

TECHNICAL PARTICULARS

SL.NO.	PARTICULARS	220KV	66KV
1.	BASIC INSULATION LEVEL (KV)	1050	325
2.	MINIMUM CLEARANCES		
	a) BETWEEN PHASES (FOR RIGID BUS)	3.35 M	1.8 M
	b) BETWEEN PHASES (FOR STRUNG BUS)	3.65 M	2.0 M
	c) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER)	3.35 M	1.8 M
	d) SECTIONAL CLEARANCE	4.3 M	3.0 M
3.	a) HEIGHT OF CROSS BUS CONDUCTOR	13.5 M	[ 8.5 M 13.5 M
	b) BAY WIDTH	14.0 M	7.6 M
	c) HEIGHT OF MAIN BUS	5.75 M	4.25 M
4.	HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS		
	a) ISOLATORS ADJACENT TO MAIN BUS	8.25 M	5.5 M
	b) OTHER ISOLATORS AND EQUIPMENTS	5.75 M	4.25 M
5.	MATERIALS OF THE BUS		
	a) MAIN ALUMINIUM TUBE BS 1600 SCH.80	75 MM DIA	100 MM DIA
	b) CROSS BUS		
	i) ALUMINIUM TUBE BS.1600 SCH.80	63 MM DIA	50 MM DIA
	ii) ACSR CONDUCTOR	DRAKE	DRAKE/ DOUBLE DRAKE
6.	POST INSULATORS USED FOR BUS SUPPORTS AS PER IS 5350 PART II & III		
	a) NO.OF UNITS/STACK	2	1
	b) VOLTAGE CLASS	220KV	66KV
	c) HEIGHT OF INSULATOR STACK (MM)	2300	770
	d) PITCH DIA HOLES AT TOP (MM)	127	127
	e) NO. OF FIXING BOLTS	4	4
7.	a) 11KV, 120KN DISC INSULATORS		
	i) TENSION STRING	16	6
	B) 11KV, 90KN DISC INSULATORS		
	i) SUSPENSION STRING	14	6

12. ROUTE OF PROPOSED CABLE DUCT FOR A/B/C/D TYPES ARE INDICATED IN THE LAYOUT PLAN. FROM MAIN CABLE DUCTS ie. C & D TYPE TO THE RESPECTIVE EQUIPMENTS 'E' TYPE HUME PIPE SHALL BE PROVIDED FOR THE COMBINATION OF CONTROL & POWER CABLE & 'F' TYPE SHALL BE PROVIDED FOR ONLY CONTROL CABLE/ POWER CABLE. REFER TYPES OF CABLE DUCT DRAWING FOR OTHER DETAILS.

NOTES:-

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- RIGID BUS IS PROPOSED FOR 220KV & 66KV MAIN DOUBLE BUS.
- RAIL TRACKS ARE PROPOSED FOR MOVEMENT OF 220/66/11KV TRANSFORMERS FROM BED TO 5M WIDE ROAD.
- a) 220KV & 66KV YARD WITH BOUNDARY SHALL BE MAINTAINED AT THE SAME LEVEL & THE ECONOMICAL LEVEL RL, CUTTING & FILLING SHALL BE BASED ON THE SITE CONDITIONS

	BOUNDARY	RL (M)	CUTTING (CU.M)	FILLING (CU.M)
220KV YARD & 66KV YARD				

- b) SWITCH YARD FENCING SHALL BE PROVIDED ALONG THE BOUNDARY LINE MNOP. TOW/ RETAINING WALL SHALL BE PROVIDED WHERE EVER NECESSARY ALONG THE BOUNDARY LINE.
- c) 5M WIDE APPROACH ROAD SHALL BE PROVIDED IN THE SWITCH YARD & FROM ROAD UPTO THE SWITCH YARD BOUNDARY.
- CONTROL ROOM OF SIZE 19.3 X 28.3 M OF STANDARD CONTROL ROOM BUILDING IS PROPOSED FOR THIS STATION.
- TO FIX EXACT LOCATION OF STATION YARD, FIRST FIX THE 220KV STRUCTURE LINE 'X-Y' WITH CO ORDINATES OF POINTS GIVEN BELOW.

POINTS	S-N	W-E
X		
Y		

- FOR DETAILS OF BOUNDARY DIMENSIONS AND CO ORDINATES REFER DRG. TOPOGRAPHICAL SURVEY WITH BLOCK LEVELS.
- FOR BILL OF MATERIALS/EQUIPMENTS/STATION STRUCTURES & MOUNTING STRUCTURES REFER ANNEXURE- SCHEDULE OF REQUIREMENTS.
- FOR FUTURE BAYS, ONLY STRUCTURES & AUXILIARY BUS ARE INDICATED WHICH ARE IN THE PRESENT SCOPE OF SUPPLY. OTHER EQUIPMENTS FOR THESE ARE NOT SHOWN.
- LIGHTING/ LIGHTNING MAST (LM) ARE PROPOSED FOR ILLUMINATION OF STATION YARD & LIGHTNING PROTECTION. THE LM ARE LOCATED SUCH THAT THE ENTIRE STATION YARD WITH EQUIPMENTS IS PROTECTED AGAINST LIGHTNING. ADDITIONAL LIGHTNING MASTS MAY BE PROVIDED FOR SUFFICIENT ILLUMINATION OF THE STATION YARD, IF NECESSARY.
- OTHER REFERENCE DRAWINGS- a) SITE PLAN.  
b) SITE PLAN WITH BLOCK LEVELS.  
c) CROSS SECTION THROUGH VARIOUS BAYS, TYPES OF CABLE DUCT.  
d) SINGLE LINE DIAGRAM

SHEET 2 OF 2

KARNATAKA SOLAR POWER DEVELOPMENT CORPORATION LIMITED			
DETAILED LAYOUT PLAN OF PROPOSED 2X150MVA, 220/66KV SUB STATION AT SOLAR PARK, PAVAGADA			
DRG. NO. KREDL/ TECH/ SS-220/SP-4		DATED:- 15.12.2015	
SCALE :- N.T.S.			
	A.E.E	AGM	GM
DRN	SUB	REC	APPROVED