

CERTIFICATE OF COMPLIANCE

Certificate Number UL-CA-L52653-82906102-4
Report Reference E52653-20160928
Date 1-Aug-2022

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

This is to certify that representative samples of ECBT8 - Connectors for Use in Data, Signal, Control and Power Applications Certified for Canada - Component
See Addendum Page for Product Designation(s).

Have been evaluated 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. 182.3, 2nd Ed., Issue Date: 2016-07, Revision Date: 2021-5

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

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Recognized Component Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance 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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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
Series DF63W , DF63W, , may be followed by A, R or AR, followed by -2, -3 or -4, followed by EP or S, followed by -3.96C, may be followed by (01) through (99)	Component Connectors
Series DF63W , DF63WA, , followed by -5 or -6, followed by EP or S, followed by -3.96C, may be followed by (01) through (99)	Component Connectors



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Japan

This is to certify that representative samples of ECBT2 - Connectors for Use in Data, Signal, Control and Power Applications - Component
See Addendum Page for Product Designation(s).

Have been evaluated 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 1977, 3rd Ed., Issue Date: 2016-01-07, Revision Date: 2020-11-17

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

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Model	Category Description
Series DF63W , DF63W, , may be followed by A, R or AR, followed by -2, -3 or -4, followed by EP or S, followed by -3.96C, may be followed by (01) through (99)	Component Connectors
Series DF63W , DF63WA, , followed by -5 or -6, followed by EP or S, followed by -3.96C, may be followed by (01) through (99)	Component Connectors



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File E52653
Project 4787517593

September 28, 2016

REPORT

on

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL AND
POWER APPLICATIONS

Hirose Electric Co Ltd
Kanagawa Japan

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DESCRIPTION

PRODUCT COVERED:

* USR, CNR Component Connector, Series DF63W:

Cat. Nos. DF63W, may be followed by A, R or AR, followed by -2, -3 or -4, followed by EP or S, followed by -3.96C, may be followed by (01) through (99).

Cat. Nos. DF63WA **followed by -5 or -6**, followed by EP or S, followed by -3.96C, may be followed by (01) through (99).

GENERAL:

These devices are multi-pole connectors intended for factory assembly on copper wire sizes as indicated in Ratings table below where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR - Products designated USR have been investigated using US requirements as noted in the Test Record.

CNR - Products designated CNR have been investigated using Canadian requirements as noted in the Test Record.

RATINGS:

Series	Voltage (Vac/Vdc)	Contacts Part No.	Conductor Sizes AWG (Str, Cu)	Number of poles	Amps per Pole, A
DF63W	600	DF63-1618PC (F) DF63W-1618SC (F)	16	2	14
				3	13
				4	12
				5	10
				6	10
			18	2	11
				3	10
				4	9
				5	8
				6	8
		DF63-2022PC (F) DF63W-2022SC (F)	20	2	11 (For USR) 10 (For CNR)
				3	8
				4	7
				5	7
				6	6.5
			22	2	9 (For USR) 8 (For CNR)
				3	7
				4	6
				5	6
				6	5.5

Disconnecting Use - see Sec Gen for required marking

NOMENCLATURE: The series DF63W are designated as follows:

Example:

<u>DF63W</u>	<u>A</u>	<u>-2</u>	<u>S</u>	<u>-3.96</u>	<u>C</u>	<u>(**)</u>
I	II	III	IV	V	VI	VII

I: Series Name: DF63W

II: Housing Style -

Blank: Black color, outside diameter of the wire insulation; 2.8-3.2 mm.

A: Black color, outside diameter of the wire insulation; 1.6-2.45 mm.

R: White color, difference mating key type, outside diameter of the wire insulation; 2.8-3.2 mm.

AR: White color, difference mating key type, outside diameter of the wire insulation; 1.6-2.45 mm.

III: Number of Contacts -

2: Two contacts

3: Three contacts

4: Four contacts

5: Five contacts

6: Six contacts

IV: Connector Style -

S: Female contact

EP: Male contact for extension plug

V: Contact Pitch - 3.96 mm

VI: Termination Style - Crimp type

VII: Customer specifications -

(01) to (99): Indicating packaging differences, plating variations, Insulator material color variations or identification of insulating material.

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

Use - For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC.

Conditions of Acceptability - The following are among the considerations to be made when evaluating the device in the end-use product.

Interruption of Current

1. These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.

Current-Carrying Capability and Current Ratings

2. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise and recorded temperature (adjusted to 25°C ambient) values tabulated below:

Cat Nos.	Contacts, Part No.	Wire Size, AWG	Current, A	Maximum Temperature °C	
				Rise	Recorded Temperature
DF63W-4EP-3.96C mating with DF63W-4S-3.96C	DF63-1618PC (F) DF63W-1618SC (F)	16	12	22.4	47.4
		18	9	20.4	45.4
DF63WA-4EP-3.96C mating with DF63WA-4S-3.96C	DF63-2022PC (F) DF63W-2022SC (F)	20	7	19.0	44.0
		22	6	20.4	45.4
DF63W-3EP-3.96C mating with DF63W-3S-3.96C	DF63-1618PC (F) DF63W-1618SC (F)	16	13	22.7	47.7
		18	10	19.7	44.7
DF63WA-3EP-3.96C mating with DF63WA-3S-3.96C	DF63-2022PC (F) DF63W-2022SC (F)	20	8	21.1	46.1
		22	7	23.7	48.7
DF63W-2EP-3.96C mating with DF63W-2S-3.96C	DF63-1618PC (F) DF63W-1618SC (F)	16	14	19.9	44.9
		18	11	20.8	45.8
DF63WA-2EP-3.96C mating with DF63WA-2S-3.96C	DF63-2022PC (F) DF63W-2022SC (F)	20	11 (For USR)	31.7	56.7
			10 (For CNR)	26.8	51.8
		22	9 (For USR)	37.6	62.6
			8 (For CNR)	25.6	50.6
DF63WA-5EP-3.96C mating with DF63WA-5S-3.96C	DF63-1618PC (F) DF63W-1618SC (F)	16	10	19.1	44.1
		18	8	19.4	44.4
	DF63-2022PC (F) DF63W-2022SC (F)	20	7	22.8	47.8
		22	6	23.4	48.4
DF63WA-6EP-3.96C mating with DF63WA-6S-3.96C	DF63-1618PC (F) DF63W-1618SC (F)	16	10	19.8	44.8
		18	8	17.9	42.9
	DF63-2022PC (F) DF63W-2022SC (F)	20	6.5	16.8	41.8
		22	5.5	20.7	45.7