

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

|                     |                             |                          |  |                           |                          |
|---------------------|-----------------------------|--------------------------|--|---------------------------|--------------------------|
| APPLICABLE STANDARD |                             |                          |  |                           |                          |
| RATING              | OPERATING TEMPERATURE RANGE | -35 °C TO +85 °C(NOTE 1) |  | STORAGE TEMPERATURE RANGE | -10 °C TO +60 °C         |
|                     | VOLTAGE                     | 150 V AC                 |  | APPLICABLE CONTACT        | —                        |
|                     | CURRENT                     | 1 A                      |  | APPLICABLE CONNECTOR      | DF13/13A-20DP-1.25V (01) |
|                     |                             |                          |  | APPLICABLE CABLE          |                          |

### SPECIFICATIONS


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

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

|   |                               |                           |                          |                          |
|---|-------------------------------|---------------------------|--------------------------|--------------------------|
| <b>ELECTRICAL CHARACTERISTICS</b>         |                               |                           |                          |                          |
| CONTACT RESISTANCE                        | 100 mA (DC OR 1000 Hz).       | 30 mΩ MAX.                | <input type="checkbox"/> | <input type="checkbox"/> |
| CONTACT RESISTANCE MILLIVOLT LEVEL METHOD | 20 mV MAX. mA(DC OR 1000 Hz). |                           | <input type="checkbox"/> | <input type="checkbox"/> |
| INSULATION RESISTANCE                     | 100 V DC.                     | 500 MΩ MIN.               | <input type="checkbox"/> | <input type="checkbox"/> |
| VOLTAGE PROOF                             | 500 V AC FOR 1 min.           | NO FLASHOVER OR BREAKDOWN | <input type="checkbox"/> | <input type="checkbox"/> |

|   |   |   |                          |                          |
|---|---|---|--------------------------|--------------------------|
| <b>MECHANICAL CHARACTERISTICS</b>       |   |   |                          |                          |
| CONTACT INSERTION AND EXTRACTION FORCES | BY STEEL GAUGE.   | INSERTION FORCE — N MAX.<br>EXTRACTION FORCE — N MIN.                         | <input type="checkbox"/> | <input type="checkbox"/> |
| INSERTION AND WITHDRAWAL FORCES         | MEASURED BY APPLICABLE CONNECTOR.   | INSERTION FORCE N MAX.<br>EXTRACTION FORCE N MIN.                             | <input type="checkbox"/> | <input type="checkbox"/> |
| MECHANICAL OPERATION                    | 50 TIMES INSERTIONS AND EXTRACTION.   | ① CONTACT RESISTANCE: 30 mΩ MAX.<br>② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="checkbox"/> | <input type="checkbox"/> |
| VIBRATION                               | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm. - m/s <sup>2</sup> AT 2 h, 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.  | <input type="checkbox"/> | <input type="checkbox"/> |
| SHOCK                                   | 490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.                 | ② CONTACT RESISTANCE: 30 mΩ MAX.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="checkbox"/> | <input type="checkbox"/> |

|                                      |   |   |                          |                          |
|--------------------------------------|---|---|--------------------------|--------------------------|
| <b>ENVIRONMENTAL CHARACTERISTICS</b> |   |   |                          |                          |
| RAPID CHANGE OF TEMPERATURE          | TEMPERATURE -55 → 15 ~ 35 → +85 → 15 ~ 35 °C<br>TIME 30 → 2 ~ 3 → 30 → 2 ~ 3 min<br>UNDER 5 CYCLES. | ① CONTACT RESISTANCE: 30 mΩ MAX.<br>② INSULATION RESISTANCE: 500 MΩ MIN.<br>③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | <input type="checkbox"/> | <input type="checkbox"/> |
| DAMP HEAT (STEADY STATE)             | EXPOSED AT 40 ± 2 °C, 90 ~ 95 %, 96 h.  |   | <input type="checkbox"/> | <input type="checkbox"/> |
| CORROSION, SALT MIST                 | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.   | ① CONTACT RESISTANCE - mΩ MAX.<br>② NO HEAVY CORROSION.   | <input type="checkbox"/> | <input type="checkbox"/> |
| HYDROGEN SULPHIDE                    | EXPOSED IN PPM FOR h.<br>(TEST STANDARD: JEIDA-38)  | ① CONTACT RESISTANCE mΩ MAX.<br>② NO HEAVY CORROSION.   | <input type="checkbox"/> | <input type="checkbox"/> |
| SULPHUR DIOXIDE                      | EXPOSED IN 10 PPM FOR 96 h<br>(TEST STANDARD: JEIDA-39)   | ① CONTACT RESISTANCE - mΩ MAX.<br>② NO HEAVY CORROSION.   | <input type="checkbox"/> | <input type="checkbox"/> |
| RESISTANCE TO SOLDERING HEAT         | SOLDER TEMPERATURE, 260 ± 5 °C FOR IMMERSION, DURATION, 5 s.  | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.   | <input type="checkbox"/> | <input type="checkbox"/> |
| SOLDERABILITY                        | SOLDERED AT SOLDER TEMPERATURE, 230 ± 10 °C FOR IMMERSION DURATION, 3s.                             | SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed  | <input type="checkbox"/> | <input type="checkbox"/> |

|  |                |                |                   |                    |   |
|--|----------------|----------------|-------------------|--------------------|---|
| REMARKS<br>NOTE 1. INCLUDE THE TEMPERATURE RISING BY CURRENT.<br><b>FOR REFERENCE ONLY</b><br>Subject to change without notice<br>Unless otherwise specified, refer to MIL-STD-1344. | DRAWN          | DESIGNED       | CHECKED           | APPROVED           | RELEASED  |
|  | <i>F. Isai</i> | <i>F. Isai</i> | <i>K. Akiyama</i> | <i>K. Karayama</i> |  |
|  | 13.6.23        | 13.6.23        | 13.6.23           | 13.6.23            |   |

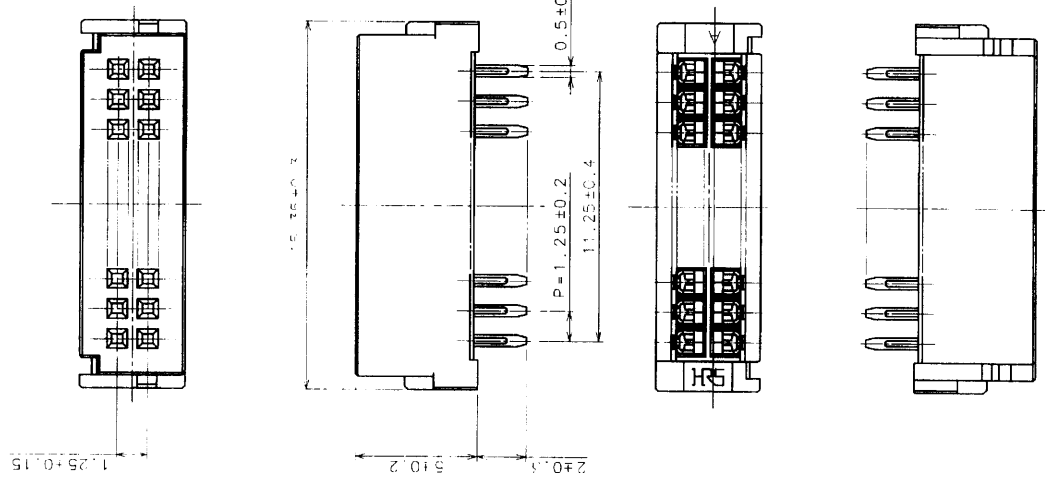
|   |                              |                                      |                        |                            |   |                                    |   |
|---|------------------------------|--------------------------------------|------------------------|----------------------------|---|------------------------------------|---|
| Note QT: Qualification Test AT: Assurance Test <input type="checkbox"/> : Applicable Test |                              | <b>HRS HIROSE ELECTRIC CO., LTD.</b> |                        | <b>SPECIFICATION SHEET</b> |   | PART NO.<br>DF13-20DS-1.25DSA (01) |   |
| CODE NO (CLD)<br>CL   | DRAWING NO<br>ELC4-160785-01 | PART NO                              | CL 536 - 0625 - 0 - 01 |                            | 1 |                                    | 1 |

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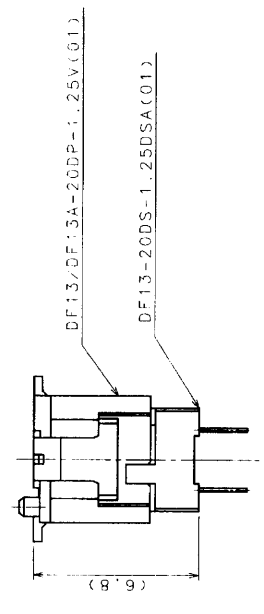


| 1                              | 2 | 3       | 4 | 5       | 6 | 7                              | 8 |
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| DATE                           |   | DATE    |   | DATE    |   | DATE                           |   |

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Subject to change without notice



MATED CONNECTORS



NOTE 1: THROUGH HOLE DIA. ON BOARD:  $0.6 \pm 0.05$

|                |           |                       |         |                 |                 |                            |
|----------------|-----------|-----------------------|---------|-----------------|-----------------|----------------------------|
| 1              | POLYAMIDE | REF: NATURAL          | DL94V-0 | 2               | PHOSPHOR        | CONTACT AREA: GOLD PLATED  |
| NO             | MATERIAL  | FINISH                | REMARKS | NO              | MATERIAL        | SOLDERING AREA: TIN PLATED |
| CODE NO. (OLD) |           | DRAWN                 |         | DESIGNED        | CHECKED         | APPROVED                   |
|                |           | S.H.                  |         | 1.7.1980        | James K. Kalyan |                            |
|                |           | P.S.                  |         | 1.7.1980        | 6.12.78         | 6.15                       |
| DRAWING NO.    |           | PART NO.              |         | DRAWN           |                 |                            |
| EDC3-160785-01 |           | DF13-20DS-1.25DSA(01) |         | S.H.            |                 |                            |
| SCALE          |           | UNITS                 |         | CODE NO.        |                 |                            |
| 5:1            |           | MM                    |         | CL536-0625-0-01 |                 |                            |
| UNITS          |           | MM                    |         | FORM NO. 229    |                 |                            |

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