FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN MM.)

DRAWING No. 9585-001-572-PVE-P-011

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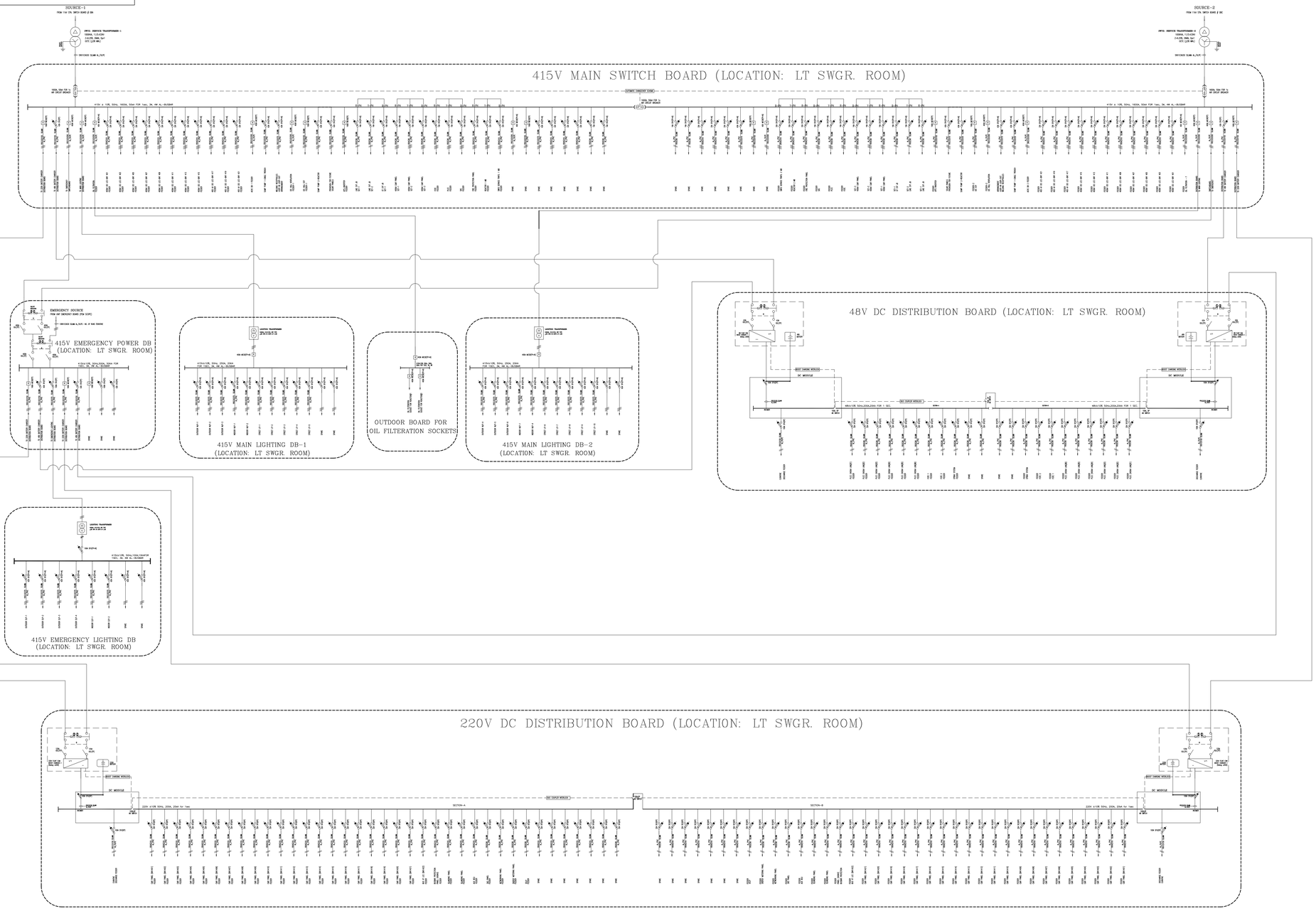
COMPUTER DRG. PATH NAME :

REF. DRG. No.

SIGN. & DATE

INVENTORY No.



DETAIL (FOR POWER SUPPLY CABLES)

SL. NO.	SIZE OF POWER CABLE	TYPE OF CABLE
1.	1CX630SQ.MM	AL/XLPE
2.	3.5CX300SQ.MM	AL/XLPE
3.	3.5CX150SQ.MM	AL/XLPE
4.	1CX150SQ.MM	AL/XLPE
5.	3.5CX70SQ.MM	AL/PVC
6.	3.5CX35SQ.MM	AL/PVC
7.	4CX16SQ.MM	AL/PVC
8.	4CX6SQ.MM	AL/PVC
9.	2CX6SQ.MM	AL/PVC

EQUIPMENT NOMENCLATURES:

SYMBOL	NOMENCLATURE	DESCRIPTION
	ACB	AIR CIRCUIT BREAKER (DRAWOUT TYPE)
4	MCCB	MOULDED CASE CIRCUIT BREAKER
	SFU	POLE SWITCH FUSE UNIT (SFU)
	DP AB SWITCH	DOUBLE POLE AIR BREAK SWITCH
	INTERLOCKING	INTERLOCKING THROUGH CONTACTORS
	MCB	MINIATURE CIRCUIT BREAKER

GENERAL NOTES:

1. BOARD SHALL BE EXTENDABLE ON BOTH SIDES, BY ADDITION OF VERTICAL SECTION AFTER REMOVING END COVERS.
2. BOARD SHALL BE OF UNIFORM HEIGHT NOT EXCEEDING 2450MM.
3. BOARD SHALL BE DUST AND VERMIN PROOF WITH IP-52.
4. NO TWO AC SOURCES SHELL BE PARALLED AT ANY STAGE. INTERLOCK (ELECTRICAL) TO BE PROVIDED BETWEEN INCOMERS (INTERLOCK SCHEME FOR DETAIL SHALL BE FURNISHED ALONG WITH VENDOR DRAWINGS).
5. ORIENTATION OF FEEDERS SHOULD BE VERIFIED TO AVOID CROSS CABLING.
6. PHASOR SEQUENCE OF INCOMER SHOULD BE VERIFIED TO AVOID CHANGE OVER PHASE EQUIPMENT.
7. LOADING OF EACH FEEDER SHOULD BE SUCH THAT AMPACITY OF CABLE IS WITHIN THE LIMITS AND ACCORDINGLY VOLTAGE DROPS SHOULD BE CHECKED .
8. METERING AND PROTECTION REQUIREMENT SHALL BE AS PER TECHNICAL SPECIFICATION .
9. FOR CABLE INTERCONNECTION REFER CABLE SCHEDULE DRAWING.
10. CABLE DETAIL INDICATED ARE TENTATIVE ONLY (INFORMATION PURPOSE)
11. FOR AUTO-CHANGEOVER SCHEME REFER VENDOR SCHEME DETAIL DRAWING(S)
12. FOR OUTGOING FEEDER DETAILS REFER OGA OF RESPECTIVE BOARDS .
13. TRANSDUCER FOR MEASUREMENT OF DC CURRENT AND DC VOLTAGE SHALL BE LOCATED IN RESPECTIVE CHARGER & SAME SHALL BE INTEGRATED TO SAS.
14. IN NORMAL CONDITION WHEN TWO INCOMERS OF DC BOARD IS ON THEN BUS COUPLER AIR BREAK SWITCH SHALL BE OFF CONDITION.
    IN THE CASE OF COMPLETE OUTAGE OF ANY ONE SECTION BATTERY AND CHARGER OUTPUT, BUS COUPLER AIR BREAK SWITCH SHALL BE IN ON CONDITION MANUALLY.
15. THE OFFERED RELAYS SHALL BE NUMERICAL AS PER TECHNICAL SPECIFICATION.
16. OIL FILTERATION RECEPTACLES ARE LOOP IN LOOP OUT TYPE & WILL BE LOCATED IN OUTDOOR YARD.
17. AVCS AND GIS HALL VENTILATION DISTRIBUTION BOARD SHALL BE IN THE RESPECTIVE VENDOR'S SCOPE.
18. ILLUMINATION FEEDERS ARE TENTATIVE AND SHALL DEPEND ON FINAL ILLUMINATION DESIGN.
19. MINIMUM INDICATIVE REQUIREMENT OF ANALOG SIGNALS, POTENTIAL FREE CONTACTS AND COMMAND SIGNALS WHICH SHOULD BE AVAILABLE AT RESPECTIVE EQUIPMENT FOR REMOTE INDICATION & CONTROL FROM AUXILIARY BCU LOCATED IN SWYD CONTROL ROOM – SHALL BE PROVIDED AS PER TS.

DESIGN PARTICULARS

1. AMBIENT TEMPERATURE : 50° C
2. ONE MIN. POWER FREQ. WITHSTAND VOLTAGE : 2.5 kV(rms)
3. POWER SUPPLY DETAIL
   a. AC SYSTEM : 3 PHASE , 4 WIRE, SOLIDLY EARTHED, 415V±10%, 50HZ
   b. DC SYSTEM : 2WIRE, UNEARTHED, 220V±10%
4. WIRING : 650/1100V GRADE PVC INSULATED WIRE OF 1.5 SQ MM CU. FOR CONTROL AND 2.5 SQ.MM.FOR CT CIRCUIT
5. POWER SUPPLY DETAIL
   a. TRIP AND CLOSING COILS 220V DC UNEARTHED
   b. SPRING CHARGING 220V DC UNEARTHED
6. ALL METALLIC CASE LIKE RELAYS, INSTRUMENT & OTHER EQUIPMENT SHALL BE CONNECTED TO EARTH WITH 2.5 SQ.MM. CU WIRE, GREEN COLOUR

S.NO	MIN. CLEARANCE (EXCEPT AT TERMINATION)	
1	PHASE TO PHASE	25 MM
2	PHASE TO NEUTRAL	25 MM
3	PHASE TO EARTH	25 MM
4	NEURAL TO EARTH	25 MM

Signature Not Verified
Digitally signed by
Date: 2019.10.05
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REFERENCE DRAWING:

1. ELECTRICAL SINGLE LINE DIAGRAM FOR AUXILIARY POWER DISTRIBUTION: 9585-001-200-PVE-U-011-02.

CA NO.	01/PVUNL-CS-9585-001-2/NDA-FC DATED 08/03/2018,01/PVUNL-CS-9585-001-2/NDA-SC DATED 08/03/2018 & 01/PVUNL-CS-9585-001-2/NDA-TC DATED 08/03/2018
ADDITIONAL INFORMATION W.O.No.	
STATUS OF DRAWING	
DISTRIBUTION OF PRINTS	ग्राहक/परियोजना का नाम NAME OF CUSTOMER/PROJECT: PATRATU VIDYUT UTPADAN NIGAM LTD. PATRATU SUPER THERMAL POWER PROJECT EXPANSION PHASE-I (3x800 MW)

भारत हेवी इलेक्ट्रिकल्स लिमिटेड
पारेषण परियोजना विभाग
BHARAT HEAVY ELECTRICALS LTD.
TRANSMISSION PROJECTS DIVISION

	नाम /NAME	हस्ता./SIGN.	दि./DATE
बनाया DRAWN	NS		19-09-2019
जांचा CHECKED	SKS		19-09-2019
स्वीकृत APPROVED	AG		19-09-2019

विभाग DEPT. | कोड CODE | कार्ड कोड CARD CODE | उनुपात / SCALE

शीर्षक/TITLE: SWITCHYARD AUXILIARY AC & DC SYSTEM SLD

ड्राईंग क्र./DRAWING NO.
NTPC DRG NO. 9585-001-572-PVE-P-011
BHEL DRG NO. TB-0-397-510-009

पुनः/REV. 00

पृष्ठ क्र./SHEET No. 01 | अगला पृष्ठ /NEXT SHEET --

REV.	DATE	ALTERED / CHECKED / APPROVED	ZONE
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