

| APPLICABLE STANDARD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                             |                                                                                                                                                                                                       |                              |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------|
| RATING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | OPERATING TEMPERATURE RANGE | -35°C TO +85°C(NOTES 1)                                                                                                                     | STORAGE TEMPERATURE RANGE                                                                                                                                                                             | -10°C TO +60°C(NOTES 3)      |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | OPERATING HUMIDITY RANGE    | 20% TO 80%(NOTES 2)                                                                                                                         | STORAGE HUMIDITY RANGE                                                                                                                                                                                | 40% TO 70%(NOTES 2)(NOTES 3) |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | VOLTAGE                     | 50V AC / DC                                                                                                                                 | APPLICABLE CONNECTOR                                                                                                                                                                                  | DF80※-50P-0.5SD(##)          |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CURRENT                     | 0.5 A/PIN (NOTES 4)                                                                                                                         |                                                                                                                                                                                                       |                              |                |
| 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).                                                                                                                     | CONTACT:80mΩ MAX.<br>SHIELDING:80mΩ MAX.                                                                                                                                                              | X                            | —              |
| INSULATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                             | 100V DC.                                                                                                                                    | 50MΩ MIN.                                                                                                                                                                                             | X                            | —              |
| VOLTAGE PROOF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             | 150V AC FOR 1 min.                                                                                                                          | NO FLASHOVER OR BREAKDOWN.                                                                                                                                                                            | X                            | —              |
| MECHANICAL CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                                                                                                                                             |                                                                                                                                                                                                       |                              |                |
| MECHANICAL OPERATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             | 30 TIMES INSERTIONS AND EXTRACTIONS.                                                                                                        | ① CONTACT RESISTANCE:<br>NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE.<br>SHIELDING RESISTANCE:<br>NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X                            | —              |
| VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE<br>0.75 mm, 3 DIRECTIONS × 10 CYCLE.                                                                | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<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.                                                                   |                                                                                                                                                                                                       | X                            | —              |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                                                                                                                             |                                                                                                                                                                                                       |                              |                |
| RAPID CHANGE OF TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             | TEMPERATURE -55 →+85 °C<br>TIME 30 → 30 min<br>UNDER 5 CYCLES. (THE TRANSFERRING TIME OF THE CHAMBER IS 2-3 MINUTE.)                        | ① CONTACT RESISTANCE:<br>NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE.<br>SHIELDING RESISTANCE:<br>NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE.                                              | X                            | —              |
| DAMP HEAT (STEADY STATE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                             | EXPOSED AT 40±2 °C, 90 TO 95 %, 96 h.                                                                                                       | ② INSULATION RESISTANCE: 25 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                      | X                            | —              |
| SULFUR DIOXIDE GAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             | EXPOSED IN 25PPM , 25°C , 75%RH , 96h.                                                                                                      | NO DEFECT SUCH AS CORROSION WHICH IMPAIRS THE FUNCTION OF CONNECTOR.                                                                                                                                  | X                            | —              |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                             | ①REFLOW TEMPERATURE:<br>PEAK 250°C MAX<br>240°C MIN :20 sec MAX<br>220°C MIN :60 sec MAX<br>②MANUAL SOLDERING TEMPERATURE: 350°C, 3sec MAX. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                                                                                                       | X                            | —              |
| SOLDERABILITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             | SOLDERED AT SOLDER TEMPERATURE, 245°C FOR INSERTION DURATION, 5 sec. (Sn-3.0Ag-0.5Cu)                                                       | SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.                                                                                                                                   | X                            | —              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                    | DESIGNED                                                                                                                                                                                              | CHECKED                      | DATE           |
| △                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                                                                                                                                             |                                                                                                                                                                                                       |                              |                |
| REMARKS<br>NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT<br>NOTE2: NON CONDENSING<br>NOTE3: THE TERM "STORAGE" REFERS TO PRODUCTS STORED FOR A LONG PERIOD PRIOR TO MOUNTING AND USE. THE OPERATING TEMPERATURE AND HUMIDITY RANGE COVERS THE NON-CONDUCTING CONDITION OF CONNECTORS AFTER BOARD MOUNTING AND THE TEMPORARY STORAGE CONDITIONS OF TRANSPORTATION, etc<br>NOTE4: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CASE IS NOT INCLUDED.<br>RATED CURRENT VARIES DEPENDING ON CABLES ASSEMBLED.<br>Unless otherwise specified, refer to JIS C 5402,IEC60512. |                             |                                                                                                                                             | APPROVED                                                                                                                                                                                              | MH. YAMANE                   | 13. 08. 31     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                                                                                                                                             | CHECKED                                                                                                                                                                                               | MH. TSUCHIDA                 | 13. 08. 30     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                                                                                                                                             | DESIGNED                                                                                                                                                                                              | IO. DENPOUYA                 | 13. 08. 30     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                                                                                                                                             | DRAWN                                                                                                                                                                                                 | IO. DENPOUYA                 | 13. 08. 30     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                                                                                                                                             | DRAWING NO.                                                                                                                                                                                           |                              | ELC4-338299-02 |
| HRS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SPECIFICATION SHEET         |                                                                                                                                             | PART NO.                                                                                                                                                                                              | DF80-50S-0. 5V (52)          |                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                             | CODE NO.                                                                                                                                                                                              | CL662-8007-9-52              | △ 1/1          |