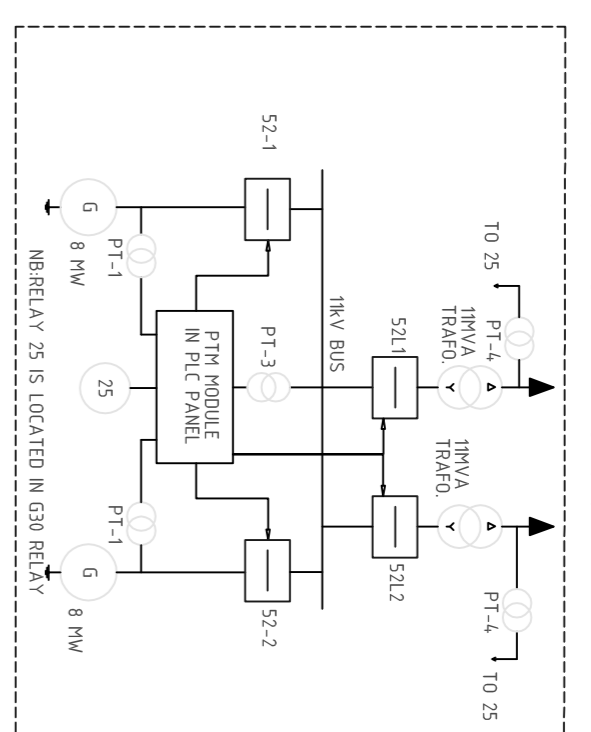


LEGEND	
MEM	DIGITAL MULTIFUNCTION METER
SAT	STATION AUXILIARY TRANSFORMER
CT	CURRENT TRANSFORMER
DF	DOUBLE FREQUENCY METER
DV	DIESEL GENERATOR SET
DV	DOUBLE VOLT METER
FM	FREQUENCY METER
G	GENERATOR
LA	LIGHTNING ARRESTOR & VOLTAGE TRANSFORMER
NBR	NEUTRAL GROUNDING RESISTOR
PB	PUSH BUTTON
PT	POTENTIAL TRANSFORMER
R	LOADING RESISTOR
SYN	SYNCHROSCOPE
V	VOLTMETER
VCB	VACUUM CIRCUIT BREAKER
30	ANNUNCIATOR
25	CHECK SYNCHRONIZING RELAY
NT	NEUTRAL CURRENT TRANSFORMER
49 (TS)	TEMPERATURE SENSITIVE
50	TEMPERATURE RELAY
51	EXCITATION SYSTEM
89L	LINE ISOLATOR
ACB	AIR CIRCUIT BREAKER
52	CIRCUIT BREAKER
LA	LIGHTNING ARRESTOR
AVR	AUTOMATIC VOLTAGE REGULATOR
27N	NEUTRAL DISPLACEMENT RELAY



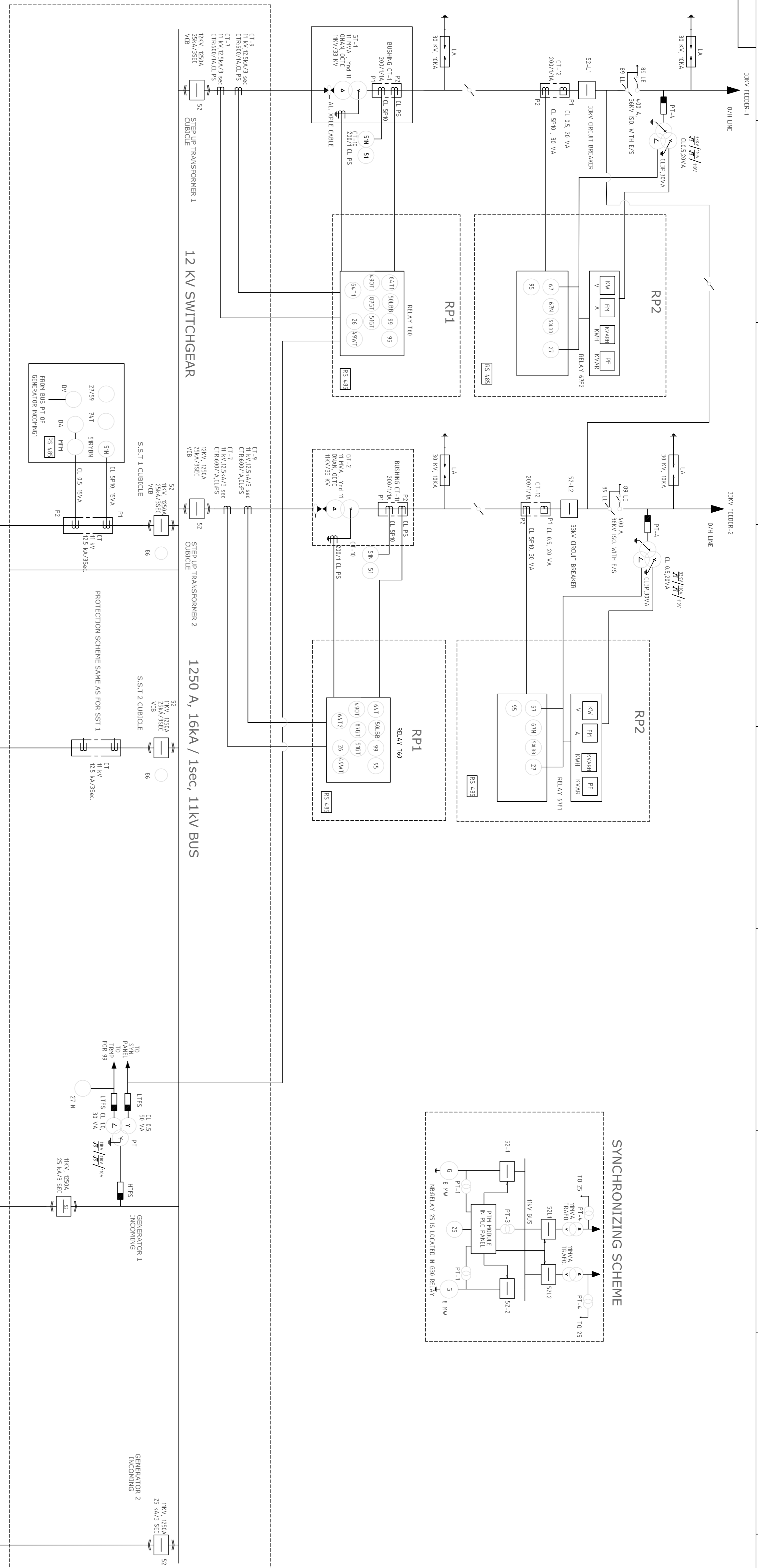
GENERATOR PROTECTION	
DGRNP	DG RELAYING & METERING PANEL
GRNP	GENERATOR RELAY AND METERING PANEL
51	NEUTRAL PHASE FREQUENCY RELAY
52	NEUTRAL OVER CURRENT PROTECTION
32	REVERSE POWER RELAY
87G	GENERATOR DIFFERENTIAL PROTECTION
64S	STATOR EARTH FAULT PROTECTION
40	LOSS OF EXCITATION
27	UNDER VOLTAGE PROTECTION
60	GENERATOR PT FUSE FAILURE RELAY
59	OVER VOLTAGE PROTECTION
51/27	VOLTAGE CONTROLLED O/C
64R	ROTOR EARTH FAULT PROTECTION
81	UNDER/OVER FREQUENCY RELAY

UNIT STEP UP T/F PROTECTION	
TMRP	TRANSFORMER RELAY AND METERING PANEL
64TT 2	RESTRICTED EARTH FAULT RELAY FOR TRANSFORMER OVERFLUXING RELAY
95	TRIP COIL SUPERVISION RELAY
87GT	TRANSFORMER DIFFERENTIAL RELAY
51GT	INTERLOCKED OVERCURRENT PROTECTION
50LB	LOCAL BREAKER BACKUP PROTECTION
26	AUX. RELAY FOR BUTTHOLD Z RELAY PROTECTION
49WT	AUX. RELAY FOR OTI & WTI

33KV LINE PROTECTION	
LRMP	LINE RELAY AND METERING PANEL
67	DIRECTIONAL OVERCURRENT PROTECTION
67N	DIRECTIONAL EARTH FAULT PROTECTION
50LB8	LOCAL BREAKER BACKUP PROTECTION
91	UNDER OVER FREQUENCY RELAY
91	UNDER OVER FREQUENCY RELAY
95	TRIP COIL SUPERVISION RELAY

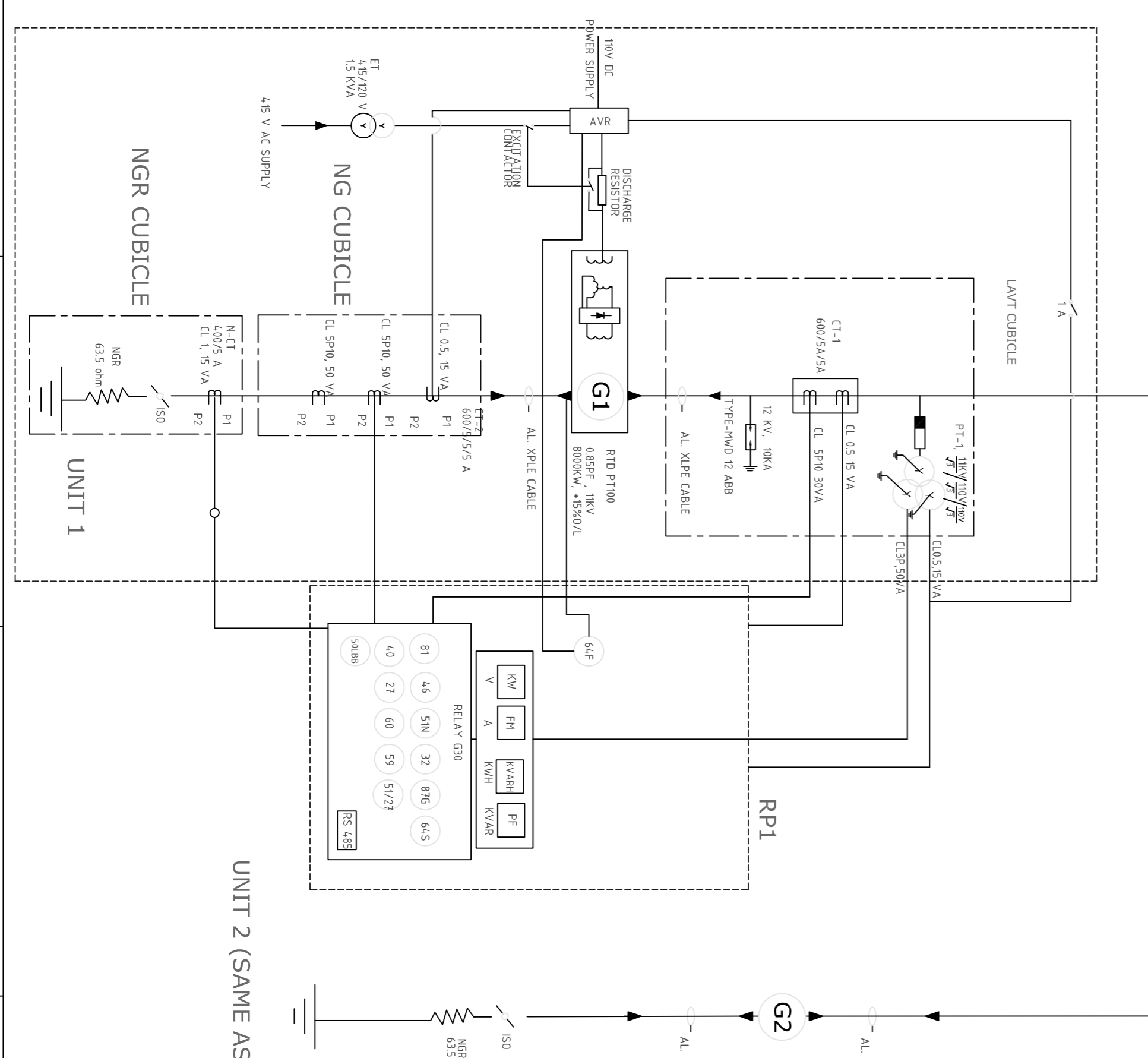
SST PROTECTION	
51/50	INSTANTANEOUS AND INVERSE OVERCURRENT
64ST	RESTRICTED EARTH FAULT PROTECTION
50LB8	LOCAL BREAKER BACKUP PROTECTION
27	UNDER VOLTAGE RELAY
26	AUX. RELAY FOR BUTTHOLD Z RELAY PROTECTION
49WT	AUX. RELAY FOR OTI & WTI

**NOTE:**  
 1. ALL METERING DATA SHALL BE TRANSMITTED TO PLC PANEL ON MODBUS FROM RESPECTIVE NUMERICAL RELAYS/PMH.  
 2. UNIT SYNCHRONISATION SHALL BE DONE BY PTM MODULE LOCATED IN PLC PANEL.



**REFERENCE DRAWINGS**

1	11 KV SWITCH GEAR	DRG. 3-123-06-001-ER-1
	11KV ELECTRICAL LUD	DRG. 3-123-06-001-ER-G1
		DRG. 3-123-06-001-ER-G2
		DRG. 3-123-06-001-ER-SST
2	LTAC CUBICLE	DRG. 3-123-06-001-ER-SUT
3	INVERTER CUBICLE	DRG. 3-123-06-001-ER-SUT
4	RELAYING PANEL	DRG. 81649
5	SCHEMATIC DIAGRAM OF M/BOX FOR GT	DRG. EM09/B3059AR1
6	WIRING DIAGRAM OF M/BOX FOR SST	DRG. 3ERT-WD-10A22/0



**PATIKARI POWER PRIVATE LIMITED**  
 (Contractor / Client)

**PATIKARI HE PROJECT**

**SINGLE LINE DIAGRAM**

Designed : ANIRAG PATEL      Approved: S.S. JAINNA  
 Checked : MUP CHAKRAVORTY      Dated : 21.JUNE.12

**ERUDITE ENGINEERS PRIVATE LIMITED**

Drq.No. EEPL-PTK-07      REV.15