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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Applicable standard				
Rating	Operating Temperature Range	-55 to +105°C (Note1)	Storage Temperature Range	-10 °C to +60°C (Note3)
	Operating Humidity Range	20% to 80% (Note2)	Storage Humidity Range	40% to 70% (Note3)
	Applicable Connector	DF51A-4DP-2DSA(##) DF51-4DP-2DS(##) DF51-4DEP-2C(##)	Current	AWG 22 : 3.0A AWG 24 : 2.5A AWG 26 : 2.0A AWG 28 : 1.0A AWG 30 : 0.5A
	Applicable Contact	DF11-22SC(A)/SCF(A) DF11-2428SC(A)/SCF(A) DF11-30SC(A)/SCF(A)		UL · C-UL Rating
	Voltage	250 V AC/DC	Current	AWG 22 : 2.0A AWG 24 to 28 : 1.0A AWG 30 : 0.5A

### Specifications

Item	Test method	Requirements	QT	AT
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#### Construction

General Examination	Visually and by measuring instrument.	According to drawing.	X	X
Marking	Confirmed visually.		X	X

#### Electric Characteristics $\Delta$

Insulation Resistance	500 V DC.	1000 M $\Omega$ MIN.	X	—
Voltage Proof	650 V AC for 1 min.	No flashover or breakdown.	X	—

#### Mechanical Characteristics

Mechanical Operation (Sn Plating)	30 times insertion and extraction.	No damage, crack or looseness of parts. $\Delta$	X	—
Mechanical Operation (Au Plating)	50 times insertion and extraction.		X	—
Mating and unmating Force (Sn Plating)	It takes out and inserts with a conformity connector.	1.Insertion Force : 24.2N MAX. 2.Extraction Force : 1.2N MIN.	X	—
Mating and unmating Force (Au Plating)	It takes out and inserts with a conformity connector.	1.Insertion Force : 18.5N MAX. 2.Extraction Force : 1.0N MIN.	X	—
Vibration	Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.	No damage, crack or looseness of parts. $\Delta$	X	—
Shock	Acceleration 490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times for 3 directions.		X	—
Contact extraction force	Pull out the cable after housing fixation.	11.8N MIN	X	—

#### Environmental Characteristics

Damp Heat (Steady State)	Exposed at 40 $\pm$ 2°C, humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)	1. Insulation resistance: 500 M $\Omega$ MIN. $\Delta$ 2.No damage, crack or looseness of parts.	X	—
Rapid Change Of Temperature	Temperature -55°C $\rightarrow$ +105°C Time 30min $\rightarrow$ 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.)	1. Insulation resistance: 1000 M $\Omega$ MIN. $\Delta$ 2.No damage, crack or looseness of parts.	X	—
Dry Heat	Exposed at 105 $\pm$ 2°C, 96h		X	—
Cold	Exposed at -55 $\pm$ 3°C, 96h		X	—

Remarks  
 Note 1: Include the temperature rising by current.  
 Note 2: No condensing  
 Note 3: Apply to the condition of long term storage for unused products before mount on pcb,  
 After mounted on pcb, operating temperature and humidity range is applied for interim storage during transportation.

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
$\Delta$	5	DIS-H-00004496	TS. MIYAKI	SZ. ONO	20181211

Unless otherwise specified, refer to IEC 60512.	APPROVED	HS. OKAWA	20160707
	CHECKED	YN. TAKASHITA	20160707
	DESIGNED	TT. OHSAKO	20160707
	DRAWN	TT. OHSAKO	20160707

Note QT: Qualification Test AT: Assurance Test X: Applicable Test DRAWING NO. ELC-362054-00-00

<b>HRS</b>	SPECIFICATION SHEET	PART NO.	DF51-4DS-2C		
	HIROSE ELECTRIC CO., LTD.	CODE NO.	GL543-5030-8-00	$\Delta$	1/1