

| APPLICABLE STANDARD                  |  |   |  |   |          |
|--------------------------------------|--|---|--|---|----------|
| RATING                               | OPERATING TEMPERATURE RANGE  | -55 °C to 85 °C <sup>(1)</sup>  | OPERATING HUMIDITY RANGE   | RELATIVE HUMIDITY 95 % MAX <sup>(3)</sup> |          |
|                                      | VOLTAGE  | 50 V AC   | STORAGE TEMPERATURE RANGE  | -10 °C to 60 °C <sup>(2)</sup>            |          |
|                                      | CURRENT  | 0.3 A   | STORAGE HUMIDITY RANGE   | 40 % to 70 % <sup>(2)</sup>               |          |
| SPECIFICATIONS                       |  |   |  |   |          |
| ITEM                                 | TEST METHOD  |   | REQUIREMENTS   | QT  | AT       |
| <b>CONSTRUCTION</b>                  |  |   |  |   |          |
| GENERAL EXAMINATION                  | VISUALLY AND BY MEASURING INSTRUMENT.  |   | ACCORDING TO DRAWING.  | ×   | ×        |
| MARKING                              | CONFIRMED VISUALLY.  |   |  | ×   | ×        |
| <b>ELECTRIC CHARACTERISTICS</b>      |  |   |  |   |          |
| CONTACT RESISTANCE                   | 100 mA (DC OR 1000 Hz)   |   | 60 mΩ MAX .  | ×   | —        |
| INSULATION RESISTANCE                | 100 V DC.  |   | 100 MΩ MIN.  | ×   | —        |
| VOLTAGE PROOF                        | 150 V AC FOR 1 min.  |   | NO FLASHOVER OR BREAKDOWN.   | ×   | ×        |
| <b>MECHANICAL CHARACTERISTICS</b>    |  |   |  |   |          |
| INSERTION AND WITHDRAWAL FORCES      | MEASURED BY APPLICABLE CONNECTOR.  |   | INSERTION FORCE : 100.8 N MAX.<br>WITHDRAWAL FORCE: 4.2 N MIN.   | ×   | —        |
| MECHANICAL OPERATION                 | 50 TIMES INSERTIONS AND EXTRACTIONS.   |   | 1) CONTACT RESISTANCE: 70 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, 10 CYCLES<br>FOR 3 AXIAL DIRECTIONS.                                |   | 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 BOTH AXIAL DIRECTIONS.                                      |   |  | ×   | —        |
| <b>ENVIRONMENTAL CHARACTERISTICS</b> |  |   |  |   |          |
| DAMP HEAT (STEADY STATE)             | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.  |   | 1) CONTACT RESISTANCE : 70 mΩ MAX.<br>2) INSULATION RESISTANCE: 100 MΩ MIN.<br>3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | ×   | —        |
| 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)         |   |  | ×   | —        |
| COLD                                 | EXPOSED AT -55 °C, 96 h  |   | 1) CONTACT RESISTANCE : 70 mΩ MAX.<br>2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | ×   | —        |
| DRY HEAT                             | EXPOSED AT +85 °C, 96 h  |   |  | ×   | —        |
| CORROSION SALT MIST                  | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.  |   | 1) CONTACT RESISTANCE : 70 mΩ MAX.<br>2) NO HEAVY CORROSION.   | ×   | —        |
| SULFUR DIOXIDE                       | EXPOSED 10 ppm FOR 96 h.<br>(TEST STANDARD: JIS C 60068)   |   |  | ×   | —        |
| 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 °C FOR IMMERSION DURATION, 3 sec.  |   | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSERD.                              | ×   | —        |
|                                      |  |   |  |   |          |
|                                      | COUNT  | DESCRIPTION OF REVISIONS  | DESIGNED   | CHECKED                                   | DATE     |
| REMARKS                              | △  |   |  |   |          |
|                                      |  | (1) TEMPERATURE RISE INCLUDED WHEN ENERGIZED.   | APPROVED   | NH. NAKATA                                | 16.11.10 |
|                                      |  | (2) THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED. | CHECKED  | HT. YAMAGUCHI                             | 16.11.10 |
|                                      |  | (3) NON-CONDENSING.<br>Unless otherwise specified, refer to IEC-60512.                                | DESIGNED   | MT. ITANO                                 | 16.11.10 |
|                                      |  |   | DRAWN  | MT. ITANO                                 | 16.11.10 |
| Note                                 | QT:Qualification Test AT:Assurance Test X:Applicable Test  |   | DRAWING NO.  | ELC-330881-85-00                          |          |
| <b>HRS</b>                           | SPECIFICATION SHEET  |   | PART NO.   | FX10A-168P-SV3 (85)                       |          |
|                                      | HIROSE ELECTRIC CO., LTD.  |   | CODE NO.   | CL570-0304-7-85                           | △ 1/1    |