

|                                                                                                                                                                                                                                                                                                            |                                                                                                                                |                                                           |                                                                                                                                |                                          |                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------|
| 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                                                  | STORAGE HUMIDITY RANGE                                                                                                         | 40 % TO 70 % <sup>(2)</sup>              |                |
|                                                                                                                                                                                                                                                                                                            | CURRENT                                                                                                                        | 0.5 A (SIGNAL CONTACT) <sup>(3)</sup><br>3 A (MF CONTACT) | OPERATING HUMIDITY RANGE                                                                                                       | RELATIVE HUMIDITY 85% max<br>(NOT DEWED) |                |
| 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 1000Hz)                                                                                                           |                                                           | SIGNAL CONTACT : 90 mΩ MAX.<br>MF CONTACT : 30 mΩ MAX.                                                                         | x                                        | —              |
| INSULATION RESISTANCE                                                                                                                                                                                                                                                                                      | 250 V DC.                                                                                                                      |                                                           | 1000 MΩ MIN.                                                                                                                   | x                                        | —              |
| VOLTAGE PROOF                                                                                                                                                                                                                                                                                              | 300 V AC FOR 1 min.                                                                                                            |                                                           | NO FLASHOVER OR BREAKDOWN.                                                                                                     | x                                        | —              |
| MECHANICAL CHARACTERISTICS                                                                                                                                                                                                                                                                                 |                                                                                                                                |                                                           |                                                                                                                                |                                          |                |
| INSERTION AND WITHDRAWAL FORCES                                                                                                                                                                                                                                                                            | MEASURED BY APPLICABLE CONNECTOR.                                                                                              |                                                           | INSERTION FORCE: 40 N MAX.<br>WITHDRAWAL FORCE: 4 N MIN.                                                                       | x                                        | —              |
| MECHANICAL OPERATION                                                                                                                                                                                                                                                                                       | 500 TIMES INSERTIONS AND EXTRACTIONS.                                                                                          |                                                           | ① CONTACT RESISTANCE:<br>SIGNAL CONTACT : 100 mΩ MAX.<br>MF CONTACT : 40 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x                                        | —              |
| VIBRATION                                                                                                                                                                                                                                                                                                  | FREQUENCY 10 TO 55 TO 10Hz, APPROX 5min<br>SINGLE AMPLITUDE : 0.75 mm, 10 CYCLES<br>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:<br>SIGNAL CONTACT : 100 mΩ MAX.<br>MF CONTACT : 40 mΩ MAX.                                               | x                                        | —              |
| RAPID CHANGE OF TEMPERATURE                                                                                                                                                                                                                                                                                | TEMPERATURE -55 → +85 °C<br>TIME 30 → 30 min.<br>UNDER 5 CYCLES.<br>(RELOCATION TIME TO CHAMBER: WITHIN 2~3 MIN)               |                                                           | ② INSULATION RESISTANCE : 1000 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                           | x                                        | —              |
| SULFUR DIOXIDE                                                                                                                                                                                                                                                                                             | EXPOSED AT 25±2°C, 75±5%RH, 25 PPM FOR 96 h.<br>(TEST STANDARD: JIS C 60068)                                                   |                                                           | NO HEAVY CORROSION.                                                                                                            | x                                        | —              |
| RESISTANCE TO SOLDERING HEAT                                                                                                                                                                                                                                                                               | 1) REFLOW SOLDERING :<br>PEAK TMP : 260°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.                                                                 | x                                        | —              |
| 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.                                   | x                                        | —              |
|                                                                                                                                                                                                                                                                                                            |                                                                                                                                |                                                           |                                                                                                                                |                                          |                |
| COUNT                                                                                                                                                                                                                                                                                                      | DESCRIPTION OF REVISIONS                                                                                                       |                                                           | DESIGNED                                                                                                                       | CHECKED                                  | DATE           |
| △                                                                                                                                                                                                                                                                                                          |                                                                                                                                |                                                           |                                                                                                                                |                                          |                |
| REMARKS <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> THE RATED CURRENT APPLIES TO PER CONTACT.<br><br>Unless otherwise specified, refer to JIS-C-5402. |                                                                                                                                |                                                           | APPROVED                                                                                                                       | HS. OKAWA                                | 11. 08. 30     |
|                                                                                                                                                                                                                                                                                                            |                                                                                                                                |                                                           | CHECKED                                                                                                                        | KI. HIROKAWA                             | 11. 08. 30     |
|                                                                                                                                                                                                                                                                                                            |                                                                                                                                |                                                           | DESIGNED                                                                                                                       | TH. SANO                                 | 11. 08. 30     |
|                                                                                                                                                                                                                                                                                                            |                                                                                                                                |                                                           | DRAWN                                                                                                                          | TH. SANO                                 | 11. 08. 30     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                             |                                                                                                                                |                                                           | DRAWING NO.                                                                                                                    |                                          | ELC4-334391-00 |
|                                                                                                                                                                                                                         |                                                                                                                                | SPECIFICATION SHEET                                       | PART NO.                                                                                                                       | FX18-60S-0.8SV20                         |                |
| HIROSE ELECTRIC CO., LTD.                                                                                                                                                                                                                                                                                  |                                                                                                                                | CODE NO.                                                  | CL579-0031-3-00                                                                                                                |                                          | △ 1/1          |