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| APPLICABLE STANDARD | | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -25 °C TO +85 °C | STORAGE TEMPERATURE RANGE | -10 °C TO +60 °C | |
| | VOLTAGE | AC 30 V , DC 42 V | _____ | _____ | |
| | CURRENT | 2 A | APPLICABLE CABLE | _____ | |
| 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 AT DC 1 A | | 30 mΩ MAX. | X | X |
| | CONTACT SHALL BE MEASURED AT DC — A | | — mΩ MAX. | — | — |
| 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 | _____ BY STEEL GAUGE. | | INSERTION AND WITHDRAWAL FORCES : — N MIN. | — | — |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES | MEASURED BY APPLICABLE CONNECTOR LOCKING DEVICE WITH LOCK. | | INSERTION AND WITHDRAWAL FORCES : 50 N MAX. | X | — |
| MECHANICAL OPERATION | 1000 TIMES INSERTIONS AND EXTRACTIONS. | | CONTACT RESISTANCE: 60 mΩ MAX. | X | — |
| | | | _____ RESISTANCE: _____ mΩ MAX. | — | — |
| VIBRATION | FREQUENCY 10 TO 55 Hz(1CYC, 5min), SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS | | ① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | — |
| SHOCK | IN OPPOSITE DIRECTIONS OF EACH 3 DIMENSION ALAXIS FOR 3 TIMES AT 490 m/s ² DURATION OF PULSE 11 ms. | | ① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X | — |
| BREAKING STRENGTH | MAX 30N SHALL BE APPLIED TP 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 °C, 90 TO 95 %, 96 h. | | ① INSULATION RESISTANCE: 10 MΩ MIN (AT HIGH HUMIDITY). ② INSULATION RESISTANCE:100 MΩ MIN (AT DRY). ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55→ R/T ⁽¹⁾ → +85 → R/T°C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES. | | ① INSULATION RESISTANCE: 100 MΩ MIN. 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 °C , 96 h. | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| COLD | EXPOSED AT - 55 °C , 96 h. | | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X | — |
| RESISTANCE TO SOLDERING HEAT | SOLDER TEMPERATURE, + 380 ± 10 °C ,FOR IMMERSION DURATION, 3 ₀ ⁺¹ s. | | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | X | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, + 350 ± 10 °C 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 |
| ① | | | | | |
| REMARK NOTES(1) R/T : ROOM TEMPERATURE (2) SEALING AND AIRTIGHTNESS SHALL BE TESTED BY APPLCIABLE CONNECTOR. | | | APPROVED | HY. KOBAYASHI | 18.03.16 |
| | | | CHECKED | HY. KOBAYASHI | 18.03.16 |
| | | | DESIGNED | DS. MATSUNE | 18.03.16 |
| | | | DRAWN | DS. MATSUNE | 18.03.16 |
| Unless otherwise specified, refer to IEC 60512.(JIS C 5402) | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | ELC-113454-31-00 | |
| HRS | SPECIFICATION SHEET | | PART NO. | HR30-7R-12PD (31) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL130-1017-9-31 | △ 1/1 |