

Applicable standard				
Rating	Operating Temperature Range	-55°C to +85°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	50 V AC/DC	Applicable Connector	DF53-12S-0.6H(##)
Current	All pin	AWG 32 : 0.7A	Applicable Contact	DF53-32SCF
	Any of 2 pins as a power	AWG 32 : 1.3A(power), 0.5A(signal)		

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

Insulation Resistance	100 V DC.	100 MΩ MIN.	X	—
Voltage Proof	200 V AC for 1 min.	No flashover or breakdown.	X	—

Mechanical Characteristics

Mechanical Operation	20 times insertion and extraction.	No damage, crack or looseness of parts.	X	—
Mating and unmating Force	It takes out and inserts with a conformity connector.	1.Insertion Force : 19.6N MAX. 2.Extraction Force : 3.6N 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.	X	—
Shock	Acceleration 500 m/s ² duration of pulse 11 ms at 3 times for 3 directions.		X	—
Contact extraction force	Pull out the cable after housing fixation.	3N MIN	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. Insulation resistance: 100 MΩ MIN. 2.No damage, crack or looseness of parts.	X	—
Rapid Change Of Temperature	Temperature -55°C→ +85°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. Insulation resistance: 100 MΩ MIN. 2. No damage, crack or looseness of parts.	X	—
Dry Heat	Exposed at 85 ± 2°C, 96h		X	—
Cold	Exposed at -55 ± 3°C, 96h		X	—

Remarks
 Note 1: Include the temperature rising by current.
 Note 2: No condensing. Apply to the condition of long term storage for unused products before harness assembly.
 Note 3: Applicable to unused product packaging.

△	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△	0				

Unless otherwise specified, refer to IEC 60512.	APPROVED	SJ. OKAMURA	20231228
	CHECKED	SZ. ONO	20231228
	DESIGNED	JN. TONAI	20231227
	DRAWN	JN. TONAI	20231227

Note QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-380638-00-00
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HRS	SPECIFICATION SHEET	PART NO.	DF53-12P-0. 6C
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0668-1020-0-00 △ 2/1