

|   |                             |  |  |                                |          |
|---|-----------------------------|--|--|--------------------------------|----------|
| APPLICABLE STANDARD   |                             |  |  |                                |          |
| RATING  | OPERATING TEMPERATURE RANGE | -55 °C TO 125 °C (NOTES 1)   | STORAGE TEMPERATURE RANGE  | -10 °C TO 60 °C (NOTES 2)      |          |
|   | VOLTAGE                     | 50 V AC  |  |                                |          |
|   | CURRENT                     | 0.3 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  |                             | 20 mV AC OR LESS 1 kHz, 1 mA.  | 50 mΩ MAX.   | X                              | —        |
| INSULATION RESISTANCE   |                             | 100 V DC   | 500 MΩ MAX   | X                              | —        |
| VOLTAGE PROOF   |                             | 150 V AC FOR 1 min.  | NO FLASHOVER OR BREAKDOWN.   | X                              | —        |
| MECHANICAL CHARACTERISTICS  |                             |  |  |                                |          |
| MECHANICAL OPERATION  |                             | 50 TIMES INSERTIONS AND WITHDRAWALS.   | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO DAMAGE, CRACK AND 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 1 μs.<br>② NO DAMAGE, CRACK AND 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 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                   | X                              | —        |
| ENVIRONMENTAL CHARACTERISTICS   |                             |  |  |                                |          |
| RAPID CHANGE OF TEMPERATURE   |                             | TEMPERATURE -65 →15 TO 35 →125 →15 TO 35 °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min<br>UNDER 5 CYCLES.   | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X                              | —        |
| DAMP HEAT (STEADY STATE)  |                             | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.  | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X                              | —        |
| SULPHUR DIOXIDE   |                             | EXPOSED IN 25 PPM RH 75 % FOR 96 h.<br>(TEST STANDARD: JEIDA-38)   | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO HEAVY CORROSION.  | X                              | —        |
| HEAT RESISTANCE OF SOLDERING  |                             | 【RECOMMENDED TEMPERATURE PROFILE】<br>《SOLDERING AREA》<br>MAX250°C, 220°C FOR 60 SECONDS MAX.<br>《PREHEATING AREA》<br>150 TO 180°C 90~120 SECONDS.<br>MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.<br>【RECOMMENDED MANUAL SOLDELING CONDITION】<br>SOLDERING IRON TEMPERATURE 350°C<br>SOLDERING TIME : WITHIN 3 SECONDS. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.  | X                              | —        |
|   |                             |  |  |                                |          |
| REMARKS<br>NOTES1:INCLUDING THE TEMPERATURE RISE BY CURRENT.<br>NOTES2:STORAGEIS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.<br>APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY.<br><br>UNLESS OTHERWISE SPECIFIED , REFER TO JIS C 5402 . |                             |  |  |                                |          |
|   | COUNT                       | DESCRIPTION OF REVISIONS   | DESIGNED   | CHECKED                        | DATE     |
| △   |                             |  |  |                                |          |
|   |                             |  | APPROVED   | WR. FUKUCHI                    | 20200721 |
|   |                             |  | CHECKED  | TS. MIYAZAKI                   | 20200721 |
|   |                             |  | DESIGNED   | KT. KUSAKA                     | 20200721 |
|   |                             |  | DRAWN  | RN. IIDA                       | 20200717 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test  |                             |  | DRAWING NO.  | ELC-389332-51-01               |          |
|   | SPECIFICATION SHEET         |  | PART NO.   | DF12NC (5. 0) -60DP-0. 5V (51) |          |
|   | HIROSE ELECTRIC CO., LTD.   |  | CODE NO.   | CL537-0888-0-51                | △ 1/1    |