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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 18501.8109-2026

**Connectors for electrical and electronic equipment-Product requirements-Part 8-109:
Power connectors-Detail specification for 2P 130 A, 1 000 V power plus 2P 5 A, 50 V signal
rectangular housing shielded connectors with IP65/IP68 degree of protection when
mated and locked, and IPXXB when unmated**

电子和电气设备用连接器 产品要求 第8-109部分：电源连接器 2芯130 A、1000 V
功率加2芯5 A、50 V信号插合锁紧时IP65/IP68防护等级未插合时IPXXB防护等级
矩形外壳屏蔽连接器详细规范

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 8-109 of GB/T 18501. GB/T 18501 has already published the following parts.

---Connectors for DC and low-frequency analog and digital high-speed data processing equipment with quality assessment - Part 1: General Specification (GB/T 18501.1-2001);

---Connectors for DC and low-frequency analog and digital high-speed data processing equipment - Part 2: Quality-qualified circular connectors Sub-standard (GB/T 18501.2-2001);

---Product Requirements for Connectors for Electronic and Electrical Equipment Part 8-100. Power Connectors 2-pin, 3-pin 20A Power Plus 2 Detailed Specification for Core Signal Plastic Housing Shielded Sealed Connector (GB/T 18501.8100-2025);

---Product Requirements for Connectors for Electronic and Electrical Equipment Part 8-101. Power Connectors 2-pin, 3-pin 40A Power Plus 2 Detailed Specification for Core Signal Plastic Housing Shielded Sealed Connector (GB/T 18501.8101-2025);

---Product Requirements for Connectors for Electronic and Electrical Equipment Part 8-107. Power Connectors 2-pin. 200A, 1000V Power Detailed Specification for Shielded Connectors (GB/T 18501.8107-2026);

---Product Requirements for Connectors for Electronic and Electrical Equipment Part 8-108. Power Connectors 2-pin 250A, 1000V Power Detailed Specification for Shielded Connectors (GB/T 18501.8108-2026);

---Product Requirements for Connectors for Electronic and Electrical Equipment Part 8-109. Power Connectors 2-pin 130A, 1000V Power this document is equivalent to IEC

61076-8-109:2023 "Connectors for electronic and electrical equipment - Product requirements - Part 8-109.Electrical" Detailed specifications for shielded rectangular shell connectors with protection rating.

---Change "130A, 1000V" in the standard name to "130A, 1000V power" and "5A, 50V" to "5A, 50V signal";

---The order of presentation in Chapter 1 has been adjusted;

---A note has been added to Chapter 1;

---The withstand voltage of "4kV" in section 4.2 is corrected to "3.31kV";

---The statement "Key dimensions are shown in Tables 6 and 7" has been added in version 5.5.1;

---Correct the P2 test condition "Applied force. 300N" in Table 12 to "Applied force. 240N", and the P3 test condition "Power contact.

" $\leq 0.2\text{mohm}$ " should be corrected to "Power contact. $\leq 0.15\text{mohm}$ ";

---In Table 14, the test conditions for BP3 and BP7, "Number of tests. 50", are corrected to "Number of tests. 250". The test conditions for BP5 and BP9, "Power connection...", are also corrected.

The error message "Contact. $\leq 0.35\text{mohm}$ " should be corrected to "Power contact. $\leq 0.24\text{mohm}$ ".

---The test conditions for KP2 and KP7 in Table 21, "Power contact. $\leq 0.35\text{mohm}$ ", are corrected to "Power contact. $\leq 0.24\text{mohm}$ ".

The KP6 test condition "Time. 240h" has been corrected to "Time. 96h".

---Added "References".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Electromechanical Components for Electronic Equipment (SAC/TC166).

1 Scope

This document specifies a power section with 2 power contacts and 2 signal contacts, a plastic housing with a locking mechanism, 4 keys, and a rated power section.

The rated current is 130A, the rated voltage of the power section is DC 1000V, the rated current of the signal section is 5A, and the rated voltage of the signal section is...