


| APPLICABLE STANDARD | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------|
| Rating | Operating Temperature Range ⁽²⁾ | -40°C to +105°C | Storage Temperature Range | -10°C to +60°C | |
| | Voltage | AC, DC 1000 V | — | — | |
| | Current ⁽¹⁾ | 13A(ambient temperature 25°C) | Applicable Cable | Φ 10.7~11.5 | |
| SPECIFICATIONS | | | | | |
| ITEM | | TEST METHOD | REQUIREMENTS | QT | AT |
| CONSTRUCTION | | | | | |
| General Examination | | Examined visually and with a measuring instrument. | According to the drawing. | X | X |
| Marking | | Confirmed visually. | | X | X |
| ELECTRICAL CHARACTERISTICS | | | | | |
| Contact Resistance | Measured at DC 1A. | | 5 mΩ MAX. | X | X |
| Insulation Resistance | Measured at 500 V DC. | | 5000 MΩ MIN. | X | X |
| Voltage Proof | 2200 V AC applied for 1 min. | | No flashover or breakdown. | X | X |
| Impulse Voltage Proof | Subjected to a standard waveform of 15kV in mated condition (1.2/50μs waveform, applied in both positive and negative polarities 3 times each). | | No flashover or breakdown. | X | — |
| MECHANICAL CHARACTERISTICS | | | | | |
| Contact Insertion and Extraction Forces | Measured with a φ ____ steel gauge. | | Insertion and extraction forces: — N MIN. | — | — |
| Mating and Unmating Forces | Measured with an applicable connector. | | Mating and unmating forces: 100 N MAX. | X | — |
| Contact Retention Force | Subjected to a 20N force from the wiring side. | | No movement of contact. | X | — |
| Mechanical Operation | Mated and unmated 500 times. | | Contact resistance: 10 mΩ MAX. | X | — |
| Vibration | Frequency: 10 Hz to 55 to 10 Hz every cycle (5 min per cycle) Single amplitude: 0.75 mm Performed over 10 cycles in each of three mutually perpendicular directions. | | 1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts. | X | — |
| Shock | Acceleration: 490 m/s ² , Half sine wave pulses of 11 ms. Performed 3 times in each of three mutually perpendicular directions. | | 1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts. | X | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| Rapid Change of Temperature | Temperature: -40 → R/T ⁽³⁾ → +105 → R/T °C Time: 30 → 2 to 3 → 30 → 2 to 3 min for 5 cycles. | | 1) Insulation resistance: 500 MΩ MIN. 2) No damage, cracks or looseness of parts. | X | — |
| Damp Heat, Steady State | Subjected to a temperature of +40°C, at a humidity of 90 to 95% for 96 hours. | | 1) Insulation resistance: 50 MΩ MIN. (At high humidity) 2) Insulation resistance: 500 MΩ MIN. (When dry) 3) No damage, cracks or looseness of parts. | X | — |
| Corrosion Salt Mist ⁽⁴⁾ | Subjected to 5% salt spray for 48h. | | No heavy corrosion which impairs functionality. | X | — |
| Dry Heat | Subjected to +105°C for 96h. | | No damage, cracks or looseness of parts. | X | — |
| Cold | Subjected to -40°C for 96h. | | No damage, cracks or looseness of parts. | X | — |
| Sealing ⁽⁴⁾ | Subjected to a depth of 2 m for 14 days. | | No water penetration to the inside of the connector. | X | — |
| Air Tightness ⁽⁴⁾ | 17.6kPa applied to the inside of the connector for 0.5min. | | No air bubbles from the inside of the connector. | X | — |
| | | | | | |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|  | | DIS-A-00065601 | | | |
| NOTES (1) The above specifications show the values in assembled condition with applicable crimp contacts. (applicable crimp contact : HR41A-PC-111) (2) Including temperature rise due to current carrying. (3) R/T : Room Temperature. (4) Corrosion salt mist, sealing and airtightness are tested in mated condition with an applicable connector. | | | APPROVED | TP. KOMATSU | 20220301 |
| | | | CHECKED | EJ. KUNII | 20220301 |
| | | | DESIGNED | SH. KOYAMA | 20220228 |
| | | | DRAWN | SH. KOYAMA | 20220228 |
| Unless otherwise specified, refer to IEC 60512 (JIS C 5402). | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC-118142-81-00 |
|  | SPECIFICATION SHEET | | PART NO. | HR41A-17WBJ-5PC (81) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL0141-0202-9-81 |  1/1 |