

| 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,<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 IMMERSSED.   | 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. 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 |
|--|-------------|----------------|

|   |                           |          |                     |
|---|---------------------------|----------|---------------------|
|  | SPECIFICATION SHEET       | PART NO. | DF80-50S-0. 5V (52) |
|   | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL662-8007-9-52     |