| | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|
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| △ | | | | | | △ | | | | | |

| APPLICABLE STANDARD | | | | |
|---|---|---|---|---|
| RATING | OPERATING TEMPERATURE RANGE | -40 °C TO 85 °C | STORAGE TEMPERATURE RANGE | -10°CTO 50°C(PACKED CONDITION) |
| | VOLTAGE | 50 V AC / DC | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90% MAX(NOT DEWED) |
| | CURRENT | ※ 0.5 A | APPLICABLE CABLE | t=0.18±0.05 , GOLD PLATED |

## SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| **CONSTRUCTION** | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | × | × |
| **ELECTRIC CHARACTERISTICS** | | | | |
| CONTACT RESISTANCE | 1 mA (DC OR 1000 Hz). | 50 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | × | × |
| INSULATION RESISTANCE | 100 V DC. | 500 MΩ MIN. | × | × |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | × |
| **MECHANICAL CHARACTERISTICS** | | | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| 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: 50 mΩ MAX. | × | — |
| SHOCK | 981 m/s², DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| FPC RETENSION FORCE | MEASURED BY APPLICABLE FPC. (CONECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.18mm) | DIRECTION OF INSERTION : 0.4×n N MIN. (n : NUMBER OF CONTACTS) | × | — |
| **ENVIRONMENTAL CHARACTERISTICS** | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE-40→+15TO+35→+85→+15TO+35°C TIME 30→ 2 TO 3 → 30→ 2 TO 3 min. UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② INSULATION RESISTANCE: 50 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2 °C, RELATIVE HUMIDITY 90 TO 95 %, 96 h. | | × | — |
| DAMP HEAT,CYCLIC | EXPOSED AT -10 TO +65 °C, RELATIVE HUMIDITY 90 TO 96 %, 10 CYCLES, TOTAL 240 h. | ① CONTACT RESISTANCE: 50 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. | × | — |
| DRY HEAT | EXPOSED AT 85±2 °C, 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| COLD | EXPOSED AT -40±3 °C, 96 h. | | × | — |

| EMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
|---|---|---|---|---|---|
| Unless otherwise specified, refer to JIS C 5402. | D.YAMADA 04.06.07 | T.MURAI 04.06.07 | T.Kuwata '04.06.07 | R.Takagaya 04.06.07 | |

Note QT:Qualification Test AT:Assurance Test ×:Applicable Test

| HRS HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. FH12F –＊＊S – 0.5SH (55) | |
|---|---|---|---|
| CODE NO.(OLD) CL | DRAWING NO. ELC4 – 152792 – 51 | CODE NO. CL 586 | 1/2 |

FORM No.231-1

| TO |
|---|
| NC |
| |
| |
| |

## SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| CORROSION SALT MIST | EXPOSED AT 35±2 ℃, 5 % SALT WATER SPRAY FOR 96 h. | ① CONTACT RESISTANCE: 50 mΩ MAX.<br>② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | × | — |
| SURPHUR DIOXIDE [ JIS C 0090 ] | EXPOSED AT 40±2 ℃, RELATIVE HUMIDITY 80±5 % , 25±5 PPM FOR 96 h. | | × | — |
| HYDROGEN SULPHIDE [ JIS C 0092 ] | EXPOSED AT 40±2 ℃, RELATIVE HUMIDITY 80±5 % , 10 TO 15 PPM FOR 96 h. | | × | — |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING (TO BE 2 TIMES MAX.)<br>PEAK TMP. 250 ℃ MAX.<br>REFLOW TMP. 230 ℃ MIN. FOR 30 sec.<br>PRE-HEATING. 150 TO 200 ℃<br>90 TO 120 sec.<br>2) SOLDERING IRONS : 350 ± 10 ℃,<br>FOR 5±1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 235 ± 5 ℃, FOR IMMERSION DURATION, 2±0.5 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — |

※ WHEN THE SAME VALUE OF CURRENT ARE APPLID TO ALL CONTACTS AT THE SAME TIME IN ONCE, SET THE CURRENT TO THE 70 % OF THE RATED CURRENT VALUE.

| REMARKS | DRAWN | DESIGNED | CHECKED | APPROVED | RELEASED |
|---|---|---|---|---|---|
| Unless otherwise specified, refer to JIS C 5402. | D.YAMADA 04.06.07 | T.MURAI 04.06.07 | T.Kuwata '04.06.07 | R.Takagon 04.06.07 | |

Note QT:Qualification Test AT:Assurance Test ×:Applicable Test

| HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET | PART NO. FH12F −＊＊S − 0.5SH (55) |
|---|---|---|
| CODE NO.(OLD) CL | DRAWING NO. ELC4 − 152792−51 | CODE NO. CL 586 |



FORM No.231-2

TO
NC