

# ETM1-63S

Mini Circuit Breaker



## IP20 protection

Finger protected connection terminals.

## Modular accessory expansion

Suitable for the quick and easy mounting of additional components, such as auxiliary switches and fault signal contacts.

## EAN code

The shell comes with pad printed EAN code.

## Standard

IEC 60898-1: Electrical accessories - Circuit-breakers for overcurrent protection for household and similar installations - Part 1.

## Multiple termination

Both incoming and outgoing terminals are suitable for: normal cable, pin type busbars.

## Contact position indication

Reliable recognition of the switching status through red/green position indicating device.

## RoHS compliant

ETEK uses environmentally friendly state-of-the-art housing material. With the latest generation of halogen free thermoplastics for MCBs, it is now possible to recycle the MCBs completely which reduces environmental pollution. T Series entire range of circuit protection devices conform to RoHS Standards.

## Applications



Main circuit protection in residential distribution systems



Lighting circuit control in commercial buildings



Power supply line protection for industrial equipment



Electrical safety assurance in public facilities

## Overview

ETM1-63S Series Miniature Circuit Breaker is specifically designed for terminal power distribution protection in commercial office buildings, residential premises, and general industrial applications. It is suitable for circuits with AC 50/60Hz, a rated voltage of 110/240/415V, and a rated current up to 63A.

Featuring overload and short-circuit protection, it can also be used for infrequent line switching operations under normal conditions. With a rated short-circuit capacity (Icn) of up to 4.5kA, it ensures reliable circuit protection.

This product incorporates finger-safe combination terminals and provides contact open/close status indication, significantly enhancing operational safety. Additionally, various modular accessories can be configured to meet diverse application needs.

## Product Tips



- |                                      |   |
|--------------------------------------|---|
| 1 Reversible line and load connector | 4 Rated current up to 63A                   |
| 2 EAN-13 barcodes                    | 5 Contacts position indication window       |
| 3 The position of handle lock        | 6 Rated short circuit breaking capacity 6kA |

## Technical Data

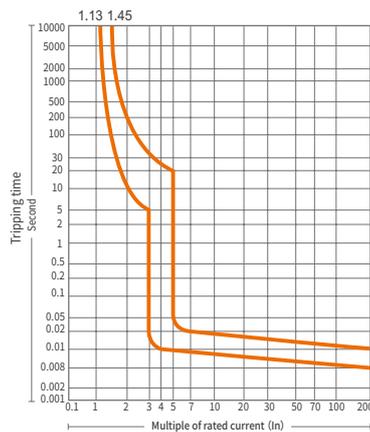
General data	
Protection	Overcurrent and short circuit
Type of trip	Thermal-magnetic
No. of poles	1P, 2P, 3P, 4P
Rated operational voltage (Ue)	1P: 110/230V, 120/240V, 230/400V, 240/415V 2P,3P,4P: 230/400V, 240/415V, 400/415V
Rated current (In)	1, 2, 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63A
Rated frequency	50/60Hz
Rated insulation voltage (Ui)	500V
Rated impulse withstand voltage (Uimp) (1.2/50μs)	6kV
Dielectric test voltage	2kV (50/60Hz, 1 min.)
Fire resistance (glow-wire test)	960±15°C (Enclosure); 650±10°C (Handle)
Pollution degree	2
Data acc. to IEC/EN 60898-1	
Rated short-circuit capacity (Icn)	4.5kA
Rated service short-circuit breaking capacity (Ics)	4.5kA
Thermal tripping characteristics	1.13×In No tripping within an hour; 1.45×In Tripping within an hour
Instantaneous tripping characteristics	B: 3In-5In; C: 5In-10In; D: 10In-20In
Mechanical data	
Electrical life	4,000 Cycles
Mechanical life	20,000 Cycles
Contact position indication	green OFF / red ON
Protection degree	IP20
Reference temperature	30°C
Operating ambient temperature (with daily average ≤ 35°C)	-25°C ~ +55°C
Storage temperature	-30°C ~ +70°C
Installation	
Terminal connection type	Cable/ Pin-type
Terminal block	Screw press-connected
Max. terminal size for cable	16mm <sup>2</sup> flexible/ 25mm <sup>2</sup> rigid
Max. tightening torque	2.5N.m
Mounting type	Mounting on 35mm DIN rail
Incoming method	Bi-Directional
Auxiliary for remote tripping or signaling	
Auxiliary Contact	Yes
Auxiliary & Alarm Contact	Yes
Shunt Release	Yes
Shunt Release & Auxiliary Contact	Yes
Voltage Loss Release	Yes
Over-voltage Release	Yes
Undervoltage Release	Yes
Over-undervoltage Release	Yes
Mechanical Interlock	Yes

### Tripping Characteristic

Data acc. to IEC/EN 60898-1

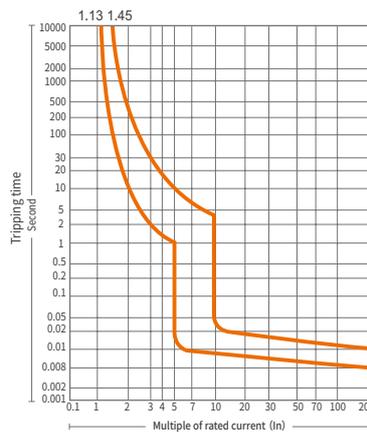
Curve	Rated current	Thermal release				Ambient temperature	Magnetic release			Ambient temperature
		Non-trip	Trip	Non-trip time	Trip time		Hold current	Trip current	Trip time	
B	1-63A	1.13I <sub>n</sub>		≤1h		30°C+5°C	3I <sub>n</sub>		≥0.1	Normal temperature
			1.45I <sub>n</sub>		<1h			5I <sub>n</sub>	<0.1	
C	1-63A	1.13I <sub>n</sub>		≤1h			5I <sub>n</sub>		≥0.1	
			1.45I <sub>n</sub>		<1h			10I <sub>n</sub>	<0.1	
D	1-63A	1.13I <sub>n</sub>		≤1h			10I <sub>n</sub>		≥0.1	
			1.45I <sub>n</sub>		<1h			20I <sub>n</sub>	<0.1	

B curve



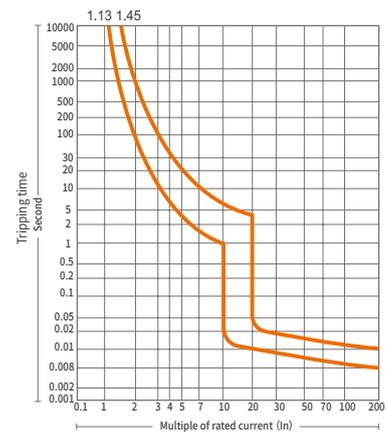
Universal use  
- socket outlet, lighting device

C curve



Resistive & inductive loads with low inrush current  
- lamp, high starting current motor

D curve

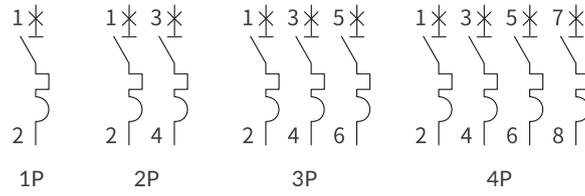


Loads with high inrush current  
- transformer, solenoid valve, 2 pole motor

### Temperature Derating Table

Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	2.2
4	5.3	5.2	5	4.8	4.6	4.4	4.2	4	3.8	3.5	3.3	3
5	6.7	6.5	6.31	6.1	5.8	5.5	5.25	5	4.7	4.3	4	3.7
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	25.8	24.9	24	23.1	22.1	21.1	20	18.9	17.6	16.3	14.9
25	33.3	32.3	31.2	30	28.9	27.6	26.4	25	23.6	22	20.4	18.6
32	42.7	41.3	39.9	38.5	37	35.4	33.7	32	30.2	28.2	26.1	23.9
40	53.3	51.6	49.9	48.1	46.2	44.2	42.2	40	37.7	35.3	32.7	29.8
50	66.7	64.5	62.4	60.1	57.7	55.3	52.7	50	47.1	44.1	40.8	37.3
63	84	81.3	78.6	75.7	72.7	69.6	66.4	63	59.4	55.6	51.4	47

Wiring Diagram



Dimension (mm)

