Screw terminal block (Assembled)

Product Line-up

■TXM Assembled Terminal block

This terminal block is assembled with a shaft using terminal units from the TX series rail-mounted terminal blocks.
It comes with a cover and marking label, eliminating the hassle of assembly.
A spring-loaded type is also available for more efficient wiring work.
The TXM and TXUM series are compliant with UL and CSA standards, and are also TÜV-certified as conforming to EN/IEC standards (excluding some models).

Product Name	Abstract	Rated Insulation Voltage	Ratings[Note1] Primary Side	Ratings[Note1] Secondary Side	Terminal screw[Note2] Primary Side	Terminal screw[Note2] Secondary Side	Standard Poles	Basic type name
Standard TYpe	・A standard screw type terminal block with excellent usability. A wide range of current capacities and finely segmented frame sizes are available. ・Compliant with UL and CSA standards. Also certified by TÜV as conforming to EN/IEC standards and compliant with CE marking (excluding some models). ・Frames up to 400 A are approved for both UL factory wiring and field wiring.	800V	1.25mm²	[15A]	M3×6 ⏚ Standard screw		2～30P	TXM7
			2mm²	[20A]	M3×8⏚ Standard screw		2～30P	TXM10SM3
					M3.5×8 ⏚ Standard screw		2～30P	TXM10S
					M3.5×8 ⏚ Standard screw		2～30P	TXM10
			5.5mm²	[40A]	M4×10 ⏚ Standard screw		2～30P	TXM20
			8mm²	[50A]	M5×12 ⏚ Standard screw		2～20P	TXM30
			14mm²	[80A]	M5×12 ⏚ Standard screw		2～15P	TXM50
			22mm²	[90A]	M6×12 ⏚ Standard screw (with Round Washer)		2～18P	TXM60
		1000V	38mm²	[130A]	M8×14 ⊕Hex bolt		2～15P	TXM100
			60mm²	[175A]	M8×16 ⊕Hex bolt		2～15P	TXM150
			100mm²	[240A]	M10×20 ⊕Hex bolt		2～12P	TXM200
			150mm²	[310A]	M10×20 ⊕Hex bolt		2～10P	TXM300
			200mm²	[400A]	M12×25 Hex bolt		2～6P	TXM400
			150mm²×2	[500A]				
			325mm²	[600A]	M16×40 Stud		2～6P	TXM600-N
			325mm²	[600A]	M16×46 Stud (with Guide)		1～6P	TXM800-N
			200mm²×2	[800A]				
			325mm²	[600A]	M16×48 Stud (with Guide)		1～6P	TXM1000-N
			325mm²×2	[1000A]				
Spring-loaded type	・This is a spring-loaded type terminal block. It features a touch-lock function that allows temporary fastening and a spring-loaded mechanism that raises and holds the screw when loosened — ideal for efficient wiring work. ・Compliant with UL and CSA standards. Also certified by TÜV as conforming to EN/IEC standards and compliant with CE marking. ・Frames up to 100 A are approved for both UL factory wiring and field wiring.	800V	1.25mm²	[15A]	M3×8 ⏚ Spring-loaded screw terminal		2～30P	TXUM7
			2mm²	[20A]	M3×8 ⏚ Spring-loaded screw terminal		2～30P	TXUM10SM3
					M3.5×8 ⏚ Spring-loaded screw terminal		2～30P	TXUM10S
					M3.5×8 ⏚ Spring-loaded screw terminal		2～30P	TXUM10
			5.5mm²	[40A]	M4×8.5 ⏚ Spring-loaded screw terminal		2～30P	TXUM20
			8mm²	[50A]	M5×10 ⏚ Spring-loaded screw terminal		2～20P	TXUM30
			14mm²	[80A]	M5×10 ⏚ Spring-loaded screw terminal		2～15P	TXUM50
			22mm²	[90A]	M6×12 ⏚ Spring-loaded screw terminal		2～15P	TXUM60
		1000V	38mm²	[130A]	M8×15 ⊕Hex bolt Spring-loaded screw terminal		2～15P	TXUM100

Note1 Ratings are recommended values with usage in compliance to JIS standards.
Note2 As for the Symbols inTerminal screw colums, ⏚ is plus/minus screw while ⊕ is plus screw.

Common Specifications

Operational Ambience Temperature Range	−25～+55℃ (without Freezing nor Dew condensation)
Relative Humidity	45～85%RH
Temperature rise	Max. 45℃ of temperature rise at conducting metals
Insulating Resistance	Between each live part and between each live part and the mounting metal plate: Min. 100 MΩ
Commercial Frequency Withstanding Voltage	2500V 1 Min.
Impulse Withstanding Voltage	**6000V (TXM7～TXM10、TXUM7～TXUM10)**[Note3] **8000V (TXM20～TXM60、TXUM20～TXUM60)**[Note4] **12000V (TXM100～TXM1000、TXUM100)**
Conformed Standards	**JIS C8201-7-1[Note1]、NECA C2811(JIS C2811)[Note2]** **UL1059 (excluding some models)** **EN/IEC60947-7-1 (excluding some models)**

Materials

Name	Materials	Flame retardance grade
Terminal Base	**Polycarbonate**	**UL94V-0**
Terminal screws	**Steel (Zinc plated Chromate Treatment)**	**—**
Conducting Plate	**Brass (Nickel plating)** **Copper (TXM400, 600-N, 800-N, 1000-N)**	**—**
Seal for legends	**Vinyl chloride**	**—**
Cover	**Polycarbonate**	**UL94V-2**

Note 1: As of May 2010, JIS C2811 has been replaced by JIS C8201-7-1.

Note 2: NECA C2811 is a standard conforming to the contents of JIS C2811.

Note 3: When the crimped section of the solderless terminal is insulated, the Impulse Withstanding voltage becomes 8,000 V.

Note 4: For TXM60 and TXUM60, when the crimped section of the solderless terminal is insulated, the Impulse Withstanding Voltage becomes 12,000 V.

Ratings for Overseas Certification

■The Ratings used as conforming products to UL/CSA.

TXM, TXUM series of Terminal Blocks are certified products by UL and CSA.
The ratings in using products as the UL/CSA conformed ones are as shown below:

FIle No.：E114903　　File No.：LR80644

Product Name		UL Standard (UL1059)						CSA Standard (C22・2 No.158)			
		Ratings	Ratings	Applicable wires AWG (MCM)[Note1]		FW[Note2]	Tightening	Ratings	Ratings	Applicable	Tightening
Standard Screw	Spring-loaded	Voltage (V)	Current (A)	Single wire	Stranded wire		Torque (N・m)	Voltage (V)	Current (A)	wires[Note1] AWG(MCM)	Torque (N・m)
TXM7	TXUM7	600	10	20～16	20～16	2	0.9	600	10	20～16	0.9
TXM10SM3	TXUM10SM3	600	15	20～14	20～14	2	0.9	600	15	20～14	0.9
TXM10S	TXUM10S	600	15	20～14	20～14	2	1.3	600	15	20～14	1.3
TXM10	TXUM10	600	20	20～14	20～14	2	1.3	600	20	20～14	1.3
TXM20	TXUM20	600	30	18～10	18～10	2	1.8	600	30	18～10	1.8
TXM30	TXUM30	600	50	16～12	16～10	2	2.7	600	45	16～8	4.5
					＊8	2					
TXM50	TXUM50	600	30	16～10	16～10	2	2.7	—	—	—	—
			65	—	＊6	2					
TXM60	TXUM60	600	80	＊14～10	＊14～4	2	4.5	600	80	＊14～4	5.1
TXM100	TXUM100	600	115	—	＊8～2	2	10	600	115	＊8～2	16.9
TXM150	—	600	175	—	＊6～2/0	2	10	600	175	＊6～2/0	16.9
TXM200	—	600	230	—	＊4～4/0	2	20	600	230	＊4～4/0	28.2
TXM300	—	600	310	—	＊4～(350)	2	20	600	310	＊4～(350)	28.2
TXM400	—	600	380	—	＊1/0～(500)	2	30	600	380	＊1/0～(500)	42.5

Note1: The above list applies to connection by bare copper or by crimp terminals. As for Applicable Wires, however, values with * are only for connection by crimp terminals. Please use only crimp terminals with UL or CSA conformance.
Note2: FW1: Wirings at factory, FW2:Wirings at factory and in-field
Note3: If products are used at ULRatings, connect only one wire to one terminal.

■The Ratings used as conforming products to EN/IEC

The TXM and TXUM series terminal blocks are certified by TÜV, an international third-party certification organization, to conform to EN/IEC standards, enabling smoother verification of CE marking compliance for machinery.
The ratings when used as EN/IEC-compliant products are as follows:

Lisence No.：R9551559 (TXM Series)
Lisence No.：R9551561 (TXUM Series)

Product Name		Ratings Voltage (V)	Impulse Withstanding Voltage (V)	Ratings Current (A)	Applicable wires AWG (JIS)[Note]		Tightening torque (N・m)	Connectable Wires
Standard Screw	Spring-loaded Screw				Single Wire	Stranded Wire		
TXM7	TXUM7	600	6000	15	20～16	20～16	0.9	1 or 2
TXM10SM3	TXUM10SM3	600	6000	20	20～14	20～14	0.9	1 or 2
TXM10S	TXUM10S	600	6000	20	20～14	20～14	1.3	1 or 2
TXM10	TXUM10	600	6000	25	20～14	20～14	1.3	1 or 2
TXM20	TXUM20	600	6000	40	18～10	18～10	1.8	1 or 2
TXM30	TXUM30	600	6000	60	16～10	16～8	2.8	1 or 2
TXM50	TXUM50	600	6000	60	16～8	16～8	2.8	1 or 2
				80	—	＊6		
TXM60	TXUM60	600	6000	110	＊14～10	＊14～4	5	1 or 2
TXM100	TXUM100	600	6000	140	—	＊8～2	10	1 or 2
TXM150	—	600	6000	190	—	＊4～(60mm²)	10	1 or 2
TXM200	—	600	6000	300	—	＊2～(100mm²)	20	1 or 2
TXM300	—	600	6000	350	—	＊2～(150mm²)	20	1 or 2
TXM400	—	600	6000	540	—	＊(100～250mm²)	35	1 or 2

Remark: The above table applies to both bare copper wire connections and crimp terminal connections. However, wire types marked with an asterisk (*) are for crimp terminal connections only.
Please note the following points:
For crimp terminal connections: Use insulated crimp terminals, or insulate bare crimp terminals with sleeves, tubes, or tape.
When connecting two bare wires: Use wires of the same size and type (solid or stranded). Do not connect wires of different sizes or types.