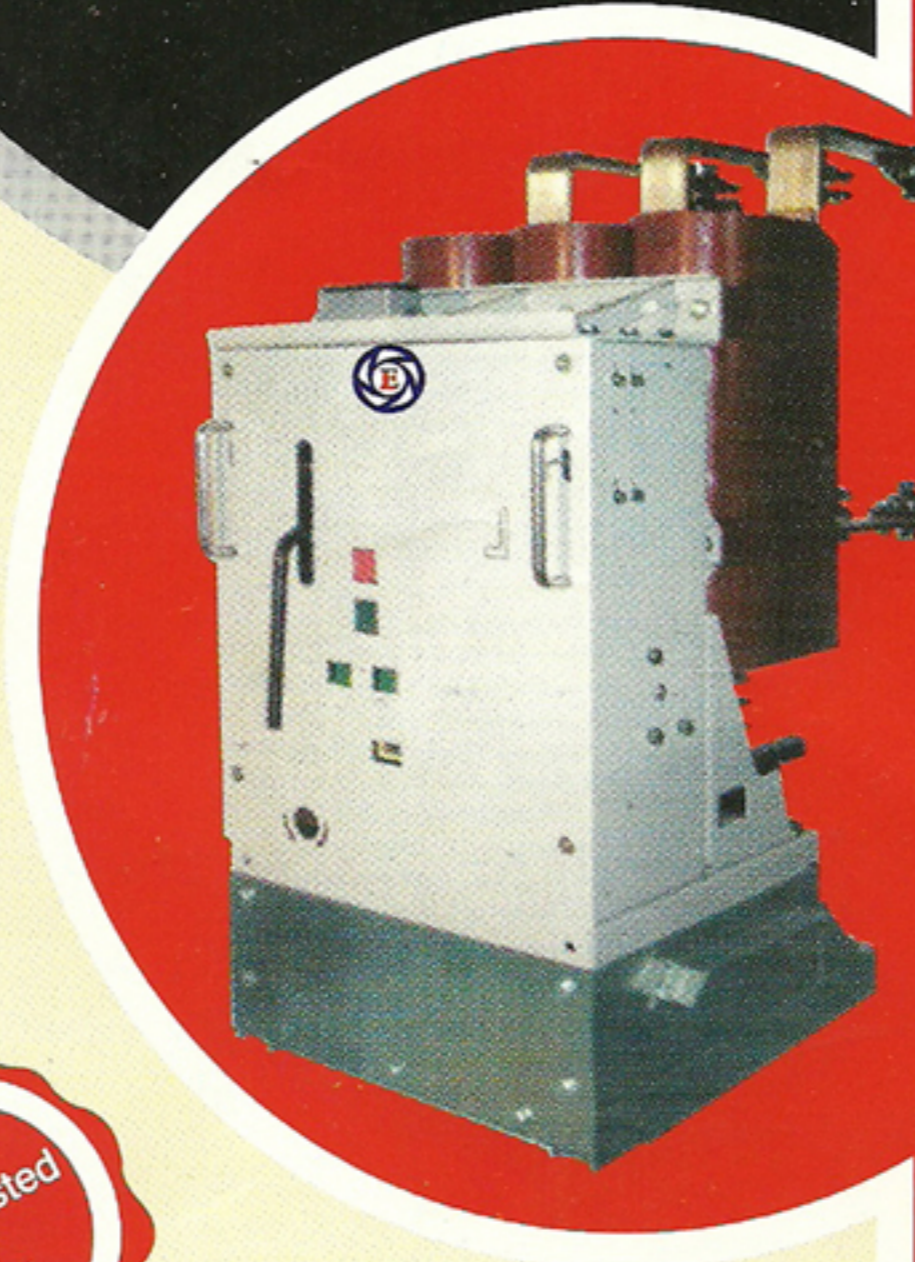
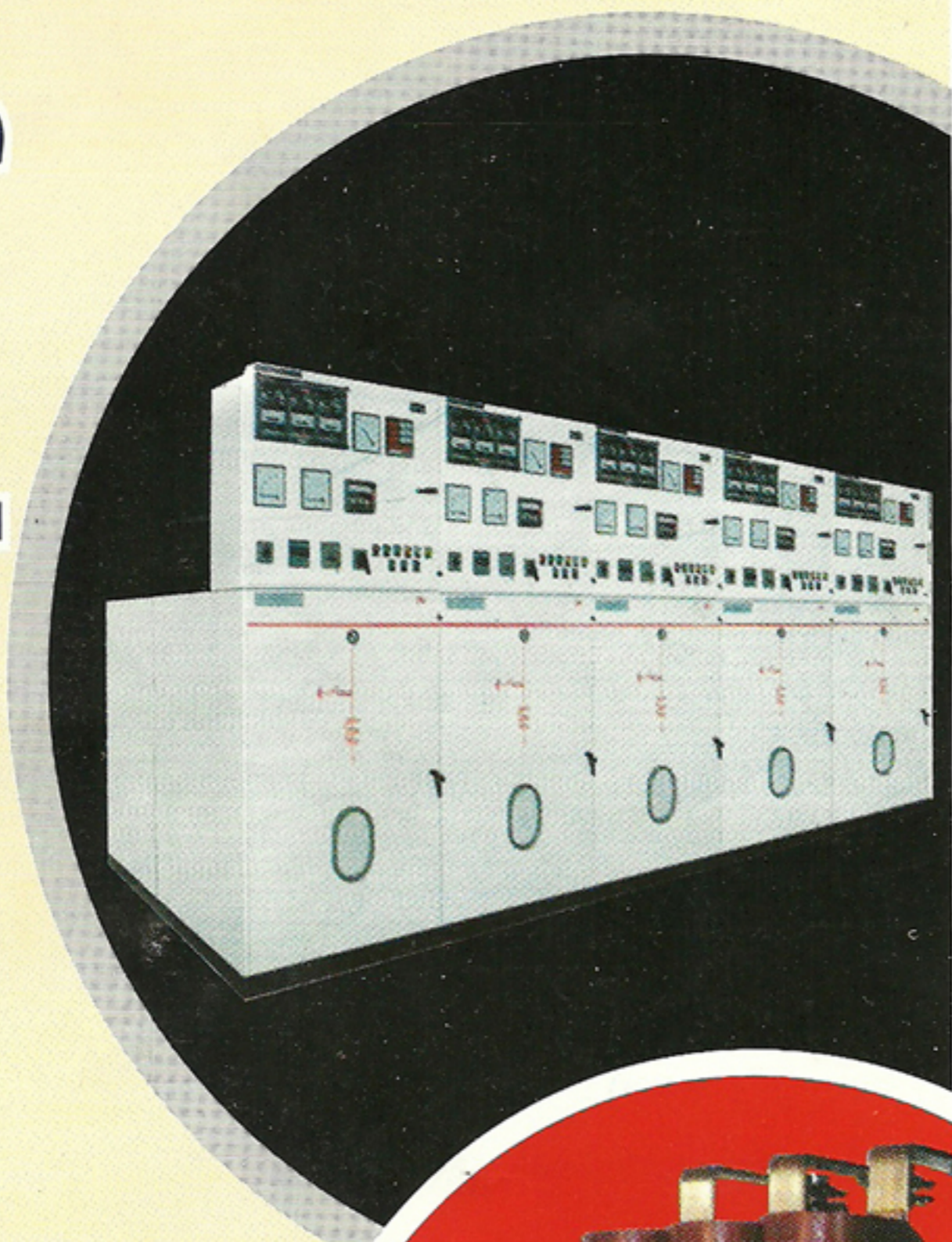


# Electricfield Company

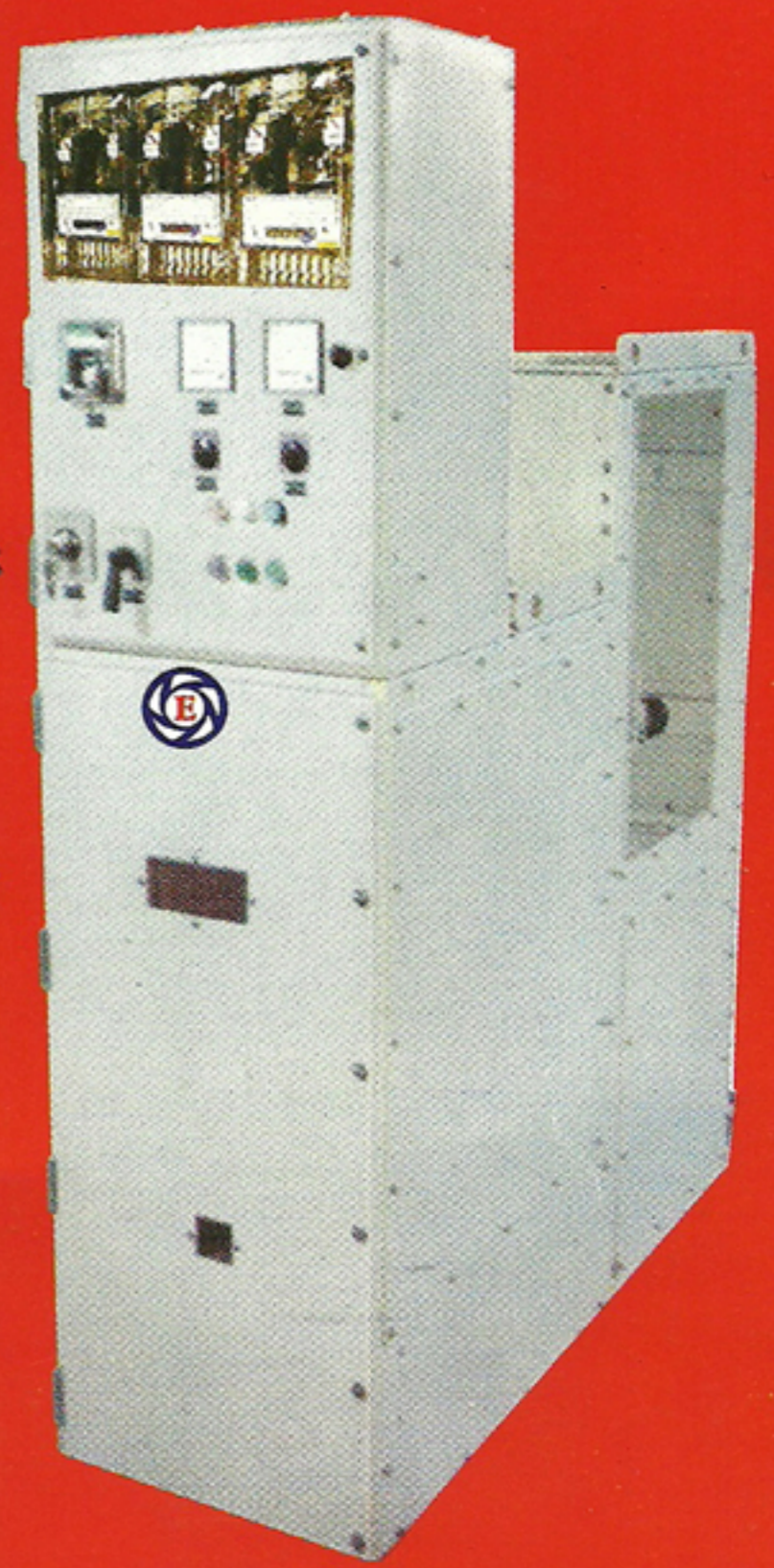


Fully  
Type Tested  
at  
CPRI

**ELECTRICFIELD SWITCHGEAR**  
An Icon of Quality Engineering



**M.V. Indoor Metal Clad  
Air Insulated Switchgear  
with Vacuum Circuit Breaker**



ISO 9001 Company

**Electricfield Switchgear** offers H.V.Switchgear panels in metal clad enclosure, fully extensible & with horizontal draw out vacuum circuit breakers (Single/multi lineup). These breakers are protecting the power transformers, HT capacitors bank, generators & feeders. These breakers are also used for starting the HT motors and auto re closing duty.

## VACUUM CIRCUIT BREAKER

It consists of manual/motor operated spring charged mechanism of stored energy type. In the closed state of the breaker, the closing springs can perform the duty operation. Facility is also available for hand charging the springs in the event of supply failure. The closing spring is charged by the motor in less than 15 second. Electrical anti-pumping feature is also provided.

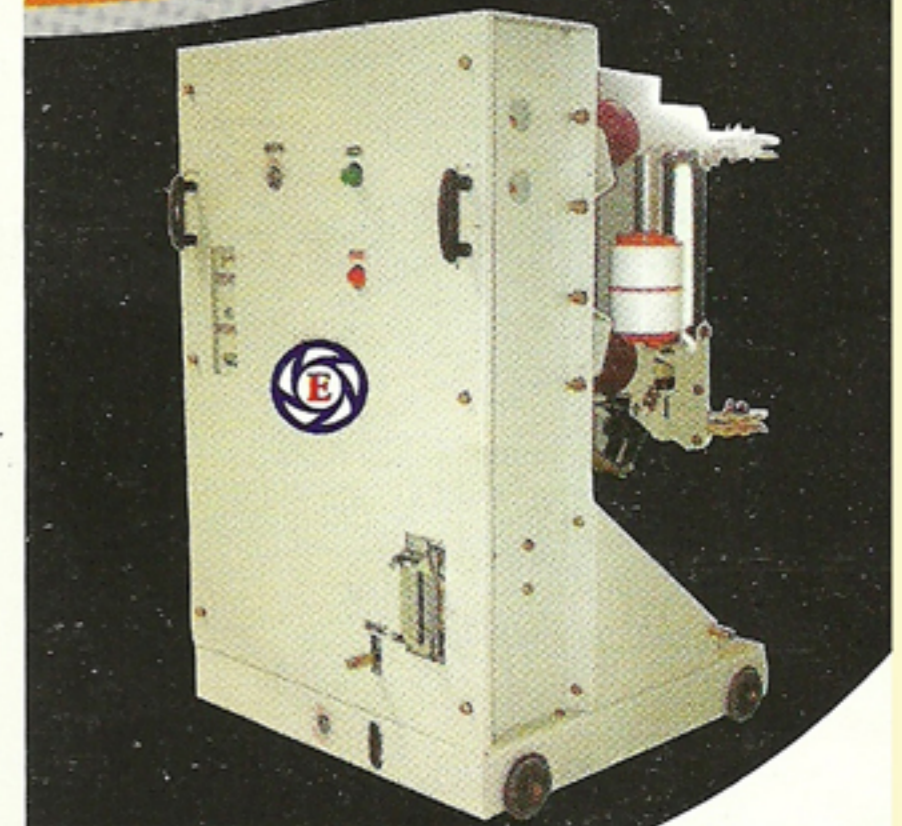
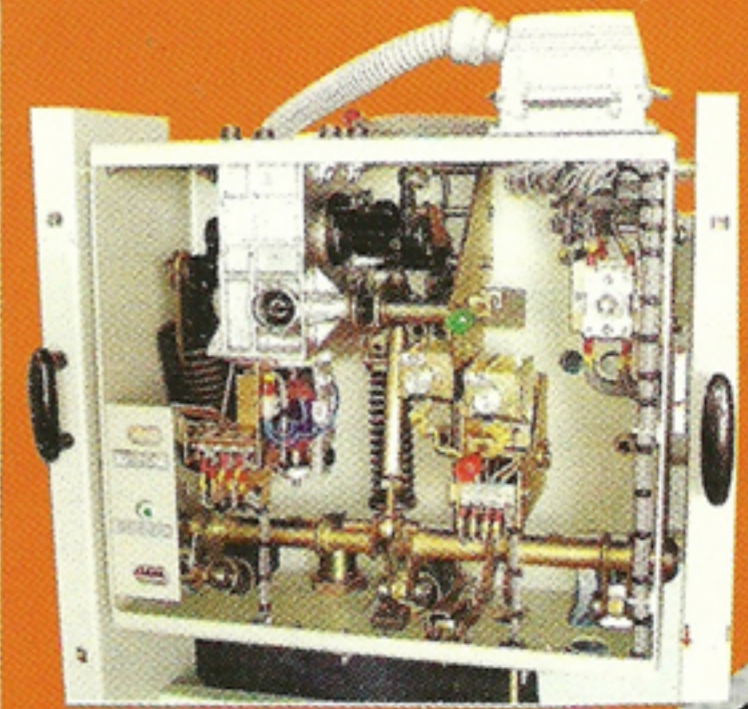
The mechanism is trip free and suitable for rapid re closing. The vacuum interrupters are capable of switching capacitive currents and small magnetising current.

### SALIENT FEATURES

- ⊙ Conforms to IS13118: 1991/IEC62277-100 IEC-62277-200.
- ⊙ Fully compartmentalised & Compliance to internal arc as per standards.
- ⊙ Emergency tripping arrangement without opening the Breaker chamber front door.
- ⊙ Extensible & modular construction.
- ⊙ High reliability
- ⊙ Re strike free
- ⊙ Horizontal draw out Type.
- ⊙ Self aligning type cluster contacts for robust design.
- ⊙ Stored energy type spring closing mechanism.
- ⊙ Fully interlocked for operational safety.

### TECHNICAL SPECIFICATION

Rating	Unit	AVKVCB			
Symmetrical breaking capacity	KA-rms	13.1	20	26.3	
Rated Current	Amp	800	800	1250	800 1250
Rated Voltage	kV		12		
No. of Poles	Nos.		3		
Frequency	Hz		50		
DC Component	%		50		
Duration of short time current	Sec.		3		
Impulse withstand Voltage			75		
1.2 / 50micro sec. Wave	Kvpk				
Power Frequency					
Withstand voltage for I minute	kVrms		28/35(optional)		
No. of breaks per phase	No.		one		
Applicable Standard			IS 13118 : 1991 / IEC 62277-100		
			IEC62277-200		



### PANEL SPECIFICATION

- Indoor metal clad panel
- Horizontal withdrawal & isolation
- Upto 1250A rating of buabar
- Degree of protection IP4X
- Current Transforms of ratio accuracy as per requirement
- 2 Nos. Space Heaters
- Service & Test position of CB
- IS 3427: 1997 IEC 60298
- Rear entry for power cable
- 32wayplug & socket for sec contact

## CONSTRUCTION

Metal clad VCB cubicles are fabricated out of high quality sheet steel by sophisticated manufacturing process, stringent in process quality checks and in house production of all critical components. The panels are dust and vermin proof and with degree of protection IP 4X as per IS2147 for Indoor Panel.

**Electricfield Switchgear** Vacuum circuit breaker panel consists of 4 chambers namely

1. Breaker Chamber
2. Metering & Relay Chamber
3. Bus bar Chamber
4. CT/PT (Duly Type Tested), Cable Chamber

## BREAKER CHAMBER:

This consists of VCB mounted on a trolley, horizontal draw out with self aligning type moving contacts. Fixed contacts are covered automatically by movable shutters while draw out the VCB, to ensure no direct contacts with live parts is possible, thus ensuring the safety of operator.

## METERING & RELAY CHAMBER

This consists of all meters, protective relays, switches, indicating lamps etc, and wired as per the specification of the clients.



## BUS BAR CHAMBER

The switchgear panels are provided with single/double bus bars with high electrical grade copper/Aluminium depends on the current rating. The 3 phase Bus bars are supported on strong epoxy insulation and fixed delta configuration which minimised electro mechanical stresses under short circuit conditions. Bus bars will be provided with sleeve insulation.

## CT/PT (Electricfield Make), CABLE CHAMBER

The CT/PT (Type Tested) & Cable chamber is located at the rear side of the panel and ready access is available by opening the rear cover with safety weld mesh. It is also possible to mount core balance CTs with in the cubicle.

The panels are powder coated with epoxy base paint to give an aesthetically pleasing appearance. The pre treatment process is done by seven tank method. The paint shall be as per the requirement of clients.

SHORT CIRCUIT LABORATORY CENTRAL POWER RESEARCH INSTITUTE (Member of STL)	
P B NO.8065, SADASHIVANAGAR POST OFFICE SIR C.V.RAMAN ROAD, BANGALORE - 550 090 (INDIA) Phone : +91 (0) 80 - 23802562 Fax : +91 (0) 80 - 23601213	
CPR I	
Sheet 1 of 4	
<b>TEST REPORT</b>	
Test Report Number	SC09045A dated: 11 <sup>th</sup> February, 2009
Name & Address of the Customer	M/s. Electricfield Company, 75-81, Phase-II, Industrial Area, Gangyal, Jammu - 180 010, Jammu & Kashmir.
Name & Address of the Manufacturer	M/s. Electricfield Company, 75-81, Phase-II, Industrial Area, Gangyal, Jammu - 180 010, Jammu & Kashmir.
Particulars of sample tested Condition of the sample on Receipt	11kV 1250A Vacuum Circuit-Breaker (VCB) Panel New
Type	---
Designation	SP
Serial Number	E502
Number of samples tested	One
Date (s) of test (s)	19 <sup>th</sup> January, 2009
CPR I sample code no(s)	SC0909074
Particulars of tests conducted	Short-time withstand current and peak withstand current tests on main circuit
Test in accordance with Standard / specification	Sub-clause 6.6(a) of IEC 62271-200:2003
Sampling plan	Not applicable
Customer's requirement	20.3 kA rms for 3.0 seconds & 65.75 kA peak on main circuit only
Deviations if any	None
Name of the witnessing persons	
Customer's representative	Mr. M. M. Kashikar & Mr. Vinod Sachdeva
Other than customer's representatives	None
Test subcontracted with address of the laboratory	None
Documents constituting this report (in words)	
Number of sheets	Four
Number of oscillograms	One
Number of graphs	Nil
Number of photos	Three
Number of test circuit diagrams	One
Number of drawings	Twenty Eight
 (B. R. Vasudevamurthy) Test Engineer	 (B. R. Advani/Kashikar) Joint Director

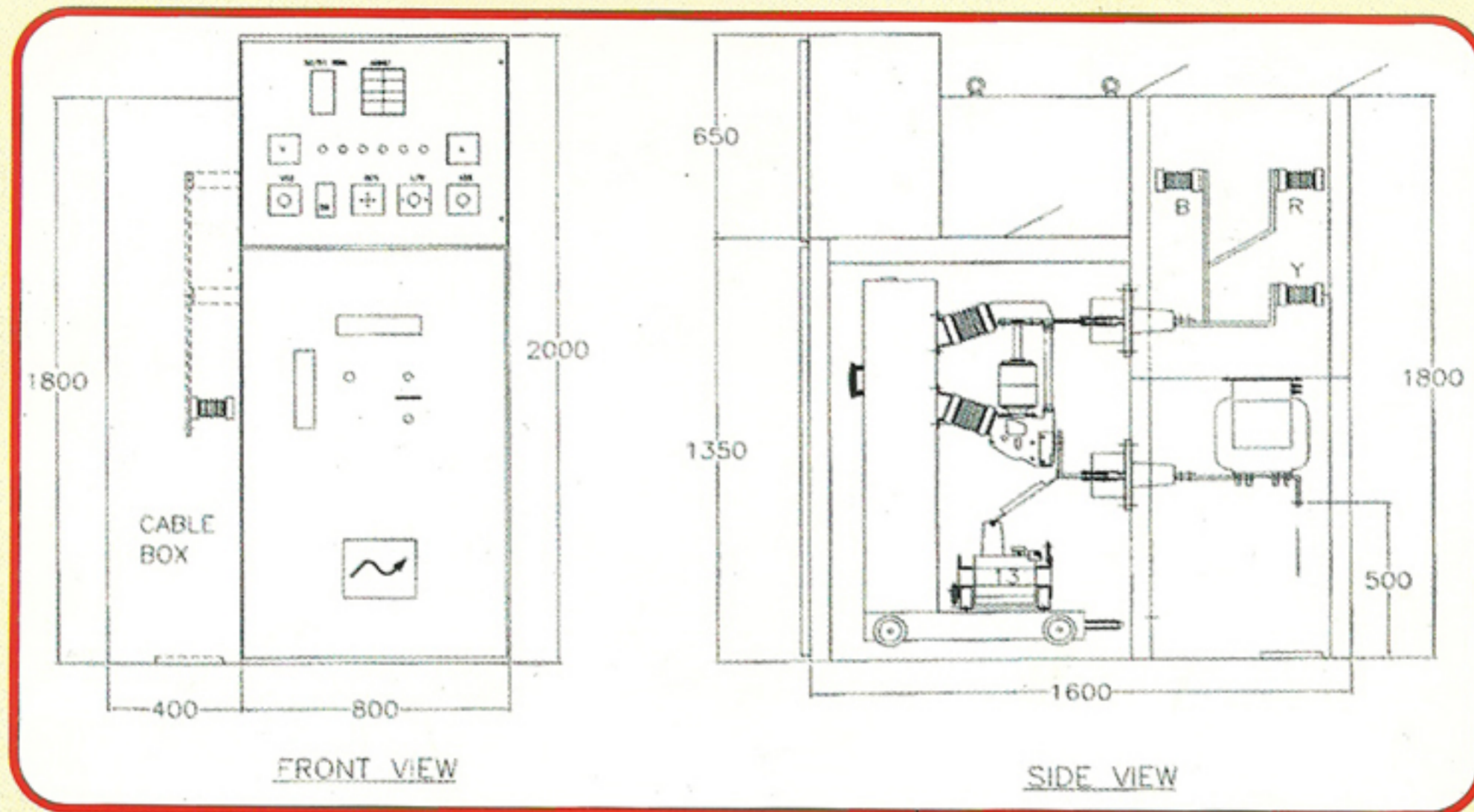
## OUTDOOR VCB KIOSK

**Electricfield Switchgear** offers Outdoor Vacuum Circuit Breaker Kiosk can be directly installed on a plinth. The power supply can be taken either through roof Bushings or cable box or a combination of roof bushing and cable box. The CTs/PTs and relays are in-built in the metal enclosure.

## EARTHING (OPTIONS)

Earthing through a draw-out earthing truck with solid links on the bus bar/feeder side.

## VACUUM CIRCUIT BREAKER GA DWG



### INTERLOCKS

- Interlocks are provided such that breaker closing is prevented in intermediate position between service and test/isolated positions.
- Mechanical interlocks to prevent truck racking in/out when breaker is in closed position.
- Breaker can be inserted only when control plug & socket in position.
- Control plug & socket can be removed only in isolated position.
- Mechanical castle interlock with upstream/downstream isolators can be provided on request.

### TESTING FACILITIES

- ❖ CT & PT Test setup
- ❖ PD Test setup
- ❖ Impulse Testing
- ❖ VCB Analyzer
- ❖ Mechanism Endurance Test Jig
- ❖ HV & MV Drop Test
- ❖ Temp rise Test
- ❖ Portable Vacuum Checker
- ❖ For Vacuum Interrupters
- ❖ Mechanical Testing facilities

**Specification and dimension are subject to change due to improvement in the design.**

### OTHER PRODUCTS :

- ❖ Control And Relay Panels Upto 220KV
- ❖ Servo Controlled Stabilizer 400V - 33000V 10MVA
- ❖ Automatic Voltage Stabilizer 230V
- ❖ Continuously Auto Variable Transformer 1200A
- ❖ Automatic Battery Charger 220V. 500AH & 1000AH
- ❖ Power Control Centre 6000A.415V 3Phase
- ❖ Motor Control Centre 3Phase
- ❖ Instrument Transformer : Potential, Current Transformer. Indoor/Outdoor Upto 220 KV
- ❖ Distribution / power Transformer Upto 33KV / 10MVA
- ❖ Oil Testing Set 0-100KV
- ❖ Testing Equipment

### Works :

75-81 Industrial Area Phase-II  
Gangyal, Jammu - 180010  
Telefax : 0191-2480272

### Mailing Address :

New Secretariat Road,  
Jammu-180 001  
Phone : (O) 0191-2578119,  
Telefax: 0191-2574844  
e-mail : electricfield@hotmail.com