

400-316-009-009 ON 03/03

Sl. No.	Designation	Description	QTY	APPROX			Total Width
				W	D	H	
<b>400kV CONTROL PANELS</b>							
1	4QP1	400KV INTERCONNECTOR-1 - INTERCONNECTOR-2 Control Panel	1	Nos	1200	1000	2295
2	4QP2	400KV Bus-1 Reactor - The - Bus-2 Reactor Control Panel	1	Nos	1200	1000	2295
3	4QP3A	400KV BIKANER Line-1 REACTOR Control Panel	1	Nos	750	1000	2295
4	4QP3	400KV BIKANER Line-1 - The - BIKANER Line-2 Control Panel	1	Nos	1200	1000	2295
5	4QP3B	400KV BIKANER Line-2 REACTOR Control Panel	1	Nos	750	1000	2295
6	4QP4	400KV GT-7 - The - Bus/J C/T Bar Control Panel	1	No	1200	1000	2295
7	4QP5A	400KV BABAI Line-1 REACTOR Control Panel	1	Nos	750	1000	2295
8	4QP5	400KV BABAI Line-1 - The - BABAI Line-2 Control Panel	1	Nos	1200	1000	2295
9	4QP5B	400KV BABAI Line-2 REACTOR Control Panel	1	Nos	750	1000	2295
10	4QP6	400KV Bus/J C/T - The - GT-8 Control Panel	1	No	1200	1000	2295
<b>400kV PROTECTION PANELS (WITH BCU)</b>							
11, 12	ICRP (Bar-Y1)	400KV INTERCONNECTOR-1 Protection Panel	2	Nos	800	800	2295
13, 14	ICRP (Bar-Y2)	400KV INTERCONNECTOR-2 Protection Panel	2	Nos	800	800	2295
15, 16	BRPP (Bar-Y3)	400KV Bus-1 Reactor Protection Panel	2	Nos	800	800	2295
17	TRP (Bar-Y3Y4)	400KV The CB Relay Panel	1	No	800	800	2295
18, 19	BRPP (Bar-Y4)	400KV Bus-2 Reactor Protection Panel	2	Nos	800	800	2295
20, 21	LRPP (Bar-Y5)	400KV BIKANER Line-1 REACTOR Protection Panel	2	Nos	800	800	2295
22, 23	LRP (Bar-Y5)	400KV BIKANER Line-1 Protection Panel	2	Nos	800	800	2295
24	TRP (Bar-Y5/6)	400KV The CB Relay Panel	1	No	800	800	2295
25, 26	LRP (Bar-Y6)	400KV BIKANER Line-2 Protection Panel	2	Nos	800	800	2295
27, 28	LRPP (Bar-Y6)	400KV BIKANER Line-2 REACTOR Protection Panel	2	Nos	800	800	2295
29, 30	GTRE (Bar-Y7)	400KV GT-7 CB Relay Panel (With 87 OA/CH) Panel	2	No	800	800	2295
31	TRP (Bar-Y7/8)	400KV The CB Relay Panel	1	No	800	800	2295
32, 33	LRPP (Bar-Y9)	400KV BABAI Line-1 REACTOR Protection Panel	2	Nos	800	800	2295
34, 35	LRP (Bar-Y9)	400KV BABAI Line-1 Protection Panel	2	Nos	800	800	2295
36	TRP (Bar-Y9/10)	400KV The CB Relay Panel	1	No	800	800	2295
37, 38	LRP (Bar-Y10)	400KV BABAI Line-2 Protection Panel	2	No	800	800	2295
39, 40	LRPP (Bar-Y10)	400KV BABAI Line-2 REACTOR Protection Panel	2	Nos	800	800	2295
41	TRP (Bar-Y11/12)	400KV The CB Relay Panel	1	No	800	800	2295
42, 43	GTRE (Bar-Y12)	400KV GT-8 CB Relay Panel (With 87 OA/CH)	2	No	800	800	2295
44-47	BBRRP	400KV BUSBAR PROTECTION	4	Nos	800	800	2295
48, 49	SAS	SAS PANEL (Lux + Networking)	2	Nos	800	800	2295
<b>MISC EQUIPMENTS</b>							
50	SP	SYNCHRONISING PANEL	1	Nos	610	800	2295
51	SYNC	SYNCHROSCOPE	1	Nos	800	675	1045
52, 53	DR	400KV DR PANEL	2	Nos	750	800	2295
54, 55	EMP	400KV ENERGY METERING PANEL (12 EM)	2	Nos	750	800	2295
56	UPS	UPS	1	Nos	800	800	1600
<b>PC</b>							
PC alongwith Printer for SAs, Relay Parameterisation & DR evaluation.							
In Switchyard Control Room:							
a. OWS - 2No.							
b. Color Laser Jet Printer A3 - 1No.							
c. Line Printer - 1No.							
d. ABT Metering PC - 1 No.							
e. ABT Metering Color Laser Jet Printer A4 - 1 No.							
f. ABT Metering Laptop - 1No.							
g. DR Laptop - 1No.							
h. DR Color Laser Jet Printer A4 - 1 No.							
<b>In Shift In-charge Room:</b>							
i. OWS - 1No.							
j. Dot Matrix Printer - 1 No.							
<b>In Main Control Room:</b>							
a. OWS - 1No.							
b. OES - 1No.							
c. Color Laser Jet Printer A3 - 2No.							
d. Line Printer - 1No.							
e. Dot Matrix Printer A4 - 1No.							
f. Scanner A3 - 1No.							
<b>PLCC EQUIPMENTS (SUPPLY NOT IN SCOPE)</b>							
57-68	PLCC	Single Channel PLCC Panel with 4 command Protection Coupler (For 4 Lines)	12	Nos	700	400	2230
69-74	PLCC	Single Channel PLCC Panel with 4 command Protection Coupler (For 2 Future Lines)	6	Nos	700	400	2230
75	PLCC	EPAX	1	No	700	400	2230

Sl.No.	Description of Panels/Equipments	QTY	APPROX DIMENSION		
			W	D	H
			(dimensions in mm)		
76	41SV LT Switchgear	1	11700	1000	2175
77, 78	AUX TRAF0 MIT (1710 433 KV, 630 KVA, Dry-Type)	2	1400	3400	2500
79	220V DCDB - 1 & 2	1	7000	800	2400
80	48V DCDB - 1 & 2	1	5000	800	2400
81	MLDB	1	3000	800	1725
82	ELDB	1	2000	800	1725
83, 84	LIGHTING TRAF0 (100 KVA, Dry-Type) - LT	2	1000	1000	840
85	WDB	1	1500	800	1725
86	NLP	2	550	225	550
87	ELP	2	550	225	550
88	DLP	1	550	225	550
89, 90	220 V Lead Acid Plantie Battery Set (625 AH)	2	5500	850	2100
91, 92	48 V Lead Acid Plantie Battery Set (600 AH)	2	1320	760	1500
93, 94	220V CHARGER	2	1200	800	2200
95, 96	48V CHARGER	2	1200	800	2200
97	Fire alarm panel	1	600	200	600
98	AOAIN	1	600	250	800

03	05-08-14	AS PER THE LETTER DATED- 11-07-14	SK	SK	SKG	RS
02	18-06-14	AS PER THE LETTER DATED- 16-06-14	SK-SD	SK-SD	SKG-SD	RS-SD
01	11-04-14	AS PER THE LETTER DATED- 29-10-13	SK-SD	SK-SD	SKG-SD	RS-SD

**DWNER**  
**RAJASTHAN RAJYA VIDYUT UTPADAN NIGAM LIMITED**  
**PROJECT**  
**2X660MW THERMAL POWER PLANT, SURAT GARH STAGE - V, UNIT 7 & 8 AT SURATGARH, RAJASTHAN**  
**DWNER'S ENGINEER**  
**TATA CONSULTING ENGINEERS LIMITED**  
**EPC CONTRACTOR**  
**BHARAT HEAVY ELECTRICALS LTD TRANSMISSION BUSINESS GROUP**

DEPT	NAME	DATE
DRN	SK	14.08.13
DESIGN	SK	-SD-
CHKD	SKS	-SD-
APRD	SS	-SD-

**TITLE**  
**CONCEPTUAL CONTROL ROOM BUILDING LAYOUT FOR 400KV S/S AT SURATGARH**  
**CV** ME EL I&C  
**DEPT. SCALE** 1:600  
**BHEL/SUB VENDOR DRG NO.** TB-3-360-316-009  
**SHIT No 03 OF 03 REV. 03**