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| COUNT                                                                                                                                                         | DESCRIPTION OF REVISIONS    | BY                                                                                                                 | CHKD | DATE                       | COUNT                                                                                       | DESCRIPTION OF REVISIONS           | BY                                | CHKD                            | DATE      |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------|------|----------------------------|---------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------|---------------------------------|-----------|--|--|--|
| △                                                                                                                                                             |                             |                                                                                                                    |      |                            | △                                                                                           |                                    |                                   |                                 |           |  |  |  |
| △                                                                                                                                                             |                             |                                                                                                                    |      |                            | △                                                                                           |                                    |                                   |                                 |           |  |  |  |
| <b>APPLICABLE STANDARD</b>                                                                                                                                    |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| <b>RATING</b>                                                                                                                                                 | OPERATING TEMPERATURE RANGE | -55 °C TO 85 °C <sup>(1)</sup>                                                                                     |      |                            | STORAGE TEMPERATURE RANGE                                                                   | -10 °C TO 60 °C <sup>(2)</sup>     |                                   |                                 |           |  |  |  |
|                                                                                                                                                               | VOLTAGE                     | 125 V AC                                                                                                           |      |                            | OPERATING HUMIDITY RANGE                                                                    | 40 % TO 80 %                       |                                   |                                 |           |  |  |  |
|                                                                                                                                                               | CURRENT                     | 0.5 A                                                                                                              |      |                            | STORAGE HUMIDITY RANGE                                                                      | 40 % TO 70 % <sup>(2)</sup>        |                                   |                                 |           |  |  |  |
| <b>SPECIFICATIONS</b>                                                                                                                                         |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| <b>ITEM</b>                                                                                                                                                   |                             | <b>TEST METHOD</b>                                                                                                 |      |                            | <b>REQUIREMENTS</b>                                                                         |                                    |                                   | <b>QT</b>                       | <b>AT</b> |  |  |  |
| <b>CONSTRUCTION</b>                                                                                                                                           |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| GENERAL EXAMINATION                                                                                                                                           |                             | VISUALLY AND BY MEASURING INSTRUMENT.                                                                              |      |                            | ACCORDING TO DRAWING.                                                                       |                                    |                                   | ×                               | ×         |  |  |  |
| MARKING                                                                                                                                                       |                             | CONFIRMED VISUALLY.                                                                                                |      |                            |                                                                                             |                                    |                                   | ×                               | ×         |  |  |  |
| <b>ELECTRICAL CHARACTERISTICS</b>                                                                                                                             |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| CONTACT RESISTANCE                                                                                                                                            |                             | 100 mA (DC OR 1000 Hz).                                                                                            |      |                            | 45 mΩ MAX.                                                                                  |                                    |                                   | ×                               |           |  |  |  |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD                                                                                                                     |                             | 20 mV MAX, 1 mA(DC OR 1000Hz)                                                                                      |      |                            | 55 mΩ MAX.                                                                                  |                                    |                                   | ×                               |           |  |  |  |
| INSULATION RESISTANCE                                                                                                                                         |                             | 250 V DC.                                                                                                          |      |                            | 100 MΩ MIN.                                                                                 |                                    |                                   | ×                               |           |  |  |  |
| VOLTAGE PROOF                                                                                                                                                 |                             | 300 V AC FOR 1 min.                                                                                                |      |                            | NO FLASHOVER OR BREAKDOWN.                                                                  |                                    |                                   | ×                               |           |  |  |  |
| <b>MECHANICAL CHARACTERISTICS</b>                                                                                                                             |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| MECHANICAL OPERATION                                                                                                                                          |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                              |      |                            | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.              |                                    |                                   | ×                               |           |  |  |  |
| VIBRATION                                                                                                                                                     |                             | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 1.52 mm,<br>AT 2 h FOR 3 DIRECTION.                                          |      |                            | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.        |                                    |                                   | ×                               |           |  |  |  |
| SHOCK                                                                                                                                                         |                             | 490 m/s <sup>2</sup> , DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS.                                     |      |                            |                                                                                             |                                    |                                   | ×                               |           |  |  |  |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                                                                                                                          |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| DAMP HEAT (STEADY STATE)                                                                                                                                      |                             | EXPOSED AT 40±2 °C, 90 ~ 95 %, 96 h.                                                                               |      |                            | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② INSULATION RESISTANCE: 100 MΩ MIN.                    |                                    |                                   | ×                               |           |  |  |  |
| RAPID CHANGE OF TEMPERATURE                                                                                                                                   |                             | TEMPERATURE-55→+15~+35→+85→+15~+35°C<br>TIME 30 → 10~15 → 30 → 10~15 min<br>UNDER 5 CYCLES.                        |      |                            | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                  |                                    |                                   | ×                               |           |  |  |  |
| CORROSION SALT MIST                                                                                                                                           |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                          |      |                            | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO HEAVY CORROSION.                                   |                                    |                                   | ×                               |           |  |  |  |
| HYDROGEN SULPHIDE                                                                                                                                             |                             | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-38)                                                            |      |                            |                                                                                             |                                    |                                   | ×                               |           |  |  |  |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                  |                             | 1) SOLDER BATH: SOLDER TEMPERATURE, 260±5°C FOR IMMERSION, DURATION, 10±1s.<br>2) SOLDERING IRONS : 360°C FOR 5 s. |      |                            | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL.                              |                                    |                                   | ×                               |           |  |  |  |
| SOLDRABILITY                                                                                                                                                  |                             | SOLDERED AT SOLDER TEMPERATURE 240±3°C FOR IMMERSION DURATION, 2s.                                                 |      |                            | A NEW UNIFORM COATING OF SOLDER SHALL OVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. |                                    |                                   | ×                               |           |  |  |  |
|                                                                                                                                                               |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| REMARKS<br>1)TEMPERATURE RISE INCLUDED WHEN ENERGIZED.<br>2)THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED. |                             |                                                                                                                    |      |                            | DRAWN<br>I.OKAYAMA<br>04.06.11                                                              | DESIGNED<br>K.NAKAMURA<br>04.06.11 | CHECKED<br>H.Okawa<br>04.06.14    | APPROVED<br>H.Okawa<br>04.06.14 | RELEASED  |  |  |  |
| Unless otherwise specified, refer to MIL-STD-1344.                                                                                                            |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| Note QT:Qualification Test AT:Assurance Test ×:Applicable Test                                                                                                |                             |                                                                                                                    |      |                            |                                                                                             |                                    |                                   |                                 |           |  |  |  |
| <b>HS HIROSE ELECTRIC CO., LTD.</b>                                                                                                                           |                             |                                                                                                                    |      | <b>SPECIFICATION SHEET</b> |                                                                                             |                                    | PART NO.<br>FX2B-**P-1. 27DS (71) |                                 |           |  |  |  |
| CODE NO.(OLD)<br>CL                                                                                                                                           |                             | DRAWING NO.<br>ELC4 – 082283–21                                                                                    |      |                            | CODE NO.<br>CL 572                                                                          |                                    |                                   | 1/1                             |           |  |  |  |

