

| 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.                                                                                                                 |                                | ×              | ×    |
| MARKING                                                                                                                                                                                                                                                                                                                                                       |                             | CONFIRMED VISUALLY.                                                                                                                 |  |                                                                                                                                       |                                | ×              | ×    |
| ELECTRIC CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                      |                             |                                                                                                                                     |  |                                                                                                                                       |                                |                |      |
| CONTACT RESISTANCE                                                                                                                                                                                                                                                                                                                                            |                             | 20 mV MAX, 1 mA(DC OR 1000Hz)                                                                                                       |  | 60 mΩ MAX. <sup>(3)</sup>                                                                                                             |                                | ×              |      |
| INSULATION RESISTANCE                                                                                                                                                                                                                                                                                                                                         |                             | 100 V DC.                                                                                                                           |  | 500 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: 24.6 N MAX.<br>WITHDRAWAL FORCE: 2.05 N MIN.                                                                         |                                | ×              |      |
| MECHANICAL OPERATION                                                                                                                                                                                                                                                                                                                                          |                             | 50 TIMES INSERTIONS AND EXTRACTIONS.                                                                                                |  | ① CONTACT RESISTANCE: 80 mΩ MAX. <sup>(3)</sup><br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                         |                                | ×              |      |
| VIBRATION                                                                                                                                                                                                                                                                                                                                                     |                             | FREQUENCY 10 TO 55 Hz,<br>SINGL AMPLITUDE : 0.75 mm,<br>FOR 2 h IN 3 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>FOR 3 TIMES IN 3 DIRECTIONS.                                                      |  |                                                                                                                                       |                                | ×              |      |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                                                                                                                                                                                                 |                             |                                                                                                                                     |  |                                                                                                                                       |                                |                |      |
| DAMP HEAT (STEADY STATE)                                                                                                                                                                                                                                                                                                                                      |                             | EXPOSED AT 40±2 °C, 90 ~ 95 %, 96 h.                                                                                                |  | ① CONTACT RESISTANCE: 80 mΩ MAX. <sup>(3)</sup><br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. |                                | ×              |      |
| DRY HEAT                                                                                                                                                                                                                                                                                                                                                      |                             | EXPOSED AT 85±2 °C, 96 h                                                                                                            |  |                                                                                                                                       |                                |                |      |
| RAPID CHANGE OF TEMPERATURE                                                                                                                                                                                                                                                                                                                                   |                             | TEMPERATURE -55→+5~+35→+85→+5~+35°C<br>TIME 30→ 5 MAX→ 30→ 5 MAX min.<br>UNDER 5 CYCLES.                                            |  |                                                                                                                                       |                                | ×              |      |
| CORROSION SALT MIST                                                                                                                                                                                                                                                                                                                                           |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.                                                                                           |  | ① CONTACT RESISTANCE: 80 mΩ MAX. <sup>(3)</sup><br>② NO HEAVY CORROSION.                                                              |                                | ×              |      |
| SULFUR DIOXIDE                                                                                                                                                                                                                                                                                                                                                |                             | EXPOSED IN 25 PPM FOR 96 h.<br>(TEST STANDARD: JIS C 60068)                                                                         |  |                                                                                                                                       |                                | ×              |      |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                                                                                                                                                                                                                  |                             | 1)REFLOW SOLDERING :<br>REFLOW 2 TIMES UNDER THE TEMPERATURE PROFILE SHOWN BELOW.<br><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 240±3°C FOR IMMERSION DURATION, 3 sec.                                                               |  | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.                                          |                                | ×              |      |
|                                                                                                                                                                                                                                                                                                                                                               | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                            |  | DESIGNED                                                                                                                              |                                | CHECKED        | DATE |
| ⚠                                                                                                                                                                                                                                                                                                                                                             |                             |                                                                                                                                     |  |                                                                                                                                       |                                |                |      |
| <b>REMARKS</b> <sup>(1)</sup> INCLUDE TEMPERATURE RISE CAUSED BY CURRENT-CARRYING.<br><sup>(2)</sup> "STORAGE" MEANS A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE ASSEMBLY TO PCB.<br><sup>(3)</sup> INCLUDE CONDUCTOR RESISTANCE OF CABLE IN CASE THE MATED CONNECTOR IS CABLE TYPE. (L=12mm)<br>Unless otherwise specified, refer to JIS-C-5402. |                             |                                                                                                                                     |  | APPROVED                                                                                                                              | HS. OKAWA                      | 08. 05. 07     |      |
|                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                     |  | CHECKED                                                                                                                               | HT. YAMAGUCHI                  | 08. 05. 07     |      |
|                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                     |  | DESIGNED                                                                                                                              | KN. SHIBUYA                    | 08. 05. 07     |      |
|                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                                                                                     |  | DRAWN                                                                                                                                 | AH. EDASHIGE                   | 08. 05. 07     |      |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                                                                                |                             |                                                                                                                                     |  | DRAWING NO.                                                                                                                           |                                | ELC4-156992-00 |      |
| <b>HRS</b>                                                                                                                                                                                                                                                                                                                                                    | SPECIFICATION SHEET         |                                                                                                                                     |  | PART NO.                                                                                                                              | FX15SC-41S-0.5SV               |                |      |
|                                                                                                                                                                                                                                                                                                                                                               | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                     |  | CODE NO.                                                                                                                              | CL575-2205-8-00                | ⚠              | 1/1  |