

| APPLICABLE STANDARD  |                             |  |  |                                       |                  |
|--|-----------------------------|--|--|---------------------------------------|------------------|
| RATING   | OPERATING TEMPERATURE RANGE | -40 °C TO +120 °C  | STORAGE TEMPERATURE RANGE  | -10 °C TO +60 °C <sup>(1)</sup>       |                  |
|  | CURRENT                     | 30 A   | STORAGE HUMIDITY RANGE   | RELATIVE HUMIDITY 85% MAX (NOT DEWED) |                  |
|  | VOLTAGE                     | 600 V AC/DC  |  |                                       |                  |
| 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   |                             | 10A DC.  | POWER:3mΩ/SIGNAL:10mΩ /SHIELD:50mΩ MAX.  | x                                     | —                |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD                                |                             | 20 mV AC MAX, 10mA(DC OR 1000Hz)   | POWER:3mΩ/SIGNAL:10mΩ /SHIELD:50mΩ MAX.  | x                                     | —                |
| INSULATION RESISTANCE  |                             | 1000 V DC.   | 100 MΩ MIN.  | x                                     | —                |
| VOLTAGE PROOF  |                             | 2500 V AC FOR 1 min.   | NO FLASHOVER OR BREAKDOWN.   | x                                     | —                |
| MECHANICAL CHARACTERISTICS   |                             |  |  |                                       |                  |
| MECHANICAL OPERATION   |                             | 30 TIMES INSERTIONS AND EXTRACTIONS.   | ① CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩMAX<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x                                     | —                |
| VIBRATION  |                             | FREQUENCY 20 TO 200Hz (88m/s <sup>2</sup> )<br>SWEEP TIME 3min.(ROUND TRIP)<br>AT 3h FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 7ΩMIN , 1μs MIN.<br>② CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩMAX<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | x                                     | —                |
| LOCK STRENGTH  |                             | MEASURE BREAK STRENGTH OF THE LOCK BY PULLING THE CONNECTOR IN THE MATING DIRECTION.                   | 98N MIN.   | x                                     | —                |
| DESTRUCTION TORQUE   |                             | WHEN ACTUAL MEASURED PANEL, PLEASE TIGHTEN A SCREW.<br>M4 SCREW BE USED,<br>2.88N · m(MAX)             | WITHOUT DESTRUCTION  | x                                     | —                |
| ENVIRONMENTAL CHARACTERISTICS  |                             |  |  |                                       |                  |
| DAMP HEAT (STEADY STATE)   |                             | EXPOSED AT 85 °C, 90 ~ 95 %, 96 h.   | ① CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩmax<br>② INSULATION RESISTANCE:100 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.               | x                                     | —                |
| RAPID CHANGE OF TEMPERATURE  |                             | TEMPERATURE- 40 →ROOM TEMP →120°C→<br>ROOM TEMP<br>TIME 30 → 5 → 30 → 5 min<br>UNDER 1000 CYCLES.      | ① CONTACT RESISTANCE: POWER:5 mΩ MAX.<br>② INSULATION RESISTANCE:100 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                           | x                                     | —                |
| DRY HEAT   |                             | EXPOSED AT 125°C, 300 h.   | ① CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩMAX<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x                                     | —                |
| COLD   |                             | EXPOSED AT -40°C , 120 h.  | ① CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩMAX<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  | x                                     | —                |
| RESISTANCE TO SO <sub>2</sub> GAS  |                             | EXPOSED IN 25 PPM AT 75% MIN FOR 96h.  | CONTACT RESISTANCE: POWER:5mΩMAX/SIGNAL:20mΩMAX  | x                                     | —                |
| WATERPROOFNESS   |                             | SINKING TO WATER AFTER EXPOSED AT 125°C WITH CONNECTORS MATED AND ATTACHED TO RECOMMENDED PANEL.       | NO WATER IS INSIDE THE CONNECTOR.  | x                                     | —                |
|  | COUNT                       | DESCRIPTION OF REVISIONS   | DESIGNED   | CHECKED                               | DATE             |
| △  |                             |  |  |                                       |                  |
| REMARK   |                             |  | APPROVED   | HK. UMEHARA                           | 20180928         |
| NOTE1) "STORAGE" means a long-term storage state for the unused product. |                             |  | CHECKED  | AH. EDASHIGE                          | 20180928         |
|  |                             |  | DESIGNED   | TS. SHIMIZU                           | 20180928         |
|  |                             |  | DRAWN  | DS. HIROWATARI                        | 20180926         |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test           |                             |  | DRAWING NO.  |                                       | ELC-377226-00-00 |
| HRS  | SPECIFICATION SHEET         |  | PART NO.   | HVH-280-2/2P-HU (A)                   |                  |
|  | HIROSE ELECTRIC CO., LTD.   |  | CODE NO.   | CL778-0510-0-00                       | △ 1/1            |