



# Certificate of Compliance

**Certificate:** 2328979

**Master Contract:** 229815

**Project:** 2447463

**Date Issued:** August 16, 2011

**Issued to:** Sennheiser electronic GmbH & Co. KG

**Product Engineering - ENP**

**Am Labor 1**

**Wedemark, 30900**

**Germany**

**Attention: Mr. Volker Bartsch**

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



*Sam Tam*

**Issued by:** Sam Tam

## **PRODUCTS**

**CLASS 2226 51** - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment

**CLASS 2226 81** - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment -  
Certified to US Standards

PART A: Conference system consisting of center unit model ADN CU1 rated 100-240V~, 50/60Hz, 245W, cord connected, class I grounded, and consoles ADN D1 (for delegates) and ADN C1 (for chairmen) rated 52.8Vdc, 1.75A (powered by center unit).

PART B: Conference system model ADN PS-US rated 100-240V~, 50/60Hz, 385W, cord connected, class I grounded.

## **APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 60065-03 Incl. AM1 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

UL Std. No. 60065-2007 - Audio, Video and Similar Electronic Apparatus - Safety Requirements



## *Supplement to Certificate of Compliance*

**Certificate:** 2328979

**Master Contract:** 229815

*The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
2447463	August 16, 2011	Addition of model ADN PS-US
2328979	September 14, 2010	Original Certification.



# Descriptive Report and Test Results

**MASTER CONTRACT:** 229815

**REPORT:** 2328979

**PROJECT:** 2447463

**Edition 1:** September 14, 2010; Project 2328979 – Toronto  
Issued by David Briere, P.Eng.

**Edition 2:** August 16, 2011; Project 2447463 – Toronto  
Issued by Sam Tam

Report pages reissued  
Addition of Photo 8 to 24

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Description and Tests - Pages 1 to 14  
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Attachment 1 - VDE CB report DE1-42864/M1/A1  
Attachment 2 – VDE CB report DE1-48159.

## **PRODUCTS**

CLASS 2226 51 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment

CLASS 2226 81 - AUDIO AND VIDEO EQUIPMENT - Commercial Audio Equipment - CERTIFIED TO U.S. STANDARDS

PART A: Conference system consisting of center unit model ADN CU1 rated 100-240V~, 50/60Hz, 245W, cord connected, class I grounded, and consoles ADN D1 (for delegates) and ADN C1 (for chairmen) rated 52.8Vdc, 1.75A (powered by center unit).

PART B: Conference system model ADN PS-US rated 100-240V~, 50/60Hz, 385W, cord connected, class I grounded.

## **APPLICABLE REQUIREMENTS**

CAN/CSA C22.2 No. 60065-03 Incl. AM1 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

UL Std. No. 60065-2007 - Audio, Video and Similar Electronic Apparatus - Safety Requirements

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## MARKINGS

Markings as given below and/or described in the report appear on each unit:

- Submitter's name or Master Contract No. 229815.
- Model designation;
- Electrical rating in volts, hertz, amperes or watts;
- Period of manufacture; date code / S/N (3 mo min period)
- "CAUTION - RISK OF ELECTRIC SHOCK - DO NOT OPEN. AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR" together with the two graphical symbols - a lightning flash with arrow-point within an equilateral triangle, and an exclamation point within an equilateral triangle, appears on the removable cover to gain access;
- The product may bear one of the following CSA markings: CSA, or CSA us, or cCSAus
- Other covers: Lightning Flash in triangle symbol;

Method: A CSA Mark or a CSA Mark with the **C-US (or NRTL/C) or US (or NRTL)** indicator and other required information appears on a durable adhesive nameplate (CSA Accepted for commercial equipment) or moulded or silk-screened onto the enclosure.

CSA Nameplate: (LR 113693, MH18055)

Manufacturer: BDF AG

Type: CSA 0.15 Type B Label Stock, "Tesa" 6930, for use indoor and outdoor on plastic or metal

Material: Matte Black Acrylate Label Stock with laser printing

Laser Printer: DPL Nexus Marker, by ACI Laser

Note: Bilingual Markings for products with CSA Mark.

Jurisdictions in Canada may require these markings to be also in French. It is the responsibility of the manufacturer to provide bilingual marking, where applicable, in accordance with the requirements of the Provincial Regulatory Authorities. It is the responsibility of the manufacturer to determine this requirement and have bilingual wording added to the products.

Additional Markings: Factory identification (more than 1 factory).

### Owner's Manual

#### (a) Mandatory

1. Heading: "IMPORTANT SAFETY INSTRUCTIONS", before operating instructions.
2. Explanation of graphical symbols (Lightning Flash and Exclamation Mark, **Fig 19** DU) as follows, or equivalent,
  - (a) Lightning Flash Symbol, with "The Lightning Flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product enclosure that may be of sufficient magnitude to constitute a risk of shock to persons".
  - (b) Exclamation Point Symbol, with "The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product".
3. "WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS" or equiv.

4. "TO COMPLETELY DISCONNECT THIS APPARATUS FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE" or equiv.
5. "THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY ACCESSIBLE" or equiv.

(b) Optional as needed (Verbatim for the US if applicable).

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions..
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

### **ALTERATIONS**

1. Markings as detailed above.
2. The power supply cord set (described in the critical components list in this report) is provided with the product.

### **FACTORY TESTS**

- (a) Basic Dielectric: The equipment at the conclusion of manufacture, before shipment, shall withstand for one sec, without breakdown, the application of:
- (a) Nominal 120V: 800V ac or 1130V dc
  - (b) Nominal 240V: 1500V ac or 2120V dc between live parts and exposed non-current-carrying metal parts. The factory test may be made at existing room temperature.

The product factory tests shall not exceed 2000V ac.

Each transformer connected to the ac supply shall be subjected to the following dielectric strength tests for a period of one sec, without breakdown:

An ac potential applied between each winding and the core and metal enclosure, with all other windings grounded to the core and metal enclosure. The test potential shall be:

- (a) For windings rated 30V and less, 500V ac.
- (b) For windings rated over 30V, 800/1500V ac.

Note: Transformer tests may be performed by the transformer manufacturer.

- (b) Ground Continuity: The equipment with protective grounding shall be tested, as a routine production-line test, to determine that there is electrical continuity between the grounding pin of the attachment plug and the accessible dead metal parts of the equipment. Alternatively, a visual check may be made.

Warning: The factory test(s) specified may present a hazard of injury to personnel and/or property and should only be performed by persons knowledgeable of such hazards and under conditions designed to minimize the possibility of injury.

### **SPECIAL INSTRUCTIONS FOR FIELD SERVICES**

- 1. Component Substitution
  - a) Critical components (those identified by mfr name, cat no) are not eligible for substitution without evaluation and report updating.
  - b) Component descriptions marked with the identifier “(CT)” are subject to annual pickup and Conformity Testing.
  - c) Component descriptions marked with the identifier “(INT)” are the only components that are eligible for substitution at the factory.
  - d) Substitution of a CSA Certified component with a component “Certified” or “Listed” by another organization may result in annual sample pickup and Conformity Testing.
  - e) Substitution of a “Certified” or “Listed” component with a component that is “Recognized” or “Accepted” is not permitted without evaluation and report updating.

**COMPONENT SPECIAL PICKUP** - None.

### **DESCRIPTION**

Notes:

- 1. The term “(INT)”, following the component name, denotes a certified component that can be replaced by another CSA Certified component or one from another certified source (approved by OSHA/SCC accredited body for the same application) provided that it has an equivalent rating, configuration (size, orientation, mounting) and that applicable minimum creepage and clearance distances are maintained from live parts to bonded metal parts and secondary parts..
- 2. The term “(CT)”, following the component name, denotes a component that is subject to periodic re-testing unless evidence of re-testing equivalent to the CSA program is available.
- 3. This report is supplemented by the attached IEC 60065 checklist.

4. Approval codes: (all components are suitable for the application)

C or C▲	=	CSA Certified
C/US or NRTL/C	=	CSA Certified to CSA/US requirements
US or NRTL	=	CSA Certified to US requirements
UL	=	UL Listed equipment/sub-system
cUL	=	UL Listed equipment/sub-system to CSA requirements
UR	=	UL Recognized component/ sub-system
cUR	=	UL Recognized component/sub-system to CSA requirements

A	=	SAA;	B	=	BSI;	CEB	=	CEBEC
D	=	DEMKO;	FI	=	FIMKO;	I	=	IMQ
K	=	KEMA;	N	=	NEMKO	O	=	OVE
S	=	SEMKO;	+S	=	SEV;	T	=	TUV
V	=	VDE						

Note: An asterisk "\*" following the Approval Code denotes a component marked with the Agency's approval mark, as applicable.

PART A - ADN CU1 (ADN D1 (for delegates) and ADN C1 (for chairmen))

General: The subject device is a conference system consisting of a center unit that includes a power supply that powers the center unit itself and also consoles with microphones for use by chairmen (ADN C1) and delegates (ADN D1). The consoles for chairmen and delegates are identical except for upper shell, the mesh cover, the key insert and console ADN C1 has two additional keys. Both ADN C1 and ADN D1 use the same printed circuit board.

Weight of Equipment: 6.5kg.

Pollution Degree: 2

Insulation Material Group: IIIb

Maximum Rated Ambient Temperature: 35°C.

Circuit:

AC Line Coupling: Inductive through an isolating switch-mode transformer.

Enclosure:

Center unit: Table or Rack mount style, combustion-resistant. Secured together by screws.

Consoles: Tabletop style, combustible. Secured together by screws.

Overall Dimensions:

Center unit: Approx 345mm (D) by 416 mm (W) by 87 mm (H) plus rubber feet, approx 12mm high.

Consoles: Approx 140mm (D) by 180mm (W) by 55mm (H) plus microphone, approx 400mm high depending on bending of flexible microphone neck.

General Construction:

Part	Material	Thickness	Manufacturer	Type	Rating/ Thickness
Center unit top and left and right outer sides	Painted sheet steel	1.1mm	-	-	-
Center unit outer front panel	Painted sheet steel	2.1mm	-	-	-
Center unit bottom, rear and inner left and right sides and inner front	Plated sheet steel	1.0mm	-	-	-
Center unit LCD display window	Polycarbonate, designated "Lexan"	1.5mm	Sabic Innovative Plastics B V (E45329)	241(f), 241R(f2) or ML3491	V-0/0.75mm

For materials used in the construction of the consoles, refer to the critical components list.

Adhesives: Adhesives are used as part of a wire tie to secure secondary wire from SMPS to parts of the enclosure and neatly route the wire to the main secondary PCB. This is considered good workmanship and not critical for safety as there would be no hazard should the wiring become detached (if the adhesive let go). The adhesive is therefore considered not safety critical and is therefore not controlled in this report.

Rack Mount Bracket:

Type	Material	Fasteners	Mounting Instructions
L-shaped rack mount ears	2.5mm thick painted sheet steel	T25 Torx head screws	Provided. User is instructed to remove specific screws and to use these screws to secure brackets.

Note: For dimensions, see Att. 2.

Ventilation Openings: See attached photos. Critical openings described below:

Location	Dimensions (mm)
Front panel	2.7mm holes covering an area approximately 35mm by 157mm
Bottom	2.9mm holes covering an area approximately 39mm by 194mm

Bonding: The power supply cordset terminates at an appliance inlet/EMI filter module. A min No. 18AWG, 150mm long, green or green/yellow insulated bonding conductor joins the rear of the inlet/EMI filter module to the chassis. A female insulated spade connector connected to the male earth spade connector on the rear of the inlet/EMI filter module is double crimped to the bonding wire. The other end terminates singly with a double crimped female spade connector connected to a male spade connector that is cold welded to the chassis.

The IEC 417 #5019 "" symbol is marked adjacent to the earth spade terminal on the chassis.



Connectors (INT): Certified/UR/Evaluated (V-2 min)

Location	Manufacturer	Cat No	Rating	Flame Rating
Insulated spade connectors on rear of inlet/EMI filter and on chassis earth male spade tab	Stocko	EH649	130C	V-2
Insulated spade connectors on mains switch	JST	PS187	250V, 25A, 105C	V-0
SMPS mains input connector CN1 (female) <u>Note:</u> Plastic parts of this connector are not relied upon for contact.	JST	VH	10A, 250Vac/dc, 85C	V-0

Routing/Sleeving of Wiring:

Primary wiring is sleeved to prevent contact with power supply secondary components.
Secondary wiring from SMPS output is dressed away from power supply and fans with wire ties that are adhesively secured to the inner bottom enclosure. This is considered good workmanship and not critical for safety as there would be no hazard should the wiring become detached (if the adhesive let go). The adhesive is therefore considered not safety critical and is therefore not controlled in this report.
All other wiring is secondary and is short enough to not come in contact with bare primary parts or excessive temperatures.

Insulating Barrier/Sleeving: See critical components list.

Lithium Battery: Evaluated/UR

Type	Service replaceable only
Manufacturer	Energy One Electronics (OmniCel) (MH47566)
Cat No	CR2032
Rating	3.0V, 0.20mA nominal discharge current, 200mAh, 5.0V max charging voltage.
Mounting	In PCB-mounted battery clip
Battery Isolation Circuitry	R76 (4.7kΩ) and D11 (BAT54C) R76 limits possible discharge current to 0.64mA (requires fully charged battery and S/C of D11 across both diodes) and possible abnormal charging current to 2.6mA (if battery is fully discharged to 0V and 12V supply is shorted directly to R76, which requires multiple faults to occur).
<u>Marked in Service Manual or Adjacent to the Battery:</u>	"CAUTION: DANGER OF EXPLOSION IF INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE".

External Power Out Connections:

Type	Two ports for providing power to consoles.
Adjacent Markings:	2 x 5.2.8Vdc, 1.75A (dc symbol is used in place of "dc").
<u>Note:</u>	USB outputs were tested with worst case loading.

PART B - ADN PS-US

General: The subject device is a conference system used same certified power supply in PART A.

Weight of Equipment: 4.3 kg.

Pollution Degree: 2

Insulation Material Group: IIIb

Maximum Rated Ambient Temperature: 35°C.

Circuit:

AC Line Coupling: Inductive through an isolating switch-mode transformer.

Enclosure: Tabletop style, combustion-resistant. Secured together by screws.

Overall Dimensions: Approx 190mm (D) by 420 mm (W) by 100 mm (H with feet)

General Construction:

Part	Material	Thickness	Manufacturer	Type	Rating/ Thickness
Top / sides	Painted sheet steel	1.3 mm	-	-	-
Bottom, rear and inner left and right sides and inner front	Sheet steel	1.3 mm	-	-	-
outer front panel	Painted sheet steel	2.3 mm	-	-	-
For materials used in the construction of the consoles, refer to the critical components list.					

Adhesives: Adhesives are used as part of a wire tie to secure secondary wire from SMPS to parts of the enclosure and neatly route the wire to the main secondary PCB. This is considered good workmanship and not critical for safety as there would be no hazard should the wiring become detached (if the adhesive let go). The adhesive is therefore considered not safety critical and is therefore not controlled in this report.

Rack Mount Bracket: N/A

Ventilation Openings: See attached photos. Critical openings described below:

Location	Dimensions (mm)
Front panel	2.6 mm dia. holes covering an area approximately 150 mm by 33 mm
Bottom	2.9 mm dia. holes covering an area approximately 195 mm by 25 mm

Bonding: The power supply cordset terminates at an appliance inlet/EMI filter module. A min No. 18AWG, 150mm long, green or green/yellow insulated bonding conductor joins the rear of the inlet/EMI filter module to the chassis. A female insulated spade connector connected to the male earth spade connector on the rear of the inlet/EMI filter module is double crimped to the bonding wire. The other end terminates singly with a double crimped female spade connector connected to a male spade connector that is cold welded to the chassis.

The IEC 417 #5019 "⊕" symbol is marked adjacent to the earth spade terminal on the chassis.

Connectors (INT): Certified/UR/Evaluated (V-2 min)

Location	Manufacturer	Cat No	Rating	Flame Rating
Insulated spade connectors on rear of inlet/EMI filter and on chassis earth male spade tab	Stocko (transparent colour)	EH649	130C	V-2
Insulated spade connectors on mains switch	JST (solid white colour)	PS187	250V, 25A, 105C	V-0
SMPS mains input connector CN1 (female) <u>Note:</u> Plastic parts of this connector are not relied upon for contact.	JST (solid white colour)	VHR-5N	10A, 250Vac/dc, 85C	V-0
Insulated spade connectors on Primary relay	Stocko (transparent colour)	EH649	130C	V-2

Routing/Sleeving of Wiring:

Primary wiring is sleeved to prevent contact with power supply secondary components.
Secondary wiring from SMPS output is dressed away from power supply and fans with wire ties that are adhesively secured to the inner bottom enclosure. This is considered good workmanship and not critical for safety as there would be no hazard should the wiring become detached (if the adhesive let go). The adhesive is therefore considered not safety critical and is therefore not controlled in this report.
All other wiring is secondary and is short enough to not come in contact with bare primary parts or excessive temperatures.

Insulating Barrier/Sleeving: See critical components list.

Lithium Battery: No battery.

External Power Out Connections: None.

Critical Components:

Note:

PART A - The following critical components list was extracted from VDE CB report 580000-3330-0004/129760 and modified for corrections and clarity as necessary.

PART B - The following critical components list was extracted from VDE CB report 580000-3330-0004/147417 and modified for corrections and clarity as necessary.

Component	Manufacturer/ Trademark	Type/Model	Value/rating	Standard	Approval/ Reference
Following for both PART A and B					
Power supply cord set	Shin Yang Electric (Elka)	Connector: SY-020 Plug: SY-050 Line cord: SJT	10A, 125V, 18AWG	CSA 21, 42, 182.3 UL 817, 498, 1977	CSA LR 105093 UR (E161496)
EMC Interference filter unit with integrated appliance inlet	Schurter	5110.1033.1	250 Vac, 10A	EN133201:1994, CSA 8, UL1283	ENEC 10 (VDE) cURus (E72928)
Mains switch	Marquart	1858.1103	250Vac, 5/100A (10,000 cycles) Pollution degree 3 850C glow wire, level 3 resistance to heat and fire. Speed of making/breaking is independent of actuation. V-0	IEC61058 IEC60065 clause 14.6 CSA 55 UL 1054	ENEC 05 (KEMA 2124278.01) CSA contract 166260/ project 1544732 UR (E41791)
Prim. Cable (plug to switch) AWG18-310 Drawing 516464	Kählig	VW-1, AWG18-310 bl style 1007/1569 br style 1007/1569 JST SPS-51T 187-8 Engler heat shrink Engler heat shrink	JST connectors : solid white colour Stocko connectors: transparent colour 4.8x0.8 3.2mm sw 9.5mm sw	CSA 210, UL 758	cURus E223795 E223795 E60389 E204071 E204071

Component	Manufacturer/ Trademark	Type/Model	Value/rating	Standard	Approval/ Reference
Prim. Cable (Protective earth cable between AC- inlet to chassis) AWG18-150 Drawing 516468	Kählig	VW-1, AWG18- 150 gn/ye style 1007/1569	Stocko connectors: transparent colour	CSA 210, UL 758	cURus (E223795)
Connector Insulation of quick connector	JST	PS187	250V, 25A, 105°C solid white colour	UL94V-0 CSA 182.3 UL 1977	CSA (LR20812) UR (E60389)
Connector (metal part)	Tyco	5-160432-4	28A, 105°C	CSA 182.3 UL 1977	CSA LR7189 UR (E66717)
Insulation of quick connector	Stocko	EH649	min 130°C transparent colour	min. UL94V-2	UR (E172855)
PVC Tubing sleeved on primary leads	Polycons	810006005	6x0.5mm sw	CSA 198 UL 224	UR (E245346)
PSU	TDK Lambda	*ZWS240PAF- 48/JSE	input: 100 –240V, 50/60HZ, 3.5 A output: 52.8 V, 4.5 A	IEC60065 + A1	*JPTUV 024689 UR (E122103) re-evaluated as part of the appliance
*Note: The power supply listed above is identical to model ZWS240PAF (see attached list of critical components – Att. 3) except for the components detailed in this critical components list. Additional evaluation was conducted as necessary.					
SMT within PSU T1	Densei-Lambda	CA72462	thermal class 155°C (F)	IEC60065 clause 14.3	tested with appliance
Fan (over SMPS and rea enclosure)	COOLTRON	FD8015B12W1- 82	DC 12V, 1.8 W	CSA 113 UL 507	cURus E194726 TÜV
insulation foil around SMPS	Bayer	Makrofol FR(y)	thickness 0.25 mm	V-0	tested with appliance UR (E118859)
Modular Jack RJ45, double type	Tyco-AMP	6116522-1	DC 60 V, 1.75A 70°C	IEC 60065 cl. 17.5 EN 61984	Tested with appliance
Following for PART A only					
System cable	ELKA International	SDC CBL RJ45 (CAT.5 Line Cord with RJ45 Plug 10P10C)	AC 125 V, 60°C 24 AWG	CSA 210 UL 758	UR (E336118)

Component	Manufacturer/ Trademark	Type/Model	Value/rating	Standard	Approval/ Reference
Prim. Cable (switch to PCB) AWG18- 180 Drawing 534842	Kählig	VW-1, AWG18 sw style 1007/1569 JST SPS-51T-187-8 SVH-21T-P1.1 SVH AWG 22/18 Engler heat shrink Thulesius heat shrink	JST connectors : solid white colour 4.8x0.8 3.2mm sw 9.0mm, 3.0mm sw	CSA 210, UL 758	cURus E223795 E60389 E60389 E60389 E204071 E48762
Sec. Cable AWG20-530 534841	Kählig	VW-1, AWG20 rd style 1007/1569 sw style 1007/1569 Molex: 39-01-2025 5557-02R-210 39-00-0038 5559-T AWG 22- 18 JST VHR-8N SVH-21T-P1.1 SVH AWG 22/18		CSA 210, UL 758	UR E223795 E29179 E60389
Sec. Cable AWG16-120 534802	Kählig	VW-1, AWG18 sw style 1007/1569 Molex 39-01- 2025 5557-02R-210 39-00-0077 5556 AWG16		CSA 210, UL 758	UR E223795 E29179
Foam for mechanical fixing at heat sink D2/D3	Kureta GmbH	K-ZK-CP 150	25x15x10.9 mm	V-0	tested with appliance
Secondary fuse in main unit	Littelfuse	No. 372 / TR5 372150004xx	250 V 5.0 A	IEC60127-3 CSA/UL 248-14	VDE licences 116448 + 97187 cULus E67006
Poly switch in main unit	Tyco electric	RKEF250	72 V, 2.5 A	CSA CA-3A IEC 60730-1 UL1434	CSA (LR 78165) UL (E74809), TÜV
Poly switch in main unit	Tyco electric	SMD050.2	60 V, 0.5 A	-	Tested with the appliance
LCD Display Window	SABIC	Polycarbonate 241(f), 241R(f2), ML3491(f)	min. 1.5 mm thick, 130 °C, transparent rated V-2	IEC 60695-11- 10 UL 94	UR (E45329)

Component	Manufacturer/ Trademark	Type/Model	Value/rating	Standard	Approval/ Reference
PCB Material Display/switch board	various	FR4	V-0, min 120°C	UL94 V-0	UR (ZPMV2)
PCB Material Signal board	various	FR4	V-0, min 120°C	UL94 V-0	UR (ZPMV2)
PCB Material IS-ADN CU board	various	FR4	V-0, min 120°C	UL94 V-0	UR (ZPMV2)
PCB Material ADN C1 / D1	various	FR4	V-0, min 120°C	UL94 V-0	UR (ZPMV2)
ADN C1 / D1 Material of enclosure	various	PA12 GF30, ABS + PA,	Terblend	UL94-HB	QMFZ2. E41871
Following for PART B only					
Primary Cable set (Switch to relay and pcb) Drawing 534893	Kählig	VW-1, AWG18- 150	JST connectors : solid white colour	CSA 210, UL 758	cURus E223795 E66717 E60389 E204071
Relay	Finder	66 series (66.82.9.024.000)	30A, 250A Spacing between the primary and secondary 8 mm Flammability classification see burning test acc. annex G on next page	IEC/EN 61810-1	VDE 40013190 (re-testing is currently running with order 148466) IMQ, cUL E81856 (certified for US and Canada)
Secondary polyswitches Pos. F1100, F1200, F1300, F1400, F1500	Tyco electric	RKEF 250	72 V, 2.5 A	CSA CA-3A IEC 60730-1 UL1434	CSA (LR 78165) UL (E74809), TÜV
Base material of PCB	various	various	Min. V-1 classified	UL94	UL

Note: A detailed list of components that were damaged during fault testing is maintained on file.

1) an asterisk indicates a mark which assures the agreed level of surveillance

## **TESTS**

The subject equipment was found to be in compliance with the following tests during the evaluation of the referenced report edition(s).

Test data are kept in the Engineering Files at the CSA Toronto Office.

### Project 2328979 (Edition 1):

All tests were conducted by VDE. Tests marked with an asterisk (\*) were repeated at CSA International in Toronto for spot checking purposes. The test of clause 13 was repeated only for working voltage from primary to secondary across the transformer.



VDE CB report  
DE1-42864/M1/A1

### Project 2447463 (Edition 2):

Addition of model ADN PS-US. See attached VDE CB report DE1-48159.



VDE report  
DE1-48159