



SYSTEM PARAMETERS :-

Sl.No	DESCRIPTION OF PARAMETER	400KV SYSTEM	220KV SYSTEM	66KV SYSTEM	11KV SYSTEM
1	HIGHEST SYSTEM VOLTAGE	420KV	245KV	72.5KV	12KV
2	SYSTEM OPERATING VOLTAGE	400KV	220KV	66KV	11KV
3	RATED FREQUENCY	50HZ	50HZ	50HZ	50HZ
4	NO. OF PHASES	3	3	3	3
5	RATED INSULATION LEVELS i) FULL WAVE LIGHTNING IMPULSES WITHSTAND VOLTAGE (1.250 microsec.) ii) SWITCHING IMPULSES WITHSTAND VOLTAGE (250/2500 microsec.) DRY & WET iii) ONE MINUTE POWER FREQUENCY DRY WITHSTAND VOLTAGE (rms) iv) ONE MINUTE POWER FREQUENCY DRY & WET WITHSTAND VOLTAGE (rms)	±1550kVp ±1050kVp 630kV	±1050kVp 725kVp 400kV	325kVp 140kV	79kVp 28kV
6	CORONA EXTINCTION VOLTAGE	320KV	NA	NA	NA
7	MAX. RADIO INTERFERENCE VOLTAGE FOR FREQUENCY BETWEEN 0.5 MHz AND 2 MHz	1000 micro v/m AT 250KV RMS	1000 micro v/m AT 150KV RMS	NA	NA
8	MINIMUM CREEPAGE DISTANCE - FOR EQUIPMENT OTHER THAN INSULATOR STRING MINIMUM CREEPAGE DISTANCE - FOR INSULATOR STRING	31 MM / kV	25 MM / kV	25 MM / kV	25 MM / kV
9	RATED SHORT CIRCUIT CURRENT FOR 1 SEC. DURATION	63KA (AS APPLICABLE)	60KA (AS APPLICABLE)	31.526KA (FOR 1 Sec.)	25KA (FOR 3 Sec.)
10	SYSTEM NEUTRAL EARTHING	EFFECT EARTHED	EFFECT EARTHED	EFFECT EARTHED	EFFECT EARTHED

BILL OF QTY. FOR 220KV MAIN EQUIPMENTS (FAULT LEVEL - 50KA for 1 sec.)

Sl.No	DESCRIPTION	UNIT	ACTUAL QUANTITY	SYMBOL	REMARKS
1	245KV, 1600A, 3-PHASE CIRCUIT BREAKER (BPH) WITH SUPPORT STRUCTURE	EA	01		
2	245KV, 1600A, 50KA, 3-PHASE CURRENT TRANSFORMER WITH 100% EXTENDED CURRENT RATING	EA	03		
3	245KV, 4000V CAPACITIVE TRANSFORMER (1-PHASE)	EA	03		
4	245KV, 1600A, 50KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH ONE EDS	EA	01		
5	245KV, 1600A, 50KA, 3-PHASE DOUBLE BREAK ISOLATOR WITH TWO EDS	EA	01		
6	245KV, 1600A, 50KA, 3-PHASE DOUBLE BREAK TANDUM ISOLATOR WITHOUT EDS	EA	02		
7	215KV SURGE ARRESTER (1-PH)	EA	03		
8	220KV, 1600A, 0.5mH, 50KA LINE TRAP	EA	02		

CONDUCTOR DETAILS OF 220 KV SIDE:

a) MAIN BUS	QUAD MOOSE ACSR AT 11.7 M.
b) TRANSFER BUS	TWIN MOOSE ACSR AT 11.7 M.
c) JACK BUS	TWIN MOOSE ACSR AT 18.2 M.
d) BAY EOPT INTERCONNECTION	4.0"x4.5" IPS AL. TUBE AT 5.9 M
e) DROPPER / JUMPER	QUAD / TWIN MOOSE ACSR
a) FOR TENSION	2
b) FOR SUSPENSION	1
SUB CONDUCTOR SPACING-	250 mm
EARTHWIRE	10.96 MM DIA GI WIRE

BUS & BAY CURRENT RATING :

Sl.No	DESCRIPTION OF BAY	400/220KV CHALE (NEW) DATA	400KV	220KV
1.	BUS BAR	4000A	4000A	4000A
2.	LINE BAY	3150A	1600A	1600A
3.	ICT BAY	3150A	1600A	1600A
4.	BUS REACTOR BAY	3150A	—	—
5.	BUS COUPLER BAY	—	3150A	—
6.	TRANSFER BUS COUPLER BAY	—	1900A	—
7.	BUS SECTIONALIZER BAY	—	4200A	—

CLEARANCE TABLE AS PER GTR :-

Sl.No	DESCRIPTION	400KV SYSTEM	220KV SYSTEM	66KV SYSTEM	11KV SYSTEM
1	PHASE TO PHASE FOR CONDUCTOR-CONDUCTOR CONFIGURATION FOR ROD-CONDUCTOR CONFIGURATION	4000mm 4200mm	2100mm	750mm	280mm
2	PHASE TO EARTH FOR CONDUCTOR-CONDUCTOR CONFIGURATION FOR ROD-CONDUCTOR CONFIGURATION	3500mm	2100mm	630mm	140mm
3	SECTIONAL CLEARANCE	6500mm	5000mm	3100mm	2800mm

OWNER	DHULE POWER TRANSMISSION LTD
DRG. TITLE	SWITCHYARD SINGLE LINE DIAGRAM
	TENDER SLD