

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)	
	Voltage	250 V AC/DC		UL • C-UL Rating	Voltage	
	Current	AWG 22 to 24 : 2.0A AWG 26 : 1.5A AWG 28 : 1.0A AWG 30 : 0.5A		Current	30 V AC/DC	
			Applicable Connector		2.0A	
				DF51-18DS-2C		
				DF11-****SC(F)(##)		
Specifications						
Item		Test method		Requirements	QT AT	
Construction						
General Examination		Visually and by measuring instrument.		According to drawing.	X X	
Marking		Confirmed visually.			X X	
Electric Characteristics						
Contact Resistance Millivolt Level Method		20mV MAX, 1mA (DC or 1000Hz).		30 mΩ MAX.	X —	
Insulation Resistance		500 V DC.		1000 MΩ MIN.	X —	
Voltage Proof		650 V AC for 1 min.		No flashover or breakdown.	X —	
Mechanical Characteristics						
Mechanical Operation		30 times insertion and extraction.		1.Contact resistance: 30 mΩ MAX. 2.No damage, crack or looseness of parts.	X —	
Mating and unmating force		It takes out and inserts with a conformity connector.		1.Insertion Force :80.2 N MAX. 2.Extraction Force :4.7 N MIN.	X —	
Vibration		Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 directions.		1.No electrical discontinuity of 1 μs. 2.No damage, crack or looseness of parts.	X —	
Shock		Acceleration 490 m/s ² duration of pulse 11 ms at 3 times for 3 directions.			X —	
Environmental Characteristics						
Damp Heat (Steady State)		Exposed at 40 ± 2°C, humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)		1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 500 MΩ MIN. 3.No damage, crack or looseness of parts.	X —	
Rapid Change Of Temperature		Temperature -55°C → +105°C Time 30min → 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.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	X —	
Dry Heat		Exposed at 105 ± 2°C, 96h		1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	X —	
Cold		Exposed at -55 ± 3°C, 96h		1.Contact resistance: 30 mΩ MAX. 2.Insulation resistance: 1000 MΩ MIN. 3.No damage, crack or looseness of parts.	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	
③	2	DIS-H-00005270	TS. MIYAKI	SZ. ONO	20190912	
Unless otherwise specified, refer to IEC 60512.				APPROVED	HS. OKAWA	20180403
				CHECKED	ST. WADA	20180403
				DESIGNED	TH. SATO	20180403
				DRAWN	TH. SATO	20180403
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-363510-00-00	
HRS	SPECIFICATION SHEET		PART NO.	DF51A-18DP-2DSA		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL543-5050-0-00	③ 1/2	

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