

| APPLICABLE STANDARD  |                             |  |                           |   |                |
|--|-----------------------------|--|---------------------------|---|----------------|
| 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※-30S-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<br>: AWG#36~AWG#46<br>/ DISCRETE CABLE<br>: AWG#34~40(Jacket : φ0.4MAX)  |                |
| 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<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 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,<br>245°C FOR INSERTION DURATION, 5 sec.<br>(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           |
| △  | 2                           | DIS-D-003000   | AH. MIYAZAKI              | MH. TSUCHIDA  | 13. 08. 29     |
| REMARKS  |                             |  | APPROVED                  | MH. YAMANE  | 13. 04. 05     |
| NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT   |                             |  | CHECKED                   | TS. SAKATA  | 13. 04. 05     |
| NOTE2: NON CONDENSING  |                             |  | DESIGNED                  | TP. MATSUMOTO   | 13. 04. 05     |
| 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 |                             |  | DRAWN                     | TP. MATSUMOTO   | 13. 04. 05     |
| NOTE4:IT COULD BE VARIED DEPENDING ON THE CONDITIONS.<br>"MAX" IS RATING CURRENT AS ONLY TWO OF THEM TURN ON ELECTRICITY.  |                             |  |                           |   |                |
| NOTE5: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CABLE IS NOT INCLUDED.<br>Unless otherwise specified, refer to JIS C 5402,IEC60512.  |                             |  |                           |   |                |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test   |                             |  | DRAWING NO.               |   | ELC4-351423-01 |
| HRS  | SPECIFICATION SHEET         |  | PART NO.                  | DF81D-30P-0. 4SD (51)   |                |
|  | HIROSE ELECTRIC CO., LTD.   |  | CODE NO.                  | CL662-8119-2-51   | △ 1/1          |