DATA SHEET OF LT PANELS

PROJECT: ELECTRICAL SYSTEM FOR FABRICATION PLANT, JAGDISHPUR

Sr. No.	Description	Details
1	**POWER SYSTEM:**	
1.1	Voltage	415V
1.2	Phase	3Ph, 4 wire
1.3	Frequency	50Hz
1.4	Fault level	50 KA/1sec OR 65KA/1Ssec
2	**CONTROL VOLTAGE SUPPY:**	
2.1	AC 415 / 110V	240V, 1Ph., 50 Hz, tapped between phase and neutral
2.2	DC	NA
2.3	Motor winding heating supply	NA
2.4	Motor space heater supply	NA
2.5	Any other control supply required	NA
3	**SITE CONDITIONS:**	
3.1	Ambient temp.	5 to 45 degree celsius with variation of 25 degree celcius (max)
3.2	Atmosphere	Dusty atmosphere.
3.3	Relative Humidity	95% max
4	**ENCLOSURE:**	**PCC**
4.1	Board Reference	
4.2	Enclosure	Indoor
4.3	**Vertical Sections**	
4.3.1	Drawout section	Vendor to inform
4.3.2	Fixed Section	Vendor to inform
4.4	Single Front (S/F) / Double front (DF)	Single Front
4.5	**Cabling Access:**	
4.5.1	For ACB feeders	Rear
4.5.2	For NON ACB feeders	Front / Rear
4.6	**Dimensions**	
4.6.1	Approx. Height (mm)	Vendor to inform
4.6.2	Length (mm)	Vendor to inform
4.6.3	Depth (mm) for largest cubicle	Vendor to inform
4.7	Clearance required at:	
4.7.1	Front of Panel	1000 mm
4.7.2	Back of Panel	1000 mm for DF / ACB panels, else NIL
4.8	**Thickness of Sheet Steel:**	
4.8.1	Load Bearing	2 mm
4.8.2	Non Load Bearing	1.6 mm
4.8.3	Doors & Covers	1.6 mm
4.9	Hinges	Concealed
4.10	Degree of Protection	IP:52
4.11	**Paint shade of Epoxy based Powder Paint as per IS : 5**	
4.11.1	Interior	RAL 7032
4.11.2	Exterior	RAL 7032
4.11.3	Paint thickness	min 50 microns
4.11.4	Shipping length	Vendor to inform
4.11.5	Shipping weight	Vendor to inform
4.11.6	Packing	Standard

5	**BUSBAR:**	
5.1	Board Reference	**PCC**
5.1.1	Busbar system fault level	50KA / 1sec OR 65 KA/1Ssec
5.1.2	Insulation	Sleeved
5.1.3	Joints at Main H. Busbars	Shrouded
5.4	**Clearance in air of live parts:**	
5.4.1	Phase to Phase	25 mm
5.4.2	Phase to Earth	19 mm
5.5	**Main Horizontal Busbar**	
5.5.1	Material	Aluminium
5.5.2	Location	Top
5.5.3	Dimensions for:Al, 5000A	
a	**Phase (#NOS x HEIGHT x THICKNESS)**	#8x150x6
b	**Neutral (#NOS x HEIGHT x THICKNESS)**	#4x150x6
5.5.4	Temp. rise of main H Busbar	60^0C over Amibent
5.6	**Vertical Busbars / Droppers**	
5.6.1	Material	As appropriate
5.6.2	Location	As appropriate
5.6.3	Dimensions	As appropriate
5.7	**Earth Bus**	
5.7.1	Located	Bottom
5.7.2	Material	Aluminium
5.7.3	Size	50x6 mm^2
5.8	**Control Bus**	
5.8.1	Material	Copper
5.8.2	Quantity	As appropriate
5.9	Accessories at Bus	Nil
6	**OTHER INFORMATION:**	
6.1	For Board	PCC
6.2	Busduct entry for I/C	Yes
6.3	Cable entry for Bottom / Top	Bottom
6.4	Control wiring	Stranded Copper 1.5 mm^2
6.5	CT Wiring	Stranded Copper 2.5 mm^2
6.6	Power Wiring	Copper cables / Al links.
6.7	Control transformer	
6.7.1	Fuses provided with fuse base	NA
6.7.2	Fuses provided with SFU	NA
6.8	Cable Lugs	NA
6.9	Cable Glands	NA
6.10	Space heater provided in each vertical section with thermostat and switch	Yes
6.11	Cable alley illumination lamp socket and switch	Yes
6.12	Hooter provided in each vertical section with themostat and switch	Yes
6.13	3 Pin socket provided	NA
6.14	Annunciation scheme	Yes
6.15	Foundation bolts provided	by Vendor
6.16	Plating on hardware	Zinc plated with yellow passivation
6.17	Feeder name plate thickness	1.6 mm
6.18	Material	Anodised aluminium with white letters on black background
6.19	Letter height	5 mm

7	**Quantity of feeders**	Vendor to offer
8	**Feederwise bill of material**	Vendor to offer
9	**Make of components**	
9.1	LV switchboards	As per BHEL approved make.
9.2	ACB	-do-
9.3	MCCB	-do-
9.4	MPCB	-do-
9.5	Fuse Link	-do-
9.6	Fuse base & Carrier	-do-
9.7	Fuse Switch without Fuse Link	-do-
9.8	Power Contactor, Auxiliary Contactor	-do-
9.9	Overload Relay	-do-
9.10	Metering / Protection CT	-do-
9.11	Ammeter	-do-
9.12	Voltmeter	-do-
9.13	Selector Switch	-do-
9.14	Push Button	-do-
9.15	Indicating Lamp Assembly	-do-
9.16	Protective & Auxiliary Relay	-do-
9.17	PF Correction Relay	-do-
9.18	Timer	-do-
9.19	Current Transformer	-do-
9.20	Potential Transformer	-do-
9.21	Cable	-do-
9.22	Terminal Block	-do-
9.23	KWH Meter / KW Meter	-do-
9.24	MCB	-do-
9.25	Capacitor	-do-
9.26	Annunicator	-do-
9.27	Transducers	-do-
9.28	Digital Multifunction meter	-do-