File E52653 Project 11CA10888

October 21, 2011

REPORT

on

COMPONENT - Connectors for Use in Data, Signal, Control and Power Applications

Hirose Electric Co Ltd YOKOHAMA, JP

Recognized Company: Hirose Electric Co Ltd TOKYO, JAPAN

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DESCRIPTION

PRODUCT COVERED:

USR, CNR - Component Receptacle Connector, Cat. Nos. DF59-2S-2V, DF59-3S-2V, DF59-4S-2V, DF59-2S-4V and DF59-2S-6V. Each may optionally be followed by two digits, 01 thru 99.

USR, CNR - Component Plug Connector, Cat. Nos. DF59-2P-2FC, DF59-2P-2SP, DF59-3P-2FC, DF59-3P-2SP, DF59-4P-2FC, DF59-2P-4FC, DF59-2P-6FC, DF59-2P-2C, DF59-3P-2C and DF59-4P-2C. Each may optionally be followed by two digits, 01 thru 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 Underwriters Laboratories Inc. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

CNR indicates investigation to Canadian National Standards, C22.2 No. 182.3.

RATINGS:

Cat. Nos.	Voltage Vac/Vdc	Ampere (A)	Conductor Sizes, AWG Str
DF59-2P-2C, DF59-3P-2C, DF59-4P-2C.	29.9	3	22 AWG
DF59-2S-2V, DF59-3S-2V, DF59-4S-2V, DF59-2P-2FC, DF59-2P-2SP, DF59-3P-2FC, DF59-3P-2SP, DF59-4P-2FC, DF59-2S-4V, DF59-2P-4FC, DF59-2S-6V, DF59-2P-6FC.	29.9	3	-

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NOMENCLATURE

1. Receptacle connector

Example: DF59-
$$\frac{4}{\text{(i)}}$$
 $\frac{\text{S}}{\text{(ii)}}$ - $\frac{2}{\text{(iii)}}$ $\frac{\text{(O1)}}{\text{(iv)}}$ (v)

- (iii) Contact pitch in mm 2, 4 or 6
- (v) Customer specification (packaging) Blank or two digits 01 thru 99.
- 2. Plug connector

Example: DF59-
$$\frac{4}{(i)}$$
 $\frac{P}{(ii)}$ - $\frac{2}{(iii)}$ $\frac{FC}{(iv)}$ $\frac{(01)}{(iv)}$ (v)

- (i) Number of contacts
 2
 3 or 4 (2mm contact pitch only)
- (ii) Contact
 P Male contact
- (iii) Contact pitch in mm 2, 4 or 6
- (iv) Mounting

FC - for junction plug
SP - for shorting plug (2 and 3 pole, 2 mm contact pitch only).
C - crimp contact - (2 mm contact pitch only).

(v) Customer specification (packaging) Blank or two digits 01 thru 99. File E52653 Vol. 11 Sec. 17 Page 3 Issued: 2011-10-21 and Report Revised: 2020-09-01

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 Underwriters Laboratories Inc.

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

- 1. These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.
- 2. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise values tabulated below.

Cat Nos.	Current, A	Maximum Temperature Rise, °C
DF59-4S-2V mated to DF59-4P-2C	3	26.2
DF59-4S-2V mated to DF59-4P-2FC	3	23.2
DF59-2S-4V mated to DF59-2P-4FC	3	28.7
DF59-2S-4V mated to DF59-3P-2SP	3	15.5

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