

| APPLICABLE STANDARD                                                                                                                                                                 |                             |                                                                                                           |             |                                                                                              |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------|--------------------------------|
| 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                                                                                                     |             | STRAGE HUMIDITY RANGE                                                                        | 40 % TO 70 % <sup>(2)</sup>    |
| 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                                                                                                                                                                  |                             | 100 mA (DC OR 1000 Hz).                                                                                   |             | 45 mΩ MAX .                                                                                  | x —                            |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD                                                                                                                                           |                             | 20 mV MAX, 1 mA(DC OR 1000Hz)                                                                             |             | 55 mΩ MAX .                                                                                  | x —                            |
| INSULATION RESISTANCE                                                                                                                                                               |                             | 250 V DC                                                                                                  |             | 100 MΩ MIN.                                                                                  | x —                            |
| VOLTAGE PROOF                                                                                                                                                                       |                             | 300 V AC FOR 1 min.                                                                                       |             | NO FLASHOVER OR BREAKDOWN.                                                                   | x —                            |
| MECHANICAL CHARACTERISTICS                                                                                                                                                          |                             |                                                                                                           |             |                                                                                              |                                |
| INSERTION AND WITHDRAWAL FORCES                                                                                                                                                     |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                         |             | INSERTION FORCE: 59.8 N MAX.<br>WITHDRAWAL FORCE: 6.8 N MIN.                                 | x —                            |
| MECHANICAL OPERATION                                                                                                                                                                |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                     |             | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.               | x —                            |
| VIBRATION                                                                                                                                                                           |                             | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 1.52 mm,<br>AT 2 h FOR 3 DIRECTIONS.                                |             | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.         | x —                            |
| SHOCK                                                                                                                                                                               |                             | 490 m/s <sup>2</sup> , DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS.                            |             |                                                                                              | x —                            |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                       |                             |                                                                                                           |             |                                                                                              |                                |
| 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.                      | x —                            |
| 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.                                                   | x —                            |
| CORROSION SALT MIST                                                                                                                                                                 |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                 |             | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO HEAVY CORROSION.                                    | x —                            |
| HYDROGEN SULPHIDE                                                                                                                                                                   |                             | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA 38)                                                   |             |                                                                                              | x —                            |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                                        |                             | 1) REFLOW SOLDERING : 250 °C MAX,<br>: 220 °C MIN,<br>FOR 60 s<br>2) SOLDERING IRONS : 360 °C,<br>FOR 5 s |             | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                              | x —                            |
| SOLDERABILITY                                                                                                                                                                       |                             | SOLDERED AT SOLDER TEMPERATURE, 240±3°C,<br>FOR IMMERSION DURATION, 2s.                                   |             | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. | x —                            |
|                                                                                                                                                                                     |                             |                                                                                                           |             |                                                                                              |                                |
|                                                                                                                                                                                     | COUNT                       | DESCRIPTION OF REVISIONS                                                                                  | DESIGNED    | CHECKED                                                                                      | DATE                           |
| △                                                                                                                                                                                   |                             |                                                                                                           |             |                                                                                              |                                |
| REMARK <sup>(1)</sup> TEMPERATURE RISE INCLUDED WHEN ENERGIZED.<br><sup>(2)</sup> THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED. |                             |                                                                                                           | APPROVED    | HS. OKAWA                                                                                    | 07. 10. 19                     |
|                                                                                                                                                                                     |                             |                                                                                                           | CHECKED     | HS. OZAWA                                                                                    | 07. 10. 19                     |
|                                                                                                                                                                                     |                             |                                                                                                           | DESIGNED    | SY. KAMIGA                                                                                   | 07. 10. 19                     |
| Unless otherwise specified, refer to MIL-STD-1344.                                                                                                                                  |                             |                                                                                                           | DRAWN       | HK. SUNADORI                                                                                 | 07. 10. 19                     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                      |                             |                                                                                                           | DRAWING NO. |                                                                                              | ELC4-082421-21                 |
| HRS                                                                                                                                                                                 | SPECIFICATION SHEET         |                                                                                                           | PART NO.    | FX2-68S-1. 27SVL (71)                                                                        |                                |
|                                                                                                                                                                                     | HIROSE ELECTRIC CO., LTD.   |                                                                                                           | CODE NO.    | CL572-2156-5-71                                                                              | △ 1/1                          |