

Certificate of Compliance

Certificate:

1245397 (LR 36155-44)

Master Contract:

168560

Project:

2493488

Date Issued:

February 12, 2012

Issued to:

Echo Electric Company Limited

621 Nagai Yatsushiro-cho

Fuefuki-shi, Yamanashi 406-0823

Japan

Attention: Mr. Hiroko Mochizuki

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.



A. Restovic

Issued by: A. Restovic, P. Eng.

PRODUCTS

CLASS 6233 01

- RECEPTACLES - Attachment Plug Type and Plugs

CLASS 6233 81

- RECEPTACLES - Attachment Plug Type and Plugs - Certified to US

Standards

Appliance receptacles; Cat Nos AC-W05, AC-W07, 1-15R configuration, 15A, 125V.

APPLICABLE REQUIREMENTS

CSA Std. C22.2 No 42-10 - General Use Receptacles, Attachment Plugs and Similar Wiring Devices

ANSI/UL Std. No. 498

- Electrical Attachment Plugs and Receptacles



Supplement to Certificate of Compliance

Certificate:

1245397

Master Contract:

168560

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

Product Certification History

Project	Date	Description
2493488	February 12, 2012	Add alternate body material for Cat No AC-W07.
History		
1245397	December 13, 2011	Add Cat No AC-W07.
-44	November 03, 1998	Original Certification of Cat No AC-W05.



Descriptive Report and Test Results

MASTER CONTRACT: 168560

REPORT: 1245397 **PROJECT:** 2493488

Edition 1:

November 3, 1998; Application No LR 36155-44 - Toronto

Issued by V. O. Roslin, P. Eng.

Edition 2:

December 12, 2001; Project 1245397 - Toronto

Issued by V. O. Roslin, P. Eng.

Report Reissued

Figures Replaced: Fig 4 Figures Added: Fig 6

Edition 3:

February 12, 2012; Project 2493488 - Toronto

Issued by A. Restovic, P. Eng.; Reviewed by D. Hawkes

Added: Att2

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Description and Tests - Pages 1 to 4

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Att2 Test Data – Pages 1 to 3

PRODUCTS

CLASS 6233 01 – RECEPTACLES – Attachment Plug Type and Plugs CLASS 6233 81 – RECEPTACLES – Attachment Plug Type and Plugs – CERTIFIED TO US STANDARDS

Appliance receptacles, Cat Nos AC-W05, AC-W07, 1-15R configuration, 15A, 125V.

APPLICABLE REQUIREMENTS

CSA Std. C22.2 No 42-10, 7th Ed. - General Use Receptacles, Attachment Plugs and Similar Wiring Devices ANSI/UL Std. No. 498, 14th Ed. - Electrical Attachment Plugs and Receptacles

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MASTER CONTRACT: 168560

REPORT: 1245397 (LR 36155-44) **PROJECT:** 2493488

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MARKINGS

The following is to be molded on each device:

- a) Submittors name or tradename or trademark (eg. EDK) or Master Contract (168560) or CSA Legacy File No. "LR 36155":
- b) The CSA Mark;
- c) Cat No;
- d) *Electrical rating in amps and volts ("ac" or "~" or the equivalent);
- e) Terminal identifications W and N.

Note

- 1) Jurisdiction in Canada may be required 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.
- 2) *Not required.

ALTERATIONS

See "Markings".

FACTORY TESTS

None.

SPECIAL INSTRUCTIONS FOR FIELD SERVICES

None.

COMPONENT SPECIAL PICKUP

None.

<u>Condition of Certification</u>: These are <u>Certified only for supply to manufacturers for the assembly, as components of equipment, where the suitability of the combination is determined in the end use.</u>

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REPORT: 1245397 (LR 36155-44) **PROJECT:** 2493488 **Page No:** 3 **Date Issued:** February 12, 2012

DESCRIPTION

Project 2493488: Add alternate material PX9406 by Sabic, to body of Cat No AC-W07 (Part B, item 1 (c)).

Project 1245397: Add appliance receptacle Cat No AC-W07.

App LR 36155-44: Original Certification.

<u>General</u>: Cat No AC-W07 is similar to Cat No AC-W05 except for the body material and the mounting brackets. Both Cat Nos are single outlets, snap mounted.

Part A: Cat No AC-W05

- 1) <u>Body</u>: Molded of plastic material below. See Figs 1 to 3 for dimensions and appearance.
 - a) (PF) CP-J-3870 by Hitachi, UL V-0 flame (0.75mm), UL RTI Str of 150°C (0.75mm), UL E42956.
 - b) (M/P) MP(x3) by Panasonic, UL V-0 flame (0.75mm), UL RTI Str of 130°C (0.75mm), UL E41404.

Legend: AMP(p-f)=Melamine-phenolic (paper filled).

- 2) Contacts: Copper alloy, tin-plated, dimensions, etc., as shown in Fig. 4.
- 3) Terminals: Copper alloy, integral with contacts, item 2. Dimensions, etc. as shown in Fig 4.
- 4) <u>Mounting Bracket</u>: Molded of plastic material tabulated below, with dimensions etc., as shown in Fig 5. Attached to wide sides of the body, item 1.
 - a) (PA66) 1300S by Asahi Chemical, UL V-2 flame (0.71mm), UL RTI Str 85°C, UL E48285.

Part B: Cat No AC-W07

- 1) Body: Molded of plastic materials below. For dimensions and appearance see Fig 6.
 - a) (PPE) 500Z, 540Z by Asahi, UL V-0 flame (0.75mm), UL RTI Str 110°C (0.75mm), UL E82268.
 - b) (PPHOX) AN60 by Mitsubishi, UL V-0 flame (0.75mm), UL RTI Str 110°C (0.75mm), UL E41179.
 - c) (PPE) PX9406 by Sabic, UL V-0 flame (0.75mm), UL RTI Str 110°C (0.75mm), UL CTI 250-399V (0.75mm), UL E121562 or UL E45587.
- 2) Contacts: Same as Part A, item 2.
- 3) Terminals: Same as Part A, item 3.
- 4) Mounting Brackets: Same plastic material as, integrated with and located on narrow sides of body, item 1 as shown in Fig 6.

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TESTS

App. LR 36155-44: Original Certification. See Att2 for test results in the Test Data folder in Documentum.

<u>Project 1245397</u>: Since (for receptacle Cat No AC-W07) only the mounting brackets were moved from the wide to the narrow sides of the receptacle (compared with Cat No AC-W05 previously Certified in this report) and plastic materials (500Z, 540Z, AN60) with satisfactory properties are used, no further tests were deemed necessary.

<u>Project 2493488</u>: Approval of alternate compound PX9406 by Sabic, for the body of Cat No AC-W07, was accepted without testing because the product is already manufactured with a PPE body with the exact properties. In addition, the compound was evaluated and Certified for use in Report 1279632 (for special-use appliance inlet).

Test data was moved from the report to Att2 and placed in the Test Data folder, in Documentum.



PROFILE OF REPORTS

File No:036155_0_000

MASTER CONTRACT: 168560

Submittor:

Echo Electric Co. Ltd. 621 Nagai Yatsushiro-cho

Fuefuki-shi

Yamanashi-ken 406-0823

Japan

Attn: Ms. Hiroko Mochizuki

Tel: 81-55-265-4240 Fax: 81-55-265-4266

Email: h.mochizuki@edk.co.jp

Date: February 12, 2012

Replaces: December 19, 2011

Main File: Toronto Master Contract: 168560

Factories

Contact No.	Name & Address	Inspection Office	File No/Factory Contract No
4545878	Echo Electric Co., Ltd.	Deleted -	168561
F1	Yamanashi-ken 406-0823 Japan	August 1, 2008	(LR 36155)
4554340	Dongguan Inflight Electronic Co., Ltd. Dongguan, Guangdong 511700 China	Deleted	216611
F2		April 10, 2006	(LR 36155)
4722221 F3	Dongguan Shi Takeshin Jitsugyo Ltd. Dongguan, Guangdong China	Deleted March 29, 2007	232479 (LR 36155)

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4734622 F4	Dongguan Shi Takeshin Jitsugyo Ltd. CCIC 236694 19F, Fushi Industrial Zone (LR 36155) Binghe West Road Qinghu Industry Region Qingxi Town Dongguan City Guangdong Province China			
Report	Project	Contact No.	Subject	
-1 to -15, -17 to -20	-	-	PROFILE NOT COMPLETE	
-	-16	-	Superseded by 1105566.	
-	-21	-	Superseded by 1105566.	
-22	_	F1	April 14, 1989 - Part A - Alternate construct appliance type receptacle increase the amount of both between the line contacts. Part B - Alternate construct appliance type receptacle incorporate a bend in the	Cat No AC-T03 to dy material ction of 5-15R Cat No AC-G07 to
-23		F1	November 7, 1989 - Altern special use receptacles: 1. Cat Nos AC-P01, AC-P0 AC-F01 to cover an alterna 2. Cat Nos AC-P01, AC-P0 body dimensions 3. Cat Nos AC-P02, AC-P0 additional symbolized met 250V ac Cat Nos AC-P01 P06 and -P07 superseded	22, AC-P03, AC-P04, ate body material; 22 to cover alternate 44 to cover hod of marking 12, -P02, -P03, -P04, -

Superseded by 1105566.

-	-25	F1	February 5, 1991 - 1. Update to Report LR 36155-23, Cat Nos AC-F01, -P01, -P02, -P03, -P04 to cover alternate body materials. 2. Update to Report LR 36155-24, Cat No AC-P05 to cover alternate body materials and body shape Cat Nos AC-P01, -P02, -P03, -P04, -P06 and -P07 superseded by 1105566.
-	-26	F1	April 24, 1991 - Special-use inlet Cat No AC- M01. (Reissue as Report 1118829)
-	-27	F1	November 7, 1991 - Special use inlets, Cat Nos AC-M02, -M03. Cat Nos AC-M08 and AC- M09 added by -32. (Reissue as Report 1118830)
-	-28	F1	December 9, 1991 - Update to Report LR 36155-26, Cat No AC-M01, to cover two alternate body materials (Items 1d, 1e).
-	-29	on .	Superseded by 1105566.
-	-30	F1	April 15, 1992 - Update to Report LR 36155- 26, special use appliance inlets, Cat Nos AC- M04 and AC-M05.
-31	-	F1	July 7, 1992 - Special-use inlet Cat No AC-D01,
-	-32	F1	August 1, 1994 - Update to Report LR 36155- 27 to cover addition of similar models, Cat Nos AC-M08 and AC-M09.
-33	-	F1	May 18, 1995 - Appliance type, combination special-use inlet and outlet, Cat Nos AC-M06 and AC-M07. Superseded by Project 1204143.
	-34	F1	March 27, 1995 - Update to -27 to cover addition of minor variations to certified inlet, Cat Nos AC-M08 and AC-M09.
-35	-	F1	April 20, 1995 - Alternate body materials for certified appliance type receptacle, Cat Nos AC-1E, AC-1F, AC-T01, AC-T03, AC-T05, AC-T09, AC-G07, AC-G10. Superseded by Project 1277881.
-	-36	F1	June 6, 1995 - Update to -27 to cover addition of minor variation to certified inlet, Cat No AC-M08.

~	-		July 26, 1995 - Change in Submittor's address.
-	-37	-	Superseded by 1105566.
-38 Ed. 1		F1 , F4	August 1, 1996 - Appliance receptacle, 1-15R configuration, Cat No AC-W02. (NRTL/C application). Cat No AC-W03 added by -39. Cat No AC-W04 added by -42. Superseded by Project 1279599.
-	-39 Ed. 2	F1, F4	May 9, 1997 - Update to -38 to cover addition of similar model, Cat No AC-W03. (NRTL/C application).
-	-42 Ed. 3	F1, F4	October 14, 1997 - Update to -38 to cover addition of similar model, Cat No AC-W04. (NRTL/C application).
1279599 Ed. 4	-	F1, F4	January 21, 2002 - Supersedes LR 36155-38, addition of alternate material.
-	1997655 Ed. 5	F1, F4	June 12, 2008 - Update to Report 1279599 (LR 36155-38) to include alternate moulding compound (T-375J).
-	2279783 Ed. 6	F1, F4	February 18, 2011 - Update to Report 1279599 (LR 36155-38) to include alternate moulding compounds (Noryl PX9406, Leona FR370 and Leona FR201V0). In compliance with the requirements of CSA C22.2 No. 42-99 and UL No. 498 (14th Ed.).
-	-40 Ed. 1	-	July 23, 1997 - Special-use appliance inlet, Cat No AC-M10. (NRTL/C application). Cat Nos AC-M11, -M12, -M13, -M14, -M15, -M16, -M17, -M18, -M19 and -M20 added by -41. Superseded by Project 1279632.
	-41 Ed. 2		October 31, 1997 - Update to -40 to cover addition of similar Models, Cat Nos AC-M11, -M12, -M13, -M14, -M15, -M16, -M17, -M18, -M19 and -M20.
-	-45 Ed. 3	-	June 29, 1998 - Update to -40 to cover addition of optional insulating cover to Cat Nos AC-M12 and AC-M16. (NRTL/C)
-	-47 Ed. 4	-	September 21, 1998 - Update to Report LR 36155-40 to include alternative construction for Models AC-M11 & AC-M15.

-	-52 Ed. 5	-	July 6, 1999 - Update to Report LR 36155-40 to cover minor changes to Model AC-M16.
1279632 Ed. 6	-	F1, F2, F4	January 16, 2002 - Special-use appliance inlet, Cat No AC-M10. (NRTL/C application). Cat Nos AC-M11, -M12, -M13, -M14, -M15, -M16, -M17, -M18, -M19 and -M20 added by -41. Models AC-M13, AC-M19, AC-M34, AC-M42. Supersedes LR 36155-40 and updated for addition of alternate material.
-	1354887 Ed. 7	-	August 29, 2002- Update to Report 1279632 (LR 36155-40) to cover alternate contact to Cat Nos AC-M13 and AC-M19.
-	1487225 Ed. 8	-	November 12, 2003 - Update to Report 1279632 (LR 36155-40) to cover addition of similar Model, AC-M34.
-	1616723 Ed. 9		December 2, 2004 - Update to Report 1279632 (LR 36155-40) to cover addition of similar Model, AC-M42.
-43	-	F1	December 18, 1997 - Special-use appliance inlet, Cat No AC-P08. (NRTL/C application).
-	-	-	February 24, 1998 - Change in Submittor's address.
-44 Ed. 1	-	F1	November 3, 1998 - NRTL/C - Appliance receptacle, Cat No AC-W05. Superseded by Report 1245397.
1245397 Ed. 2	-	F1	December 13, 2001 - Supersedes Report LR 36155-44. Receptacle to add Cat No AC-W07.
	2279784		February 18, 2011 - Project closed, no report issued.
-46	-	F1	September 11, 1998 - Appliance Inlet, Type AC-M22, AC-M25, AC-M26 and AC-M27. Superseded by Project 1279634.
-	-48	F1	January 4, 1999 - Update to Reports LR 36155-26 & -27 to include alternative plastic material for Models AC-M04, -M08 and -M09.
-	-49	F1	January 14, 1999 - Update to Report LR 36155-46 to include new Model AC-M25.

-	-50	F1	February 4, 1999 - Update to Report LR 36155-46 to include new Models AC-M26 and AC-M27, Appliance Inlets.
-51		F1	July 6, 1999 - Update to Report LR 36155-46 to cover minor modifications to Types AC-M26, AC-M27 and AC-M122.
-	-	-	December 22, 1999 - Change in factory name from EDK Yamanashi Co., Ltd., to as presently listed.
1105566 Ed. 1	_	F1	August 3, 2000 - Special-use appliance inlets, Cat Nos AC-P01, -P02, -P03, -P04, -P05, -P06, -P07 and -P09. Rewrite of the previous Reports LR 36155-16, -21, -23 and -24. Supersedes previous Reports LR 36155-16, -21, -23, -24, and report 1304891.
	2213114 Ed. 2	F4	September 25, 2009 - Class 6233 02 - Update report 1105566 - Consolidate report 1304891 into report 1105566 to include alternate materials PX9406 & LN1250G to Cat Nos AC-M32/M36; Remove alternate material A127 and A417 manufactured by Imperial Chemical Industries; Add Cat Nos AC-P03K, AC-M34U. Transfer from Class 6233 01 to 6233 02. CSA Std C22.2 No. 182.3-M1987 (R2004)
-	2320492 Ed. 3	F4	August 19, 2010 - Class 6233 02 - Update report 1105566 - Add AC-P26, AC-P27, AC-P28; delist Cat No AC-P03K and consolidate with Cat No AC-P03. CSA Std C22.2 No. 182.3-M1987 (R2009).
-	2389982 Ed. 4	F4	January 19, 2011 - Class 6233 02 - Update report 1105566 - Add optional mounting nuts to screw mount Cat No AC-P07 and Specialuse Inlets within report. CSA Std C22.2 No. 182.3-M1987 (R2009).
-	2404057 Ed. 5	F4	April 11, 2011 – Addition of special-use power inlets, Cat Nos AC-P20 and AC-P29.Class 6233 02, C22.2 No. 182.3-1987 (R2009).

-	2421672 Ed. 6	F4	October 25, 2011 – Addition of special-use power inlets, Cat Nos AC-P23, AC-P24, AC-P25 and AC-PF01; alternate material. Class 6233 02, C22.2 No. 182.3-1987 (R2009).
-	2456308 Ed.7	F4	November 8, 2011 – Addition of special-use power inlets, Cat Nos AC-M50 and AC-M50U. Class 6233 02, C22.2 No. 182.3-1987 (R2009)
<u>1118829</u> Ed. 1	Ed. 1	F1	September 5, 2000 - Special-use inlets, Cat No AC-M01, AC-M04, AC-M05. (Supersedes Report LR 36155-26 and update to add alternative body material, type 540Z)
1118830 Ed. 1	-	F1	September 5, 2000 - Special use inlets, Cat Nos AC-M02, -M03, AC-M08 and AC-M09 added by -32. (Supersede Report LR 36155- 27 and update to add alternative body material, type 540Z)
1204143		F1	May 25, 2001 - Appliance type combination SP-Use inlet and outlet Cat No AC-M29. (Supersedes Report LR 36155-33).
1277881	-	F1	January 4, 2002 - Supersedes LR 36155-35, addition of alternate material.
1279634	-	F1	January 16, 2002 - Supersedes LR 36155-46, addition of alternate material.
-	1279637	F1	January 14, 2002 - Update to Report 1204143 addition of alternate material.
-	1279638	F1	January 16, 2002 - Update to 1118829, addition of alternate material.
-	1279644	F1	January 15, 2002 - Update to 1118830, addition of alternate material.
	-	F1,F2	April 22, 2002 - Superseded by report 1105566 - Special-use appliance inlets, Cat No AC-M32.
Ed. 2	1350983	-	August 27, 2002 - Update to Report 1304891 to cover addition of optional insulating cover.
Ed. 3	1436246	-	June 20, 2003 - Update to Report 1304891 to cover addition of similar Model AC-M36.

Ed. 4	1511563	-	December 22, 2003 - Update to Report 1304891 to cover addition of alternate contact terminal to Model AC-M36.
-	1336588	F2	July 2, 2002 - Factory addition (F2) as consolidation to LR 36155, for special- use inlet, Cat No AC-M11.
-	1734614	F3	March 17, 2006 - Addition of Factory (F3), 'Dongguan Shi Takeshin Jitsugyo Ltd.', (Contact No 4722221), located in China. No report issued.
-	-	F2	May 10, 2006 - CSC - Deletion of F2 per client.
-		-	November 20, 2006 - Update submittor and factory address from 621 Nagai, Yatsushiro-Cho, Higashiyatsushiro-Gun, Yamanashi-Prefecture, 406-0823.
-	1833470	F4	May 14, 2007 - Factory (F4), 'Dongguan Shi Takeshin Jitsugyo Ltd.', located in China, addition as consolidation into LR 36155. No report issued.
-		F3	August 10, 2007 - CSC - Deletion of Factory (F3) as per client request dated March 29, 2007.
1997652	-	-	June 12, 2008 - Update to Report 1277881 (LR 63155-35) to include alternate moulding compound (T-375J).
1997655	-	-	June 12, 2008 - Update to Report 1279599 (LR 63155-38) to include alternate moulding compound (T-375J).
-	-	4545878	July 15, 2008 - CSC - Updated Contact Information for Ms. Hiroko Mochizuki
	-	-	August 18, 2008 - CSC cancelled Factory ID: 4545878.
2135611	-	F4	February 18, 2009 - Classes 6233 02/82 - Special-use connector (type C13) Cat Nos AC-F02, AC-F03, AC-F04. CSA Std C22.2 No. 182.3-M1987 (R2004), UL Std. No. 1977 (2nd Ed.).

_	2135612	F4	February 25, 2009 - Classes 6233 02/82 - Update report 2135611 - Add Special-use connector (type C14) Cat Nos AC-P10, AC-P11, AC-P12, AC-P13, (type C6) Cat No AC-M43. CSA Std C22.2 No. 182.3-M1987 (R2004), UL Std. No. 1977 (2nd Ed.).
_	2161863	F4	June 22, 2009 - Classes 6233 02/82 - Update report -2135611 - Special-use connector (type C13) Cat Nos AC-F05, AC-F06, AC-F07, AC-P14, AC-P15, AC-P16, AC-P17, AC-P19, AC-P21, AC-P22 and AC-M45. Add alternate material PX9406. CSA Std C22.2 No. 182.3-M1987 (R2004), UL Std. No. 1977 (2nd Ed.).
	-2203347	-	August 4, 2009 - Classes 6233 02/82 - Update report -1279632 (LR 36155-40_ 0 Add alternate materisal Sabic Innovative Plastics "Noryl" [PX9406] and Teijin Chemicals Ltd. "Panlite" [LN-1250G]; upgrade to UL 1977 (2nd Ed.). CSA Std C22.2 No. 182.3-M1987 (R2004), UL Std No. 1977 (2nd Ed.).
-	2473175	-	December 19, 2011 - Job closed incomplete. No report issued.
	2493488		February 12, 2012 - Class 6233 01/81 - Update Report 1245397 to add alternate body material for Cat No AC-W07. CSA Std. No 42-10, UL Std. 498.