

|                                                                                                                                                                                     |                           |                                                                                                                     |                                |             |                                                                                              |                                          |          |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------|----------------------------------------------------------------------------------------------|------------------------------------------|----------|----------|
| 1                                                                                                                                                                                   | 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                                                                       |                                          |          |          |
| 1                                                                                                                                                                                   | UL RATING                 | 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                                                                                                                                                                  |                           | 100 mA (DC OR 1000 Hz).                                                                                             |                                |             | 15 mΩ MAX.                                                                                   |                                          | x        | —        |
| INSULATION RESISTANCE                                                                                                                                                               |                           | 500 V DC                                                                                                            |                                |             | 1000 MΩ MIN.                                                                                 |                                          | x        | —        |
| VOLTAGE PROOF                                                                                                                                                                       |                           | 1000 V AC FOR 1 min.                                                                                                |                                |             | NO FLASHOVER OR BREAKDOWN.                                                                   |                                          | x        | —        |
| MECHANICAL CHARACTERISTICS                                                                                                                                                          |                           |                                                                                                                     |                                |             |                                                                                              |                                          |          |          |
| 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.                                 |                                          | x        | —        |
| MECHANICAL OPERATION                                                                                                                                                                |                           | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                               |                                |             | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                 |                                          | x        | —        |
| 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.           |                                          | x        | —        |
| SHOCK                                                                                                                                                                               |                           | 490 m/s <sup>2</sup> , DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS.                                      |                                |             |                                                                                              |                                          | x        | —        |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                       |                           |                                                                                                                     |                                |             |                                                                                              |                                          |          |          |
| DAMP HEAT (STEADY STATE)                                                                                                                                                            |                           | EXPOSED AT 40±2 °C, 90 ~ 95 %, 96 h.                                                                                |                                |             | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②INSULATION RESISTANCE:1000 MΩ MIN.                       |                                          | x        | —        |
| 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.                                                    |                                          | x        | —        |
| CORROSION SALT MIST                                                                                                                                                                 |                           | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                           |                                |             | ①CONTACT RESISTANCE: 15 mΩ MAX.<br>②NO HEAVY CORROSION.                                      |                                          | x        | —        |
| SULPHUR DIOXIDE                                                                                                                                                                     |                           | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA - 38)                                                           |                                |             |                                                                                              |                                          | x        | —        |
| 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.                              |                                          | x        | —        |
| 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. |                                          | x        | —        |
|                                                                                                                                                                                     |                           |                                                                                                                     |                                |             |                                                                                              |                                          |          |          |
|                                                                                                                                                                                     | COUNT                     | DESCRIPTION OF REVISIONS                                                                                            |                                | DESIGNED    |                                                                                              | CHECKED                                  |          | DATE     |
| 1                                                                                                                                                                                   | 2                         | DIS-F-00005942                                                                                                      |                                | AK. IWAHORI |                                                                                              | HT. YAMAGUCHI                            |          | 20200313 |
| 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                                                                                |                                          | 20181210 |          |
|                                                                                                                                                                                     |                           |                                                                                                                     |                                | CHECKED     | HT. YAMAGUCHI                                                                                |                                          | 20181210 |          |
|                                                                                                                                                                                     |                           |                                                                                                                     |                                | DESIGNED    | HR. NAGAYASU                                                                                 |                                          | 20181207 |          |
|                                                                                                                                                                                     |                           |                                                                                                                     |                                | DRAWN       | TS. HORI                                                                                     |                                          | 20181207 |          |
| Unless otherwise specified, refer to MIL-STD-202.                                                                                                                                   |                           |                                                                                                                     |                                |             |                                                                                              |                                          |          |          |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                      |                           |                                                                                                                     |                                | DRAWING NO. |                                                                                              | ELC-386221-00-00                         |          |          |
| HRS                                                                                                                                                                                 | SPECIFICATION SHEET       |                                                                                                                     |                                | PART NO.    |                                                                                              | HIF3H-*DA-2. 54DSA (61)                  |          |          |
|                                                                                                                                                                                     | HIROSE ELECTRIC CO., LTD. |                                                                                                                     |                                | CODE NO.    |                                                                                              | 1 1/1                                    |          |          |