

REFERENCE DOCUMENTS

SHORT CIRCUIT FORCE CALCULATION FOR 400KV SWITCHYARD: TB-400-316-013-REV 01  
GIS AND POTHEAD YARD PLAN & SECTION LAYOUT: TB-0-400-316-002-REV 01

LOADING DETAILS :-

NOTATION	VOLTAGE (KV)	NO. & TYPE OF COND. AND SPAN (Max.) PER PHASE	NORMAL TENSION PER PHASE(KG)	SPACER SPAN (m)	S/C TENSION PER PHASE (KG)
ax	400	TWIN ACSR MOOSE SPAN = 65.521 MM	4000	3	5551.32
bx	400	QUAD ACSR MOOSE (AS PER CUSTOMER INFORMATION) SLACK SPAN = 200000 MM	4000	** 2 (for slack span)	NA 2 (for slack span)
s	NA	SHEILD WIRE	800	NA	NA

\*\* SPACER SPAN OF INTERCONNECTING LINE SHALL BE AS PER TRANSMISSION LINE DESIGN.

TOWER DETAIL :-

TOWERS DESIGNATION	STR. HEIGHT DETAIL FROM PLINTH TOP (m)	DEVIATION(H/V) (Degree)	TYPE	QUANTITY (NOS.)
T1	22+8(P)=30m	±30°	END	08 2
T2	22+8(P)=30m	±30°	END/MIDDLE	07 2
T3	22+8(P)=30m	±30°	END/MIDDLE	08
TOTAL NO. OF TOWERS				23

BEAM DETAIL :-

BEAM TYPE	BEAM SPAN	DEVIATION(H/V) (Degree)	NORMAL TENSION PER PHASE(KG)	S.C. TENSION PER PHASE(KG)	QUANTITY (NOS.)
G1	27m	±30°	4000	5551.32	04
G2	18m	±30°	4000	5551.32	06
G3	27m	±30°	4000	NA (for slack span)	06
TOTAL NO. OF BEAMS					16

THIS DOCUMENT WILL BE APPROVED IN CAT-2.  
CAT-1 APPROVAL WILL BE GIVEN AFTER ALL REVELANT GIS DRAWINGS ARE APPROVED. EXACT COORDINATES OF TOWERS ARE INCORPORATED IN DRAWING. ACTUAL DEVIATION ANGLES ARE MENTIONED AT EACH CONDUCTOR LOCATIONS. ACTUAL TOWER SIZES ARE SHOWN IN THE DRAWING.

TATA CONSULTING ENGINEERS LIMITED  
VENDOR DRAWING STATUS

CATEGORY	DESCRIPTION
<input type="checkbox"/> CAT-1	Drawing/documents approved for final distribution. BHEL will proceed with manufacturing/ fabrication/construction.
<input checked="" type="checkbox"/> CAT-2	Drawing/documents cleared for manufacturing/ fabrication/construction subject to incorporating the comments given. BHEL to resubmit the drawing for Approval in Category - 1. Comments will be marked on the drawing documents. Drawing document will be corrected as per comment and resubmitted by BHEL for further review/checking.
<input type="checkbox"/> CAT-3	Drawing document of this category are for information only and not for approval. Information furnished on the document is noted.
<input type="checkbox"/> CAT-4	

Note :





- It is mandatory to close documents with Code 2 & 3 to Code 1 in agreed contract period or 2 weeks, whichever is lower.
- Any design changes / modification required to be carried out in Code 4 Drawings / Documents shall be the responsibility of BHEL. BHEL to resubmit reflecting the Design Changes for information.

Approval conveyed herein neither relieves the Vendor/Contractor of his contractual obligations and his responsibilities for correctness of dimensions, materials of construction, weights, quantities, design details, assembly fits, performance requirements and conformity of supplies with the Indian Statutory Laws as may be applicable, nor does it limit the purchaser's rights under the contract.

Reviewed by S.S Satish Date 23-07-2019

JOB NO.  
STATUS CONTRACT  
DISTRIBUTION

REV.	DATE	ALT D	CHD	APPD	REV.	DATE	ALT D	CHD	APPD
02	17.07.19	SS	SKS	AC	01	23.06.19	SS	SKS	AC
Revised as per comments vide TCE.11403A-EL-VDT-125 dated 02.07.2019					Revised as per comments vide TCE.11403A-EL-VDT-028 dated 26.04.2019				

PROJECT	2X660 MW UDANGUDI SUPERCRITICAL TPS, STAGE-I				
CUSTOMER		TAMILNADU GENERATION AND DISTRIBUTION CORPORATION LIMITED (TANGEDCO)			
CONSULTANT		TATA CONSULTING ENGINEERS LIMITED BENGALURU			
	BHARAT HEAVY ELECTRICALS LTD TRANSMISSION BUSINESS GROUP NOIDA				
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TITLE		DEPT	NAME	SIGN	
		DRN	SY		01.01-19
		DESIN	SS		01.01-19
		CHB	SKS		01.01-19
		APPS	AK		01.01-19
STRUCTURE LOADING DIAGRAM FOR 400KV SWITCHYARD					
		DEPT.	SCALE 1:300	DRAWING NO.	
		SIGN		TB-2-400-316-003	
				SHEET	01 OF 01
				REV.	02