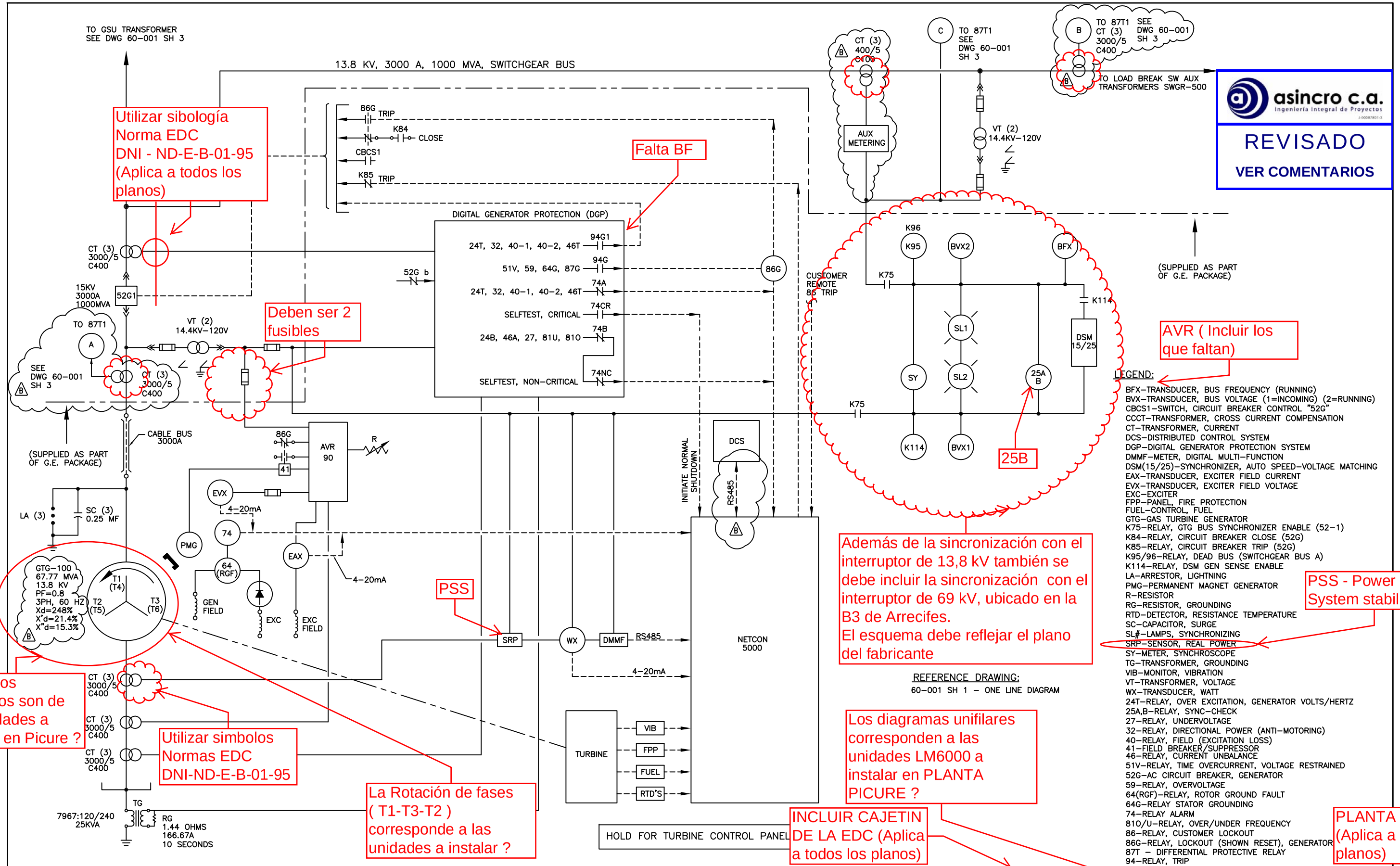
TO GSU TRANSFORMER
SEE DWG 60-001 SH 3
13.8 KV, 3000 A, 1000 MVA, SWITCHGEAR BUS
TO 87T1
SEE
DWG 60-001
SH 3
TO 87T1
CT (3)
3000/5
C400
SEE
DWG 60-001
SH 3
TO LOAD BREAK SW AUX
TRANSFORMERS SWGR-500
CT (3)
400/5
C400
AUX
METERING
VT (2)
14.4KV-120V
86G
TRIP
K84
CLOSE
CBCS1
K85
TRIP
DIGITAL GENERATOR PROTECTION (DGP)
24T, 32, 40-1, 40-2, 46T
94G1
51V, 59, 64G, 87G
94G
24T, 32, 40-1, 40-2, 46T
74A
SELFTEST, CRITICAL
74CR
24B, 46A, 27, 81U, 81O
74B
SELFTEST, NON-CRITICAL
74NC
52G b
86G
CUSTOMER
REMOTE
86 TRIP
K96
K95
BVX2
BFX
K75
K114
SL1
DSM
15/25
SY
SL2
25A
B
K75
K114
BVX1
25B
(SUPPLIED AS PART
OF G.E. PACKAGE)
CT (3)
3000/5
C400
15KV
3000A
1000MVA
52G1
TO 87T1
A
VT (2)
14.4KV-120V
SEE
DWG 60-001
SH 3
CT (3)
3000/5
C400
(SUPPLIED AS PART
OF G.E. PACKAGE)
CABLE BUS
3000A
86G
41
AVR
90
R
EVX
4-20mA
74
PMG
64
(RGF)
EAX
4-20mA
GEN
FIELD
EXC
EXC
FIELD
LA (3)
SC (3)
0.25 MF
GTG-100
67.77 MVA
13.8 KV
PF=0.8
3PH, 60 HZ
Xd=248%
X'd=21.4%
X"d=15.3%
T1
(T4)
T2
(T5)
T3
(T6)
CT (3)
3000/5
C400
CT (3)
3000/5
C400
CT (3)
3000/5
C400
TG
7967:120/240
25KVA
RG
1.44 OHMS
166.67A
10 SECONDS
INITIATE NORMAL
SHUTDOWN
DCS
RS485
PSS
SRP
WX
DMMF
RS485
4-20mA
NETCON
5000
TURBINE
VIB
FPP
FUEL
RTD'S
HOLD FOR TURBINE CONTROL PANEL
REFERENCE DRAWING:
60-001 SH 1 - ONE LINE DIAGRAM
LEGEND:
BFX-TRANSDUCER, BUS FREQUENCY (RUNNING)
BVX-TRANSDUCER, BUS VOLTAGE (1=INCOMING) (2=RUNNING)
CBCS1-SWITCH, CIRCUIT BREAKER CONTROL "52G"
CCCT-TRANSFORMER, CROSS CURRENT COMPENSATION
CT-TRANSFORMER, CURRENT
DCS-DISTRIBUTED CONTROL SYSTEM
DGP-DIGITAL GENERATOR PROTECTION SYSTEM
DMMF-METER, DIGITAL MULTI-FUNCTION
DSM(15/25)-SYNCHRONIZER, AUTO SPEED-VOLTAGE MATCHING
EAX-TRANSDUCER, EXCITER FIELD CURRENT
EVX-TRANSDUCER, EXCITER FIELD VOLTAGE
EXC-EXCITER
FPP-PANEL, FIRE PROTECTION
FUEL-CONTROL, FUEL
GTG-GAS TURBINE GENERATOR
K75-RELAY, GTG BUS SYNCHRONIZER ENABLE (52-1)
K84-RELAY, CIRCUIT BREAKER CLOSE (52G)
K85-RELAY, CIRCUIT BREAKER TRIP (52G)
K95/96-RELAY, DEAD BUS (SWITCHGEAR BUS A)
K114-RELAY, DSM GEN SENSE ENABLE
LA-ARRESTOR, LIGHTNING
PMG-PERMANENT MAGNET GENERATOR
R-RESISTOR
RG-RESISTOR, GROUNDING
RTD-DETECTOR, RESISTANCE TEMPERATURE
SC-CAPACITOR, SURGE
SL#-LAMPS, SYNCHRONIZING
SRP-SENSOR, REAL POWER
SY-METER, SYNCHROSCOPE
TG-TRANSFORMER, GROUNDING
VIB-MONITOR, VIBRATION
VT-TRANSFORMER, VOLTAGE
WX-TRANSDUCER, WATT
24T-RELAY, OVER EXCITATION, GENERATOR VOLTS/HERTZ
25A,B-RELAY, SYNC-CHECK
27-RELAY, UNDERVOLTAGE
32-RELAY, DIRECTIONAL POWER (ANTI-MOTORING)
40-RELAY, FIELD (EXCITATION LOSS)
41-FIELD BREAKER/SUPPRESSOR
46-RELAY, CURRENT UNBALANCE
51V-RELAY, TIME OVERCURRENT, VOLTAGE RESTRAINED
52G-AC CIRCUIT BREAKER, GENERATOR
59-RELAY, OVERVOLTAGE
64(RGF)-RELAY, ROTOR GROUND FAULT
64G-RELAY STATOR GROUNDING
74-RELAY ALARM
81O/U-RELAY, OVER/UNDER FREQUENCY
86-RELAY, CUSTOMER LOCKOUT
86G-RELAY, LOCKOUT (SHOWN RESET), GENERATOR
87T - DIFFERENTIAL PROTECTIVE RELAY
94-RELAY, TRIP
EDG International
REVISED
CUSTOMER INFORMATION
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B 6/06/09 SLP ADDED CT'S, REVISED TAG #'S
REVISIONS
DRAWN REB 7/1/09
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PROJ ENGR
PROJ MGR
QA MGR
SCALE NONE SIZE D
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ONE LINE DIAGRAM
GTG 100, LM-6000 PROTECTION
TACOA POWER PLANT
CARACAS VENEZUELA
JOB. NO. 0906
DWG NO. 60-001
SH NO. 2
REV B
Utilizar sibología Norma EDC DNI - ND-E-B-01-95 (Aplica a todos los planos)
Falta BF
Deben ser 2 fusibles
AVR (Incluir los que faltan)
Además de la sincronización con el interruptor de 13,8 kV también se debe incluir la sincronización con el interruptor de 69 kV, ubicado en la B3 de Arrecifes.
El esquema debe reflejar el plano del fabricante
PSS - Power System stabilizer
Los datos indicados son de las unidades a instalar en Picure ?
Utilizar simbolos Normas EDC DNI-ND-E-B-01-95
La Rotación de fases (T1-T3-T2) corresponde a las unidades a instalar ?
Los diagramas unifilares corresponden a las unidades LM6000 a instalar en PLANTA PICURE ?
INCLUIR CAJETIN DE LA EDC (Aplica a todos los planos)
PLANTA PICURE (Aplica a todos los planos)
asincro c.a.
Ingeniería Integral de Proyectos
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VER COMENTARIOS