

| 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)                                                  |
| <b>SPECIFICATIONS</b>                                                                                                                                                                                                                                                                                                                                                            |                             |                                                                                                                                             |             |                                                                                                                                                                                                                    |                                                                                           |
| ITEM                                                                                                                                                                                                                                                                                                                                                                             |                             | TEST METHOD                                                                                                                                 |             | REQUIREMENTS                                                                                                                                                                                                       | QT AT                                                                                     |
| <b>CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                              |                             |                                                                                                                                             |             |                                                                                                                                                                                                                    |                                                                                           |
| GENERAL EXAMINATION                                                                                                                                                                                                                                                                                                                                                              |                             | VISUALLY AND BY MEASURING INSTRUMENT.                                                                                                       |             | ACCORDING TO DRAWING.                                                                                                                                                                                              | x x                                                                                       |
| MARKING                                                                                                                                                                                                                                                                                                                                                                          |                             | CONFIRMED VISUALLY.                                                                                                                         |             |                                                                                                                                                                                                                    | x x                                                                                       |
| <b>ELECTRIC CHARACTERISTICS</b>                                                                                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                             |             |                                                                                                                                                                                                                    |                                                                                           |
| 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 —                                                                                       |
| <b>MECHANICAL CHARACTERISTICS</b>                                                                                                                                                                                                                                                                                                                                                |                             |                                                                                                                                             |             |                                                                                                                                                                                                                    |                                                                                           |
| INSERTION AND WITHDRAWAL FORCES                                                                                                                                                                                                                                                                                                                                                  |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                                                           |             | INSERTION FORCE: 70 N MAX.<br>WITHDRAWAL FORCE: 7 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 —                                                                                       |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                                                                                                                                                                                                                                                                                                                                             |                             |                                                                                                                                             |             |                                                                                                                                                                                                                    |                                                                                           |
| 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                                                                                      |
|                                                                                                                                                                                                                                                                                               | 4                           | DIS-F-004173                                                                                                                                | TH. SANO    | KI. HIROKAWA                                                                                                                                                                                                       | 09. 09. 15                                                                                |
| <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> THE RATED CURRENT APPLIES TO PER CONTACT.<br>APPLY 0.4A WHEN ALL THE CONTACTS ARE USED FOR CURRENT CARRYING.<br>Unless otherwise specified, refer to JIS-C-5402. |                             |                                                                                                                                             | APPROVED    | HS. OKAWA                                                                                                                                                                                                          | 09. 04. 28                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                             | CHECKED     | HS. OZAWA                                                                                                                                                                                                          | 09. 04. 28                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                             | DESIGNED    | KI. HIROKAWA                                                                                                                                                                                                       | 09. 04. 28                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                  |                             |                                                                                                                                             | DRAWN       | KI. HIROKAWA                                                                                                                                                                                                       | 09. 04. 28                                                                                |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                                                                                                   |                             |                                                                                                                                             | DRAWING NO. |                                                                                                                                                                                                                    | ELC4-159085-00                                                                            |
|                                                                                                                                                                                                                                                                                               | SPECIFICATION SHEET         |                                                                                                                                             | PART NO.    | FX18-120S-0. 8SH                                                                                                                                                                                                   |                                                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                  | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                             | CODE NO.    | CL579-0013-1-00                                                                                                                                                                                                    |  1/1 |