

* 3972 Series Connector *

This product specification contains the test method, the general performance and requirements for interconnection system connector.

3972 series header, matte with 3940 series Housing and 3979 series or 3983 series terminal.

1. Construction and dimensions shall be in accordance with the referenced drawings.

2. Characteristics 特性:

Current rating 额定电流: 7 A AC,DC

Voltage rating 额定电压: 250V AC,DC

Temperature rating 额定温度: -40°C ~ +105°C

Applicable wire 适用的线径: conductor construction size #18 ~ #26

3. Electrical performance 电气特性:

ITEM 项目	DESCRIPTION 内容	TEST METHOD & CONDITION 测试方法及条件	REQUIREMENT 要求
3-1	Contact Resistance 接触阻抗	It should be tested in accordance with method EIA-364-23.	Initial: 20 mΩ max. After environmental Test: 40 mΩ max.
3-2	Insulation Resistance 绝缘阻抗	It should be tested in accordance with Method EIA-364-21.	Initial: 1000MΩ min. After humidity test 500 MΩ min.
3-3	Dielectric Withstanding Voltage 耐电压	Unmated connectors shall be tested in Accordance with method EIA-364-20 when the AC 1000 V rms for one minute applied between adjacent contacts.	No evidence of break-Down and flashover

4. Mechanical Performance 机械特性 :

ITEM 项目	DESCRIPTION 内容	TEST METHOD & CONDITION 测试方法及条件	REQUIREMENT 要求
4-1	Crimp Tensile Strength 铆合张力强度	Pulling load shall be applied between Correctly crimped contact and wire at a constant speed. Pulling speed: 25 mm / minute.	AWG #18: 10.0 kgf min. AWG #20: 6 kgf min. AWG #22: 4 kgf min. AWG #24: 2.5 kgf min. AWG #26: 1.5kgf min.
4-2	Contact Insertion Force 接触插入力	The force required to insert a contact into a housing. Inserting speed: 25 mm / minute.	1.78 Kgf max.
4-3	Contact removal Force 接触拔出力	Crimped contact mounted in a housing shall be pulled in an alignment at a constant speed of 25 mm / minute.	2.0 Kgf min.
4-4	Post Retention Force 保持力	The end of a post shall be pushed in a perpendicular to base housing at a constant speed of 25 mm / minute.	2.0 kgf min.
4-5	Insertion Force 插入力	Housing with contact mating header at a constant speed of 25 mm / minute.	2.0 kgf max.
4-6	Withdrawal Force 拔出力	Housing with contact mating header, Pull out from header at speed 25 mm / minute.	400g min.
4-7	Durability 耐久性	It should be tested in accordance with method EIA-364-09. Connector shall be subjected to 100 cycles of insertion and withdrawal	No defects. Contact resistance shall be 40 MΩ max.

ITEM 项目	DESCRIPTION 内容	TEST METHOD & CONDITION 测试方法及条件	REQUIREMENT 要求
4-8	Vibration 振动性	The socket mated header shall be vibrated in accordance with method EIA-364-28. There shall be no current discontinuity longer than 1 microsecond during the test . Frequency: 10-55-10 Hz / min. Amplitude: 1.52mm Period: 2 hours for each direction	No evidence of loosening of parts or electric discontinuity. Contact resistance shall be 40 mΩ max.

5. Environmental Performance 环境特性 :

ITEM 项目	DESCRIPTION 内容	TEST METHOD & CONDITION 测试方法及条件	REQUIREMENT 要求
5-1	Humidity 耐湿性	The unmated connector shall be tested in accordance with method EIA-364-31 Temperature: 40±2 °C Humidity: 90 ~ 95 % (RH) Period: 96 hours.	NO damage. Contact resistance shall be 40 mΩ max. Insulation resistance: to pass para. 3-2. Dielectric withstanding voltage: to pass para 3-3
5-2	Salt Spray 盐雾测试	Connector shall be tested in accordance with method EIA-364-26 Temperature: 35±2 °C Density: 5 % in weight. Period: 8 hours.	NO damage. Contact resistance shall be 40 mΩ max.
5-3	Solderability 着锡性	Connector termination ends shall be checked for solderability in accordance with method EIA-364-52. Solder temperature: 245±5 °C Immersion period: 5±0.5 sec.	NO damage. Minimum: 95 % of immersed area.
5-4	Resistance to Soldering Heat 耐高温焊接	Specimen shall be mounted on PCB. Solder temperature: 255±5 °C Immersion period: 5±0.5 sec.	NO damage and deformation.

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