| Applicabl                                          | e standard                              |                                                                                                                                  |                                   |              |                           |                                                                                                                                                   |                     |                                         |          |       |
|----------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------------------------|----------|-------|
|                                                    | Operating<br>Temperature                | range                                                                                                                            |                                   |              | Storage<br>emperatur      | rage<br>nperature range                                                                                                                           |                     | -10 °C to +60°C (Note2)                 |          |       |
| Rating                                             | Operating Humidity range                |                                                                                                                                  | 20% to 80%                        |              | Storage<br>Humidity range |                                                                                                                                                   |                     | 40% to 70% (                            | Note2)   |       |
|                                                    | Applicable Connector Applicable contact |                                                                                                                                  | DF63WA-3EP-3.96C                  | V            | oltage/                   | age                                                                                                                                               |                     | 630V AC/DC                              | ;        |       |
|                                                    |                                         |                                                                                                                                  | DF63W-1618SC*<br>DF63W-2022SC*    | C            | Current                   |                                                                                                                                                   |                     | AWG 16 : 13 A/p                         | oin      |       |
|                                                    | Insulation dia                          | meter                                                                                                                            | DI 03VV-20223C                    |              |                           |                                                                                                                                                   |                     | AWG 18: 10 A/p                          | oin      |       |
|                                                    | modiation diameter                      |                                                                                                                                  | φ 1. 7 ~ φ 2. 4mm                 |              |                           |                                                                                                                                                   |                     | AWG 20: 8 A/p                           | oin      |       |
|                                                    |                                         |                                                                                                                                  |                                   |              |                           |                                                                                                                                                   |                     | AWG 22 : 7 A/p                          | oin      |       |
|                                                    |                                         |                                                                                                                                  | Specifi                           | icatio       | ns                        |                                                                                                                                                   |                     |                                         |          |       |
| Item                                               |                                         |                                                                                                                                  | Test method                       |              | Requirements              |                                                                                                                                                   |                     | QT                                      | AT       |       |
| Construction General examination                   |                                         | Visually and by measuring instrument.                                                                                            |                                   |              | Accord                    | According to drawing.                                                                                                                             |                     |                                         |          | X     |
| Marking                                            |                                         | Confirmed visually.                                                                                                              |                                   |              |                           |                                                                                                                                                   |                     |                                         |          | X     |
|                                                    |                                         |                                                                                                                                  |                                   |              |                           |                                                                                                                                                   |                     |                                         | X        |       |
| Electric characteristics Contact resistance   20mV |                                         |                                                                                                                                  | MAX, 1mA (DC or 1000Hz).          | 10 mO        | 110 mΩ MAX.               |                                                                                                                                                   |                     | X                                       | Τ_       |       |
|                                                    |                                         | ,                                                                                                                                |                                   |              |                           |                                                                                                                                                   |                     |                                         |          |       |
| Insulation resistance                              |                                         | 500 V DC.                                                                                                                        |                                   |              | 1000 N                    | 1000 MΩ MIN.                                                                                                                                      |                     |                                         |          | _     |
| Voltage proof                                      |                                         | 1500 V AC for 1 min.                                                                                                             |                                   |              | No flas                   | No flashover or breakdown.                                                                                                                        |                     |                                         | X        | -     |
| Mechani                                            | cal charact                             | eristics                                                                                                                         |                                   |              | '                         |                                                                                                                                                   |                     |                                         | ',       | •     |
| Mechanical operation                               |                                         | 30 times insertion and extraction.                                                                                               |                                   |              | ,                         | 1)Contact resistance: 20 mΩ MAX.<br>2)No damage, crack or looseness of parts.                                                                     |                     |                                         |          | _     |
| Vibration                                          |                                         | Frequency 10 to 55 Hz, single amplitude                                                                                          |                                   |              | 1)No el                   | 1)No electrical discontinuity of 1 $\mu$ s.                                                                                                       |                     |                                         |          | -     |
|                                                    |                                         | 0.75 mm, at 10 cycles for 3 direction. 490 m/s² duration of pulse 11 ms at 3 times each for                                      |                                   |              |                           | <ul><li>2)No damage, crack or looseness of parts.</li><li>1)No electrical discontinuity of 1 μ s.</li></ul>                                       |                     |                                         |          |       |
| 3 both as                                          |                                         |                                                                                                                                  | axial directions.                 |              |                           | 1)No electrical discontinuity of 1 μ s.<br>2)No damage, crack or looseness of parts.                                                              |                     |                                         |          |       |
|                                                    | ental charac                            |                                                                                                                                  |                                   |              |                           |                                                                                                                                                   |                     |                                         | ΙX       |       |
| Damp heat<br>(Steady state)                        |                                         | Exposed at 40 ± 2°C , 90 to 95 %, 96 h. (After leaving the room temperature for 1~2h.)                                           |                                   |              | 2)Insula                  | <ol> <li>Contact resistance: 20 m Ω MAX.</li> <li>Insulation resistance: 500 M Ω Min.</li> <li>No damage, crack or looseness of parts.</li> </ol> |                     |                                         |          | _     |
| Rapid change of                                    |                                         | Tempera                                                                                                                          | Temperature -55°C→ +105°C         |              |                           |                                                                                                                                                   |                     | : 20 m Ω MAX.                           | X        | _     |
| temperature                                        |                                         | Time 30min→ 30min Under 5 cycles.  (The transferring time of the tank is 2~3 min) (After leaving the room temperature for 1~2h.) |                                   |              |                           |                                                                                                                                                   |                     | ce: 1000 MΩ Min. or looseness of parts. |          |       |
| Sealing                                            |                                         | Exposed at a depth of 1m for 0.5h.                                                                                               |                                   |              | No wat                    | No water penetration inside connector.                                                                                                            |                     |                                         |          | -     |
|                                                    |                                         |                                                                                                                                  |                                   |              |                           |                                                                                                                                                   |                     |                                         |          |       |
|                                                    | ude the temper<br>ly to the packa       |                                                                                                                                  | g by current.<br>nused product. 🔨 |              | •                         |                                                                                                                                                   |                     |                                         | •        | •     |
| Count Des                                          |                                         | Descrip                                                                                                                          | cription of revisions Design      |              |                           | gned Checked                                                                                                                                      |                     |                                         | Da       | ate   |
| 3                                                  |                                         | DIS-                                                                                                                             | -H-00018486                       | H            | T. SATO                   |                                                                                                                                                   |                     | SZ. ONO                                 | +        | 30613 |
|                                                    |                                         |                                                                                                                                  |                                   |              |                           | Appro                                                                                                                                             |                     | HK. UMEHARA<br>HK. UMEHARA              | +        | 0311  |
| Unless otherwise specified, refer                  |                                         |                                                                                                                                  |                                   |              | Checke<br>Designe         |                                                                                                                                                   | TO. HORII           | 2015031<br>2015031                      |          |       |
|                                                    |                                         |                                                                                                                                  | to IEC 60512.                     |              |                           | Drawn                                                                                                                                             |                     | TO. HORII                               | 20150311 |       |
| Note QT:C                                          | Qualification Te                        | st AT:As                                                                                                                         | surance Test X:Applicable Test    | e Test Drawi |                           | ng No. ELC-35926                                                                                                                                  |                     | ELC-359260-0                            | )-00-00  |       |
|                                                    |                                         | Specification sheet                                                                                                              |                                   |              | Part No.                  |                                                                                                                                                   | DF63WA-3S-3.96C     |                                         |          |       |
|                                                    |                                         | OSE ELECTRIC CO., LTD.                                                                                                           |                                   |              | Code No.                  |                                                                                                                                                   | L0680-0618-0-00 🛕 1 |                                         |          | 1/1   |