

3.1 BASIC TECHNICAL REQUIREMENTS:

The vacuum circuit breakers are required to meet the following basic technical requirements. (Reference standards IEC:56, IS:13118 and associated standards listed in this specification.

Basic Technical Requirements

Sl. No	Particulars	Requirements
1	Service type	Outdoor
2	No. of Poles	3
3	Nominal system voltage	11KV
4	Highest system voltage	12KV
5	Rated normal current at 50°C	
i)	For Bus-bar of Circuit Breaker	800A
ii)	For Interrupter	1250A
iii)	For Outgoing Feeders	630A
6	Rated short circuit breaking current (rms)	25KA
7	Rated short circuit making current (peak)	63KA
8	Rated short time current withstand capability for 3 sec.	20KV(Panel)/25KA (Interrupter)
9.	Rated insulation level:	
i)	One minute power frequency withstand voltage to earth (wet and dry) rms	28KV
ii)	Impulse withstand voltage to earth with 1.2/50µsec, wave of +ve and -ve polarity (Peak)	75KV
10	First – pole – to clear factor	1.5
11	Rated operating sequence (for auto reclosing)	O-0.3 Sec- CO-3 min- CO
12	Maximum break time	3 cycles
13	Rated out of phase breaking current	25% of the symmetrical short circuit breaking current
14	Maximum pole scatter	10 mili seconds
15	Rated Auxiliary supply for spring charge motor, lamp & heater circuit.	230V A.C
16	Rated supply voltage for trip/close coil	24V D.C
17	Minimum creepage distance (mm)	350
18	Minimum protected creepage distance (mm)	280

4. SERVICE CONDITIONS:

The breakers are to be suitable for operation under the service conditions as specified in Clause No.4, Technical Specifications for 33KV outdoor vacuum circuit Breakers, Section-IV(A).

