

| 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                     | 50 V AC                                                                                                   | OPERATING HUMIDITY RANGE  | RELATIVE HUMIDITY 95 % RH MAX. <sup>(3)</sup>                                                |                |
|                                                                                                                                                                                                                                         | CURRENT                     | 0.3 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            |
| ELECTRIC CHARACTERISTICS                                                                                                                                                                                                                |                             |                                                                                                           |                           |                                                                                              |                |
| CONTACT RESISTANCE                                                                                                                                                                                                                      |                             | 100 mA (DC OR 1000 Hz).                                                                                   |                           | 60 mΩ MAX.                                                                                   | x —            |
| INSULATION RESISTANCE                                                                                                                                                                                                                   |                             | 100 V DC                                                                                                  |                           | 100 MΩ MIN.                                                                                  | x —            |
| VOLTAGE PROOF                                                                                                                                                                                                                           |                             | 150 V AC FOR 1 min.                                                                                       |                           | NO FLASHOVER OR BREAKDOWN.                                                                   | x x            |
| MECHANICAL CHARACTERISTICS                                                                                                                                                                                                              |                             |                                                                                                           |                           |                                                                                              |                |
| INSERTION AND WITHDRAWAL FORCE                                                                                                                                                                                                          |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                         |                           | INSERTION FORCE: 86.4 N MAX.<br>WITHDRAWAL FORCE: 3.6 N MIN.                                 | x —            |
| MECHANICAL OPERATION                                                                                                                                                                                                                    |                             | 50 TIMES INSERTIONS AND EXTRACTIONS.                                                                      |                           | ① CONTACT RESISTANCE: 70 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.               | x —            |
| VIBRATION                                                                                                                                                                                                                               |                             | FREQUENCY 10 TO 55 Hz,<br>SINGLE 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: 70 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, 96h.                                                                                    |                           | ① CONTACT RESISTANCE: 70 mΩ MAX.                                                             | x —            |
| COLD                                                                                                                                                                                                                                    |                             | EXPOSED AT -55 °C, 96h.                                                                                   |                           | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                   | x —            |
| CORROSION SALT MIST                                                                                                                                                                                                                     |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                 |                           | ① CONTACT RESISTANCE: 70 mΩ MAX.<br>② NO HEAVY CORROSION.                                    | x —            |
| SULPHUR DIOXIDE                                                                                                                                                                                                                         |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD: JIS C 0090)                                                |                           |                                                                                              | 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 TERMINAL.                               | x —            |
| SOLDERABILITY                                                                                                                                                                                                                           |                             | SOLDERED AT SOLDER TEMPERATURE, 240°C,<br>FOR IMMERSION DURATION, 3 s.                                    |                           | 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.<br><sup>(3)</sup> NO DEW CONDENSATION IS PERMITTED. |                             |                                                                                                           | APPROVED                  | HS. OKAWA                                                                                    | 09. 04. 14     |
|                                                                                                                                                                                                                                         |                             |                                                                                                           | CHECKED                   | HT. YAMAGUCHI                                                                                | 09. 04. 14     |
|                                                                                                                                                                                                                                         |                             |                                                                                                           | DESIGNED                  | SY. KAMIGA                                                                                   | 09. 04. 14     |
| Unless otherwise specified, refer to JIS C 5402.                                                                                                                                                                                        |                             |                                                                                                           | DRAWN                     | HK. SUNADORI                                                                                 | 09. 04. 13     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                          |                             |                                                                                                           | DRAWING NO.               |                                                                                              | ELC4-151954-25 |
| HRS                                                                                                                                                                                                                                     | SPECIFICATION SHEET         |                                                                                                           | PART NO.                  | FX10A-144P-SV (71)                                                                           |                |
|                                                                                                                                                                                                                                         | HIROSE ELECTRIC CO., LTD.   |                                                                                                           | CODE NO.                  | CL570-0043-5-71                                                                              | △ 1/1          |