

|  |                             |  |   |                                 |                  |
|--|-----------------------------|--|---|---------------------------------|------------------|
| APPLICABLE STANDARD  |                             |  |   |                                 |                  |
| RATING   | OPERATING TEMPERATURE RANGE | -55 °C TO +85 °C <sup>(1) (2)</sup>  | STORAGE TEMPERATURE RANGE   | -10 °C TO +60 °C <sup>(3)</sup> |                  |
|  | OPERATING HUMIDITY RANGE    | RH 90 % MAX <sup>(2) (4)</sup>   | STORAGE HUMIDITY RANGE  | RH 70 % MAX <sup>(3) (4)</sup>  |                  |
|  | VOLTAGE                     | 300 V DC/AC  | CURRENT   | 60A (TEMPERATURE RISE 30°C MAX) |                  |
| SPECIFICATIONS   |                             |  |   |                                 |                  |
| ITEM   |                             | TEST METHOD  | REQUIREMENTS  | QT                              | AT               |
| CONSTRUCTION   |                             |  |   |                                 |                  |
| GENERAL EXAMINATION  |                             | VISUAL AND WITH MEASURING INSTRUMENT   | ACCORDING TO DRAWING  | ×                               | ×                |
| MARKING  |                             | CONFIRMED VISUALLY   |   | ×                               | ×                |
| ELECTRIC CHARACTERISTICS   |                             |  |   |                                 |                  |
| CONTACT RESISTANCE<br>[EIA-364-23]   |                             | 10 mA  | 2 mΩ MAX. <sup>(5)</sup><br>MATED WITH IT-PM-2S-DIR<br>IT-PD-2S-DIR   | ×                               | -                |
| INSULATION RESISTANCE<br>[EIA-364-21]  |                             | 500 V DC   | 1000 MΩ MIN.  | ×                               | -                |
| VOLTAGE PROOF<br>[EIA-364-20]  |                             | 1000 V AC FOR 1 MINUTE   | NO FLASHOVER OR BREAKDOWN.  | ×                               | -                |
| MECHANICAL CHARACTERISTICS   |                             |  |   |                                 |                  |
| INSERTION AND WITHDRAWAL FORCES<br>[EIA-364-13]  |                             | MEASURED WITH RESPECT TO APPLICABLE CONNECTORS   | INSERTION FORCE: 50 N MAX.<br>WITHDRAWAL FORCE: 3 N MIN.  | ×                               | -                |
| MECHANICAL OPERATION<br>[EIA-364-09]   |                             | 100 TIMES INSERTION AND EXTRACTION   | ① CONTACT RESISTANCE: 2 mΩ MAX. <sup>(5)</sup><br>② NO DAMAGE, CRACKS, OR LOOSE PARTS   | ×                               | -                |
| RANDOM VIBRATION<br>[EIA-364-28]   |                             | FREQUENCY: 50 TO 2000 Hz<br>POWER SPECTRAL DENSITY: 0.1 g <sup>2</sup> /Hz<br>FOR 90 MINUTES IN THREE DIRECTIONS<br>* Spacers were used to maintain the distance between the PCB's during testing. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs OR MORE<br>② NO DAMAGE, CRACKS, OR LOOSE PARTS  | ×                               | -                |
| SHOCK<br>[EIA-364-27]  |                             | 490 m/s <sup>2</sup> , DURATION OF PULSE: 11 ms<br>18 TIMES TOTAL, 3 EACH DIRECTION, 3 AXIS<br>* Spacers were used to maintain the distance between the PCB's during testing.                      |   | ×                               | -                |
| ENVIRONMENTAL CHARACTERISTICS  |                             |  |   |                                 |                  |
| THERMAL SHOCK<br>[EIA-364-32]  |                             | TEMPERATURE: -55 → 20 ~ 35 → 85 → 20 ~ 35 °C<br>TIME: 30 → 5 MAX → 30 → 5 MAX minutes<br>10 CYCLES   | ① CONTACT RESISTANCE: 2 mΩ MAX. <sup>(5)</sup><br>② INSULATION RESISTANCE: 100 MΩ MIN.<br>③ NO DAMAGE, CRACKS, OR LOOSE PARTS | ×                               | -                |
| CYCLIC TEMPERATURE AND HUMIDITY<br>[EIA-364-31]  |                             | @ 25 °C, 80% RH: 60 MIN DWELL TIME<br>30 MIN RAMP TIME<br>@ 65 °C, 50% RH: 60 MIN DWELL TIME<br>24 CYCLES  |   | ×                               | -                |
| DRY HEAT<br>[EIA-364-17]   |                             | EXPOSED AT 105 °C, 120 hr  | ① CONTACT RESISTANCE: 2 mΩ MAX. <sup>(5)</sup><br>② NO DAMAGE, CRACKS, OR LOOSE PARTS   | ×                               | -                |
| MIXED FLOWING GAS<br>[EIA-364-65]  |                             | EXPOSED AT 30 °C, 70%<br>Cl <sub>2</sub> : 10 ppb, NO <sub>2</sub> : 200 ppb, H <sub>2</sub> S: 10 ppb, SO <sub>2</sub> : 100 ppb<br>UNMATED 7 DAYS, MATED 7 DAYS                                  | ① CONTACT RESISTANCE: 2 mΩ MAX. <sup>(5)</sup>  | ×                               | -                |
|  |                             |  |   |                                 |                  |
| △  | COUNT                       | DESCRIPTION OF REVISIONS   | DESIGNED  | CHECKED                         | DATE             |
| REMARKS  |                             |  | APPROVED  | MK. EZAKI                       | 15. 09. 26       |
| (1) INCLUDE TEMPERATURE RISE CAUSED BY CURRENT-CARRYING.   |                             |  | CHECKED   | MK. EZAKI                       | 15. 09. 26       |
| (2) OPERATING TEMPERATURE SHOULD BE -55 TO 55°C WHEN HUMIDITY EXCEEDS 80% RH.  |                             |  | DESIGNED  | NY. SHIMURA                     | 15. 09. 26       |
| (3) "STORAGE" MEANS A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE ASSEMBLY TO PCB.   |                             |  | DRAWN   | NY. SHIMURA                     | 15. 09. 26       |
| (4) NO DEW CONDENSATION IS PERMITTED.  |                             |  |   |                                 |                  |
| (5) THE VALUE OF CONTACT RESISTANCE INCLUDES 2 CONTACT POINTS AND THE BULK RESISTANCE.   |                             |  |   |                                 |                  |
| (6) THIS APPLIES TO SEALED PLASTIC BAGS. OPEN BAGS MUST BE PROTECTED FROM MOISTURE, SULFUR AND CHLORIDE WHICH CAN CAUSE THE SILVER PLATING TO TARNISH.<br>Unless otherwise specified, the test method apply for IEC-60512. |                             |  |   |                                 |                  |
| Note: QT:Qualification Test AT:Assurance Test X:Applicable Test  |                             |  | DRAWING NO.   |                                 | ELC-357298-11-00 |
| HRS  | SPECIFICATION SHEET         |  | PART NO.  | IT-P-2P-37H(11)                 |                  |
|  | HIROSE ELECTRIC CO., LTD.   |  | CODE NO.  | CL636-0620-4-11                 | △ 1/1            |