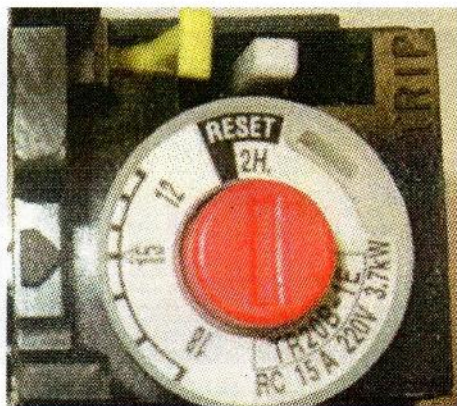
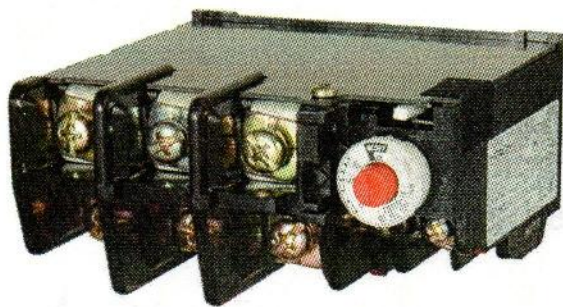


Features

- IEC standard satisfied
- Automatic and manual reset
- Easy to use

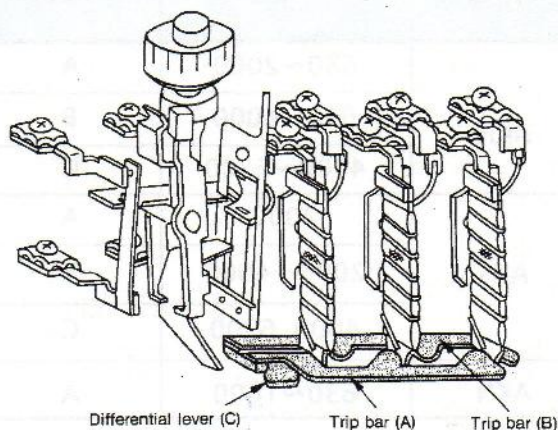
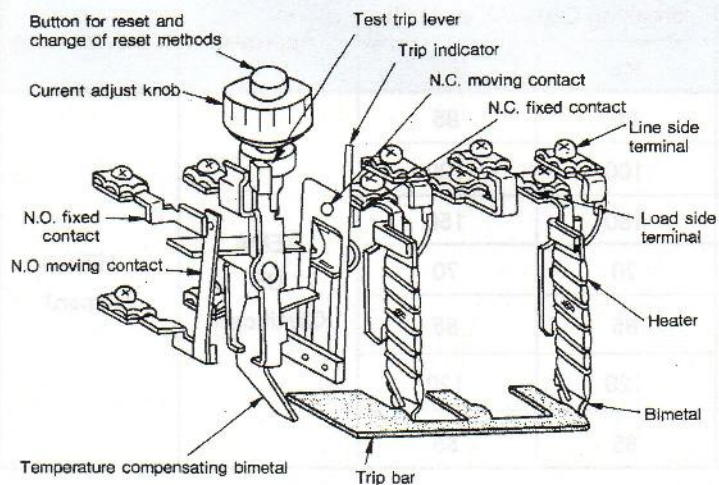
Type

- 1E : Standard relay with overload protection
- 2E : Relay with overload and single phase protection (same size with 1E relay)



Category Frame	Standard relay with overload protection (1E)	Standard relay with overload protection (1E)	Production by
12B	○	○	HITT (Thailand)
20B	○	○	
25B	○	○	
80B	○	○	
150B	○	○	
250B	○	○	HIES (Japan)
400B	○	○	
600B	○	○	

Thermal overload relays



Internal structure of standard type (1E)

Internal structure of standard type (2E)

Thermal Overload Relays

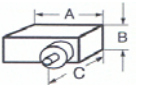

Model : Standard Type (1E) Thermal Overload Relays

Model		Standard Type (1E) Thermal Overload Relays (Overload and Lock Protections)																			
Frame		12B		20B		25B		50B		80B		150B		250B		400B		600B			
Type		TR12B -1E		TR20B -1E		TR25B -1E		TR50B -1E		TR80B -1E		TR150B -1E		*TR250B -1E		*TR400B -1E		*TR600B -1E			
Heater Specifications	Type of Heater (Center RC Value) (A)	0.2	0.3	0.2	0.3	20	9	20	80	(140)	(140)	(140)									
		0.5	0.8	0.5	0.8	22	11	28	105	(240)	(240)	(240)									
		1.2	1.4	1.2	1.4		15	40	130	(380)	(380)	(380)									
		2.4	3.8	2.4	3.8		20	55												(500)	
		5.0	6.8	5.0	6.8		28	67													
		9	11	9	11		40														
					15		55														
*Numbers of heat elements		2		2		2		2		2		2		2		2		2			
Heat element consumption VA(VA/ 1 phase)		1.9		1.9		1.9		4.1		7.6		7.6		1.9		1.9		1.9			
External Dimensions (mm)		A		45		63		63		85		102.5		102.5		148		164		230	
		B		71		45		54		45		55		87		120		135		179	
		C (Height to Reset Button)		78.5		72.5		72.5		73.5		73.5		73.5		167		167		170	
Net weight (kg)		0.1		0.15		0.17		0.25		0.36		0.37		2.0		2.0		5.0			
Terminal Screw Diam	Main Circuit	M3.5		M4		M4 (Line) M5 (Load)		M5		M6		M6 (Line) M8 (Load)		M10		M12		M12			
	Operating Circuit	M3.5		M3.5		M3.5		M3.5		M3.5		M3.5		M3.5		M3.5		M3.5			
Contract Specifications	Type of Contact		1N01NC																		
	Arrangement											95-96 (NC contact) 97-98 (NO contact)									
	Rated Insulation Voltage (V)		600																		
	Rated Thermal Current (A)		NC contact : 3 , NO contact : 2																		
	Rated Operational Current (A) (Values in parenthesis : for Automatic reset)	AC (AC15)	110V	NC contact : 3 (1) , NO contact : 2 (0.5)																	
			220V	NC contact : 2 (1) , NO contact : 1 (0.5)																	
			440V	NC contact : 1 (0.3) , NO contact : 0.5 (0.2)																	
			550V	NC contact : 1 (0.3) , NO contact : 0.5 (0.2)																	
		DC L/R ≤ 40ms	24V	NC contact : 1 (0.4) , NO contact : 0.5 (0.2)																	
			48V	NC contact : 0.5 (0.2) , NO contact : 0.2 (0.1)																	
110V		NC contact : 0.2 (0.1) , NO contact : 0.1 (0.05)																			
220V		NC contact : 0.1 (0.05) , NO contact : 0.1 (0.05)																			
Minimum Rating		NC contact : 24V 200mA , NO contact : 24V 10mA																			
Reset Method		** both as Manual and Automatic reset																			
Separate Mounting		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Refer Remarks 4
Protection Cover of Adjusting Knob		<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Option	Reset Release	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Lamp Unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Safety Cover	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>	-	<input type="radio"/>
	Separate (DIN rail) Mounting Unit	<input type="radio"/>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Applicable Electromagnetic Contactor		H8C	H20		H25		H35		H65C		H100C		H200C		H300C		H600C				
		H10C					H50		H80C		H125C		H250C		H400C						
		H11									H150C										
		H12																			
		H10B-R																			
Conforming Standard		JIS,JEM,IEC,BS,VDE(3 Heat Element Only)																			



Thermal Overload Relays

Model : 2E Thermal Overload Relays

Model		2E Thermal Overload Relays (Overload, Lock Protections and Phase - failure Protections)										
Frame		12B	20B	25B	50B	80B	150B	250B	400B	600B		
Type		TR12B -2E	TR20B -2E	TR25B -2E	TR50B -2E	TR80B -2E	TR150B -2E	*TR250B -2E	*TR400B -2E	*TR600B -2E		
Heater Specifications	Type of Heater (Center RC Value) (A)	0.2	0.3	0.2	0.3	20	9	20	80	(140)	(140)	(140)
		0.4	0.5	0.4	0.5	22	11	28	105	(180)	(180)	(180)
		0.6	0.8	0.6	0.8		15	40	130	(240)	(240)	(240)
		1.0	1.2	1.0	1.2		20	55			(300)	(300)
		1.4	1.8	1.4	1.8		28	67			(380)	(380)
		2.4	3.0	2.4	3.0		40					(500)
		3.8	5.0	3.8	5.0		55					
		6.8	9.0	6.8	9.0							
		11		11	15							
		*Numbers of heat elements		3	3	3	3	3	3	3	3	3
Heat element consumption VA(VA/ 1 phase)		1.9	1.9	1.9	4.1	7.6	7.6	1.9	1.9	1.9		
External Dimensions (mm)		A	45	63	63	85	102.5	102.5	148	164	230	
		B	71	45	54	45	55	87	120	135	179	
		C (Height to Reset Button)	78.5	72.5	72.5	73.5	73.5	73.5	167	167	170	
Net weight (kg)		0.1	0.15	0.17	0.25	0.36	0.37	2.0	2.0	5.0		
Terminal Screw Diam	Main Circuit	M3.5	M4	M4 (Line)	M5	M6	M6 (Line) M8 (Load)	M10	M12	M12		
	Operating Circuit	M3.5	M3.5	M5 (Load)	M3.5	M3.5	M3.5	M3.5	M3.5	M3.5		
Contract Specifications	Type of Contact		1N01NC									
	Arrangement											
	Rated Insulation Voltage (V)		600									
	Rated Thermal Current (A)		NC contact : 3 , NO contact : 2									
	Rated Operational Current (A) (Values in parenthesis : for Automatic reset)	AC (AC15)	110V	NC contact : 3 (1) , NO contact : 2 (0.5)								
			220V	NC contact : 2 (1) , NO contact : 1 (0.5)								
			440V	NC contact : 1 (0.3) , NO contact : 0.5 (0.2)								
			550V	NC contact : 1 (0.3) , NO contact : 0.5 (0.2)								
		DC L/R ≤ 40ms	24V	NC contact : 1 (0.4) , NO contact : 0.5 (0.2)								
			48V	NC contact : 0.5 (0.2) , NO contact : 0.2 (0.1)								
110V			NC contact : 0.2 (0.1) , NO contact : 0.1 (0.05)									
220V			NC contact : 0.1 (0.05) , NO contact : 0.1 (0.05)									
Minimum Rating		NC contact : 24V 200mA , NO contact : 24V 10mA										
Reset Method		** both as Manual and Automatic reset										
Separate Mounting		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Refer Remarks 4			
Protection Cover of Adjusting Knob		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
Option	Reset Release	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
	Lamp Unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
	Safety Cover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
	Separate (DIN rail) Mounting Unit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
Applicable Electromagnetic Contactor		H8C	H20	H25	H35	H65C	H100C	H200C	H300C	H600C		
		H10C			H50	H80C	H125C	H250C	H400C			
		H11					H150C					
		H12										
		H10B-R										
Conforming Standard		JIS,JEM,IEC,BS,VDE(3 Heat Element Only)										



TR150B



TR250B



TR400B



TR600B