

Mar.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.  
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 | — °C TO — °C   | Storage Temperature Range   | — °C TO — °C        |            |
|  | Voltage                     | AC 300 V, DC 420 V   | Operating Humidity Range  | — % TO — %          |            |
|  | Current                     | 3 A  | Applicable Wire   | —                   |            |
| 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          |
| ELECTRICAL CHARACTEREISTICS                                    |                             |  |   |                     |            |
| Contact Resistance   |                             | Measured at 1 A (DC or 1000 Hz).   | 10 mΩ max.  | X                   | X          |
| Contact Resistance Millivolt level method                      |                             | 20mV max.<br>1 mA (DC or 1000 Hz).   |   | X                   | —          |
| Insulation Resistance  |                             | 500 V DC   | 1000 MΩ min.  | X                   | X          |
| Voltage Proof  |                             | 1000 V AC. for 1 min.  | No flashover or breakdown.  | X                   | X          |
| MECHANICAL CHARACTERISTICS                                     |                             |  |   |                     |            |
| Mating and Unmating Forces                                     |                             | Measured with an applicable connector.   | Mating force : 161 N max.<br>Unmating force : 161 N max.  | X                   | —          |
| Mechanical Operation   |                             | Mated and unmated 1000 times.  | 1) Contact resistance : 15 mΩ max.<br>2) No damage, crack and looseness of parts.   | X                   | —          |
| Vibration  |                             | Frequency : 10 to 55 Hz, single amplitude 0.75 mm,<br>at 2 h each in 3 axial directions.               | 1) No electrical discontinuity of 10 μs min..<br>2) No damage, crack and looseness of parts.  | X                   | —          |
| Shock  |                             | 490 m/s <sup>2</sup> duration of pulse 11 ms for 3 times<br>in 6 directions.                           |   | X                   | —          |
| ENVIRONMENTAL CHARACTERISTICS                                  |                             |  |   |                     |            |
| Rapid Change of Temperature                                    |                             | Temperature -65 → 5 to 35 → 125 → 5 to 35 °C<br>Time 30 → 2 to 3 → 30 → 2 to 3 min.<br>Under 5 cycles. | No damage, crack and looseness of parts.  | X                   | —          |
| Humidity Life  |                             | Exposed at 25 to 65 °C, 90 to 98 %, 240 h.   | 1) Insulation resistance :<br>1000 MΩ min. (at dry.)<br>10 MΩ min. (at high humidity.)<br>2) No damage, crack and looseness of parts. | X                   | —          |
| Corrosion Salt Mist  |                             | Exposed in 5 % salt water spray for 48 h.  | No heavy corrosion that lose function.  | X                   | —          |
|  |                             |  |   |                     |            |
|  | COUNT                       | DESCRIPTION OF REVISIONS   | DESIGNED  | CHECKED             | DATE       |
| △  |                             |  |   |                     |            |
| REMARK   |                             |  | APPROVED  | KI. NAGANUMA        | 18. 05. 30 |
|  |                             |  | CHECKED   | KI. NAGANUMA        | 18. 05. 30 |
|  |                             |  | DESIGNED  | YS. SAKODA          | 18. 05. 30 |
|  |                             |  | DRAWN   | YS. SAKODA          | 18. 05. 30 |
| Unless otherwise specified, refer to IEC 60512.                |                             |  |   |                     |            |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test |                             |  | DRAWING NO.   | ELC-008280-59-02    |            |
| HRS  | SPECIFICATION SHEET         |  | PART NO.  | PR-1660BG-STAR (59) |            |
|  | HIROSE ELECTRIC CO., LTD.   |  | CODE NO   | CL216-0506-1-59     | △ 1/1      |