

GUARANTEED TECHNICAL PARTICULARS

1	GENERAL	
1.1	Manufacturer	Pascal Switchcare India Pvt. Ltd
1.2	Address	P.L. Deuty Road, P.O. Bishnupur Dist: 24 Pargana(S), W.B. 743503 email : info@pascalswitchcare.com
2	SWITCHGEAR PANEL	
2.1	Basic Design	
2.1.1	Applicable Standards	IS 3427 and IEC 62271-200 (2008)
2.1.2	Designation	PSI
2.1.3	Classification	Metal Clad, Metal Partition (PM)
2.1.4	Type of Sheet Steel	CRCA, powder coated paint
2.1.5	Construction	Bolted/riveted, no welding
2.1.6	Degree of Protection	IP5X as per IS/IEC
2.1.7	Internal arc withstand on 3 HV compartments	Available as optional feature
2.1.8	Overall Dimension (H X W X D)	2000mms X 600mms X 1740mms
2.1.9	Overall weight with circuit breaker	Approximately 600 Kgs
2.2	Voltage and Insulation	
2.2.1	Rated Voltage	12kV
2.2.2	Power Frequency Withstand Voltage	28kV rms
2.2.3	1.2/50µs impulse withstand voltage	75kV peak
2.3	Current and Temperature Rise	
2.3.1	Rated Current	400A, 630A, 800A, 1250A
2.3.2	Rated Short Circuit withstand current	26.3kA rms for 3 seconds
2.3.3	Rated Making Current	2.5 times rated short time withstand current
2.3.4	Temperature rise at rated current	Within limits as specified in IS/IEC
2.4	Busbar Compartment	
2.4.1	Busbar Material	Copper, Aluminum
2.4.2	Busbar Current Rating	Up to 2000A
2.4.3	Busbar Shape and Cross Section	Rectangular, cross section as per rating
2.4.4	Busbar Sleeving	PVC Sleeve
2.5	CT and Cable Compartment	
2.5.1	Type of CTs which can be accommodated	Bar Primary, Wound Primary with a provision for 2 CTs per phase in a standard panel
2.5.2	No of cables which can be accommodated	In standard panel - 9nos. 1CX630 sq. mm or 3 nos 3CX300 sq. mm
2.5.3	Access to CT/Cable compartment	Bolted cover at rear bottom
2.6	Safety Interlocks	
2.6.1	Circuit Breaker cannot be inserted into service in closed condition and cannot be removed from service unless it is open	Yes
2.6.2	Circuit Breaker can be closed only in service/test position and not in any intermediate position	Yes
2.6.3	Circuit Breaker cannot be moved from test position to service position unless auxiliary plug is engaged and auxiliary plug cannot be disengaged if the circuit breaker is in service position	Yes
2.6.4	Doors can be opened only when Circuit Breaker is in Test Position and vice versa	Available as optional feature

3	CIRCUIT BREAKER	
3.1	Basic Design	
3.1.1	Applicable Standards	IS 13118 and IEC 62271-100 (2008)
3.1.2	Designation	PSI
3.1.3	Classification/ Type of Circuit Breaker	Vacuum Circuit Breaker, Category M2, E2
3.1.4	Isolation/Draw out	Horizontal isolation, Horizontal Draw Out
3.2	Voltage and Insulation	
3.2.1	Rated Voltage	12kV
3.2.2	Power Frequency Withstand Voltage	28kV rms
3.2.3	1.2/50µs impulse withstand voltage	75kV peak
3.3	Current and Temperature Rise	
3.3.1	Operating Duty	O - 0.3Sec - CO - 3min - CO
3.3.2	Rated Current	400A, 630A, 800A, 1250A
3.3.3	Temperature rise at rated current	Within limits as specified in IS/IEC
3.3.4	Rated Short Circuit withstand current	26.3kA rms for 3 seconds
3.3.5	Rated Making Current	2.5 times rated short circuit breaking current
3.3.6	Rated Short Circuit Breaking Current	
3.3.6.1	- Symmetrical SC breaking current	26.3kA rms
3.3.6.2	- Asymmetrical SC breaking current	> 48% DC Component
3.3.7	Cable Charging Breaking Current	25A
3.4	Vacuum Interrupter	
3.4.1	Make	ABB, India
3.4.2	Type Designation	VG
3.4.3	Rated Current	Up to 1250A
3.4.4	Rated Sym Short Circuit Breaking Current	Up to 26.3kArms
3.4.5	Rated Making Current	2.5 times rated short circuit breaking current
3.4.7	Opening Speed	Average 1.2 - 1.5 M/sec
3.4.8	Closing Speed	Average 0.7 to 0.9 M/sec
3.4.9	Contact gap in open condition	Approximately 8 mm
3.4.10	Maximum contact erosion permissible	2 mm
3.4.11	Life of the interrupter	
3.4.11.1	- At no Load	50000 operations
3.4.11.2	- At 100% rated current	30000 operations
3.4.11.3	- At 100% rated short circuit current	100 operations
3.5	Operating Mechanism	
3.5.1	Type	Spring charged , stored energy
3.5.2	Details of motor - for motor operated	230V AC, single phase, 200 W
3.5.3	Voltage required	As per customer specification
3.5.4	Range of voltage for tripping	70% to 110% of rated voltage
3.5.5	Power required for tripping	200 W
3.5.6	Range of voltage for closing	85% to 110% of rated voltage
3.5.7	Power required for closing	275 W
3.5.8	Number of Auxiliary contacts	6NO + 6NC or 4NO + 4 NC
3.6	Dimensions and Weight	
3.6.1	- Overall Dimension (H X W X D)	950mms X 443mms X 500mms
3.6.2	- Overall weight	Approximately 110 Kgs