

| APPLICABLE STANDARD                                                                                                                                                                                                                                                                           |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|--|--|
| RATING                                                                                                                                                                                                                                                                                        | OPERATING TEMPERATURE RANGE | -35 °C TO +85°C (NOTE1)                                                                                                                                                                                                                                                                                                                                                                                                                           | STORAGE TEMPERATURE RANGE       | -10 °C TO +60°C (NOTE3)                                                                                               |                                                    |  |  |
|                                                                                                                                                                                                                                                                                               | OPERATING HUMIDITY RANGE    | 20% TO 80% (NOTE2)                                                                                                                                                                                                                                                                                                                                                                                                                                | STORAGE HUMIDITY RANGE          | 40% TO 70% (NOTE3)                                                                                                    |                                                    |  |  |
|                                                                                                                                                                                                                                                                                               | APPLICABLE CONNECTOR        | DF57H-6S-1.2C(##)<br>DF57AH-6S-1.2C(##)                                                                                                                                                                                                                                                                                                                                                                                                           | UL•<br>C-UL<br>RATING<br><br>△2 | OPERATING TEMPERATURE RANGE                                                                                           | -35 °C TO +75°C (NOTE1)                            |  |  |
|                                                                                                                                                                                                                                                                                               | APPLICABLE CONTACT          | DF57-****SCF(##)                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 | VOLTAGE                                                                                                               | 29 V AC/DC                                         |  |  |
|                                                                                                                                                                                                                                                                                               | VOLTAGE                     | 50 V AC/DC                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                 | CURRENT                                                                                                               | 26 TO 28 AWG : 1.5A/PIN<br>30 TO 34 AWG : 1.0A/PIN |  |  |
|                                                                                                                                                                                                                                                                                               | CURRENT                     | 26 TO 28 AWG : 1.5A/PIN<br>30 AWG : 1.0A/PIN<br>32 AWG : 0.8A/PIN<br>34 AWG : 0.5A/PIN                                                                                                                                                                                                                                                                                                                                                            |                                 |                                                                                                                       |                                                    |  |  |
| SPECIFICATIONS                                                                                                                                                                                                                                                                                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
| ITEM                                                                                                                                                                                                                                                                                          |                             | TEST METHOD                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 | REQUIREMENTS                                                                                                          |                                                    |  |  |
| CONSTRUCTION                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
| GENERAL EXAMINATION                                                                                                                                                                                                                                                                           |                             | VISUALLY AND BY MEASURING INSTRUMENT.                                                                                                                                                                                                                                                                                                                                                                                                             |                                 | ACCORDING TO DRAWING.                                                                                                 |                                                    |  |  |
| MARKING                                                                                                                                                                                                                                                                                       |                             | CONFIRMED VISUALLY.                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 |                                                                                                                       |                                                    |  |  |
| ELECTRIC CHARACTERISTICS                                                                                                                                                                                                                                                                      |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD                                                                                                                                                                                                                                                     |                             | 20mV MAX, 1mA (DC or 1000Hz).                                                                                                                                                                                                                                                                                                                                                                                                                     |                                 | 10 mΩ MAX.                                                                                                            | X —                                                |  |  |
| INSULATION RESISTANCE                                                                                                                                                                                                                                                                         |                             | 100 V DC.                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 | 100 MΩ MIN.                                                                                                           | X —                                                |  |  |
| VOLTAGE PROOF                                                                                                                                                                                                                                                                                 |                             | 500 V AC FOR 1 min.                                                                                                                                                                                                                                                                                                                                                                                                                               |                                 | NO FLASHOVER OR BREAKDOWN.                                                                                            | X —                                                |  |  |
| MECHANICAL CHARACTERISTICS                                                                                                                                                                                                                                                                    |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
| MECHANICAL OPERATION                                                                                                                                                                                                                                                                          |                             | 30 TIMES INSERTION AND EXTRACTION.                                                                                                                                                                                                                                                                                                                                                                                                                |                                 | 1)CONTACT RESISTANCE: 20 mΩ MAX.<br>2)NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                         | X —                                                |  |  |
| CONTACT INSERTION AND EXTRACTION FORCES                                                                                                                                                                                                                                                       |                             | IT TAKES OUT AND INSERTS WITH A CONFORMITY CONNECTOR.                                                                                                                                                                                                                                                                                                                                                                                             |                                 | 1)INSERTION FORCE : 30.0N MAX.<br>2)EXTRACTION FORCE: 1.2N MIN.                                                       | X —                                                |  |  |
| VIBRATION                                                                                                                                                                                                                                                                                     |                             | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 10 CYCLES FOR 3 DIRECTION.                                                                                                                                                                                                                                                                                                                                                                    |                                 | 1)NO ELECTRICAL DISCONTINUITY OF 1 μ 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.                                                                                                                                                                                                                                                                                                                                                                         |                                 |                                                                                                                       | X —                                                |  |  |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                                                                                                                                 |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
| DAMP HEAT (STEADY STATE)                                                                                                                                                                                                                                                                      |                             | EXPOSED AT 40 ± 2°C , 90 TO 95 %, 96 h.<br>(AFTER LEAVING THE ROOM TEMPERATURE FOR 1-2h.)                                                                                                                                                                                                                                                                                                                                                         |                                 | 1)CONTACT RESISTANCE: 20 mΩ MAX.<br>2)INSULATION RESISTANCE: 100 MΩ MIN.<br>3)NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X —                                                |  |  |
| RAPID CHANGE OF TEMPERATURE                                                                                                                                                                                                                                                                   |                             | TEMPERATURE -55°C→ +85°C<br>TIME 30min→ 30min<br>UNDER 5 CYCLES.<br>(THE TRANSFERRING TIME OF THE TANK IS 2-3 min)<br>(AFTER LEAVING THE ROOM TEMPERATURE FOR 1-2h.)                                                                                                                                                                                                                                                                              |                                 | 1)CONTACT RESISTANCE: 20 mΩ MAX.<br>2)INSULATION RESISTANCE: 100 MΩ MIN.<br>3)NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X —                                                |  |  |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                                                                                                                                                  |                             | 1) REFLOW SOLDERING<br>«REFLOW TIME»<br>NUMBER OF REFLOW CYCLES : 2 CYCLES MAX.<br>DURATION ABOVE 220 °C, 60 sec. MAX.<br>PEAK TEMPERATURE: 250°C 10 sec. MAX.<br>«PRE-HEAT TIME»<br>PRE-HEAT TEMPERATURE(MIN) :150 °C<br>PRE-HEAT TEMPERATURE(MAX) :180 °C<br>PRE-HEAT TIME(MIN) : 90 sec.<br>PRE-HEAT TIME(MAX) : 120 sec.<br>2) MANUAL SOLDERING<br>SOLDERING IRON TEMPERATURE :350±10°C,<br>SOLDERING TIME : 3sec.<br>NO STRENGTH ON CONTACT. |                                 | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                       | X —                                                |  |  |
| SOLDERABILITY                                                                                                                                                                                                                                                                                 |                             | SOLDERING TEMPERATURE : 245°C<br>DURATION OF IMMERSION :SOLDERING, FOR 5 sec.                                                                                                                                                                                                                                                                                                                                                                     |                                 | NEW UNIFORM COATING OF SOLDER SHALL COVER MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.                              | X —                                                |  |  |
| NOTE1:INCLUDE THE TEMPERATURE RISING BY CURRENT.<br>NOTE2:NO CONDENSING.<br>NOTE3:APPLY TO THE CONDITION OF LONG TERM STORAGE FOR UNUSED PRODUCTS BEFORE MOUNTED ON PCB. AFTER MOUNTED ON PCB, OPERATION TEMPERATURE AND HUMIDITY RANGE IS APPLIED FOR INTERIM STORAGE DURING TRANSPORTATION. |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 |                                                                                                                       |                                                    |  |  |
|                                                                                                                                                                                                                                                                                               | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                                                                                                                                                                                                                                                          | DESIGNED                        | CHECKED                                                                                                               | DATE                                               |  |  |
| △2                                                                                                                                                                                                                                                                                            | 1                           | DIS-H-00005763                                                                                                                                                                                                                                                                                                                                                                                                                                    | HK. HAYASHI                     | SZ. ONO                                                                                                               | 20200220                                           |  |  |
| REMARKS<br><br>Unless otherwise specified, refer to IEC 60512.                                                                                                                                                                                                                                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | APPROVED                                                                                                              | 20120221                                           |  |  |
|                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | CHECKED                                                                                                               | 20120221                                           |  |  |
|                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | DESIGNED                                                                                                              | 20120220                                           |  |  |
|                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | DRAWN                                                                                                                 | 20120220                                           |  |  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                |                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DRAWING NO.                     | ELC-343908-21-01                                                                                                      |                                                    |  |  |
|                                                                                                                                                                                                            | SPECIFICATION SHEET         |                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PART NO.                        | DF57H-6P-1. 2V (21)                                                                                                   |                                                    |  |  |
|                                                                                                                                                                                                                                                                                               | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                                                                                                                                                                                                                                                                                                                   | CODE NO.                        | CL666-0108-8-21                                                                                                       | △ 1/1                                              |  |  |