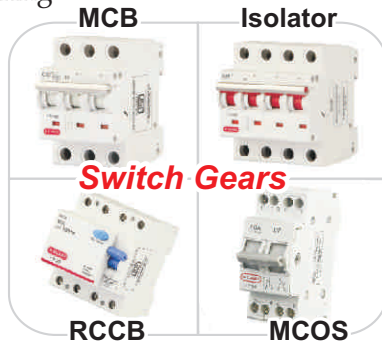


SWITCH GEARS

Purposes of Switchgears are the following...

- ✦ Protecting
- ✦ Switching
- ✦ Monitoring
- ✦ Measuring



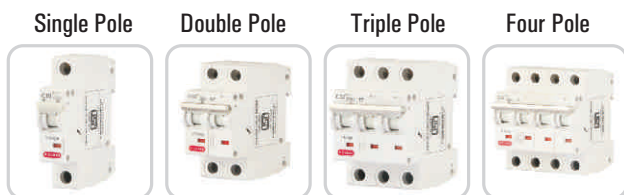
MCB (Miniature Circuit Breaker)

- ✦ Overload Protection
- ✦ Switching
- ✦ Short Circuit Protection

Applications of MCBs with Different Characteristics Curve

B Curve	C Curve	D Curve
Lighting	Motors & Pumps	Transformers
Domestic Heating Devices	Control Panels	X Ray Machines
Residential Applications	Freezers & Compressors	Welding Machines
	Inductive Loads	Heavy Inductive Loads
	Small Industries & Mains of Residential applications	Big Industries

According to Number of Poles



MCB Product Ranges

	B Type	C Type
Single Pole	6A - 40A	0.5A - 63 A
Single Pole & Neutral	0.5A - 63 A
Double Pole	0.5A - 63 A
Triple Pole	0.5A - 63 A
Triple Pole & Neutral	0.5A - 63 A
Four Pole	0.5A - 63 A

ADDITIONAL FEATURES

- ✦ ON / OFF indication. (Ensure proper working of indication system)
- ✦ Improved Safety due to special internal construction.
- ✦ Fulfilled with all standards as per IS/IEC 60898 part - 1:2002.

ISOLATORS

- ✦ Isolators are a kind of Switchgear Products which they are intended for switching purpose only.
- ✦ This devices are used for isolating circuits and also as miniature main switch in residential as well as industrial circuitries.

ISOLATOR PRODUCT RANGES



RCCB (Residual Current Circuit Breaker)

RCCBs are the most important product in the range of switchgears. Which was intended to provide safety for human beings as well as appliances from electric shock and earth faults.

RCCB - Working

Inside a RCCB, there is a core on which phase and neutral wires are wound in such a way that the magnetic fields developed by these coils cancels each other in normal condition. But if there is a earth leakage, the cancelling of magnetic fields will not happen. RCCB trips instantaneously on sensing this residual magnetic field.



RCCB Working while a human body touches a load with improper insulation

Current	Reaction
Below 1 Milliampere	Generally not perceptible
1 Milliampere	Faint Tingle
5 Milliampere	Slight shock felt. Not painful but disturbing. Average individual can let go. Strong involuntary reactions can lead to other injuries.
9 to 30 Milliampere	The freezing current or "let go" range. If extensor muscles are excited by shock, the person may be thrown away from the power source. Individuals cannot let go. Strong involuntary reactions can lead to other injuries.
50 to 150 Milliampere	Extreme pain, respiratory arrest, severe muscle reactions. Death is possible.
1.0 to 4.3 Amperes	Rhythmic pumping action of the heart ceases. Muscular contraction and nerve damage occur, death is likely.

RCCB - Product Ranges

RCCB	30mA		100mA		300mA	
	DP	FP	DP	FP	DP	FP
25A	Y	Y	Y	Y	Y	Y
40A	Y	Y	Y	Y	Y	Y
63A	Y	Y	Y	Y	Y	Y

MCOS (Miniature Change Over Switch)

Miniature change over switch is another type of switching device in which, works like a DPDT (Double Pole Double Through) switch. We can connect two different supply sources and one load as output or vice versa.

e.g:- We can connect loads with power line supply and generator or inverter and toggle between them by means of a knob. And also can be used to connect load to supply another position for earthing load with ground which can ensure safety at the time of lightning.

MCOS - PRODUCT RANGES

- Double Pole - 25A & 40A, 415/240V, 50Hz.
- Four Pole - 25 & 40A, 415/240V, 50Hz.

DISTRIBUTION BOARDS

Distribution boards are devices used to hold switch gears securely, without electrical shock threats. It also have to provide easy installation and user friendly operation.



DB - PRODUCT RANGES

- Distribution Boards - SPNs.
- Distribution Boards - TPNs.
- Plug & Sockets.
- Phase Selector DBs.
- MCB Enclosures.



SPN DISTRIBUTION BOARDS

The term SPN stands for single phase and neutral. This is used where the circuit has got one single phase input and several single phase outputs.

TPN DISTRIBUTION BOARDS

The term TPN stands for Three phase and Neutral. This is used where the circuit has got one Three phase input and several single/three phase outputs.

SPN & TPN - PRODUCT RANGES

- 4 way
- 6 way
- 8 way
- 12 way
- 16 way (Grey/Ivory)
- Single Door
- Double Door
- Vertical TPN

PHASE SELECTOR DB'S

Phase selectors are a type of TPN DB with provision to select (with the help of rotary switches) desired phase from a three phase supply. The input will be a 3ph supply whereas the outputs are single phase.

PHASE SELECTOR - PRODUCT RANGES

- 4 way
- 6 way
- 8 way (Grey/Ivory)

MCB ENCLOSURES

As the name implies it is just a metal or plastic covering for MCB's to prevent the operator from electric shock.

- 2 way
- 4 way
- 6 way

PLUG & SOCKET

Plug and Socket DB's are used to supply power & protection to the devices like ACs and Heavy Motors. (20A single ph, 20 A TPN plug socket, 32 A TPN plug socket)



Authorised Channel Partner for:



VALLABMAHI ELECTRICAL PRIVATE LIMITED

Reg. Office: Plot No: 66, Sri Meenakshi Nagar,
Bagalur Road, HOSUR - 635 103, Tamil Nadu, India.

VALLABMAHI ELECTRICALS

Works: No.34, Spurthi Nagar, Yelachanahalli, Nr. om sakthi temple,
J.P.Nagar P.O., Kanakpura Main Road, Bangalore - 560 078.

☎ : +91 94894 91106, +91 95385 54573, +91 91080 02714 - 20, +91 73730 70961/63/65/66/70/71

✉ : vallabmahi@gmail.com

🌐 : www.vmepl.com