| APPLICABLE STANDARD | | | | |
|---|---|---|---|---|
| RATING | OPERATING TEMPERATURE RANGE | −25 °C TO +85 °C | STORAGE TEMPERATURE RANGE | −10 °C TO +60 °C |
| | VOLTAGE | AC 100 V , DC 140 V | WIRE SIZE | ———— |
| | CURRENT | 2 A | APPLICABLE CABLE | φ4.2 TO φ5 |

## 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 | CONTACT SHALL BE MEASURED DC 1 A | 15 mΩ MAX. | X | X |
| | CONTACT SHALL BE MEASURED DC —— A | —— mΩ MAX. | X | X |
| INSULATION RESISTANCE | 100 V DC. | 1000 MΩ MIN. | X | X |
| VOLTAGE PROOF | 300 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | X | X |
| **MECHANICAL CHARACTERISTICS** | | | | |
| CONTACT INSERTION AND WITHDRAWAL FORCES | φ0.53±0.003 BY STEEL GAUGE. | INSERTION AND WITHDRAWAL FORCES : 0.15 N MIN. | X | — |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES | MEASURED BY APPLICABLE CONNECTOR LOCKING DEVICE WITH LOCK. | INSERTION AND WITHDRAWAL FORCES : 30 N MAX. | X | — |
| MECHANICAL OPERATION | 1000 TIMES INSERTIONS AND EXTRACTIONS. | CONTACT RESISTANCE: 30 mΩ MAX. | X | — |
| | | ——— RESISTANCE: ——— mΩ MAX. | — | — |
| VIBRATION | FREQUENCY 10 TO 55 Hz, (1CYC, 5min) SINGLE AMPLITUDE 0.75 mm, AT 10CYC, FOR 3 DIRECTIONS | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | — |
| SHOCK | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION ALAXIS FOR 3 TIMES AT 490 $m/s^2$ DURATION OF PULSE 11 ms. | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | — |
| BREAKING STRENGTH | MAX 30N SHALL BE APPLIED TO CABLE IN UP AND DOWN, LEFT AND RIGHT DIRECTIONS WHEN MATED | NO BREAKAGE OF CONNECTOR. | X | — |
| **ENVIRONMENTAL CHARACTERISTICS** | | | | |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 ℃, 90 TO 95 %, 96 h. | ① INSULATION RESISTANCE: 10 MΩ MIN (AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE:100 MΩ MIN (AT DRY).<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X | — |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE −55℃→ R/T(1) → +85℃ → R/T<br>TIME 30 → 10 TO 15 → 30 → 10 TO 15 min<br>UNDER 5 CYCLES. | ① INSULATION RESISTANCE: 100 MΩMIN.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X | — |
| CORROSION SALT MIST | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h. | NO HEAVY CORROSION. | X | — |
| DRY HEAT | EXPOSED AT + 85 ℃ , 96 h. | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| COLD | EXPOSED AT − 55 ℃ , 96 h. | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| RESISTANCE TO SOLDERING HEAT | SOLDER TEMPERATURE, + 380±10 ℃ , FOR IMMERSION DURATION, $3^{+1}_{0}$ s. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | X | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, +350±10℃ FOR IMMERSION DURATION, 2 TO 3 s. | SOLDER SURFACE TO BE FREE FROM PIN-HOLE, NO WETTING AND OTHER DEFECTS. | X | — |
| SEALING (2) | EXPOSED AT A DEPTH OF 1m FOR 0.5 h. | NO WATER PENETRATION INSIDE CONNECTOR. | X | — |
| AIRTIGHTNESS (2) | APPLY AIR PRESSURE 17.6 kPa FOR 0.5min TO INSIDE CONNECTOR | NO AIR BUBBLES INSIDE CONNECTOR | X | — |

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

REMARK

NOTES (1) R/T : ROOM TEMPERATURE

(2) SEALING AND AIRTIGHTNESS SHALL BE TESTED BY APPLICABLE CONNECTOR.

Unless otherwise specified, refer to IEC 60512.(JIS C 5402)

| | | |
|---|---|---|
| APPROVED | HY. KOBAYASHI | 18. 03. 16 |
| CHECKED | HY. KOBAYASHI | 18. 03. 16 |
| DESIGNED | DS. MATSUNE | 18. 03. 16 |
| DRAWN | DS. MATSUNE | 18. 03. 16 |

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

DRAWING NO. ELC-112011-31-00

| | | | | |
|---|---|---|---|---|
| HRS | SPECIFICATION SHEET | PART NO. | HR30-6P-6S(31) | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL130-0010-4-31 | A 1/1 |

FORM HD0011-2-1