



T Series

Circuit Protection Solutions

MCB
 RCCB
 RCBO
 AFDD
 Modular Accessories



COMPANY INTRODUCTION





Zhejinag Wenzhou Factory



Zhejiang ETEK Electrical Technology Co., Ltd. is a professional manufacturing company specializing in the research, development, production, and sales of low-voltage electrical appliances. Established in 2011 and headquartered in Wenzhou, Zhejiang Province, ETEK Electric operates two modern manufacturing bases in Wenzhou and Wuhu, covering an area of 40,000 square meters. The company employs over 500 staff, including more than 20 R&D and technical professionals.

ETEK Electric has multiple production workshops for mold design, parts manufacturing, welding, and assembly. Additionally, it operates multiple automated production lines for MCB and RCCB. Its product portfolio includes MCB, RCCB, RCBO, AFDD, MCCB, ACB, EV Chargers, and Photovoltaic DC products, which are widely used in residential, commercial, and industrial sectors.

ETEK Electric has established its own low-voltage electrical testing center, where testing projects meet international IEC standards. The company has obtained ISO9001, ISO14001, and ISO45001 certifications, and its products are certified by international standards such as CB, TUV, VDE, CE, RoHS, among others.







100+ Export Countries



30+ Brand Agents







20 Mio+ Poles
Annual Production



≥50%







Anhui Wuhu Factory



With over 100 national patents, ETEK Electric continues to master core technologies in circuit breakers and remains committed to building its independent brand. The "ETEK" trademark is registered in over 80 countries, with products exported to more than 100 regions, including Europe, South America, the Middle East, Africa, and Southeast Asia.

Additionally, ETEK Electric supports OEM, ODM, OBM, SKD, CKD, and other business cooperation models, offering a complete suite of services including market cultivation, technical training, and assistance with factory construction.

Looking to the future, ETEK Electric is committed to becoming a globally renowned manufacturer in the power distribution and electrical industry, safeguarding the power safety of its customers around the world and contributing to the development of green and digital energy.



Values

- Integrity
- Innovation
- Focus
- Win-win



Vision

Dedicated to becoming a globally renowned manufacturer in the power distribution equipment industry.



Mission

Manufacturing safer and smarter distribution electrical products to support the development of green and digital energy

QUALITY ASSURANCE

System Certificate









Product Certificate

























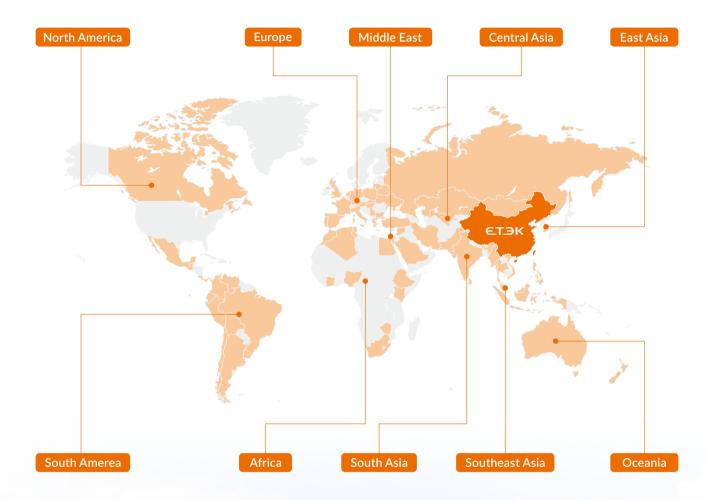






GLOBAL REACH

- "ETEK" registered in 80+ countries
- Exports to 100+ countries (EU SOUTH AMERICA MENA ASEAN AFRICA)
- Supports OEM, ODM, OBM, SKD, and CKD partnerships







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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



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 (lcn) 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 connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 Contacts position indication window
- 6 Rated short circuit breaking capacity 6kA



■ Technical Data

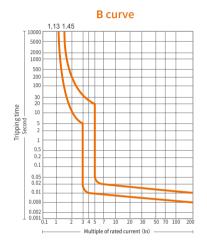
General data	
Protection	Overcurrent and short circuit
Type of trip	Thermal-magnetic
No. of poles	1P, 2P, 3P, 4P
Rated operational voltage (Ue)	1P: 110/230V, 120/240V, 230/400V, 240/415V 2P,3P,4P: 230/400V, 240/415V, 400/415V
Rated current (In)	1, 2, 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63A
Rated frequency	50/60Hz
Rated insulation voltage (Ui)	415V
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 (lcs)	4.5kA
Thermal tripping characteristics	1.13×In No tripping within an hour; 1.45×In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln
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	16mm² flexible/ 25mm² 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

03

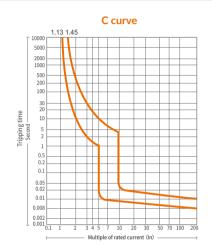


■ Tripping Characteristic

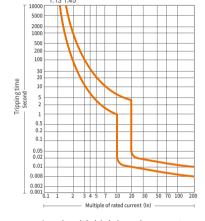
				Data a	cc. to IEC/E	V 60898-1				
	Rated			Thermal relea	ase			Magnet	ic release	
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
	1-63A	1.13ln		≤1h			3In		≥0.1	
В	1-63A		1.45In		<1h			5ln	<0.1	
-	4 (04	1.13ln		≤1h		0000.500	5In		≥0.1	Normal
С	1-63A		1.45In		<1h	30°C+5°C		10ln	<0.1	temperature
	1 (0)	1.13ln		≤1h			10ln		≥0.1	
D	1-63A		1.45In		<1h			20In	<0.1	







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



D curve

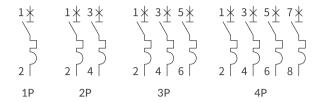
Loads with high inrush current - transformer, solenoid valve, 2 pole motor

■ Temperature Derating Table

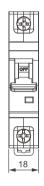
D-tI (A)					Correction	factor for	ambient te	emperature	2			
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	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

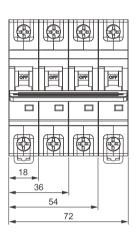


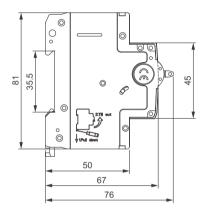
Wiring Diagram



■ Dimension (mm)









ETM1-63X

Mini Circuit Breaker

CE KK S









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



Overview

ETM1-63X 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 (lcn) of up to 6kA, 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 connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 Contacts position indication window
- 6 Rated short circuit breaking capacity 6kA



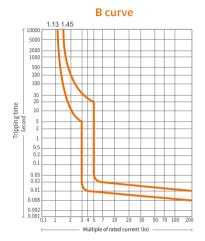
■ Technical Data

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)	415V
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)	6kA
Rated service short-circuit breaking capacity (lcs)	6kA
Energy limiting class	3
Thermal tripping characteristics	1.13×In No tripping within an hour; 1.45×In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln
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	Cable / Dia trus
Terminal connection type	Cable/ Pin-type
Terminal block	Screw press-connected
Max. terminal size for cable	16mm² flexible/ 25mm² rigid 2.5N.m
Max. tightening torque	
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

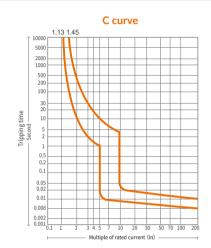


■ Tripping Characteristic

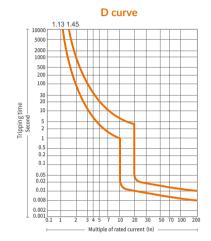
				Data a	cc. to IEC/E	V 60898-1				
	Rated			Thermal relea	ase			Magnet	ic release	
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
	1-63A	1.13ln		≤1h			3In		≥0.1	
В	1-63A		1.45In		<1h			5In	<0.1	
-	4 (04	1.13ln		≤1h		0000.500	5In		≥0.1	Normal
С	1-63A		1.45In		<1h	30°C+5°C		10In	<0.1	temperature
	1 (0)	1.13ln		≤1h			10ln		≥0.1	
D	1-63A		1.45In		<1h			20In	<0.1	







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



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

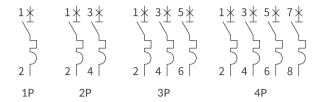
■ Temperature Derating Table

D / / / / / / / / / / / / / / / / / / /					Correction	factor for	ambient te	emperature	!			
Rated current (A)	-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

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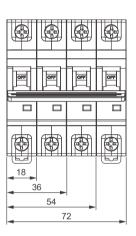


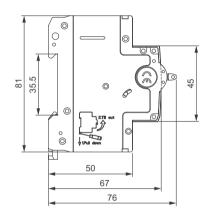
Wiring Diagram



■ Dimension (mm)









ETM1-63

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. IEC 60947-2: Low-voltage switchgear and controlgear -Part 2.

Multiple termination

Both incoming and outgoing terminals are suitable for: normal cable, fork type busbar, pin type busbars, fork busbar + cable simultaneous connection.

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



Overview

ETM1-63 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 maximum ultimate short-circuit breaking capacity (Icu) of up to 6kA, 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 connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 PIN/ Fork busbar
- 6 Contacts position indication window



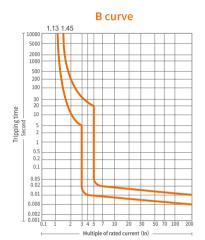
■ Technical Data

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, 230/240V, 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)	415V
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)	6kA
Rated service short-circuit breaking capacity (Ics)	6kA
Energy limiting class	3
Thermal tripping characteristics	1.13×In No tripping within an hour; 1.45×In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln
Data acc. to IEC/EN 60947-2	
Rated ultimate short circuit breaking capacity Icu (kA)	6kA
Rated service short circuit breaking capacity Ics (kA)	6kA
Thermal tripping characteristics	1.05×In No tripping within an hour; 1.3×In Tripping within an hour
Instantaneous tripping characteristics	8In-12In
	2.1. 22.1.
Mechanical data	4000.0
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	Cable / Big to yea / Fault to year house year
Terminal connection type Terminal block	Cable/ Pin-type/ Fork-type busbar
Max. terminal size for cable	Screw press-connected
	16mm² flexible/ 25mm² rigid
Max. tightening torque	2.5N.m
Mounting type	Mounting on 35mm DIN rail Bi-Directional
Incoming method	ы-ыгесиона
Auxiliary for remote tripping or signaling	
Auxiliary Contact	Yes
Auxiliary & Alarm Contact	Yes
CL + D L	Vee
Shunt Release	Yes
Shunt Release & Auxiliary Contact	Yes
Shunt Release & Auxiliary Contact Voltage Loss Release	Yes Yes
Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release	Yes Yes Yes
Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release Undervoltage Release	Yes Yes Yes Yes
Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release	Yes Yes Yes

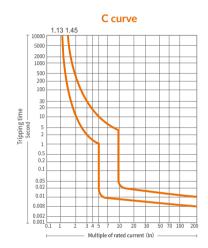


■ Tripping Characteristic

				Data a	cc. to IEC/EN	N 60898-1				
	Rated			Thermal relea	ise			Magnet	ic release	
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
	1-63A	1.13ln		≤1h			3In		≥0.1	
В	1-63A		1.45In		<1h			5ln	<0.1	
-	1 (0)	1.13ln		≤1h		2000 , 500	5ln		≥0.1	Normal
С	1-63A		1.45In		<1h	30°C+5°C		10ln	<0.1	temperature
	1 (2)	1.13ln		≤1h			10ln		≥0.1	
D	1-63A		1.45In		<1h			20In	<0.1	

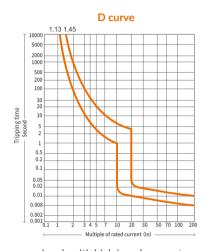


Universal use - socket outlet, lighting device



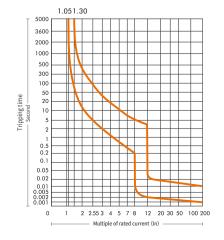
Resistive & inductive loads with low inruch current

- lamp, high starting current motor



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

		Data acc.	to IEC/EN 60947-2			
Rated current (In)	Tripping Characteristic	Initial state	Test current (A)	Trip time (t)	Result to be obtained	Ambient temperature
		Cold state	1.05ln	≥1h	No trip	
≤63A	Thermal release	Hot state (Follow the above test)	1.30ln	<1h	Trip	30±2°C
	NA	C-14 -+-+-	8In	≤0.2s	No trip	Normal
	Magnetic release	Cold state	12ln	<0.2s	Trip	temperature

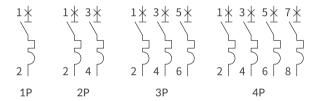




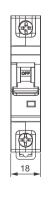
■ Temperature Derating Table

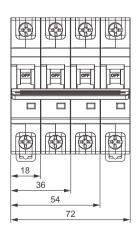
D. () () ()					Correction	factor for	ambient te	emperature	!			
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	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

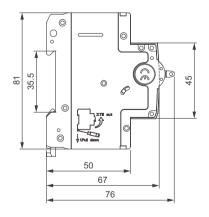
Wiring Diagram



■ Dimension (mm)









ETM1-63H

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. IEC 60947-2: Low-voltage switchgear and controlgear -Part 2.

Multiple termination

Both incoming and outgoing terminals are suitable for: normal cable, fork type busbar, pin type busbars, fork busbar + cable simultaneous connection.

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



Overview

ETM1-63H 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 maximum ultimate short-circuit breaking capacity (Icu) of up to 10kA, 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 connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 PIN/ Fork busbar
- 6 Contacts position indication window



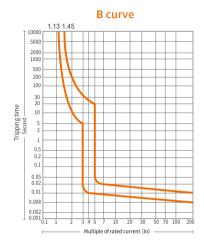
■ Technical Data

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, 230/240V, 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)	415V
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	10kA
Rated short-circuit capacity (Icn)	
Rated service short-circuit breaking capacity (Ics)	7.5kA
Energy limiting class	3
Thermal tripping characteristics	1.13×In No tripping within an hour; 1.45×In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln
Data acc. to IEC/EN 60947-2	
Rated ultimate short circuit breaking capacity Icu (kA)	10kA
Rated service short circuit breaking capacity Ics (kA)	7.5kA
Thermal tripping characteristics	1.05×In No tripping within an hour; 1.3×In Tripping within an hour
Instantaneous tripping characteristics	8ln-12ln
Mechanical data	
Electrical life	4,000 Cycles
Mechanical life	20,000 Cycles
Contact position indication	green OFF / red ON
Protection degree	
	IP20
	IP20 30°C
Reference temperature Operating ambient temperature (with daily average≤35°C)	30°C
Reference temperature Operating ambient temperature (with daily average≤35°C)	
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature	30°C -25°C ~ +55°C
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation	30°C -25°C ~ +55°C -30°C ~ +70°C
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Voltage Loss Release	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes Yes Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes Yes Yes Yes Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release Undervoltage Release	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes Yes Yes Yes Yes Yes Yes
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature Installation Terminal connection type Terminal block Max. terminal size for cable Max. tightening torque Mounting type Incoming method Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release	30°C -25°C ~ +55°C -30°C ~ +70°C Cable/ Pin-type/ Fork-type busbar Screw press-connected 16mm² flexible/ 25mm² rigid 2.5N.m Mounting on 35mm DIN rail Bi-Directional Yes Yes Yes Yes Yes Yes Yes Yes

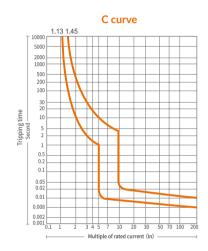


■ Tripping Characteristic

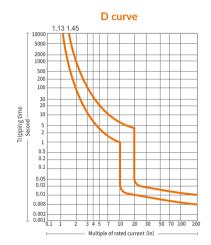
	Data acc. to IEC/EN 60898-1											
	Rated			Thermal relea	ise		Magnet	ic release				
Curve current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature			
	D 4 (0A	1.13ln		≤1h			3In		≥0.1	Normal temperature		
В	1-63A	DSA .	1.45In		<1h			5ln	<0.1			
-	1 (0)	1.13ln		≤1h		2000 , 500	5ln		≥0.1			
С	1-63A		1.45In		<1h	30°C+5°C		10ln	<0.1			
	1 (2)	1.13ln		≤1h			10ln		≥0.1			
D	1-63A		1.45In		<1h			20In	<0.1			



Universal use - socket outlet, lighting device

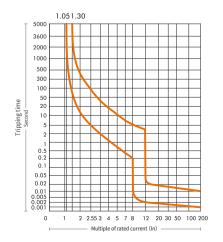


Resistive & inductive loads with low inruch current - lamp, high starting current motor



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

	Data acc. to IEC/EN 60947-2										
Rated current (In)	Tripping Characteristic	Initial state Test current (A) Trip ti		Trip time (t)	Result to be obtained	Ambient temperature					
		Cold state	1.05In	≥1h	No trip						
≤63A	Thermal release	Hot state (Follow the above test)	1.30ln	<1h	Trip	30±2°C					
	NA	C-14 -+-+-	8In	≤0.2s	No trip	Normal					
	Magnetic release	Cold state	12ln	<0.2s	Trip	temperature					

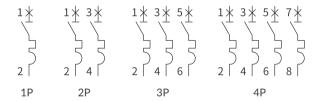




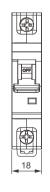
■ Temperature Derating Table

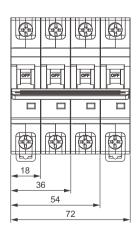
D. () () ()	Correction factor for ambient temperature											
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	3.6	3.5	3.3	3.2	3	2.8	2.6	2.4	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

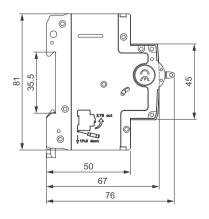
Wiring Diagram



■ Dimension (mm)









ETM1-63UH

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 60947-2: Low-voltage switchgear and controlgear -Part 2.

Multiple termination

Both incoming and outgoing terminals are suitable for: normal cable, fork type busbar, pin type busbars, fork busbar + cable simultaneous connection.

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



Overview

ETM1-63UH 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 maximum ultimate short-circuit breaking capacity (Icu) of up to 15kA, 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 connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 PIN/ Fork busbar
- 6 Contacts position indication window



■ Technical Data

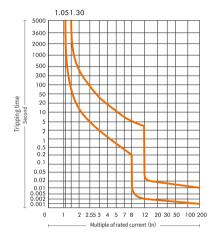
Thermal-magnetic Thermal-magnetic Thermal-magnetic The Park Pa	General data					
No. of poles	Protection	Overcurrent and short circuit				
Rated operational voltage (Ue) 1P: 110/230V; 120/230V; 230/A00V; 240/415V 2R3RAPR-230/A00V; 240/415V Rated current (In) 1. 2, 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63A Rated frequency 50/60Hz Rated insulation voltage (U) 415V Rated insulation voltage (Uimp) (1.2/50µs) 64V 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 60947-2 Rated uitimate short circuit breaking capacity ku (IkA) Rated service short circuit breaking capacity ku (IkA) 15kA Rated service short circuit breaking capacity ku (IkA) 1.05×In No tripping within an hour 1.3×In Tripping within an hour Islantaneous tripping characteristics Instantaneous tripping characteristics 8In-12In Mechanical Idia 4.000 Cycles Mechanical Idia 4.000 Cycles Mechanical Idia 6.000 Cycles Mechanical Idia 7.5kA	Type of trip	Thermal-magnetic				
### ### ### ### ### ### ### ### ### ##	No. of poles	1P, 2P, 3P, 4P				
Rated irrequency \$0/60Hz Rated insulation voltage (UI) 415V Rated insulation voltage (UI) 415V Rated insulation voltage (UI) 66V Dielectric test voltage 22kV (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 60947-2 Rated ultimate short circuit breaking capacity lcu (KA) 1.5kA Rated service short circuit breaking capacity lcu (KA) 1.05×In No tripping within an hour 1.3×In Tripping within an hour Insulatantaneous tripping characteristics 1.05×In No tripping within an hour 1.3×In Tripping within an hour Insulatantaneous tripping characteristics 20,000 Cycles 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) 225°C = +55°C Storage temperature 30°C -25°C = +55°C Installation Installation Installation Cable/ Pin-type/ Fork-type busbar Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal size for cable 1.6mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Mounting type Mounting on 35mm DIN rail Incoming method Bi-Directional Auxiliary for remote tripping or signalling Auxiliary for remote tripping or signalling Auxiliary & Alarm Contact Yes Shunt Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes	Rated operational voltage (Ue)					
Rated insulation voltage (Ui) Rated impulse withstand voltage (Uimp) (1.2/50µs) 6/kV Dielectric test voltage 2/kV (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 60947-2 Rated ultimate short circuit breaking capacity leu (IkA) Rated service short circuit breaking capacity les (IkA) 7,5kA Thermal tripping characteristics 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 8In-12In Mechanical data Electrical life 4,000 Cycles Mechanical life 20,000 Cycles Mechanical life 20,000 Cycles Reference temperature 90°C Operating ambient temperature (with daily averages35°C) Storage temperature 30°C Operating ambient temperature (with daily averages35°C) Storage temperature 30°C Coherant position type Cable/ Pin-type / Fork-type busbar Terminal connection type Cable/ Pin-type / Fork-type busbar Terminal size for cable Max. tightening torque 9.2.5N.m Mounting type Mounting Ves Mounting Ves Shurt Release 9.48 Shurt Release 9.48 Shurt Release 9.48 Over-voltage Release 9.48 Over-undervoltage Release	Rated current (In)	1, 2, 3, 4, 5, 6, 8, 10, 13, 16, 20, 25, 32, 40, 50, 63A				
Rated impulse withstand voltage (Uimp) (1.2/50µs) 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 60947-2 Rated ultimate short circuit breaking capacity Icu (KA) Rated service short circuit breaking capacity Icu (KA) 15kA Rated service short circuit breaking capacity Ics (kA) 7.5kA Thermal tripping characteristics 1.05×In No tripping within an hour: Instantaneous tripping characteristics 8In-12In Mechanical data Electrical life 4,000 Cycles Mechanical life 20,000 Cycles Contact position indication green OFF / red ON Protection degree Reference temperature 30°C Operating ambient temperature (with daily averages35°C) Storage temperature 30°C Operating ambient temperature (with daily averages35°C) Storage temperature Cable/ Pin-type/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. terminal size for cable Auxiliary Cortact Yes Auxiliary Contact Yes Shurt Release Auxiliary Contact Yes Shurt Release Auxiliary Contact Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Rated frequency	50/60Hz				
Dielectric test voltage	Rated insulation voltage (Ui)	415V				
Fire resistance (glow-wire test) Pollution degree 2 Data acc. to IEC/EN 60947-2 Rated ultimate short circuit breaking capacity Icu (kA) Rated service short circuit breaking capacity Icu (kA) Thermal tripping characteristics 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 8In-12In Mechanical data Electrical life 4.000 Cycles Mechanical life 20,000 Cycles Contact position indication Protection degree Reference temperature Operating ambient temperature (with daily average \$35°C) Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal size for cable Max. terminal proque 2.5N.m Mounting type Mounting type Mounting on 35mm DIN rail Incoming method Bi-Directional Auxillary for remote tripping or signaling Auxillary Contact Yes Shurt Release Auxillary Contact Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes	Rated impulse withstand voltage (Uimp) (1.2/50µs)	6kV				
Pollution degree 2 Data acc. to IEC/EN 60947-2 Rated ultimate short circuit breaking capacity Icu (kA) 15kA 7.5kA Thermal tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping characteristics 1.05×In No tripping within an hour, 1.3×In Tripping within an hour linstantaneous tripping within an hour, 1.3×In T	Dielectric test voltage	2kV (50/60Hz,1 min.)				
Data acc. to IEC/EN 60947-2 Rated ultimate short circuit breaking capacity Icu (kA) Rated service short circuit breaking capacity Icu (kA) Rated service short circuit breaking capacity Icu (kA) T.5kA Thermal tripping characteristics 1.05×In No tripping within an hour; 1.3×in Tripping within an hour Instantaneous tripping characteristics 8In-12In Mechanical dat Electrical life 4.000 Cycles Mechanical life 20,000 Cycles Contact position indication green OFF / red ON Protection degree IP20 Reference temperature Operating ambient temperature (with daily average \$35°C) Storage temperature -30°C ~ +75°C Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable Max. tightening torque Mounting type Mounting typ	Fire resistance (glow-wire test)	960±15°C (Enclosure); 650±10°C (Handle)				
Rated ultimate short circuit breaking capacity Icu (IkA) Rated service short circuit breaking capacity Ics (IkA) 7.5kA 7.5kA 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 8In-12In 8In-12	Pollution degree	2				
Rated ultimate short circuit breaking capacity Icu (IkA) Rated service short circuit breaking capacity Ics (IkA) 7.5kA 7.5kA 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 1.05×In No tripping within an hour; 1.3×In Tripping within an hour Instantaneous tripping characteristics 1.05×In No tripping within an hour Instantaneous Instan	Data acc. to IEC/EN 60947-2					
Thermal tripping characteristics Instantaneous tripping characteristics Mechanical data Electrical life 4,000 Cycles Mechanical life 20,000 Cycles 20,0	Rated ultimate short circuit breaking capacity Icu (kA)	15kA				
Instantaneous tripping characteristics Mechanical data Electrical life 4,000 Cycles Mechanical life 20,000 Cycles Mechanical life 20,000 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 averages35°C) 25°C = +55°C Storage temperature Installation Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal size for cable 16mm² flexible/ 25mm² rigid Max. terminal size for cable 16mm² flexible/ 25mm² 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 Shunt Release Yes Shunt Release Auxiliary Contact Yes Shunt Release Auxiliary Contact Yes Over-voltage Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes	Rated service short circuit breaking capacity Ics (kA)	7.5kA				
Mechanical data Electrical life	Thermal tripping characteristics	1.05×In No tripping within an hour; 1.3×In Tripping within an hour				
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 averages 35°C) -25°C ~ +55°C Storage temperature -30°C ~ +70°C Installation Terminal connection type Cable / Pin-type / Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable 16mm² flexible / 25mm² 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 Shunt Release Yes Shunt Release Auxiliary Contact Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Instantaneous tripping characteristics	8ln-12ln				
Mechanical life 20,000 Cycles Contact position indication green OFF / red ON Protection degree IP20 Reference temperature 30°C Operating ambient temperature (with daily averages35°C) -25°C ~ +55°C Storage temperature -30°C ~ +70°C Installation Terminal connection type Cable / Pin-type / Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable 16mm² flexible / 25mm² 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 Shunt Release Yes Shunt Release & Auxiliary Contact Yes Shunt Release & Auxiliary Contact Yes Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Mechanical data					
Contact position indication green OFF / red ON Protection degree IP20 Reference temperature 30°C Operating ambient temperature (with daily averages35°C) -25°C ~ +55°C Storage temperature -30°C ~ +70°C Installation Terminal connection type Cable / Pin-type / Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable 16mm² flexible/ 25mm² 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 Shunt Release Yes Shunt Release Auxiliary Contact Yes Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Electrical life	4,000 Cycles				
Protection degree IP20 Reference temperature Reference temperature Reference temperature (with daily average≤35°C) Reference temperature Reference temper	Mechanical life	20,000 Cycles				
Reference temperature Operating ambient temperature (with daily average≤35°C) Storage temperature -25°C ~ +55°C -25°C ~ +55°C Storage temperature -30°C ~ +70°C Installation Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable Max. tightening torque 2.5N.m Mounting type Mounting type Mounting on 35mm DIN rail Incoming method Bi-Directional Auxiliary for remote tripping or signaling Auxiliary Contact Yes Shunt Release Yes Shunt Release Auxiliary Contact Yes Shunt Release Auxiliary Contact Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Contact position indication	green OFF / red ON				
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/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable Max. tightening torque 2.5N.m Mounting type Mounting type Mounting on 35mm DIN rail Incoming method Bi-Directional Auxiliary for remote tripping or signaling Auxiliary Contact Yes Shunt Release Yes Shunt Release & Auxiliary Contact Yes Shunt Release & Auxiliary Contact Yes Shunt Release & Yes Shunt Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Protection degree	IP20				
Storage temperature Installation Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable Max. tightening torque Mounting type Mounting type Mounting on 35mm DIN rail Incoming method Bi-Directional Auxiliary for remote tripping or signaling Auxiliary Contact Yes Shunt Release Yes Shunt Release & Auxiliary Contact Yes Shunt Release & Auxiliary Contact Yes Cover-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Reference temperature	30°C				
Installation Terminal connection type Cable/ Pin-type/ Fork-type busbar Terminal block Screw press-connected Max. terminal size for cable 16mm² flexible/ 25mm² 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 Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Operating ambient temperature (with daily average≤35°C)	-25°C ~ +55°C				
Terminal connection type Cable/ Pin-type/ Fork-type busbar Screw press-connected Max. terminal size for cable Max. tightening torque 2.5 N.m Mounting type Mounting on 35 mm 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 Shunt Release Auxiliary Contact Yes Shunt Release Yes Over-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Storage temperature	-30°C ~ +70°C				
Terminal connection type Cable/ Pin-type/ Fork-type busbar Screw press-connected Max. terminal size for cable Max. tightening torque Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Schunt Release Shunt Release Yes Shunt Release Auxiliary Contact Yes Shunt Release Auxiliary Contact Yes Shunt Release Auxiliary Contact Yes Shunt Release Auxiliary Release Yes Cover-voltage Release Yes Over-voltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes	Installation					
Terminal block Max. terminal size for cable Max. tightening torque Mounting type Mounting type Mounting method Max. tightening torque Mounting on 35mm DIN rail Bi-Directional Muxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Yes Shunt Release Yes Shunt Release & Auxiliary Contact Yes Voltage Loss Release Yes Undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes Over-undervoltage Release Yes		Cable/ Pin-type/ Fork-type busbar				
Max. tightening torque Mounting type Mounting on 35mm DIN rail Bi-Directional Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Yes Shunt Release Shunt Release & Auxiliary Contact Yes Voltage Loss Release Over-voltage Release Undervoltage Release Yes Over-undervoltage Release Yes Yes	Terminal block					
Max. tightening torque Mounting type Mounting on 35mm DIN rail Bi-Directional Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Yes Shunt Release Shunt Release & Auxiliary Contact Yes Voltage Loss Release Over-voltage Release Undervoltage Release Yes Over-undervoltage Release Yes Yes	Max. terminal size for cable	16mm² flexible/ 25mm² rigid				
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						
Auxiliary for remote tripping or signaling Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Yes Voltage Loss Release Voer-voltage Release Undervoltage Release Over-undervoltage Release Yes Yes Yes Yes Yes Yes Yes	Mounting type	Mounting on 35mm DIN rail				
Auxiliary Contact Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Yes Shunt Release & Auxiliary Contact Yes Voltage Loss Release Yes Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes	Incoming method	Bi-Directional				
Auxiliary & Alarm Contact Shunt Release Shunt Release & Auxiliary Contact Yes Voltage Loss Release Over-voltage Release Undervoltage Release Over-undervoltage Release Yes Yes Yes	Auxiliary for remote tripping or signaling					
Shunt Release Shunt Release & Auxiliary Contact Yes Voltage Loss Release Yes Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes	Auxiliary Contact	Yes				
Shunt Release & Auxiliary Contact Voltage Loss Release Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes Yes	Auxiliary & Alarm Contact	Yes				
Voltage Loss Release Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes	Shunt Release	Yes				
Over-voltage Release Yes Undervoltage Release Yes Over-undervoltage Release Yes	Shunt Release & Auxiliary Contact	Yes				
Undervoltage Release Yes Over-undervoltage Release Yes	Voltage Loss Release	Yes				
Over-undervoltage Release Yes	Over-voltage Release	Yes				
	Undervoltage Release	Yes				
	Over-undervoltage Release	Yes				
Mechanical Interlock Yes	Mechanical Interlock	Yes				

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■ Tripping Characteristic

Data acc. to IEC/EN 60947-2											
Rated current (In)	Tripping Characteristic	Initial state	Test current (A)	Trip time (t)	Result to be obtained	Ambient temperature					
	Thermal release	Cold state	1.05ln	≥1h	No trip						
≤63A		Hot state (Follow the above test)	1.30In	<1h	Trip	30±2°C					
	Magnetic volesce	Cold state	8In	≤0.2s	No trip	Normal					
	Magnetic release	Cold state	12In	<0.2s	Trip	temperature					

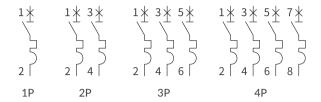


■ Temperature Derating Table

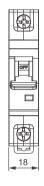
D / / / / / / / / / / / / / / / / / / /					Correction	factor for	ambient te	emperature	!			
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
1	1.33	1.29	1.25	1.2	1.15	1.11	1.05	1	0.94	0.88	0.82	0.75
2	2.67	2.58	2.49	2.4	2.31	2.21	2.11	2	1.89	1.76	1.63	1.49
3	4	3.9	3.7	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

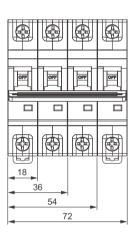


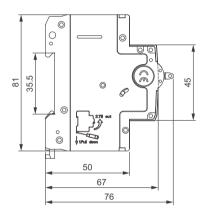
Wiring Diagram



■ Dimension (mm)









ETM1-63DC

Polarity DC 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.

Standard

IEC 60947-2: Low-voltage switchgear and controlgear -Part 2.

Multiple termination

Both incoming and outgoing terminals are suitable for: normal cable.

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



Photovoltaic (PV) Systems



Energy Storage System



Communications and Data Center



Industrial and Automation Equipment



Overview

ETM1-63DC Series Miniature Circuit Breaker is specially developed for terminal power distribution protection in DC power supply systems, including photovoltaic power stations, energy storage systems, electric vehicle charging facilities, and DC power distribution cabinets in data centers. It is suitable for circuits with a rated DC voltage of 250V/500V/1000V and a rated current up to 63A, perfectly adapting to the stable current supply requirements of DC scenarios.

Equipped with dual protection functions of overload protection and short-circuit protection, it can also realize infrequent on-off control of DC lines under normal working conditions. With a maximum ultimate short-circuit breaking capacity (Icu) of up to 6kA, it effectively suppresses the arc generated during DC circuit breaking, ensuring safe and reliable protection of the entire DC power distribution system.

Product Tips



- 1 Reversible line and load connection
- 2 EAN-13 barcodes
- 3 The position of handle lock

- 4 Rated current up to 63A
- 5 PIN/ Fork busbar
- 6 Contacts position indication window



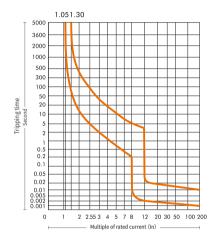
■ Technical Data

General data									
Protection		Overcurrent and short circui	t						
Type of trip		Thermal-magnetic							
No. of poles	1P	1P 2P							
Rated operational voltage (Ue)	250VDC	500VDC	1000VDC						
Rated current (In)	6,	10, 16, 20, 25, 32, 40, 50, 6	3A						
Rated insulation voltage (Ui)		500V							
Rated impulse withstand voltage (Uimp) (1.2/50µs)		4kV							
Data acc. to IEC/EN 60947-2									
Rated short-circuit capacity (Icn) 6kA									
Thermal tripping characteristics	1 05×In No tripping	g within an hour; 1.3×In Trip	ning within an hour						
Instantaneous tripping characteristics	1.05×III NO tripping	8ln-12ln	ping within an noul						
instantaneous tripping characteristics		OIII 12III							
Mechanical data									
Electrical life		4,000 Cycles							
Mechanical life		10,000 Cycles							
Contact position indication		green OFF / red ON							
Protection degree		IP20							
Ambient temperature	-5°	C to +40°C, Max.95% humi	dity						
Installation									
Terminal connection type		Cable							
Terminal block		Screw press-connected							
Max. terminal size for cable	3	16mm² flexible/ 25mm² rigid	d						
Max. tightening torque		2.5N.m							
Mounting type	Mounting on 35mm DIN rail								
Incoming method	According to the wiring diagram								



■ Tripping Characteristic

	Data acc. to IEC/EN 60947-2											
Rated current (In)	Tripping Characteristic	Initial state	Test current (A)	Trip time (t)	Result to be obtained	Ambient temperature						
		Cold state	1.05ln	≥1h	No trip							
≤63A	Thermal release	Hot state (Follow the above test)	1.30In	<1h	Trip	30±2°C						
	M	C-14 -+-+-	8In	≤0.2s	No trip	Normal						
	Magnetic release	Cold state	12ln	<0.2s	Trip	temperature						



■ Temperature Derating Table

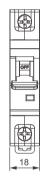
D-t- d (A)	Correction factor for ambient temperature											
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
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

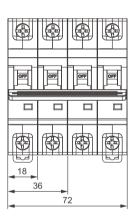


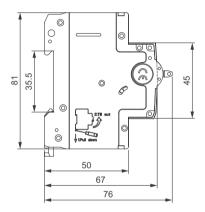
Wiring Diagram

1	P	2	P	40	
Default	From down	Default	4P		
1 + - Load	1	1 + 3 - X 2 4 + - Load	1 3 3 2 2 - 4 4 4	1 3 5 7 X X X X X X X X X X X X X X X X X X	

■ Dimension (mm)









ETL2-63(H)

Residual Current Circuit Breaker with Overcurrent Protection





Voltage: 230/240V AC systems (50/60Hz)

Current range: 6A to 63A

Rated residual current: 10, 30, 100, 300mA

Tripping curves: Type B/C available

Breaking capacity: 6kA, 10kA

Electronic type

From bottom wiring capability

AC and A types

Transparent trip status observation port

RCBO according to IEC/EN 61009-1



Main circuit protection in residential distribution systems



Lighting circuit control in commercial



Power supply line protection for industrial equipment



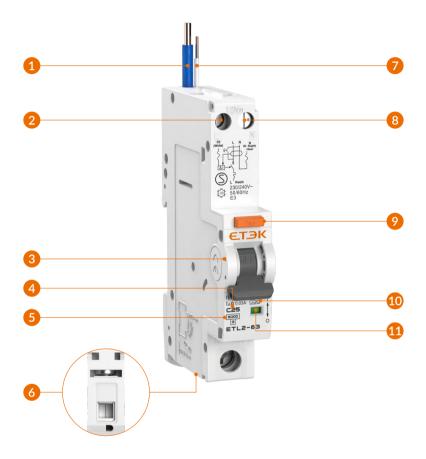
Electrical safety assurance in public



Overview

ETL2-63(H) 1P+N RCBO in 1 module width, suitable for installation in chassis distribution boards. provides comprehensive protection against short-circuits, overloads, and earth faults. This device with a blue neutral cable features a 6kA or 10kA breaking capacity and is available in rated currents up to 63A, making it suitable for residential, commercial, and industrial applications. An optional functional earth cable (white) enhances safety in the event of neutral loss. The neutral is unswitched.

Product Tips



- Neutral incoming cable
- 2 Live line interface
- 3 The position of handle
- 4 Lock Tripping characteristics B, C
- 5 Rated short circuit breaking capacity 6kA, 10kA
- 6 PIN/ Fork busbar

- 7 Functional earth cable (optional)
- 8 Neutral line interface
- 9 Test button
- 10 Sensitivity to residual current AC, A
- 11 Contacts position indication window



Technical Data

Standard	IEC/EN 61009-1
Protection	Ground fault, Overcurrent and short circuit
T (1)	Ground fault: Electronic
Type of trip	Overload and short circuit: Thermal-magnetic
D :: 1	AC type - AC residual current
Residual current type	A type - residual AC and pulsating DC current
No. of poles	1P+N, Neutral line is unswitched
Insulation voltage (Ui)	500V
Rated voltage (Ue)	230/240V~
Rated currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A
Rated sensitivity currents (Ian)	10, 30, 100, 300mA
Residual current off-time under (IΔn)	≤0.1s
Rated residual making and breaking capacity (I△m)	500A (In≤50A); 10In (In>50A)
Rated frequency	50/60Hz
Rated short-circuit capacity (Icn)	ETL2-63: 6kA; ETL2-63H: 10kA
Energy limiting class	3
Rated impulse withstand voltage (Uimp) (1.2/50µs)	4kV
Dielectric test voltage	2kV (50/60Hz,1 min.)
Fire resistance (glow-wire test)	960±15°C (Enclosure); 650±10°C (Handle)
Thermal tripping characteristics	1.13In No tripping within an hour; 1.45In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln
Electrical life	4,000 Cycles
Mechanical life	8,000 Cycles
Contact position indicator	green OFF / red ON
Protection degree	IP20
Ambient temperature	-25°C ~ +55°C
Storage temperature	-30°C ~ +70°C
Terminal connection type	Cable/ Pin-type/ Fork-type busbar
Max. terminal size for cable	Line side (bottom): 25mm²; Load side (top) : 16mm² (For 16mm² conductors: crimping terminal lug is mandatory.)
Max. tightening torque	Bottom (line side): 2.5N.m; Top (Load side): 1.2N.m
Neutral load cable	Bule, 500mm length, 4mm² (Other lengths available upon request)
Functional earth cable	White, 500mm length, 0.6mm² (Other lengths available upon request)
Installation	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 Yes



RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.

Tripping Sensitivity

10mA

Provides a higher level of protection for the human body and is used in certain situations with very high requirements for electric shock protection, such as children's facilities, swimming pools, bathrooms and other humid environments.

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

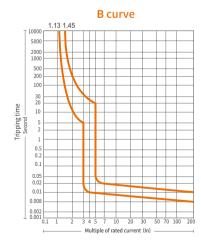
Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

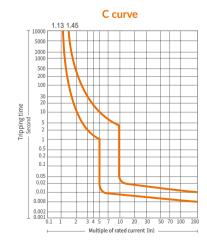
Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

■ Tripping Characteristics

		Condition									
Curve	Rated		Therma	l release	Magnetic release						
	current	Non-trip	Trip	Non-trip time	Trip time	Hold current	Trip current	Trip time			
В	D ((0A	1.13×In		≤1h		3×In		≥0.1			
Б	6-63A		1.45×In		<1h		5×In	<0.1			
	6 ((0)	1.13×In		≤1h		5×In		≥0.1			
С	6-63A		1.45×In		<1h		10×In	<0.1			



Universal use - socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor



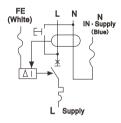
■ Breaking Time of Residual Current

In(A)	I∆n(mA)	Max. breaking time					
	ΙΔΠ(ΠΙΑ)	l∆n	2l∆n	5l∆n	5,10,20,50,100,200,500A		
6,10,16,20,25,32,40,50,63	10,30, 100, 300	0.1s	0.08s	0.04s	0.04s		

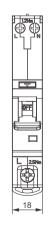
■ Temperature Derating Table

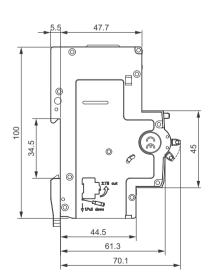
Dated assument (A)		Correction factor for ambient temperature										
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	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)







ETL3-40M(H)

Residual Current Circuit Breaker with Overcurrent Protection





Voltage: 400/415V AC systems (50/60Hz)

Current range: 6A to 40A

Rated residual current: 30, 100, 300mA

Tripping curves: Type B/C available

Breaking capacity: 6kA/10kA options

Protects against overload, short circuit, and leakage faults

Electro-magnetic type

AC and A types

Bidirectional wiring capability

Visual leakage fault indication window

Transparent trip status observation port

RCBO according to IEC/EN 61009-1



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

ETL3-40M Residual Current Circuit Breakers with Overcurrent Protection (RCBO) provide combined protection against overload, short-circuit and earth leakage faults. Designed for 400/415 V (3P+N) power systems with rated currents up to 40A, they are suitable for both residential and industrial installations.

The range offers breaking capacities of 6 kA and 10 kA and is equipped with a reliable electromagnetic trip unit for fast fault clearance.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- 3 The position of handle Lock
- 4 Tripping characteristics B, C
- 5 Rated short circuit breaking capacity 6kA, 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Residual current trip indicator
- 9 Sensitivity to residual current AC, A
- Contacts position indication window



Technical Data

Standard	IEC/EN 61009-1					
Type of trip	Electro-magnetic type					
Residual current type	AC type - AC residual current					
residual current type	A type - residual AC and pulsating DC current					
No. of poles	3P+N					
Insulation voltage (Ui)	500V					
Rated voltage (Ue)	400/415V					
Rated currents (In)	6, 10, 16, 20, 25, 32, 40A					
Rated sensitivity currents (I∆n)	30, 100, 300mA					
Residual current off-time under (I∆n)	<0.3s					
Rated residual making and breaking capacity (IΔm)	500A					
Rated frequency	50/60Hz					
Pated short circuit capacity/len	ETL3-40M: 6kA					
Rated short-circuit capacity (Icn)	ETL3-40MH: 10kA					
Energy limiting class	3					
Rated impulse withstand voltage (Uimp) (1.2/50µs)	4kV					
Dielectric test voltage	2kV (50/60Hz,1 min.)					
Fire resistance (class wire test)	960±15°C (Enclosure)					
Fire resistance (glow-wire test)	650±10°C (Handle)					
Thermal tripping characteristics	1.13In No tripping within an hour					
mermai dipping characteristics	1.45In Tripping within an hour					
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln					
Electrical life	4,000 Cycles					
Mechanical life	8,000 Cycles					
Contact position indicator	green OFF / red ON					
Ground fault indicator	White: Normal					
Ground fault mulcator	Blue: Leakage fault					
Protection degree	IP20					
Ambient temperature	-25°C ~ +55°C					
Storage temperature	-30°C ~ +70°C					
Terminal connection type	Cable/ Pin-type/ Fork-type busbar					
Max. terminal size for cable	16mm² flexible/ 25mm² rigid					
Max. tightening torque	2.5N.m					
Installation	Mounting on 35mm DIN rail					
Incoming method	Bi-directional					



RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.

■ Tripping Sensitivity

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

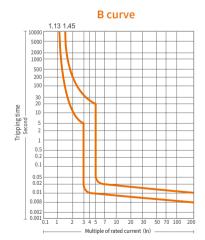
Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

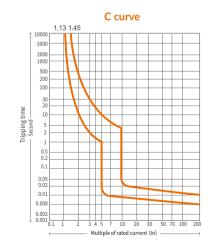
Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

Tripping Characteristics

	Rated	Condition									
Curve Rated current			Therma	l release	Magnetic release						
	Non-trip	Trip	Non-trip time	Trip time	Hold current	Trip current	Trip time				
В	D (40A	1.13×In		≤1h		3×In		≥0.1			
ь	6-40A		1.45×In		<1h		5×In	<0.1			
-	C (40A	1.13×In		≤1h		5×In		≥0.1			
C 6-40A		1.45×In		<1h		10×In	<0.1				



Universal use - socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor



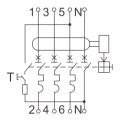
■ Breaking Time of Residual Current

In(A)	l∆n(mA)	Max. breaking time					
	ΙΔΠ(ΠΙΑ)	l∆n	2l∆n	5l∆n	5,10,20,50,100,200,500A		
6,10,16,20,25,32,40	30, 100, 300	0.3s	0.15s	0.04s	0.04s		

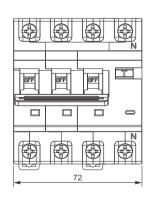
■ Temperature Derating Table

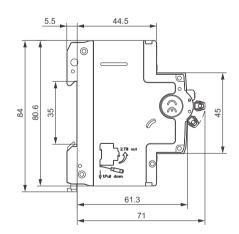
Dated assument (A)	Correction factor for ambient temperature											
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	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

■ Wiring Diagram



■ Dimension (mm)







ETL3-63M(H)

Residual Current Circuit Breaker with Overcurrent Protection



Voltage: 240/415V AC systems (50/60Hz)

Current range: 6A to 63A

Rated residual current: 30, 100, 300mA

Tripping curves: Type B/C available

Breaking capacity: 6kA/10kA options

Protects against overload, short circuit, and leakage faults

Electro-magnetic type

AC and A types

Bidirectional wiring capability

Visual leakage fault indication window

Transparent trip status observation port

RCBO according to IEC/EN 61009-1



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

ETL3-63M Residual Current Circuit Breaker with Overcurrent Protection (RCBO) provide protects against overload, short circuit, and leakage faults, supporting 230/240V (1P+N) or 400/415V (3P+N) power systems with ratings up to 63A, its reliable operation across residential and industrial applications.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- 3 The position of handle Lock
- 4 Tripping characteristics B, C
- 6 Rated short circuit breaking capacity 6kA, 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Residual current trip indicator
- 9 Sensitivity to residual current AC, A
- 10 Contacts position indication window

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Technical Data

Standard	IEC/EN 61009-1					
Protection	Ground fault, Overcurrent and short circuit					
Type of trip	Electro-magnetic type					
	AC type - AC residual current					
Residual current type	A type - residual AC and pulsating DC current					
No. of poles	1P+N, 3P+N					
Insulation voltage (Ui)	500V					
Rated voltage (Ue)	1P+N: 230/240V~; 3P+N: 400/415V~					
Rated currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A					
Rated sensitivity currents (Ian)	30, 100, 300mA					
Residual current off-time under (I△n)	<0.3s					
Detect varidual making and bracking conscitu/(Lyn)	500A (In≤50A)					
Rated residual making and breaking capacity (I△m)	10In (In>50A)					
Rated frequency	50/60Hz					
Date delegate signality and arity (lear)	ETL3-63M: 6kA					
Rated short-circuit capacity (Icn)	ETL3-63MH: 10kA					
Energy limiting class	3					
Rated impulse withstand voltage (Uimp) (1.2/50µs)	4kV					
Dielectric test voltage	2kV (50/60Hz,1 min.)					
[:	960±15°C (Enclosure)					
Fire resistance (glow-wire test)	650±10°C (Handle)					
Thormal tripping characteristics	1.13In No tripping within an hour					
Thermal tripping characteristics	1.45In Tripping within an hour					
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln					
Electrical life	4,000 Cycles					
Mechanical life	8,000 Cycles					
Contact position indicator	green OFF / red ON					
Ground fault indicator	White: Normal					
Ground radit mulcator	Blue: Leakage fault					
Protection degree	IP20					
Ambient temperature	-25°C ~ +55°C					
Storage temperature	-30°C ~ +70°C					
Terminal connection type	Cable/ Pin-type/ Fork-type busbar					
Max. terminal size for cable	16mm² flexible/ 25mm² rigid					
Max. tightening torque	2.5N.m					
Installation	Mounting on 35mm DIN rail					
Incoming method	Bi-directional					

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■ RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.

■ Tripping Sensitivity

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

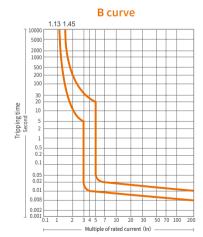
Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

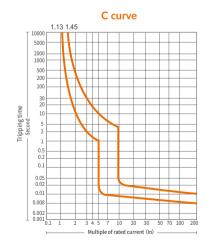
Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

Tripping Characteristics

		Condition									
Curve	Rated		Therma	al release	Magnetic release						
	current	Non-trip	Trip	Non-trip time	Trip time	Hold current	Trip current	Trip time			
В	D ((0A	1.13×In		≤1h		3×In		≥0.1			
Б	6-63A		1.45×In		<1h		5×In	<0.1			
	C 6-63A	1.13×In		≤1h		5×In		≥0.1			
C			1.45×In		<1h		10×In	<0.1			



Universal use - socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor



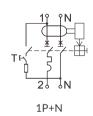
■ Breaking Time of Residual Current

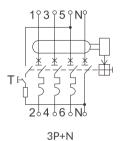
In(A)	Inn(mA)	Max. breaking time					
	I∆n(mA)	l∆n	2l∆n	5l∆n	5,10,20,50,100,200,500A		
6,10,16,20,25,32,40,50,63	30, 100, 300	0.3s	0.15s	0.04s	0.04s		

■ Temperature Derating Table

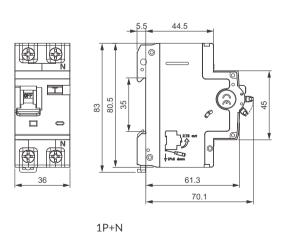
D-tI		Correction factor for ambient temperature										
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	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

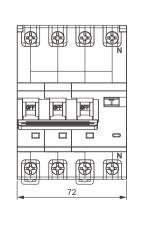
Wiring Diagram

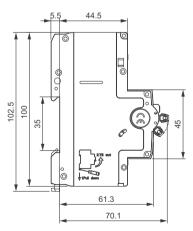




■ Dimension (mm)







3P+N



ETL3-63(H)

Residual Current Circuit Breaker with Overcurrent Protection



Voltage: 240/415V AC systems (50/60Hz)

Current range: 6A to 63A

Rated residual current: 10, 30, 100, 300mA

Tripping curves: Type B/C available

Breaking capacity: 6kA/10kA options

Protects against overload, short circuit, and leakage faults

Electronic type

AC and A types

Bidirectional wiring capability

Visual leakage fault indication window

Transparent trip status observation port

RCBO according to IEC/EN 61009-1



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

ETL3-63 Residual Current Circuit Breaker with Overcurrent Protection (RCBO) provide protects against overload, short circuit, and leakage faults, supporting 230/240V (1P+N) or 400/415V (3P+N) power systems with ratings up to 63A, its reliable operation across residential and industrial applications.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- 3 The position of handle Lock
- 4 Tripping characteristics B, C
- 6 Rated short circuit breaking capacity 6kA, 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Residual current trip indicator
- 9 Sensitivity to residual current AC, A
- 10 Contacts position indication window



■ Technical Data

Protection Ground fault, Overcurrent and short circuit Type of trip Ground fault, Electronic Residual current type AC type - AC residual current No. of poles 1P+N, 3P+N Insulation voltage (UI) 500V Rated voltage (Ue) 1P+N: 230/240V-; 3P+N: 400/415V- Rated currents (In) 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated sensitivity currents (Ion) 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated residual making and breaking capacity (Iom) 500A (Ins-50A) Rated sensitivity currents (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 40.1s Residual current off-time under (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 40.1s Rated sensitivity currents (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 40.1s Rated sensitivity currents (Ion) 500A (Ins-50A) Rated sensitivity currents (Ion) 40.1s Rated sensitivity currents (Ion) 40.1s Rated sensitivity currents (Ion)	Standard	IEC/EN 61009-1					
New Part	Protection	Ground fault, Overcurrent and short circuit					
No. of poles	Type of trip	Ground fault: Electronic					
Residual current type A type - residual AC and pulsating DC current No. of poles 1P+N, 3P+N Insulation voltage (UI) 500V Rated voltage (Ue) 1P+N: 230/240V-; 3P+N: 400/415V- Rated description 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated sensitivity currents (Ian) 10, 30, 100, 300mA Residual current off-time under (Ian) \$0.1s Rated residual making and breaking capacity (Iam) 500A (In+50A) Rated residual making and breaking capacity (Iam) 10 In (In>50A) Rated residual making and breaking capacity (Iam) \$0.60Hz Energy limiting class \$0.60Hz Rated short-c	туре от птр	Overload and short circuit: Thermal-magnetic					
A type - residual AC and pulsating DC current No. of poles	Posidual surrent type	AC type - AC residual current					
Insulation voltage (Ui) 500V Rated voltage (Ue) 1P+N: 230/240V; 3P+N: 400/415V- Rated currents (In) 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated sensitivity currents (Ian) 10, 30, 100, 300mA Residual current off-time under (Ian) \$0.1s Rated residual making and breaking capacity (Ian) 500A (In±50A) Rated short-circuit capacity (Icn) ETL3-63.6kA Rated short-circuit capacity (Icn) ETL3-63.6kA Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 650±10°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Thermal tripping characteristics 1.13In No tripping within an hour Instantaneous tripping characteristics 8.3 in-5in; c; 5in-10in Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C +	Residual current type	A type - residual AC and pulsating DC current					
Rated voltage (Ue) 1P+N: 230/240V-; 3P+N: 400/415V- Rated currents (In) 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated sensitivity currents (Ian) 10, 30, 100, 300mA Residual current off-time under (Ian) \$0.1s Rated residual making and breaking capacity (Iam) 500A (In±50A) Rated frequency \$0.660Hz Rated short-circuit capacity (Icn) ETL3-63:64A Rated short-circuit capacity (Icn) ETL3-63:64A Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Thermal tripping characteristics 1.13In No tripping within an hour Instantaneous tripping characteristics 8:3 in-5in; c; 5in-10in Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator White: Normal Protection degree IP20 Ambient temperature -25°C + +55°C	No. of poles	1P+N, 3P+N					
Rated currents (In) 6, 10, 16, 20, 25, 32, 40, 50, 63A Rated sensitivity currents (Ian) 10, 30, 100, 300mA Residual current off-time under (Ian) \$0.1s Rated residual making and breaking capacity (Iam) 500A (Ins50A) Rated frequency 50/60Hz Rated short-circuit capacity (Icn) ETL3-63H:10kA Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 650±10°C (Handle) Thermal tripping characteristics 8: 3In-5In; C: 5In-10In Instantaneous tripping characteristics 8: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C + +55°C Storage temperature -30°C + 70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid </td <td>Insulation voltage (Ui)</td> <td>500V</td>	Insulation voltage (Ui)	500V					
Rated sensitivity currents (Ian) 10, 30, 100, 300mA Residual current off-time under (Ian) ± 0.1s Rated residual making and breaking capacity (Iam) 500A (Ins50A) Rated frequency 50/60Hz ETL3-63:6KA ETL3-63:6KA Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4V Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 650±10°C (Enclosure) 650±10°C (Handle) 1.13ln No tripping within an hour Instantaneous tripping characteristics B: 3ln-5ln: C: 5ln-10ln Electrical life 4,000 Cycles Mechanical life 8,000 cycles Contact position indicator green OFF / red ON Ground fault indicator green OFF / red ON White: Normal Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C - +55°C Storage temperature -30°C - +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque<	Rated voltage (Ue)	1P+N: 230/240V~; 3P+N: 400/415V~					
Residual current off-time under (lan) \$0.1s Rated residual making and breaking capacity (lam) 500A (In \$50A) Rated frequency \$50/60Hz Rated short-circuit capacity (lcn) ETL3-63:6kA Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz.1 min.) Fire resistance (glow-wire test) 650±10°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Thermal tripping characteristics B: 3ln-5ln; C: 5ln-10ln Instantaneous tripping characteristics B: 3ln-5ln; C: 5ln-10ln Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator White: Normal Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible / 25mm² rigid	Rated currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A					
Rated residual making and breaking capacity (lam) 500A (In \$50A) Rated frequency 50/60Hz Rated short-circuit capacity (Icn) ETL3-63:6kA Energy limiting class 3 Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) 1.13In No tripping within an hour 1.45In Tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator green OFF / red ON Blue: Leakage fault Protection degree Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Rated sensitivity currents (IΔn)	10, 30, 100, 300mA					
Rated residual making and breaking capacity (Iam) Rated frequency 50/60Hz ETL3-63:6kA Rated short-circuit capacity (Icn) ETL3-63:H:10kA ETL3-63:H:10kA Energy limiting class Rated impulse withstand voltage (Uimp) (1.2/50μs) AkV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 650±10°C (Handle) 1.13In No tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 6,000 Cycles Mechanical life 7,000 Ambient temperature Frotection degree Ambient temperature 1,25°C - +55°C Storage temperature 1,25N.m Mounting on 35mm DIN rail Mounting on 35mm DIN rail	Residual current off-time under (I△n)	≤0.1s					
Rated frequency Rated frequency SO/60Hz ETL3-63:6kA ETL3-63:kl ETL3-63:kl	D. I I. I	500A (In≤50A)					
Rated short-circuit capacity (Icn)ETL3-63:6kAEnergy limiting class3Rated impulse withstand voltage (Uimp) (1.2/50μs)4kVDielectric test voltage2kV (50/60Hz,1 min.)Pite resistance (glow-wire test)960±15°C (Enclosure)Fire resistance (glow-wire test)650±10°C (Handle)Thermal tripping characteristics1.13ln No tripping within an hourInstantaneous tripping characteristicsB: 3ln-5ln; C: 5ln-10lnElectrical life4,000 CyclesMechanical life8,000 CyclesContact position indicatorgreen OFF / red ONGround fault indicatorWhite: NormalBlue: Leakage faultProtection degreeIP20Ambient temperature-25°C ~+55°CStorage temperature-30°C ~+70°CTerminal connection typeCable/ Pin-type/ Fork-type busbarMax, terminal size for cable16mm² flexible/ 25mm² rigidMax, tightening torque2.5N.mInstallationMounting on 35mm DIN rail	Rated residual making and breaking capacity (I∆M)	10In (In>50A)					
Rated short-circuit capacity (Icn)ETL3-63H:10kAEnergy limiting class3Rated impulse withstand voltage (Uimp) (1.2/50μs)4kVDielectric test voltage2kV (50/60Hz,1 min.)Fire resistance (glow-wire test)650±10°C (Enclosure)Thermal tripping characteristics1.13ln No tripping within an hourInstantaneous tripping characteristicsB: 3ln-5ln; C: 5ln-10lnElectrical life4,000 CyclesMechanical life8,000 CyclesContact position indicatorgreen OFF / red ONGround fault indicatorWhite: NormalProtection degreeIP20Ambient temperature-25°C ~ +55°CStorage temperature-30°C ~ +70°CTerminal connection typeCable / Pin-type / Fork-type busbarMax. terminal size for cable16mm² flexible / 25mm² rigidMax. tightening torque2.5N.mInstallationMounting on 35mm DIN rail	Rated frequency	50/60Hz					
Energy limiting class Rated impulse withstand voltage (Uimp) (1.2/50µs) Pire resistance (glow-wire test) Thermal tripping characteristics Electrical life Contact position indicator Ground fault indicator Protection degree Ambient temperature Protection degree Ambient temperature Terminal connection type Max. terminal size for cable Max. tightening torque Max. tightening torque Installation Bake (50/60Hz,1 min.) AkV AkV AkV AkV AkV AkV AkV Ak		ETL3-63:6kA					
Rated impulse withstand voltage (Uimp) (1.2/50µs) Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) 650±10°C (Handle) 1.13In No tripping within an hour 1.45In Tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Mechanical wife Contact position indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Max. terminal size for cable Max. tightening torque Installation AkkV Storage temp DIN rail	Rated short-circuit capacity (Icn)	ETL3-63H:10kA					
Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 960±15°C (Enclosure) 650±10°C (Handle) 1.13In No tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. teminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Energy limiting class	3					
Fire resistance (glow-wire test) Fire resistance (glow-wire test) Fire resistance (glow-wire test)	Rated impulse withstand voltage (Uimp) (1.2/50µs)	4kV					
Fire resistance (glow-wire test) 650±10°C (Handle) 1.13In No tripping within an hour 1.45In Tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature Protection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Dielectric test voltage	2kV (50/60Hz,1 min.)					
Thermal tripping characteristics 1.13In No tripping within an hour 1.45In Tripping within an hour Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator Ground fault indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature 1920 Ambient temperature 30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Fire an elektrone (elektronia keek)	960±15°C (Enclosure)					
Thermal tripping characteristics 1.45ln Tripping within an hour Instantaneous tripping characteristics B: 3ln-5ln; C: 5ln-10ln Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Mechanical life Contact position indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature Terminal connection type Max. terminal size for cable Max. tightening torque Installation 1.45ln Tripping within an hour B: 3ln-5ln; C: 5ln-10ln 4,000 Cycles 8,000 Cycles None Blue: Leakage fault Protection Blue: Leakage fault -25°C ~ +55°C Storage temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. tightening torque 1.5N.m Mounting on 35mm DIN rail	Fire resistance (glow-wire test)	650±10°C (Handle)					
Instantaneous tripping characteristics B: 3In-5In; C: 5In-10In Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation 1.45In Tripping within an hour B: 3In-5In; C: 5In-10In 4,000 Cycles 8,000 Cycles 8,000 Cycles Nohite: Normal Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. tightening torque 1.5N.m Mounting on 35mm DIN rail	The serve of the server of the	1.13In No tripping within an hour					
Electrical life 4,000 Cycles Mechanical life 8,000 Cycles Contact position indicator green OFF / red ON Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable / Pin-type / Fork-type busbar Max. terminal size for cable 16mm² flexible / 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Thermal tripping characteristics	1.45In Tripping within an hour					
Mechanical life8,000 CyclesContact position indicatorgreen OFF / red ONGround fault indicatorWhite: NormalBlue: Leakage faultProtection degreeIP20Ambient temperature-25°C ~ +55°CStorage temperature-30°C ~ +70°CTerminal connection typeCable/ Pin-type/ Fork-type busbarMax. terminal size for cable16mm² flexible/ 25mm² rigidMax. tightening torque2.5N.mInstallationMounting on 35mm DIN rail	Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln					
Contact position indicator Ground fault indicator Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Electrical life	4,000 Cycles					
Ground fault indicator Blue: Leakage fault Protection degree IP20 Ambient temperature Storage temperature Terminal connection type Max. terminal size for cable Max. tightening torque Installation White: Normal Blue: Leakage fault IP20 Cable/ Pin-25°C ~ +55°C Cable/ Pin-470°C Cable/ Pin-470°C Terminal connection type Cable/ Pin-470°C 16mm² flexible/ 25mm² rigid Max. tightening torque 1.5N.m Mounting on 35mm DIN rail	Mechanical life	8,000 Cycles					
Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Contact position indicator	green OFF / red ON					
Blue: Leakage fault Protection degree IP20 Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Cround fault indicator	White: Normal					
Ambient temperature -25°C ~ +55°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Ground fault mulcator	Blue: Leakage fault					
Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Protection degree	IP20					
Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Ambient temperature	-25°C ~ +55°C					
Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Storage temperature	-30°C ~ +70°C					
Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Terminal connection type	Cable/ Pin-type/ Fork-type busbar					
Installation Mounting on 35mm DIN rail	Max. terminal size for cable	16mm² flexible/ 25mm² rigid					
	Max. tightening torque	2.5N.m					
Incoming method Bi-directional	Installation	Mounting on 35mm DIN rail					
	Incoming method	Bi-directional					



■ RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.

Tripping Sensitivity

10mA

Provides a higher level of protection for the human body and is used in certain situations with very high requirements for electric shock protection, such as children's facilities, swimming pools, bathrooms and other humid environments.

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

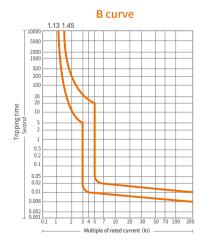
Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

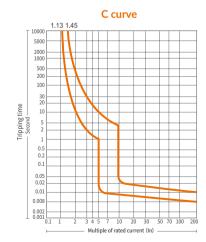
Tripping Characteristics

		Condition									
Curve	Rated		Therma	al release	Magnetic release						
	current	Non-trip	Trip	Non-trip time	Trip time	Hold current	Trip current	Trip time			
В	D ((0A	1.13×In		≤1h		3×In		≥0.1			
Б	6-63A		1.45×In		<1h		5×In	<0.1			
	C 6-63A	1.13×In		≤1h		5×In		≥0.1			
C			1.45×In		<1h		10×In	<0.1			



Universal use

- socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor



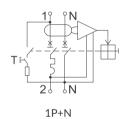
■ Breaking Time of Residual Current

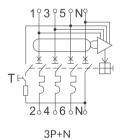
In(A)	I∆n(mA)	Max. breaking time					
III(A)	ΙΔΠ(ΠΙΑ)	l∆n	2l∆n	51Δn 5,10,20,50,100,200,500	5,10,20,50,100,200,500A		
6,10,16,20,25,32,40,50,63	10,30, 100, 300	0.1s	0.08s	0.04s	0.04s		

■ Temperature Derating Table

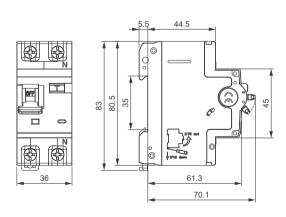
Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	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

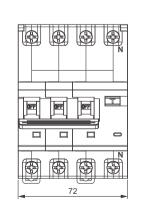
Wiring Diagram

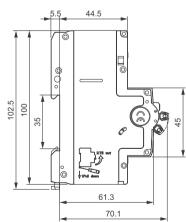




■ Dimension (mm)









ETL3-63B

Residual Current Circuit Breaker with Overcurrent Protection





Voltage: 230/240V AC systems (50/60Hz)

Current range: 6A to 63A

Rated residual current: 30mA

Tripping curves: Type B/C available

Breaking capacity: 10kA

Protects against overload, short circuit, and leakage faults

Electronic type

B types

Bidirectional wiring capability

Visual leakage fault indication window

Transparent trip status observation port

RCBO according to IEC/EN 61009-1, IEC/EN 62423



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

ETL3-63B is an IP+N Type B RCBO (Residual Current Circuit Breaker with Overcurrent protection) with up to 63A rated current, 230/240V rated voltage, 10kA breaking capacity, and 30mA residual current sensitivity. It features both B and C curve characteristics and provides comprehensive protection against overcurrent, short circuit, and earth leakage, with advanced detection of complex waveforms and smooth DC residual currents.

With its bidirectional power capability, ETL3-63B is especially suited for modern electrical installations and renewable energy applications, ensuring reliable protection for sensitive equipment such as EV chargers, solar panels, and heat pumps.

Product Tips



- PIN/ Fork busbar
- 2 Live line interface
- 3 The position of handle Lock
- 4 Tripping characteristics B, C
- 5 Rated short-circuit capacity 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Sensitivity to residual current B
- 9 Residual current trip indicator
- 10 Contacts position indication window



■ Technical Data

Standard	IEC/EN 61009-1, IEC/EN 62423
Protection	Ground fault, Overcurrent and short circuit
esidual current type lo. of poles leutral insulation voltage (Ui) ated voltage (Ue) ated currents (In) ated sensitivity currents (Ian) ated residual making and breaking capacity (Iam) ated frequency ated short-circuit capacity (Icn) inergy limiting class ated impulse withstand voltage (Uimp) (1.2/50µs) bielectric test voltage ire resistance (glow-wire test) hermal tripping characteristics instantaneous tripping characteristics lectrical life dechanical life inductor orotection degree imbient temperature torage temperature erminal connection type	Ground fault: Electronic
	Overload and short circuit: Thermal-magnetic
Residual current type	B Type - residual AC, pulsating and smooth DC current, high frequency (≤1kHz)
No. of poles	1P+N
Neutral	Switched, N pole on the right
Insulation voltage (Ui)	500V
Rated voltage (Ue)	230/240V~
Rated currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A
Rated sensitivity currents (I△n)	30mA
Residual current off-time under (Ian)	≤0.1s
Rated residual making and breaking capacity (I△m)	500A (In≤50A), 10In (In>50A)
Rated frequency	50/60Hz
Rated short-circuit capacity (Icn)	10kA
Energy limiting class	3
Rated impulse withstand voltage (Uimp) (1.2/50μs)	4kV
Dielectric test voltage	2kV (50/60Hz,1 min.)
Fire resistance (glow-wire test)	960±15°C (Enclosure), 650±10°C (Handle)
Thermal tripping characteristics	1.13In No tripping within an hour; 1.45In Tripping within an hour
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln
Electrical life	4,000 Cycles
Mechanical life	10,000 Cycles
Contact position indicator	green OFF/ red ON
Ground fault indicator	White: Normal; Blue: Leakage fault
Protection degree	IP20
Ambient temperature	-25°C ~ +55°C
Storage temperature	-30°C ~ +70°C
Terminal connection type	Cable/ Pin-type/ Fork-type busbar
Max. terminal size for cable	16mm² flexible/ 25mm² rigid
Max. tightening torque	2.5N.m
Installation	Mounting on 35mm DIN rail
Incoming method	Bi-directional



RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.



Type B RCDs detect sinusoidal AC, pulsating DC, multi-frequency composite, and smooth DC residual currents. They are designed to trip at frequencies ranging from 50Hz to 1kHz.

■ Tripping Sensitivity



This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

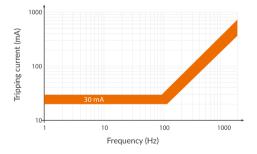
■ Tripping Characteristic

Type B RCDs - Standard values of break time and non-actuating time for residual direct currents which result from rectifying circuits and for residual smooth direct current.

Tripping times										
Type	Fault currents	Fault currents Tripping time at								
	Alternating currents	1×l∆n	2×l∆n	5×l∆n	500A					
	Pulsating DC currents	1.4×I∆n	2×1.4×I∆n	5×1.4×l∆n	500A					
	Smooth DC currents	2×l∆n	2×2×I∆n	5×2×I∆n	500A					
Standard		Max. 0.3s	Max. 0.15s	Max. 0.04s	Max. 0.04s					

Type B RCDs - Residual non-operating and operating current according to frequencies which differ from the rated frequency 50/60 Hz

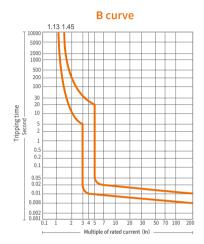
Frequency (Hz)	Residual non-operating current (l∆n)	Residual operating current (l∆n)
150	0.5 I∆n	2.4 I∆n
400	0.5 I∆n	6 l∆n
1000	IΔn	14 l∆n





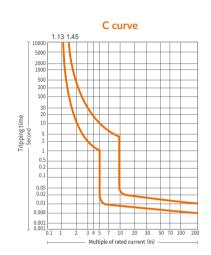
■ Tripping Characteristic

	Rated			Thermal relea	se	Magnetic release				
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
D	D ((2A	1.13ln		≤1h			3ln		≥0.1	
В	6-63A		1.45ln		<1h	2000 - 500		5ln	<0.1	Normal
-	((2)	1.13ln		≤1h		30°C+5°C	5ln		≥0.1	temperature
C	C 6-63A		1.45In		<1h			10ln	<0.1	



Universal use

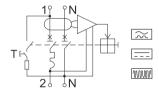
- socket outlet, lighting device



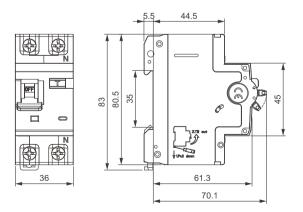
Resistive & inductive loads with low inruch current

- lamp, high starting current motor

Wiring Diagram



■ Dimension (mm)



55



ETL5-63(H)

Residual Current Circuit Breaker with Overcurrent Protection







Voltage: 240/415V AC systems (50/60Hz)

Electronic type

Current range: 6A to 63A

AC and A types

Rated residual current: 10, 30, 100, 300mA

From top wiring capability

Tripping curves: Type B/C/D available

Test and reset button

Breaking capacity: 6kA/10kA options

Transparent trip status observation port

Protects against overload, short circuit, and leakage faults

RCBO according to IEC/EN 61009-1



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

ETL5-63 Electronic RCBO (Residual Current Circuit Breaker with Overcurrent Protection) integrates earth-leakage, overload, and short-circuit protection in one compact unit, with wide current ratings from 6 to 63 A. It features both AC and A types for reliable protection-even with non-linear loads-and comes in 1P+N and 3P+N versions. ETL5-63 offers both 6 kA and 10 kA breaking capacity options, meeting a broader range of safety and installation needs in residential and commercial terminal circuits.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- 3 The position of handle Lock
- 4 Tripping characteristics B, C, D
- 5 Rated short circuit breaking capacity 6kA, 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Sensitivity to residual current AC, A
- 9 Reset button
- 10 Contacts position indication window



■ Technical Data

Standard	IEC/EN 61009-1				
Protection	Ground fault, Overcurrent and short circuit				
Tuno of trin	Ground fault: Electronic				
Type of trip	Overload and short circuit: Thermal-magnetic				
Residual current type	AC, A				
No. of poles	1P+N 3module, 3P+N 5module (with switched neutral)				
Insulation voltage (Ui)	500V				
Rated voltage (Ue)	1P+N: 230/240V~; 3P+N: 400/415V~				
Rated currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A				
Rated sensitivity currents (IΔn)	10, 30, 100, 300mA				
Residual current off-time under (I△n)	≤0.1s				
Rated residual making and breaking capacity (I△m)	500A (In≤50A)				
Rateu residuai making and breaking Capacity (IAM)	10In (In>50A)				
Rated frequency	50/60Hz				
Rated short-circuit capacity (Icn)	ETL5-63: 6kA				
Rated Short-circuit capacity (ich)	ETL5-63H: 10kA				
Energy limiting class	3				
Rated impulse withstand voltage (Uimp) (1.2/50 μ s)	4kV				
Dielectric test voltage	2kV (50/60Hz,1 min.)				
Fire resistance (glow-wire test)	960±15°C (Enclosure)				
The resistance (glow wife test)	650±10°C (Handle)				
Thermal tripping characteristics	1.13In No tripping within an hour				
Thermal dipping characteristics	1.45In Tripping within an hour				
Instantaneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln				
Electrical life	4,000 Cycles				
Mechanical life	10,000 Cycles				
Contact position indicator	green OFF / red ON				
Protection degree	IP20				
Ambient temperature	-25°C ~ +55°C				
Storage temperature	-30°C ~ +70°C				
Line side terminals Terminal connection type	Cable/ Pin-type/ Fork-type busbar				
Load side terminals	Cable/ Pin-type				
Max. terminal size for cable	16mm² flexible/ 25mm² rigid				
Max. tightening torque	2.5N.m				
Installation	Mounting on 35mm DIN rail				
Incoming method	From top				



RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.

Tripping Sensitivity

10mA

Provides a higher level of protection for the human body and is used in certain situations with very high requirements for electric shock protection, such as children's facilities, swimming pools, bathrooms and other humid environments.

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

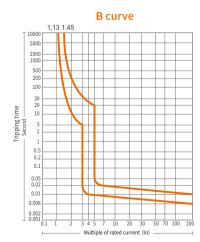
Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

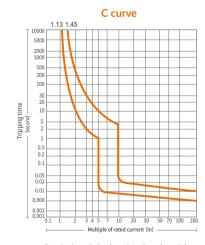
■ Tripping Characteristics

Curve	Rated		Therma	Il release	Magnetic release			
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Hold current	Trip current	Trip time
D	D ((2A	1.13ln		≤1h		3In		≥0.1
В	6-63A		1.45In		<1h		5In	<0.1
-	/ /2A	1.13ln		≤1h		5In		≥0.1
С	6-63A		1.45In		<1h		10ln	<0.1
	/ /04	1.13ln		≤1h		10ln		≥0.1
D 6-63.	6-63A		1.45ln		<1h		20In	<0.1



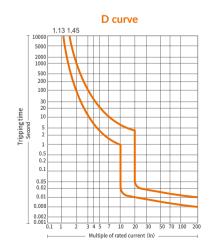
Universal use

- socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor



Loads with high inrush current

transformer, solenoid valve,2 pole motor



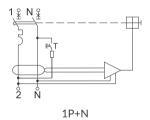
■ Breaking Time of Residual Current

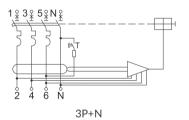
In(A)	IΔn(mA)	Max. breaking time					
III(A)	ΙΔΠ(ΠΙΑ)	l∆n	n 2lΔn 5lΔn 5	5,10,20,50,100,200,500A			
6,10,16,20,25,32,40,50,63	10,30, 100, 300	0.1s	0.08s	0.04s	0.04s		

■ Temperature Derating Table

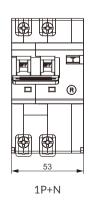
Rated current (A)	Correction factor for ambient temperature											
	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
6	8	7.7	7.5	7.2	6.9	6.6	6.3	6	5.7	5.3	4.9	4.5
10	13.3	12.9	12.5	12	11.5	11.1	10.5	10	9.4	8.8	8.2	7.5
16	21.3	20.7	20	19.2	18.5	17.7	16.9	16	15.1	14.1	13.1	11.9
20	26.7	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

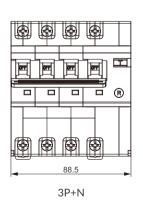
Wiring Diagram

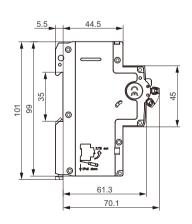




■ Dimension (mm)







60



ETL5-63B

Residual Current Circuit Breaker with Overcurrent Protection







Voltage: 240/415V AC systems (50/60Hz)

Electronic type

Current range: 6A to 63A

B types

Rated residual current: 30, 100, 300mA

From top capability

Tripping curves: Type B/C/D available

Transparent trip status observation port

Breaking capacity: 10kA

RCBO according to IEC/EN 61009-1, IEC/EN 62423

Protects against overload, short circuit, and leakage faults









EV Charging Stations

Photovoltaic (PV) Systems

UPS Systems

Industrial Welding Equipment

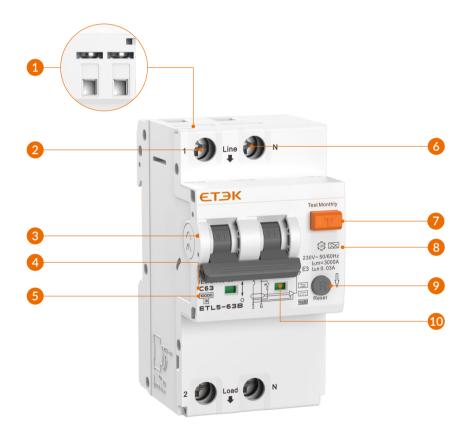


Overview

ETL5-63B Type B RCBO (Residual Current Circuit Breaker with Overcurrent protection) is a combined protective device that integrates residual current protection (RCD) and overcurrent protection (MCB), with a rated current up to 63A. It supports single-phase 230/240V and three-phase 400/415V systems, features a 10kA breaking capacity, and meets IEC61009-1 and IEC62423 standards.

Type B RCBOs are specifically designed to detect smooth DC residual currents, as well as AC and pulsating DC currents. This makes them ideal for applications such as industrial environments with variable speed drives, solar panel systems, EV charging stations, commercial distribution boards, and residential installations where enhanced earth leakage protection is required.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- The position of handle Lock
- 4 Tripping characteristics B, C, D
- 5 Rated short-circuit capacity 10kA

- 6 Neutral line interface
- 7 Test button
- 8 Reset button
- 9 Sensitivity to residual current B
- 10 Contacts position indication window

62



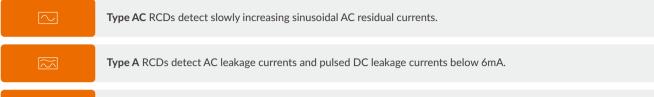
■ Technical Data

Standard		IEC/EN 61009-1, IEC/EN 62423				
Protection		Ground fault, Overcurrent and short circuit				
Type of trip		Ground fault: Electronic				
		Overload and short circuit: Thermo-magnetic				
Residual current type		B Type - residual AC, pulsating and smooth DC current, high frequency (<1kHz)				
No. of poles		1P+N, 3P+N				
Neutral		Switched, N pole on the right				
Insulation voltage (Ui)		500V				
Rated voltage (Ue)		1P+N: 230/240V~; 3P+N: 400/415V~				
Rated currents (In)		6, 10, 16, 20, 25, 32, 40, 50, 63A				
Rated sensitivity currents (I∆n)		30, 100, 300mA				
Residual current off-time under	r (I△n)	≤0.1s				
Rated residual making and brea	king capacity (I∆m)	500A (In≤50A), 10In (In>50A)				
Rated frequency		50/60Hz				
Rated short-circuit capacity (Icn)		10kA				
Energy limiting class		3				
Rated impulse withstand voltage	ge (Uimp) (1.2/50µs)	4kV				
Dielectric test voltage		2kV (50/60Hz,1 min.)				
Fire resistance (glow-wire test)		960±15°C (Enclosure); 650±10°C (Handle)				
Thermal tripping characteristics	S	1.13In No tripping within an hour; 1.45In Tripping within an hour				
Instantaneous tripping characte	eristics	B: 3ln-5ln; C: 5ln-10ln; D: 10ln-20ln				
Electrical life		4,000 Cycles				
Mechanical life		10,000 Cycles				
Contact position indicator		green OFF/ red ON				
Protection degree		IP20				
Ambient temperature		-25°C ~ +55°C, Max.95% humidity				
Terminal connection type	Line side terminals	Cable/ Pin-type/ Fork-type busbar				
reminal connection type	Load side terminals	Cable/ Pin-type				
Max. terminal size for cable		16mm² flexible/ 25mm² rigid				
Max. tightening torque		2.5N.m				
Installation		Mounting on 35mm DIN rail				
Incoming method		From top				

63



■ RCD Type





Type B RCDs detect sinusoidal AC, pulsating DC, multi-frequency composite, and smooth DC residual currents. They are designed to trip at frequencies ranging from 50Hz to 1kHz.

Tripping Sensitivity

30mA	This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.
100mA	Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.
300mA	Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

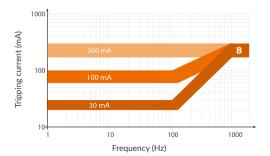
■ Tripping Characteristic

Type B RCDs - Standard values of break time and non-actuating time for residual direct currents which result from rectifying circuits and for residual smooth direct current.

Tripping times						
Туре	Fault currents	Tripping time at				
	Alternating currents	1×l∆n	2×l∆n	5×l∆n	500A	
	Pulsating DC currents	1.4×l∆n	2×1.4×I∆n	5×1.4×l∆n	500A	
	Smooth DC currents	2×I∆n	2×2×I∆n	5×2×I∆n	500A	
Standard		Max. 0.3s	Max. 0.15s	Max. 0.04s	Max. 0.04s	

Type B RCDs - Residual non-operating and operating current according to frequencies which differ from the rated frequency 50/60 Hz

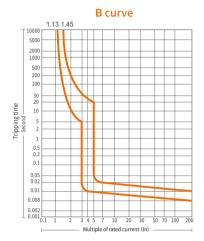
Frequency (Hz)	Residual non-operating current (I∆n)	Residual operating current (l∆n)
150	0.5 l∆n	2.4 I∆n
400	0.5 I∆n	6 I∆n
1000	IΔn	14 l∆n





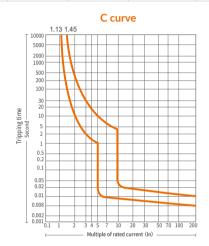
■ Tripping Characteristic

Curve	Rated current	Thermal release				Magnetic release				
		Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
В	6-63A	1.13ln		≤1h		30°C+5°C	3In		≥0.1	Normal temperature
В	0-03A		1.45In		<1h			5In	<0.1	
6	6-63A	1.13ln		≤1h			5In		≥0.1	
С	6-63A		1.45In		<1h		30 C+5 C	10ln	<0.1	
D	6-63A	1.13ln		≤1h			10ln		≥0.1	
			1.45ln		<1h			20In	<0.1	



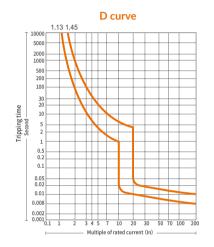
Universal use

- socket outlet, lighting device



Resistive & inductive loads with low inruch current

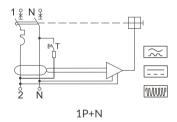
- lamp, high starting current motor

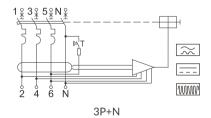


Loads with high inrush current - transformer, solenoid valve,

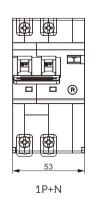
2 pole motor

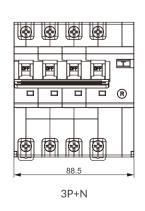
Wiring Diagram

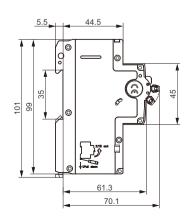




■ Dimension (mm)









ETL1-63(H)

Residual Current Circuit Breaker



Voltage: 240/415V AC systems (50/60Hz)

Current range: 16A to 63A

Rated residual current: 10, 30, 100, 300mA

Breaking capacity: 6kA/10kA options

Protects against leakage faults

Electro-magnetic type

AC, A, A-SI, A-S types

Bidirectional wiring capability

Contact position indication

RCCB according to IEC/EN 61008-1



Main circuit protection in residential distribution systems



Lighting circuit control in commercial buildings



Power supply line protection for industrial equipment



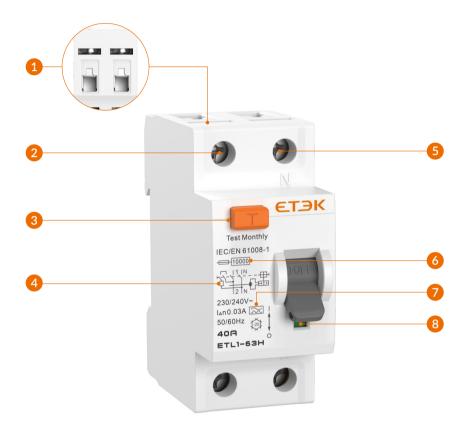
Electrical safety assurance in public



Overview

ETL1-63 Residual Current Circuit Breaker (RCCB) offers reliable protection against electrical leakage currents, significantly reducing the risk of electric shock caused by indirect contact. Designed for versatility, it supports both single-phase (240V, 1P+N) and three-phase (415V, 3P+N) power systems, with a rated current capacity of up to 63A. This ensures dependable performance for a wide range of applications in residential, commercial, and industrial environments.

Product Tips



- 1 PIN/ Fork busbar
- 2 Live line interface
- 3 Test button
- 4 Wiring Diagram

- 5 Neutral line interface
- 6 Rated conditional short-circuit current 6kA, 10kA
- Sensitivity to residual current AC, A, A-SI, A-S
- 8 Contacts position indication window



■ Technical Data

Protection Ground fault Type of trip Electro-magnetic type Residual current type A.C.A.A.SI.A.5 Break time at lan A.C. A undelayed type: ±100ms No. of poles 1P+N, 3P+N, N Pole on the right Insulation voltage (Ui) 500V Rated voltage (Ue) 1P+N:230/240V~; 3P+N:400/415V~ Rated currents (in) 16, 25, 32, 40, 63A Rated sensitivity currents (lon) 30, 100, 300mA Rated frequency 500A (Ins.50A) Rated frequency 50/60Hz Rated conditional short-circuit current (Ine-lac) ETL1-63-6KA Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2N/150/60Hz.1 min.) Pre resistance (glow wire test) 650±10°C (Handle) Electrical life 4,000 Cycles Mcchanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree 1P20 Ambient temperature -25°C - 440°C Storage temperature -30°C - 470°C Terminal connection type Cable/ Pin-type/ Port-type busbar	Standard	IEC/EN 61008-1					
Residual current type AC, A, andelayed type: s100ms Break time at Ian AC, B, andelayed type: s100ms No. of poles 1P+N, 3P+N, N Pole on the right Insulation voltage (Ui) 500V Rated voltage (Ue) 1P+N:230/240V; 3P+N:400/413V- Rated currents (In) 16, 25, 32, 40, 63A Rated sensitivity currents (Ian) 10mA (anhy for 1P+N 16A,25A) Rated residual making and breaking capacity (Iam) 500A (In:50A) Rated frequency 50/60Hz Rated frequency 50/60Hz Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 450×10°C (Enclosure) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature 25°C ~ +40°C Storage temperature 30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Mounting on 35mm DIN rail	Protection	Ground fault					
AC, A undelayed type: s100ms	Type of trip	Electro-magnetic type					
Break time at Ian	Residual current type	AC, A, A-SI, A-S					
No. of poles		AC, A undelayed type: ≤100ms					
No. of poles	Break time at IΔn	A-SI delay: 10-300ms					
Insulation voltage (Ui) 500V		A-S delay: 130-500ms					
Rated voltage (Ue) 1P+N:230/240V~; 3P+N:400/415V~ Rated currents (In) 16, 25, 32, 40, 63A Rated sensitivity currents (Ian) 10mA (only for 1P+N 16A,25A) Rated residual making and breaking capacity (Iam) 500A (Ins50A) Rated frequency 50/60Hz Rated conditional short-circuit current (Inc=Iac) ETL1-63:6kA Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Pire resistance (glow-wire test) 650±10°C (Enclosure) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C - +40°C Storage temperature -30°C - +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16ma² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Mounting on 35mm DIN rail	No. of poles	1P+N, 3P+N, N Pole on the right					
Rated currents (In) 16, 25, 32, 40, 63A Rated sensitivity currents (Ian) 10mA (only for 1P+N 16A,25A) Rated sensitivity currents (Ian) 30, 100, 300mA Rated residual making and breaking capacity (Iam) 500A (Ins50A) Rated frequency 50/60Hz Rated conditional short-circuit current (Inc=Iac) ETL1-63: 6kA Rated impulse withstand voltage (Uimp) (1.2/50μs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C - +40°C Storage temperature -30°C - +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Insulation voltage (Ui)	500V					
Rated sensitivity currents (Ian) Rated residual making and breaking capacity (Iam) Rated frequency Rated frequency Rated conditional short-circuit current (Inc=Iac) Rated impulse withstand voltage (Uimp) (1.2/50µs) Dielectric test voltage Electrical life Rechanical life Contact position indicator Protection degree Ambient temperature Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. tightening torque Installation 10lm (only for 1P+N 16A,25A) 30, 100, 300mA 30, 100, 300mA 500, 41550A) 10ln (In-50A) 10	Rated voltage (Ue)	1P+N:230/240V~; 3P+N:400/415V~					
Rated sensitivity currents (Ian) Rated residual making and breaking capacity (Iam) Rated residual making and breaking capacity (Iam) Rated frequency So/60Hz ETL1-63.6kA ETL1-63.6kA Rated conditional short-circuit current (Inc=Iac) ETL1-63H: 10kA Rated impulse withstand voltage (Uimp) (1.2/50µs) AkV Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. teminal size for cable Max. tightening torque 2,5N.m Mounting on 35mm DIN rail	Rated currents (In)	16, 25, 32, 40, 63A					
30, 100, 300mA	Detect consists the correcte (Len)	10mA (only for 1P+N 16A,25A)					
Rated residual making and breaking capacity (IAm) Rated frequency 50/60Hz ETL1-63: 6kA ETL1-63H: 10kA Rated impulse withstand voltage (Uimp) (1.2/50µs) Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator protection degree Ambient temperature 72°C ~ +40°C Storage temperature 730°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Rated sensitivity currents (iΔn)	30, 100, 300mA					
Rated frequency 50/60Hz Rated conditional short-circuit current (Inc=IaC) ETL1-63: 6kA Rated impulse withstand voltage (Uimp) (1.2/50µs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 650±10°C (Enclosure) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature 25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16st minutes of the minutes	Poted residual making and breaking canacity (IAM)	500A (In≤50A)					
Rated conditional short-circuit current (Inc=Iac) ETL1-63: 6kA Rated impulse withstand voltage (Uimp) (1.2/50µs) Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Rateu residual making and breaking capacity (i\(\Delta\)inj	10In (In>50A)					
Rated conditional short-circuit current (Inc=IΔc) ETL1-63H: 10kA Rated impulse withstand voltage (Uimp) (1.2/50μs) 4kV Dielectric test voltage 2kV (50/60Hz,1 min.) Fire resistance (glow-wire test) 960±15°C (Enclosure) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Rated frequency	50/60Hz					
Rated impulse withstand voltage (Uimp) (1.2/50μs) Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Pated conditional chart circuit current (Inc-Inc)	ETL1-63: 6kA					
Dielectric test voltage 2kV (50/60Hz,1 min.) 960±15°C (Enclosure) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature 730°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque 2,5N.m Installation Mounting on 35mm DIN rail	Rated Conditional Short-Circuit Current (Inc-12C)	ETL1-63H: 10kA					
Fire resistance (glow-wire test) Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque 2,5N.m Installation Mounting on 35mm DIN rail	Rated impulse with stand voltage (Uimp) (1.2/50 μ s)	4kV					
Fire resistance (glow-wire test) 650±10°C (Handle) Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Dielectric test voltage	2kV (50/60Hz,1 min.)					
Electrical life 2,000 Cycles Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Fire resistance (glow-wire test)	960±15°C (Enclosure)					
Mechanical life 4,000 Cycles Contact position indicator green OFF / red ON Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	The resistance (glow while test)	650±10°C (Handle)					
Contact position indicator Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable Max. tightening torque Installation Mounting on 35mm DIN rail	Electrical life	2,000 Cycles					
Protection degree IP20 Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Mechanical life	4,000 Cycles					
Ambient temperature -25°C ~ +40°C Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Contact position indicator	green OFF / red ON					
Storage temperature -30°C ~ +70°C Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Protection degree	IP20					
Terminal connection type Cable/ Pin-type/ Fork-type busbar Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Ambient temperature	-25°C ~ +40°C					
Max. terminal size for cable 16mm² flexible/ 25mm² rigid Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Storage temperature	-30°C ~ +70°C					
Max. tightening torque 2.5N.m Installation Mounting on 35mm DIN rail	Terminal connection type	Cable/ Pin-type/ Fork-type busbar					
Installation Mounting on 35mm DIN rail	Max. terminal size for cable	16mm² flexible/ 25mm² rigid					
	Max. tightening torque	2.5N.m					
Incoming method Bi-directional	Installation	Mounting on 35mm DIN rail					
	Incoming method	Bi-directional					

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RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.



Type S, G/S RCDs not only can it ensure the tripping response to sinusoidal AC residual currents, but it can also effectively detect and trip pulsed DC residual currents, regardless of whether these leakage currents increase suddenly or slowly.

Tripping Sensitivity

10mA

Provides a higher level of protection for the human body and is used in certain situations with very high requirements for electric shock protection, such as children's facilities, swimming pools, bathrooms and other humid environments.

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

■ Tripping Time

Instantaneous	Two types of leakage protectors, AC and A, are usually designed to quickly disconnect circuits (≤300ms) to protect people from electric shock.
Short time delay G/SI	Designed for use in situations where rapid power outage is required to protect equipment. They have shorter trip times (10-300ms) than Type AC and Type A RCDs to minimize damage to the equipment.
Selective S	Designed to allow downstream RCDs to trip before upstream RCDs, thereby achieving precise isolation of faulty sections. The S-type RCD is designed with a longer tripping time (130-500ms) to coordinate with other RCDs in the power distribution system to avoid unnecessary power outages.

Breaking Time of Residual Current

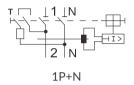
In(A)	IΔn(mA)	Max. breaking time					
III(A)	ΙΔΠ(ΠΙΑ)	l∆n	2l∆n	5l∆n	5,10,20,50,100,200,500A		
16,25,32,40,63	10, 30, 100, 300	0.3s	0.15s	0.04s	0.04s		

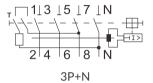


Wiring Capacity

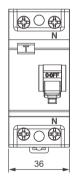
Rated current In (A)	Cross section area s (mm²)	Tightening torque (N.m)
16	2.5	2.5
25	4	2.5
32	6	2.5
40	10	2.5
63	16	2.5

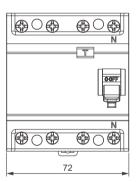
Wiring Diagram

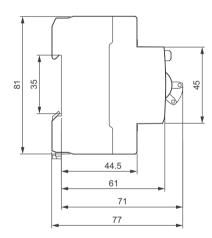




■ Dimension (mm)









ETL1-63B

Residual Current Circuit Breaker



Voltage: 240/415V AC systems (50/60Hz)

Electro-magnetic type

Current range: 16A to 63A

B type

Rated residual current: 30, 100, 300mA

Bidirectional wiring capability

Breaking capacity: 10kA options

Contact position indication

Protects against leakage faults

RCCB according to IEC/EN 61008-1, IEC/EN 62423

Applications









EV Charging Stations

Photovoltaic (PV) Systems

UPS Systems

Industrial Welding Equipment



Overview

ETL1-63B Type B Residual Current Circuit Breaker (RCCB) suitable for 230/240V (1P+N) or 400/415V (3P+N) power systems, with a rated current up to 63A. Designed to detect AC leakage currents, pulsating DC leakage currents, smooth DC leakage currents, composite waveform leakage currents, and high-frequency leakage currents up to 1kHz.

When human electric shock occurs or circuit leakage current exceeds specified values, the circuit breaker instantaneously disconnects the faulty power supply to protect personnel and electrical equipment. It can also serve for infrequent circuit switching operations under normal conditions.

Product Tips



- 1 Live line interface
- 2 Test button
- 3 Wiring Diagram
- 4 Sensitivity to residual current B

- 5 PIN/ Fork busbar
- 6 Neutral line interface
- Rated short circuit breaking capacity 10kA
- 8 Contacts position indication window

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■ Technical Data

Standard	IEC/EN 61008-1, IEC/EN 62423					
Protection	Ground fault					
Type of trip	Electro-magnetic type					
Residual current type	B Type - residual AC, pulsating and smooth DC current, high frequency (≤1kHz)					
Time characteristic	Insensitivity					
No. of poles	1P+N, 3P+N, N Pole on the right					
Insulation voltage (Ui)	500V					
Rated voltage (Ue)	1P+N:230/240V~; 3P+N:400/415V~					
Rated currents (In)	16, 25, 32, 40, 63A					
Rated sensitivity currents (I∆n)	30, 100, 300mA					
Residual current off-time under (IΔn)	≤0.1s					
Rated residual making and breaking capacity (I△m)	500A (In≤50A)					
Kateu residuai making and breaking capacity (i\(\Delta\text{inj}\)	10In (In>50A)					
Rated frequency	50/60Hz					
Rated short-circuit capacity (lcn)	10kA					
Rated conditional residual short-circuit current (I∆c)	10kA					
Rated impulse withstand voltage (Uimp) (1.2/50µs)	4kV					
Dielectric test voltage	2kV (50/60Hz,1 min.)					
Fire resistance (glow-wire test)	960±15°C (Enclosure)					
The resistance (glow while test)	650±10°C (Handle)					
Electrical life	2,000 Cycles					
Mechanical life	4,000 Cycles					
Contact position indicator	green OFF / red ON					
Protection degree	IP20					
Ambient temperature	-25°C ~ +40°C					
Storage temperature	-30°C ~ +70°C					
Terminal connection type	Cable/ Pin-type/ Fork-type busbar					
Max. terminal size for cable	16mm² flexible/ 25mm² rigid					
Max. tightening torque	2.5N.m					
Installation	Mounting on 35mm DIN rail					
Incoming method	Bi-directional					

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RCD Type



Type AC RCDs detect slowly increasing sinusoidal AC residual currents.



Type A RCDs detect AC leakage currents and pulsed DC leakage currents below 6mA.



Type B RCDs detect sinusoidal AC, pulsating DC, multi-frequency composite, and smooth DC residual currents. They are designed to trip at frequencies ranging from 50Hz to 1kHz.

Tripping Sensitivity

30mA

This is the most commonly used protection level in homes and commercial buildings, and is suitable for socket protection in general residential environments, offices and commercial places.

100mA

Usually used in situations where personal protection requirements are not as strict as 30mA, or for equipment protection, such as air conditioning systems, industrial equipment, etc.

300mA

Mainly used for fire protection, such as distribution boards and general protection of large electrical equipment.

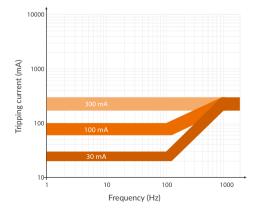
■ Tripping Characteristic

Type B RCDs - Standard values of break time and non-actuating time for residual direct currents which result from rectifying circuits and for residual smooth direct current.

Tripping times					
Туре	Fault currents	Tripping time	at		
	Alternating currents	1×I∆n	2×l∆n	5×l∆n	500A
	Pulsating DC currents	1.4×I∆n	2×1.4×I∆n	5×1.4×l∆n	500A
	Smooth DC currents	2×I∆n	2×2×I∆n	5×2×I∆n	500A
Standard		Max. 0.3s	Max. 0.15s	Max. 0.04s	Max. 0.04s

Type B RCDs - Residual non-operating and operating current according to frequencies which differ from the rated frequency 50/60 Hz

Frequency (Hz)	Residual non-operating current (l∆n)	Residual operating current (IΔn)
150	0.5 l∆n	2.4 l∆n
400	0.5 I∆n	6 l∆n
1000	IΔn	14 l∆n



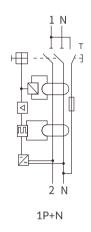
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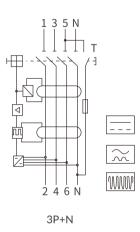


Wiring Capacity

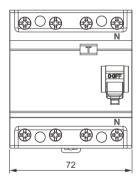
Rated current In (A)	Cross section area s (mm²)	Tightening torque (N.m)
16	2.5	2.5
25	4	2.5
32	6	2.5
40	10	2.5
63	16	2.5

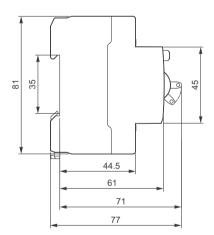
Wiring Diagram





■ Dimension (mm)







ETM1-63(H)AFD

Arc Fault Detection Device

CE EK S







Normal

Fault

Voltage: 230/240V AC systems (50/60Hz)

Thermal-magnetic type

Current range: 6A to 63A

From bottom wiring capability

Tripping curves: Type B/C available

Arc test button with built-in indicator light

Breaking capacity: 6kA/10kA options

Transparent trip status observation port

Protects against overload, short circuit and arc fault

AFDD according to IEC/EN 60898-1, IEC/EN 62026

Applications



High-risk residential buildings



Houses in multiple occupation



Purpose-built student accommodation



Care homes



Other locations requiring high-security socket circuits



Overview

ETM1-63AFD is an Arc Fault Detection Device (AFDD) with an integrated miniature circuit breaker (MCB), engineered to mitigate electrical fire risks by detecting hazardous series and parallel arc faults. It offers a 10 kA short-circuit breaking capacity and supports rated currents up to 63 A, making it suitable for residential, commercial, and light industrial installations.

ETM1-63AFD features an LED arc-fault indicator for clear status feedback. Its compact 36 mm width saves distribution board space while maintaining comprehensive protection against arc faults, overloads, and short circuits.

Product Tips



- 1 Live line interface
- The position of handle lock
- 3 Tripping characteristics B, C
- 4 Rated short circuit breaking capacity 6kA, 10kA

- 6 PIN/ Fork busbar
- 6 Neutral line interface
- Arc test button with built-in indicator light
- 8 Contacts position indication window



Technical Data

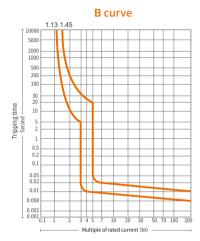
Overload and short circuit of trip	Arc fault protection Overload protection, Short-circuit protection Thermal-magnetic Serial arcing fault Parallel aring fault			
Overload and short circuit	Thermal-magnetic Serial arcing fault Parallel aring fault			
	Serial arcing fault Parallel aring fault			
of trip	Parallel aring fault			
ы пр				
Arc fault				
	Grounding arc fault			
poles	1P+N (Neutral unswitched)			
insulation voltage (Ui)	500V			
voltage (Ue)	230/240V			
currents (In)	6, 10, 16, 20, 25, 32, 40, 50, 63A			
frequency	50/60Hz			
ah art ainmit ann aite (lan)	ETM1-63AFD: 6kA			
short-circuit capacity (Icn)	ETM1-63HAFD: 10kA			
y limiting class	3			
impulse withstand voltage (Uimp) (1.2/50 μ s)	4kV			
ctric test voltage	2kV (50/60Hz,1 min.)			
nal tripping characteristics	1.13In No tripping within an hour; 1.45In Tripping within an hour			
taneous tripping characteristics	B: 3ln-5ln; C: 5ln-10ln			
ical life	4,000 Cycles			
anical life	10,000 Cycles			
ct position indication	green OFF / red ON			
etection button	Yes			
ult indicator	Green: Normal			
uit indicator	Red: Fault			
ction degree	IP20			
ent temperature	-25°C ~ +55°C			
ge temperature	-30°C ~ +70°C			
nal connection type	Cable/ Pin-type/ Fork-type busbar			
terminal size for cable	16mm² flexible/ 25mm² rigid			
tightening torque	2.5N.m			
ation	Mounting on 35mm DIN rail			
ing method	From bottom			

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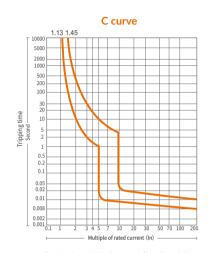
■ Tripping Characteristic

	Rated			Thermal relea	ase			Magnet	ic release	
Curve	current	Non-trip	Trip	Non-trip time	Trip time	Ambient temperature	Hold current	Trip current	Trip time	Ambient temperature
D	6-63A	1.13ln		≤1h			3In		≥0.1	
В	0-03A		1.45ln		<1h	0006.506		5In	<0.1	Normal
		1.13ln		≤1h		30°C+5°C	5In		≥0.1	temperature
С	6-63A		1.45ln		<1h			10ln	<0.1	



Universal use

- socket outlet, lighting device



Resistive & inductive loads with low inruch current

- lamp, high starting current motor

■ Temperature Derating Table

D-+		Correction factor for ambient temperature										
Rated current (A)	-40°C	-30°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
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

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■ Limit values of operating criteria for AFDD at low arc currents up to 63A (IEC62026)

Limit values of break time for Ue 230V AFDD							
Test arc current (r.m.s.values)	Max breaking time						
2.5A	15						
5A	0.5\$						
10A	0.25S						
16A	0.15S						
32A	0.12S						
63A	0.125						

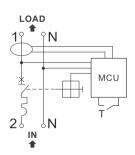
Note

- 1. The test arc current is the expected current before ignitionoccurs in the test circuit.
- 2. Low arc currents can occur due to insulation faults phase to earth or series arcing.

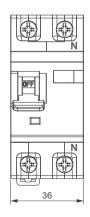
Led Indicator Instruction

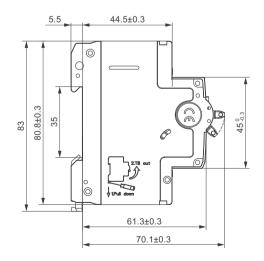
No.	Led display state	color	Description	
1	Green light steady on	••••••	After closing, it indicates the system status and working mode. Green light steady on means the product is operating normally.	
2	Red light steady on	•••••	After the product trips, when reclosed, the red light flashes first and then remains steady on, indicating arc self-test failure (hardware or software malfunction).	
3	Red light flashing	••••••	When the product trips due to arc detection and is reclosed, the red light flashes 5 times, then switches to green light steady on. This indicates the previous trip was caused by an arc fault, and green light steady on means the product has resumed normal operation.	
4	Green light steady on	•••••	With the green light steady on, pressing the test button will trip the device. When reclosed, green light steady on indicates normal functionality.	

Wiring Diagram



■ Dimension (mm)





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ETD1-125

Isolator Switch

CE EN









IP20 protection

Finger protected connection terminals.

Standard

IEC 60947-3: Low-voltage switchgear and controlgear -Part 3.

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 isolator switch, it is now possible to recycle the isolator switch 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

ETD1-125 Isolators, designed for circuits up to 125A, are manually operated switch disconnectors capable of making, carrying, and breaking current under normal circuit conditions. while maintaining short-circuit current withstand capacity for specified durations.

These devices ensure safe circuit de-energization for maintenance/service operations and serve as reliable Main Switch for enclosures, distribution boards, or consumer units.

■ Product Tips



- 1 Reversible line and load connection
- 2 The position of handle lock

- 3 Rated current up to 125A
- 4 Contacts position indication window



■ Technical Data

Standard	IEC/EN 60947-3	
	120, 21, 221, 11, 2	
Method of operation	Dependent manual operation	
No. of poles	1P, 2P, 3P, 4P	
Insulation voltage (Ui)	500V	
Rated voltage (Ue)	220/230/240V and 380/400/415V for 1P	
	380/400/415V for 2P/3P/4P	
Rated frequency	50/60Hz	
Rated currents (In)	25,32,40,50,63,80,100,125A	
Utilization category	AC-22A	
Short-time withstand current (Icw)	2500A/1s	
Rated short-circuit making capacity (Icm)	3550A	
Rated impulse withstand voltage (Uimp) (1.2/50 μ s)	6kV	
Dielectric test voltage	2kV (50/60Hz, 1 min.)	
F: / L / L	960±15°C (Enclosure)	
Fire resistance (glow-wire test)	650±10°C (Handle)	
Electrical life	2000 cycles	
Mechanical life	1,0000 cycles	
Contact position indicator	green OFF / red ON	
Protection degree	IP20 for front cover	
Ambient temperature	-5°C ~ +40°C	
Storage temperature	-25°C ~ +70°C	
Terminal connection type	Cable / Pin-type busbar	
Max. terminal size for cable	35mm² flexible/ 50mm² rigid	
Max. tightening torque	3.5N.m	
Installation	Mounting on 35mm DIN rail	
Incoming method	Bi-directional	

■ Utilization Categories for Low Voltage Switchgear According to IEC60947-3

Current	Utilization categories		Twicel englishing	
Current	Category A	Category B	Typical application	
	AC-20A	AC-20B	Connecting and disconnecting under no-load conditions	
	AC-21A	AC-21B	Switching of resistive loads including moderate overloads	
AC	AC-22A	AC-22B	Switching of mixed resistive and inductive loads, including moderate overloads	
	AC-23A	AC-23B	Switching of motor loads or other highly inductive loads	
	AC-23Ae	AC-23Be	Switching of motor loads with higher locked rotor currents	
	DC-20A	DC-20B	Connecting and disconnecting under no-load conditions	
	DC-21A	DC-21B	Switching of resistive loads including moderate overloads	
DC	DC-22A	DC-22B	Switching of mixed resistive and inductive loads, including moderate overloads (e.g. shunt motors)	
	DC-23A	DC-23B	Switching of highly inductive loads (e.g. series motors)	

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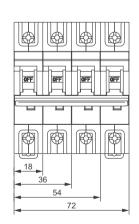


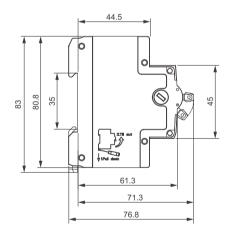
Wiring Capacity

Rated current In (A)	Cross section area s (mm²)	Tightening torque (N.m)	
25	4	3.5	
32	6	3.5	
40	10	3.5	
50	10	3.5	
63	16	3.5	
80	35	3.5	
100	35	3.5	
125	50	3.5	

Wiring Diagram

■ Dimension (mm)







ETD1-125M/L

Dual Screw Mains Isolator Switches

CE EN

ETD1-125M









ETD1-125L









IP20 protection

Finger protected connection terminals.

Dual screw terminals

Dual screw terminals ensure maximum conductor clamping reliability.

Standard

IEC 60947-3: Low-voltage switchgear and controlgear -Part 3.

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 isolator switch, it is now possible to recycle the isolator switch 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

ETD1-125 Dual Screw Mains Isolator Switches are designed to provide secure, reliable conductor clamping and safe circuit isolation in both domestic consumer units and three-phase distribution boards. With a compact footprint, they integrate easily into electrical enclosures and consumer units, delivering dependable performance in single-phase and three-phase applications wherever complete circuit isolation is required.

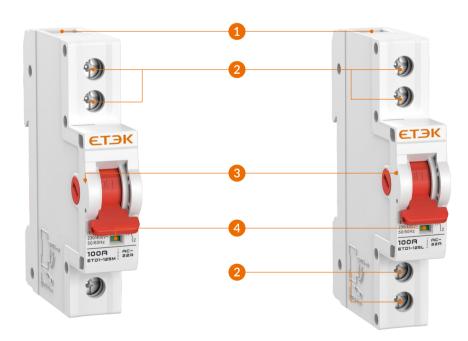
Two versions are available to suit different wiring requirements:

ETD1-125M - Dual screw terminals on the load side for enhanced security of outgoing connections.

ETD1-125L - Dual screw terminals on both line and load sides for maximum clamping reliability on both incoming and outgoing conductors.

Compliant with IEC 60947-3, the series offers rated currents up to 125 A and is available in 1P, 2P, 3P, and 4P configurations, making it a versatile solution for a wide range of low-voltage distribution systems.

■ Product Tips



Reversible line and load connection

2 Dual screw terminals

3 The position of handle lock

4 Contacts position indication window

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■ Technical Data

Model		ETD1-125M	ETD1-125L	
Terminal configuration	Line side terminals	Single-screw	Dual-screw	
Terrimal corniguration	Load side terminals	Dual-screw	Dual-screw	
Standard		IEC/EN	60947-3	
Method of operation		Dependent ma	nual operation	
No. of poles		1P, 2P,	3P, 4P	
Insulation voltage (Ui)		50	OV	
Rated voltage (Ue)		220/230/240V and 3	880/400/415V for 1P	
rated voltage (oc)		380/400/415\	/ for 2P/3P/4P	
Rated frequency		50/6	50Hz	
Rated currents (In)		25,32,40,50,65	3,80,100,125A	
Utilization category		AC-	22A	
Short-time withstand current (I	cw)	2500	A/1s	
Rated short-circuit making capa	acity (Icm)	3550A		
Rated impulse withstand voltage	ge (Uimp) (1.2/50µs)	6kV		
Dielectric test voltage		2kV (50/60	DHz, 1 min.)	
Fire resistance (glow-wire test)		960±15°C (Enclosure)		
The resistance (glow wife test)		650±10°C (Handle)		
Electrical life		2000	cycles	
Mechanical life		1,0000 cycles		
Contact position indicator		green OFF / red ON		
Protection degree		IP20 for front cover		
Ambient temperature		-5°C ~ +40°C		
Storage temperature		-25°C ~ +70°C		
Terminal connection type		Cable / Pin-type busbar		
Max. terminal size for cable		35mm² flexible/ 50mm² rigid		
Max. tightening torque		3.5N.m		
Installation		Mounting on 35mm DIN rail		
Incoming method		Bi-directional		



■ Utilization Categories for Low Voltage Switchgear According to IEC60947-3

C	Utilization categories		T	
Current	Category A	Category B	Typical application	
	AC-20A	AC-20B	Connecting and disconnecting under no-load conditions	
	AC-21A	AC-21B	Switching of resistive loads including moderate overloads	
AC	AC-22A	AC-22B	Switching of mixed resistive and inductive loads, including moderate overloads	
	AC-23A	AC-23B	Switching of motor loads or other highly inductive loads	
	AC-23Ae	AC-23Be	Switching of motor loads with higher locked rotor currents	
	DC-20A	DC-20B	Connecting and disconnecting under no-load conditions	
	DC-21A	DC-21B	Switching of resistive loads including moderate overloads	
DC	DC-22A	DC-22B	Switching of mixed resistive and inductive loads, including moderate overloads (e.g. shunt motors)	
	DC-23A	DC-23B	Switching of highly inductive loads (e.g. series motors)	

Wiring Capacity

Rated current In (A)	Cross section area s (mm²)	Tightening torque (N.m)
25	4	3.5
32	6	3.5
40	10	3.5
50	10	3.5
63	16	3.5
80	35	3.5
100	35	3.5
125	50	3.5

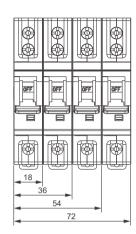
Wiring Diagram

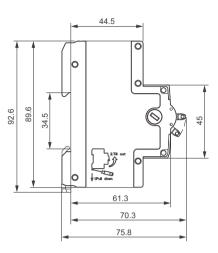
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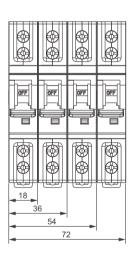
■ Dimension (mm)

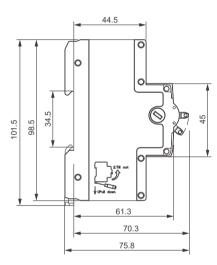
ETD1-125M





ETD1-125L









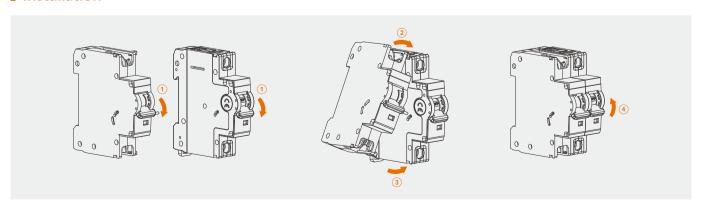
- 3. ETM-MV+MN over-undervoltage release
 - ETM-MN undervoltage release
 - ETM-MV overvoltage release
 - ETM-MNs voltage loss release

- 2. ETM-TZ mechanical interlock
- 4. ETM-MX+OF shunt release and auxiliary contact
 - ETM-MX shunt release
- 5. ETM-OF auxiliary contact

ETM-FB auxiliary and alarm contact

Abbreviation	Accessory	Description	Typical Applications
OF	OF Auxiliary contact Provides status feedback of the circuit breaker (ON/OFF) to monitoring or control systems.		Automation and monitoring systems requiring real-time feedback on circuit breaker status.
FB	Auxiliary contact + Alarm contact	Combines the functionality of auxiliary contact (OF) and alarm contact (SD) in a single unit	Used in systems that require both real-time status feedback and fault alarming.
MX	Shunt release	Allows remote circuit breaker tripping via an external electrical signal (e.g., emergency stop).	Emergency stop systems, electrical fire safety systems, and remote disconnection.
MX+OF	Shunt release + Auxiliary contact	Combines shunt trip functionality with status feedback for remote control and status indication.	Complex automation systems requiring control and feedback mechanisms.
MN	Undervoltage release	Automatically trips the circuit breaker when the supply voltage drops below a preset threshold (undervoltage condition).	Protects equipment and circuits from operating under insufficient voltage conditions.
MV	Overvoltage release	Automatically trips the circuit breaker when the voltage exceeds a preset upper limit (overvoltage threshold).	Protection of equipment and circuits from damage caused by excessive voltage levels.
MV+MN	Over-undervoltage release	Protects the circuit by tripping the breaker when the voltage either exceeds a set upper limit (overvoltage) or falls below a preset lower limit (undervoltage).	Ensures the safety of voltage-sensitive equipment in unstable power supply conditions.
MNs	MNs Voltage loss release Automatically trips the circuit breaker when the supply voltage drops below a certain threshold or is lost entirely.		Protection of voltage-sensitive equipment, prevention of low-voltage operation, and avoiding unintended startups.
TZ	Mechanical interlock	Composed of two-stage (multi - stage) circuit breaker and interlock conversion accessories.	It is mainly used two main circuits cannot work at the same time.

Installation



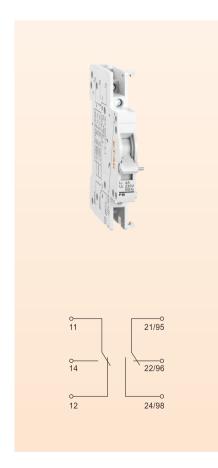
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■ ETM-OF Auxiliary Contact

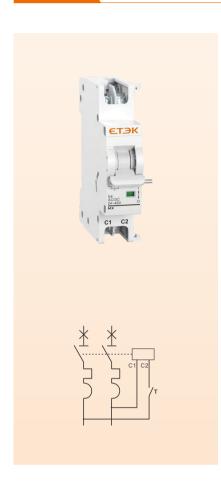
Model		ETM-OF	
Standard		IEC/EN 60947-5-1	
Number of contacts		1NO+1NC	
	AC-13	230~400 VAC	
Rated voltage (Ue)	AC-15	230~400 VAC	
	DC-12	24~110 VDC	
	AC-13	3A@230V, 2A@400V	
Operating current (le)	AC-15	2A@230V, 1A@400V	
	DC-12	0.5A≤110 VDC	
Operating frequency		50/60Hz	
Rated insulation voltage (U	Ji)	400V	
Rated impulse withstand v	oltage (Uimp)	2.5kV	
Pollution degree		2	
Terminal type		Lug type	
Terminal capacity		Up to 2.5mm²	
Tightening torque		0.8 N.m	
Ambient temperature		-5°C ~ +40°C	
Storage temperature		-25°C ~ +70°C	
Product width		9mm	
Floduct width			



■ ETM-FB Auxiliary and Alarm Contact

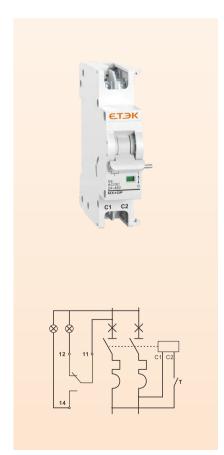
Model		ETM-FB	
Standard		IEC/EN 60947-5-1	
Number of contacts		2NO+2NC	
	AC-13	230~400 VAC	
Rated voltage (Ue)	AC-15	230~400 VAC	
	DC-12	24~110 VDC	
	AC-13	3A@230V, 2A@400V	
Operating current (le)	AC-15	2A@230V, 1A@400V	
	DC-12	0.5A≤110 VDC	
Operating frequency		50/60Hz	
Rated insulation voltage (Ui)	400V	
Rated impulse withstand	voltage (Uimp)	2.5kV	
Pollution degree		2	
Terminal type		Lug type	
Terminal capacity		Up to 2.5mm²	
Tightening torque		0.8 N.m	
Ambient temperature		-5°C ~ +40°C	
Storage temperature		-25°C ~ +70°C	
Product width		9mm	
Compatible product		T Series MCB, RCBO	





■ ETM-MX Shunt Release

Model		ETM-MX-48	ETM-MX-400
Standard		IEC/EN 60947-5-1	
Rated voltage (Ue)	AC/DC	24~48V	110~400V
Operating frequency		50/6	60Hz
Rated insulation voltage (Ui)	400	0V
Rated impulse withstand	voltage (Uimp)	2.5	kV
Pollution degree		2	
Mechanical state indicato	r	Yes	
Terminal type		Lug type	
Terminal capacity		Up to 2.5mm²	
Tightening torque		0.8 N.m	
Ambient temperature		-5°C ~ +40°C	
Storage temperature		-25°C ~ +70°C	
Product width		18mm	
Compatible product		T Series MCB, RCBO	

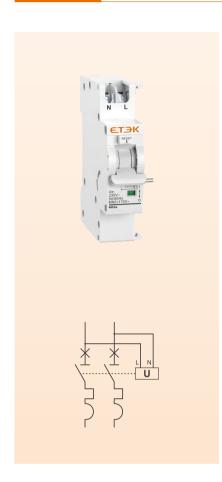


■ ETM-MX+OF Shunt Release and Auxiliary Contact

Model		ETM-MX+OF-48	ETM-MX+OF-400
Standard		IEC/EN 60947-5-1	
Number of contacts		1NO+1NC	
Rated voltage (Ue)	AC/DC	24~48V	110~400V
Operating frequency		50/6	0Hz
Rated insulation voltage (Ui)	400	OV
Rated impulse withstand	voltage (Uimp)	2.5kV	
Pollution degree		2	
Mechanical state indicator		Yes	
Terminal type		Lug type	
Terminal capacity		Up to 2.5mm²	
Tightening torque		0.8 N.m	
Ambient temperature		-5°C ~ +40°C	
Storage temperature		-25°C ~ +70°C	
Product width		18mm	
Compatible product		T Series MCB, RCBO	

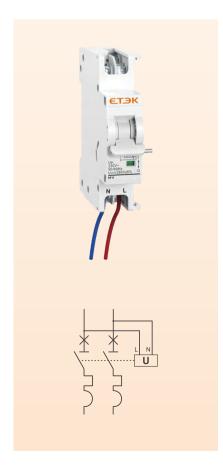
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■ ETM-MNs Voltage Loss Release

Model	ETM-MNs
Standard	IEC/EN 60947-5-1
Rated voltage (Ue)	230 VAC
Operating frequency	50/60Hz
Undervoltage protection interval	(35%~70%)Ue
Normal recovery voltage	≥85%Ue
Rated insulation voltage (Ui)	400V
Rated impulse withstand voltage (Uimp)	2.5kV
Pollution degree	2
Reset function	Yes
Mechanical state indicator	Yes
Terminal type	Lug type
Terminal capacity	Up to 2.5mm²
Tightening torque	0.8 N.m
Ambient temperature	-5°C ~ +40°C
Storage temperature	-25°C ~ +70°C
Product width	18mm
Compatible product	T Series MCB, RCBO



■ ETM-MV Over-voltage Release

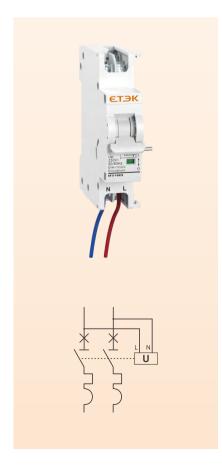
Model	ETM-MV
Standard	IEC/EN 60947-5-1
Rated voltage (Ue)	230 VAC
Operating frequency	50/60Hz
Rated working trip undervoltage	280V±5%
Rated insulation voltage (Ui)	400V
Rated impulse withstand voltage (Uimp)	2.5kV
Pollution degree	2
Mechanical state indicator	Yes
Terminal type	Lug type
Terminal capacity	Up to 2.5mm²
Tightening torque	0.8 N.m
Ambient temperature	-5°C ~ +40°C
Storage temperature	-25°C ~ +70°C
Product width	18mm
Compatible product	T Series MCB, RCBO





■ ETM-MN Undervoltage Release

Model	ETM-MN
Standard	IEC/EN 60947-5-1
Rated voltage (Ue)	230 VAC
Operating frequency	50/60Hz
Rated working trip undervoltage	170V±5%
Rated insulation voltage (Ui)	400V
Rated impulse withstand voltage (Uimp)	2.5kV
Pollution degree	2
Mechanical state indicator	Yes
Terminal type	Lug type
Terminal capacity	Up to 2.5mm²
Tightening torque	0.8 N.m
Ambient temperature	-5°C ~ +40°C
Storage temperature	-25°C ~ +70°C
Product width	18mm
Compatible product	T Series MCB, RCBO

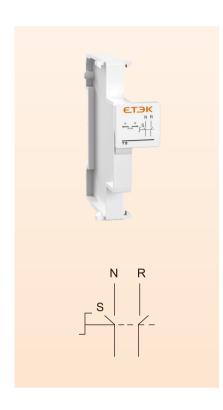


■ ETM-MV+MN Over-undervoltage Release

Model	ETM-MV+MN
Standard	IEC/EN 60947-5-1
Rated voltage (Ue)	230 VAC
Operating frequency	50/60Hz
Rated working trip overvoltage	280V±5%
Rated working trip undervoltage	170V±5%
Rated insulation voltage (Ui)	400V
Rated impulse withstand voltage (Uimp)	2.5kV
Pollution degree	2
Mechanical state indicator	Yes
Terminal type	Lug type
Terminal capacity	Up to 2.5mm²
Tightening torque	0.8 N.m
Ambient temperature	-5°C ~ +40°C
Storage temperature	-25°C ~ +70°C
Product width	18mm
Compatible product	T Series MCB, RCBO

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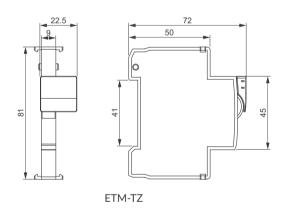


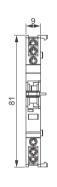


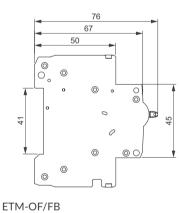
■ ETM-TZ Mechanical Interlock

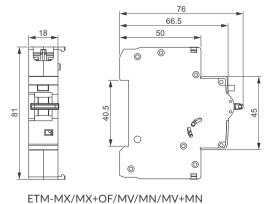
Model	ETM-TZ
Standard	IEC/EN 60947-5-1
Poles	1P
Mechanical interlock	Manual switching of dual power supply
Assembly method	Between two or more stage circuit breakers
Pollution degree	2
Installation category	Class II and III
Ambient temperature	-5°C ~ +40°C
Storage temperature	-25°C ~ +70°C
Product width	22.5mm
Compatible product	T Series MCB

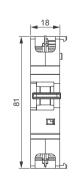
■ Dimension (mm)

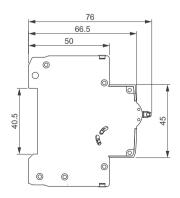












ETM-MNs



ETMC

Modular Contactor

CE

Automatic type









Manual type









Overview

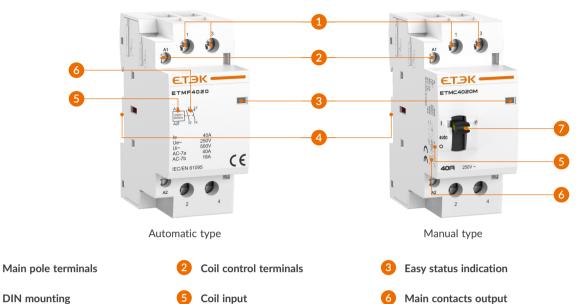
ETMC modular contactors operate on AC 50/60 Hz up to 400 V and 63 A. They switch low-inductive or household motor loads (with derating) and meet IEC/EN 61095 and IEC 60947-4-1 standards. Commonly used for lighting, heating, ventilation, and pumps, they easily mount on DIN rails in panels and boards.

To meet diverse application needs, ETMC contactors are available in both automatic-control and manual-control versions. Their exterior design and dimensions are aligned with the T Series circuit protection products, ensuring a unified appearance and seamless side-by-side installation for consistent panel aesthetics and layout.

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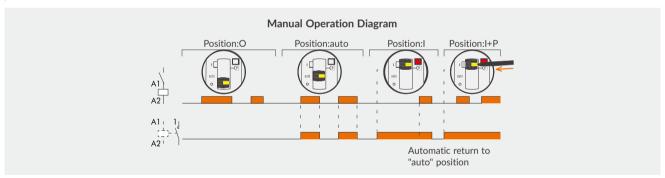
Product Tips



Selector

The three-position manual selector has the following functions:

- "O" position, the control power on/off, contactor does not act;
- "auto" position, the contactor switch on/off is control by control power on/off just like the normal contactor;
- "I" position, the contactor switch on immediately, and the handle automatically returns to the "auto"position after the control power from off to on;
- "I+P" position, use a screwdriver to push out the white pin key a "P"position, the contactor is switch on and not acted by the control power on/off.



■ Product Selection Guide

E	T MC	25	11	M	- 230
1	2 3	4	(5)	6	
1	ETEK			(5)	Contact type 10: 1NO 01: 1NC 20: 2NO 02: 2NC 11: 1NO+1NC
2	T series				30: 3NO 03: 3NC 40: 4NO 04: 4NC 22: 2NO+2NC, 31: 3NO+1NC
3	Modular contactor			6	Operation type None: Automatic type M: Manual type
4	Rated current 16: 16A 20: 20A 25: 2 32: 32A 40: 40A 63: 6			7	Coil voltage 24: 24VAC 110: 110VAC, 230: 230VAC 380: 380VAC

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■ Technical Data

Standard			IEC/EN 61095, IEC/EN 60947-4-1						
Model			ETMC-16	ETMC-20	ETMC-25	ETMC-32	ETMC-40	ETMC-63	
Datad augment in (A)	AC-7a		16	20	25	32	40	63	
Rated current In (A)	А	.C-7b	6	7	9	12	18	25	
Conventional thermal of	current Ith (A)		25	25	25	63	63	63	
Control modes					Automatio	: / Manual			
Rated insulation voltag	e Ui (V)				50	00			
Rated operation voltag	e Ue (V)				250 (1P/2P),	400 (3P/4P)			
		1P			1NO,	1NC			
Number of main		2P			1NO+1NC,	2NO, 2NC			
contacts		3P			3NO,	3NC			
		4P		4	NO, 4NC, 2NO-	+2NC, 3NO+1N	IC		
	1P	Release	2.8VA	2.8VA	2.8VA	/	/	/	
	IP	Operating	11.5VA	11.5VA	11.5VA	/	/	/	
	O.D.	Release	2.8VA	2.8VA	2.8VA	4.1VA	4.1VA	4.1VA	
Product power (230V)	2P	Operating	11.5VA	11.5VA	11.5VA	31VA	31VA	31VA	
Product power (230V)	3P	Release	4.1VA	4.1VA	4.1VA	7VA	7VA	7VA	
	35	Operating	31VA	31VA	31VA	48VA	48VA	48VA	
	4P	Release	4.1VA	4.1VA	4.1VA	7VA	7VA	7VA	
	42	Operating	31VA	31VA	31VA	48VA	48VA	48VA	
	AC-7a	250V	3.5	4.5	5.5	8	9	14	
Control november	AC-7a	400V	6	7.5	9.5	12	15	24	
Control power(kW)	AC-7b	250V	1.4	1.6	2	3	4	5.5	
	AC-7b	400V	2.2	2.5	3.2	4.5	6	8	
Heat loss (W)			1.2	1.2	1.2	1.6	2.1	2.1	
Rated control power vo	oltage (Us)		24/110/230VAC (1P/2P), 24/110/230/380VAC (3P/4P)						
Electrical life (times)			10 × 10 ⁴						
Mechanical life (times)				10 x 10 ⁵					
Rated impulse withstar	nd voltage (Ui	mp)	4kV						
Pollution degree					4	2			
Protection level			IP20						
Ambient temperature			-5°C ~ +50°C						
Storage temperature		-40°C ~ +70°C							
Installation		Mounting on 35mm DIN rail							
	Control	Hard wire			1.5~2.	.5mm²			
\A/:i	circuit	Flexible wire			1.5~6	5mm²	mm²		
Wiring capacity	Power	Hard wire		1.5~4mm²			6~16mm²		
	circuit	Flexible wire		1.5~6mm²			6~25mm²		
Torque (NI ==)	Conti	rol circuit			0.	.8			
Torque (N.m)	Powe	er circuit		0.8			3.5		

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■ Automatic Type Product Selection Form

Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor model	Circuit diagram										
				ETMC-1610	A1 1										
			1NO	ETMC-2010											
		40		ETMC-2510	A2 2										
		1P		ETMC-1601	A1 R1										
G. G.			1NC	ETMC-2001	<u> </u>										
1 3				ETMC-2501	A2 R2										
ETJK	0.4			ETMC-1620	A1 1 3										
A1 22000 1 16A	24 110 230		2NO	ETMC-2020	- \- \- \-										
00e	230			ETMC-2520	A2 1 1										
C €				ETMC-1611	A1 R1 1										
2 4		2P	1NO+1NC	ETMC-2011	<u></u>										
1 Modules				ETMC-2511	A2 R2 2										
				ETMC-1602	A1 R1 R3										
			2NC	ETMC-2002											
				ETMC-2502											
		3P	3NO	ETMC-1630	A1										
				ETMC-2030											
			3P	3P	3P -	3P	3P	3P	3P	3P	3P		ETMC-2530	A2 2 4 6	
												JF .	3F	3F	35
			3NC	ETMC-2003	A2 R2 R4 R6										
				ETMC-2503											
0000				ETMC-1640	A1 1 3 5 7										
1 3 5 7										4NO	ETMC-2040				
ETOK	24 110			ETMC-2540	A2 2 4 6 8										
A_{11} A_{12} A_{13} A_{12} A_{13} A_{12} A_{13} A_{13} A_{13} A_{13} A_{13} A_{13} A_{13} A_{14} A_{15} A	230 380			ETMC-1604	A1 R1 R3 R5 R7										
le 25A Ue- 500V AC7-8 26A AC-79 06A			4NC	ETMC-2004											
2 4 6 8	2 4 6 8	45		ETMC-2504	A2 R2 R4 R6 R8										
2 Modules		4P		ETMC-1622	A1 R1 1 3 R3										
_ : :::::::::::::::::::::::::::::::::::			2NO+2NC	ETMC-2022	7- 1- 1- 1-										
				ETMC-2522	A2 R2 2 4 R4										
				ETMC-1631	A1 1 3 5 R1										
			3NO+1NC	ETMC-2031											
				ETMC-2531	A2 2 4 6 R2										



	0 11 11				
Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor model	Circuit diagram
				ETMC-3210	A1 1
			1NO	ETMC-4010	<u></u>
		1P		ETMC-6310	A2 2
		IP		ETMC-3201	A1 R1
7			1NC	ETMC-4001	<u> </u>
3 3 3				ETMC-6301	A2 R2
ETOK ETMC4020	0.4			ETMC-3220	A1 1 3
AST 1/4 1/4	24 110 230		2NO	ETMC-4020	T - \ - \ -
0 40A U 258V 10 500V AC7a 40A AC7b 18A	230			ETMC-6320	A2 2 4
IECEN 61095				ETMC-3211	A1 R1 1
2 4		2P	1NO+1NC	ETMC-4011	
2 Modules				ETMC-6311	A2 R2 2
				ETMC-3202	A1 R1 R3
			2NC	ETMC-4002	A2 R2 R4
				ETMC-6302	
			3NO	ETMC-3230	A1 1 3 5
				ETMC-4030	
				ETMC-6330	A2 2 4 6
		3P		ETMC-3203	A1 R1 R3 R5
			3NC	ETMC-4003	<u> </u>
				ETMC-6303	
1 3 5 7				ETMC-3240	A1 1 3 5 7
3 9 9 9			4NO	ETMC-4040	
ETMC8340	24 110			ETMC-6340	A2 2 4 6 8
1 1 0000 1 0	230 380			ETMC-3204	A1 R1 R3 R5 R7
1 10-400V U-500V AC-70 20A AC-70 20A EDCEN 61005			4NC	ETMC-4004	
3 Modules		45		ETMC-6304	
		4P		ETMC-3222	A1 R1 1 3 R3
			2NO+2NC	ETMC-4022	
				ETMC-6322	A2 R2 2 4 R4
				ETMC-3231	A1 1 3 5 R1
			3NO+1NC	ETMC-4031	
				ETMC-6331	A2 2 4 6 R2



■ Manual Type Product Selection Form

### ETMC-1610M #### ETMC-2010M ##################################	Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor model	Circuit diagram				
1P ETMC-2510M					ETMC-1610M	A1 1				
1P ETMC-2510M				1NO	ETMC-2010M	I - @- ^-,				
### PROCESSOR PR					ETMC-2510M	O ' A2 2				
## ETMC-2501M ## ETMC-1620M ## ETMC-2520M ## ETMC-2511M ## ETMC-2511M ## ETMC-2511M ## ETMC-2511M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2503M ## ETM			1P		ETMC-1601M	A1 R1				
## ETMC-2501M ## ETMC-1620M ## ETMC-2520M ## ETMC-2511M ## ETMC-2511M ## ETMC-2511M ## ETMC-2511M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2502M ## ETMC-2503M ## ETM				1NC	ETMC-2001M	I - @-^-,				
24 110 230 2P 1NO+1NC ETMC-2520M ETMC-2520M ETMC-2511M ETMC-2511M ETMC-2511M ETMC-2511M ETMC-2511M ETMC-2511M ETMC-251M ETMC-251M ETMC-251M ETMC-250M ETMC-250M ETMC-250M ETMC-203M ETMC-203M ETMC-203M ETMC-203M ETMC-203M ETMC-203M ETMC-204M ETMC-204M ETMC-2504M ETMC-2504	1 3				ETMC-2501M	O				
### STMC-2520M ### STMC-2520M ### STMC-2511M ### STMC-2511M ### STMC-2511M ### STMC-2511M ### STMC-2502M ### STMC-2502M ### STMC-2502M ### STMC-2503M	ETOK				ETMC-1620M	A1 1 3				
### STMC-2520M ### STMC-2520M ### STMC-2511M ### STMC-2511M ### STMC-2511M ### STMC-2511M ### STMC-2502M ### STMC-2502M ### STMC-2502M ### STMC-2503M	ETMC1620M	110		2NO	ETMC-2020M	I - @-^-,				
1 Modules 2P 1NO+1NC ETMC-2011M ETMC-2511M ETMC-1602M ETMC-202M ETMC-202M ETMC-2502M 3NO ETMC-2504M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2640M ETMC-2504M ETMC-2540M ETM	auto — Ø	230			ETMC-2520M	A2 2 4				
### ETMC-2511M ETMC-1602M	1619 2500-				ETMC-1611M	A1 R1 1				
## ETMC-2511M ETMC-1602M	2 4		2P	1NO+1NC	ETMC-2011M	I - @-^-,,,				
2NC ETMC-2002M ETMC-2502M 3NO ETMC-2030M ETMC-2530M ETMC-2530M 3NC ETMC-203M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2640M ETMC-2504M ETMC-2504M ANO ETMC-2040M ETMC-2540M ETM	1 Modules				ETMC-2511M	- O ' A2 R2 2				
3NO ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2030M ETMC-2030M ETMC-2030M ETMC-2003M ETMC-2003M ETMC-2603M ETMC-2503M ETMC-2503M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-2540M ET					ETMC-1602M	A1 R1 R3				
3NO ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2530M ETMC-2030M ETMC-2030M ETMC-2030M ETMC-2003M ETMC-2003M ETMC-2603M ETMC-2503M ETMC-2503M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-2540M ET				2NC	ETMC-2002M	auto				
3NO ETMC-2030M ETMC-2530M 3NC ETMC-1603M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2504M ETMC-2504M ETMC-2540M ETMC-1631M A1					ETMC-2502M					
3P ETMC-1603M ETMC-2003M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2640M ETMC-2640M ETMC-2640M ETMC-2540M ET			3P	3NO	ETMC-1630M	auto 1				
3P ETMC-1603M ETMC-2003M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2640M ETMC-2640M ETMC-2640M ETMC-2540M ET					ETMC-2030M					
3NC ETMC-2003M ETMC-2503M ETMC-2503M ETMC-2503M ETMC-2504M ETMC-2540M ET					ETMC-2530M					
ETMC-2503M ETMC-1640M ETMC-2540M ETMC-2					ETMC-1603M	A1 R1 R3 R5 I - D - \				
ETMC-2503M ETMC-1640M ETMC-2540M ETMC-2				3NC	ETMC-2003M					
4NO ETMC-2040M ETMC-2540M ETMC-1604M ANO ETMC-2540M ETMC-2540M ETMC-1604M ETMC-2504M ETMC-1631M A1 1 3 5 R1					ETMC-2503M					
24 110 230 380 ETMC-2540M ETMC-1604M ETMC-2004M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-252M ETMC-2522M ETMC-2522M ETMC-1631M A1 1 3 5 R1	6666				ETMC-1640M	A1 1 3 5 7				
ETMC-2540M ETMC-1604M ETMC-2004M ETMC-2504M ETMC-2504M ETMC-2504M ETMC-1622M ETMC-2522M ETMC-2522M ETMC-2522M ETMC-1631M A1 1 3 5 R1								4NO	ETMC-2040M	anto
230 380 4NC ETMC-2004M ETMC-2504M ETMC-1622M ETMC-2522M ETMC-2522M ETMC-2522M ETMC-1631M ETMC-1631M		24 110			ETMC-2540M	O				
2 Modules ETMC-2504M ETMC-1622M 2NO+2NC ETMC-2022M ETMC-2522M ETMC-1631M A1 1 3 5 R1		230			ETMC-1604M	A1 R1 R3 R5 R7				
2 Modules ETMC-2504M ETMC-1622M ETMC-2022M ETMC-2522M ETMC-2522M ETMC-1631M A1	auto auto			4NC	ETMC-2004M	1 -@ ^ 1				
2 Modules ETMC-1622M ETMC-2022M ETMC-2522M ETMC-1631M A1 R1 1 3 R3 A2 R2 2 4 R4	2 4 6 8				ETMC-2504M	O				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 Modules		4P		ETMC-1622M	A1 R1 1 3 R3				
ETMC-2522M ETMC-1631M A1 1 3 5 R1	_ : .554165			2NO+2NC	ETMC-2022M	auto. — — — — — — — — — — — — — — — — — — —				
Al I 3 3 Ki					ETMC-2522M					
3NO+1NC ETMC-2031M $\begin{vmatrix} 1-a \\ -a \end{vmatrix} - \begin{vmatrix} 1-a \\ -a \end{vmatrix} - $					ETMC-1631M	A1 1 3 5 R1				
				3NO+1NC	ETMC-2031M	1 -@ '				
ETMC-2531M					ETMC-2531M	0				



Width	Coil voltage VAC	Poles	Contacts NO+NC	Contactor model	Circuit diagram
				ETMC-3220M	A1 1 3
			2NO	ETMC-4020M	auto
3 9 1				ETMC-6320M	O 1 A2 2 4
ETMC4020M	24			ETMC-3211M	A1 1 R1
	110	2P	1NO+1NC	ETMC-4011M	I - @- ^-
	230			ETMC-6311M	O ' A2 2 R2
AOPI 2807				ETMC-3202M	A1 R1 R3
2 4			2NC	ETMC-4002M	I - P-'
2 Modules				ETMC-6302M	O '
				ETMC-3230M	A1 1 3 5
		3P	3NO	ETMC-4030M	auto
				ETMC-6330M	O
			3NC	ETMC-3203M	A1 R1 R3 R5
				ETMC-4003M	I -@-`
The state of the s				ETMC-6303M	O ;
9 9 9 9			4NO	ETMC-3240M	A1 1 3 5 7
€T∋K				ETMC-4040M	anto
ETMC6340M	24 110			ETMC-6340M	O
1 T 8	230 380			ETMC-3204M	A1 R1 R3 R5 R7
1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	300		4NC	ETMC-4004M	I -@- ^
29999		45		ETMC-6304M	O
2 4		4P		ETMC-3222M	A1 R1 1 3 R3
3 Modules			2NO+2NC	ETMC-4022M	1-@'
				ETMC-6322M	0I A2 R2 2 4 R4
				ETMC-3231M	A1 1 3 5 R1
			3NO+1NC	ETMC-4031M	1-@'
				ETMC-6331M	0 A2 2 4 6 R2

Auxiliary Contact

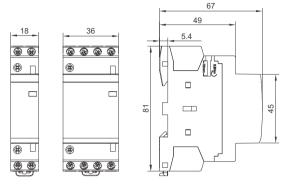


Model		OF-11	OF-20			
Number of contact	:s	1NO+1NC	2NO			
Rated insulation vo	oltage Ui (V)	50	00			
Rated impulse volta	age (Uimp)	41	¢V			
	AC-12	240\	V/5A			
Usage category	AC-15	230V/2A				
	DC-13	130V/1A				
\\/:-:i+	Flexible wire	1.5~6mm²				
Wiring capacity	Hard wire	1.5~6mm²				
Circuit diagram		11 23 b d -/ 12 24	11 23 d d -\\			

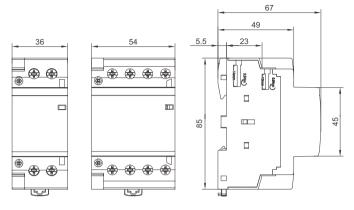


■ Dimension (mm)

Automatic type

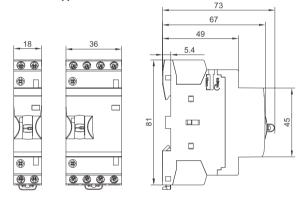


ETMC-16/20/25

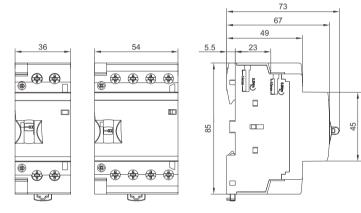


ETMC-32/40/63

Manual type

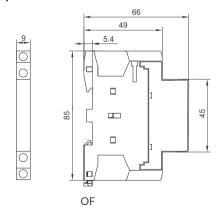


ETMC-16M/20M/25M



ETMC-32M/40M/63M

Auxiliary Contact





ETLR-16

Modular Impulse Relay



Overview

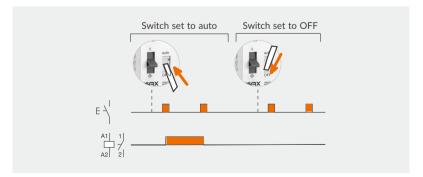
ETLR-16 Modular Impulse Relays are bistable, latching devices engineered for dependable load control, especially in lighting applications. Each momentary pulse cleanly toggles the contact state, enabling centralized or distributed control from any number of push buttons. With zero holding power, ETLR relays minimize standby consumption and preserve the selected state through power interruptions for efficient, reliable operation.

Rated at 16 A and available in a complete range of AC and DC variants, ETLR relays integrate easily into both new installations and retrofit projects. Their exterior design and dimensions align with T Series circuit protection products, enabling seamless side-by-side installation and delivering a unified, consistent panel aesthetic and layout.

Product Tips



- Manual controls on front face: direct and priority manual control by O-I toggle
 - Mechanical contact position indicator
- Disconnection of remote control by selector switch (except for 4P single-piece ETLR) for maintenance operation





■ Technical Data

Standard			IEC/EN 61095, IEC/EN 60947-4-1					
Control type			Remote and manual control coil deconnection					
Control signal type			Impulse					
Rated current (In)			16A					
Dissipated power (during the impulse)			19VA					
Rated operation voltage (Ue)			24~250VAC					
	VAC		12	24	48	130	230/240	
Control voltage (Us)	VDC		6	12	24	48	110	
Control voltage operating range			(85%~110%) Us					
	Standard	1Modules	1NO, 2NO, 1NO+1NC					
		2Modules	3NO, 4NO, 2NO+1NC, 2NO+2NC, 3NO+1NC					
Contact configuration		1Modules	1C					
	Changeover	2Modules	2C					
Rated frequency			50/60Hz					
Rated insulation voltage (500V						
Rated impulse withstand voltage (Uimp)			4kV					
Frequency of action			≤5 times/min					
Impulse duration			50ms1s					
Local signaling			ON/OFF indication					
Electrical life (times)			1×10 ⁵					
Mechanical life (times)			2×10 ⁵					
Pollution degree			2					
Protection level			IP20					
Ambient temperature			-5°C ~ +50°C					
Storage temperature			-40°C ~ +70°C					
Installation		Mounting on 35mm DIN rail						
	Control circuit	Hard wire	0.5~4mm²					
Wiring capacity		Flexible wire	1~4mm²					
	Power circuit	Hard wire	1.5~4mm²					
		Flexible wire	1.5~4mm²					
Torque (N.m)	Control circuit		1N.m					
iorque (N.m)	Power circuit		1N.m					



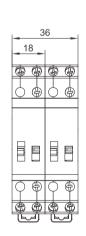
■ Product Selection Form

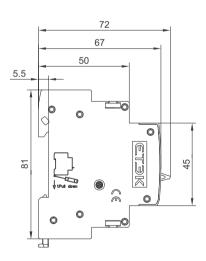
Model		Control voltage		D () :	Width	Q1 . 11 . 11	
	Contact	VAC	VDC	Ref. No	(In 18 mm modules)	Circuit diagram	
ETLR-16/10		230	110	ETLR-1610-230/110		Ι1 ΙΔ1	
		130	48	ETLR-1610-130/48	1		
	1NO	48	24	ETLR-1610-48/24		1 A1 	
		24	12	ETLR-1610-24/12			
		12	6	ETLR-1610-12/6			
		230	110	ETLR-1620-230/110	1		
ETLR-16/20	2NO	130	48	ETLR-1620-130/48		1 3 A1 	
		48	24	ETLR-1620-48/24			
		24	12	ETLR-1620-24/12			
		12	6	ETLR-1620-12/6			
		230	110	ETLR-1611-230/110			
ETLR-16/11 :		130	48	ETLR-1611-130/48		1 3 A1	
	1NO+1NC	48	24	ETLR-1611-48/24	1		
		24	12	ETLR-1611-24/12			
		12	6	ETLR-1611-12/6			
		230	110	ETLR-161C-230/110	1	1	
		130	48	ETLR-161C-130/48			
	1 Changeover	48	24	ETLR-161C-48/24			
		24	12	ETLR-161C-24/12			
		12	6	ETLR-161C-12/6			
ETLR-16/30		230	110	ETLR-1630-230/110		1 A1 3 5 	
	3NO	130	48	ETLR-1630-130/48	2		
		48	24	ETLR-1630-48/24			
		24	12	ETLR-1630-24/12			
		12	6	ETLR-1630-12/6			
ETLR-16/40		230	110	ETLR-1640-230/110	2	1	
	4NO	130	48	ETLR-1640-130/48			
		48	24	ETLR-1640-48/24			
		24	12	ETLR-1640-24/12			
		12	6	ETLR-1640-12/6			
ETLR-16/21		230	110	ETLR-1621-230/110	2		
		130	48	ETLR-1621-130/48			
	2NO+1NC	48	24	ETLR-1621-48/24		1 3 A1 5 	
		24	12	ETLR-1621-24/12			
		12	6	ETLR-1621-12/6			



Model Cont	Combont	Control voltage		D. C.N.	Width	Ci., II, II	
	Contact	VAC	VDC	Ref. No	(In 18 mm modules)	Circuit diagram	
ETLR-16/22		230	110	ETLR-1622-230/110	2		
		130	48	ETLR-1622-130/48		1 3 A1 5 7 	
	2NO+2NC	48	24	ETLR-1622-48/24			
		24	12	ETLR-1622-24/12			
		12	6	ETLR-1622-12/6			
ETLR-16/31		230	110	ETLR-1631-230/110	2	1 3 A1 5 7 230V~ 6 8	
		130	48	ETLR-1631-130/48			
	3NO+1NC	48	24	ETLR-1631-48/24			
		24	12	ETLR-1631-24/12			
		12	6	ETLR-1631-12/6			
ETLR-16/2C	2 Changeover	230	110	ETLR-162C-230/110	2	1 A1 5 	
		130	48	ETLR-162C-130/48			
		48	24	ETLR-162C-48/24			
		24	12	ETLR-162C-24/12			
		12	6	ETLR-162C-12/6			

■ Dimension (mm)





The product data referred to in the company shall be subject to material object. Subject to change without notice. The company has the final right to interpret.



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