

In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| APPLICABLE STANDARD  |                          | -35°C T0 +85°C (NOTES 1)   |              | STORAGE TEMPERATURE RANGE   |  | -10°C T0 + 60°C          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
|--|--------------------------|--|--------------|---|--|--------------------------|-------------------------|--------------------------|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|-----|-------|------|-----|-------|------|---|---|
| RATING   |                          | 50V AC   |              | APPLICABLE CONNECTOR  |  | DF17# (**)-*DP-0.5V (**) |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| CURRENT  |                          | 0.3A   |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>SPECIFICATIONS</b>  |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| ITEM   | TEST METHOD              |  |              | REQUIREMENTS  |  | QT                       | AT                      |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>CONSTRUCTION</b>  |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| GENERAL EXAMINATION  |                          |  |              | VISUALLY AND BY MEASURING INSTRUMENT.   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| MARKING  |                          |  |              | CONFIRMED VISUALLY.   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>ELECTRIC CHARACTERISTICS</b>                                |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| CONTACT RESISTANCE   |                          | 100m A (DC OR 1000 HZ).  |              | 60mΩ MAX.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| INSULATION RESISTANCE  |                          | 100V DC.   |              | 500MΩ MIN.  |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| VOLTAGE PROOF  |                          | 150V AC FOR 1 min.   |              | NO FLASHOVER OR BREAKDOWN.  |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>MECHANICAL CHARACTERISTICS</b>                              |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| INSERTION AND WITHDRAWAL FORCES                                |                          | MEASURED BY APPLICABLE CONNECTOR.  |              | <table border="1"> <thead> <tr> <th>SIGNAL</th> <th>INSERTION FORCE (N/MAX)</th> <th>WITHDRAWAL FORCE (N/MIN)</th> </tr> </thead> <tbody> <tr><td>20</td><td>20.0</td><td>2.0</td></tr> <tr><td>28</td><td>28.0</td><td>2.8</td></tr> <tr><td>30</td><td>30.0</td><td>3.0</td></tr> <tr><td>40</td><td>40.0</td><td>4.0</td></tr> <tr><td>50</td><td>50.0</td><td>5.0</td></tr> <tr><td>60</td><td>60.0</td><td>6.0</td></tr> <tr><td>70</td><td>70.0</td><td>7.0</td></tr> <tr><td>80</td><td>80.0</td><td>8.0</td></tr> <tr><td>100</td><td>100.0</td><td>10.0</td></tr> <tr><td>120</td><td>120.0</td><td>12.0</td></tr> </tbody> </table> |  | SIGNAL                   | INSERTION FORCE (N/MAX) | WITHDRAWAL FORCE (N/MIN) | 20 | 20.0 | 2.0 | 28 | 28.0 | 2.8 | 30 | 30.0 | 3.0 | 40 | 40.0 | 4.0 | 50 | 50.0 | 5.0 | 60 | 60.0 | 6.0 | 70 | 70.0 | 7.0 | 80 | 80.0 | 8.0 | 100 | 100.0 | 10.0 | 120 | 120.0 | 12.0 | X | - |
| SIGNAL   | INSERTION FORCE (N/MAX)  | WITHDRAWAL FORCE (N/MIN)   |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 20   | 20.0                     | 2.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 28   | 28.0                     | 2.8  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 30   | 30.0                     | 3.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 40   | 40.0                     | 4.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 50   | 50.0                     | 5.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 60   | 60.0                     | 6.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 70   | 70.0                     | 7.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 80   | 80.0                     | 8.0  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 100  | 100.0                    | 10.0   |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 120  | 120.0                    | 12.0   |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| MECHANICAL OPERATION   |                          | 50TIMES INSERTIONS AND EXTRACTIIONS.   |              | ① CONTACT RESISTANCE: 60mΩ MAX.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| VIBRATION  |                          | FREQUENCY 10 TO 55 HZ, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.   |              | ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| SHOCK  |                          | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.  |              | ① NO ELECTRICAL DISCONTINUITY OF 1μs.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
|  |                          |  |              | ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>                           |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| RAPID CHANGE OF TEMPERATURE                                    |                          | TEMPERATURE -55 → 5 TO 35 → 85 → 5 TO 35°C<br>TIME 30→10 TO 15 → 30→10 TO 15min<br>UNDER 5 CYCLES.   |              | ① CONTACT RESISTANCE: 60mΩ MAX.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| DAMP HEAT (STEADY STATE)                                       |                          | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.  |              | ② INSULATION RESISTANCE: 500 MΩ MIN.  |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| CORROSION SALT MIST  |                          | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.   |              | ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| SULPHUR DIOXIDE  |                          | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD: JEIDA-39)   |              | ① CONTACT RESISTANCE: 60 mΩ MAX.  |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| HEAT RESISTANCE OF SOLDERING                                   |                          | [RECOMMENDED TEMPERATURE PROFILE]<br>《SOLDERING AREA》<br>MAX:250°C, 220°C FOR 60 SECONDS MAX.<br>《PREHEATING AREA》<br>150 TO 180°C 90~120 SECONDS.<br>MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.<br>[RECOMMENDED MANUAL SOLDELING CONDITION ]<br>SOLDERING IRON TEMPERATURE 350°C<br>SOLDERING TIME : WITHIN 3 SECONDS. |              | ② NO HEAVY CORROSION.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
|  |                          |  |              | ③ NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.   |  | X                        | -                       |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| COUNT  | DESCRIPTION OF REVISIONS | DESIGNED   | CHECKED      | DATE  |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| 1  | D1S-H-000064             | HK, MURAKAMI   | TS, MIYAZAKI | 05.12.06  |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| <b>REMARKS</b>   |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| NOTE1:INCLUDING THE TEMPERATURE RISE BY CURRENT.               |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| UNLESS OTHERWISE SPECIFIED,REFER TO JIS C 5402.                |                          |  |              |   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                          | DRAWING NO.  |              | ELC4-162127-04  |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
| SPECIFICATION SHEET  |                          | PART NO.   |              | DF17 (3.0) -*DS-0.5V (57)   |  |                          |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
|  |                          | HIROSE ELECTRIC CO., LTD.  |              | CODE NO.  |  | CL683                    |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |
|  |                          |  |              |   |  | △ 1/1                    |                         |                          |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |    |      |     |     |       |      |     |       |      |   |   |