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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| 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   | 50 V AC   | Storage Humidity Range    | Relative humidity 85% max<br>(Not dewed) |            |
|  | Current   | 0.7 A   | Operating Humidity Range  |  |            |
| SPECIFICATIONS   |   |   |                           |  |            |
| ITEM   | TEST METHOD   | REQUIREMENTS  | QT                        | AT                                       |            |
| <b>CONSTRUCTION</b>  |   |   |                           |  |            |
| General Examination  | Visually and by measuring instrument.   | According to drawing.   | ×                         | ×  |            |
| Marking  | Confirmed visually.   |   | ×                         | ×  |            |
| <b>ELECTRIC CHARACTERISTICS</b>  |   |   |                           |  |            |
| Contact Resistance   | 100 mA(DC or 1000Hz)  | 70mΩ MAX.   | ×                         | —  |            |
| Insulation Resistance  | 100 V DC.   | 100 MΩ MIN.   | ×                         | —  |            |
| Voltage Proof  | 150 V AC for 1 min.   | No flashover or breakdown.  | ×                         | ×  |            |
| <b>MECHANICAL CHARACTERISTICS</b>  |   |   |                           |  |            |
| Insertion and Withdrawal Forces  | Measured by applicable connector.   | Insertion Force: 42.5 N MAX.<br>Withdrawal Force: 4.25 N MIN.   | ×                         | —  |            |
| Mechanical Operation   | 50 times insertions and extractions.  | ① Contact Resistance : 80mΩ MAX.<br>② No damage, crack and looseness of parts.                        | ×                         | —  |            |
| Vibration  | Frequency 10 to 55 to 10Hz, approx 5min<br>Single amplitude : 0.75 mm, 10 cycles<br>for 3 axial 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>at 3 times for 3 both axial directions.                                     |   | ×                         | —  |            |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>   |   |   |                           |  |            |
| Damp Heat (Steady state)   | Exposed at 40±2 °C, 90 ~ 95 %, 96 h.  | ① Contact Resistance : 80mΩ MAX.<br>② Insulation Resistance:100 MΩ MIN.                               | ×                         | —  |            |
| 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)             | ③ No damage, crack and looseness of parts.  | ×                         | —  |            |
| Cold   | Exposed at -55°C, 96 h  | ① Contact Resistance : 80mΩ<br>② No damage, crack and looseness of parts.                             | ×                         | —  |            |
| Dry Heat   | Exposed at 85°C, 96 h   |   | ×                         | —  |            |
| Sulfur Dioxide   | Exposed at 25±2°C, 75±5%RH, 25 PPM for 96 h.<br>(Test standard: JIS C 60068)  | ① No defect such as corrosion which impairs the function of connector.<br>② Contact Resistance : 80mΩ | ×                         | —  |            |
| 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.  | ×                         | —  |            |
| Solderability  | Soldered at solder temperature<br>245±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       |
| △  |   |   |                           |  |            |
| 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. |   |   | APPROVED                  | HS. OKAWA                                | 14. 09. 30 |
|  |   |   | CHECKED                   | KN. SHIBUYA                              | 14. 09. 30 |
|  |   |   | DESIGNED                  | AH. EDASHIGE                             | 14. 09. 30 |
| Unless otherwise specified, refer to JIS-C-5402.   |   |   | DRAWN                     | AH. EDASHIGE                             | 14. 09. 30 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test   |   |   | DRAWING NO.               | ELC4-352597-00                           |            |
| <b>HRS</b>   | SPECIFICATION SHEET   |   | PART NO.                  | FX22-50P-0. 5SH                          |            |
|  | HIROSE ELECTRIC CO., LTD.   |   | CODE NO.                  | CL572-3002-7-00                          | △ 1/1      |

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