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| APPLICABLE STANDARD  |  |   |                                      |  |                          |            |    |
|--|--|---|--------------------------------------|--|--------------------------|------------|----|
| RATING   | OPERATING TEMPERATURE RANGE            | -40°C TO + 85°C (NOTE 1) $\triangle 1$  | STORAGE TEMPERATURE RANGE            |  | -10°C TO + 60°C (NOTE 2) |            |    |
|  | OPERATING HUMIDITY RANGE $\triangle 1$ | 40% TO 80% (NOTE 3)   | STORAGE HUMIDITY RANGE $\triangle 1$ |  | 40% TO 70% (NOTE 2)      |            |    |
|  | VOLTAGE                                | AC 250V   | UL · CSA                             | VOLTAGE  | AC 30V                   |            |    |
|  | CURRENT                                | 2A  | RATING                               | CURRENT  | 2A                       |            |    |
| 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   |  | 100mA (DC OR 1000 Hz).  |                                      | 30m $\Omega$ MAX.  |                          | X          | -  |
| INSULATION RESISTANCE  |  | 500V DC.  |                                      | 1000M $\Omega$ MIN.  |                          | X          | -  |
| VOLTAGE PROOF  |  | 650V AC FOR 1 min.  |                                      | NO FLASHOVER OR BREAKDOWN.   |                          | X          | -  |
| MECHANICAL CHARACTERISTICS   |  |   |                                      |  |                          |            |    |
| MECHANICAL OPERATION   |  | 30TIMES INSERTIONS AND EXTRACTIONS.   |                                      | ① CONTACT RESISTANCE: 30m $\Omega$ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   |                          | X          | -  |
| VIBRATION  |  | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.  |                                      | ① NO ELECTRICAL DISCONTINUITY OF 1 $\mu$ s.<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.   |                                      | ① NO ELECTRICAL DISCONTINUITY OF 1 $\mu$ s.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   |                          | X          | -  |
| ENVIRONMENTAL CHARACTERISTICS  |  |   |                                      |  |                          |            |    |
| DAMP HEAT (STEADY STATE)   |  | EXPOSED AT 40 $\pm$ 2 °C, 90 TO 95 %, 96 h.   |                                      | ① CONTACT RESISTANCE: 30m $\Omega$ MAX.<br>② INSULATION RESISTANCE: 500M $\Omega$ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.  |                          | X          | -  |
| RAPID CHANGE OF TEMPERATURE  |  | TEMPERATURE -55 $\rightarrow$ 5 TO 35 $\rightarrow$ +85 $\rightarrow$ 5 TO 35°C<br>TIME 30 $\rightarrow$ 5MAX $\rightarrow$ 30 $\rightarrow$ 5MAX min UNDER 5 CYCLES.   |                                      | ① CONTACT RESISTANCE: 30m $\Omega$ MAX.<br>② INSULATION RESISTANCE: 1000M $\Omega$ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. |                          | X          | -  |
| RESISTANCE TO SOLDERING HEAT   |  | 1)AUTOMATIC SOLDERING (FLOW)<br>SOLDER TEMPERATURE : 260 $\pm$ 3°C FOR IMMERSION,DURATION , 10 sec .<br>2)MANUAL SOLDERING<br>SOLDERING IRON TEMPERATURE : 290 $\pm$ 10°C<br>SOLDERING TIME : 3 sec.<br>NO STRENGTH ON CONTACT. |                                      | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.  |                          | X          | -  |
| SOLDERABILITY  |  | SOLDERED AT SOLDER TEMPERATURE, 245°C FOR INSERTION DURATION, 10sec.  |                                      | SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed.  |                          | X          | -  |
| $\triangle 1$  | COUNT                                  | DESCRIPTION OF REVISIONS  | DESIGNED                             | CHECKED  | DATE                     |            |    |
|  | 3                                      | DIS-H-008583  | MI. SAKIMURA                         | HK. UMEHARA  | 14. 03. 25               |            |    |
| REMARKS  |  |   |                                      | APPROVED   | KJ. KATAYOSE             | 05. 01. 05 |    |
| NOTE1:INCLUDING THE TEMPERATURE RISE BY CURRENT  |  |   |                                      | CHECKED  | TY. OMA                  | 05. 01. 05 |    |
| NOTE2:APPLY TO THE CONDITION OF LONG TERM STORAGE FOR UNUSED PRODUCTS BEFORE PCB ON BOARD, AFTER PCB BOARD, OPERATING TEMPERATURE AND HUMIDITY RANGE IS APPLIED FOR INTERIM STORAGE DURING TRANSPORTATION. |  |   |                                      | DESIGNED   | IO. DENPOUYA             | 05. 01. 05 |    |
| NOTE3:NON-CONDENSING.<br>Unless otherwise specified , refer to IEC 60512.  |  |   |                                      | DRAWN  | IO. DENPOUYA             | 05. 01. 05 |    |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test   |  |   | DRAWING NO.                          |  | ELC4-162401-01           |            |    |
| <b>HRS</b>   | SPECIFICATION SHEET                    |   | PART NO.                             | DF11-*DS-2DSA (05)   |                          |            |    |
|  | HIROSE ELECTRIC CO., LTD.              |   | CODE NO.                             | CL543  | $\triangle 1$            | 1/1        |    |