| Applicat                                     | ole standard             |   |   |                              |   |                                |                             |     |              |
|--|--------------------------|---|---|------------------------------|---|--------------------------------|-----------------------------|-----|--------------|
| Operating Temperature Range                  |                          |   | -55 to +105°C (Note1)                   | Storage Temperature Range    |   |                                | -10 °C to +60°C (Note3)     |     |              |
| Rating                                       | Operating Humidity Range |   | 20% to 80% (Note2)                      | _ <u> </u>                   |   | dity Range                     | 40% to 70% (Note3)          |     |              |
| À  | Applicable Connector     |   | DF51%-10DS-2C(##)                       | Current  UL · C-UL   Voltage |   | AWG 24 : 2.0A<br>AWG 26 : 1.5A |                             | - / |              |
|  | Applicable Contact       |   | DF11-EP2428PC(A)/PCF(A)                 |                              |   | Voltage                        | AWG 28 : 1.0A<br>30 V AC/DC |     |              |
|  | Voltage                  |   | 250 V AC/DC                             | Rating Current               |   | Current                        | AWG 24 to 28 : 1.0A         |     |              |
|  | , 3                      |   | Specification                           | ons                          |   | <u>l</u>                       |                             |     |              |
| Item   |                          |   | •                                       |                              | Require   | ements QT                      |                             | AT  |              |
| Constru                                      |                          | 1   |   |                              |   |                                |                             | Ψ.  | 1 /          |
|  | xamination               | Visually and by   | Visually and by measuring instrument.   |                              |   | According to drawing.          |                             |     | Х            |
| Marking                                      |                          | Confirmed visually.   |   |                              | 7   |                                |                             |     | Х            |
| Electric                                     | Characteristics          | 3   | •                                       | <b>.</b>                     |   |                                |                             |     | - I          |
| Insulation                                   | Resistance               | 500 V DC.   |   |                              | 1000 MΩ MIN.  |                                |                             |     | _            |
| Voltage Pi                                   | roof                     | 650 V AC for 1 min.   |   |                              | No flashover or breakdown.  |                                |                             | Χ   | _            |
|  | ical Characteri          | stics   |   |                              |   |                                |                             |     |              |
|  | al Operation             | 30 times insertion and extraction.  |   |                              | No damage, crack or looseness of parts. 🖄   |                                |                             | Χ   | _            |
| (Sn Plating) Mechanical Operation            |                          | 50 times insertion and extraction.  |   |                              |   |                                |                             | Х   | <del> </del> |
| (Au Plating                                  | •                        | So times insertion and extraction.  |   |                              |   |                                |                             | ^   |              |
| Mating and unmating<br>Force<br>(Sn Plating) |                          | It takes out and inserts with a conformity connector.   |   |                              | 1.Insertion Force : 48.2N MAX.<br>2.Extraction Force : 2.7N MIN.                    |                                |                             |     | _            |
| Mating and unmating<br>Force<br>(Au Plating) |                          | It takes out and inserts with a conformity connector.   |   |                              | 1.Insertion Force : 35.5N MAX.<br>2.Extraction Force : 2.5N MIN.                    |                                |                             |     | _            |
| Vibration                                    |                          | Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.  |   |                              | No damage, crack or looseness of parts. 🖄   |                                |                             |     | _            |
| Shock  |                          | Acceleration 490 m/s <sup>2</sup> duration of pulse 11 ms at 3 times for 3 directions.  |   |                              |   |                                |                             | Х   | _            |
| Contact extraction force Pull out t          |                          | Pull out the cab  | I out the cable after housing fixation. |                              |   | 11.8N MIN                      |                             |     | _            |
|  | mental Charac            |   |   |                              |   |                                | Δ.                          |     |              |
| Damp Heat<br>(Steady State)                  |                          | Exposed at 40 $\pm$ 2°C , humidity 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)  |   |                              | 1.Insulation resistance: 500 MΩ MIN. /3\ 2.No damage, crack or looseness of parts.  |                                |                             |     | _            |
| Rapid Change Of<br>Temperature               |                          | Temperature -55°C→ +105°C Time 30min→ 30min Under 5 Cycles. (The transferring time of the tank is 2 to 3 MIN) (After leaving the room temperature for 1 to 2h.) |   |                              | 1.Insulation resistance: 1000 MΩ MIN. /3\ 2.No damage, crack or looseness of parts. |                                |                             |     | _            |
| Dry Heat                                     |                          | Exposed at 105±2°C, 96h   |   |                              |   |                                |                             | X   | <u> </u>     |
| Cold   |                          | Exposed at  | -55±3°C, 96h                            |                              |   |                                |                             | X   | -            |

Note 1:Include the temperature rising by current.

Note 2:No condensing

Note 3:Apply to the condition of long term storage for unused products before mount on pcb,

After mounted on pcb, operating temperature and humidity range is applied for interim storage during transportation.

|            | COUNT       | DESCRIPTION OF REVISIONS                          | DESIGNED         |                 | CHECKED          | DATE         |  |
|------------|-------------|---|------------------|-----------------|------------------|--------------|--|
| $\sqrt{3}$ | 6           | DIS-H-00004571                                    | 04571 TS. MIYAKI |                 | SZ. ONO          | 20190110     |  |
|            |             |   |                  | APPROVE         | HS. OKAWA        | 20160601     |  |
|            |             |   |                  | CHECKE          | D YN. TAKASHITA  | 20160601     |  |
|            |             |   | DESIGNE          | TT. OHSAKO      | 20160601         |              |  |
| Unles      | s otherwise | e specified, refer to IEC 60512.                  |                  | DRAWN           | TT. OHSAKO       | 20160601     |  |
| Note       | QT:Qualif   | rication Test AT:Assurance Test X:Applicable Test | DRAWING NO.      |                 | ELC-366285-00-00 |              |  |
| н          | ১ –         | SPECIFICATION SHEET                               | PART NO.         | DF51-10DEP-2C   |                  |              |  |
| ▎▗▋▐▖      |             | HIROSE ELECTRIC CO., LTD.                         | CODE NO.         | CL543-5074-0-00 |                  | <b>3</b> 1/1 |  |