

| APPLICABLE STANDARD                                            |                             |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |                              |                |
|----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|----------------|
| RATING                                                         | OPERATING TEMPERATURE RANGE | -35°C TO 85°C (NOTE 1)                                                                                                                                                                                                                                                                                                          | STORAGE TEMPERATURE RANGE                                                                                          | -10°C TO 60°C                |                |
|                                                                | VOLTAGE                     | 30V AC                                                                                                                                                                                                                                                                                                                          | APPLICABLE CONNECTOR                                                                                               | DF40*-DP-0. 4V (*)           |                |
|                                                                | CURRENT                     | 0. 3A                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                              |                |
| 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                                             |                             | 20mV AC OR LESS 1kHz, 1mA .                                                                                                                                                                                                                                                                                                     | 90mΩ MAX.                                                                                                          | X                            | —              |
| INSULATION RESISTANCE                                          |                             | 100V DC.                                                                                                                                                                                                                                                                                                                        | 50MΩ MIN.                                                                                                          | X                            | —              |
| VOLTAGE PROOF                                                  |                             | 100V AC FOR 1 min.                                                                                                                                                                                                                                                                                                              | NO FLASHOVER OR BREAKDOWN.                                                                                         | X                            | —              |
| MECHANICAL CHARACTERISTICS                                     |                             |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |                              |                |
| MECHANICAL OPERATION                                           |                             | 30TIMES INSERTIONS AND EXTRACTIONS.                                                                                                                                                                                                                                                                                             | ① CONTACT RESISTANCE: 90mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                       | X                            | —              |
| VIBRATION                                                      |                             | FREQUENCY 10 TO 55 TO 10 Hz, APPROX 5min, SINGLE AMPLITUDE 0.75 mm, 10CYCLES, FOR 3 DIRECTIONS.                                                                                                                                                                                                                                 | 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.                                                                                                                                                                                                                                                       | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                | X                            | —              |
| ENVIRONMENTAL CHARACTERISTICS                                  |                             |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |                              |                |
| RAPID CHANGE OF TEMPERATURE                                    |                             | TEMPERATURE -55→ 5 TO 35→85→ 5 TO 35 °C<br>TIME 30→ 5 MAX → 30→ 5 MAX min<br>UNDER 5 CYCLES.                                                                                                                                                                                                                                    | ① CONTACT RESISTANCE: 90mΩ MAX.<br>② INSULATION RESISTANCE: 50MΩ 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: 90mΩ MAX.<br>② INSULATION RESISTANCE: 25MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X                            | —              |
| SULPHUR DIOXIDE                                                |                             | EXPOSED IN 25 PPM FOR 96h, 25°C, 75%.                                                                                                                                                                                                                                                                                           | ① CONTACT RESISTANCE: 180mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                      | X                            | —              |
| HEAT RESISTANCE OF SOLDERING                                   |                             | RECOMMENDED TEMPERATURE PROFILE<br>SOLDERING AREA<br>MAX 250°C, 220°C FOR 60 SECONDS MAX.<br>PREHEATING AREA<br>150 TO 180°C 90 TO 120SECONDS.<br>MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.<br>RECOMMENDED MANUAL SOLDERING CONDITION<br>SOLDERING IRON TEMPERATURE 350°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: SOLDERING FOR 3 ±0.5 SECONDS.                                                                                                                                                                                                                                          | A NEW UNIFORM COATING OF SOLDER SHALL COVER MINIMUM OF 95% OF THE SURFACE BEING IMMERSED.                          | X                            | —              |
|                                                                | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                                                                                                                                        | DESIGNED                                                                                                           | CHECKED                      | DATE           |
| △                                                              |                             |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |                              |                |
| REMARKS                                                        |                             |                                                                                                                                                                                                                                                                                                                                 | APPROVED                                                                                                           | KH. IKEDA                    | 10. 07. 13     |
| NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT               |                             |                                                                                                                                                                                                                                                                                                                                 | CHECKED                                                                                                            | AR. TAKAHASHI                | 10. 07. 13     |
| Unless otherwise specified, refer to JIS C 5402, IEC 60512.    |                             |                                                                                                                                                                                                                                                                                                                                 | DESIGNED                                                                                                           | TK. SUZUKI                   | 10. 07. 12     |
|                                                                |                             |                                                                                                                                                                                                                                                                                                                                 | DRAWN                                                                                                              | TK. SUZUKI                   | 10. 07. 12     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                             |                                                                                                                                                                                                                                                                                                                                 | DRAWING NO.                                                                                                        |                              | ELC4-318048-01 |
| HRS                                                            | SPECIFICATION SHEET         |                                                                                                                                                                                                                                                                                                                                 | PART NO.                                                                                                           | DF40HC (3. 5) -DP-0. 4V (51) |                |
|                                                                | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                                                                                                                                                                                                 | CODE NO.                                                                                                           | CL684                        | △ 1/1          |