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| APPLICABLE STANDARD | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -40 °C TO 85 °C | STORAGE TEMPERATURE RANGE | -10 °C TO 50 °C (PACKED CONDITION) |
| | VOLTAGE | 50 V AC / DC | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90 % MAX (NOT DEWED) |
| | CURRENT | 0.5 A (note) | APPLICABLE CABLE | CONDUCTOR END: t=0.3±0.05mm, GOLD PLATING GROUND PLATE: t=0.5±0.05mm, TIN PLATING |

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

| | | | | |
|-----------------------|--------------------------------|--|---|---|
| VOLTAGE PROOF | 150 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | x | x |
| INSULATION RESISTANCE | 100 V DC. | 500 MΩ MIN. | x | x |
| CONTACT RESISTANCE | AC 20 mV MAX (1 KHz), 1 mA . | 100 mΩ MAX. INCLUDING FFC BULK RESISTANCE (L=8mm) | x | x |

MECHANICAL CHARACTERISTICS

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|----------------------|---|---|---|---|
| VIBRATION | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm, - m/s ² FOR 10 CYCLES IN 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② CONTACT RESISTANCE: 100 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. | | |
| MECHANICAL OPERATION | 20 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x | - |
| FFC RETENSION FORCE | MEASURED BY APPLICABLE FPC. (THICKNESS OF FFC SHALL BE t=0.30mm AT CONDUCTOR END, t=0.50mm AT GROUND PLATE AT INITIAL CONDITION.) | DIRECTION OF INSERTION: 0.3N × n MIN. | x | - |

ENVIRONMENTAL CHARACTERISTICS

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|-----------------------------|--|--|---|---|
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -40→+15To+35→+85→+15To+35°C TIME 30→ 2~3 → 30→ 2~3 min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 100 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: 100 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: 100 mΩ MAX. | x | - |
| COLD | EXPOSED AT -40±3°C, 96 h. | ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x | - |

| COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|-------|--------------------------|----------|---------|------|
| 0 | | | | |

| | | | |
|--------|----------|---------------|----------|
| REMARK | APPROVED | MO. ISHIDA | 10.06.08 |
| | CHECKED | YN. TAKASHITA | 10.06.08 |
| | DESIGNED | SJ. OKAMURA | 10.06.08 |
| | DRAWN | SJ. OKAMURA | 10.06.08 |

Unless otherwise specified, refer to JIS C 5402.

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| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | DRAWING NO. | ELC4-332362-00 |
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| HRS | SPECIFICATION SHEET | PART NO. | FH48-**S-0.5SV | | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL580 | | 1/2 |

SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|-----------------------------------|--|--|----|----|
| CORROSION SALT MIST | EXPOSED AT $35\pm 2^{\circ}\text{C}$, 5 % SALT WATER SPRAY FOR 96 h. | ① CONTACT RESISTANCE: 100 mΩ MAX. ② NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| SURPHUR DIOXIDE [JIS C 0090] | EXPOSED AT $40\pm 2^{\circ}\text{C}$, RELATIVE HUMIDITY $80\pm 5\%$, 25 ± 5 PPM FOR 96 h. | | × | — |
| HYDROGEN SULPHIDE [JIS C 0092] | EXPOSED AT $40\pm 2^{\circ}\text{C}$, RELATIVE HUMIDITY $80\pm 5\%$,10 ~ 15 PPM FOR 96 h. | | × | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, $\pm 5^{\circ}\text{C}$ FOR IMMERSION DURATION, 2 ± 0.5 sec. | 245 A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — |
| RESISTANCE TO SOLDERING HEAT | 1) REFLOW SOLDERING PEAK TMP. 250°C MAX . REFLOW TMP. 230°C MIN FOR 60 sec. 2) SOLDERING IRONS : TMP. $350\pm 10^{\circ}\text{C}$ FOR 5 ± 1 sec . | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | × | — |

(note)

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.

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| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | | ELC4-332362-00 | |
| HRS | SPECIFICATION SHEET | | PART NO. | FH48-**S-0.5SV | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO | CL580 |  2/2 |