

# Overload Relays

## Specifications

### Electrical characteristics of power circuit

Relay type		GT12	GT32	GT63		GT95	
Type	Differential type (Phase failure protection)	GT125	GT32S	GT63S	GT63L	GT95S	GT95L
Tripping class(IEC 60947-4-1)	10	10	10	10	10	10	10
Terminal type	Screw clamp	Screw clamp	Screw clamp	Lug	Screw clamp	Lug	Lug
Number of poles	3	3	3	3	3	3	3
Rated operational voltage (Ue)	Up to 690V	Up to 690V	Up to 690V	Up to 690V	Up to 690V	Up to 690V	Up to 690V
Rated insulation voltage (Ui)	690V	690V	690V	690V	690V	690V	690V
Rated impulse voltage (Uimp)	6kV	6kV	6kV	6kV	6kV	6kV	6kV
Setting range	0.1~12A	0.1~32A	4~65A	4~65A	7~95A	7~95A	7~95A
Degree of protection (IEC 60 529)	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Temperature compensation (°C)	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40	-5 ~ +40
Functions							
	Trip indicating	●	●	●	●	●	●
	Stop	●	●	●	●	●	●
	Test	●	●	●	●	●	●
	Manual/Automatic Reset	●	●	●	●	●	●
Applied contactors		GC-9, 12	GC-18, 25, 32	GC-35, 40, 50, 63		GC-65, 75, 85, 95	

Note) is rated current.

### Detail setting range and connection cable

Class	12AF	32AF	63AF	95AF	Current Setting range(A)	Wire			Short circuit "r"	
						Size		Type		Max. number of conductors
						mm <sup>2</sup>	AWG			
●	●				0.1~0.16	1	18	65/75°C Cu-wire only	2	-
●	●				0.16~0.25					
●	●				0.25~0.4					
●	●				0.4~0.63					
●	●				0.63~1					
●	●				1~1.6					
●	●				1.6~2.5					
●	●				2.5~4					
●	●	●			4~6					
●	●	●			5~8					
●	●	●			6~9	1~1.5	18 ~ 16	65/75°C Cu-wire only	2	1kA
●	●	●			7~10					
●	●	●	●		9~13					
	●	●	●		12~18					
	●	●	●		16~22					
	●	●	●		18~25					
	●	●	●		22~32					
		●	●		24~36					
		●	●		28~40					
		●	●		34~50					
		●	●		45~65	10~16	8~6	65/75°C Cu-wire only	2	3kA
			●		54~75					
			●		63~85					
			●		70~95	25~35	4~3	65/75°C Cu-wire only	2	5kA

# Overload Relays

## Characteristics class 10A

differential 3 heater type for direct mounting beneath contactors  
with connection by screw clamp terminals



Corresponding Contactors Type	Relay Setting Range A	Relay Types Differential 3 Heaters	Weight kg
GC9S GC12S	0.1~0.16	GT12S0.16A	0.1
	0.16~0.25	GT12S0.25A	
	0.25~0.4	GT12S0.4A	
	0.4~0.63	GT12S0.63A	
	0.63~1	GT12S1A	
	1~1.6	GT12S1.6A	
	1.6~2.5	GT12S2.5A	
	2.5~4	GT12S4A	
	4~6	GT12S6A	
	5~8	GT12S8A	
	6~9	GT12S9A	
	7~10	GT12S10A	
	9~13	GT12S13A	
GC18S GC25S GC32S	0.1~0.16	GT32S0.16A	0.17
	0.16~0.25	GT32S0.25A	
	0.25~0.4	GT32S0.4A	
	0.4~0.63	GT32S0.63A	
	0.63~1	GT32S1A	
	1~1.6	GT32S1.6A	
	1.6~2.5	GT32S2.5A	
	2.5~4	GT32S4A	
	4~6	GT32S6A	
	5~8	GT32S8A	
	6~9	GT32S9A	
	7~10	GT32S10A	
	9~13	GT32S13A	
	12~18	GT32S18A	
	16~22	GT32S22A	
18~25	GT32S25A		
22~32	GT32S32A		

### Accessories

Separate mounting adapters and remote reset unit :  
see pages B-2-7 to B-2-8

### Mounting

Direct mounting on to a contactor with screw clamp terminals

## Characteristics class 10A

differential 3 heater type for direct mounting beneath contactors  
with connection by lug terminals



GT63L



GT95L

Corresponding Contactors Type	Relay Setting Range A	Relay Type Differential 3 Heaters	Weight Kg	
GC35L	4~6	GT63L6A	0.33	
GC40L	5~8	GT63L8A		
GC50L	6~9	GT63L9A		
GC63L	7~10	GT63L10A		
	9~13	GT63L13A		
	12~18	GT63L18A		
	16~22	GT63L22A		
	18~25	GT63L25A		
	24~36	GT63L36A		
	28~40	GT63L40A		
	34~50	GT63L50A		
	45~65	GT63L65A		
GC65L	7~10	GT95L10A		0.50
GC75L	9~13	GT95L13A		
GC85L	12~ 18	GT95L18A		
GC95L	16~22	GT95L22A		
	18~25	GT95L25A		
	24~36	GT95L36A		
	28~40	GT95L40A		
	34~50	GT95L50A		
	45~65	GT95L65A		
	54~75	GT95L75A		
	63~85	GT95L85A		
	70~95	GT95L95A		

### Accessories

Separate mounting adapters and remote reset unit :  
see pages B-2-7 to B-2-8

### Mounting

Direct mounting on to a contactor with lug terminals

# Overload Relays

## Characteristics class 10A

differential 3 heater type for direct mounting beneath contactors  
with connection by screw clamp terminals



GT63S



GT95S

Corresponding Contactors Type	Relay Setting Range A	Relay Types Differential 3 Heaters	Weight kg	
GC35S	4-6	GT63S6A	0.31	
GC40S	5-8	GT63S8A		
GC50S	6-9	GT63S9A		
GC63S	7-10	GT63S10A		
	9-13	GT63S13A		
	12-18	GT63S18A		
	16-22	GT63S22A		
	18-25	GT63S25A		
	24-36	GT63S36A		
	28-40	GT63S40A		
	34-50	GT63S50A		
	45-65	GT63S65A		
GC65S	7-10	GT95S10A		0.48
GC75S	9-13	GT95S13A		
GC85S	12-18	GT95S18A		
GC95S	16-22	GT95S22A		
	18-25	GT95S25A		
	24-36	GT95S36A		
	28-40	GT95S40A		
	34-50	GT95S50A		
	45-65	GT95S65A		
	54-75	GT95S75A		
	63-85	GT95S85A		
	70-95	GT95S95A		

### Accessories

Separate mounting adapters and remote reset unit :  
see pages B-2-7 to B-2-8

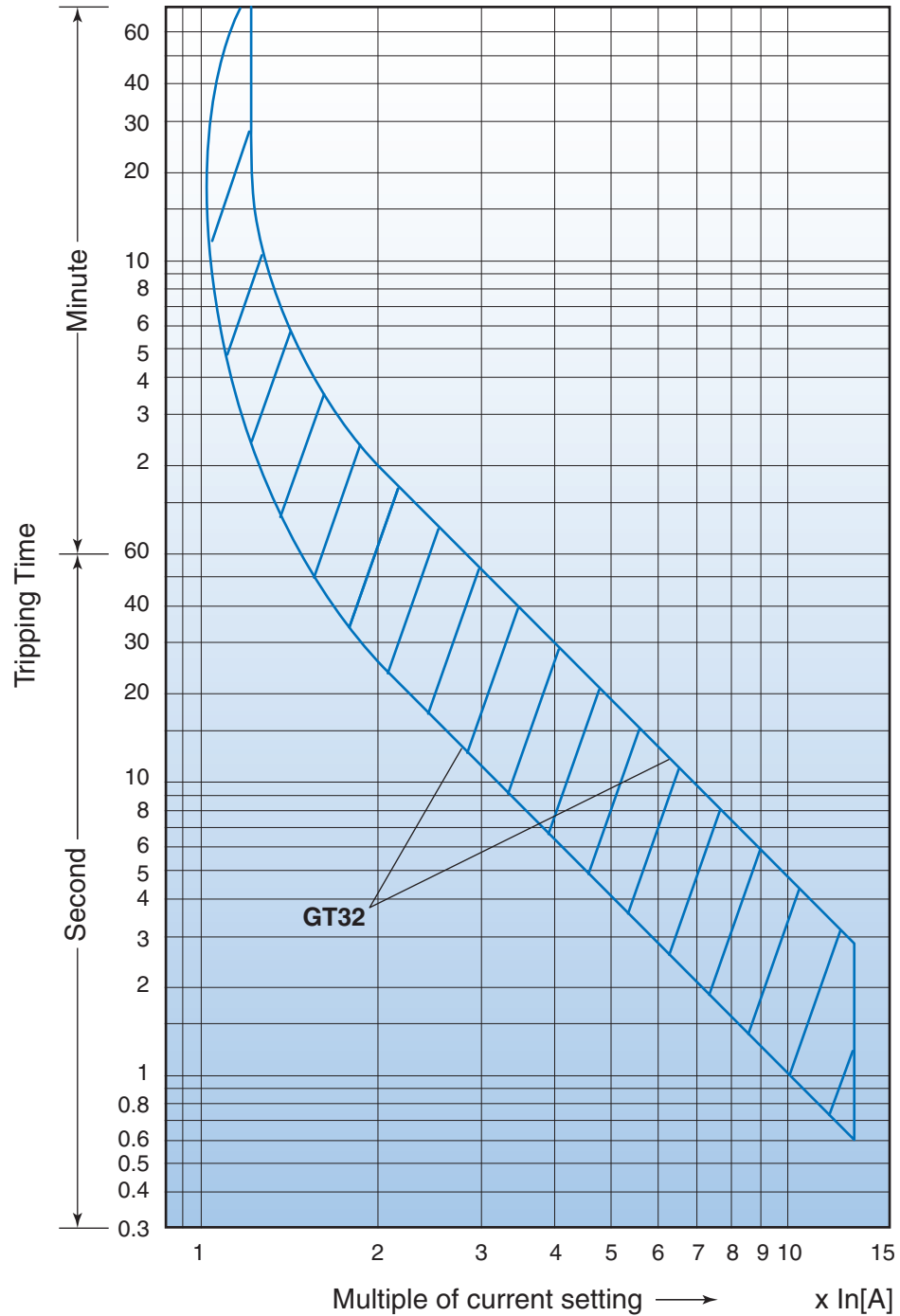
### Mounting

Direct mounting on to a contactor with screw clamp terminals

## Tripping characteristics

### Cold starting

GT32

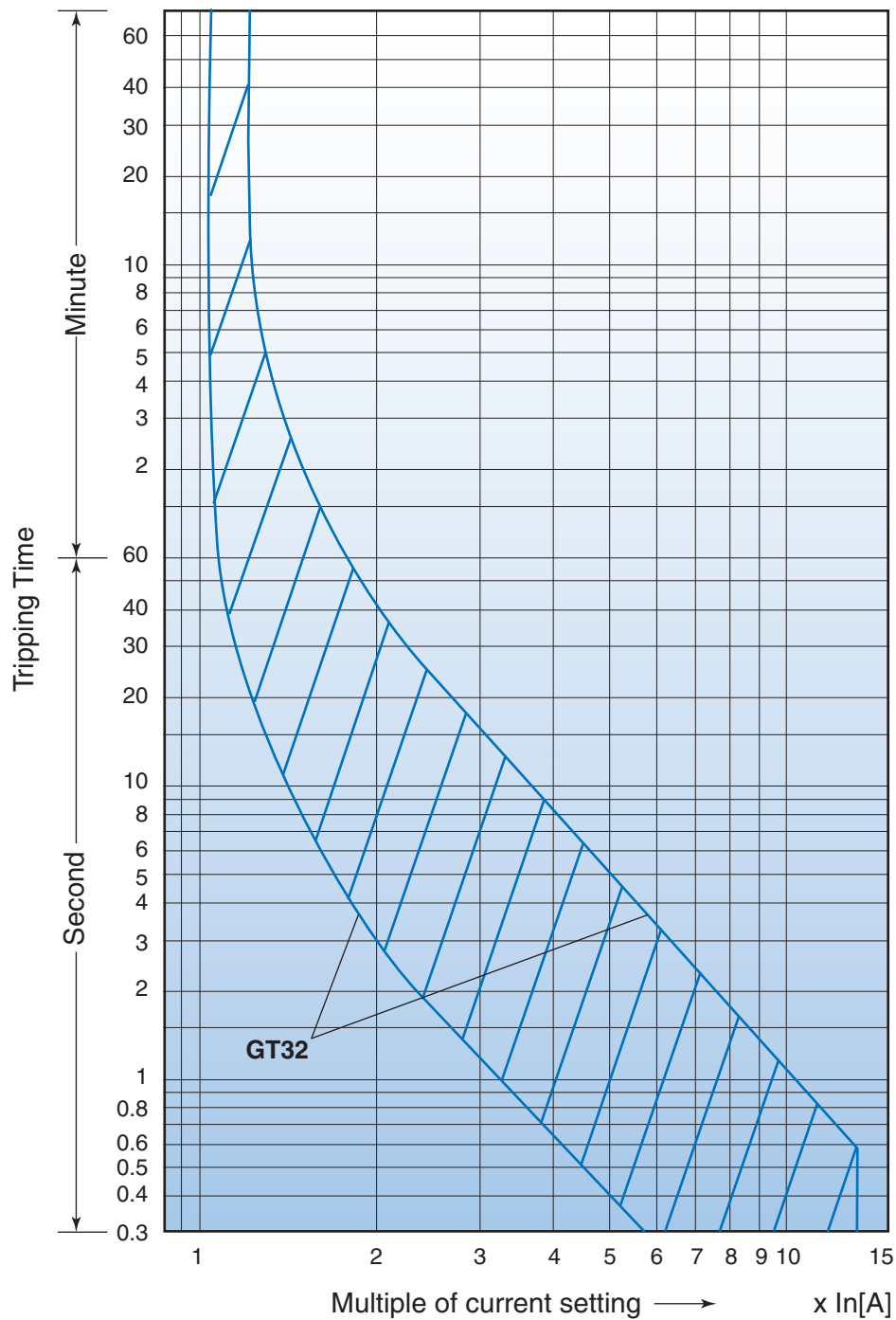


# Overload Relays

## Tripping characteristics

### Hot starting

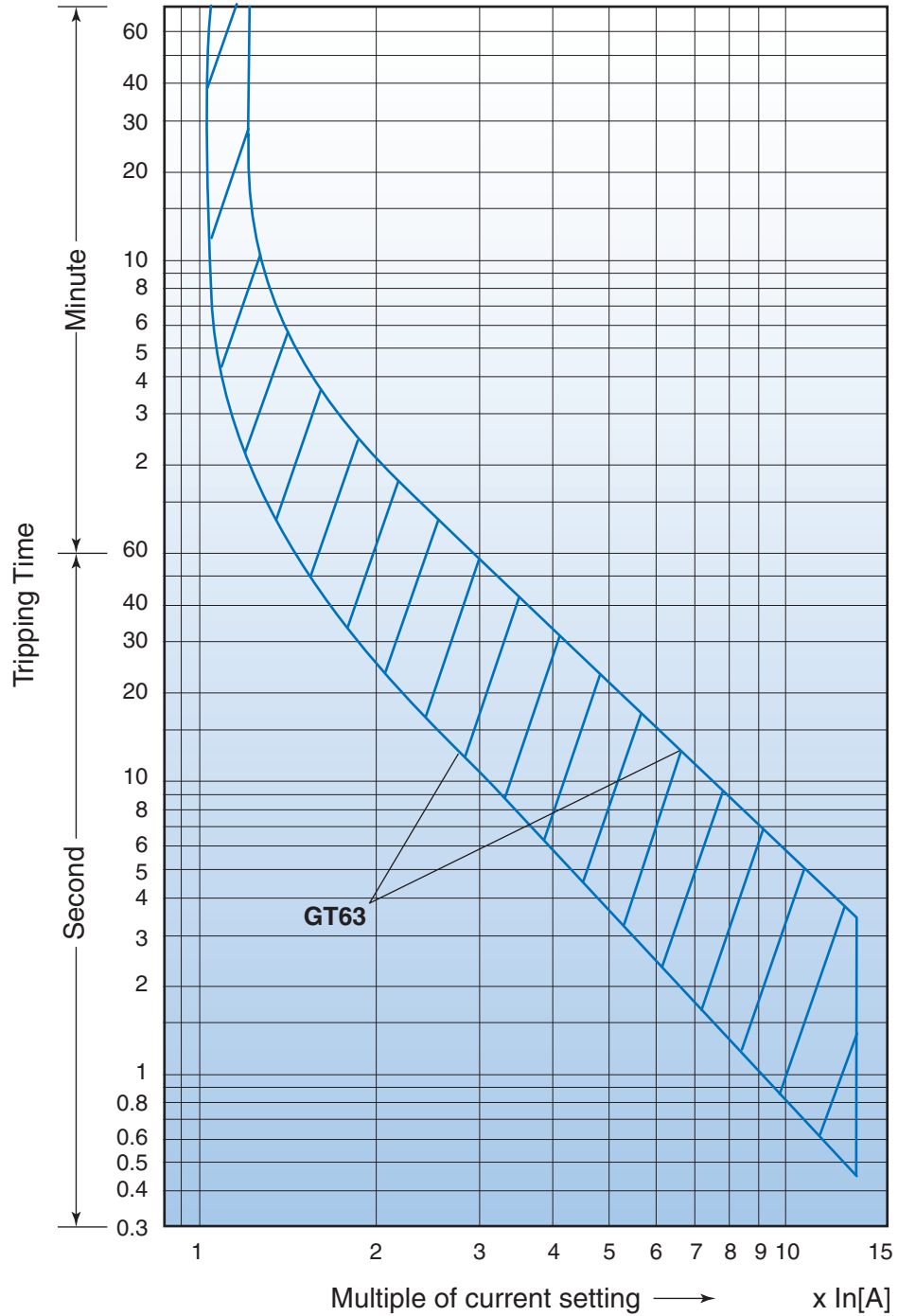
GT32



## Tripping characteristics

### Cold starting

GT63

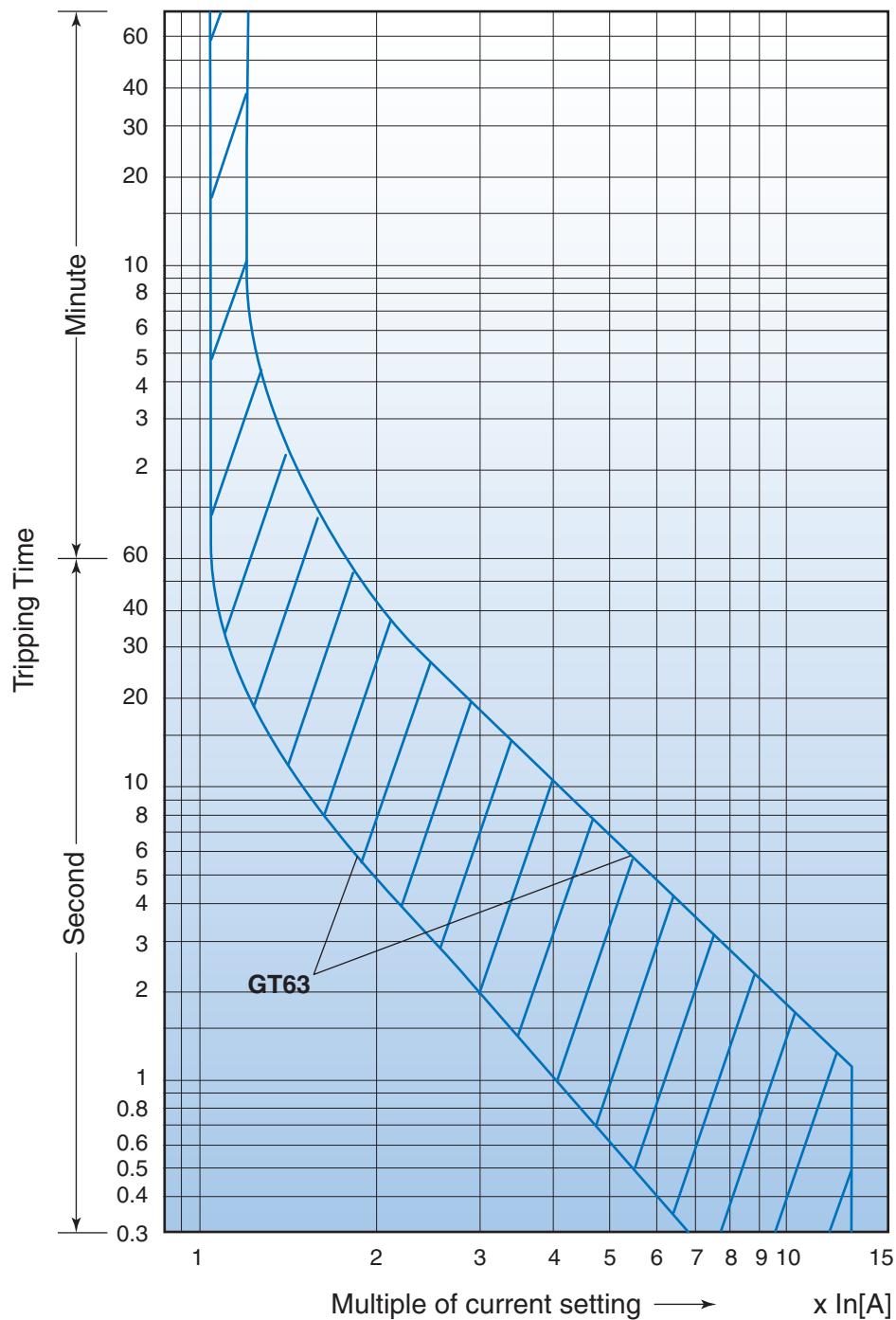


# Overload Relays

## Tripping characteristics

### Hot starting

GT63

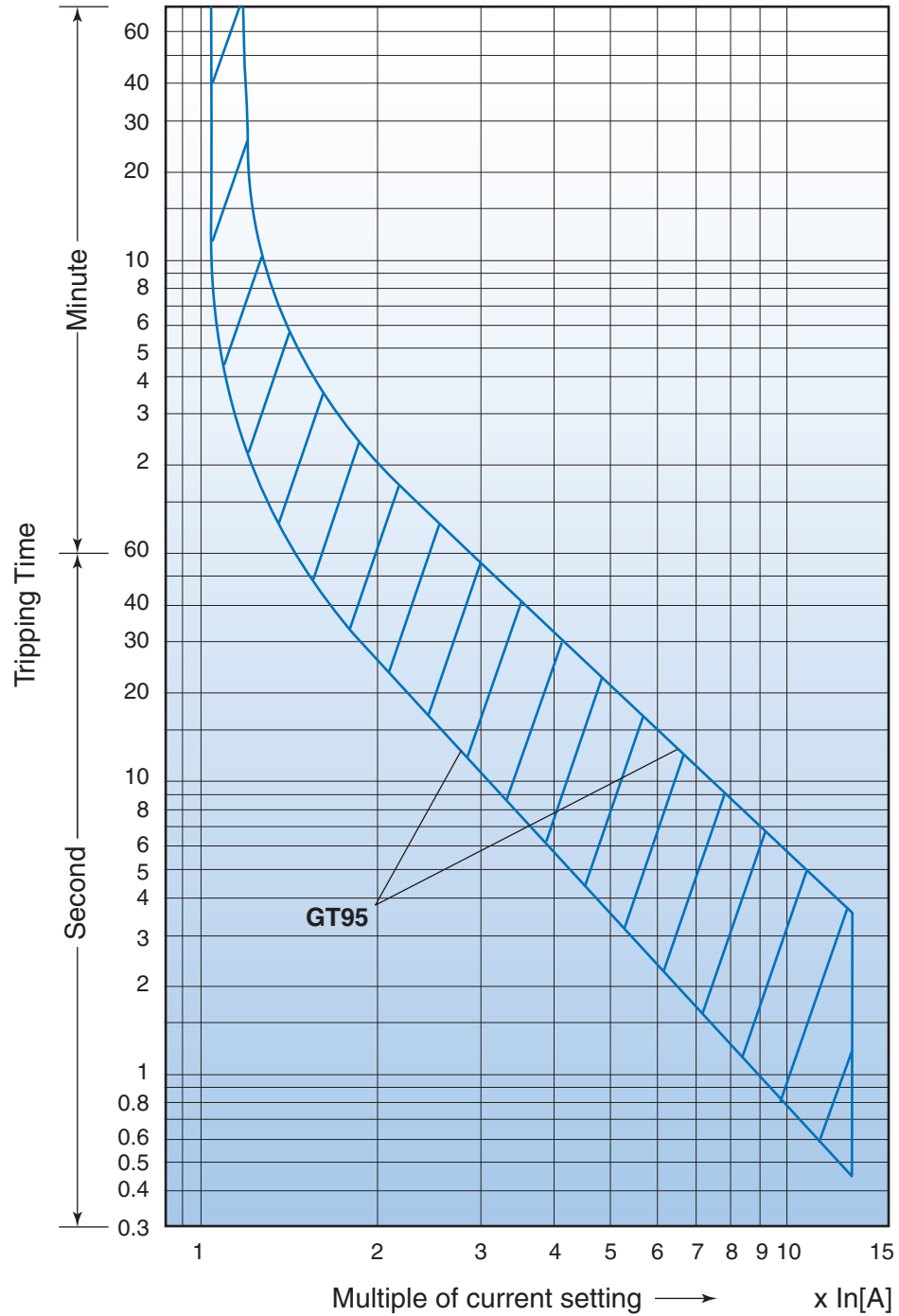




## Tripping characteristics

### Cold starting

GT95

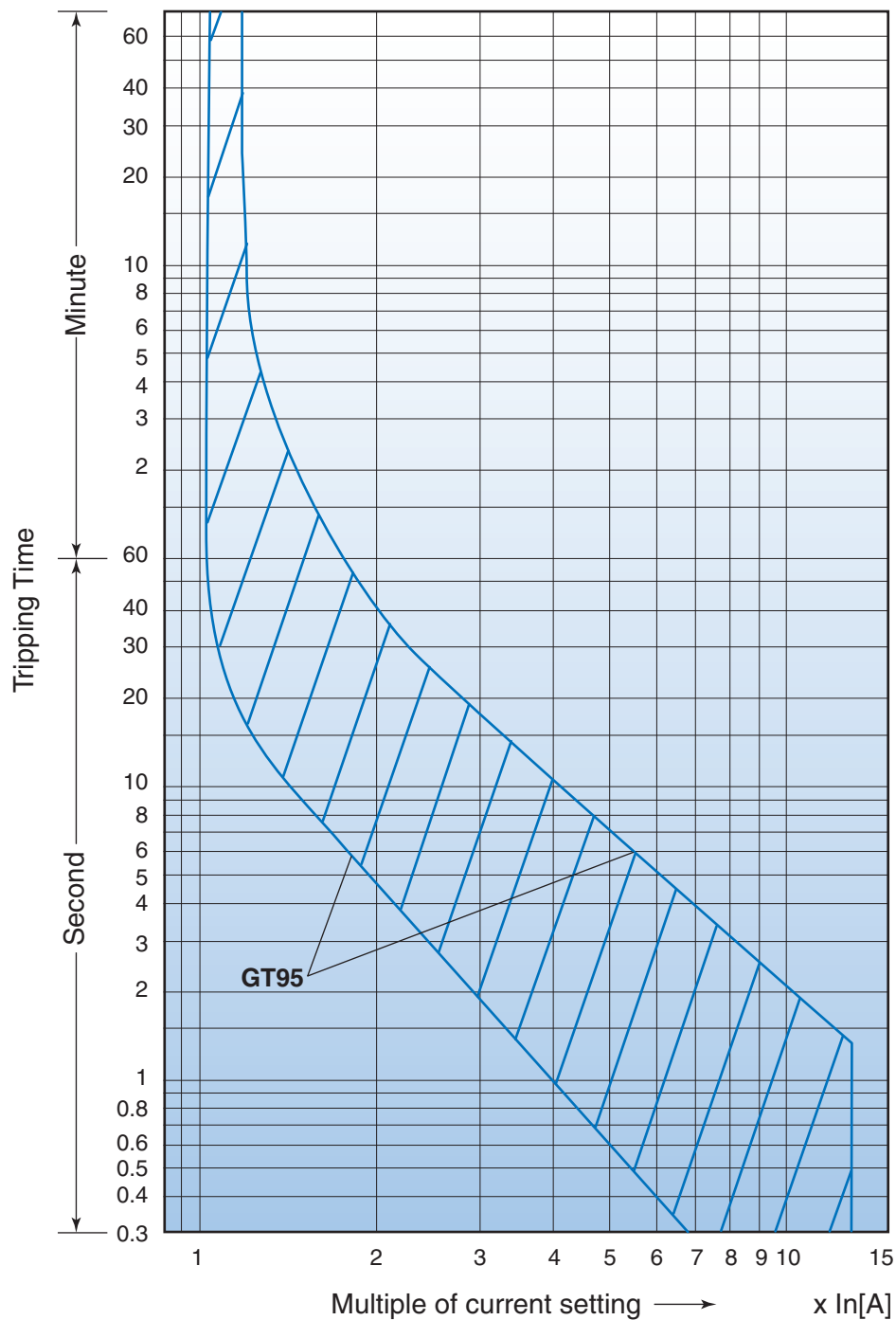


# Overload Relays

## Tripping characteristics

### Hot starting

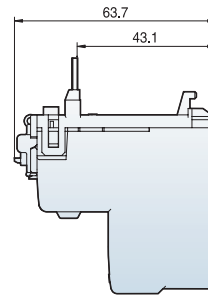
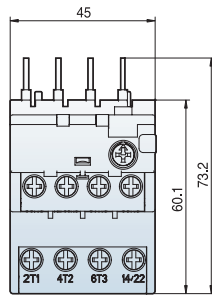
GT95



# Overall Dimensions

## Overload relays

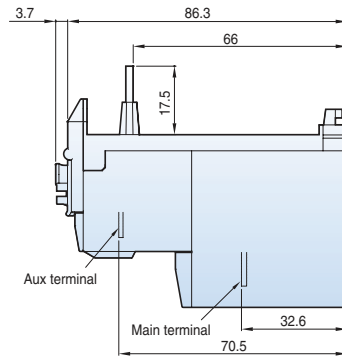
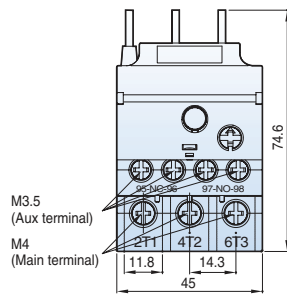
GT-12S



[mm]

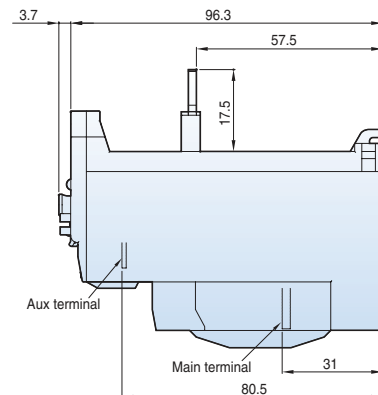
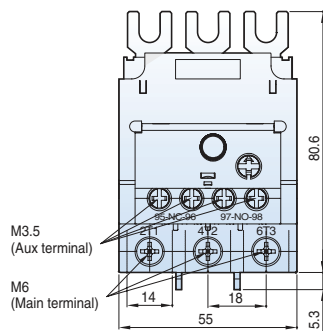
0.1kg

GT-32S



0.167kg

GT-63S

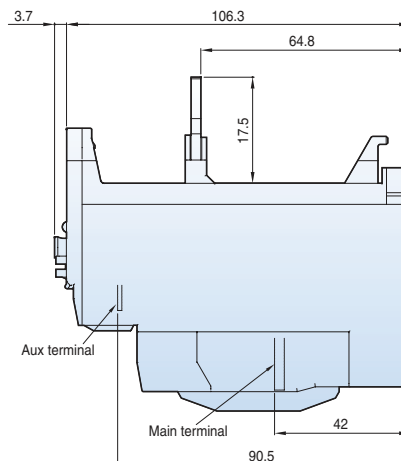
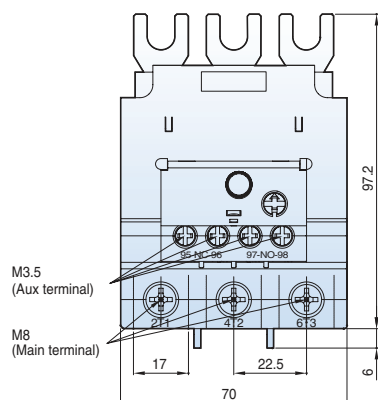


0.303kg

# Overall Dimensions

## Overload relays

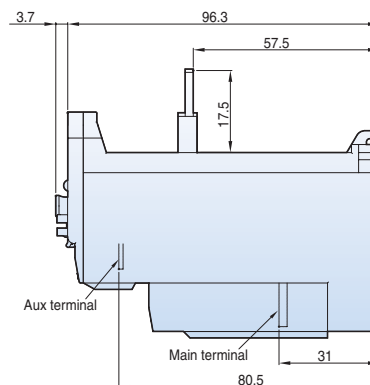
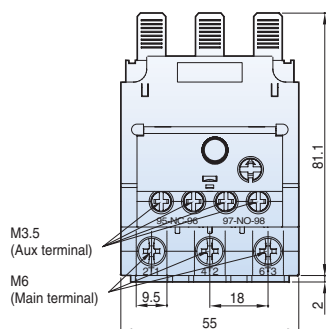
**GT-95S**



[mm]

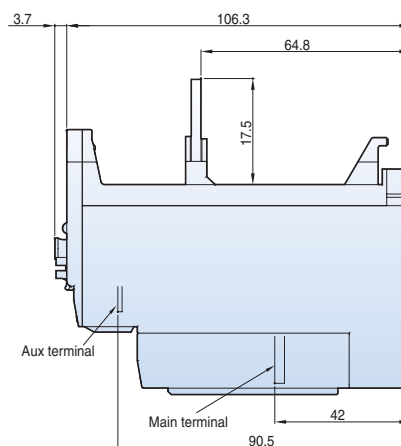
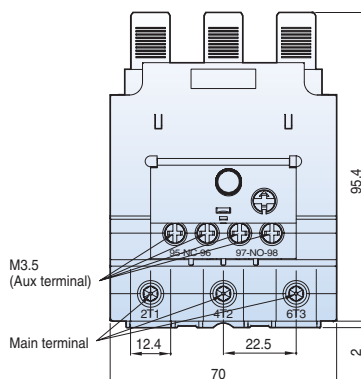
0.474kg

**GT-63L**



0.326kg

**GT-95L**



0.491kg

# OVERLOAD RELAY NUMBERING SYSTEM



Overload Relay		
<b>Frame Size</b>		
12	32	63 95
<b>Terminal Type</b>		
S	Screw	
L	Lug	
<small>(for contactors with lug type terminals)</small>		
<b>Setting Range</b>		
Frame Size		
32	63	95
0.1-0.16	4-6	7-10
0.16-0.25	5-8	9-13
0.25-0.4	6-9	12-18
0.63-1	7-10	16-22
1-1.6	12-18	24-36
1.6-2.5	16-22	28-40
2.5-4	18-25	34-50
4-6	24-36	45-65
5-8	28-40	54-75
6-9	34-50	63-85
7-10	45-65	70-95
9-13		
12-18		
16-22		
18-25		
22-32		

## Ordering Notes:

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