Part Number	TBC05 series				A1	Date	10/01/25
Product Description	2.54mm Pitch Terminal Bl Rising Clamp Type	Page	1				
Doc Number	TBC05	Prepared	СС	Checked	YR	Approved	РН





Part Number	TBC05 series		Rev		A1	Date	10/01/25			
Product Description	2.54mm Pitch Terminal Bl Rising Clamp Type	ock, Single	Row, Side E	Entry, Th	ough Hole,	Page	2			
Doc Number	TBC05	Prepared	CC	Checked	YR	Approved	РН			
1.0 SCOPE										
This specification covers performance, tests and quality requirements for the 2.54mm Pitch Terminal Block, TBC05 Series.										
2.0 PRODUC	CT NAME AND PART NU	IMBER								
2.54mi	m Pitch Terminal Block, TB	C05 series								
3.0 PRODUC	CT SHAPE, DIMENSION	S AND MA	TERIAL							
Please	refer to drawing.									
4.0 RATING	3									
Current	rating	6A Per	Position							
Voltage	e rating	150V A	С							
Operati	ng Temp Range	40°C to	o +105°C							
Storage	e Temp Range	40°C to	o +70°C, Hu	imidity 30	)%-70%					
5.0 TEST AN	ID MEASUREMENT COM	NDITIONS								
Product specifie specifie	is designed to meet electri d in Paragraph 6.0. All tests d.	cal, mechan s are perforr	nical and env ned under tl	vironmen he follow	tal performaing condition	nce requiren s unless oth	nents erwise			



Part Number	TBC05 series		Rev		A1		10/01/25
Product Description	2.54mm Pitch Terminal Bl Rising Clamp Type	Page	3				
Doc Number	TBC05	Prepared	СС	Checked	YR	Approved	РН

#### 6.0 PERFORMANCE

Item	Test Condition	Requirement
Examination of Product	Visual, dimensional and functional inspection as per quality plan.	Product shall meet requirements of product drawing and specification.

### 6.1 Electrical Performance

Item	Item Test Condition	
Contact Resistance	Being mated contacts assembled in housing to short circuit current of 100mA at open circuit voltage 20mV. IEC 60512-2-1	20mΩ Max.
Being measured with an insulation measuring device of DC1000V between any open terminal and between the terminal and the shield IEC60998-1		5000MΩ Min.
Dielectric Strength Dielectric Strength Dielectric Strength		No arcing No breakdown
Temperature Rise	Connect adjacent 3 poles in series circuit with AWG18 wire, apply rated current 6A. UL1059	+30°C Max. Change allowed

#### 6.2 Mechanical Performance

Item	Test Condition	Requirement
Torque Test	Use max. and min. rated Stranded and Solid wire, insert wire into the product, clamp screw with 110 percent of the rated torque (1.5kgf.cm), repeat 5 times. UL1059	No Damage
Pull Out Force	All poles are fitted with below wires and forces for 1 minute in wire insertion orientation. 18AWG: 30N 30AWG: 2.2N UL 486E	Wire shall not slip out of the product
Secureness Test	The middle 4 positions are fitted with Max. wires or Min. wires, each position rotate for 30 minutes and specified loading weight: 18AWG (Str&Sol): 0.45kg. UL1059	No Damage and twist Wire shall not slip out of the product



Part Number	TBC05 series		Rev		A1	Date	10/01/25
Product Description	2.54mm Pitch Terminal Bl Rising Clamp Type	Page	4				
Doc Number	TBC05	Prepared	CC	Checked	YR	Approved	РН

Item	Test Condition	Requirement
		Appearance: No Damage.
		Contact Resistance:
	40°C ±2°C, 91-95% RH for 48 hours. After	30 mΩ Max.
Humidity Test	test kept in normal condition for 30minutes.	Insulation Resistance:
	IEC 60998-1	5 MΩ Min.
		Dielectric Strength:
		No Breakdown
		Appearance: No Damage.
		Contact Resistance:
	105°C ±2°C for 168 hours. After test kept in	30 mΩ Max.
High Temperature Life	normal condition for 2 hours.	Insulation Resistance:
	IEC 60998-1	5 MΩ Min.
		Dielectric Strength:
		No Breakdown
Glow-wire test	The glow-wire is heated to 850°C, apply the glow-wire contact with the specimen for 30+/-1 seconds. IEC 60695-2-10	No Visible flame and no sustained glowing or flames and glowing on the specimen extinguished 30 seconds after the removal of the glow-wire.
Salt Spray	Salt water shall be adjusted at 5% weight ratio. 35±°C for 24 hours. After salt is removed by running water and a drop is removed, it is measured. IEC 60068-2-11	Contact Resistance: 30mΩ Max. No visible corrosion
Solderability	Dip solder-tails in flux then immerse in solder bath at $245 \pm 5^{\circ}$ C up to 0.5mm from the bottom of the housing for 4~5 seconds.	95% of immersed area must show no voids, pin holes.



Part Number	TBC05 series		Rev		A1	Date	10/01/25
Product Description	2.54mm Pitch Terminal Bl Rising Clamp Type	Page	5				
Doc Number	TBC05	Prepared	CC	Checked	YR	Approved	РН

#### 7.0 TEST GROUP AND SEQUENCE

14	Description	Test Group								
Item	Description	Α	В	С	D	E	F	G	Н	I
					Tes	t Seque	ence			
1	Visual Inspection	1,5	1,6	1,3	1,3	1,6	1,6	1,3	1,4	1,3
2	Contact Resistance	2				3	3		3	
3	Insulation Resistance	3				4	4			
4	Dielectric Withstanding Voltage	4	5			5	5			
5	Temperature Rise		3							
6	Torque Test			2						
7	Secureness Test		2							
8	Pull Out Force (16 AWG)		4							
9	Pull Out Force (30 AWG)				2					
10	Humidity					2				
11	High Temperature Life						2			
12	Glow-wire test							2		
13	Salt Spray								2	
14	Solderability									2
Sample	Sample Size (pcs)		2	4	2	3	3	3	3	3

### **Revision Details:**

Revision	Information	Page	Release Date
0.1	First draft for review	-	17/12/2024
А	First Release	-	06/01/2025
A1	Add secureness test & change insulation resistance as 5 MΩ Min. after humidity and high temperature life tests.	3&4	10/01/2025

