INDKOM

Miniature Circuit Breaker & Residual Current Circuit Breaker

INDKOM Engineering Sdn Bhd
An ISO 9001 company

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IEC

Miniature Circuit Breaker & Residual Current Circuit Breaker

IMCB
Miniature Circuit Breaker

Application

The Indkom IMCB miniature circuit breaker protects cables and conductors against short circuits and overloads. When a faulty condition occurs, the IMCB protects against shock currents caused by excessive touch voltage due to an insulation failure.

Accessories

Additional accessories can be added-on for flexibility. A finger-safe shield is featured to protect accidental contact between user and live terminals.

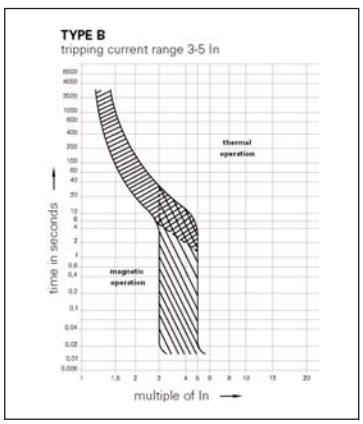
International Standards

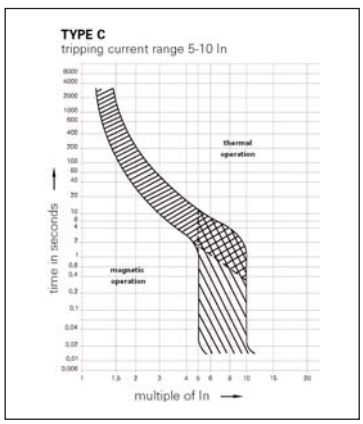
The Indkom IMCB miniature circuit breaker conforms and meets the requirements of IEC 898 (International Electrotechnical Committee).

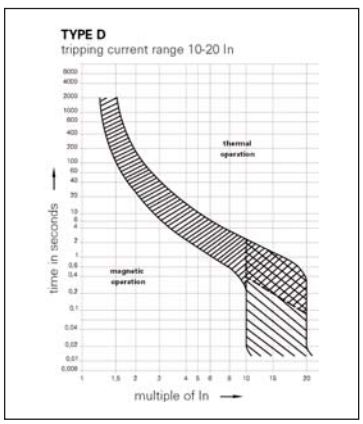
Mechanism

The IMCB has a high-rated breaking capacity. It also has an excellent current limiting and selectivity. The base and cover of a unit is made of fire retardent materials. Each terminal allows easy termination of up to 25mm of cables.

Type	Test Current			Electromagnetic Trips		
	Low (In)	High (In)	Tripping time	Hold current (In)	Trip at / Least at	Tripping time (s)
B	1.13	1.45	> 1h < 1h	3	5	> 0.1s < 0.1s
C	1.13	1.45	> 1h < 1h	5	10	> 0.1s < 0.1s
D	1.13	1.45	> 1h < 1h	10	20	> 0.1s < 0.1s







IRC
Residual Current Circuit Breaker

Application

The Indkom IRC Residual Current Circuit Breaker is effective in protecting against earth leakages and accidental human contact to earth points. The Indkom IRC is suitable for installations in construction sites or outdoor distribution boards, where temperatures can go as low as –25˚C. Available from 40A to 63A and in 2 and 4 pole models, the tripping current is from 30mA to 300mA.

Mechanism

Designed to be sensitive to the environment, the IRC has undergone tests to verify their impulse current withstanding capability. This allows the IRC to be trip-free and convenient especially during severe thunderstorms, where trippings may occur.

Components

The Indkom IRC residual current circuit breaker is made up of three essential components:

- the current transformer - for detecting faulty current of all phases
- the tripping device - coordinated with a release but functions separately from the line of voltage, should a phase conductor fails or neutralizes
- the isolation device - activated on normal conditions to isolate the contacts of line circuit.

International Standards

The Indkom IRC residual current circuit breaker conforms and meets the requirements of IEC 1008 & 755 (International Electrotechnical Committee).

			IRC-001	IRC-002
Model Code				
Availability	Poles		2	4
	Modules		2	4
Electrical Characteristics	Rated current (A)		40 / 63	40 / 63
	Rated voltage (V)		230	400/415
	Tripping current (mA)		30, 100 & 300	30, 100 & 300
	Tripping Capacity [sym r.m.s.]		6	6
Other Details	Tripping Current	30mA	ESU040022 / ESU063022	ESU040042 / ESU063042
		100mA	ESU040021 / ESU063021	ESU040041 / ESU063041
		300mA	-	ESU040043 / ESU063043
	Weight (gm)		177.8	329.6
	Dimensions (H x W x D)		90.4 x 35 x 69	90.4 x 70 x 69

Model Code	IMCB-001	IMCB-002	IMCB-003
Poles	Single pole MCB	Double pole MCB	Triple pole MCB
Rated current (A)	1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63	1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63	1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63
Breaking capacity (kA)	6	6	6
Rated voltage (V)	240/415	240/415	240/415
Frequency (Hz)	50	50	50
Weight (gm)	95, 109	221	322
Module width (17.5mm)	1	2	3
Packing (per box)	12	6	4

Description

The Indkom IMCB controls a circuit and protects it against overloads and short circuits.

Connection Capacity

The conductor rigidity for these miniature circuit breaker is 25mm^2 while the flexibility is at 16mm^2.

Technical Information

The tripping curves of the IMCB are the Type B, C and D, complying with IEC 898 standards. Calibrated at a temperature of 30˚C, the breaking capacity stands at 6kA for all three single, double and trip pole models. With a voltage rating of 240V – 415V A.C., at 50Hz, and a current rating from 1A to 63A, this range of the Indkom IMCB has a mechanical life cycle to perform up to 20,000 times of operation. The ideal temperature for operation ranges from -5˚C to +60˚C. Mounting for standard units is the snap-on method, fixing onto a 35mm x 7.5mm Din rail.

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