

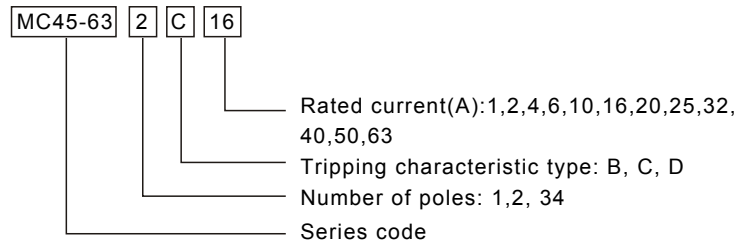


MC45-63 Miniature Circuit Breaker

Functions

- ◆ Overload protection
- ◆ Short circuit protection
- ◆ Isolation
- ◆ Controlling
- ◆ Used in residential building non-residential building energy ,industry and infrastructure.

Instruction of type code



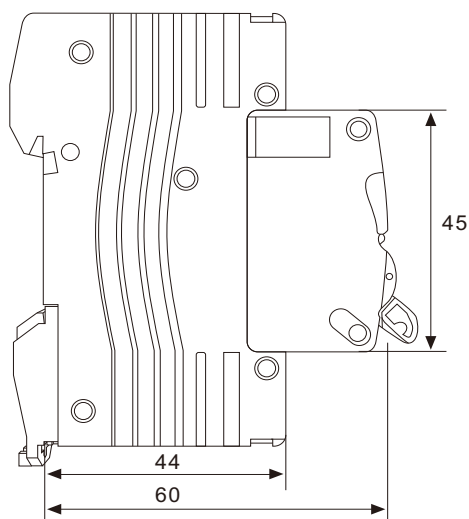
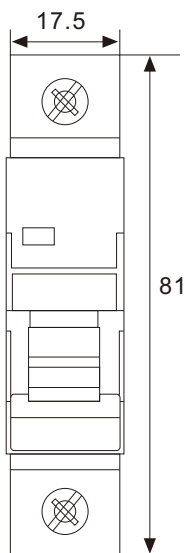
Technical specifications

- ◆ Standard: IEC60898-1, IEC60947-2
- ◆ Rated current I_n (A):2,4,6,10,16,20,25,32,40,50,63
- ◆ Rated voltage U_e (AC): 230/400V
- ◆ Operational voltage(AC): Min 24V Max 250/440v
- ◆ Rated frequency(Hz): 50/60
- ◆ Rated insulation voltage(AC): 500V
- ◆ Rated impulse withstand voltage: 6kV
- ◆ Number of poles: 1P, 2P, 3P, 4P
- ◆ Tripping Characteristics: B, C, D
 Characteristic curve B(I_n): 3-5
 Characteristic curve C(n): 5-10
 Characteristic curve D(I_n): 10-20
- ◆ Thermal operating limit(I_n): 1.13-1.45
- ◆ Rated switching capacity I_{cn} (kA): 4.5,6
- ◆ Degree of protection: IP40(top),IP20(terminal), with connected conductors
- ◆ Electrical life(0-c): 8,000
- ◆ Mechanical life(0-c): 20,000
- ◆ Max fuse: 100gL(>10kA)
- ◆ Breaking Capacity:

Poles	Rated Current	Breaking Capacity	Standards
1P, 2P,3P, 4P	6-32A	4500A	IEC60898-1
1P, 2P,3P, 4P	40-63A	4000A	IEC60898-1

- ◆ Fire resistance according to UL 94: Vo
- ◆ Mounting position: any
- ◆ Terminal could use for busbar connection thickness(mm): 0.8-2 wiring(mm):1-25
- ◆ Terminal tightening torque(N m): 2.5-3
- ◆ The relative humidity is max 95%o when ambient temperature(C):55
- ◆ Storage temperature(C): -40-+85
- ◆ Altitude Max (meters): 2000

Outline and Installation dimensions



Magnetic release

An electromagnet with plunger ensures instantaneous tripping in case of short circuit. The LEC60898 distinguishes three different types, following the current for instantaneous release: type B, C, D

	Test Current	Tripping Time		Applications
B	3In	$t \geq 0.1s$	Non-tripping	Only for resistive loads such as: -electrical heating -water heater -stoves
	5In	$t < 0.1s$	Tripping	
C	5In	$t \geq 0.1s$	Non-tripping	Usual loads such as: -lighting -socket outlets -small motors
	10In	$t < 0.1s$	Tripping	
D	10In	$t \geq 0.1s$	Non-tripping	Control and protection of circuits having important transient inrush currents (large motors)
	20In	$t < 0.1s$	Tripping	

Thermal release

- ◆ The release is initiated by a bimetal strip in case of overload
- ◆ The standard defines the range of release for specific overload values
- ◆ Reference ambient temperature is 30 °C

Test Current	Tripping Time	
1.13In	$t \geq 1h (In \leq 63A)$	Non-tripping
1.45In	$t < 1h (In \leq 63A)$	Tripping
2.55In	$1s < t < 60s (In \leq 32A)$	Tripping
	$1s < t < 120s (In > 32A)$	

Features

- ◆ The handle being sealable or equipped with padlock bracket avoids dangerous operation changes (ON/OFF)
- ◆ The handle provides a clear indication of the contact position
- ◆ Adequate printing of all data on the front provides long-term identification
- ◆ Energy limiting class: 3
- ◆ The emission of ionized gases is limited to the severest restrictions: 45 mm grid distance
- ◆ This MCB for household in accordance with: IEC 60898 B, C and D tripping characteristics
- ◆ This MCB for industry in accordance with EC 60947-2 instantaneous tripping characteristic with release
B: $4In \pm 20\%$, release C: $8In \pm 20\%$, release D: $12In \pm 20\%$
- ◆ This MCB may be extended with
- ◆ A wide range of RCDS
- ◆ Full sets of additional components
- ◆ Full sets of accessories