Product specification

1. Scope

This specification applies to terminal blocks with 5.08 mm pitch, 180° vertical orientation, and specifies the product's performance indicators, test methods and test requirements.

Applicable Product Models: FTB50813 series.

2. Applicable Standards

The following documents form a part of this specification. 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.

2.1 IEC 60998-2-1 Connecting devices for low-voltage circuits for household and similar purposes— Part 2-1: Particular requirements for connecting devices as separate entities with screw- type clamping units

2.2 IEC 60947-7-1 Low-voltage switchgear and controlgear — Part 7- 1: Ancillary equipment — Terminal blocks for copper conductors

2.3 UL 1059 Standard for Safety for Terminal Blocks

2.4 UL 486E Standard for Safety for Equipment Wiring Terminals for Use with Aluminum and/or Copper Conductors

3. Parameter Range

Parameter Name	Value & Unit
Rated Current	15A
Rated Voltage	300V
Operating Temperature Range	-40 ℃ ~+105 ℃

4. Appearance and Dimensions

4.1 Appearance：The product surface shall be free from defects, dirt, cracks and mechanical damage. Contacts shall be free from rust, oxidation or plating peeling.

4.2 Appearance and dimensions shall comply with the requirements of product drawings.

4.3 Exchangeable: Exchangeable with same specification products.

5. Materials

Component	Material Specification	Color
Housing	PA66 (UL94V-0)	Green
Terminal	Brass(Tin plated)	-

6. Test Requirements and Procedures Summary

Serial No.	Item	Test Method	Technical Requirements
1	Examination of Product	Visual inspection	Meet the drawing requirements, no damage or abnormality in visual appearance
Electrical Requirement			
2	Dielectric Withstanding Voltage	Dielectric strength: 2500 V AC, 1 min	No flashover or insulation breakdown
3	Contact Resistance	Contacts assembled in housing shall be tested with closed- circuit current max. 100 mA at open- circuit voltage max. 20 mV.	Contact Resistance ≤20mΩ
4	Insulation Resistance	Apply 500V DC(rms)for I minute between adjacent contacts to measure the insulation resistance	Insulation Resistance ≥500MΩ
Environmental Performance			
5	Thermal Aging	Mate connector exposed to the condition of 105±2℃ for 96 hours.	Appearance: No damage; Contact Resistance≤20mΩ;

6	Temperature	Mate connector measure the temperature rise of contact when the maximum rated current is passed	△30℃ Max
7	Temperature cycling	One cycle consists of -40±3℃ 30min,room temp 10-15min 105±3℃ 30min,room temp 10-15min Total cycle :5cycle	Appearance: No damage; Contact Resistance≤20mΩ;
8	Solder ability	Solder temperature :245±5℃Immersion period:3±0.5S	Area of soldering:≥95％
9	Resistance to Soldering Heat	Wave soldering: 260 ℃ / 5 s, maximum 2 times, total 10 s. Manual iron soldering: 250 ℃ / 10 s.	Appearance: no damage