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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 | -55 °C TO 85 °C (1) | STORAGE TEMPERATURE RANGE | -10 °C TO 60 °C (2) |
| | VOLTAGE | 100 V AC | STORAGE HUMIDITY RANGE | 40 % TO 70 % (2) |
| | CURRENT | 0.5 A (SIGNAL CONTACT) (3)<br>3 A (MF CONTACT) | OPERATING HUMIDITY RANGE | RELATIVE HUMIDITY 85% max<br>(NOT DEWED) |

## SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| **CONSTRUCTION** | | | | |
| GENERAL EXAMINATION | VISUALLY AND BY MEASURING INSTRUMENT. | ACCORDING TO DRAWING. | × | × |
| MARKING | CONFIRMED VISUALLY. | | × | × |
| **ELECTRIC CHARACTERISTICS** | | | | |
| CONTACT RESISTANCE | 100 mA(DC OR 1000Hz) | SIGNAL CONTACT : 90 mΩ MAX.<br>MF CONTACT : 30 mΩ MAX. | × | — |
| INSULATION RESISTANCE | 250 V DC. | 1000 MΩ MIN. | × | — |
| VOLTAGE PROOF | 300 V AC FOR 1 min. | NO FLASHOVER OR BREAKDOWN. | × | — |
| **MECHANICAL CHARACTERISTICS** | | | | |
| INSERTION AND WITHDRAWAL FORCES | MEASURED BY APPLICABLE CONNECTOR. | INSERTION FORCE: 70 N MAX.<br>WITHDRAWAL FORCE: 7 N MIN. | × | — |
| MECHANICAL OPERATION | 500 TIMES INSERTIONS AND EXTRACTIONS. | ① CONTACT RESISTANCE:<br>SIGNAL CONTACT : 100 mΩ MAX.<br>MF CONTACT : 40 mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| VIBRATION | FREQUENCY 10 TO 55 TO 10Hz, APPROX 5min<br>SINGLE AMPLITUDE : 0.75 mm, 10 CYCLES<br>FOR 3 DIRECTIONS. | ① NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| SHOCK | 490 m/s$^2$, DURATION OF PULSE 11 ms<br>AT 3 TIMES FOR 3 DIRECTIONS. | | × | — |
| **ENVIRONMENTAL CHARACTERISTICS** | | | | |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40±2 °C, 90 ～ 95 %, 96 h. | ① CONTACT RESISTANCE:<br>SIGNAL CONTACT : 100 mΩ MAX.<br>MF CONTACT : 40 mΩ MAX.<br>② INSULATION RESISTANCE :1000 MΩ MIN.<br>③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | × | — |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55 → +85 °C<br>TIME 30 → 30 min.<br>UNDER 5 CYCLES.<br>(RELOCATION TIME TO CHAMBER:WITHIN 2～3 MIN) | | × | — |
| SULFUR DIOXIDE | EXPOSED AT 25±2℃, 75±5%RH, 25 PPM FOR 96 h.<br>(TEST STANDARD: JIS C 60068) | NO HEAVY CORROSION. | × | — |
| RESISTANCE TO SOLDERING HEAT | 1)REFLOW SOLDERING :<br>PEAK TMP : 260℃MAX<br>REFLOW TMP: 220℃MIN FOR 60sec<br>2) SOLDERING IRONS : 360℃ MAX. FOR 5 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINAL. | × | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE<br>240±3℃ FOR IMMERSION DURATION, 3 sec. | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED. | × | — |
| | | | | |

| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|---|---|---|---|---|---|
| △0 | | | | | |

REMARKS (1) INCLUDE TEMPERATURE RISE CAUSED BY CURRENT-CARRYING.
(2) "STORAGE" MEANS A LONG-TERM STORAGE STATE FOR THE UNUSED PRODUCT BEFORE ASSEMBLY TO PCB.
(3) THE RATED CURRENT APPLIES TO PER CONTACT. APPLY 0.4A WHEN ALL THE CONTACTS ARE USED FOR CURRENT CARRYING.
Unless otherwise specified, refer to JIS-C-5402.

| | | |
|---|---|---|
| APPROVED | HS. OKAWA | 09. 10. 13 |
| CHECKED | KI. HIROKAWA | 09. 10. 13 |
| DESIGNED | TH. SANO | 09. 10. 13 |
| DRAWN | TH. SANO | 09. 10. 13 |

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO. ELC4-159564-00

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|---|---|---|---|---|
| HRS | SPECIFICATION SHEET | PART NO. | FX18-120P-0.8SV | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL579-0020-7-00 △0 | 1/1 |

FORM HD0011-2-1