


| 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   | _____  | _____            |   |
|  | 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 AT DC 1 A   | 15 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  |                             | _____ BY STEEL GAUGE.   | INSERTION AND WITHDRAWAL FORCES : _____ N MIN.   | —                | —   |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES  |                             | MEASURED BY APPLICABLE CONNECTOR.   | INSERTION AND WITHDRAWAL FORCES<br>LOCKING DEVICE WITH LOCK : 30 N MAX.  | X                | —   |
| MECHANICAL OPERATION   |                             | 1000 TIMES INSERTIONS AND EXTRACTIONS.  | CONTACT RESISTANCE: 30 mΩ MAX.   | X                | —   |
| VIBRATION  |                             | FREQUENCY: 10 → 55 → 10 (Hz) (1CYC, 5min),<br>SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.            | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.   | X                | —   |
| SHOCK  |                             | 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms AT 3 TIMES<br>FOR 3 DIRECTIONS.                                   | 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,<br>LEFT AND RIGHT DIRECTIONS WHEN MATED.                      | NO BREAKAGE MAX 30N.   | X                | —   |
| ENVIRONMENTAL CHARACTERISTICS  |                             |   |  |                  |   |
| DAMP HEAT<br>(STEADY STATE)  |                             | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.   | ① INSULATION RESISTANCE: 10 MΩ MIN<br>(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 <sup>(1)</sup> → +85 → R/T °C<br>TIME 30 → 10 TO 15 → 30 → 10 TO 15 min<br>UNDER 5 CYCLES. | ① INSULATION RESISTANCE: 100 MΩ MIN.<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 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<br>HEAT  |                             | SOLDER TEMPERATURE, + 380±10°C, FOR SOLDERING<br>DURATION, 3 TO 4 s.  | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS<br>OF THE TERMINALS.   | X                | —   |
| SOLDERABILITY  |                             | SOLDERED AT SOLDER TEMPERATURE, + 350±10°C FOR<br>SOLDERING DURATION, 2 TO 3 s.                                 | WETTING ON SOLDER SURFACE, NO SOLDER CLUSTER.  | X                | —   |
| SEALING <sup>(2)</sup>   |                             | EXPOSED AT A DEPTH OF 2 m FOR 14 DAYS.  | NO WATER PENETRATION INSIDE CONNECTOR.   | X                | —   |
| AIRTIGHTNESS <sup>(2)</sup>  |                             | APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE<br>CONNECTOR.   | NO AIR BUBBLES INSIDE CONNECTOR.   | X                | —   |
|  |                             |   |  |                  |   |
|  | COUNT                       | DESCRIPTION OF REVISIONS  | DESIGNED   | CHECKED          | DATE  |
| ①  |                             |   |  |                  |   |
| REMARK   |                             |   | APPROVED   | HY. KOBAYASHI    | 18.02.26  |
| NOTES(1)R/T : ROOM TEMPERATURE   |                             |   | CHECKED  | HY. KOBAYASHI    | 18.02.26  |
| (2)SEALING AND AIRTIGHTNESS SHALL BE TESTED UNDER MATED CONDITION WITH<br>AN APPLICABLE CONNECTOR. |                             |   | DESIGNED   | DS. MATSUNE      | 18.02.24  |
| Unless otherwise specified, refer to IEC 60512(JIS C5402).   |                             |   | DRAWN  | AI. NISHIYAMA    | 18.02.22  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                     |                             |   | DRAWING NO.  | ELC-112010-31-00 |   |
|                 | SPECIFICATION SHEET         |   | PART NO.   | HR30-6P-6P (31)  |   |
|  | HIROSE ELECTRIC CO., LTD.   |   | CODE NO.   | CL130-0009-5-31  |  1/1 |