

# DIGITAL CATALOG

## EKM1-63H 10KA MCB

ETЭК®

Mini Circuit Breaker

Standard\_ IEC60898-1



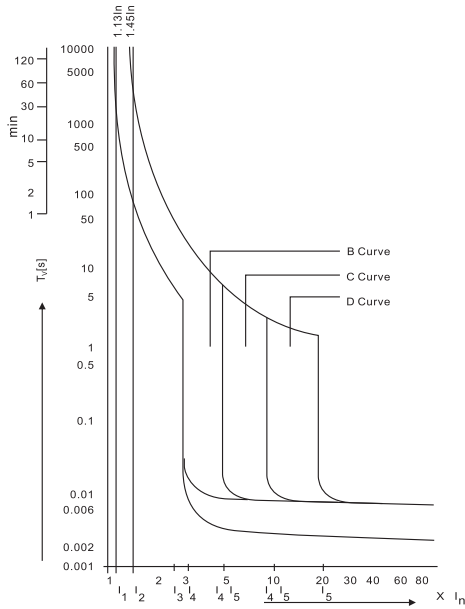
### Technical Data

Electrical Features	Rated current In	1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A
	Poles	1P, 1P+N, 2P, 3P, 3P+N,4P
	Rated voltage Ue	230/400V~,120-240V
	Insulation voltage Ui	500V
	Rated frequency	50/60Hz
	Rated breaking capacity	10000 A at 230 VAC (1P) at 230/400 VAC (2P, 3P) and 400/415 VAC (4P) according to IEC 60898-1
	Energy limiting class	3
	Rated impulse withstand voltage Uimp	6,000V
	Dielectric test voltage at ind. Freq. for 1 min	2kV
	Pollution degree	2
	Thermo-magnetic release characteristic	B,C,D
	Firing unit	Thermal magnetic
Mechanical Features	Electrical life	Up or same to 4,000 Cycles
	Mechanical life	20,000 Cycles
	Contact position indicator	Yes
	Protection degree	IP20
	Reference temperature for setting of thermal element	30°C
	Ambient temperature (with daily average ≤35°C)	-5°C~+40°C
	Storage temperature	-25°C~+70°C
	Over tension catagory	III
Installation	Terminal connection type	Cable (aluminum and copper)/Pin-type/U-type busbar
	Terminal size top/bottom for cable	25mm <sup>2</sup> 18-4AWG
	Terminal size top/bottom for busbar	25mm <sup>2</sup> 18-4AWG
	Tightening torque	2.0Nm 22In-lbs
	Mounting	On DIN rail EN60715(35mm) by means of fast clip device
	Connection	Power supply in both directions
Combination with accessories	Auxiliary contact	Yes
	Alarm contact	Yes
	Shunt release	Yes
	Over/Under voltage release	Yes

## MCB Characteristics

### Characteristics

#### Curves



Thermal Tripping				Magnetic Tripping		
As per IEC60898	No tripping current	Tripping current $I_2$	Time Limits $t$	Hold current $I_4$	Trip current $I_5$	Time Limits $t$
B Curve	$1.13 \times I_N$	$1.45 \times I_N$	$\geq 1h$ $< 1h$	$3 \times I_N$	$5 \times I_N$	$\geq 0.1s$ $< 0.1s$
C Curve	$1.13 \times I_N$	$1.45 \times I_N$	$\geq 1h$ $< 1h$	$5 \times I_N$	$10 \times I_N$	$\geq 0.1s$ $< 0.1s$
D Curve	$1.13 \times I_N$	$1.45 \times I_N$	$\geq 1h$ $< 1h$	$10 \times I_N$	$20 \times I_N$	$\geq 0.1s$ $< 0.1s$

### Tripping characteristics

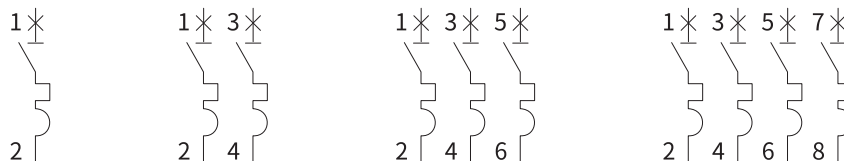
Based on the Tripping Characteristics, MCB are available in “B” , “C” and “D” curve to suit different types of applications.

“B” Curve for protection of electrical circuits with equipment that does not cause surge current (lighting and distribution circuits) Short circuit release is set to  $(3-5)I_n$ .

“C” Curve for protection of electrical circuits with equipment that cause surge current (inductive loads and motor circuits) Short circuit release is set to  $(5-10)I_n$ .

“D” Curve for protection of electrical circuits with cause high inrush current ,typically 12-15 times the thermal rated

## Circuit Diagram



## Overall and Installation Dimension(mm)

