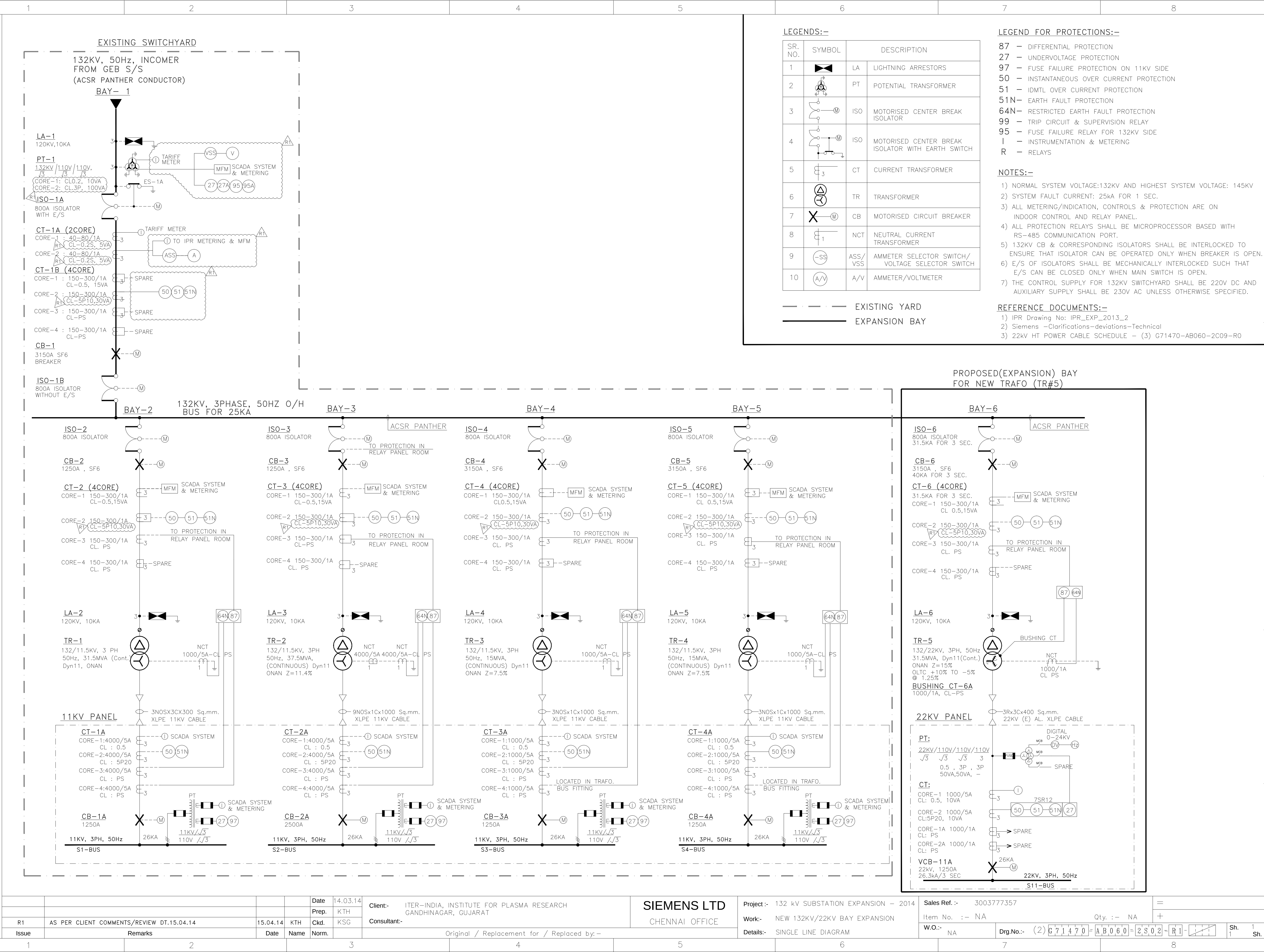
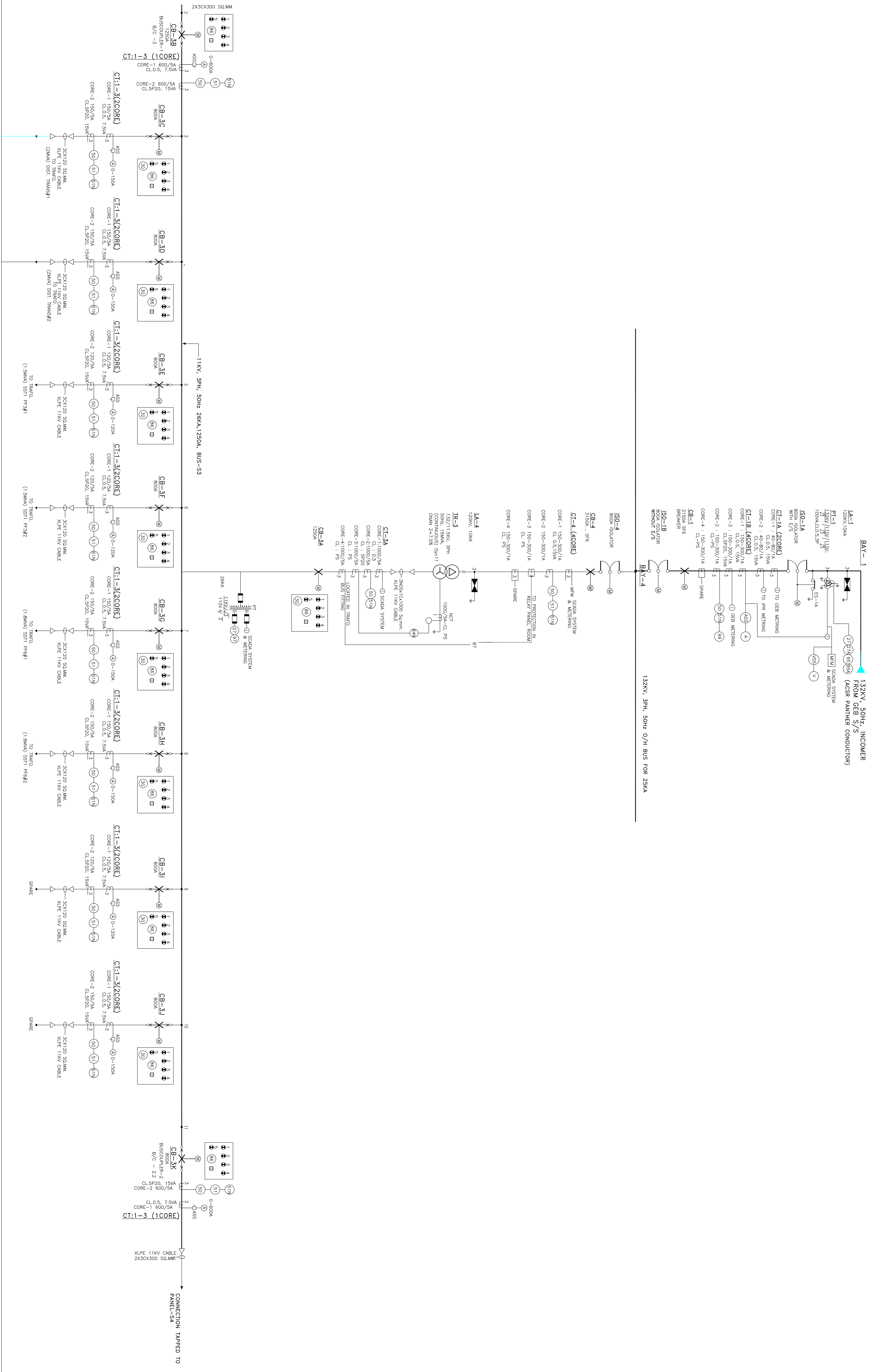


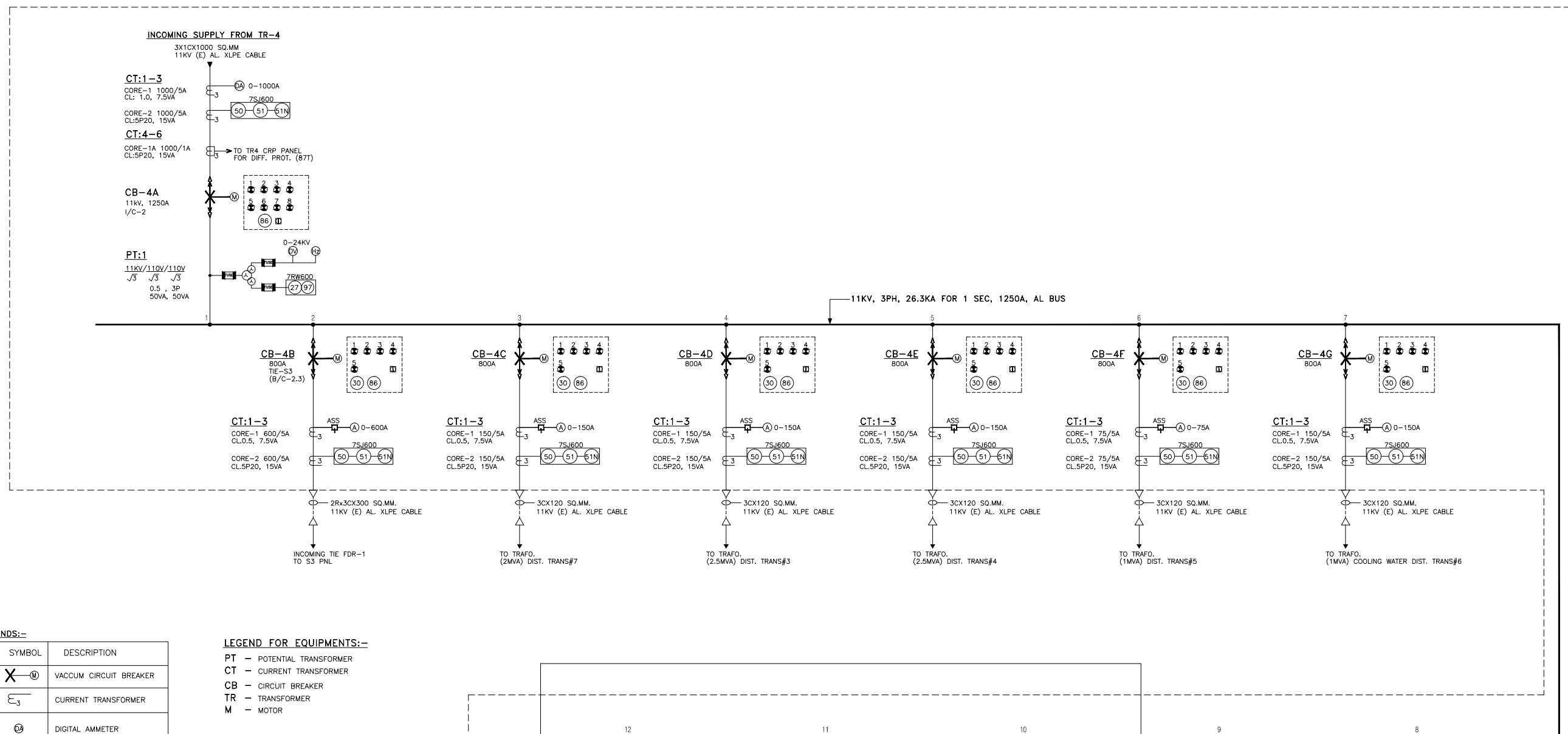
A
B
C
D
E
F

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11KV MAIN SWITCHBOARD S4-BUS



LEGENDS:-		
SR. NO.	SYMBOL	DESCRIPTION
1		VACCUM CIRCUIT BREAKER
2		CURRENT TRANSFORMER
3		DIGITAL AMMETER
4		ANALOG AMMETER
5		AMMETER SELECTOR SWITCH
6		DIGITAL VOLTMETER
7		POTENTIAL TRANSFORMER
8		FUSES
9		INDICATING LAMPS
10		TRIP-NEUTRAL-CLOSE
11		PROTECTION RELAY

LEGEND FOR EQUIPMENTS:-

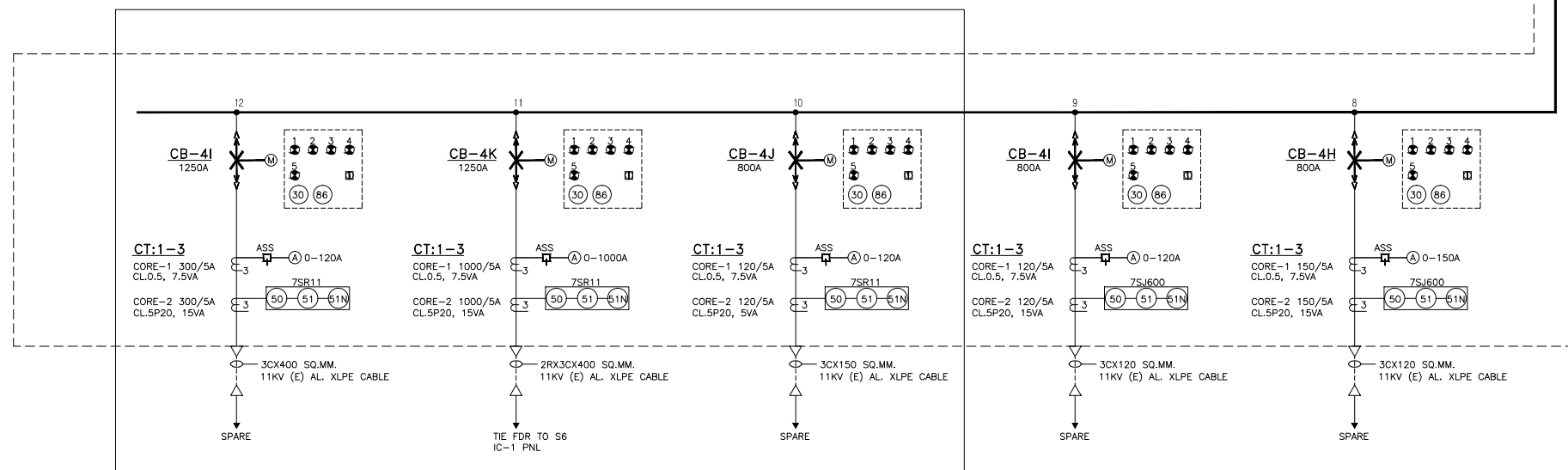
PT – POTENTIAL TRANSFORMER
CT – CURRENT TRANSFORMER
CB – CIRCUIT BREAKER
TR – TRANSFORMER
M – MOTOR

LEGEND FOR PROTECTIONS:-

50 – INSTANTANEOUS OVER CURRENT PROTECTION
51 – IDMTL OVER CURRENT PROTECTION
51N – EARTH FAULT PROTECTION
30 – AUXILIARY RELAY
27 – UNDERVOLTAGE PROTECTION
97 – FUSE FAILURE PROTECTION

LEGEND FOR INDICATING LAMPS:-

1☛ – BREAKER ON (RED)
2☛ – BREAKER OFF (GREEN)
3☛ – TRIP (AMBER)
4☛ – TRIP CKT. HEALTHY (WHITE)
5☛ – PHASE ON (RED)
6☛ – PHASE ON (YELLOW)
7☛ – PHASE ON (BLUE)
8☛ – DC SUPPLY ON (RED)



PROPOSED PANELS – 3No'S

				Date	05.06.14	Client :- ITER-INDIA, INSTITUTE FOR PLASMA RESEARCH, GANDHINAGAR, GUJARAT	SIEMENS LTD	Project : 132 kV SUBSTATION EXPANSION'14	Sales Ref. : =						
				Prep	KTH				Consultant:- CHENNAI OFFICE	Work : 22kV & 11kV SWITCHBOARDS	Item No. : NA		Qty. : NA		+
				Ckd.							Details : 11KV BOARD - S4 SLD	W.O.		Drg.No.:- (3) G 7 1 4 7 0 - A B 0 6 0 - 2 S 3 2 - R 0	
Issue	Remarks	Date	Name	Norm.		Original/Replacement for/Replaced by :-							+ Sh.		

F

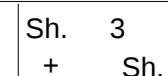
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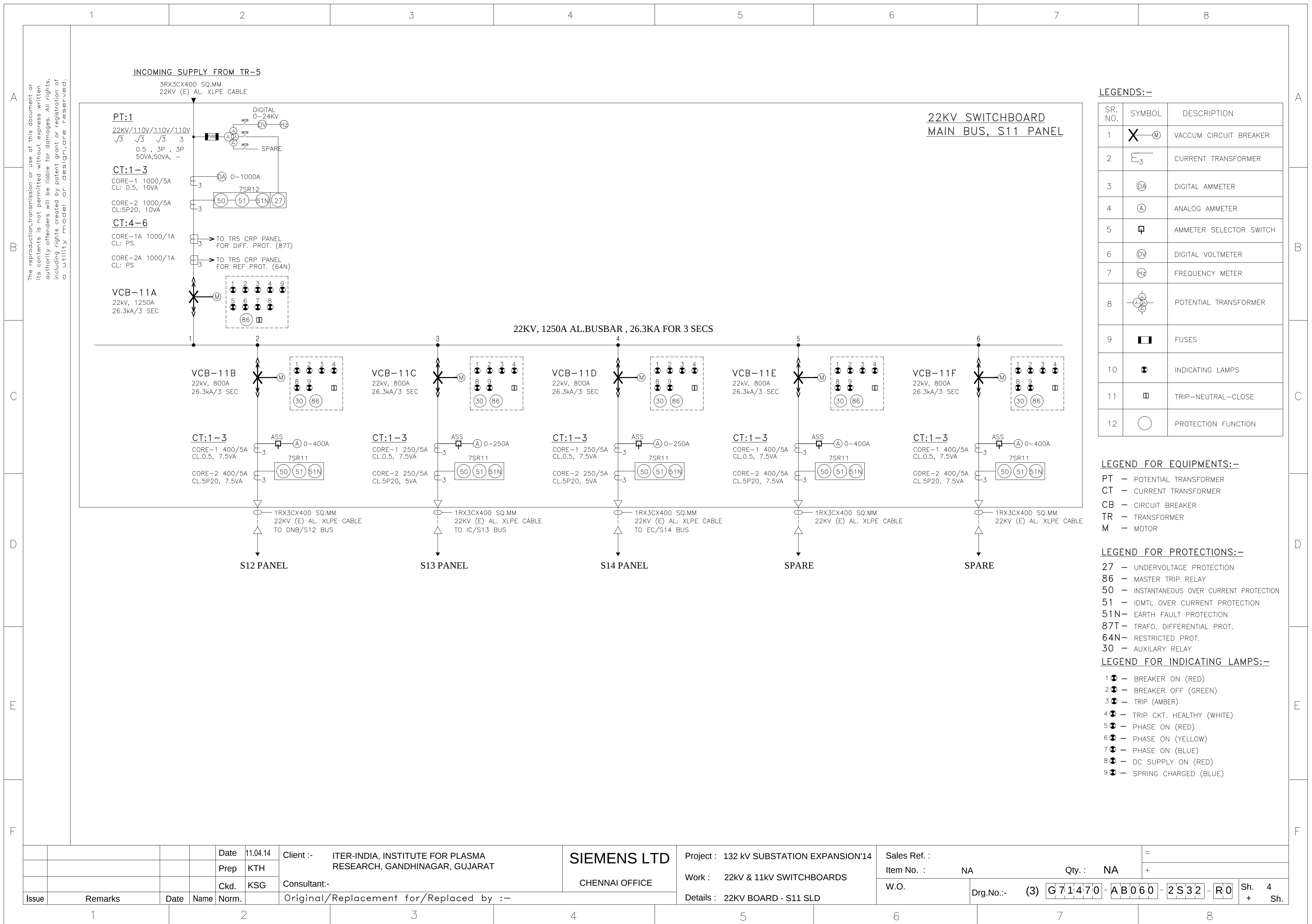


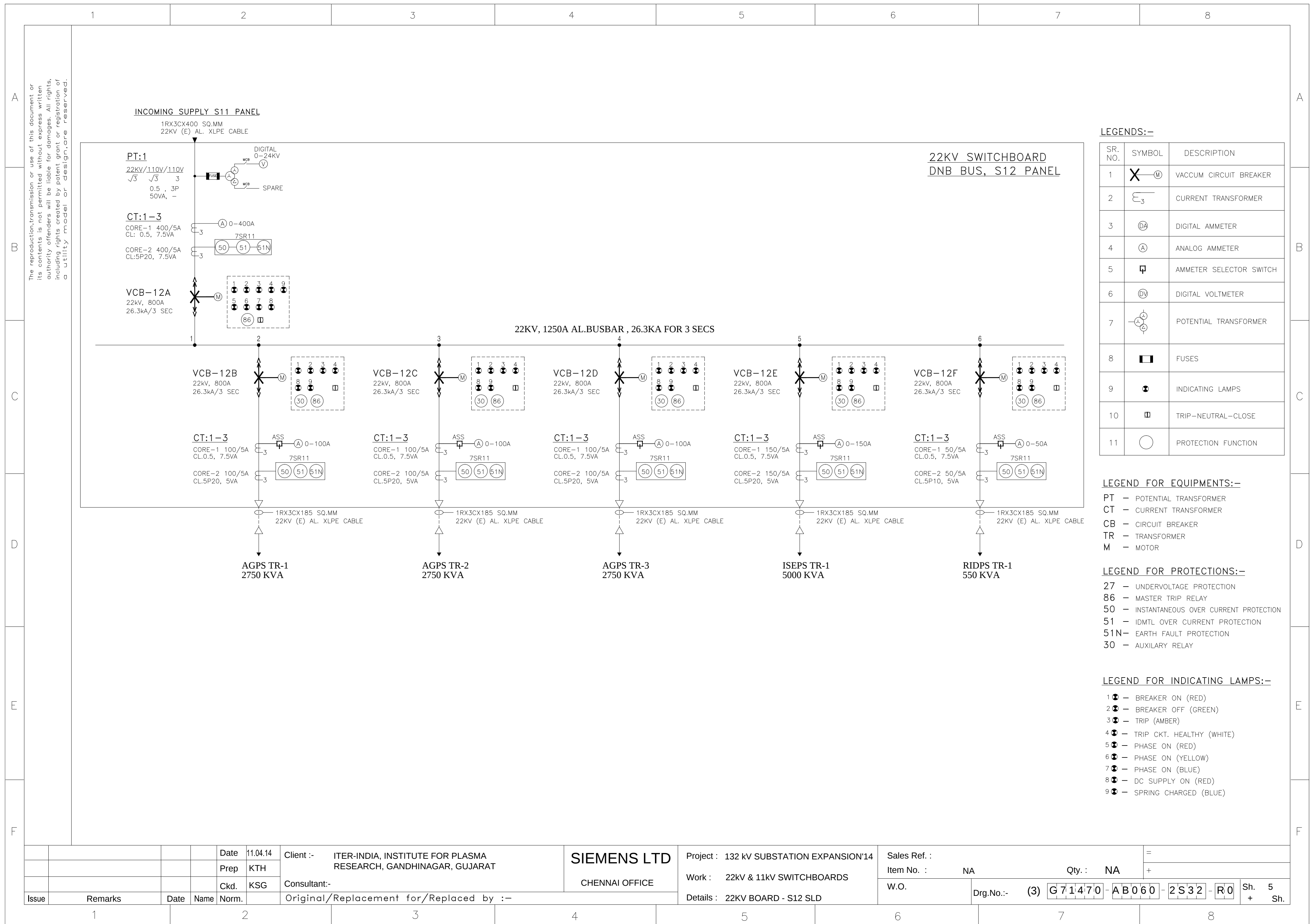
LEGEND FOR EQUIPMENTS:-

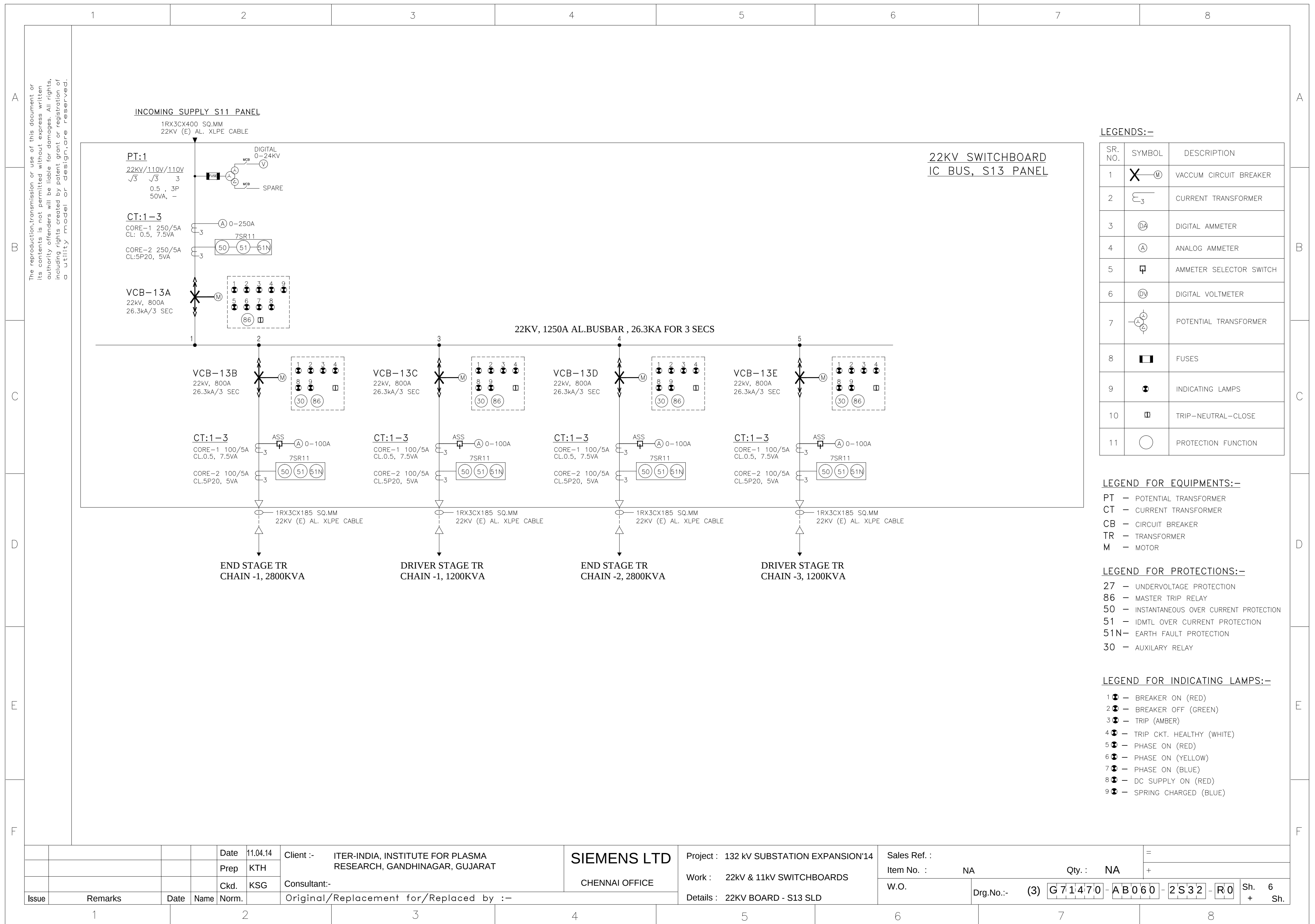
LEGEND FOR PROTECTIONS:-

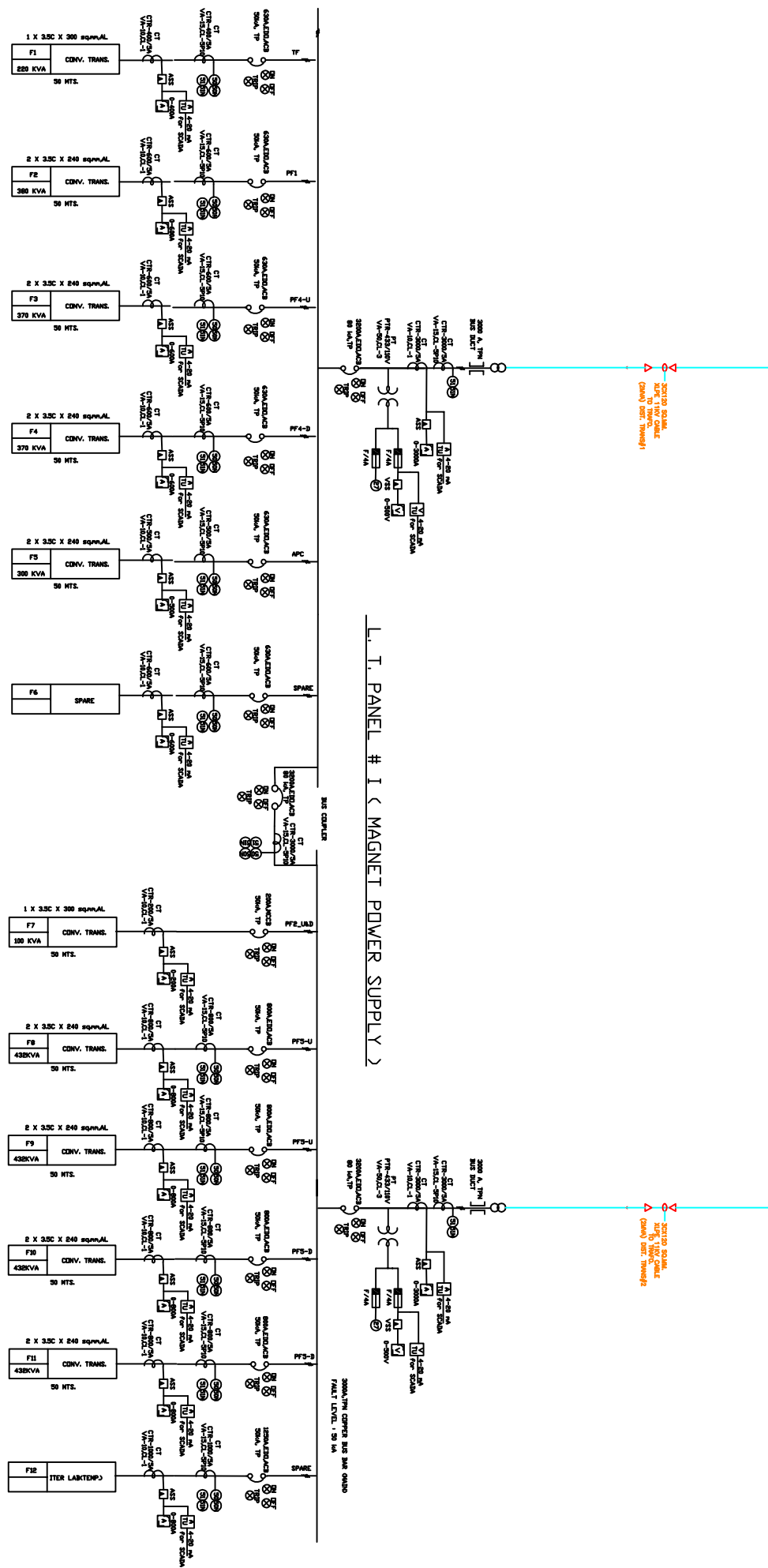
LEGEND FOR INDICATING LAMPS:-

3





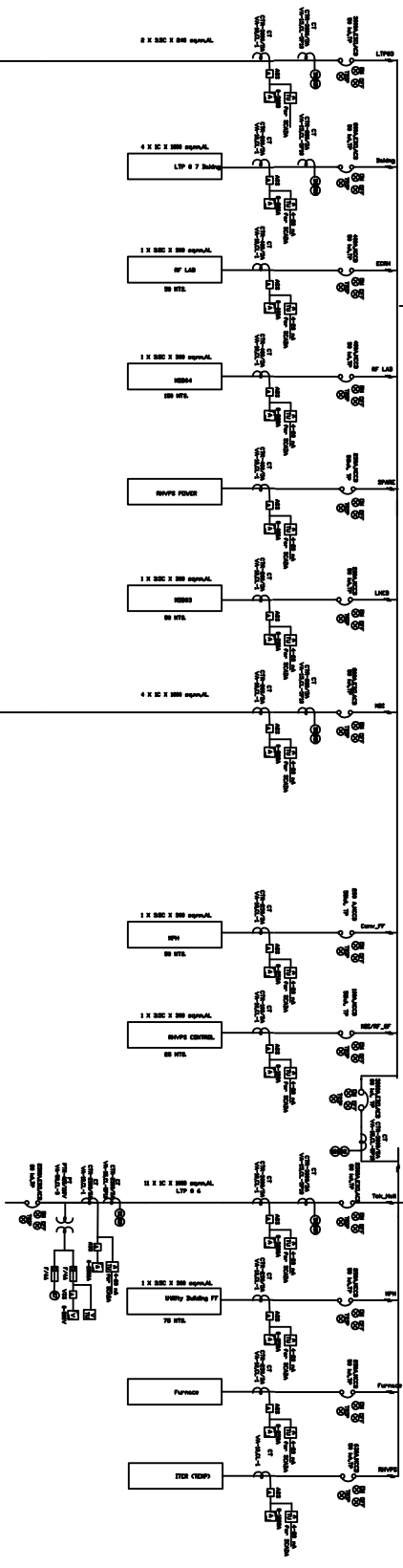




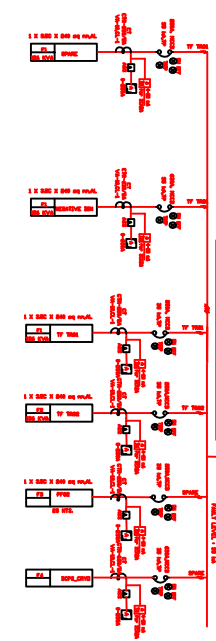
30KV/20 SQ.MM.
ALUM. 11KV CABLE
TO TRAF.
(2 MMVA) DIST. TRANSF3

30KV/20 SQ.MM.
ALUM. 11KV CABLE
TO TRAF.
(2 MMVA) DIST. TRANSF4

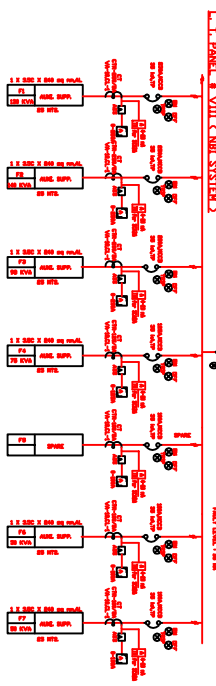
L-1, PANEL, & II (C. MAINS) POWER SUPPLY



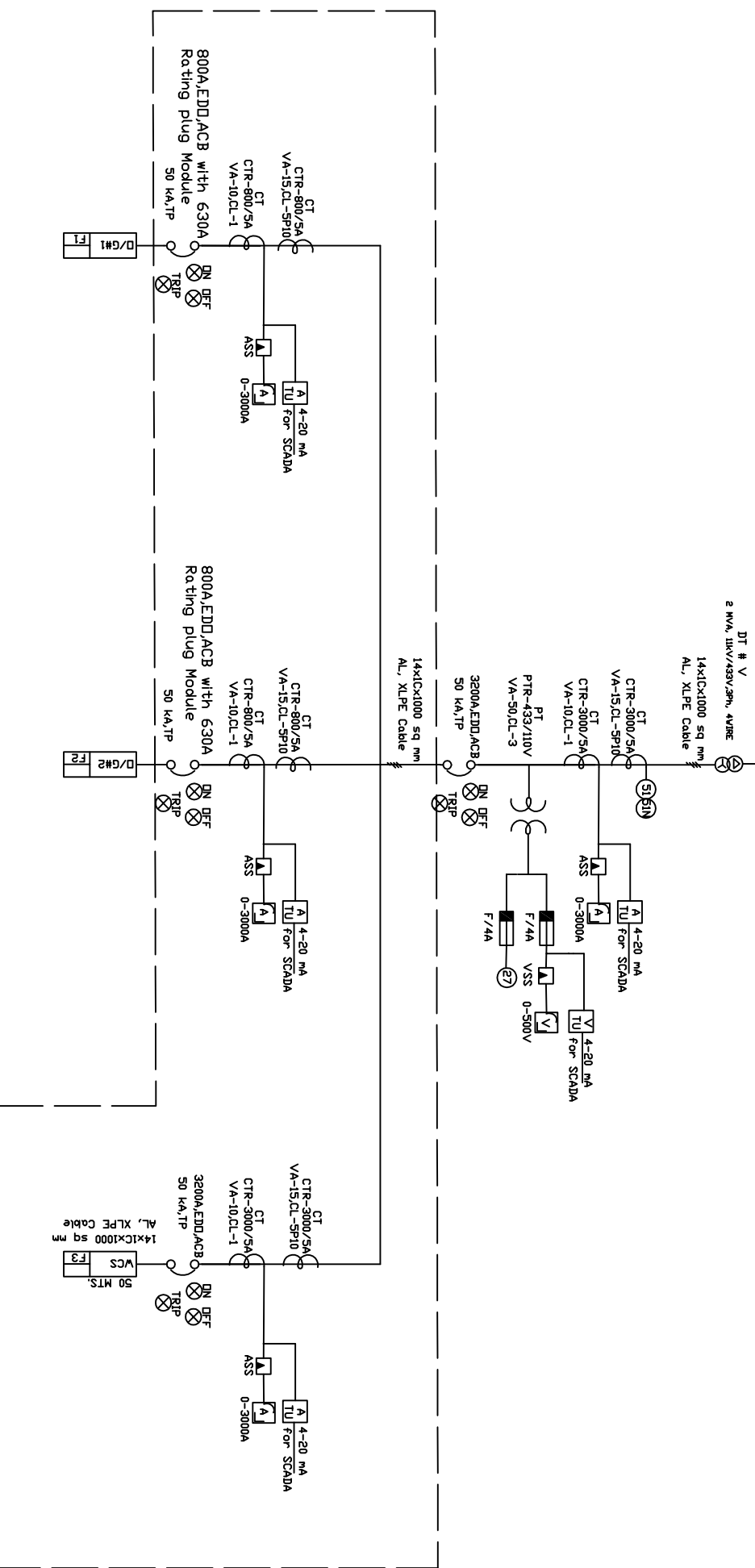
L-1, PANEL, & II (C. POWER SUPPLY)



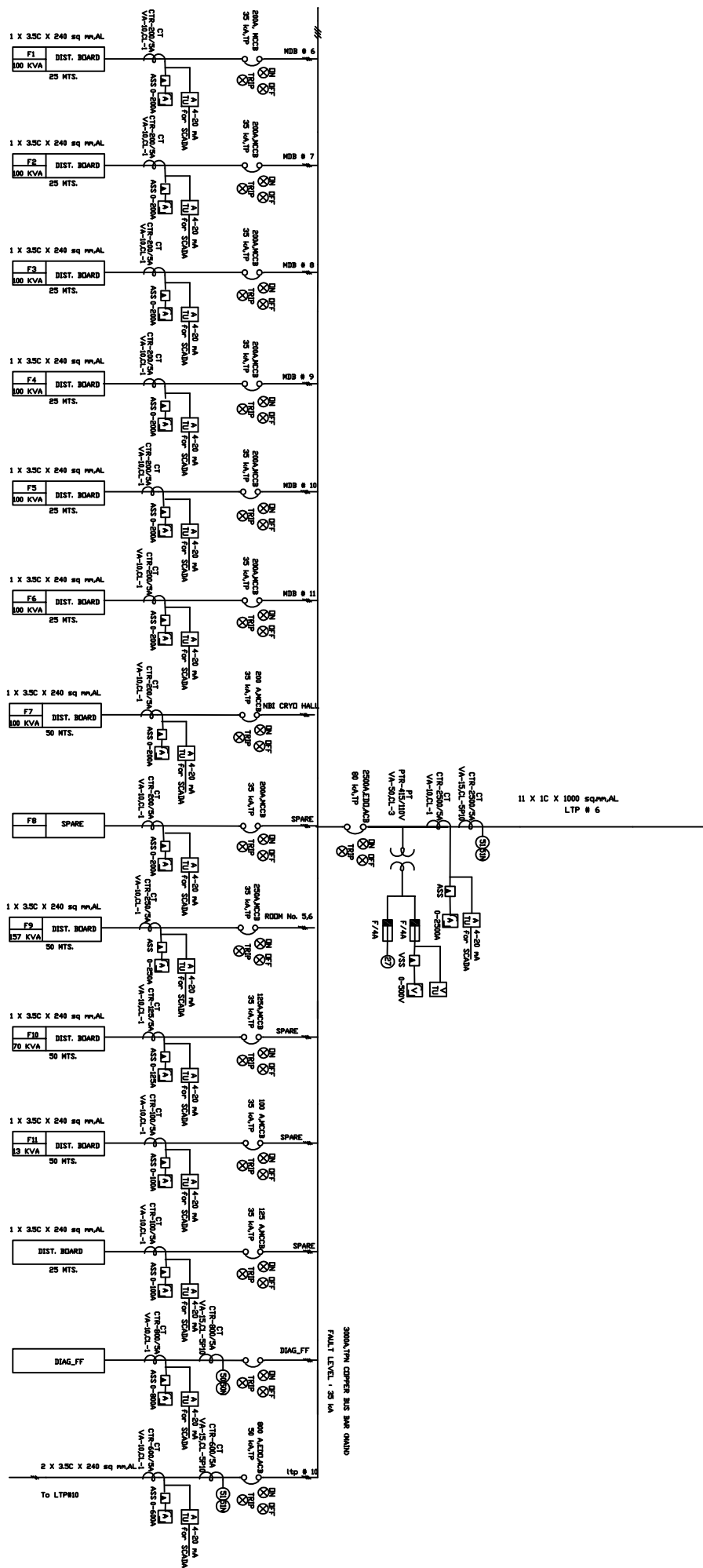
L-1, PANEL, & II (C. ENCL. SYSTEM)



From S4 Bus



SLD_New Scheme after integration





BUS-DUCT

BUS-DUCT

LTP#21

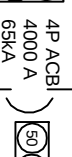
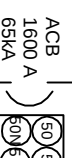
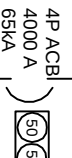
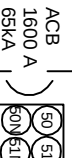
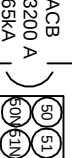
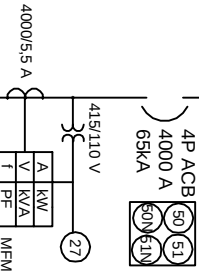
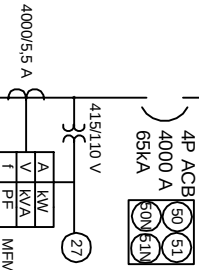
LTP#21

MAIN LT PANEL

7900 KW

LTP#1 / BUS#1

LTP#1 / BUS#2



Bus-coupler #1

Bus-coupler #2

From Bus-coupler #1



HVAC
BUS-DUCT
2000 KW

WCS PLANT I/C#1
AUX BLDG
1400 KW

LTP#27
AUX BLDG POWER
195 KW

LTP#4 (Existing)
WCS
2000KVA

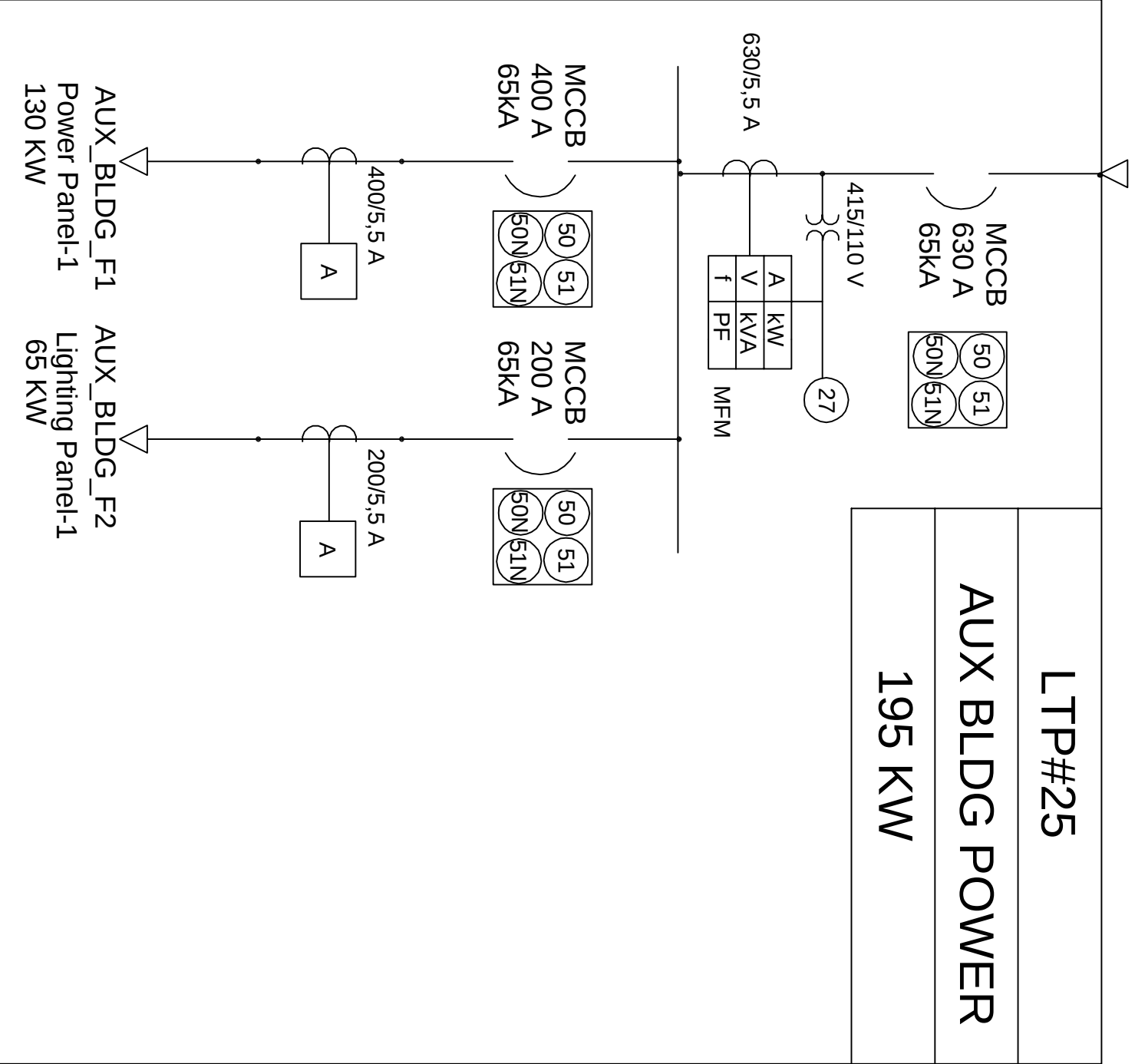
WCS PLANT I/C#2
AUX BLDG
1400 KW

LTP#26
LAB BLDG
906 KW

LTP#25

AUX BLDG POWER

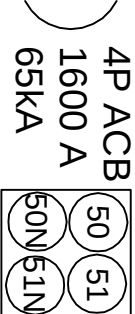
195 KW



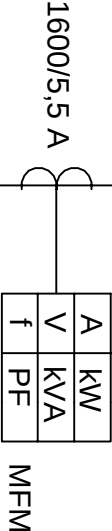
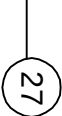
LTP#26

LAB BLDG POWER

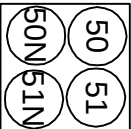
906 KW



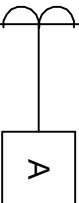
415/110 V



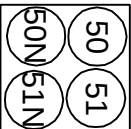
ACB
800 A
65KA



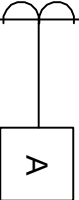
800/5,5 A



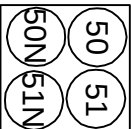
ACB
800 A
65KA



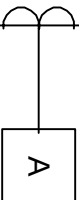
800/5,5 A



ACB
800 A
65KA



800/5,5 A



LAB_BLDG_F1



LAB_BLDG_F2



AHU Power Panel-1
292 KW

Power Panel-2
352 KW

LAB_BLDG_F3



AHU Power Panel-2
262 KW

3 Runs, 630sqmm x 3.5C

DG#1
1700kVA
415V, PF=0.8

3 Runs, 630sqmm x 3.5C

LTP#28

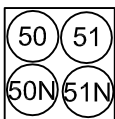
Main Emergency Panel

1500 KW

From LTP#11

From DG#1

4P ACB
3200 A
65kA



415/110 V

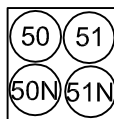


3200/5,5 A

A	kW
V	kVA
f	PF

MFM

4P ACB
3200 A
65kA



415/110 V

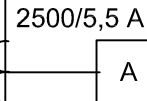
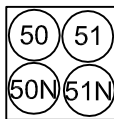


3200/5,5 A

A	kW
V	kVA
f	PF

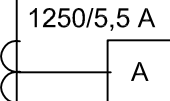
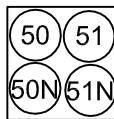
MFM

ACB
2500 A
65kA



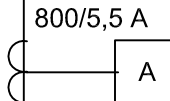
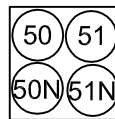
TO LTP#5 I/C#2

ACB
1250 A
65kA



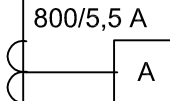
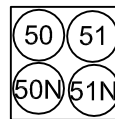
Computer Centre

ACB
800 A
65kA



TO LTP#30

ACB
800 A
65kA

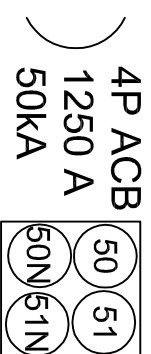


TO LTP#29

LTP#30

Bldg Emergency Panel

490 KW



415/110 V



1250/5,5 A

A	kW
V	kVA
f	PF

MFM

MCCB
400 A

ITER-IN Bldg Emer

MCCB
250 A

ITER-IN EXP Emer

MCCB
630 A

SST Bldg Emer

MCCB
400 A

LTP#9

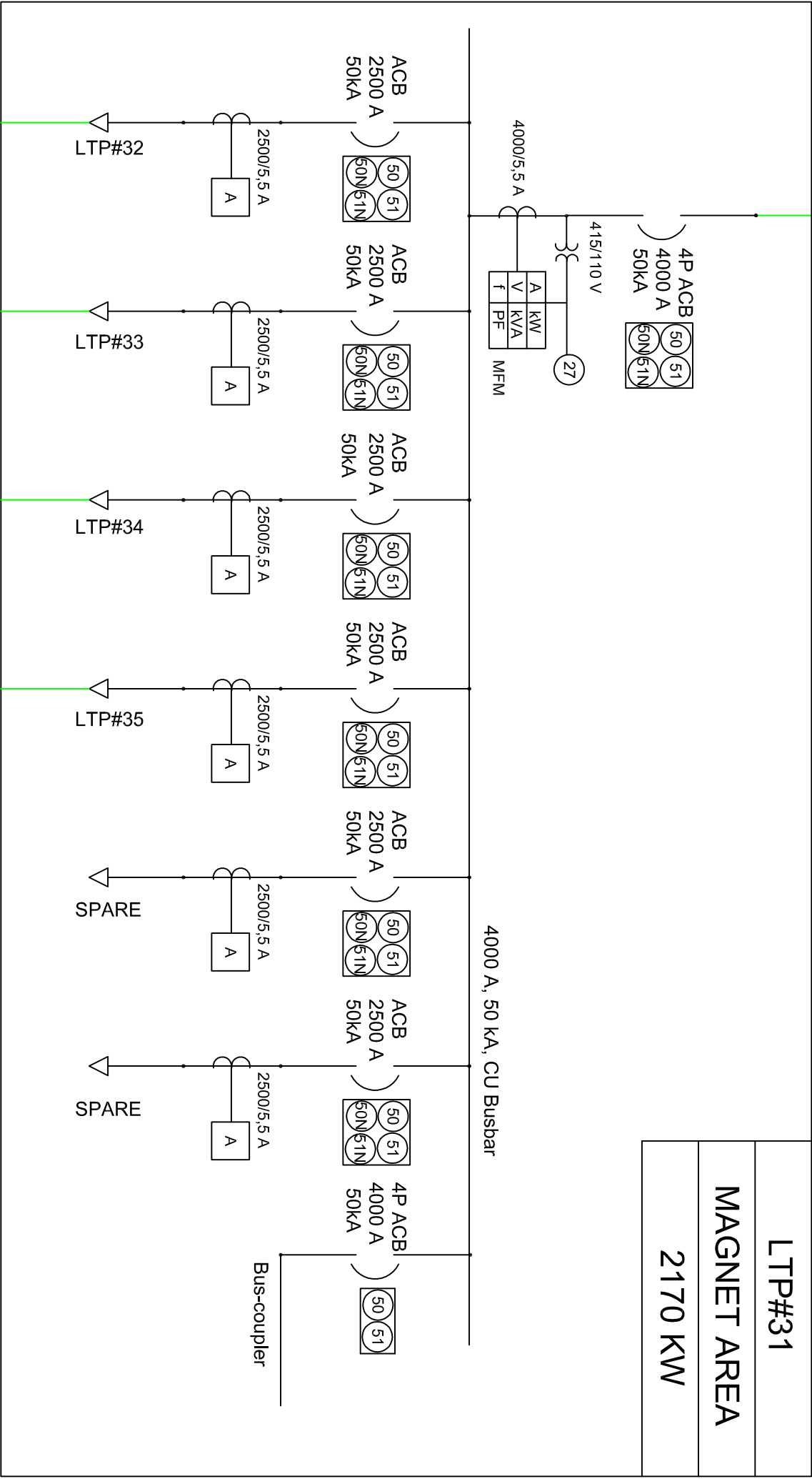
MCCB
250 A

DC PS

MCCB
250 A

Spare

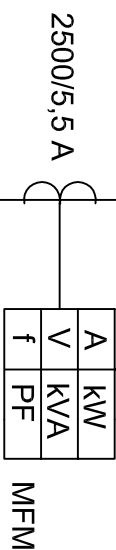
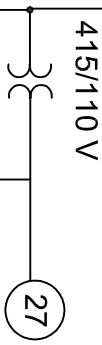
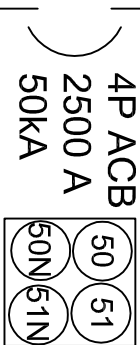
LTP#31
MAGNET AREA
2170 KW



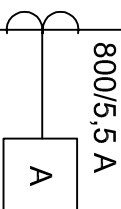
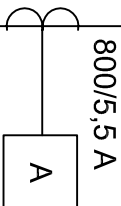
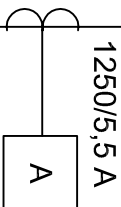
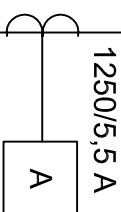
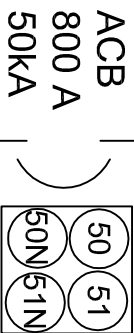
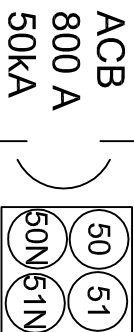
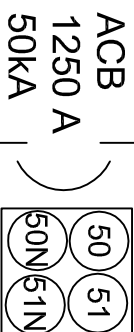
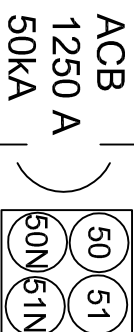
LTP#33

DIVERTOR

1450 KW



2500 A, 50 kA, CU Busbar



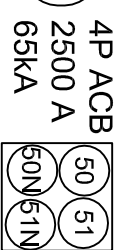
DIVERTOR_F1
High Heat Flux System
300 kW

DIVERTOR_F2
HPHT Water/He Loop
700 kW

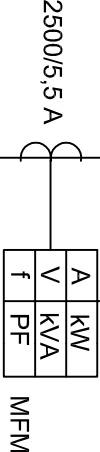
DIVERTOR_F3
PDB#4
390 kW

SPARE

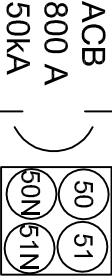
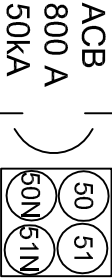
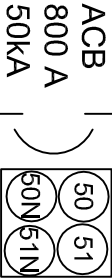
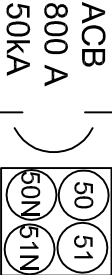
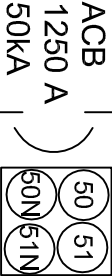
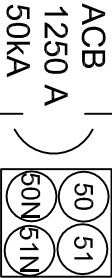
4 R x 300 Sqmm x 3.5C, AL CABLES



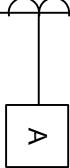
415/110 V



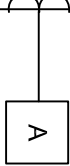
2500 A, 50 kA, CU Busbar



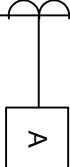
800/5,5 A



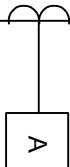
800/5,5 A



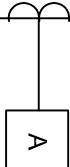
800/5,5 A



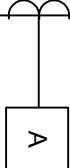
800/5,5 A



800/5,5 A



800/5,5 A



CRYO 527



LS Cryo 725



MBPSI+others



Others



Spare



Spare



LTP#34

CRYO+LS Cryo+
OTHERS

1250kW

LTP#35

SECOND FLOOR

850 KW

