

Miniature Circuit Breaker

Construction and Feature

- ◆ The state-of-art design
 - Elegant appearance; cover and handle in arc shape make comfortable operation.
 - Contact position indicating window
 - Transparent cover designed to carry label.
- ◆ Handle central-staying function for circuit fault indicating
 - In case of overload, to protected circuit, MCB handle trips and stays at central position, which enables a quick solution to the faulty line. The handle cannot stay in such position when operated manually.
- ◆ High short-circuit capacity
 - High short-circuit capacity 10KA for whole range and 15kA capacity for current rating up to 40A thanks to the powerful electric arc extinguishing system.
 - Long electrical endurance up to 6000 cycles thanks to quick making mechanism.
- ◆ Handle padlock device
 - MCB handle can be locked either at "ON" position or at "OFF" position to prevent unwanted operation of the product.
- ◆ Screw terminal lock device
 - The lock device prevents unwanted or casual dismounting of connected terminals.

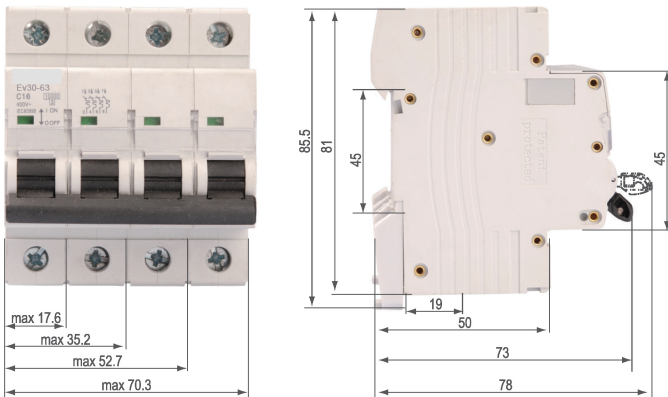
Technical Data

- ◆ Pole No.: 1, 1P+N, 2, 3, 3P+N, 4
- ◆ Rated voltage: AC 230/400V
- ◆ Rated current (A):
 - 1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63
- ◆ Tripping curve: B, C, D
- ◆ High short-circuit breaking capacity (I_{cn}): 4.5KA, 6KA, 10KA
- ◆ Rated service short-circuit breaking capacity(I_{cs}): 4.5KA, 6KA, 7.5KA
- ◆ Rated frequency: 50/60Hz
- ◆ Energy limiting class: 3
- ◆ Rated impulse withstand voltage: 6.2kV
- ◆ Electro-mechanical endurance: 20000
- ◆ Contact position indication
- ◆ Connection terminal:
 - Screw terminal
 - Pillar terminal with clamp
- ◆ Connection capacity: Rigid conductor up to 25mm²
- ◆ Terminal Connection Height: 19mm
- ◆ Fastening torque: 2.0Nm
- ◆ Installation:
 - On symmetrical DIN rail 35mm
 - Panel mounting

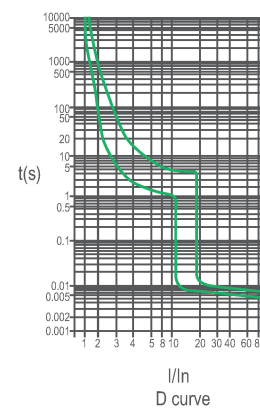
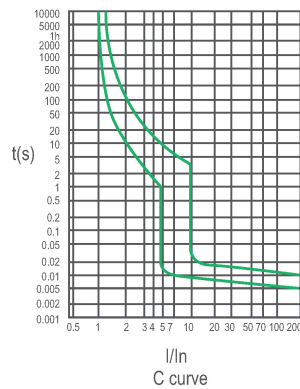
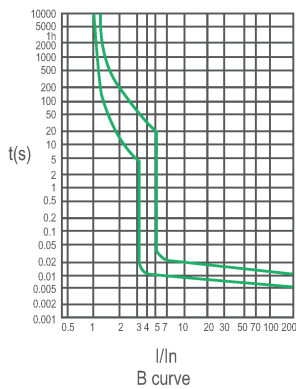
Accessories

- ◆ Ev3F3 Auxiliary contact
- ◆ Ev3S3 Shunt tripper
 - Ev30-63 Auxiliary
 - Ev3SD3 Alarm Switch
 - Ev3O3+Ev3O33 Over-Voltage/
Under-Voltage Tripper

Overall & Installation Dimensions



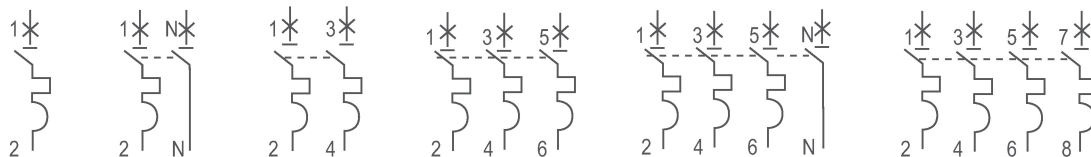
Characteristic Curve



Power Consumption

Rated Current Range (InA)	Max consumption/pole (W)
$I_n \leq 10$	3
$10 < I_n \leq 16$	3.5
$16 < I_n \leq 25$	4.5
$25 < I_n \leq 32$	6
$32 < I_n \leq 40$	7.5
$40 < I_n \leq 50$	9
$50 < I_n \leq 63$	13

Wiring Diagram



Overload Current Protection Characteristics

Test Procedure	Type	Test Current	Initial State	Tripping or Non-tripping Time Limit	Expected Result	Remark
A	B, C, D	$1.13I_n$	cold	$t \leq 1h$	no tripping	
B	B, C, D	$1.45I_n$	after test a	$t < 1h$	tripping	Current in the 5 s in the increase of stability
C	B, C, D	$2.55I_n$	cold	$1s < t < 60s (I_n \leq 32A)$ $1s < t < 120s (I_n < 32A)$	tripping	
D	B	$3I_n$	cold	$t \geq 0.1s$	no tripping	Turn on the auxiliary switch to close the current
	C	$5I_n$				
	D	$10I_n$				
E	B	$5I_n$	cold	$t < 0.1s$	tripping	Turn on the auxiliary switch to close the current
	C	$10I_n$				
	D	$20I_n$				