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|--------------------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------|
| APPLICABLE STANDARD                                                                              |                             |                                                                                                        |                                                                                                                                        |                                |                                                                                           |
| RATING                                                                                           | OPERATING TEMPERATURE RANGE | -40 °C TO +125 °C                                                                                      | STORAGE TEMPERATURE RANGE                                                                                                              | -10 °C TO +60°C <sup>(1)</sup> |                                                                                           |
|                                                                                                  | VOLTAGE                     |  60 V AC/DC           | STORAGE HUMIDITY RANGE                                                                                                                 | RELATIVE HUMIDITY 85% MAX      |                                                                                           |
|                                                                                                  | CURRENT                     | 2 A                                                                                                    |                                                                                                                                        | (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                                                                               |                             | 1A DC.                                                                                                 | 10 mΩ MAX .                                                                                                                            | x                              | —                                                                                         |
| CONTACT RESISTANCE                                                                               |                             | 10 mV AC MAX, 0.1 mA(DC OR 1000Hz)                                                                     | 10 mΩ MAX .                                                                                                                            | x                              | —                                                                                         |
| MILLIVOLT LEVEL METHOD                                                                           |                             |                                                                                                        |                                                                                                                                        |                                |                                                                                           |
| INSULATION RESISTANCE                                                                            |                             | 500 V DC.                                                                                              | 100 MΩ MIN.                                                                                                                            | x                              | —                                                                                         |
| VOLTAGE PROOF                                                                                    |                             | 1000 V AC FOR 1 min.                                                                                   | NO FLASHOVER OR BREAKDOWN.                                                                                                             | x                              | —                                                                                         |
| MECHANICAL CHARACTERISTICS                                                                       |                             |                                                                                                        |                                                                                                                                        |                                |                                                                                           |
| MECHANICAL OPERATION                                                                             |                             | 30 TIMES INSERTIONS AND EXTRACTIONS.                                                                   | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                         | x<br>x                         | —<br>—                                                                                    |
| VIBRATION                                                                                        |                             | FREQUENCY 20 TO 200Hz (88m/s <sup>2</sup> )<br>SWEEP TIME 3min.(ROUND TRIP)<br>AT 3h FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 7ΩMIN ,<br>1μs MIN.<br>② CONTACT RESISTANCE: 20 mΩ MAX.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x<br>x<br>x                    | —<br>—<br>—                                                                               |
| SHOCK                                                                                            |                             | 981m/s <sup>2</sup> DURATION OF PULSE 6ms AT 3 TIMES<br>FOR 6 DIRECTIONS.                              | ① NO ELECTRICAL DISCONTINUITY OF 7ΩMIN ,<br>1μs MIN.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                     | x<br>x                         | —<br>—                                                                                    |
| LOCK STRENGTH                                                                                    |                             | MEASURE BREAK STRENGTH OF THE LOCK BY<br>PULLING THE CONNECTOR IN THE MATING<br>DIRECTION.             | ① 100N MIN.                                                                                                                            | x                              | —                                                                                         |
| ENVIRONMENTAL CHARACTERISTICS                                                                    |                             |                                                                                                        |                                                                                                                                        |                                |                                                                                           |
| DAMP HEAT (STEADY STATE)                                                                         |                             | EXPOSED AT 60 °C, 90 ~ 95 %, 96 h.                                                                     | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② INSULATION RESISTANCE:100 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                  | x<br>x<br>x                    | —<br>—<br>—                                                                               |
| RAPID CHANGE OF TEMPERATURE                                                                      |                             | TEMPERATURE- 40 →ROOM TEMP →125°C→<br>ROOM TEMP<br>TIME 30 → 5 → 30 → 5 min<br>UNDER 1000 CYCLES.      | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                         | x<br>x                         | —<br>—                                                                                    |
| DRY HEAT                                                                                         |                             | EXPOSED AT 140°C, 120 h.                                                                               | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                         | x<br>x                         | —<br>—                                                                                    |
| COLD                                                                                             |                             | EXPOSED AT -40°C , 120 h.                                                                              | ① CONTACT RESISTANCE: 20 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                         | x<br>x                         | —<br>—                                                                                    |
| RESISTANCE TO SO <sub>2</sub> GAS                                                                |                             | EXPOSED IN 25 PPM AT 75% MIN FOR 96h.                                                                  | ① CONTACT RESISTANCE: 20 mΩ MAX.                                                                                                       | x                              | —                                                                                         |
| RESISTANCE TO SOLDERING HEAT                                                                     |                             | REFLOW TEMP. OVER 260°C , 10sec.<br>PREHEAT 180°C MAX , 120sec.                                        | NO PLATING PEELING OF THE TERMINALS,<br>MELTINGS OF HOUSINGS.                                                                          | x                              | —                                                                                         |
| SOLDERABILITY                                                                                    |                             | SOLDERED AT SPECIFIED TEMPERATURE<br>PROFILE.                                                          | A NEW UNIFORM COATING OF SOLDER<br>SHALL COVER A MINIMUM OF 95 % OF<br>THE SURFACE BEING IMMersed.                                     | x                              | —                                                                                         |
|                                                                                                  | COUNT                       | DESCRIPTION OF REVISIONS                                                                               | DESIGNED                                                                                                                               | CHECKED                        | DATE                                                                                      |
|               | 1                           | DIS-T-00006023                                                                                         | YH. MAMADA                                                                                                                             | HH. TSUKUMO                    | 20200407                                                                                  |
| REMARK                                                                                           |                             |                                                                                                        | APPROVED                                                                                                                               | HK. UMEHARA                    | 20180907                                                                                  |
| (NOTE1) "STORAGE" means a long-term storage state for the unused product before assembly to PCB. |                             |                                                                                                        | CHECKED                                                                                                                                | HH. TSUKUMO                    | 20180907                                                                                  |
|                                                                                                  |                             |                                                                                                        | DESIGNED                                                                                                                               | YH. MAMADA                     | 20180907                                                                                  |
|                                                                                                  |                             |                                                                                                        | DRAWN                                                                                                                                  | YH. MAMADA                     | 20180907                                                                                  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                   |                             |                                                                                                        | DRAWING NO.                                                                                                                            |                                | ELC-384366-00-00                                                                          |
|               | SPECIFICATION SHEET         |                                                                                                        | PART NO.                                                                                                                               | ZE05-5P-2H                     |                                                                                           |
|                                                                                                  | HIROSE ELECTRIC CO., LTD.   |                                                                                                        | CODE NO.                                                                                                                               | CL752-2121-0-00                |  1/1 |