

# Certificate of Compliance

**Certificate Number:**

UL-US-2417597-0

**Report Reference:**

E52653-20240530

**Issue Date:**

2024-06-05

Issued to:

**HIROSE ELECTRIC CO., LTD.  
2-6-3 NAKAGAWA CHUOH  
TSUZUKI-KU YOKOHAMA-SHI, Kanagawa 224-8540  
Japan**

This certificate confirms 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.

**UL 1977, Edition 4, Issue Date 2022-12-07**

Additional Information:

See UL Product iQ® 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.



David Piecuch  
UL Mark Certification Program Manager



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# CERTIFICATE OF COMPLIANCE

**Certificate number** UL-US-2417597-0  
**Report reference** E52653-20240530  
**Date** 2024-06-05

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

<b>Model</b>	<b>Product Description</b>
<b>Series DF52</b> , DF52-(x)P-0.8C(yy), (where(x) represents 2 to 20 and (yy) represents none or (01) to (99))	Component Connector, Socket type
<b>Series DF52</b> , DF52-(x)S-0.8H(yy), (where(x) represents 2 to 20 and (yy) represents none or (01) to (99))	Component Connector, Receptacle type



David Piecuch  
UL Mark Certification Program Manager

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# Certificate of Compliance

**Certificate Number:**

UL-CA-2414324-0

**Report Reference:**

E52653-20240530

**Issue Date:**

2024-06-05

Issued to:

**HIROSE ELECTRIC CO., LTD.  
2-6-3 NAKAGAWA CHUOH  
TSUZUKI-KU YOKOHAMA-SHI, Kanagawa 224-8540  
Japan**

This certificate confirms 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.

**CSA C22.2 No. 182.3, 2nd Ed., Issue Date: 2016-07, Revision Date: 2021-5**

Additional Information:

See UL Product iQ® 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.



David Piecuch  
UL Mark Certification Program Manager



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# CERTIFICATE OF COMPLIANCE

**Certificate number** UL-CA-2414324-0  
**Report reference** E52653-20240530  
**Date** 2024-06-05

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Model	Product Description
<b>Series DF52</b> , DF52-(x)P-0.8C(yy), (where(x) represents 2 to 20 and (yy) represents none or (01) to (99))	Component Connector, Socket type
<b>Series DF52</b> , DF52-(x)S-0.8H(yy), (where(x) represents 2 to 20 and (yy) represents none or (01) to (99))	Component Connector, Receptacle type



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UL Mark Certification Program Manager

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File E52653  
Project 4791141479

May 30, 2024

REPORT

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

HIROSE ELECTRIC CO., LTD.  
YOKOHAMA, Japan

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## DESCRIPTION

## PRODUCT COVERED:

USR/CNR Component Connector, Series DF52,

(Receptacle) Cat. No. DF52-(x)S-0.8H(yy).

(Socket) Cat. No. DF52-(x)P-0.8C(yy).

Note: (x) represents 2 to 20.

(yy) represents none or (01) to (99).

## GENERAL:

These devices are multi-pole connectors intended for factory assembly on copper wire sizes as indicated in Ratings table below and printed wiring boards 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:

Type	Cat. Nos.	Number of Contact (x) represents	Ampere (A)	Conductor Sizes, AWG (Str)	Voltage (Vac/Vdc)
Receptacle	DF52-(x)S-0.8H(yy)	2	2.5	N/A	29.9
		3 - 5	2.0		
		6 - 10	1.5		
		12 - 20	1.2		
Socket	DF52-(x)P-0.8C(yy)	2	2.5	28	29.9
			2.0	30	
			1.5	32	
		3 - 5	2.0	28	
			1.5	30	
			1.0	32	
		6 - 10	1.5	28	
			1.2	30	
			0.8	32	
		12 - 20	1.2	28	
			1.0	30	
			0.8	32	

Disconnecting Use - see Sec Gen for required marking

NOMENCLATURE: The Series DF52 are designated as follows:

Example: Cat. No. DF52-2P-0.8C(01)

DF52	-2	P	-0.8	C	(01)
a	b	c	d	e	f

a) - Basic Construction: Series Name, DF52

b) - Number of contacts:

-2 thru -20: 2 contacts thru 20 contacts

c) - Contact type

S: Receptacle (Plating: Tin or Gold)

P: Crimp socket (Plating: Tin or Gold)

d) - Contact pitch:

0.8: 0.8 mm

e) - Connector type:

H: Angled receptacle

C: Crimp socket

f) - Customer specifications -

Indicating packaging differences, Plating variations, Insulator material color variations, none or (01) to (99)



## 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.	Wire size, AWG (STR)	Current, A	Maximum Temperature °C	
			Rise	Recorded Temperature
DF52-2S-0.8H with DF52-2P-0.8C	28	2.5	18.0	43.0
	30	2.0	13.2	38.2
	32	1.5	13.0	38.0
DF52-5S-0.8H with DF52-5P-0.8C	28	2.0	17.8	42.8
	30	1.5	14.7	39.7
	32	1.0	11.3	36.3
DF52-10S-0.8H with DF52-10P-0.8C	28	1.5	15.6	40.6
	30	1.2	14.7	39.7
DF52-20S-0.8H with DF52-20P-0.8C	28	1.2	13.9	38.9
	30	1.0	13.7	38.7
	32	0.8	13.0	38.0