

Miniature Circuit Breakers B4/B6/B10



Technical Datasheet

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

Technical Data

- Handle central-tripping function for circuit fault indicating
- New front design; cover and handle in arc shape
- Contact position indicating window; transparent cover to carry label
- High short circuit capacity
- Suitable for 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: Semko / CE
- Curve C: $5-10 I_n$ B10: VDE / Semko / CE
- Curve D: $10-20 I_n$

Options & Ordering Codes

B6	B	10	16A	L										
MCB Series MCB 4.5kA B4 MCB 6kA B6 MCB 10kA B10		Rated Current Amps 16A		L Neutral on the left Applies to units with neutral.										
Curve Characteristic Operating characteristic B Operating characteristic C Operating characteristic D		Pole Configuration <table border="1"> <tr><td>10</td><td>Single pole</td></tr> <tr><td>1N</td><td>Single pole + Neutral</td></tr> <tr><td>20</td><td>Two pole</td></tr> <tr><td>30</td><td>Three pole</td></tr> <tr><td>3N</td><td>Three pole + Neutral</td></tr> </table>			10	Single pole	1N	Single pole + Neutral	20	Two pole	30	Three pole	3N	Three pole + Neutral
10	Single pole													
1N	Single pole + Neutral													
20	Two pole													
30	Three pole													
3N	Three pole + Neutral													

Specifications

In accordance with	IEC 60898-1
Certification	CE, SEMKO (only with B4), Kema (only with B10), RCM (only with B4 & B10)
Pole composition	1P, 1P+N, 2P, 3P, 3P+N
Tripping Curve	B, C, D
Calibration temperature	+30°C
Rated frequency	50/60Hz
Rated operational voltage	240/415VAC; 60VDC Max
Rated insulation voltage	240VAC / 415VAC
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
Tightening torque	2.0 Nm
Screw Type	M5
Terminal capacity	35mm ² solid, 25mm ² stranded conductor (10mm ² for 1P+N)
Mounting	DIN Rail EN 60715 (EN 50022)
Protection degree	IP20
Operating temperature	-5°C +40°C

Selection Chart

 Contact IMO
 4.5kA
 6kA
 10kA

Type	B			C			D		
Poles	1	1N	2	3	3N	1	2	3	
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

■ Single Module Unit

Miniature Circuit Breakers B4/B6/B10



Technical Datasheet

Accessories

Auxiliary Switch	B10-F3
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 ²	
Mounting on the Left side	

Shunt Trip	B10-S3
Shunt Trip to remotely switch off the protection device	
Rating voltage Ue: AC 110V / 230V / 400V	
Oving Voltage: 70%~110% X Ue	
Mounting on the Left side	

Busbars	
Description	Ref.
Busbar 1 Pole, 80A, Fork Type, 1M	B10BB1F100-1M
Busbar 3 Pole, 80A, Fork Type, 1M	B10BB3F100-1M
Busbar 1 Pole, 80A, Pin Type, 1M	B10BB1P100-1M
Busbar 3 Pole, 80A, Pin Type, 1M	B10BB3P100-1M
End Cap 3 Pole (Fork type only)	B10BBCAP3F100

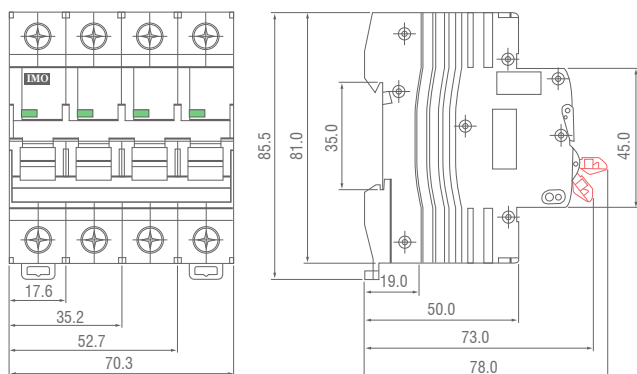
Terminal Adapter	BA1
-------------------------	------------

Locking Device	B10-LOCK
4mm padlock max diameter, non included	

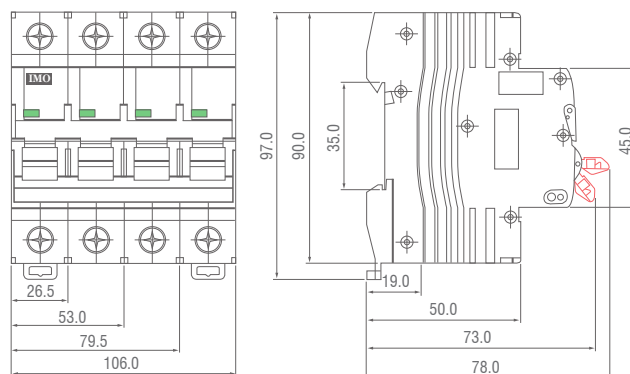
Locking Device	B10-TERM
-----------------------	-----------------

Dimensions (mm)

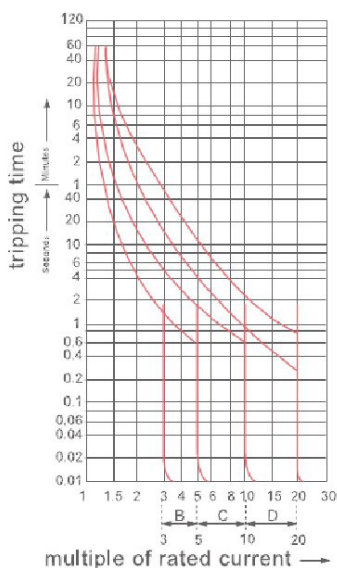
Miniature Circuit Breakers up to 63A



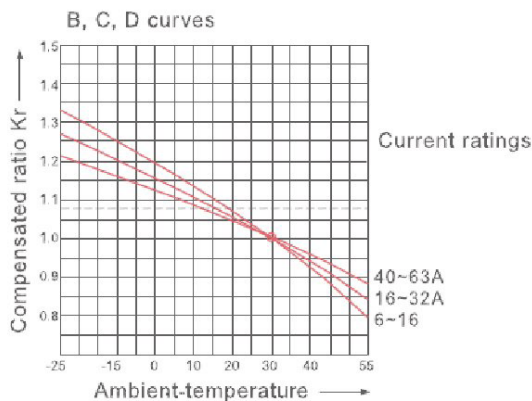
Miniature Circuit Breakers from 80A



B, C, D Tripping Curve



Ambient temperature & Current rating curve

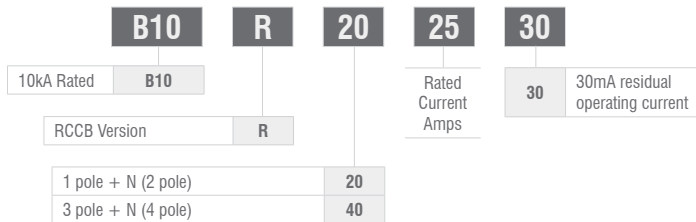


Residual Current Circuit Breakers B10R



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 & Ordering Codes



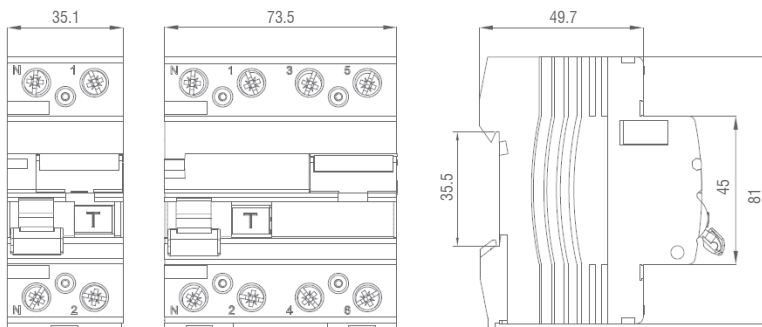
Specifications

In accordance with	IEC 61008-1
Certification	CE, SEMKO
Pole composition	2P, 4P
Rated current:	16A, 25A, 32A, 40A, 63A
Residual current characteristics:	AC
Calibration Temperature:	+30°C
Rated frequency:	50/60Hz
Rated voltage:	230VAC/400VAC
Rated residual operating current I Δ n:	30mA, 100mA, 300mA
Max. Switching Time@ I Δ n:	100ms
Residual tripping current range:	0.5 I Δ n ~ 1 I Δ n
Rated conditional short circuit current:	10kA
Electrical lifetime	> 4,000 cycles
Fastening torque:	2.0Nm
Terminal capacity:	35mm ² solid, 25mm ² stranded conductor
Mounting on	DIN Rail EN 60715 (EN 50022)
Protection degree:	IP20
Operating temperature:	-25°C - +55°C

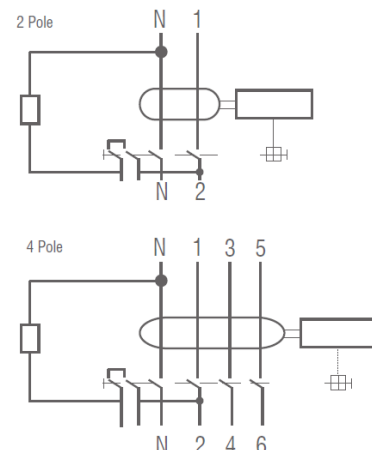
Selection Chart

Type	Operating Characteristics	
	2N	3N
Poles	16	
	25	
	32	
	40	
	63	
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: $10-20 I_n$

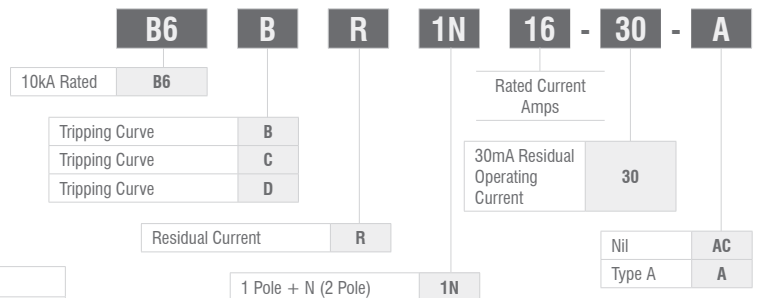
Specifications

In accordance with:	IEC 61009
Certification:	CE, SEMKO, RCM
Pole composition:	2P
Residual current characteristics:	AC, A
Tripping Curve:	B, C, D
Calibration temperature:	+30°C
Rated current :	6A, 10A, 16A, 20A, 25A, 32A, 40A
Rated short circuit capacity :	10kA
Rated frequency:	50/60Hz
Rated voltage:	230VAC
Rated residual operating current $I_{\Delta n}$:	30mA
Residual tripping current range:	$0.5 I_{\Delta n} \sim 1 I_{\Delta n}$
Electrical lifetime	> 4,000 cycles
Fastening torque:	2.0Nm
Terminal capacity:	35mm ² solid, 25mm ² stranded conductor
Mounting on	DIN rail EN 60715 (EN 50022)
Protection degree:	IP20
Operating temperature range:	-25°C - +55°C

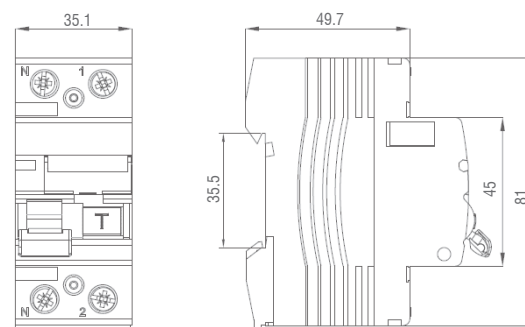
For Dimensions refer to RCCB Data.
For Tripping Curve refer to MCB.



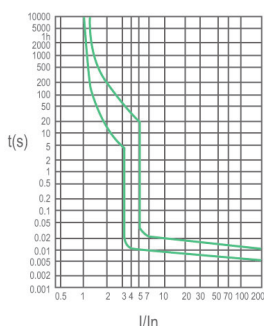
Options & Ordering Codes



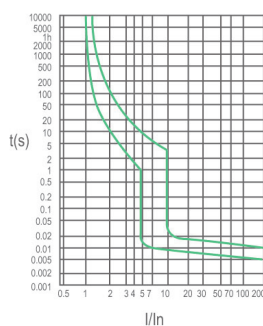
Dimensions (mm)



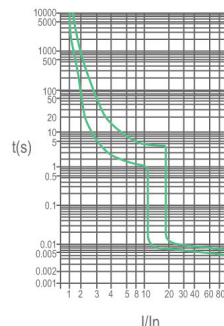
Tripping Curve B



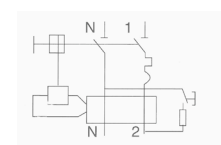
Tripping Curve C



Tripping Curve D



Wiring Diagram



BIS Isolating Switches

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



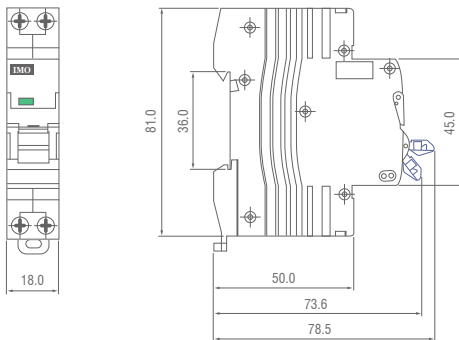
Options & Ordering Codes

Distribution board Isolating Switch	BIS			
		2	063A	
1 Pole	1		N32A	Compact Size, Blue Handle, 32A
2 Pole	2		063A	63 Amps
3 Pole	3		100C	100 Amps
4 Pole	4		125A	125 Amps
			250A	250 Amps

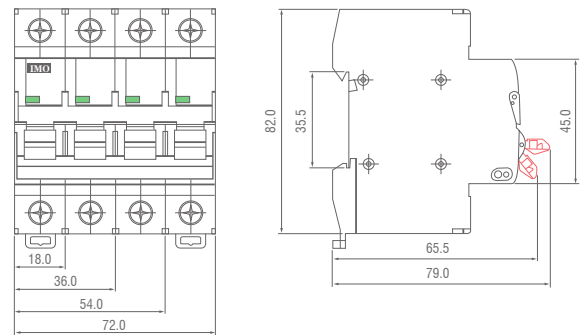
Specifications

In accordance with	IEC 60947-3
Certification	CE, SEMKO (63 and 125A only)
Pole composition	1P / 2P / 3P / 4P
Rated current	32A / 63A / 100A / 125A / 250A
Rated voltage	AC 230 / 400V
Rated frequency	50/60Hz
Rated short circuit capacity	6kA (3kA for 100A version)
Electrical lifetime	> 10,000 cycles
Fastening torque	2.0Nm
Terminal capacity	35mm ² solid, 25mm ² stranded conductor
Protection degree	IP20

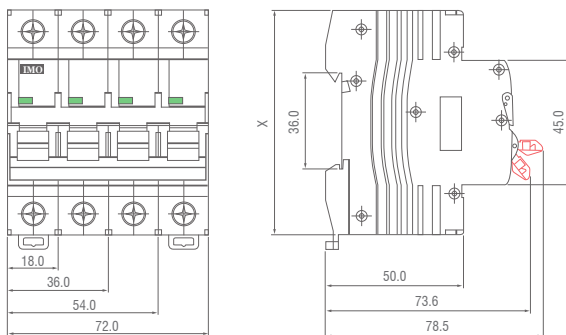
Dimensions (mm) for Compact 32A version



Dimensions (mm) for 100A version

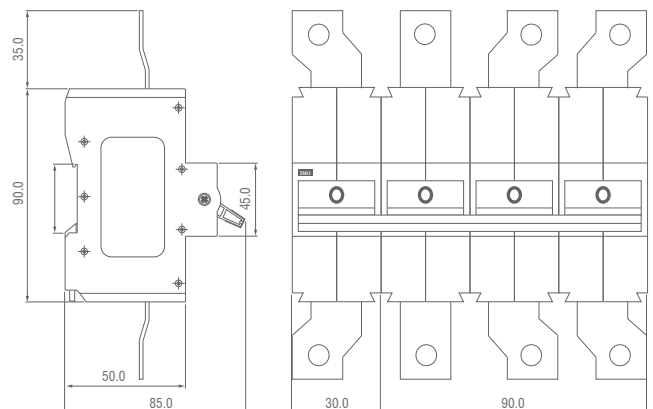


Dimensions (mm) for 63A & 125A version



Rating	X
63A	81mm
125A	90mm

Dimensions (mm) for 250A version



Residual Current Circuit Breakers With Overload Protection 1P+N Single Module

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 61009-1.



RCBO Features

- Provides protection against earth fault / leakage current, overload, short circuit and function of isolation
- Elegant appearance; cover and handle in arc shape.
- Single width module RCBO, 119mm tall
- Contact position indicating window; transparent cover to carry label
- High short circuit current withstand capacity
- Applicable to terminal and Pin/Fork type busbar connection (line input only)
- 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

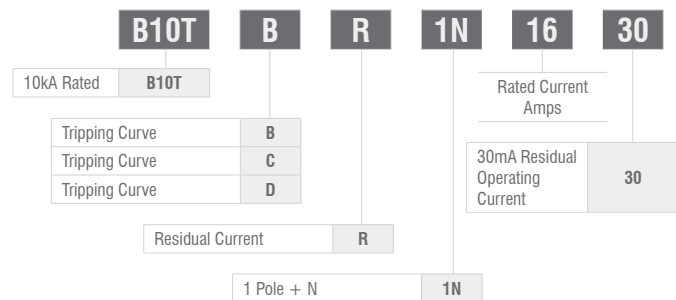
Specifications

In accordance with	IEC 61009-1
Certification	CE
Pole composition	3P+N
Residual current characteristics	AC
Tripping Curve	B, C, D
Rated current	6A, 10A, 16A, 20A, 25A, 32A
Rated short circuit capacity	10 kA
Calibration Temperature	+30°C
Rated frequency	50/60Hz
Rated voltage	230/400VAC
Rated residual operating current $I_{\Delta n}$	30mA
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 (Live input)	35mm ² solid or 25mm ² stranded
Terminal capacity (output)	10mm ² solid or 6mm ² stranded
Mounting on	DIN rail EN 60715 (EN 50022)
Protection degree	IP20
Operating temperature	-25°C - +55°C

Dimensions (mm) for 1P+N: 1 module (18W x 119H x 69D)
For Tripping Curve refer to MCB.



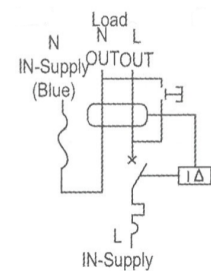
Options & Ordering Codes



Selection Chart

Type	Operating Characteristics
Poles	1N
6	
10	
16	
20	
25	
32	
Weight (g/pc)	178

Wiring Diagram



Residual Current Circuit Breakers With Overload Protection 3P+N

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 61009-1.

RCBO Features

- Provides protection against earth fault / leakage current, overload, short circuit and function of isolation
- Elegant appearance; cover and handle in arc shape.
- 3P+N version, 5 module width RCBO, 119mm tall
- 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

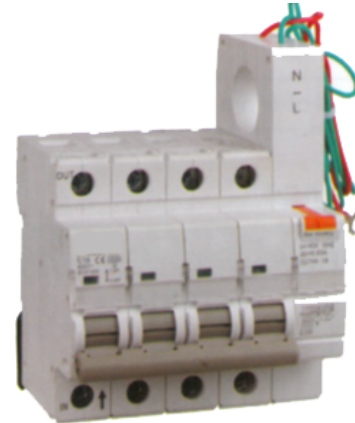
Tripping characteristics in accordance with B, C and D type curves

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

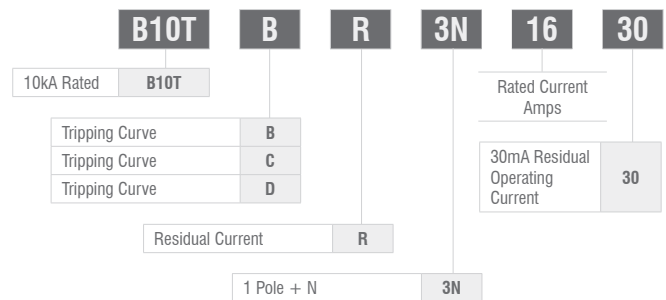
Specifications

In accordance with	IEC 61009-1
Certification	CE
Pole composition	3P+N
Residual current characteristics	AC
Tripping Curve	B, C, D
Rated current	6A, 10A, 16A, 20A, 25A, 32A
Rated short circuit capacity	10 kA
Calibration Temperature	+30°C
Rated frequency	50/60Hz
Rated voltage	230/400VAC
Rated residual operating current $I_{\Delta n}$	30mA
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 ² solid or 25mm ² stranded
Mounting on	DIN rail EN 60715 (EN 50022)
Protection degree	IP20
Operating temperature	-25°C - +55°C

Dimensions (mm) for 3P+N: 4 module (72W x 81H x 69D) + 1 module (18W x 130H x 69D).
For Tripping Curve refer to MCB.



Options & Ordering Codes



Selection Chart

Type	Operating Characteristics
Poles	3N
6	
10	
16	
20	
25	
32	
Weight (g/pc)	500

Wiring Diagram

