APPLICABLE STANDARD				
Rating	Operating Temperature Range	−40 ℃ TO +85 ℃ (Note 1)	Storage Temperature Range	− ℃ TO − ℃
	Voltage	250 V AC	Applicable Cable	ϕ9.2±0.3
	Current	1 A		

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
ELECTRICAL CHARACTEREISTICS				
Contact Resistance	Measured at 20 V DC max, 10 mA (DC or 1000 Hz).	Between contact : 70 mΩ max. Between shell : 10 mΩ max.	X	X
Insulation Resistance	250 V DC	1000 MΩ min.	X	X
Voltage Proof	500 V AC. for 1 min.	No flashover or breakdown.	X	X
MECHANICAL CHARACTERISTICS				
Mating and Unmating Forces	Measured with an applicable connector.	Mating force : 78.4 N max. Unmating force : 19.6 N max.	X	—
Mechanical Operation	Mated and unmated 500 times.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② No damage, crack and looseness of parts.	X	—
Vibration	Frequency : 10 to 500 Hz, singe amplitude 0.75 mm, 98 m/s^2 at 3h for 6 directions.	① No electrical discontinuity of 1 μs. ② Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ③ No damage, crack and looseness of parts.	X	—
Shock	490 m/s^2 duration of pulse 11 ms for 3 times in 3 both axial directions.		X	—
ENVIRONMENTAL CHARACTERISTICS				
Rapid Change of Temperature	Temperature –40 → 5 to 35 → 105 → 5 to 35 ℃ Time 30 → 5 → 30 → 5 min Under 10 cycles.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② Insulation resistance : 1000 MΩ min. ③ No flashover or breakdown. ④ No damage, crack and looseness of parts.	X	—
Damp Heat/ Current Carrying	Mated connector with contacts connected in series. Exposed with current carrying at temperature 85℃, humidity 85% for 1000h. DC 0.5A , 30V Leave at room temperature for 2h after testing.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② Insulation resistance : 1000 MΩ min. ③ No flashover or breakdown. ④ No damage, crack and looseness of parts.	X	—
Dry Heat/ Current Carrying	Mated connector with contacts connected in series. Exposed with current carrying at temperature 105℃, for 1000h. DC 0.5A , 30V Leave at room temperature for 2h after testing.		X	—
Cold Resistance	Leave at -40 ℃, for 500h Leave at 5 to 35℃ for 1 to 2h After testing.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② No damage, crack and looseness of parts.	X	—
Corrosion Salt Mist	Exposed in 5 % salt water spray for 48 h.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② Insulation resistance : 25 MΩ min. ③ No heavy corrosion.	X	—

(Note 1) The operation temperature includes the temperature rise by current carrying.

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△0					

REMARK

Unless otherwise specified, refer to IEC 60512.

APPROVED	RI. TAKAYASU	18. 06. 05
CHECKED	AH. KODAMA	18. 06. 05
DESIGNED	MO. SHIMOYAMA	18. 06. 05
DRAWN	MT. YASUDA	18. 06. 05

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

	DRAWING NO.	ELC-120500-20-03	
HRS	SPECIFICATION SHEET	PART NO.	FI40B-20S-CV5(20)
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL230-0520-9-20 △0 1/2

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
Mixed Gas	Sulfur dioxide : 10 ppm Hydrogen sulfide : 3 ppm Temperature : 40 ± 2 ℃ Humidity : 70 to 80 % Exposed for 96 h	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② No heavy corrosion.	X	—
Machining Oil	Soak in machining oil at temperature 85 ℃,for 100h Tested with 3 different oils separately : UNISOLUBLE HD, UNISOLUBLE CC AND UNICUT TB15.	① Contact resistance : 70 mΩ max. Shell resistance : 10 mΩ max. ② Insulation resistance : 500 MΩ min. ③ No flashover or breakdown. ④ No damage, crack and looseness of parts.	X	—
Resistance to Soldering Heat	Soldering iron bit temperature : 350 ± 10 ℃, duration 3 ± 0.5 s. Solder temperature : 260 ± 5℃, duration 10 ± 1 s.	No deformation of case and excessive looseness of the terminals.	X	—
Solderability	Soldered at solder temperature 245 ± 5 ℃ for immersion, duration 3 ± 1 s.	Min.95% of solder immersed area shall be covered new solder coating.	X	—

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO.	ELC-120500-20-03			
HRS	SPECIFICATION SHEET	PART NO.	FI40B-20S-CV5(20)	
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL230-0520-9-20	△0 2/2

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