

| COUNT  | DESCRIPTION OF REVISIONS    | BY   | CHKD | DATE                            | COUNT   | DESCRIPTION OF REVISIONS        | BY                               | CHKD                              | DATE |  |  |
|--|-----------------------------|--|------|---------------------------------|---|---------------------------------|----------------------------------|-----------------------------------|------|--|--|
| △  |                             |  |      |                                 | △   |                                 |                                  |                                   |      |  |  |
| △  |                             |  |      |                                 | △   |                                 |                                  |                                   |      |  |  |
| <b>APPLICABLE STANDARD</b>   |                             |  |      |                                 |   |                                 |                                  |                                   |      |  |  |
| RATING   | 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>  |                             |  |      |                                 |   |                                 |                                  |                                   |      |  |  |
| ITEM   |                             | TEST METHOD  |      |                                 | REQUIREMENTS  |                                 |                                  | QT                                | AT   |  |  |
| <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. |                                 |                                  | ×                                 |      |  |  |
| <b>REMARKS</b>   |                             |  |      |                                 |   |                                 |                                  |                                   |      |  |  |
| 1) TEMPERATURE RISE INCLUDED WHEN ENERGIZED.<br>2) THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED.<br>3) * * INDICATES THE NUMBER OF CONTACTS. |                             |  |      | DRAWN<br>A.SUZUKAWA<br>05.03.24 | DESIGNED<br>H. Doi<br>05.03.25  | CHECKED<br>H. Ogawa<br>05.03.25 | APPROVED<br>H. Ogawa<br>05.03.25 | RELEASED                          |      |  |  |
| Unless otherwise specified, refer to MIL-STD-1344.   |                             |  |      |                                 |   |                                 |                                  |                                   |      |  |  |
| Note QT:Qualification Test AT:Assurance Test ×:Applicable Test   |                             |  |      |                                 |   |                                 |                                  |                                   |      |  |  |
| <b>HS</b> HIROSE ELECTRIC CO., LTD.  |                             |  |      |                                 | SPECIFICATION SHEET   |                                 |                                  | PART NO.<br>FX2-**P-1. 27DSL (71) |      |  |  |
| CODE NO.(OLD)<br>CL  |                             | DRAWING NO.<br>ELC4 - 083294-21  |      |                                 | CODE NO.<br>CL 572  |                                 |                                  | 1<br>1                            |      |  |  |

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