

| 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>   |                             |  |      |                        |  |                                |                                    |          |      |
| INSERTION AND WITHDRAWAL FORCES   |                             | MEASURED BY APPLICABLE CONNECTOR   |      |                        | INSERTION FORCE : (0.882 × ** ) N MAX<br>WITHDRAWAL FORCE : (0.098 × ** ) N MIN              |                                |                                    | ×        |      |
| 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 IMMERSSED. |                                |                                    | ×        |      |
| <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                  | DESIGNED   | CHECKED                        | APPROVED                           | RELEASED |      |
|   |                             |  |      | A.SUZUKAWA<br>05.03.24 | H. Doi<br>05.03.25   | K. Ozawa<br>05.03.25           | K. Ozawa<br>05.03.25               |          |      |
| Unless otherwise specified, refer to MIL-STD-1344.  |                             |  |      |                        |  |                                |                                    |          |      |
| Note QT: Qualification Test AT: Assurance Test ×: Applicable Test   |                             |  |      |                        |  |                                |                                    |          |      |
| <b>HRS</b> HIROSE ELECTRIC CO., LTD.  |                             |  |      | SPECIFICATION SHEET    |  |                                | PART NO.<br>FX2-**-S-1. 27DSL (71) |          |      |
| CODE NO. (OLD)  |                             | DRAWING NO.  |      |                        | CODE NO.   |                                |                                    | 1<br>1   |      |
| CL  |                             | ELC4 - 083296-21   |      |                        | CL 572   |                                |                                    |          |      |

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