



PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.

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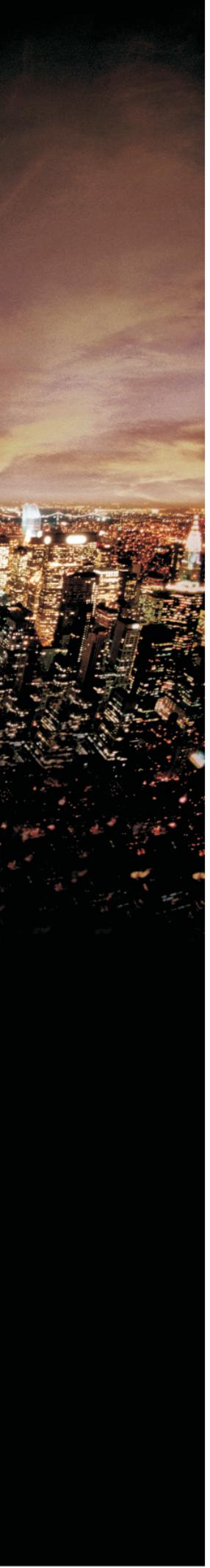
Registered Office: 12th Floor, Ambience Tower, Ambience Island,
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Distributor / Dealer Stamp



Shielding Environment,
Securing Lives

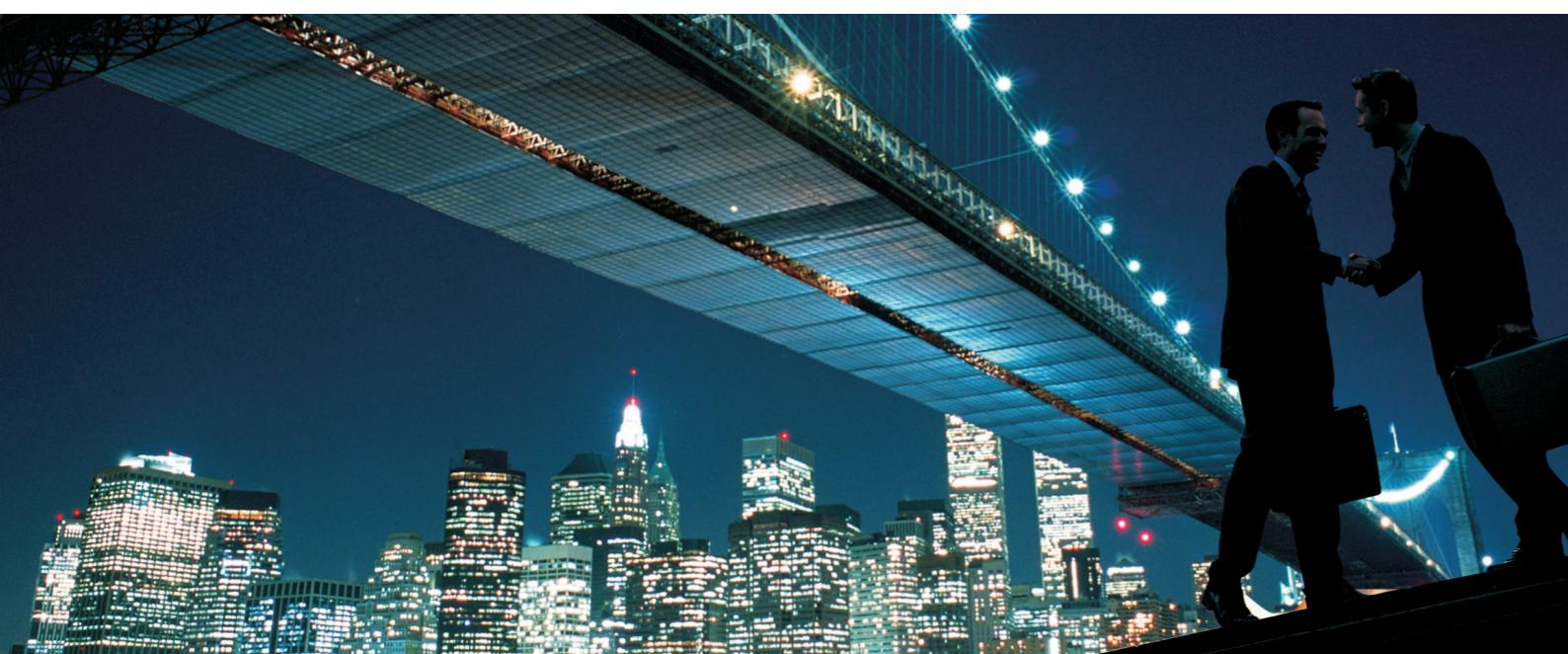
RoHS Compliant Compliant with the RoHS Directive
on the restriction of the use of
certain hazardous substances in
electrical and electronic equipment. ✓



Miniature Circuit Breaker

Complete Range, Safety,
High Specification and Technology

Panasonic generates ideas for life.. today and tomorrow. Through innovative thinking, we are committed to enriching people's lives around the world.



Corporate Profile

Since the foundation of the Panasonic group, we have been pursuing our mission of realizing comfortable living demanded in each era under the management philosophy that commits our company to contributing to the progress and development of society and the well-being of people.

The Panasonic Group now aims to become the No.1 Green Innovation Company in the Electronics Industry in 2018, the 100th anniversary of its founding.

As a member of the Panasonic Group, we are determined to make the "environment" central to all of our business activities and implement our management philosophy by providing products and services that achieve the balance of comfort and eco-friendliness.

Panasonic History

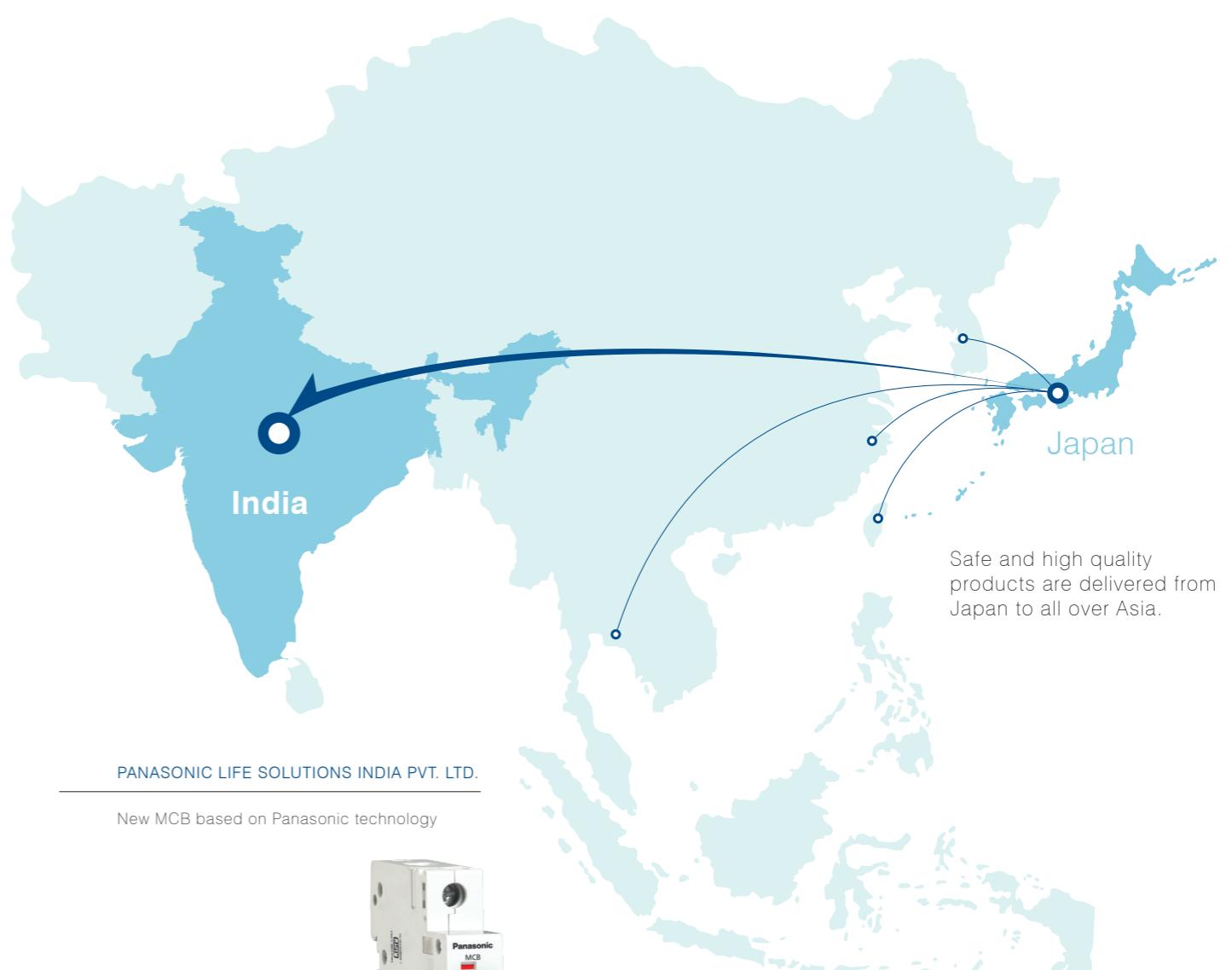
The history of Panasonic goes back to when Konosuke Matsushita founded Matsushita Electric Housewares Manufacturing Works in 1918.

Today the company has evolved and developed into the world's leading electronics and electrical solutions provider. The belief in our basic management objective to devote ourselves to the progress and development of society and the well-being of all people around the globe has been the foundation of the company.

Panasonic starts with a desire to create things of value. With hard work and dedication resulting in manufacturing of one innovative product after another, this fledgling company has emerged today as the second largest global electronic conglomerate.

With its highly developed technology, the Panasonic Group is proud to expand its manufacturing skills in India.

Since its establishment in 1918, the Panasonic Group has been developing various technologies and reliable products that have steered its current worldwide presence. With its rapid economic growth, India represents a very important market with specific needs. Panasonic Group hence looks forward to providing solutions based on its policy rooted in Safety, Comfort and Energy Saving.



PANASONIC LIFE SOLUTIONS INDIA PVT. LTD.

New MCB based on Panasonic technology



Miniature
Circuit Breaker

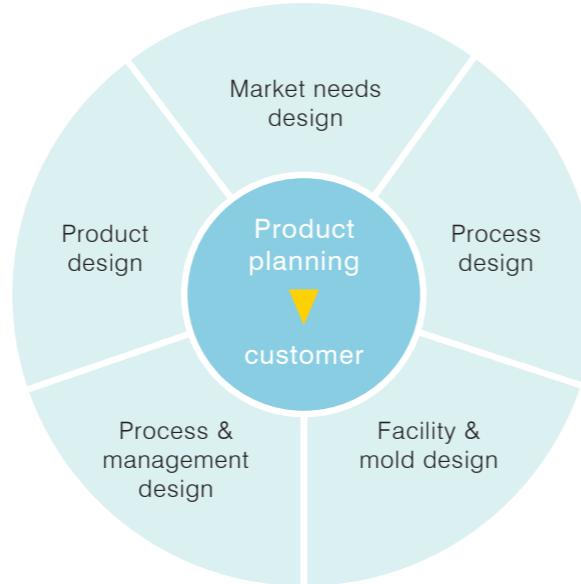
The Panasonic manufacturing concept.



Our five - designs concept

We develop products through an integrated system that begins with determination of market needs.

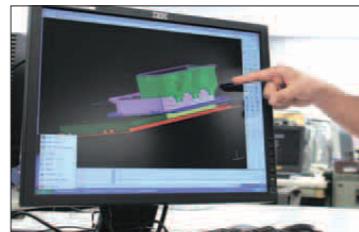
The system proceeds with the development of high level basic technologies, Product Planning, Design, Production and also includes Sales and After-Sales Service.



Aiming for constant improvement with our long history of product development.



Latest In-house Production Technology.



PRODUCT TECHNOLOGY

Circuit interruption technology / Sensing technology / Mechanism technology / Information & Telecommunication technology / Material technology / Semiconductor technology

Product Design

3-D product designing

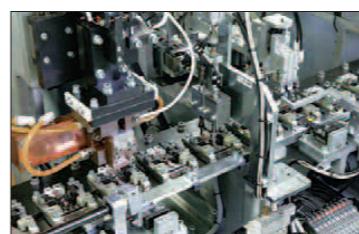


EVALUATION TECHNOLOGY

Durability evaluation technology / User interface Evaluation technology / Material analysis technology.

Short Circuit Testing Machine

Evaluating safety by testing short circuit breaking capacity, the basic function of a circuit breaker



MANUFACTURING TECHNOLOGY

Component processing technology / Assembling technology / Die machining technology / Environmental compatibility technology / Process Developing technology / Measurement technology.

Manufacturing Technology

Development of construction methods and equipment



CONTROL TECHNOLOGY

Automatic overcurrent characteristics measuring technology / Mechanical characteristics measuring technology

Outgoing Inspection Room

Before shipment, products are tested for overcurrent characteristics and other aspects of basic circuit breaker performance

Safe, simple and comfortable



MCB (10kA)

CONSTRUCTIONS & 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 miss clamping which cause burning of terminals
7. Wiping contact structure
8. Bi-connect terminals at both sides give choice of using either a busbar or copper mine to make connection
9. Environment Friendly,meets the RoHS compliance defined by the European Standards.
10. The most energy-efficient MCB which have much lower power-loss than the specified values in IS/IES standard

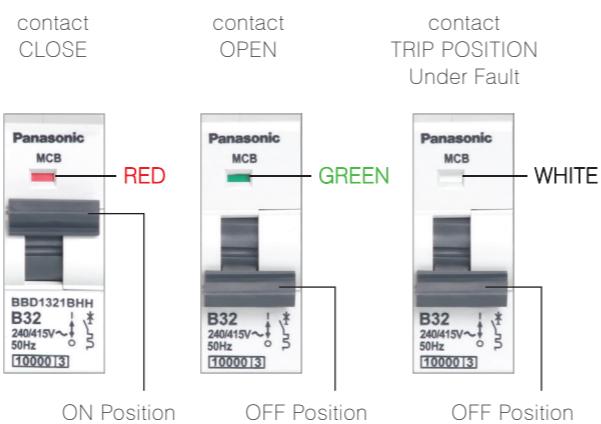


Panasonic MCB brings across high quality and safety, contributing its best expertise for the Indian electricity distribution, securing lives and electrical installations.

1 Three level indicator

Safety

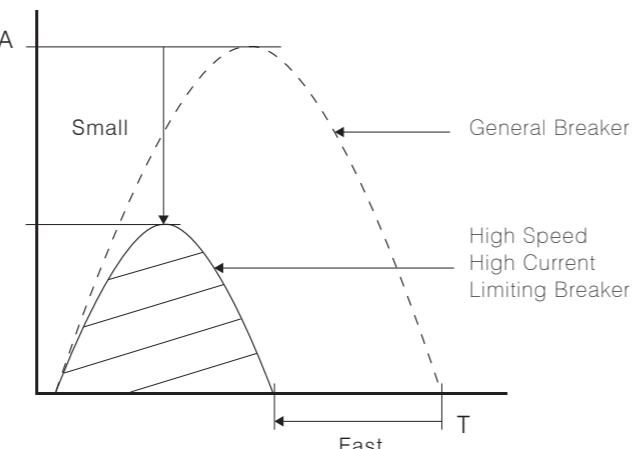
PANASONIC MCB has Three Level Indications to identify clear ON, OFF and TRIP POSITION, The Trip position helps user to identify the fault circuit.



2 High speed mechanism

Safety

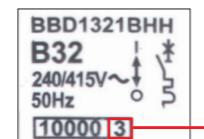
This is the mechanism of a Breaker that, compared to a General Breaker, cuts off the current several times faster (High Speed) while suppressing the large current (current limiting) in respect to a large current (short circuit current) when a short circuit accident occurs.



3 Safe & energy efficient

Minimize energy go thru MCB in case of fault; ensures safety and longevity of downstream circuit/installation.

Rated Short-circuit capacity (A)	Energy limiting Classes					
	1 $I^2 t$ max(A ² s)		2 $I^2 t$ max(A ² s)		3 $I^2 t$ max(A ² s)	
	B-type & C-type	B-type	C-type	B-type	C-type	
10000	limit specified	310000	370000	90000	110000	

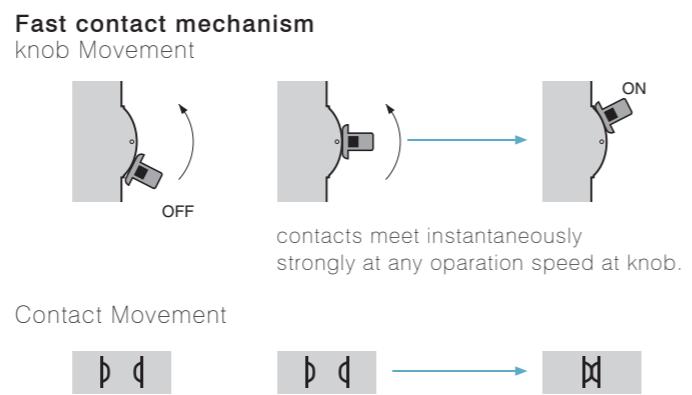


Best performance of Energy Limiting Class (EN60898:1991 A11(Sept.1994)) indicate class 3

4 Independent manual operation

Safety

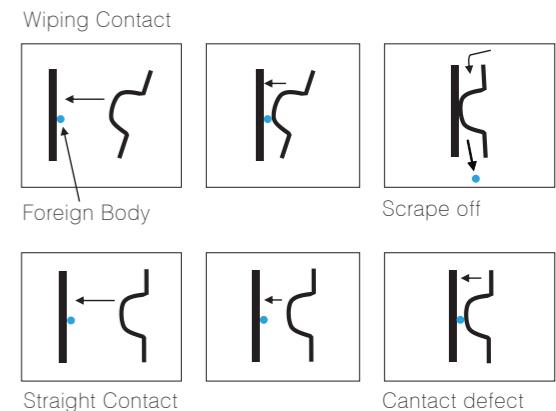
The contact moves independently from knob operation in order to create a firm and instantaneous contact when connecting together.



5 Wiping contact structure

Safety

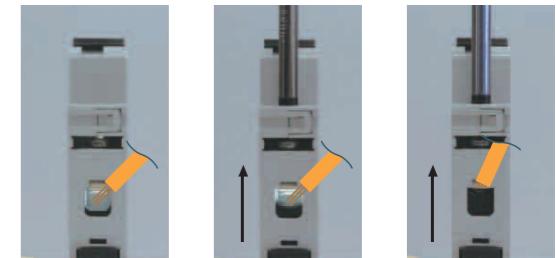
Wiping contact design ensures the proper current flow with continuity, while contact makes on condition, to prevent no contact defect.



6 Safety shutter

Safety / Construction Effective

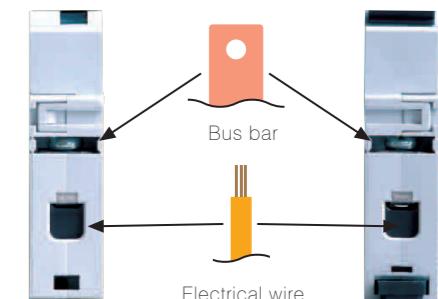
Fully insulated safety shutters provide safety in connection. During wiring, they guide the cable towards the terminal clamp and the shutter gives total protection.



7 Double terminal on both sides

Construction Effective

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



8 Dust preventing surface

Safety

The surface of MCB has been designed in such a way that it does not allow dust to settle on its surface. The MCB thus retains its new look for years.



MCB TECHNICAL INFORMATION

• STANDARD CONFORMITY

IS/IEC 60898-1:2008
DIN43-880

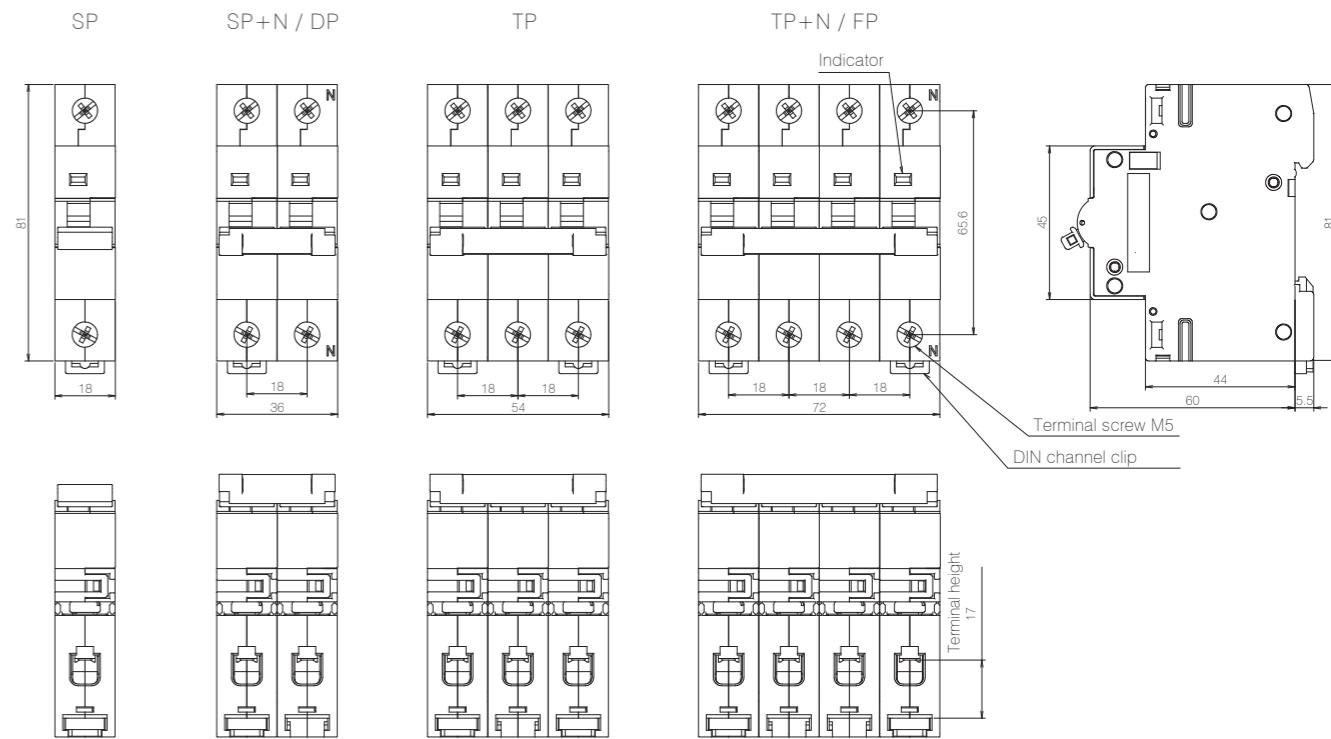
• TECHNICAL DATA

Type	B	C	D
Magnetic Release Setting	(3-5) In	(5-10) In	(10-20) In
No. of Poles (Execution)	SP	SP, SP+N, DP TP, TP+N, FP	SP, DP, TP, FP
Rated Current (In)	A	6A to 63A	
Rated Voltage (Ue)		SP, TP+N: AC 240/415V, SP+N: AC 240V, DP, TP, FP: AC 415V	
Rated Frequency (f)	Hz	50Hz	
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	

• NORMAL CONDITIONS FOR OPERATION IN SERVICE

Ambient Temperature	-10°C to +60°C
Relative Humidity	Not exceeding 85%
Altitude	Not exceeding 2000m

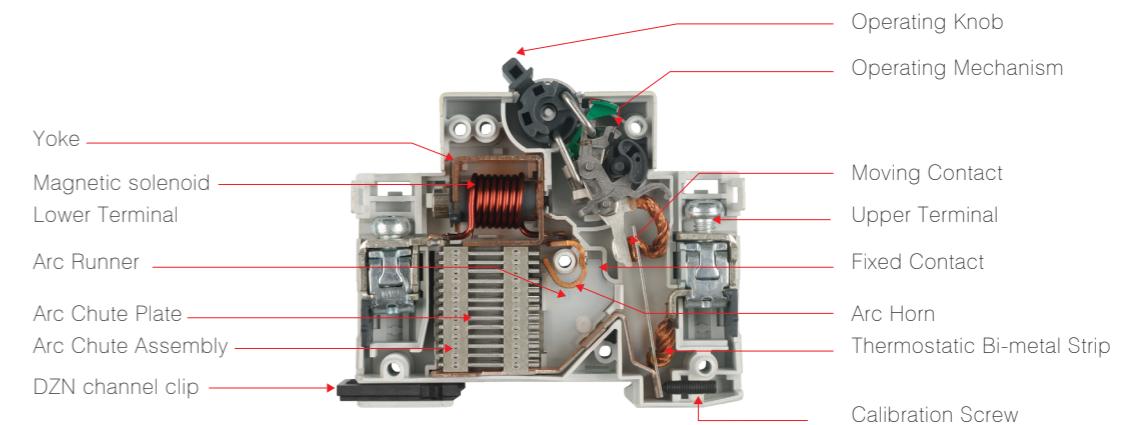
DIMENSIONS: For Single Pole MCB - 81mm×18mm×65.5mm (H×W×D) (In mm)



THE TRIPPING MECHANISM OF MCB IS THERMAL MAGNETIC TYPE

Thermal operation - The thermal operation provides protection from moderate overloads. Under overload condition, a thermo-metallic element (bimetallic strip) deflects until it operates a latching mechanism allowing the main contacts to open.

Magnetic operation - In magnetic operation, large overloads or short circuit current actuates a solenoid causing a plunger to strike a latching mechanism, rapidly opening the main contacts.



TRIPPING CHARACTERISTICS

Based on the tripping Characteristics, MCBs are available in B, C and D Curves to suit different types of applications.

B CURVE: For protection of the electrical circuits with equipments that do not cause surge current (for lighting and distribution circuits). Short Circuit release is set to 3-5 times the rated current (in).

C CURVE: For protection of the electrical circuits with equipments that cause surge current (Inductive Loads and Motor Circuits). Short Circuit release is set to 5-10 times the rated current (in).

D CURVE: For protection of electrical circuits which cause high inrush current, typically 12-15 times the thermal rated current(transformers, X-Ray machines etc). Short Circuit release is set to 10-20 times the rated current (in).

• TRIPPING CHARACTERISTICS CURVE TYPE B, C & D

Test	Type	Test Current	Initial condition	Time Limits of tripping or non-tripping	Result to be obtained
a	B, C, D	1.13 In	Cold	$t \geq 1$ h	No Tripping
b	B, C, D	1.45 In	Immediately following test 'a'	$t < 1$ h	Tripping
c	B, C, D	2.55 In	Cold	$1.5 < t < 60$ s ($In \leq 32A$) $1.5 < t < 120$ s ($In > 32A$)	Tripping
d	B C D	3 In 5 In 10 In	Cold	$t \geq 0.1$ s	No Tripping
e	B C D	5 In 10 In 20 In	Cold	$t < 0.1$ s	Tripping

In: Rated Current

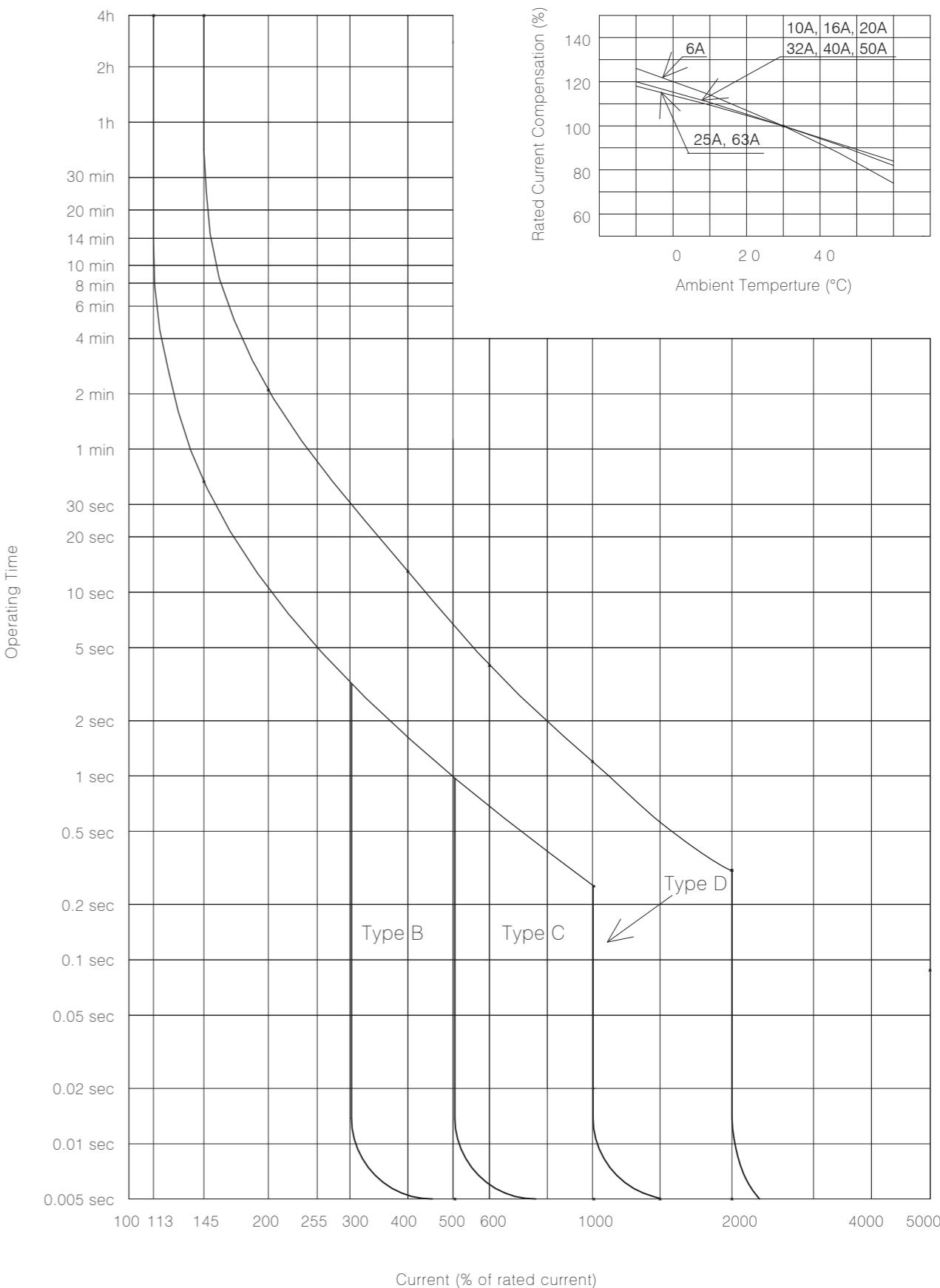
• POWER LOSS IN WATT PER POLE AT RATED CURRENT

Rated Current In (A)	6	10	16	20	25	32	40	50	63
As per Indian 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	3.25	4.35	5

• ITEM CODIFICATION

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

• OPERATING TIME CURRENT CHARACTERISTICS CURVE [AMBIENT TEMPERATURE 30°C] (6A~63A)



Channelizing electricity,
Shielding lives



ISOLATOR

CONSTRUCTION & FEATURES

1. Can be used safely as incomer
2. Heavy duty frame for the complete range
3. Silver alloy contacts for weld free operations
4. Clear ON-OFF Indication for the complete range
5. Low watt loss
6. Utilization category AC22A



ISOLATOR TECHNICAL INFORMATION

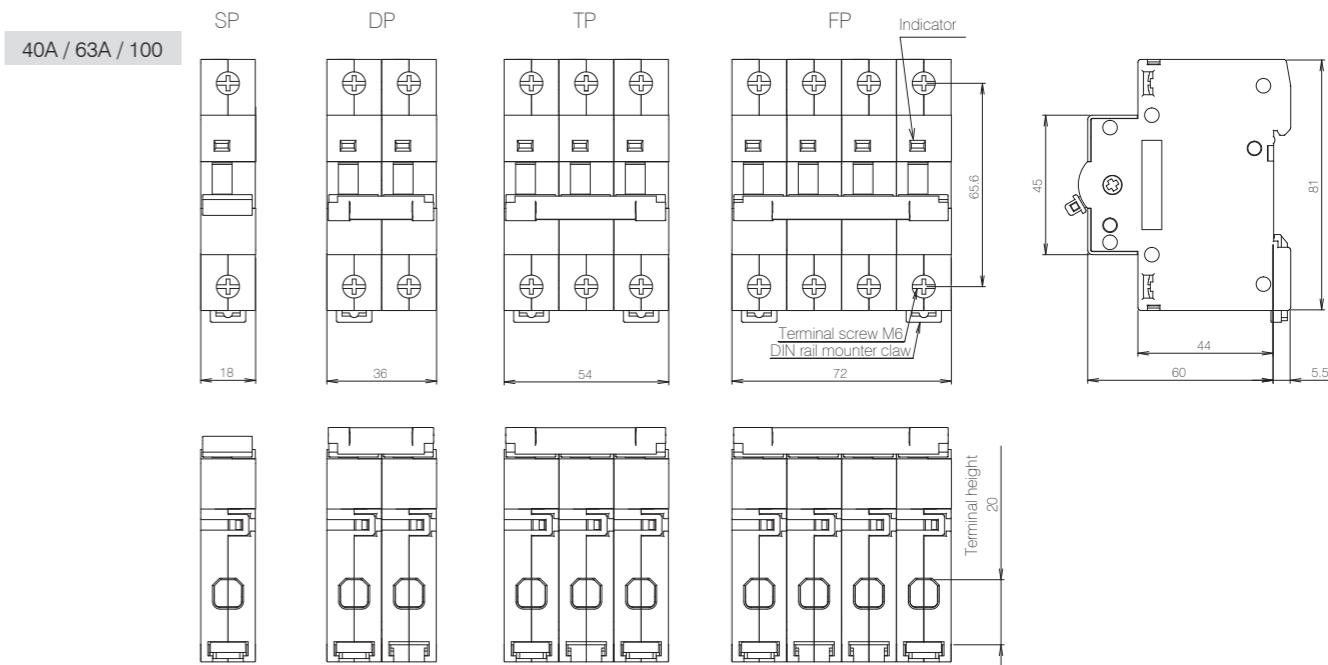
• STANDARD CONFORMITY

IS/IEC 60947-3
DIN43-880

• TECHNICAL DATA

No. of Poles (Execution)	SP, DP, TP, FP	
Rated Current (In)	A	40A, 63A, 100A
Rated Voltage (Ue)	V~	SP: AC 240V, Others: AC415V
Rated Frequency (f)	Hz	50Hz
Utilization Category	AC 22A	
Rated Impulse Voltage	6kV	
Dielectric Strength	2000V 1min	
Protection Class	IP20	
Mounting	On DIN Rail (35mm×7.5mm)	
Connections	40A/63A: 4sq.mm to 25sq.mm for Cu conductors 100A: 10sq.mm to 50sq.mm for Cu conductors	

DIMENSIONS: For Single Pole Isolator 81mm×18mm×65.5mm (H×W×D) (In mm)



• MECHANICAL & ELECTRICAL ENDURANCE

Rated Current	Test Voltage	Number of operating Cycles	
		Endurance with rated current	Endurance without current
40A 63A	SP: AC 240V Other: AC 415V		
100A	SP: AC 240V Other: AC 415V	~	~

• NORMAL CONDITIONS FOR OPERATION IN SERVICE

Ambient Temperature	-10°C to +60°C
Relative Humidity	Not exceeding 85%
Altitude	Not exceeding 2000m

• ITEM CODIFICATION

Type	No. of Poles	Current Capacity	Country
BBD	S	2	40
			H
↓	↓	↓	↓
S: Isolator	1: SP 2: DP 3: TP 4: FP	40 : 40A 63 : 63A 100 : 100A	H: India

Complete protection enhanced



RCCB (Residual Current Operated Circuit Breaker)

CONSTRUCTIONS & FEATURES

1. Elegant Appearance
2. In case of leakage current in circuit, RCCB trips which enables a quick solution to the faulty line
3. Provides protection against earth fault / leakage current
4. Equipped with finger protected connection terminals
5. Automatically disconnects the circuit when earth fault / leakage current occurs and exceeds the rated sensitivity.
6. Visual ON - OFF indication
7. Test Button 'T' is provided for periodic check up
8. Truly current operated, operates even at very low voltage
9. No nuisance tripping
10. Trips within 300 milliseconds in the event of fault
11. High short current withstand capacity of 10kA (DP), 6KA (FP)
12. Bi-connect terminals for busbar as well as cable connection
13. Simple and robust operating mechanism
14. IP20 protection, finger touch proof



RCCB TECHNICAL INFORMATION

- STANDARD CONFORMITY
IS 12640 Part - 1
DIN 43-880

• TECHNICAL DATA

No. of Poles (Execution)	DP, FP
Rated Current (I_n)	25A, 32A, 40A, 63A
Rated Voltage (U_e)	DP: AC 240V, FP: AC 240/415V
Rated Frequency (f)	50Hz
Sensitivity	30mA, 100mA, 300mA
Short Circuit Withstand Capacity	DP: 10000A, FP: 6000A
Short Circuit Breaking Performance Rated Conditional Short-Circuit (I_{nc}) Rated Conditional Residual Short-Circuit Current ($I_{\Delta c}$)	DP: 10000A FP: 6000A
Rated Making And Breaking Capacity (I_m) Rated Residual Making And Breaking Capacity ($I_{\Delta m}$)	FP: 630A
Mode	Electro-Magnetic Type
Rated Impulse Voltage	4kV
Vibration Resistances	5G
Dielectric Strength	2000V 1min
Protection Class	IP20
Mounting	On DIN Rail 35mm×7.5mm
Connections	1.5 sq.mm to 25 sq.mm

• MECHANICAL & ELECTRICAL ENDURANCE

Rated Load	Test Voltage	Test Current	Number of operating Cycles
	DP: AC 240V FP: AC 240/415V	I_n	With I_n 2000 Without I_n 20000 ($I_n \leq 25A$) Without I_n 10000 ($I_n > 25A$) (I_n : Rated Current)

• NORMAL CONDITIONS FOR OPERATION IN SERVICE

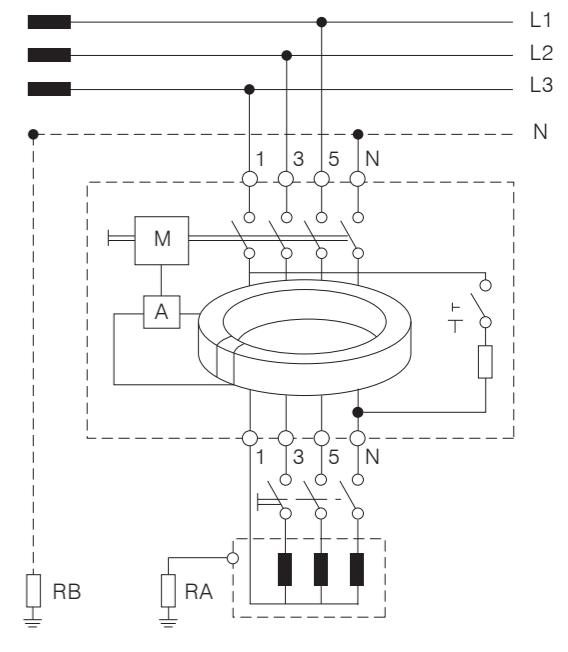
Ambient Temperature	-10°C to + 60°C
Relative Humidity	Not exceeding 85%
Altitude	Not exceeding 2000m

OPERATING PRINCIPLE

RCCB works on the principle that in electrical circuits the incoming current is same as the outgoing current as shown in the diagram. RCCB incorporates a core balance transformer (CBT) having primary and secondary windings with sensitive relay for instantaneous detection of fault signal. The primary winding lies in series with the supply mains and load. Secondary winding is connected to a very sensitive relay. In faultless condition, the magnetizing effects of current carrying conductors cancel each other. There is no residual magnetic field that can induce a voltage in the secondary. During flow of leakage current in the circuit an imbalance is created in the circuit which gives rise to leakage flux in core. This leakage flux generates an electrical signal that is sensed by the relay and it trips the mechanism thereby disconnecting supply.

The trip mechanism is operated at a Residual Current between 60-80% of its Rated Leakage Current.

When pressing the TEST button 'T' (during load conditions) a fault is simulated via the test resistance and RCCB trips.



A : Opening Relay
M : Opening Coil
RA : Protection Earth
RB : Opening Earth
T : Test Button

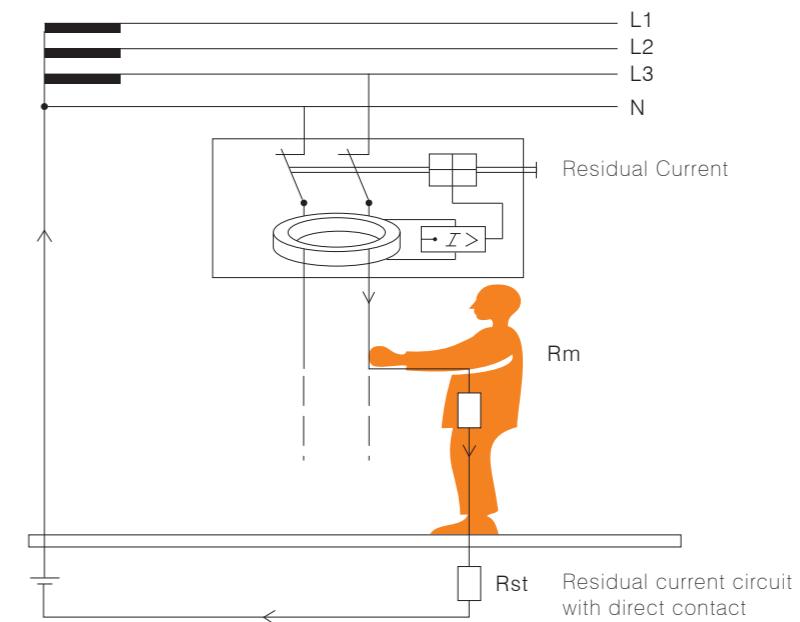
PROTECTION AGAINST DIRECT & INDIRECT CURRENT

Direct Protection in the event of a direct contact (unearthed) live part, extremely sensitive RCCB with rated residual operating current of 30mA or less used instead of a more conventional RCCB with higher residual operating fault currents.

Protection is necessary if :

1. The insulation of totally insulated device or their loads is damaged
2. The earth wire is interrupted
3. The earth wire and live wire is transposed
4. A component which is live in normal operations is touched during repair work

Indirect current when a person makes contact with a metal part which accidentally has been powered up following an insulation fault.



• SENSITIVITY APPLICATIONS SELECTION CRITERION OF RCCB

Sensitivity	Application
30mA	Human protection / Domestic Installation
100mA	Limited human protection / Machine protection
300mA	Building / Fire protection

Even relatively insensitive RCCB's ($I_n = 300\text{mA}$) can be used to provide effective protection against fire caused by earth leakage faults. With residual currents = 300mA, the electrical energy released at the location of the earth fault is not sufficient to ignite normal building materials. With larger residual currents, the RCCB switches off the circuit in less than 200 milliseconds, thus limiting the amount of energy released to a harmless level.

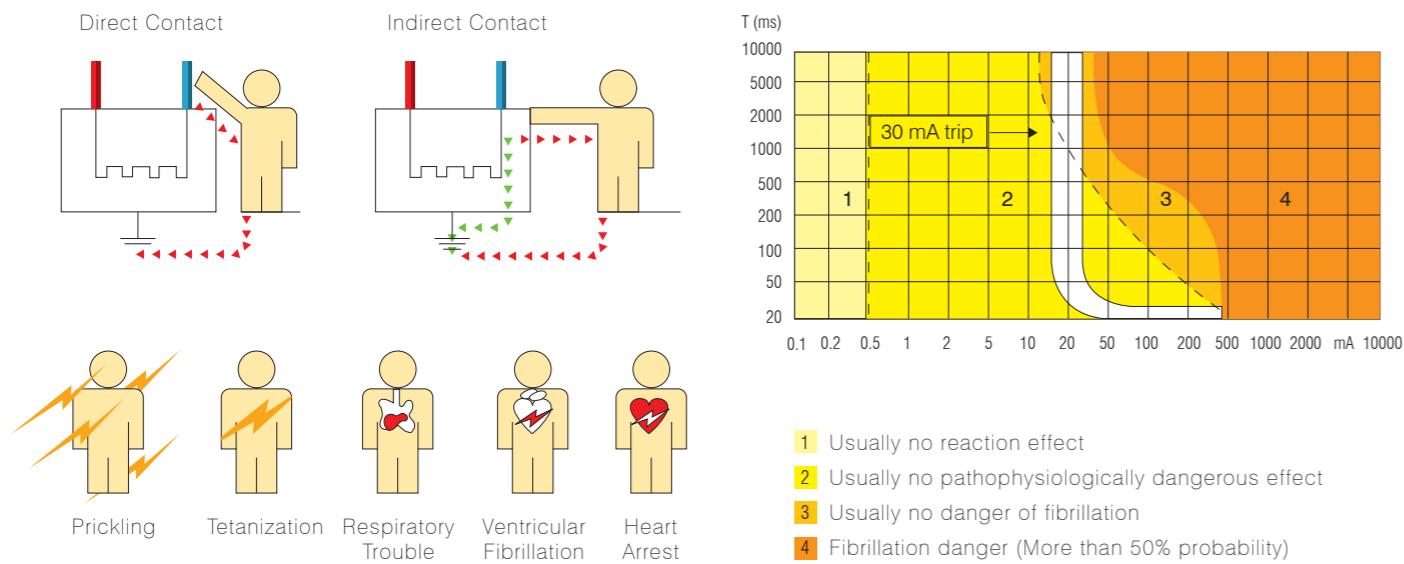
PROTECTION FROM NUISANCE TRIPPING

PANASONIC RCCB is truly current operated and operates independent of voltage. It prevents the risk of nuisance tripping due to transient voltages created by lighting, line disturbances (from other equipments) & transient current (from highly capacitive circuits).

PRECAUTION

Residual circuit breaker should be absolutely free from line voltage. Electronic residual circuit breaker needs line voltage to operate. In the event of a break off at neutral, it does not give any protection, which is why the use of electronic type residual circuit breaker is forbidden in many countries.

IEC 60479 EFFECT OF ELECTRIC CURRENT ON HUMAN BODY



FAULT FINDINGS WHEN RCCB TRIPS

Switch off all the switches/MCB's connected in circuit downstream with the RCCB. Switch ON RCCB and simultaneously switch ON the switches one by one. You will find during switching ON of a particular appliance/Switch RCCB trips again and again. This shows that this is a faulty circuit/appliance. Isolate the faulty circuit, rectify the fault and switch ON the RCCB.

INSTALLATION

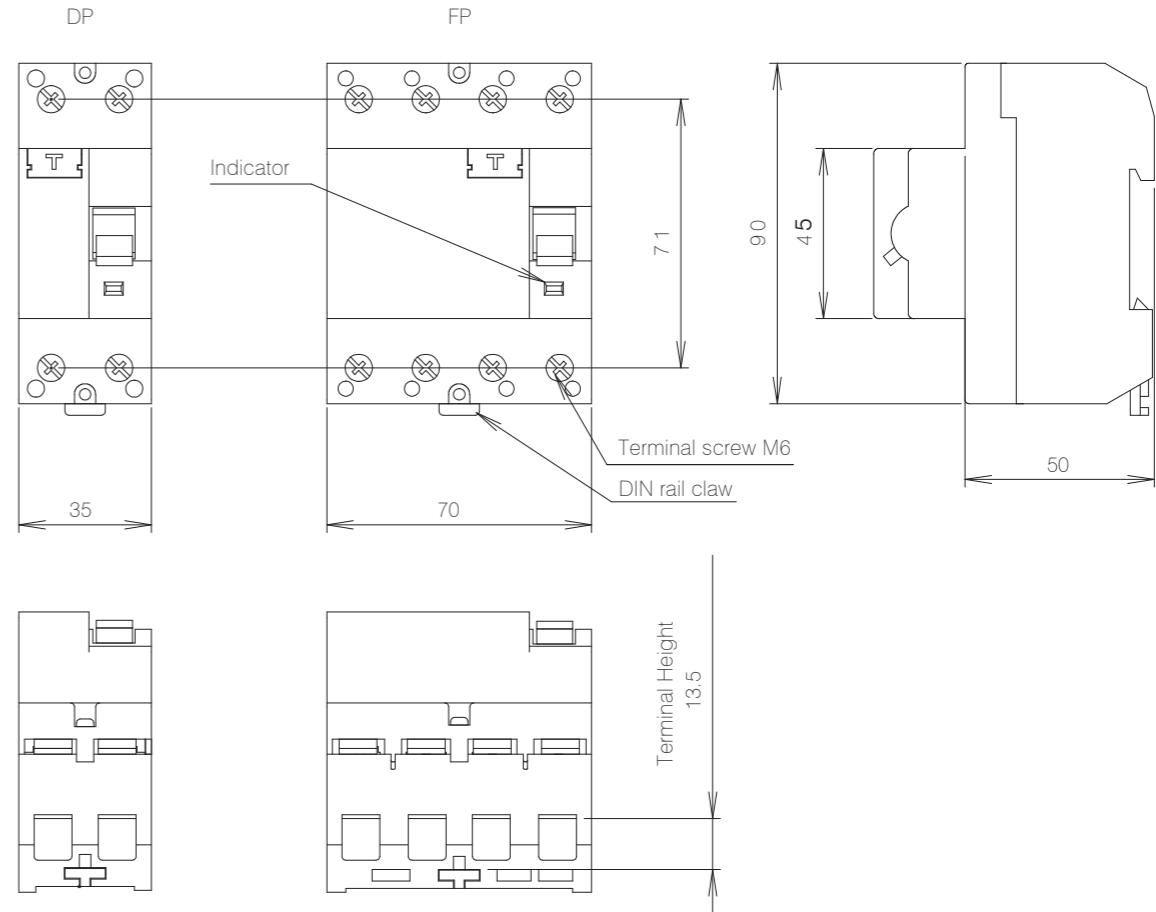
To ensure correct functioning of the RCCB, the neutral conductor on the load side must not be connected to earth, otherwise unwanted nuisance tripping may occur. Care must be taken to ensure that the earth loop impedances as given below are not exceeded so that the maximum permissible touch voltage of 50/25V is not exceeded.

GENERAL INFORMATION

PANASONIC RCCBs provide reliable protection by interrupting the circuit in the event of any leakage. They are manufactured in two types as Life Protection & Fire Protection.

- 1) **LIFE PROTECTION:** According to IEC 60479-1, the value 30mA of leakage current is the limited value for human safety. The breaker should trip immediately if the value of residual current exceeds the limited value (30mA).
- 2) **FIRE PROTECTION:** RCCB of 100mA/300mA is for protection against harmful current leakage. A residual current of 300mA and higher, is dangerous in terms of fire hazard.

DIMENSIONS: DP RCCB 90×35×50 (H×W×D) (In mm) | FP RCCB 90×70×50 (H×W×D) (In mm)



• ITEM CODIFICATION

Type	No. of Poles	Current Capacity	Sensitive Rated Current	No. of Elements	Country
BBD	R	2	25	3	H
R: RCCB	2: DP	25 : 25A 32 : 32A 40 : 40A 63 : 63A	3: 30 mA 4: 100 mA 5: 300 mA	0: 0E	H: India

Time & energy management



TIME SWITCH

CONSTRUCTIONS & FEATURES

1. Surface and Din rail mounted
2. Replaceable battery
3. 300-hour reserve battery
4. 15 minutes minimum setting interval
5. 3P Module



■ Technical Specifications

Product No.	TB38809NE7H
Voltage	220-240V AC 50-60Hz
Power reserve	300 hours
Accuracy	± 15 sec/month (at 25°C)
Resistive load capacity	250V AC 20A
Inductive load capacity	250V AC 12A
Minimum setting interval	15 minutes
No.of On / Off operation	96 operations

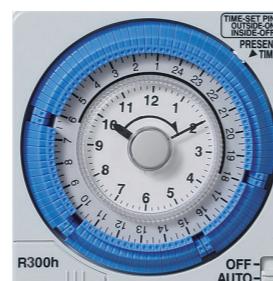
■ Time Chart Example

Ex.) Repeated action, four times a day.



■ Program Setting

Fold the setting pin inside (OFF) or outside (ON) at the desired time you want the action to occur.



■ Time Setting

Turn the minute dial in the direction of the arrow to adjust present time.

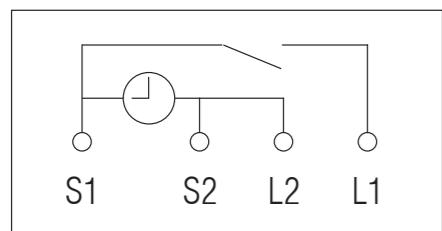
Adjust correctly by hour hand and minute hand.



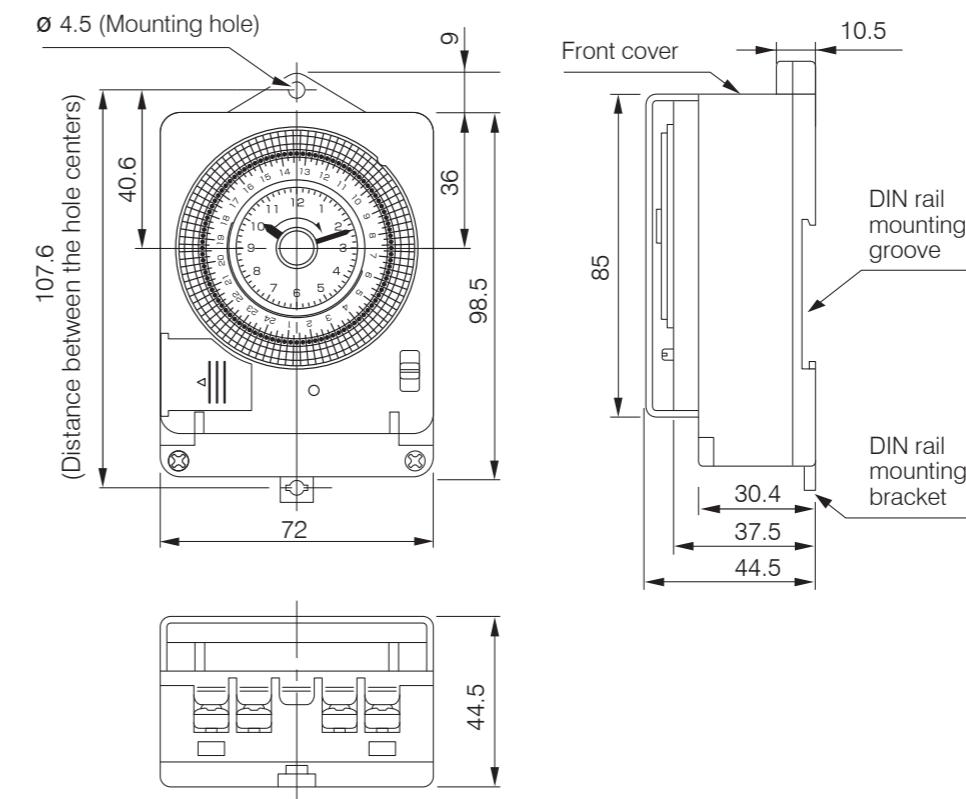
■ Recommended Applications

(Street Lighting, Hoarding, Feeders, House lighting)

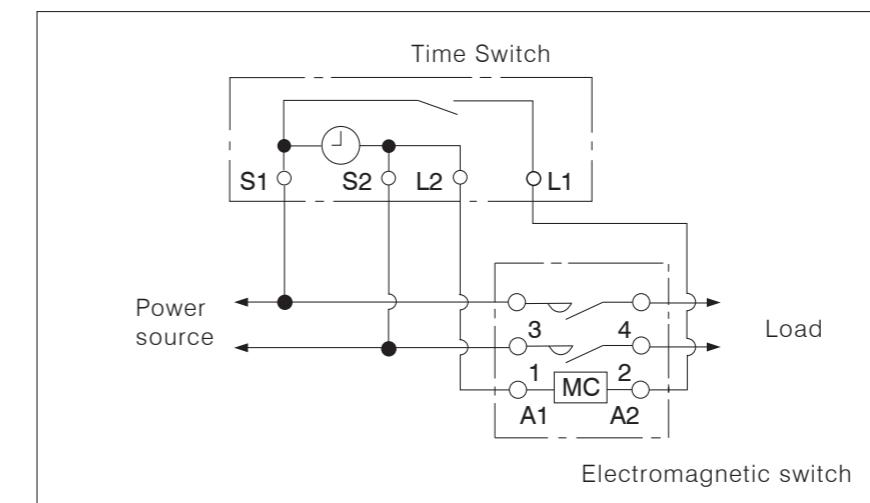
■ Contact Composition



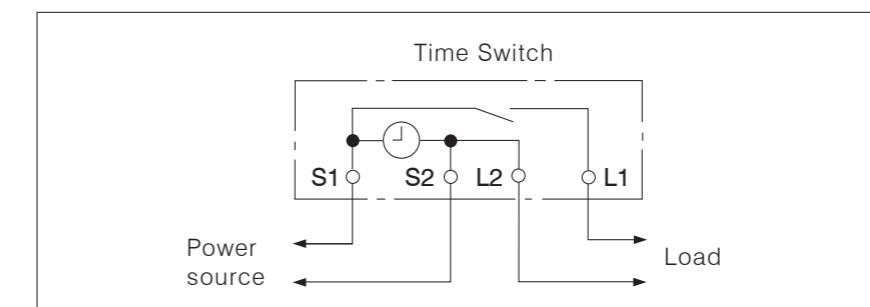
Dimensions (unit : mm)



■ Installation



When a magnetic switch and contactor are used together



When directly controlled by a time switch

Safe, simple and comfortable



Frame 2-250AF



Frame 1-100AF

MCCB (Moulded Case Circuit Breaker)

CONSTRUCTIONS & FEATURES

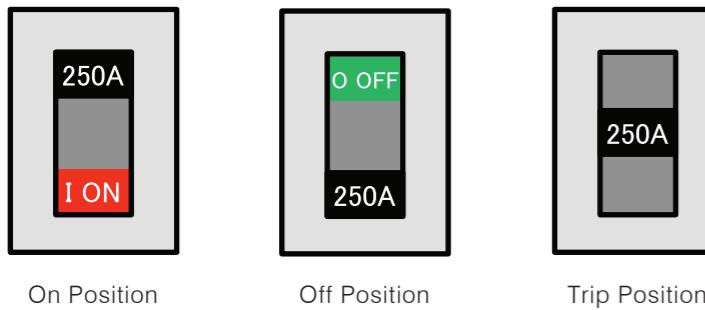
1. Conform to IEC 60947 - 2
2. Range : 63A, 100A, 150A, 200A, 250A
3. Available Pole : 3P
4. Short circuit breaking capacity 10kA for frame 1, 25kA for frame 2
5. Fixed Thermal & Fixed Magnetic type
6. High Mechanical & Electrical life
7. Push to Trip button for testing
8. Clear indication of 'ON', 'OFF' & 'TRIP' Position
9. Quick break, Quick Make & Trip free Mechanism
10. RoHS Compliant



1 Frame Size & Rating

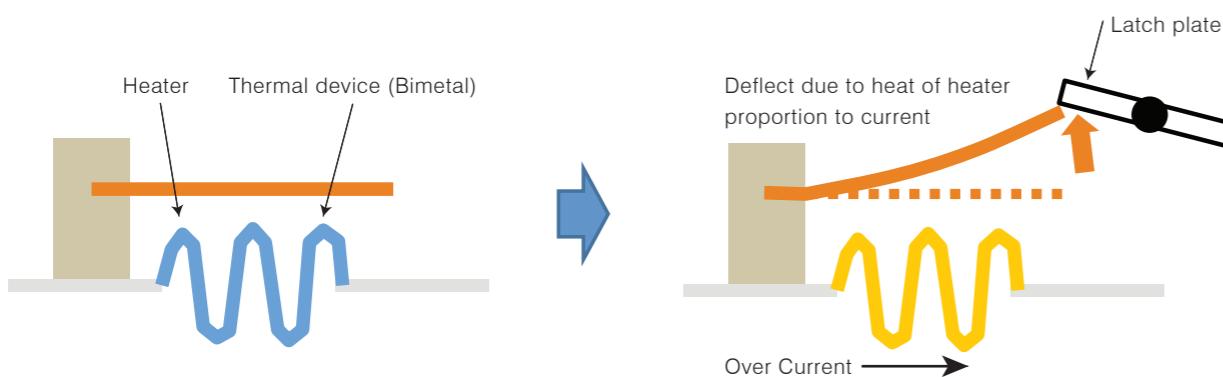
Frame	Breaking capacity	
	Icu	Ics
Frame1	AC415V 10kA	AC415V 5kA
	AC240V 25kA	AC240V 13kA
Frame2	AC415V 25kA	AC415V 19kA
	AC240V 35kA	AC240V 27kA

2 3 position Indication



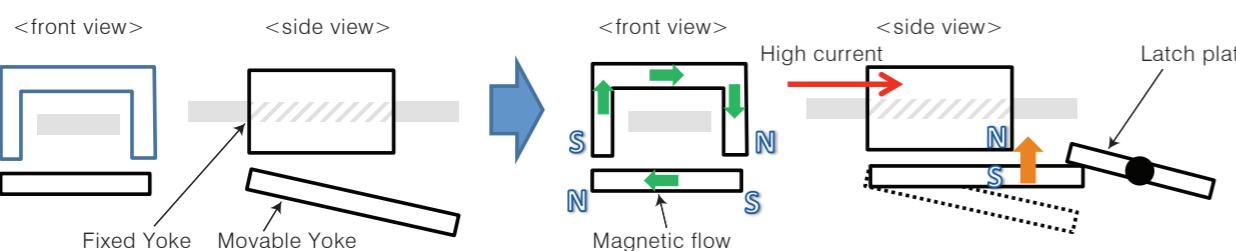
3 Over Current protection

When current excess "Rated current", bimetal deflects very slowly and finally kick the latch plate to trip.



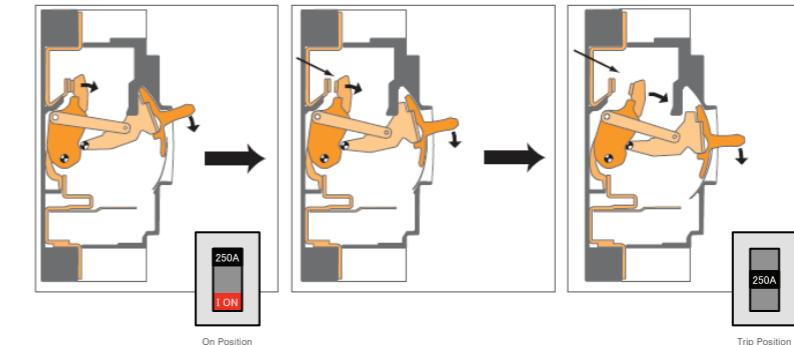
4 Shortcircuit Protection (Instantaneous protection)

When high current go between yokes, magnetic flux appears and they make yokes a magnet. Then yoke close and kick latch plate to trip within a cycle of AC current.



5 Safety Indication Feature

Always knob indicator shows position of contact. ~ in case of contact sticking, keep showing ON due to link between contact-arm and knob.



6 Specification – Endurance

Frame	Endurance (times)	
	With rated current	without current
Frame1	1,500	8,500
Frame2	1,000	7,000

7 Installation – Connection

Caution: Make sure tightened with torque shown below.

Pan head M8
4.9~5.9 N · m



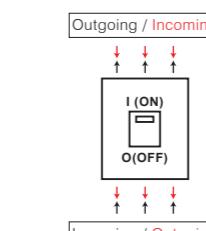
Applicable wire:
copper only
63A: 16 sq.mm
100A: 35 sq.mm

Hex socket head M8
7.8~12.7 N · m



Applicable wire:
copper only
150A: 50 sq.mm
200A: 95 sq.mm
250A: 150sq.mm

connection available
at any side

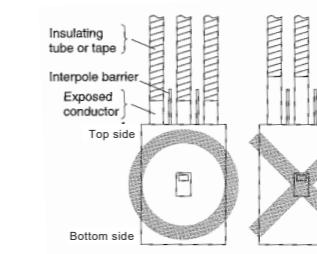


In the case of reverse connection
breaking capacity is reduced
in Frame

	Icu	Ics
AC240V~	2.5kA	2.5kA
AC415V~	5 kA	5 kA

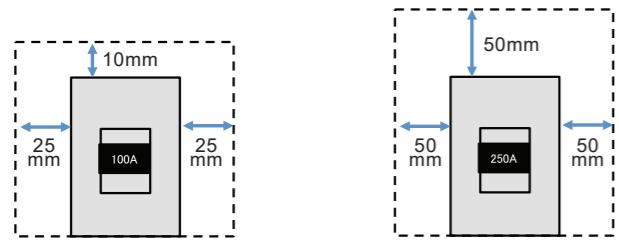
8 Installation – Insulation

Exposed conductors should be covered by Interpole Barriers. Use attached barriers for proper insulation.
Caution: Top side of frame 2 is mandatory.



9 Installation – Gap

Proper gap to metal plate / separator is required. Otherwise in case of short circuit critical damage may happen.



These MCCB are allowed to be installed close side by side.

10 Technical Specifications

Panasonic MCCB	Technical specifications	
General	Frame 1	Frame 2
Reference Standard	IEC 60947-2	IEC 60947-2
No. of poles	3P	3P
Rated current	63, 100A	150, 200, 250A
Utilisation category	A	A
Electrical parameters		
Max. Rated Operational voltage	AC 690 V	AC 690 V
Rated Insulation voltage	690 V	800V
Rated Impulse withstand voltage	6kV	8kV
Rated ultimate S.C. breaking capacity @ AC 415V (Icu)	10kA	25kA
Service short circuit breaking capacity @ AC 415V (Ics)	5kA	19kA
Mechanical/Electrical operations	8500 / 1500	7000 / 1000
Protection		
Protection method	FIXED Thermal magnetic	FIXED Thermal magnetic
Dimensions		
W x H x D (mm)	75 x 130 x 68	105 x 165 x 68
Special feature		
Line load reversibility	Yes	Yes
Calibration temperature	40°C	40°C

Saving space and saving cost

No.1

Unique accessory cover opens with only one screw



No.2

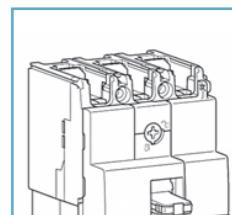
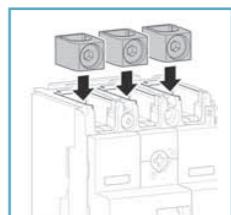
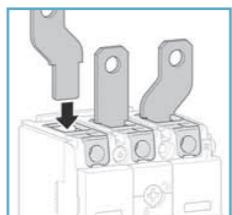
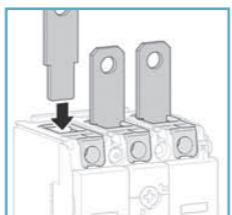
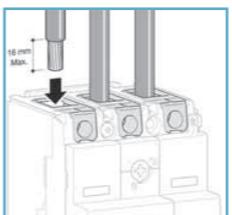
Suitable for isolation with positive contact indication



No.3

Operation in pollution degree 3 to IEC standard

Varied Terminations can be used



No.5

Compact size: W75 H130 D68; and high breaking capacity: 25kA 415V (Frame2)

No.6

IP20 protection for the terminals and IP30 protection for the front cover with toggle (with terminal covers)

Characteristics and Outline Dimensions

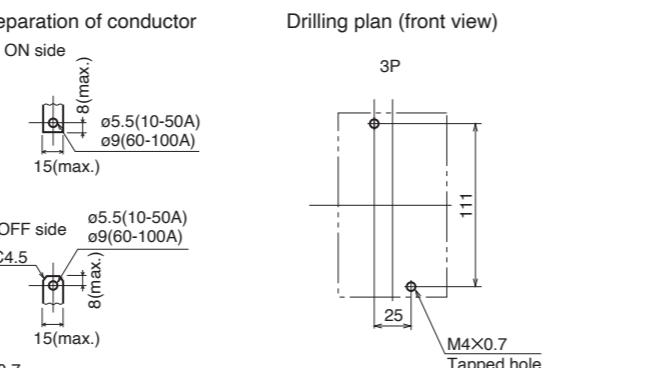
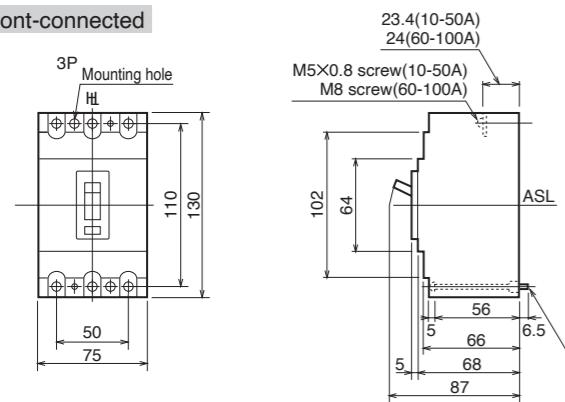
Molded Case Circuit Breakers

Ratings and Specifications

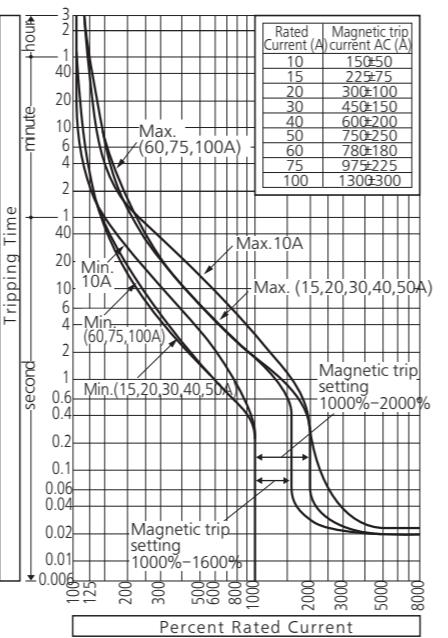
Type	100AF
Number of poles	3
■ Ratings	
Rated current, A	50
Calibrated at 40°C	60
	75
	100
Rated insulation voltage (U_i) V AC	690
Rated impulse withstand voltage (U_{imp}) kV	6
Utilization Category	A
■ Rated breaking capacity, kA	
IEC60947-2 AC	690V
$I_{cu}/I_{cs}(\text{sym})$	—
500V	7.5/3.8
440V	10/5
415V	10/5
380V	16/5
240V	25/13
■ Rated short time withstand current, kA	
Weight' (marked standard type) kg	0.48 0.74
■ Connections and Mountings	
Front-connected (FC)	Terminal screws
With straight extension bars	—
With spread extension bars	—
■ Accessories (optional)	Symbol
Interpole barrier	B A
■ Standard specifications	
Overcurrent trip mechanism	Thermal-magnetic
Trip button (color)	Yes (Red)
Handle position indication (ON: Red, OFF: Green)	Yes
Suitability for isolation	Non
CE marking	Non

Notes:
 ● : Standard. This configuration used unless otherwise specified.
 ● : "yes" or "available". — : "no" or "not available"
 3 : Line & Load side interpole barriers are supplied as standard.

Frame 1 - 100AF Outline dimensions (mm)



Time/Current characteristic curves



Characteristics and Outline Dimensions

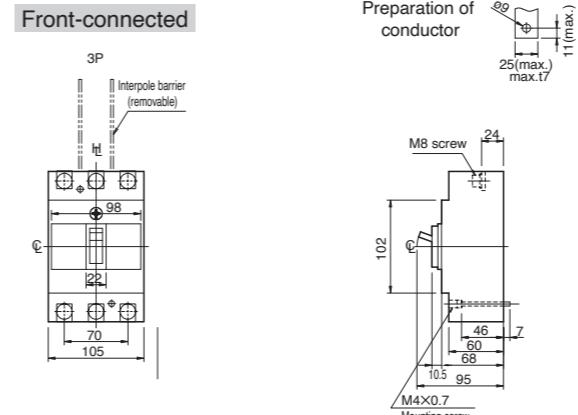
Molded Case Circuit Breakers

Ratings and Specifications

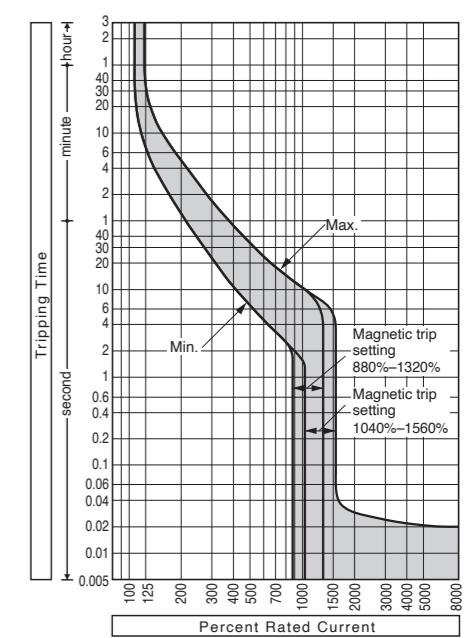
Type	250AF
Number of poles	3
■ Ratings	
Rated current, A	150
Calibrated at 40°C	200
	250
Rated insulation voltage (U_i) V AC	690
Rated impulse withstand voltage (U_{imp}) kV	8
Utilization Category	A
■ Rated breaking capacity, kA	
IEC60947-2 AC	690V
$I_{cu}/I_{cs}(\text{sym})$	—
500V	10/7.5
440V	15/12
415V	25/19
380V	25/19
240V	35/27
■ Rated short time withstand current, kA	
Weight' (marked standard type) kg	1.5
■ Connections and Mountings	
Front-connected (FC)	Terminal screws
■ Accessories (optional)	Symbol
Interpole barrier	B A
■ Standard specifications	
Overcurrent trip mechanism	Thermal-magnetic
Trip button (color)	Yes (Red)
Handle position indication (ON: Red, OFF: Green)	Yes
Suitability for isolation	Yes
CE marking	Non

Notes:
 ● : Standard. This configuration used unless otherwise specified.
 ● : "yes" or "available". — : "no" or "not available".
 3 : Line & Load side interpole barriers are supplied as standard.

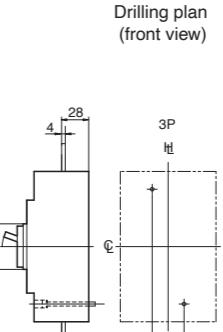
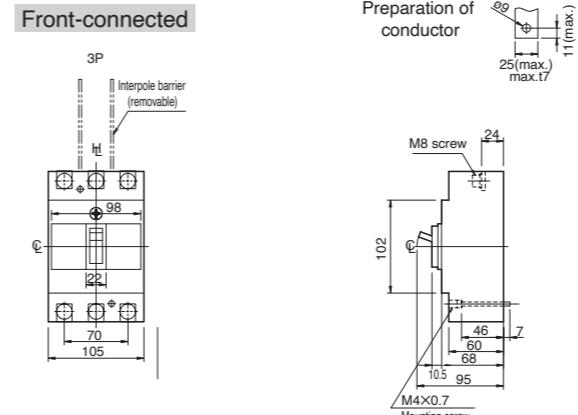
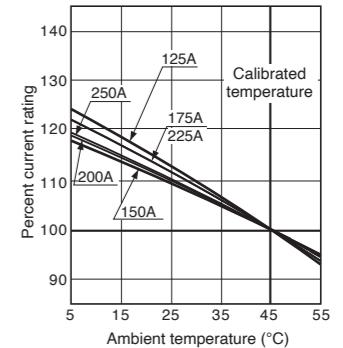
Frame 2 - 250AF Outline dimensions (mm)



Time/Current characteristic curves

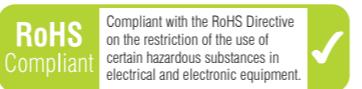


Ambient Compensating Curves



Note: For the extension bars, Straight bars or Spread bars can be supplied.

Safety, Flexibility & Eco Friendly



DISTRIBUTION BOARDS

CONSTRUCTIONS & FEATURES

1. Manufactured as per IS standards - IS13032/IS8623-3
2. Manufactured using special 1.2mm thickness CRCA sheet as per IS513D grade
3. Environment Friendly, meets the RoHS compliance defined by the European Standard
4. Fully Powder coated in RAL9010 white color SG finish and 50-70 micron powder coating thickness
5. IP 43(Degree of protection) compliant metal double door offers added safety
6. Reversible Door facility imparts flexibility at the installation
7. Pan assembly for easy installation of MCBs/RCCBs
8. Corner shields with smooth edges provide added security to the boards and shield them against physical damage such as bending and peeling of paint etc.
9. Suitable for flush as well as surface mounting
10. Ample wiring space is provided to ensure proper distribution of neutral & earthing wires
11. The sides of distribution boards are equipped with special marking that help to identify box-inserting level in the wall, when being used for flushed mounting
12. Equipped with insulated Bus bar rating 100A
13. Independent shield & door offers added flexibility & convenience of just removing the shield during maintenance job
14. Double Door is separately packed for preventing rusting
15. Equipped with complete set of wires for the internal wiring of the distribution board
16. Circuit table diagrams enclosed with the DB to avoid any mismatch during wiring

REVERSIBLE DOOR

By simply shifting the hinge assembly from left to right the opening of the door can be interchanged depending on the location of the installation.

BENEFITS

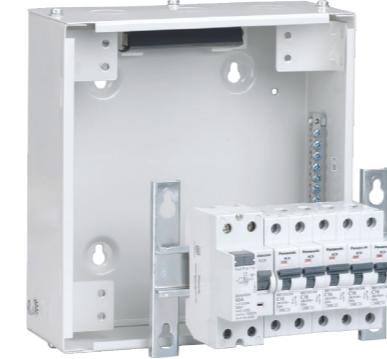
Unique flexibility as per customer convenience at the time of installation.

**PAN ASSEMBLY**

This concept facilitates detaching of the Chassis from the DB & the required wiring for the circuit protection device can be done at a comfortable location.

BENEFITS

Easy and comfortable installation of the internal wiring. Reduces the installation time and cost

**INTEGRATED FRAME DESIGN**

DB has a unique feature of the frame integrated into the Box.

BENEFITS

- The maintenance friendly design consist of simple 3 parts modular construction.
- This aids in decreasing the number of subassemblies and thus provides additional space for cable assembly

**FRONT DOOR AESTHETICS**

The Aesthetically designed front fascia of the DB adds an alluring dimension to the living space.

BENEFITS

- Blends with any interior decor.
- A distribution board that you no longer need to hide!

**DUST GUARD**

The Cement spill protector prevents entry of dust or cement particles inside the DB during the construction period at site. The installation guidelines are mentioned elaborately on cement spill protector.

BENEFITS

The Cement Spill protector ensures zero infiltration of dust or cement particles inside the DB.

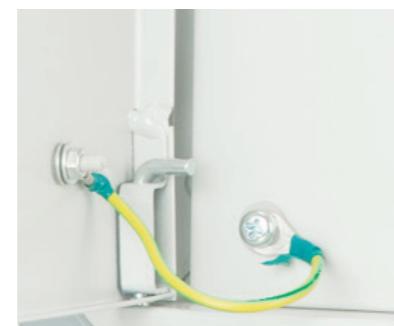
- The portable damage of the door is avoided.

**DOOR EARTHING**

Door earthing makes the entire DB totally shock proof.

BENEFITS

Highly shock proof





INTERNAL SLIDING KNOB/LATCH
Aesthetically Appealing curved white coloured auto locking latch.



DOUBLE MOUNTING KEY HOLES
Every Panasonic DB is provided with key holes for flush as well as surface mounting.



DETACHABLE GLAND PLATES WITH DIFFERENT SIZE OF KNOCKOUTS
Removable Gland plates at the top and bottom of the DB facilitate easy entry and exit of the cables. Thus one can remove the entire plate from incoming and outgoing terminals.



Circuit level diagram is provided to avoid any mismatch during wiring.



IP - 43 PROTECTION
Offers added Protection offered through the metal double door (i.e Protection against solid & Water fall 60 degree from vertical.)



INSTALLATION MANUAL SHEET
Panasonic DB comes with installation manual sheet for safe and easy installation of the circuit breakers.



INSULATED COPPER BUS BAR
All the DBs have this facility for quick & easy installation for rating. Rating is 100A



IDENTIFIED WIRE SET
All DBs are equipped with wire set for better device management



VISUAL ANTI-INSERTING FACILITY
Aids in identifying the box inserting level in the wall



SIDE LOCKING DIN BAR
Stoppers are provided at the corner of the DIN bar for avoiding slippage of device



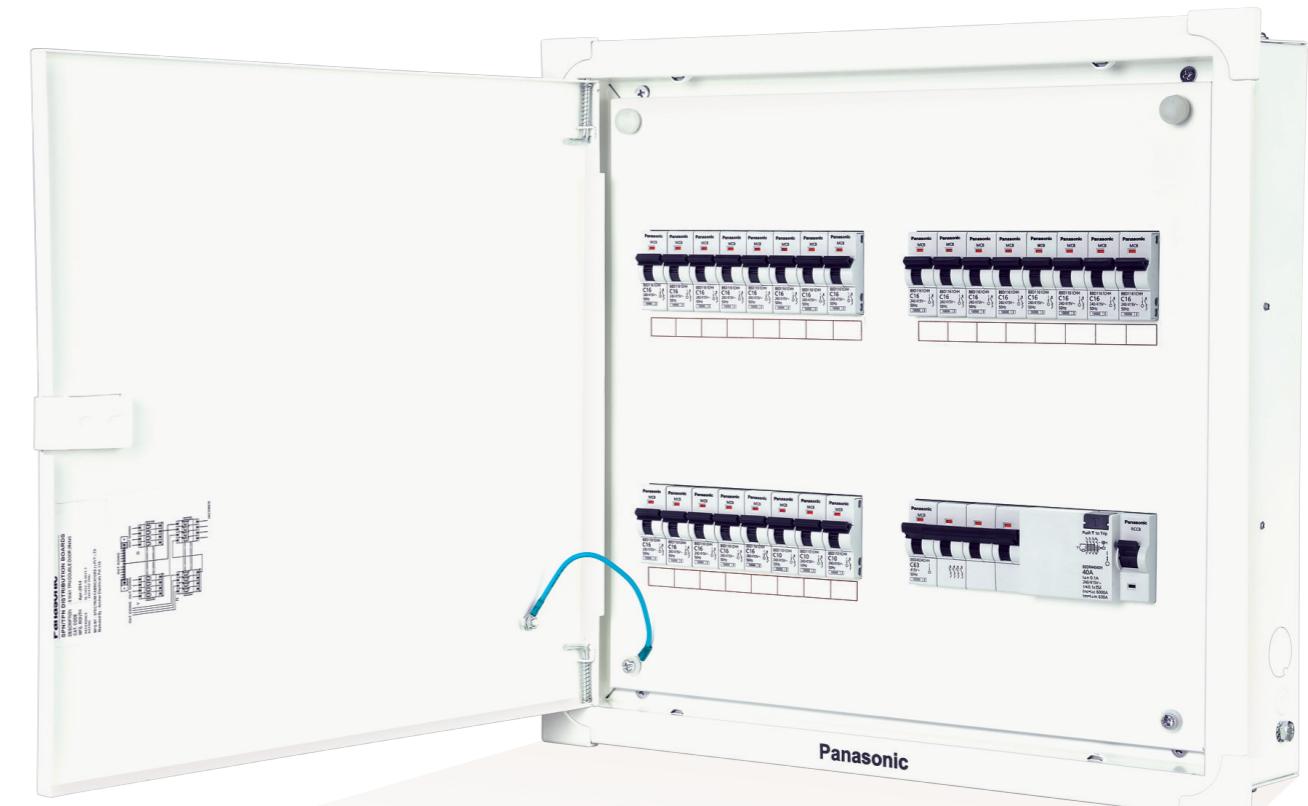
DOOR & SHIELD INDEPENDENT
During maintenance jobs, one can just remove the shield without removing the entire DB.



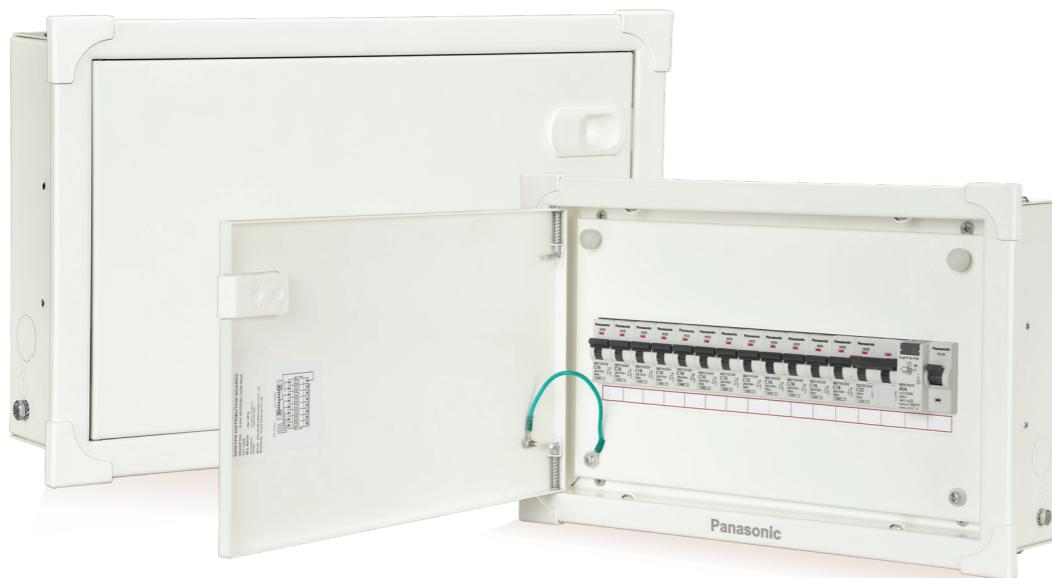
EMBOSS ED EARTHING IDENTIFICATION
Clear earthing marking for ease of installation. Screw : Panasonic DB is equipped with stainless steel screws that prevent rusting of the surface.



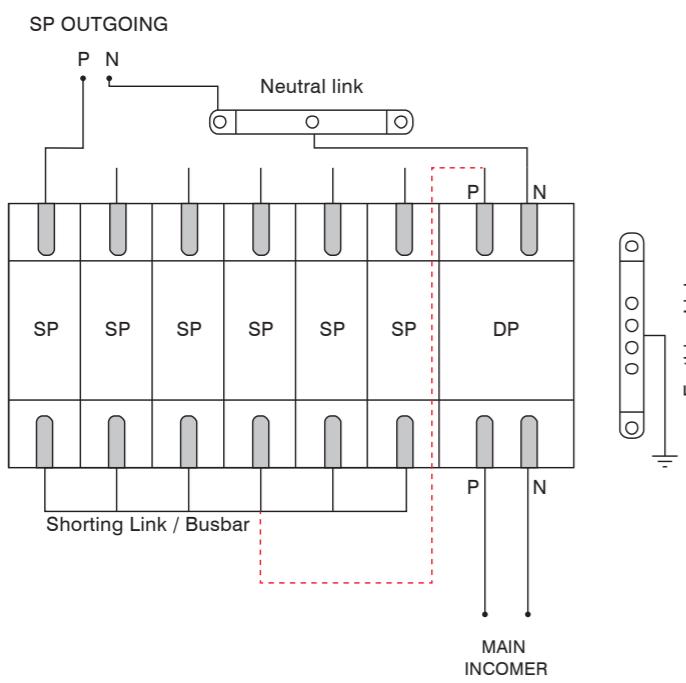
Ample space for wiring is provided to ensure proper distribution of neutral & earth wires.



SPN DOUBLE DOOR DISTRIBUTION BOARD



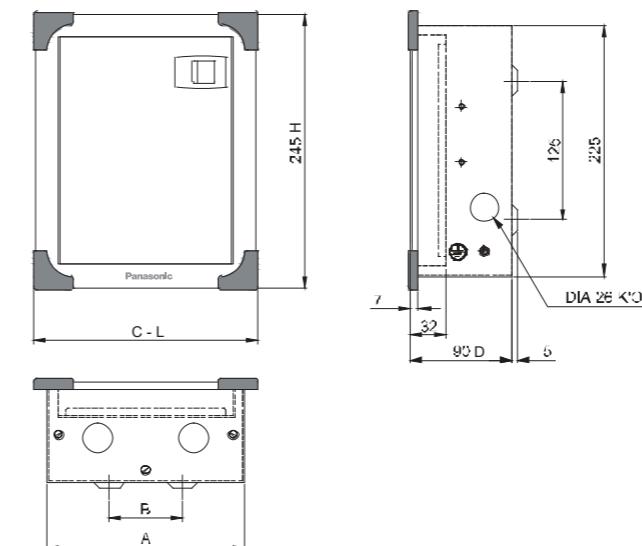
CIRCUIT DIAGRAM



DB Technical Specifications

No. of Ways	6, 8, 12 & 16 ways
Type of Installation	Surface & Flush mounting
Colour/ Finish	RAL 9010 White (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	100A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Voltage Rating	240V~, Single Phase
Incoming Options	SPN/DP MCB/RCCB /Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25 mm ² Split on both sides
Earthing Bar Terminal Capacity	25 mm ² Split on both sides
Ingress Protection (IP)	IP43
Rated Insulated Voltage(Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5KV
Ambient Temperature	-5° C to 40° C
Distribution Board- Reference Standards	IS 8623; IS 13032

SPN Double Door Distribution Board Dimensions (in mm)



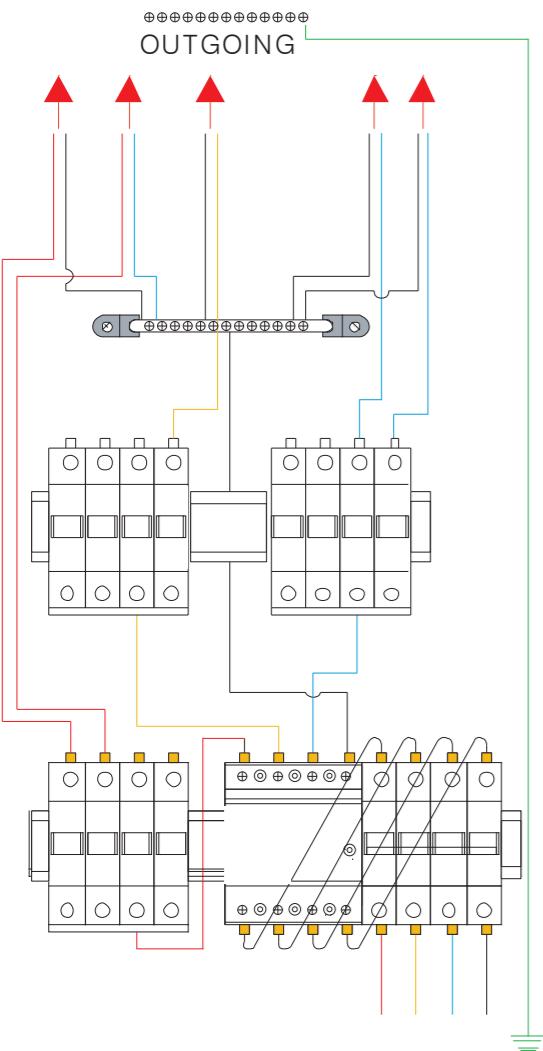
L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	A	B	C	TOP	BOTTOM	EACH SIDE
BQS 106H	6	2+4	1.2	175	65	195	2	2	1
BQS 108H	8	2+6	1.2	210	100	230	3	3	1
BQS 112H	12	2+10	1.2	285	175	305	4	4	1
BQS 116H	16	2+14	1.2	365	255	385	5	-	-

TPN DOUBLE DOOR DISTRIBUTION BOARD



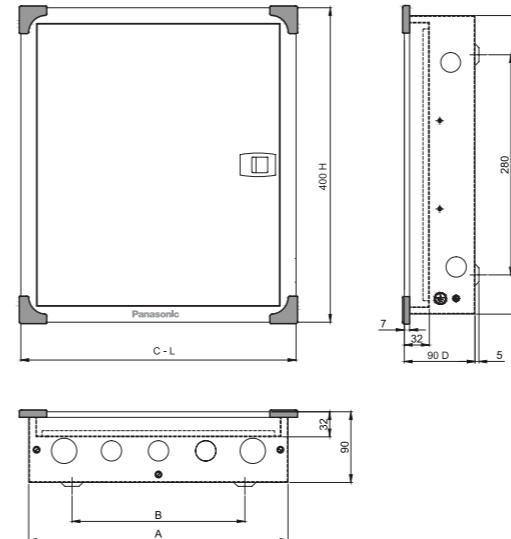
CIRCUIT DIAGRAM



DB Technical Specifications

No. of Ways	4, 6, 8
Type of Installation	Surface & Flush mounting
Colour/ Finish	RAL 9010 White (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	100A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Provision for Incomer slots	8 Slots
Voltage Rating	240/415V~, 3 Phase/4 Wire
Incoming Options	Three phase MCB/ RCCB/ Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25 mm ² , Split on both sides
Earthing Bar Terminal Capacity	25 mm ² , Split on both sides
Ingress Protection (IP)	IP43
Rated Insulated Voltage(Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5KV
Ambient Temperature	-5° C to 40° C
Distribution Board- Reference Standards	IS 8623; IS 13032

TPN Double Door Distribution Board Dimensions (in mm)



L X H X D = Length X Height X Depth

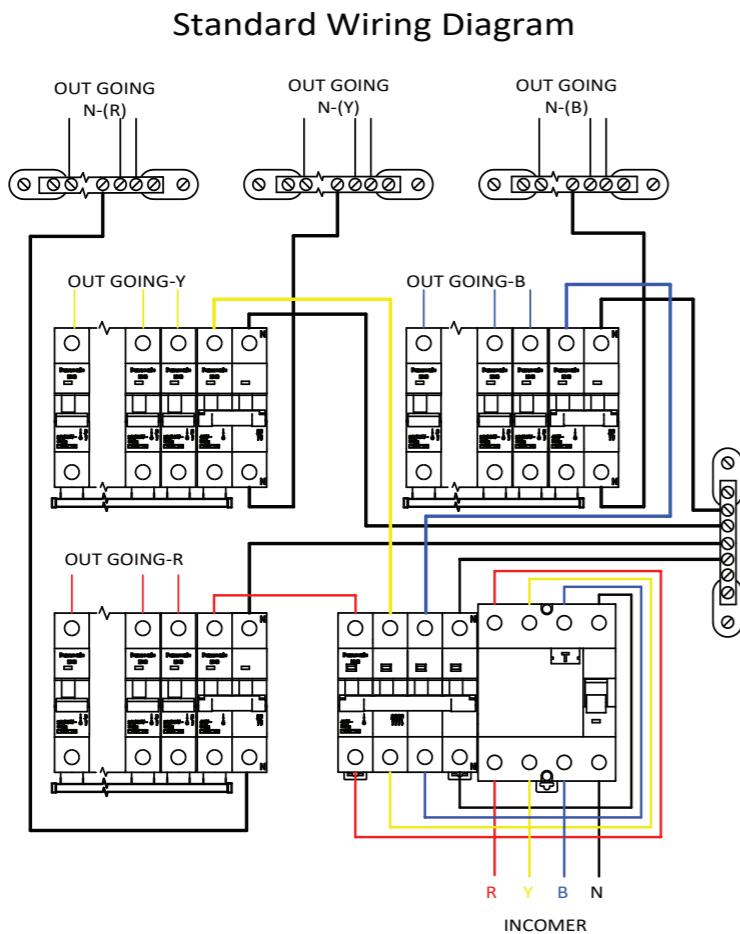
CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes (ø25 mm)				
					A	B	C	TOP ø25 mm	TOP ø32 mm	BOTTOM ø25 mm	BOTTOM ø32 mm	EACH SIDE
BQS 304H	4	8+12	1.2	4	330	220	350	3	2	3	2	2
BQS 306H	6	8+18	1.2	6	365	255	385	4	2	4	2	
BQS 308H	8	8+24	1.2	8	415	305	435	4	2	4	2	

*1.2mm and 1.6mm Sheet thickness as Per Customer Request

HORIZONTAL PER PHASE ISOLATION (PPI) DISTRIBUTION BOARD



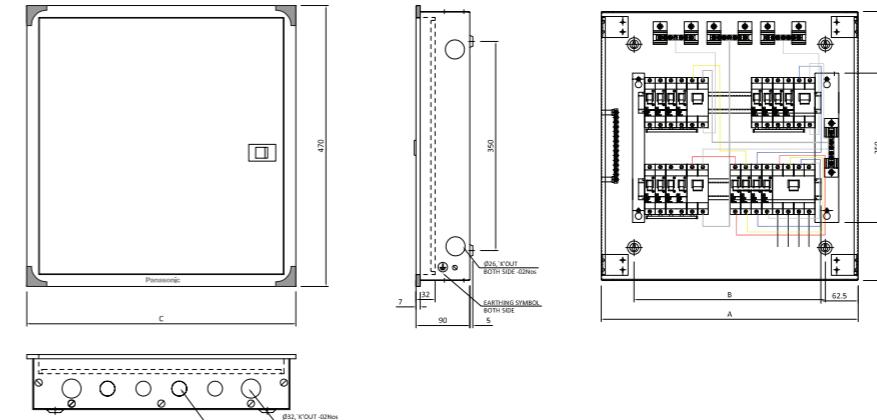
CIRCUIT DIAGRAM



DB Technical Specifications

No. of Ways	4, 6, 8
Type of Installation	Surface & Flush mounting
Colour/ Finish	RAL 9010 White (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	100A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Provision for Incomer slots	8 Slots
Voltage Rating	240/415V~, 3 Phase/4 Wire
Incoming Options	Three phase MCB/ RCCB/ Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25 mm ² , Split on both sides
Earthing Bar Terminal Capacity	25 mm ² , Split on both sides
Ingress Protection (IP)	IP43
Rated Insulated Voltage(Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5kV
Ambient Temperature	-5° C to 40° C
Distribution Board- Reference Standards	IS 8623; IS 13032

TPN Double Door Distribution Board Dimensions (in mm)



L X H X D = Length X Height X Depth

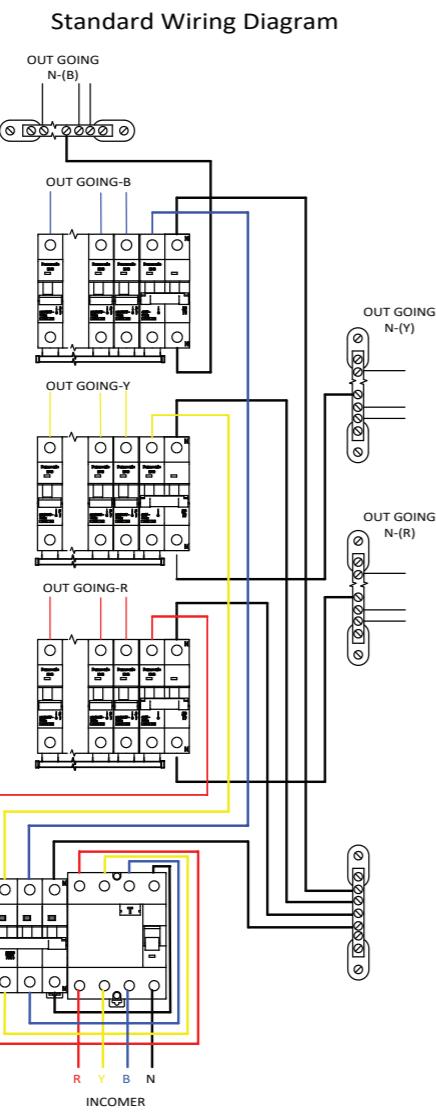
CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm TOP & BOTTOM	Ø32mm TOP & BOTTOM
BQSH304H	4+2	8+6+12	1.2	4	430	320	450	8	2
BQSH306H	6+2	8+6+18	1.2	6	465	355	485	10	2
BQSH308H	8+2	8+6+24	1.2	8	535	425	555	12	2

Note: For Accessories Please refer UNO catalogue

VERTICAL PER PHASE ISOLATION (PPI) DISTRIBUTION BOARD



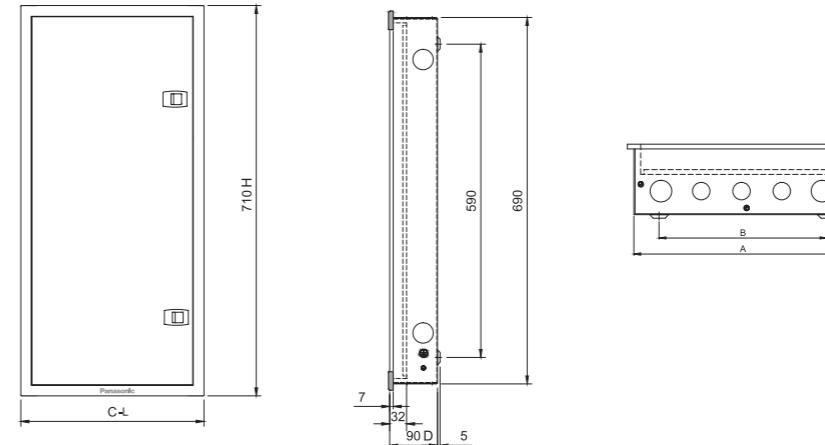
CIRCUIT DIAGRAM



DB Technical Specifications

No. of Ways	4, 6, 8
Type of Installation	Surface & Flush mounting
Colour/ Finish	RAL 9010 White (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	100A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Provision for Incomer slots	8 Slots
Voltage Rating	240/415V~, 3 Phase/4 Wire
Incoming Options	Three phase MCB/ RCCB/ Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25 mm ² , Split on both sides
Earthing Bar Terminal Capacity	25 mm ² , Split on both sides
Ingress Protection (IP)	IP43
Rated Insulated Voltage(Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5KV
Ambient Temperature	-5° C to 40° C
Distribution Board- Reference Standards	IS 8623; IS 13032

TPN Double Door Distribution Board Dimensions (in mm)



L X H X D = Length X Height X Depth

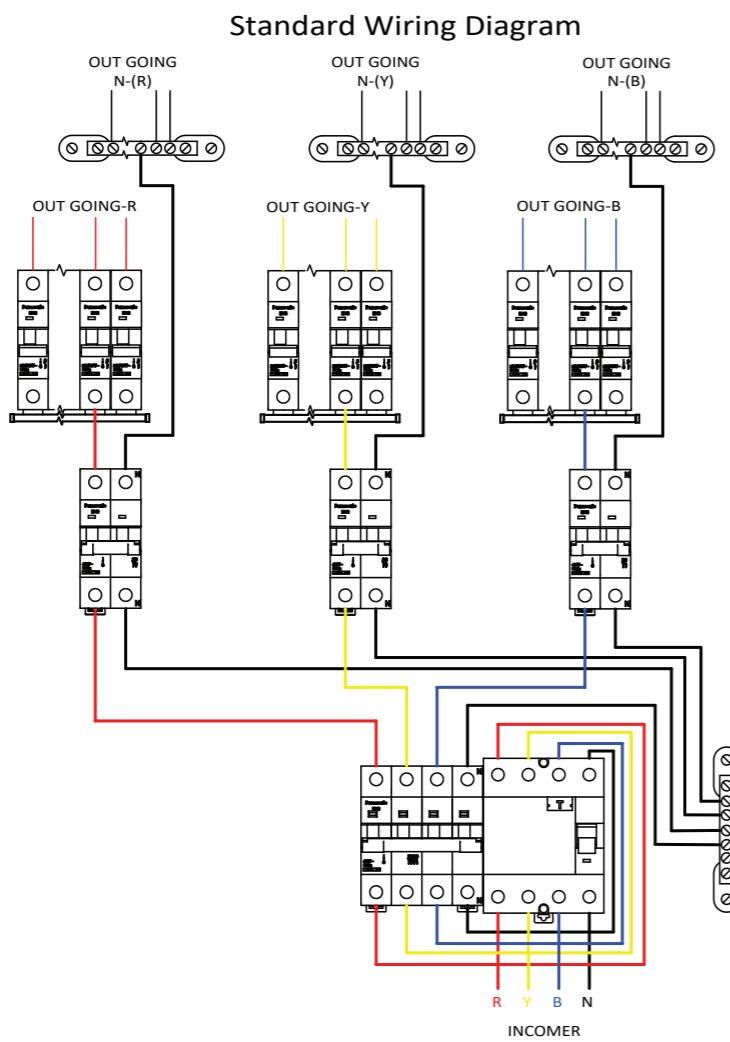
CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm TOP & BOTTOM	Ø32mm TOP & BOTTOM
BQSV304H	4+2	8+6+12	1.2	4	300	225	320	4	2
BQSV306H	6+2	8+6+18	1.2	6	300	225	320	4	2
BQSV308H	8+2	8+6+24	1.2	8	325	250	345	6	2
BQSV312H	12+2	8+6+36	1.2	12	400	325	420	8	2

Note: For Accessories Please refer UNO catalogue

EIGHT SEGMENT DISTRIBUTION BOARD



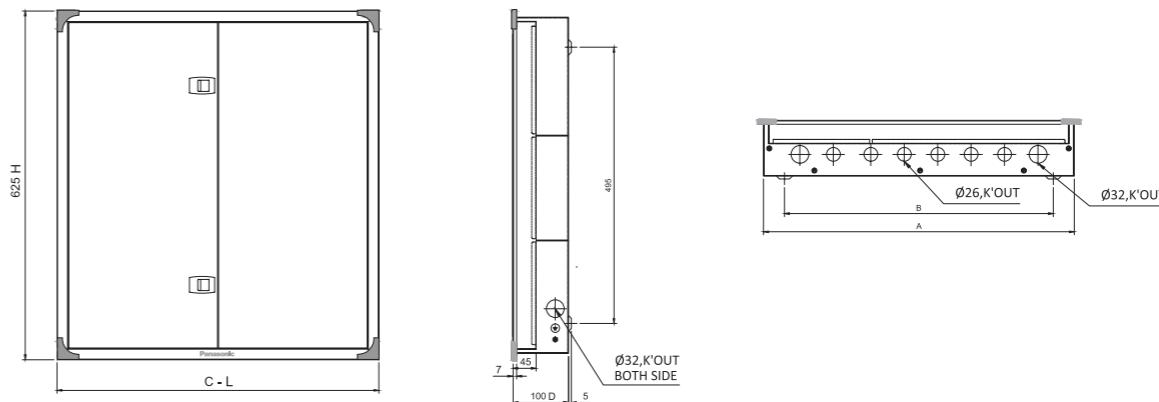
CIRCUIT DIAGRAM



DB Technical Specifications

No. of Ways	4, 6, 8
Type of Installation	Surface & Flush mounting
Colour/ Finish	RAL 9010 White (Semi Glossy)
Door Options	Reversible
Door Locking Options	Sliding Lock
Removable Gland Plates	Top & Bottom
Protection Level of Distribution Board	Advanced
Distribution Technique	Insulated Busbar
Bus Bar Rating	100A
Incoming	Max. 63A
Outgoing	Max. Individual 63A
Provision for Incomer slots	8 Slots
Voltage Rating	240/415V~, 3 Phase/4 Wire
Incoming Options	Three phase MCB/ RCCB/ Isolator
Outgoing Options	Single pole MCB up to 63A
Neutral Bar Terminal Capacity	25 mm ² , Split on both sides
Earthing Bar Terminal Capacity	25 mm ² , Split on both sides
Ingress Protection (IP)	IP43
Rated Insulated Voltage(Ui)	690V~
Frequency	50Hz
Dielectric Strength	2.5KV
Ambient Temperature	-5° C to 40° C
Distribution Board- Reference Standards	IS 8623; IS 13032

TPN Double Door Distribution Board Dimension (in mm)



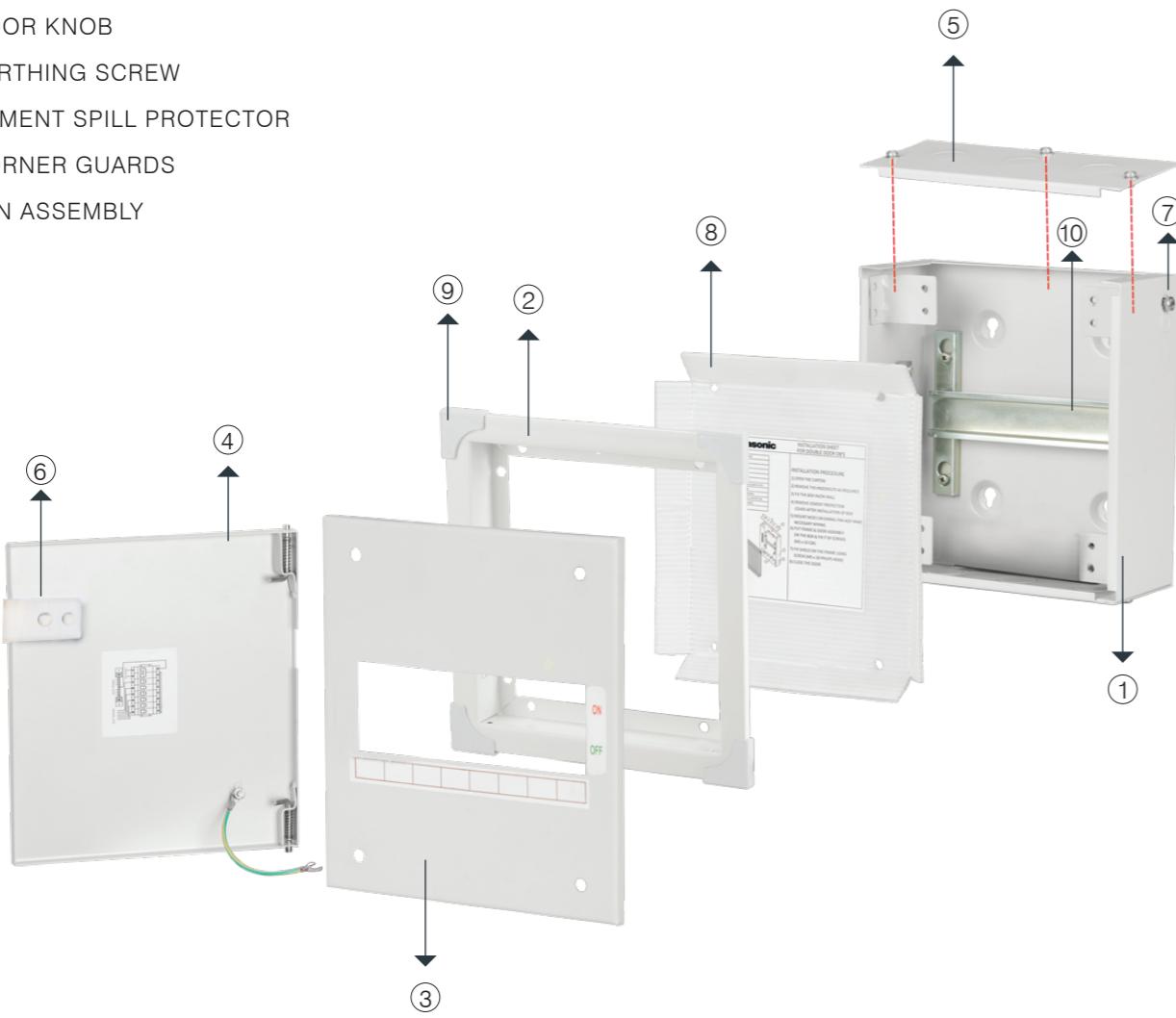
L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes			
					A	B	C	Ø26mm	Ø32mm	TOP	BOTTOM
BQS8304H	4	8+6+12	1.2	4	451	361	471	6	3	2	2
BQS8306H	6	8+6+18	1.2	6	557	467	577	9	4	2	2
BQS8308H	8	8+6+24	1.2	8	662	572	682	12	6	2	2
BQS8312H	12	8+6+36	1.2	12	872	782	892	15	9	2	2

Note: For Accessories Please refer UNO catalogue

INSTALLATION - DOUBLE DOOR DBs

- 1 BOX
- 2 FRAME
- 3 SHIELD
- 4 DOOR
- 5 DETACHABLE GLAND PLATE
- 6 DOOR KNOB
- 7 EARTHING SCREW
- 8 CEMENT SPILL PROTECTOR
- 9 CORNER GUARDS
- 10 PAN ASSEMBLY



INSTALLATION PROCEDURE

1	Open the carton
2	Remove the Knockouts as required
3	Fix the Box in/on wall
4	Remove cement protection cover after installation of Box
5	Mount MCB's on Dinrail Pan Assembly after installing necessary wiring
6	Put frame & door assembly on the box & fit it by screws (M5 X 10CSK)
7	Fix shield on the frame using screw (M5 X 18 Philips Head)
8	Close the door

IP (INGRESS PROTECTION)

IP (Ingress Protection) rating given to an enclosure states the degree of protection it offers by means of two digits. A summary of these is shown below. For detailed definition, please refer IEC 60529:2000, BS EN 60529:1992.

THERE ARE TWO DIGITS FOR IP PROTECTION.

First Digit: Defines the protection offered against penetration by solid objects and access to hazardous parts.

Second Digit: Defines the protection offered against ingress of water.

TEST	IP	PROTECTION	TEST	IP	PROTECTION
	0	No Protection		0	No Protection
	1	Protected against solid objects up to 50 mm. e.g. accidental touch by hands		1	Protected against vertically falling drops of water. e.g. Condensation
	2	Protected against solid objects up to 12 mm. e.g. fingers		2	Protected against direct sprays of water up to 15° from the vertical
	3	Protected against solid objects over 2.5 mm. e.g. tools & wires		3	Protected against sprays of water up to 60° from the vertical
	4	Protected against solid objects over 1mm. e.g. tools and wires		4	Protected against after splash from all directions-limited ingress permitted.
	5	Protected against dust-limited ingress, no harmful deposits		5	Protected against low pressure jets of water from all directions limited ingress permitted
	6	Totally protected against dust		6	Protected against strong jets of water. e.g. for use on ship decks-limited ingress permitted

EUROPA

Distribution Board

Dual benefits of flexibility and safety, enabling safe and efficient distribution of electrical power.

Europa Distribution Boards have designed to provide a new dimension of protection in Homes, Offices and Industries. It is equipped with stylish color, elegant curves and distinctive finish that blend with all kinds of interior décor.

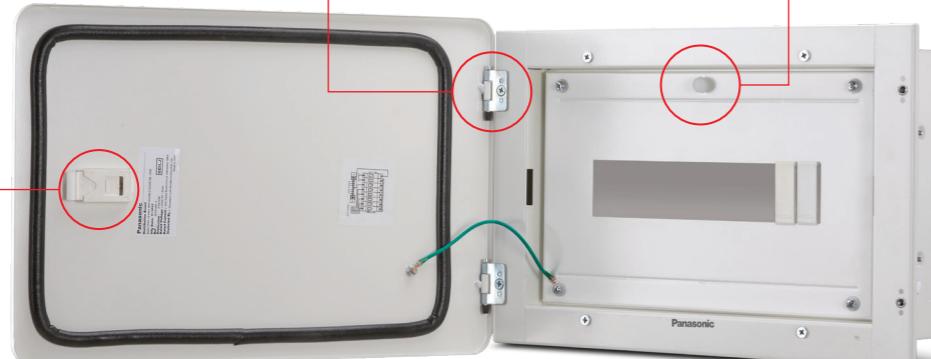
These boards undergo a seven-tank phosphate pre-treatment process to ensure anti-rust conditioning, superior finish and lasting strength. Post this process, premium quality powder coating is applied using the state-of-the-art techniques. These boards are also equipped with top and bottom removable gland plates with a number of knockouts. One can install them either flush or wall mounted.



Internal Sliding Knob/Latch
Aesthetically pleasing curved white color auto locking latch

Removable Front Door
Front doors are provided with reversible hinges for easy removal

Front Plate Studs
Front plate studs are provided for easy lifting of front plate safely



IP43 & IP54 Protection
IK09 Protection
For indoor & outdoor application with better mechanical strength



Optimized Dimension

Enough wiring space is provided for easy cabling and maintenance



Side Locking Din Bar

Stoppers are provided at the corner of the DIN bar for avoiding slippage of devices.

UNIQUE FEATURES

REVERSIBLE DOOR

By simply shifting the spring loaded hinge assembly from left to right, the opening of the door can be interchanged depending on the location of installation.



CEMENT SPILL PROTECTOR

Ensures zero infiltration of dust or cement particles inside the DB during construction period avoiding portable damage of the door.



INTEGRATED FRAME DESIGN

Decrease in number of sub-assemblies, additional space for cables.



PAN ASSEMBLY

Easy and comfortable installation of the internal wiring. Reduces the installation time and cost.



DOOR EARTHING

Door earthing makes the DB totally shock proof..



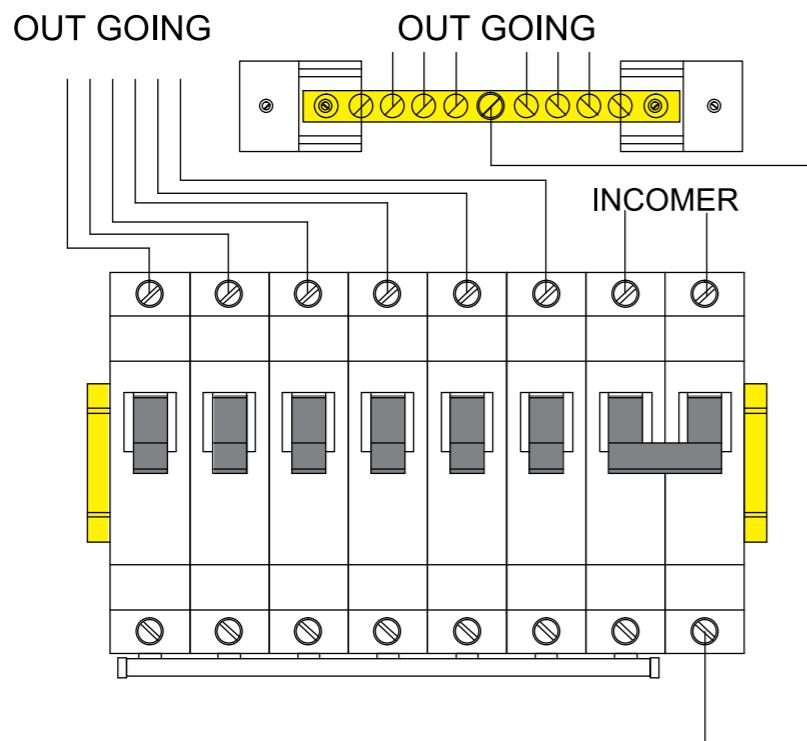
DETACHABLE GLAND PLATES

With Bigger knockouts Gland Plates at top & bottom are removable : Easy entry & termination of cables.





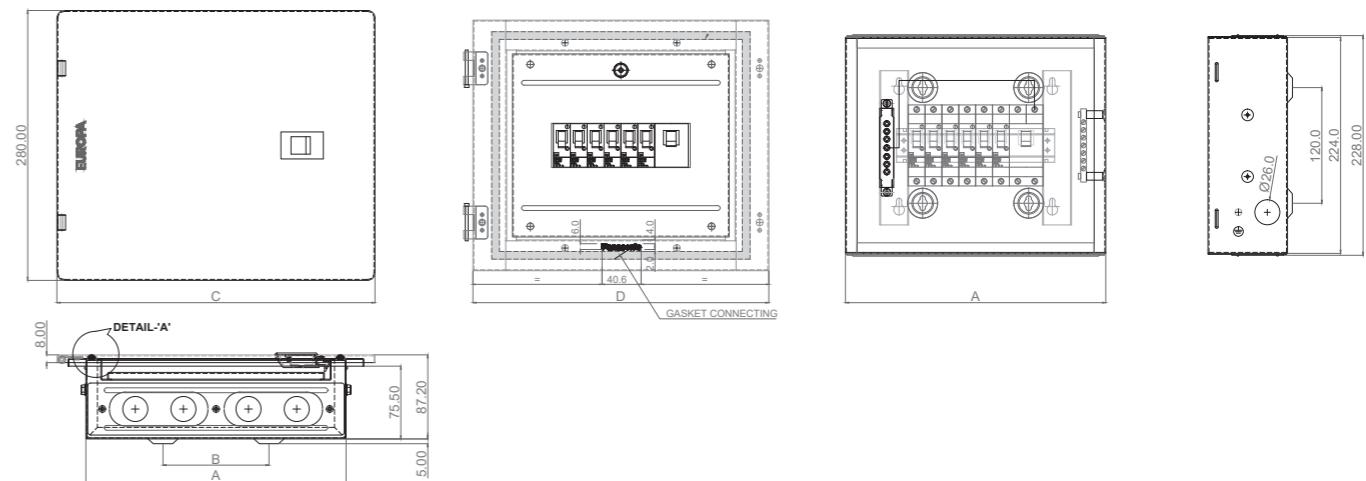
CIRCUIT DIAGRAM



DB Technical Specifications

No of Ways	4, 6, 8, 12, 16
Type of Installation	Surface & Flush Mounting
Colour/Finish	RAL 9010 SEMI GLOSSY WHITE SHADE
Door options	Reversible
Door locking options	Sliding lock
Removable Gland plates	Top & Bottom
Distribution Technique	Insulated Copper Busbar
Busbar rating	100A
Incoming	Max 63A
Outgoing	Max individual 63A
Voltage Rating	240/415V -
Incoming Options	DP MCB/RCCB/Isolator
Outgoing Options	SP MCB up to 63A
Neutral Bar Terminal Capacity	25mm ²
Earthing Bar Terminal Capacity	25mm ²
Ingress protection (IP)	IP43
Rated Insulation voltage (Ui)	690V
Frequency	50Hz
Dielectric strength	2.5kV
Ambient temperature	-5deg to 40deg
Reference Standard	IS 8623; IEC 61439-1,3

SPN Double Door Distribution Board Dimensions (in mm)



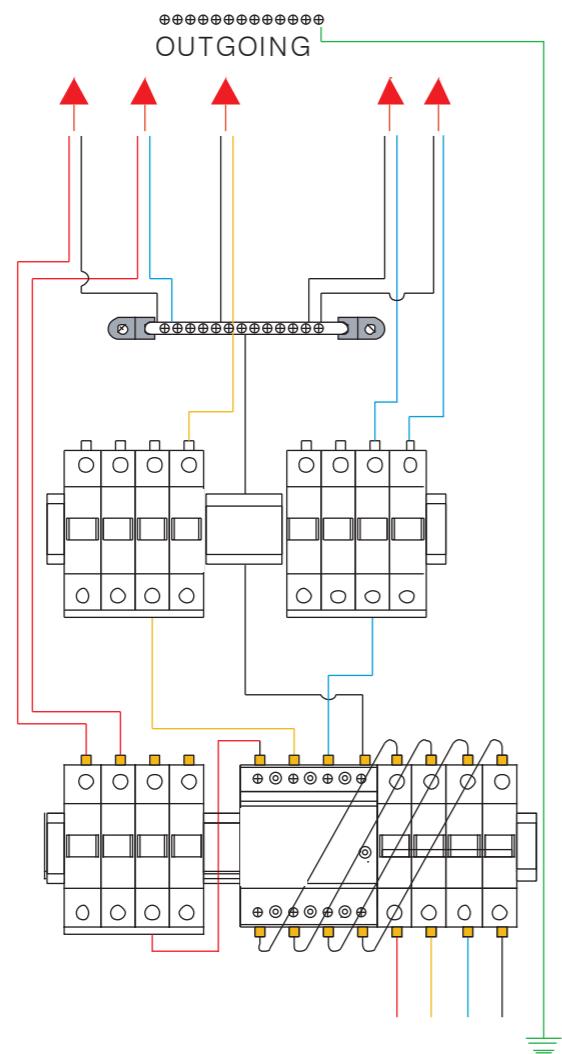
L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm	Ø26mm
					TOP & BOTTOM		ON EACH SIDE		
BQS1204H	4	2+2	1.0	4	220	170	280	3 No's	1 No
BQS1206H	6	2+4	1.0	6	255	205	315	4 No's	1 No
BQS1208H	8	2+6	1.0	8	290	110	350	4 No's	1 No
BQS1212H	12	2+10	1.0	12	360	180	420	6 No's	1 No
BQS1216H	16	2+14	1.0	16	430	250	490	8 No's	1 No

EUROPA IP43 TPN DISTRIBUTION BOARD



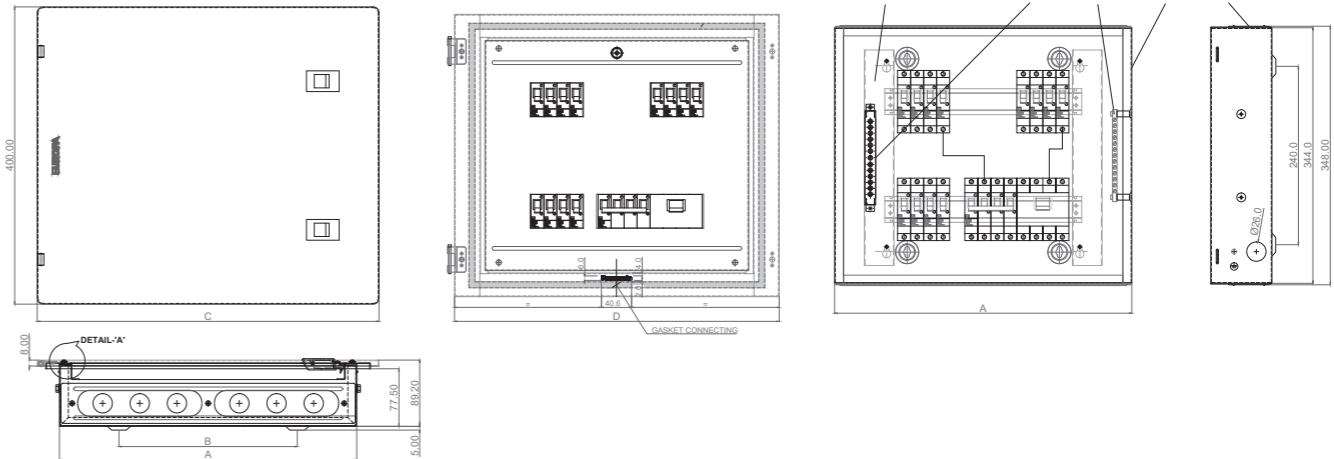
CIRCUIT DIAGRAM



DB Technical Specifications

No of Ways	4, 6, 8, 12
Type of Installation	Surface & Flush Mounting
Colour/Finish	RAL 9010 SEMI GLOSSY WHITE SHADE
Door options	Reversible
Door locking options	Sliding lock
Removable Gland plates	Top & Bottom
Distribution Technique	Insulated Copper Busbar
Busbar rating	100A
Incoming	Max 63A
Outgoing	Max individual 63A
Provision for Incomer slots	4M only in 4W 8M in 4, 6, 8, 12W
Voltage Rating	240/415V
Incoming Options	TP/FP - MCB/RCCB/Isolator
Outgoing Options	SP MCB up to 63A
Neutral Bar Terminal Capacity	25mm ²
Earthing Bar Terminal Capacity	25mm ²
Ingress protection	IP43
Rated Insulation voltage (Ui)	690V
Frequency	50Hz
Dielectric strength	2.5kV
Ambient temperature	-5deg to 40deg
Reference Standard	IS 8623; IEC 61439-1,3

TPN Double Door Distribution Board Dimensions (in mm)

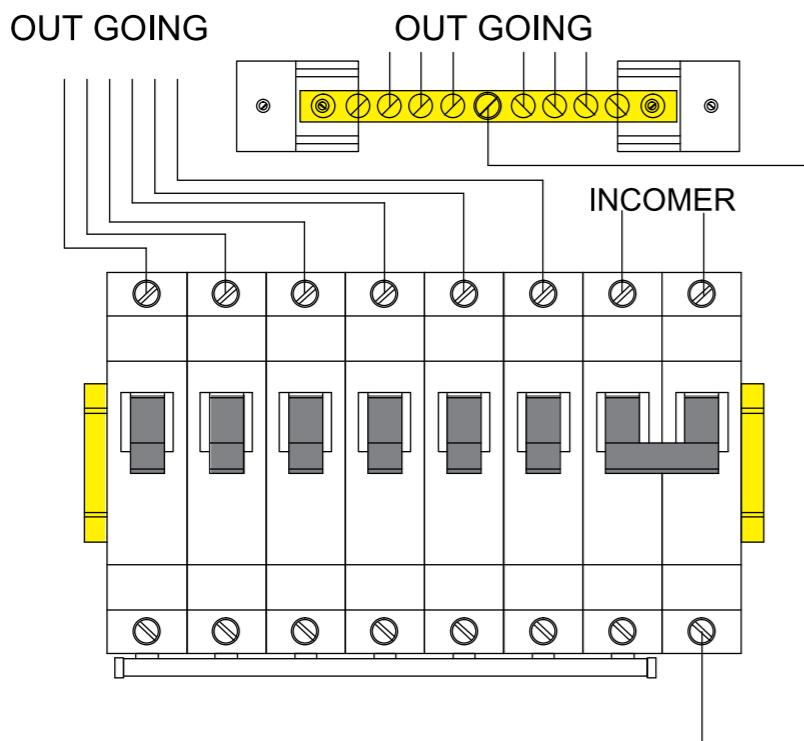


L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm	Ø26mm
BQS3404H	4	4+4	1.0	4	330	135	390	6 No's	1 No
BQS3804H	4	8+12	1.0	4	400	205	460	6 No's	1 No
BQS3806H	6	8+18	1.0	6	435	240	495	8 No's	1 No
BQS3808H	8	8+24	1.0	8	470	275	530	8 No's	1 No
BQS3812H	12	8+36	1.0	12	650	455	710	10 No's	1 No



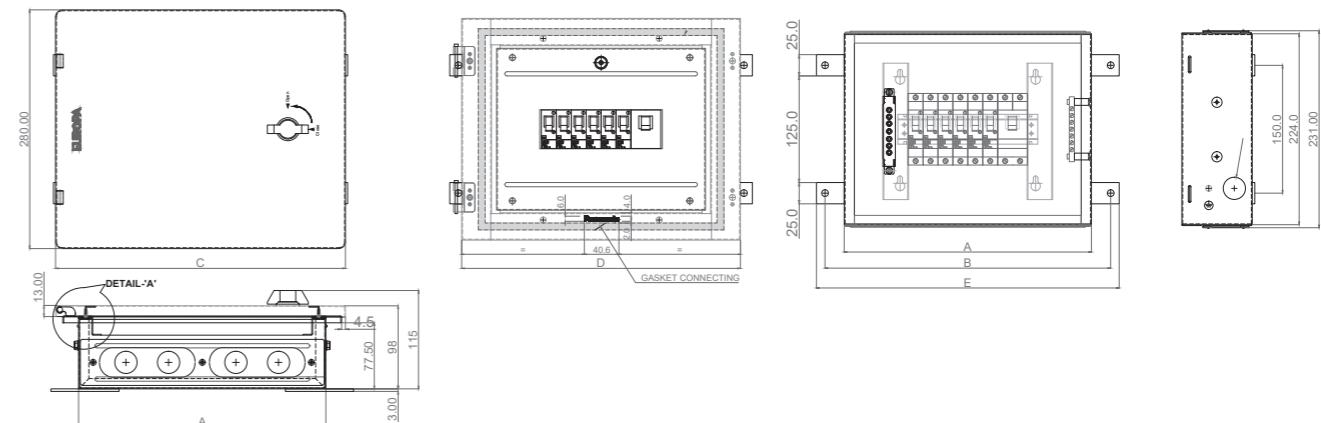
CIRCUIT DIAGRAM



DB Technical Specifications

No of Ways	4, 6, 8, 12, 16
Type of Installation	Surface & Flush Mounting
Colour/Finish	RAL 9010 SEMI GLOSSY WHITE SHADE
Door options	Reversible
Door locking options	Rotary lock
Removable Gland plates	Top & Bottom
Distribution Technique	Insulated Copper Busbar
Busbar rating	100A
Incoming	Max 63A
Outgoing	Max individual 63A
Voltage Rating	240/415V
Incoming Options	DP MCB/RCCB/Isolator
Outgoing Options	SP MCB up to 63A
Neutral Bar Terminal Capacity	25mm ²
Earthing Bar Terminal Capacity	25mm ²
Ingress protection (IP)	IP54
Impact protection (IK)	IK09
Rated Insulation voltage (Ui)	690V
Frequency	50Hz
Dielectric strength	2.5kV
Ambient temperature	-5deg to 40deg
Reference Standard	IS 8623; IEC 61439-1,3

SPN Double Door Distribution Board Dimensions (in mm)



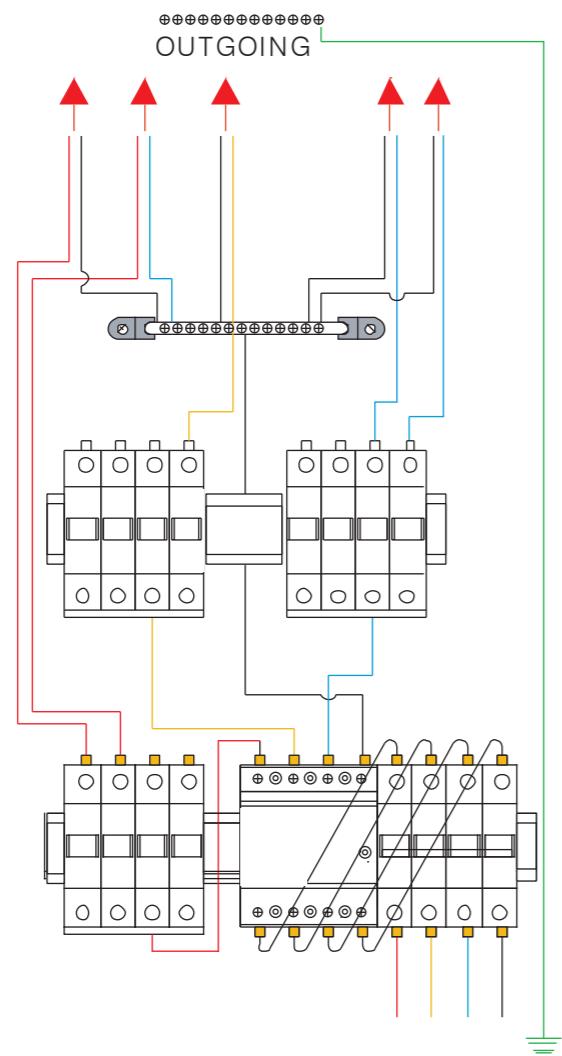
L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm	Ø26mm
BQSW1204H	4	2+2	1.0	4	220	265	270	3 No's	1 No
BQSW1206H	6	2+4	1.0	6	255	300	305	4 No's	1 No
BQSW1208H	8	2+6	1.0	8	290	335	340	4 No's	1 No
BQSW1212H	12	2+10	1.0	12	360	405	410	6 No's	1 No
BQSW1216H	16	2+14	1.0	16	430	475	480	8 No's	1 No

EUROPA IP54 TPN DISTRIBUTION BOARD



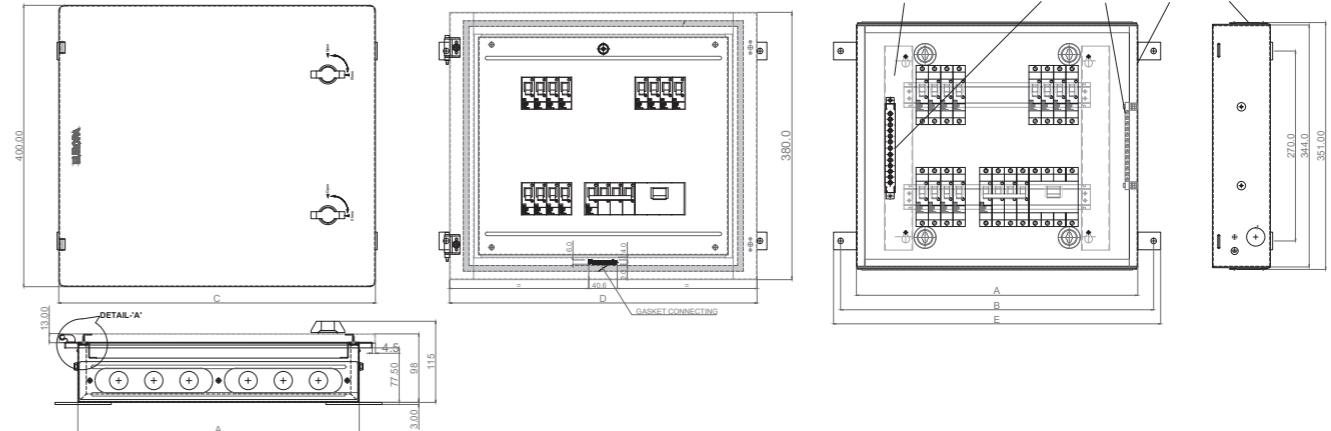
CIRCUIT DIAGRAM



DB Technical Specifications

No of Ways	4, 6, 8, 12
Type of Installation	Surface & Flush Mounting
Colour/Finish	RAL 9010 SEMI GLOSSY WHITE SHADE
Door options	Reversible
Door locking options	Rotary lock
Removable Gland plates	Top & Bottom
Distribution Technique	Insulated Copper Busbar
Busbar rating	100A
Incoming	Max 63A
Outgoing	Max individual 63A
Provision for Incomer slots	"4M only in 4W 8M in 4, 6, 8, 12W"
Voltage Rating	240/415V
Incoming Options	TP/FP - MCB/RCCB/Isolator
Outgoing Options	SP MCB up to 63A
Neutral Bar Terminal Capacity	25mm ²
Earthing Bar Terminal Capacity	25mm ²
Ingress protection (IP)	IP54
Impact protection (IK)	IK09
Rated Insulation voltage (Ui)	690V
Frequency	50Hz
Dielectric strength	2.5kV
Ambient temperature	-5deg to 40deg
Reference Standard	IS 8623; IEC 61439-1,3

TPN Double Door Distribution Board Dimensions (in mm)



L X H X D = Length X Height X Depth

CODE	NO OF WAYS	INCOMING + OUTGOING	SHEET THICKNESS MM	NO OF WAYS	Dimensions (in mm)			Knockout Holes	
					A	B	C	Ø26mm	Ø26mm
BQS3404H	4	4+4	1.0	4	330	135	390	6 No's	1 No
BQS3804H	4	8+12	1.0	4	400	205	460	6 No's	1 No
BQS3806H	6	8+18	1.0	6	435	240	495	8 No's	1 No
BQS3808H	8	8+24	1.0	8	470	275	530	8 No's	1 No
BQS3812H	12	8+36	1.0	12	650	455	710	10 No's	1 No