

|   |                             |   |   |                  |          |
|---|-----------------------------|---|---|------------------|----------|
| 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   |                  |          |
|   | 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        |
| Electrical Characteristics  |                             |   |   |                  |          |
| Contact resistance  |                             | Contact 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   |                             | Measured with φ0.53±0.003 steel pin gage.   | Insertion and withdrawal forces : 0.15 N min.   | X                | —        |
| Connector insertion and Withdrawal forces   |                             | Connector mating and unmating forces<br>Without locking device.   | Insertion and withdrawal forces.<br>Without locking device : 25 N max.<br>With locking device : — N max.  | X                | —        |
| Mechanical operation  |                             | Mated and unmated 1,000 times.  | Contact resistance : 30 mΩ max.   | X                | —        |
| Vibration   |                             | Frequency: 10 → 55 → 10 Hz, Single Amplitude 0.75 mm, 5min/cycle, for 10 cycles in each of three mutually perpendicular directions. | ① No electrical discontinuity of 10 μs.<br>② No damage, cracks or looseness of parts.   | X                | —        |
| Shock   |                             | Acceleration: 490m/s², half sine wave pulses of 11ms.<br>Performed 3 times in each of three mutually perpendicular directions.      | ① No electrical discontinuity of 10 μs.<br>② No damage, cracks or looseness of parts.   | X                | —        |
| Breaking strength   |                             | MAX 100 N applied to the cable in up, down, left and right directions while mated.  | No breakage max 100N.   | X                | —        |
| Environmental characteristics   |                             |   |   |                  |          |
| Damp heat (Steady state)  |                             | Subjected to 40°C, at a humidity of 90~95% for 96h.   | ① Insulation resistance: 10 MΩ min. (At high humidity).<br>② Insulation resistance: 100 MΩ min. (At dry).<br>③ No damage, cracks or looseness of parts. | X                | —        |
| Rapid change of temperature   |                             | Temperature -55→R/T <sup>(1)</sup> → +85→ R/T <sup>(1)</sup> °C<br>Time 30 → 2~3 → 30 → 2~3 min for 5 cycles                        | ① Insulation resistance : 100 MΩ min.<br>② No damage, cracks or looseness of parts.   | X                | —        |
| Corrosion salt mist   |                             | Subjected to 5% salt spray for 48h.   | No heavy corrosion which impairs functionality.   | X                | —        |
| Heat Resistance   |                             | Subjected to +85°C for 96h.   | No damage, cracks or looseness of parts.  | X                | —        |
| Cold Resistance   |                             | Subjected to -55°C for 96h.   | No damage, cracks or looseness of parts.  | X                | —        |
| Resistance to soldering heat  |                             | Soldering iron is placed to the soldering surface for 5±1s. (Iron tip temperature +350±10°C)  | No deformation or excessive looseness of terminals.   | X                | —        |
| Solderability   |                             | Place soldering iron(Iron tip temperature +350±10°C)<br>And solder to DIP area for 2 to 3 s.  | Soldering surface shall be free from pin-holes, e-wetted and un-wetted areas and other defects.   | X                | —        |
| Sealing <sup>(2)</sup>  |                             | Subjected to a depth of 1.8m for 48h.   | No water penetration into the connector.  | X                | —        |
| Air tightness <sup>(2)</sup>  |                             | 17.6 kPa of air pressure applied to the inside of the mated connector for 30s.  | No air bubbles emitted from the inside of the connector.  | X                | X        |
|   | COUNT                       | DESCRIPTION OF REVISIONS  | DESIGNED  | CHECKED          | DATE     |
| ①   |                             |   |   |                  |          |
| Remarks   |                             |   | APPROVED  | EJ. KUNII        | 20190328 |
| Notes(1)R/T : Room temperature  |                             |   | CHECKED   | EJ. KUNII        | 20190328 |
| (2) Sealing and Air Tightness shall be tested in mated condition with an applicable connector |                             |   | DESIGNED  | KN. IKEHARA      | 20190327 |
| Unless otherwise specified, refer to IEC 60512(JIS C 5402).                                   |                             |   | DRAWN   | KN. IKEHARA      | 20190327 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                |                             |   | DRAWING NO. ELC-387322-00-00  |                  |          |
| <b>HRS</b>  | SPECIFICATION SHEET         |   | PART NO.  | LF07WBRB-6S      |          |
|   | HIROSE ELECTRIC CO., LTD.   |   | CODE NO.  | CL136-0054-0-00  | △ 1/1    |