

| APPLICABLE STANDARD |                             |  |                           |  |
|---------------------|-----------------------------|--|---------------------------|--|
| RATING              | OPERATING TEMPERATURE RANGE | -35°C TO + 85°C (NOTE 1)                           | STORAGE TEMPERATURE RANGE | -10°C TO + 60°C (NOTE3)                          |
|                     | OPERATING HUMIDITY RANGE    | 20 % TO 80 % (NOTE2)                               | STORAGE HUMIDITY RANGE    | 40 % TO 70 % (NOTE3)                             |
|                     | VOLTAGE                     | AC/DC 100V   | APPLICABLE CONNECTOR      | DF50 (S) -*DS-1C (##)                            |
|                     | CURRENT                     | AWG 28 : 1.0 A<br>AWG 30 : 0.9 A<br>AWG 32 : 0.7 A | APPLICABLE CONTACT        | DF50-2830SCFA<br>DF50K-2830SCFA<br>DF50-3032SCFA |

### 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    | AC 20mV MAX 1mA (DC OR 1000 Hz). | 30mΩ MAX.                  | X | - |
| INSULATION RESISTANCE | 100V DC.                         | 500MΩ MIN.                 | X | - |
| VOLTAGE PROOF         | 300V AC FOR 1 min.               | NO FLASHOVER OR BREAKDOWN. | X | - |

#### MECHANICAL CHARACTERISTICS

|                      |  |  |   |   |
|----------------------|--|--|---|---|
| MECHANICAL OPERATION | 30TIMES INSERTIONS AND EXTRACTIONS.  | ① CONTACT RESISTANCE: 50mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.       | X | - |
| VIBRATION            | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, AT 10 CYCLE FOR EACH, 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.                |  |   |   |

#### ENVIRONMENTAL CHARACTERISTICS


|                             |  |   |   |   |
|-----------------------------|--|---|---|---|
| DAMP HEAT (STEADY STATE)    | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.  | ① CONTACT RESISTANCE: 50mΩ MAX.<br>② INSULATION RESISTANCE: 100MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | - |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55→+85°C<br>TIME 30→ 30min.<br>UNDER 5 CYCLES.<br>THE TRANSFERRING TIME OF THE TANK IS 2~3 min. | ① CONTACT RESISTANCE: 50mΩ MAX.<br>② INSULATION RESISTANCE: 500MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | - |

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|--|--|--|--|--|

| COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED       | DATE       |
|-------|--------------------------|----------|---------------|------------|
| △     |                          |          |               |            |
|       |                          | APPROVED | KI. AKIYAMA   | 13. 07. 31 |
|       |                          | CHECKED  | HK. UMEHARA   | 13. 07. 31 |
|       |                          | DESIGNED | YK. YAMAGUCHI | 13. 07. 31 |
|       |                          | DRAWN    | YK. YAMAGUCHI | 13. 07. 31 |

|  |             |                |
|--|-------------|----------------|
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | DRAWING NO. | ELC4-326227-01 |
|--|-------------|----------------|

|            |                           |          |   |
|------------|---------------------------|----------|---|
| <b>HRS</b> | SPECIFICATION SHEET       | PART NO. | DF50-*DP-1V (61)                                |
|            | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL665- <span style="float: right;">△ 1/2</span> |

| SPECIFICATIONS   |  |  |          |  |
|--|--|--|----------|--|
| ITEM   | TEST METHOD  | REQUIREMENTS   | QT       | AT   |
| SOLDERABILITY  | SOLDERED AT SOLDER TEMPERATURE,<br>245°C FOR INSERTION DURATION, 5 sec.  | SOLDER SHALL COVER A MINIMUM OF<br>95 % OF THE SURFACE BEING IMMersed. | X        | —  |
| RESISTANCE TO<br>SOLDERING HEAT  | 1) REFLOW SOLDERING<br>《REFLOW AREA》<br>MAX250°C WITHIN 10 sec<br>MIN 220°C WITHIN 60 sec<br>《PREHEATING AREA》<br>150~180°C 90~120s<br>2) MANUAL SOLDERING<br>SOLDERING IPON TEMPERATURE 350±10°C<br>SOLDERING TIME 3~4s.<br>NO STRENGTH ON CONTACT. | NO DEFORMATION OF CASE OF<br>EXCESSIVE LOOSENESS OF THE<br>TERMINALS.  | X        | —  |
|  |  |  |          |  |
| <b>REMARKS</b><br>NOTE 1: INCLUDING THE TEMPERATURE RISE BY CURRENT.<br>NOTE 2: NON-CONDENSING<br>NOTE 3: APPLY TO THE CONDITION OF LONG TERM STORAGE FOR UNUSED PRODUCTS BEFORE PCB ON BOARD.<br>AFTER PCB BOARD, OPERATING TEMPERATURE AND HUMIDITY RANGE IS APPLIED FOR INTERIM STORAGE DURING TRANSPORTATION |  |  |          |  |
| Unless otherwise specifid , refer to JIS C 5402.   |  |  |          |  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test   |  | DRAWING NO.  |          | ELC4-326227-01   |
| <b>HRS</b>   | SPECIFICATION SHEET  |  | PART NO. | DF50-*DP-1V(61)  |
|  | HIROSE ELECTRIC CO., LTD.  |  | CODE NO  | CL665-  2/2 |