

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-2007063-2
Report Reference E469256-20141020
Date 4-Apr-2021

Issued to: HIROSE ELECTRIC CO., LTD.
2-6-3 NAKAGAWA CHUOH
TSUZUKI-KU YOKOHAMA-SHI , KANAGAWA,
Japan 224-8540

This is to certify that representative samples of RFWV8 - Electrical Quick-connect Terminals Certified for Canada - Component
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: CSA C22.2 NO. 153-14, 3rd Ed., Issue Date: 2014-10-01

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Recognized Component Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Recognized Component Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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Certificate Number UL-CA-2007063-2
Report Reference E469256-20141020
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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Model	Category Description
DF59M-1S-H(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect copper alloy tab
DF59M-2224PCF(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect connectors for copper alloy tab
DF59M-2628PCF(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect connectors for copper alloy tab



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CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-2009262-2
Report Reference E469256-20141020
Date 4-Apr-2021

Issued to: HIROSE ELECTRIC CO., LTD.
2-6-3 NAKAGAWA CHUOH
TSUZUKI-KU YOKOHAMA-SHI , KANAGAWA,
Japan 224-8540

This is to certify that representative samples of RFWV2 - Electrical Quick-connect Terminals - Component
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the component requirements in the Standard(s) indicated on this Certificate. UL Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for installation in complete equipment submitted for investigation to UL LLC.

Standard(s) for Safety: UL 310, 9th Ed., Issue Date: 2014-10-17

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This *Certificate of Compliance* does not provide authorization to apply the UL Recognized Component Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

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Look for the UL Recognized Component Mark on the product.

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Certificate Number UL-US-2009262-2
Report Reference E469256-20141020
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Model	Category Description
DF59M-1S-H(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect copper alloy tab
DF59M-2224PCF(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect connectors for copper alloy tab
DF59M-2628PCF(**) may be (01) thru (99) or None , indicating packaging differences or plating variations. (No-construction issue)	Non-insulated quick-connect connectors for copper alloy tab



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File E469256
Project 4786474479

October 20, 2014

REPORT

on

COMPONENT - ELECTRICAL QUICK-CONNECT TERMINALS

Hirose Electric Co., Ltd.
Kanagawa Japan

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DESCRIPTION

PRODUCT COVERED:

* USR, CNR Component Non-insulated quick-connect connectors for copper alloy tab, Cat. Nos. DF59M-2224PCF(**) and DF59M-2628PCF(**). "(**)" denotes minor differences, may be **(01) thru (99) or None**, indicating packaging differences or plating variations. **(No-construction issue)**

* USR, CNR Component Non-insulated quick-connect copper alloy tab, Cat. No. DF59M-1S-H(**). "(**)" denotes minor differences, may be **(01) thru (99) or None**, indicating packaging differences or plating variations. **(No-construction issue)**

GENERAL CHARACTER AND USE:

The products covered are non-insulated quick-connect connectors and tab intended for factory termination of internal wiring of electrical equipment. They may be reel fed or loose piece. They are intended for assembly onto rated copper wire using specific tooling.

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Products designated USR have been investigated using requirements contained in the Standard for Electrical Quick Connect Terminals, UL 310.

Products designated CNR have been investigated using requirements contained in the Standard for Electrical Quick Connect Terminals, CSA C22.2 No. 153-09.

Conditions of Acceptability -

These devices are for use only in (or with) complete equipment where the acceptability of the combination is determined by UL LLC.

1. These devices are not to be used for current interruption.
2. These devices are only for internal wiring in electrical equipment.
3. The connector, Cat. Nos. DF59M-2224PCF and DF59M-2628PCF covered by this report is of nonstandard sizes and is intended for use only with mating tab, Cat. No. DF59M-1S-H, covered in this report.
4. The connector is intended to be assembled to rated wire using tooling as below, manufactured by Hirose Electric Co., Ltd.

Power Tooling	Wire Size AWG	Insulation/Wire Crimper (Die), Part No.	Insulation/Wire Anvil, Part No.
Crimping Applicator Cat. No AP105	22, 24	286897/286898	286899/286900
	26	286897/286902	286899/286904

and Report

RATINGS:

The wire strip length is 1.3 mm minimum and 1.7 mm maximum.

The quick-connect connector is for use on the following copper wire sizes, copper alloy production tab, covered by this Report, using the specified tooling.

Cat. No.	Wire Range AWG	No. of Strands	Mating Tab Cat. No.	Crimping Tooling
DF59M-2224PCF	22	7	DF59M-1S-H	Crimping Applicator: AP105 Insulation Crimper (die): 286897 Wire Crimper(Die): 286898 Insulation Anvil: 286899 Wire Anvil: 286900
	24	(a)		
DF59M-2628PCF	26	(a)	DF59M-1S-H	Crimping Applicator: AP105 Insulation Crimper (die): 286897 Wire Crimper(Die): 286902 Insulation Anvil: 286899 Wire Anvil: 286904

(a) Number of strands vary.

MARKING:

Each connector and tab is marked with the manufacturer's name or trademark.

The smallest container, reel or packaging are permanently marked with:

1. The Recognized, trade name or trademark.
2. Catalog number, model number or the equivalent.
3. Wire size or range. (Cat. Nos. DF59M-2224PCF and DF59M-2628PCF only)
4. A statement referring to the installation instructions containing the proper tooling to be used. (Cat. Nos. DF59M-2224PCF and DF59M-2628PCF only)
5. A statement indicating the connectors and tab are for internal wiring of equipment.
6. Copper wiring only or equivalent wording. (Cat. Nos. DF59M-2224PCF and DF59M-2628PCF only)
7. Stranded or STR (Cat. Nos. DF59M-2224PCF and DF59M-2628PCF only)
8. Strip length (Cat. Nos. DF59M-2224PCF and DF59M-2628PCF only)

INSTRUCTIONS:

Installation instructions are provided and include the following:

1. Tool designation. Pressing die identified by parts number or die index number.
2. Strip length is 1.3 mm minimum and 1.7 mm maximum.