

File E52653
Project 4786988848

November 25, 2015

REPORT

On

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

HIROSE ELECTRIC CO LTD
KANAWAGAWA 224-0540 JAPAN

Copyright © 2015 UL LLC

UL LLC authorizes the above named company to reproduce this Report only for purposes as described in the Conclusion. The Report should be reproduced in its entirety; however to protect confidential product information, the Construction Details Descriptive pages may be excluded.

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Connector, Series DF65, Cat. Nos. DF65-3P-1.7V(**), DF65-4P-1.7V(**), DF65-5P-1.7V(**), DF65-6P-1.7V(**), DF65-7P-1.7V(**), DF65-10P-1.7V(**), DF65-3S-1.7C(**), DF65-4S-1.7C(**), DF65-5S-1.7C(**), DF65-6S-1.7C(**), DF65-7S-1.7C(**) and DF65-10S-1.7C(**). "(**)" denotes minor differences, may be 01-99 or blank, indicating packaging differences and plating variations.

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 indicates investigation to United States Standards, UL 1977.

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

RATINGS:

Cat. Nos.	Contact Type	Voltage (Vac/Vdc)	Ampere, (A)		Conductor Sizes, AWG, (Cu, Str)
			USR	CNR	
DF65-3P-1.7V(**)	Header Pin, Solder Type	50	5.0	5.0	(+)
DF65-4P-1.7V(**)		50	4.5	4.5	
DF65-5P-1.7V(**)		50	4.0	4.0	
DF65-6P-1.7V(**)		50	3.5	3.5	
DF65-7P-1.7V(**)					
DF65-10P-1.7V(**)					
DF65-3S-1.7C(**)	Crimp Type, DF65-2428SCF(**) DF65-2428SCFA(**)	50	5.0	5.0	24
			4.0	3.3	26, 28
DF65-4S-1.7C(**)		50	4.5	4.5	24
			3.5	3.0	26, 28
DF65-5S-1.7C(**)		50	4.0	4.0	24
			3.0	3.0	26, 28
DF65-6S-1.7C(**)		50	3.5	3.5	24
DF65-7S-1.7C(**)			2.5	2.5	26
DF65-10S-1.7C(**)			2.0	2.0	28

(+) Mounted on printed wiring boards.

Disconnecting Use - see Sec Gen for required marking

NOMENCLATURE:

The Series DF65 are designated as follows:

Example:

DF65	-3	P	1.7	V	(**)
I	II	III	IV	V	VI

I: - Basic Construction
DF65: Series designation

II: - Number of Poles
-3: 3 poles
-4: 4 poles
-5: 5 poles
-6: 6 poles
-7: 7 poles
-10: 10 poles

III: - Connector Style
P: Pin Header
S: Socket

IV: - Contact Pitch
-1.7: 1.7 mm

V: - Terminal Style
V: Solder type
C: Crimp type

VI: - Customer Specifications
(01) to (99): Indicating packing differences and plating variations.

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.

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:

Test Condition	Cat Nos.	Wire Size (AWG)	Current, A	Maximum Temperature °C	
				Rise	Recorded Temperature
DF65-3P-1.7V mating with DF65-3S-1.7C	DF65-3P-1.7V	-	5.0 (USR, CNR)	29.5	54.5
	DF65-3S-1.7C	24		29.5	54.5
	DF65-3P-1.7V	-	4.0 (USR)	33.2	58.2
	DF65-3S-1.7C	28		37.3	62.3
	DF65-3P-1.7V	-	3.3 (CNR)	20.2	45.2
	DF65-3S-1.7C	28		28.2	53.2
DF65-4P-1.7V mating with DF65-4S-1.7C	DF65-4P-1.7V	-	4.5 (USR, CNR)	22.8	47.8
	DF65-4S-1.7C	24		29.4	54.4
	DF65-4P-1.7V	-	3.5 (USR)	55.8	55.8
	DF65-4S-1.7C	28		37.2	62.2
	DF65-4P-1.7V	-	3.0 (CNR)	22.1	47.1
	DF65-4S-1.7C	28		27.0	52.0
DF65-5P-1.7V mating with DF65-5S-1.7C	DF65-5P-1.7V	-	4.0 (USR, CNR)	23.1	48.1
	DF65-5S-1.7C	24		29.0	54.0
	DF65-5P-1.7V	-	3.0 (USR, CNR)	29.3	54.3
	DF65-5S-1.7C	28		26.6	51.6
DF65-10P-1.7V mating with DF65-10S-1.7C	DF65-10P-1.7V	-	3.5 (USR, CNR)	22.6	47.6
	DF65-10S-1.7C	24		29.4	54.4
	DF65-10P-1.7V	-	2.5 (USR, CNR)	17.1	42.1
	DF65-10S-1.7C	26		25.2	50.2
	DF65-10P-1.7V	-	2.0 (USR, CNR)	12.5	37.5
	DF65-10S-1.7C	28		19.7	44.7