

In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD		TEST METHOD		REQUIREMENTS	QT	AT
OPERATING TEMPERATURE RANGE	-40 °C TO 85 °C	STORAGE TEMPERATURE RANGE	-10 °C TO 50 °C (PACKED CONDITION)			
VOLTAGE	50 V AC / DC	OPERATING OR STORAGE HUMIDITY RANGE	RELATIVE HUMIDITY 90 % MAX (NOT DEWED)			
CURRENT	0.5 A (note)	APPLICABLE CABLE	CONDUCTOR END: t=0.3±0.05mm, GOLD PLATING GROUND PLATE: t=0.5±0.05mm, TIN PLATING			

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				
VOLTAGE PROOF	150 V AC FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	X
INSULATION RESISTANCE	100 V DC.	500 MΩ MIN.	X	X
CONTACT RESISTANCE	AC 20 mV MAX (1 KHz) , 1 mA.	100 mΩ MAX. INCLUDING FFC BULK RESISTANCE (L=8mm)	X	X

MECHANICAL CHARACTERISTICS

VIBRATION	FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, — m/s ² FOR 10 CYCLES IN 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF μs. ② CONTACT RESISTANCE: 100 mΩ MAX. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
SHOCK	981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.			
MECHANICAL OPERATION	20 TIMES INSERTIONS AND EXTRactions.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
FFC RETENSION FORCE	MEASURED BY APPLICABLE FFC. (THICKNESS OF FFC SHALL BE t=0.30mm AT CONDUCTOR END, t=0.50mm AT GROUND PLATE AT INITIAL CONDITION.)	DIRECTION OF INSERTION: 0.3N x n MIN.	X	—

ENVIRONMENTAL CHARACTERISTICS

RAPID CHANGE OF TEMPERATURE	TEMPERATURE: -40 → +15 to +35 → +85 → +15 to +35 °C TIME 30 → 2~3 → 30 → 2~3 min UNDER 5 CYCLES.	① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
DAMP HEAT (STEADY STATE)	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 90 TO 95 %, 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
DAMP HEAT, CYCLIC	EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h.		X	—
DRY HEAT	EXPOSED AT 85±2 °C, 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
COLD	EXPOSED AT -40±3°C, 96 h.		X	—

△	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE

REMARK	APPROVED	CHECKED	DATE
Unless otherwise specified, refer to JIS C 5402.	MO. ISHIDA		10.06.08
	CHECKED YN. TAKASHITA		10.06.08
	DESIGNED S.J. OKAMURA		10.06.08
	DRAWN S.J. OKAMURA		10.06.08

Note	QT:Qualification Test	AT:Assurance Test	X:Applicable Test	DRAWING NO.	ELC4-332362-00
------	-----------------------	-------------------	-------------------	-------------	----------------

HRS	SPECIFICATION SHEET	PART NO.	FH48-**-S-0.5SV	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL580	△ 1/2

In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
CORROSION SALT MIST	EXPOSED AT 35±2°C, 5% SALT WATER SPRAY FOR 96 h.	① CONTACT RESISTANCE: 100 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.	X	—
SURPHUR DIOXIDE [JIS C 0090]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5%, 25±5 PPM FOR 96 h.	③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
HYDROGEN SULPHIDE [JIS C 0092]	EXPOSED AT 40±2°C, RELATIVE HUMIDITY 80±5%, 10 ~ 15 PPM FOR 96 h.		X	—
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, ±5°C FOR IMMERSION DURATION, 2±0.5 sec.	A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95% OF THE SURFACE BEING IMMERSERD.	X	—
RESISTANCE TO SOLDERING HEAT	1) REFLOW/ SOLDERING PEAK TMP. 250 °C MAX. REFLOW TMP. 230 °C MIN FOR 60 sec. 2) SOLDERING IRONS: TMP. 350±10°C FOR 5±1 sec.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	—

(note)

WHEN THE SAME VALUE OF CURRENT ARE APPLUD TO ALL CONTACTS AT THE SAME TIME IN ONCE,
SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

--	--	--	--	--	--

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

DRAWING NO.

ELC4-332362-00

HRS

SPECIFICATION SHEET

PART NO.

FH48-**-S-0.5SV

HIROSE ELECTRIC CO., LTD.

CODE NO

CL580



2/2