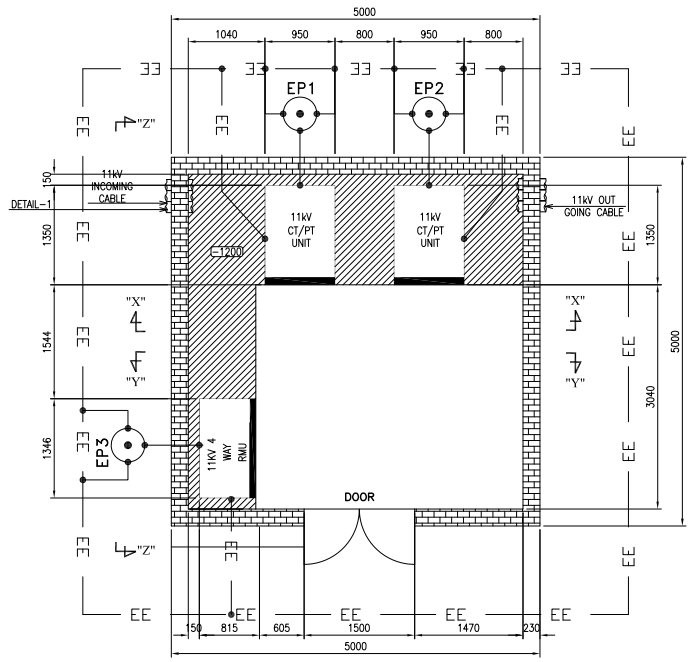
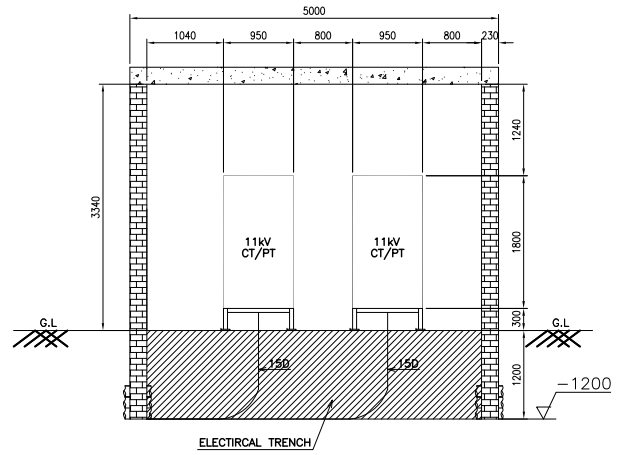


PLAN
(DETAIL "A" & EARTHING LAYOUT)

(SCALE - 1:50)



(SECTION - "X" - "X")

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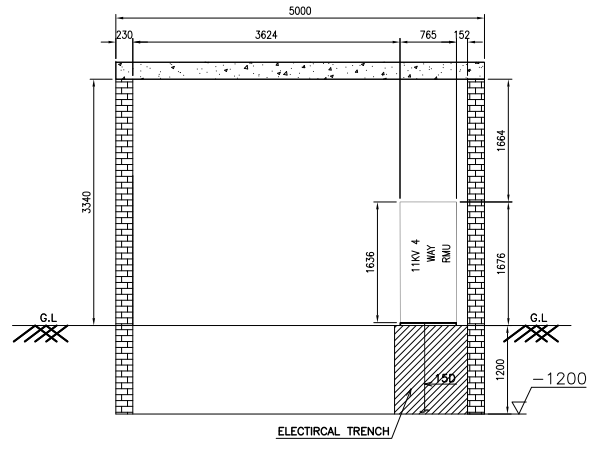


(SECTION - "Y" - "Y")

(SCALE - 1:50)

KEY PLAN

NOT APPLICABLE FOR STANDARD DRAWINGS

LEGEND:-

- TP SWITCH
- SF6 CIRCUIT BREAKER
- CURRENT TRANSFORMER
- TRANSFORMER
- G.L — GROUND FLOOR LEVEL
- FFL — FINISHED FLOOR LEVEL
- FUSE
- EARTHING ELECTRODES (UNTREATED TYPE)
- CABLE GLAND
- EE — EARTHING CONDUCTOR

RELAYING

- (51) OVERCURRENT RELAY REJ 603 RELAY
- (51N) EARTH FAULT RELAY

INSTRUMENTATION

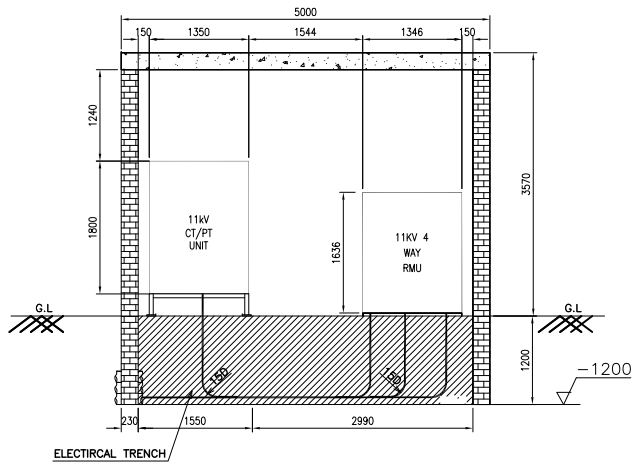
- VSS – VOLTMETER SELECTOR SWITCH
- V – VOLTMETER
- A – AMMETER
- EM – ENERGY METER
- WTI – WINDING TEMEPERATURE INDICATOR

NOTES:-

1) ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2) EARTHING CONDUCTOR LAYOUT SHOWN IS DIAGRAMMATIC ONLY. LOCATION OF EARTHING CONDUCTOR & EARTH ELECTRODES MAY BE CHANGED TO SUIT SITE CONDITIONS.
3) EARTHING CONDUCTOR IN OUTDOOR AREA SHALL BE BURIED MINIMUM 600 MM BELOW GROUND LEVEL.
4) 50 x 6 MM GI CONDUCTOR SHALL BE USED FOR EARTHING. EARTHING SHALL BE STRICTLY DONE IN ACCORDANCE WITH IS 3043.
5) ADDITIONAL EARTH PITS SHALL BE PROVIDED TO BRING OVERALL GRID RESISTANCE WITHIN SATISFACTORY LIMITS.
6) METALLIC SHEATHS, SCREENS & ARMOUR OF ALL MULTICORE CABLES SHALL BE EARTHED AT BOTH EQUIPMENT & SWITCHGEAR END.
7) 11kV CABLES SHALL BE LAID IN TRENCHES WHEREVER AVAILABLE. THEY SHALL BE DIRECTLY BURIED BELOW GROUND LEVEL AT MINIMUM DEPTH OF 1050 MM & 900 MM RESPECTIVELY WHERE TRENCHES ARE NOT AVAILABLE.
8) 4W RMU WEIGHT 340 kg/CTPT UNIT WEIGHT 300kg.
9) PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED AS IER GUIDELINES.
10) SUITABLE VENTILATION SHALL BE PROVIDED IN SUBSTATION ROOM FOR HEAT DISSIPATION.

ENGINEERING REFERENCE DRAWINGS :-

1) GA DRAWING FOR 11kV 3WAY RMU MAKE ABB DRAWING NO. YN1V300015-TBA
2) GA DRAWING FOR 11kV CT/PT METERING UNIT MAKE HUPHEN DRAWING NO. E-CTPT-288-ext



(SECTION - "Z" - "Z")

(SCALE - 1:50)

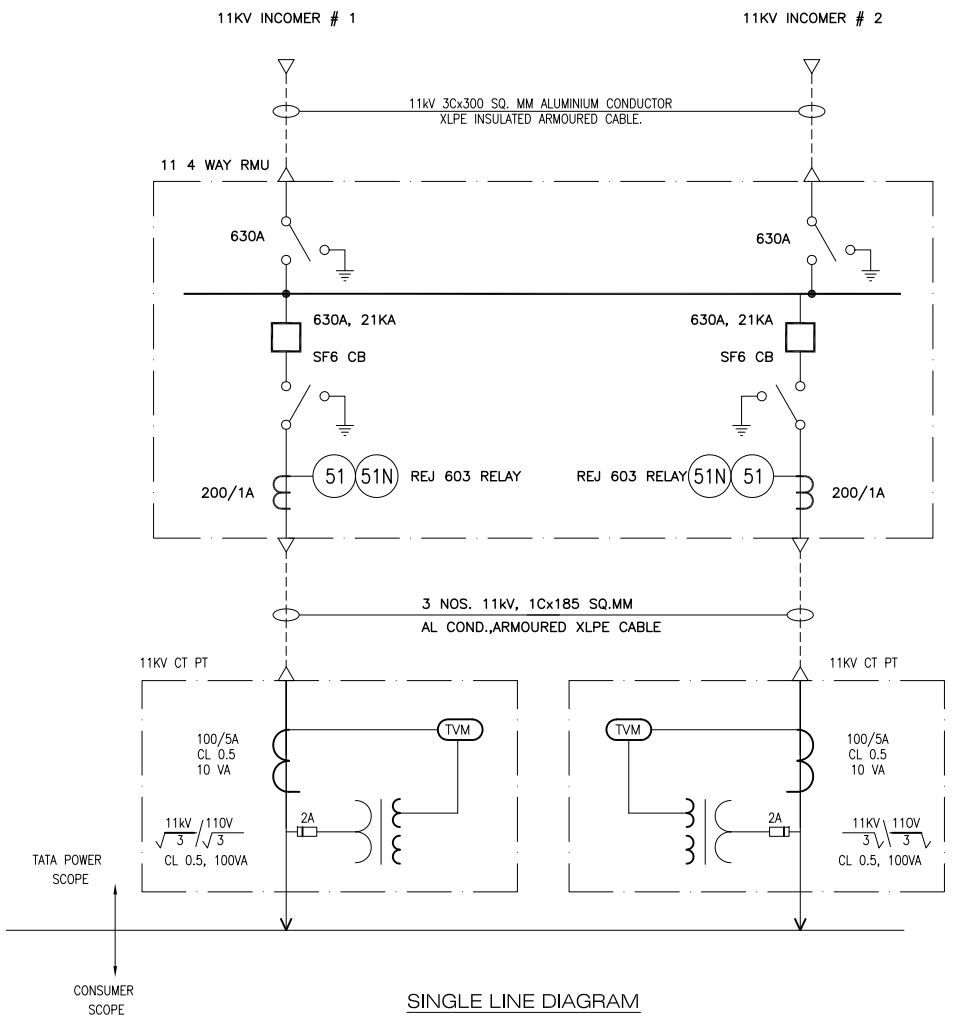
BILL OF MATERIAL

SR NO.	DESCRIPTION	QUANTITY
1	11KV RING MAIN UNIT (4 WAY)	1 NOS.
2	11KV CT PT UNIT	2 NOS.
3	11KV 3C 300 SQMM. ALUMINIUM CONDUCTOR XLPE INSULATED ARMURED CABLE.	AS REQUIRED
4	11KV 1C 185 SQMM. ALUMINIUM CONDUCTOR XLPE INSULATED ARMURED CABLE.	AS REQUIRED
5	EARTHING CONDUCTOR 50X10 MM GL FLAT	LOT
6	EARTHING ELECTRODE (UNTREATED TYPE)	03 Nos.

PIT SCHEDULE

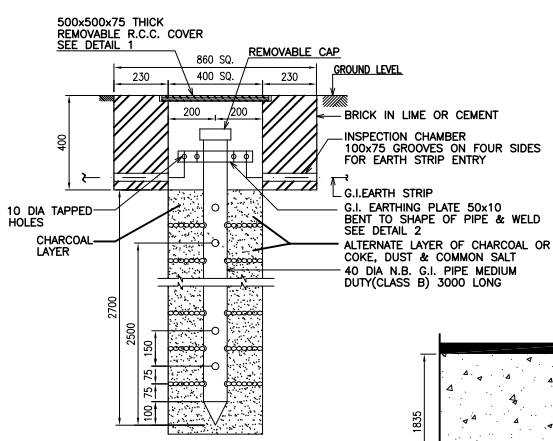
PIT NO.	PURPOSE
EP1	11 kV CT/PT UNIT
EP2	11 kV CT/PT UNIT
EP3	11kV 3 WAY RMU

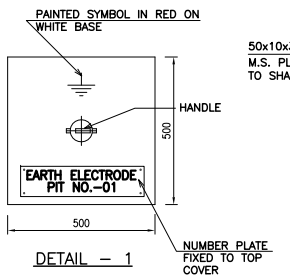
(SCALE - NTS)



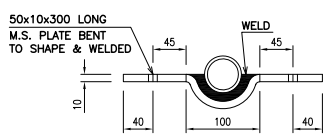
SINGLE LINE DIAGRAM

(SCALE - NTS)

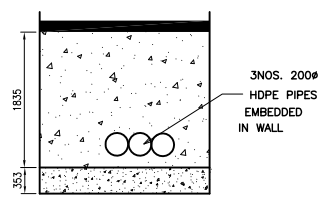




DETAIL - 1



DETAIL - 2



DETAIL - 1

EARTHING ELECTRODE (TREATED & UNTREATED TYPE)

FOR EARTHING ELECTRODE (UNTREATED TYPE) FOLLOWING SHALL NOT BE PROVIDED

1) REMOVABLE RCC COVER
2) INSPECTION CHAMBER
3) ALTERNATE LAYER OF CHARCOAL OR COKE DUST & COMMON SALT
4) MINIMUM DISTANCE BETWEEN TWO EARTH PIT SHOULD BE MAINTAINED 2.5 MTR.

(SCALE - NTS)

ELECTRICAL INSPECTOR APPROVAL -:

DATE	NO	REVISION	REVD.	CHKD.	APPD.

TATA POWER COMPANY LIMITED
MUMBAI

APPROVED	
DATE	

CLIENT	TATA POWER COMPANY LIMITED.
PROJECT	POWER SUPPLY TO ISKCON SHASTRI NAGAR ANDHERI (WEST).
LOCATION	Mumbai
TITLE :-	STANDARD SUBSTATION LAYOUT FOR 11 kV HT CSS WITH 2 NOS OF CTPT UNITS **(EQUIPMENT GA, EARTHING & CABLING LAYOUT)**

DESIGN	SM	27.05.12
DRAWN	RCUBE	30.05.12
CHECKED	NCP/SNJ	01.06.12
APPROVED	SV	01.06.12
	BY	DATE

DRAWING NUMBER :- D-CED-2291

JOB NUMBER	SCALE: AS NOTED	REV.
D-CED-2291	SHEET: 1 OF 1	01

PAPER SIZE-A1-841X594

CAD FILE NAME:-11KV HT S.S WITH 2 NOS OF CTPT UNIT