

TECHNICAL SPECIFICATIONS OF PCC PANEL

S. no.	Technical parameters	AS PER SPECIFICATION	TO BE FILLED BY THE SUPPLIER
	CONSTRUCTIONAL FEATURES		
1	Manufacturer's name	To be specified by supplier	
2	Rated operational voltage	415 V, 3 Ph., 4 wire, 50 Hz, AC	
3	Rated insulation voltage	1.1 KV	
4	Rated short time withstand current	35KA	
5	Rated current	As specified in Tender	
6	Sheet steel thickness	1.6mm (min.) CRCA for doors, 2.0mm for load bearing members and gland plates	
7	Degree of protection for enclosure	IP 52	
8	Compartmentalized single front	Single front	
9	Design Ambient temperature	50° Celsius	
10	Incoming Entry	Bottom Cable	
11	Outgoing cable entries	Bottom Cable	
12	Dimensions (L x B x H)	Approximate dimensions shall be specified	
13	Approx. weight	Approximate weight shall be specified	
14	Paint shade	RAL 7035 / RAL 7032	
15	Min and Max Operating height	300 mm to 1800 mm from bottom of the base channel	
16	Required operating clearances front, sides & rear	To be specified by supplier	

17	Tier formation	Single tier for ACB feeders and multi tier for others. Width of single vertical shall be 600 mm minimum for ACB feeders, 500mm minimum for MCCB feeders, maximum upto 5 feeders in vertical.	
18	Type of Mounting & cable entry	Floor mounting with base channel of 75 mm for PCC	
19	Type of termination all O/G cables	Above 100A Bus bar and others thru suitable rating stud type terminals shall be used	
20	Indication lamps	Indication (RYB & ON,OFF,TRIP) lamps at the Incoming and for outgoing (on) indication shall be provided.	
21	Door interlock	To be provided	
22	Minimum clearances in air		
23	a) between phases	25.4 mm	
24	b) between live parts and ground	19 mm	
25	1 minute PF withstand for main circuits	2.5 KV (RMS)	
26	All feeders shall be provided with ammeter, 3 CT as per tender.	To be provided by supplier	
	BUSBARS		
1	Material for main busbar	E91E Aluminium	
2	Cross – section of main busbar	To be specified by the supplier- for current density 1A/ sq.mm at rated current	
3	Max Continuous current rating at design ambient temperature of main busbar inside the chamber	85 ⁰ C	

4	Bus connections to circuit breakers	As per rated currents of circuit breakers	
5	rated short circuit current	35 KA	
6	Rated insulation voltage for Insulator supports	To be specified by supplier	
7	Material of main busbar supports	To be specified by supplier	
8	Materials of earth busbar	GI 50 x 6 mm (min.)/ Aluminum 50 X6 mm for PCC	
	AIR CIRCUIT BREAKER		
1	Make	ABB only	
2	Type	To be specified by supplier	
3	Type of breaker	Fully draw-out, air break	
4	Ambient temperature	50 degree centigrade	
5	Rated insulation voltage	To be specified by supplier	
6	Breaker rating	As per Single line Diagram	
7	Rated short-circuit making capacity	105 KA (peak)	
8	Rated ultimate short circuit breaking capacity	50 KA	
9	Rated service short-circuit breaking capacity	50 KA	
10	Rated short time withstand current	50 kA for 1 Sec.	
11	Type of release Micro processor based, protection functions O/C/SC/EF with options for both for inverse & definite time	The ACB- shall be Microprocessor based E/F, IEF, O/C,& S/C releases and shall be 3 pole for all incomer in PCC. The ACB shall be electrically operated, motorized spring charging alongwith manual spring charging incases of electrical failure. Model no & relevant catalogues shall be submitted	

12	Rated current of over current trip device	To be specified by the supplier	
13	Features of o/c trip device	To be provided	
14	Function blocking selection	To be provided	
15	Fault visual indication	To be provided	
16	Self test facility with breaker in isolated position	To be provided	
17	Visual indication for self check	To be provided	
18	Site selectable inverse/definite time characteristic for E/F and S/C	To be provided	
19	Type for I/C feeders operation	Motorised	
20	Type for O/G feeders	MDO/ EDO as per SLD	
21	Trip free design	Trip free, stored energy	
22	Electrical and mechanical anti-pumping feature.	To be provided	
23	Auxiliary supply for Voltage & permissible range for spring charging motor, CLOSING & TRIPPING COIL	110 V, 1 Ph., 50 Hz., AC. Range : 70 – 110 % for trip coil, 80-100% for closing coil & spring charging	
24	Mechanical indicator for Spring charged / discharged, electrical indication for ON/OFF/TRIP	To be provided	
25	Shunt trip	To be provided in PCC	
26	Utilization category	B	
27	Quantity and rating	As per Tender	
	MOULDED CASE CIRCUIT BREAKERS (MCCBs)		
1	Make	ABB only	
2	Type	Air break	
3	Rated insulation voltage	To be specified by supplier	
4	Rated ultimate breaking capacity	35KA / 25KA	
5	Rated short circuit braking capacity	105 kA	

6	Rated service short-circuit capacity	35KA / 25KA	
7	Protective device type	The MCCB - shall be Microprocessor based O/C,& S/C releases for All incomers and outgoing in PCC/AC/ Heater panels. Model no & relevant catalogues shall be submitted	
8	Door interlock	To be provided	
9	Utilization category	B	
10	Visual indication for status (LED indication ON/OFF/TRIP)	To be provided	
	CURRENT TRANSFORMERS		
1	Make	AE / KAPPA / ADCON	
2	Type	Tape Wound	
3	CT secondary	5A	
4	Accuracy Class for Metering	1, ISF < 5	
5	One minute p.f. Withstand voltage	2.5 kV RMS	
6	Burden	10 / 5 VA	
7	Applicable standards	IS : 2705 (1992)	
	Ammeters / Voltmeters/MFM meters		
1	Make	To be specified by supplier	
2	Type	Digital	
3	Accuracy class	Cl-1	
4	Size	96 x 96 mm	