

LEGEND

MM	DIGITAL MULTIFUNCTION METER
SAIT	STATION AUXILIARY TRANSFORMER
CT	CURRENT TRANSFORMER
DF	DOUBLE FREQUENCY METER
DG	DIESEL GENERATOR SET
DV	DOUBLE VOLT METER
F	FUSE
FM	FREQUENCY METER
G	GENERATOR
LAVT	LIGHTNING ARRESTOR & VOLTAGE TRANSFORMER
NGT	NEUTRAL GROUNDING TRANSFORMER
P	POST BOX
PT	POTENTIAL TRANSFORMER
R	RELAY
SYN	SYNCHROSCOPE
V	VOLTMETER
VCB	VACUUM CIRCUIT BREAKER
30	ANNUNCIATOR
35	CHECK SYNCHRONIZING RELAY
NCT	NEUTRAL CURRENT TRANSFORMER
49 (TS)	TEMPERATURE SCANNER
60	PT FUSE FAILURE RELAY
ET	EXCITATION TRANSFORMER
89L	LINE ISOLATOR
A/B	AIR CIRCUIT BREAKER
52	CIRCUIT BREAKER
AVR	AUTOMATIC VOLTAGE REGULATOR
Z/N	NEUTRAL DISPLACEMENT RELAY

GENERATOR PROTECTION

DGRMP	DG RELAYING & METERING PANEL
GRMP	GENERATOR RELAY AND METERING PANEL
99	OVERTRIPPING RELAY
4/6	NEGATIVE PHASE FREQUENCY RELAY
5/6	VOLTAGE CONTROLLED OVER CURRENT PROTECTION
8/6	REVERSE POWER RELAY PROTECTION
6/5	STATOR EARTH FAULT PROTECTION
4/0	LOSS OF EXCITATION
22	UNDER VOLTAGE PROTECTION
60	GENERATOR PT FUSE FAILURE RELAY
59	OVER VOLTAGE PROTECTION
51/77	ROTOR EARTH FAULT PROTECTION
6/8	UNDER/OVER FREQUENCY RELAY
81	TRIP

UNIT STEP UP T/F PROTECTION

TRIP	TRANSFORMER RELAY AND METERING PANEL
6/11 & 2	RESTRICTED EARTH FAULT RELAY FOR TRANSFORMER
9/5	TRIP COIL SUPERVISION RELAY
81GT	TRANSFORMER DIFFERENTIAL RELAY
51GT	INTERLOCKED OVERCURRENT PROTECTION
50LB	LOCAL BREAKER BACKUP PROTECTION
26	AUX. RELAY FOR BUCHHOLZ RELAY PROTECTION
49WT	AUX. RELAY FOR OIT & WIT

3KV LINE PROTECTION

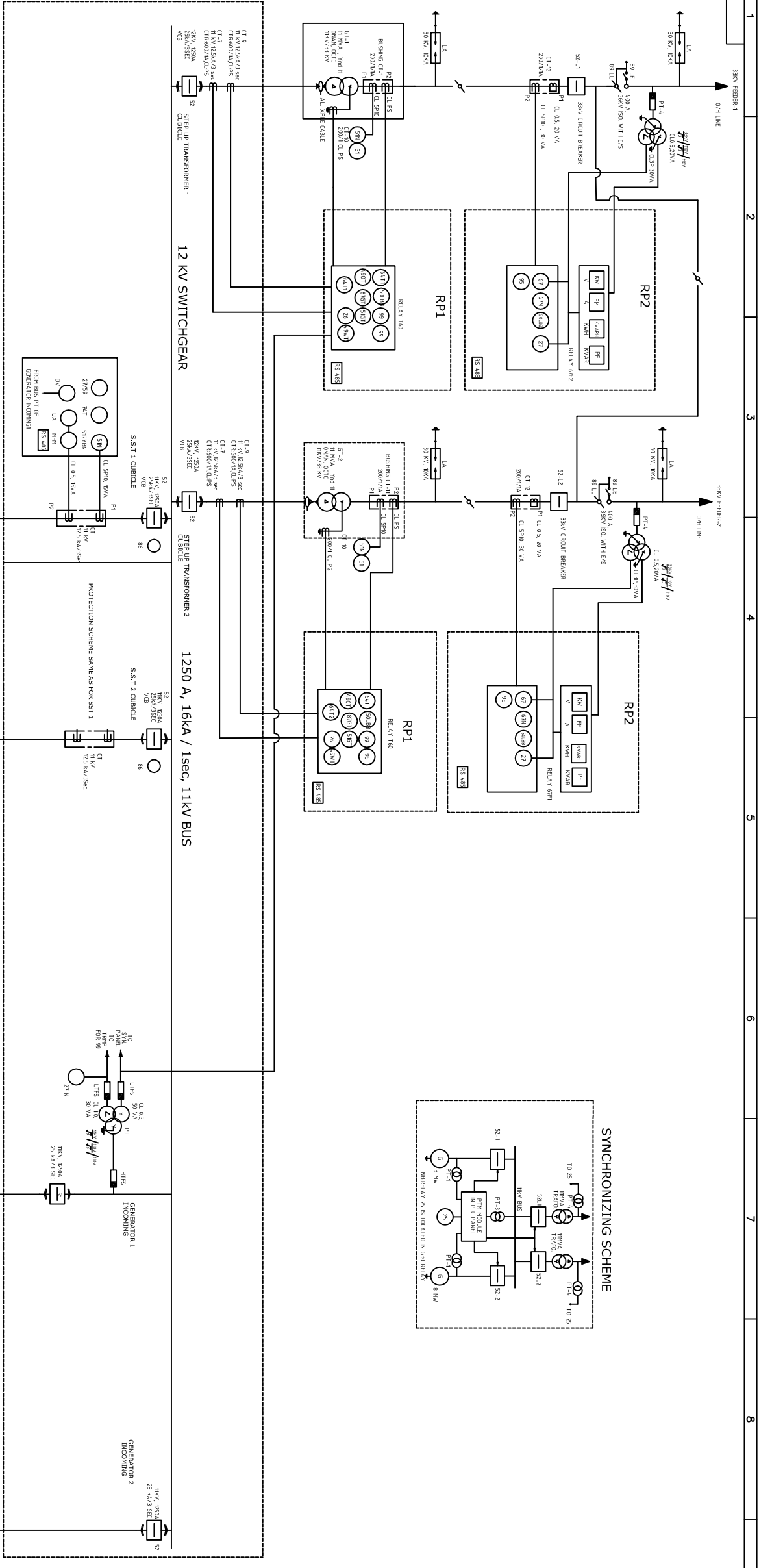
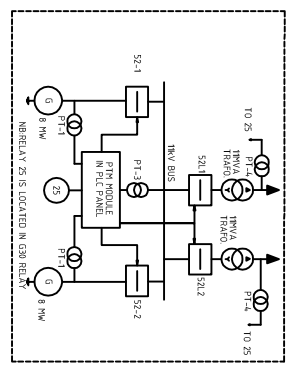
L/RMP	LINE RELAY AND METERING PANEL
67	DIRECTIONAL OVERCURRENT PROTECTION
67NB	DIRECTIONAL EARTH FAULT PROTECTION
50LB	LOCAL BREAKER BACKUP PROTECTION
21	UNDER OVER FREQUENCY RELAY
95	TRIP COIL SUPERVISION RELAY

SST PROTECTION

51/50	INSTANTANEOUS AND INVERSE OVERCURRENT
6/4ST	RESTRICTED EARTH FAULT PROTECTION
50LBB	LOCAL BREAKER BACKUP PROTECTION
27	UNDER VOLTAGE RELAY
26	AUX. RELAY FOR BUCHHOLZ RELAY PROTECTION
49WT	AUX. RELAY FOR OIT & WIT

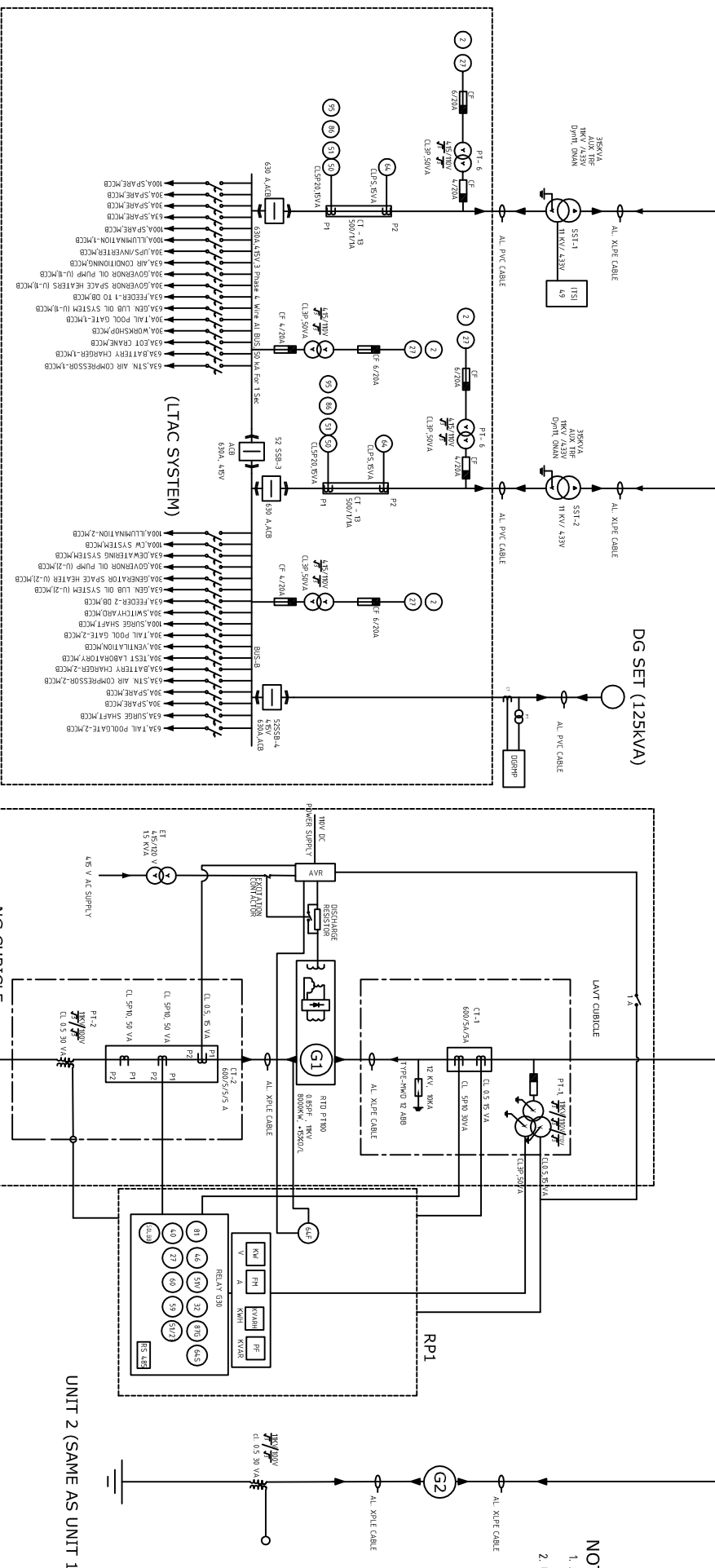
NOTE:

1. ALL METERING DATA SHALL BE TRANSMITTED TO PLC PANEL ON MODBUS FROM RESPECTIVE NUMERICAL RELAYS/MFM.
2. UNIT SYNCHRONISATION SHALL BE DONE BY P1M MODULE LOCATED IN PLC PANEL.



REFERENCE DRAWINGS

1	11 KV SWITCH GEAR (VIA ELECTRIC LTD)	DRG. 3-123-06-001-ER-1
2	L/TAC CUBICLE (DIRECT ENGINEERS LTD)	DRG. 3-123-06-001-ER-G1 DRG. 3-123-06-001-ER-S1 DRG. 3-123-06-001-ER-S1
3	LAVT/VANG CUBICLE (EBONY CABLES)	DRG. 155-201-01 (SHEET NO. 1 TO 6)
4	RELAYING PANNEL (M&S)	DRG. 003-7-41/1
5	SCHEMATIC DIAGRAM OF M/BOX FOR GT (M&S)	DRG. 6-1111-91-068 (PN-05)
6	WIRING DIAGRAM OF M/BOX FOR SST (M&S)	DRG. 003-7-41/1



PATIKARI POWER PRIVATE LIMITED
(Contractor/ Client)

PATIKARI HE PROJECT

SINGLE LINE DIAGRAM

Drawn : DIPASUD
Designed : SHASHANK
Checked : ABHIJIT

Submitted: MFC CHAKRABORTY
Approved: S.S. JAIN/WL
Dated : 15.JUNE.06

ERUDITE ENGINEERS PRIVATE LIMITED
ERUDITE
Drg.No. EEPL-PTK-07 REV:04