

May.1.2023 Copyright 2023 HIROSE ELECTRIC CO., LTD. All Rights Reserved.  
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| APPLICABLE STANDARD   |  |                                |  |                                |            |
|---|--|--------------------------------|--|--------------------------------|------------|
| RATING  | OPERATING TEMPERATURE RANGE  | -55 °C TO 85 °C <sup>(1)</sup> | STORAGE TEMPERATURE RANGE  | -10 °C TO 60 °C <sup>(2)</sup> |            |
|   | VOLTAGE  | 125 V AC                       | OPERATING HUMIDITY RANGE   | 40 % TO 80 %                   |            |
|   | CURRENT  | 0.5 A                          | STORAGE HUMIDITY RANGE   | 40 % TO 70 % <sup>(2)</sup>    |            |
| 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>ELECTRIC CHARACTERISTICS</b>   |  |                                |  |                                |            |
| CONTACT RESISTANCE  | 100 mA (DC OR 1000 Hz).  |                                | 45 mΩ MAX.   | x                              | —          |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD   | 20 mV MAX, 1 mA(DC OR 1000Hz)  |                                | 55 mΩ MAX.   | x                              | —          |
| INSULATION RESISTANCE   | 250 V DC.  |                                | 100 MΩ MIN.  | x                              | —          |
| VOLTAGE PROOF   | 300 V AC FOR 1 min.  |                                | NO FLASHOVER OR BREAKDOWN.   | x                              | —          |
| <b>MECHANICAL CHARACTERISTICS</b>   |  |                                |  |                                |            |
| MECHANICAL OPERATION  | 500 TIMES INSERTIONS AND EXTRACTIONS.  |                                | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.               | x                              | —          |
| VIBRATION   | FREQUENCY 10 TO 55 Hz,<br>AMPLITUDE : 1.52 mm,<br>AT 2 h FOR 3 DIRECTION.  |                                | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.         | x                              | —          |
| SHOCK   | 490 m/s <sup>2</sup> , DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS.                                     |                                |  | x                              | —          |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>  |  |                                |  |                                |            |
| DAMP HEAT (STEADY STATE)  | EXPOSED AT 40±2 °C, 90 ~ 95 %, 96 h.   |                                | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② INSULATION RESISTANCE: 100 MΩ MIN.                     | x                              | —          |
| RAPID CHANGE OF TEMPERATURE   | TEMPERATURE-55→+15~+35→+85→+15~+35°C<br>TIME 30 → 10~15 → 30 → 10~15 min<br>UNDER 5 CYCLES.                        |                                | ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.   | x                              | —          |
| CORROSION SALT MIST   | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.  |                                | ① CONTACT RESISTANCE: 55 mΩ MAX.<br>② NO HEAVY CORROSION.                                    | x                              | —          |
| HYDROGEN SULPHIDE   | EXPOSED IN 3 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-38)  |                                |  | x                              | —          |
| RESISTANCE TO SOLDERING HEAT  | 1) SOLDER BATH: SOLDER TEMPERATURE, 260±5°C FOR IMMERSION, DURATION, 10±1s.<br>2) SOLDERING IRONS : 360°C FOR 5 s. |                                | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL.                               | x                              | —          |
| SOLDERABILITY   | SOLDERED AT SOLDER TEMPERATURE 240±3°C FOR IMMERSION DURATION, 2s.   |                                | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | x                              | —          |
|   |  |                                |  |                                |            |
|   | COUNT  | DESCRIPTION OF REVISIONS       | DESIGNED   | CHECKED                        | DATE       |
| △   |  |                                |  |                                |            |
| REMARK <sup>(1)</sup> TEMPERATURE RISE INCLUDED WHEN ENERGIZED.<br><sup>(2)</sup> THIS STORAGE INDICATES A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE THE BOARD MOUNTED. |  |                                | APPROVED   | HS. OKAWA                      | 07. 12. 27 |
|   |  |                                | CHECKED  | HS. OZAWA                      | 07. 12. 27 |
|   |  |                                | DESIGNED   | SY. KAMIGA                     | 07. 12. 26 |
| Unless otherwise specified, refer to MIL-STD-1344.  |  |                                | DRAWN  | HK. SUNADORI                   | 07. 12. 26 |
| Note  | QT:Qualification Test AT:Assurance Test X:Applicable Test  |                                | DRAWING NO.  | ELC4-150650-21                 |            |
| <b>HRS</b>  | SPECIFICATION SHEET  |                                | PART NO.   | FX2BA-80PA-1. 27DSA (71)       |            |
|   | HIROSE ELECTRIC CO., LTD.  |                                | CODE NO.   | CL572-0927-2-71                | △ 1/1      |