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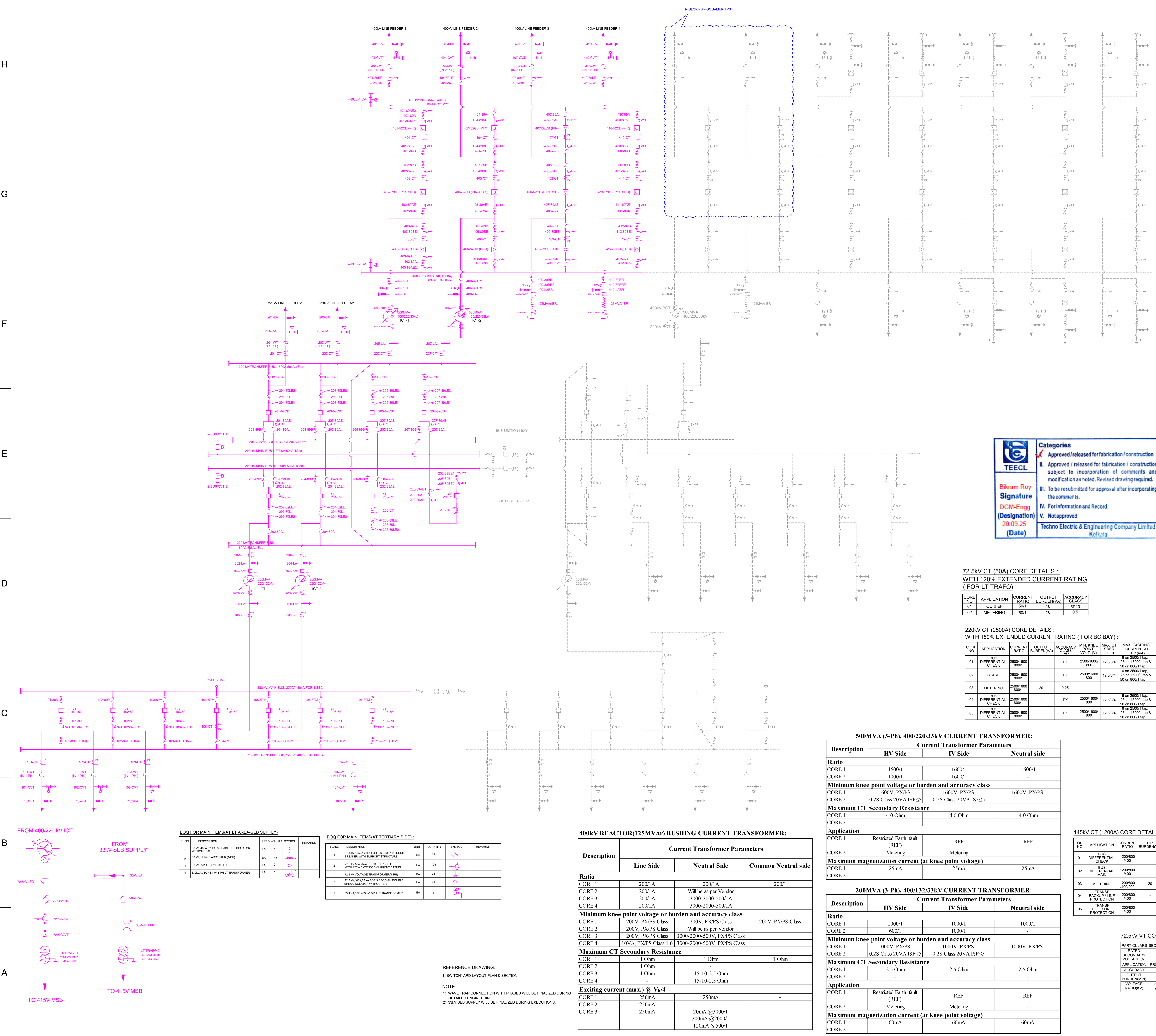
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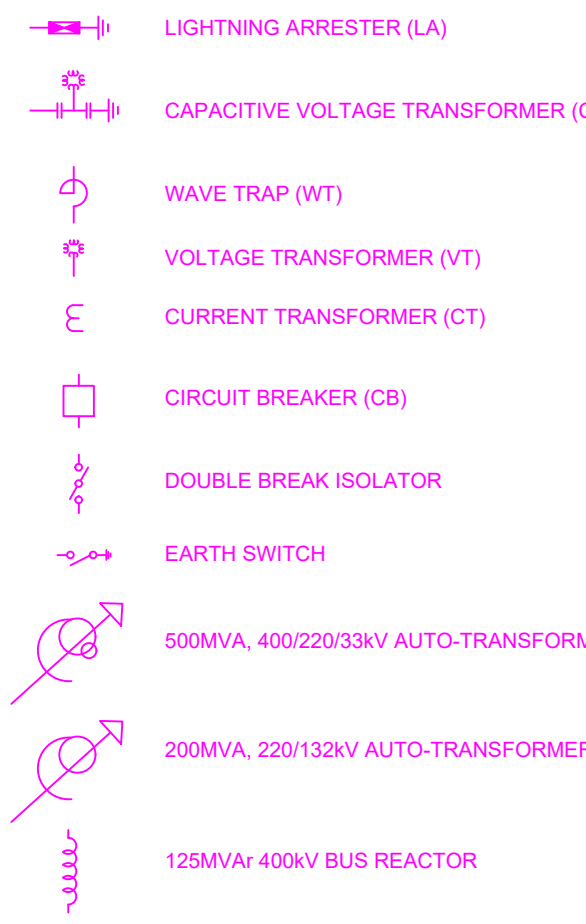
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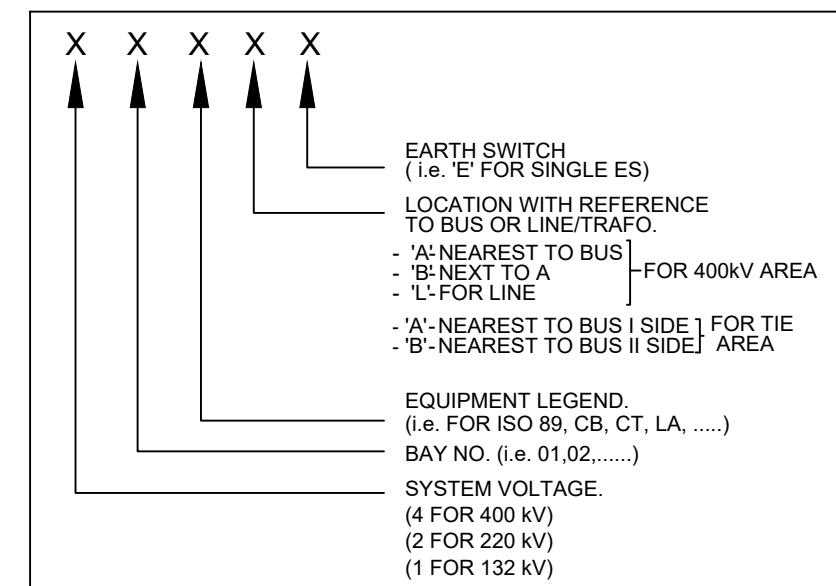
MAJOR EQUIPMENT LIST:-

Sl No.	Description	Quantity	Unit
1	500MVA, 400KV/220/33 KV, 3-phase Autotransformer with Digital RTCC	2	Nos
2	200MVA, 220/132 KV, 3-phase Power transformer with Digital RTCC	2	Nos
3	125 MVAR, 420kV, 3-phase Bus Reactor including Insulating Oil	2	Nos
4	420kV, 3150A, 63kA for 1 sec Circuit Breaker (3-Phase) without closing resistor	4	Set
5	420kV, 3150A, 63kA for 1 sec Circuit Breaker (3-Phase) with closing resistor	8	Set
6	CSD for 420 KV, 3 phase Circuit Breaker	8	Set
7	420 kV, 4400 pF Capacitive Voltage Transformer (1-Phase)	18	Nos
8	420kV, 1-Ph Current Transformer	36	Nos
9	420kV, 3150A, 63kA for 1 Sec Double Break Isolator with Two Earth switch (3nos. Single Phase per set)	2	Set
10	420kV, 3150A, 63kA for 1 Sec Double Break Isolator with One Earth switch (3nos. Single Phase per set)	30	Set
11	33kV Surge Arrester (1-phase)	24	Nos
12	400kV/3150A/0.5mH, 63kA Line Trap	8	Nos
13	245kV, 3150A, 50kA for 1 sec Circuit Breaker (3-Phase)	1	Set
14	245kV, 1600A, 50kA for 1 sec Circuit Breaker (3-Phase)	7	Set
15	245 kV, 3150A, 50kA for 1 sec, 1-Phase Current Transformer	3	Nos
16	245 kV, 1600A, 50kA for 1 sec, 1-Phase Current Transformer	21	Nos
17	245 kV, 4400pF Capacitive Voltage Transformer (1- Phase)	12	Nos
18	245kV, 3150A, 50kA for 1 sec, 3-phase Double Break Isolator with Two Earth Switch	2	Nos
19	245kV, 1600A, 50kA for 1 sec, 3-phase Double Break Isolator with Two Earth Switch	7	Nos
20	245kV, 1600A, 50kA for 1 sec, 3-phase Double Break Isolator with One Earth Switch	7	Nos
21	245kV, 1600A, 50kA for 1 sec, 3-phase Double Break Isolator without Earth Switch (Tandem type)	13	Nos
22	216kV Surge Arrester (1-phase)	18	Nos
23	220kV, 1600A, 0.5mH, 50 kA Line Trap	2	Nos
24	145kV, 1250A, 40kA for 1 Sec 3-phase Circuit Breaker (3-Ph & 1-Ph Operation)	7	Nos
25	145 kV, 1250A, 40kA for 1 sec, 1-Phase Current Transformer	21	Nos
26	145 kV, 4400pF Capacitive Voltage Transformer (1- Phase)	15	Nos
27	145kV, 1250A, 40kA for 1 Sec, 3-phase Double Break Isolator with One Earth-Switch	6	Nos
28	145kV, 1250A, 40kA for 1 Sec, 3-phase Double Break Isolator without Earth-Switch	8	Nos
29	145kV, 1250A, 40kA for 1 Sec, 3-phase Double Break Isolator without Earth-Switch (Tandem type)	6	Nos
30	120kV Surge Arrester (1-phase)	18	Nos
31	145kV, 1250A, 0.5mH, 50 kA Line Trap	4	Nos

LEGENDS:-



NOMENCLATURE FOR EQUIPMENT MARK NO. :-



Categories

- Approved / released for fabrication / construction
- Approved / released for fabrication / construction subject to incorporation of comments and modification as noted. Revised drawing required.
- To be resubmitted for approval after incorporating the comments.
- For information and Record.

Signature
Bikram Roy
DGM-Engg
(Designation)
20.09.25
(Date)

Techno Electric & Engineering Company Limited
Kolkata

72.5kV CT (50A) CORE DETAILS :
WITH 120% EXTENDED CURRENT RATING
(FOR LT TRAF0)

CORE NO	APPLICATION	CURRENT RATIO	OUTPUT BURDEN(VA)	ACCURACY CLASS	MIN. KNEE POINT VOLT. (V)	MAX. CT S.W.R (ohm)	MAX. EXCITING CURRENT AT KVP (mA)
01	OC & EF	50/1	10	SP10	-	-	-
02	METERING	50/1	10	0.5	-	-	-

220kV CT (2500A) CORE DETAILS :
WITH 150% EXTENDED CURRENT RATING (FOR BC BAY):

CORE NO	APPLICATION	CURRENT RATIO	OUTPUT BURDEN(VA)	ACCURACY CLASS	MIN. KNEE POINT VOLT. (V)	MAX. CT S.W.R (ohm)	MAX. EXCITING CURRENT AT KVP (mA)
01	BUS DIFFERENTIAL CHECK	2500/1000	-	PX	2500/1600/800	12.5/8/4	16 on 2500/1 tap & 25 on 1600/1 tap & 50 on 800/1 tap
02	SPARE	2500/1600	-	PX	2500/1600/800	12.5/8/4	16 on 2500/1 tap & 25 on 1600/1 tap & 50 on 800/1 tap
03	METERING	2500/1000	20	0.25	-	-	-
04	BUS DIFFERENTIAL CHECK	2500/1000	-	PX	2500/1600/800	12.5/8/4	16 on 2500/1 tap & 25 on 1600/1 tap & 50 on 800/1 tap
05	BUS DIFFERENTIAL CHECK	2500/1600	-	PX	2500/1600/800	12.5/8/4	16 on 2500/1 tap & 25 on 1600/1 tap & 50 on 800/1 tap

500MVA (3-Ph), 400/220/33KV CURRENT TRANSFORMER:

Description	HV Side	IV Side	Neutral side
Ratio			
CORE 1	1600/1	1600/1	1600/1
CORE 2	1000/1	1600/1	-
Minimum knee point voltage or burden and accuracy class			
CORE 1	1600V, PX/PS	1600V, PX/PS	1600V, PX/PS
CORE 2	0.2S Class 20VA ISF≤5	0.2S Class 20VA ISF≤5	-
Maximum CT Secondary Resistance			
CORE 1	4.0 Ohm	4.0 Ohm	4.0 Ohm
CORE 2	-	-	-
Application			
CORE 1	Restricted Earth fault (REF)	REF	REF
CORE 2	Metering	Metering	-
Maximum magnetization current (at knee point voltage)			
CORE 1	25mA	25mA	25mA
CORE 2	-	-	-

200MVA (3-Ph), 400/132/33KV CURRENT TRANSFORMER:

Description	HV Side	IV Side	Neutral side
Ratio			
CORE 1	1000/1	1000/1	1000/1
CORE 2	600/1	1000/1	-
Minimum knee point voltage or burden and accuracy class			
CORE 1	1000V, PX/PS	1000V, PX/PS	1000V, PX/PS
CORE 2	0.2S Class 20VA ISF≤5	0.2S Class 20VA ISF≤5	-
Maximum CT Secondary Resistance			
CORE 1	1 Ohm	1 Ohm	1 Ohm
CORE 2	1 Ohm	-	-
CORE 3	1 Ohm	15-10-2.5 Ohm	-
CORE 4	1 Ohm	15-10-2.5 Ohm	-
Exciting current (max.) @ V_k/4			
CORE 1	250mA	250mA	-
CORE 2	250mA	-	-
CORE 3	250mA	20mA @3000/1 300mA @2000/1 120mA @500/1	-
Application			
CORE 1	Restricted Earth fault (REF)	REF	REF
CORE 2	Metering	Metering	-
Maximum magnetization current (at knee point voltage)			
CORE 1	60mA	60mA	60mA
CORE 2	-	-	-

72.5kV VT CORE DETAILS:

CORE NO	APPLICATION	CURRENT RATIO	OUTPUT BURDEN(VA)	ACCURACY CLASS	MIN. KNEE POINT VOLT. (V)	MAX. CT S.W.R (ohm)	MAX. EXCITING CURRENT AT KVP (mA)
01	BUS DIFFERENTIAL CHECK	1200/800	-	PX	1200/800/400	12/8/4	12.5 on 1200/1 tap & 25 on 800/1 tap & 50 on 400/1 tap
02	BUS DIFFERENTIAL CHECK	1200/800	-	PX	1200/800/400	12/8/4	12.5 on 1200/1 tap & 25 on 800/1 tap & 50 on 400/1 tap
03	METERING	1200/800	20	0.25	-	-	-
04	TRANSF BACKUP LINE PROTECTION	1200/800	-	PX	1200/800/400	12/8/4	12.5 on 1200/1 tap & 25 on 800/1 tap & 50 on 400/1 tap
05	TRANSF BACKUP LINE PROTECTION	1200/800	-	PX	1200/800/400	12/8/4	12.5 on 1200/1 tap & 25 on 800/1 tap & 50 on 400/1 tap

RELEASE FOR CONSTRUCTION

0	RELEASE FOR CONSTRUCTION	SDB	SDB	BR	30.08.2025
REV	DESCRIPTION	PREP	CHKD.	APPD.	DATE
OWNER	NORTH EASTERN REGION EXPANSION SCHEME-XVI NERES-XVI POWER TRANSMISSION LIMITED				
EPC	TECHNO ELECTRIC & ENGG. CO. LTD.				
PROJECT	ESTABLISHMENT OF GOGAMUKH 400/220/132KV SUBSTATION AND EXTENSION WORKS AT GERUKAMUKH (ARUNACHAL PRADESH) 132KV S/S AND GOGAMUKH (SIS) - GERUKAMUKH (ARUNACHAL PRADESH) 132KV D/C (ZEBRA) LINE AND L/O OF ONE D/C (CKT-1 & CKT-2 OF LINE-1) OF LOWER SUBANSARI BISWANATH CHARALI 400KV (TWIN LAPWING) 2XDC LINES AT GOGAMUKH S/S				
SUBSTATION	ESTABLISHMENT OF GOGAMUKH 400/220/132KV SUBSTATION				
DRG. TITLE	GOGAMUKH S/S- 400/220/132KV SINGLE LINE DIAGRAM				
DRG. NO. :	GOGA-0817GOELE-SLD-002				
SCALE :	AS PER DWG	JOB NO.:	0817GO	SHEET	1 OF 1
SHEET /AO					