DRAWING NO. 1 457 19 50 128

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
BHARAT HEAVY ELECTRICALS LIMITED JHANSI

स्टेशन परिणामित्र
STATION TRANSFORMER

TO STANDARD: IEC-60076

शीतन प्रकार / TYPE OF COOLING	ONAF	ONAN
निर्धारण उ.वो. मे.वो.ए. / RATING HV (M.V.A.)	110	66
निर्धारण नि.वो. मे.वो.ए. / RATING LV1 & LV2 (M.V.A.)	55	33
शून्य भार वोल्टता उ.वो. कि.वो. / NO LOAD VOLTAGE H.V. (kV)	132	
शून्य भार वोल्टता नि.वो. कि.वो. / NO LOAD VOLTAGE LV1 &LV2(kV)	11.5–11.5	
लाइन धारा उ.वो. ए. / LINE CURRENT H.V. (AMPS.)	481.13	288.68
लाइन धारा नि.वो. ए. / LINE CURRENT LV1 & LV2 (AMPS.)	2761.24	1656.74
ताप वृद्धि तेल (सें.) / TEMPERATURE RISE OIL (°C)	50	50
ताप वृद्धि कुंडलन (सें.) / TEMPERATURE RISE WINDING (°C)	55	55
ग्राहक / CUSTOMER	M/s-NTPC DARLIPALLI STPP-I (2X800MW)	

फेज / PHASE	3
आवृति हर्ट्ज / FREQUENCY (Hz)	50
संयोजन प्रतीक / CONNECTION SYMBOL	YNynyn0
प्रतिबाधा % उ.वो–नि.वो / IMPEDANCE VOLT% HV-LV1 OR HV-LV2 AT 110MVA BASE AND PRINCIPAL TAP	22.0%±IEC TOL
प्रतिबाधा % नि.वो1. नि.वो2. / IMPEDANCE VOLT% LV1-LV2 AT 110MVA BASE	39.5% (MIN.)

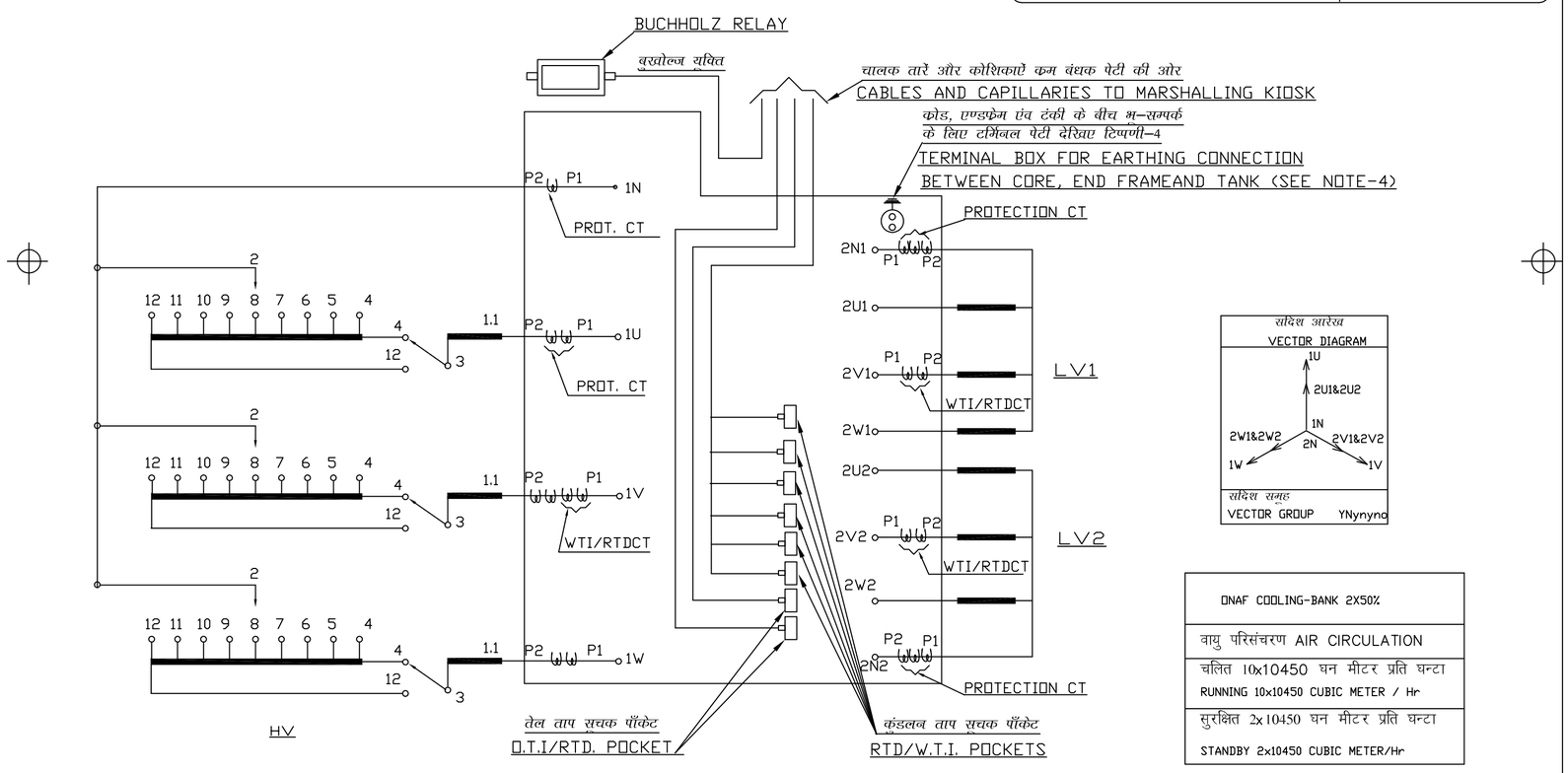
विद्युत रोधन स्तर
INSULATION LEVEL

उ.वो / H.V.	650 KVp.	38 KV rms
नि.वो. / LV1&LV2	75KVp.	28 KV rms
उ.वो.न्यूट्रल / H.V.NEUTRAL	95 KVp.	38 KV rms

कार्य आदेश संख्या / P.O.No.	CS-9549-501-2-FC-NOA-6207

वैद्युत विनिर्देश संख्या / ELEC. SPEC. No.	626876
क्रमांक संख्या / S.NO.	204242
निर्माण वर्ष / YEAR OF MANUFACTURE	2015
आरेख ड्राईंग संख्या / DIAGRAM DRAWING NO.	14571950128
प्रारूप ड्राईंग संख्या / O.G.A. DRAWING NO.	14570050089
कोड और कुंडलन कि.ग्रा. / CORE & WINDING (Kg)	63000
तेल का भार कि.ग्रा. / WEIGHT OF OIL (Kg)	34800
पूर्ण भार कि.ग्रा. / TOTAL WEIGHT (Kg)	128800
तेल मात्रा लीटर / OIL QUANTITY (Litre)	38665
परिवहन भार तेल भरा कि.ग्रा. / TRANSPORT WEIGHT GAS FILLED (Kg)	76000
टंकी से निकालने का भार कि.ग्रा. / UNTANKING WEIGHT (Kg)	63000
टंकी से निकालने पर लम्बाई / UNTANKING HIGHT	10000

○ टर्मिनल्स टंकी ढक्कन के ऊपर / TERMINALS ON TANK COVER
◎ उप टर्मिनल्स टंकी ढक्कन के नीचे / SUB TERMINALS BELOW TANK COVER



ONAF COOLING-BANK 2X50%
वायु परिसंचरण AIR CIRCULATION
चलित 10x10450 घन मीटर प्रति घन्टा RUNNING 10x10450 CUBIC METER / Hr
सुरक्षित 2x10450 घन मीटर प्रति घन्टा STANDBY 2x10450 CUBIC METER/Hr

OLTC TYPE MIII-600-60/C-10193W RANGE+10% TO -10% IN STEPS@1.25%

TAP POSITION	LEADS JOINED	H.V. TERMINALS 1U 1V 1W NO LOAD LINE KV	H.V. TERMINALS 1U 1V 1W CURRENT AMP. (90MVA)	L.V. TERMINALS 2U1 2V2 2W2 & 2U2 2V2 2W2 NO LOAD LINE KV	L.V. TERMINALS 2U1 2V2 2W2 & 2U2 2V2 2W2 CURRENT AMP.	% IMPEDANCE 110 MVA BASE HV/LV1 & HV/LV2
1(MAX.)	(2-12) (3-4)	145.2	437.39			
2	(2-11) (3-4)	143.55	442.41			
3	(2-10) (3-4)	141.9	447.56			
4	(2-9) (3-4)	140.25	452.82			
5	(2-8) (3-4)	138.6	458.21			
6	(2-7) (3-4)	136.95	463.74			
7	(2-6) (3-4)	135.3	469.39			
8	(2-5) (3-4)	133.65	475.19			
9a	(2-4) (3-4)	132.0	481.13			
9b(N.T)	(2-3) (3-4) ↑ (3-12)	132.0	481.13	11.5	2761.24	
9c	(2-12) (3-12)	132.0	481.13			
10	(2-11) (3-12)	130.35	487.22			
11	(2-10) (3-12)	128.7	493.46			
12	(2-9) (3-12)	127.05	499.87			
13	(2-8) (3-12)	125.4	506.45			
14	(2-7) (3-12)	123.75	513.20			
15	(2-6) (3-12)	122.1	520.14			
16	(2-5) (3-12)	120.45	527.26			
17(MIN.)	(2-4) (3-12)	118.8	534.58			

CURRENT TRANSFORMERS

C.T.	RATIO	ACCURACY CLASS	BURDEN OHMS /VA	KNEE POINT VOLTAGE MIN (VOLT) Vk	MAGNETISING CURRENT(MAX.) AT Vk /2	SECONDARY REST.AT MAX (OHMS)	PURPOSE
1CT1U1 1CT1V1 1CT1W1	600/1 1S1-1S2	PS	–	600	30mA	3.0	PROTEC.
1CT2U1 1CT2V1 1CT2W1	600/1 2S1-2S2	PS	–	600	30mA	3.0	PROTEC.
1CT1N	600/1 1S1-1S2	PS	–	600	30mA	3.0	PROTEC.
2CT1N1	600/1 2S1-2S2	5P20	15VA	–	–	–	PROTEC.
2CT1N2	600/1 2S1-2S2	5P20	15VA	–	–	–	PROTEC.
2CT2N1	600/1 2S1-2S2	5P20	15VA	–	–	–	PROTEC.
2CT2N2	600/1 2S1-2S2	5P20	15VA	–	–	–	PROTEC.
2CT3N1	3000/1 1S1-1S2	PS	–	1000	30mA	10	PROTEC.
2CT3N2	3000/1 1S1-1S2	PS	–	1000	30mA	10	PROTEC.
WCT1V1	534.58/4.6-4.0-3.4 S1-S2-S3-S4	5	7.5VA	–	–	–	WTI+RTD (HV)
WCT2V1	2761.24/2.9-2.7-2.5 S1-S2-S3-S4	5	7.5VA	–	–	–	WTI+RTD (LV1)
WCT3V1	2761.24/2.9-2.7-2.5 S1-S2-S3-S4	5	7.5VA	–	–	–	WTI+RTD (LV2)

टिप्पणियाँ:– 1. ऊपर की सारणी में शून्य भार वोल्टता दिखलाई गई है । 2. परिणामित्र के आपेक्षित टर्मिनल स्थान लगभग यहाँ दिखाऐ अनुसार हैं ।
3. टंकी कोड और कुंडलन के साथ पूर्ण निर्वात के लिए उपयुक्त है ।
4. कू.ता.सू.धारा परिणामित्र टर्मिनल पेटी के एवं कोड , एण्डफ्रेम एंव टंकी के बीच भू–सम्पर्क बनाने वाली श्रंखलाओं को ढक्कन हटाने से पहले अलग करें ।

NOTES:– 1) THE ABOVE TABLE GIVES VOLTAGE AT NO LOAD.
2) THE RELATIVE TERMINAL POSITIONS ON TRANSFORMER ARE APPROXIMATELY AS SHOWN
3) THE TANK IS SUITABLE FOR FULL VACUUM WITH CORE AND WINDING INSIDE .
4) CONNECTION OF CT,S TERMINAL BOARD & EARTHING CONNECTION BETWEEN CORE,END FRAME & TANK SHOULD BE REMOVED BEFORE LIFTING THE COVER.

Digitally signed by SUNIL ARORA
Date: 2016.01.22 10:36:42 IST
Reason: CAT I
Location: NTPCEOC
Signature Not Verified

भारत में निर्मित MADE IN INDIA

NOTE TO SHOP:–
1. ENGRAVE MAKER'S SERIAL NO.YEAR OF MANUFACTURE % IMPEDANCE VOLTAGE ON EACH PLATE AFTER JOB IS TESTED.
2. ENGRAVED LETTERS TO BE FILLED WITH BLACK PAINT.

NOTES TO DIAGRAM PLATE MANUFACTURER
1. CONSULT ENGINEERS BEFORE ENGRAVING WEIGHTS AND OIL QUANTITIES.
2. RATING PARTICULARS TO BE ENGRAVED OR MACHINE STAMPED AND FILLED IN BLACK HAND STAMPING NOT PERMITTED.

2.LETTERING:–
I.LETTER HEIGHT FOR VARIOUS HEADINGS SHALL BE AS PER TABLE – 1 .
II.BILINGUAL COMPANY'S MONOGRAM TO BE AS PER STANDARD AA 0401121 OF SIZE 60MM.

3.FINISH:–
I.PLATES ARE TO BE MANUFACTURED BY ETCHING PROCESS.
II.ALL LETTERS,DIVIDING LINES,BORDER LINES & FIGURES ETC. TO BE BLACK
III.BACK GROUND TO BE SATIN SILVER.
4.THE NEATNESS OF THE DIAGRAM/PLATE SHOULD BE DONE AS NEARING AS POSSIBLE TO DRAWING.
5.DRILLING IS TO BE DONE IN PLATE BEFORE ENGRAVING OR ANODISING .
6. DRAWING NO. 14561950909 REV.01 W.O.NO. 17072M17700 TO BE PAINTED ON THE BACK OF THE PLATE .

7.PACKING:–
RATING & DIAGRAM PLATE TO BE SUITABLY PACKED IN POLYTHENE COVERS (500 MICRONS THICKNESS) TO AVOID DAMAGE DURING TRANSIT / STORING.

8.MATERIAL:–
FOR STAINLESS STEEL 1.67K-SIZE AND DRILLING OF PLATE SEE DRAWING NO. 44991900010.

9.NOTES TO CUSTOMER :–
I – THE RATING & DIAGRAM PLATE IS MADE OF ANODISED STAINLESS STEEL.
II – SEE NOTE TO SHOP ALSO.
III– WEIGHTS AND OIL QUANTITIES ARE APPROXIMATE AND FINAL VALUES SHALL BE FURNISHED AFTER FINALISATION OF DESIGN.

TABLE – 1

SIZE OF THE RATING PLATE	LETTER SIZE
HEADING	ENGLISH
BHARAT HEAVY ELECTRICALS LIMITED JHANSI	8
MADE IN INDIA	6
NAME OF EQUIPMENT	6
RATING PARTICULARS NOMENCLATURES	4
NOTES	3

REV	DATE	ALTERED
02	11/01/16	CHECKED
		APPROVED
ZONE	REVISED AS PER NTPC'S COMMENTS.	
01	19/08/15	
	REVISED AS PER NTPC'S COMMENTS.	

W.O. 71190P17400
P.O. NO. :- CS-9549-501-2-FC-NOA-6207
SPEC. NO. -
STATUS - DISTRIBUTION
BHEL TRE-1 TRX-1 TRM-3
NTPC

BHARAT HEAVY ELECTRICALS LTD. JHANSI

NTPC DRG. NO. 9549-501-PVE-B-03 | BHEL DRG. NO. 1 457 19 50 128

NTPC LTD.
DARLIPALLI SUPER THERMAL POWER PROJECT-2X800 MW
RATING & DIAGRAM PLATE
110 MVA, 132/11.5-11.5 KV, ONAF/ONAN COOLED STATION TRANSFORMER

	NAME	SIGN	DATE
DRN	PAWAN		17.04.15
CHD	PB	SD	
APPD	KAUSHAL	SD	

DEPT | SIGN | DATE

SCALE NTS
DRAWING NO. 1 457 19 50 128
SHEET 01 OF 01
REV. 02
NO. OF VAR —
NO. OF ITEM —
ITEM NO —

(ALL DIMENSIONS ARE IN mm)
FIRST ANGLE PROJECTION
SIZE A1