



Ratings and Specifications

Código Larce: 0406001022 0406001037 0406001052 0406001067 0406001082
 0406001097 0406001113 0406001142 0406001157 0406001169
 0406001182 0406001188 0406001192 0406001205 0406006005
 0406006006 0406006007 0406006008 0406006009 0406006010
 0406006011 0406006012 0406006013 0406006014 0406006015
 0406006016 0406006017 0406006018 0406006030 0406006043
 0406006050 0406006055 0406006065



3P CONTACTORS TO IEC 60947-4-1



Frame Size		22AF								
Type		TC-9b		TC-12b		TC-18b		TC-22b		
Screw type terminals		●		●		●		●		
Lug clamp terminals		-		-		-		-		
Number of poles		3 pole								
Rated operational voltage (Ue)		690V								
Rated insulation voltage (Ui)		690V								
Rated frequency		50/60 HZ								
Rated impulse withstand voltage (Uimp)		6kV								
Maximum operating rate in operating cycles per hour (AC3)		1800 operations per hour								
Durability		Mechanical		15 mil. operations						
		Electrical		2.5 mil. operations						
Current power										
AC1, Thermal current		(A)		kW	A	kW	A	kW	A	
				-	25	-	27	-	40	-
AC3	220/240V	2.5	11	3.5	13	4.5	18	5.5	22	
	380/440V	4	9	5.5	12	7.5	18	11	22	
	500/550V	4	7	7.5	12	7.5	13	15	20	
	690V	4	6	7.5	9	7.5	9	15	18	
	1000V	-	-	-	-	-	-	-	-	
Rated current										
Rated Short-time withstand current (IEC60947)		1s (A)	250		280		300		400	
		10s (A)	110		120		154		186	
		30s (A)	70		80		100		130	
		1min. (A)	61		61		84		90	
		3min. (A)	45		50		60		60	
		10min. (A)	30		30		40		50	
		≥ 15min. (A)	26		28		30		45	
Size and weight										
AC Control		Weight (kg.)		0.34						
		Size (WxHxD) (mm.)		45 x 73.5 x 87.4						
DC Control		Weight (kg.)		0.41						
		Size (WxHxD) (mm.)		45 x 73.5 x 103.6						
Auxiliary Contacts										
Auxiliary (standard)		1NO 1NC								
Side mount (optional)		TSU-01								
Front mount (optional)		TSU-20, TSU-40								

Note: Minimum conduct current of Auxiliary contactor is DC17V5mA.



TK TYPE THERMAL OVERLOAD RELAYS



Model		TK-32
Screw type terminals		●
Lug clamp terminals		-
Rated operational voltage (Ue)		690V
Rated insulation voltage (Ui)		690V
Rated impulse withstand voltage (Uimp)		6kV
Setting range A		0.1~40
Trip class		10A, 20
Size and weight		
Weight (kg.)		0.17
Size (WxHxD) (mm.)		45 x 75 x 90



40AF				65AF			
TC-32a		TC-40a		TC-50a		TC-65a	
●		●		●		●	
-		-		●		●	
3 pole				3 pole			
1000V				1000V			
1000V				1000V			
50/60Hz				50/60Hz			
8kV				8kV			
1800 operations per hour				1200 operations per hour			
12 mil. operations				12 mil. operations			
2 mil. operations				2 mil. operations			
kW	A	kW	A	kW	A	kW	A
-	55	-	60	-	100	-	115
7.5	32	11	40	15	55	18.5	65
15	32	18.5	40	22	50	30	65
18.5	28	22	32	30	43	33	60
18.5	20	22	23	30	28	33	35
22	17	22	17	30	23	30	23
600		700		1000		1050	
260		300		550		700	
160		190		330		380	
100		120		250		270	
70		80		150		260	
55		65		90		120	
50		60		87		96	
0.55				1.05			
69 x 83 x 90				79 x 106 x 119			
0.77				1.3			
69 x 83 x 117.1				79 x 106 x 146.4			
2NO2NC				2NO2NC			
TSU-01				TSU-01			
TSE-20, TSU-40				TSU-20, TSU-40			

i TK TYPE THERMAL OVERLOAD RELAYS



TK-32		TK-63	
●		●	
-		●	
690V		690V	
690V		690V	
6kV		6kV	
0.1~40		4~65	
10A, 20		10A, 20	
0.17		0.31/0.33	
45 x 75 x 90		55 x 81 x 100	



Ratings and Specifications



3P CONTACTORS TO IEC 60947-4-1



Frame Size		100AF							
Type		TC-75a		TC-85a		TC-100a			
Screw type terminals		●		●		●			
Lug clamp terminals		●		●		●			
Number of poles		3 pole							
Rated operational voltage (Ue)		1000V							
Rated insulation voltage (Ui)		1000V							
Rated frequency		50/60 HZ							
Rated impulse withstand voltage (Uimp)		8kV							
Maximum operating rate in operating cycles per hour (AC3)		1200 operations per hour							
Durability		Mechanical		12 mil. operations					
		Electrical		2 mil. operations		1 mil. operations			
Current power									
		kW		A		kW		A	
AC1, Thermal current		(A)		-		125		160	
AC3	220/240V	22	75	25	85	30	105		
	380/440V	37	75	45	85	55	105		
	500/550V	37	64	45	75	55	85		
	690V	37	42	45	45	55	65		
	1000V	37	28	37	28	37	28		
Rated current									
Rated Short-time withstand current (IEC60947)		1s (A)		1100		1200		1320	
		10s (A)		750		800		900	
		30s (A)		400		450		500	
		1min. (A)		300		350		400	
		3min. (A)		220		270		270	
		10min. (A)		140		170		180	
		≥ 15min. (A)		114		150		160	
Size and weight									
AC Control		Weight (kg.)		1.93					
		Size (WxHxD) (mm.)		94 x 140 x 135.8					
DC Control		Weight (kg.)		2.8					
		Size (WxHxD) (mm.)		94 x 140 x 172.3					
Auxiliary Contacts									
Auxiliary (standard)		2NO2NC							
Side mount (optional)		TSU-01							
Front mount (optional)		TSU-20, TSU-40							

Note: Minimum conduct current of Auxiliary contactor is DC17V5mA.



TK TYPE THERMAL OVERLOAD RELAYS



Model		TK-95	
Screw type terminals		●	
Lug clamp terminals		●	
Rated operational voltage (Ue)		690V	
Rated insulation voltage (Ui)		690V	
Rated impulse withstand voltage (Uimp)		6kV	
Setting range A		7~100	
Trip class		10A, 20	
Size and weight			
Weight (kg.)		0.48/0.5	
Size (WxHxD) (mm.)		70 x 97 x 110	



150AF				225AF				400AF						800AF					
TC-130a		TC-150a		TC-185a		TC-225a		TC-265a		TC-330a		TC-400a		TC-500a		TC-630a		TC-800a	
●		●		●		●		●		●		●		●		●		●	
●		●		●		●		-		-		-		-		-		-	
3 pole				3 pole				3 pole						3 pole					
1000V				1000V				1000V						1000V					
1000V				1000V				1000V						1000V					
50/60Hz				50/60Hz				50/60Hz						50/60Hz					
8kV				8kV				8kV						8kV					
1200 operations per hour				1200 operations per hour				1200 operations per hour						1200 operations per hour					
5 mil. operations				5 mil. operations				5 mil. operations				2.5 mil. ops		2.5 mil. operations					
1 mi. operations				1 mil. operations				1 mil. operations				0.5 mil. ops		0.5 mil. operations					
KW	A	KW	A	KW	A	KW	A	KW	A	KW	A	KW	A	KW	A	KW	A	KW	A
200	-	250	-	300	-	350	-	400	-	500	-	520	-	700	-	900	-	1050	-
37	130	45	150	55	185	75	225	80	265	90	330	125	400	147	500	190	630	220	800
60	130	75	150	90	185	132	225	147	265	160	330	200	400	265	500	330	630	440	800
60	90	70	100	110	180	132	200	147	225	160	280	225	350	265	400	330	500	500	720
55	60	55	60	110	120	140	150	160	185	200	220	250	300	300	380	400	420	500	630
75	50	75	50	132	90	132	90	147	105	147	105	147	105	280	220	280	220	280	220
1350		1800		2000		2500		3500		4000		4600		6000		7000		7500	
950		1200		1500		1700		2400		3000		4400		5050		6400		7000	
700		800		1000		1200		1500		2500		2974		4400		4500		4900	
550		600		800		1000		1100		1700		1846		3400		3500		3800	
350		450		520		700		800		1000		1313		2000		2200		2500	
200		300		350		500		600		620		760		1400		1550		1550	
175		280		320		400		500		553		699		1100		1300		1300	
2.4				5.4				9.2						22.2					
119 x 158 x 130.3				138 x 203 x 185.1				163 x 243 x 204.4						285 x 310 x 246					
2.4				5.4				9.2						22.2					
119 x 158 x 130.3				138 x 203 x 185.1				163 x 243 x 204.4						285 x 310 x 246					
2NO2NC				2NO2NC				2NO2NC						2NO2NC					
TSU-01				TSU-100, TSU-100E				TSU-100, TSU-100E						TSU-100, TSU-100E					
TSU-20, TSU-40				-				-						-					



TK TYPE THERMAL OVERLOAD RELAYS

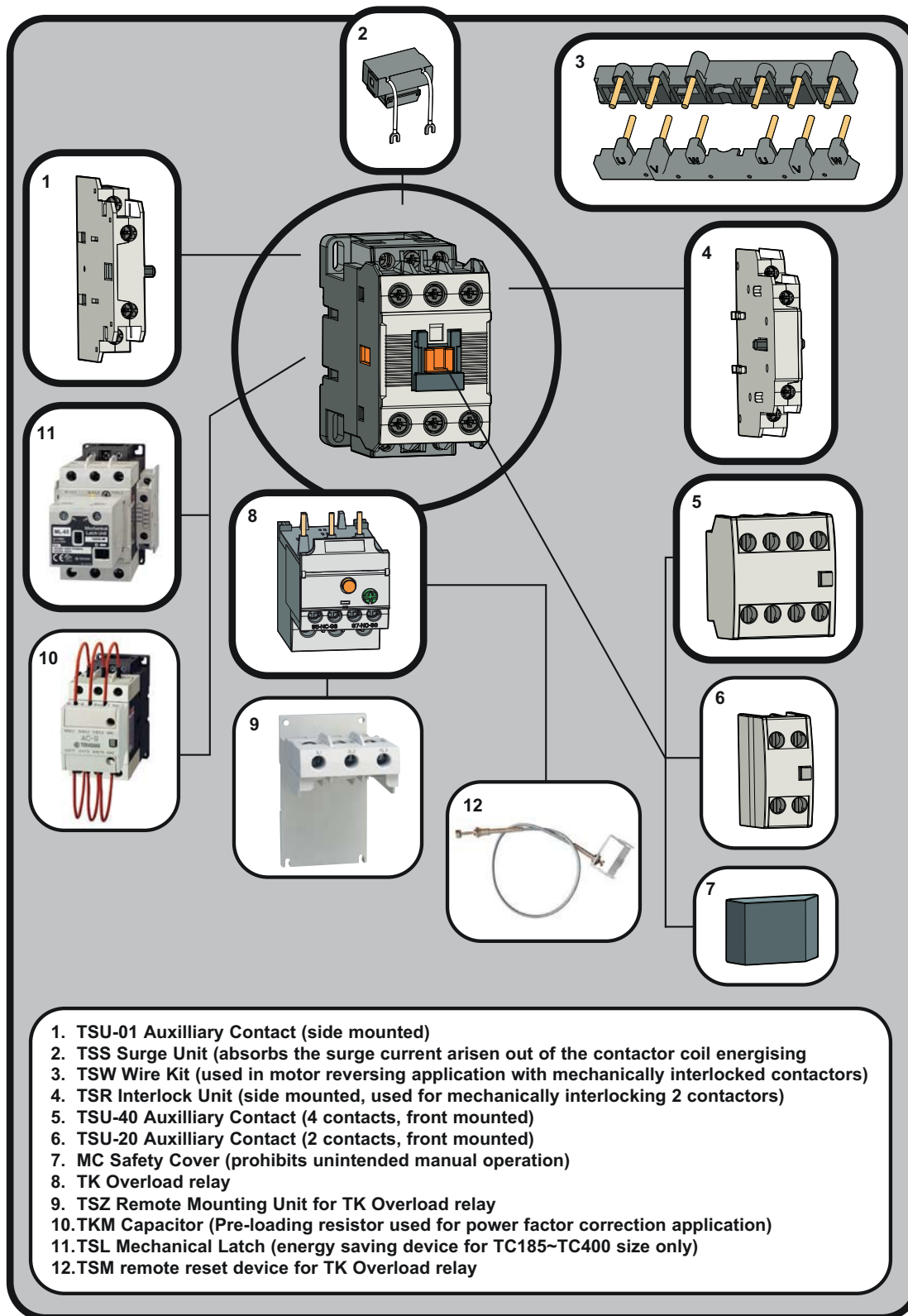


TK-150	TK-225	TK-400	TK-800
●	●	●	●
●	●	●	●
690V	690V	690V	690V
690V	690V	690V	690V
6kV	6kV	6kV	6kV
34~150	65~240	85~400	200~800
10A, 20	10A, 20	10A, 20	10A, 20
0.67	2.5	2.6	11.5
95 x 109 x 113	147 x 141 x 184	151 x 171 x 198	360 x 530 x 212



Accessories

EASY TO INSTALL • SIMPLE OPERATION • RELIABLE



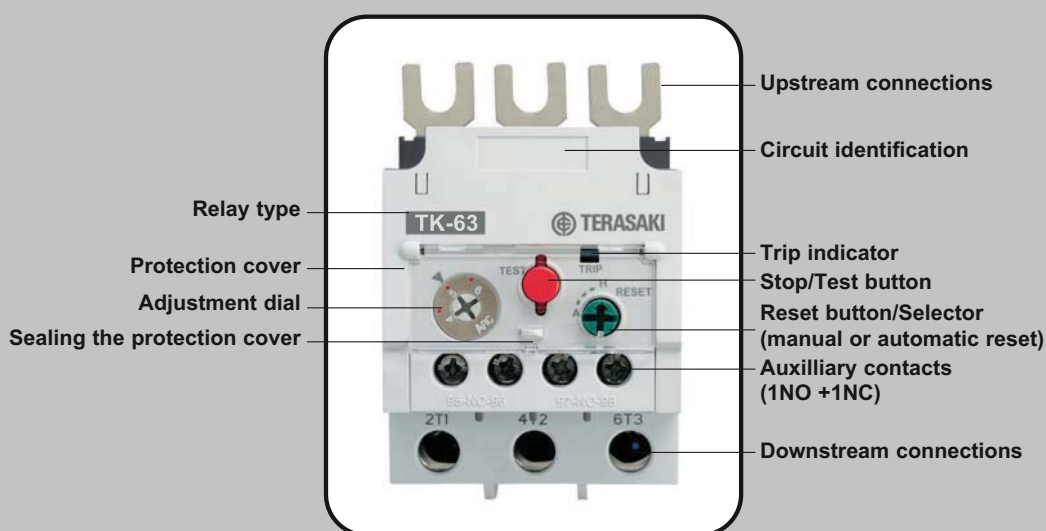


Thermal Overload Relays

General description

TK type, bimetal-style overload relays are designed to protect AC circuits and motors against overloads, phase failure, long starting times and prolonged stalling of the motor.

The protection function and trip class is Differential: 3 pole-3bimetal (heater) and trip class 20.



TK-32



TK-63



TK-95



TK-150



TK-225



TK-400



TK-800

