Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
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 +85°C	APPLICABLE CABLE	Φ8.5±0.3
	VOLTAGE	250 V AC	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
ELECTRIC CHARACTERISTICS				
CONTACT RESISTANCE	20 mV 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				
INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	INSERTION FORCE 58.8 N MAX. EXTRACTION FARCE 14.7 N MIN.	X	–
MECHANICAL OPERATION	500 TIMES INSERTIONS AND EXTRACTIONS.	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 SINGLE AMPLITUDE 0.75 mm, 98 m/s^2 AT 3h FOR 6 DIRECTIONS.	1) NO ELECTRICAL DISCONTINUITY OF 1μs. 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 DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.		X	–
ENVIRONMENTAL CHARACTERISTICS				
RAPID CHANGE OF TEMPERATURE	TEMPERATURE –40 → 5 TO 35 → 105 → 5 TO 35 °C 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			
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			
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	–

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠0					

REMARK

Unless otherwise specified, refer to JIS C 5402.

APPROVED	RI. TAKAYASU	12. 07. 25
CHECKED	EJ. WAKATSUKI	12. 07. 25
DESIGNED	TS. ITO	12. 07. 25
DRAWN	TY. ITO	12. 07. 23

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

DRAWING NO. ELC4-122493-02

HRS

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

PART NO. F140B-2015S-CVS(50)

CODE NO. CL230-0533-0-50 ⚠0

FORM HD0011-2-1

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 MACINING 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	SOLDER TEMPERATURE 350 ± 10 ℃, DURATION 3 ± 0.5 s AND 260 ± 5℃, DURATION10 ± 1 s FOR IMMERSION.	NO DEFORMATION OF CASE AND EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPRATURE 230 ± 5 ℃ FOR IMMERSION, DURATION 3 ± 0.5 s.	MIN.90% OF SOLDER IMMERSED AREA SHALL BE COVERED NEW SOLDER COATING.	X	—

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

HRS	SPECIFICATION SHEET	DRAWING NO.	ELC4-122493-02
		PART NO.	FI40B-2015S-CVS(50)
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL230-0533-0-50 ⚠6 2/2

FORM HD0011-2-2

Sep.1.2022 Copyright 2022 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.