

Compact and high breaking capacity.  
Highly-evolved Miniature  
Circuit Breaker.



## MCB (10kA)

### Construction & Features

1. State of the art design
  - Elegant appearance
  - Cover and handle in arc shape for comfortable operation
  - Contact position indicating window (Clear On/Off Indicator)
2. Three level indications For On/Off & TRIP (Under Fault)
3. Rated short circuit capacity: 10000A (10kA)
4. Trip free mechanism
5. High speed and high breaking capacity mechanism
6. Terminal block with safety shutter. It prevents wrong wiring & burning of terminals.
7. High speed wiping contact structure
8. Bi-connect terminals at both sides give choice of using either a busbar or cable to make connection.
9. Compliant with RoHS directive defined by the European Standards.
10. Energy efficient MCB. Lower power loss values than IEC standard requirements.

### • Item Codification

	No. of Poles	Rated Current	No. of Elements	Instantaneous Tripping	Icn	Country
BBD	1	06	1	B	H	H
	1: SP 2: SP+N/DP 3: TP 4: TP+N/FP	06: 6A 10: 10A 16: 16A 20: 20A 25: 25A 32: 32A 40: 40A 50: 50A 63: 63A	1: 1E 2: 2E 3: 3E 4: 4E	B: B Type C: C Type D: D Type	H: 10kA	H: India

## MCB Technical Information

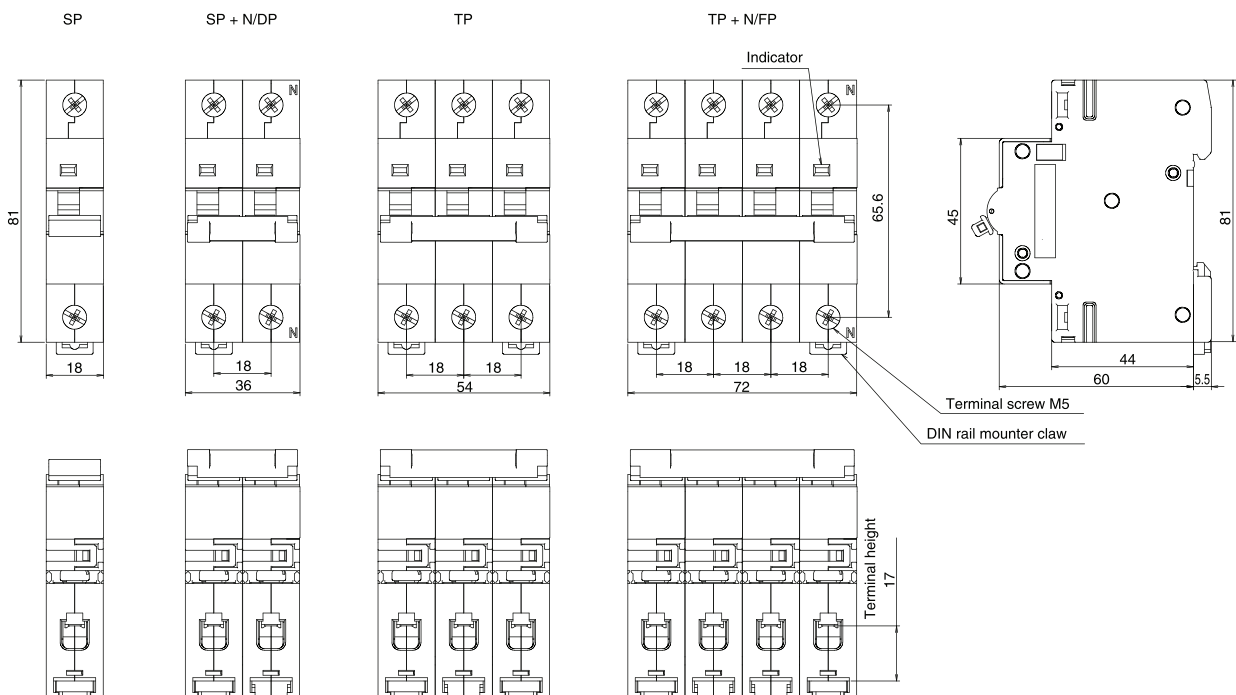
### • Standard Conformity

IEC 60898-1:2008  
DIN43-880

### • Technical Data

Type	B	C	D
Magnetic Release Setting	(3-5) In	(5-10) In	(10-20) In
No. of Poles (Execution)	SP, SP+N, DP TP, TP+N, FP	SP, SP+N, DP TP, TP+N, FP	SP, SP+N, DP TP, TP+N, FP
Rated Current (In)	A 6A to 63A		
Rated Voltage (Ue)	SP:AC240/415V, SP+N:AC240V DP, TP, TP+N, FP:AC415V		
Rated Short Circuit Breaking Capacity	10000 A		
Service Short Circuit Breaking Capacity	7500 A		
Energy Limitation	Class 3		
Tripping Mechanism	Thermal & Magnetic Type		
Normal Ambient Temperature	30°C		
Power Loss	Much less than Standard Values		
Rated Impulse Voltage	4kV		
Dielectric Strength	2000V for 1 Minute		
Protection Class	IP20		
Mounting	On DIN Rail ( 35mm×7.5mm)		
Connections	1sq.mm to 25sq.mm For Cu conductors		

### Dimensions: For Single Pole MCB - 81×18×65.5 (H×W×D) (In mm)



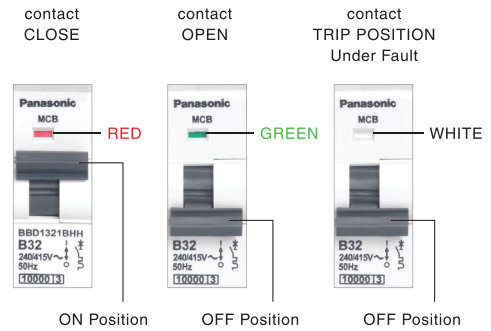
# MCB (10kA)

Panasonic MCB has been developed with high manufacturing technology to provide safety, comfort and energy saving.

## 1 Three Level Indicator

**Safety**

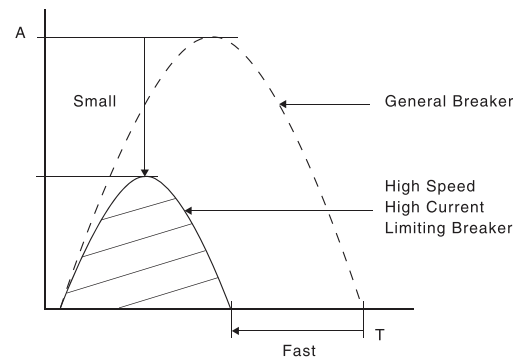
Panasonic MCB is having Three level indications allowing clear identification of the On/Off and TRIP position. The Trip position helps user to identify the fault circuit.



## 2 High Speed Mechanism

**Safety**

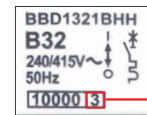
This is the mechanism of a Circuit Breaker that, compared to a General Circuit Breaker, cuts off the current several times faster (High Speed) while suppressing the large current (current limiting) in respect to a large current (short circuit current) when a short circuit accident occurs.



## 3 Safety & Energy Efficient

Minimum let through energy in case of fault; ensuring safety and longevity of downstream circuit/installation.

Rated Short-circuit capacity (A)	Energy limiting Classes				
	1 I <sup>2</sup> t max (A <sup>2</sup> s)	2 I <sup>2</sup> t max (A <sup>2</sup> s)		3 I <sup>2</sup> t max (A <sup>2</sup> s)	
	B-Type & C-Type	B-Type	C-Type	B-Type	C-Type
10000	limit specified	310000	370000	90000	110000

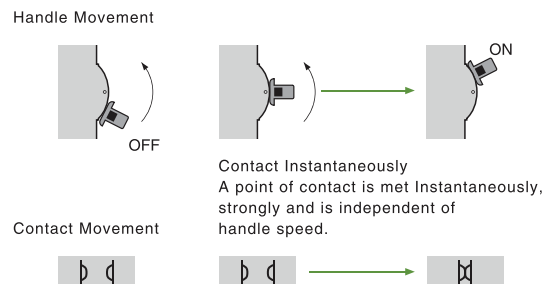


Best performance of Energy Limiting Class (EN60898:1991 A11 (Sept.1994) Indicate class 3

## 4 Independent Manual Operation

**Safety**

The handle and the contact move independently in order to create a firm and instantaneous contact when connecting together.

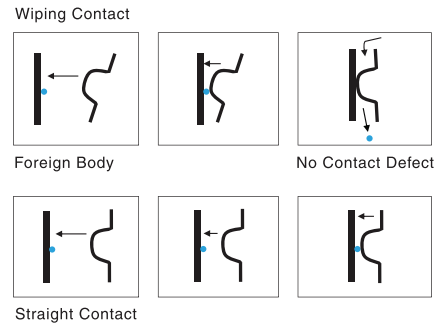


Contact Instantaneously A point of contact is met Instantaneously, strongly and is independent of handle speed.

## 5 Wiping Contact Structure

Safety

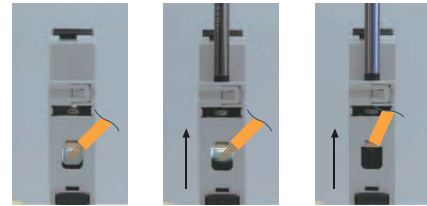
Advanced wiping contact design ensures proper current flow and prevents against foreign body residual blockage causing potential contact defect.



## 6 Safety Shutter

Safety Construction Effective

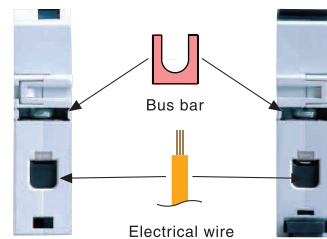
Fully insulated safety shutters provide safety in connection. During wiring, they guide the cable towards the terminal clamp and the shutter gives total protection.



## 7 Double Terminal on Both Sides

Construction Effective

Customers have the choice of using either a bus bar or cable to make connections on both sides thus providing the ultimate flexibility.



## 8 Low Power Loss

Energy Efficient

### • Power Loss in Watt per Pole at Rated Current

Rated Current In (A)	6	10	16	20	25	32	40	50	63
As per IEC Standard (W)	3	3	3.5	4.5	4.5	6	7.5	9	13
Panasonic Series (W)	1.2	2.1	2	1.9	2.1	2.5	3.3	4.4	5