

| 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                     | 100 V AC                                                                                                            | OPERATING HUMIDITY RANGE                                                                    | 40 % TO 80 %                   |                |
|                                                                                                                                                                                     | CURRENT                     | 0.5 A                                                                                                               | STORAGE 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              |
| ELECTRICAL CHARACTERISTICS                                                                                                                                                          |                             |                                                                                                                     |                                                                                             |                                |                |
| CONTACT RESISTANCE                                                                                                                                                                  |                             | 100 mA (DC OR 1000 Hz).                                                                                             | 50 mΩ MAX.                                                                                  | x                              | —              |
| CONTACT RESISTANCE                                                                                                                                                                  |                             | 20 mV MAX, 1 mA(DC OR 1000Hz)                                                                                       | 60 mΩ MAX.                                                                                  | x                              | —              |
| MILLIVOLT LEVEL METHOD                                                                                                                                                              |                             |                                                                                                                     |                                                                                             |                                |                |
| 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 : 41.6 N MAX<br>WITHDRAWAL FORCE : 5.2 N MIN                                | x                              | —              |
| MECHANICAL OPERATION                                                                                                                                                                |                             | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                               | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.              | x                              | —              |
| VIBRATION                                                                                                                                                                           |                             | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 0.75 mm,<br>AT 10 CYCLES 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: 60 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 → 2~3 → 30 → 2~3 min<br>UNDER 5 CYCLES.                             | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                  | x                              | —              |
| DRY HEAT                                                                                                                                                                            |                             | EXPOSED AT 85 °C, 96 h.                                                                                             | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PART                | x                              | —              |
| CORROSION SALT MIST                                                                                                                                                                 |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                           | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO HEAVY CORROSION.                                   | x                              | —              |
| SULPHUR DIOXIDE                                                                                                                                                                     |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-39)                                                            |                                                                                             | x                              | —              |
| 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 MAX. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL.                              | x                              | —              |
| SOLDRABILITY                                                                                                                                                                        |                             | SOLDERED AT SOLDER TEMPERATURE 240±5°C FOR IMMERSION DURATION, 3 s.                                                 | A NEW UNIFORM COATING OF SOLDER SHALL OVER 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                      | 08.07.14       |
|                                                                                                                                                                                     |                             |                                                                                                                     | CHECKED                                                                                     | HT. YAMAGUCHI                  | 08.07.14       |
|                                                                                                                                                                                     |                             |                                                                                                                     | DESIGNED                                                                                    | SY. KAMIGA                     | 08.07.11       |
|                                                                                                                                                                                     |                             |                                                                                                                     | DRAWN                                                                                       | HK. SUNADORI                   | 08.06.18       |
| Unless otherwise specified, refer to JIS C 5402                                                                                                                                     |                             |                                                                                                                     |                                                                                             |                                |                |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                      |                             |                                                                                                                     | DRAWING NO.                                                                                 |                                | ELC4-151419-21 |
|                                                                                                  | SPECIFICATION SHEET         |                                                                                                                     | PART NO.                                                                                    | FX5-52S2A-DSAL (71)            |                |
|                                                                                                                                                                                     | HIROSE ELECTRIC CO., LTD.   |                                                                                                                     | CODE NO.                                                                                    | CL575-0126-2-71                | △ 1/1          |