static power system model

:SynchronousMachine

dynamics model

Synchronous Machine

:SynchronousMachineTimeConstantReactance

enabled = true
damping = 0.0
inertia = 3.0
saturationFactor = 0.02
saturationFactor120 = 0.12
statorLeakageReactance = 0.15
statorResistance = 0.005
efdBaseRatio = 1.0
ifdBaseType = ifag
ifdBaseValue = 0.0
rotorType = roundRotor
modelType = subtransient
xDirectSync = 1.8
xDirectTrans = 0.5
xDirectSubtrans = 0.2
xQuadSync = 1.6
xQuadTrans = 0.3
tpdo = 5.0
tppdo = 0.03
tpqo = 0.5
tppqo = 0.03

Standard model

Excitation System

:ExcIEEEAC1A

enabled = true
tb = 0.0
tc = 0.0
ka = 0.02
ta = 0.02
vamax = 14.5
vamin = -14.5
te = 0.8
kf = 0.03
tf = 1.0
kc = 0.2
kd = 0.38
ke = 1.0
ve1 = 4.18
seve1 = 0.1
ve2 = 3.14
seve2 = 0.03
vrmax = 6.03
vrmin = -5.43

Turbine Governor

:GovSteamIEEE1

mwbase = 647.0
k = 20.0
t1 = 0.15
t2 = 0.67
t3 = 0.15
uo = 0.5
uc = -0.4
pmax = 1.0
pmin = 0.0
t4 = 0.25
k1 = 0.284
k2 = 0.0
t5 = 10.0
k3 = 0.294
k4 = 0.0
t6 = 0.5
k5 = 0.472
k6 = 0.0
t7 = 0.0
k7 = 0.0
k8 = 0.0