

| | | | | |
|---------------------|-----------------------------|---------------------------|---------------------------|----------------------------|
| APPLICABLE STANDARD | | | | |
| RATING | OPERATING TEMPERATURE RANGE | -45°C TO +125°C (NOTES 1) | STORAGE TEMPERATURE RANGE | -10°C TO + 60°C (NOTE2) |
| | VOLTAGE | 50V AC | APPLICABLE CONNECTOR | DF12# (3.0) -*DS-0.5V (**) |
| | CURRENT | 0.3A | | |

SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|------|-------------|--------------|----|----|
|------|-------------|--------------|----|----|

CONSTRUCTION

| | | | | |
|---------------------|---------------------------------------|-----------------------|---|---|
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | X | — |
| MARKING | CONFIRMED VISUALLY. | | X | — |

ELECTRIC CHARACTERISTICS

| | | | | |
|-----------------------|-------------------------|----------------------------|---|---|
| CONTACT RESISTANCE | 100m A (DC OR 1000 Hz). | 50mΩ MAX. | X | — |
| INSULATION RESISTANCE | 100V DC | 500MΩ MAX | X | — |
| VOLTAGE PROOF | 150V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | X | — |

MECHANICAL CHARACTERISTICS

| INSERTION AND WITHDRAWAL FORCES | MEASURED BY APPLICABLE CONNECTOR. | <table border="1" style="font-size: small;"> <thead> <tr> <th>SIGNAL</th> <th>INSERTION FORCE (N)MAX</th> <th>WITHDRAWAL FORCE (N)MIN</th> </tr> </thead> <tbody> <tr><td>10</td><td>19.8</td><td>1.5</td></tr> <tr><td>14</td><td>21.3</td><td>2.1</td></tr> <tr><td>20</td><td>23.4</td><td>2.6</td></tr> <tr><td>30</td><td>27.0</td><td>3.4</td></tr> <tr><td>32</td><td>27.6</td><td>3.6</td></tr> <tr><td>36</td><td>29.0</td><td>4.0</td></tr> <tr><td>40</td><td>30.6</td><td>4.2</td></tr> <tr><td>50</td><td>34.2</td><td>5.0</td></tr> <tr><td>60</td><td>38.0</td><td>6.0</td></tr> <tr><td>80</td><td>45.0</td><td>7.4</td></tr> </tbody> </table> | SIGNAL | INSERTION FORCE (N)MAX | WITHDRAWAL FORCE (N)MIN | 10 | 19.8 | 1.5 | 14 | 21.3 | 2.1 | 20 | 23.4 | 2.6 | 30 | 27.0 | 3.4 | 32 | 27.6 | 3.6 | 36 | 29.0 | 4.0 | 40 | 30.6 | 4.2 | 50 | 34.2 | 5.0 | 60 | 38.0 | 6.0 | 80 | 45.0 | 7.4 | X | — |
|---------------------------------|--|---|------------------------|-------------------------|-------------------------|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|----|------|-----|---|---|
| | | SIGNAL | INSERTION FORCE (N)MAX | WITHDRAWAL FORCE (N)MIN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 10 | 19.8 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 14 | 21.3 | 2.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 20 | 23.4 | 2.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 30 | 27.0 | 3.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 32 | 27.6 | 3.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 36 | 29.0 | 4.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 40 | 30.6 | 4.2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 50 | 34.2 | 5.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | 38.0 | 6.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 45.0 | 7.4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MECHANICAL OPERATION | 50TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE: 50mΩ MAX. 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. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SHOCK | 490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENVIRONMENTAL CHARACTERISTICS

| | | | | |
|------------------------------|--|--|---|---|
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -65→15 TO 35→125→15 TO 35°C TIME 30→10 TO 15→ 30→10TO15min UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 50mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. 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: 50mΩ MAX. ② INSULATION RESISTANCE: 500 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| CORROSION SALT MIST | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h. | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION. | X | — |
| SULPHUR DIOXIDE | EXPOSED IN 10 PPM FOR 96 h. (TEST STANDARD: JEIDA-39) | ① CONTACT RESISTANCE: 50 mΩ MAX. ② NO HEAVY CORROSION. | X | — |
| HEAT RESISTANCE OF SOLDERING | <p>【RECOMMENDED TEMPERATURE PROFILE】</p> <p>《SOLDERING AREA》 MAX250°C, 220°C FOR 60 SECONDS MAX.</p> <p>《PREHEATING AREA》 150 TO 180°C 90~120 SECONDS. MAXIMUM TWICE ACTION IS ALLOWED UNDER THE SAME CONDITION.</p> <p>【RECOMMENDED MANUAL SOLDELING CONDITION】 SOLDERING IRON TEMPERATURE 350°C SOLDERING TIME : WITHIN 3 SECONDS.</p> | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | | |

REMARKS

NOTE1:INCLUDING THE TEMPERATURE RISE BY CURRENT.
NOTE2:STORAGEIS DEFINED AS LONG-TERM STORAGE OF UNUSED PRODUCTS. APPLY OPERATION TEMPERATURE RANGE TO PRODUCTS MOUNTED ON PCB WITHOUT POWER SUPPLY. OPERATION TEMPERATURE FOR TAPE-AND-REAL PRODUCTS SHALL BE -10 TO 50°C. MOUNT CONNECTORS WITHIN 12HOURS AFTER TAKING OUT FROM THE PACKAGE.
UNLESS OTHERWISE SPECIFIED , REFER TO JIS C 5402 .

| COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|-------|--------------------------|-------------|---------------|------------|
| 2 | DIS-H-001982 | YH. MICHIDA | TS. MIYAZAKI | 07.04.20 |
| | | APPROVED | TS. SAKATA | 04.12.17 |
| | | CHECKED | TS. SAKATA | 05.01.0517 |
| | | DESIGNED | AR. TAKAHASHI | 04.12.09 |
| | | DRAWN | YH. MICHIDA | 05.01.059 |

Note QT:Qualification Test AT:Assurance Test X:Applicable Test DRAWING NO. ELC4-163507-04

| | | | | |
|----------------------------|----------|---------------------------|--|-----|
| SPECIFICATION SHEET | PART NO. | DF12 (3.0) -*DP-0.5V (86) | | |
| HIROSE ELECTRIC CO., LTD. | CODE NO. | CL537 | | 1/1 |