









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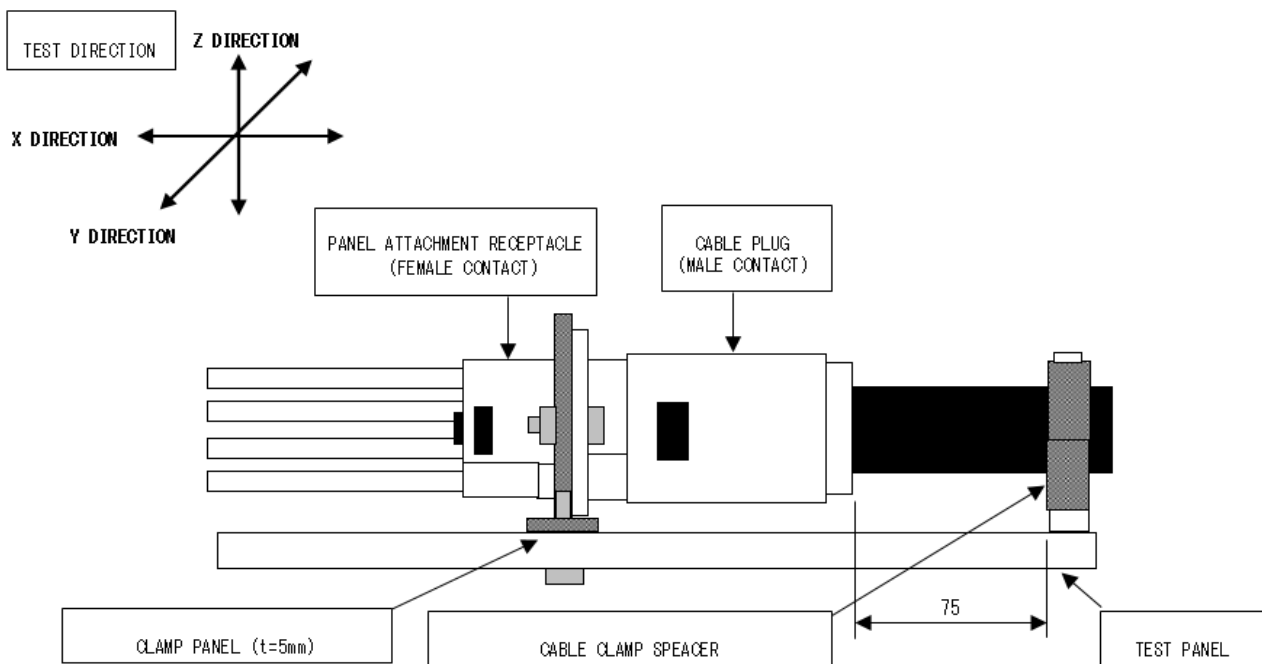
| APPLICABLE STANDARD   |  |  |                           |  |   |
|---|--|--|---------------------------|--|---|
| RATING  | OPERATING TEMPERATURE RANGE  |  -40°C TO +105°C  | STORAGE TEMPERATURE RANGE |  -55°C TO +85°C |   |
|   | VOLTAGE  | 300 V AC , 300 V DC  | —                         | —  |   |
|   | CURRENT  | AWG#18(UL1007) : 12.5 A/PIN  | APPLICABLE CABLE          | AWG#18 TO AWG#22<br>(UL-STYLE : UL1007)  |   |
| SPECIFICATIONS  |  |  |                           |  |   |
| ITEM  | TEST METHOD  | REQUIREMENTS   | QT                        | AT   |   |
| <b>CONSTRUCTION</b>   |  |  |                           |  |   |
| GENERAL EXAMINATION   | VISUALLY AND BY MEASURING INSTRUMENT.  | ACCORDING TO DRAWING.  | X                         | X  |   |
| MARKING   | CONFIRMED VISUALLY.  |  | X                         | X  |   |
| <b>ELECTRICAL CHARACTERISTICS</b>   |  |  |                           |  |   |
| CONTACT RESISTANCE  | 100 mA (DC OR 1000 Hz) MAX.  |  5 mΩ MAX. (CONTACT SPACING)   | X                         | -  |   |
|   |  |  40 mΩ MAX. (SHELL SPACING)  | X                         | -  |   |
| INSULATION RESISTANCE   | 500 V DC.  | 5000 MΩ MIN.   | X                         | -  |   |
| VOLTAGE PROOF   | 2200 V AC. FOR 1 min.  | NO FLASHOVER OR BREAKDOWN.   | X                         | -  |   |
| <b>MECHANICAL CHARACTERISTICS</b>   |  |  |                           |  |   |
| CONTACT INSERTION AND WITHDRAWAL FORCES   | APPLICABLE CONTACT.  | INSERTION FORCE : 3 N MAX.<br>WITHDRAWAL FORCE : 0.3 N MIN.  | X                         | -  |   |
| CONNECTOR INSERTION AND WITHDRAWAL FORCES   | APPLICABLE CONNECTOR.  | INSERTION FORCE : 98 N MAX.<br>WITHDRAWAL FORCE : 14.7 N MIN.  | X                         | -  |   |
| CONTACT (LANCE) RETENTION FORCES  | APPLY AXIAL PULL OUT FORCE AT THE SPEED RATE OF 25mm/min TO THE TERMINAL, AND MEASURE THE FORCE WHEN THE TERMINAL IS PULL OUT. | 29.4N MIN  | X                         | -  |   |
| CONDUCTOR PRESSURE BONDING FORCES   | CRIMP THE CABLE ONLY AT THE CONDUCTOR, AND RETENTION FORCE SHALL EXCEED THE SPECIFICATION WHEN PULL FORCE IS APPLIED.          | ① AWG#18 : 89 N MIN.<br>② AWG#20 : 57.9 N MIN.<br>③ AWG#22 : 35.6 N MIN.   | X                         | -  |   |
| CABLE CLAMP STRENGTH  | APPLY PULL FORCE OF 98 N IN MATING DIRECTION FOR A MINUTE.   | ① CONTACTS SHOULD BE RETAINED.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.   | X                         | -  |   |
| MECHANICAL OPERATION  | 500 TIMES INSERTIONS AND EXTRACTIONS.  |  ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 10 mΩ MAX.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X                         | -  |   |
| VIBRATION   | FREQUENCY : 10 TO 55 Hz, SINGE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.<br>(REFERENCE FOR APPENDED FIGURE)                 | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.  | X                         | -  |   |
| SHOCK   | IN OPPOSITE DIRECTIONS OF EACH 6 DIMENSION AXIS FOR 3 TIMES AT 490 m/s <sup>2</sup> DURATIONS OF PULSE 11 ms.                  | ① NO ELECTRICAL DISCONTINUITY OF 10 μs.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.  | X                         | -  |   |
|   |  |  |                           |  |   |
|   | COUNT  | DESCRIPTION OF REVISIONS   | DESIGNED                  | CHECKED  | DATE  |
|          |  |  |                           |  |   |
| REMARK  |  |  | APPROVED                  | MN. KENJO  | 20211222  |
| ABOVE SPECIFICATION SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. |  |  | CHECKED                   | KG. OKITA  | 20211221  |
|   |  |  | DESIGNED                  | HY. MATSUDA  | 20211221  |
| Unless otherwise specified, refer to IEC 60512.   |  |  | DRAWN                     | HY. MATSUDA  | 20211221  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                              |  |  | DRAWING NO.               |  | ELC-397155-00-00  |
|          | SPECIFICATION SHEET  |  | PART NO.                  | PQ50S2-1822PCFA  |   |
|   | HIROSE ELECTRIC CO., LTD.  |  | CODE NO.                  | CL0236-0035-0-00   |  1/3 |

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| SPECIFICATIONS   |   |  |             |                  |                  |
|--|---|--|-------------|------------------|------------------|
| ITEM   | TEST METHOD   | REQUIREMENTS   | QT          | AT               |                  |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>   |   |  |             |                  |                  |
| RAPID CHANGE OF TEMPERATURE  | TEMPERATURE -55 → 15 TO 35 → 105 → 15 TO 35 °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min. UNDER 5 CYCLES.               | ③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 10 mΩ MAX.<br>② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.  | X           | -                |                  |
| HEAT RESISTANCE  | EXPOSED AT 105 °C ± 2 °C, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.  | ③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 10 mΩ MAX.<br>② INSULATION RESISTANCE : 1000 MΩ MIN.<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS.                  | X           | -                |                  |
| COLD RESISTANCE  | EXPOSED AT -55 °C ± 3 °C, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.  | ③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 10 mΩ MAX.<br>② INSULATION RESISTANCE : 1000 MΩ MIN.<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS.                  | X           | -                |                  |
| HUMIDITY   | EXPOSED AT 60 °C ± 2 °C, 90 TO 95 %, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.                                   | ③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 10 mΩ MAX.<br>② INSULATION RESISTANCE : 1000 MΩ MIN. (AFTER IT DRIER)<br>③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS. | X           | -                |                  |
| MIXED FLOWING GAS  | EXPOSED IN SO <sub>2</sub> 10 ppm, H <sub>2</sub> S 3 ppm, 70 TO 80 %, 24 h, AND COMBINE THE APPLICABLE CONNECTORS. | NO HEAVY CORROSION RUIN THE FUNCTION.  | X           | -                |                  |
| CORROSION SALT MIST  | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h, AND COMBINE THE APPLICABLE CONNECTORS.                                    | NO HEAVY CORROSION RUIN THE FUNCTION.  | X           | -                |                  |
| <p>① ① THE PRODUCT PERFORMANCE IS GUARANTEED ONLY IN THE TEMPERATURE ADEQUATE PEOPLE'S ACTIVITIES.<br/>② INCLUDE TEMPERATURE RISE CAUSED BY CURRENT-CARRYING.<br/>③ SPECIFICATIONS FOR ASSEMBLED ITEM WITH APPLICABLE HOUSING.</p> <p>② PACKING MATERIALS ARE NOT INCLUDED.</p> <p>③ CABLE CONDUCTOR RESISTANCE IS NOT INCLUDED.</p> |   |  |             |                  |                  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test   |   |  | DRAWING NO. |                  | ELC-397155-00-00 |
| <b>HRS</b>   | SPECIFICATION SHEET   |  | PART NO.    | PQ50S2-1822PCFA  |                  |
|  | HIROSE ELECTRIC CO., LTD.   |  | CODE NO     | CL0236-0035-0-00 | △ 2/3            |

# APPENDED FIGURE

A CABLE PLUG (MALE CONTACT) AND A PANEL ATTACHMENT RECEPTACLE (FEMALE CONTACT)  
VIBRATION TEST METHOD



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|  |                           |             |          |                  |  |     |
|--|---------------------------|-------------|----------|------------------|--|-----|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                           | DRAWING NO. |          | ELC-397155-00-00 |  |     |
| <b>HRS</b>   | SPECIFICATION SHEET       |             | PART NO. | PQ50S2-1822PCFA  |  |     |
|  | HIROSE ELECTRIC CO., LTD. |             | CODE NO  | CL0236-0035-0-00 |  | 3/3 |