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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| APPLICABLE STANDARD  |   |                          |  |                 |                |
|--|---|--------------------------|--|-----------------|----------------|
| RATING   | OPERATING TEMPERATURE RANGE   | -40°C TO +85°C           | STORAGE TEMPERATURE RANGE                | - 40°C TO 60 °C |                |
|  | VOLTAGE   | -                        | OPERATING HUMIDITY RANGE                 | 85 % MAX.       |                |
|  | CURRENT   | -                        | APPLICABLE CABLE                         | Φ9.2±0.3        |                |
| SPECIFICATIONS   |   |                          |  |                 |                |
| ITEM   | TEST METHOD   |                          | REQUIREMENTS                             | QT              | AT             |
| CONSTRUCTION   |   |                          |  |                 |                |
| GENERAL EXAMINATION  | VISUALLY AND BY MEASURING INSTRUMENT.   |                          | ACCORDING TO DRAWING.                    | X               | X              |
| MARKING  | CONFIRMED VISUALLY.   |                          |  | X               | X              |
| MECHANICAL CHARACTERISTICS                                     |   |                          |  |                 |                |
| MECHANICAL OPERATION   | 500 TIMES INSERTIONS AND EXTRACTIONS.<br>(WITH FI30-20S INSTALLED)  |                          | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | -              |
| VIBRATION  | FREQUENCY 10 TO 500 Hz SINGLE AMPLITUDE<br>0.75 mm, - m/s <sup>2</sup> AT 3h FOR 6 DIRECTIONS.  |                          | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | -              |
| SHOCK  | 490 m/s <sup>2</sup> DIRECTIONS OF PULSE 11 ms<br>AT 3 TIMES FOR 6 DIRECTIONS.  |                          |  |                 |                |
| ENVIRONMENTAL CHARACTERISTICS                                  |   |                          |  |                 |                |
| RAPID CHANGE OF TEMPERATURE                                    | TEMPERATURE -40 → 5~35 → 105 → 5~35 °C<br>TIME 30 → 2~3 → 30 → 2~3 min.<br>UNDER 10 CYCLES.   |                          | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | -              |
| DAMP HEAT/<br>CURRENT CARRYING                                 | MATED CONNECTOR WITH CONTACTS CONNECTED<br>IN SERIES. EXPOSED WITH CURRENT CARRYING AT<br>TEMPERATURE 85°C, HUMIDITY 85% FOR 1000h.<br>(LEAVE AT ROOM TEMPERATURE FOR 2h AFTER<br>TESTING)<br>(WITH FI30-20S INSTALLED) |                          |  |                 |                |
| DRY HEAT/<br>CURRENT CARRYING                                  | MATED CONNECTOR WITH CONTACTS CONNECTED<br>IN SERIES. EXPOSED WITH CURRENT CARRYING AT<br>TEMPERATURE 105°C, FOR 1000h.<br>(LEAVE AT ROOM TEMPERATURE FOR 2h AFTER<br>TESTING)<br>(WITH FI30-20S INSTALLED)             |                          |  |                 |                |
| COLD RESISTANCE  | LEAVE AT -40 °C, FOR 500h<br>LEAVE AT 5 TO 30°C FOR 1 TO 2HOURS AFTER<br>TESTING.   |                          |  |                 |                |
| CORROSION SALT MIST  | EXPOSED IN 5% SALT WATER SPRAY FOR 48 h.  |                          | NO HEAVY CORROSION.                      | X               | -              |
| MIXED GAS  | SULFUR DIOXIDE : 10 PPM<br>HYDROGEN SULFIDE : 3 PPM<br>TEMPERATURE : 40±2 °C<br>HUMIDITY : 70 - 80 %<br>EXPOSED FOR 96 h  |                          |  |                 |                |
| MACHINING OIL  | SOAK IN MACINING OIL AT TEMPERATURE 85 °C,<br>FOR 100h<br>TESTED WITH 3 DIFFERENT OILS SEPARATELY :<br>UNISOLUBLE HD, UNISOLUBLE CC ANDUNICUT, TB15   |                          | NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | X               | -              |
|  |   |                          |  |                 |                |
|  | COUNT   | DESCRIPTION OF REVISIONS | DESIGNED                                 | CHECKED         | DATE           |
| ①  |   |                          |  |                 |                |
| REMARK   |   |                          | APPROVED                                 | YH. ENAMI       | 10.02.26       |
|  |   |                          | CHECKED                                  | HO. MIWA        | 10.02.26       |
|  |   |                          | DESIGNED                                 | YH. MAMADA      | 10.02.25       |
| Unless otherwise specified, refer to JIS C 5402.               |   |                          | DRAWN                                    | YH. MAMADA      | 10.02.25       |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |   |                          | DRAWING NO.                              |                 | ELC4-122397-01 |
| <b>HRS</b>   | SPECIFICATION SHEET   |                          | PART NO.                                 | FI-20-CVS5 (50) |                |
|  | HIROSE ELECTRIC CO., LTD.   |                          | CODE NO.                                 | CL230-0532-8-50 | △ 1/1          |