

| APPLICABLE STANDARD                                            |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------|----|
| RATING                                                         | OPERATING TEMPERATURE RANGE                                                                                                                                                                                                      | -55 °C TO 85 °C <sup>(1)</sup>                                                                                                 |             | OPERATING HUMIDITY RANGE                                                                                                    | 40 TO 80 % MAX <sup>(3)</sup>  |          |    |
|                                                                | VOLTAGE                                                                                                                                                                                                                          | 100 V AC                                                                                                                       |             | STORAGE TEMPERATURE RANGE                                                                                                   | -10 °C TO 60 °C <sup>(2)</sup> |          |    |
|                                                                | CURRENT                                                                                                                                                                                                                          | 0.4 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.                                                                                                       |                                | ×        | ×  |
| MARKING                                                        |                                                                                                                                                                                                                                  | CONFIRMED VISUALLY.                                                                                                            |             |                                                                                                                             |                                | ×        | ×  |
| ELECTRIC CHARACTERISTICS                                       |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
| 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.                                                                                                  |                                | ×        | ×  |
| MECHANICAL CHARACTERISTICS                                     |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
| INSERTION AND WITHDRAWAL FORCES                                |                                                                                                                                                                                                                                  | MEASURED BY APPLICABLE CONNECTOR.                                                                                              |             | INSERTION FORCE : 84.0 N MAX.<br>WITHDRAWAL FORCE: 7.8 N MIN.                                                               |                                | ×        | —  |
| MECHANICAL OPERATION                                           |                                                                                                                                                                                                                                  | 50 TIMES INSERTIONS AND EXTRACTIONS.                                                                                           |             | 1) CONTACT RESISTANCE: 55 mΩ MAX.<br>2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                            |                                | ×        | —  |
| VIBRATION                                                      |                                                                                                                                                                                                                                  | FREQUENCY 10 TO 55 TO 10 Hz,<br>SINGLE AMPLITUDE: 0.75 mm,<br>AT 2 h FOR 3 DIRECTIONS.                                         |             | 1) NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>2) CONTACT RESISTANCE: 55 mΩ MAX.<br>3) 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 BOTH AXIAL DIRECTIONS.                                      |             |                                                                                                                             |                                | ×        | —  |
| ENVIRONMENTAL CHARACTERISTICS                                  |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
| DAMP HEAT (STEADY STATE)                                       |                                                                                                                                                                                                                                  | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.                                                                                        |             | 1) CONTACT RESISTANCE : 55 mΩ MAX.<br>2) INSULATION RESISTANCE: 100 MΩ MIN.                                                 |                                | ×        | —  |
| RAPID CHANGE OF TEMPERATURE                                    |                                                                                                                                                                                                                                  | TEMPERATURE: -55 → +85 °C<br>TIME : 30 → 30 min.<br>UNDER 5 CYCLES.<br>(RELOCATION TIME TO CHAMBER: WITHIN 2 TO 3 min)         |             | 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 3 ppm FOR 96 h.<br>(TEST STANDARD: JEIDA-38)                                                                           |             |                                                                                                                             |                                | ×        | —  |
| RESISTANCE TO SOLDERING HEAT                                   |                                                                                                                                                                                                                                  | 1) REFLOW SOLDERING:<br>PEAK TMP : 250 °C MAX<br>REFLOW TMP: 220 °C MIN FOR 60sec<br>2) SOLDERING IRONS: 360 °C MAX FOR 5 sec. |             | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL.                                                              |                                | ×        | —  |
| SOLDERABILITY                                                  |                                                                                                                                                                                                                                  | SOLDERED AT SOLDER TEMPERATURE<br>240 ± 3 °C FOR IMMERSION DURATION, 3 sec.                                                    |             | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSSED.                               |                                | ×        | —  |
|                                                                |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
|                                                                | COUNT                                                                                                                                                                                                                            | DESCRIPTION OF REVISIONS                                                                                                       | DESIGNED    | CHECKED                                                                                                                     | DATE                           |          |    |
| △                                                              |                                                                                                                                                                                                                                  |                                                                                                                                |             |                                                                                                                             |                                |          |    |
| REMARKS                                                        | (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) NON-CONDENSING.<br>Unless otherwise specified, refer to IEC-60512. |                                                                                                                                |             | APPROVED                                                                                                                    | NH. NAKATA                     | 16.11.21 |    |
|                                                                |                                                                                                                                                                                                                                  |                                                                                                                                |             | CHECKED                                                                                                                     | HT. YAMAGUCHI                  | 16.11.21 |    |
|                                                                |                                                                                                                                                                                                                                  |                                                                                                                                |             | DESIGNED                                                                                                                    | MT. ITANO                      | 16.11.21 |    |
|                                                                |                                                                                                                                                                                                                                  |                                                                                                                                |             | DRAWN                                                                                                                       | MT. ITANO                      | 16.11.21 |    |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                                                                                                                                                                                                                                  |                                                                                                                                | DRAWING NO. |                                                                                                                             | ELC-150677-22-00               |          |    |
| HRS                                                            | SPECIFICATION SHEET                                                                                                                                                                                                              |                                                                                                                                | PART NO.    | FX8-120S-SV (22)                                                                                                            |                                |          |    |
|                                                                | HIROSE ELECTRIC CO., LTD.                                                                                                                                                                                                        |                                                                                                                                | CODE NO.    | CL578-0206-9-22                                                                                                             | △                              | 1/1      |    |