

| APPLICABLE STANDARD                                            |                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
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| RATING                                                         | OPERATING TEMPERATURE RANGE | -35°C TO +85°C (NOTES 1)                                                                                                                                                                                                                                                                                                           | STORAGE TEMPERATURE RANGE                                                                                                                                                                                                                                                                                                                                                                                           | -10°C TO + 60°C              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
|                                                                | VOLTAGE                     | 50V AC                                                                                                                                                                                                                                                                                                                             | APPLICABLE CONNECTOR                                                                                                                                                                                                                                                                                                                                                                                                | DF17# (**) -*DP-0. 5V (57)   |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
|                                                                | CURRENT                     | 0. 3A                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 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                                             |                             | 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                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| MECHANICAL CHARACTERISTICS                                     |                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| INSERTION AND WITHDRAWAL FORCES                                |                             | MEASURED BY APPLICABLE CONNECTOR.                                                                                                                                                                                                                                                                                                  | <table><tr><th>SIGNAL</th><th>INSERTION FORCE (N)MAX</th><th>WITHDRAWAL FORCE (N)MIN</th></tr><tr><td>20</td><td>200</td><td>20</td></tr><tr><td>30</td><td>300</td><td>30</td></tr><tr><td>40</td><td>400</td><td>40</td></tr><tr><td>50</td><td>500</td><td>50</td></tr><tr><td>60</td><td>600</td><td>60</td></tr><tr><td>70</td><td>700</td><td>70</td></tr><tr><td>80</td><td>800</td><td>80</td></tr></table> | SIGNAL                       | INSERTION FORCE (N)MAX | WITHDRAWAL FORCE (N)MIN | 20 | 200 | 20 | 30 | 300 | 30 | 40 | 400 | 40 | 50 | 500 | 50 | 60 | 600 | 60 | 70 | 700 | 70 | 80 | 800 | 80 | X | — |
| SIGNAL                                                         | INSERTION FORCE (N)MAX      | WITHDRAWAL FORCE (N)MIN                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 20                                                             | 200                         | 20                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 30                                                             | 300                         | 30                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 40                                                             | 400                         | 40                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 50                                                             | 500                         | 50                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 60                                                             | 600                         | 60                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 70                                                             | 700                         | 70                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| 80                                                             | 800                         | 80                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| MECHANICAL OPERATION                                           |                             | 50TIMES INSERTIONS AND EXTRACTIONS.                                                                                                                                                                                                                                                                                                | ① CONTACT RESISTANCE: 60mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                                                                                                                                                                                                                                        | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| VIBRATION                                                      |                             | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS.                                                                                                                                                                                                                                                         | ① NO ELECTRICAL DISCONTINUITY OF 1μs.<br>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.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                                                                                                                                                                                                                                  | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| ENVIRONMENTAL CHARACTERISTICS                                  |                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| RAPID CHANGE OF TEMPERATURE                                    |                             | TEMPERATURE -55→ 5 TO 35→ 85→ 5 TO 35°C<br>TIME 30→10 TO 15→ 30→10TO15min<br>UNDER 5 CYCLES.                                                                                                                                                                                                                                       | ① CONTACT RESISTANCE: 60mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                                                                                                                                                                                                | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| DAMP HEAT (STEADY STATE)                                       |                             | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.                                                                                                                                                                                                                                                                                            | ① CONTACT RESISTANCE: 60mΩ MAX.<br>② INSULATION RESISTANCE: 250 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS.                                                                                                                                                                                                                                                                                                | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| CORROSION SALT MIST                                            |                             | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.                                                                                                                                                                                                                                                                                           | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO HEAVY CORROSION.                                                                                                                                                                                                                                                                                                                                                           | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| SULPHUR DIOXIDE                                                |                             | EXPOSED IN 10 PPM FOR 96 h.<br>(TEST STANDARD:JEIDA-39)                                                                                                                                                                                                                                                                            | ① CONTACT RESISTANCE: 60 mΩ MAX.<br>② NO HEAVY CORROSION.                                                                                                                                                                                                                                                                                                                                                           | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| HEAT RESISTANCE OF SOLDERING                                   |                             | [RECOMMENDED TEMPERATURE PROFILE]<br>《SOLDERING AREA》<br>MAX250°C, 220°C FOR 60 SECONDS MAX.<br>《PREHEATING AREA》<br>150 TO 180°C 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. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                                                                                                                                                                                                                                                                                                                     | X                            | —                      |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
|                                                                | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                                                                                                                                                                                                           | DESIGNED                                                                                                                                                                                                                                                                                                                                                                                                            | CHECKED                      | DATE                   |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| △                                                              |                             |                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| REMARKS                                                        |                             |                                                                                                                                                                                                                                                                                                                                    | APPROVED                                                                                                                                                                                                                                                                                                                                                                                                            | MO.NAKAMURA                  | 05.05.20               |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| NOTE1:INCLUDING THE TEMPERATURE RISE BY CURRENT.               |                             |                                                                                                                                                                                                                                                                                                                                    | CHECKED                                                                                                                                                                                                                                                                                                                                                                                                             | TS.MIYAZAKI                  | 05.05.19               |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| UNLESS OTHERWISE SPECIFIED,REFER TO JIS C 0806.                |                             |                                                                                                                                                                                                                                                                                                                                    | DESIGNED                                                                                                                                                                                                                                                                                                                                                                                                            | YH.MICHIDA                   | 05.05.19               |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
|                                                                |                             |                                                                                                                                                                                                                                                                                                                                    | DRAWN                                                                                                                                                                                                                                                                                                                                                                                                               | YH.MICHIDA                   | 05.05.19               |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                             |                                                                                                                                                                                                                                                                                                                                    | DRAWING NO.                                                                                                                                                                                                                                                                                                                                                                                                         |                              | ELC4-162132-06         |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| SPECIFICATION SHEET                                            |                             |                                                                                                                                                                                                                                                                                                                                    | PART NO.                                                                                                                                                                                                                                                                                                                                                                                                            | DF17A (4. 0) -*DS-0. 5V (57) |                        |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |
| HIROSE ELECTRIC CO., LTD.                                      |                             |                                                                                                                                                                                                                                                                                                                                    | CODE NO.                                                                                                                                                                                                                                                                                                                                                                                                            | CL683                        | △ 1/1                  |                         |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |    |     |    |   |   |