

# Miniature Circuit Breakers B4/B6/B10, Residual Current Devices & Isolating Switches



The IMO range of miniature circuit breakers have been designed for protection of electrical installations against overload and short circuits and are manufactured in accordance with IEC 60898-1, IEC 60947-2



## MCB Features

- Handle central-tripping function for circuit fault indicating
- Elegant appearance; cover and handle in arc shape.
- Contact position indicating window; transparent cover to carry label
- High short circuit capacity
- Applicable to terminal and Pin/Fork type busbar connection
- Finger protected connection terminals
- Handle padlock device

Tripping characteristics in accordance with B, C and D type curves

- Curve B: 3-5  $I_n$  Certification: B4/B6: Semko / CE
- Curve C: 5-10  $I_n$  B10: VDE\* / Semko / CE
- Curve D: 10-20  $I_n$

## Specifications

In accordance with: IEC 60898-1, IEC 60947-2
Certification: CE, SEMKO, VDE* (only with B10, C & D curve; 1P/2P/3P, 6 to 40A) 3P, 3P+N
Pole composition: 1P, 1P+N, 2P, 3P, 3P+N
Tripping Curve: B, C, D
Rated frequency: 50/60Hz
Rated operational voltage: 230/400VAC ; 60VDC Max
Rated insulation voltage: 250VAC / 500VAC
Rated impulse withstand voltage: 6.2kV
Rated short circuit breaking capacity as per IEC 60898-1 and IEC60947-2:
B4 : 1P+N, C curve : 4.5kA
B6 : 1P, B curve: 6kA
B10 : 1P/2P/3P/3P+N, C & D curve: 10kA
Mechanical lifetime > 20,000 cycles
Electrical lifetime > 8,000 cycles
Fastening torque: 2.0 Nm
Terminal capacity: 35mm <sup>2</sup> solid, 25mm <sup>2</sup> stranded conductor (10mm <sup>2</sup> for 1P+N)
Mounting on rail EN 60715 (EN 50022)
Protection degree: IP20
Temperature range: -5°C - +40°C, average temperature not to exceed 35°C

## Options and ordering codes

	<b>B6</b>	<b>B</b>	<b>10</b>	<b>16A</b>
				Rated current Amps
MCB 4,5kA	<b>B4</b>			
MCB 6kA	<b>B6</b>			
MCB 10kA	<b>B10</b>			
Operating characteristic		<b>B</b>		
Operating characteristic		<b>C</b>		
Operating characteristic		<b>D</b>		
Single pole			<b>10</b>	
Single pole + Neutral			<b>1N</b>	
Two pole			<b>20</b>	
Three pole			<b>30</b>	
Three pole + Neutral			<b>3N</b>	

## Selection chart

Type	B operating characteristics			C operating characteristics			D operating characteristics		
	1	1N	2	3	3N	1	2	3	
Poles									
Rated current Amps									
2									
4									
6									
10									
16									
20									
25									
32									
40									
50									
63									
Weight (g/pc)	100	100	200	200	300	400	100	200	300
Packing(Qty)	12	12	6	6	4	3	12	6	4

# Miniature Circuit Breakers B4/B6/B10



## Accessories

**Auxiliary Switch** B10-F3

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for monitoring the status of the protection device (open/closed)  
 1 pole changeover (for C & D curve only)  
 Rated current : 6A @ 230VAC & 24VDC or 3A @ 400VAC  
 Dielectric Strength : 2000V/1min  
 Terminal capacity : 1-4mm<sup>2</sup>  
 Mounting on the Left side

**Shunt trip** B10-S3

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Shunt Trip for remotely switch off the protection device  
 Rating voltage U<sub>e</sub> : AC 110V / 230V / 400V  
 Operating voltage : 70%~110% X U<sub>e</sub>  
 Mounting on the Left side

**Busbars**

Description	Ref.
Busbar 1 Pole, 100A, Fork Type, 1M	B10BB1F100-1M
Busbar 3 Pole, 100A, Fork Type, 1M	B10BB3F100-1M
Busbar 1 Pole, 100A, Pin Type, 1M	B10BB1P100-1M
Busbar 3 Pole, 100A, Pin Type, 1M	B10BB3P100-1M
End Cap 3 Pole (Fork type only)	B10BBCAP3F100

**Terminal adapter** BA1

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**Locking device** B10-LOCK

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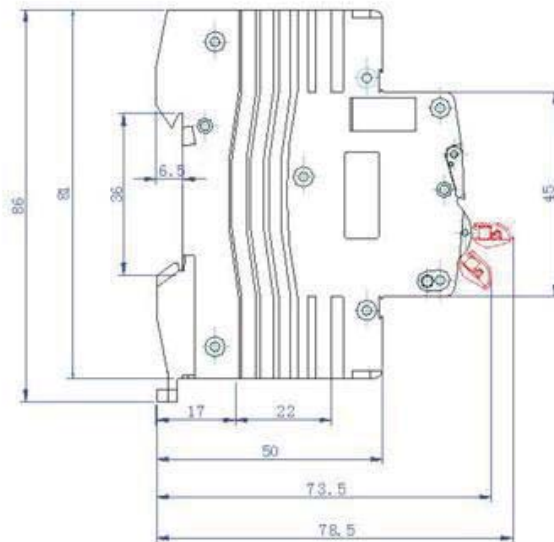
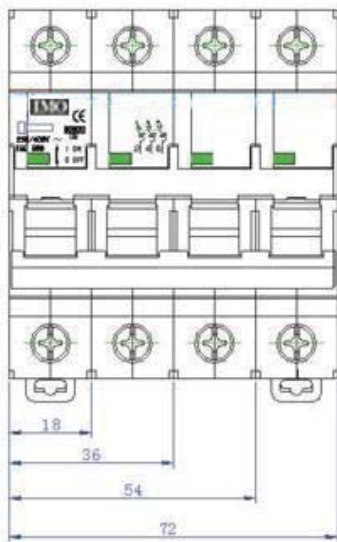
4mm padlock max diameter, non include

**Locking device** B10-TERM

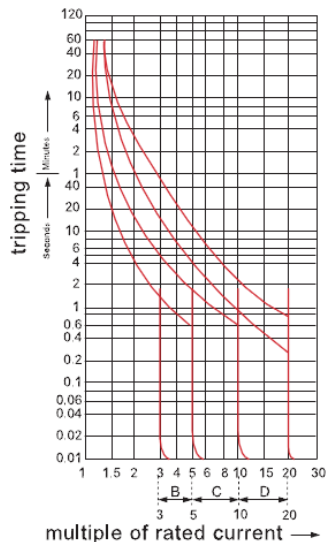
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## Dimensions mm

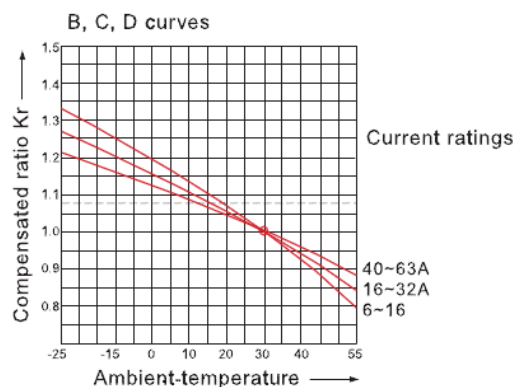
Miniature Circuit Breakers



## B, C, D Tripping Curve



## Ambient temperature & Current rating curve

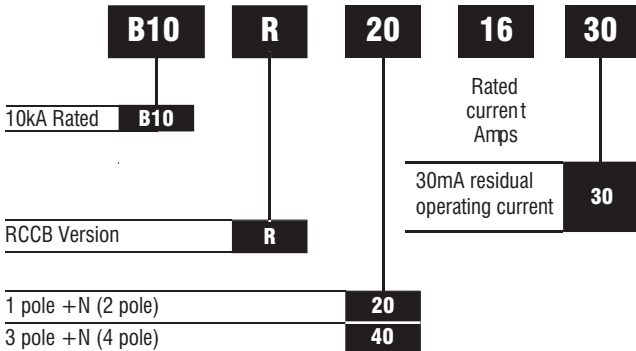


# Residual Current Circuit Breakers B10R



The IMO range of Residual Current Circuit Breakers have been designed for protection of electrical installations against earth fault / leakage current and are manufactured in accordance with IEC 61008-1.

## Options and ordering codes



## Specification

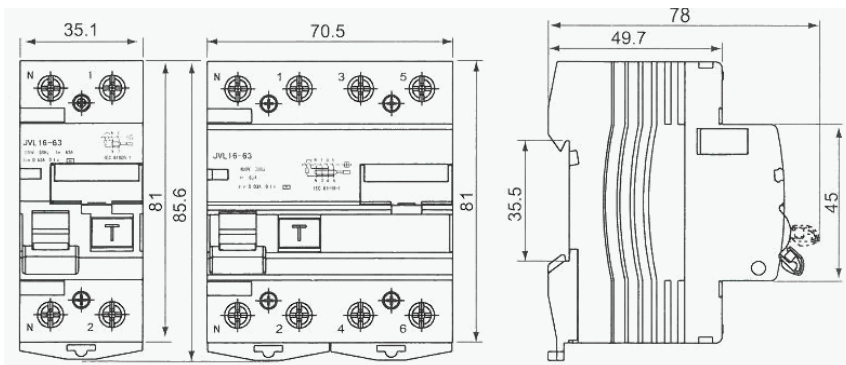
In accordance with: IEC 61008-1
Certification: CE, SEMKO
Pole composition: 2P, 4P
Rated current : 10 A (only 2P), 16A, 25A, 32A, 40A, 63A
Residual current characteristics: AC
Rated frequency: 50/60Hz
Rated voltage: 230VAC / 400VAC
Rated residual operating current $I_{\Delta n}$ : 30 mA
Residual tripping current range : 0.5 $I_{\Delta n}$ ~ 1 $I_{\Delta n}$
Rated conditional short circuit current : 10 kA
Electrical lifetime > 4,000 cycles
Fastening torque: 2.0 Nm
Terminal capacity: 35mm <sup>2</sup> solid, 25mm <sup>2</sup> stranded conductor
Mounting on rail EN 60715 (EN 50022)
Protection degree: IP20
Temperature range: -5°C - +40°C, average temperature not to exceed 35°C

## Selection chart

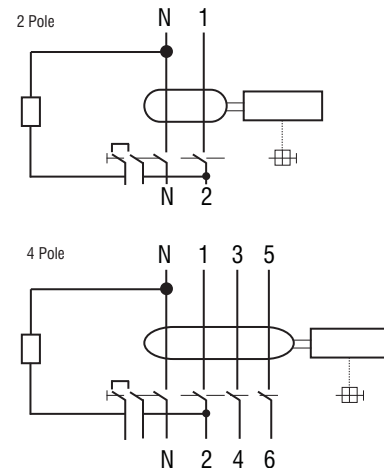
10kA

Type	operating characteristics	
	2N	3N
Poles	10	
	16	
	25	
	32	
	40	
	63	
Rated current Amps		
Weight (g/pc)	206	412
Packing(Qty)	6	3

## Overall & Installation Dimensions



## Wiring Diagram



# Residual Current Circuit Breakers With Overload Protection



The IMO range of Residual Current-Circuit Breakers with Overload have been designed for protection of electrical installations against earth fault / leakage current, overload and short circuit and are manufactured in accordance with IEC 61009.

## RCBO Features

- Provides protection against earth fault / leakage current, overload, short circuit and function of isolation
- Elegant appearance; cover and handle in arc shape.
- Contact position indicating window; transparent cover to carry label
- High short circuit current withstand capacity
- Applicable to terminal and Pin/Fork type busbar connection
- Finger protected connection terminals
- Compatible with MCB accessories range
- Handle padlock device

Tripping characteristics in accordance with B, C and D type curves

- Curve B: 3-5  $I_n$
- Curve C: 5-10  $I_n$
- Curve D: 10-20  $I_n$

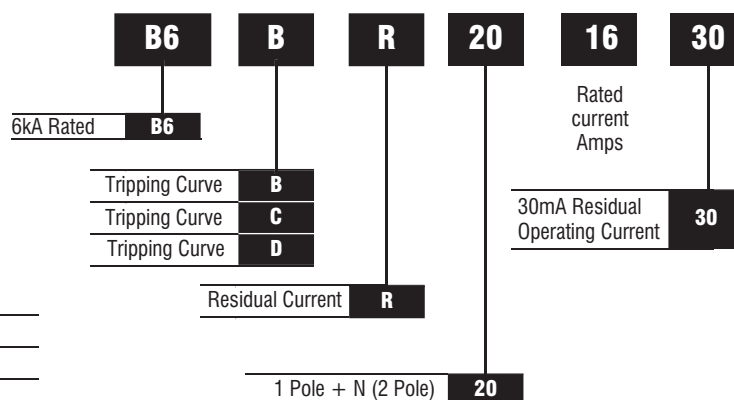
## Specifications

In accordance with: IEC 61009
Certification: CE, SEMKO
Pole composition: 2P
Residual current characteristics: AC
Tripping Curve: B, C, D
Rated current : 6A, 10 A, 16A, 20A, 25A, 32A, 40A
Rated short circuit capacity : 10 kA
Rated frequency: 50/60Hz
Rated voltage: 230VAC
Rated residual operating current $I_{\Delta n}$ : 30 mA
Residual tripping current range : 0.5 $I_{\Delta n}$ ~ 1 $I_{\Delta n}$
Electrical lifetime > 4,000 cycles
Fastening torque: 2.0 Nm
Terminal capacity: 35mm <sup>2</sup> solid, 25mm <sup>2</sup> stranded conductor
Mounting on rail EN 60715 (EN 50022)
Protection degree: IP20
Temperature range: -5°C - +40°C, average temperature not to exceed 35°C

**For Dimensions refer to RCCB Data.**  
**For Tripping Curve refer to MCB.**



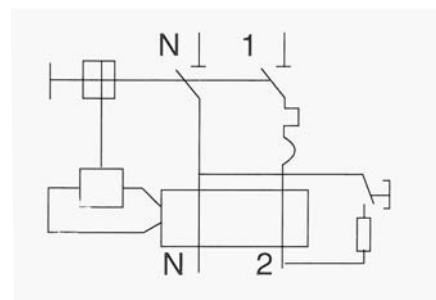
## Options and ordering codes



## Selection chart

Type	operating characteristics
Poles	1N
Rated current A mps	6, 10, 16, 20, 25, 32, 40
Weight (g/pc)	210
Packing(Qty)	6

## Wiring Diagram



# Isolating Switch



The IMO range of isolating switch have been designed to isolate safely your electrical circuit from the main supply and are manufactured in accordance with IEC 60947-3.

- Capable of switch electric circuit with load
- Elegant appearance; cover and handle in arc shape.
- Contact position indicating window; transparent cover to carry label
- Applicable to terminal and Pin/Fork type busbar connection
- Finger protected connection terminals
- Compatible with MCB accessories range
- Handle padlock device



## Specification

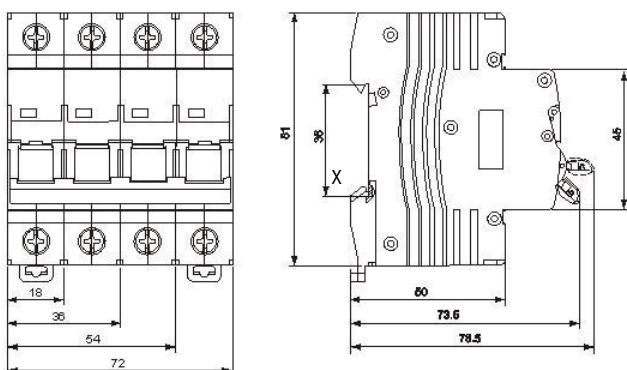
In accordance with: IEC 60947-3
Certification: CE, SEMKO (63 and 125A only)
Pole composition: 1P / 2P / 3P / 4P
Rated current : 63A / 100A / 125A
Rated voltage: AC 230 / 400 V
Rated frequency: 50/60Hz
Rated short circuit capacity : 6 kA (3kA for 100A version)
Electrical lifetime > 10,000 cycles
Fastening torque: 2.0 Nm
Terminal capacity: 35mm <sup>2</sup> solid, 25mm <sup>2</sup> stranded conductor
Protection degree: IP20

## Selection chart

■ 3kA ■ 6 kA ▨ Please contact IMO

Poles	3kA	6kA	Contact IMO	
	1	2	3	4
Rated current Amps	63	▨	▨	▨
	100	▨	▨	▨
	125	▨	▨	▨
Weight (g/pc)	100	200	300	400
Packing(Qty)	12	6	4	3

## Dimensions (mm) for 63A & 125A version



Rating	X
63A	81mm
125A	90mm

## Options and ordering codes

	BIS	20	63A
Distribution board Isolating Switch	BIS		
1 Pole		10	
2 Pole		20	
3 Pole		30	
4 Pole		40	
Amps 63A & 125A			63A
Amps 100A (red handle)			100C

## Dimensions (mm) for 100A version

