

| COUNT   | DESCRIPTION OF REVISIONS    | BY   | CHKD | DATE                           | COUNT   | DESCRIPTION OF REVISIONS   | BY   | CHKD                  | DATE |
|---|-----------------------------|--|------|--------------------------------|---|--|--|-----------------------|------|
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| △   |                             |  |      |                                | △   |  |  |                       |      |
| <b>APPLICATION STANDARD</b>                                       |                             |  |      |                                |   |  |  |                       |      |
| <b>RATING</b>   | OPERATING TEMPERATURE RANGE | -55 °C TO 85 °C  |      |                                | STORAGE TEMPERATURE RANGE   | -10 °C TO 60 °C  |  |                       |      |
|   | VOLTAGE                     | AC 50 V  |      |                                | OPERATING HUMIDITY RANGE  | RELATIVE HUMIDITY : 95 % MAX<br>(NO DEW CONDENSATION IS PERMITTED) |  |                       |      |
|   | CURRENT                     | 0.3 A  |      |                                |   |  |  |                       |      |
| <b>SPECIFICATIONS</b>   |                             |  |      |                                |   |  |  |                       |      |
| <b>ITEM</b>   |                             | <b>TEST METHOD</b>   |      |                                | <b>REQUIREMENT</b>  |  |  | <b>QT</b>   <b>AT</b> |      |
| <b>CONSTRUCTION</b>   |                             |  |      |                                |   |  |  |                       |      |
| GENERAL EXAMINATION   |                             | VISUALLY AND BY MEASURING INSTRUMENT.  |      |                                | ACCORDING TO DRAWING  |  |  | X                     | X    |
| MARKING   |                             | CONFIRMED VISUALLY.  |      |                                |   |  |  | X                     | X    |
| <b>ELECTRICAL CHARACTERISTICS</b>                                 |                             |  |      |                                |   |  |  |                       |      |
| CONTACT RESISTANCE  |                             | 100 mA (DC OR 1000 Hz).  |      |                                | 60 mΩ MAX.  |  |  | X                     | X    |
| INSULATION RESISTANCE   |                             | 100 V DC.  |      |                                | 100 MΩ MIN.   |  |  | X                     | -    |
| VOLTAGE PROOF   |                             | 150 V AC FOR 1 min.  |      |                                | NO FLASHOVER OR BREAKDOWN.  |  |  | X                     | X    |
| <b>MECHANICAL CHARACTERISTICS</b>                                 |                             |  |      |                                |   |  |  |                       |      |
| INSERTION AND WITHDRAWAL FORCES                                   |                             | MEASURED BY APPLICABLE CONNECTOR.  |      |                                | INSERTION FORCE: 69.6 N MAX<br>WITHDRAWAL FORCE: 2.9 N MIN.                               |  |  | X                     | -    |
| MECHANICAL OPERATION  |                             | 50 TIMES INSERTION AND EXTRACTIONS.  |      |                                | 1) CONTACT RESISTANCE: 70 mΩ MAX.<br>2) NO DAMAGE, CRACK AND LOOSENESS OF PART.           |  |  | X                     | -    |
| VIBRATION   |                             | FREQUENCY: 10 TO 55 Hz, SINGLE<br>AMPLITUDE: 0.75 mm, — m/s <sup>2</sup><br>AT 10 CYCLES FOR 3 DIRECTIONS.   |      |                                | 1) NO ELECTRICAL DISCONTINUITY OF 1 μs MIN.<br>2) NO DAMAGE, CRACK AND LOOSENESS OF PART. |  |  | X                     | -    |
| SHOCK   |                             | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.  |      |                                |   |  |  | X                     | -    |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                              |                             |  |      |                                |   |  |  |                       |      |
| 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 CHAGE OF TEMPERTURE   |                             | TEMPERTURE -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 PART.  |  |  | X                     | -    |
| DRY HEAT  |                             | EXPOSED AT 85 °C, 96 h.  |      |                                | 1) CONTACT RESISTANCE: 70 mΩ MAX.   |  |  | X                     | -    |
| COLD  |                             | EXPOSED AT -55 °C, 96 h.   |      |                                | 2) NO DAMAGE, CRACK AND LOOSENESS OF PART.  |  |  |                       |      |
| CORROSION SALT MIST   |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.  |      |                                | NO HEAVY CORROSION.   |  |  | X                     | -    |
| SULPHUR DIOXIDE   |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD: JIS C 0090)   |      |                                | 1) CONTACT RESISTANCE: 70 mΩ MAX.<br>2) NO HEAVY CORROSION.                               |  |  | X                     | -    |
| RESISTANCE TO SOLDERING HEAT                                      |                             | REFLOW : RECOMMENDED TEMPERATURE PROFILE<br><br>25°C (60 S) → 150°C (60~90 S) → 240°C (30 S) → 200°C (20~30 S)<br>240°C 5 S MAX<br>200°C<br>TO BE TESTED UNDER THE ABOVE CONDITIONS. |      |                                | NO MELTING OF RESIN WHICH AFFECTS THE PERFORMANCE OF COMPONENT.                           |  |  | X                     | -    |
| SOLDRABILITY  |                             | SOLDERED AT SOLDER TEMPERATURE, 235 °C FOR IMMERSION DURATION, 2 s.  |      |                                | NO PINHOLE OR DEWETTING ON SOLDERED SURFACE.  |  |  | X                     | -    |
| REMARKS   |                             |  |      | DRAWN                          | DESIGNED  | CHECKED  | APPROVED                                   | RELEASED              |      |
|   |                             |  |      | <i>[Signature]</i><br>99.10.27 | <i>[Signature]</i><br>99.10.27  | <i>[Signature]</i><br>99.10.28                                     | <i>[Signature]</i><br>99.10.28             |                       |      |
| UNLESS OTERWISE SPECIFIED, REFER TO JIS C 5402.                   |                             |  |      |                                |   |  |  |                       |      |
| NOTE QT: QUALIFICATION TEST AT: ASSURANCE TEST X: APPLICABLE TEST |                             |  |      |                                |   |  |  |                       |      |
| <b>HRS</b> HIROSE ELECTRIC CO.,LTD.                               |                             |  |      | <b>SPECIFICATION SHEET</b>     |   |  | PART NO.<br><b>FX11LA - 116P - SV (22)</b> |                       |      |
| CODE NO.(OLD)<br>CL   |                             | DRAWING NO.<br>ELC4 - 152102 - 02  |      |                                | CODE NO.<br>CL 573 - 0044 - 7 - 22  |  |  | 1                     | 1    |

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