

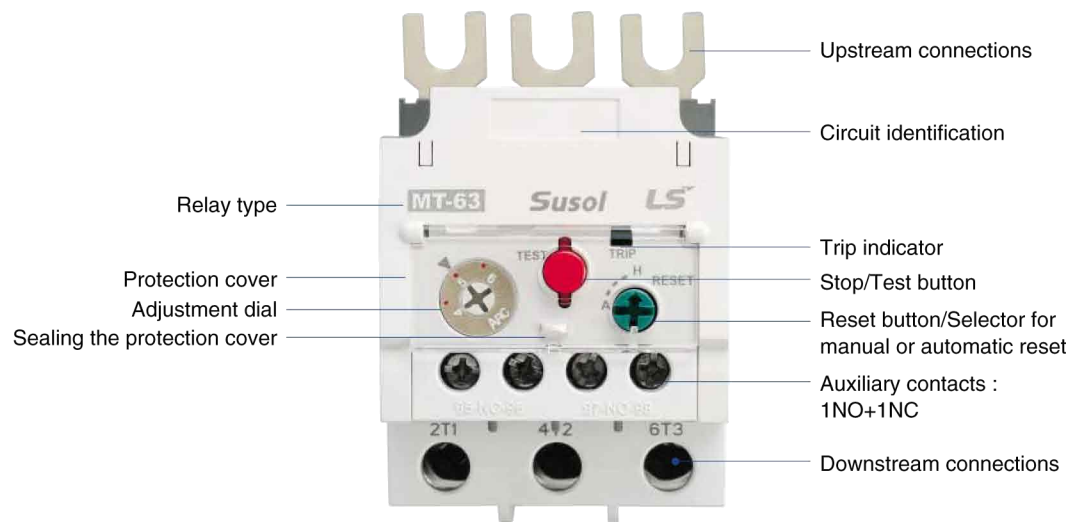
Overload relays

Susol

Specifications

Type MT, 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.

Configuration



Note :

- Relays are supplied with the selector in the manual position.
- Test button allows:
 - checking of control circuit wiring,
 - simulation of relay tripping (actuates both the NO and NC contacts).
 - Push the button(stop function)
 - Pull the button(test function)

	Stop	Test/ Trip	Reset
NC 95-96			
NO 97-98			



Overload relays

Susol

Specifications

Combinations

Overload Relay		Contactor
Type	Setting range	Type
MT-12	0.1~12A	MC-9a
		MC-12a
MT-32	0.1~32A	MC-9
		MC-12
		MC-18
		MC-25
		MC-32
MT-63	4~65A	MC-35
		MC-40
		MC-50
		MC-63
		MC-65
MT-95	7~95A	MC-75
		MC-85
		MC-95
		MC-95



Environment		
Standards	EN 60947-1, EN 60947-4-1	
Product certifications	CE, CSA, UL	
Degree of protection (IEC 60 529)	IP 20	
Ambient air temperature	Storage	-60 ... +70°C
	Normal operation	-5 ... +55°C
Operating positions	In relation to normal, vertical mounting plane	
Shock resistance (IEC 68-2-7)	15gn - 11ms	
Vibration resistance (IEC 68-2-6)	6gn	
Dielectric strength at 50 Hz (IEC 255-5)	6kV	
Impulse withstand voltage (IEC 801-5)	6kV	
Auxiliary contact characteristics		
Rating	C600, R300	
Thermal current	5A	
Connection to screw clamp terminals	1 or 2 conductors	
	- Flexible cable with cable end	1~2.5mm ²
	- Flexible cable with end	1~2.5mm ²
	- Solid cable without cable end	1~2.5mm ²
	- Tightening torque	2.3N.m

Overload relays

Susol

MT-63



63AF

MT-63/3K□S	MT-63/3D□S	MT-63/3K□L	MT-63/3D□L
MT-63/3H□S	-	MT-63/3H□L	-
MT-63/2H□S		MT-63/2H□L	
10A	20	10A	20
Screw clamp		Lug	
3		3	
Up to 690V		Up to 690V	
690V		690V	
6kV		6kV	
4~65A		4~65A	
IP 20		IP 20	
-5 ~ +40		-5 ~ +40	
●		●	
●		●	
●		●	
●		●	
MC-35, 40, 50, 63			

MT-95



95AF

MT-95/3K□S	MT-95/3D□S	MT-95/3K□L	MT-95/3D□L
MT-95/3H□S	-	MT-95/3H□L	-
MT-95/2H□S		MT-95/2H□L	
10A	20	10A	20
Screw clamp		Lug	
3		3	
Up to 690V		Up to 690V	
690V		690V	
6kV		6kV	
7~95A		7~95A	
IP 20		IP 20	
-5 ~ +40		-5 ~ +40	
●		●	
●		●	
●		●	
●		●	
MC-65, 75, 85, 95			

63AF	95AF	Current Setting range(A)	Wire		Type	Max. number of conductors	Short circuit "I"
			Size				
			mm ²	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	16~25	6~4	65/75°C Cu-wire only	2	3kA
	●	54~75					
	●	63~85					
	●	70~95					
	●	70~95	25~35	4~3	65/75°C Cu-wire only	2	5kA

Overload relays

Susol

Characteristics class 10A

for direct mounting beneath contactors
with connection by screw clamp terminals



MT-12/3K □



MT-32/3K □



MT-63/3K □S



MT-95/3K □S

Corresponding contactors	Relay setting range	Relay types			Weight
		Differential	Non-differential		
Type	A	3Heaters	3Heaters	2Heaters	kg
MC-9a MC-12a	0.1~0.16 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 7~10 9~13	MT-12/3K 0.14 MT-12/3K 0.21 MT-12/3K 0.33 MT-12/3K 0.52 MT-12/3K 0.82 MT-12/3K 1.3 MT-12/3K 2.1 MT-12/3K 3.3 MT-12/3K 5 MT-12/3K 6.5 MT-12/3K 7.5 MT-12/3K 8.5 MT-12/3K 11	MT-12/3H 0.14 MT-12/3H 0.21 MT-12/3H 0.33 MT-12/3H 0.52 MT-12/3H 0.82 MT-12/3H 1.3 MT-12/3H 2.1 MT-12/3H 3.3 MT-12/3H 5 MT-12/3H 6.5 MT-12/3H 7.5 MT-12/3H 8.5 MT-12/3H 11	MT-12/2H 0.14 MT-12/2H 0.21 MT-12/2H 0.33 MT-12/2H 0.52 MT-12/2H 0.82 MT-12/2H 1.3 MT-12/2H 2.1 MT-12/2H 3.3 MT-12/2H 5 MT-12/2H 6.5 MT-12/2H 7.5 MT-12/2H 8.5 MT-12/2H 11	0.1
MC-9 MC-12 MC-18 MC-25 MC-32	0.1~0.16 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 7~10 9~13 12~18 16~22 18~25 22~32	MT-32/3K 0.14 MT-32/3K 0.21 MT-32/3K 0.33 MT-32/3K 0.52 MT-32/3K 0.82 MT-32/3K 1.3 MT-32/3K 2.1 MT-32/3K 3.3 MT-32/3K 5 MT-32/3K 6.5 MT-32/3K 7.5 MT-32/3K 8.5 MT-32/3K 11 MT-32/3K 15 MT-32/3K 19 MT-32/3K 21.5 MT-32/3K 27	MT-32/3H 0.14 MT-32/3H 0.21 MT-32/3H 0.33 MT-32/3H 0.52 MT-32/3H 0.82 MT-32/3H 1.3 MT-32/3H 2.1 MT-32/3H 3.3 MT-32/3H 5 MT-32/3H 6.5 MT-32/3H 7.5 MT-32/3H 8.5 MT-32/3H 11 MT-32/3H 15 MT-32/3H 19 MT-32/3H 21.5 MT-32/3H 27	MT-32/2H 0.14 MT-32/2H 0.21 MT-32/2H 0.33 MT-32/2H 0.52 MT-32/2H 0.82 MT-32/2H 1.3 MT-32/2H 2.1 MT-32/2H 3.3 MT-32/2H 5 MT-32/2H 6.5 MT-32/2H 7.5 MT-32/2H 8.5 MT-32/2H 11 MT-32/2H 15 MT-32/2H 19 MT-32/2H 21.5 MT-32/2H 27	0.17
MC-35 MC-40 MC-50 MC-63	4~6 5~8 6~9 7~10 9~13 12~18 16~22 18~25 24~36 28~40 34~50 45~65	MT-63/3K 5S MT-63/3K 6.5S MT-63/3K 7.5S MT-63/3K 8.5S MT-63/3K 11S MT-63/3K 15S MT-63/3K 19S MT-63/3K 21.5S MT-63/3K 30S MT-63/3K 34S MT-63/3K 42S MT-63/3K 55S	MT-63/3H 5S MT-63/3H 6.5S MT-63/3H 7.5S MT-63/3H 8.5S MT-63/3H 11S MT-63/3H 15S MT-63/3H 19S MT-63/3H 21.5S MT-63/3H 30S MT-63/3H 34S MT-63/3H 42S MT-63/3H 55S	MT-63/2H 5S MT-63/2H 6.5S MT-63/2H 7.5S MT-63/2H 8.5S MT-63/2H 11S MT-63/2H 15S MT-63/2H 19S MT-63/2H 21.5S MT-63/2H 30S MT-63/2H 34S MT-63/2H 42S MT-63/2H 55S	0.31
MC-65 MC-75 MC-85 MC-95	7~10 9~13 12~18 16~22 18~25 24~36 28~40 34~50 45~65 54~75 63~85 70~95	MT-95/3K 8.5S MT-95/3K 11S MT-95/3K 15S MT-95/3K 19S MT-95/3K 21.5S MT-95/3K 30S MT-95/3K 34S MT-95/3K 42S MT-95/3K 55S MT-95/3K 65S MT-95/3K 74S MT-95/3K 83S	MT-95/3H 8.5S MT-95/3H 11S MT-95/3H 15S MT-95/3H 19S MT-95/3H 21.5S MT-95/3H 30S MT-95/3H 34S MT-95/3H 42S MT-95/3H 55S MT-95/3H 65S MT-95/3H 74S MT-95/3H 83S	MT-95/2H 8.5S MT-95/2H 11S MT-95/2H 15S MT-95/2H 19S MT-95/2H 21.5S MT-95/2H 30S MT-95/2H 34S MT-95/2H 42S MT-95/2H 55S MT-95/2H 65S MT-95/2H 74S MT-95/2H 83S	0.48

Accessories

Separate mounting adapters and remote reset unit : see pages B-2-9 to B-2-10

Mounting

Direct mounting on to a contactor with screw clamp terminals

Overload relays

Susol

Characteristics class 10A

for direct mounting beneath contactors
with connection by lug terminals



MT-63/3K □L



MT-95/3K □L

Corresponding contactors	Relay setting range	Relay types			Weight	
		Differential	Non-differential			
Type	A	3Heaters	3Heaters	2Heaters	kg	
MC-35	4~6	MT-63/3K 5L	MT-63/3H 5L	MT-63/2H 5L	0.33	
MC-40	5~8	MT-63/3K 6.5L	MT-63/3H 6.5L	MT-63/2H 6.5L		
MC-50	6~9	MT-63/3K 7.5L	MT-63/3H 7.5L	MT-63/2H 7.5L		
MC-63	7~10	MT-63/3K 8.5L	MT-63/3H 8.5L	MT-63/2H 8.5L		
	9~13	MT-63/3K 11L	MT-63/3H 11L	MT-63/2H 11L		
	12~18	MT-63/3K 15L	MT-63/3H 15L	MT-63/2H 15L		
	16~22	MT-63/3K 19L	MT-63/3H 19L	MT-63/2H 19L		
	18~25	MT-63/3K 21.5L	MT-63/3H 21.5L	MT-63/2H 21.5L		
	24~36	MT-63/3K 30L	MT-63/3H 30L	MT-63/2H 30L		
	28~40	MT-63/3K 34L	MT-63/3H 34L	MT-63/2H 34L		
	34~50	MT-63/3K 42L	MT-63/3H 42L	MT-63/2H 42L		
	45~65	MT-63/3K 55L	MT-63/3H 55L	MT-63/2H 55L		
MC-65	7~10	MT-95/3K 8.5L	MT-95/3H 8.5L	MT-95/2H 8.5L		0.50
MC-75	9~13	MT-95/3K 11L	MT-95/3H 11L	MT-95/2H 11L		
MC-85	12~18	MT-95/3K 15L	MT-95/3H 15L	MT-95/2H 15L		
MC-95	16~22	MT-95/3K 19L	MT-95/3H 19L	MT-95/2H 19L		
	18~25	MT-95/3K 21.5L	MT-95/3H 21.5L	MT-95/2H 21.5L		
	24~36	MT-95/3K 30L	MT-95/3H 30L	MT-95/2H 30L		
	28~40	MT-95/3K 34L	MT-95/3H 34L	MT-95/2H 34L		
	34~50	MT-95/3K 42L	MT-95/3H 42L	MT-95/2H 42L		
	45~65	MT-95/3K 55L	MT-95/3H 55L	MT-95/2H 55L		
	54~75	MT-95/3K 65L	MT-95/3H 65L	MT-95/2H 65L		
	63~85	MT-95/3K 74L	MT-95/3H 74L	MT-95/2H 74L		
	70~95	MT-95/3K 83L	MT-95/3H 83L	MT-95/2H 83L		

Accessories

Separate mounting adapters and remote reset unit : see pages B-2-9 to B-2-10

Mounting

Direct mounting on to a contactor with lug terminals

Overload relays

Susol

Characteristics class 20

for direct mounting beneath contactors
with connection by screw clamp terminals



MT-12/3D □



MT-32/3D □



MT-63/3D □S



MT-95/3D □S

Corresponding contactors	Relay setting range	Relay types	Weight
		Differential	
Type	A	3Heaters	kg
MC-9a MC-12a	1~1.6 1.6~2.5 2.5~4 4~6 5~8 6~9 7~10 9~13	MT-12/3D 1.3 MT-12/3D 2.1 MT-12/3D 3.3 MT-12/3D 5 MT-12/3D 6.5 MT-12/3D 7.5 MT-12/3D 8.5 MT-12/3D 11	0.1
MC-9 MC-12 MC-18 MC-25 MC-32	1~1.6 1.6~2.5 2.5~4 4~6 5~8 6~9 7~10 9~13 12~18 16~22 18~25 22~32	MT-32/3D 1.3 MT-32/3D 2.1 MT-32/3D 3.3 MT-32/3D 5 MT-32/3D 6.5 MT-32/3D 7.5 MT-32/3D 8.5 MT-32/3D 11 MT-32/3D 15 MT-32/3D 19 MT-32/3D 21.5 MT-32/3D 27	0.17
MC-35 MC-40 MC-50 MC-63	4~6 5~8 6~9 7~10 9~13 12~18 16~22 18~25 24~36 28~40 34~50 45~65	MT-63/3D 5S MT-63/3D 6.5S MT-63/3D 7.5S MT-63/3D 8.5S MT-63/3D 11S MT-63/3D 15S MT-63/3D 19S MT-63/3D 21.5S MT-63/3D 30S MT-63/3D 34S MT-63/3D 42S MT-63/3D 55S	0.31
MC-65 MC-75 MC-85 MC-95	7~10 9~13 12~18 16~22 18~25 24~36 28~40 34~50 45~65 54~75 63~85 70~95	MT-95/3D 8.5S MT-95/3D 11S MT-95/3D 15S MT-95/3D 19S MT-95/3D 21.5S MT-95/3D 30S MT-95/3D 34S MT-95/3D 42S MT-95/3D 55S MT-95/3D 65S MT-95/3D 74S MT-95/3D 83S	0.48

Accessories

Separate mounting adapters and remote reset unit : see pages B-2-9 to B-2-10

Mounting

Direct mounting on to a contactor with screw clamp terminals

Overload relays

Susol

Characteristics class 20

for direct mounting beneath contactors
with connection by lug terminals



MT-63/3D □L



MT-95/3D □L

Corresponding contactors	Relay setting range	Relay types	Weight	
		Differential		
Type	A	3Heaters	kg	
MC-35	4~6	MT-63/3D 5L	0.33	
MC-40	5~8	MT-63/3D 6.5L		
MC-50	6~9	MT-63/3D 7.5L		
MC-63	7~10	MT-63/3D 8.5L		
	9~13	MT-63/3D 11L		
	12~18	MT-63/3D 15L		
	16~22	MT-63/3D 19L		
	18~25	MT-63/3D 21.5L		
	24~36	MT-63/3D 30L		
	28~40	MT-63/3D 34L		
	34~50	MT-63/3D 42L		
	45~65	MT-63/3D 55L		
MC-65	7~10	MT-95/3D 8.5L		0.50
MC-75	9~13	MT-95/3D 11L		
MC-85	12~18	MT-95/3D 15L		
MC-95	16~22	MT-95/3D 19L		
	18~25	MT-95/3D 21.5L		
	24~36	MT-95/3D 30L		
	28~40	MT-95/3D 34L		
	34~50	MT-95/3D 42L		
	45~65	MT-95/3D 55L		
	54~75	MT-95/3D 65L		
	63~85	MT-95/3D 74L		
	70~95	MT-95/3D 83L		

Accessories

Separate mounting adapters and remote reset unit : see pages B-2-9 to B-2-10

Mounting

Direct mounting on to a contactor with lug terminals

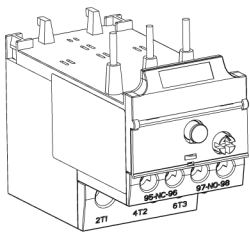
Overload relays

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Accessories

Separate mounting adapters
for 3-pole Thermal overload relays

Separate mounting adapter



Overload relay
MT-32

Corresponding relay	Adapter type	Terminal type	Weight
			g
MT-32/3K MT-32/3H MT-32/2H MT-32/3D	UZ-32	Screw type	68
MT-63/3K MT-63/3H MT-63/2H MT-63/3D	UZ-63/S	Screw type	134
MT-63/3K MT-63/3H MT-63/2H MT-63/3D	UZ-63/L	Lug type	134
MT-95/3K MT-95/3H MT-95/2H MT-95/3D	UZ-95/S	Screw type	230
MT-95/3K MT-95/3H MT-95/2H MT-95/3D	UZ-95/L	Lug type	230

Mounting

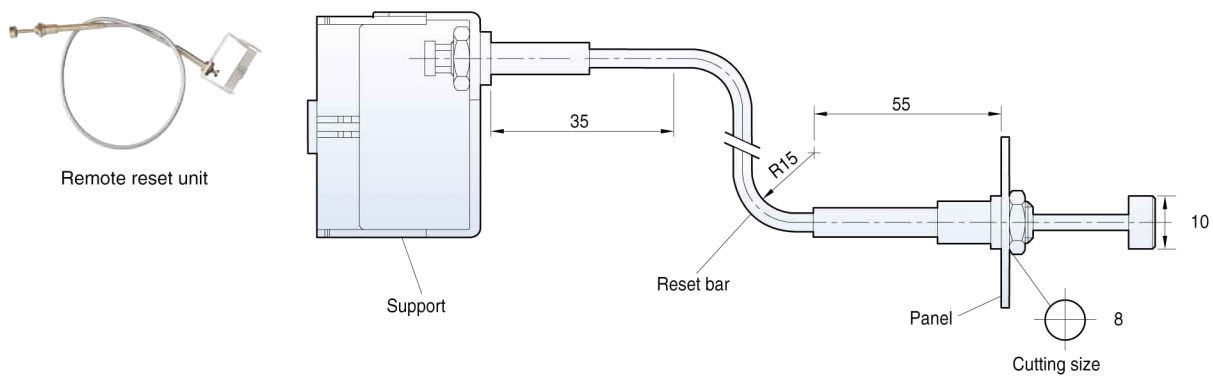
Clip-on mounting on 35 mm  rail or screw fixing.

Overload relays

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Accessories

Remote reset units for overload relays



Model	L (mm)
UM-4R	400
UM-5R	500
UM-6R	600

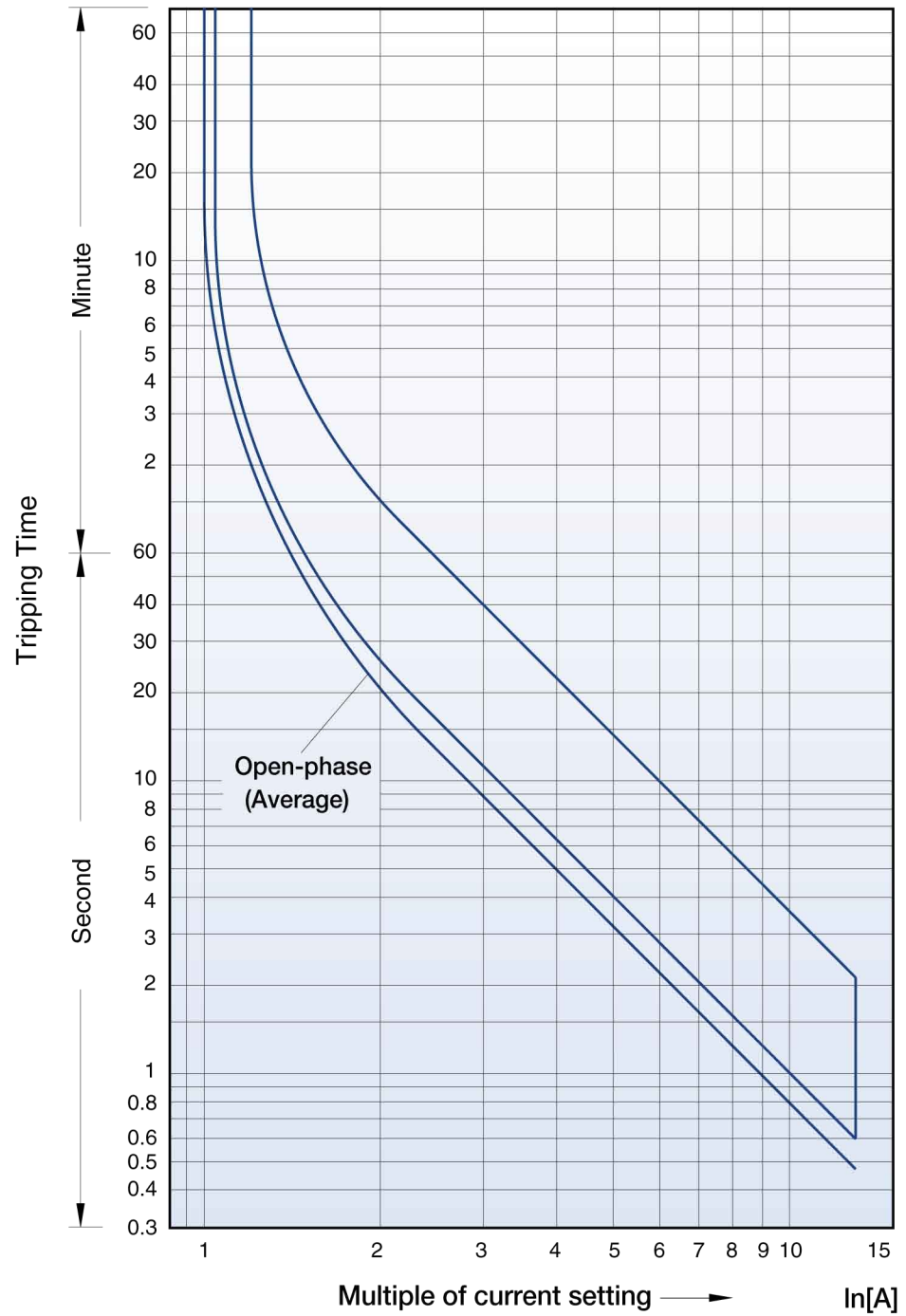
Overload relays

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Tripping characteristics

Cold starting

- MT-12/2H
- MT-12/3H
- MT-12/3K
- MT-12/3D



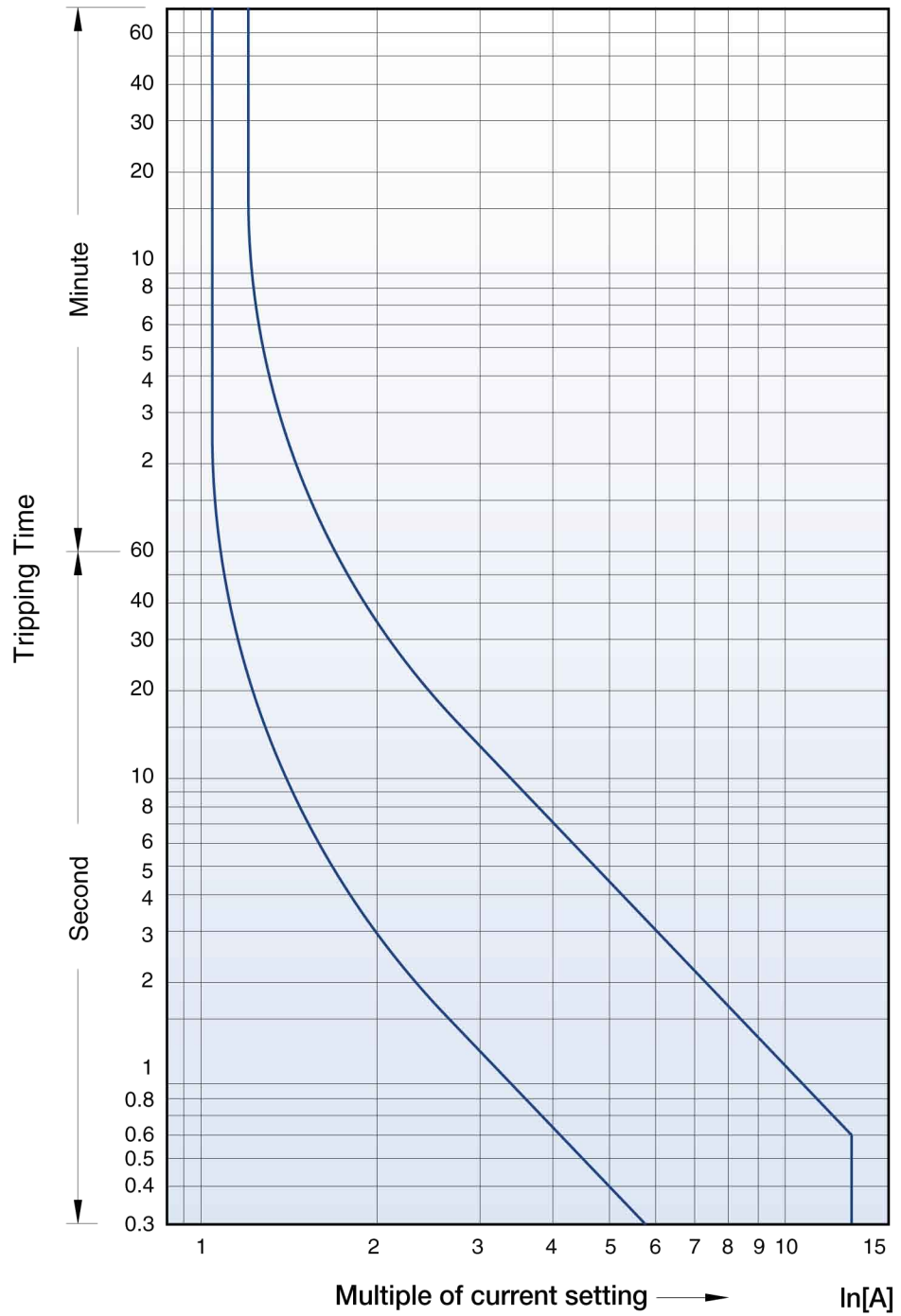
Overload relays

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Tripping characteristics

Hot starting

- MT-12/2H
- MT-12/3H
- MT-12/3K
- MT-12/3D



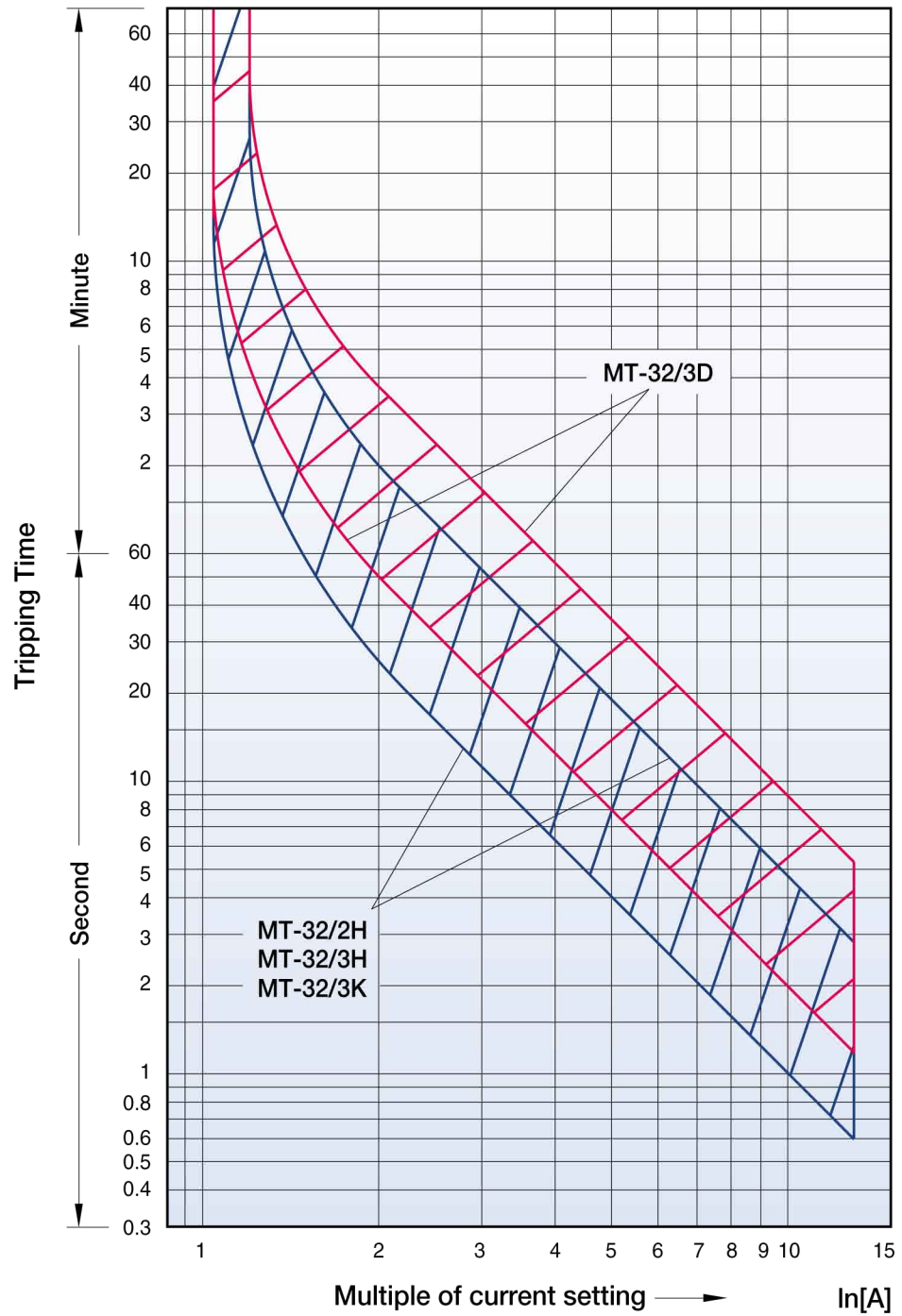
Overload relays

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Tripping characteristics

Cold starting

- MT-12/2H
- MT-12/3H
- MT-12/3K
- MT-12/3D



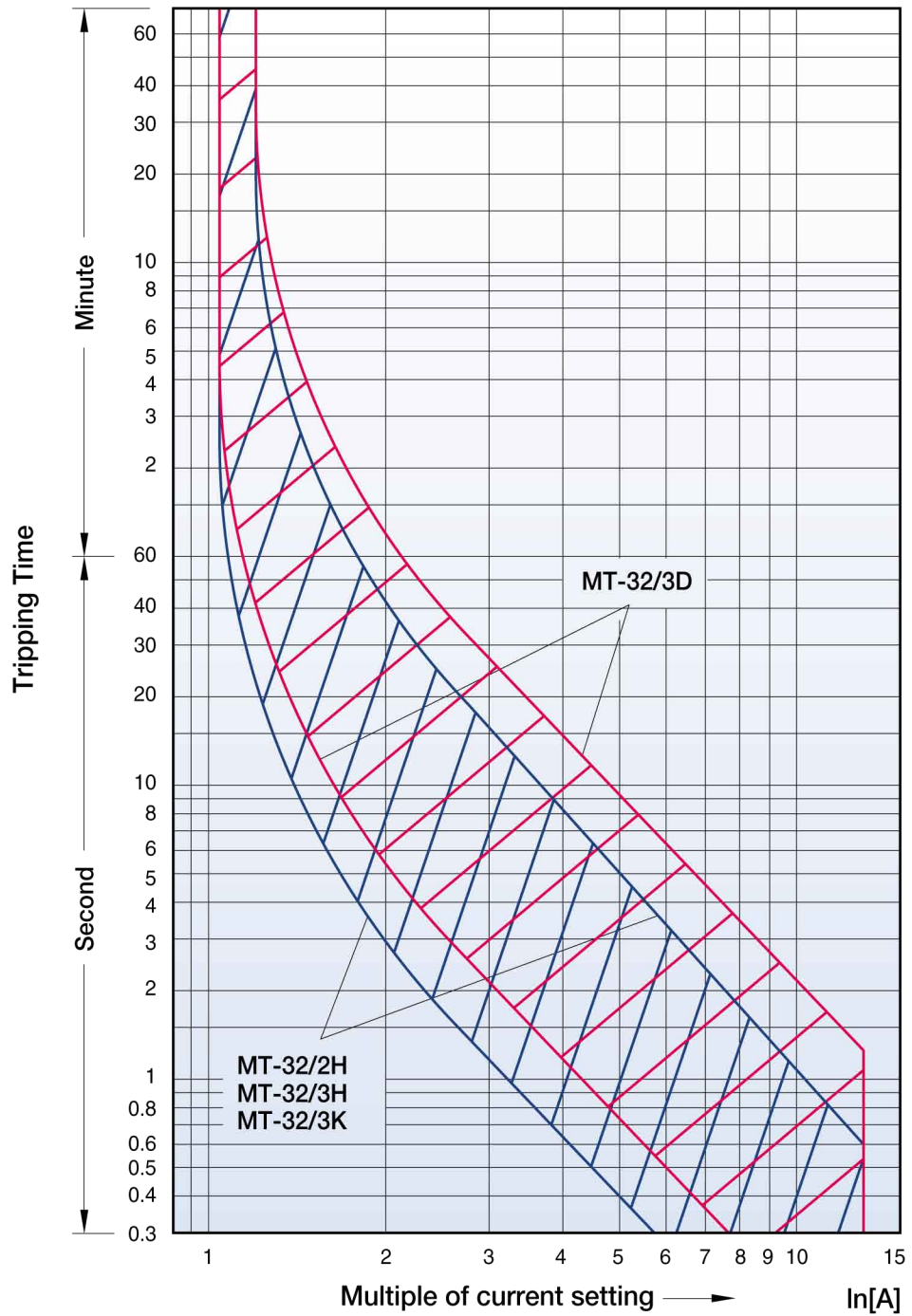
Overload relays

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Tripping characteristics

Hot starting

- MT-12/2H
- MT-12/3H
- MT-12/3K
- MT-12/3D



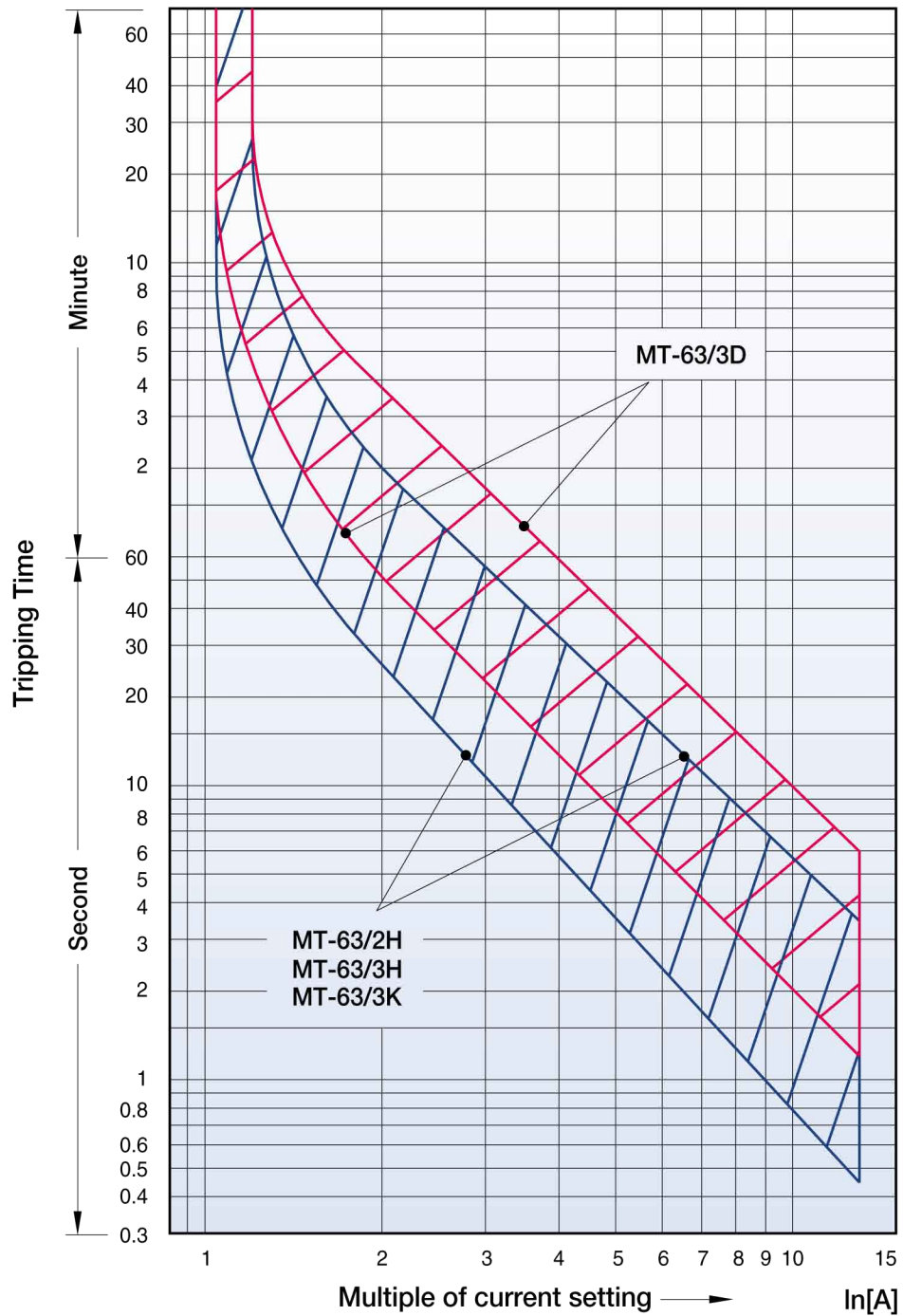
Overload relays

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Tripping characteristics

Cold starting

- MT-63/2H
- MT-63/3H
- MT-63/3K
- MT-63/3D



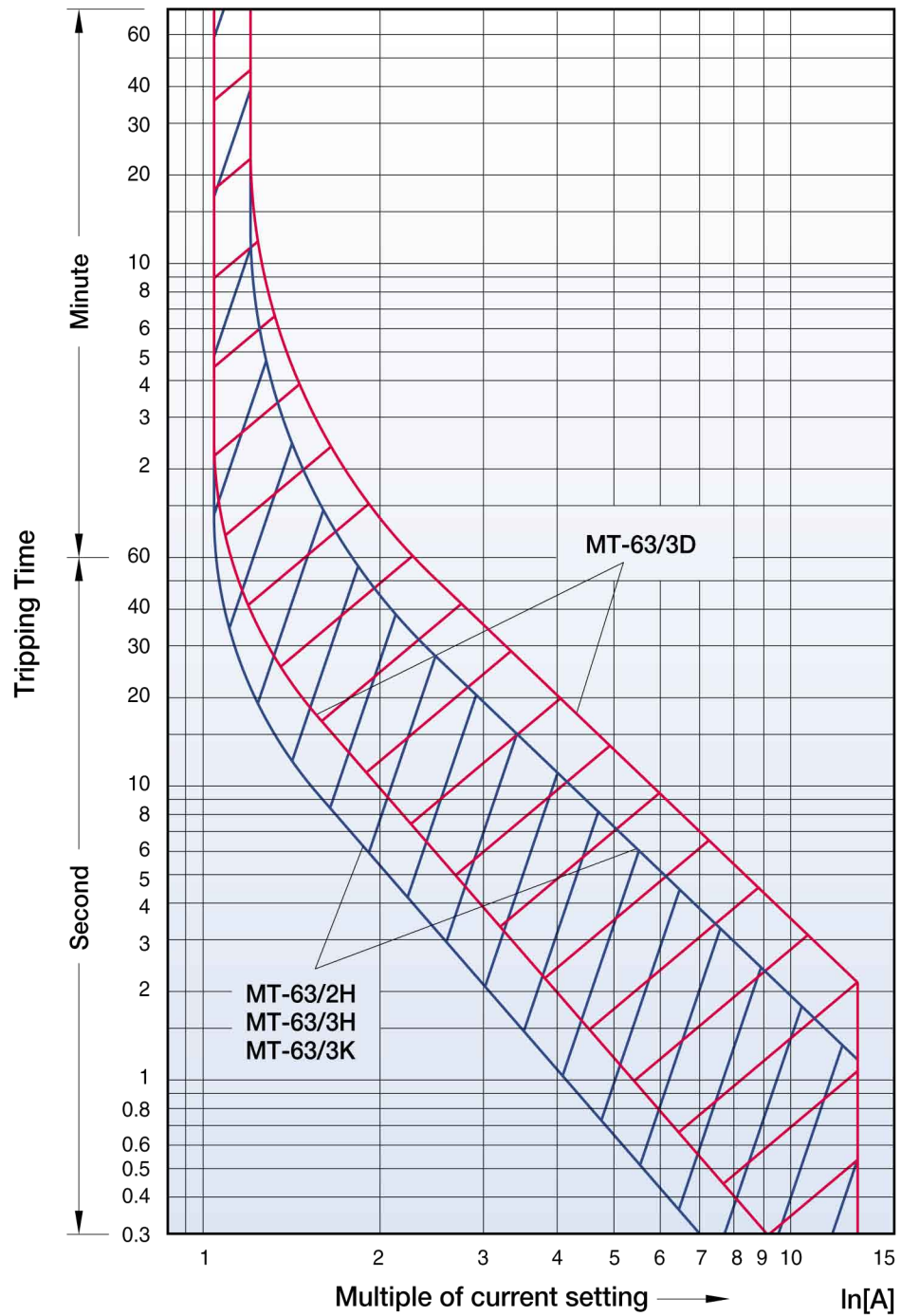
Overload relays

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Tripping characteristics

Hot starting

- MT-63/2H
- MT-63/3H
- MT-63/3K
- MT-63/3D



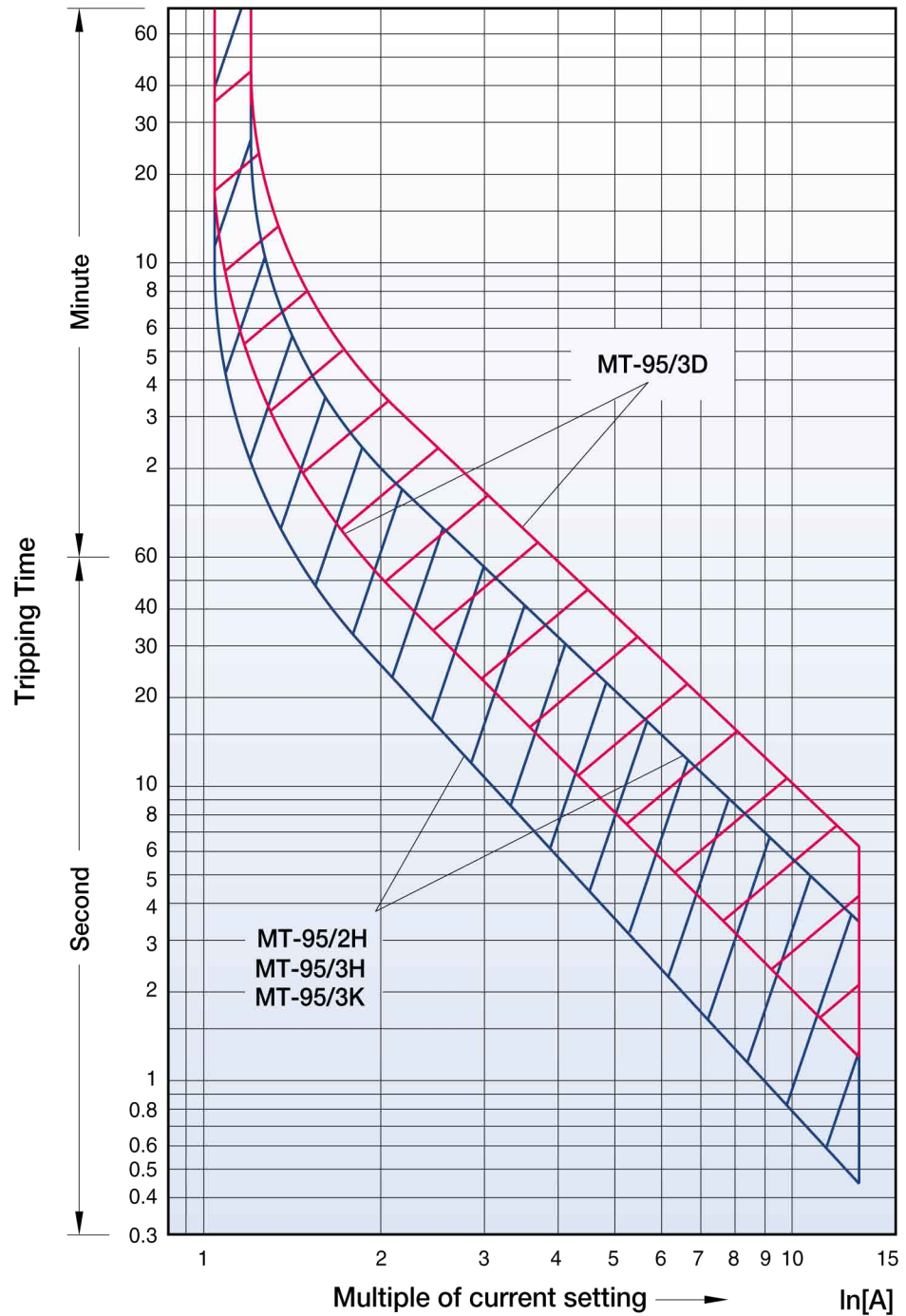
Overload relays

Susol

Tripping characteristics

Cold starting

- MT-95/2H
- MT-95/3H
- MT-95/3K
- MT-95/3D



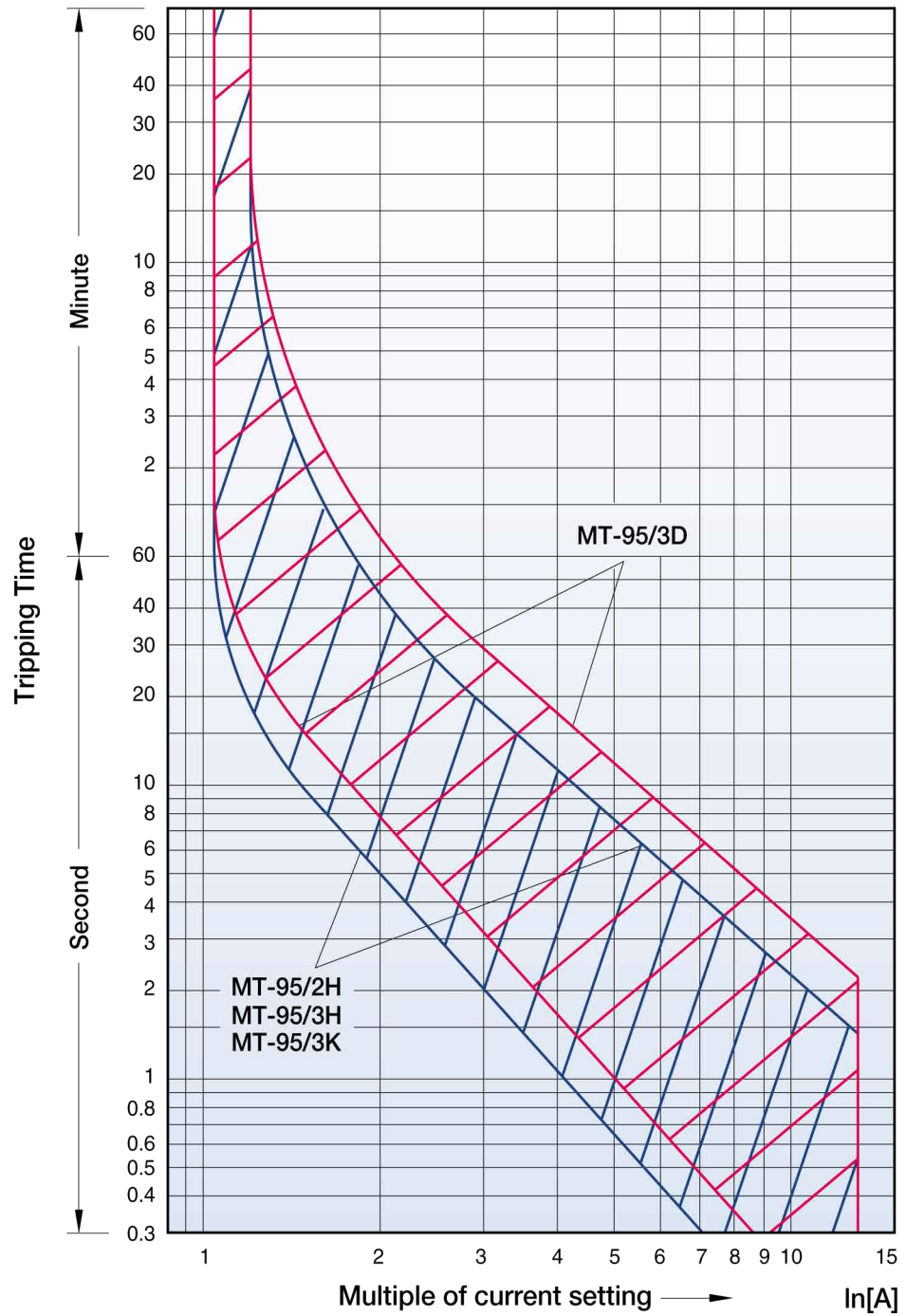
Overload relays

Susol

Tripping characteristics

Hot starting

- MT-95/2H
- MT-95/3H
- MT-95/3K
- MT-95/3D



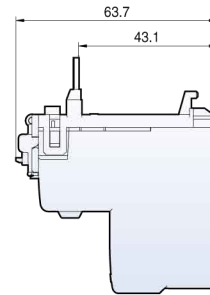
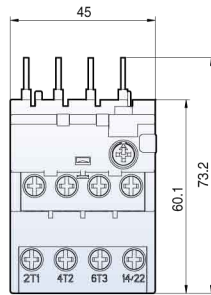
Overall dimensions

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Overload relays (Screw type)

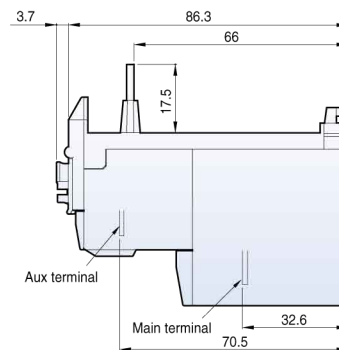
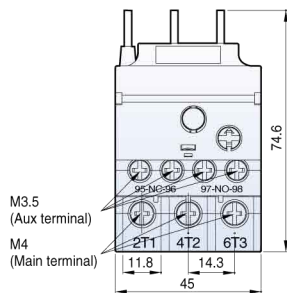
[mm]

MT-12



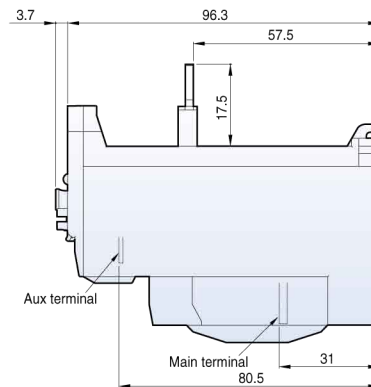
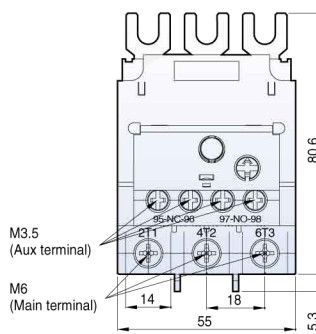
0.1kg

MT-32



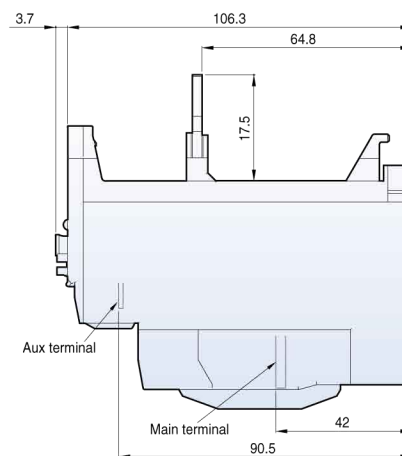
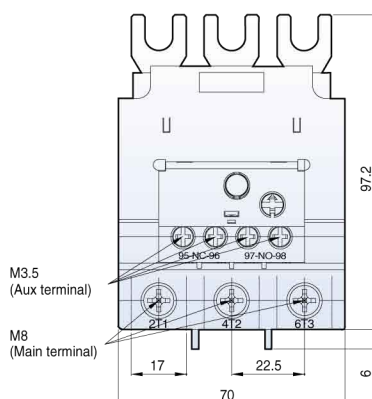
0.167kg

MT-63



0.303kg

MT-95



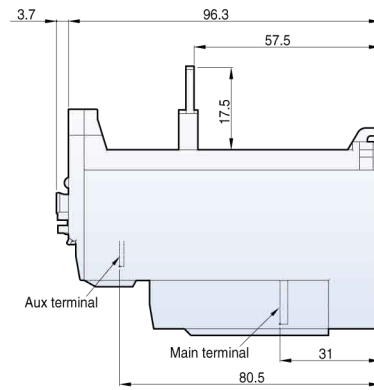
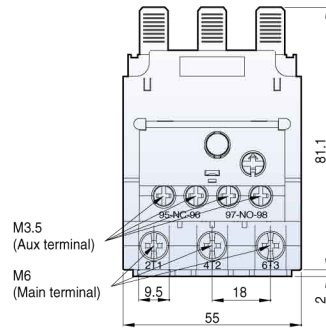
0.474kg

Overall dimensions

Susol

Overload relays (Lug type)

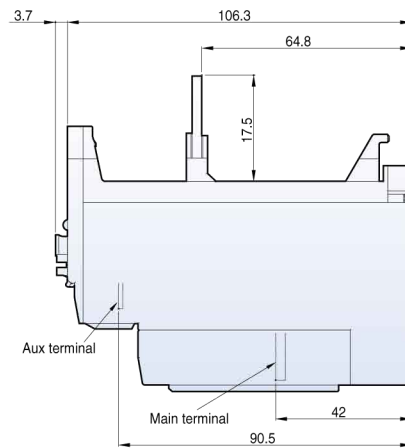
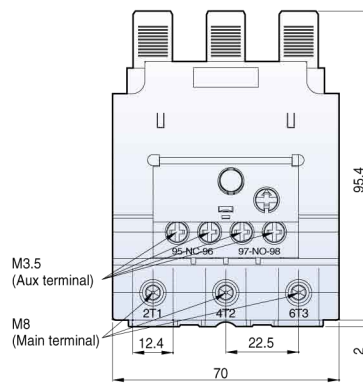
MT-63



[mm]

0.326kg

MT-95



0.491kg