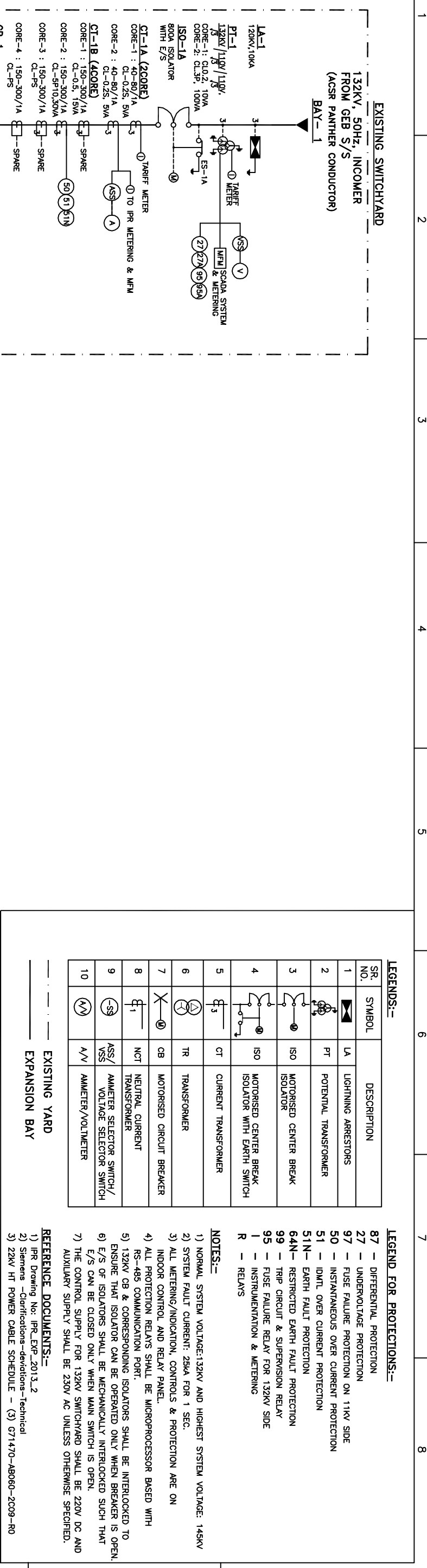


- B1 - SST Building
- B2 - Utility Building
- B3 - Aditya Building
- B4 - Emergency DG Bldg
- B5 - Cryo Compressor Bldg
- B6 - ITER-IN Lab Bldg

The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.



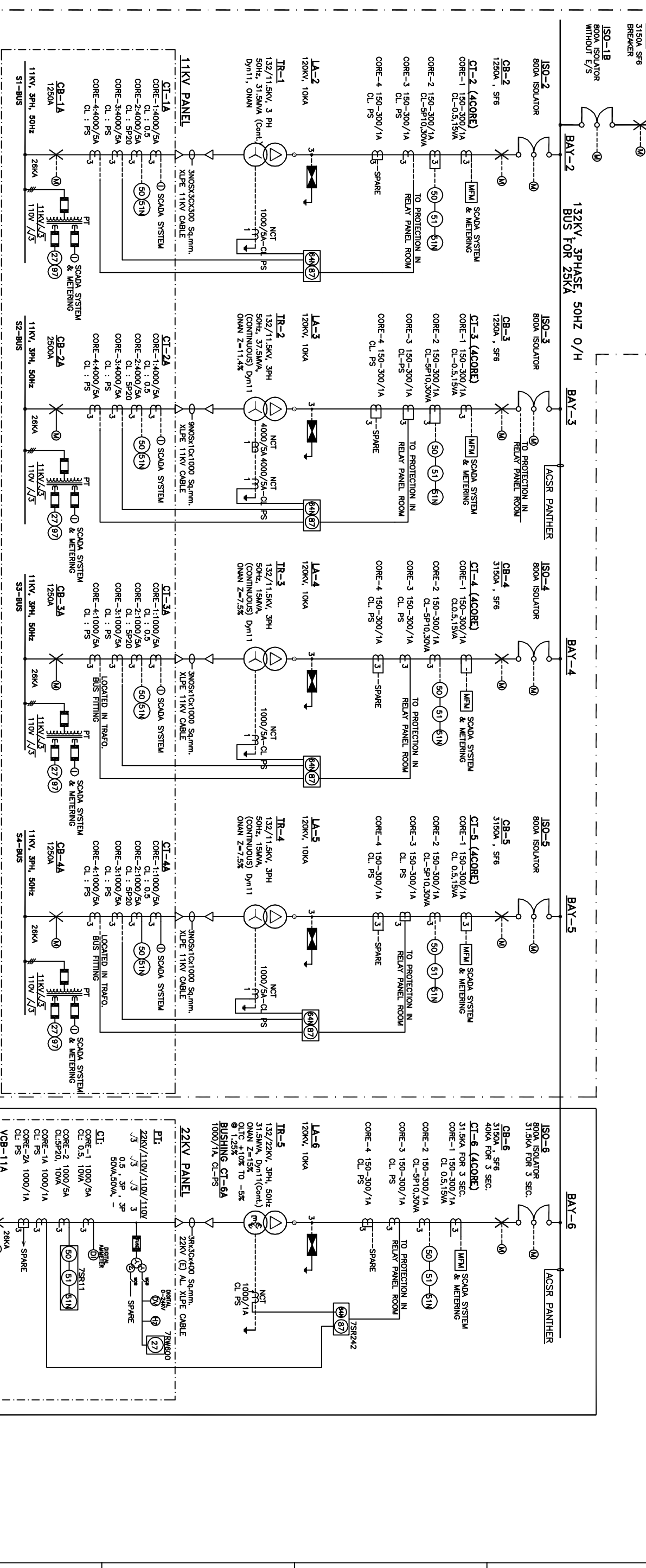
LEGENDS:-

SR. NO.	SYMBOL	DESCRIPTION
1	LA	LIGHTNING ARRESTORS
2	PT	POTENTIAL TRANSFORMER
3	ISO	MOTORISED CENTER BREAK ISOLATOR
4	ISO	MOTORISED CENTER BREAK ISOLATOR WITH EARTH SWITCH
5	CT	CURRENT TRANSFORMER
6	TR	TRANSFORMER
7	CB	MOTORISED CIRCUIT BREAKER
8	NC	NEUTRAL CURRENT TRANSFORMER
9	ASS/VSS	AMMETER SELECTOR SWITCH/VOLTAGE SELECTOR SWITCH
10	A/V	AMMETER/VOLTMETER

- LEGEND FOR PROTECTIONS:-**
- 87 - DIFFERENTIAL PROTECTION
 - 27 - UNDERVOLTAGE PROTECTION
 - 97 - FUSE FAILURE PROTECTION ON 11KV SIDE
 - 50 - INSTANTANEOUS OVER CURRENT PROTECTION
 - 51 - IDMT OVER CURRENT PROTECTION
 - 51N - EARTH FAULT PROTECTION
 - 64N - RESTRICTED EARTH FAULT PROTECTION
 - 99 - TRIP CIRCUIT & SUPERVISION RELAY
 - 95 - FUSE FAILURE RELAY FOR 132KV SIDE
 - R - INSTRUMENTATION & METERING
 - R - RELAYS

- NOTES:-**
- 1) NORMAL SYSTEM VOLTAGE: 132KV AND HIGHEST SYSTEM VOLTAGE: 145KV
 - 2) SYSTEM FAULT CURRENT: 25KA FOR 1 SEC.
 - 3) ALL METERING/INDICATION, CONTROLS & PROTECTION ARE ON INDOOR CONTROL AND RELAY PANEL.
 - 4) ALL PROTECTION RELAYS SHALL BE MICROPROCESSOR BASED WITH RS-485 COMMUNICATION PORT.
 - 5) 132KV CB & CORRESPONDING ISOLATORS SHALL BE INTERLOCKED TO ENSURE THAT ISOLATOR CAN BE OPERATED ONLY WHEN BREAKER IS OPEN.
 - 6) E/S OF ISOLATORS SHALL BE MECHANICALLY INTERLOCKED SUCH THAT E/S CAN BE CLOSED ONLY WHEN MAIN SWITCH IS OPEN.
 - 7) THE CONTROL SUPPLY FOR 132KV SWITCHYARD SHALL BE 220V DC AND AUXILIARY SUPPLY SHALL BE 230V AC UNLESS OTHERWISE SPECIFIED.

- REFERENCE DOCUMENTS:-**
- 1) IPR Drawing No: IPR_EXP_2013_2
 - 2) Siemens - Clarifications - deviations - Technical
 - 3) 22KV HT POWER CABLE SCHEDULE - (3) 6714/70-AB060-2C09-R0



Issue	Remarks	Date	Name	Norm
R1	AS PER CLIENT COMMENTS/REVIEW DT.15.04.14	15.04.14	KTH	KSG
R2	AS PER CLIENT COMMENTS/REVIEW DT.21.04.14	23.05.14	KTH	KTH

Client:	ITER-INDIA, INSTITUTE FOR PLASMA RESEARCH
Consultant:	GANDHINAGAR, GUJARAT
Project:	132 KV SUBSTATION EXPANSION - 2014
Work:	NEW 132KV/22KV BAY EXPANSION
Details:	SINGLE LINE DIAGRAM

Sales Ref.:	3003777357
Item No.:	NA
W/C.:	NA
Dwg No.:	(2) 6714/70-AB060-2C09-R0
Qty.:	NA
Sh.:	1
Sh.:	1