

| APPLICABLE STANDARD                                                                              |                                                                                                                                                                                                                                                                                  |                                                                                                                              |  |                                                                                                                                                                                                       |                                                                                      |                                                                                                    |            |
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| RATING                                                                                           | OPERATING TEMPERATURE RANGE                                                                                                                                                                                                                                                      | -35°C TO +85°C(NOTE 1)                                                                                                       |  | STORAGE TEMPERATURE RANGE                                                                                                                                                                             | -10°C TO +60°C(NOTE 3)                                                               |                                                                                                    |            |
|                                                                                                  | OPERATING HUMIDITY RANGE                                                                                                                                                                                                                                                         | 20% TO 80%(NOTE 2)                                                                                                           |  | STORAGE HUMIDITY RANGE                                                                                                                                                                                | 40% TO 70%(NOTE 2)(NOTE 3)                                                           |                                                                                                    |            |
|                                                                                                  | VOLTAGE                                                                                                                                                                                                                                                                          | 100V AC / DC                                                                                                                 |  | APPLICABLE CONNECTOR                                                                                                                                                                                  | DF81※-40S-0.4H(##)                                                                   |                                                                                                    |            |
|                                                                                                  | CURRENT                                                                                                                                                                                                                                                                          | AWG#34,36 : 0.3(MAX0.8A)<br>AWG#40 : 0.25A<br>AWG#42 : 0.2A<br>AWG#44 : 0.15A<br>AWG#46 : 0.1A                               |  | APPLICABLE CABLE                                                                                                                                                                                      | THIN COAXIAL CABLE : AWG#36~AWG#46<br>/ DISCRETE CABLE : AWG#34~40(Jacket : φ0.4MAX) |                                                                                                    |            |
| <div>  </div>   |                                                                                                                                                                                                                                                                                  |                                                                                                                              |  |                                                                                                                                                                                                       |                                                                                      |                                                                                                    |            |
| 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                                                                                    |                                                                                                                                                                                                                                                                                  | 250V 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 0.75 mm, 3 DIRECTIONS × 10 CYCLE.                                                    |  | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.                                                                                                                                                                | X                                                                                    | —                                                                                                  |            |
| SHOCK                                                                                            |                                                                                                                                                                                                                                                                                  | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.                                                    |  | ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                                                             | 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 25±5PPM , 25±2°C , 75%RH , 96h.                                                                                   |  | NO DEFECT SUCH AS CORROSION WHICH IMPAIRS THE FUNCTION OF CONNECTOR.                                                                                                                                  | X                                                                                    | —                                                                                                  |            |
| RESISTANCE TO SOLDERING HEAT                                                                     |                                                                                                                                                                                                                                                                                  | ①BONDING TEMPERATURE:<br>270°C MAX :5 sec MAX<br>200°C MIN :30 sec MAX<br>②MANUAL SOLDERING TEMPERATURE:<br>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 IMMERSSED.                                                                                                                                  | X                                                                                    | —                                                                                                  |            |
|                                                                                                  | COUNT                                                                                                                                                                                                                                                                            | DESCRIPTION OF REVISIONS                                                                                                     |  | DESIGNED                                                                                                                                                                                              | CHECKED                                                                              | DATE                                                                                               |            |
|                                                                                                  | 2                                                                                                                                                                                                                                                                                | DIS-D-003000                                                                                                                 |  | AH. MIYAZAKI                                                                                                                                                                                          | MH. TSUCHIDA                                                                         | 13. 08. 29                                                                                         |            |
| <div>  </div> | REMARKS                                                                                                                                                                                                                                                                          |                                                                                                                              |  |                                                                                                                                                                                                       |                                                                                      |                                                                                                    |            |
|                                                                                                  | NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT                                                                                                                                                                                                                                 |                                                                                                                              |  |                                                                                                                                                                                                       | APPROVED                                                                             | TS. SAKATA                                                                                         | 13. 04. 16 |
|                                                                                                  | NOTE2: NON CONDENSING                                                                                                                                                                                                                                                            |                                                                                                                              |  |                                                                                                                                                                                                       | CHECKED                                                                              | TS. SAKATA                                                                                         | 13. 04. 16 |
|                                                                                                  | 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 |                                                                                                                              |  |                                                                                                                                                                                                       | DESIGNED                                                                             | TP. MATSUMOTO                                                                                      | 13. 04. 16 |
|                                                                                                  | NOTE4:IT COULD BE VARIED DEPENDING ON THE CONDITIONS.<br>"MAX" IS RATING CURRENT AS ONLY TWO OF THEM TURN ON ELECTRICITY.<br>NOTE5: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CABLE IS NOT INCLUDED.<br>Unless otherwise specified, refer to JIS C 5402,IEC60512.     |                                                                                                                              |  |                                                                                                                                                                                                       | DRAWN                                                                                | TP. MATSUMOTO                                                                                      | 13. 04. 16 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                                                                                                                                                                                                                                                                                  |                                                                                                                              |  | DRAWING NO.                                                                                                                                                                                           |                                                                                      | ELC4-351669-01                                                                                     |            |
|               | SPECIFICATION SHEET                                                                                                                                                                                                                                                              |                                                                                                                              |  | PART NO.                                                                                                                                                                                              | DF81D-40P-0. 4SD (51)                                                                |                                                                                                    |            |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.                                                                                                                                                                                                                                                        |                                                                                                                              |  | CODE NO.                                                                                                                                                                                              | CL662-8120-1-51                                                                      | <div>  </div> | 1/1        |