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|   |                             |   |                           |  |                          |
|---|-----------------------------|---|---------------------------|--|--------------------------|
| APPLICABLE STANDARD   |                             | UL:UL1977   |                           |  |                          |
| RATING  | OPERATING TEMPERATURE RANGE | -55 °C TO 85 °C <sup>(1)</sup>  | STORAGE TEMPERATURE RANGE | -10 °C TO 60 °C <sup>(2)</sup>   |                          |
|   | VOLTAGE                     | 300 V AC  | OPERATING HUMIDITY RANGE  | RELATIVE HUMIDITY 85% MAX<br>(NOT DEWED)   |                          |
|   | CURRENT                     | 3 A   | STORAGE HUMIDITY RANGE    |  |                          |
| UL RATING   | VOLTAGE                     | 250 V AC  |                           |  |                          |
|   | CURRENT                     | 1 A   |                           |  |                          |
| <b>SPECIFICATIONS</b>   |                             |   |                           |  |                          |
| ITEM  |                             | TEST METHOD   |                           | REQUIREMENTS   |                          |
| <b>CONSTRUCTION</b>   |                             |   |                           |  |                          |
| GENERAL EXAMINATION   |                             | VISUALLY AND BY MEASURING INSTRUMENT.   |                           | ACCORDING TO DRAWING.  |                          |
| MARKING   |                             | CONFIRMED VISUALLY.   |                           |  |                          |
| <b>ELECTRIC CHARACTERISTICS</b>   |                             |   |                           |  |                          |
| CONTACT RESISTANCE  |                             | 100 mA (DC OR 1000 Hz).   |                           | 15 mΩ MAX.   |                          |
| INSULATION RESISTANCE   |                             | 500 V DC  |                           | 1000 MΩ MIN.   |                          |
| VOLTAGE PROOF   |                             | 1000 V AC FOR 1 min.  |                           | NO FLASHOVER OR BREAKDOWN.   |                          |
| <b>MECHANICAL CHARACTERISTICS</b>   |                             |   |                           |  |                          |
| CONTACT INSERTION AND EXTRACTION FORCES   |                             | □0.635±0.002mm BY STEEL GAUGE.  |                           | INSERTION FORCE: 4.4 N MAX.<br>EXTRACTION FORCE: 0.56 N MIN.                                 |                          |
| MECHANICAL OPERATION  |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.   |                           | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                 |                          |
| VIBRATION   |                             | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 1.5 mm,<br>AT 2 h FOR 3 DIRECTIONS.   |                           | ①NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>②NO DAMAGE, CRACK AND LOOSENESS OF PARTS.           |                          |
| SHOCK   |                             | 490 m/s <sup>2</sup> , DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS.                                      |                           |  |                          |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>  |                             |   |                           |  |                          |
| DAMP HEAT (STEADY STATE)  |                             | EXPOSED AT 40±2 °C, 90 ~ 95 %, 96 h.  |                           | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②INSULATION RESISTANCE:1000 MΩ MIN.                       |                          |
| RAPID CHANGE OF TEMPERATURE   |                             | TEMPERATURE -55→+15~+35→+125→+15~+35°C<br>TIME 30 → 10~15 → 30 → 10~15 min.<br>UNDER 5 CYCLES.                      |                           | ③NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  |                          |
| CORROSION SALT MIST   |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.   |                           | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②NO HEAVY CORROSION.                                      |                          |
| SULPHUR DIOXIDE   |                             | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA - 38)   |                           |  |                          |
| RESISTANCE TO SOLDERING HEAT  |                             | 1) SOLDER BATH:SOLDER TEMPERATURE, 260±5°C FOR IMMERSION,DURATION,10±1s.<br>2) SOLDERING IRONS : 360°C FOR 5 s MAX. |                           | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                              |                          |
| SOLDERABILITY   |                             | SOLDERED AT SOLDER TEMPERATURE, 245±3°C,<br>FOR IMMERSION DURATION, 2 s.  |                           | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. |                          |
|   |                             |   |                           |  |                          |
|   | COUNT                       | DESCRIPTION OF REVISIONS  |                           | DESIGNED   | CHECKED                  |
| △   | 2                           | DIS-F-00005942  |                           | AK. IWAHORI  | HT. YAMAGUCHI            |
| REMARK <sup>(1)</sup> TEMPERATURE RISE INCLUDED WHEN ENERGIZED.<br><sup>(2)</sup> THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED. |                             |   |                           | APPROVED   | HT. YAMAGUCHI            |
|   |                             |   |                           | CHECKED  | HT. YAMAGUCHI            |
|   |                             |   |                           | DESIGNED   | HR. NAGAYASU             |
| Unless otherwise specified, refer to MIL-STD-202.   |                             |   |                           | DRAWN  | TS. HORI                 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test  |                             |   | DRAWING NO.               |  | ELC-386224-00-00         |
| <b>HRS</b>  | SPECIFICATION SHEET         |   |                           | PART NO.   | HIF3HA-*DA-2. 54DSA (61) |
|   | HIROSE ELECTRIC CO., LTD.   |   |                           | CODE NO.   |                          |
|   |                             |   |                           |  | △ 1/1                    |