



Thermal Overload Relay

■ Features

- International safety standards for standard models (IEC, GB, JIS, UL, and CSA).
- A terminal cover and dial cover are provided as standard features.
- Highly reliable 1NO1NC isolated auxiliary contacts to enable using NC and NO contacts at different potentials.
- Easily switch between manual and automatic reset.
- Parallel arrangement of main terminals and auxiliary terminals for easier wiring.

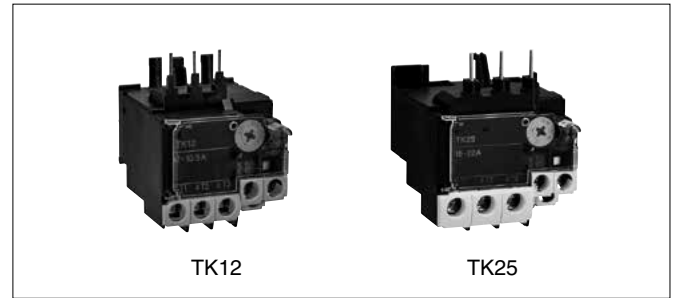
■ Ratings and Types

Type
TK12W□-■■■■
TK25□-■■■■
TK26□-■■■■

Note. "□" in the type column is replaced with the reset method code.
 "■■■■" is replaced by the specified code for the current setting range.

■ Ampere Setting Range Specification Codes

Type			Ampere setting range (A)	Ordering code	Applicable magnetic contactors					
TK12	TK25	TK26	0.1 - 0.15	P10	SK06	SK09	SK12	SK18	SK22	SK32
			0.13 - 0.2	P13						
			0.18 - 0.27	P18						
			0.24 - 0.36	P24						
			0.34 - 0.52	P34						
			0.48 - 0.72	P48						
			0.64 - 0.96	P64						
			0.8 - 1.2	P80						
			0.95 - 1.45	P95						
			1.1 - 1.65	1P1						
			1.4 - 2.1	1P4						
			1.7 - 2.6	1P7						
			2.2 - 3.4	2P2						
			2.8 - 4.2	2P8						
			4 - 6	004						
			5 - 7.5	005						
			6 - 9	006						
			7 - 10.5	007						
			9 - 13	009						
			12 - 18	012						
16 - 22	016									
20 - 26	020									
26 - 32	026									
-	-	-	-	-	-	-	-	-	-	



■ Ordering Information (Types)

- Thermal Overload Relay

TK 12 W A - 009

① ② ③ ④ ⑤

① Type

② Frame size

③ Mounting * TK12 only

④ Reset method

⑤ Ampere setting range *

* Refer to Heat Element Rating Specification Codes.



■ Auxiliary Circuit Ratings

● Ratings for IEC Standard Compliance

Type	Conventional free air thermal current [A] (Rated continuous current)	Rated operational current [A]					Minimum voltage and current
		Rated operational voltage [V]	AC-15 (Ind. load)		DC-13 (Ind. load)		
			NC contacts	NO contacts	NC contacts	NO contacts	
TK12	5	24	3 (0.5)	3 (0.5)	1.1(0.3)	1.1 (0.3)	DC5V, 3mA
		100-120	2.5 (0.5)	2.5 (0.5)	0.28	0.28	
		200-240	2 (0.5)	1.5 (0.5)	0.14	0.14	
		380-440	1 (0.5)	0.75 (0.5)	–		
		500-600	0.6 (0.5)	0.6 (0.5)	–		
TK25 TK26	5	24	3 (0.5)	3 (0.5)	1.1(0.3)	1.1 (0.3)	DC5V, 3mA
		100-120	2.5 (0.5)	2.5 (0.5)	0.28	0.28	
		200-240	2 (0.5)	2 (0.5)	0.14	0.14	
		380-440	1 (0.5)	1 (0.5)	–		
		500-600	0.6 (0.5)	0.6 (0.5)	–		

Numbers in brackets () are for automatic reset.

● Ratings for UL and CSA Standard Compliance

Type	Rated continuous current [A]	Rated operational current [A]						Rating code	
		AC			DC			AC	DC
		Rated operational voltage [V]	Making	Breaking	Rated operational voltage [V]	Making	Breaking		
TK12 TK25 TK26	5	120	30	3	125	0.22	0.22	B600	R300
		240	15	1.5					
		480	7.5	0.75	250	0.11	0.11		
		600	6	0.6					

■ Operating Characteristics (Specifications)

● 3-pole Circuits

Standard	Operating limit		Overload (hot start)	Locked rotor (cold start)	Ambient temperature
	Non-tripping	Tripping			
IEC 60947-4-1	105% I _e (for less than 2h)	120% I _e (for less than 2h)	Tripping class 10A: 150% I _e for less than 2min	Tripping class 10A: 720% I _e for 2 to 10 s max.	20°C

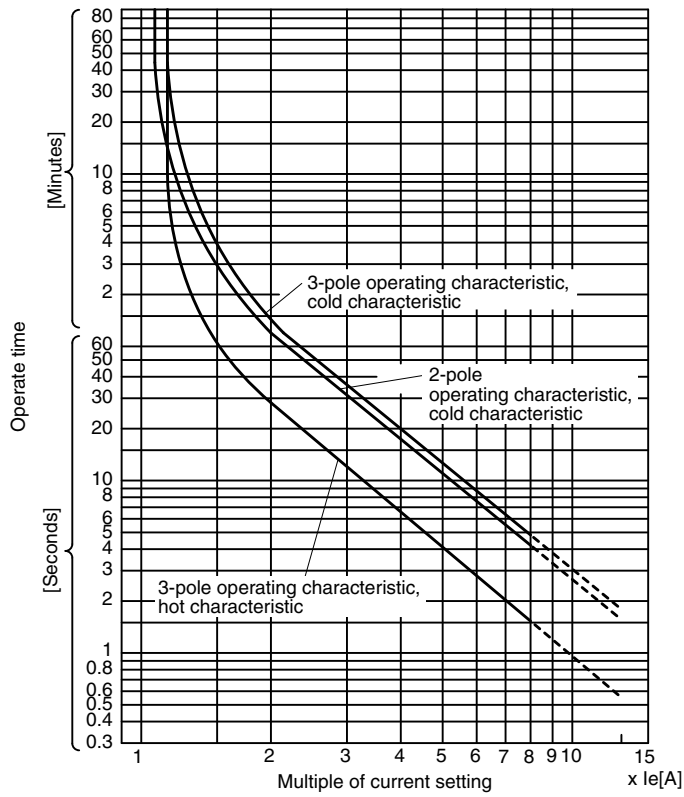
● 2-pole Circuits

Standard	Phase-loss protection	Non-tripping	Operation (hot start)	Ambient temperature
IEC 60947-4-1	Provided.	2-pole: 100% I _e 1-pole: 90% I _e	{ 2-pole: 115% I _e (for less than 2h) 1-pole: 0% I _e	20°C

■ Operating Characteristics Curves (Average Values)

- Tripping Class 10A

TK12, TK25, TK26 series, Ambient temperature: 20°C



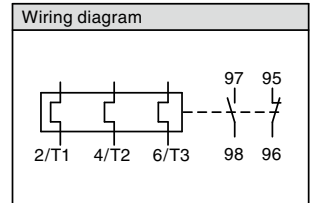
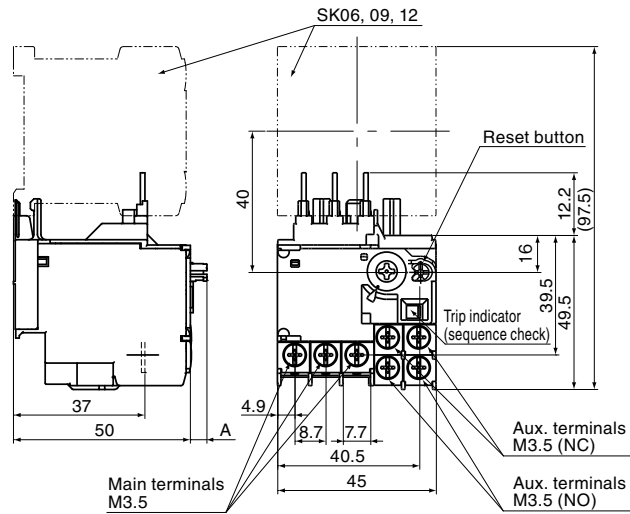


Magnetic-Contactors

Thermal Overload Relay

■ Dimensions, mm

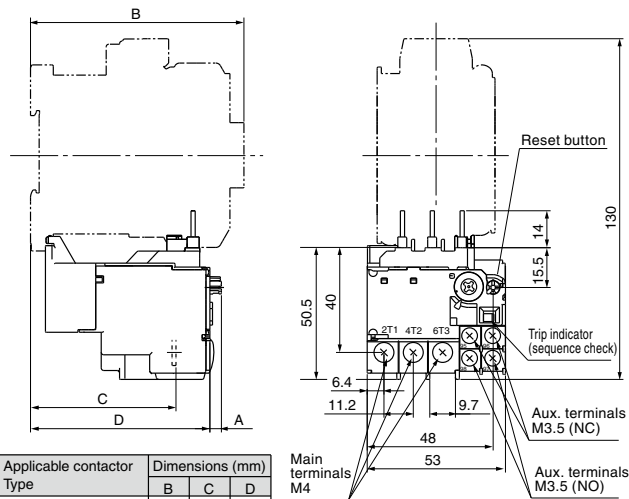
● Thermal Overload Relay TK12



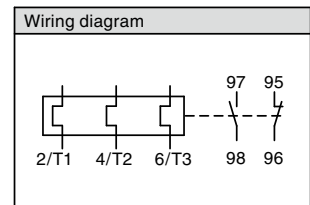
Mass : 0.1kg

Dimension A
 - Manually reset state: 5mm
 - Automatically reset state: 2mm

TK25



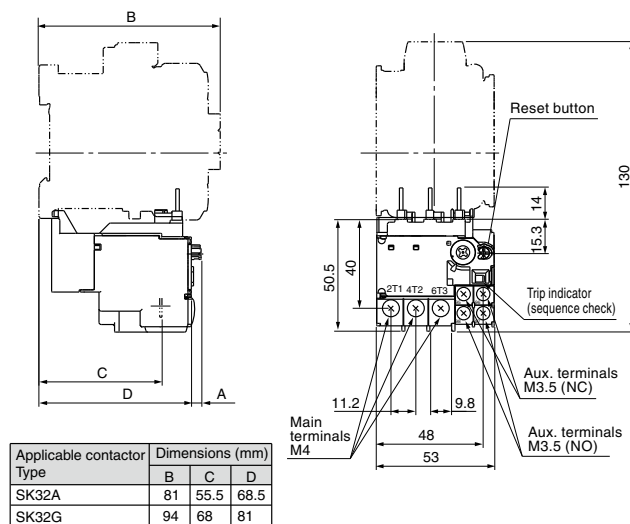
Applicable contactor Type	Dimensions (mm)		
	B	C	D
SK18A SK22A	81	55.5	68.5
SK18G SK22G	94	68.5	81.5



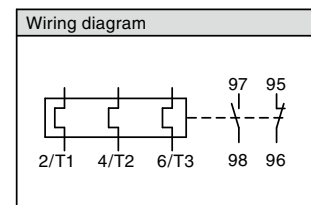
Mass: 0.11kg

Dimension A
 - Manually reset state: 5mm
 - Automatically reset state: 2mm

TK26



Applicable contactor Type	Dimensions (mm)		
	B	C	D
SK32A	81	55.5	68.5
SK32G	94	68	81



Mass: 0.11kg

Dimension A
 - Manually reset state: 5mm
 - Automatically reset state: 2mm