

Mini Circuit Breaker Standard\_ IEC60898-1









# **Technical Data**

Electrical	Rated current In	1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A		
Features	Poles	1P, 1P+N, 2P, 3P, 3P+N,4P		
	Rated voltage Ue	230/400V~		
	Insulation voltage Ui	500V		
	Rated frequency	50/60Hz		
	Rated breaking capacity	10,000A		
	Energy limiting class	3		
	Rated impulse withstand voltage(1.5/50) Uimp	4,000V		
	Dielectric test voltage at ind. Freq. for 1 min	2kV		
	Pollution degree	2		
	Thermo-magnetic release characteristic	B,C,D		

# Mechanical Features

Electrical life	8,000 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		

## Installation

Terminal connection type	Cable/Pin-type busbar/U-type busbar			
Terminal size top/bottom for cable	25mm <sup>2</sup> 18-3AWG			
Terminal size top/bottom for busbar	25mm <sup>2</sup> 18-3AWG			
Tightening torque	2.5Nm 22In-lbs			
Mounting	On DIN rail EN60715(35mm) by means of fast clip device			
Connection	Power supply in both directions			

### Combination

with accessories

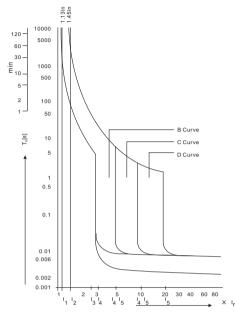
Auxiliary contact	EKM1-OF
Alarm contact	EKM1-FB
Shunt release	EKM1-MX
Over/Under voltage release	EKM1-MV+MN



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#### **MCB Characteristics**

## Characteristics Curves



Thermal Tripping			Magnetic Tripping			
Asper	No	Tripping	Time	Hold	Trip	Time
IEC60898	tripping	current	Limits	current	current	Limits
	current	I <sub>2</sub>	t	I <sub>4</sub>	I <sub>5</sub>	t
B Curve	1.13×I <sub>N</sub>		≥1h	$3\times I_{N}$		≥0.1s
		1.45×I <sub>N</sub>	<1h		5×I <sub>N</sub>	<0.1s
		1.43 × 1 <sub>N</sub>			3 / I <sub>N</sub>	
C Curve	1.13×I <sub>N</sub>		≥1h	5×I,		≥0.1s
	14	1 45 24	<1h	- N		<0.1s
		1.45×I <sub>N</sub>			$10\times I_{N}$	
D Curve	$1.13\times I_{N}$		≥1h	$10 \times I_{N}$		≥0.1s
		1.45×I <sub>№</sub>	<1h		20×I <sub>N</sub>	<0.1s
		2.1371N			ZUNIN	

# 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)In.

"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)In.

"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)

