


| 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※-50P-0.4SD(##) | | |
| | <div>2</div> CURRENT | AWG#34,36 : 0.3(MAX0.8A) AWG#40 : 0.25A AWG#42 : 0.2A AWG#44 : 0.15A AWG#46 : 0.1A | (NOTE4) (NOTE5) | | | |
| 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. 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 | | 30TIMES INSERTIONS AND EXTRACTIONS. | | ① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| VIBRATION | | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 3 DIRECTIONS x 10 CYCLE. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| SHOCK | | 490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | | | X | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | |
| RAPID CHANGE OF TEMPERATURE | | TEMPERATURE -55 →+85 °C TIME 30 → 30 min UNDER 5 CYCLES. (THE TRANSFERRING TIME OF THE CHAMBER IS 2-3 MINUTE.) | | ① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: 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. 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 | | ①REFLOW TEMPERATURE: PEAK 250°C MAX 240°C MIN :20 sec MAX 220°C MIN :60 sec MAX 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 IMMERSSED. | X | — |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE | |
| <div>2</div> | 2 | DIS-D-003000 | AH. MIYAZAKI | MH. TSUCHIDA | 13. 08. 29 | |
| <div>2</div> REMARKS NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT NOTE2: NON CONDENSING 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 NOTE4:IT COULD BE VARIED DEPENDING ON THE CONDITIONS. "MAX" IS RATING CURRENT AS ONLY TWO OF THEM TURN ON ELECTRICITY. NOTES: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CABLE IS NOT INCLUDED. Unless otherwise specified, refer to JIS C 5402,IEC60512. | | | APPROVED | TS. SAKATA | 12. 09. 27 | |
| | | | CHECKED | HS. OZAWA | 12. 09. 27 | |
| | | | DESIGNED | AH. MIYAZAKI | 12. 09. 27 | |
| | | | DRAWN | AH. MIYAZAKI | 12. 09. 27 | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC4-340455-01 | |
|  | SPECIFICATION SHEET | | PART NO. | DF81-50S-0. 4H(51) | | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL662-8102-0-51 | | |
| | | | | <div>2</div> | 1/1 | |