| ADDI ICA | DI E STAN | DARD | IEC 61076-3-124 | | | | | | |
|---|----------------|--|---|--|--|--|----------|----|--|
| APPLICABLE STANDARD Operating Temperature | | | -40°C to +85°C(95%RH max) | l max) Storage Te | | -30°C to +60°C(95%RH max | -\ | | |
| | Range | perature 2 | (note1,2) | Range | | (note1) | () | | |
| RATING | | | (110101,2) | + | | 1.5 A/pin (all pin) | | | |
| | Volta | ge | 50 V AC / 60 V DC | | Current | 3 A/pin (pin No.1,2,6,7 | 7) | | |
| | | | SDECIFICA | NIC | | | | | |
| | | Т | SPECIFICA | 110 | INO | | | ı | |
| | EM | | TEST METHOD | | REQUIREMENTS | | | AT | |
| CONSTR | UCTION | | | | | | | | |
| General Examination | | Examined | xamined visually and with a measuring instrument. | | | According to drawing. | | | |
| Marking | | Confirmed | Confirmed visually. | | | According to drawing. | | | |
| ELECTRI | IC CHARA | .CTERIS | STICS | | | | <u>-</u> | | |
| Contact Resist | tance | Measured | at 100 mA max (DC or 1000 Hz). | | Contact : 30 m Ω max. (note3) | | | _ | |
| <u> </u> | | | | Shield : 100 mΩ max. (note3) | | | | | |
| Insulation Resi | istance | + | Measured at 500 V DC. | | | 500 MΩ min. | | | |
| Voltage Proof | | 500 V DC applied for 1 min. Current leakage 2mA max. | | | No flashover or b | No flashover or breakdown. | | | |
| Insertion Loss | | , | | | 0.02 √(f) dB max. | | | | |
| | | | | | (Whenever the formula results in a value less than 0.1 dB, the requirement shall revert to 0.1 dB.) | | | _ | |
| Return Loss | | Measured in the range of 1 to 500 MHz. | | | 68 – 20log(f) dB | min. | | | |
| | | | | | , | (Whenever the formula results in a value greater than 30 dB, the requirement shall revert to 30 dB.) | | | |
| Near end Cros | stalk | Measured in the range of 1 to 500 MHz. | | | 94 – 20log(f) dB | min. (1MHz to 250MHz) | | | |
| | | | | | 46.04 - 30log(f/2 | 46.04 – 30log(f/250) dB min. (250MHz to 500MHz) | | | |
| | | | | | (Whenever the fo | | | | |
| Far end crosst | alk | Measured in the range of 1 to 500 MHz. | | 75 dB, the requir 83.1 – 20log(f) d | | | | | |
| l ai ona oroco. | air | ineasured in the range of 1 to 300 Minz. | | | (Whenever the formula results in a value greater than | | | | |
| | | | | 75 dB, the requir | Х | | | | |
| Transverse Co | onversion Loss | Measured | Measured in the range of 1 to 500 MHz. | | 68 – 20log(f) dB | | | | |
| | | | | | (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.) | | | _ | |
| Transverse Co | onversion | Measured in the range of 1 to 500 MHz. | | | 68 – 20log(f) dB | | | | |
| Transfer Loss | | | | (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.) | | | | | |
| MECHANI | ICAL CHAR | ACTERI | STICS | | | | | | |
| Insertion and V | Vithdrawal | A maximur | num rate of 50 mm/min. | | Insertion force 25 N max. | | | | |
| Forces | | Measured | by applicable connector. | | Withdrawal force | 25 N max. | | | |
| Mechanical Op | peration | 5000 times | 000 times insertions and extractions. | | | 1) Resistance: | | | |
| | | A | | | Contact : 80 mg | Х | _ | | |
| | | Mating spe | eed : 10 mm/s max. | <u>/2\</u> | Shield: 100 m | | | | |
| | | Rest: 5s, r | min.(unmated) | | 2) No damage, c | racks or looseness of parts. | | | |
| Note | | | | | | | | | |

- 1. Non-condensing. 2. The operation temperature includes the temperature rise by current carrying
- 3. The cable conductor resistance is not considered.
- 4. Electrical characteristics are applicable to the contacts and shield except for contacts No. 3 and 8.

| | COUNT | T DESCRIPTION OF REVISIONS | | DESIGNED | | CHECKED | | DA | ATE | |
|--|------------------------|----------------------------|--|----------|------------------------|---------|-------------------|----------|----------|--|
| <u>^</u> | 18 | DIS-E-00003730 | | | MT.YASUDA | | KI.KAGOTANI | | 10317 | |
| REMARK | | | | | APPROVED | | RI.TAKAYASU | 2018 | 20180730 | |
| | | | | | CHECK | ED | KI.NAGANUMA | 2018 | 20180727 | |
| | | | | | DESIGNED JY.IGA | | 2018 | 20180727 | | |
| Unless otherwise specified, refer to IEC 60512. | | | | | DRAW | N | JY.IGA | 2018 | 30727 | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | | DRAV | DRAWING NO. ELC-129830 | | -00-00 | | | |
| 1 | RS SPECIFICATION SHEET | | | PART NO | O. | | X32G-B-8S-CV(7.0) | | | |
| • | יט [| HIROSE ELECTRIC CO., LTD. | | CODE NO | D. CI | _025 | 51-0043-0-00 | 2 | 1/3 | |

| | SPECIFIC/ | OITA | NS | | | | |
|-------------------------------|---|----------------------------|--|--|-------------------------------------|----------|-----|
| ITEM | TEST METHOD | | | REQU | IREMENTS | QT | АТ |
| Vibration ,sinusoidal | Frequency 10 to 500 Hz | <u> </u> | 1) No el | ectrical discontir | nuity of 1µs. (note4) | | |
| | 0.35 mm, 50 m/s ² | <u>/4\</u> | 2) No da | 2) No damage, cracks or looseness of parts. | | | _ |
| | 2hrs in each of 3 mutually perpendicular axis. | | 1) No electrical discontinuity of 4.12 (2-4-4) | | | | |
| Fretting Corrosion | 490 m/s ² , 30 times/min at 1000 times. | <u> </u> | - | No electrical discontinuity of 1μs. (note4) | | X | _ |
| | | | , | 2) No damage, cracks or looseness of parts. | | | _ |
| Mechanical Shock | Subject mated specimens to 300 m/s ² half-sine shoc of 11 milliseconds duration, 3 shocks in both directio | • | 1 | | nuity of 1μs. (note4) | X | _ |
| | mutually perpendicular directions (totally 18 shocks) | ۸ | 2) Resis | tance: tact : 80 mΩ ma: | x. (note4) | | |
| | | | | ld : 100 mΩ m | | | |
| | | | | | r looseness of parts. | | |
| Effectiveness of the connecto | Applying 80 N force for the mating axis direction in s | tate in | No unlo | cking, damage, | cracks or looseness of pa | ts. X | |
| coupling device | fitted with applicable connector. | | | | | ^ | |
| Locking device mechanical | 10000 cycles | | , | tion and Withdra | | X | |
| operations | 20 cycles/min max | | | | 25 N max. 25 N max. | ^ | |
| | | | With | | | | |
| | | | 2) NO 08 | amage, cracks o | r looseness of parts. | | |
| Wrenching Strength | Applying 25times of 30 N 1s for 2 axis direction on tip of plug case in state in fitted with applicable connector. | | No damage, cracks or looseness of parts. | | | X | |
| ENVIRONMENTAL | CHARACTERISTICS | | | | | | _ |
| Rapid Change of Temperature | Subject mated specimens to 10 cycles between -55° | | 1) Volta | ge proof : 500 V | DC applied for 1 min. | | |
| Ź | 85°C with 30 minutes dwell at temp. extremes and 2 minutes transition between temperatures. | to 3 | Curre | Current leakage 2mA max. | | X | |
| <u></u> | fillinutes transition between temperatures. | | No fla | shover or break | down. | | |
| | | | 2) Resis | | (, , 0) | | |
| | | <u> </u> | | tact : 80 mΩ max | | | |
| | | | | Id: 100 m Ω matrice: | ax. (notes) 500 MΩ min. (at dry) | | |
| | | | | | r looseness of parts. | | |
| | | | | | | | |
| Humidity / Temperature | Low temperature 25 °C; | <u> </u> | 1) Volta | ge proof : 500 V | DC applied for 1 min. | X | _ |
| Cycling | High temperature 65 °C; | | Curre | nt leakage 2mA | max. | | |
| | Cold sub-cycle – 10 °C; | | | shover or break | down. | | |
| | Relative humidity 93 % Duration 10 / each 24 h (IEC 60068-2-38,test Z / AD) | | | 2) Resistance: Contact: $80 \text{ m}\Omega$ max. (note3) Shield: $100 \text{ m}\Omega$ max. (note3) | | | |
| | | | | | | | |
| | (IEO 00000-2-30,lest 2 / AD) | | | | 500 MΩ min. (at dry) | | |
| | | | 4) Insert | tion and Withdra | wal Forces | | |
| | | | Inse | rtion force 2 | 25 N max. | | |
| | | Withdrawal force 25 N max. | | | | | |
| | | | 5) No da | amage, cracks o | r looseness of parts. | | |
| Damp Heat, Steady State | Subject mated specimens to a relative humidity of 93 % at a | | 1) Volta | 1) Voltage proof : 500 V DC applied for 1 min. | | | †_ |
| | temperature of 40°C during 21 days. | | | Current leakage 2mA max. | | | |
| | | | No flashover or breakdown. | | | | |
| | | | | 2) Resistance: | | | |
| | | | | Contact: 80 mΩ max. (note3) Shield: 100 mΩ max. (note3) 3) Insulation resistance: 500 MΩ min. (at dry) 4) Insertion and Withdrawal Forces Insertion force 25 N max. Withdrawal force 25 N max. | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | 5) No da | amage, cracks o | r looseness of parts. | | |
| Note QT:Qualification Te | est AT:Assurance Test X:Applicable Test | D | RAWIN | IG NO. | ELC-12983 | 0-00-0 | 0 |
| IDC S | DEOLEIO ATIONI OLIFET | | ART NO. IX32G-B-8S-CV(7.0) | | | | |
| | ROSE ELECTRIC CO., LTD. | CODI | E NO | | 51-0043-0-00 | 2 | 2/3 |
| | NOOL LLLGTRIG GO., LTD. | CODI | _ 110 | OLUZ: | 71-00 1 3-0 - 00 | <u> </u> | 0 |

| | SPECIFICAT | ΊO | NS | | |
|-----------------------------|--|----------|--|----|----|
| ITEM | TEST METHOD | | REQUIREMENTS | QT | АТ |
| ENVIRONMENTAL | CHARACTERISTICS | | | 1 | l |
| Dry Heat | Subject to +85 ± 2 °C, 21 days. (mating applicable connector) | <u> </u> | 1) Voltage proof: 500 V DC applied for 1 min. Current leakage 2mA max. No flashover or breakdown. 2) Resistance: Contact: 80 mΩ max. (note3) Shield: 100 mΩ max. (note3) 3) Insulation resistance: 500 MΩ min. (at dry) 4) Insertion and Withdrawal Forces Insertion force 25 N max. Withdrawal force 25 N max. 5) No damage, cracks or looseness of parts. | X | _ |
| Cold | Subject to -55 ± 3 °C, 10 days. (mating applicable connector) | | 1) Voltage proof: 500 V DC applied for 1 min. Current leakage 2mA max. No flashover or breakdown. 2) Resistance: Contact: 80 mΩ max. (note3) Shield: 100 mΩ max. (note3) 3) Insulation resistance: 500 MΩ min. (at dry) 4) Insertion and Withdrawal Forces Insertion force 25 N max. Withdrawal force 25 N max. 5) No damage, cracks or looseness of parts. | X | _ |
| Corrosion Salt Mist | Subject to 5 % salt water, 35 ± 2 °C, 48h. (leave under unmated condition.) | | No heavy corrosion of contacts. | Х | _ |
| Mixed Flowing Gas Corrosion | Test temperature : $+25\pm1$ °C, Relative humidity : $75\pm$ H ₂ S : 10 ± 5 ppb, NO ₂ : 200 ± 50 ppb Cl ₂ : 10 ± 5 ppb, SO ₂ : 200 ± 20 ppb Leave the samples for 4 days with mated. The same is performed with unmated samples. (IEC 60512, method 4) | 3 % | Resistance: Contact: 80 mΩ max. (note3) Shield: 100 mΩ max. (note3) No damage, cracks or looseness of parts. | X | _ |
| | | | | | |

| Note QT: | Qualification Test AT:Assurance Test X:Applicable Test | DRAWIN | IG NO. | ELC-129830-00-00 | | |
|----------|--|----------|--------------------|------------------|----------|-----|
| HS | SPECIFICATION SHEET | PART NO. | IX32G-B-8S-CV(7.0) | | | |
| 11. | HIROSE ELECTRIC CO., LTD. | CODE NO | CL025 | 1-0043-0-00 | <u>^</u> | 3/3 |