

|  |                             |  |                     |      |      |  |            |                          |                              |          |      |
|--|-----------------------------|--|---------------------|------|------|--|------------|--------------------------|------------------------------|----------|------|
|  | COUNT                       | DESCRIPTION OF REVISIONS   | BY                  | CHKD | DATE |  | COUNT      | DESCRIPTION OF REVISIONS | BY                           | CHKD     | DATE |
| △  |                             |  |                     |      |      | △  |            |                          |                              |          |      |
| △  |                             |  |                     |      |      | △  |            |                          |                              |          |      |
| 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   |            | MAX φ 7                  |                              |          |      |
| SPECIFICATIONS   |                             |  |                     |      |      |  |            |                          |                              |          |      |
| ITEM   |                             | TEST METHOD  |                     |      |      | REQUIREMENTS   |            |                          |                              | QT       | AT   |
| CONSTRUCTION   |                             |  |                     |      |      |  |            |                          |                              |          |      |
| GENERAL EXAMINATION  |                             | VISUALLY AND BY MEASURING INSTRUMENT.  |                     |      |      | ACCORDING TO DRAWING.  |            |                          |                              | ×        | ×    |
| MARKING  |                             | CONFIRMED VISUALLY.  |                     |      |      |  |            |                          |                              | ×        | ×    |
| ELECTRIC CHARACTERISTICS                                       |                             |  |                     |      |      |  |            |                          |                              |          |      |
| CONTACT RESISTANCE   |                             | CONTACT SHALL BE MEASURED AT DC 1 A  |                     |      |      | 10 mΩ MAX.   |            |                          |                              | ×        | ×    |
| INSULATION RESISTANCE  |                             | 100 V DC.  |                     |      |      | 1000 MΩ MIN.   |            |                          |                              | ×        | ×    |
| VOLTAGE PROOF  |                             | 300 V AC FOR 1 min.  |                     |      |      | NO FLASHOVER OR BREAKDOWN.   |            |                          |                              | ×        | ×    |
| 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 : 50 N MAX.  |            |                          |                              | ×        | —    |
| MECHANICAL OPERATION   |                             | 1000 TIMES INSERTIONS AND EXTRACTIONS.   |                     |      |      | CONTACT RESISTANCE: 15 mΩ MAX.   |            |                          |                              | ×        | —    |
| VIBRATION  |                             | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm,<br>— m/s <sup>2</sup> AT 2 h, FOR 3 DIRECTIONS.                 |                     |      |      | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.   |            |                          |                              | ×        | —    |
| SHOCK  |                             | 490 m/s <sup>2</sup> DIRECTIONS 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.   |            |                          |                              | ×        | —    |
| ENVIRONMENTAL CHARACTERISTICS                                  |                             |  |                     |      |      |  |            |                          |                              |          |      |
| DAMP HEAT<br>(STEADY STATE)                                    |                             | EXPOSED AT 40 °C, 90 TO 95 %, 96 h.  |                     |      |      | ① INSULATION RESISTANCE: 5 MΩ MIN<br>(AT HIGH HUMIDITY).<br>② INSULATION RESISTANCE: 50 MΩ MIN (AT DRY).<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. |            |                          |                              | ×        | —    |
| 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: 1000 MΩ MIN.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  |            |                          |                              | ×        | —    |
| CORROSION SALT MIST  |                             | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.  |                     |      |      | NO HEAVY CORROSION.  |            |                          |                              | ×        | —    |
| DRY HEAT   |                             | EXPOSED AT + 85 °C , 96 h.   |                     |      |      | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   |            |                          |                              | ×        | —    |
| COLD   |                             | EXPOSED AT - 55 °C , 96 h.   |                     |      |      | NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   |            |                          |                              | ×        | —    |
| RESISTANCE TO SOLDERING<br>HEAT                                |                             | SOLDER TEMPERATURE, + 380 ± 10 °C , FOR SOLDERING<br>DURATION, 3 ~ 4 s.  |                     |      |      | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS<br>OF THE TERMINALS.   |            |                          |                              | ×        | —    |
| SOLDERABILITY  |                             | SOLDERED AT SOLDER TEMPERATURE, + 350 ± 10 °C FOR<br>SOLDERING DURATION, 2 ~ 3 s.                                |                     |      |      | WETTING ON SOLDER SURFACE NO SOLDER CLUSTER.   |            |                          |                              | ×        | —    |
| REMARKS  |                             |  |                     |      |      | DRAWN  | DESIGNED   | CHECKED                  | APPROVED                     | RELEASED |      |
| NOTE(1) R/T : ROOM TEMPERATURE                                 |                             |  |                     |      |      | D. Matsume   | D. Matsume | E. Kunii                 | M. Sato                      |          |      |
| Unless otherwise specified, refer to JIS C 5402.               |                             |  |                     |      |      | 05.11.19   | 05.11.19   | 05.11.22                 | 05.11.24                     |          |      |
| Note QT:Qualification Test AT:Assurance Test ×:Applicable Test |                             |  |                     |      |      |  |            |                          |                              |          |      |
| HRS HIROSE ELECTRIC CO., LTD.                                  |                             |  |                     |      |      | SPECIFICATION SHEET  |            |                          | PART NO.<br>HR10-10P-12P(73) |          |      |
| CODE NO. (OLD)   |                             | DRAWING NO.  |                     |      |      | CODE NO.   |            |                          |                              |          |      |
| CL   |                             | ELC4-007760-73   |                     |      |      | CL110-0025-7-73  |            |                          |                              |          |      |