

CERTIFICATE OF COMPLIANCE

Certificate Number UL-US-L52653-111-72211991-8
Report Reference E52653-19911227
Date 12-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 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

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 DF3, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3A, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3AA, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3D, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3DZ, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3F, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors
Series DF3Z, , followed by -2 thru -15, followed by S, P or EP, followed by -2, followed by DS, C, H, DSA, R24, R26 or R28, followed by 01 thru 99 or blank.	Connectors



Bruce Mahrenholz, Director North American Certification Program

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File E52653

December 27, 1991

REPORT

on

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

HIROSE ELECTRIC CO., LTD.
NAKAGAWA CHUOH, TSUZUKI-KU - Japan

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D E S C R I P T I O N

PRODUCT COVERED:

USR: Connectors, Series No. DF3, DF3A, DF3F, DF3D, DF3Z, DF3DZ,
DF3AA - %+ - 2@@(##)
% : 2-15
+ : P, S, EP
@@ : DS, H, C, DSA, R24, R26, R28
: 01-99, or blank

Connectors, Cat. No. DF3-%S-2C(##)
DF3-%S-2R26(##)
DF3-%S-2R28(##)
DF3-%P-2DS(##)
DF3-%P-2DSA(##)
DF3-%EP-2C(##)
DF3A-%P-2DS(##)
DF3A-%P-2DSA(##)
DF3AA-%EP-2C(##)
DF3F-%S-2R24(##)
DF3F-%S-2R26(##)
DF3F-%S-2R28(##)

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.

ELECTRICAL RATING:

<u>Connector Type</u>	<u>Contact Type</u>	<u>Wire Size</u>	<u>Voltage</u>	<u>Amps</u>
Right angle dip solder tail			@	3 A
Right angle SMT			@	3 A
Straight dip solder tail			@	3 A
Crimp	DF3-22SC	AWG 22	@	3 A
	DF3-2428SC	AWG 24	@	3 A
	DF3-2428SC	AWG 26	@	2 A
	DF3-2428SC	AWG 28	@	1 A
	DF3-EP2428PC	AWG 24	@	3 A
	DF3-EP2428PC	AWG 26	@	2 A
	DF3-EP2428PC	AWG 28	@	1 A
Insulation Displacement (for ribbon cable)		AWG 24, 26, 28	@	1 A

@ - 30 V ac for contact pitch 2 mm, 550 V ac for contact pitch 6 mm.
Contact pitch is the distance between the contacts.

Disconnecting Use (see Sec Gen for required marking).

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

* Use - For use only in 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.**

1. The temperature on the body is not to exceed 65°C under normal use condition.
- *2. **Deleted.**
- *3. **These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.**
- *4. **Deleted.**
- *5. **Deleted.**
- *6. **The enclosure of the device has live parts that may be exposed to user contact when the connector is energized. The device is suitable for use only within an acceptable enclosure.**
- *7. **Deleted.**
8. The factory assembled contacts have been investigated for the following wire and a minimum tensile force.

<u>Model No.</u>	<u>Wire (AWG)</u>	<u>Tensile Force (lb)</u>
DF3-15EP-2C	28	7.0