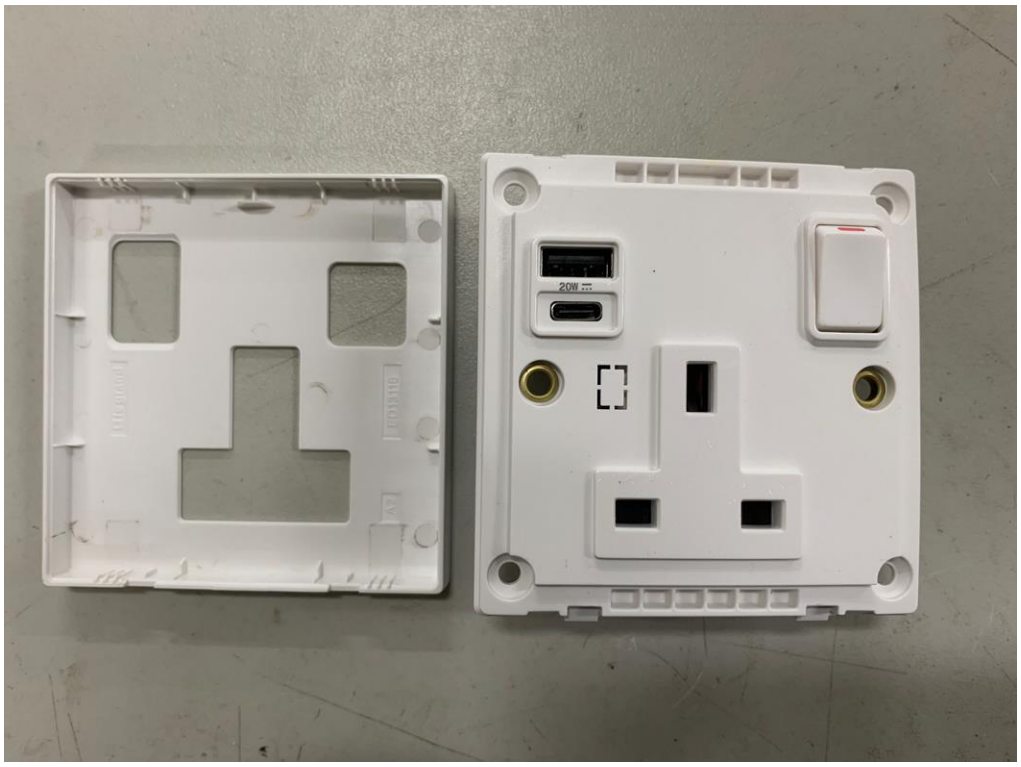
838148



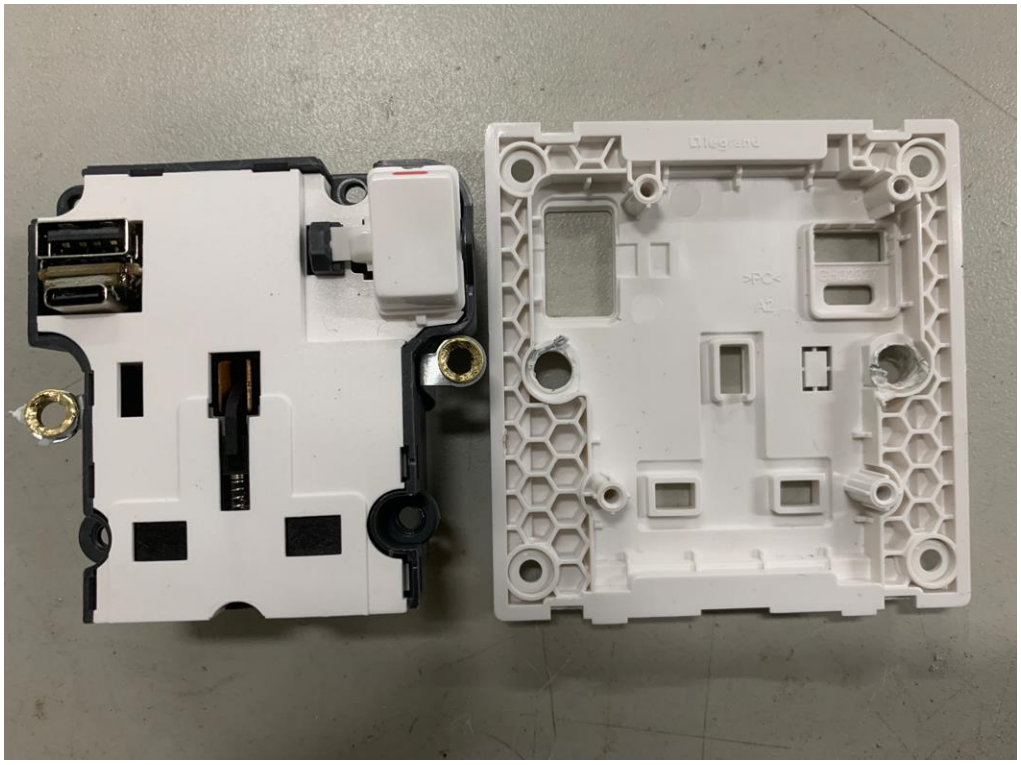
282338



282338

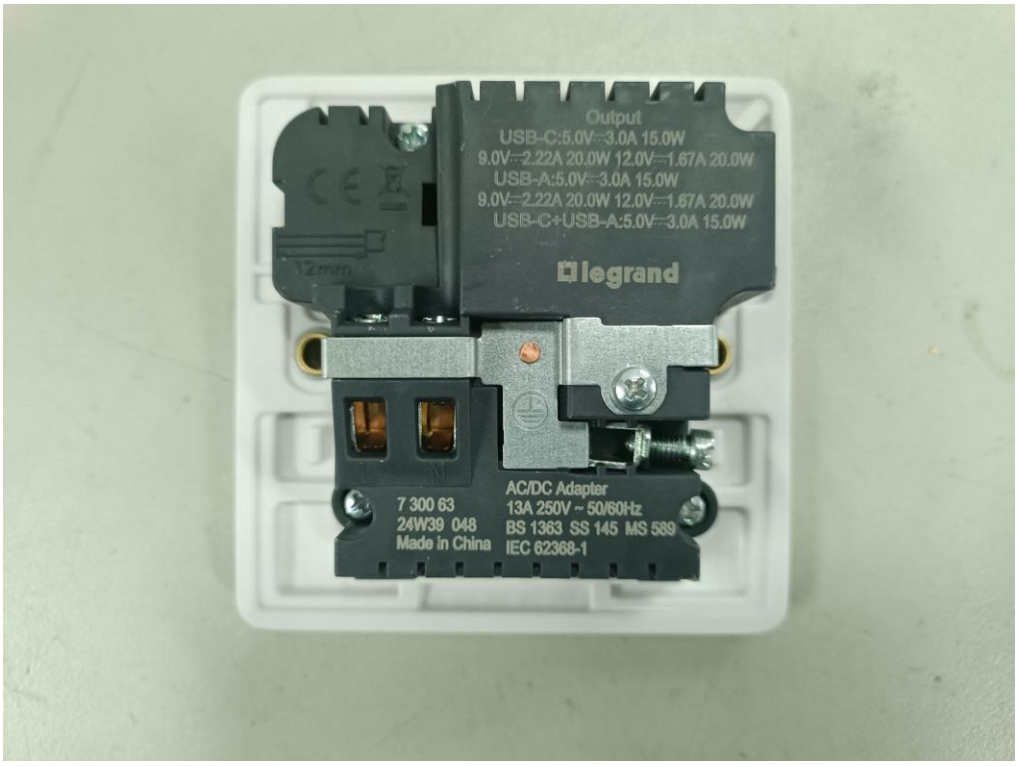


282338

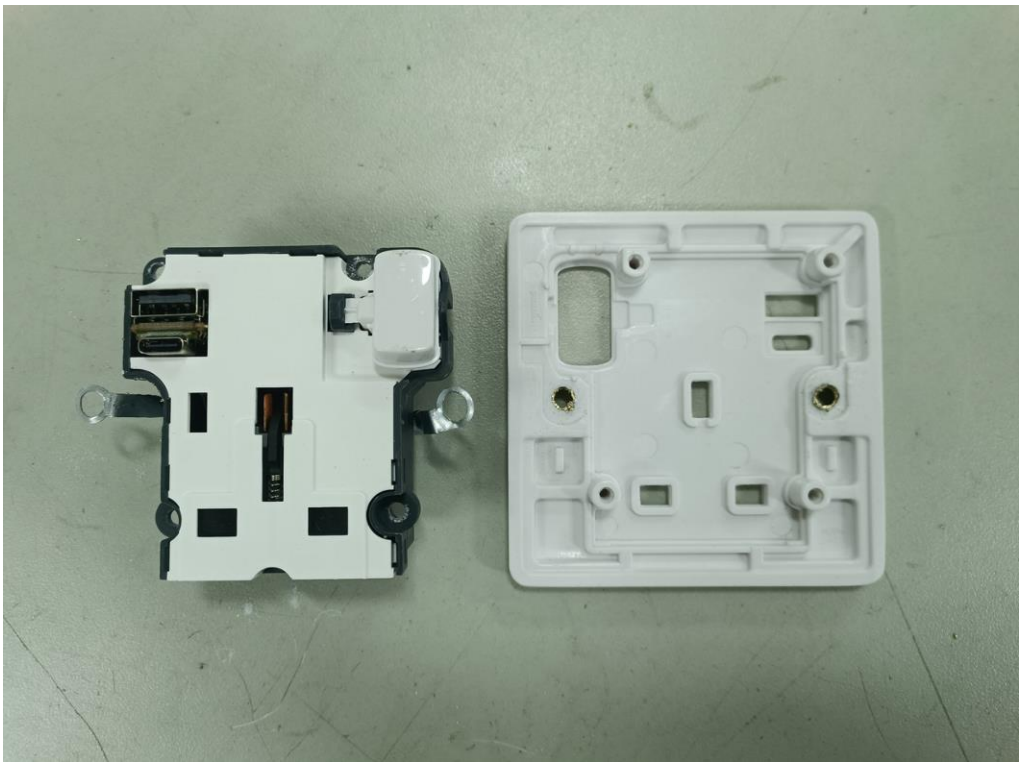


282338

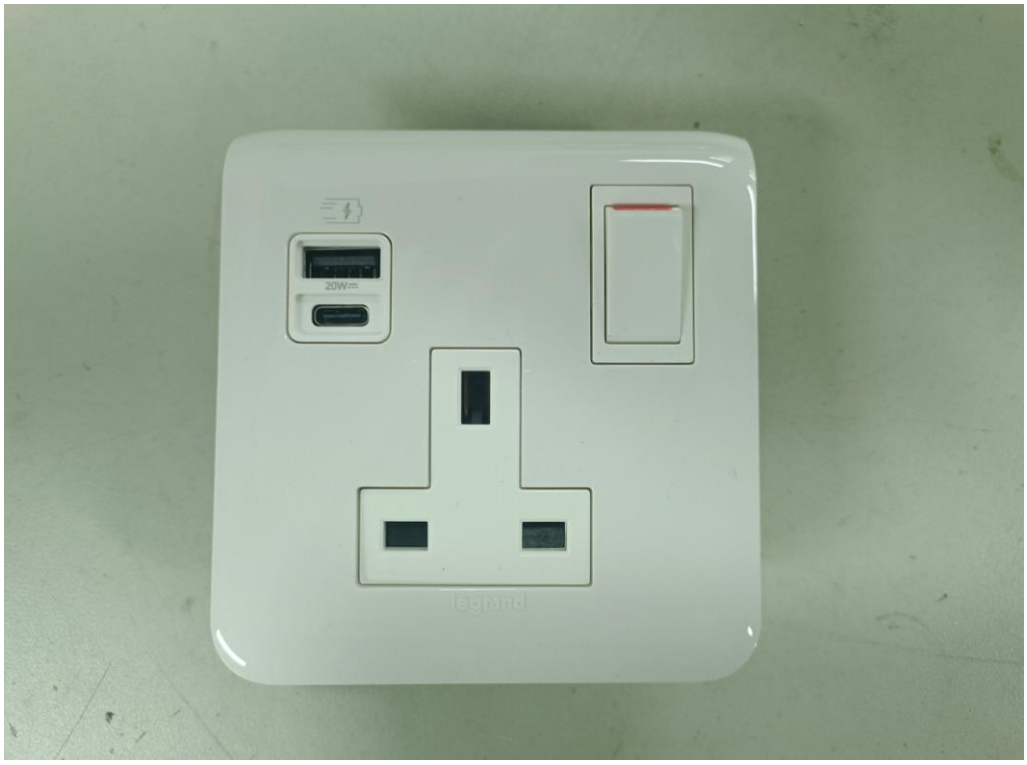
730063



730063

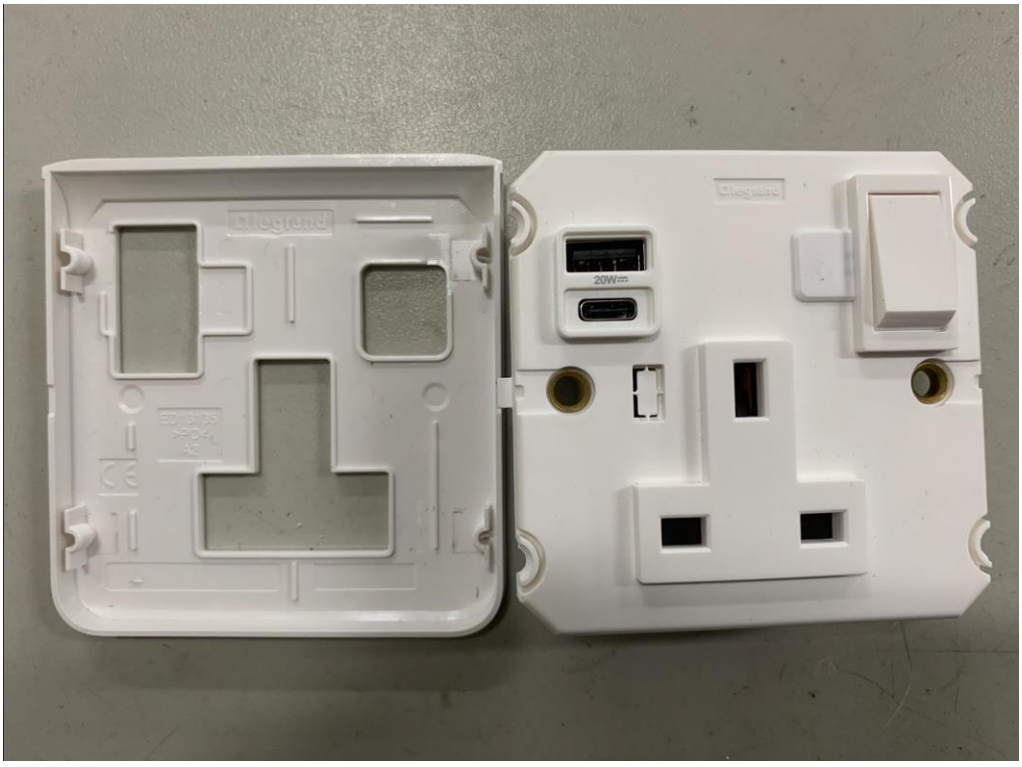


730063

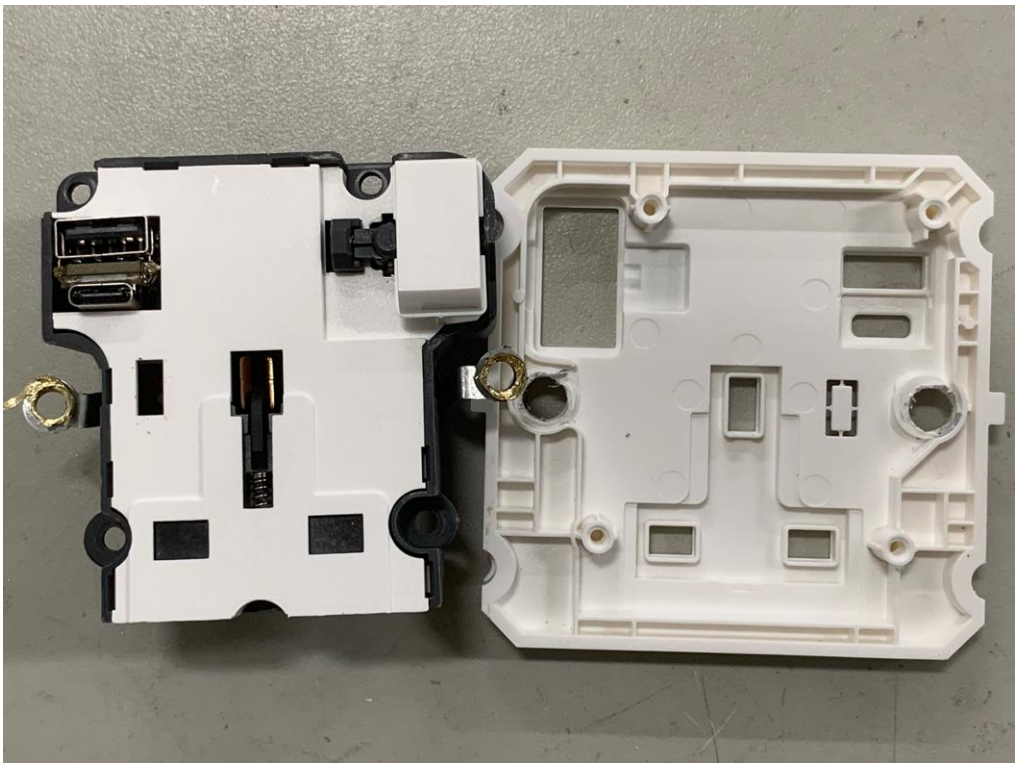


077666L

077666L



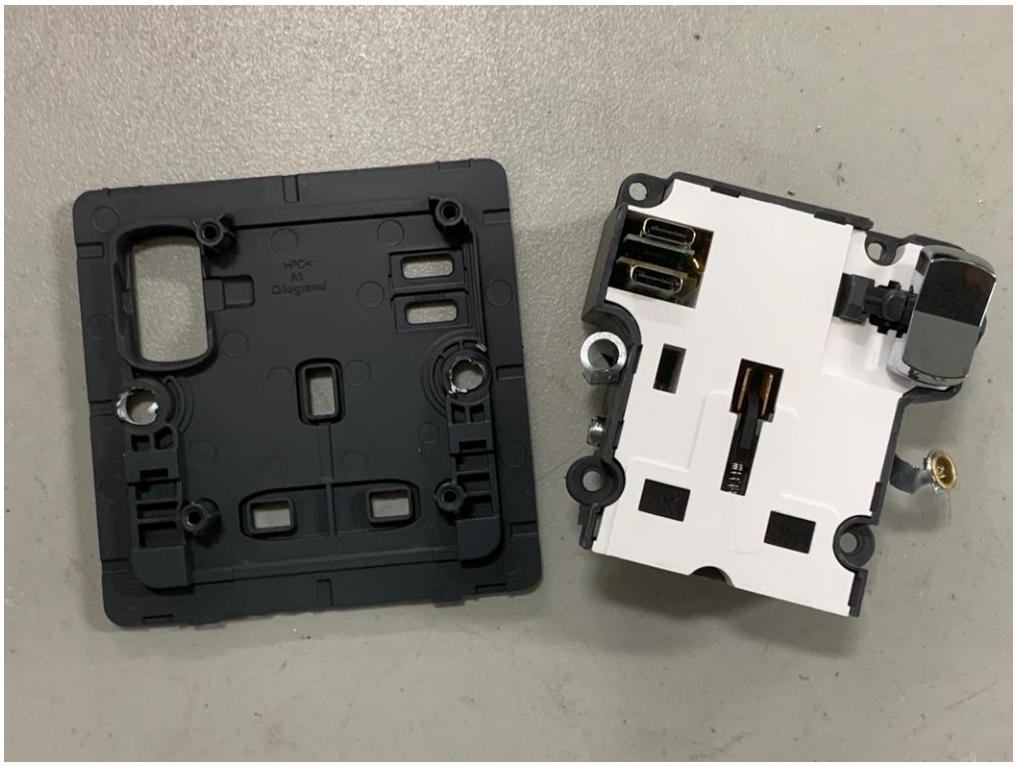
077666L



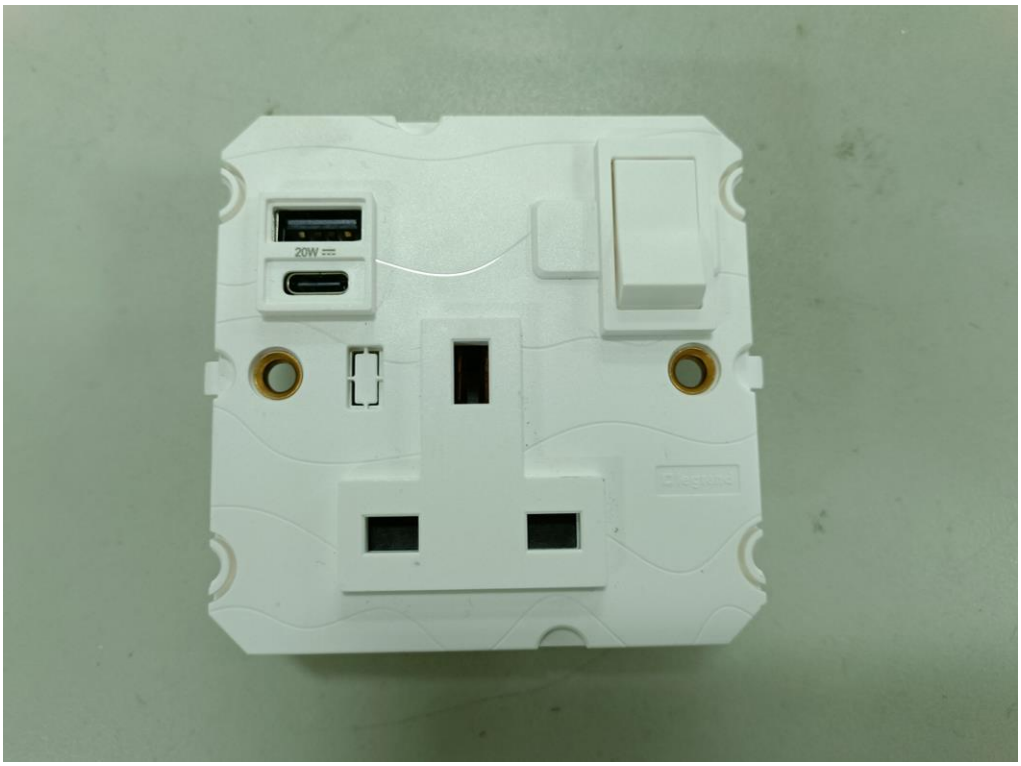
077666L

AR68171

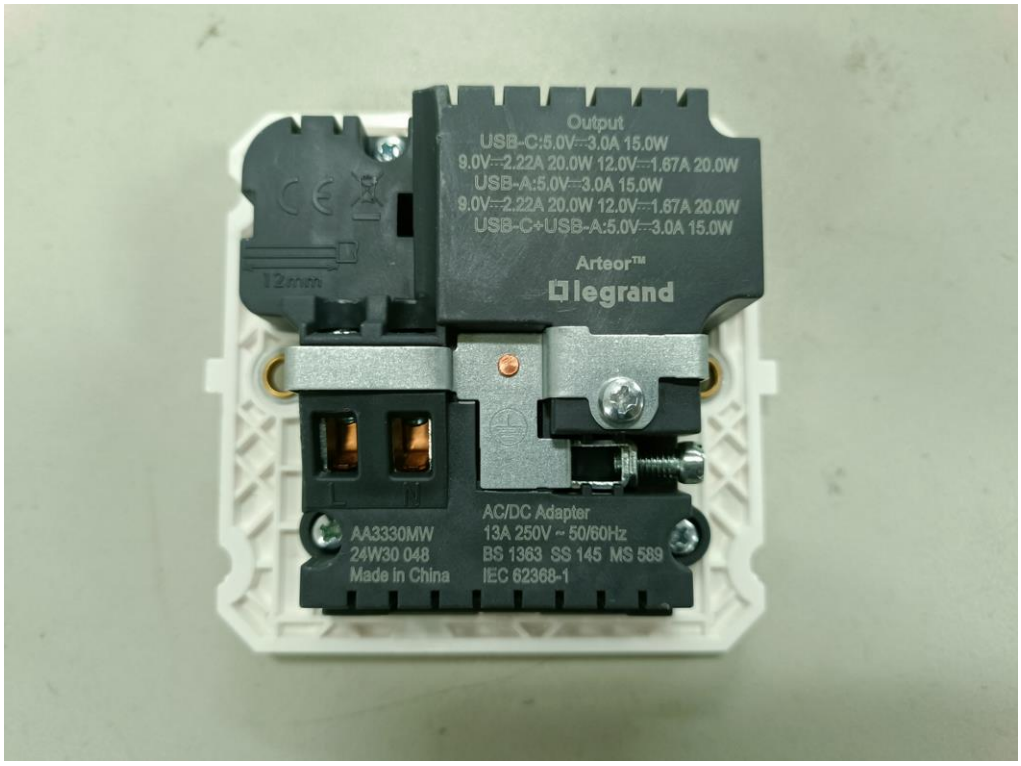
AR68171



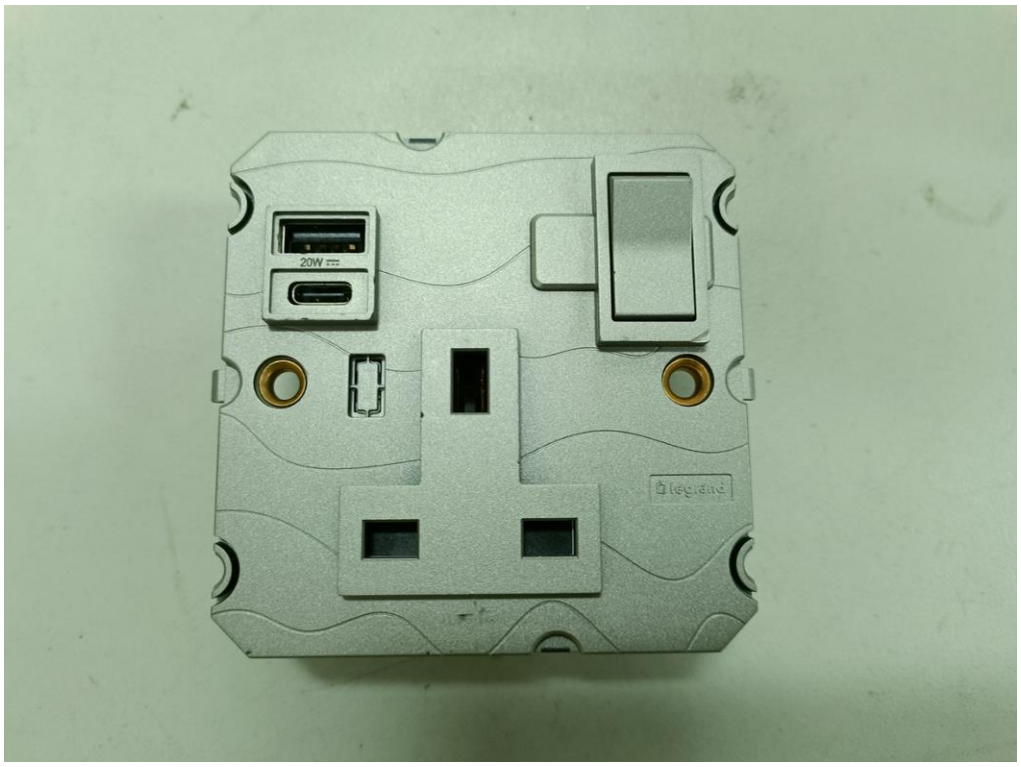
AR68171



AA3330MW



AA3330MW



AA3330MT

AA3330MT

AA3330MB

AA3330MB

AA3331MT

AA3331MT

AA3331MB

AA3331MB

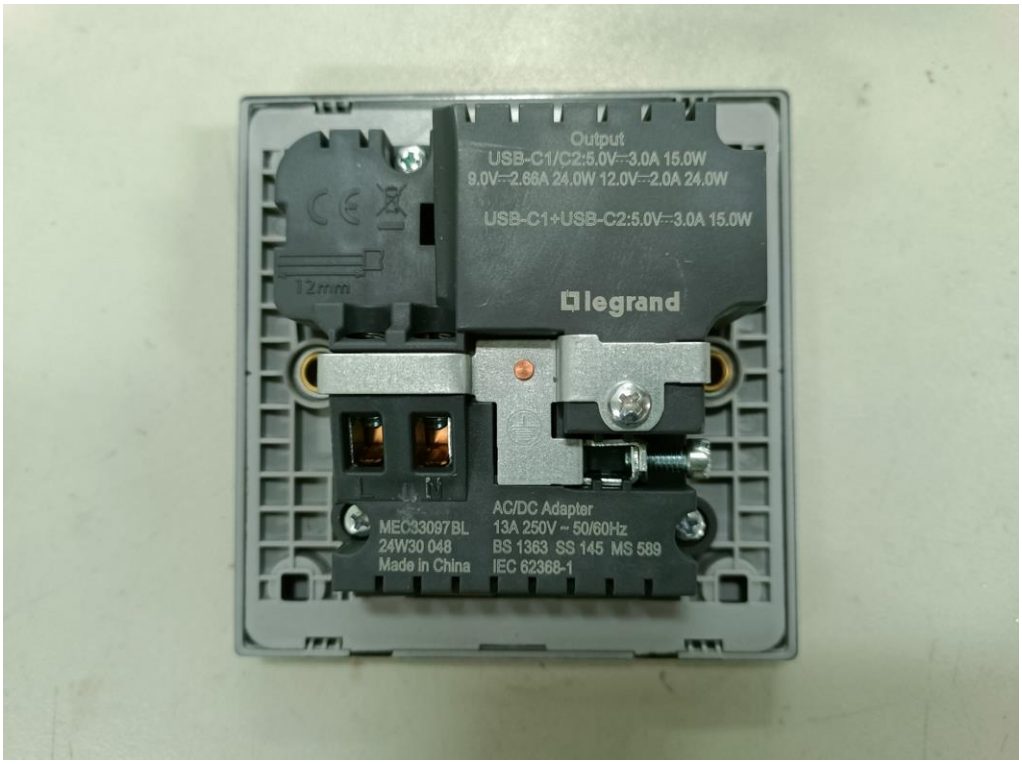
MEC33097SL

MEC33097SL

MEC33097CH

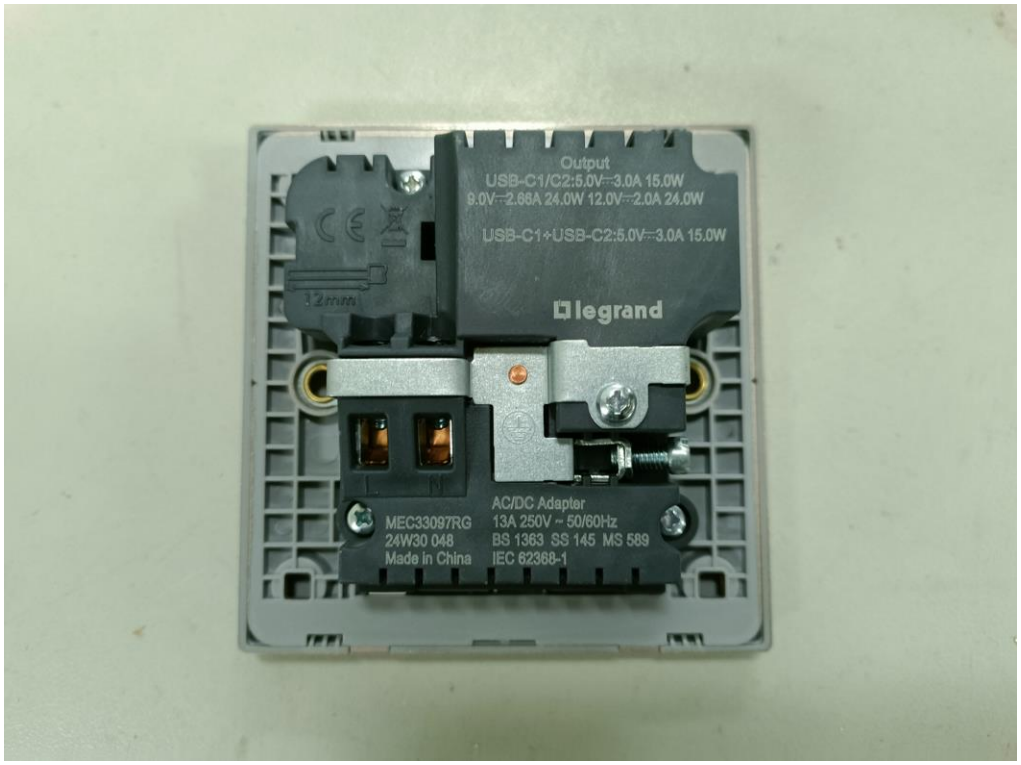
MEC33097CH

MEC33097BL



MEC33097BL

MEC33097RG



MEC33097RG

MEC33086RG

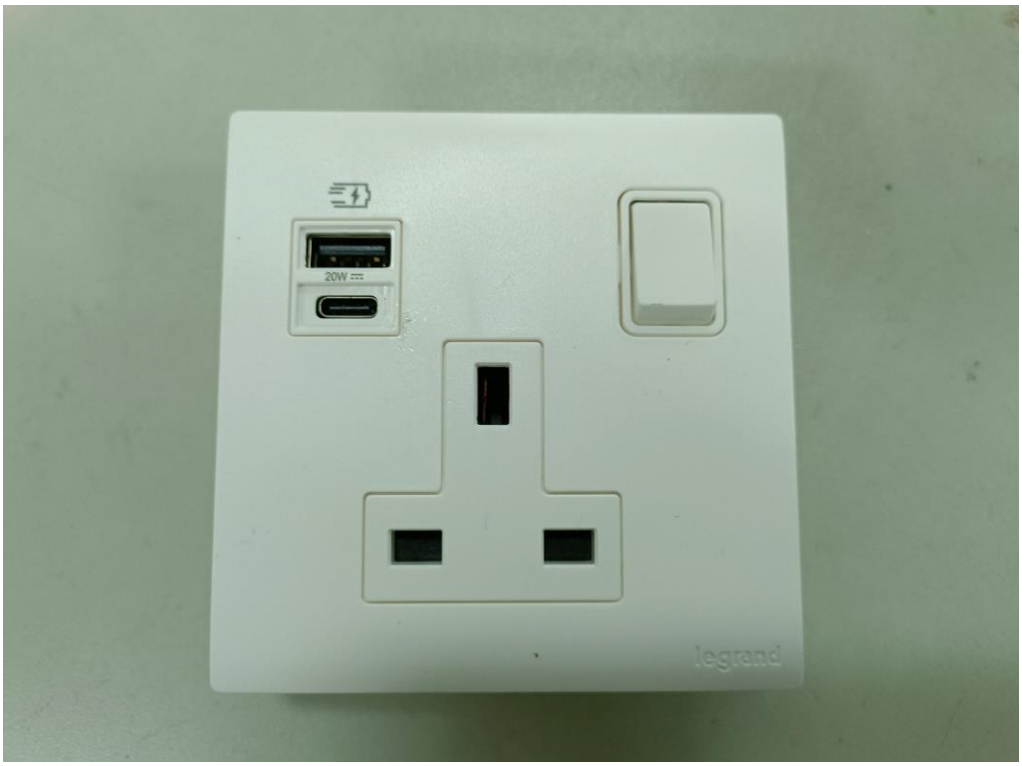
MEC33086RG

MEC33086CH

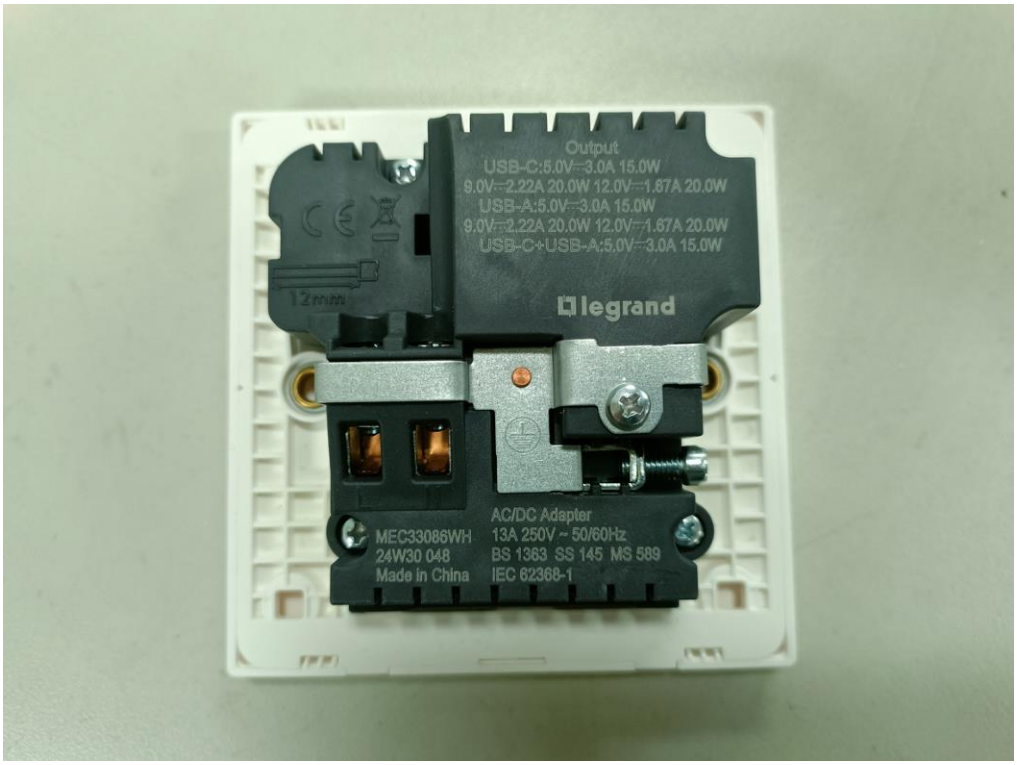
MEC33086CH

MEC33086SL

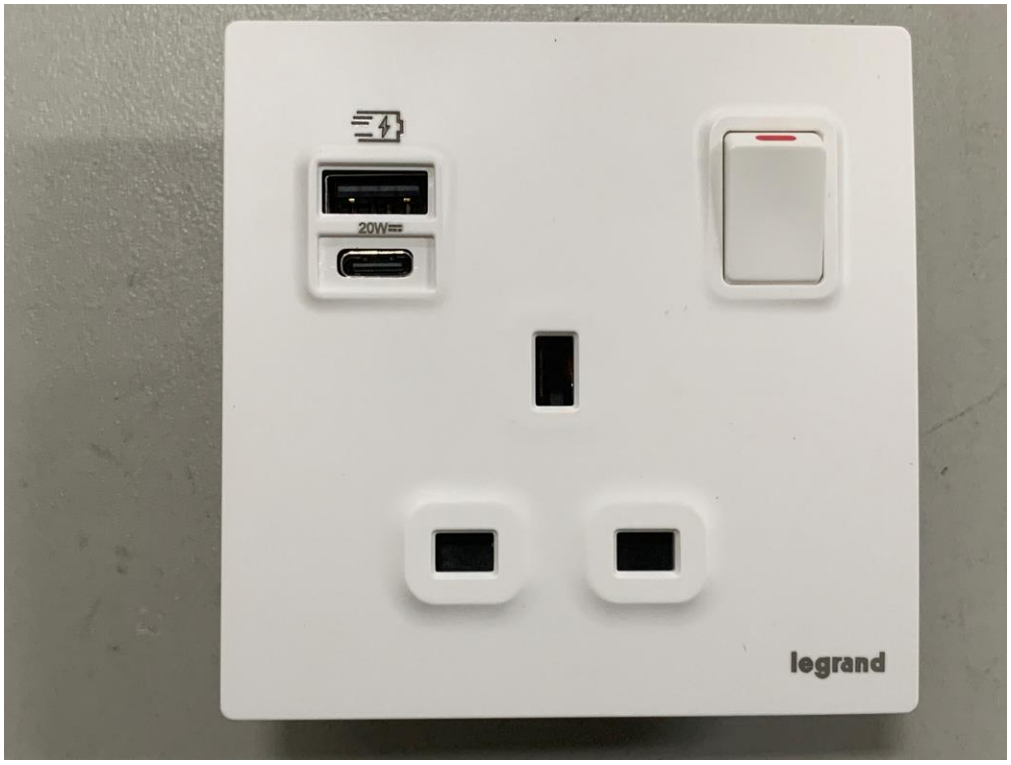
MEC33086SL



MEC33086WH



MEC33086WH



281172MW

281172MW

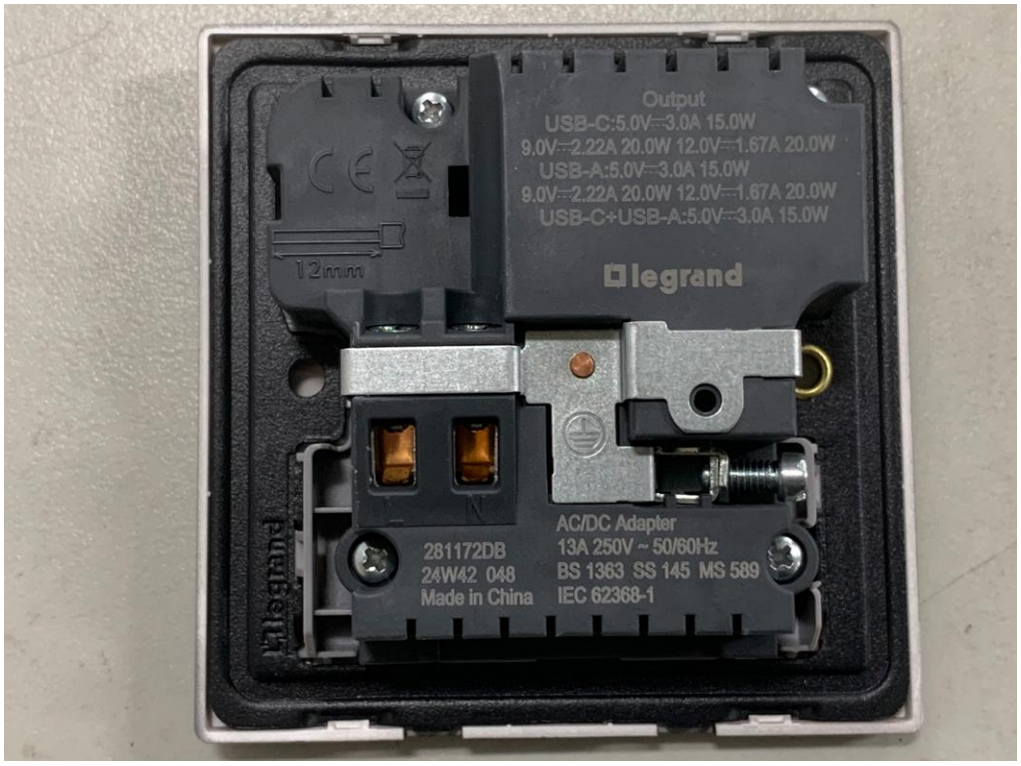
281172MB

281172MB

281172DS

281172DS

281172DB



281172DB

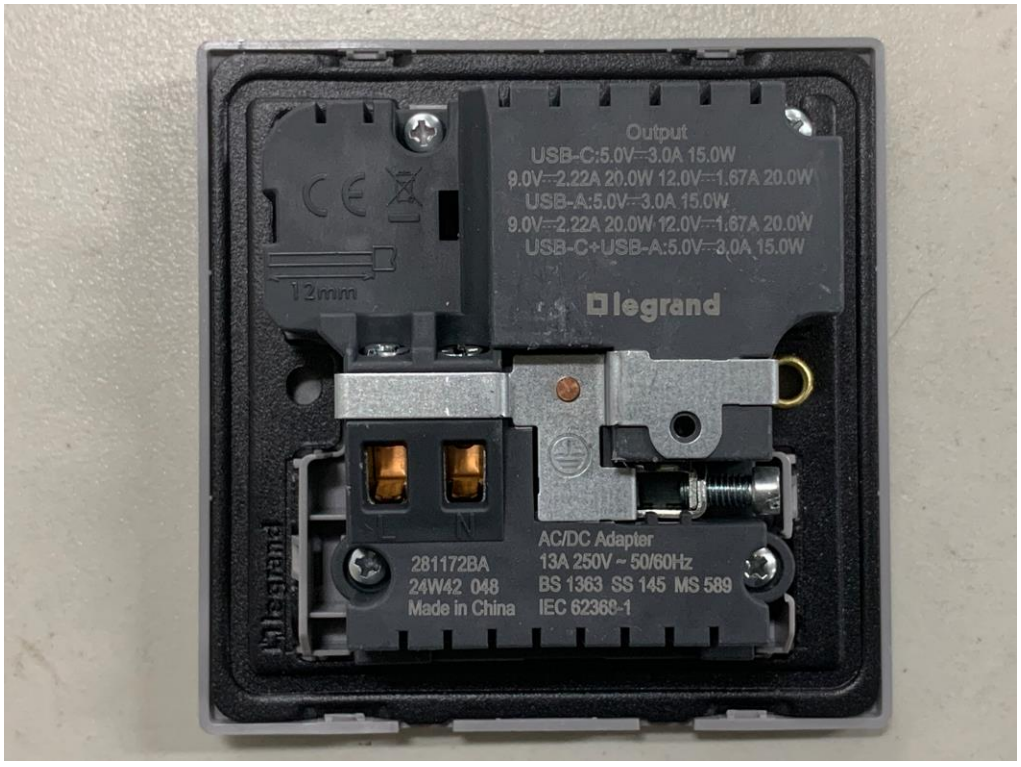
281172CH

281172CH

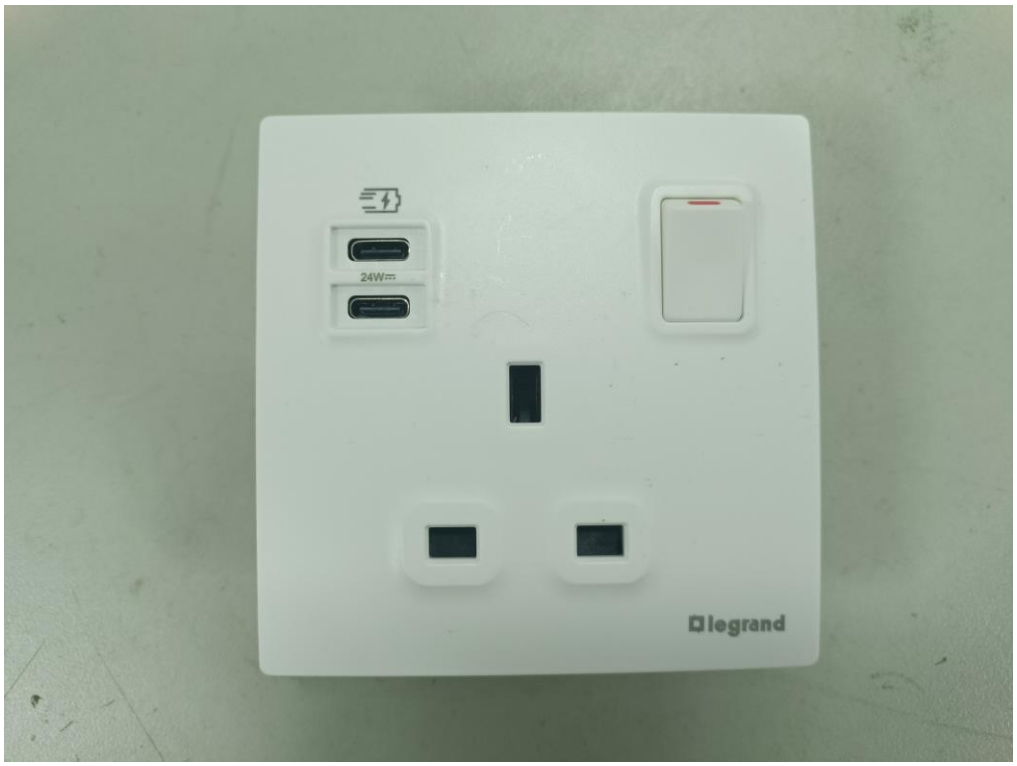
281172BB

281172BB

281172BA



281172BA

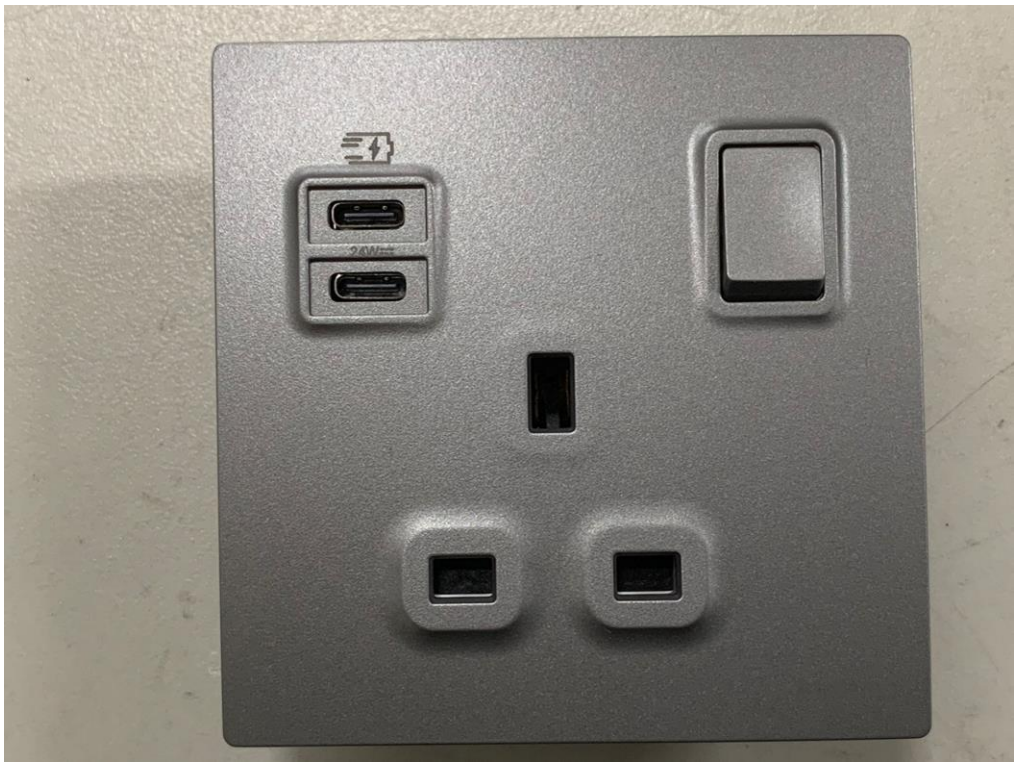


281173MW

281173MW

281173MB

281173MB



281173DS

281173DS

281173DB

281173DB

281173CH

281173CH

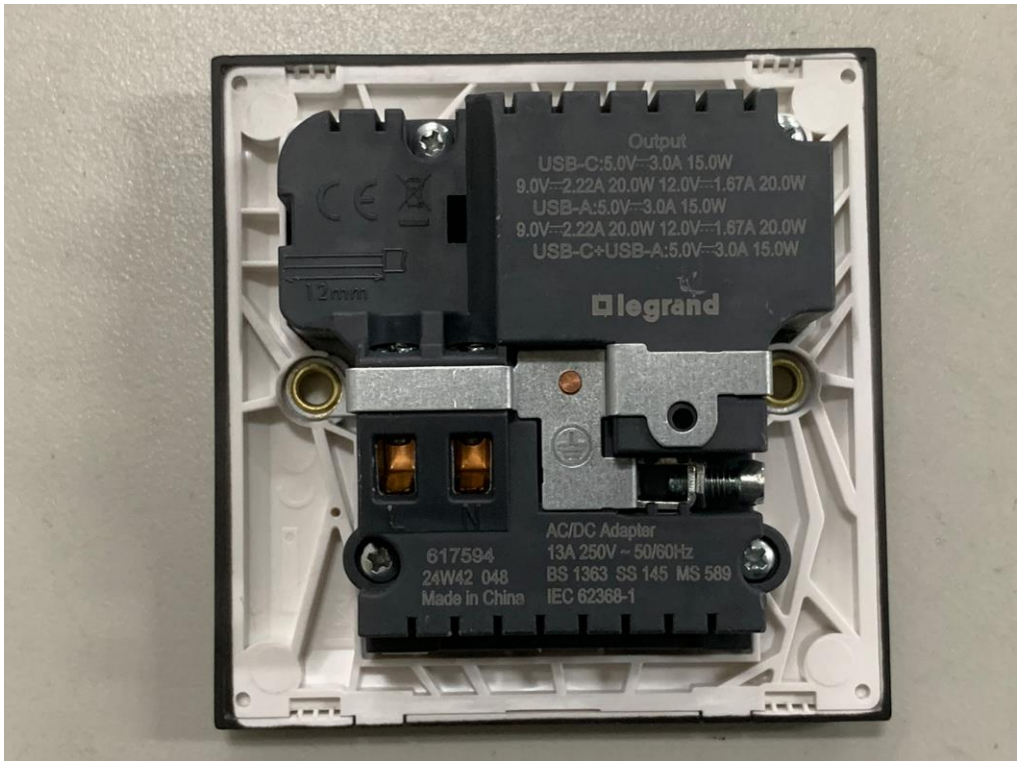
281173BB

281173BB

281173BA

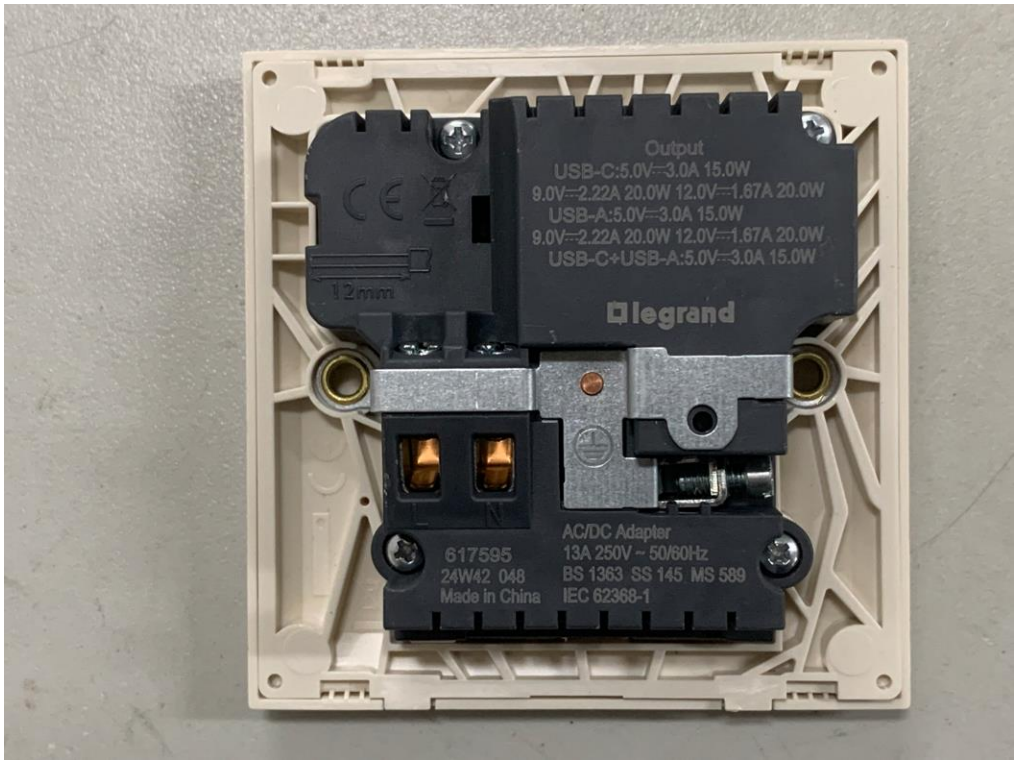
281173BA

617594

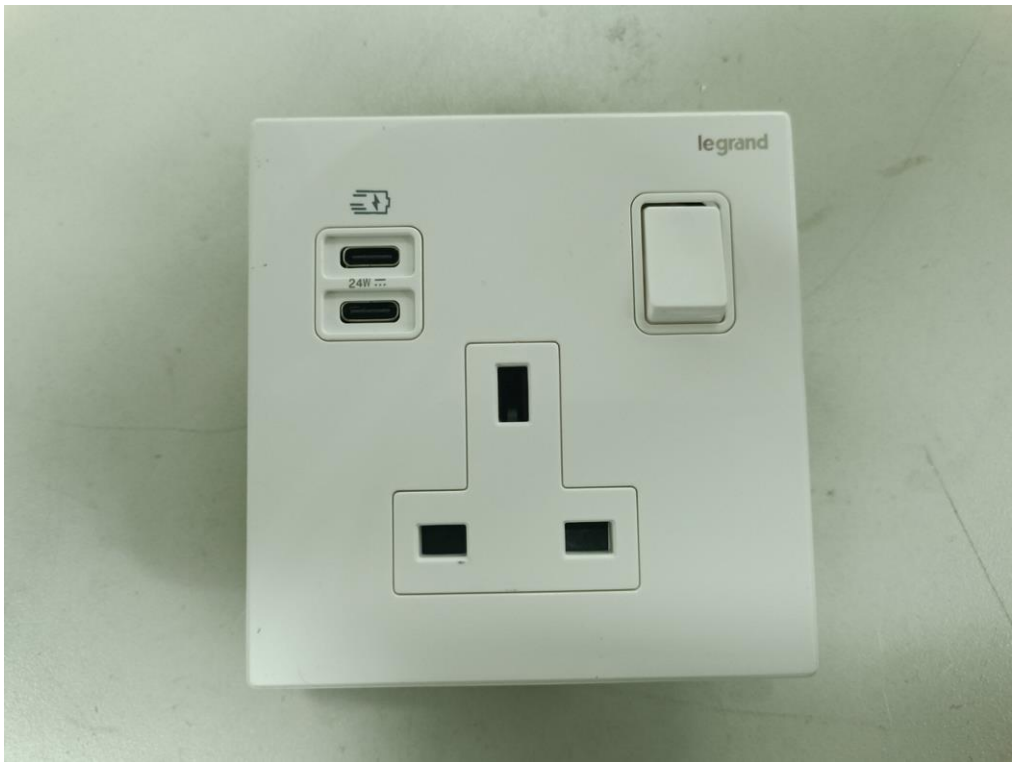


617594

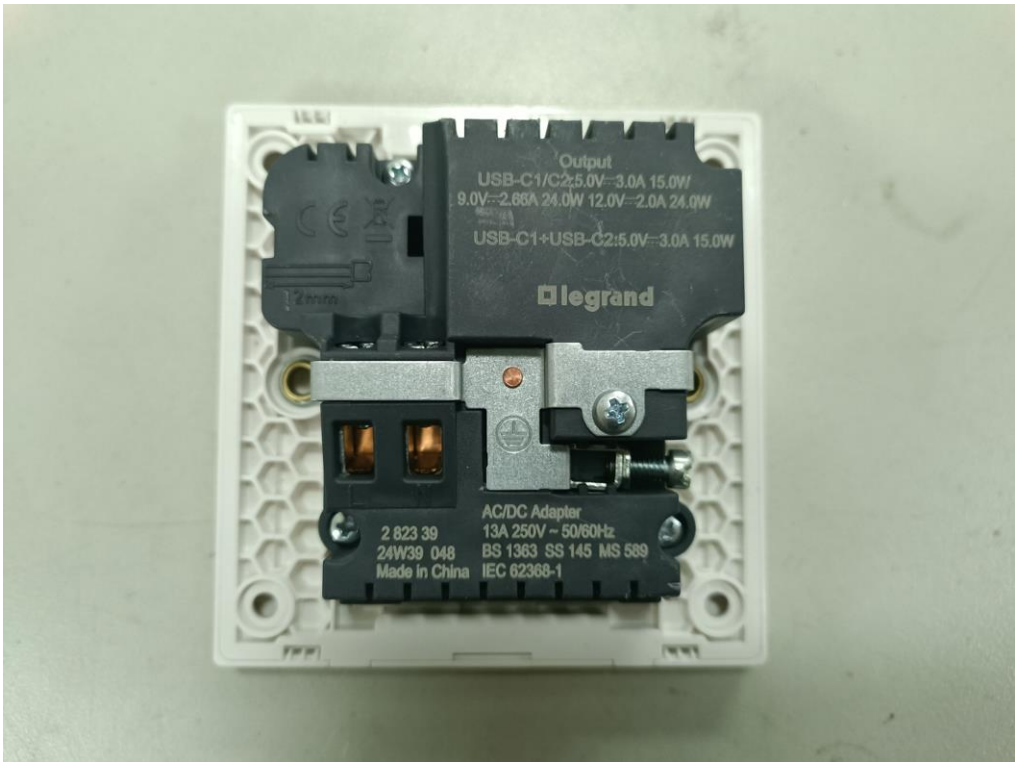
617595



617595

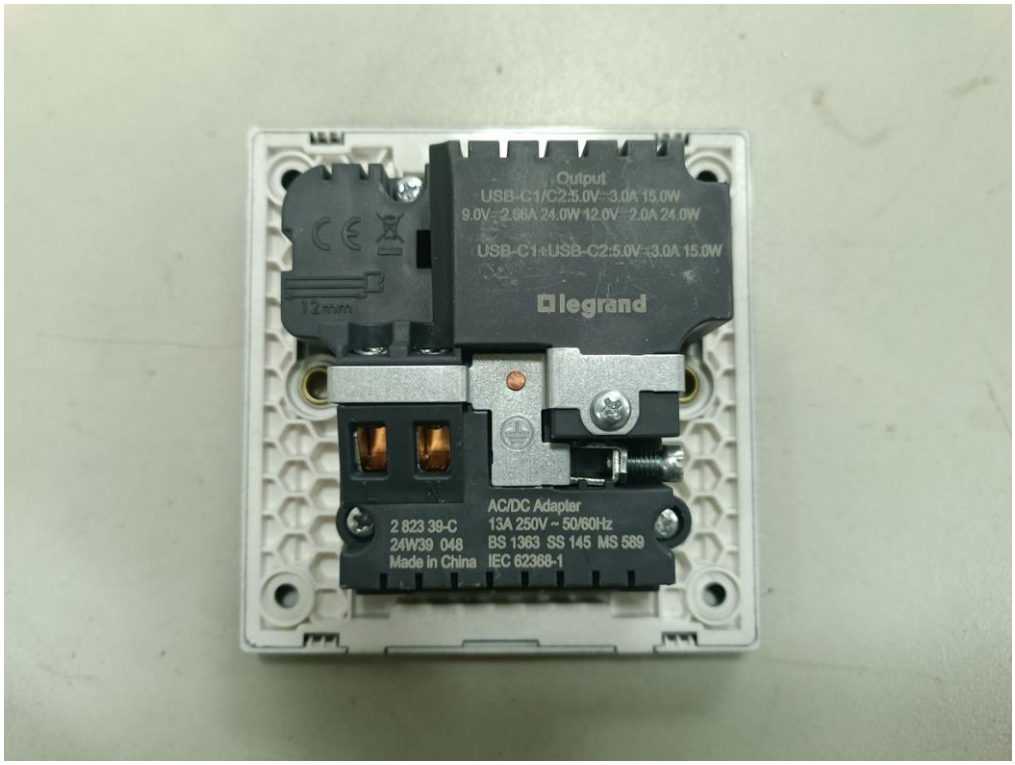


282339



282339

282339-C



282339-C

282339-C1

282339-C1

282339-C2

282339-C2

282339-C3

282339-C3

282338-C

282338-C

282338-C1

282338-C1

282338-C2

282338-C2

282338-C3

282338-C3

AR68137

AR68137

AR68237

AR68237

AR68271

AR68271

AR68337

AR68337

AR68371

AR68371

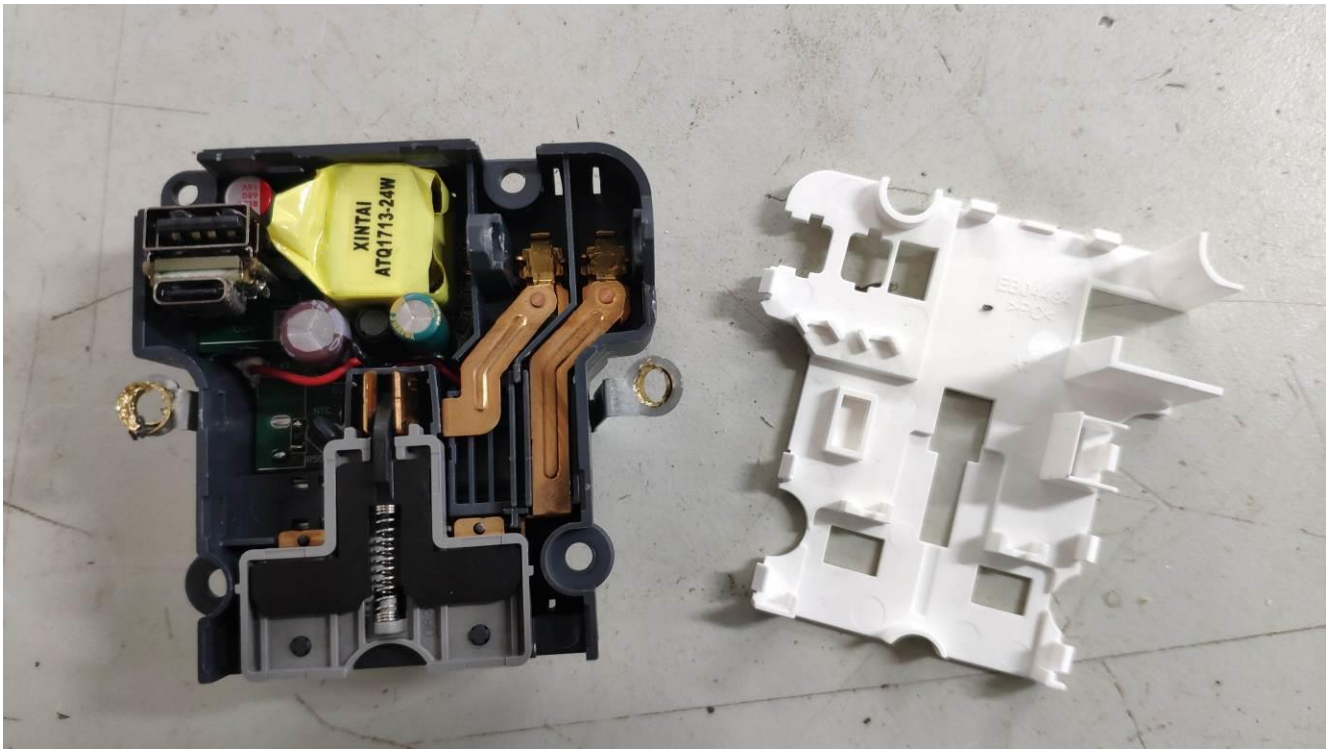
AR68437

AR68437

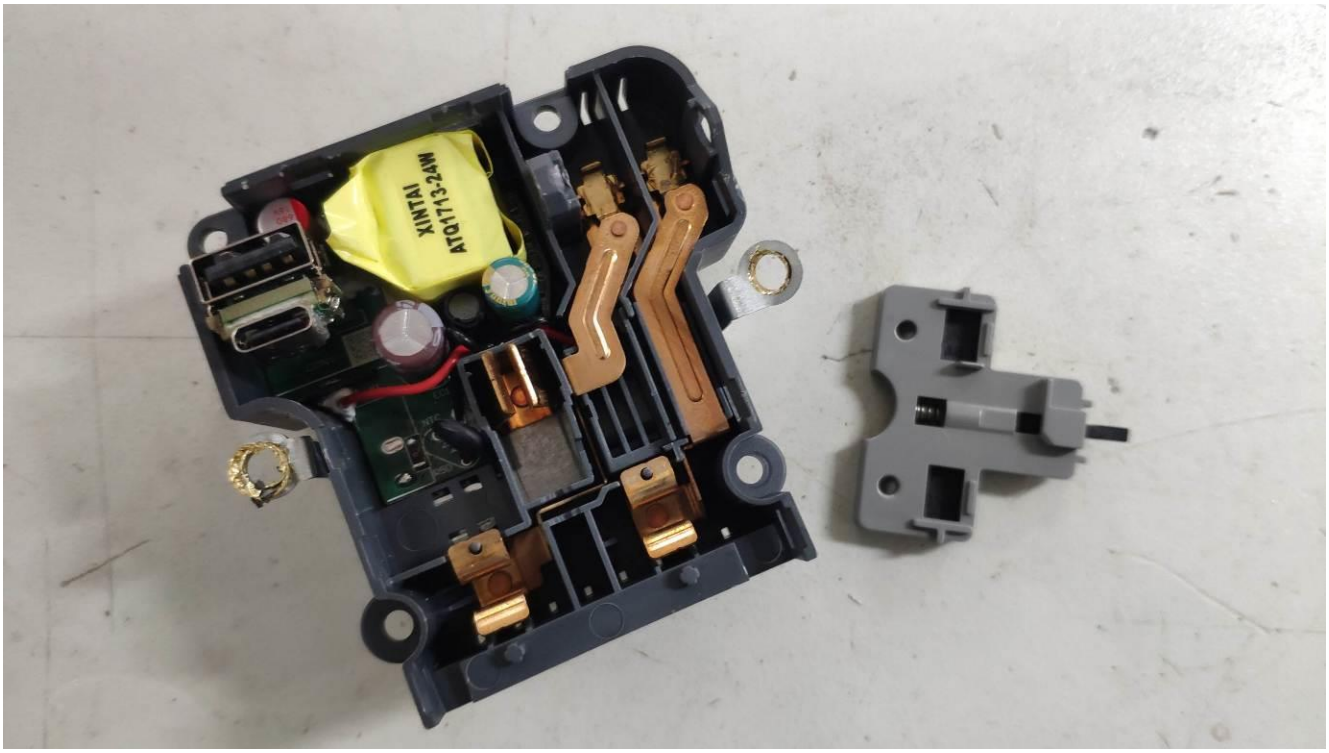
AR68471

AR68471

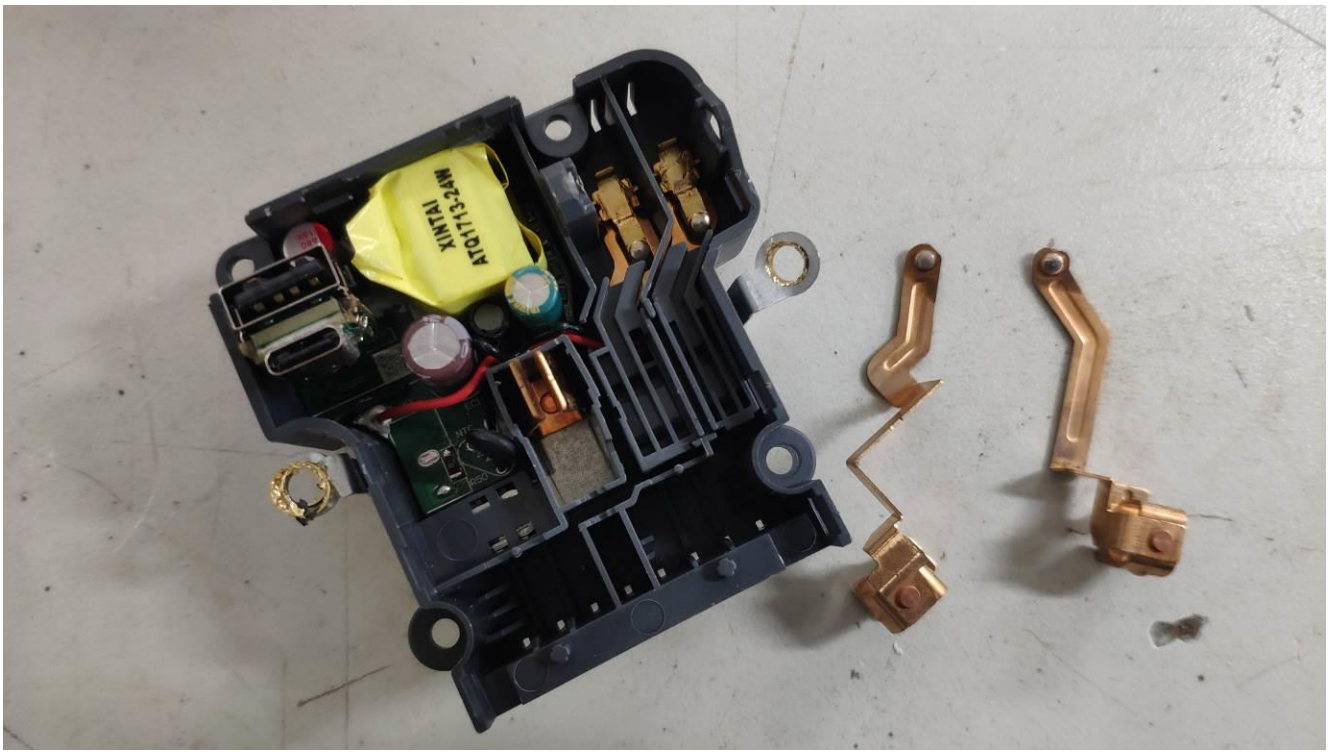
Pictures of main parts



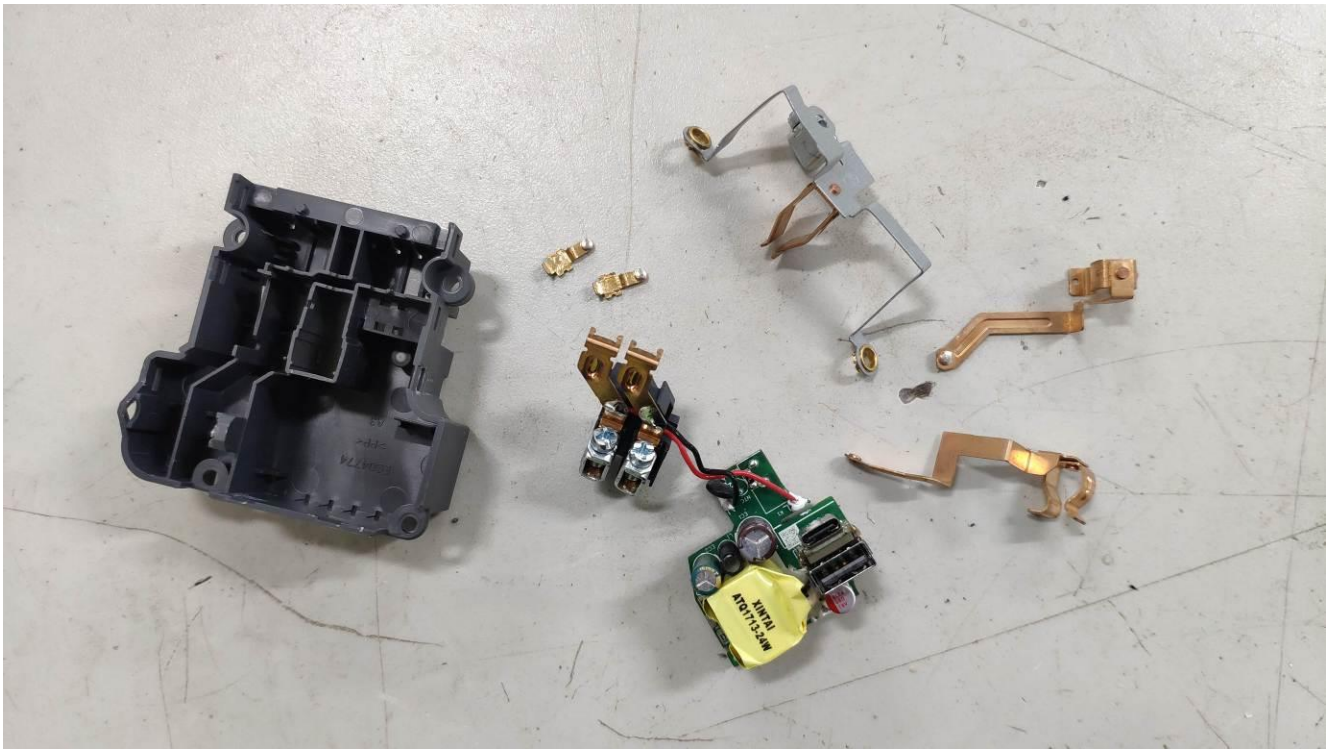
Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W



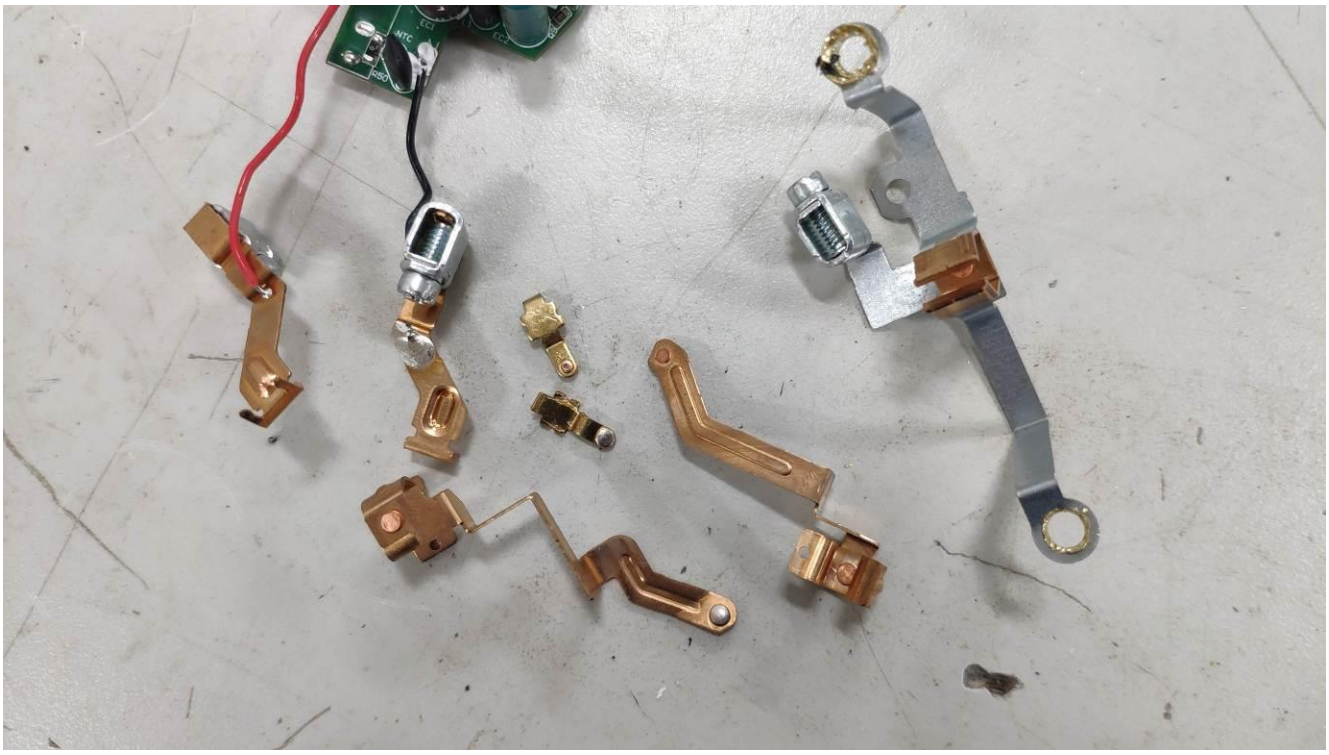
Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W



Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W

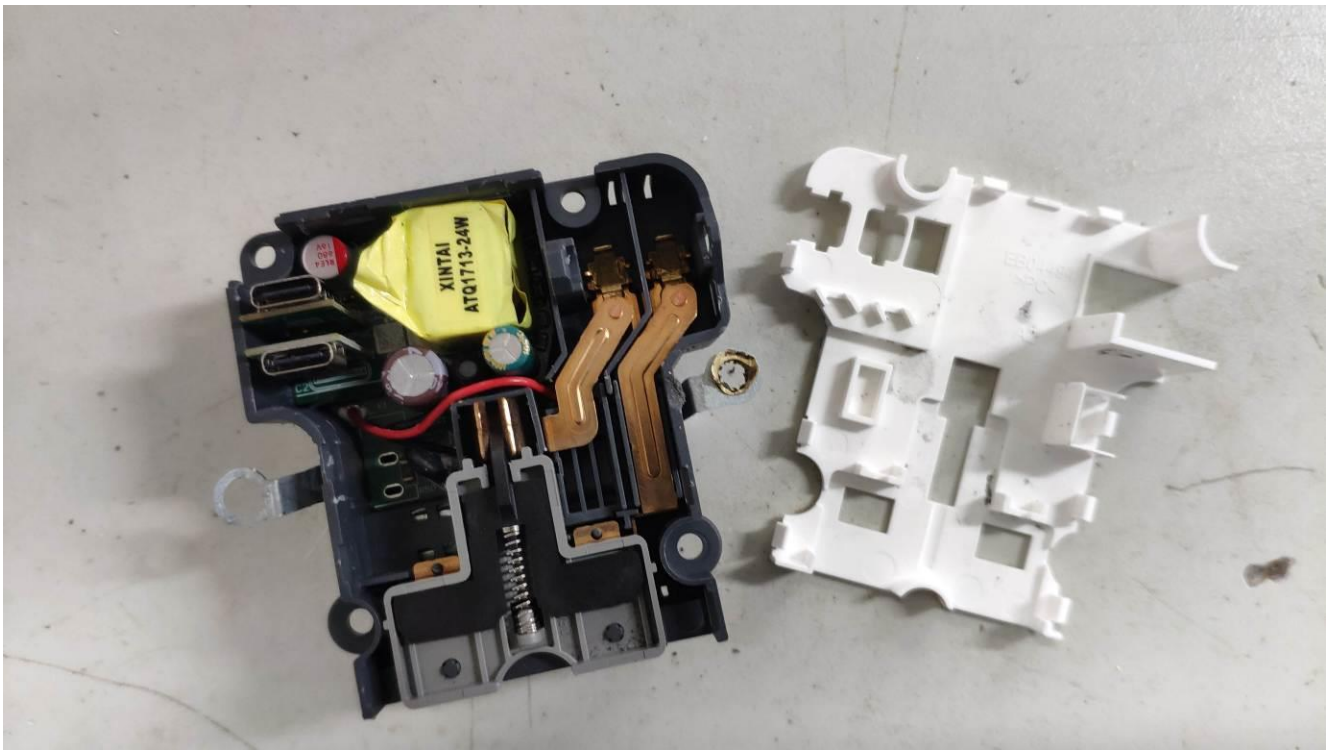


Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W

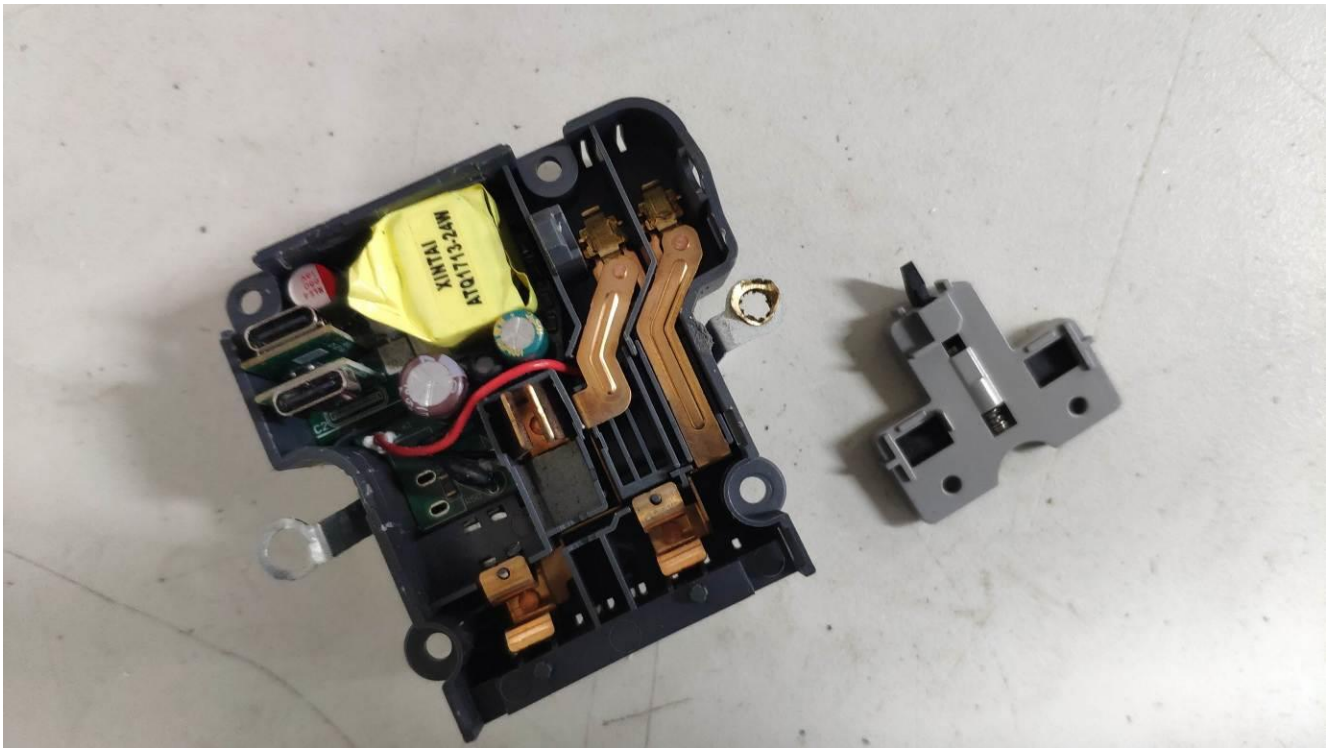


Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W

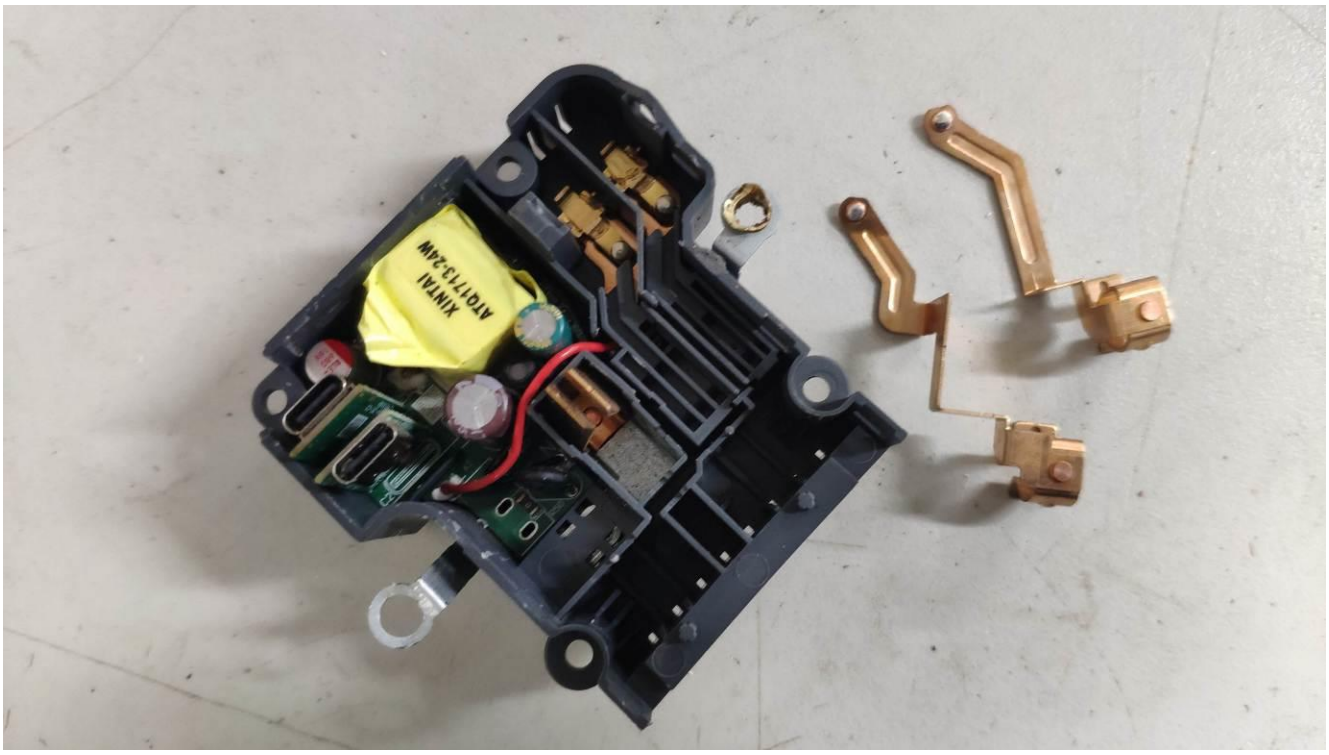
Main parts for DOUBLE POLE SWITCHED SOCKET USB A+C 20W



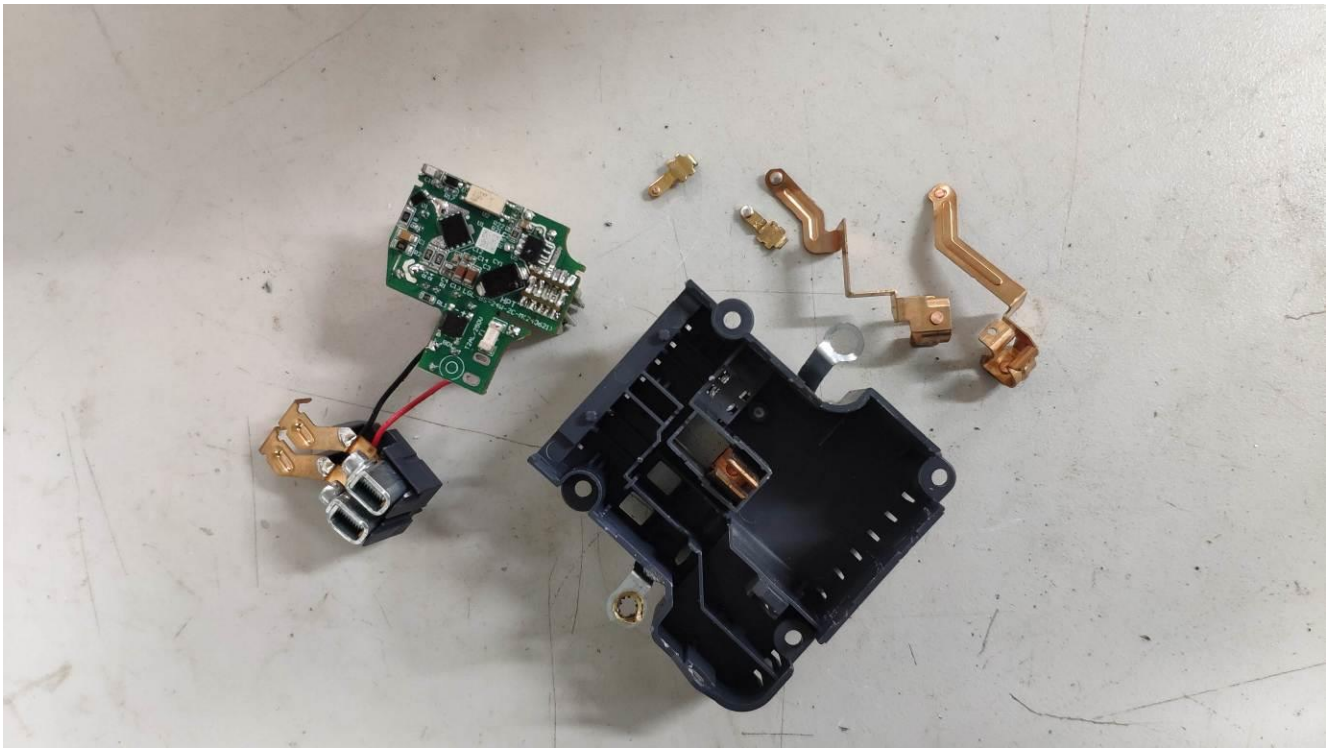
Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W



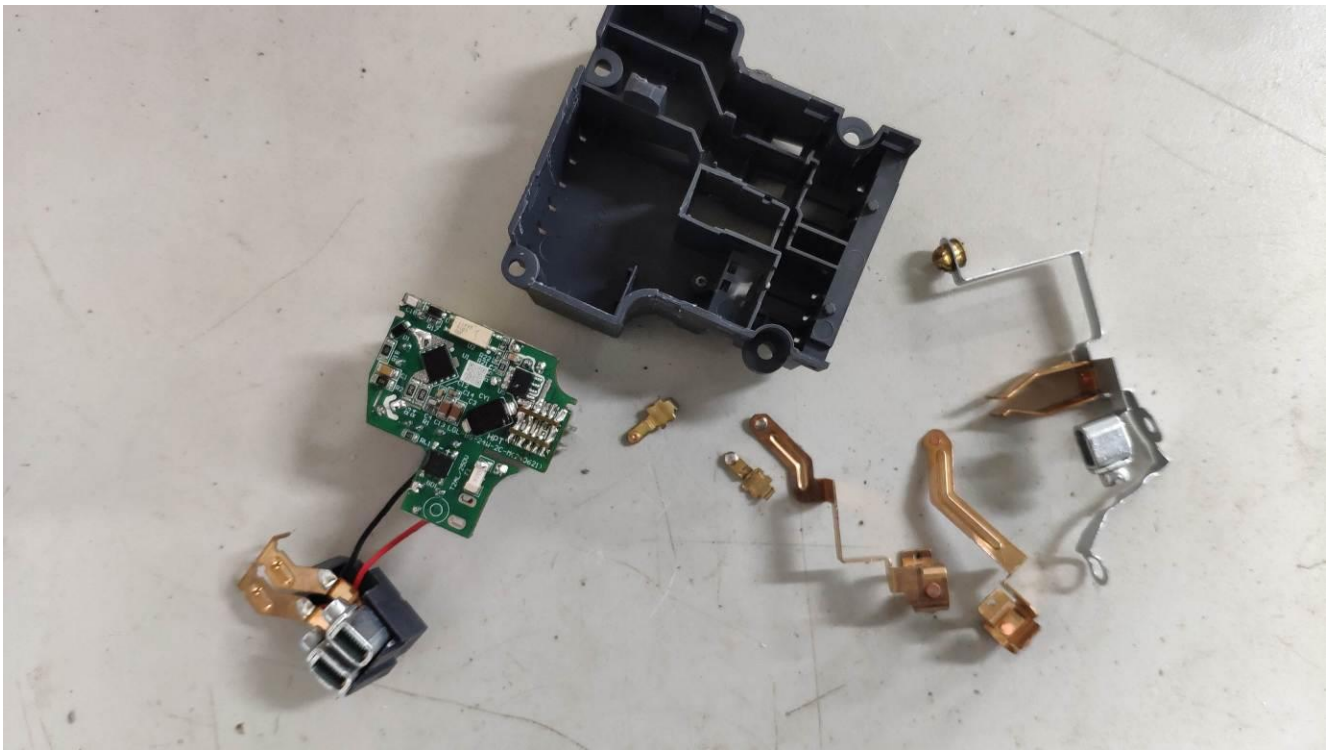
Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W



Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W

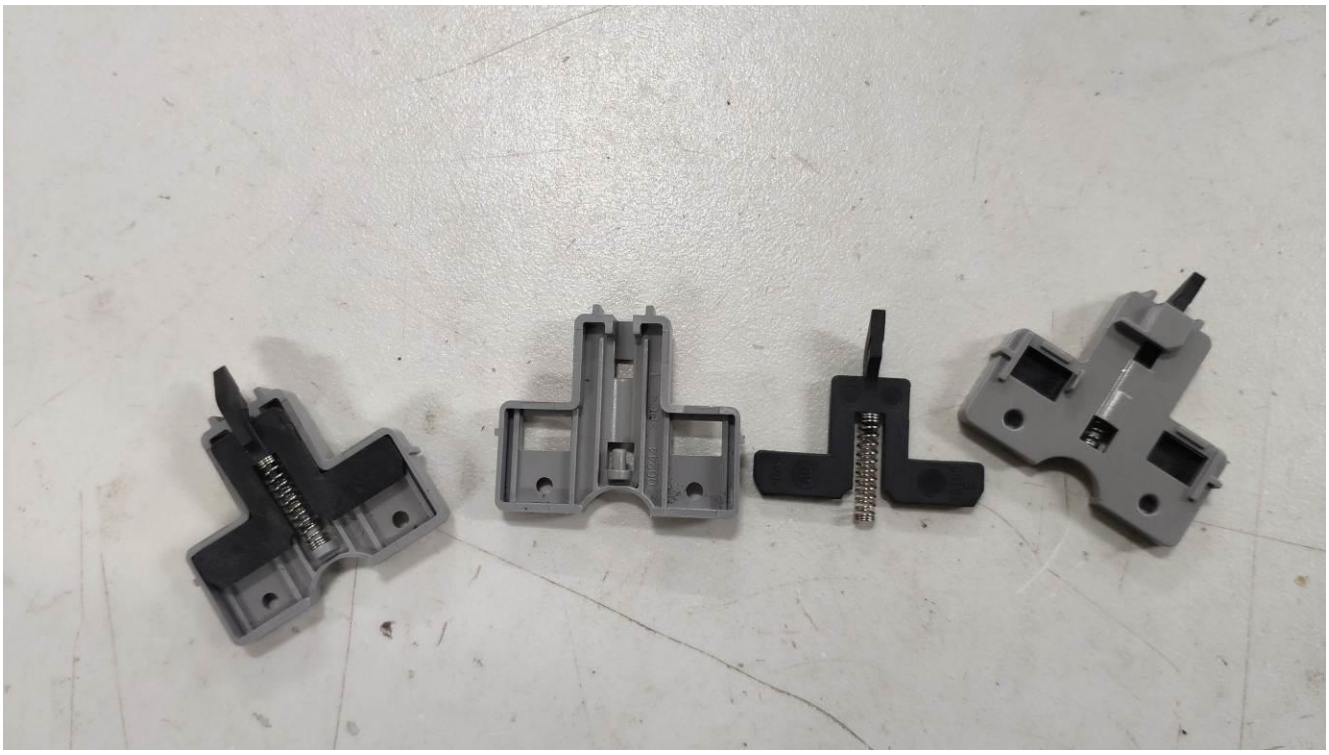


Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W

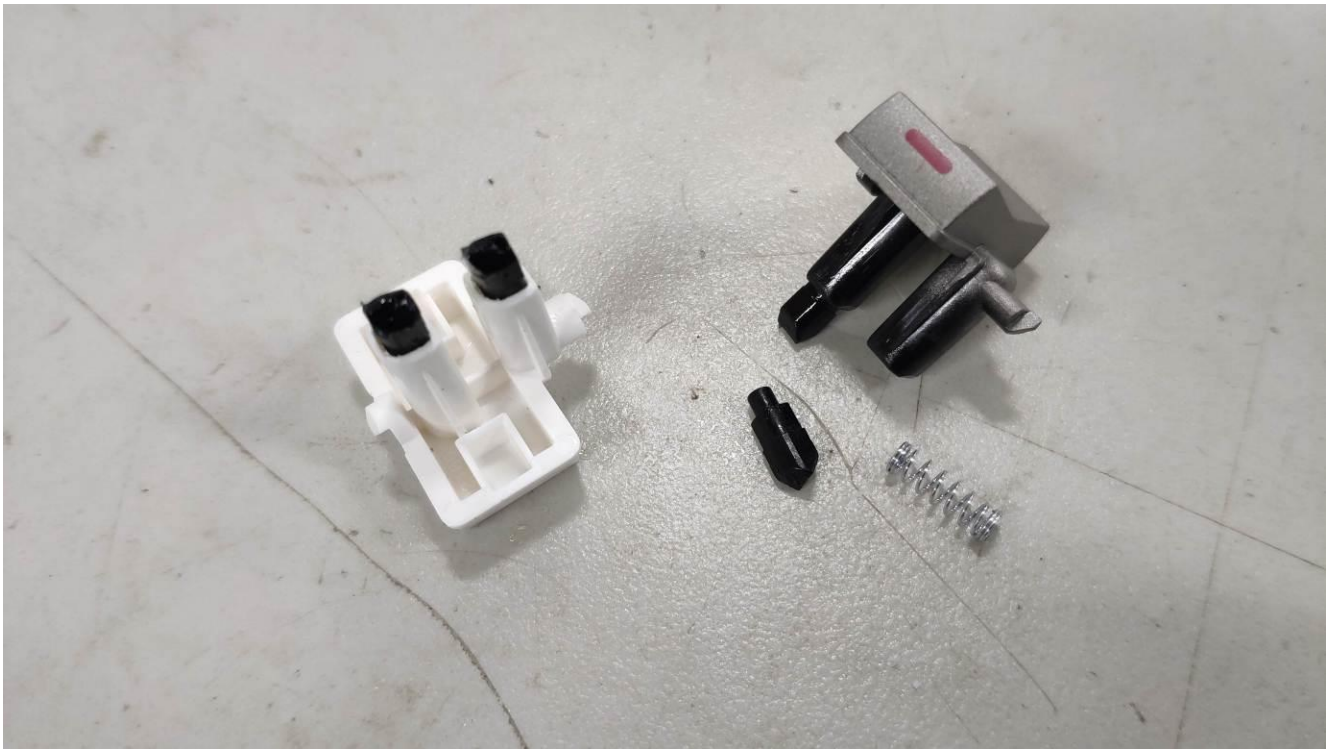


Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W

Main parts for DOUBLE POLE SWITCHED SOCKET USB C+C 24W

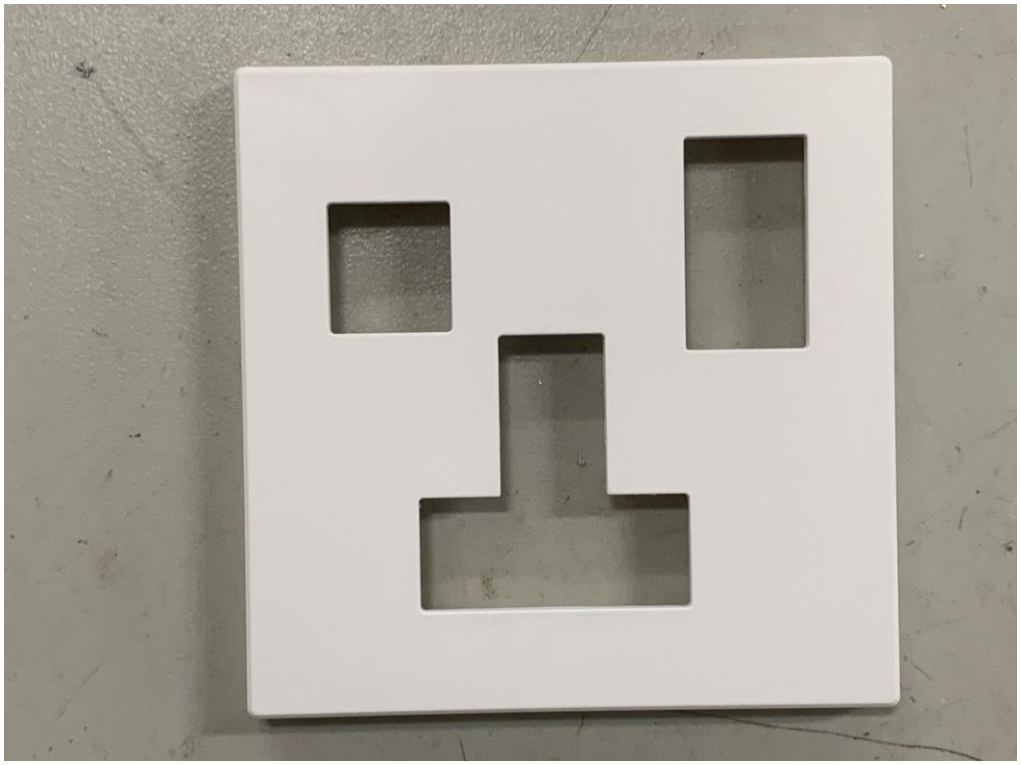


Shutters for all models

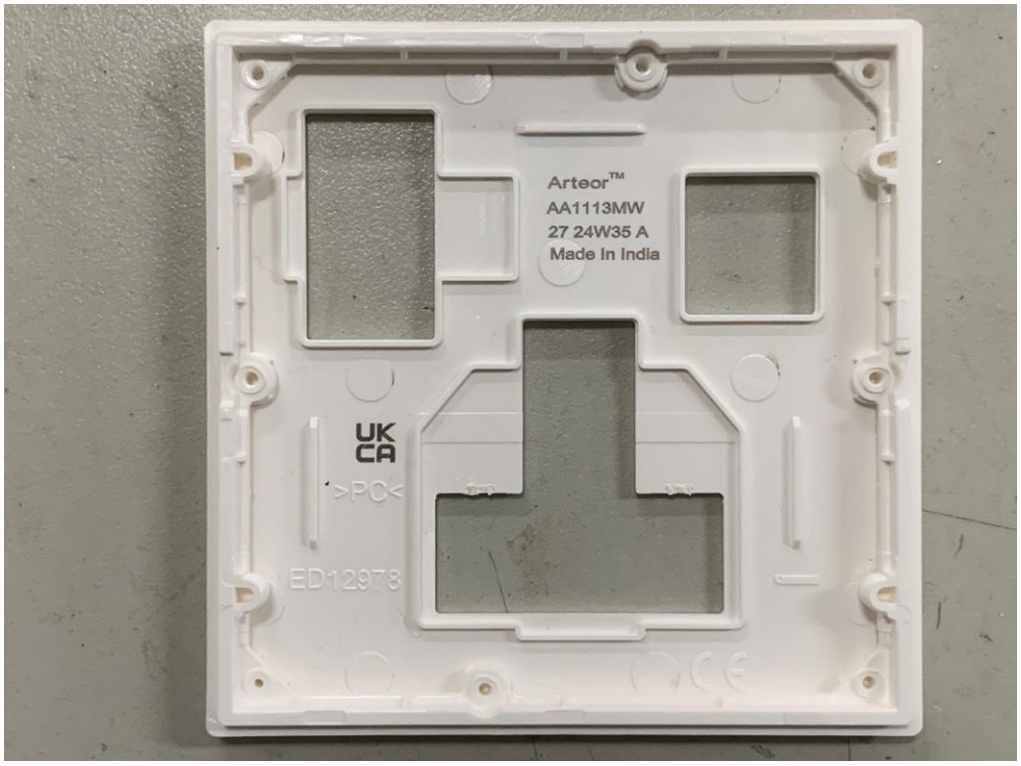


Rocker for double pole switched socket

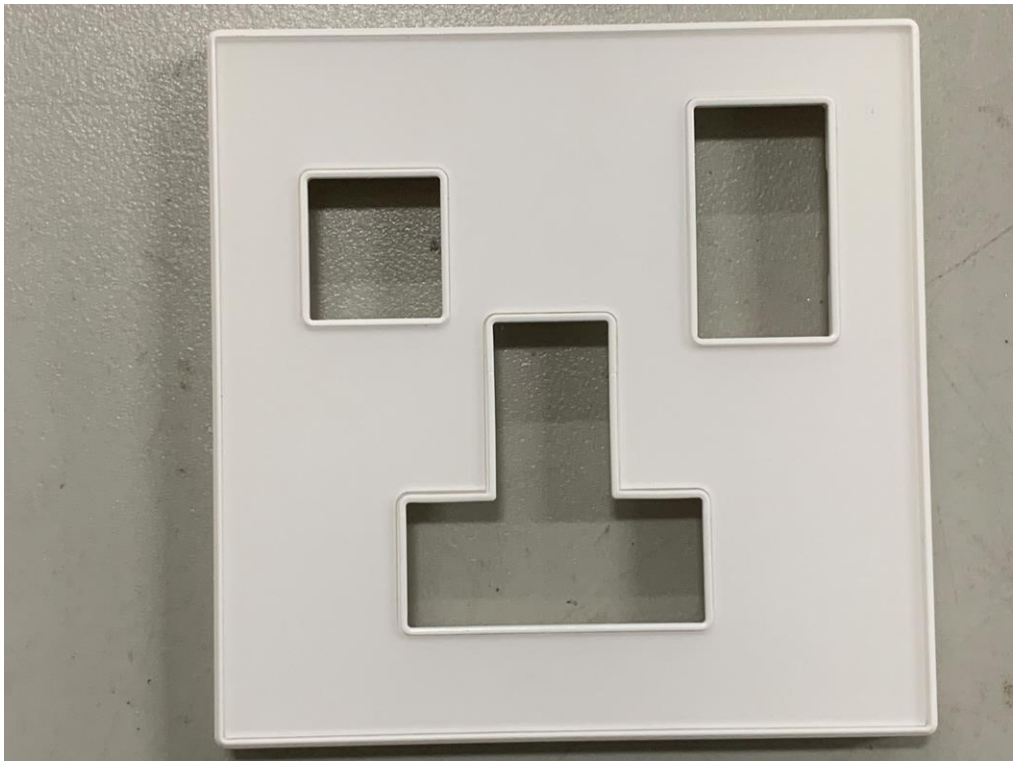
Pictures of cover plate



AA1113MW for AA33*** series

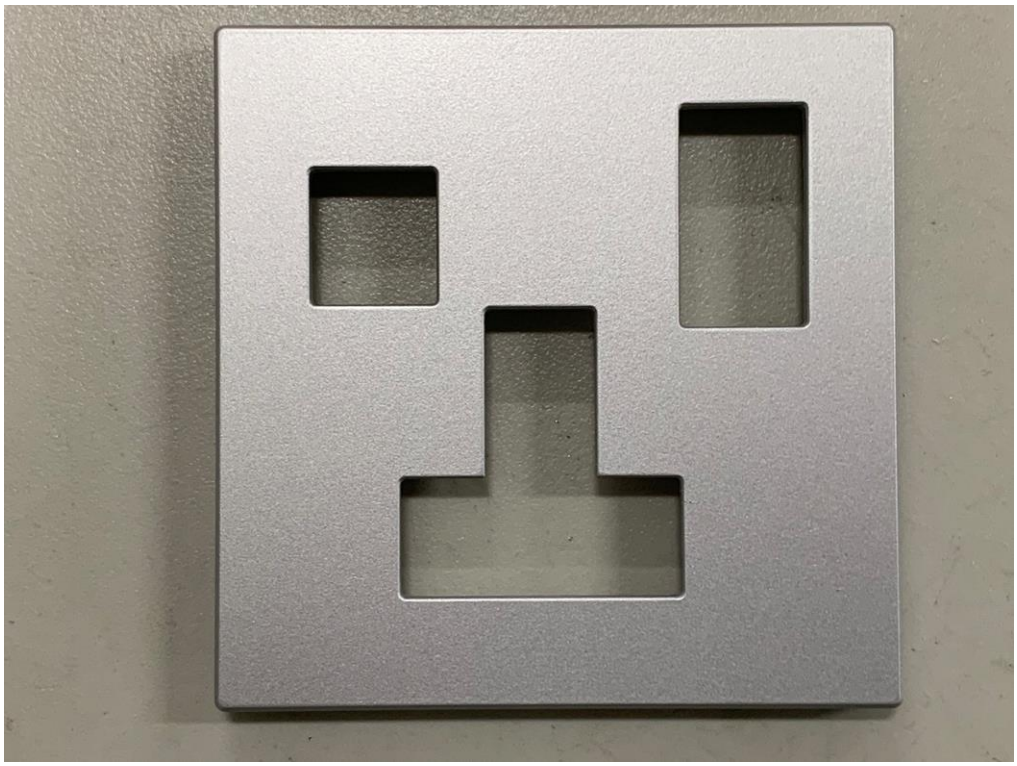


AA1113MW for AA33*** series

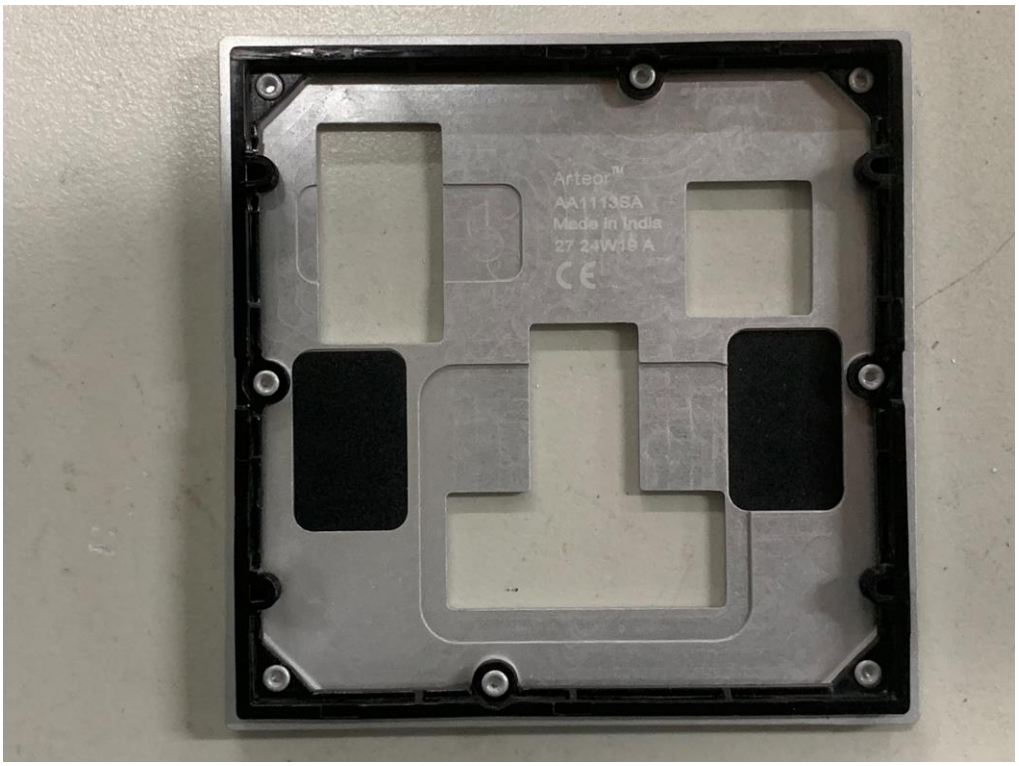


AA1113FW for AA33*** series

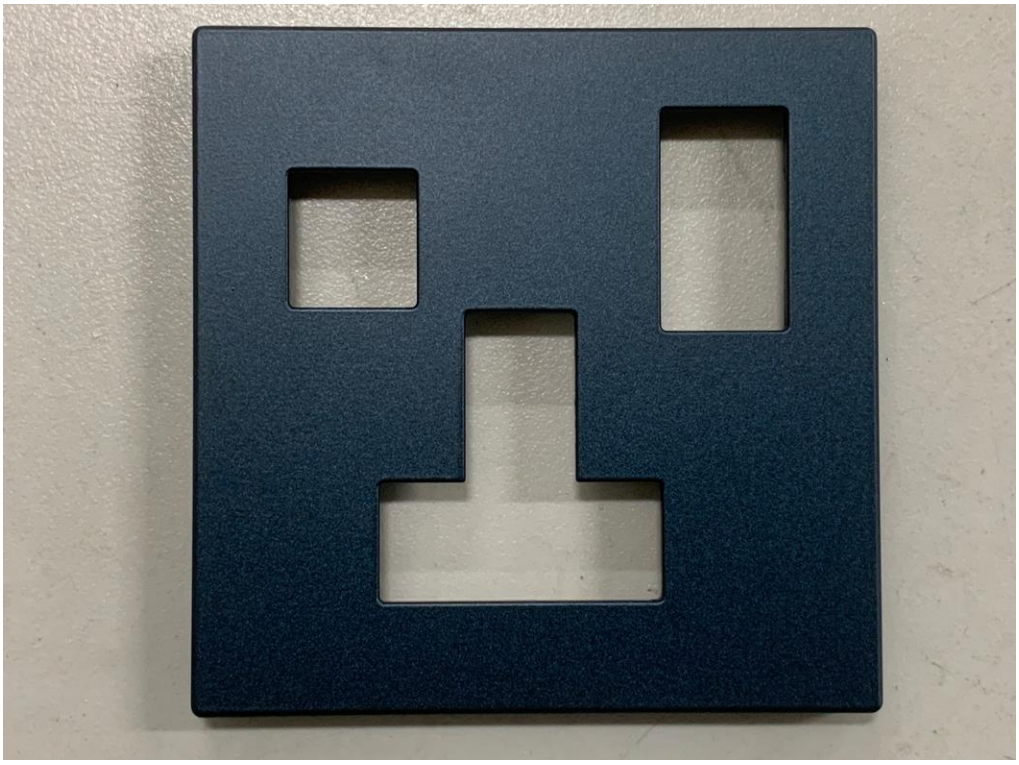
AA1113FW for AA33*** series



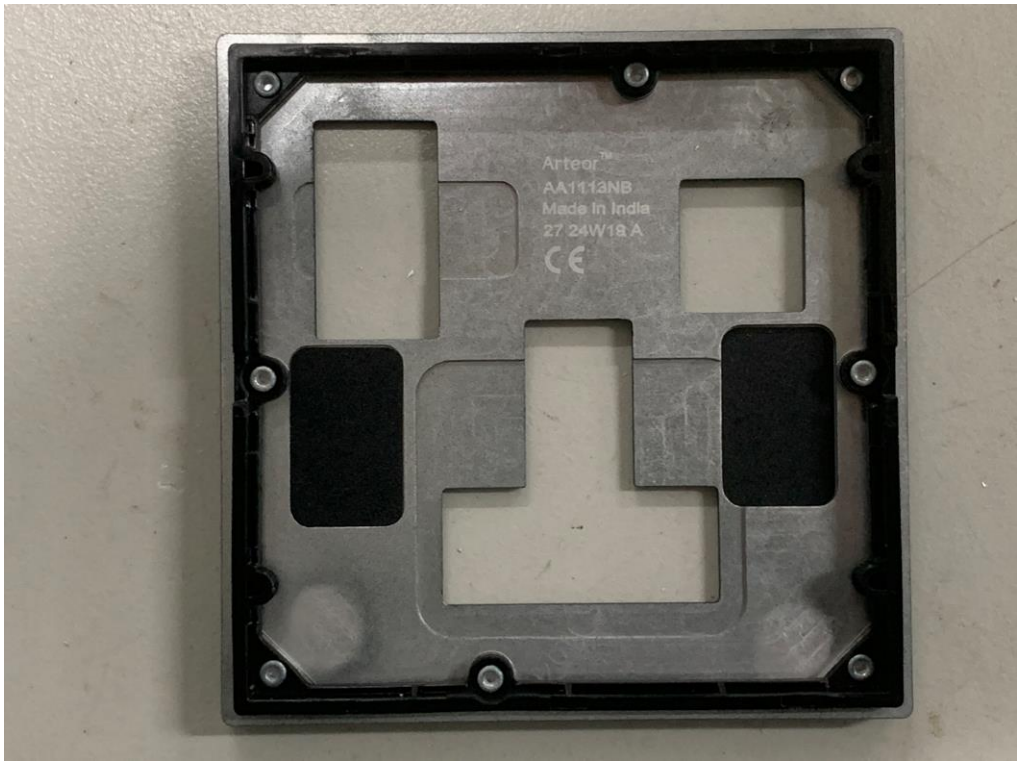
AA1113SA for AA33*** series



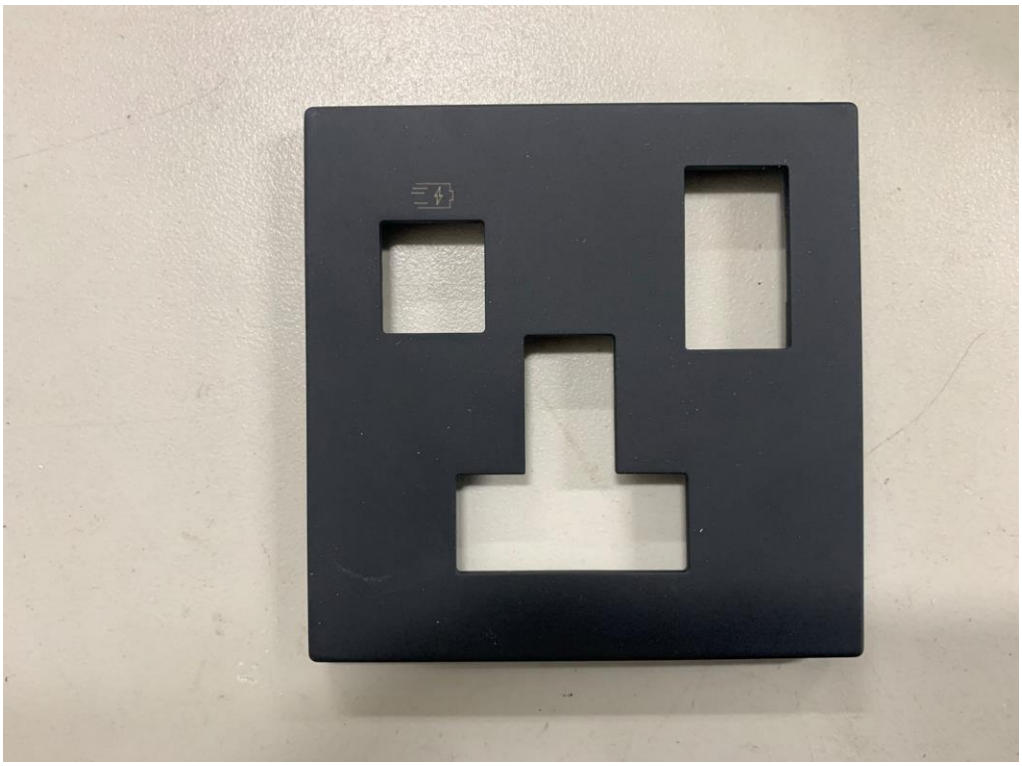
AA1113SA for AA33*** series



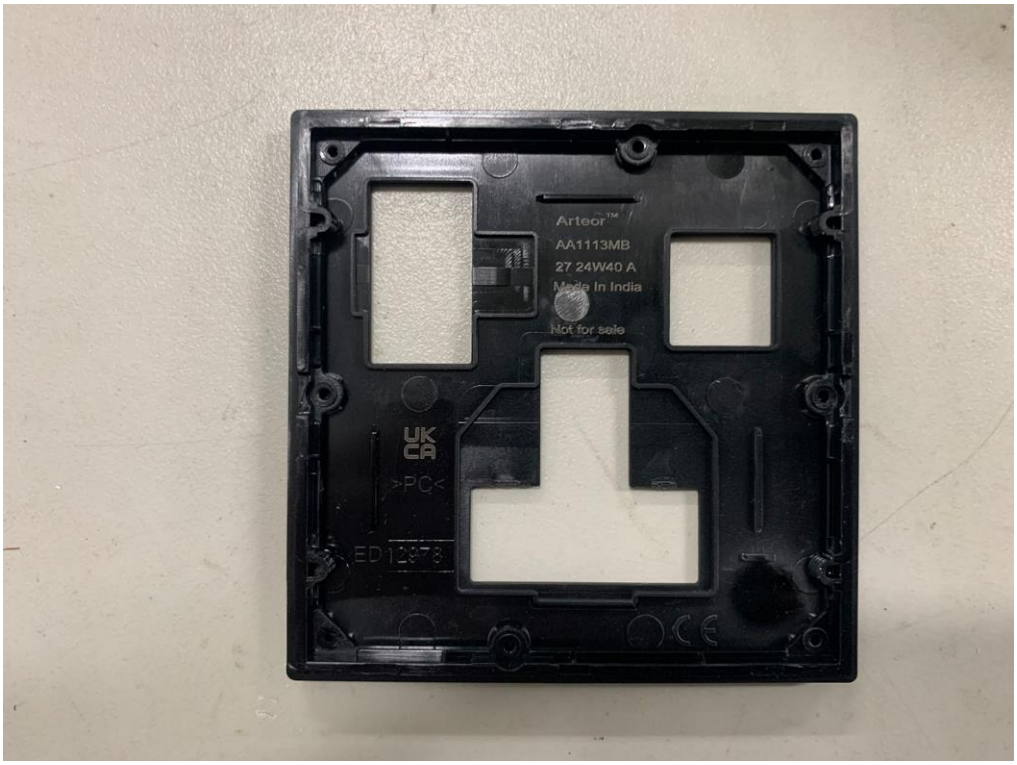
AA1113NB for AA33*** series



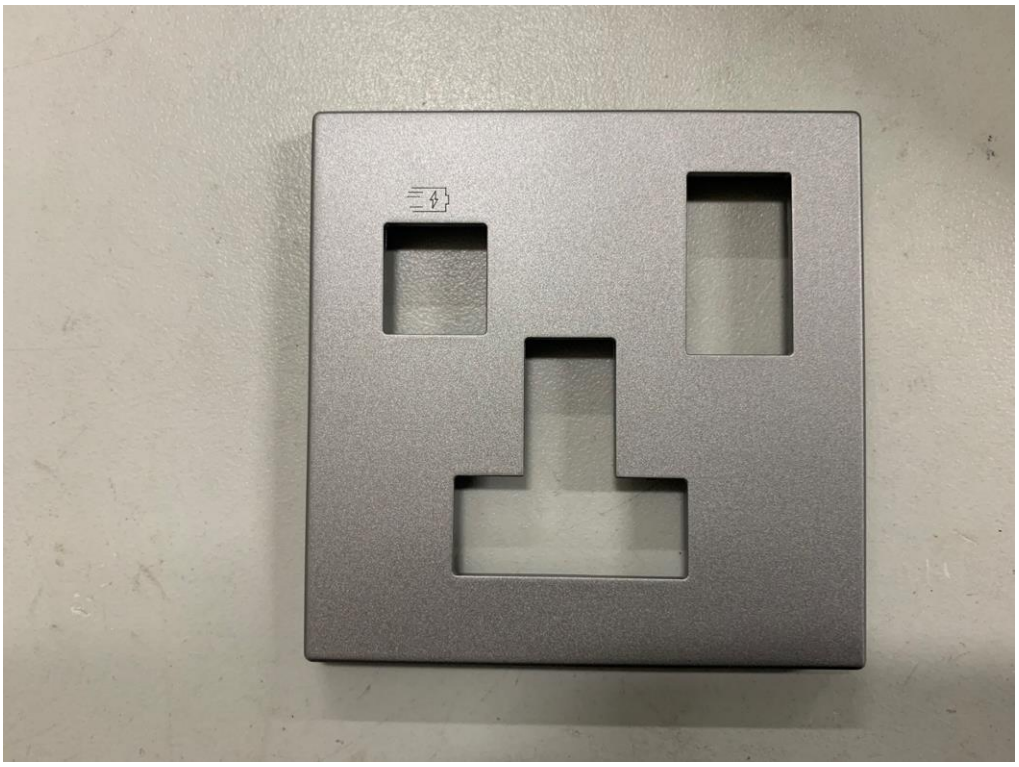
AA1113NB for AA33*** series



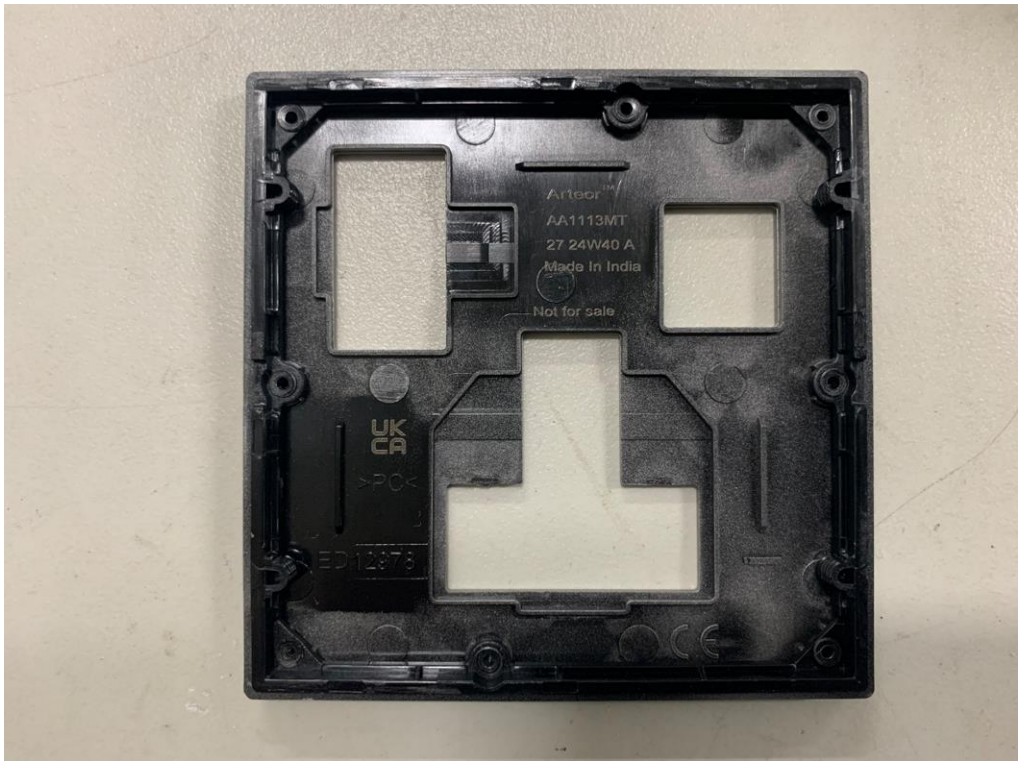
AA1113MB for AA33*** series



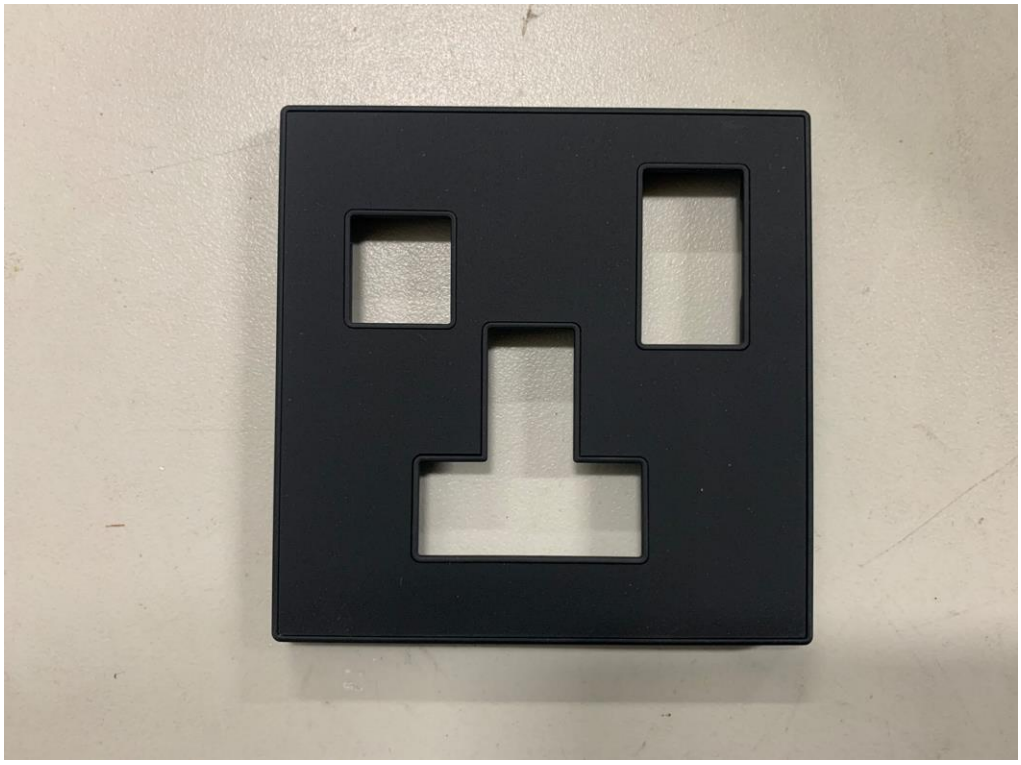
AA1113MB for AA33*** series



AA1113MT for AA33*** series

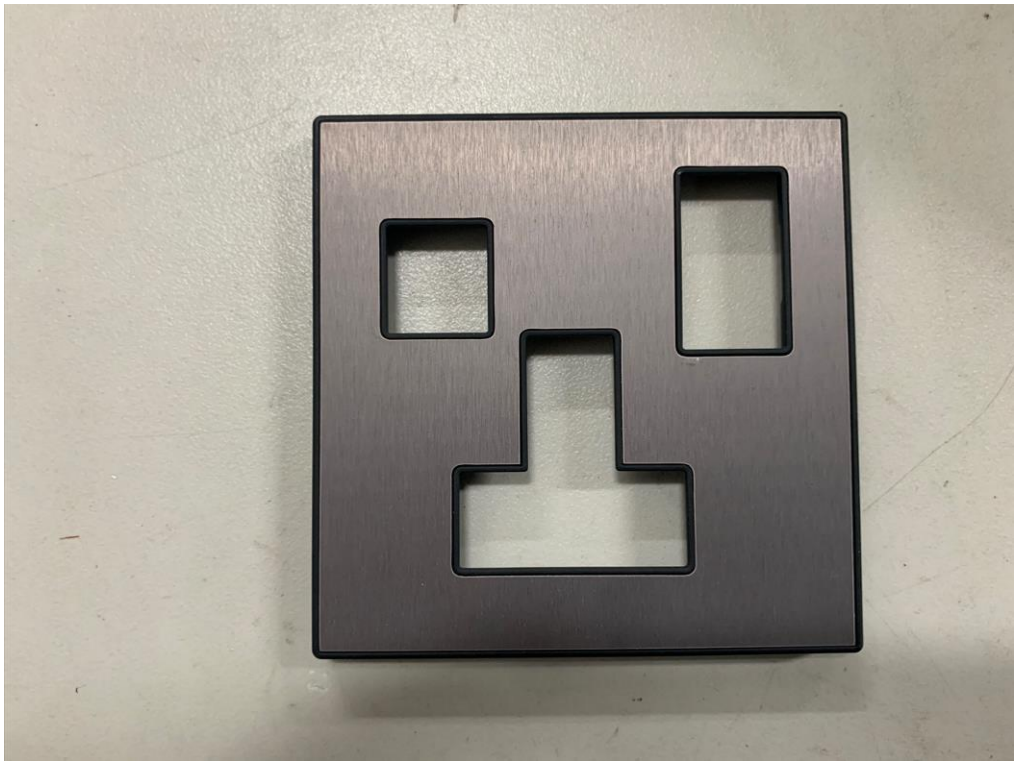


AA1113MT for AA33*** series



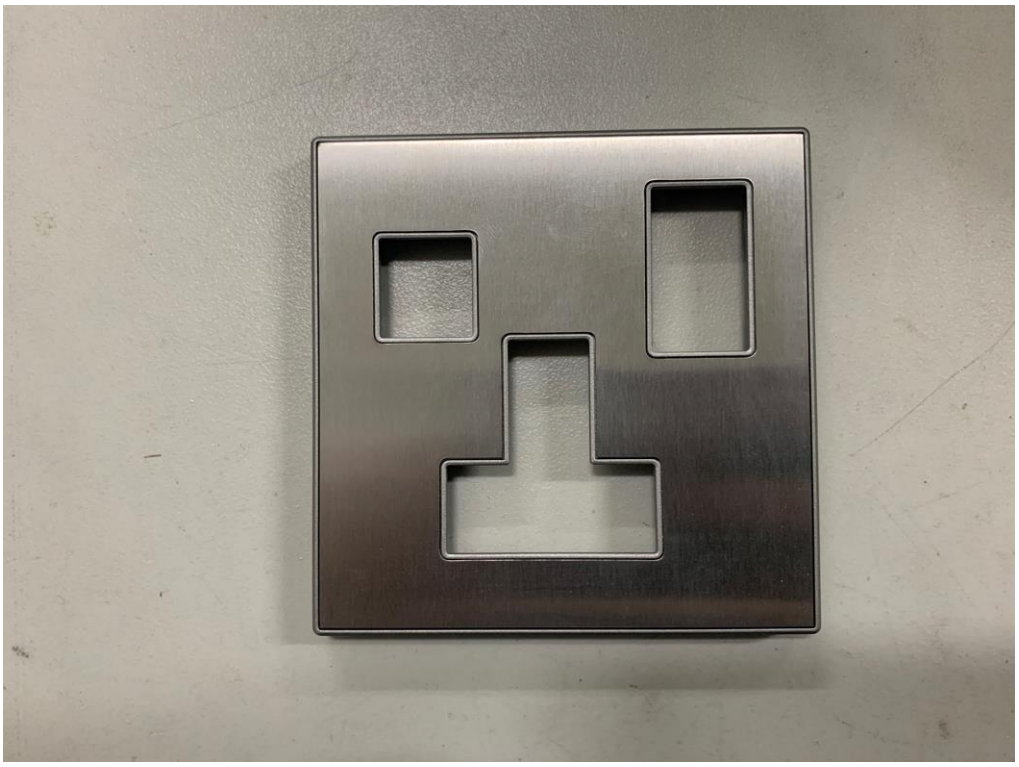
AA1113FB for AA33*** series

AA1113FB for AA33*** series

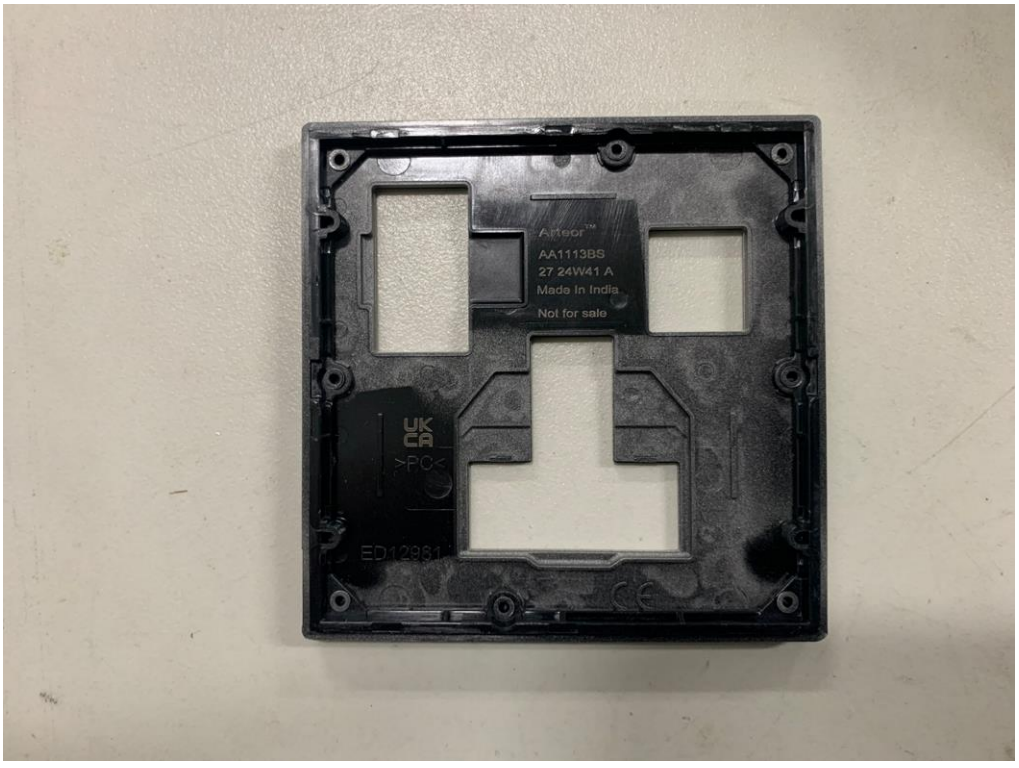


AA1113DA for AA33*** series

AA1113DA for AA33*** series



AA1113BS for AA33*** series



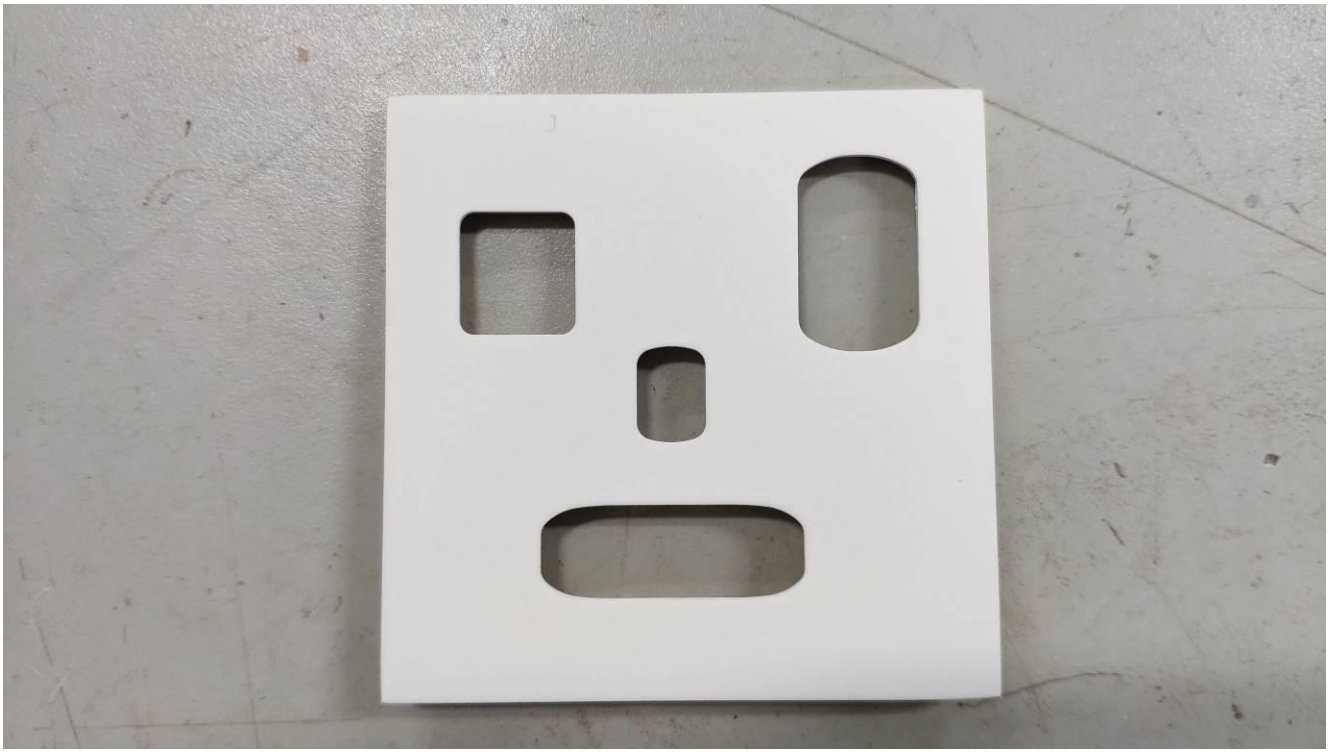
AA1113BS for AA33*** series

Cover plate AR-P68135 for AR681** series

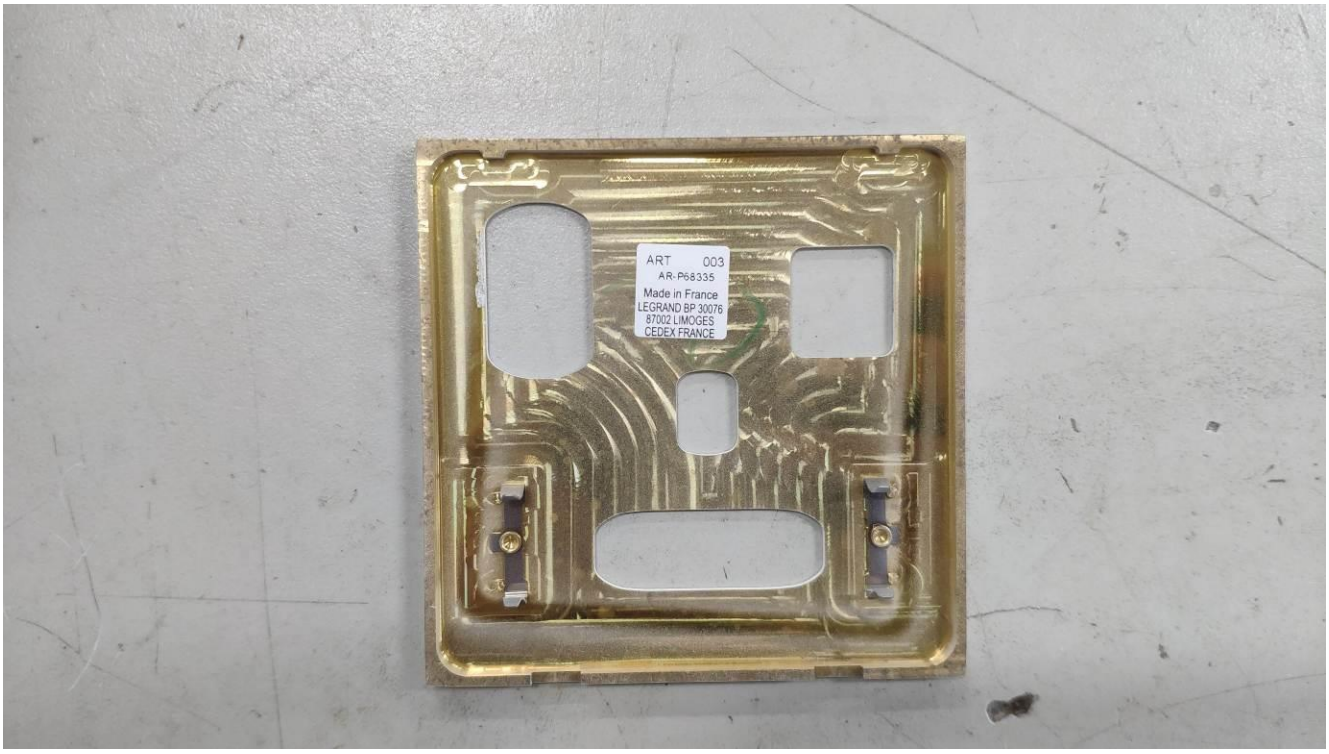
Cover plate AR-P68135 for AR681** series

Cover plate AR-P68235 for AR682** series

Cover plate AR-P68235 for AR682** series



Cover plate AR-P68335 for AR683** series

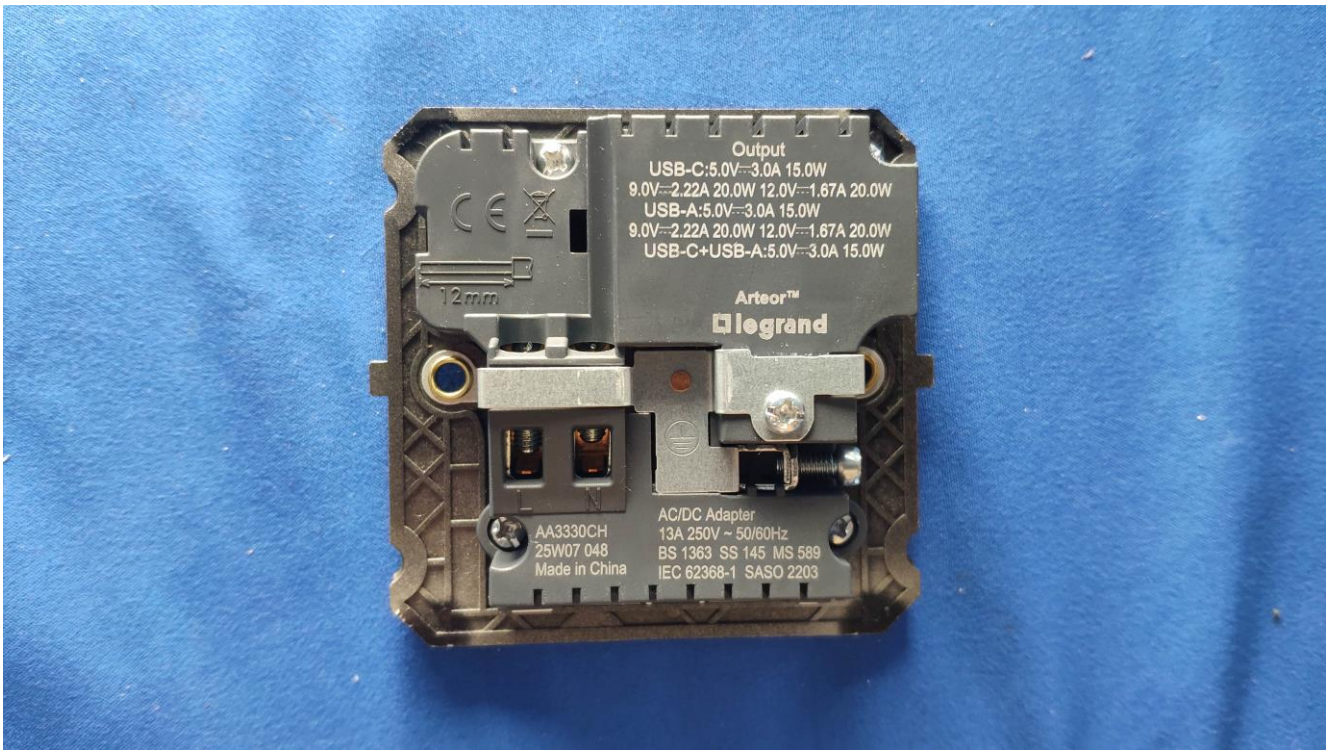


Cover plate AR-P68335 for AR683** series

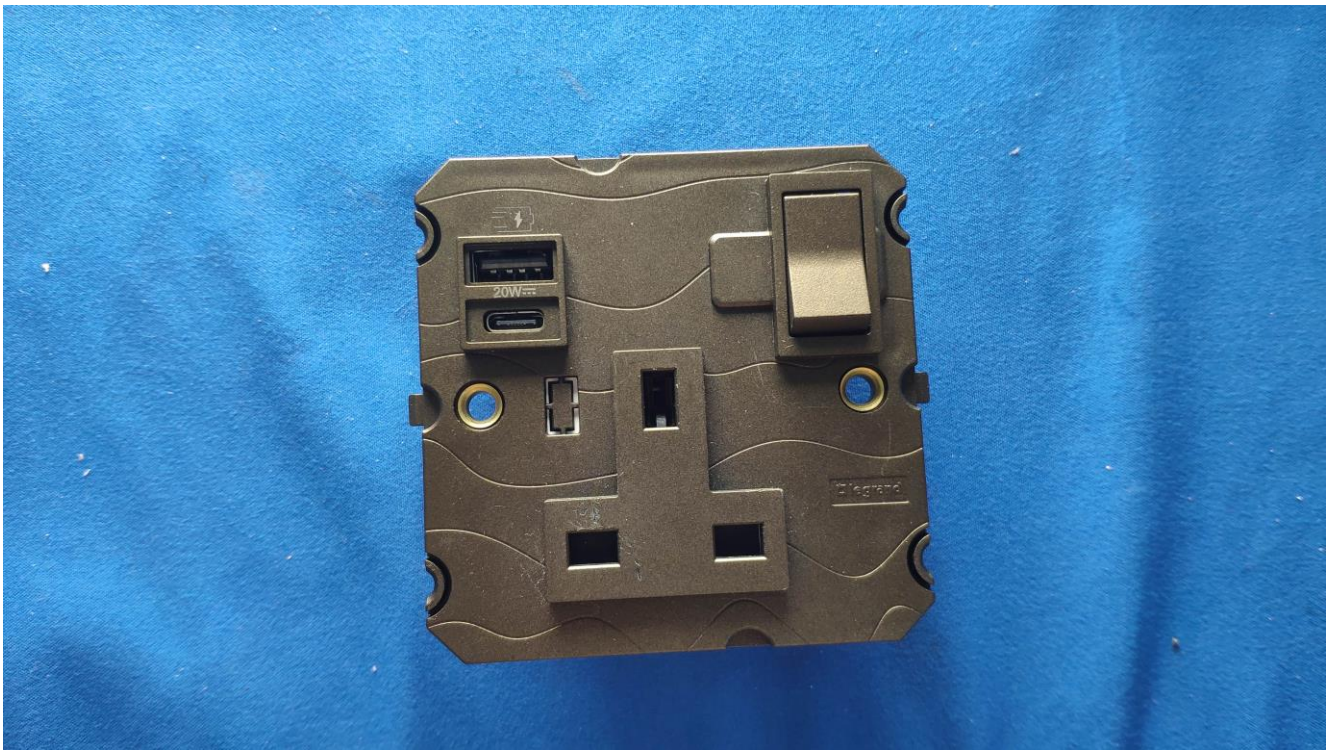
Cover plate AR-P68435 for AR684** series

Cover plate AR-P68435 for AR684** series

AA3330CH

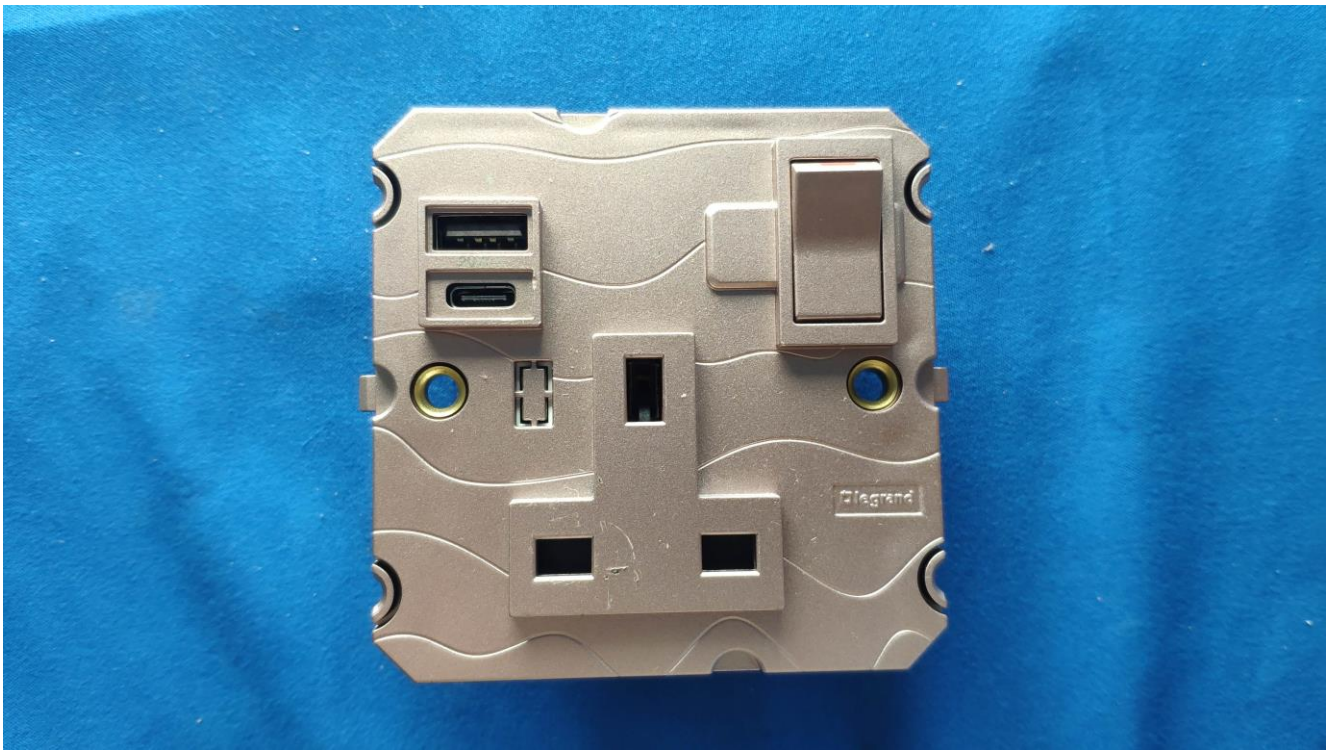


AA3330CH

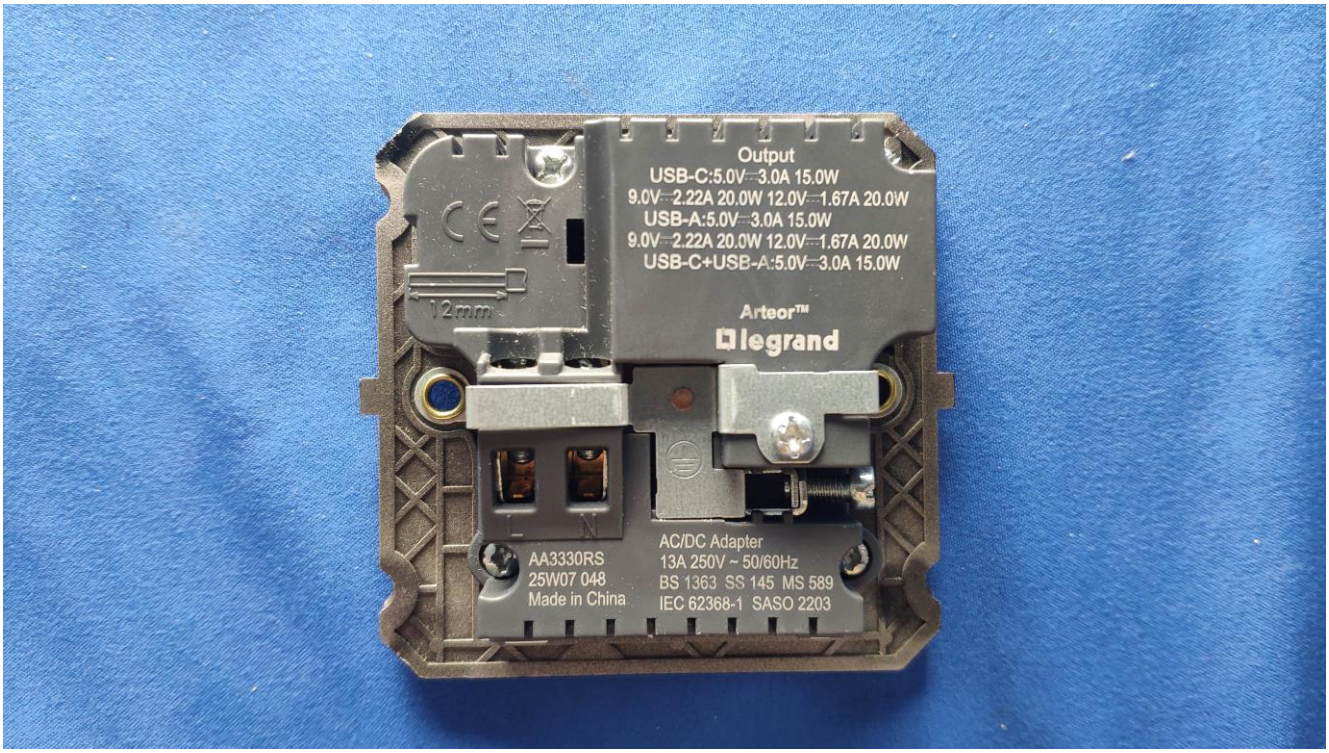


AA3330DB

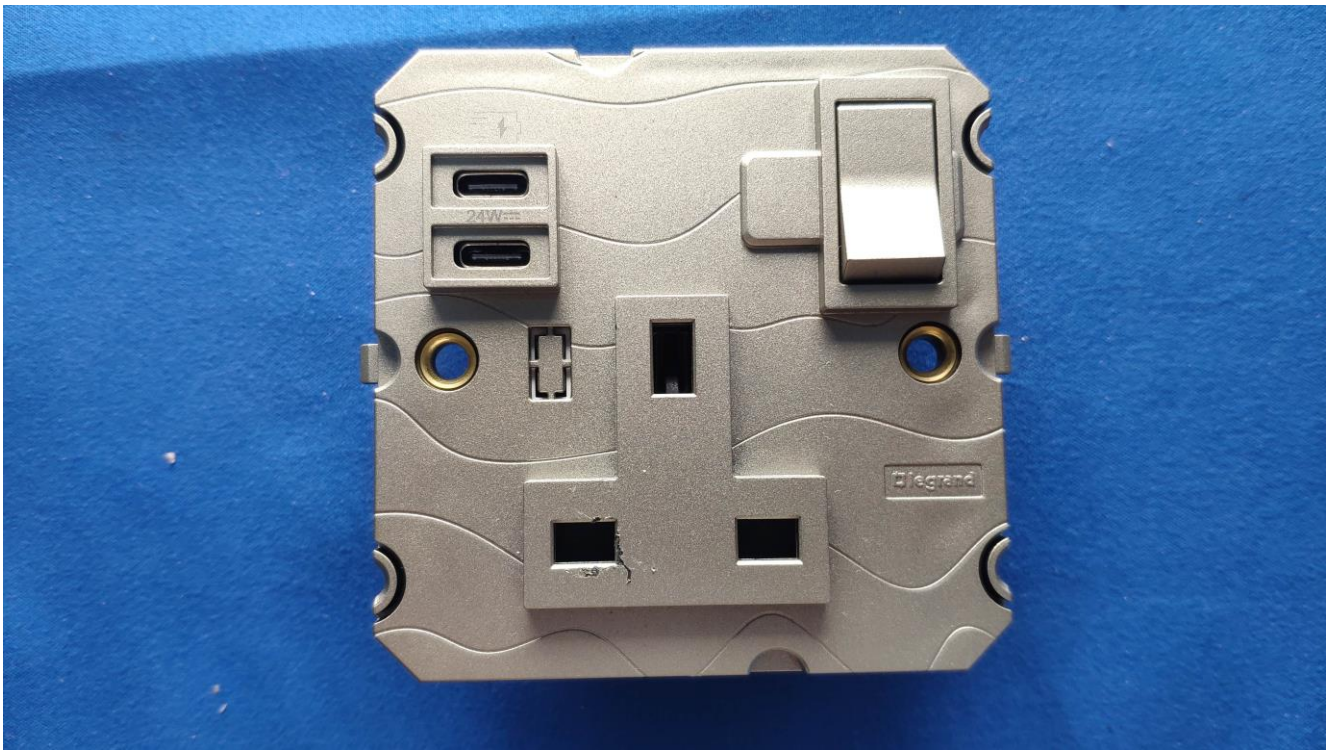
AA3330DB



AA3330RS

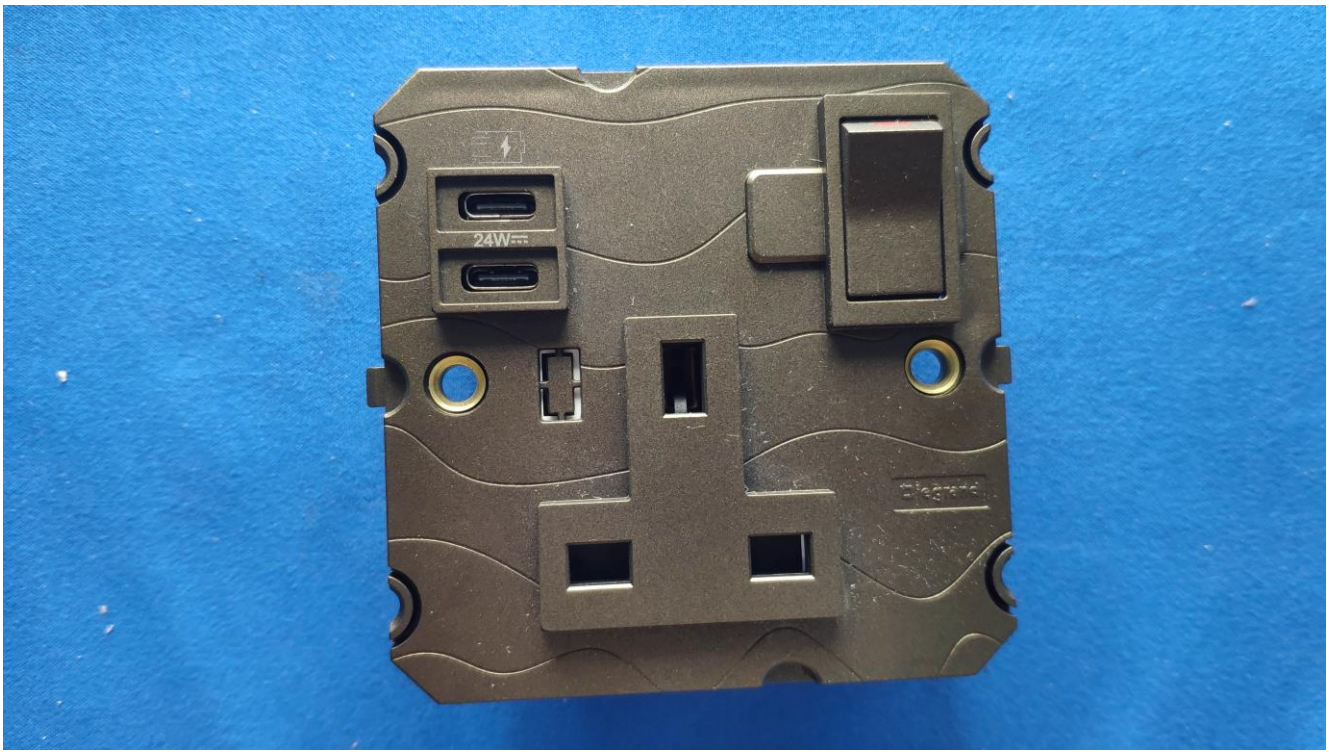


AA3330RS



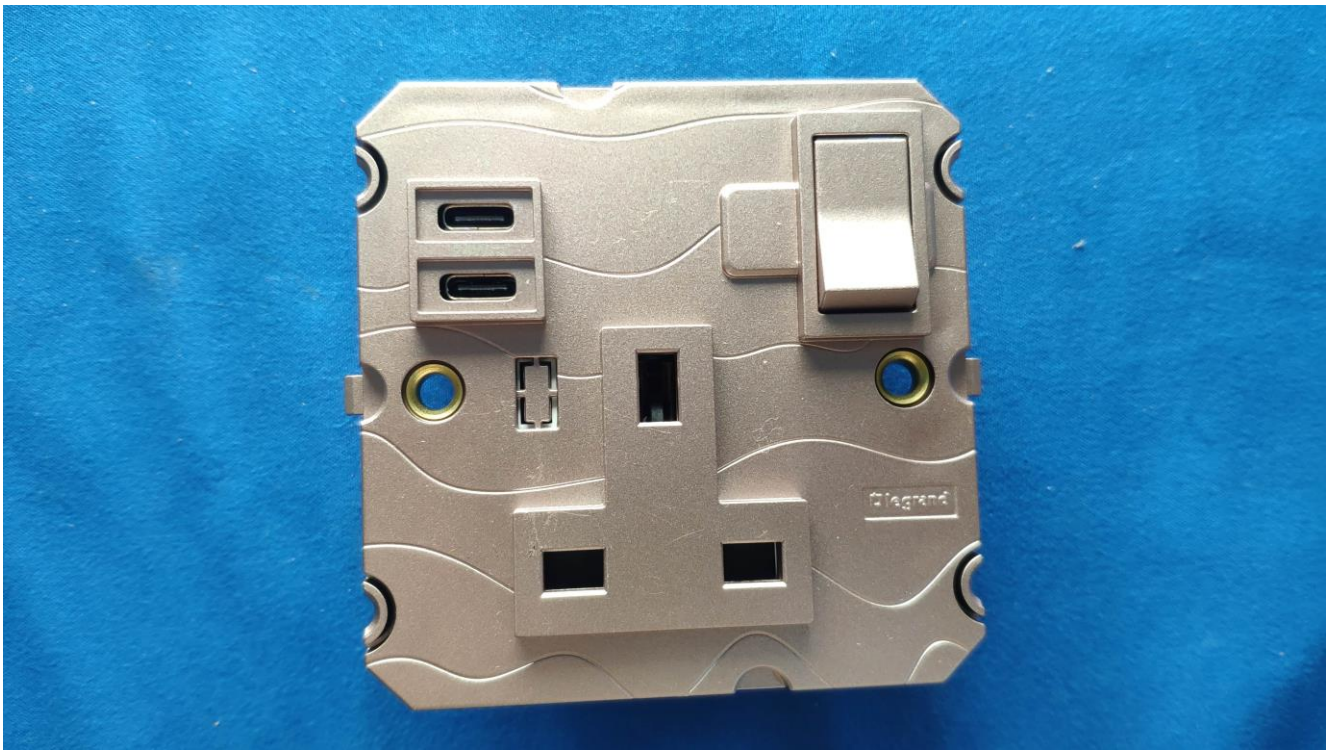
AA3331CH

AA3331CH



AA3331DB

AA3331DB



AA3331RS

AA3331RS