| APPLICA   | ABLE STAN                      | DARD   |                         |      |  |   |                  |   |  |
|---|--------------------------------|--|-------------------------|------|--|---|------------------|---|--|
|   | OPERATING<br>TEMPERATURE RANGE |  |                         |      | STORAGE<br>TEMPERATU   | JRE RANGE   | -40 °C TO +85 °C |   |  |
| RATING  | VOLTAGE                        |  | DC 30V MAX / AC 40V MAX |      | CURRENT  |   | 3A MAX           |   |  |
|   | 1                              |  | SPECIFI                 | ICAT | IONS   | <u> </u>  |                  |   |  |
| ľ   | TEM                            |  | TEST METHOD             |      |  | REQI  | JIREMENTS        | QT                                      | АТ   |
| CONSTRUCTION                                    |                                |  |                         |      | •  |   |                  |   | .1   |
| GENERAL EXAMINATION                             |                                | VISUALLY AND BY MEASURING INSTRUMENT.  |                         |      | ACCOR  | DING TO DRA   | WING.            | X                                       | Х  |
| MARKING   |                                |  | ED VISUALLY.            |      |  |   |                  | X                                       | Х  |
| ELECTRICAL CHARA CONTACT RESISTANCE             |                                | 10 mA MAX (DC OR 1000 Hz).   |                         |      | 30 mΩ  | MAX.  |                  | X                                       | X  |
| INSULATION RESISTANCE                           |                                | 100 V DC.  |                         |      |  | 1000 MΩ MIN.  |                  |   | +^   |
| VOLTAGE PROOF                                   |                                | 250 V AC FOR 1 min.  |                         |      | NO FLA   | NO FLASHOVER OR BREAKDOWN.  |                  |   | X  |
| MECHAN  | IICAL CHAR                     | ACTERI   | ISTICS                  |      |  |   |                  | Х                                       |  |
| INSERTION AND                                   |                                | MEASURED BY APPLICABLE CONNECTOR.  |                         |      |  | INSERTION FORCE 19.6 N MAX.   |                  |   |  |
| WITHDRAWAL FORCES                               |                                |  |                         |      |  | WITHDRAWAL FORCE 4 TO 19.6 N.   |                  |   |  |
| MECHANICAL OPERATION                            |                                | 5000 TIMES INSERTIONS AND EXTRACTIONS.   |                         |      | 2) NO D  | 1) CONTACT RESISTANCE : 50 mΩ MAX. 2) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.  |                  |   | -  |
| VIBRATION                                       |                                | FREQUENCY 10 TO 55 Hz SINGLE AMPLITUDE 0.75 mm, ACCELERATION — m/s², AT 2 hours FOR 2 DIRECTIONS   |                         |      | 1) NO E<br>2) CON<br>3) NO E   | 1) NO ELECTRICAL DISCONTINUITY OF 1μs. 2) CONTACT RESISTANCE: 50 mΩ MAX. 3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.            |                  |   | _  |
| SHOCK   |                                | AT 2 hours FOR 3 DIRECTIONS.  ACCELERATION 490 m/s <sup>2</sup> ,  |                         |      |  | OF PARTS.   |                  |   | <del>                                     </del> |
|   |                                | DURATIO  | N OF PULSE 11 ms        |      |  |   |                  | X                                       |  |
| ENIVIRON  | NMENTAL C                      |  | MES FOR 6 DIRECTIONS.   |      |  |   |                  |   |  |
| RAPID CHANGE OF<br>TEMPERATURE                  |                                | TEMPERATURE –55 $\rightarrow$ -55 TO 35 $\rightarrow$ +85 $\rightarrow$ 5 TO 35 °C TIME 30 $\rightarrow$ 5 $\rightarrow$ 30 $\rightarrow$ 5 min. UNDER 5 CYCLES. |                         |      | 2) INSU<br>3) NO D   | 1) CONTACT RESISTANCE : 50 mΩ MAX. 2) INSULATION RESISTANCE: 1000 MΩ MIN. 3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS.           |                  |   | _  |
| DAMP HEAT<br>(STEADY STATE)                     |                                | EXPOSED AT 40 °C, 90 TO 95 %RH, FOR 96 hours.  |                         |      | 2) INSU<br>(AF<br>3) NO D  | 1) CONTACT RESISTANCE: 50 mΩ MAX. 2) INSULATION RESISTANCE: 10 MΩ MIN. (AFTER DRY.) 3) NO DAMAGE, CRACK AND LOOSENESS OF PARTS. |                  |   | _  |
| CORROSION SALT MIST                             |                                | EXPOSED IN 5 % SALT WATER SPRAY FOR 48 hours.  |                         |      | 2) NO H  | 1) CONTACT RESISTANCE : 50 mΩ MAX.<br>2) NO HEAVY DAMAGE, CRACK AND<br>LOOSENESS OF PARTS.                                      |                  |   | -  |
| SOLDERING CONDITION                             |                                | REFLOW TO THE REFLOW TEMPERATURE PROFILE   |                         |      | NO DAM   | NO DAMAGE, CRACK AND LOOSENESS  |                  |   | <b>†</b> –                                       |
| (REFLOW) Fig-1 Resis                            |                                | IN THE FIGURE-1 FOR 2 TIMES. stance to Soldering Heat Profile  |                         |      |  | G-2 The Recommended Reflow Temperature Profile  |                  |   |  |
|   | •                              |  | e Temparature)          |      | rig-z riie   |   | ead Temparature) | C                                       |  |
| PEAK: SOLDERING: 2  180°C PRE -HEATIN 120  TIME |                                |  | 70 sec                  |      | PEAK: 240 °C  SOLDERING: 230°C  180°C  PRE  HEATING  60 sec  TIME[sec] |   |                  |   |  |
| COUN  | NT DE                          | SCRIPTION  | ON OF REVISIONS         | DI   | ESIGNED  |   | CHECKED          | DA                                      | ΛΤΕ  |
| Δ   |                                |  |                         |      |  | T   | T                |   |  |
| REMARK  |                                |  |                         |      |  | APPROVED  | NM. NISHIMATSU   |   | 10. 27   |
|   |                                |  |                         |      |  | CHECKED<br>DESIGNED   | KN. ICHIKAWA     |   | 10. 27   |
| I Inless otherwise are attical                  |                                |  | ad refer to IEC 00540   |      |  |   | TS. ITO          |   | 10. 27   |
| Unless otherwise specified, refer to IEC 60512. |                                |  |                         |      | DRAWN  |   | AK. AKIYAMA      | l e e e e e e e e e e e e e e e e e e e |  |
|   |                                |  |                         |      | DRAWIN<br>ART NO.  | RAWING NO. ELC-120677-33-00<br>NO. MQ172-3PA (33)   |                  |   | <u> </u>   |
|   |                                | PECIFICATION SHEET   |                         |      |  |   |                  | Δ                                       | 4 / 4  |
|   |                                | OSE ELECTRIC CO., LTD.   |                         | C    | CODE NO. (   |   | L206-0950-4-33   |   | 1/1  |