



**EXCEL POWER SWITCHGEAR PVT LTD**

**33kV Indoor Metal Clad Vacuum Switchgear**

TYPE : EPS-R-33

VOLTAGE : 36 kV





## 33kV VACUUM CIRCUIT BREAKER

Excel Power Switchgear offer a wide range of dependable Medium Voltage switchgear panels to meet the client requirements.

The Medium Voltage Switchgear are manufactured in accordance with the relevant standard and widely used in various utilities and industries.

### CONSTRUCTION

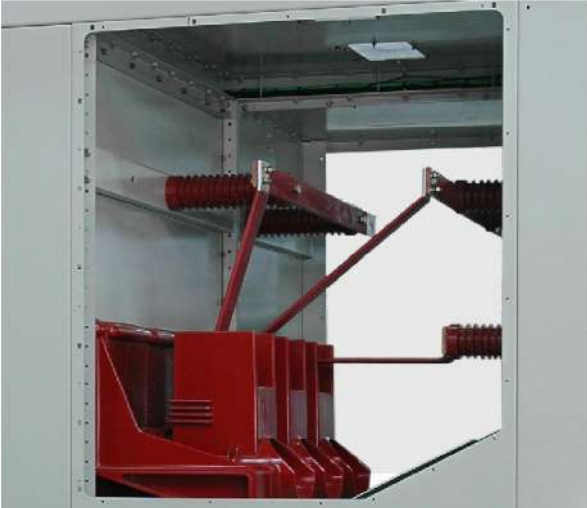
The cubicle unit has a compartmentalized design with the following compartments:

- Bus bar Compartment
- Circuit Breaker Compartment
- CT & Cable Connection Compartment
- Instrument & Relay Compartment

The cubicle is made of high grade sheet steel and with the aid of numerically controlled machines precision punching, cutting, bending and welding techniques ensures all cubicles to be identical in every dimension; rigid and distortion resistant under short circuit conditions and during transport.

The cubicle thus fabricated is painted by epoxy powder coating which provides protection against corrosion. The construction complies fully with the requirement of a metal clad enclosure as defined in IEC 298.

## BUS BAR CHAMBER



Bus bar compartment contains high conductivity tin Plated or insulated flat rectangular copper bars of proper current carrying cross section supported by epoxy resin cast insulators which are rigid enough to with stand all thermal and electrodynamic thermal stress. Flat tee off connections join the Bus bar directly to the contact spouts of individual feeder

## CABLE CHAMBER

The cable connection compartment normally contains cable contact spouts, cast resin wound current transformer, Earthing switch (optional) lightning arrest or with adequate space for termination of power and control cables. The horizontal bus connection between current transformer and cable terminals are held by epoxy resin cast support insulator wherever necessary.

Instrument & Relay compartment is equipped on top of the breaker compartment and encased separately from the high voltage section.

Based on customer's specification protective relays, meters, control switches, indicating lamps and other pilot devices are flush mounted on the hinged and lockable front door



## SAFETY INTERLOCKS

1. The circuit breaker can be operated only in SERVICE and TEST position.
2. The circuit breaker truck racking in/racking out are not possible when the breaker is in closed position.
3. Control plug&Socket can be removed only when the truck is in isolated position.
4. The earthing switch (optional) cannot be closed when the circuit breaker truck is in SERVICE position or the circuit breaker truck cannot be moved in to service position when the earthing switch is closed.

## GUARANTEED TECHNICAL PARTICULARS

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TYPE REFERENCE		<b>EPS-R-33</b>		
TECHNICAL SPECIFICATION				
RATED VOLTAGE	kV	36		
RATED IMPULSE WITH STAND	kVpk	170		
RATED POWER FREQUENCY WITH STAND	kV	70 / 80		
FREQUENCY	Hz	50		
RATED NORMAL CURRENT	A	630	3150	
RATED SHORT CIRCUIT BREAKING CURRENT	kA	25 / 31.5		
RATED TRANSIENT RECOVERY VOLTAGE	kV	62		
RATED SHORT CIRCUIT MAKING CURRENT	kApk	62.5	78.75	
RATED OPERATING SEQUENCE		O-0.3sec-CO-3min-CO		
RATED DURATION OF SHORT CIRCUIT	sec	3		
DC COMPONENT	%	<50		
RATED SINGLE CAPACITOR BREAKING CURRENT	A	400		
RATED CABLE CHARGING BREAKING CURRENT	A	50		
RATED CLOSING TIME	ms	80 ms		
RATED OPENING TIME	ms	40 ms		
APPLICABLE STANDARDS		IEC 60056	IEC 62271-100	IS 13118

## PANEL SPECIFICATION

DESCRIPTION	
INSTALLATION & TYPE OF PANEL	INDOOR METAL CLAD PANEL
DEGREE OF PROTECTION	IP4X
INSERTION OF CIRCUIT BREAKER	HORIZONTAL WITHDRAWAL & ISOLATION
POSITION OF CIRCUIT BREAKER IN THE PANEL	SERVICE I TEST I ISOLATED
PANEL DIMENSION	2300 (H) X 1200 (W) X 2500 (D)
APPLICABLE STANDARDS	IEC 62271-200



### EXCEL POWER SWITCHGEAR PVT LTD

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