

|                                                                |                             |                                                                                                                                                                                                                                                                                    |                                                                                                                       |                       |                |
|----------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|----------------|
| APPLICABLE STANDARD                                            |                             |                                                                                                                                                                                                                                                                                    |                                                                                                                       |                       |                |
| RATING                                                         | OPERATING TEMPERATURE RANGE | -35°C TO 85°C (NOTE 1)                                                                                                                                                                                                                                                             | STORAGE TEMPERATURE RANGE                                                                                             | -10°C TO 60°C         |                |
|                                                                | VOLTAGE                     | 250V AC                                                                                                                                                                                                                                                                            | APPLICABLE CONNECTOR                                                                                                  | MDF7-*P-2. 54DSA (**) |                |
|                                                                | CURRENT                     | 3A                                                                                                                                                                                                                                                                                 |                                                                                                                       |                       |                |
| 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                                             |                             | 100m A (DC OR 1000 Hz).                                                                                                                                                                                                                                                            | 30mΩ MAX.                                                                                                             | X                     | —              |
| INSULATION RESISTANCE                                          |                             | 500V DC.                                                                                                                                                                                                                                                                           | 1000MΩ MIN.                                                                                                           | X                     | —              |
| VOLTAGE PROOF                                                  |                             | 650V AC FOR 1 min.                                                                                                                                                                                                                                                                 | NO FLASHOVER OR BREAKDOWN.                                                                                            | X                     | —              |
| MECHANICAL CHARACTERISTICS                                     |                             |                                                                                                                                                                                                                                                                                    |                                                                                                                       |                       |                |
| CONTACT INSERTION AND EXTRACTION FORCES                        |                             | □0.635±0.002 mm BY STEEL GAUGE.                                                                                                                                                                                                                                                    | INSERTION FORCE: 4.4 N MAX.<br>EXTRACTION FORCE: 0.4 N MIN.                                                           | X                     | —              |
| MECHANICAL OPERATION                                           |                             | 50TIMES INSERTIONS AND EXTRACTIONS.                                                                                                                                                                                                                                                | ① CONTACT RESISTANCE: 30mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                          | X                     | —              |
| VIBRATION                                                      |                             | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.                                                                                                                                                                                                         | ① NO ELECTRICAL DISCONTINUITY OF 10μs.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                   | X                     | —              |
| SHOCK                                                          |                             | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.                                                                                                                                                                                                          | ① NO ELECTRICAL DISCONTINUITY OF 10μs.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                   | X                     | —              |
| ENVIRONMENTAL CHARACTERISTICS                                  |                             |                                                                                                                                                                                                                                                                                    |                                                                                                                       |                       |                |
| RAPID CHANGE OF TEMPERATURE                                    |                             | TEMPERATURE -55→ 5 TO 35→85→5 TO 35°C<br>TIME 30→10 TO 15→30→10TO15min<br>UNDER 5 CYCLES.                                                                                                                                                                                          | ① CONTACT RESISTANCE: 30mΩ MAX.<br>② INSULATION RESISTANCE: 1000 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X                     | —              |
| DAMP HEAT (STEADY STATE)                                       |                             | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.                                                                                                                                                                                                                                            | ① CONTACT RESISTANCE: 30mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.  | X                     | —              |
| CORROSION SALT MIST                                            |                             | EXPOSED IN 5% SALT WATER SPRAY FOR 48h.                                                                                                                                                                                                                                            | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO HEAVY CORROSION.                                                             | X                     | —              |
| SULPHUR DIOXIDE                                                |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD:JEITA-39)                                                                                                                                                                                                                            | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO HEAVY CORROSION.                                                             | X                     | —              |
| RESISTANCE TO SOLDERING HEAT                                   |                             | 【FLOW CONDITION BY AUTOMATIC SOLDERING UNIT】<br>SOLDER TEMPERATURE 260±5°C, FOR IMMERSION DURATION 10s.(ONE TIME)<br>【RECOMMENDED MANUAL SOLDELING CONDITION】<br>SOLDERING IRON TEMPERATURE 350°C<br>SOLDERING TIME : WITHIN 3 SECONDS.<br>DO NOT APPLY ANY FORCE TO THE CONTACTS. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                       | X                     | —              |
| SOLDERABILITY                                                  |                             | SOLDERED AT SOLDER TEMPERATURE 245±5°C FOR IMMERSION DURATION 5s.                                                                                                                                                                                                                  | SOLDER SHALL COVER A MINIMUM OF 95% OF THE SURFACE BEING IMMERSED.                                                    | X                     | —              |
|                                                                |                             |                                                                                                                                                                                                                                                                                    |                                                                                                                       |                       |                |
|                                                                | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                                                                                           | DESIGNED                                                                                                              | CHECKED               | DATE           |
| △                                                              | 6                           | DIS-H-006198                                                                                                                                                                                                                                                                       | YN. SAKAMOTO                                                                                                          | TS. MIYAZAKI          | 11. 10. 12     |
| REMARKS                                                        |                             |                                                                                                                                                                                                                                                                                    | APPROVED                                                                                                              | K.J. KATAYOSE         | 05. 01. 05     |
| NOTE 1:INCLUDING THE TEMPERATURE RISE BY CURRENT.              |                             |                                                                                                                                                                                                                                                                                    | CHECKED                                                                                                               | K.I. AKIYAMA          | 05. 01. 05     |
| UNLESS OTHERWISE SPECIFIED , REFER TO JIS C 5402 .             |                             |                                                                                                                                                                                                                                                                                    | DESIGNED                                                                                                              | TH. ARAI              | 05. 01. 05     |
|                                                                |                             |                                                                                                                                                                                                                                                                                    | DRAWN                                                                                                                 | TH. ARAI              | 05. 01. 05     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                             |                                                                                                                                                                                                                                                                                    | DRAWING NO.                                                                                                           |                       | ELC4-162738-11 |
| HRS                                                            | SPECIFICATION SHEET         |                                                                                                                                                                                                                                                                                    | PART NO.                                                                                                              | MDF7-*S-2. 54DSA (56) |                |
|                                                                | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                                                                                                                                                    | CODE NO.                                                                                                              | △                     | 1/1            |