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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| 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 |
| 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 | φ 0.53±0.003 BY STEEL GAUGE. | | | INSERTION AND WITHDRAWAL FORCES : 0.4 N MIN. | | X | — |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES | MEASURED BY APPLICABLE CONNECTOR. | | | INSERTION AND WITHDRAWAL FORCES LOCKING DEVICE WITH UNLOOK : — N MAX. LOCKING DEVICE WITH LOOK : 50 N MAX. | | X | — |
| MECHANICAL OPERATION | 1000 TIMES INSERTIONS AND EXTRACTIONS. | | | CONTACT RESISTANCE: 60 mΩ MAX. | | X | — |
| VIBRATION | FREQUENCY: 10 → 55 → 10 (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 | 490 m/s ² DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | | | ① NO ELECTRICAL DISCONTINUITY OF 10 μs. 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 °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 RUINS THE FUNCTION. | | 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 ⁺ 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. | | | WETTING ON SOLDER SURFACE. NO SOLDER CLUSTER. | | X | — |
| SEALING | EXPOSED AT A DEPTH OF 1 m FOR 0.5 h. | | | NO WATER PENETRATION INSIDE CONNECTOR. | | X | — |
| AIRTIGHTNESS | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR. | | | NO AIR BUBBLES INSIDE CONNECTOR. | | X | — |
| | COUNT | DESCRIPTION OF REVISIONS | | DESIGNED | CHECKED | DATE | |
| ① | | | | | | | |
| REMARK | | | | APPROVED | HY. KOBAYASHI | 18.02.26 | |
| NOTE(1) R/T : ROOM TEMPERATURE | | | | CHECKED | HY. KOBAYASHI | 18.02.26 | |
| Unless otherwise specified, refer to IEC 60512(JIS C5402). | | | | DESIGNED | DS. MATSUNE | 18.02.24 | |
| | | | | DRAWN | AI. NISHIYAMA | 18.02.22 | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | | DRAWING NO. | | ELC-113487-31-00 | |
| HRS | SPECIFICATION SHEET | | | PART NO. | HR30-8R-12SD (31) | | |
| | HIROSE ELECTRIC CO., LTD. | | | CODE NO. | CL130-1019-4-31 |  | 1/1 |