1. Scope

This specification outlines the performance, testing, and quality requirements for RJ45 Modular Plug connectors.

Applicable Product Models:FMP23 series.

2. Applicable documents

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, this specification shall take precedence.

3. Ordering information

Refer to the drawing.

4. Connector dimensions

Refer to the drawing.

5. Material

Housing： Zinc Alloy

Terminal: Copper Alloy

Plating: Selective gold plated on contact area and matte tin plated on tails area

CAP:PC,(UL 94V-0)

6. Rating

Operating voltage(Max.):125V DC

Current rating(Max.) :1.5A allowable current to be applied

Temperature range-operating: -40°C -- +85°C

7. Performance

Serial Number	Test item	Procedure	Requirement
1	Examination Of Product	Visual inspection. (EIA-364-18)	Meets requirements of product Drawing. No physical damage.

Electrical Requirement

2	Contact Resistance	In an environment with an ambient temperature of 23 ±2°C and a relative humidity of 65±5%,contact resistance between the plug and socket. (IEC-60603-7)	Contact Resistance：20mΩ Max. The shielding input-to-output resistance must not exceed 100 mΩ maximum.
3	Insulation Resistance	Under an ambient temperature of 23±2°C and a relative humidity of 65±5%, apply 500V DC between adjacent pins for 1 minute. (IEC-60603-7)	500 MΩ min. Initial
4	Dielectric withstanding Voltage	Under an ambient temperature of 23±2°C, apply 1500V AC between adjacent pins for 1 minute. (IEC-60603-7)	No Breakdown

Mechanical Requirement

5	Mating and Unmating force	Pair the samples and press down the latching mechanism at a maximum speed of 10 mm/s. Each test cycle consists of one insertion and one removal action, with 50 total cycles required. (IEC60603-7)	Both insertion and removal forces must be within the 30N range.
6	Durability	Pair the samples and perform 750 insertion/removal cycles at an operating speed of 10 mm/s. (IEC60603-7)	Appearance: Nodamage Contact Resistance：20mΩ Max.
7	Cable tensile strength requirement	The pull-out force must be ≥100 N and maintained for 1 minute. The cable end must not slip out from the insulated cable clamp during this period (IEC60512-7)	Appearance: Nodamage

Environment Performance AND Others

8	Test Method	Mate the connectors properly. Perform thermal cycling between -40℃ and 85℃, with an exposure time of 30 minutes per cycle and 25 cycles total. Allow a transition time of 3 minutes between temperature changes. After completion, recover the test specimens at ambient temperature for 2 hours, then conduct an electrical performance inspection. (IEC60603-7)	Contact Resistance： 20mΩ Max.
			500 MΩ min. Initial
			No Breakdown
9	Salt Spray	Salt Mist Concentration: 5%; pH Value: 6.8 ±0.45; Spray Rate: 1.0~2.0 (ml/80 cm²/h); Relative Humidity (RH): ≥85%; Inclination Angle of Test Specimen: 15°~45°; Test Duration: 48 hours. (GB/T 10125-2021)	Appearance: Nodamage
10	High-temperature test requirement	The samples must remain in the mated state at 70°C for 500 hours, followed by a 2-hour recovery period at room temperature before measurements are taken. (IEC60603-7)	Appearance: Nodamage