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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	-40 °C to +105 °C (Note1)	Storage Temperature range	-10 °C to +60 °C (Note2)
	Operating Humidity range	20 % to 80 %	Storage Humidity range	40 % to 70 % (Note2)
	Applicable connector	DF63WA-*S-3.96C(##)	Voltage	AC/DC 630 V
	Applicable cable	AWG#20 to 22	Current 	AWG 20: 9 A
	Insulation diameter	Φ1.7 to 1.9mm		AWG 22: 8 A

### Specifications

Item	Test method	Requirements	QT	AT
<b>Construction</b>				
General examination	Visually and by measuring instrument.	According to drawing.	X	X
Marking	Confirmed visually.		X	X
<b>Electric characteristics</b>				
Contact resistance	20 mV MAX, 1 mA (DC or 1000 Hz).	10 mΩ MAX.	X	—
<b>Mechanical characteristics</b>				
Contact insertion and Extraction forces	T=1.14±0.002 mm by steel gauge.	Insertion force 6.0 N MAX Extraction force 0.3 N MIN.	X	—
Mechanical operation	30 times insertion and extraction.	1) Contact resistance: 20 mΩ MAX. 2) No damage, crack or looseness of parts.	X	—
Vibration	Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.	1) No electrical discontinuity of 1 μs. 2) No damage, crack or looseness of parts.	X	—
Shock	490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times each for 3 both axial directions.	1) No electrical discontinuity of 1 μs. 2) No damage, crack or looseness of parts.	X	—
<b>Environmental characteristics</b>				
Damp heat (Steady state)	Exposed at 40±2 °C, 90 to 95 %, 96 h. (After leaving the room temperature for 1-2 h.)	1) Contact resistance: 20 mΩ MAX. 2) No damage, crack or looseness of parts.	X	—
Rapid change of temperature	Temperature -55 °C → +105 °C Time 30 min → 30 min Under 5 cycles. (The transferring time of the tank is 2-3 min) (After leaving the room temperature for 1-2 h)	1) Contact resistance: 20 mΩ MAX. 2) No damage, crack or looseness of parts.	X	—

Note 1: Include the temperature rising by current.

Note 2: Apply to the condition of long term storage for unused products before harness assembly.

After harness assembly, operation temperature and humidity range is applied for interim storage during transportation.

Count	Description of revisions	Designed	Checked	Date
 1	DIS-H-00005513	HT. SATO	SZ. ONO	20191126
Remarks Unless otherwise specified, refer to IEC 60512.			Approved	KI. AKIYAMA 20151217
			Checked	TS. FUKUSHIMA 20151216
			Designed	YK. YAMAGUCHI 20151216
			Drawn	HK. HAYASHI 20151216
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		Drawing No.	ELC-359244-00-00	
	Specification sheet	Part No.	DF63W-2022SCF	
	HIROSE ELECTRIC CO., LTD.	Code No.	CL680-0602-0-00	 1/1