



TMAX T1. THE LITTLE ONE THAT'S REALLY BIG.

Thanks to its extremely compact dimensions, Tmax T1 is a unique circuit-breaker in its category. Compared with any other circuit-breaker with the same performance (160 A – up to 36 kA at 415 V AC), the overall dimensions of the apparatus are notably smaller.

TMAX T2. INTELLIGENCE AND HIGH PERFORMANCE IN THE PALM OF YOUR HAND.

Tmax T2 is the only 160 A circuit-breaker available with such high performances in such very limited overall



dimensions. A breaking capacity of 85 kA at 415 V AC can be achieved. Tmax T2 can be fitted with a latest generation electronic trip unit.

TMAX T3. 250 A IN A DEPTH OF 70 MM FOR THE FIRST TIME.

Tmax T3 is the first circuit-breaker which carries 250 A in considerably limited overall dimensions compared with any other similar apparatus – a really large step forward for this type of equipment.

Tmax T3 allows coordinations for motor protection to be made up to a power of 90 kW at 415 V AC.

Switch-disconnectors

Electrical characteristics

The Tmax switch-disconnectors derive from the corresponding circuit-breakers, of which they keep the overall dimensions, versions, fixing systems and the possibility of mounting accessories unchanged. This version only differs from the circuit-breakers in the absence of the protection trip units. They are characterised by a rated voltage of 690 V in alternating current and 750 V in direct current.

Switch-disconnectors

				Tmax T1D		
Conventional thermal current, Ith			[A]	160		
Rated service current in category AC22, Ie			[A]	160		
Rated service current in category AC23, Ie			[A]	125		
Poles			[No.]	3/4		
Rated service voltage, Ue			(AC) 50-60 Hz	[V]	690	
			(DC)	[V]	500	
Rated impulse withstand voltage, Uimp			[kV]	8		
Rated insulation voltage, Ui			[V]	800		
Test voltage at industrial frequency for 1 minute			[V]	3000		
Rated short-circuit making capacity, Icm (min) switch-disconnector only			[kA]	2.8		
			(max) with circuit-breaker on supply side	[kA]	187	
Rated short-time withstand current for 1s, Icw			[kA]	2		
Reference Standard				IEC 60947-3		
Versions				F		
Terminals				FC Cu - EF - FC CuAl		
Mechanical life			[No. operations]	25000		
			[No. Hourly operations]	120		
Basic dimensions, fixed			3 poles	W [mm]	76	
			4 poles	W [mm]	102	
				D [mm]	70	
				H [mm]	130	
Weight			fixed	3/4 poles	[kg]	0.9/1.2
			plug-in	3/4 poles	[kg]	–
			withdrawable	3/4 poles	[kg]	–

Switch-disconnector coordination [380/415 V AC]

	T1			T2				T3		T4					T5 400				
	B	C	N	N	S	H	L	N	S	N	S	H	L	V	N	S	H	L	V
Icu [kA]	16	25	36	36	50	70	85	36	50	36	50	70	120	200	36	50	70	120	200
T1D 160	16	25	36	36	50	70	85												
T3D 250								36	50	36	50	70	120	200					
T4D 320										36	50	70	120	200					
T5D 400															36	50	70	120	200
T5D 630																			
T6D 630																			
T6D 800																			
T6D 1000																			
T7D 1000																			
T7D 1250																			
T7D 1600																			

Applications

They can be used as general circuit-breakers in sub-switchboards as switching and isolation parts for lines, busbars or groups of apparatus, or as bus-ties. They can be part of general isolation devices of groups of machines or of complexes for motor switching and protection.

Isolation

The main function carried out by this apparatus consists of isolation of the circuit they are inserted in. Once the contacts are open they are at a distance which prevents an arc from striking, in accordance with the prescriptions in the standards regarding isolation behaviour. The position of the operating lever corresponds definitely with that of the contacts (positive operation).

Tmax T3D					Tmax T4D					Tmax T5D					Tmax T6D					Tmax T7D				
250					250/320					400/630					630/800/1000 ⁽¹⁾					1000/1250/1600				
250					250/320					400/630					630/800/1000					1000/1250/1600				
200					250					400					630/800/800					1000/1250/1250				
3/4					3/4					3/4					3/4					3/4				
690					690					690					690					690				
500					750					750					750					750				
8					8					8					8					8				
800					800					800					1000					1000				
3000					3000					3000					3500					3000				
5.3					5.3					11					30					40				
105					440					440					440					440				
3.6					3.6					6					15					20				
IEC 60947-3					IEC 60947-3					IEC 60947-3					IEC 60947-3					IEC 60947-3				
F - P					F - P - W					F - P - W					F - W					F - W				
F-FC CuAl-FC Cu- EF-ES-R					F-FC CuAl-FC Cu-EF- ES-R-MC-HR-VR					F-FC CuAl-FC Cu-EF- ES-R-HR-VR					F-FC CuAl-EF- ES-R-RC					F-EF-ES-FC CuAl HR/VR				
25000					20000					20000					20000					10000				
120					120					120					120					60				
105					105					140					210					210				
140					140					184					280					280				
70					103.5					103.5					268					154(manual)/178(motorizable)				
150					205					205					103.5					268				
1.5/2					2.35/3.05					3.25/4.15					9.5/12					9.7/12.5(manual)/11/14(motorizable)				
2.1/3.7					3.6/4.65					5.15/6.65					—					—				
—					3.85/4.9					5.4/6.9					12.1/15.1					29.7/39.6(manual)/32/42.6(motorizable)				

⁽¹⁾ Withdrawable version not available for T6 1000 A.

	T5 630					T6 630				T6 800				T6 1000				T7 1000				T7 1250				T7 1600			
	N	S	H	L	V	N	S	H	L	N	S	H	L	N	S	H	L	S	H	L	V	S	H	L	V	S	H	L	
	36	50	70	120	200	36	50	70	100	36	50	70	100	36	50	70	100	50	70	120	150	50	70	120	150	50	70	120	
	36	50	70	120	200																								
						36	50	70	100	36	50	70	100	36	50	70	100												
										36	50	70	100	36	50	70	100												
														36	50	70	100												
																		50	70	120	150	50	70	120	150	50	70	120	
																						50	70	120	150	50	70	120	
																										50	70	120	

Protection

Each switch-disconnector must be protected on the supply side by a coordinated device which safeguards it against short-circuits. The coordination table below indicates the Tmax circuit-breaker which can carry out the protection function for each switch-disconnector. These are always pieces of apparatus of a size corresponding to or smaller than that of the switch disconnector.

Making capacity

The making capacity I_{cm} is a performance of notable importance since a switch-disconnector must be able to withstand the dynamic, thermal and current stresses which can occur during closure without being destroyed, up to the short-circuit closing conditions.

TMAX T1, T2 AND T3. ALL SOLUTIONS PERFECTLY COORDINATED, UP TO 250 A.



Tmax T1, T2 and T3 – the three “little ones” of the Tmax family – were thought up from the beginning to work together. You can select functions and performances which until now couldn't be found in circuit-breakers with these dimensions. Perfect up to 250 A.

There are so many characteristics common to the three sizes. The single depth (70 mm) of the three pieces of apparatus making installation truly simpler, the new arcing chambers produced with a gasifying material, and an innovative construction system allowing the arc extinction time to be reduced. All three sizes are fitted with adjustment of the thermal threshold as standard and have new - three-pole and four-pole - residual

current releases, designed and constructed to optimise space in the switchboard and simplify coupling with the circuit-breaker. Tmax T1, T2 and T3 have a completely standardised range of accessories.

