

Indoor Metal Clad Switchgear

Type: Cubicle

VHA 36

SF6 Circuit Breaker HPA 36

Rated Voltage:

36 kV

Rated Current:

upto 2500 A

Rated breaking current:

upto 26.3 kA



ABB Power Distribution



Indoor Metal Clad Switchgear



CIRCUIT BREAKER TYPE HPA 36

The HPA 36 Type Circuit Breaker is designed and type tested to meet requirements of IEC - 56 / IS : 13118.

SALIENT FEATURES

- The HPA 36 Type Circuit Breaker belongs to the HPA series of breakers which use Sulphur Hexafluoride (SF₆) gas as insulation and arc interruption medium.
- Arc control and extinction are achieved by puffer principle.
- Short arc duration and rapid dielectric recovery during current interruption.
- Features of operating mechanism:
 - O - C - O operation without recharging.
 - Closing spring charged by motor in less than 15 seconds.
 - Electrical anti-pumping
 - Provision for manual recharging
 - Synchronisation and fast auto reclosure duty.
- Long electrical life, as the interruption system develops low arc energy and, therefore, contact wear is minimal.



The circuit breaker in withdrawn position



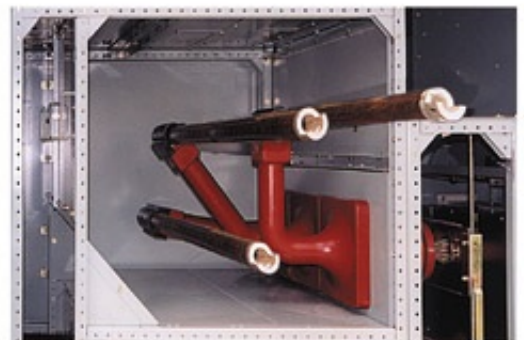
- *Long mechanical life with sturdy and proven operating mechanism.*
- *Operationally safe and reliable in a wide range of ambient temperatures; (-)5° C to 40° C.*
- *Capable of interrupting small magnetising and capacitive currents.*
- *Compact design with sturdy and relatively light weight construction.*

CUBICLE TYPE VHA 36

The VHA 36 Type Cubicle is designed and type tested to meet the requirements of IEC - 298 & 694 / IS : 3427.

SALIENT FEATURES

- *Fully compartmentalised construction with IP4X degree of protection externally and IP2X between compartments.*
- *Emphasis on operator's safety:*
 - *Foolproof mechanical interlock to prevent rack-in and rack-out of closed breaker.*
 - *Independent exhaust vent for all HT compartments.*
 - *Racking in/out of breaker with closed door only.*
 - *Multiple guides for safe, sure and enduring self aligning power contacts.*
 - *Live parts are covered by automatic shutters when breaker is racked out.*
 - *Integral earthing switch (optional).*

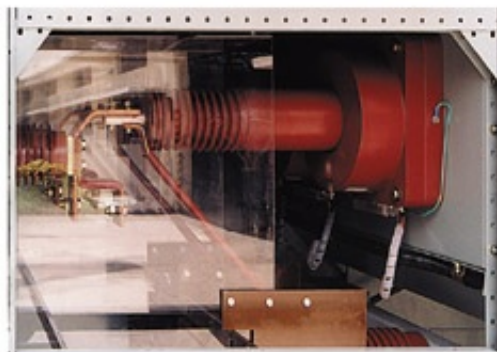


The bus-bar arrangement

Circuit Breaker type HPA36



- *Compact and robust*
 - *Tubular conductors fixed on specially shaped through bushings.*
 - *Provision for slip-on Current Transformers, leading to substantial reduction in cable compartment size.*
 - *Independent epoxy resin cast withdrawable Potential Transformers in the same panel with an in-built HV fuselink.*
- *Cassette mounted circuit breaker with draw out position on cubicle front door.*
- *Safe and easy truck movement behind closed cubicle door.*
- *Separately lockable shutters for bus and cable side.*
- *Access to cable terminals from rear.*
- *Guaranteed voltage withstand without conductor insulation.*
- *Mechanical indication for test and service positions.*



The slip-on current transformer

QUALITY ASSURANCE

The quality system procedures are based on ISO 9001.

ABB's commitment to the customers is equally matched to its commitment to the environment. The Nasik division is qualified under ISO 14001 for environment management.



Indoor Metal Glad Switchgear

TECHNICAL DETAILS

CIRCUIT BREAKER TYPE HPA 36

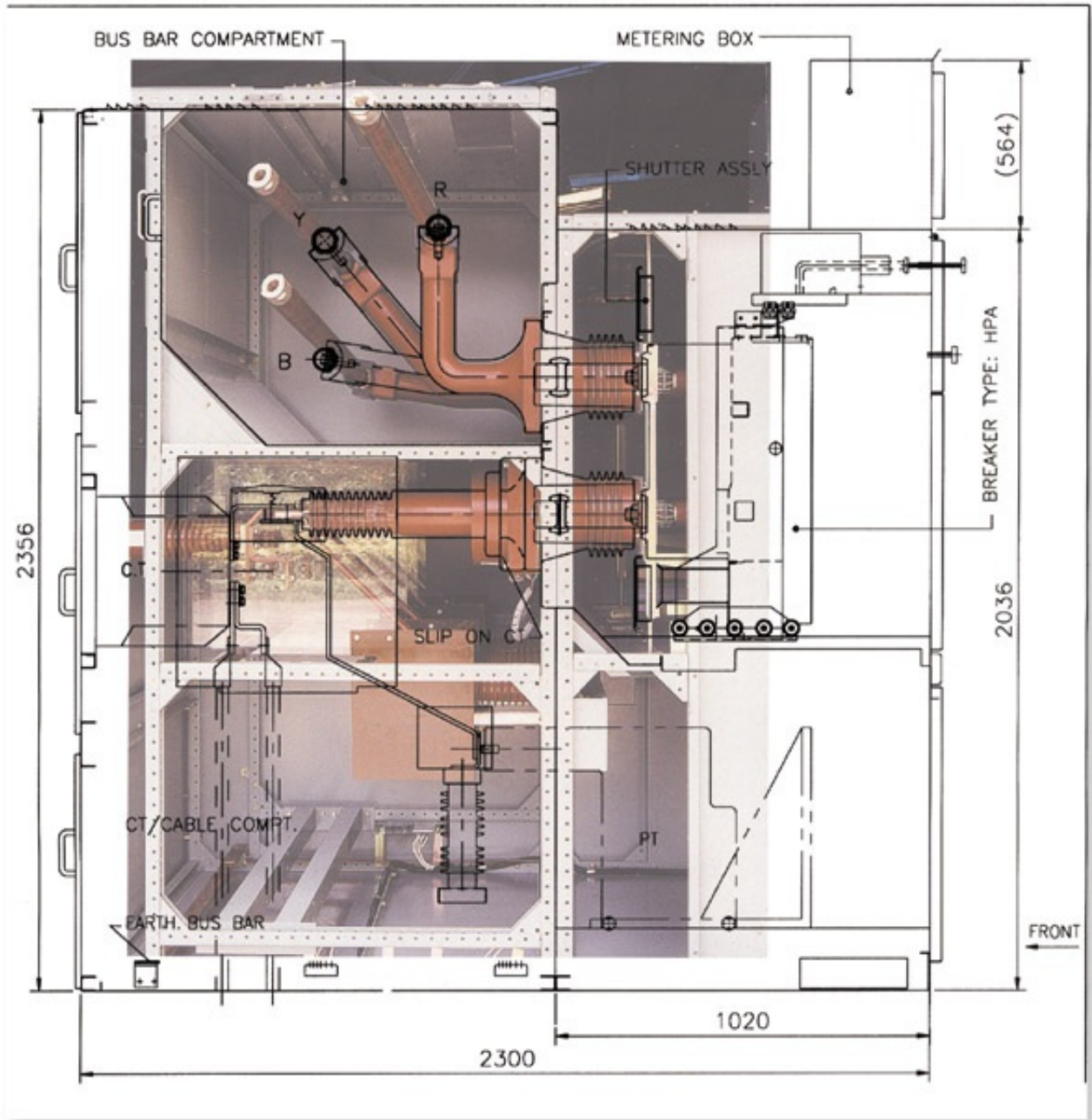
Description	unit	Rating
Rated Voltage	kV	36
Insulation Levels	kVrms/kVp	70/170
Normal Current (40 °C Amb.)	A	1250,1600,2000
Breaking Capacity	kA	26.3
Making Capacity	kAp	66
Short Time Withstand Current (3 sec)	kA	26.3
Gas pressure	bar(abs.)	3 - 3.5
Opening Time	ms	36 - 45
Arcing time	ms	15
Total Break Time	ms	60
Making Time	ms	75
Operating Sequence	-	0 - 3min - CO - 3min - CO/ 0 - 0.3sec - CO - 3min - CO
Weight (approx.)	Kg	300

CUBICLE TYPE VHA 36

Rated Voltage	kV	36
Rated Frequency	Hz	50
Rated Busbar Current	A	630,1250,1600,2000,2500*
Short Time Withstand Current (3 sec)	kA	26.3
	kAp	66
Insulation Levels	kVrms/kVp	70/170
Width X Depth X Height	mm	1216 X 2300 X 2500
Weight with Circuit Breaker (approx.)	Kg	1500
Degree of protection		
Enclosure	-	IP4X
Within the switchgear	-	IP2X

* Rated current of 2500 A with forced cooling

GENERAL ARRANGEMENT



Data and illustration without engagement.
We reserve the right to make changes in
the course of technical development.

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