

| 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=0.3±0.05 , GOLD PLATED | | | | |
| 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 | 1 mA (DC OR 1000 Hz). | | | 50 mΩ MAX. INCLUDING FPC,FFC BULK RESISTANCE (L=8mm) | | | X | X | | |
| INSULATION RESISTANCE | 100 V DC. | | | 500 MΩ MIN. | | | X | X | | |
| VOLTAGE PROOF | 150 V AC FOR 1 min. | | | NO FLASHOVER OR BREAKDOWN. | | | X | X | | |
| MECHANICAL CHARACTERISTICS | | | | | | | | | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | | | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | X | — | | |
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, FOR 10 CYCLES IN 3 DIRECTIONS. | | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 50 mΩ MAX. | | | X | — | | |
| SHOCK | 981 m/s ² , DURATION OF PULSE 6 ms AT 3 TIMES IN 3 DIRECTIONS. | | | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | X | — | | |
| FPC RETENSION FORCE | MEASURED BY APPLICABLE FPC. (CONNECTOR,FPC AT INITIAL CONDITION. THICKNESS OF FPC SHALL BE t=0.30mm) | | | DIRECTION OF INSERTION : 0.4×n N MIN. (n : NUMBER OF CONTACTS) | | | X | — | | |
| ENVIRONMENTAL CHARACTERISTICS | | | | | | | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -40 → +15 → +35 → +85 → +15 → +35 °C TIME 30 → 2 to 3 → 30 → 2 to 3 min. UNDER 5 CYCLES. | | | ① CONTACT RESISTANCE: 50 mΩ MAX. ② INSULATION RESISTANCE: 50 MΩ MIN. 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: 50 mΩ MAX. ② INSULATION RESISTANCE: 1 MΩ MIN. (AT HIGH HUMIDITY) ③ INSULATION RESISTANCE: 50 MΩ MIN. (AT DRY) ④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | X | — | | |
| DRY HEAT | EXPOSED AT 85 ± 2 °C, 96 h. | | | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | | | X | — | | |
| COLD | EXPOSED AT -40 ± 3 °C, 96 h. | | | | | | X | — | | |
| EMARKS | | | | DRAWN D.YAMADA 04.03.25 | DESIGNED T.MURAI 04.03.25 | CHECKED <i>R.Takayama</i> 04.03.26 | APPROVED <i>M. Honda</i> 04.03.26 | RELEASED | | |
| Unless otherwise specified, refer to JIS C 5402. | | | | | | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | | | | | | | | |
| HRS HIROSE ELECTRIC CO., LTD. | | SPECIFICATION SHEET | | | | PART NO. FH12A - * * S - 0.5SH (55) | | | | |
| CODE NO.(OLD) CL | | DRAWING NO. ELC4 - 150722 - 51 | | CODE NO. CL 586 | | 1 2 | | | | |

SPECIFICATIONS

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

* WHEN THE SAME VALUE OF CURRENT ARE APPLIED 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 04.03.25 | T.MURAI 04.03.25 | R.Takayama 04.03.25 | M.Ishita 04.03.26 | |

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



HIROSE ELECTRIC CO., LTD.

SPECIFICATION SHEET

PART NO.
FH12A - * * S - 0.5SH (55)

CODE NO.(OLD)

CL

DRAWING NO.

ELC4 - 150722 - 51

CODE NO.

CL 586

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