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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  | WIRE SIZE                 | MAX AWG#26       |                  |
|   | CURRENT   | 2 A   | APPLICABLE CABLE          | φ7.3±0.2         |                  |
| SPECIFICATIONS  |   |   |                           |                  |                  |
| ITEM  | TEST METHOD   | REQUIREMENTS  | QT                        | AT               |                  |
| <b>CONSTRUCTION</b>   |   |   |                           |                  |                  |
| GENERAL EXAMINATION   | VISUALLY AND BY MEASURING INSTRUMENT.   | ACCORDING TO DRAWING.   | X                         | X                |                  |
| MARKING   | CONFIRMED VISUALLY.   |   | X                         | X                |                  |
| <b>ELECTRIC CHARACTERISTICS</b>                                       |   |   |                           |                  |                  |
| 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                |                  |
| <b>MECHANICAL CHARACTERISTICS</b>                                     |   |   |                           |                  |                  |
| 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.   | INSERTION AND WITHDRAWAL FORCES<br>LOCKING DEVICE WITH UNLOCK : 50 N MAX.<br>LOCKING DEVICE WITH LOCK : - 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   | IN OPPOSITE DIRECTIONS OF EACH 3 DEMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms. | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.  | X                         | -                |                  |
| BREAKING STRENGTH   | MAX 100 N SHALL BE APPLIED TO CABLE IN UP AND DOWN, LEFT AND RIGHT DIRECTIONS WHEN MATED.                     | NO BREAKAGE MAX 100N.   | X                         | -                |                  |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                                  |   |   |                           |                  |                  |
| DAMP HEAT (STEADY STATE)  | EXPOSED AT 40 °C, 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 <sup>(1)</sup> → +85 → R/T °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min 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 HEAT  | SOLDER TEMPERATURE, +350±10°C, FOR IMMERSION DURATION, 5±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 <sup>(2)</sup>  | EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.   | NO WATER PENETRATION INSIDE CONNECTOR.  | X                         | -                |                  |
| AIR TIGHTNESS <sup>(2)</sup>  | 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    | 18.02.22         |
| NOTES(1) R/T : ROOM TEMPERATURE                                       |   |   | CHECKED                   | HY. KOBAYASHI    | 18.02.22         |
| (2) SEALING AND AIRTIGHTNESS SHALL BE TESTED BY APPLICABLE CONNECTOR. |   |   | DESIGNED                  | TY. SUZUKI       | 18.02.21         |
| Unless otherwise specified, refer to IEC 60512 (JIS C 5402).          |   |   | DRAWN                     | HM. SAITO        | 18.02.19         |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test        |   |   | DRAWING NO.               |                  | ELC-116732-31-00 |
| <b>HRS</b>  | SPECIFICATION SHEET   |   | PART NO.                  | LF10WBPD-12S(31) |                  |
|   | HIROSE ELECTRIC CO., LTD.   |   | CODE NO.                  | CL136-0015-6-31  | △ 1/1            |