



**BE SAFER.  
BE SMARTER.**



## **SWITCHGEAR CATALOGUE-2020**

Fans • Home Appliances • Lighting • Switchgear

# OVER SIX DECADES OF TRUST, INNOVATION AND EXCELLENCE

Known to the industry and consumers for its undisputed legacy that is characterized by excellent service and an extensive range of products, Orient Electric is a force to reckon with in the Indian consumer electricals segment. Orient came into existence in the 1950s with a simple thought of making efficient, aesthetic and durable electric fans. Since then it has grown, embracing new frontiers in technology and innovation, to become one of the leading electrical brands in India with a significant global presence and a diverse portfolio which includes fans, lighting, home appliances and switchgear. Across its entire product portfolio, the company is working to bring in innovative products which are healthier, safer, energy-efficient, and add convenience to life.

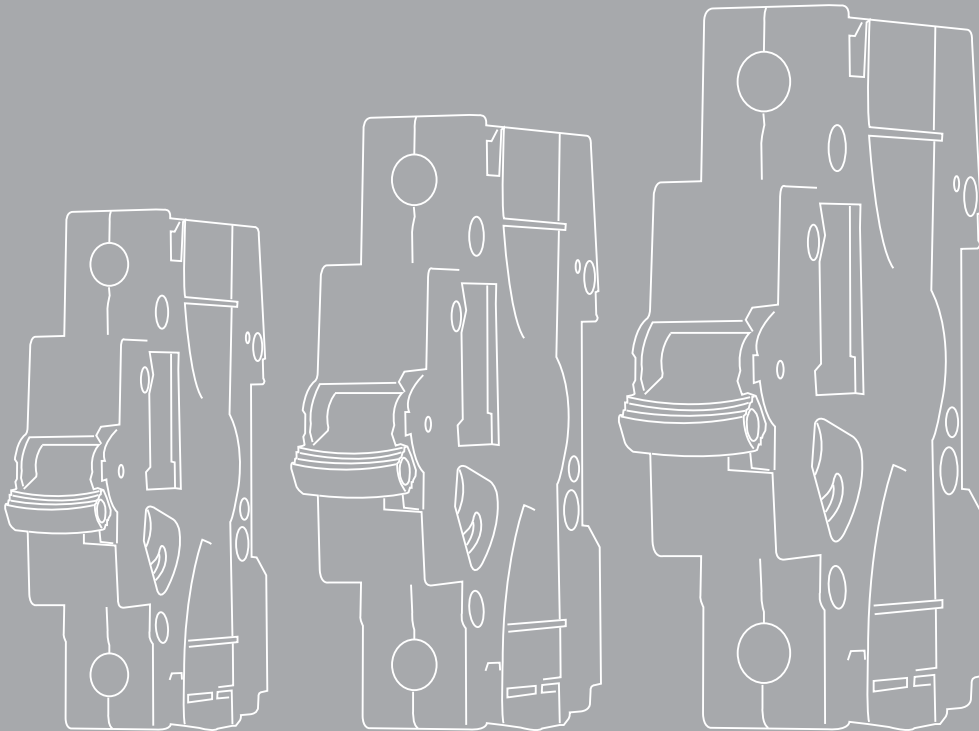
Orient Electric ventured into switchgear business in 2015 and has continually leveraged technology and quality excellence to gather speed. As of today, it offers a wide range of 'safe, reliable and energy-efficient' switchgear products and modular switches that have been designed and developed keeping in mind the electrical safety requirements in the Indian context.

Inch closer to all-round protection as you turn the pages.

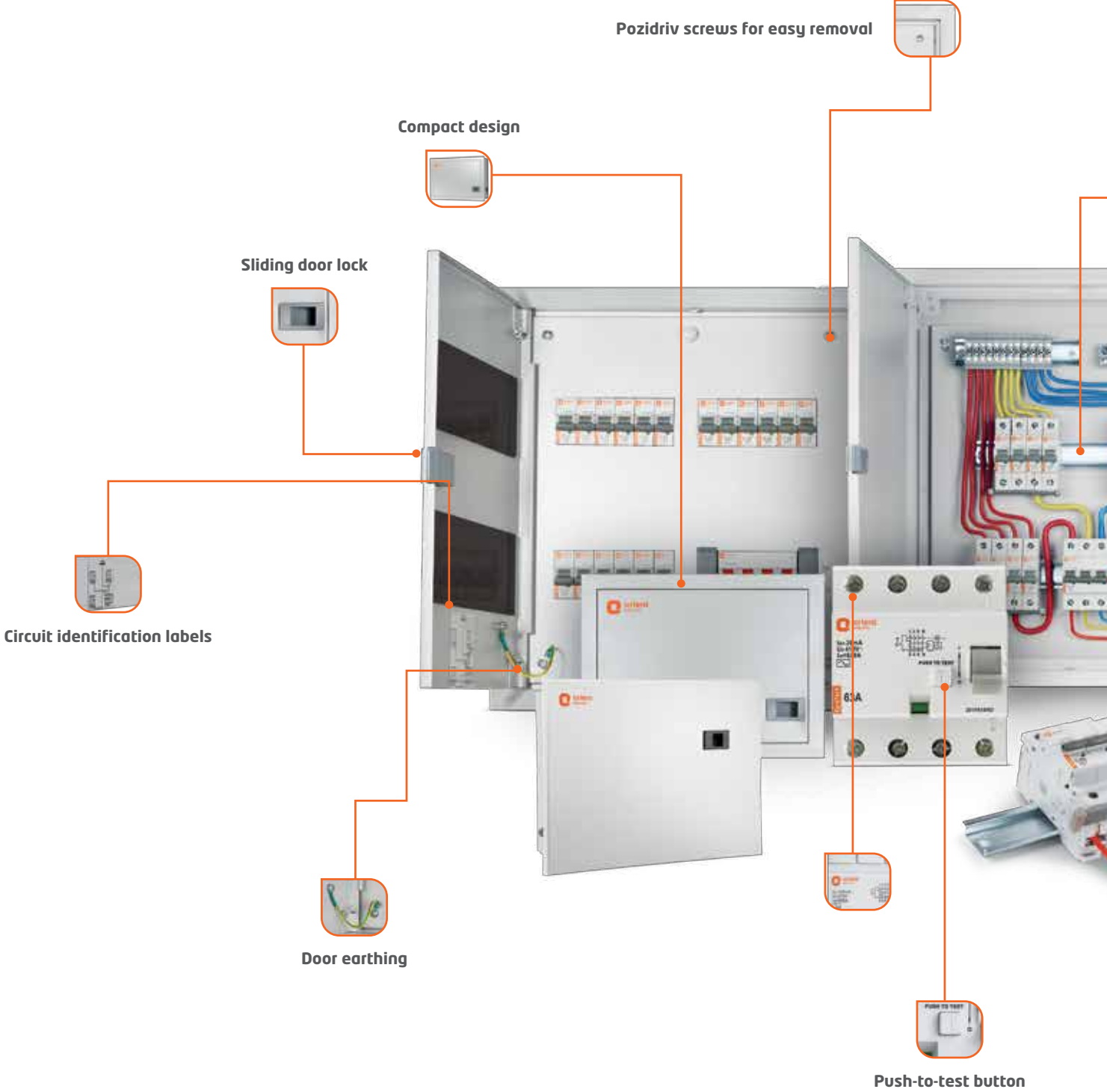
# PRESENTING EUROTECH

EuroTech range aims to offer you the right solution at the right price. All our products and solutions offer reliable performance, propose modularity, quality and sophisticated design. The breadth and depth of Orient's product offerings, technical expertise, customer service, and global reach clearly differentiate us. Highest quality, cutting-edge products, modularity, ease of installation, ease of use, excellent service and sophisticated design are the features that distinguish Orient. At Orient, we are passionate towards smart electrical solutions.

Modularity and durability are the core brand values that we aim to deliver through these products.



# SWITCHGEAR



Pozidriv screws for easy removal

Compact design

Sliding door lock

Circuit identification labels

Door earthing

Push-to-test button

# PRODUCT FEATURES RANGE

Simple DIN - rail mounting



Raised neutral link for easy assembly



Removable front plate



Acrylic window



Positive contact indication



On & Off marks on the MCB knob



Bi-connection



# CONTENT

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# EUROTECH MINIATURE CIRCUIT BREAKER

A circuit breaker is an automatically-operated electrical switch designed to protect an electrical circuit from damage caused by the overload of electricity or short circuits. Its function is to detect a fault condition and, by interrupting continuity, to immediately discontinue electrical flow. The overload protection is achieved by the heat generated inside the magnetic coil, which activates the bi-metallic disc and separates the contact through trip mechanism. So, in case the overload hits the danger-level, the MCB promptly opens the contacts and cuts off the power supply, hence, protecting your prized household appliances.



# EUROTECH MCB WITH REVOLUTIONARY SDB TECHNOLOGY



SDB TECHNOLOGY



## Smart Protection - Orient Electric Brings EuroTech MCBs with Revolutionary SDB (Snap Disc Bi-Metal) Technology

Compared to existing MCB technology, an Orient MCB has an innovative technology for thermal tripping. The thermal tripping device consists of a bi-metal snap disc integrated into the magnetic trigger and isn't part of the current-carrying circuit of MCBs.





## Benefits of EuroTech MCBs over Conventional MCB

- A conventional MCB is prone to manual adjustment of the thermal bi-metal strip to change tripping characteristics under overloading conditions. Whereas, Orient Electric MCBs with SDB technology come in a single enclosed unit that can not be tampered with manually, thus ensuring precise tripping every time.
- Conventional MCBs do not detect heat generated by terminals due to loose wire contacts. Whereas, Orient Electric MCBs with SDB technology detect heat from external ambient during loose wire connection and trip at a specified limit, thereby safeguarding the circuits connected with it.
- Orient Electric MCBs with SDB technology have less number of welding joints, thereby reducing a substantial amount of power dissipation, keeping the MCB cool for a longer life.

## Types of Protection in Eurotech MCB

### OVERLOAD PROTECTION

The new SDB technology in Orient's MCB eliminates the use of a bi-metal strip and instead uses a bi-metallic disc.

- A bi-metallic disc is used for overload detection which is not a part of the current-carrying circuit, thus reducing the impedance of the circuit.
- It has less number of spot-welding joints, resulting in lesser watt loss.
- No manual tampering of overload settings can be done, thus ensuring precise tripping every time.

### SHORT CIRCUIT PROTECTION

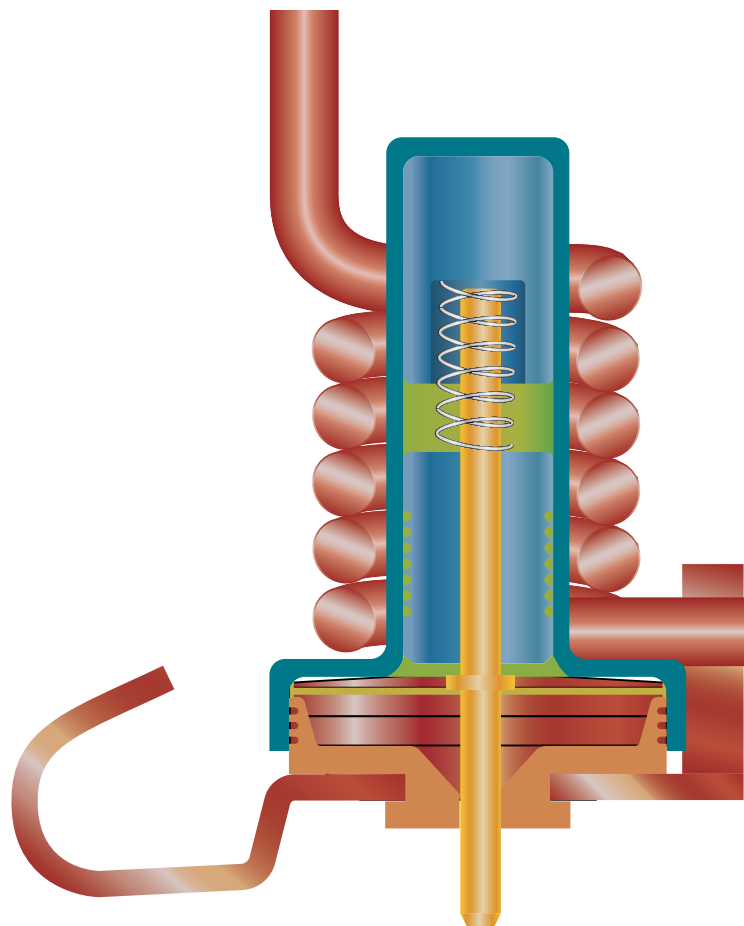
Performance of an Orient MCB is better as compared to conventional MCBs in short circuit conditions due to lesser welding joints. Less welding joints mean lesser resistance in the current-carrying path even after-ageing effect. This leads to a 'Precise Tripping' even after years of MCB operation.

# OVERHEAT SENSING PROTECTION

Only an Orient MCB with SDB technology offers this protection

Orient MCBs with SDB Technology detect heat from external ambient or loose wire connection and trip, thereby safeguarding the circuit connected with it.

## SDB - “SNAP DISC BI-METAL”

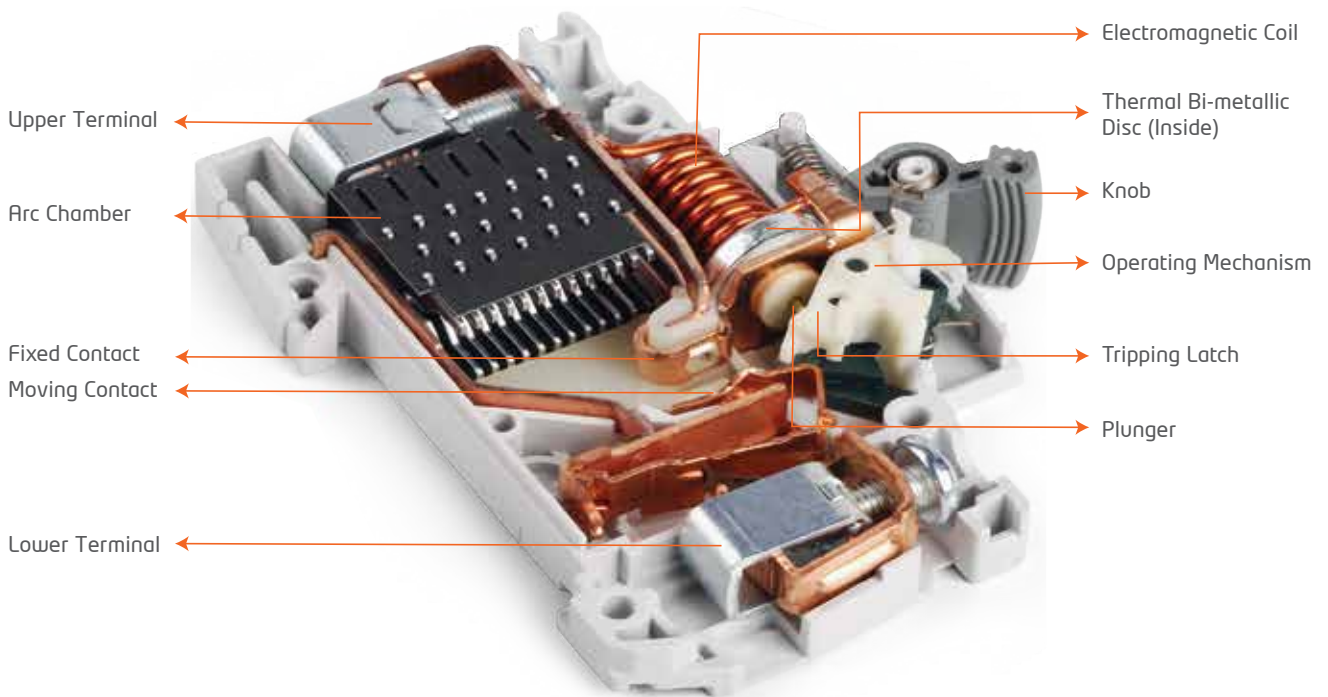
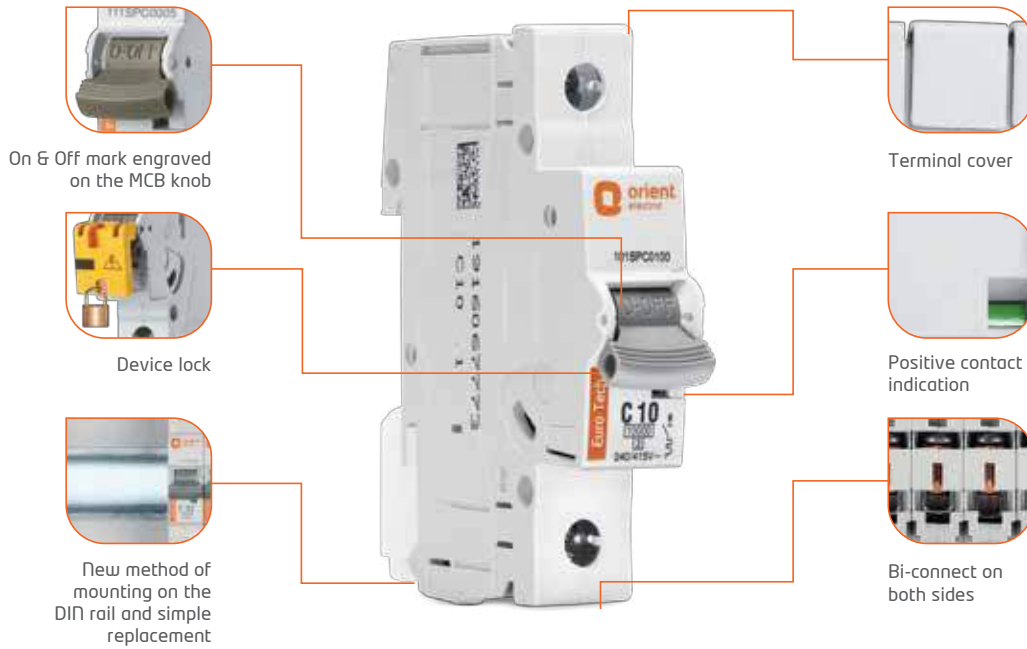


SDB TECHNOLOGY



# SMART TECHNOLOGY FOR YOUR SAFETY

## EuroTech Miniature Circuit Breaker



### Compliance & Certification



# Smart Features & Benefits:

- High short-circuit switching capacity
- Low let-through energy
- Longer electrical life through precisely controlled thermal and magnetic tripping
- Portable accessories which can be fitted to the range, on-site by the user
- Suitable for isolation
- Current limiting feature

## Ease of Installation

Two-Position DIN rail clip for easy installations & dismantling

- Easy and quick method of MCB mounting and replacement on the DIN rail
- Great convenience for the installation/removal of a product
- Safe and time-saving



## Trip-Free Mechanism - Positive Contact Indication

Trip-free mechanism ensures that MCB trips even if it's held in ON position.

Red Colour Indication - MCB ON  
Green Colour Indication - MCB OFF

EuroTech has a positive indication which offers more safety to a user. Separate colour flag indication shows the status of the MCB, that is whether it is in operation or not.



## Engraved ON/OFF Marking

Clear visual indication of ON/OFF is engraved on knob for better safety.



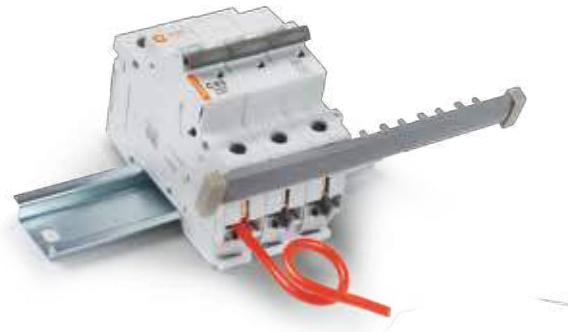
## Large Cable Terminals

- Large cable terminals of 35 sq mm suitable for copper or aluminium cables up to 35 sq mm cross-section area on both incoming & outgoing sides
- Large cable terminals avoid a loose connection to a great extent



## Bi-connection

EuroTech MCB has user-friendly dual-function terminals for connection through a busbar and cable on both incoming & outgoing sides.



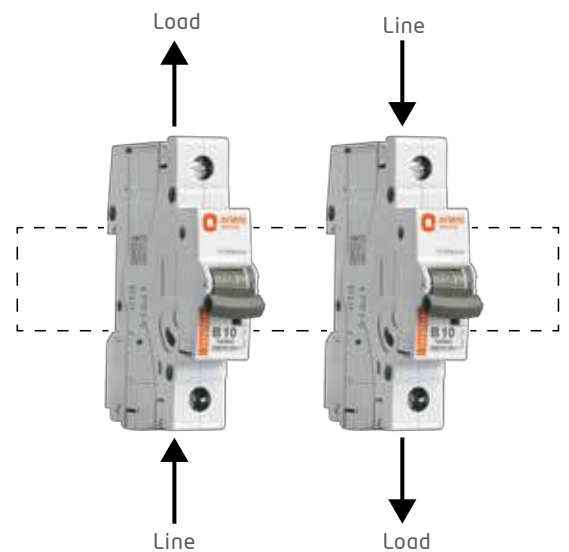
## Cooler Operation

There is cooler running operation inside the distribution board through better air circulation design on the MCB's outer body. When two poles (MCBs) are placed adjacent to each other, air channels between two poles form a tunnel, resulting in very effective air circulation around individual poles.



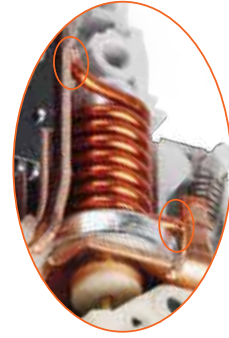
## Line & Load Interchangeability

Orient Eurotech MCBs offers line & load interchangeability. One can connect load or line on either side. In many other MCBs, it's fixed.



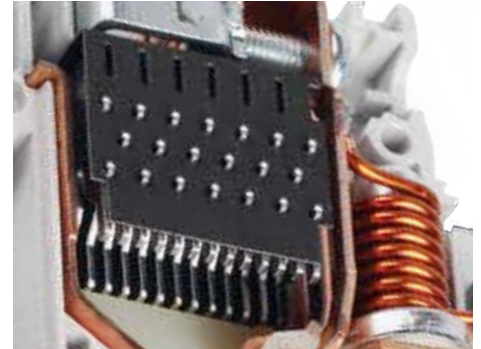
## Less Welding Joints

Orient EuroTech MCBs have less welding joints in the current-carrying path as compared to more number of welding joints in conventional MCBs. This arrangement significantly reduces the power consumption of the MCB.



## Better Arc Quenching Arrangement

- The assembly comprises of CRCA sheet arc plates with zinc coating on it. The arc is moved into the arc chute which gets split into the arc plates & gets quenched.
- Arc plates covered fully with vulcanized fibre paper ensure faster quenching and minimal spreading of carbon fumes inside the MCB, thus eliminating the threat of carbonisation inside the MCB circuit.



## Precise Overload Tripping

Orient MCB with SDB technology comes in a single enclosed unit which does not require manual trip setting, unlike conventional MCBs. This arrangement ensures 100% precise tripping.

Also, a snap disc bi-metal is not in the electrical circuit during overload & short circuit hence a longer service life with better, precise & further operations, whereas in conventional MCBs, the bi-metallic strip always remains active and is a part of the current-carrying circuit for the above faults.



# India's 1<sup>st</sup> Heat Detection MCB



# APPLICATIONS

Depending upon whether the equipment is resistive or inductive in nature, its protection is categorized under B, C or D

B-Series: For the protection of appliances and equipment that are resistive in nature.

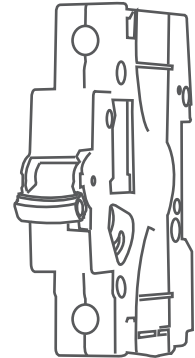
E.g.- Geyser, lights, room heaters and microwave ovens.

C-Series: For the protection of appliances and equipment that are inductive in nature.

E.g.- ACs, washing machines, compressors etc.

D-Series: For the protection of equipment that is highly inductive in nature.

E.g.- Transformers, UPS, welding machines etc.



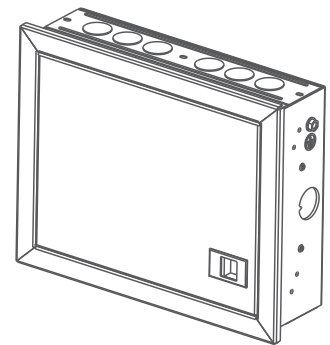
## Pole-wise Applications

SP- SP MCBs are used for protecting single phase circuits, where neutral is taken directly from the incoming supply.

SPN/DP - Both types of MCBs are used when both phase & neutral have to be protected, and complete isolation of supply is required for maintenance. These are generally used for small loads, where only one MCB is used for switching/protection of entire load.

TP - Generally used for three-phase motor application, where neutral is not required.

TPN/FP - Used for incoming in TPN distribution boards, where neutral/ isolation is required.





## MCB Selection Chart for Motor Protection

S.No.	KW	HP	DOL STARTING				Star Delta Starting	Type of MCB (Curve)
			Single-Phase MCB		Three-Phase MCB		Three-Phase (A)	
			Light Duty (A)	Heavy Duty (A)	Light Duty (A)	Light Duty (A)		
1	0.04	0.05	0.7	1	-	-	-	C
2	0.07	0.1	1	2	-	-	-	C
3	0.09	0.13	2	2	-	-	-	C
4	0.11	0.15	2	2	-	-	-	C
5	0.15	0.2	2	4	-	-	-	C
6	0.19	0.25	4	4	-	-	-	C
7	0.25	0.33	4	6	-	-	-	C
8	0.37	0.5	4	6	1	2	-	D
9	0.56	0.75	6	10	-	-	-	C
10	0.75	1	6	10	2	4	-	D
11	0.93	1.25	10	16	-	-	-	D
12	1.12	1.5	10	16	-	-	-	C
13	1.49	2	16	20	4	6	-	C
14	2.24	3	16	25	6	10	-	C
15	2.98	4	25	32	-	-	-	C
16	3.73	5	32	40	10	16	16	C
17	4.48	6	40	50	-	-	16	D
18	5.59	7.5	40	63	20	32	25	C
19	7.46	10	50	63	16	20	20	C
20	9.32	12.5	63	-	25	40	32	C
21	11.19	15	63	-	32	50	40	C
22	14.92	20	0	0	40	63	50	C
23	18.65	25	-	-	-	-	63	D

Calculation Formulae  
 Incomer Current Rating For Single Phase =  $\frac{\text{Total Load in Watts}}{240}$       Incomer Current Rating For Three Phase =  $\frac{\text{Total Load in Watts}}{\sqrt{3} \times 240}$

Note: One lighting circuit can have up to 800W or up to 10 lighting points. One power circuit can have up to 2000W or 1 power point.  
 "C" series MCB is used for all motor and pump applications

## MCB Selection Chart for Household Applications

Appliances	Capacity (Watt, Load)	Current Rating of MCB (A)	Type of MCB (Curve)
Air Conditioner	1 Ton	10	C
	1.5 Ton	16	C
	2 Ton	20	C
Refrigerator	285 Ltr.	2	C
	400 Ltr.	3	C
	581 Ltr.	6	C
Washing Machine	1800 W	2	C
	2200 W	10	C
Domestic Pump Set	0.5 H.P.	16	C
	1 H.P.	6	C
	2 H.P.	10	C
Water Heater (Storage or Instantaneous Geysers)	1 KW	6	B
	2 Kw	10	B
	3 kW	16	B
Cooking Range	6 KW	32	B
Oven-cum-grillier	4500 Watts	25	B
Oven Only	1750 Watts	10	B
Hot Plate Only	750 Watts	6	B
Microwave Oven	2000 Watts	10	B
Electric Kettle	1000 Watts	6	B
Room Heater	1500 Watts	10	B
	1000 Watts	6	B
Iron	2000 Watts	10	B

\*Above-mentioned data may vary from product to manufacturers. Check product details before installation.

## Ordering Information

Rated Short Circuit Capacity  
10 kA

Rated Current  
0.5 63 A

Tripping Characteristic  
B, C, D

1-Pole		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	240/415	-	101SPC0005	101SPD0005
1	240/415	-	101SPC0010	101SPD0010
2	240/415	-	101SPC0020	101SPD0020
4	240/415	-	101SPC0040	101SPD0040
6	240/415	101SPB0060	101SPC0060	101SPD0060
10	240/415	101SPB0100	101SPC0100	101SPD0100
13	240/415	101SPB0130	101SPC0130	101SPD0130
16	240/415	101SPB0160	101SPC0160	101SPD0160
20	240/415	101SPB0200	101SPC0200	101SPD0200
25	240/415	101SPB0250	101SPC0250	101SPD0250
32	240/415	101SPB0320	101SPC0320	101SPD0320
40	240/415	101SPB0400	101SPC0400	-
50	240/415	101SPB0500	101SPC0500	-
63	240/415	101SPB0630	101SPC0630	-



101SPC0100

1-Pole + Neutral		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	240	-	101SNC0005	101SND0005
1	240	-	101SNC0010	101SND0010
2	240	-	101SNC0020	101SND0020
4	240	-	101SNC0040	101SND0040
6	240	101SNB0060	101SNC0060	101SND0060
10	240	101SNB0100	101SNC0100	101SND0100
13	240	101SNB0130	101SNC0130	101SND0130
16	240	101SNB0160	101SNC0160	101SND0160
20	240	101SNB0200	101SNC0200	101SND0200
25	240	101SNB0250	101SNC0250	101SND0250
32	240	101SNB0320	101SNC0320	101SND0320
40	240	101SNB0400	101SNC0400	-
50	240	101SNB0500	101SNC0500	-
63	240	101SNB0630	101SNC0630	-



101SNC0100

## Ordering Information

Rated Short Circuit Capacity  
10 kA

Rated Current  
0.5 63 A

Tripping Characteristic  
B, C, D

2-Pole		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	415	-	101DPC0005	101DPD0005
1	415	-	101DPC0010	101DPD0010
2	415	-	101DPC0020	101DPD0020
4	415	-	101DPC0040	101DPD0040
6	415	101DPB0060	101DPC0060	101DPD0060
10	415	101DPB0100	101DPC0100	101DPD0100
13	415	101DPB0130	101DPC0130	101DPD0130
16	415	101DPB0160	101DPC0160	101DPD0160
20	415	101DPB0200	101DPC0200	101DPD0200
25	415	101DPB0250	101DPC0250	101DPD0250
32	415	101DPB0320	101DPC0320	101DPD0320
40	415	101DPB0400	101DPC0400	-
50	415	101DPB0500	101DPC0500	-
63	415	101DPB0630	101DPC0630	-



101DPC0630

3-Pole		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	415	-	101TPC0005	101TPD0005
1	415	-	101TPC0010	101TPD0010
2	415	-	101TPC0020	101TPD0020
4	415	-	101TPC0040	101TPD0040
6	415	101TPB0060	101TPC0060	101TPD0060
10	415	101TPB0100	101TPC0100	101TPD0100
13	415	101TPB0130	101TPC0130	101TPD0130
16	415	101TPB0160	101TPC0160	101TPD0160
20	415	101TPB0200	101TPC0200	101TPD0200
25	415	101TPB0250	101TPC0250	101TPD0250
32	415	101TPB0320	101TPC0320	101TPD0320
40	415	101TPB0400	101TPC0400	-
50	415	101TPB0500	101TPC0500	-
63	415	101TPB0630	101TPC0630	-



101TPC0100

## Ordering Information

Rated Short Circuit Capacity  
10 kA

Rated Current  
0.5 63 A

Tripping Characteristic  
B, C, D

3-Pole + Neutral		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	415		101TNC0005	101TND0005
1	415		101TNC0010	101TND0010
2	415		101TNC0020	101TND0020
4	415		101TNC0040	101TND0040
6	415	101TPB0060	101TNC0060	101TND0060
10	415	101TPB0100	101TNC0100	101TND0100
13	415	101TPB0130	101TNC0130	101TND0130
16	415	101TPB0160	101TNC0160	101TND0160
20	415	101TPB0200	101TNC0200	101TND0200
25	415	101TPB0250	101TNC0250	101TND0250
32	415	101TPB0320	101TNC0320	101TND0320
40	415	101TPB0400	101TNC0400	
50	415	101TPB0500	101TNC0500	
63	415	101TPB0630	101TNC0630	



101TNC0100

4-Pole		Cat. No.		
Rating (A)	Voltage (V)	B Curve	C Curve	D Curve
0.5	415		101FPC0005	101FPD0005
1	415		101FPC0010	101FPD0010
2	415		101FPC0020	101FPD0020
4	415		101FPC0040	101FPD0040
6	415	101FPB0060	101FPC0060	101FPD0060
10	415	101FPB0100	101FPC0100	101FPD0100
13	415	101FPB0130	101FPC0130	101FPD0130
16	415	101FPB0160	101FPC0160	101FPD0160
20	415	101FPB0200	101FPC0200	101FPD0200
25	415	101FPB0250	101FPC0250	101FPD0250
32	415	101FPB0320	101FPC0320	101FPD0320
40	415	101FPB0400	101FPC0400	-
50	415	101FPB0500	101FPC0500	-
63	415	101FPB0630	101FPC0630	-



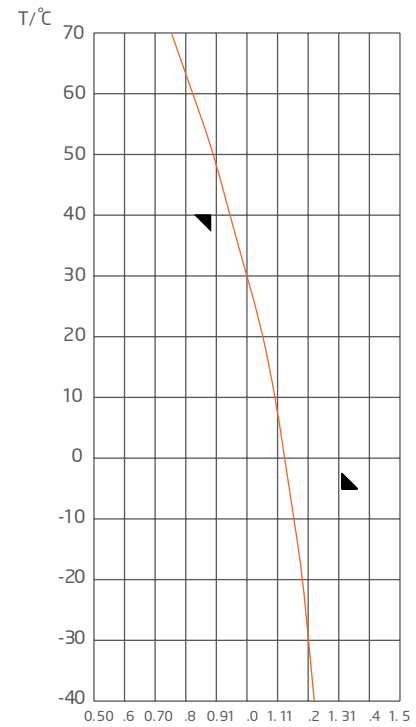
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## Technical Specifications

	B Curve	C Curve	D Curve
Rated Current(In)	6-63A	0.5-63A	0.5-32A
Rated Voltage(Ue)	240-415 Vac	240-415 Vac	240-415 Vac
Rated Frequency(f)	50 Hz	50 Hz	50 Hz
Shock Resistance	40 mm free fall	40 mm free fall	40 mm free fall
Rated Short-Circuit Capacity	10 kA	10 kA	10 kA
Energy Limiting Class	3	3	3
Back-up Fuse	100A gG	100A gG	100A gG
Index of Protection	IP 20(IP 40)	IP 20(IP 40)	IP 20(IP 40)
Terminals	1-25mm <sup>2</sup> , max. 2Nm	1-25mm <sup>2</sup> , max. 2Nm	1-25mm <sup>2</sup> , max. 2Nm
Mechanical Endurance	20000 op.c.	20000 op.c	20000 op.c
Electrical Endurance	20000 op. (In≤32A) 10000 op. (In>32A)	20000 op. (In≤32A) 10000 op. (In>32A)	20000 op. (In>32A)
Impulse Withstand Voltage(Uimp)	4 kV	4 Kv	4 Kv
Ambient Temperature	max-25° C... +55° C	max-25° C... +55° C	max-25° C... +55° C
Storage Temperature	max -40° C... +70° C	max -40° C... +70° C	max -40° C... +70° C
Build-in-width	17.8 mm/pol	17.8 mm/pol	17.8 mm/pol
Power Supply	Bi-directional (TOP & BOTTOM)	Bi-directional (TOP & BOTTOM)	Bi-directional (TOP & BOTTOM)
Mounting on the Rail	IS/IEC 60715	IS/IEC 60715	IS/IEC 60715
Sealing Possibility	Yes	Yes	Yes
Terminal Cover	Yes	Yes	Yes
Locking Device	Yes	Yes	Yes
Standards	IS/IEC 60898-1, EN 60898-1	IS/IEC 60898-1, EN 60898-1	IEC-60947-1
Positive Contact Indication	Yes, through flag indication (Red-ON, Green-OFF)	Yes, through flag indication (Red-ON, Green-OFF)	Yes, through flag indication (Red-ON, Green-OFF)
Installation Position	Vertical/Horizontal	Vertical/Horizontal	Vertical/Horizontal
Case & Cover	Moulded, flame-retardant thermoplastic material	Moulded, flame-retardant thermoplastic material	Moulded, flame-retardant thermoplastic material
Auxiliary Contacts	Yes	Yes	Yes
Shunt Trip	Yes	Yes	Yes
Bell/Buzzer	Yes	Yes	Yes
Locking Kit	Yes	Yes	Yes

## Ambient Working Temperature

Effect of the Ambient Temperature on the Tripping Characteristic												
In(A)	-40	-30	-20	-10	0°C	10°C	20°C	30°C	40°C	50°C	60°C	70°C
0.5	0.61	0.6	0.59	0.57	0.56	0.54	0.52	0.5	0.47	0.44	0.41	0.38
1	1.22	1.2	1.18	1.15	1.12	1.09	1.05	1	0.94	0.88	0.82	0.75
2	2.44	2.4	2.36	2.3	2.24	2.18	2.1	2	1.88	1.77	1.65	1.5
4	4.88	4.8	4.72	4.61	4.49	4.36	4.2	4	3.77	3.55	3.29	3
6	7.32	7.2	7.09	6.91	6.73	6.54	6.31	6	5.66	5.33	4.99	4.5
10	12.2	12	11.8	11.5	11.2	10.9	10.5	10	9.44	8.89	8.23	7.5
13	15.9	15.6	15.4	14.9	14.5	14.1	13.6	13	12.2	11.5	10.7	9.75
16	19.5	19.2	18.9	18.4	17.9	17.4	16.8	16	15.1	14.2	13.2	12
20	24.5	24	23.6	23	22.4	21.8	21	21	18.8	17.7	16.5	15
25	30.5	30	29.5	28.8	28	27.2	26.3	25	23.6	22.2	20.6	18.8
32	39	38.4	37.8	36.9	35.9	34.9	33.6	32	30.2	28.4	26.3	24
40	48.8	48	47.8	46.1	44.9	43.6	42	40	37.7	35.5	32.9	30
50	61	60	59.1	57.6	56.1	54.5	52.6	50	47.2	44.4	41.2	37.5
63	76.9	75.6	74.4	72.6	70.7	68.7	66.2	63	59.4	56	51.9	47.3



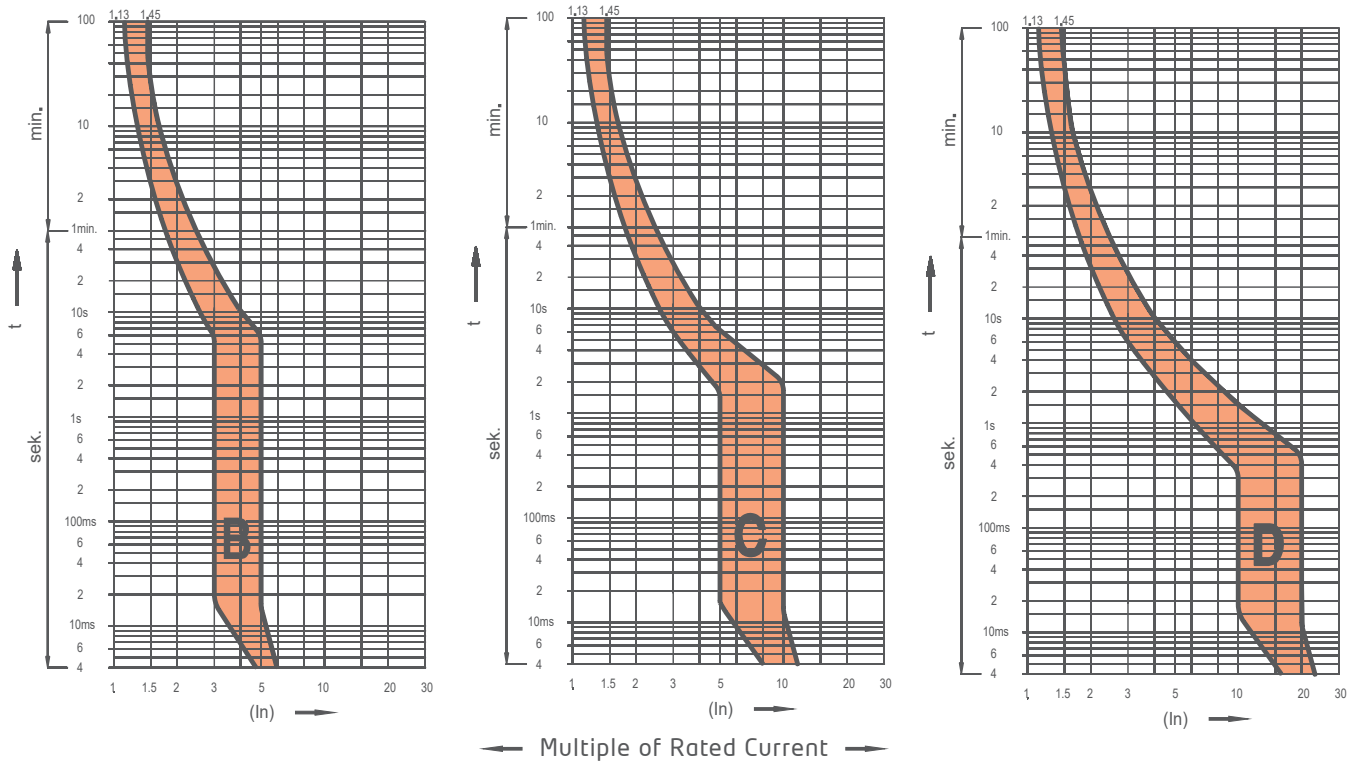
The correction factor is valid for current with times over 30s  $I(x^{\circ}\text{C}) - \text{Test current at } x \text{ ambient temperature}$   
 $I(30^{\circ}\text{C}) - \text{Test current at } 30^{\circ}\text{C ambient temperature}$

## Tripping Characteristics

Characteristics	Test Current	Tripping Time	Result
B, C, D	1.13 In	$t \geq 3600\text{s}$	No tripping
B, C, D	1.45 In	$t < 3600\text{s}$	Tripping
B, C, D	2.55 In	$1\text{s} < t < 60\text{s}$ (for $\leq \text{In } 32\text{A}$ ) $(1\text{s} < t < 120\text{s})$ (for $\geq \text{In } 32\text{A}$ )	Tripping
B	3 In	$t \leq 0.1\text{s}$	No tripping
C	5 In	$t \leq 0.1\text{s}$	No tripping
D	10 In	$t \leq 0.1\text{s}$	No tripping
B	5 In	$t < 0.1\text{s}$	Tripping
C	10 In	$t < 0.1\text{s}$	Tripping
D	20 In	$t < 0.1\text{s}$	Tripping



## Tripping Curves



## Selectivity with Fuses

HRC Fuse gG (kA)											
Type	20	25	32	35	40	50	63	80	100	125	160
B6	0.5	0.78	1.2	1.4	1.7	2.4	4.6	7	10	10	10
B 10/13	0.45	0.65	1.1	1.3	1.6	2.2	4	6.5	10	10	10
B16		0.55	1	1.2	1.5	2	3.6	5.5	9.5	10	10
B20			0.85	1.2	1.5	1.8	3.1	4.6	9	10	10
B25				1.1	1.4	1.7	2.9	4	8	10	10
B32					1.3	1.6	2.5	3.4	5.5	9	10
B40						1.5	2.2	3.1	4.9	8	10
B50							2.1	2.9	4	6.2	10
B63								2.5	3.3	5.1	8

HRC Fuse gG (kA)											
Type	20	25	32	35	40	50	63	80	100	125	160
C6	0.52	0.82	1.3	1.5	2	2.7	5.1	9	10	10	10
C 10/13	0.47	0.7	1.1	1.4	1.8	2.3	4	7	10	10	10
C16		0.61	0.92	1.2	1.5	1.9	3.2	5	9	10	10
C20			0.9	1.1	1.4	1.7	2.9	4.2	8	10	10
C25				1	1.3	1.6	2.7	3.9	6	10	10
C32					1.2	1.5	2.3	3.4	5.2	9	10
C40						1.4	2.1	3	4.6	8	10
C50							2	2.7	3.8	7	10
C63								2.3	3.2	5.5	10

## Selectivity with MCB

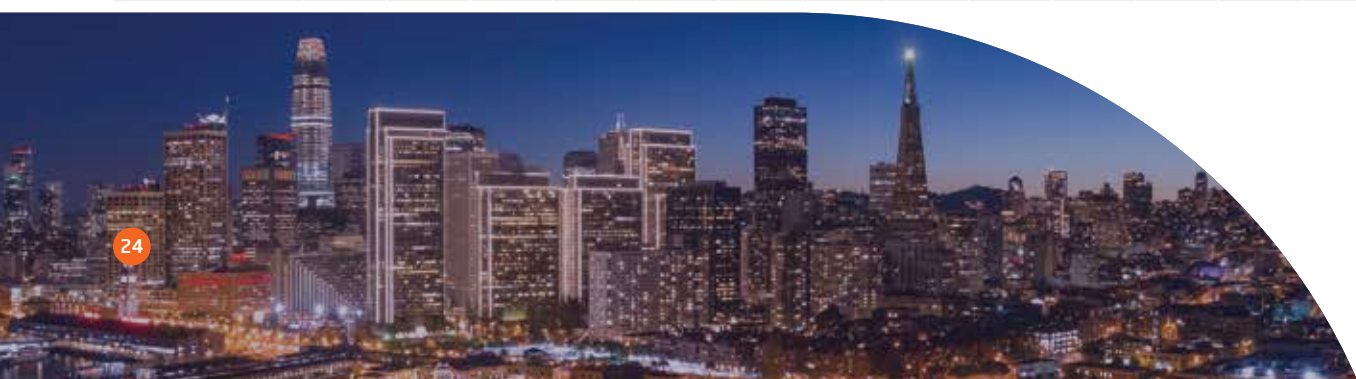
MCB Downstream	MCB Upstream B Curves (A)								
Curve B	10A	13A	16A	20A	25A	32A	40A	50A	63A
0.5 to 5A	30	39	48	60	75	96	120	150	189
6A	30	39	48	60	75	96	120	150	189
10A			48	60	75	96	120	150	189
13A				60	75	96	120	150	189
16A					75	96	120	150	189
20A						96	120	150	189
25A							120	150	189
32A									189

MCB Downstream	MCB Upstream C Curves (A)								
Curve C	10A	13A	16A	20A	25A	32A	40A	50A	63A
0.5 to 5A	50	65	80	100	125	160	200	250	315
6A		65	80	100	125	160	200	250	315
10A				100	125	160	200	250	315
13A					125	160	200	250	315
16A						160	200	250	315
20A							200	250	315
25A								250	315
32A									315

MCB Downstream	MCB Upstream D Curves (A)								
Curve D	6A	10A	16A	20A	25A	32A	40A	50A	63A
0.5 to 5A	45	75	120	150	187	240	300	375	472
6A	75	120	150	187	240	300	375	472	480
10A			120	150	187	240	300	375	472
13A				150	187	240	300	375	472
16A				150	187	240	300	375	472
20A					187	240	300	375	472
25A						240	300	375	472
32A							300	375	472
40A								375	472
50A									472

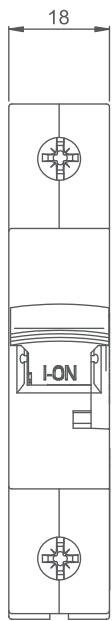
## Selectivity with MCCB

MCB Downstream	MCCB Upstream (A)												
Curve C	16A	20A	25A	32A	40A	50A	63A	80A	100A	125A	160A	200A	250A
0.5 to 6A	1100	1200	1400	1700	2000	2500	3400	4800	5800	6700	T	T	T
10		1100	1200	1400	1700	2100	2500	3000	3500	4300	T	T	T
16A				1300	1600	1900	2100	2400	2700	3200	8300	T	T
20A					1600	1900	2100	2400	2700	2500	8300	T	T
25A						1700	1800	2000	2200	2500	5400	8700	T
32A							1800	2000	2200	2500	5400	8700	T
40A								1500	1700	2000	4300	7000	T
50A									1300	1500	3600	5900	9000
63A										1100	2800	5200	8200

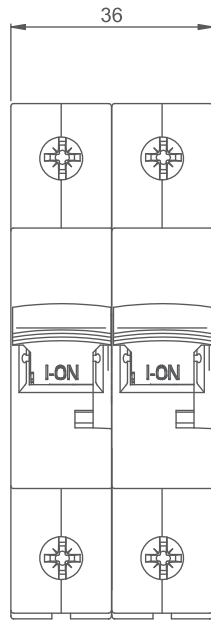




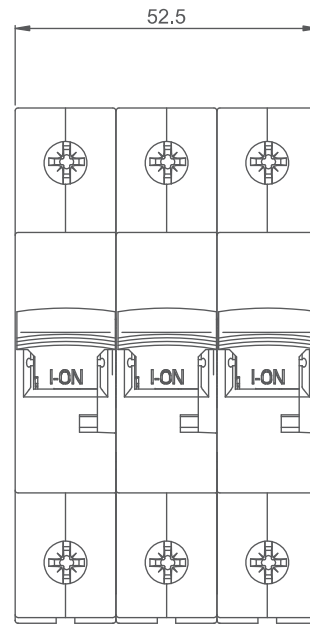
## Dimensions (MM)



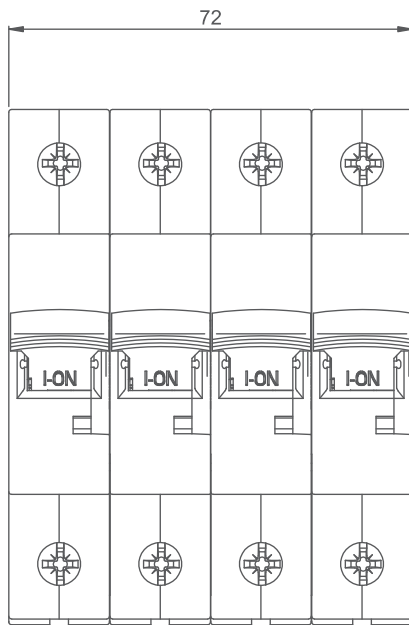
SP



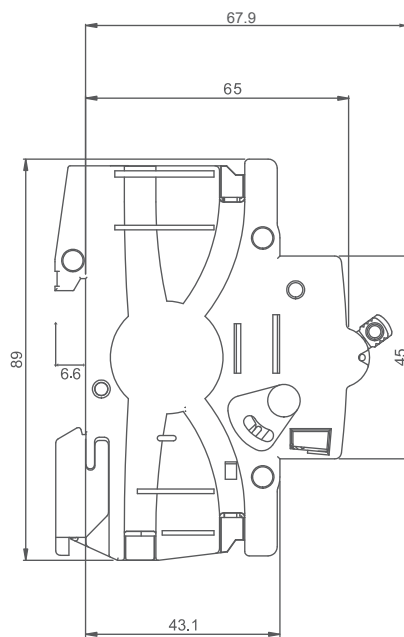
SPN / DP



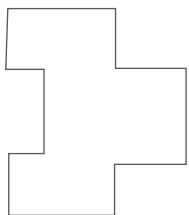
TP



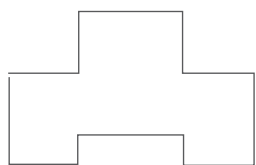
TPN / FP



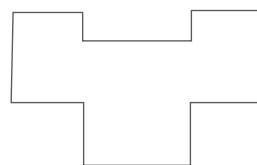
## Operating Positions



Vertical



Horizontal



Upside down



On the side

# DC MCB



DC Miniature Circuit Breakers are used for protection of conductors in DC electric circuits.

- 1-pole circuit breakers are used for voltages of up to 220V D.C
- 2-pole circuit breakers with poles connected in a series, are used for higher voltages up to 440V D.C

While connecting the MCB for DC, attention must be paid to polarity because when connected in the wrong way, the MCB can be destroyed. Note that in a 2-pole circuit, 1-pole MCBs cannot be used and vice-versa.

## Features:

- Dual tripping system - overload through the bi-metal and short circuit through the electromagnetic coil.
- DC MCB incorporates a built-in permanent magnet, which directs the arc into the arc quenching chamber.
- Free from nuisance tripping caused by vibrations.
- Clear indication of polarity by the + and - sign stickers on the poles of the MCB.
- Time constant = 5ms
- Housing of a DC MCB is made up of the fire-retardant, anti-tracking and non-hygroscopic injection moulded thermoplastic.
- Contacts are made up of silver inlaid copper, which ensures low resistance and a longer life of the circuit breaker.
- Properly spaced nickel-plated de-ionizing plates for quick arc extinction are a part of the well-designed arc chute.

## Ordering Information

### SP - DC MCB

Rated Short Circuit Capacity 10 kA

Rated Current 0.5 to 63 A

Tripping Characteristic C

Conforming to IS/IEC 60947-2

Ratings (A)	Voltage (V d.c.)	Cat. No.
0.5	220	111SPC0005
1	220	111SPC0010
2	220	111SPC0020
4	220	111SPC0040
6	220	111SPC0060
10	220	111SPC0100
13	220	111SPC0130
16	220	111SPC0160
20	220	111SPC0200
25	220	111SPC0250
32	220	111SPC0320
40	220	111SPC0400
50	220	111SPC0500
63	220	111SPC0630



111SPC0630

## DP DC MCB

Rated Short Circuit Capacity 10 kA	Rated Current 0.5 to 63 A	Tripping Characteristic C	Conforming to IS/IEC 60947-2
------------------------------------	---------------------------	---------------------------	------------------------------

Ratings (A)	Voltage (V d.c.)	Cat. No.
0.5	220/440	111DPC0005
1	220/440	111DPC0010
2	220/440	111DPC0020
4	220/440	111DPC0040
6	220/440	111DPC0060
10	220/440	111DPC0100
13	220/440	111DPC0130
16	220/440	111DPC0160
20	220/440	111DPC0200
25	220/440	111DPC0250
32	220/440	111DPC0320
40	220/440	111DPC0400
50	220/440	111DPC0500
63	220/440	111DPC0630



111DPC0630

## Technical Specifications DC MCB

Rated voltage - for 1 pole Un-for 2 pole Un	220 VD.C 220/440 VD.C.
Rated time constant LR	5 ms
Rated current Ln	0.5 - 63A
Rated short circuit capacity	10kA
Tripping characteristic	C
Back up fuse	100 A gG
Terminals	1-25mm 2 - max 3nm
Standards	IS/IEC60947-2

## Connecting Diagrams in DC Circuits

Connecting diagrams in direct current electric circuits				
Rated voltage of circuit breaker	220 V ---	220/440 V ---	220/440 V ---	220/440 V ---
Voltage between conductors - max.	220 V ---	440 V ---	440 V ---	440 V ---
Voltage between conductor and earth - max.	220 V ---	220 V ---	440 V ---	220 V ---
Circuit breaker	1-pole	2-pole	2-pole	2-pole
Connecting diagram				

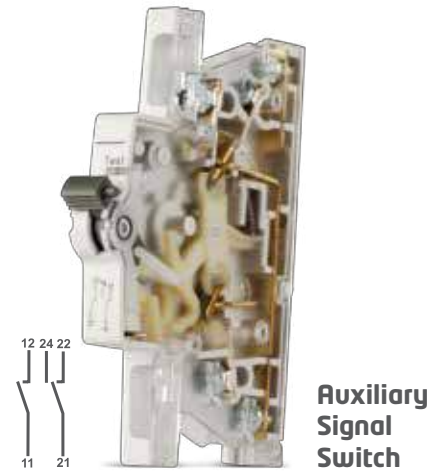


## Auxiliary Signal Switches

Auxiliary signal switches are provided for remote signalling of the MCB status. The width of auxiliary switch is 0.5 module (9mm).

Technical Specifications	
Rated voltage (Uc)	240V a.c., 110V d.c.
Rated current (In)	6A a.c., 1A d.c.
Rated frequency	a.c. / d.c.
Index of protection	IP 20 (IP 40)
Terminals	max. 1.5mm <sup>2</sup> , max 0.8Nm
Ambient temperature	max. 35°C
Storage temperature	max. -40°C to +70°C
Contacts	1x NC, 1x NC/NO
Standards	IS/IEC 60947-1

Description	Cat. No.
Auxiliary signal switch NO+NC, 1NC	141SP0N0NC



## Shunt Trip

For the remote opening of the MCB, fix the shunt trip to the right side of the circuit breaker. With dimensions that correspond with those of the MCB, this shunt trip goes the extra mile in ensuring your personal safety.

Technical Specifications	
Rated voltage	12/48 a.c./d.c., 110/240 a.c./d.c
Rated frequency	50/60Hz, d.c.
Index of protection	IP 20 (IP 40)
Terminals	1-25mm <sup>2</sup> , max. 2Nm
Ambient temperature	max. 35°C
Storage temperature	max. -40°C to +70°C
Mounting on the rail	IS/IEC 60947-3
Sealing possibility	Yes
Terminal cover	Yes

Description	Cat. No.
Shunt trip 240V AC/DC	121SP02300
Shunt trip 12-48V AC/DC	121SP00480



## Other Accessories



### Auxiliary Signal Switch Terminal Cover

Allows to cover connection terminals, and screws of the circuit. It gives protection from electric shocks and provides overall protection.



### Bell/Buzzer

Bell/Buzzer is used for signalling in-house command panels, etc.



### Locking Kit

MCB can be padlocked in 'off' position for personal safety during maintenance and in 'on' position for extremely critical loads with the help of the locking kit.

Description	Cat. No.
Terminal cover SP	101SPXTC
Bell	101SPXBE
Buzzer	101SPXBU
Locking kit	101SPXLK





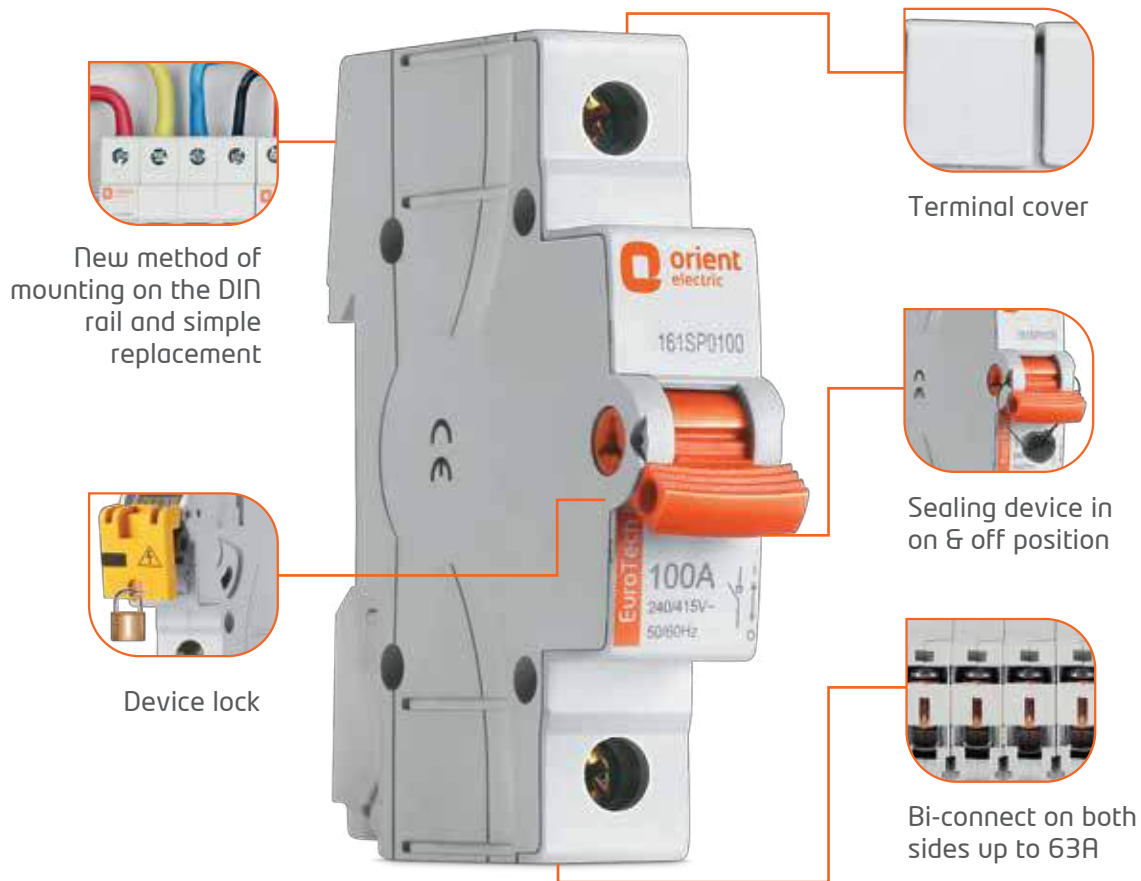
# ISOLATOR

## Product Overview

Isolators are switch disconnectors with manual operation, capable of making, carrying and breaking currents under normal circuit conditions, which may include operating under overload condition and also carry currents under specified abnormal circuit conditions such as those of short circuit for a specified time period.



## Isolator



### Smart Features & Benefits:

- Forced opening and suitable for use as the main switch.
- High short circuit withstanding capacity.
- Optimal protection against unintentional touching of live parts.
- Dual-function terminals.
- Quick mounting clip, lockable in the open position.
- The switch-isolators are equipped with dual-function terminals, which enable simultaneous connection of conductors and bus bar.
- Cross/Slotted-head screws size 2 and system pozidriv enable easy, reliable and time-saving wiring.
- Facility for sealing or padlocking in closed or isolated position.
- Internal connection of switching mechanisms ensures simultaneous switching, even without toggle linkage.
- Same form & design as those in the MCB range.

**Range:** 40A - 125A

**Execution:** Single-Pole (1P), Double-Pole (2P) Three-Pole (3P) & Four-Pole (4P)

**Specification:** IS/IEC60947-3



## Ordering Information

1-Pole		
Rating (A)	Voltage (V)	Catalogue No.
40	240/415	161SP0040
63	240/415	161SP0063
80	240/415	161SP0080
100	240/415	161SP0100
125	240/415	161SP0125



**161SP0063**

2-Pole		
Rating (A)	Voltage (V)	Catalogue No.
40	240/415	161DP0040
63	240/415	161DP0063
80	240/415	161DP0080
100	240/415	161DP0100
125	240/415	161DP0125



**161DP0063**

3-Pole		
Rating (A)	Voltage (V)	Catalogue No.
40	240/415	161TP0040
63	240/415	161TP0063
80	240/415	161TP0080
100	240/415	161TP0100
125	240/415	161TP0125



**161TP0063**

4-Pole		
Rating (A)	Voltage (V)	Catalogue No.
40	240/415	161FP0040
63	240/415	161FP0063
80	240/415	161FP0080
100	240/415	161FP0100
125	240/415	161FP0125

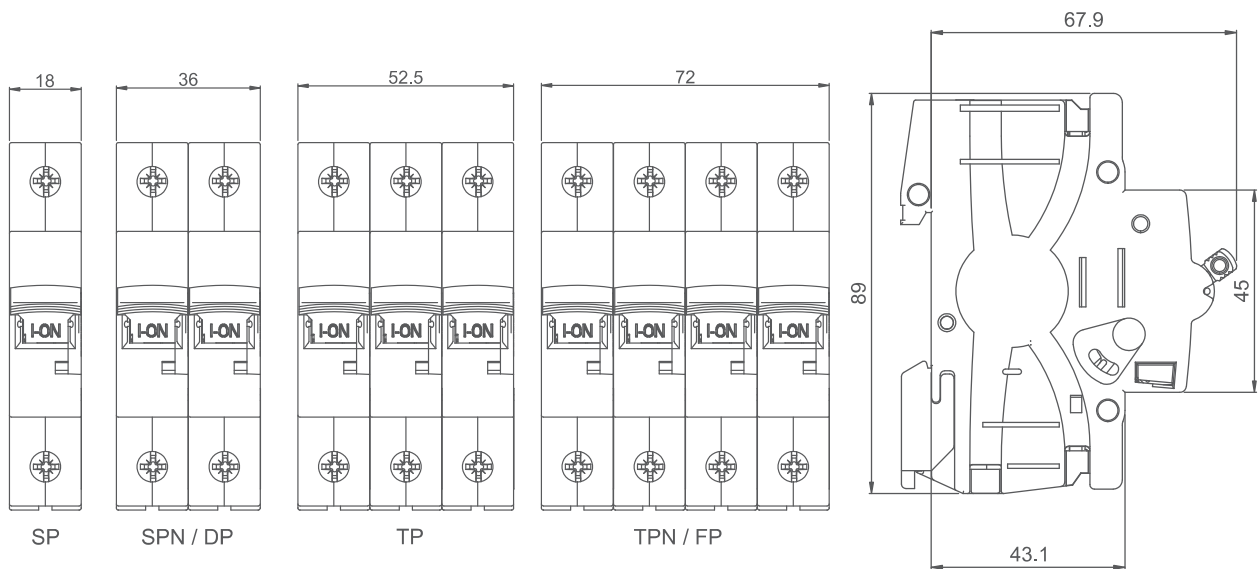


**161FP0063**

## Technical Specifications

Details	
Rated current (In)	40 - 63 A, 80, 100 & 125A
Rated voltage (Ue)	240/415 V
Rated frequency (f)	50 Hz
Short-circuit capacity (Icm)	630 A up to 63A, 1.25kA up to 125A
Tightening torque	2.0 Nm. (as per IS/IEC 60947-1)
Dielectric strength	2000 V
Index of protection	IP 20 (IP 40)
Terminals	1-25mm <sup>2</sup> up to 63A, 50mm <sup>2</sup> for up to 125A
Mechanical endurance	> 10,000 operations
Electrical endurance	> 5,000 operations
Ambient temperature	max. -25°C ... +55°C
Storage temperature	max. -40°C ... +70°C
Build-in width	18 mm/pol
Mounting on the rail	IS/IEC 60715
Sealing possibility	Yes
Terminal cover	Yes
Locking device	Yes
Pole count	1 to 4 pole
Standards	IS/IEC 60947-3

## Dimensions (MM)





# RESIDUAL CURRENT CIRCUIT BREAKER

## Product Overview

Time and again, we come across many mishaps disrupting human lives due to negligent use of electricity. A large number of industrial and domestic fires are attributed to and caused by electricity. Faulty insulated equipment or wrong usage of electrical devices cause current to flow the insulation to the earth. This is leakage current. This current poses two severe risk factors which are: fire risk & electrocution risk.

Residual current circuit breaker provides the function of isolation switching and earth leakage protection of electrical circuits. It also provides the indirect protection of the operator's body against the dangerous effects of electric current.






# PROTECTION AGAINST ELECTROCUTION



The use of exposed, substandard, badly wired, wrongly connected or damaged equipment as well as frayed or badly repaired cables reduces the safety of an installation and increases the risk of a person receiving an electric shock. Electrocutation is passing of current through a human body, which is dangerous. The flow of current through the human body affects vital functions such as:

## 1. Breathing 2. Heartbeat

A correctly chosen RCCB can detect small currents flowing to earth and reduce the risk of electrocution. Effects of electric current through the human body have been well researched and the following chart summarises the results:

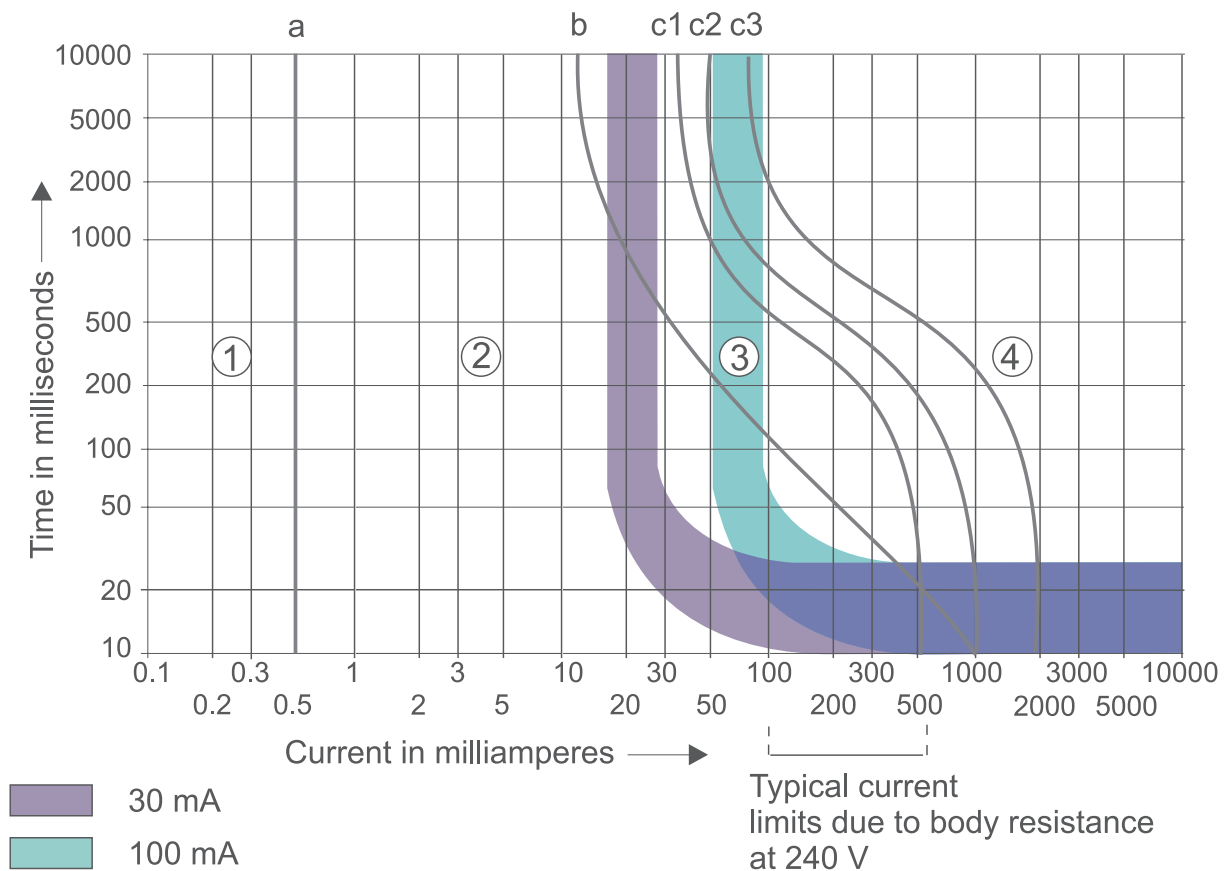
70-100 mA		Immediate cardiac arrest resulting in death
20-30 mA		Cardiac fibrillation: the heart begins to vibrate and no longer beats at a steady rate. This situation is dangerous since it is irreversible
10 mA		Muscle contraction can cause respiratory paralysis
1-10 mA		Muscle contraction: the person remains "stuck" to the conductor
		Prickling sensations

However, an electrical shock should not be viewed in terms of "current" alone, but in terms of "contact voltage". A person gets electrocuted by coming in contact with an object that has a different potential from his/her own. The difference in potential causes the current to flow through the body against indirect contact.



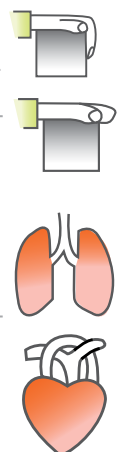
Over-current protection devices like MCB are unable to act promptly on small earth leakage currents. To comply with wiring regulations, the earth fault loop impedance in Ohms, multiplied by the rated tripping current of the RCD in amperes must not exceed 50.

## Current Effect on Humans



### Risk Zones

Zone	Physiological effects
Zone 1	Usually no reaction effects
Zone 2	Usually no harmful physiological effects
Zone 3	Usually no organic damage to be expected, likelihood of muscular contraction and difficulty in breathing, reversible disturbances of formation and conduction of impulse in the heart and transient cardiac arrest without ventricular fibrillation increases with current magnitude and time.
Zone 4	In addition to the effects of Zone 3, probability of ventricular fibrillation is increased up to 5% (Curve C2), up to 50% (Curve C3), and above 50% (beyond curve C3). It increases with magnitude and time and pathophysiological effects such as cardiac arrest, breathing arrest and heavy burns may occur.



# PROTECTION AGAINST DIRECT CONTACT

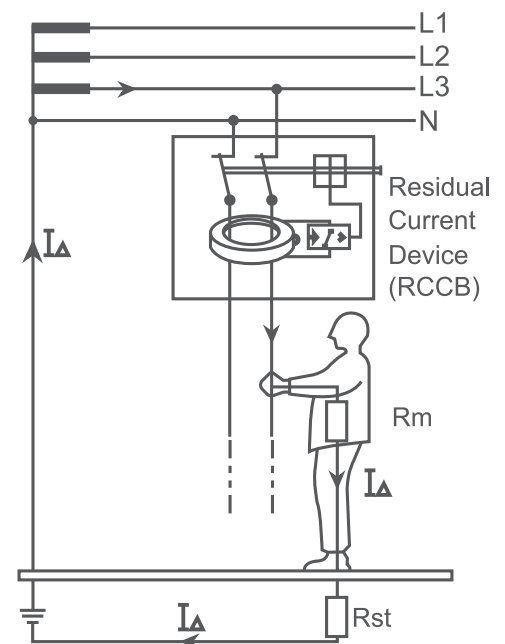
Direct contact happens mainly due to carelessness of human beings. For e.g., when someone makes contact with a live electrical component of a device or installation.

To provide extra protection in the event of direct contact with a ( un-earthed ) live part, extremely sensitive RCCBs with a rated residual operating current of 30 mA or less ( $I_{\Delta n}=30 \text{ mA}$ ) are used instead of more conventional RCCBs with higher residual operating fault currents.



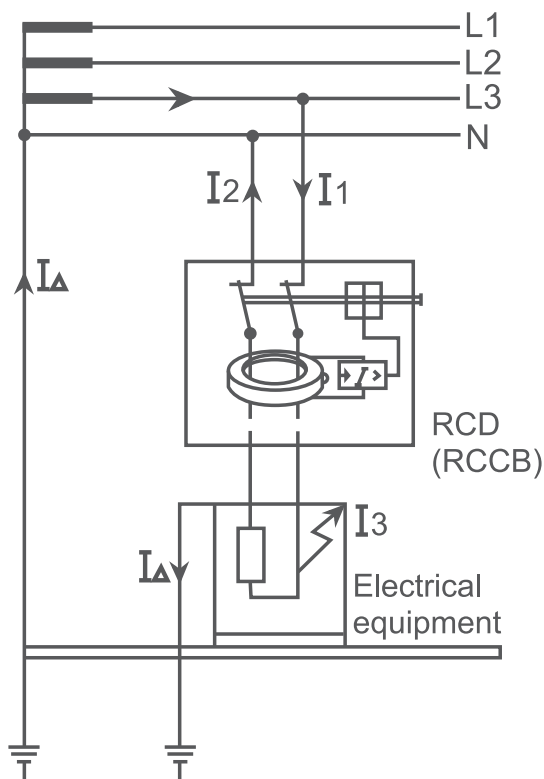
## This extra protection is necessary if

- The insulation of totally insulated devices or their loads are damaged.
- The earth wire is interrupted.
- The earth wire and live wire are transposed.
- A component which is live in normal operation is touched during repair work.
- Socket outlet power circuit is in rooms with bath or shower.
- Caravans, boats and yachts and power supply is on camping or berthing sites.
- Electrical appliance in the rooms is used for medical purposes.



# PROTECTION AGAINST INDIRECT CONTACT

When a person makes contact with an earthed equipment having insulation fault. For example, a person touching the metal frame of an electrical appliance like microwave oven, which has defective insulation may get electrocuted if the appliance is not protected.



One can get the protection against indirect contact by using RCCBs. A person is in danger of electrocution if the fault current raises the voltage of the accessible metal part above 50V to earth. 50V is considered as the safe limit of voltage for the human body in dry condition.

## Working Principle of RCCB

The RCCB function is based on Kirchoff's current law, explained below:

- If the vector sum of incoming current is equal to the vector sum of outgoing current, the RCCB will not trip
- If the vector sum of incoming current is not equal to the vector sum of outgoing current, it indicates a leakage and the RCCB will trip

Due to magnetic imbalance in the transformer of the RCCB, residual magnetism induces a current in the secondary winding coiled around the transformer core which acts on the trip relay. On reaching the trip value (dependent on the rated fault current), this current causes the armature of the magnetic trip to drop out.

The trip operates the lock which opens contacts by way of the energy stored within. Consequently, all poles of the system are separated from the main system.

The drawn-in-switch-off characteristics of residual current devices with a rated fault current of 10 and 30 mA is proof that these are able to prevent the occurrence of dangerous heart chamber fibrillation. For this reason, residual current circuit breaker with the rated fault current of 10 mA is used for protection of particularly exposed individual equipment.

Residual current circuit breakers with 30 mA rated fault current are already specified for many areas (bathrooms with medical facilities, outside areas, agricultural land etc.)

Sensitivity Selection Chart - RCCB	
30mA	Tripping current designed for additional protection against direct contact or where specially required by the Indian wiring regulations. e.g.- sockets outside the equipotential zone TT systems, supply to caravan installation etc., the 30mA RCCB protects against leakage currents & indirect contact with earth loop impedance up to 1667 Ohms; for use as additional protection against direct contact, residual tripping current must not exceed 30mA.
100mA	Tripping current is suitable for protection against indirect contact & leakage currents for larger installations; the 100mA RCCB operate within 30ms, but doesn't provide the same level of personal protection as the 30mA units; the 100mA RCCB protects against leakage currents and indirect contact with earth loop impedance up to 500 Ohms.
300mA	Less sensitive protection suitable for large installations having high level of leakage currents; 300mA RCCB protects against leakage current and indirect contact up to 1670hms earth loop impedance.





## EuroTech Residual Current Circuit Breaker



### Compliance & Certification:



### Smart Features & Benefits:

- Provides protection against earth fault/leakage current and also fulfills the functional isolation.
- Automatically measures and disconnects the circuit when earth fault/leakage current occurs and exceeds the rated sensitivity.
- High short-circuit current withstand capacity - 10kA.
- Dual termination possible for cable and comb type busbar connection.
- Equipped with finger protection disconnection terminals (IP20).
- Fire-resistant plastic parts to withstand abnormal heating and strong impact.
- Independent of line voltage. Also free from external voltage fluctuation.
- Incorporates a filtering device for prevention of nuisance tripping due to transient voltage.

**Range:** 25A, 40A, 63A

**Sensitivities:** 30mA, 100mA, 300mA

**Execution:** Double-Pole (2P), Four-Pole (4P)

**Specification:** IS12640 Part 1/IEC61008-1

## Ordering Information

Rated Short Circuit  
Capacity **10 kA**

Rated Current  
**25 to 63 A**

Sensitivity **30mA,  
100mA, 300mA**

AC Type		
Rating (A)	Sensitivity (mA)	2 Pole (240V)
		Cat. No.
25	30	201DA03025
	100	201DA10025
	300	201DA30025
40	30	201DA03040
	100	201DA10040
	300	201DA30040
63	30	201DA03063
	100	201DA10063
	300	201DA30063



**201DA03025**

Rated Short Circuit  
Capacity **10 kA**

Rated Current  
**25 to 63 A**

Sensitivity **30mA,  
100mA, 300mA**

AC Type		
Rating (A)	Sensitivity (mA)	4 Pole (415V)
		Cat. No.
25	30	201FA03025
	100	201FA10025
	300	201FA30025
40	30	201FA03040
	100	201FA10040
	300	201FA30040
63	30	201FA03063
	100	201FA10063
	300	201FA30063



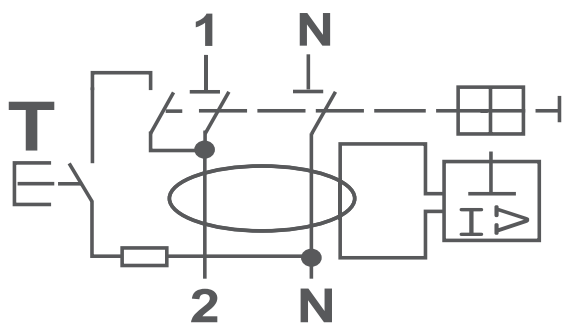
**201FA03063**

## Technical Specifications-RCCB

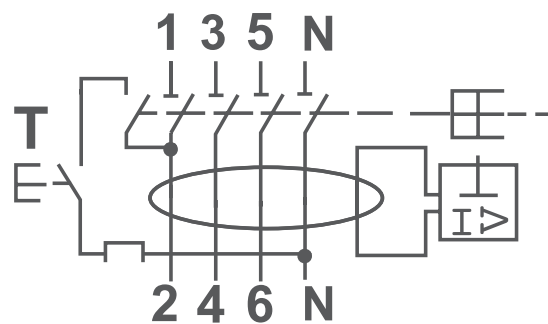
Technical Specification	Details
Rated voltage Un	240v-DP
Rated current In	415V -FP
Rated residual current I	0.03 , 0.1, 0.3 A
Conditional short-circuit current	10 kA
Rated making and breaking capacity I	500A upto 40A RCCB 630A for 63A RCCB
Tripping Time	0.2 seconds
Back-up fuse	63/100 A gG
Degree of protection	IP 20 ( IP40 )
Dielectric strength	2000 V, 50Hz
Cross-section of connecting lead	1 - 25 mm <sup>2</sup>
No. of poles	2 Pole, 4 Pole
Rated insulation voltage (Ui)	500 V
Rated impulse voltage (Uimp)	4 kV
Operating temperature	Min. = -25°C. Max. = +70°C
Vibration	3g, 50Hz
Positive contact indicator	Yes ((Red-"ON", Green-"OFF"))
Shock resistance	40mm free fall
Auxiliary contacts	On request
Shunt trip	On request
Mounting	On Din rail IS/IEC 60715
Installation position	Vertrical / Horizontal
Standards	IS 12640-1 & IEC/EN61008-1

## Wiring Diagram

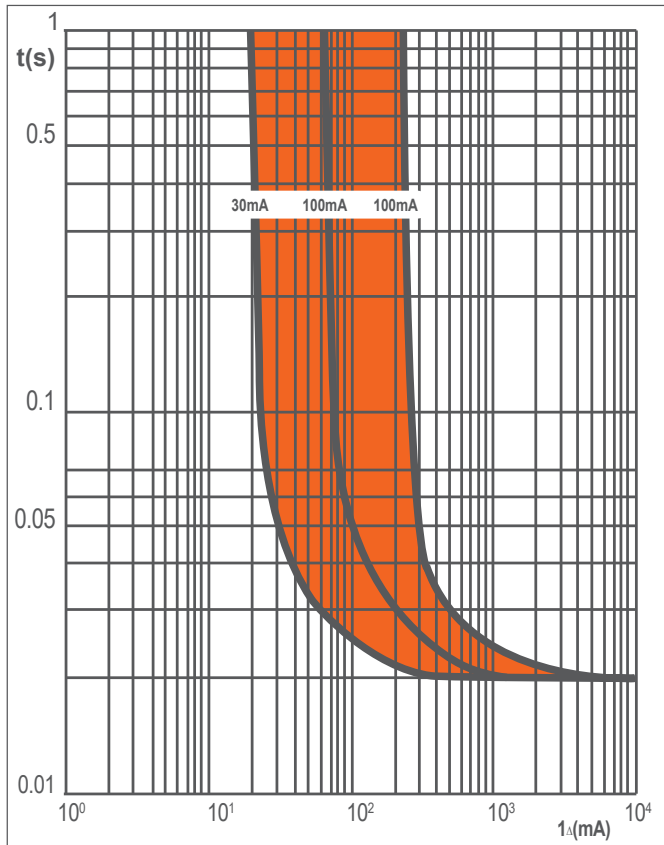
### 2 Pole



### 4 Pole

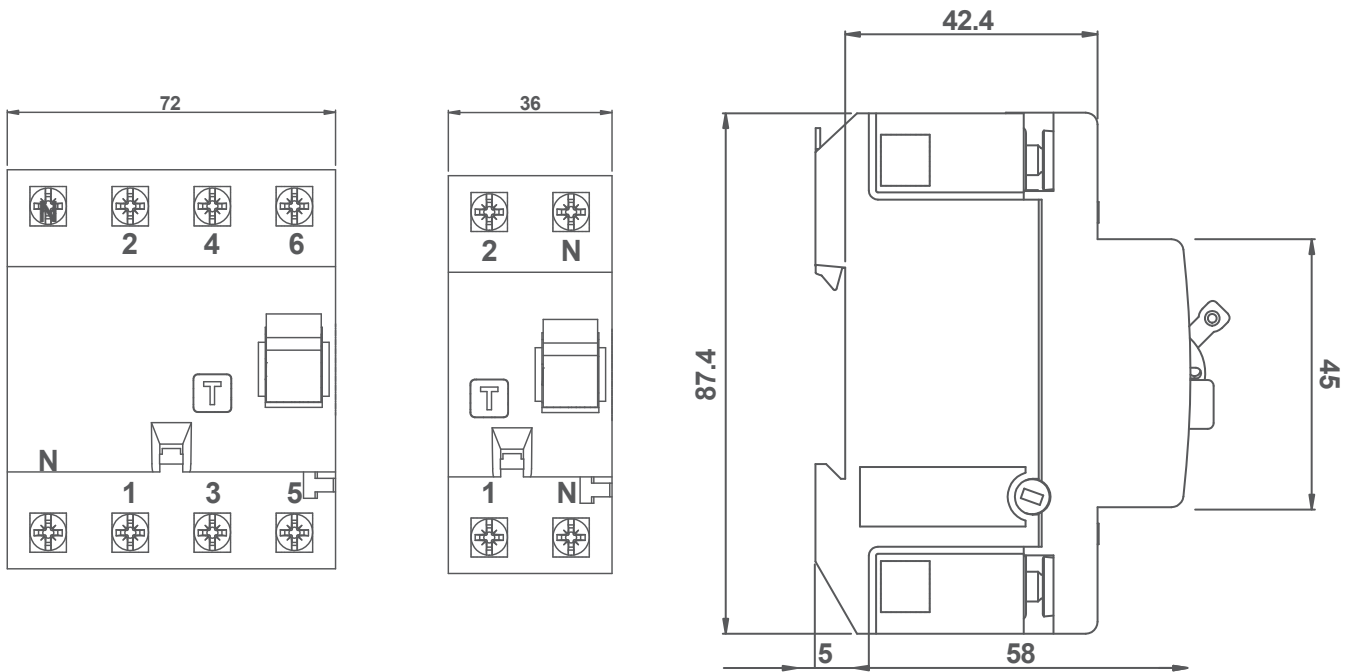


## Tripping Curves



2 & 4 Pole

## Dimensions (mm)



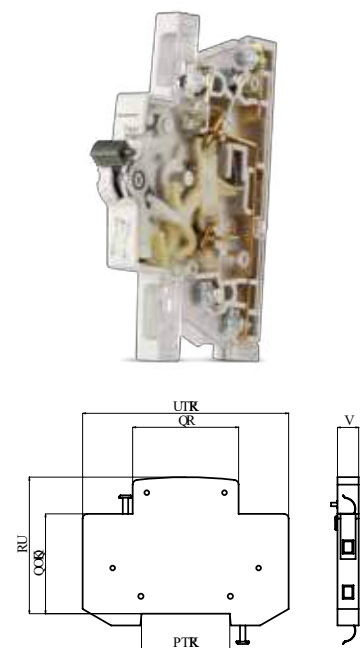
## EuroTech RCCB Accessories Ordering Information

Description	Cat. No.
Terminal cover DP	201DCXTC
Terminal cover FP	201FCXTC
Locking kit	101SPXLK
Shunt trip 240V AC/DC	221AC02300
Auxiliary 1 NO/1 NC	231AC0N0NC
Auxiliary 2 No	231AC0N0NO
Auxiliary 2 NC	231AC0NCNC

### Auxiliary Switch

The auxiliary switch is used to remotely indicate the state of contact's condition (closed/open) of RCCB.

Technical Specifications	
Rated voltage	240V a.c., 110V d.c.
Rated current	6A a.c., 1A d.c.
Rated frequency	a.c. / d.c.
Index of protection	IP 20 (IP 40)
Terminals	max. 1.5mm <sup>2</sup> , max 0.8Nm
Ambient temperature	max. 35°C
Conditional short-circuit current	1 kA with fuse-link 20 A
Storage temperature	max. -40°C to +70°C
Contacts	1x NC, 1x NC/NO
Standards	IS/IEC 60947-1



### Auxiliary Signal Switch Terminal Cover

Allows to cover connection terminals, screws of circuit breakers. The screw covers can be sealed. It gives protection from electric shock & provides better wire connection.

### Shunt Trip

Shunt trip is used for remote release of the Orient EuroTech RCCB. Dimensions correspond to those of the EuroTech RCCB.

Technical Specifications	
Rated voltage	12/48 AC/DC, 110/240 AC/DC
Rated frequency	50/60Hz, d.c.
Index of protection	IP 20 (IP 40)
Terminals	1-25mm <sup>2</sup> , max. 2Nm
Ambient temperature	max. 35°C
Storage temperature	max. -40°C to +70°C
Mounting on the rail	IS/IEC 60947-3
Sealing possibility	Yes
Terminal cover	Yes
Locking device	Yes



# MINI MCB WITH ENCLOSER

## Features:

- Suitable for positive isolation
- Energy saving - low watt loss
- Long life due to copper-silver contacts
- Enhanced safety using high quality fire retardant material
- Heat dissipating channel for superior cooling
- Trip-free mechanism
- Easy to operate & install
- Overload & short circuit protection
- LED indicator of supply
- IP 40 protection
- ISI marked MCB



Description	Product code
Mini MCB With Enclosure DP16A	171DPC0160
Mini MCB With Enclosure DP32A	171DPC0320

# MCB PROTECTED POWER BOARD

## Features:

- Elegant white colour to suit every interior
- MCB protection against overload & short circuit
- Suitable for protection of home appliances like ACs, LCD's, & Geyser etc
- Heavy duty brass terminal for a cooler running & longer life
- Well-designed plug top "hand gripping", for better fitting and removal
- Robust & strong - made up of corrosion/heat & impact resistant polycarbonate FR grade material
- UV stabilized for a longer life & protection against decolourization.



Description	Product code
MCB Protected Power Board SP 16A	191SPC0160
MCB Protected Power Board SP 25A	191SPC0250
MCB Protected Power Board DP 16A	191DPC0160
MCB Protected Power Board DP 25A	191DPC0250



# MCB CHANGEOVER

## Construction

EuroTech changeover is uniquely designed with double break contact system for meeting highest safety standards with a longer life.

## Features:

- Compact design
- Double break contacts
- Silver alloy contact tips
- Shrouded terminals
- Front operations with three positions I-0-II
- Centre position-OFF
- Easy snap on DIN rail mounting
- Can be mounted with other products viz MCB, RCCBs, Isolator in distribution board
- Specification IS/IEC 60947-3



## Ordering Information-Changeover

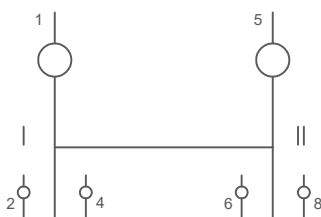
Description	Cat. No.
DP 25R	181DP00250
DP 32R	181DP00320
DP 40R	181DP00400
FP 25R	181FP00250
FP 32R	181FP00320
FP 40R	181FP00400

## Technical Specifications-Changeover

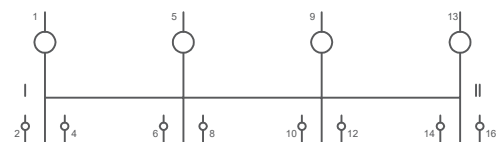
Description	Specification
Rated impulse voltage $U_{imp}$ (kv)	4kV
Operational frequency	50/60 HZ
Dielectric strength	2.5 kV
Storage temperature	-40°C to +80°C
Ambient temperature	-20°C to +50°C
Terminal capacity	10mm <sup>2</sup>
Utilisation category	AC 22R
Knob position	3 Positions (I-0-II) with centre off
Ref. standard	Conforms to IEC 60947-1

## Connection Diagrams/Terminal Marking

### Two-Pole



### Four-Pole



# DISTRIBUTION BOARDS



## Product Overview

The distribution board is not merely an enclosure, but a composite system in itself, through which the power is distributed to various circuits received from a single source of supply. Enclosure may be single door or double door comprising copper busbars, brass neutral links, and earth links to facilitate effective distribution of current.

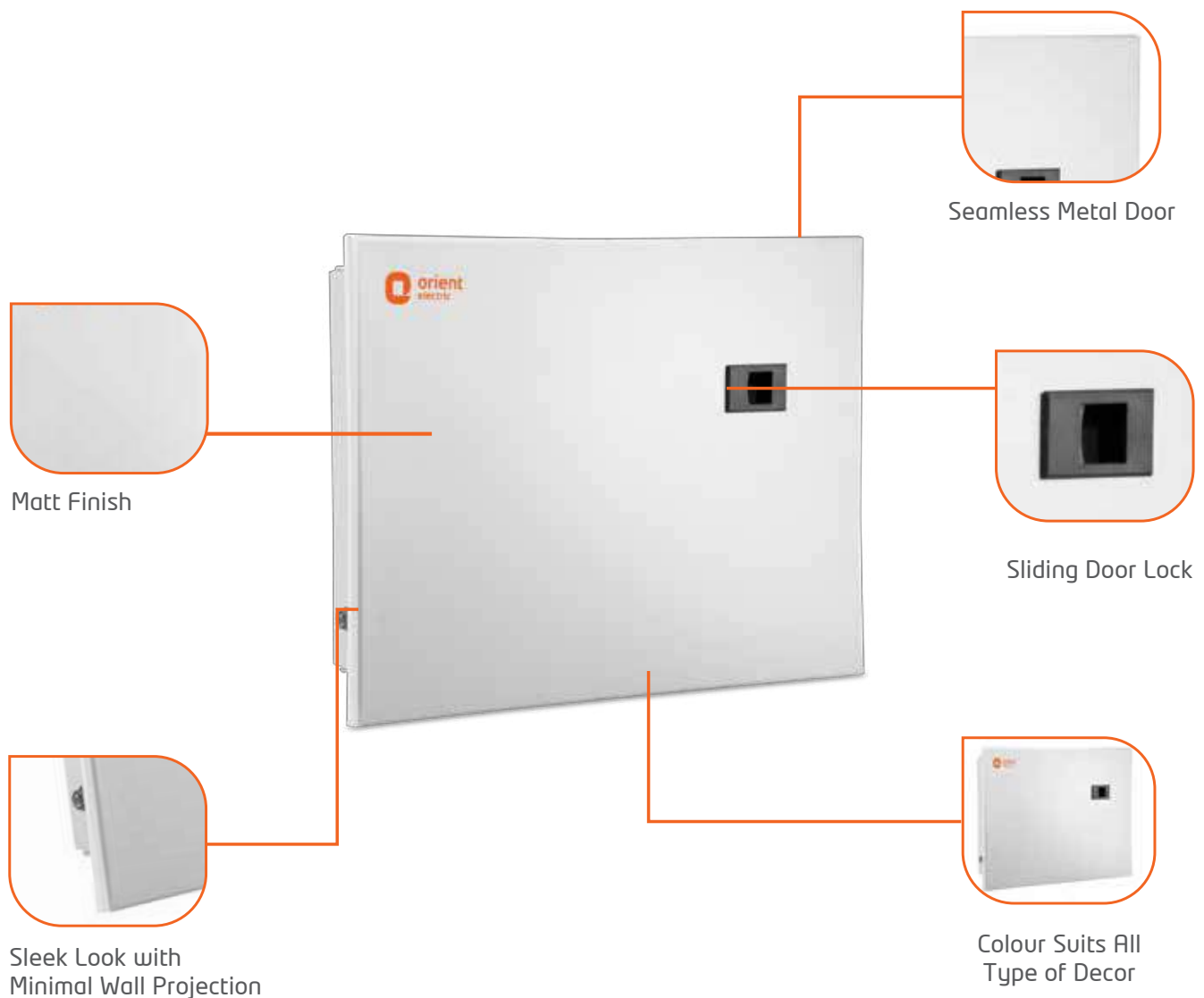
Orient Electric introduces a panoptic range of compact, elegant & economical distribution boards coupled with functionality and aesthetics suitable for residential, commercial & industrial applications.

Orient Electric's range of distribution boards is much more than enclosures. They incorporate new dimensions of protection for safety and convenience. Orient DBs combine very well with MCB & RCCB to provide comprehensive protection as a complete system.





# CANVAS O DISTRIBUTION BOARDS



### 3-Piece Concept for Easy maintenance:

- Instead of removing Door Assembly (Inner & Outer), only the intermediate plate needs to be removed for the purpose of maintenance, without spoiling the alignment & associated plastering/paint work.



### Ease of Installation - Removable Pan Assembly:

- This concept facilitates detaching of the chasis from the DB, and the required wiring for the circuit protection device can be done at a comfortable location. Then this assembly can be refitted into the base.



### Door & Shield Independent:

- During maintenance, one can just remove the shield without removing the entire DB.

## Smart Features & Benefits:

---



### Enhanced Aesthetics:

- The aesthetically designed front fascia of the DB adds an alluring dimension to the living space.
  - A distribution board that you no longer need to hide.
- 



### Made of High-Quality Virgin Sheets:

- Anti-rust conditioning through 9-tank pre-treatment process.
  - CRCA Grade D Steel.
- 



### Safety Standards:

- Canvas O has been designed in accordance with IEC 61439-3, thus ensuring maximum reliability and excellent safety.
- 



### Detachable Gland Plate with Different Size of Knockouts:

- Removable gland plates at the top and bottom of the DB facilitate easy entry and exit of the cable. Thus, one can remove the entire plate from incoming & outgoing terminals.
- 



### Ample Space for Wiring:

- This ensures proper distribution of neutral and earth wire.
- 



### Suitable for Flush Mounting and Surface Mounting:

- Mounting key hole-every DB is provided with a key hole as an option for surface mounting.
- 



- **Pozidriv Screws for Easy Removal**
- **Identification Labels are Provided**
- **Front Plate Stud:**

- Front plate stud is provided for the easy lifting of the front plate.

---



### Cement Protection Sheet:

- Remove the cement protection sheet at the time of mounting top cover with base.
- 



### Embossed Earthing Identification:

- Clear earthing markings for easy location. DBs are equipped with a stainless steel screw that prevents rusting of the surface.
- 



### Door Earthing:

- Door earthing makes the entire DB totally shockproof.
- 



- **Provided with Neutral and Earth Bus Bar with Terminal Capacity 16 SQ MM**
- **Insulated Copper Bus Bar:**

- All the DBs have this facility for quick, safe and easy installation.

- Bus Bar are suitable for 100A.

- Supplied with a RYBΠ wire set along with cable ties for better cable management.

---

# CANVAS O SPN DBS HORIZONTAL

**Bus bar rating:** 100A

**Index of protection:** IP 42

Suitable for flush and surface mounting

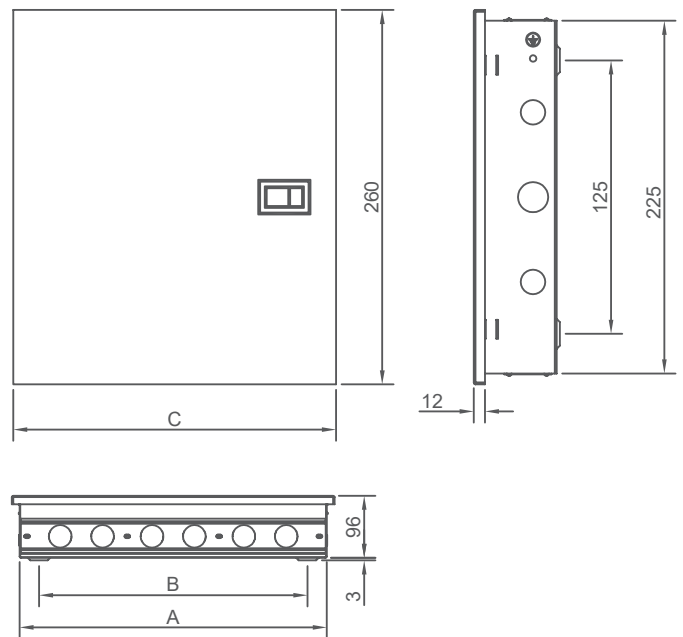
Neutral and Earth Bar terminal capacity 16mm<sup>2</sup>

Pre-fitted masking sheet

**Incomer:** Two-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



No of Ways	No of Modules	Cat. No.	A	B	C	ø26, K'OUT TOP/BOTTOM	ø32, K'OUT TOP/BOTTOM	ø26, K'OUT RH/LH SIDE	ø32, K'OUT RH/LH SIDE
4W	4	381SDDRG04T	220	55	275	2+2	1+1	2+2	1+1
6W	6	381SDDRG06T	250	90	310	2+2	2+2	2+2	1+1
8W	8	381SDDRG08T	290	125	345	2+2	2+2	2+2	1+1
12W	12	381SDDRG12T	360	195	415	4+4	2+2	2+2	1+1
16W	16	381SDDRG16T	430	265	485	6+6	2+2	2+2	1+1

# CANVAS O TPN DBS HORIZONTAL

**Bus bar rating:** 100A

**Index of protection:** IP 42

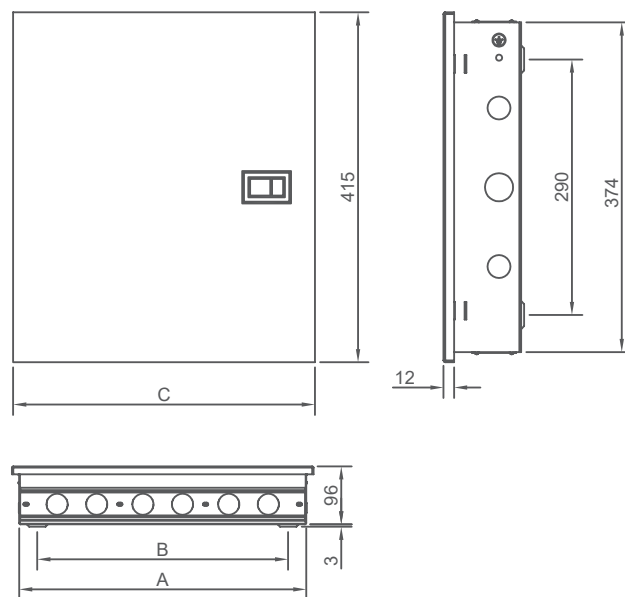
Suitable for flush and surface mounting

Neutral and Earth Bar terminal capacity 16mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

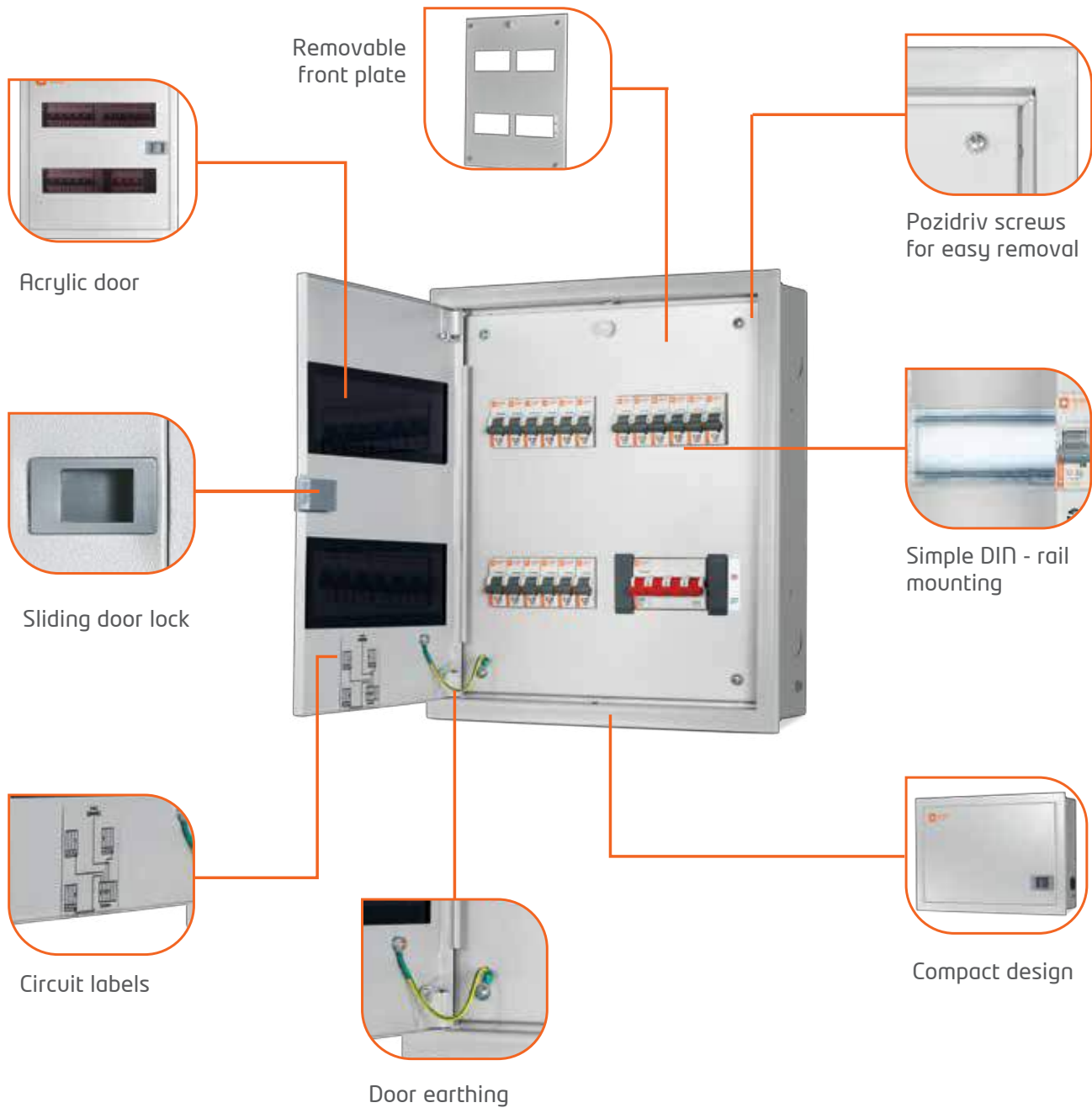
**Standards:** IS 8623; IS 13032; IEC 61439-3



No of Ways	No of Modules	Cat. No.	A	B	C	ø26, K'OUT TOP/BOTTOM	ø32, K'OUT TOP/BOTTOM	ø26, K'OUT RH/LH SIDE	ø32, K'OUT RH/LH SIDE
4W	4	381TDDRG04T	365	310	420	2+2	2+2	2+2	1+1
6W	6	381TDDRG06T	435	380	490	4+4	2+2	2+2	1+1
8W	8	381TDDRG08T	505	450	560	4+4	2+2	2+2	1+1
12W	12	381TDDRG12T	645	590	700	6+6	2+2	2+2	1+1



# n SERIES DISTRIBUTION BOARDS



## Smart Features & Benefits:

---



### Internal sliding knob:

Aesthetically appealing with curves and locking. Colours are matched, as per requirement.

---



### Visual anti-inserting facility:

Aids in identifying the box inserting level in the wall.

---



### Ample space:

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

---



### Embossed earthing identification:

Clear earthing marking for ease of installation. DBs are equipped with a stainless steel screw that prevents rusting of the surface.

---



### Door & shield independent:

3-piece concept for ease of maintenance, wherein instead of removing door assembly (Inner & Outer), only the intermediate plate needs to be removed for the purpose of maintenance, without spoiling the alignment & associated plastering/paint work.

---



### Identification level and blank plate:

Identification level and blank plates will be provided for the circuit.

---



### Front plate studs:

Front plates studs are provided for easy lifting of the front plate.

---



**Double mounting key holes:**

All DBs are 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 cables. Thus, one can remove the entire plate from incomer and outgoing terminals.

---



**Circuit cable diagram:**

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

---



**Pan assembly:**

The concept facilitates detaching of the chasis from the distribution boards & the required wiring for the circuit protection device can be done at a comfortable location.

---



**Door earthing:**

Door earthing makes the entire distribution board totally shockproof.

---



**Insulated copper bus bar:**

All the distribution boards will have this facility for quick and easy installation for rating: 100 A.

---



Pozidriv screws for easy removal.

---

## Smart Features & Benefits:

- Compact design which occupies minimum space
- Raised neutral link for easy assembly
- Sliding door lock method with earthing and removable front plate
- Removable top and bottom gland plates
- Pozidriv screws for easy removal
- Tin plated insulated copper busbar
- Choice of plain and acrylic door
- Circuit identification labels
- Detachable DIN rail for easy assembly of the breaker
- Suitable for surface as well as flush mounting
- Anti-rust conditioning through 9-tank pre-treatment process
- Shrouded cable entry for enhanced protection
- CRCA grade D steel
- Neutral & Earth bar terminal capacity 16mm<sup>2</sup>.
- Protection: IP42 for double door, IP30 for single door.

**Colour:** RAL 7035, light grey, matt finish

**Specification:** IS 8623, IS 13032, IEC 61439-3

## Technical Specifications

Type of Installation	Surface & flush mounting
Colour / Finish	RAL 7035, light grey, matt finish
Distribution technique	Insulated busbar
Material	CRCA sheet steel
Dielectric strength	2.5 kV
Busbar short time withstand (Icw)	5 kA for 0.1 second
Busbar conditional short circuit (Ics)	10 kA
Voltage rating	240 V a.c, 1 Phase/ 240-415 Va.c, 3 Phase/ 4 Wire
Index of protection (IP)	IP30 for single door
	IP42 for double door
Insulation voltage (Ui)	690 V a.c
Frequency	50 Hz
Ambient temperature	-5° C to 40° C
Reference standard	IS 8623; IS 13032; IEC 61439-3





# n SERIES SPN DB

**Bus bar rating:** 100A

**Index of protection:** IP 30 for single door IP 42 for double door,

Suitable for flush and surface mounting

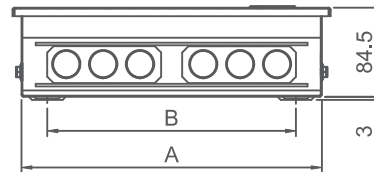
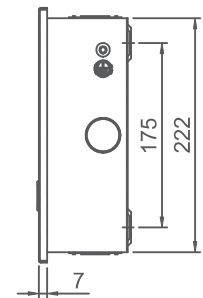
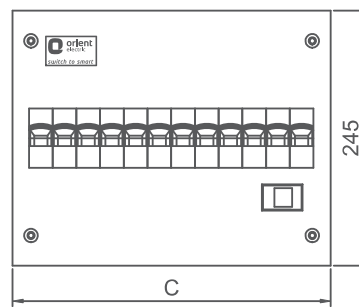
Neutral and Earth to bar terminal capacity 16mm<sup>2</sup>

**Incomer:** Two-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

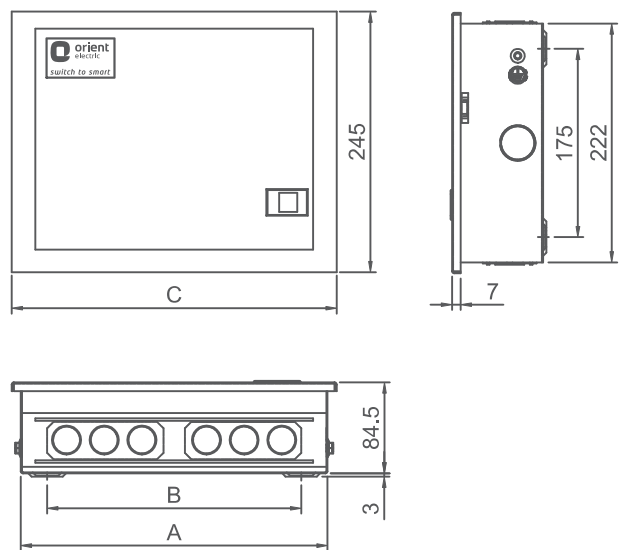
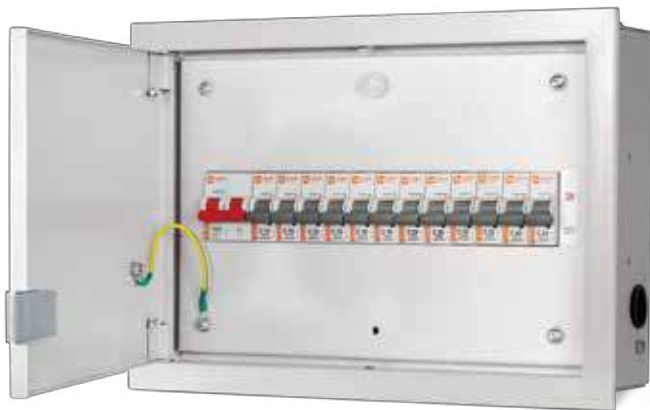
**Standards:** IS 8623; IS 13032; IEC 61439-3

## Single Door



No. of Ways	No. of Modules	Cat. No.	A	B	C	ø26, K'OUT TOP/BOTTOM	ø26, K'OUT LH/RH SIDE
4W	4	301SSDRG04T	135	60	150	2 / 2 NOS.	1 / 1 NO.
6W	6	301SSDRG06T	170	95	185	2 / 2 NOS.	1 / 1 NO.
8W	8	301SSDRG08T	205	130	220	3 / 3 NOS.	1 / 1 NO.
10W	10	301SSDRG10T	240	165	255	3 / 3 NOS.	1 / 1 NO.
12W	12	301SSDRG12T	275	200	290	4 / 4 NOS.	1 / 1 NO.
14W	14	301SSDRG14T	310	235	325	4 / 4 NOS.	1 / 1 NO.
16W	16	301SSDRG16T	350	275	365	5 / 5 NOS.	1 / 1 NO.

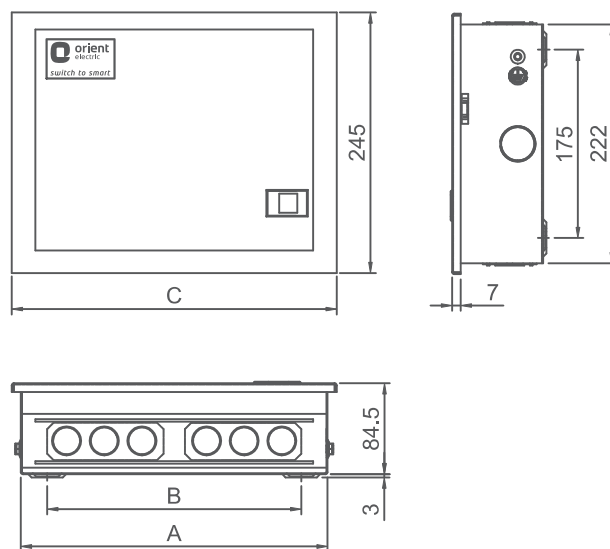
## Double Door



No. of Ways	No. of Modules	Cat. No.	A	B	C	ø26, K'OUT TOP/BOTTOM	ø26, K'OUT LH/RH SIDE
4W	4	301SDDRG04T	145	96	162	2 / 2 NOS.	1 / 1 NO.
6W	6	301SDDRG06T	180	131	197	2 / 2 NOS.	1 / 1 NO.
8W	8	301SDDRG08T	215	166	232	3 / 3 NOS.	1 / 1 NO.
10W	10	301SDDRG10T	250	201	267	3 / 3 NOS.	1 / 1 NO.
12W	12	301SDDRG12T	285	236	302	4 / 4 NOS.	1 / 1 NO.
14W	14	301SDDRG14T	320	271	337	4 / 4 NOS.	1 / 1 NO.
16W	16	301SDDRG16T	355	306	372	5 / 5 NOS.	1 / 1 NO.



## Acrylic Door



No. of Ways	No. of Modules	Cat. No.	A	B	C	ø26, K'OUT TOP/BOTTOM	ø26, K'OUT LH/RH SIDE
4W	4	301SADRG04T	145	96	162	2 / 2 NOS.	1 / 1 NO.
6W	6	301SADRG06T	180	131	197	2 / 2 NOS.	1 / 1 NO.
8W	8	301SADRG08T	215	166	232	3 / 3 NOS.	1 / 1 NO.
10W	10	301SADRG10T	250	201	267	3 / 3 NOS.	1 / 1 NO.
12W	12	301SADRG12T	285	236	302	4 / 4 NOS.	1 / 1 NO.
14W	14	301SADRG14T	320	271	337	4 / 4 NOS.	1 / 1 NO.
16W	16	301SADRG16T	355	306	372	5 / 5 NOS.	1 / 1 NO.

# n SERIES TPN DB

**Bus Bar Rating:** 100A

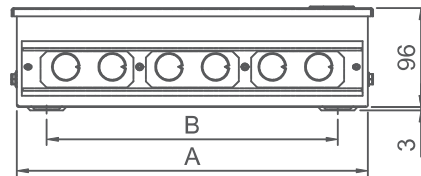
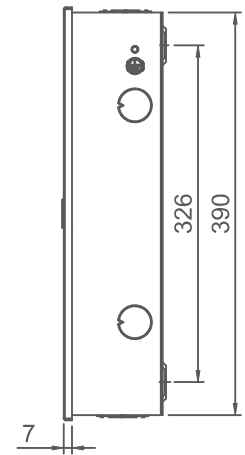
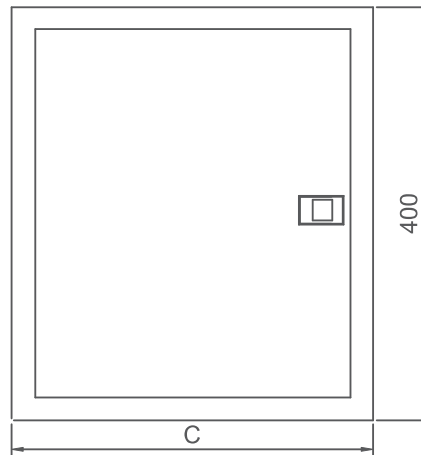
**Index of Protection:** IP 30 for single door, IP 42 for double door  
Suitable for flush and surface mounting,  
Neutral and Earth Bar terminal capacity 16mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3

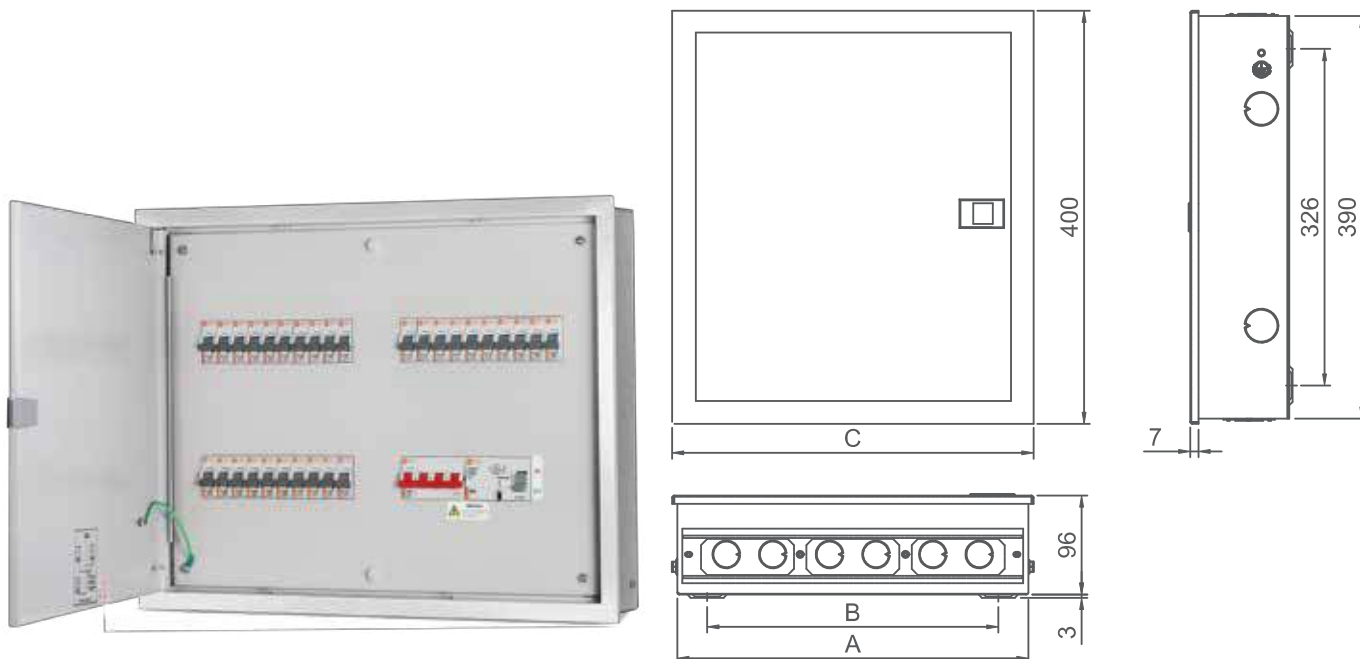
## Single Door



No. of Ways	Total Module (Incoming + Outgoing)	Cat. Nos.	A	B	C	ø26, K'OUT Top/Bottom	ø26, K'OUT LH/RH SIDE
4W	4+12	301TSDRG04T	295	220	310	4 / 4 NOS.	3 / 3 NOS.
6W	4+18	301TSDRG06T	330	255	345	4 / 4 NOS.	3 / 3 NOS.
8W	8+24	301TSDRG08T	460	385	475	6 / 4 NOS.	3 / 3 NOS.
10W	8+30	301TSDRG10T	600	525	620	6 / 6 NOS.	3 / 3 NOS.
12W	8+36	301TSDRG12T	740	665	760	8 / 8 NOS.	3 / 3 NOS.

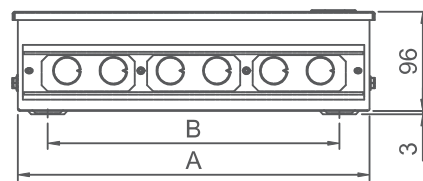
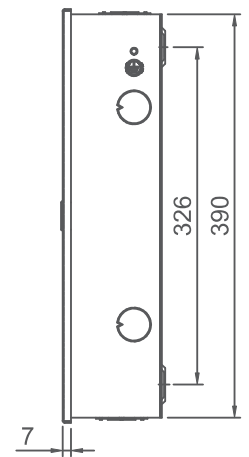
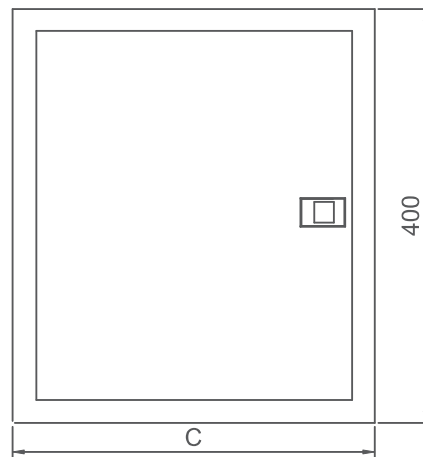


## Double Door



No. of Ways	Total Module (Incoming + Outgoing)	Cat. Nos.	A	B	C	ø26, K'OUT Top/Bottom	ø26, K'OUT LH/RH SIDE
4W	4+12	301TDDRG04T	270	212	280	4 / 4 NOS.	3 / 3 NOS.
6W	4+18	301TDDRG06T	340	282	350	4 / 4 NOS.	3 / 3 NOS.
8W	8+24	301TDDRG08T	410	352	420	6 / 4 NOS.	3 / 3 NOS.
10W	8+30	301TDDRG10T	480	422	490	6 / 6 NOS.	3 / 3 NOS.
12W	8+36	301TDDRG12T	550	492	560	8 / 8 NOS.	3 / 3 NOS.

## Acrylic Door



Description	Total Module (Incoming + Outgoing)	Cat. Nos.	A	B	C	ø26, K'OUT Top/Bottom	ø26, K'OUT LH/RH SIDE
4W	4+12	301TADRG04T	270	212	280	4 / 4 NOS.	3 / 3 NOS.
6W	4+18	301TADRG06T	340	282	350	4 / 4 NOS.	3 / 3 NOS.
8W	8+24	301TADRG08T	410	352	420	6 / 4 NOS.	3 / 3 NOS.
10W	8+30	301TADRG10T	480	422	490	6 / 6 NOS.	3 / 3 NOS.
12W	8+36	301TADRG12T	550	492	560	8 / 8 NOS.	3 / 3 NOS.



# n SERIES TPN VERTICAL DB

**Bus bar rating:** 200A

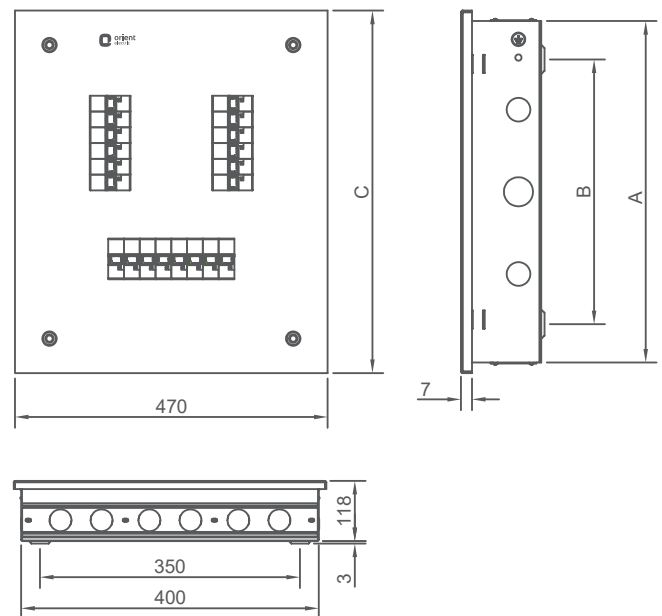
**Index of protection:** IP 30 for single door, IP 42 for double door,  
suitable for flush and surface mounting  
Neutral bar terminal capacity 35mm<sup>2</sup> and Earth bar terminal capacity 16mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Outgoing:** SP/TP MCBs

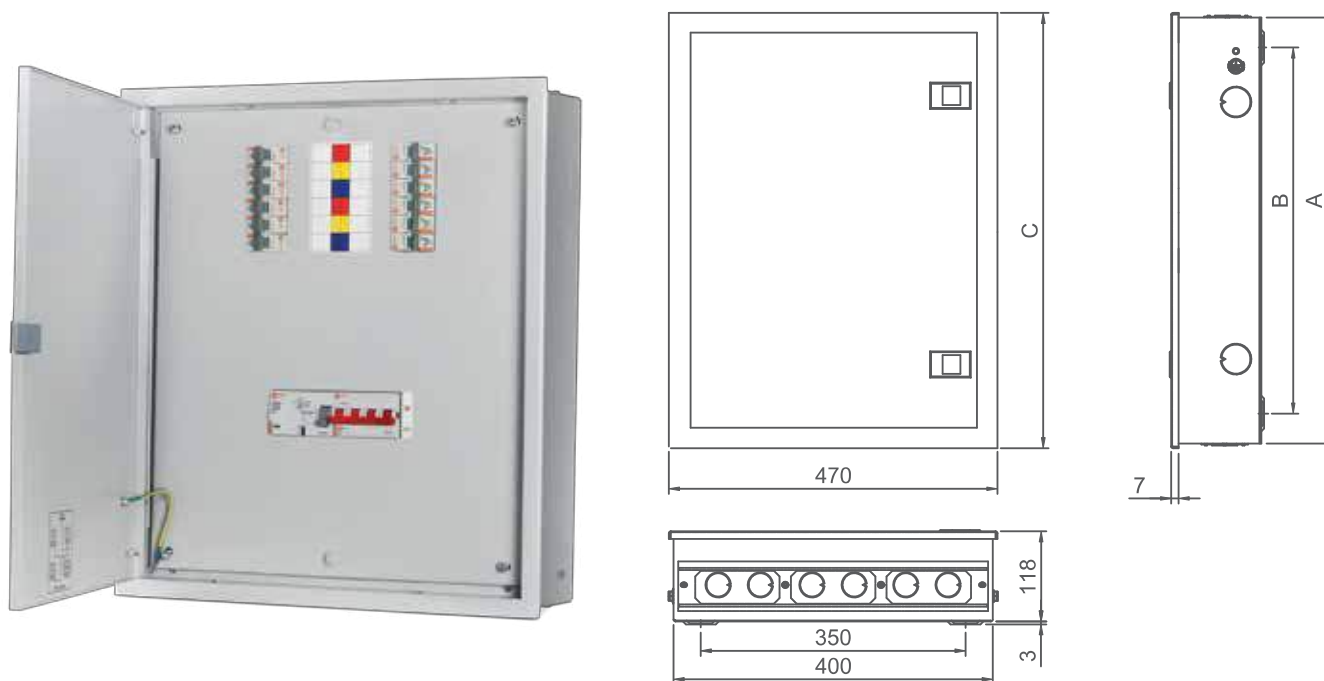
**Standards:** IS 8623; IS 13032; IEC 61439-3

## Single Door



No. of Ways	Total Module (Incoming + Outgoing)	Cat. Pos.	A	B	C	ø26, K'OUT Top/Bottom	ø26, K'OUT LH/RH SIDE
4W	4+12	302TSDRG04T	500	450	520	5 / 5 NOS.	2 / 2 NOS.
6W	8+18	302TSDRG06T	550	500	570	5 / 5 NOS.	3 / 3 NOS.
8W	8+24	302TSDRG08T	600	550	620	5 / 5 NOS.	4 / 4 NOS.
12W	8+36	302TSDRG12T	700	650	720	5 / 5 NOS.	6 / 6 NOS.

## Double Door



No. of Ways	Total Module (Incoming + Outgoing)	Cat. Nos.	A	B	C	ø26, K'OUT Top/Bottom	ø26, K'OUT LH/RH SIDE
4W	4+12	302TDDRG04T	500	450	520	5 / 5 NOS.	2 / 2 NOS.
6W	8+18	302TDDRG06T	550	500	570	5 / 5 NOS.	3 / 3 NOS.
8W	8+24	302TDDRG08T	600	550	620	5 / 5 NOS.	4 / 4 NOS.
12W	8+36	302TDDRG12T	700	650	720	5 / 5 NOS.	6 / 6 NOS.





# n SERIES PER PHASE ISOLATION TPN DBS

**Bus bar rating:** 100A

**Index of Protection:** IP 42

Suitable for flush and surface mounting

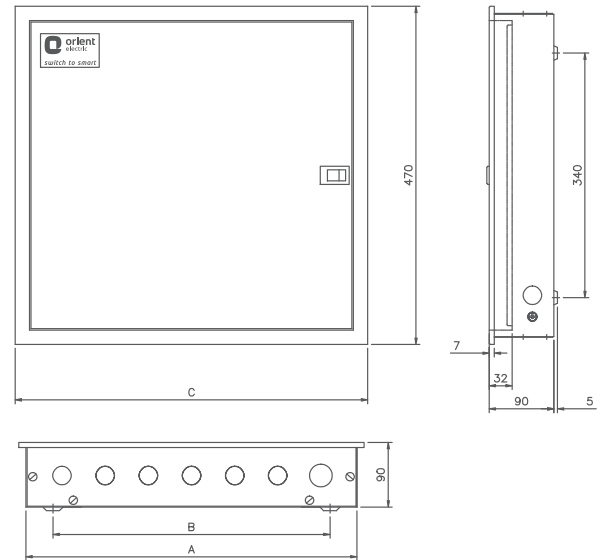
Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Sub Incomer:** Two-Pole MCBs/RCCB

**Outgoing:** Single-Pole MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	ø32, K'OUT		ø26, K'OUT		ø32, K'OUT	
						TOP	BOTTOM	TOP	BOTTOM	LH SIDE	RH SIDE
4W	8+6+12	351TDDRG04T	375	300	395	1 NO.	1 NO.	4 NOS.	4 NOS.	1 NO.	1 NO.
6W	8+6+18	351TDDRG06T	470	395	490	1 NO.	1 NO.	6 NOS.	6 NOS.	1 NO.	1 NO.
8W	8+6+24	351TDDRG08T	500	425	520	1 NO.	1 NO.	7 NOS.	7 NOS.	1 NO.	1 NO.

# n SERIES PER PHASE ISOLATION TPN 4 TIER DBS

**Bus bar rating:** 100A

**Index of protection:** IP 42

Suitable for flush and surface mounting

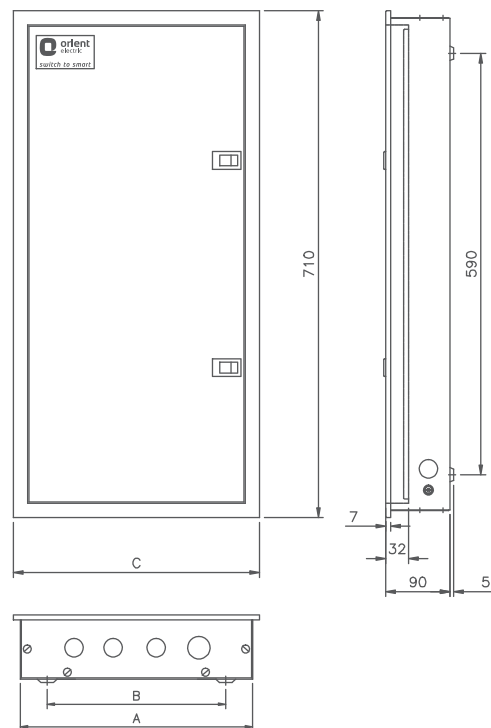
Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Sub Incomer:** Two-Pole MCBs/RCCB

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	ø32, K'OUT		ø26, K'OUT		ø32, K'OUT	
						TOP	BOTTOM	TOP	BOTTOM	LH SIDE	RH SIDE
8W	8+6+24	352TDDRG08T	375	300	395	1 NO.	1 NO.	4 NOS.	4 NOS.	1 NO.	1 NO.
12W	8+6+36	352TDDRG12T	450	375	470	1 NO.	1 NO.	5 NOS.	5 NOS.	1 NO.	1 NO.



# n SERIES 7 SEGMENT DBS

**Bus bar rating:** 100A

**Index of protection:** IP 42

Suitable for flush and surface mounting

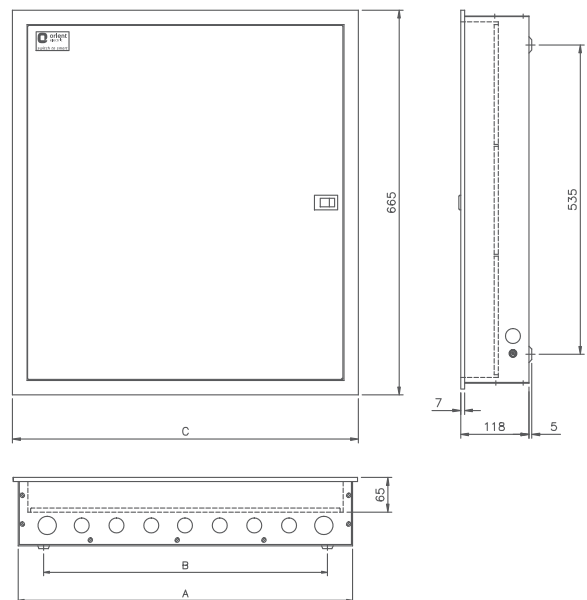
Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Sub Incomer:** Two-Pole MCBs/RCCB/Isolators

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	ø32, K'OUT		ø26, K'OUT		ø32, K'OUT	
						TOP	BOTTOM	TOP	BOTTOM	LH SIDE	RH SIDE
4W	8+12	341TDDRG04T	520	430	540	1 NO.	1 NO.	5 NOS.	5 NOS.	1 NO.	1 NO.
6W	8+18	341TDDRG06T	620	530	640	1 NO.	1 NO.	7 NOS.	7 NOS.	1 NO.	1 NO.
8W	8+24	341TDDRG08T	730	640	750	1 NO.	1 NO.	9 NOS.	9 NOS.	1 NO.	1 NO.
12W	8+36	341TDDRG12T	940	850	960	1 NO.	1 NO.	13 NOS.	13 NOS.	1 NO.	1 NO.

# n SERIES VERTICAL PHASE SELECTOR TPN DBS

**Bus bar rating:** 100A

**Index of protection:** IP 42

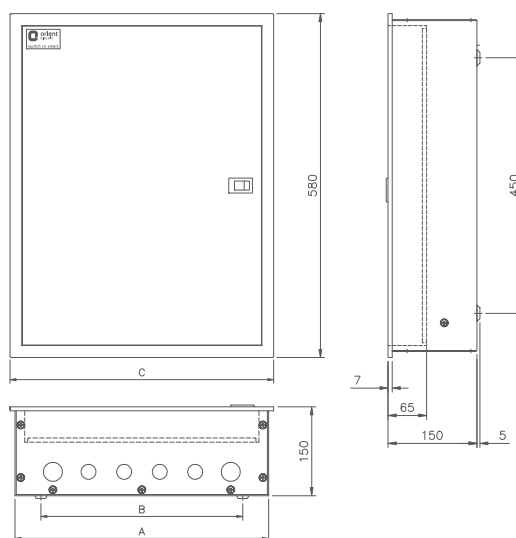
Suitable for flush and surface mounting

Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



**N Series Vertical Phase Selector TPN DBs 40A**

No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	ø32, K'OU TOP	BOTTOM	ø32, K'OU TOP	BOTTOM
4W	8+12	332TDDRG4004T	420	345	440	4 NOS.	4 NOS.	2 NOS.	2 NOS.
6W	8+18	332TDDRG4006T	455	380	475	5 NOS.	5 NOS.	2 NOS.	2 NOS.
8W	8+24	332TDDRG4008T	490	415	510	5 NOS.	5 NOS.	2 NOS.	2 NOS.

**N Series Vertical Phase Selector TPN DBs 63A**

No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	ø32, K'OU TOP	BOTTOM	ø32, K'OU TOP	BOTTOM
4W	8+12	332TDDRG6304T	420	345	440	4 NOS.	4 NOS.	2 NOS.	2 NOS.
6W	8+18	332TDDRG6306T	455	380	475	5 NOS.	5 NOS.	2 NOS.	2 NOS.
8W	8+24	332TDDRG6308T	490	415	510	5 NOS.	5 NOS.	2 NOS.	2 NOS.



# n SERIES PREWIRED SPN DBS

**Bus bar rating:** 100A

**Index of protection:** IP 42

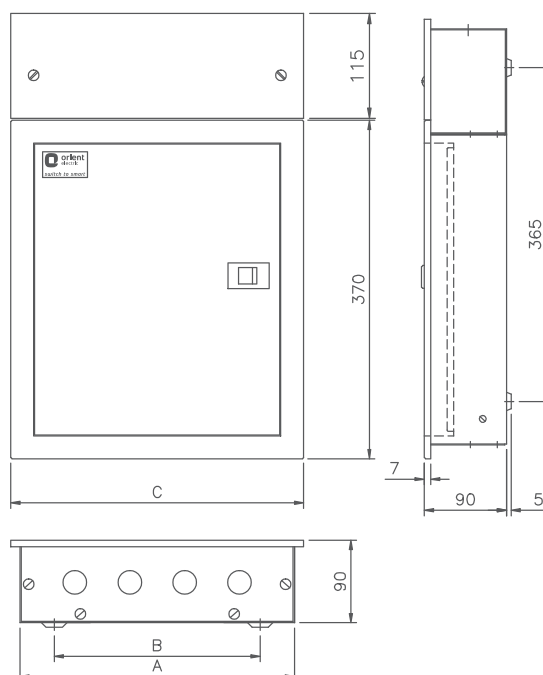
Suitable for flush and surface mounting

Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Two-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



n Series Prewired SPN DBs								
No. of Ways	Total Module (Incoming + Outgoing)	Cat. No.	A	B	C	4 SQMM TB	ø26, K'OUT TOP	ø26, K'OUT Bottom
4W	2+6	311SDDRG06T	260	165	280	6 NOS.	3 NOS.	3 NOS.
6W	2+8	311SDDRG08T	300	205	320	8 NOS.	4 NOS.	4 NOS.
8W	2+10	311SDDRG10T	340	245	360	10 NOS.	5 NOS.	5 NOS.
12W	2+12	311SDDRG12T	380	285	400	12 NOS.	6 NOS.	6 NOS.
16W	2+16	311SDDRG16T	460	365	480	16 NOS.	6 NOS.	6 NOS.

# n SERIES PREWIRED TPN DBS

**Bus bar rating:** 100A

**Index of protection:** IP 42

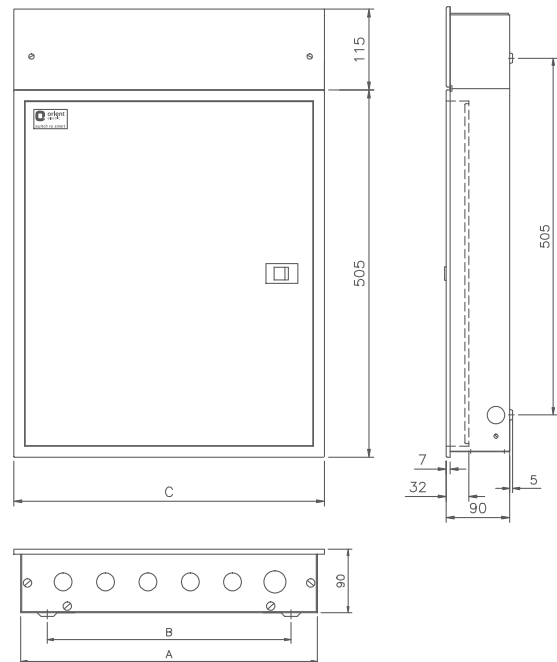
Suitable for flush and surface mounting

Neutral bar and Earth Bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Four-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



Description	Total Module	Cat. No.	A	B	C	PHASE TB	ø26, K'OUT TOP BOTTOM		ø26, K'OUT TOP BOTTOM		ø26, K'OUT LH SIDE/RH SIDE	
4	8+12	311TDDRG04T	420	345	440	12 NOS.	5 NOS.	5 NOS.	1 NO.	1 NO.	1 NO.	1 NO.
6	8+18	311TDDRG06T	455	380	475	18 NOS.	5 NOS.	5 NOS.	1 NO.	1 NO.	1 NO.	1 NO.
8	8+24	311TDDRG08T	490	415	510	24 NOS.	6 NOS.	6 NOS.	1 NO.	1 NO.	1 NO.	1 NO.
12	8+36	311TDDRG12T	630	555	650	36 NOS.	8 NOS.	8 NOS.	1 NO.	1 NO.	1 NO.	1 NO.



# n SERIES CONSUMER UNIT SPN DBS WITH ACRYLIC WINDOW

**Bus bar rating:** 100A

**Index of protection:** IP 40

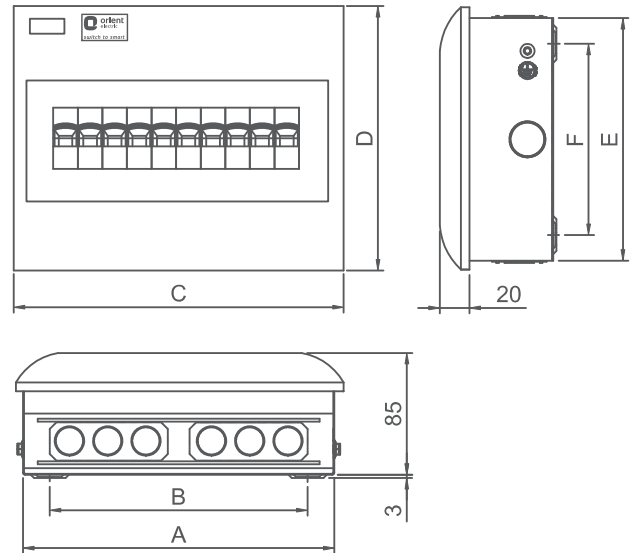
Suitable for flush and surface mounting

Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Two-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



Description	Total Module	Cat. No.	A	B	C	D	F	E	ø26,K'OUT TOP/BOTTOM	ø26,K'OUT LH/RH SIDE
4W	4	321SAWRG04T	135	80	147	160	70	140	2/2 NOS.	1/1 NO.
6W	6	321SAWRG06T	185	130	215	197	105	175	2/2 NOS.	1/1 NO.
8W	8	321SAWRG08T	220	165	250	212	120	190	3/3 NOS.	1/1 NO.
12W	12	321SAWRG12T	290	235	320	212	120	190	4/4 NOS.	1/1 NO.
16W	14	321SAWRG16T	365	310	395	212	120	190	5/5 NOS.	1/1 NO.

# n SERIES CONSUMER UNIT SPN DBS

**Bus bar rating:** 100A

**Index of protection:** IP 30

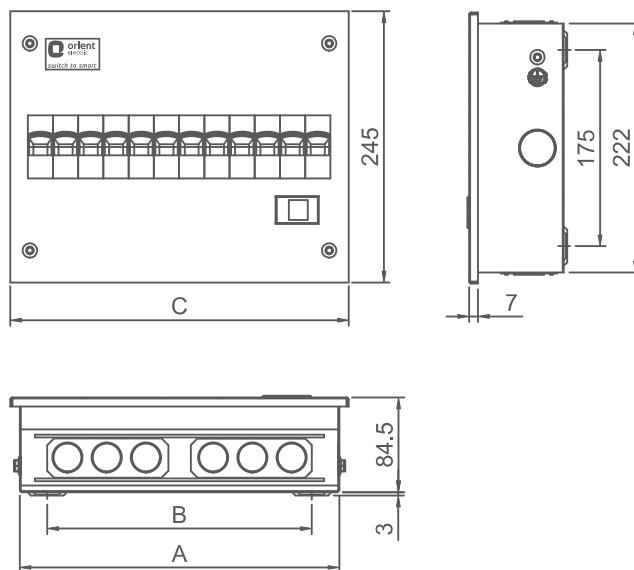
Suitable for flush and surface mounting

Neutral bar and Earth bar terminal capacity 16 mm<sup>2</sup>

**Incomer:** Two-Pole MCBs/RCCB/Isolator

**Outgoing:** SP MCBs

**Standards:** IS 8623; IS 13032; IEC 61439-3



Description	Total Module	Cat. No.	A	B	C	ø26,K"OUT TOP/BO	ø26,K"OUT LH/RH
4W	2+4	321SSWRG04T	135	60	150	2/2 NOS.	1/1 NO.
6W	2+6	321SSWRG06T	170	95	185	2/2 NOS.	1/1 NO.
8W	2+8	321SSWRG08T	205	130	220	3/3 NOS.	1/1 NO.
12W	2+12	321SSWRG12T	275	200	290	4/4 NOS.	1/1 NO.



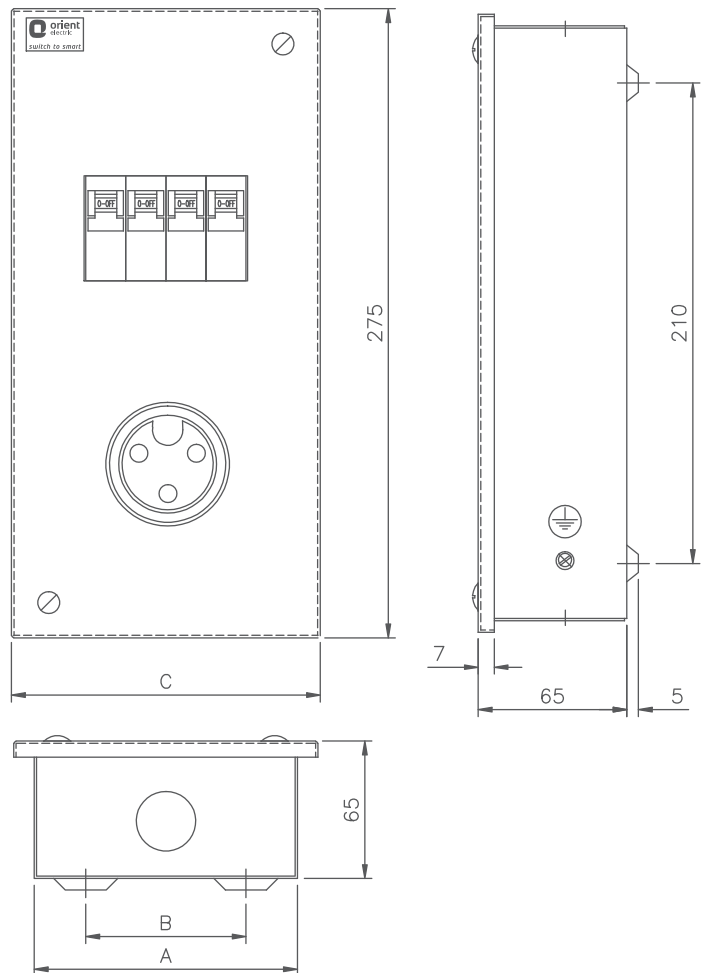


# n SERIES PLUG & SOCKET DBS

Index of protection: IP 30

Suitable for flush and surface mounting

Standards: IS 8623; IS 13032; IEC 61439-3



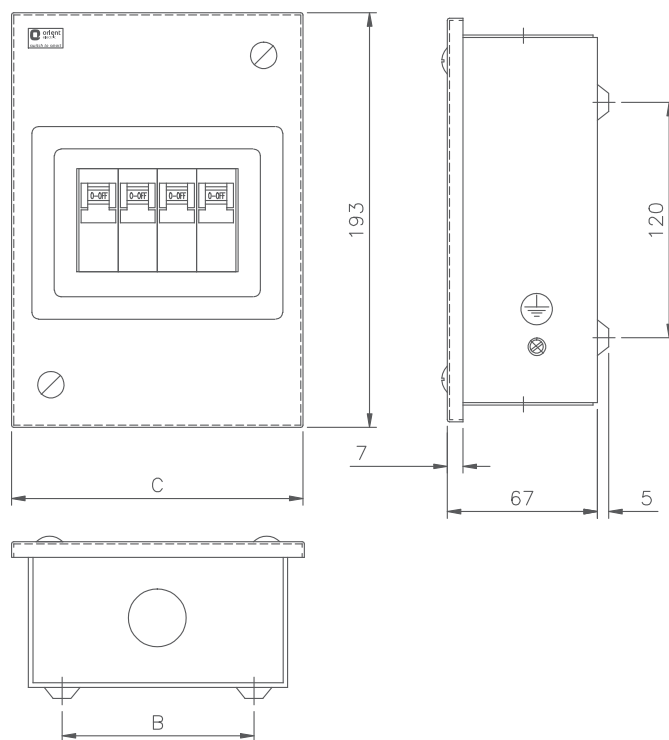
			Dimensions			ø26, K'OUT	
Ratings	TYPE	Cat. No.	A	B	C	TOP	BOTTOM
20 A	SP	371SPG20T	120	80	135	2 NOS.	2 NOS.
20 A	SPN	371SRG20T	120	80	135	2 NOS.	2 NOS.
30 A	TPN	371TRG30T	120	80	135	2 NOS.	2 NOS.

# n SERIES MCB ENCLOSURE

Index of protection: IP 30

Suitable for flush and surface mounting

Standards: IS 8623; IS 13032; IEC 61439-3



Description	Total Module (Incoming + Outgoing)	Cat. No.	Dimensions			ø26, K'OUT	
			A	B	C	TOP	BOTTOM
2	2	361DPSDSSRGT	85	45	100	1 NOS.	1 NOS.
4	4	361FPSDSSRGT	120	80	135	1 NOS.	1 NOS.



# ACCESSORIES - PLUG & SOCKET DBS



Plug Assembly		
Ratings	Type	Cat. No.
20A	SPN	372SPARG20
30A	TPN	372TPARG30

Socket Assembly		
Ratings	Type	Cat. No.
20A	SPN	372SSARG20
30A	TPN	372TSARG30

# OFFLOAD CHANGEOVER SWITCH

Orient Electric Offload Changeover Switch is easy to operate and cool running at rated current.

## Features:

- Double break with side handle operation.
- Position indication of contacts.
- Suitable for surface mounting.
- Door interlock facility.
- Sheet steel enclosure duly phosphatized and powder painted.

## Range:

32A DP Execution

32A to 400A FP Execution

## Specification:

Conforms to IS/IEC:60947-1&3



Description	Product Code
Offload Changeover Switch DP 32A	401CSDP032
Offload Changeover Switch FP 32A	401CSFP032
Offload Changeover Switch FP 63A	401CSFP063
Offload Changeover Switch FP 100A	401CSFP100
Offload Changeover Switch FP 200A	401CSFP200
Offload Changeover Switch FP 400A	401CSFP400







## SWITCHGEAR CATALOGUE - 2020

Due to continuous improvements in the product design & development and manufacturing methods, the products may differ in some respects from the details provided herein. Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication. Specifications, performance data and other technical details are likely to change owing to errors that may arise herein. Current details should therefore be checked with Orient Electric Limited.



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