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| APPLICABLE STANDARD  |  |  |                                     |  |     |
|--|--|--|-------------------------------------|--|-----|
| RATING   | OPERATING TEMPERATURE RANGE  | -55 °C TO 85 °C  | STORAGE TEMPERATURE RANGE           | -10 °C TO 50 °C (PACKED CONDITION)     |     |
|  | VOLTAGE  | 30 V AC / DC   | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90 % MAX (NOT DEWED) |     |
|  | CURRENT  | 0.2 A  | APPLICABLE CABLE                    | t=0.2±0.03mm, GOLD PLATING             |     |
| SPECIFICATIONS   |  |  |                                     |  |     |
| 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>                                |  |  |                                     |  |     |
| VOLTAGE PROOF  | 90 V AC FOR 1 min.   | NO FLASHOVER OR BREAKDOWN.   | x                                   | x                                      |     |
| INSULATION RESISTANCE  | 100 V DC.  | 50 MΩ MIN.   | x                                   | x                                      |     |
| CONTACT RESISTANCE   | AC 20 mV MAX ( AC:1 KHz ), 1 mA .  | 100 mΩ MAX.<br>INCLUDING FPC BULK RESISTANCE (L=12)  | x                                   | x                                      |     |
| <b>MECHANICAL CHARACTERISTICS</b>                              |  |  |                                     |  |     |
| VIBRATION  | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 DIRECTIONS.              | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② CONTACT RESISTANCE: 100 mΩ MAX.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x                                   | -                                      |     |
| SHOCK  | 981 m/s <sup>2</sup> , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS.                  |  | x                                   | -                                      |     |
| MECHANICAL OPERATION   | 10 TIMES INSERTIONS AND EXTRACTIONS.   | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x                                   | -                                      |     |
| FPC RETENTION FORCE  | MEASURED BY APPLICABLE FPC. (THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)     | DIRECTION OF INSERTION : 0.15N × NUMBER OF CONTACTS MIN. (note 1)  | x                                   | -                                      |     |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                           |  |  |                                     |  |     |
| CORROSION SALT MIST  | EXPOSED AT 35±2 °C , 5 % SALT WATER SPRAY FOR 96 h.  | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.<br>③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                                   | x                                   | -                                      |     |
| RAPID CHANGE OF TEMPERATURE                                    | TEMPERATURE-55→+15TO+35→+85→+15TO+35°C<br>TIME 30→ 2 TO 3 → 30→ 2 TO 3 min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② INSULATION RESISTANCE: 50 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x                                   | -                                      |     |
| DAMP HEAT (STEADY STATE)                                       | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h.                                    |  | x                                   | -                                      |     |
| DAMP HEAT,CYCLIC   | EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES,TOTAL 240 h.             | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY)<br>③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY)<br>④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x                                   | -                                      |     |
| COUNT  | DESCRIPTION OF REVISIONS   | DESIGNED   | CHECKED                             | DATE                                   |     |
| 0  |  |  |                                     |  |     |
| REMARK   |  | APPROVED   | RI. TAKAYASU                        | 09.12.24                               |     |
|  |  | CHECKED  | FN. TAMURA                          | 09.12.24                               |     |
|  |  | DESIGNED   | HH. MURAKAMI                        | 09.12.22                               |     |
| Unless otherwise specified, refer to JIS C 5402.               |  | DRAWN  | HK. OSHIKIRI                        | 09.12.19                               |     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |  | DRAWING NO.  | ELC4-158578-06                      |  |     |
| <b>HRS</b>   | SPECIFICATION SHEET  | PART NO.   | FH36W-**S-0.3SHW (50)               |  |     |
|  | HIROSE ELECTRIC CO., LTD.  | CODE NO.   |                                     | △                                      | 1/2 |

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| SPECIFICATIONS                    |   |                |  |    |    |
|-----------------------------------|---|----------------|--|----|----|
| ITEM                              | TEST METHOD   |                | REQUIREMENTS   | QT | AT |
| DRY HEAT                          | EXPOSED AT  | 85±2 °C, 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX.  | x  | —  |
| COLD                              | EXPOSED AT  | -55±3°C, 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x  | —  |
| SURPHUR DIOXIDE<br>[JIS C 0090]   | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY ±5%<br>25±5 ppm FOR  | 80<br>96 h.    | ① CONTACT RESISTANCE: 100 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.              | x  | —  |
| HYDROGEN SULPHIDE<br>[JIS C 0092] | EXPOSED AT 40±2 °C , RELATIVE HUMIDITY 5% ,<br>10 TO 15 ppm FOR   | 80±<br>96 h.   | ③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                          | x  | —  |
| SOLDERABILITY                     | SOLDERED AT SOLDER TEMPERATURE,<br>235 ±5°C FOR IMMERSION DURATION,<br>2±0.5 sec.   |                | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. | x  | —  |
| RESISTANCE TO SOLDERING HEAT      | 1) REFLOW SOLDERING :<br>PEAK TMP. 250 °C MAX .<br>REFLOW TMP. OVER 230 °C WITHIN 60 sec.<br>2) SOLDERING IRONS :<br>TMP. 350 ± 10 °C FOR 5±1 sec . |                | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.<br><b>(note 2)</b>           | x  | —  |

**(note 1)**

THIS PRODUCT HAS FLIP-LOCK CONSTRUCTION. FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.

**(note 2)**

BLISTERS WHICH MAY OCCUR IN HOUSING DO NOT AFFECT PRODUCT PERFORMANCE.

|  |                           |             |          |   |     |
|--|---------------------------|-------------|----------|---|-----|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                           | DRAWING NO. |          | ELC4-158578-06  |     |
| <b>HRS</b>   | SPECIFICATION SHEET       |             | PART NO. | FH36W-**S-0. 3SHW (50)  |     |
|  | HIROSE ELECTRIC CO., LTD. |             | CODE NO  |  | 2/2 |