

| APPLICABLE STANDARD                                                                |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
|------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------|----------------|
| RATING                                                                             | OPERATING TEMPERATURE RANGE | -45°C TO +125°C (NOTES 1)                                                                                                                                                                                                                                                                                                             | STORAGE TEMPERATURE RANGE                                                                                            | -10°C TO + 60°C (NOTE2) |                |
|                                                                                    | VOLTAGE                     | 150V AC                                                                                                                                                                                                                                                                                                                               | APPLICABLE CONNECTOR                                                                                                 | DF9#-*S-1V (59)         |                |
|                                                                                    | CURRENT                     | 0.5A                                                                                                                                                                                                                                                                                                                                  |                                                                                                                      | DF9#-*S-1V (69)         |                |
| 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).                                                                                                                                                                                                                                                                                                               | 50mΩ MAX.                                                                                                            | X                       | —              |
| INSULATION RESISTANCE                                                              |                             | 100V DC.                                                                                                                                                                                                                                                                                                                              | 500MΩ MIN.                                                                                                           | X                       | —              |
| VOLTAGE PROOF                                                                      |                             | 250V AC FOR 1 min.                                                                                                                                                                                                                                                                                                                    | NO FLASHOVER OR BREAKDOWN.                                                                                           | X                       | —              |
| MECHANICAL CHARACTERISTICS                                                         |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| MECHANICAL OPERATION                                                               |                             | 100TIMES INSERTIONS AND EXTRACTIONS.                                                                                                                                                                                                                                                                                                  | ① CONTACT RESISTANCE: 50mΩ 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 1μs.<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 1μs.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                   | X                       | —              |
| ENVIRONMENTAL CHARACTERISTICS                                                      |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| RAPID CHANGE OF TEMPERATURE                                                        |                             | TEMPERATURE -65→ 5 TO 35→125→ 5 TO 35°C<br>TIME 30→10 TO 15→ 30→10TO15min<br>UNDER 5 CYCLES.                                                                                                                                                                                                                                          | ① CONTACT RESISTANCE: 50mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X                       | —              |
| DAMP HEAT (STEADY STATE)                                                           |                             | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.                                                                                                                                                                                                                                                                                               | ① CONTACT RESISTANCE: 50mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X                       | —              |
| CORROSION SALT MIST                                                                |                             | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.                                                                                                                                                                                                                                                                                              | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO HEAVY CORROSION.                                                            | X                       | —              |
| SULPHUR DIOXIDE                                                                    |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-39)                                                                                                                                                                                                                                                                              | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO HEAVY CORROSION.                                                            | X                       | —              |
| HEAT RESISTANCE OF SOLDERING                                                       |                             | [RECOMMENDED TEMPERATURE PROFILE]<br>《SOLDERING AREA》<br>MAX250°C, 220°C FOR 60 SECONDS MAX.<br>《PREHEATING AREA》<br>150 TO 180°C 90~120 SECONDS.<br>MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.<br>[RECOMMENDED MANUAL SOLDELING CONDITION ]<br>SOLDERING IRON TEMPERATURE 380°C<br>SOLDERING TIME : WITHIN 3 SECONDS. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                      | X                       | —              |
| SOLDERABILITY                                                                      |                             | SOLDERING TEMPERATURE: 245 ± 5°C<br>DURATION OF IMMERSION :<br>SOLDERING FOR 3SECONDS                                                                                                                                                                                                                                                 | A NEW UNIFORM COATING OF SOLDER SHALL COVER MINIMUM OF 95% OF THE SURFACE BEING IMMersed.                            | X                       | —              |
| REMARKS                                                                            |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| NOTE1: INCLUDING THE TEMPERATURE RISE BY CURRENT.                                  |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| NOTE2: STORAGE IS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS.                 |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY. |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
| UNLESS OTHERWISE SPECIFIED , REFER TO JIS C 5402 .                                 |                             |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                      |                         |                |
|                                                                                    | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                                                                                                                                              | DESIGNED                                                                                                             | CHECKED                 | DATE           |
| △                                                                                  | 1                           | DIS-H-001222                                                                                                                                                                                                                                                                                                                          | AR.TAKAHASHI                                                                                                         | TS.MIYAZAKI             | 06.08.01       |
|                                                                                    |                             |                                                                                                                                                                                                                                                                                                                                       | APPROVED                                                                                                             | TY.OMA                  | 04.04.01       |
|                                                                                    |                             |                                                                                                                                                                                                                                                                                                                                       | CHECKED                                                                                                              | TY.OMA                  | 04.04.01       |
|                                                                                    |                             |                                                                                                                                                                                                                                                                                                                                       | DESIGNED                                                                                                             | HK.UMEHARA              | 04.03.31       |
|                                                                                    |                             |                                                                                                                                                                                                                                                                                                                                       | DRAWN                                                                                                                | MY.NAKAMOTO             | 04.03.31       |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                     |                             |                                                                                                                                                                                                                                                                                                                                       | DRAWING NO.                                                                                                          |                         | ELC4-305986-13 |
| SPECIFICATION SHEET                                                                |                             |                                                                                                                                                                                                                                                                                                                                       | PART NO.                                                                                                             | DF9-*P-1V (69)          |                |
| HIROSE ELECTRIC CO., LTD.                                                          |                             |                                                                                                                                                                                                                                                                                                                                       | CODE NO.                                                                                                             | CL540                   | △ 1/1          |