

|       |                          |    |      |      |       |                          |    |      |      |
|-------|--------------------------|----|------|------|-------|--------------------------|----|------|------|
| COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE | COUNT | DESCRIPTION OF REVISIONS | BY | CHKD | DATE |
| △     |                          |    |      |      | △     |                          |    |      |      |
| △     |                          |    |      |      | △     |                          |    |      |      |

|                     |                             |   |   |
|---------------------|-----------------------------|---|---|
| APPLICABLE STANDARD |                             |   |   |
| RATING              | OPERATING TEMPERATURE RANGE | - | STORAGE TEMPERATURE RANGE - 10 °C TO 60 °C            |
|                     | VOLTAGE                     | - | APPLICABLE CONNECTOR -                                |
|                     | CURRENT                     | - | APPLICABLE CABLE UL1571,28 AWG, OUTER DIAMETER: φ0.58 |

**SPECIFICATIONS**

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

**CONSTRUCTION**

|                     |                                       |                       |                       |                       |
|---------------------|---------------------------------------|-----------------------|-----------------------|-----------------------|
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | <input type="radio"/> | <input type="radio"/> |
| MARKING             | CONFIRMED VISUALLY.                   |                       | <input type="radio"/> | <input type="radio"/> |

**ELECTRICAL CHARACTERISTICS**

|   |                            |  |   |   |
|---|----------------------------|--|---|---|
| CONTACT RESISTANCE                        | mA (DC OR 1000 Hz).        | mΩ MAX.  | - | - |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD | mV MAX, mA(DC OR 1000 Hz). | mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: mΩ MAX. | - | - |
| INSULATION RESISTANCE                     | V DC.                      | MΩ MIN.  | - | - |
| VOLTAGE PROOF                             | V AC FOR min.              | NO FLASHOVER OR BREAKDOWN.                               | - | - |

**MECHANICAL CHARACTERISTICS**

|   |  |   |                       |   |
|---|--|---|-----------------------|---|
| CONTACT INSERTION AND EXTRACTION FORCES | BY STEEL GAUGE.  | INSERTION FORCE: N MAX.<br>EXTRACTION FARCE: N MIN.   | -                     | - |
| INSERTION AND WITHDRAWAL FORCES         | MEASURED BY APPLICABLE CONNECTOR.  | INSERTION FORCE: N MAX.<br>EXTRACTION FARCE: N MIN.   | -                     | - |
| MECHANICAL OPERATION                    | TIMES INSERTIONS AND EXTRACTIONS.  | ① CONTACT RESISTANCE: mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.   | -                     | - |
| VIBRATION                               | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, - m/s <sup>2</sup> AT 50 min, FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF - μs.<br>② CONTACT RESISTANCE: - mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: - mΩ MAX.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="radio"/> | - |
| SHOCK                                   | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.                        | ① NO ELECTRICAL DISCONTINUITY OF - μs.<br>② CONTACT RESISTANCE: - mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: - mΩ MAX.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="radio"/> | - |

**ENVIRONMENTAL CHARACTERISTICS**

|                          |                                     |  |                       |   |
|--------------------------|-------------------------------------|--|-----------------------|---|
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 °C, 90 TO 95 %, 96 h. | ① CONTACT RESISTANCE: - mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: - mΩ MAX.<br>② INSULATION RESISTANCE: - MΩ MIN<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="radio"/> | - |
|--------------------------|-------------------------------------|--|-----------------------|---|

|   |                                   |                                      |                                      |  |          |
|---|-----------------------------------|--------------------------------------|--------------------------------------|--|----------|
| REMARKS<br>NOTE1: EXPECT CONSTRUCTION,APPLY THESE SPECIFICATION TO PAIR DF9M-31S-1R-PA WITH DF9M-31S-1R-PB. | DRAWN<br><i>J. Gai</i><br>96.12.4 | DESIGNED<br><i>J. Gai</i><br>96.12.4 | CHECKED<br><i>J. Ona</i><br>96.12.10 | APPROVED<br><i>M. Yamamoto</i><br>96.12.13 | RELEASED |
|---|-----------------------------------|--------------------------------------|--------------------------------------|--|----------|

Unless otherwise specified, refer to MIL-STD-1344. Note QT: Qualification Test AT: Assurance Test ○: Applicable Test

|                                      |                               |                            |
|--------------------------------------|-------------------------------|----------------------------|
| <b>HRS</b> HIROSE ELECTRIC CO., LTD. | SPECIFICATION SHEET           | PART NO.<br>DF9M-31S-1R-PB |
| CODE NO.(OLD)<br>CL                  | DRAWING NO.<br>ELC4-160592-01 | CODE NO.<br>CL540-0233-9   |

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| SPECIFICATIONS                                     |  |  |                           |                            |                                 |          |
|--|--|--|---------------------------|----------------------------|---------------------------------|----------|
| ITEM   | TEST METHOD  | REQUIREMENTS   | QT                        | AT                         |                                 |          |
| <b>ENVIRONMENTAL CHARACTERISTICS</b>               |  |  |                           |                            |                                 |          |
| RAPID CHANGE OF TEMPERATURE                        | TEMPERATURE: -55→15 TO 35→ 85→15 TO 35 °C<br>TIME: 30→ 5 MAX→ 30→ 5 MAX min<br>UNDER 5 CYCLES. | ① CONTACT RESISTANCE: - mΩ MAX.<br>CONTACT RESISTANCE OF GROUND FITTING: - mΩ MAX.<br>② INSULATION RESISTANCE: - MΩ MIN<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | ○                         |                            | -                               |          |
|  |  |  |                           |                            |                                 |          |
| REMARKS  |  | DRAWN  | DESIGNED                  | CHECKED                    | APPROVED                        | RELEASED |
|  |  | <i>J. Gai</i><br>'96.12.4  | <i>J. Gai</i><br>'96.12.4 | <i>J. Ona</i><br>96.12.10  | <i>M. Yamamoto</i><br>'96.12.13 |          |
| Unless otherwise specified, refer to MIL-STD-1344. |  | Note QT: Qualification Test AT: Assurance Test ○: Applicable Test  |                           |                            |                                 |          |
| <b>HRS</b> HIROSE ELECTRIC CO., LTD.               |  | <b>SPECIFICATION SHEET</b>   |                           | PART NO.<br>DF9M-31S-1R-PB |                                 |          |
| CODE NO.(OLD)<br>CL                                | DRAWING NO.<br>ELC4-160592-01  | CODE NO.<br>CL540-0233-9   |                           |                            | 2                               |          |

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