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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 | -55 °C TO 85 °C (1) | STORAGE TEMPERATURE RANGE | -10 °C TO 60 °C (2) |
| | VOLTAGE | 300 V AC | OPERATING HUMIDITY RANGE | 40 % TO 80 % |
| | CURRENT | 1 A | STORAGE HUMIDITY RANGE | 40 % TO 70 % (2) |

## SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| CONSTRUCTION | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | × | × |
| ELECTRIC CHARACTERISTICS | | | | |
| CONTACT RESISTANCE | 100 mA (DC or 1000 Hz). | 30 mΩ MAX. | × | – |
| INSULATION RESISTANCE | 500 V DC. | 1000 MΩ MIN. | × | – |
| VOLTAGE PROOF | 1000 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | – |
| MECHANICAL CHARACTERISTICS | | | | |
| CONTACT INSERTION AND EXTRACTION FORCES | □0.635±0.002 BY STEEL GAUGE. | INSERTION FORCE : 2.9 N MAX.<br>EXTRACTION FORCE : 0.3 N MIN. | × | – |
| MECHANICAL OPERATION | 500 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 30 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | – |
| VIBRATION | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 1.5 mm,<br>AT 2 h FOR 3 DIRECTION. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | – |
| SHOCK | 490 m/s$^2$, DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS. | | × | – |
| ENVIRONMENTAL CHARACTERISTICS | | | | |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2 °C, 90 ～ 95 %, 96 h. | ① CONTACT RESISTANCE: 30 mΩ MAX.<br>② INSULATION RESISTANCE:1000 MΩ MIN. | × | – |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE-65→+15～+35→+125→+15～+35°C<br>TIME 30 → 10～15 → 30 → 10～15 min<br>UNDER 5 CYCLES. | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | – |
| CORROSION SALT MIST | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h. | ① CONTACT RESISTANCE: 30 mΩ MAX.<br>② NO HEAVY CORROSION. | × | – |
| HYDROGEN SULPHIDE | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-38) | | × | – |
| RESISTANCE TO SOLDERING HEAT | 1) SOLDER BATH:SOLDER TEMPERATURE, 260±5℃ FOR IMMERSION,DURATION,10±1s. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | – |
| | 2) SOLDERING IRONS : 360℃ FOR 5 s MAX. | | × | – |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE 245±3℃ FOR IMMERSION DURATION, 2s. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | – |
| | | | | |

| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|---|---|---|---|---|---|
| ⓪ | | | | | |

REMARK (1) TEMPERATURE RISE INCLUDED WHEN ENERGIZED.
(2) THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED.

Unless otherwise specified, refer to MIL-STD-1344.

| | | |
|---|---|---|
| APPROVED | HS.OKAWA | 06.04.28 |
| CHECKED | HS.OZAWA | 06.04.28 |
| DESIGNED | KT.DOI | 06.04.28 |
| DRAWN | KT.DOI | 06.04.28 |

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

DRAWING NO. ELC4-019396-21

HRS

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

PART NO. HIF3FB-20DA-2.54DSA(71)

CODE NO. CL616-0204-5-71 ⓪ 1/1

FORM HD0011-2-1