

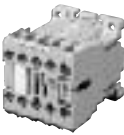





























# Contactors SC-M and SC-E series

## Quick reference guide

Contactor	AC operating	SC-M01	SC-M02	SC-E02	SC-E03	SC-E04	SC-E05	SC-E1
	DC operating	SC-M01/G	SC-M02/G	SC-E02/G	SC-E03/G	SC-E04/G	SC-E05/G	SC-E1/G
								
		KK02-292	KK02-292	AF01-12	AF01-11	AF01-10	KK01-105	AF01-8
Rating of 3-phase motor (HP)								
200V		1-1/2	3	2	3	5	5	7 1/2
220-240V		1-1/2	3	2	3	5	7 1/2	10
400-480V		3	5	5	7 1/2	10	15	25
550-600V		3	5	5	7 1/2	10	15	25
Rated operational current (A)								
200V		6.9	11	7.8	11	17.5	17.5	25.3
220-240V		6	9.6	6.8	9.6	15.2	22	28
400-480V		4.8	7.6	7.6	11	14	21	34
550-600V		3.9	6.1	6.1	9	11	17	27
Rated thermal current AC-1 (A)		20	20	20	20	25	32	50
Auxiliary contact		1NO, 1NC	1NO, 1NC	–	–	–	–	–
Dimensions AC operated		45×48×56		43×80×81				54×90×96
W×H×D (mm) DC operated		45×48×68		43×80×108				54×90×121.5
Standard		IEC 60947-1, EN 60947-4-1, VDE 0660, UL 508, CSA C22.2						
<b>Thermal overload relay</b>				<b>TK-E02</b>	<b>TK-E02</b>	<b>TK-E02</b>	<b>TK-E02</b>	<b>TK-E2</b>
								
				KK01-86	KK01-86	KK01-86	KK01-86	KK01-88
Ampere setting range (A)				0.1–0.15	0.1–0.15	0.1–0.15	0.1–0.15	4–6
				0.13–0.2	0.13–0.2	0.13–0.2	0.13–0.2	5–8
				0.15–0.24	0.15–0.24	0.15–0.24	0.15–0.24	6–9
				0.2–0.3	0.2–0.3	0.2–0.3	0.2–0.3	7–11
				0.24–0.36	0.24–0.36	0.24–0.36	0.24–0.36	9–13
				0.3–0.45	0.3–0.45	0.3–0.45	0.3–0.45	12–18
				0.36–0.54	0.36–0.54	0.36–0.54	0.36–0.54	18–26
				0.48–0.72	0.48–0.72	0.48–0.72	0.48–0.72	24–36
				0.64–0.96	0.64–0.96	0.64–0.96	0.64–0.96	
				0.8–1.2	0.8–1.2	0.8–1.2	0.8–1.2	
				0.95–1.45	0.95–1.45	0.95–1.45	0.95–1.45	
				1.4–2.2	1.4–2.2	1.4–2.2	1.4–2.2	
				1.7–2.6	1.7–2.6	1.7–2.6	1.7–2.6	
				2.2–3.4	2.2–3.4	2.2–3.4	2.2–3.4	
				2.8–4.2	2.8–4.2	2.8–4.2	2.8–4.2	
				4–6	4–6	4–6	4–6	
				5–8	5–8	5–8	5–8	
				6–9	6–9	6–9	6–9	
				7–11	7–11	7–11	7–11	
					9–13	9–13	9–13	
						12–18	12–18	
							16–22	
							20–25	
Dimensions W×H×D (mm)				53×60.5×80.5				54×78.5×97
Standard		IEC 60947-1, EN 60947-4-1, VDE 0660, UL 508, CSA C22.2						

# Contactors SC-M and SC-E series

## Quick reference guide

Contactors	AC operating	SC-E2	SC-E2S	SC-E3	SC-E4	SC-E5	SC-E6	SC-E7	
	DC operating	SC-E2/G	SC-E2S/G	SC-E3/G	SC-E4/G				
									
		AF01-7	AF01-6	AF01-5	AF01-4	AF01-3	AF01-2	AF01-1	
Rating of 3-phase motor (HP)									
200V		10	15	20	25	30	40	50	
220-240V		15	20	25	30	30	40	50	
400-480V		30	30	50	50	60	75	100	
550-600V		30	30	50	50	75	100	125	
Rated operational current (A)									
200V		32.2	48.3	63.1	78.2	92	119.6	149.5	
220-240V		42	54	68	80	80	104	130	
400-480V		40	40	65	65	77	96	124	
550-600V		32	32	52	52	77	99	125	
Rated thermal current AC-1 (A)		60	65	100	105	150	150	200	
Auxiliary contact		–	–	–	–	2NO+2NC	2NO+2NC	2NO+2NC	
Dimensions W×H×D (mm)	AC operated	54×90×96			67×112×111		88×155×132	100×169×138	115×175×140
	DC operated	54×90×121.5			67×112×130				
Standard		IEC 60947-1, EN 60947-4-1, VDE 0660, UL 508, CSA C22.2							
<b>Thermal overload relay</b>		<b>TK-E2</b>	<b>TK-E2</b>	<b>TK-E3</b>	<b>TK-E3</b>	<b>TK-E5</b>	<b>TK-E6</b>	<b>TK-E6</b>	
									
		KK01-88	KK01-88	KK01-87	KK01-87	KK01-85	KK01-84	KK01-84	
Ampere setting range (A)									
		4–6	4–6	7–11	7–11	18–26	45–65	45–65	
		5–8	5–8	9–13	9–13	24–36	53–80	53–80	
		6–9	6–9	12–18	12–18	28–40	65–95	65–95	
		7–11	7–11	18–26	18–26	34–50	85–125	85–125	
		9–13	9–13	24–36	24–36	45–65		110–160	
		12–18	12–18	28–40	28–40	65–95			
		18–26	18–26	34–50	34–50	85–105			
		24–36	24–36	45–65	45–65				
		32–42	32–42	48–68	48–68				
			40–50		64–80				
			44–54						
Dimensions W×H×D (mm)		54×78.5×97			68×89.5×107.5		76.5×105×106	100×122×123	
Standard		IEC 60947-1, EN 60947-4-1, VDE 0660, UL 508, CSA C22.2							

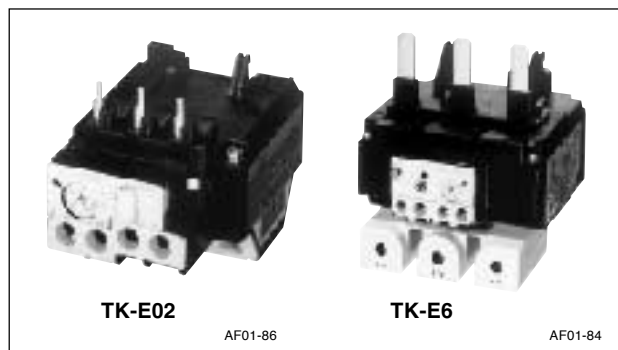
# Thermal overload relays TK-E series

## Quick reference guide and Ordering information

### TK-E series with open-phase protection device

#### ■ Features

- This relay protects motor windings from burning due to overloads, locked rotor current, or open-phases.
- Maintenance and inspection safety has been improved by employing a finger protection mechanism to cover exposed terminals (conforms to DIN 57106, VDE 0106 Teil 100).
- A high-precision scale for the current adjustment dial enables easy and exact current setting.
- The operating status can be visually checked with ease.
- The relays can be manually tripped. A trip-free mechanism is also provided.
- Base unit can be added to enable separate-mounting types of the TK-E02, E2, and E3 models.



#### ■ Part number and specification

Applicable contactor	Part number	Aux. contact	Trip category (JIS)	No. of heater elements	Power consumption per pole	Provided functions
SC-E02 to E05, E02/G to E05/G	<b>TK-E02</b>	1NO+1NC	10A	3	2.2VA	Overload, phase-loss protection□ Ambient temperature compensation□ Manual or auto reset selectable□ Manual trip mechanism□ Trip indicator
SC-E1 to E2S, E1/G to E2S/G	<b>TK-E2</b>				3.8VA	
SC-E3, E4, E3/G, E4/G	<b>TK-E3</b>				6.6VA	
SC-E5	<b>TK-E5</b>				6.6VA	
SC-E6, E7	<b>TK-E6</b>				8.0VA	

Note: Separate mounting type is available for TK-E6. The part number is TK-E6H.

#### ■ Ampere ranges

Thermal overload relay type				
TK-E02	TK-E2	TK-E3	TK-E5	TK-E6, E6H *
0.1-0.15				
0.13-0.2				
0.15-0.24				
0.2-0.3				
0.24-0.36				
0.36-0.54				
0.48-0.72				
0.64-0.96				
0.8-1.2				
0.95-1.45				
1.4-2.2				
1.7-2.6				
2.2-3.4				
2.8-4.2				
4-6	4-6			
5-8	5-8			
6-9	6-9			
7-11	7-11	7-11		
9-13	9-13	9-13		
12-18	12-18	12-18		
16-22				
20-25	18-26	18-26	18-26	
	24-36	24-36	24-36	
		28-40	28-40	
	32-42			
		34-50	34-50	
	40-50			
	44-54			
		45-65	45-65	45-65
		48-68		
				53-80
		64-80		
			65-95	65-95
			85-105	
				85-125
				110-160

Note: \* Applicable only for separate-mounting type. Not applicable for use in combination with a magnetic contactor

#### ■ Standards

IEC 60947-4-1, EN60947-4-1  
 VDE 0660, JIS C 8201-4-1  
 UL 508, CSA C22.2

#### ■ Ordering information

Specify the following:

1. Part number
2. Ampere range

