

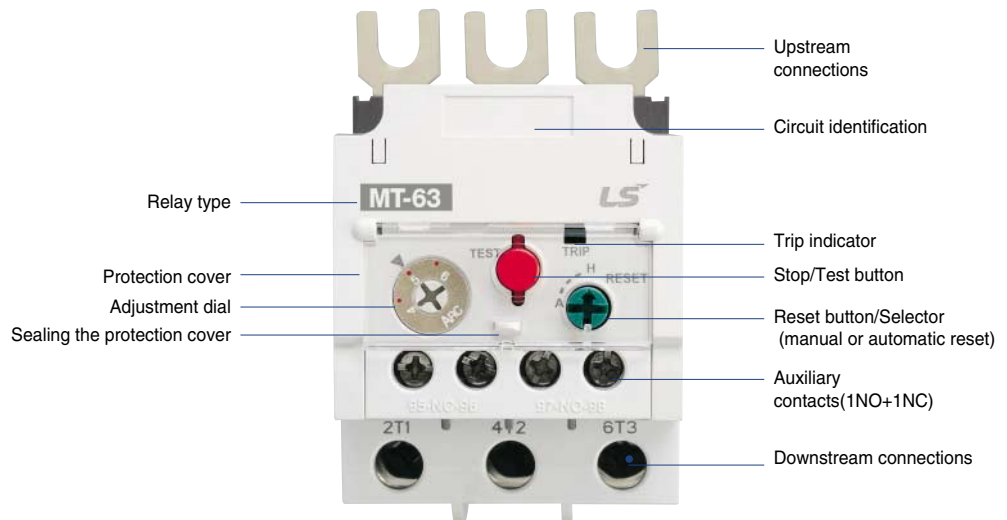
## General descriptions

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.

Four versions are available according to the protection function and trip class as below.

1. Non-differential: 3pole-2bimetal(heater) and trip class 10A
2. Non-differential: 3pole-3bimetal(heater) and trip class 10A
3. Differential: 3pole-3bimetal(heater) and trip class 10A
4. Differential: 3pole-3bimetal(heater) and trip class 20

## Configuration of the front



## Environment and auxiliary circuit

Environment		MT-12-150	MT-225-800
Standards		IEC/EN 60947-1, IEC/EN 60947-4-1	IEC/EN 60947-1, IEC/EN 60947-4-1
Certifications		CE, CSA, UL	CE, CSA, UL
Rated operation voltage		Max. 690V	Max. 690V
Rated insulation voltage		690V	690V
Rated frequency		50/60Hz	50/60Hz
Degree of protection (Conforming to IEC 60 529)		IP 20	IP 20
Ambient air temperature	Storage	-55 ~ +80° C	-55 ~ +80° C
	Operation	-5 ~ +60° C	-5 ~ +60° C
Mounting position		Vertical plane	Vertical plane
Shock resistance (Conforming to IEC 68-2-7)		15gn - 11ms	15gn - 11ms
Vibration resistance (Conforming to IEC68-2-6)		6G	6G
Insulation strength (Conforming to IEC 255-5)		6kV	6kV
Rated impulse withstand voltage (Conforming to IEC 801-5)		6kV	6kV
Auxiliary contacts characteristics			
Composition		1a1b (1NO +1NC)	1NO+1NC
Rated thermal current		5A	5A
Rated operation current		C600, R300	C600, R300
AC15 duty (C600)	120V	1.5A	2.5A
	240V	0.75A	2A
	380V	0.47A	0.47A
	480V	0.375A	0.375A
	500V	0.35A	0.35A
	600V	0.3A	1A
DC13 duty (R300)	120V	0.22A	0.28A
	240V	0.1A	0.14A
Connecting conductor	Size	18AWG /1 mm <sup>2</sup>	18AWG /1 mm <sup>2</sup>
Connection to screw clamp terminals	Type	65/75° C Cu-wire	65/75° C Cu-wire

MT-150



MT-225



MT-400



MT-800



# Overload relay specifications

## MT type Thermal Overload Relays



MT-12/3K□

Frame size		
Trip class		
Type	Non-differential(3P-2 heater) Non-differential(3P-3 heater) Differential type	
Terminal type		
Number of poles		
Rated operational voltage (Ue)		
Rated insulation voltage (Ui)		
Rated impulse voltage (Uimp)		
Degree of protection (IEC 60 529)		
Temperature compensation (° C)		
Functions	Trip indicating Stop Test Manual/Automatic Reset	
Setting range(A)		
Nominal current rating	Wire size	
	mm <sup>2</sup>	AWG
0.14	1	18
0.21		
0.33		
0.52		
0.82		
1.3		
2.1		
3.3		
5		
6.5		
7.5	1~1.5	18~16
8.5	1.5~2.5	16~14
15	2.5	14~12
19	2.5~4	12~10
21.5		
27	4~6	10
30	4~10	10~8
34	6~10	10~8
42	10	8
54		
65	16~25	6~4
74		
83	25~35	4~3
90		
Applied contactors		
Separate mounting unit		

18AF	
10A	20
MT-12/2H□	-
MT-12/3H□	-
MT-12/3K□	MT-12/3D□
Screw clamp	
3	
690V	
Up to 690V	
6kV	
IP 20	
-5~+40°C	
■	
-	
■	
■	
0.1~18A	1~18A
0.1~0.16	
0.16~0.25	
0.25~0.4	
0.4~0.63	
0.63~1	
1~1.6	1~1.6
1.6~2.5	1.6~2.5
2.5~4	2.5~4
4~6	4~6
5~8	5~8
6~9	6~9
7~10	7~10
9~13	9~13
12~18	12~18
MC-6a, 9a, 12a, 18a	
-	



MT-32/3K□

**40AF**

10A	20
MT-32/2H□	-
MT-32/3H□	-
MT-32/3K□	MT-32/3D□
Screw clamp	
3	
690V	
Up to 690V	
6kV	
IP 20	
-5~+40°C	
■	
■	
■	
■	
■	
0.1~40A	1~40A
0.1~0.16	
0.16~0.25	
0.25~0.4	
0.4~0.63	
0.63~1	
1~1.6	1~1.6
1.6~2.5	1.6~2.5
2.5~4	2.5~4
4~6	4~6
5~8	5~8
6~9	6~9
7~10	7~10
9~13	9~13
12~18	12~18
16~22	16~22
18~25	18~25
22~32	22~32
-	-
28~40	28~40
MC-9b, 12b, 18b, 22b, 32a, 40a	
UZ-32	



MT-63/3K□S

**65AF**

10A	20
MT-63/2H□S	-
MT-63/3H□S	-
MT-63/3K□S	MT-63/3D□S
Screw clamp	
3	
690V	
Up to 690V	
6kV	
IP 20	
-5~+40°C	
■	
■	
■	
■	
■	
4~65A	
4~6	4~6
5~8	5~8
6~9	6~9
7~10	7~10
9~13	9~13
12~18	12~18
16~22	16~22
18~25	18~25
-	-
24~36	24~36
28~40	28~40
34~50	34~50
45~65	45~65
MC-50a, 65a	
UZ-63/S	



MT-95/3K□S

**100AF**

10A	20
MT-95/2H□S	-
MT-95/3H□S	-
MT-95/3K□S	MT-95/3D□S
Screw clamp	
3	
690V	
Up to 690V	
6kV	
IP 20	
-5~+40°C	
■	
■	
■	
■	
■	
7~100A	
7~10	7~10
9~13	9~13
12~18	12~18
16~22	16~22
18~25	18~25
-	-
24~36	24~36
28~40	28~40
34~50	34~50
45~65	45~65
54~75	54~75
63~85	63~85
70~95	70~95
80~100	80~100
MC-75a, 85a, 100a	
UZ-95/S	

# Overload relay specifications

## MT type Thermal Overload Relays

Metasol



Frame size		
Trip class		
Type	Non-differential(3P-2 heater)	
	Non-differential(3P-3 heater)	
	Differential type	
Terminal type		
Number of poles		
Rated operational voltage (Ue)		
Rated insulation voltage (Ui)		
Rated impulse voltage (Uimp)		
Degree of protection (IEC 60 529)		
Temperature compensation (°C)		
Functions	Trip indicating	
	Stop	
	Test	
	Manual/Automatic Reset	
Setting range(A)		
Nominal current rating	Wire size	
	mm <sup>2</sup>	AWG
42	10	8
55	16	6
65	25	4
74	25	4
80	35	3
93	35	2
107	50	1
113	50	1
130	50	0
130	70	00
153	95	000
200	120	250
265	185	350
350	240	500
515	185 × 2n	350 × 2n
660	240 × 2n	300 × 3n
Applied contactors		
Separate mounting unit		

150AF	
10A	20
MT-150/2H□	-
MT-150/3H□	-
MT-150/3K□	MT-150/3D□
Screw clamp	
3	
690V	
690V	
6kV	
IP 20	
-5~+40°C	
■	
■	
■	
■	
34~150A	34~150A
34~50	
45~65	
54~75	
63~85	
-	
80~105	
-	
95~130	
110~150	
MC-130a, 150a	
UZ-150/S	

