



ANEXO VII

REPORTES DE CORTOCIRCUITO

LARGO PLAZO

1. 2029 ESTACIÓN SECA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:07.882000

- OPTIONS USED:
- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
 - SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
 - SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
 - SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
 - TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
 - LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
 - LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
 - DC LINES AND FACTS DEVICES BLOCKED
 - IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
 - NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
 - NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
LG Fault = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/	AN(I+)	/3I0/	AN(I0)
6001	[PAN230	230.00]	AMP	8017.1	-95.29	2484.0	34.81
6002	[PAN115	115.00]	AMP	13693.6	-98.07	117.9	44.64
6003	[PANII230	230.00]	AMP	7565.8	-96.54	2575.0	32.96
6004	[PANII115	115.00]	AMP	11194.8	-103.96	0.0	0.00
6005	[CHO230	230.00]	AMP	7745.3	-95.87	2413.7	41.31
6007	[CHO34	34.500]	AMP	22676.3	-112.63	490.2	-129.13
6008	[LSA230	230.00]	AMP	9786.1	-89.63	2101.0	66.21
6009	[LSA115	115.00]	AMP	12331.5	-94.72	0.0	0.00
6010	[LSA34	34.500]	AMP	18503.7	-69.89	499.1	-75.91
6011	[MDN230	230.00]	AMP	8990.6	-89.64	2842.6	69.12
6012	[MDN115	115.00]	AMP	11193.8	-91.57	23.0	78.95
6013	[MDN34	34.500]	AMP	13448.6	-92.81	494.4	-102.99
6014	[PRO230	230.00]	AMP	7541.5	-88.88	3773.9	62.55
6015	[PRO115	115.00]	AMP	7361.6	-92.03	0.0	0.00
6016	[PRO34	34.500]	AMP	10704.7	-92.25	486.1	-96.21
6018	[CAC115	115.00]	AMP	13539.9	-98.29	117.9	44.56
6087	[CAL115	115.00]	AMP	12421.4	-92.92	23.0	79.70
6179	[GUA230	230.00]	AMP	8040.7	-91.27	3045.0	67.44
6182	[VEL230	230.00]	AMP	9647.7	-90.28	2232.7	71.01
6240	[EHIG230	230.00]	AMP	6194.6	-97.57	2341.9	51.61
6262	[CHA34	34.500]	AMP	7327.8	-96.59	0.0	0.00
6340	[CAN230	230.00]	AMP	4656.2	-90.87	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	23658.1	-90.60	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7169.8	-89.57	3541.7	64.65
6381	[BOQIII34	34.500]	AMP	23658.1	-90.60	0.0	0.00
6460	[ECO230	230.00]	AMP	7718.1	-92.84	2484.8	61.64
6520	[SBA230	230.00]	AMP	7858.9	-91.45	2343.6	69.92
6521	[SBA115	115.00]	AMP	8299.9	-95.31	0.0	0.00
6522	[SBA34	34.500]	AMP	13169.7	-91.21	6010.5	-92.41
6840	[PAN3 230	230.00]	AMP	8134.2	-95.32	2481.2	35.37

2025 18:55

BASE DE DATOS ETESA

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OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current ($I''k$) is determined as below:

3ph fault = $I''k = I_{a1}$

LG Fault = $I''k = I_a = 3 \cdot I_{a0}$

LLG Fault = $I''k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$

LL Fault = $I''k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * $I''k$ (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	8398.5	-99.61	2552.0	38.49
6002	[PAN115	115.00]	AMP	14236.4	-101.90	118.7	47.43
6003	[PANII230	230.00]	AMP	7941.3	-100.71	2637.9	36.93
6004	[PANIII115	115.00]	AMP	11458.0	-106.98	0.0	0.00
6005	[CHO230	230.00]	AMP	8018.1	-99.73	2476.0	44.28
6007	[CHO34	34.500]	AMP	22815.7	-113.50	499.3	-126.94
6008	[LSA230	230.00]	AMP	10076.4	-93.30	2094.1	66.64
6009	[LSA115	115.00]	AMP	12460.1	-97.38	0.0	0.00
6010	[LSA34	34.500]	AMP	18575.9	-71.65	500.2	-76.62
6011	[MDN230	230.00]	AMP	9045.0	-91.08	2831.0	69.18
6012	[MDN115	115.00]	AMP	11175.5	-92.72	23.0	79.00
6013	[MDN34	34.500]	AMP	13461.5	-93.90	496.7	-102.22
6014	[PRO230	230.00]	AMP	7569.4	-90.06	3771.2	62.34
6015	[PRO115	115.00]	AMP	7367.4	-93.10	0.0	0.00
6016	[PRO34	34.500]	AMP	10709.9	-93.54	487.0	-97.01
6018	[CAC115	115.00]	AMP	14063.0	-102.05	118.6	47.35
6087	[CAL115	115.00]	AMP	12436.3	-93.86	22.9	79.61
6179	[GUA230	230.00]	AMP	8084.9	-92.56	3023.0	67.59
6182	[VEL230	230.00]	AMP	9867.0	-92.74	2197.0	71.26
6240	[EHIG230	230.00]	AMP	6316.5	-100.16	2381.3	53.49
6262	[CHA34	34.500]	AMP	7313.8	-96.79	0.0	0.00
6340	[CAN230	230.00]	AMP	4656.8	-91.51	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	23692.4	-91.44	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7195.1	-90.71	3534.8	64.56
6381	[BOQIII34	34.500]	AMP	23692.4	-91.44	0.0	0.00
6460	[ECO230	230.00]	AMP	7876.6	-96.29	2506.4	61.89
6520	[SBA230	230.00]	AMP	8025.0	-93.94	2302.6	70.11
6521	[SBA115	115.00]	AMP	8343.3	-97.09	0.0	0.00
6522	[SBA34	34.500]	AMP	13250.3	-93.31	6032.5	-94.29
6840	[PAN3 230	230.00]	AMP	8530.9	-99.68	2546.9	39.01

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OPTIONS USED:

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- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
LG Fault = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	12297.2	-95.40	2489.7	56.05
6002	[PAN115	115.00]	AMP	20030.5	-97.18	119.5	62.65
6003	[PANII230	230.00]	AMP	11695.5	-95.80	2558.1	55.42
6004	[PANII115	115.00]	AMP	14748.9	-100.98	0.0	0.00
6005	[CHO230	230.00]	AMP	10711.2	-96.53	2426.6	58.65
6007	[CHO34	34.500]	AMP	24942.2	-107.22	502.1	-116.66
6008	[LSA230	230.00]	AMP	10473.0	-96.12	2111.7	67.76
6009	[LSA115	115.00]	AMP	12348.5	-100.47	0.0	0.00
6010	[LSA34	34.500]	AMP	18200.4	-76.08	498.4	-80.64
6011	[MDN230	230.00]	AMP	10068.9	-93.65	2776.8	68.40
6012	[MDN115	115.00]	AMP	11831.5	-95.55	22.8	76.96
6013	[MDN34	34.500]	AMP	12865.5	-99.61	488.3	-108.00
6014	[PRO230	230.00]	AMP	7660.5	-93.59	3775.3	59.34
6015	[PRO115	115.00]	AMP	7438.7	-97.33	0.0	0.00
6016	[PRO34	34.500]	AMP	10843.2	-99.42	492.0	-102.90
6018	[CAC115	115.00]	AMP	19710.3	-97.24	119.5	62.60
6087	[CAL115	115.00]	AMP	13644.5	-96.07	22.9	78.67
6179	[GUA230	230.00]	AMP	9202.2	-94.23	2946.3	68.37
6182	[VEL230	230.00]	AMP	10300.7	-95.42	2191.9	70.79
6240	[EHIG230	230.00]	AMP	7161.9	-98.15	2380.3	61.75
6262	[CHA34	34.500]	AMP	7365.7	-97.24	0.0	0.00
6340	[CAN230	230.00]	AMP	4946.8	-92.34	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	23155.1	-96.69	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7493.8	-93.93	3505.9	62.38
6381	[BOQIII34	34.500]	AMP	23155.1	-96.69	0.0	0.00
6460	[ECO230	230.00]	AMP	7867.8	-98.20	2563.3	63.68
6520	[SBA230	230.00]	AMP	7766.5	-97.03	2346.1	68.50
6521	[SBA115	115.00]	AMP	7392.8	-102.15	0.0	0.00
6522	[SBA34	34.500]	AMP	9812.3	-104.66	5547.0	-105.68
6840	[PAN3 230	230.00]	AMP	12499.9	-95.51	2484.2	56.40

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

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BASE DE DATOS ETESA

2024-02-05 07:33:34.415000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
LG Fault = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X----LG FAULT---X	
X----- BUS -----X				/I+/ AN(I+)	/3I0/ AN(I0)		
6001	[PAN230	230.00]	AMP	10713.0	-95.30	2517.7	50.66
6002	[PAN115	115.00]	AMP	17580.4	-97.55	118.2	57.67
6003	[PANII230	230.00]	AMP	10112.7	-96.02	2594.5	49.55
6004	[PANIII115	115.00]	AMP	13499.0	-102.01	0.0	0.00
6005	[CHO230	230.00]	AMP	9662.7	-96.35	2459.3	54.46
6007	[CHO34	34.500]	AMP	24388.4	-108.36	504.4	-119.30
6008	[LSA230	230.00]	AMP	10995.5	-93.40	2089.9	70.19
6009	[LSA115	115.00]	AMP	13084.1	-97.24	0.0	0.00
6010	[LSA34	34.500]	AMP	19234.3	-71.45	504.8	-75.56
6011	[MDN230	230.00]	AMP	9245.8	-91.96	2839.6	69.07
6012	[MDN115	115.00]	AMP	11336.4	-93.55	23.1	78.35
6013	[MDN34	34.500]	AMP	13675.6	-95.44	496.1	-104.23
6014	[PRO230	230.00]	AMP	7677.3	-91.37	3783.3	61.51
6015	[PRO115	115.00]	AMP	7444.0	-94.60	0.0	0.00
6016	[PRO34	34.500]	AMP	10812.5	-95.67	490.3	-99.26
6018	[CAC115	115.00]	AMP	17314.8	-97.65	118.1	57.61
6087	[CAL115	115.00]	AMP	12611.1	-94.53	23.1	79.27
6179	[GUA230	230.00]	AMP	8267.5	-93.03	3033.6	68.01
6182	[VEL230	230.00]	AMP	10345.8	-93.26	2204.2	72.74
6240	[EHIG230	230.00]	AMP	6998.8	-97.43	2380.5	60.61
6262	[CHA34	34.500]	AMP	7361.1	-96.86	0.0	0.00
6340	[CAN230	230.00]	AMP	4714.4	-91.69	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	23904.5	-93.35	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7307.1	-91.87	3546.4	63.96
6381	[BOQIII34	34.500]	AMP	23904.5	-93.35	0.0	0.00
6460	[ECO230	230.00]	AMP	8447.2	-95.19	2479.4	66.70
6520	[SBA230	230.00]	AMP	8411.4	-94.43	2309.0	71.71
6521	[SBA115	115.00]	AMP	8551.5	-98.13	0.0	0.00
6522	[SBA34	34.500]	AMP	13322.6	-96.95	6047.5	-97.75
6840	[PAN3 230	230.00]	AMP	10921.7	-95.38	2510.9	51.15

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	11021.5	-91.32	2529.1	61.81
6002	[PAN115	115.00]	AMP	18327.4	-92.65	119.5	69.19
6003	[PANII230	230.00]	AMP	10357.7	-91.55	2602.5	61.03
6004	[PANIII115	115.00]	AMP	13665.7	-95.92	0.0	0.00
6005	[CHO230	230.00]	AMP	9876.2	-92.46	2467.6	64.03
6007	[CHO34	34.500]	AMP	24236.6	-102.01	506.6	-110.30
6008	[LSA230	230.00]	AMP	10016.4	-94.02	2140.3	70.89
6009	[LSA115	115.00]	AMP	12017.0	-97.99	0.0	0.00
6010	[LSA34	34.500]	AMP	18191.9	-73.00	500.2	-77.16
6011	[MDN230	230.00]	AMP	8653.8	-94.33	2851.7	67.09
6012	[MDN115	115.00]	AMP	10906.5	-96.52	22.8	76.53
6013	[MDN34	34.500]	AMP	13441.8	-100.57	490.3	-106.60
6014	[PRO230	230.00]	AMP	7119.0	-94.08	3861.0	58.18
6015	[PRO115	115.00]	AMP	7171.2	-97.75	0.0	0.00
6016	[PRO34	34.500]	AMP	10665.8	-99.90	492.9	-102.95
6018	[CAC115	115.00]	AMP	18057.3	-92.67	119.5	69.16
6087	[CAL115	115.00]	AMP	12089.8	-96.73	22.8	77.53
6179	[GUA230	230.00]	AMP	7739.5	-94.71	3027.7	66.44
6182	[VEL230	230.00]	AMP	9619.2	-94.72	2219.4	71.91
6240	[EHIG230	230.00]	AMP	6867.8	-94.43	2422.8	66.32
6262	[CHA34	34.500]	AMP	7162.7	-98.13	0.0	0.00
6340	[CAN230	230.00]	AMP	4538.1	-93.18	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	22557.3	-96.96	0.0	0.00
6380	[BOQIII230	230.00]	AMP	6860.8	-94.48	3596.3	61.08
6381	[BOQIII34	34.500]	AMP	22557.3	-96.96	0.0	0.00
6460	[ECO230	230.00]	AMP	7593.2	-95.19	2604.7	67.31
6520	[SBA230	230.00]	AMP	7816.2	-95.89	2355.4	70.59
6521	[SBA115	115.00]	AMP	8155.6	-100.71	0.0	0.00
6522	[SBA34	34.500]	AMP	12456.1	-103.11	6039.3	-103.96
6840	[PAN3 230	230.00]	AMP	11201.2	-91.42	2522.4	62.12

2. 2029 - ESTACIÓN LLUVIOSA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

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OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
LG Fault = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X----LG FAULT---X	
X----- BUS -----X				/I+/ AN(I+)	/3I0/ AN(I0)		
6001	[PAN230	230.00]	AMP	8983.5	-128.96	2411.5	8.53
6002	[PAN115	115.00]	AMP	14889.6	-131.68	113.6	16.43
6003	[PANII230	230.00]	AMP	8310.3	-130.13	2505.9	6.60
6004	[PANIII115	115.00]	AMP	11811.6	-137.08	0.0	0.00
6005	[CHO230	230.00]	AMP	8393.0	-128.43	2318.1	15.39
6007	[CHO34	34.500]	AMP	22610.3	-143.47	473.6	-157.37
6008	[LSA230	230.00]	AMP	10513.1	-115.44	1980.6	44.71
6009	[LSA115	115.00]	AMP	12689.6	-119.87	0.0	0.00
6010	[LSA34	34.500]	AMP	18295.6	-94.22	481.4	-99.02
6011	[MDN230	230.00]	AMP	12013.2	-97.90	2620.6	65.22
6012	[MDN115	115.00]	AMP	13490.0	-98.57	22.4	74.27
6013	[MDN34	34.500]	AMP	14850.7	-99.06	488.8	-107.88
6014	[PRO230	230.00]	AMP	9480.3	-94.81	3499.3	61.01
6015	[PRO115	115.00]	AMP	8121.6	-97.60	0.0	0.00
6016	[PRO34	34.500]	AMP	11172.1	-97.67	485.2	-100.90
6018	[CAC115	115.00]	AMP	14688.5	-131.86	113.5	16.34
6087	[CAL115	115.00]	AMP	16328.2	-99.13	22.5	76.28
6179	[GUA230	230.00]	AMP	11007.6	-99.44	2746.8	64.34
6182	[VEL230	230.00]	AMP	11208.3	-107.00	2052.8	58.19
6240	[EHIG230	230.00]	AMP	6352.5	-126.46	2213.0	27.42
6262	[CHA34	34.500]	AMP	8016.3	-98.12	0.0	0.00
6340	[CAN230	230.00]	AMP	5384.2	-95.99	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	26056.9	-94.50	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8732.6	-96.04	3282.1	62.13
6381	[BOQIII34	34.500]	AMP	26056.9	-94.50	0.0	0.00
6460	[ECO230	230.00]	AMP	8051.3	-122.40	2383.6	36.24
6520	[SBA230	230.00]	AMP	8447.8	-111.36	2179.6	53.47
6521	[SBA115	115.00]	AMP	8494.8	-114.55	0.0	0.00
6522	[SBA34	34.500]	AMP	13689.4	-110.66	6033.8	-111.52
6840	[PAN3 230	230.00]	AMP	9187.5	-129.04	2407.6	9.11

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)	/3I0/ AN(I0)		
6001	[PAN230	230.00]	AMP	6865.8	-109.04	2571.8	17.86
6002	[PAN115	115.00]	AMP	12003.5	-111.50	118.8	29.85
6003	[PANII230	230.00]	AMP	6491.9	-110.23	2665.7	15.90
6004	[PANIII115	115.00]	AMP	10046.3	-117.17	0.0	0.00
6005	[CHO230	230.00]	AMP	6876.9	-109.52	2485.7	24.65
6007	[CHO34	34.500]	AMP	21796.1	-126.74	497.7	-144.28
6008	[LSA230	230.00]	AMP	9522.2	-102.89	2107.2	51.81
6009	[LSA115	115.00]	AMP	12244.2	-108.65	0.0	0.00
6010	[LSA34	34.500]	AMP	18672.8	-84.56	500.5	-90.71
6011	[MDN230	230.00]	AMP	10376.2	-94.47	2734.9	66.51
6012	[MDN115	115.00]	AMP	12527.0	-95.84	22.8	76.41
6013	[MDN34	34.500]	AMP	14713.4	-97.00	500.6	-104.67
6014	[PRO230	230.00]	AMP	8796.9	-92.24	3602.0	62.12
6015	[PRO115	115.00]	AMP	7888.5	-95.36	0.0	0.00
6016	[PRO34	34.500]	AMP	11035.6	-95.69	487.2	-98.83
6018	[CAC115	115.00]	AMP	11883.0	-111.70	118.8	29.77
6087	[CAL115	115.00]	AMP	14785.5	-96.27	22.8	77.92
6179	[GUA230	230.00]	AMP	9347.8	-95.88	2884.5	65.10
6182	[VEL230	230.00]	AMP	10176.5	-99.35	2172.6	62.31
6240	[EHIG230	230.00]	AMP	5845.7	-111.07	2383.5	35.99
6262	[CHA34	34.500]	AMP	7869.2	-98.09	0.0	0.00
6340	[CAN230	230.00]	AMP	4985.3	-94.33	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	25619.1	-91.91	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8073.7	-93.23	3397.9	63.33
6381	[BOQIII34	34.500]	AMP	25619.1	-91.91	0.0	0.00
6460	[ECO230	230.00]	AMP	7468.6	-108.73	2523.8	44.13
6520	[SBA230	230.00]	AMP	7985.2	-102.58	2305.3	58.71
6521	[SBA115	115.00]	AMP	8437.4	-107.12	0.0	0.00
6522	[SBA34	34.500]	AMP	13718.7	-104.19	6091.7	-105.36
6840	[PAN3 230	230.00]	AMP	6956.3	-109.07	2567.8	18.41

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:07.882000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION

- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	10580.4	-121.15	2475.7	25.26
6002	[PAN115	115.00]	AMP	17190.3	-123.44	117.1	32.37
6003	[PANII230	230.00]	AMP	10189.0	-121.90	2549.2	24.43
6004	[PANII115	115.00]	AMP	13470.1	-127.85	0.0	0.00
6005	[CHO230	230.00]	AMP	9378.2	-121.86	2407.1	28.89
6007	[CHO34	34.500]	AMP	23380.7	-134.05	491.8	-145.48
6008	[LSA230	230.00]	AMP	10039.1	-115.77	2062.8	46.36
6009	[LSA115	115.00]	AMP	12133.6	-120.60	0.0	0.00
6010	[LSA34	34.500]	AMP	17942.3	-96.48	492.6	-101.34
6011	[MDN230	230.00]	AMP	11740.5	-100.33	2656.6	63.09
6012	[MDN115	115.00]	AMP	13351.1	-101.49	22.7	71.97
6013	[MDN34	34.500]	AMP	15103.8	-104.50	498.5	-111.60
6014	[PRO230	230.00]	AMP	9293.9	-98.32	3540.3	57.46
6015	[PRO115	115.00]	AMP	8064.1	-101.85	0.0	0.00
6016	[PRO34	34.500]	AMP	11132.9	-103.55	486.2	-106.58
6018	[CAC115	115.00]	AMP	16928.7	-123.54	117.1	32.31
6087	[CAL115	115.00]	AMP	16170.6	-101.19	22.7	74.45
6179	[GUA230	230.00]	AMP	10668.4	-100.90	2785.6	62.94
6182	[VEL230	230.00]	AMP	10711.8	-108.43	2096.7	57.47
6240	[EHIG230	230.00]	AMP	6655.4	-121.73	2333.8	35.56
6262	[CHA34	34.500]	AMP	8005.9	-99.26	0.0	0.00
6340	[CAN230	230.00]	AMP	5345.0	-97.32	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	25611.8	-99.14	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8593.4	-99.17	3322.8	59.04
6381	[BOQIII34	34.500]	AMP	25611.8	-99.14	0.0	0.00
6460	[ECO230	230.00]	AMP	8135.1	-121.83	2482.8	39.23
6520	[SBA230	230.00]	AMP	7761.6	-112.83	2253.0	52.15
6521	[SBA115	115.00]	AMP	7412.4	-118.01	0.0	0.00
6522	[SBA34	34.500]	AMP	10142.0	-119.81	5541.5	-120.85
6840	[PAN3 230	230.00]	AMP	10763.1	-121.23	2471.3	25.69

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 07:33:34.415000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT

- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/	AN(I+)	/3I0/	AN(I0)
6001	[PAN230	230.00]	AMP	10740.8	-124.50	2482.4	22.23
6002	[PAN115	115.00]	AMP	17318.4	-126.74	118.1	29.03
6003	[PANII230	230.00]	AMP	10326.6	-125.34	2554.9	21.32
6004	[PANIII115	115.00]	AMP	13504.6	-131.13	0.0	0.00
6005	[CHO230	230.00]	AMP	9668.8	-124.98	2412.2	26.51
6007	[CHO34	34.500]	AMP	24080.6	-137.12	495.1	-147.87
6008	[LSA230	230.00]	AMP	11385.6	-117.87	2029.1	46.38
6009	[LSA115	115.00]	AMP	13329.8	-122.28	0.0	0.00
6010	[LSA34	34.500]	AMP	19355.2	-97.17	495.3	-100.99
6011	[MDN230	230.00]	AMP	12216.4	-100.10	2634.8	63.83
6012	[MDN115	115.00]	AMP	13605.7	-100.94	22.6	72.54
6013	[MDN34	34.500]	AMP	15097.8	-103.27	496.1	-110.97
6014	[PRO230	230.00]	AMP	9566.2	-97.66	3512.6	58.59
6015	[PRO115	115.00]	AMP	8161.0	-100.89	0.0	0.00
6016	[PRO34	34.500]	AMP	11188.3	-102.09	485.8	-105.15
6018	[CAC115	115.00]	AMP	17055.6	-126.84	118.1	28.96
6087	[CAL115	115.00]	AMP	16478.7	-100.80	22.6	75.01
6179	[GUA230	230.00]	AMP	11201.1	-100.95	2758.8	63.61
6182	[VEL230	230.00]	AMP	11802.6	-109.58	2065.2	57.91
6240	[EHIG230	230.00]	AMP	6980.5	-124.25	2315.0	34.34
6262	[CHA34	34.500]	AMP	8017.6	-98.84	0.0	0.00
6340	[CAN230	230.00]	AMP	5429.4	-97.02	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	26127.5	-98.22	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8824.2	-98.64	3296.2	60.02
6381	[BOQIII34	34.500]	AMP	26127.5	-98.22	0.0	0.00
6460	[ECO230	230.00]	AMP	8607.8	-123.44	2444.2	39.04
6520	[SBA230	230.00]	AMP	8903.5	-114.33	2192.9	52.85
6521	[SBA115	115.00]	AMP	8748.4	-118.70	0.0	0.00
6522	[SBA34	34.500]	AMP	13906.5	-119.19	6112.1	-119.86
6840	[PAN3 230	230.00]	AMP	10929.9	-124.60	2476.7	22.68

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:07.882000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED

- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	7775.9	-122.31	2590.7	20.51
6002	[PAN115	115.00]	AMP	13126.9	-124.28	118.0	30.17
6003	[PANII230	230.00]	AMP	7494.0	-123.07	2669.3	19.43
6004	[PANIII115	115.00]	AMP	10870.8	-128.22	0.0	0.00
6005	[CHO230	230.00]	AMP	7477.6	-122.43	2491.1	25.16
6007	[CHO34	34.500]	AMP	21440.2	-134.57	494.2	-146.70
6008	[LSA230	230.00]	AMP	9379.2	-116.16	2078.2	45.03
6009	[LSA115	115.00]	AMP	11621.1	-121.07	0.0	0.00
6010	[LSA34	34.500]	AMP	17900.5	-96.99	490.8	-101.95
6011	[MDN230	230.00]	AMP	11666.7	-100.35	2660.2	63.28
6012	[MDN115	115.00]	AMP	13273.9	-101.37	22.8	72.75
6013	[MDN34	34.500]	AMP	15270.5	-103.77	495.8	-109.03
6014	[PRO230	230.00]	AMP	9263.9	-98.26	3544.9	57.69
6015	[PRO115	115.00]	AMP	8049.0	-101.78	0.0	0.00
6016	[PRO34	34.500]	AMP	11121.2	-103.45	487.4	-105.93
6018	[CAC115	115.00]	AMP	12967.1	-124.37	118.0	30.12
6087	[CAL115	115.00]	AMP	16114.5	-101.04	22.7	74.83
6179	[GUA230	230.00]	AMP	10608.8	-100.97	2784.6	62.90
6182	[VEL230	230.00]	AMP	10572.9	-108.78	2094.5	56.94
6240	[EHIG230	230.00]	AMP	5950.3	-122.18	2388.1	33.09
6262	[CHA34	34.500]	AMP	7981.2	-99.16	0.0	0.00
6340	[CAN230	230.00]	AMP	5330.9	-97.31	0.0	0.00
6370	[BOQIII34B	34.500]	AMP	25551.8	-98.80	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8562.1	-99.08	3326.3	59.27
6381	[BOQIII34	34.500]	AMP	25551.8	-98.80	0.0	0.00
6460	[ECO230	230.00]	AMP	7494.6	-122.24	2516.0	37.20
6520	[SBA230	230.00]	AMP	7928.1	-113.57	2239.3	51.48
6521	[SBA115	115.00]	AMP	8172.9	-118.95	0.0	0.00
6522	[SBA34	34.500]	AMP	12758.1	-120.90	5993.2	-121.82
6840	[PAN3 230	230.00]	AMP	7880.8	-122.38	2584.8	20.90

3. 2032 ESTACIÓN SECA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT

- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	10320.8	-85.34	3075.8	46.95
6002	[PAN115	115.00]	AMP	16881.1	-88.32	120.9	58.57
6003	[PANII230	230.00]	AMP	9651.5	-86.60	3206.5	44.88
6004	[PANII115	115.00]	AMP	13227.4	-94.21	0.0	0.00
6005	[CHO230	230.00]	AMP	9381.6	-86.79	2994.9	52.60
6007	[CHO34	34.500]	AMP	23921.8	-102.18	511.7	-116.47
6008	[LSA230	230.00]	AMP	10624.1	-82.06	2463.2	75.17
6009	[LSA115	115.00]	AMP	13068.0	-86.75	0.0	0.00
6010	[LSA34	34.500]	AMP	19048.7	-61.51	513.1	-67.08
6011	[MDN230	230.00]	AMP	9550.1	-85.17	3352.8	71.00
6012	[MDN115	115.00]	AMP	11718.9	-87.78	23.2	81.78
6013	[MDN34	34.500]	AMP	13790.3	-89.72	494.9	-101.49
6014	[PRO230	230.00]	AMP	7805.1	-84.90	4689.4	61.63
6015	[PRO115	115.00]	AMP	7534.4	-88.33	0.0	0.00
6016	[PRO34	34.500]	AMP	10892.3	-88.70	491.4	-92.98
6018	[CAC115	115.00]	AMP	16651.5	-88.53	120.8	58.48
6087	[CAL115	115.00]	AMP	13082.1	-89.41	23.2	82.47
6179	[GUA230	230.00]	AMP	8765.7	-87.03	3344.2	70.54
6182	[VEL230	230.00]	AMP	10161.7	-83.98	2561.2	77.12
6240	[EHIG230	230.00]	AMP	6865.9	-88.76	2874.1	61.73
6262	[CHA34	34.500]	AMP	7511.3	-96.58	0.0	0.00
6340	[CAN230	230.00]	AMP	6982.4	-88.57	6358.2	31.39
6370	[BOQIII34B	34.500]	AMP	24070.1	-87.05	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7459.1	-85.55	4345.7	64.66
6381	[BOQIII34	34.500]	AMP	24070.1	-87.05	0.0	0.00
6460	[ECO230	230.00]	AMP	8291.3	-84.48	2969.6	71.24
6520	[SBA230	230.00]	AMP	8244.8	-84.50	2741.0	76.95
6521	[SBA115	115.00]	AMP	8558.9	-88.12	0.0	0.00
6522	[SBA34	34.500]	AMP	13408.5	-83.62	6106.6	-84.76
6840	[PAN3 230	230.00]	AMP	10524.0	-85.32	3071.6	47.64

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED

- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	9953.2	-86.98	3183.1	47.86
6002	[PAN115	115.00]	AMP	16421.2	-89.55	122.2	59.94
6003	[PANII230	230.00]	AMP	9307.9	-88.06	3326.0	45.86
6004	[PANIII115	115.00]	AMP	12937.7	-95.06	0.0	0.00
6005	[CHO230	230.00]	AMP	9139.9	-88.33	3083.9	53.14
6007	[CHO34	34.500]	AMP	24183.8	-102.48	513.5	-115.50
6008	[LSA230	230.00]	AMP	10615.9	-84.73	2446.7	74.29
6009	[LSA115	115.00]	AMP	12982.2	-89.10	0.0	0.00
6010	[LSA34	34.500]	AMP	18980.4	-63.66	512.4	-68.71
6011	[MDN230	230.00]	AMP	9527.1	-86.83	3342.1	70.39
6012	[MDN115	115.00]	AMP	11630.3	-89.29	23.2	81.35
6013	[MDN34	34.500]	AMP	13928.2	-91.29	494.9	-100.87
6014	[PRO230	230.00]	AMP	7792.0	-86.45	4686.3	60.76
6015	[PRO115	115.00]	AMP	7513.3	-89.88	0.0	0.00
6016	[PRO34	34.500]	AMP	10861.2	-90.51	491.1	-94.32
6018	[CAC115	115.00]	AMP	16200.0	-89.73	122.2	59.87
6087	[CAL115	115.00]	AMP	13030.8	-90.68	23.2	81.88
6179	[GUA230	230.00]	AMP	8746.1	-88.53	3323.2	70.03
6182	[VEL230	230.00]	AMP	10218.0	-86.18	2515.8	76.42
6240	[EHIG230	230.00]	AMP	6794.6	-90.23	2923.3	61.73
6262	[CHA34	34.500]	AMP	7435.7	-97.02	0.0	0.00
6340	[CAN230	230.00]	AMP	6969.8	-89.63	6370.0	31.14
6370	[BOQIII34B	34.500]	AMP	24052.8	-88.41	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7443.4	-87.04	4339.5	63.91
6381	[BOQIII34	34.500]	AMP	24052.8	-88.41	0.0	0.00
6460	[ECO230	230.00]	AMP	8249.8	-87.09	2989.3	69.92
6520	[SBA230	230.00]	AMP	8283.4	-86.82	2686.1	76.04
6521	[SBA115	115.00]	AMP	8533.7	-90.33	0.0	0.00
6522	[SBA34	34.500]	AMP	13419.4	-86.65	6101.8	-87.67
6840	[PAN3 230	230.00]	AMP	10150.6	-86.98	3174.9	48.52

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES

- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-/0 SEQUENCES

- LOAD REPRESENTED IN +/-/0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/	AN(I+)	/3I0/	AN(I0)
6001	[PAN230	230.00]	AMP	13403.1	-92.58	3115.7	53.95
6002	[PAN115	115.00]	AMP	21605.5	-94.75	121.1	63.76
6003	[PANII230	230.00]	AMP	12635.9	-93.07	3234.4	52.88
6004	[PANIII115	115.00]	AMP	15634.2	-98.84	0.0	0.00
6005	[CHO230	230.00]	AMP	11297.2	-94.25	3036.8	56.57
6007	[CHO34	34.500]	AMP	25636.3	-105.74	513.1	-116.03
6008	[LSA230	230.00]	AMP	10666.7	-94.57	2452.0	67.43
6009	[LSA115	115.00]	AMP	12597.7	-99.31	0.0	0.00
6010	[LSA34	34.500]	AMP	18353.9	-75.53	505.9	-80.57
6011	[MDN230	230.00]	AMP	10590.3	-92.98	3258.9	66.72
6012	[MDN115	115.00]	AMP	12277.0	-95.33	22.8	76.35
6013	[MDN34	34.500]	AMP	12736.7	-99.93	497.8	-109.79
6014	[PRO230	230.00]	AMP	7880.4	-93.34	4688.7	54.75
6015	[PRO115	115.00]	AMP	7577.7	-97.33	0.0	0.00
6016	[PRO34	34.500]	AMP	10985.8	-99.55	495.6	-103.35
6018	[CAC115	115.00]	AMP	21237.9	-94.83	121.1	63.71
6087	[CAL115	115.00]	AMP	14251.5	-95.93	23.1	78.26
6179	[GUA230	230.00]	AMP	10072.5	-93.44	3210.2	68.62
6182	[VEL230	230.00]	AMP	10543.8	-94.26	2495.3	70.58
6240	[EHIG230	230.00]	AMP	7362.9	-96.60	2908.3	60.26
6262	[CHA34	34.500]	AMP	7583.9	-97.65	0.0	0.00
6340	[CAN230	230.00]	AMP	7948.4	-92.05	6189.2	35.24
6370	[BOQIII34B	34.500]	AMP	23528.3	-96.84	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7739.2	-93.66	4291.9	58.82
6381	[BOQIII34	34.500]	AMP	23528.3	-96.84	0.0	0.00
6460	[ECO230	230.00]	AMP	8022.8	-96.78	3065.1	62.80
6520	[SBA230	230.00]	AMP	7902.3	-96.01	2726.9	68.00
6521	[SBA115	115.00]	AMP	7519.1	-101.58	0.0	0.00
6522	[SBA34	34.500]	AMP	10000.5	-104.29	5649.5	-105.40
6840	[PAN3 230	230.00]	AMP	13673.4	-92.64	3106.2	54.43

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-/0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-/0

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	12802.4	-88.53	3117.8	55.77
6002	[PAN115	115.00]	AMP	20561.0	-90.76	123.5	65.73
6003	[PANII230	230.00]	AMP	11874.4	-89.24	3249.3	54.19
6004	[PANII115	115.00]	AMP	15122.0	-95.30	0.0	0.00
6005	[CHO230	230.00]	AMP	11095.4	-89.86	3032.8	59.67
6007	[CHO34	34.500]	AMP	25477.3	-101.55	516.6	-112.07
6008	[LSA230	230.00]	AMP	11580.3	-88.28	2438.1	74.89
6009	[LSA115	115.00]	AMP	13593.7	-92.18	0.0	0.00
6010	[LSA34	34.500]	AMP	19821.0	-66.51	509.7	-70.66
6011	[MDN230	230.00]	AMP	9850.7	-89.54	3333.1	69.29
6012	[MDN115	115.00]	AMP	11865.6	-91.66	23.2	79.51
6013	[MDN34	34.500]	AMP	13999.9	-94.09	497.1	-104.21
6014	[PRO230	230.00]	AMP	7946.1	-89.29	4687.3	58.94
6015	[PRO115	115.00]	AMP	7603.2	-92.75	0.0	0.00
6016	[PRO34	34.500]	AMP	10963.7	-93.92	493.6	-97.81
6018	[CAC115	115.00]	AMP	20241.3	-90.88	123.4	65.68
6087	[CAL115	115.00]	AMP	13307.1	-92.86	23.3	80.47
6179	[GUA230	230.00]	AMP	9090.0	-90.84	3308.9	69.76
6182	[VEL230	230.00]	AMP	10833.3	-89.40	2496.4	76.01
6240	[EHIG230	230.00]	AMP	7491.1	-91.44	2896.4	65.47
6262	[CHA34	34.500]	AMP	7555.0	-97.33	0.0	0.00
6340	[CAN230	230.00]	AMP	7219.0	-91.11	6447.0	32.25
6370	[BOQIII34B	34.500]	AMP	24311.1	-91.64	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7605.2	-89.77	4336.3	62.33
6381	[BOQIII34	34.500]	AMP	24311.1	-91.64	0.0	0.00
6460	[ECO230	230.00]	AMP	8883.9	-89.72	2972.1	71.41
6520	[SBA230	230.00]	AMP	8711.9	-90.14	2674.6	75.36
6521	[SBA115	115.00]	AMP	8747.0	-93.97	0.0	0.00
6522	[SBA34	34.500]	AMP	13537.3	-92.75	6133.8	-93.55
6840	[PAN3 230	230.00]	AMP	13066.9	-88.57	3109.9	56.32

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I^k) is determined as below:

3ph fault = $I^k = I_{a1}$
 LG Fault = $I^k = I_a = 3 \cdot I_{a0}$
 LLG Fault = $I^k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$
 LL Fault = $I^k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * I^k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/	AN(I+)	/3I0/	AN(I0)
6001	[PAN230	230.00]	AMP	11886.3	-89.36	3242.4	58.77
6002	[PAN115	115.00]	AMP	19731.2	-91.00	121.7	69.72
6003	[PANII230	230.00]	AMP	11105.2	-89.67	3373.5	57.49
6004	[PANIII115	115.00]	AMP	14532.9	-94.54	0.0	0.00
6005	[CHO230	230.00]	AMP	10366.1	-90.78	3163.0	61.23
6007	[CHO34	34.500]	AMP	25747.1	-100.98	515.5	-109.93
6008	[LSA230	230.00]	AMP	10220.7	-92.44	2535.9	70.64
6009	[LSA115	115.00]	AMP	12323.4	-96.72	0.0	0.00
6010	[LSA34	34.500]	AMP	18799.6	-72.22	510.5	-76.79
6011	[MDN230	230.00]	AMP	9329.5	-92.81	3406.0	66.27
6012	[MDN115	115.00]	AMP	11570.4	-95.39	23.4	77.05
6013	[MDN34	34.500]	AMP	13893.4	-99.87	499.6	-106.63
6014	[PRO230	230.00]	AMP	7433.8	-92.92	4850.4	54.35
6015	[PRO115	115.00]	AMP	7397.9	-96.85	0.0	0.00
6016	[PRO34	34.500]	AMP	11064.4	-99.10	495.8	-102.37
6018	[CAC115	115.00]	AMP	19421.2	-91.04	121.7	69.68
6087	[CAL115	115.00]	AMP	12991.0	-95.66	23.4	78.16
6179	[GUA230	230.00]	AMP	8684.4	-93.07	3372.1	67.60
6182	[VEL230	230.00]	AMP	9976.4	-93.09	2569.0	72.22
6240	[EHIG230	230.00]	AMP	7086.1	-93.12	3029.8	64.51
6262	[CHA34	34.500]	AMP	7573.3	-97.49	0.0	0.00
6340	[CAN230	230.00]	AMP	7240.2	-91.80	6484.8	32.35
6370	[BOQIII34B	34.500]	AMP	23099.8	-96.19	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7217.2	-93.28	4464.5	58.30
6381	[BOQIII34	34.500]	AMP	23099.8	-96.19	0.0	0.00
6460	[ECO230	230.00]	AMP	7782.4	-93.89	3184.0	66.22
6520	[SBA230	230.00]	AMP	8023.4	-94.50	2781.5	70.50
6521	[SBA115	115.00]	AMP	8366.5	-99.73	0.0	0.00
6522	[SBA34	34.500]	AMP	12730.8	-102.30	6172.0	-103.23
6840	[PAN3 230	230.00]	AMP	12121.4	-89.43	3229.7	59.19

4. 2032 - ESTACIÓN LLUVIOSA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0

SEQUENCES

- LOAD REPRESENTED IN +/-/0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I^k) is determined as below:

3ph fault = $I^k = I_{a1}$

LG Fault = $I^k = I_a = 3 \cdot I_{a0}$

LLG Fault = $I^k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$

LL Fault = $I^k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * I^k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	9525.4	-103.44	2991.9	26.21
6002	[PAN115	115.00]	AMP	15605.4	-106.47	117.0	38.25
6003	[PANII230	230.00]	AMP	8793.9	-104.81	3121.7	23.76
6004	[PANIII115	115.00]	AMP	12415.2	-112.66	0.0	0.00
6005	[CHO230	230.00]	AMP	8988.5	-105.19	2925.9	32.27
6007	[CHO34	34.500]	AMP	23569.2	-121.99	493.7	-137.10
6008	[LSA230	230.00]	AMP	11388.7	-100.19	2451.9	57.53
6009	[LSA115	115.00]	AMP	13817.6	-105.61	0.0	0.00
6010	[LSA34	34.500]	AMP	20599.5	-80.90	521.9	-86.09
6011	[MDN230	230.00]	AMP	12267.5	-92.83	3165.9	67.25
6012	[MDN115	115.00]	AMP	13826.2	-94.63	22.9	77.10
6013	[MDN34	34.500]	AMP	15182.8	-96.11	494.6	-106.30
6014	[PRO230	230.00]	AMP	9613.5	-90.44	4379.0	60.79
6015	[PRO115	115.00]	AMP	8242.0	-93.59	0.0	0.00
6016	[PRO34	34.500]	AMP	11293.6	-93.85	489.9	-97.45
6018	[CAC115	115.00]	AMP	15398.9	-106.69	116.9	38.15
6087	[CAL115	115.00]	AMP	16639.0	-95.52	23.0	78.88
6179	[GUA230	230.00]	AMP	11588.7	-94.73	3122.3	67.10
6182	[VEL230	230.00]	AMP	11850.2	-97.10	2484.0	66.03
6240	[EHIG230	230.00]	AMP	6857.7	-107.25	2823.6	42.69
6262	[CHA34	34.500]	AMP	8103.0	-98.52	0.0	0.00
6340	[CAN230	230.00]	AMP	8425.8	-94.46	5877.3	33.33
6370	[BOQIII34B	34.500]	AMP	26305.7	-90.80	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8891.3	-91.66	4084.4	62.54
6381	[BOQIII34	34.500]	AMP	26305.7	-90.80	0.0	0.00
6460	[ECO230	230.00]	AMP	8638.4	-105.37	2992.9	50.40
6520	[SBA230	230.00]	AMP	9071.8	-100.00	2704.6	62.90
6521	[SBA115	115.00]	AMP	9159.4	-104.15	0.0	0.00
6522	[SBA34	34.500]	AMP	14686.0	-101.23	6475.5	-102.18
6840	[PAN3 230	230.00]	AMP	9726.2	-103.40	2989.0	26.98

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-/0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-/0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-/0 SEQUENCES

- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I''_k) is determined as below:

3ph fault = $I''_k = I_{a1}$
 LG Fault = $I''_k = I_a = 3 \cdot I_{a0}$
 LLG Fault = $I''_k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$
 LL Fault = $I''_k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * I''_k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	8721.7	-95.43	3169.2	33.77
6002	[PAN115	115.00]	AMP	14608.3	-98.07	120.8	47.39
6003	[PANII230	230.00]	AMP	8105.2	-96.63	3316.1	31.33
6004	[PANIII115	115.00]	AMP	11808.3	-103.87	0.0	0.00
6005	[CHO230	230.00]	AMP	8400.3	-97.08	3079.6	39.70
6007	[CHO34	34.500]	AMP	23531.3	-113.06	510.0	-127.92
6008	[LSA230	230.00]	AMP	10927.7	-93.46	2479.4	63.98
6009	[LSA115	115.00]	AMP	13453.9	-98.68	0.0	0.00
6010	[LSA34	34.500]	AMP	19743.4	-73.77	524.0	-79.01
6011	[MDN230	230.00]	AMP	11370.4	-89.10	3287.5	69.96
6012	[MDN115	115.00]	AMP	13368.8	-91.22	23.5	80.54
6013	[MDN34	34.500]	AMP	15240.6	-92.99	511.3	-101.46
6014	[PRO230	230.00]	AMP	9477.5	-87.07	4542.4	63.52
6015	[PRO115	115.00]	AMP	8299.8	-90.37	0.0	0.00
6016	[PRO34	34.500]	AMP	11457.3	-90.80	501.8	-94.04
6018	[CAC115	115.00]	AMP	14429.5	-98.26	120.8	47.31
6087	[CAL115	115.00]	AMP	15883.2	-92.03	23.5	81.74
6179	[GUA230	230.00]	AMP	10474.3	-91.07	3239.1	69.14
6182	[VEL230	230.00]	AMP	11232.6	-91.67	2538.4	70.76
6240	[EHIG230	230.00]	AMP	6640.4	-99.51	2931.3	49.76
6262	[CHA34	34.500]	AMP	8301.8	-97.55	0.0	0.00
6340	[CAN230	230.00]	AMP	7815.9	-92.21	6168.9	32.10
6370	[BOQIII34B	34.500]	AMP	26418.0	-87.26	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8647.7	-88.13	4234.6	65.23
6381	[BOQIII34	34.500]	AMP	26418.0	-87.26	0.0	0.00
6460	[ECO230	230.00]	AMP	8345.5	-98.02	3046.5	57.12
6520	[SBA230	230.00]	AMP	8739.0	-93.94	2737.1	68.40
6521	[SBA115	115.00]	AMP	8973.2	-97.97	0.0	0.00
6522	[SBA34	34.500]	AMP	14391.5	-94.67	6366.7	-95.69
6840	[PAN3 230	230.00]	AMP	8887.8	-95.41	3161.4	34.50

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED

- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	11393.0	-104.51	3257.2	35.57
6002	[PAN115	115.00]	AMP	18515.0	-107.20	123.6	46.65
6003	[PANII230	230.00]	AMP	10879.2	-105.25	3382.4	34.33
6004	[PANII115	115.00]	AMP	14353.2	-111.79	0.0	0.00
6005	[CHO230	230.00]	AMP	10016.4	-106.64	3172.4	38.59
6007	[CHO34	34.500]	AMP	25241.9	-119.84	521.1	-132.29
6008	[LSA230	230.00]	AMP	10574.6	-105.04	2540.3	54.80
6009	[LSA115	115.00]	AMP	12878.5	-110.39	0.0	0.00
6010	[LSA34	34.500]	AMP	19208.3	-86.90	521.1	-92.27
6011	[MDN230	230.00]	AMP	12364.3	-95.88	3212.0	65.12
6012	[MDN115	115.00]	AMP	13925.6	-97.79	23.4	74.92
6013	[MDN34	34.500]	AMP	15790.8	-101.40	501.5	-109.45
6014	[PRO230	230.00]	AMP	9564.3	-94.28	4445.5	57.19
6015	[PRO115	115.00]	AMP	8275.0	-98.06	0.0	0.00
6016	[PRO34	34.500]	AMP	11406.4	-99.88	496.9	-103.19
6018	[CAC115	115.00]	AMP	18227.4	-107.33	123.6	46.58
6087	[CAL115	115.00]	AMP	16915.7	-97.78	23.3	77.27
6179	[GUA230	230.00]	AMP	11700.1	-96.85	3174.4	65.95
6182	[VEL230	230.00]	AMP	11263.2	-100.94	2511.7	63.29
6240	[EHIG230	230.00]	AMP	7092.1	-108.92	3022.4	44.64
6262	[CHA34	34.500]	AMP	8201.6	-98.86	0.0	0.00
6340	[CAN230	230.00]	AMP	8705.9	-95.75	6069.3	33.29
6370	[BOQIII34B	34.500]	AMP	26131.7	-95.55	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8908.6	-95.16	4146.1	59.46
6381	[BOQIII34	34.500]	AMP	26131.7	-95.55	0.0	0.00
6460	[ECO230	230.00]	AMP	8598.5	-110.06	3132.8	48.29
6520	[SBA230	230.00]	AMP	8187.7	-104.42	2764.3	58.75
6521	[SBA115	115.00]	AMP	7831.3	-110.14	0.0	0.00
6522	[SBA34	34.500]	AMP	10600.8	-112.25	5797.2	-113.40
6840	[PAN3 230	230.00]	AMP	11628.5	-104.52	3244.3	36.17

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES

- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X-----BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	12025.1	-108.54	3100.5	33.34
6002	[PAN115	115.00]	AMP	19091.4	-111.21	119.8	43.29
6003	[PANII230	230.00]	AMP	11415.5	-109.38	3227.0	32.00
6004	[PANII115	115.00]	AMP	14607.5	-115.97	0.0	0.00
6005	[CHO230	230.00]	AMP	10606.9	-110.57	3011.0	37.07
6007	[CHO34	34.500]	AMP	24973.3	-123.46	510.5	-134.67
6008	[LSA230	230.00]	AMP	12132.7	-107.87	2394.7	55.36
6009	[LSA115	115.00]	AMP	14011.1	-112.62	0.0	0.00
6010	[LSA34	34.500]	AMP	20178.3	-87.80	506.3	-91.77
6011	[MDN230	230.00]	AMP	12732.8	-96.17	3115.8	65.74
6012	[MDN115	115.00]	AMP	14000.9	-97.67	22.8	75.16
6013	[MDN34	34.500]	AMP	15500.4	-100.61	493.5	-109.43
6014	[PRO230	230.00]	AMP	9761.4	-94.05	4348.0	58.17
6015	[PRO115	115.00]	AMP	8279.2	-97.46	0.0	0.00
6016	[PRO34	34.500]	AMP	11309.4	-98.75	489.5	-102.09
6018	[CAC115	115.00]	AMP	18778.7	-111.33	119.8	43.21
6087	[CAL115	115.00]	AMP	17011.5	-97.83	22.9	77.55
6179	[GUA230	230.00]	AMP	12046.8	-97.47	3043.7	66.55
6182	[VEL230	230.00]	AMP	12355.7	-102.67	2395.8	63.96
6240	[EHIG230	230.00]	AMP	7429.4	-112.03	2854.9	44.19
6262	[CHA34	34.500]	AMP	8133.3	-98.98	0.0	0.00
6340	[CAN230	230.00]	AMP	8710.1	-96.30	5858.1	34.03
6370	[BOQIII34B	34.500]	AMP	26425.5	-94.95	0.0	0.00
6380	[BOQIII230	230.00]	AMP	9048.9	-95.04	4041.0	60.32
6381	[BOQIII34	34.500]	AMP	26425.5	-94.95	0.0	0.00
6460	[ECO230	230.00]	AMP	9089.7	-112.32	2960.4	48.62
6520	[SBA230	230.00]	AMP	9316.9	-106.39	2592.4	59.90
6521	[SBA115	115.00]	AMP	9074.1	-111.01	0.0	0.00
6522	[SBA34	34.500]	AMP	14297.3	-111.54	6278.1	-112.24
6840	[PAN3 230	230.00]	AMP	12283.2	-108.56	3090.2	33.96

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0

- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I''_k) is determined as below:

3ph fault = $I''_k = I_{a1}$

LG Fault = $I''_k = I_a = 3 \cdot I_{a0}$

LLG Fault = $I''_k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$

LL Fault = $I''_k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3} \cdot I''_k$ (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X----LG FAULT---X	
X----- BUS -----X				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	8888.0	-107.09	3300.4	30.96
6002	[PAN115	115.00]	AMP	14821.0	-109.34	121.7	44.31
6003	[PANII230	230.00]	AMP	8427.8	-107.97	3438.1	29.18
6004	[PANIII115	115.00]	AMP	12062.0	-113.66	0.0	0.00
6005	[CHO230	230.00]	AMP	8363.7	-108.48	3188.7	35.09
6007	[CHO34	34.500]	AMP	23066.0	-121.20	515.3	-133.60
6008	[LSA230	230.00]	AMP	9946.7	-106.18	2562.0	53.35
6009	[LSA115	115.00]	AMP	12378.2	-111.39	0.0	0.00
6010	[LSA34	34.500]	AMP	19081.8	-87.71	523.4	-93.00
6011	[MDN230	230.00]	AMP	12186.3	-96.35	3209.8	64.87
6012	[MDN115	115.00]	AMP	13769.7	-98.12	23.5	75.34
6013	[MDN34	34.500]	AMP	15958.1	-101.05	500.2	-106.94
6014	[PRO230	230.00]	AMP	9497.5	-94.67	4447.9	56.98
6015	[PRO115	115.00]	AMP	8237.8	-98.43	0.0	0.00
6016	[PRO34	34.500]	AMP	11442.0	-100.21	494.6	-102.91
6018	[CAC115	115.00]	AMP	14625.4	-109.45	121.7	44.25
6087	[CAL115	115.00]	AMP	16746.8	-98.05	23.3	77.23
6179	[GUA230	230.00]	AMP	11458.4	-97.34	3157.7	65.40
6182	[VEL230	230.00]	AMP	11106.1	-101.88	2497.8	62.51
6240	[EHIG230	230.00]	AMP	6450.8	-110.18	3046.8	42.30
6262	[CHA34	34.500]	AMP	8310.1	-99.28	0.0	0.00
6340	[CAN230	230.00]	AMP	8451.4	-96.13	6019.6	32.27
6370	[BOQIII34B	34.500]	AMP	26028.0	-95.61	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8833.4	-95.50	4145.5	59.25
6381	[BOQIII34	34.500]	AMP	26028.0	-95.61	0.0	0.00
6460	[ECO230	230.00]	AMP	8016.3	-111.18	3158.6	46.23
6520	[SBA230	230.00]	AMP	8338.1	-105.66	2748.2	57.91
6521	[SBA115	115.00]	AMP	8602.2	-111.39	0.0	0.00
6522	[SBA34	34.500]	AMP	13233.7	-113.45	6223.4	-114.45
6840	[PAN3 230	230.00]	AMP	9045.5	-107.07	3289.0	31.55

5. 2038 ESTACIÓN SECA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED

- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I''_k) is determined as below:

3ph fault = $I''_k = I_{a1}$
 LG Fault = $I''_k = I_a = 3 \cdot I_{a0}$
 LLG Fault = $I''_k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$
 LL Fault = $I''_k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * I''_k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	14627.5	-82.06	2932.7	58.42
6002	[PAN115	115.00]	AMP	22377.2	-85.22	118.3	66.47
6003	[PANII230	230.00]	AMP	13531.3	-83.24	3043.6	56.93
6004	[PANII115	115.00]	AMP	16226.7	-91.37	0.0	0.00
6005	[CHO230	230.00]	AMP	11869.7	-84.25	2874.4	62.39
6007	[CHO34	34.500]	AMP	25267.8	-97.69	503.4	-110.27
6008	[LSA230	230.00]	AMP	11619.7	-79.97	2381.8	80.23
6009	[LSA115	115.00]	AMP	13658.7	-84.07	0.0	0.00
6010	[LSA34	34.500]	AMP	19066.2	-58.27	499.9	-63.27
6011	[MDN230	230.00]	AMP	10128.4	-84.10	3250.5	72.37
6012	[MDN115	115.00]	AMP	12204.2	-87.03	22.7	81.69
6013	[MDN34	34.500]	AMP	13903.2	-89.72	490.0	-105.13
6014	[PRO230	230.00]	AMP	8009.6	-83.92	4579.1	63.08
6015	[PRO115	115.00]	AMP	7601.3	-87.34	0.0	0.00
6016	[PRO34	34.500]	AMP	10918.7	-87.67	487.1	-92.46
6018	[CAC115	115.00]	AMP	21972.1	-85.42	118.2	66.37
6087	[CAL115	115.00]	AMP	13626.2	-88.83	22.9	82.95
6179	[GUA230	230.00]	AMP	9538.3	-85.99	3223.0	72.17
6182	[VEL230	230.00]	AMP	10774.1	-82.28	2490.0	80.24
6240	[EHIG230	230.00]	AMP	7589.8	-85.75	2772.2	69.18
6262	[CHA34	34.500]	AMP	7488.6	-96.62	0.0	0.00
6340	[CAN230	230.00]	AMP	8195.7	-88.01	6002.7	35.77
6370	[BOQIII34B	34.500]	AMP	24140.9	-86.36	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7688.3	-84.62	4228.4	66.09
6381	[BOQIII34	34.500]	AMP	24140.9	-86.36	0.0	0.00
6460	[ECO230	230.00]	AMP	8945.7	-81.71	2878.9	77.56
6520	[SBA230	230.00]	AMP	8609.2	-82.36	2663.0	80.83
6521	[SBA115	115.00]	AMP	8632.1	-85.40	0.0	0.00
6522	[SBA34	34.500]	AMP	13329.4	-80.38	6040.9	-81.35
6840	[PAN3 230	230.00]	AMP	15023.6	-82.04	2937.7	59.14

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0

- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1

LG Fault = I"k = Ia = 3*Ia0

LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)

LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X---LG FAULT---X	
X----- BUS -----X				/I+/	AN(I+)	/3I0/	AN(I0)
6001	[PAN230	230.00]	AMP	13702.0	-82.90	2967.0	59.00
6002	[PAN115	115.00]	AMP	21204.8	-85.66	117.7	67.58
6003	[PANII230	230.00]	AMP	12690.7	-83.95	3077.1	57.60
6004	[PANIII115	115.00]	AMP	15527.6	-91.53	0.0	0.00
6005	[CHO230	230.00]	AMP	11338.2	-84.95	2910.9	62.74
6007	[CHO34	34.500]	AMP	25421.9	-97.71	496.9	-109.20
6008	[LSA230	230.00]	AMP	11432.5	-81.86	2386.9	79.31
6009	[LSA115	115.00]	AMP	13491.2	-85.84	0.0	0.00
6010	[LSA34	34.500]	AMP	19070.8	-60.10	503.7	-64.77
6011	[MDN230	230.00]	AMP	10039.8	-85.14	3261.7	72.10
6012	[MDN115	115.00]	AMP	12043.1	-87.92	22.9	81.94
6013	[MDN34	34.500]	AMP	14178.2	-90.58	489.9	-102.84
6014	[PRO230	230.00]	AMP	7973.6	-84.97	4594.9	62.48
6015	[PRO115	115.00]	AMP	7571.9	-88.44	0.0	0.00
6016	[PRO34	34.500]	AMP	10866.8	-89.07	486.8	-93.34
6018	[CAC115	115.00]	AMP	20830.6	-85.82	117.6	67.50
6087	[CAL115	115.00]	AMP	13527.1	-89.48	23.0	82.88
6179	[GUA230	230.00]	AMP	9453.3	-86.84	3227.6	71.93
6182	[VEL230	230.00]	AMP	10736.4	-83.81	2464.2	79.67
6240	[EHIG230	230.00]	AMP	7434.5	-86.56	2803.7	69.12
6262	[CHA34	34.500]	AMP	7504.1	-96.62	0.0	0.00
6340	[CAN230	230.00]	AMP	8120.2	-88.39	6002.1	35.89
6370	[BOQIII34B	34.500]	AMP	24142.8	-87.27	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7651.0	-85.57	4244.8	65.63
6381	[BOQIII34	34.500]	AMP	24142.8	-87.27	0.0	0.00
6460	[ECO230	230.00]	AMP	8815.8	-83.69	2897.5	76.16
6520	[SBA230	230.00]	AMP	8588.7	-84.08	2628.9	79.96
6521	[SBA115	115.00]	AMP	8598.8	-87.26	0.0	0.00
6522	[SBA34	34.500]	AMP	13329.1	-83.30	6037.0	-84.21
6840	[PAN3 230	230.00]	AMP	14069.6	-82.92	2968.3	59.68

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	17137.7	-87.50	2934.8	62.42
6002	[PAN115	115.00]	AMP	26286.2	-89.82	116.7	70.46
6003	[PANII230	230.00]	AMP	16041.7	-87.86	3027.6	61.78
6004	[PANIII115	115.00]	AMP	17630.9	-94.05	0.0	0.00
6005	[CHO230	230.00]	AMP	13164.8	-89.67	2861.5	63.95
6007	[CHO34	34.500]	AMP	26019.9	-100.60	493.1	-111.02
6008	[LSA230	230.00]	AMP	11158.5	-90.98	2397.7	71.41
6009	[LSA115	115.00]	AMP	12896.6	-95.70	0.0	0.00
6010	[LSA34	34.500]	AMP	18426.1	-72.21	492.3	-77.37
6011	[MDN230	230.00]	AMP	10947.3	-91.14	3201.2	67.95
6012	[MDN115	115.00]	AMP	12449.5	-93.75	22.7	76.69
6013	[MDN34	34.500]	AMP	12676.5	-98.98	504.9	-111.90
6014	[PRO230	230.00]	AMP	7975.8	-91.89	4607.3	55.99
6015	[PRO115	115.00]	AMP	7590.8	-96.03	0.0	0.00
6016	[PRO34	34.500]	AMP	10942.5	-98.32	489.9	-102.68
6018	[CAC115	115.00]	AMP	25736.0	-89.89	116.6	70.40
6087	[CAL115	115.00]	AMP	14559.4	-94.64	22.9	79.06
6179	[GUA230	230.00]	AMP	10745.5	-91.57	3136.1	70.21
6182	[VEL230	230.00]	AMP	10881.6	-91.54	2451.8	73.21
6240	[EHIG230	230.00]	AMP	7761.7	-92.24	2782.1	65.98
6262	[CHA34	34.500]	AMP	7500.9	-97.22	0.0	0.00
6340	[CAN230	230.00]	AMP	9111.0	-90.85	5865.5	38.84
6370	[BOQIII34B	34.500]	AMP	23510.9	-95.86	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7857.9	-92.19	4215.1	60.04
6381	[BOQIII34	34.500]	AMP	23510.9	-95.86	0.0	0.00
6460	[ECO230	230.00]	AMP	8368.3	-92.89	2978.5	67.75
6520	[SBA230	230.00]	AMP	8073.7	-93.02	2673.4	71.17
6521	[SBA115	115.00]	AMP	7529.5	-98.66	0.0	0.00
6522	[SBA34	34.500]	AMP	9879.4	-101.34	5561.5	-102.42
6840	[PAN3 230	230.00]	AMP	17587.6	-87.57	2931.6	62.92

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current ($I''k$) is determined as below:

3ph fault = $I''k = I_{a1}$
 LG Fault = $I''k = I_a = 3 \cdot I_{a0}$
 LLG Fault = $I''k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$
 LL Fault = $I''k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * $I''k$ (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	15619.8	-83.72	2943.1	62.52
6002	[PAN115	115.00]	AMP	24085.6	-86.23	118.1	70.76
6003	[PANII230	230.00]	AMP	14320.8	-84.39	3051.8	61.26
6004	[PANIII115	115.00]	AMP	16745.4	-91.24	0.0	0.00
6005	[CHO230	230.00]	AMP	12687.2	-85.73	2858.4	65.75
6007	[CHO34	34.500]	AMP	25905.1	-97.38	493.8	-108.19
6008	[LSA230	230.00]	AMP	12068.7	-85.27	2355.3	78.05
6009	[LSA115	115.00]	AMP	13805.7	-89.34	0.0	0.00
6010	[LSA34	34.500]	AMP	19600.5	-63.96	494.9	-68.24
6011	[MDN230	230.00]	AMP	10315.5	-87.89	3223.0	70.37
6012	[MDN115	115.00]	AMP	12211.1	-90.47	22.6	79.51
6013	[MDN34	34.500]	AMP	13794.4	-93.80	490.7	-107.36
6014	[PRO230	230.00]	AMP	8090.6	-88.08	4566.4	60.04
6015	[PRO115	115.00]	AMP	7628.4	-91.71	0.0	0.00
6016	[PRO34	34.500]	AMP	10935.2	-92.94	487.4	-97.42
6018	[CAC115	115.00]	AMP	23628.2	-86.35	118.0	70.69
6087	[CAL115	115.00]	AMP	13734.7	-91.79	22.8	81.03
6179	[GUA230	230.00]	AMP	9782.4	-89.01	3183.5	71.23
6182	[VEL230	230.00]	AMP	11185.5	-87.04	2424.2	78.08
6240	[EHIG230	230.00]	AMP	7820.6	-87.80	2759.3	70.06
6262	[CHA34	34.500]	AMP	7589.4	-96.66	0.0	0.00
6340	[CAN230	230.00]	AMP	8472.8	-89.45	5980.1	37.37
6370	[BOQIII34B	34.500]	AMP	24298.9	-90.95	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7770.6	-88.54	4209.0	63.42
6381	[BOQIII34	34.500]	AMP	24298.9	-90.95	0.0	0.00
6460	[ECO230	230.00]	AMP	9170.4	-86.51	2871.9	75.29
6520	[SBA230	230.00]	AMP	8863.7	-87.66	2596.3	77.84
6521	[SBA115	115.00]	AMP	8717.1	-91.64	0.0	0.00
6522	[SBA34	34.500]	AMP	13405.6	-90.44	6054.4	-91.23
6840	[PAN3 230	230.00]	AMP	16030.7	-83.76	2944.1	63.09

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current ($I''k$) is determined as below:

```

3ph fault = I"k = Ia1
LG Fault  = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault  = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

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SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	13836.8	-88.84	3008.3	60.36
6002	[PAN115	115.00]	AMP	22068.3	-90.67	117.0	69.91
6003	[PANII230	230.00]	AMP	12857.8	-89.14	3110.4	59.38
6004	[PANII115	115.00]	AMP	15606.8	-94.57	0.0	0.00
6005	[CHO230	230.00]	AMP	11528.9	-90.76	2925.9	62.43
6007	[CHO34	34.500]	AMP	25469.6	-101.27	492.2	-110.56
6008	[LSA230	230.00]	AMP	10803.0	-92.84	2401.3	70.63
6009	[LSA115	115.00]	AMP	12570.2	-97.23	0.0	0.00
6010	[LSA34	34.500]	AMP	18373.9	-72.99	491.7	-77.58
6011	[MDN230	230.00]	AMP	9869.1	-93.43	3263.8	66.27
6012	[MDN115	115.00]	AMP	11873.4	-96.02	22.7	76.13
6013	[MDN34	34.500]	AMP	13564.2	-100.76	487.5	-109.44
6014	[PRO230	230.00]	AMP	7596.3	-93.53	4688.1	54.40
6015	[PRO115	115.00]	AMP	7405.1	-97.43	0.0	0.00
6016	[PRO34	34.500]	AMP	10951.2	-99.63	485.3	-103.22
6018	[CAC115	115.00]	AMP	21671.4	-90.72	117.0	69.87
6087	[CAL115	115.00]	AMP	13448.1	-96.44	22.8	77.64
6179	[GUA230	230.00]	AMP	9251.9	-93.66	3220.1	68.03
6182	[VEL230	230.00]	AMP	10477.2	-93.66	2456.3	72.15
6240	[EHIG230	230.00]	AMP	7361.9	-93.38	2826.4	65.03
6262	[CHA34	34.500]	AMP	7480.1	-97.35	0.0	0.00
6340	[CAN230	230.00]	AMP	7523.8	-91.86	6212.9	34.44
6370	[BOQIII34B	34.500]	AMP	23083.4	-96.93	0.0	0.00
6380	[BOQIII230	230.00]	AMP	7410.8	-93.92	4297.7	58.38
6381	[BOQIII34	34.500]	AMP	23083.4	-96.93	0.0	0.00
6460	[ECO230	230.00]	AMP	8057.7	-94.31	3002.9	66.58
6520	[SBA230	230.00]	AMP	8256.4	-95.07	2651.9	70.45
6521	[SBA115	115.00]	AMP	8325.1	-100.33	0.0	0.00
6522	[SBA34	34.500]	AMP	12484.0	-102.82	6017.7	-103.68
6840	[PAN3 230	230.00]	AMP	14153.1	-88.92	3002.6	60.81

6. 2038 - ESTACIÓN LLUVIOSA

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1
LG Fault = I"k = Ia = 3*Ia0
LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X---LG FAULT---X	
X----- BUS -----X				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	13306.2	-95.33	2934.7	42.61
6002	[PAN115	115.00]	AMP	20604.3	-98.65	117.7	51.04
6003	[PANII230	230.00]	AMP	12445.4	-96.68	3050.2	41.06
6004	[PANIII115	115.00]	AMP	15466.9	-105.06	0.0	0.00
6005	[CHO230	230.00]	AMP	11301.4	-98.04	2868.2	46.68
6007	[CHO34	34.500]	AMP	25128.1	-112.86	493.4	-126.24
6008	[LSA230	230.00]	AMP	12164.2	-93.94	2365.6	66.52
6009	[LSA115	115.00]	AMP	14118.6	-98.65	0.0	0.00
6010	[LSA34	34.500]	AMP	19512.8	-73.38	500.5	-78.15
6011	[MDN230	230.00]	AMP	12866.0	-88.68	3095.5	71.39
6012	[MDN115	115.00]	AMP	14216.9	-90.96	22.5	79.95
6013	[MDN34	34.500]	AMP	15220.9	-93.51	487.3	-107.07
6014	[PRO230	230.00]	AMP	9774.4	-86.47	4314.7	64.83
6015	[PRO115	115.00]	AMP	8282.0	-89.64	0.0	0.00
6016	[PRO34	34.500]	AMP	11317.1	-89.91	487.1	-94.06
6018	[CAC115	115.00]	AMP	20253.6	-98.87	117.6	50.93
6087	[CAL115	115.00]	AMP	17164.5	-92.00	22.7	82.25
6179	[GUA230	230.00]	AMP	12323.6	-90.91	3032.5	70.91
6182	[VEL230	230.00]	AMP	12297.2	-91.71	2420.2	72.51
6240	[EHIG230	230.00]	AMP	7547.9	-99.94	2755.4	54.34
6262	[CHA34	34.500]	AMP	8111.2	-98.42	0.0	0.00
6340	[CAN230	230.00]	AMP	9454.2	-92.91	5627.6	35.74
6370	[BOQIII34B	34.500]	AMP	26370.4	-87.06	0.0	0.00
6380	[BOQIII230	230.00]	AMP	9076.2	-87.69	4010.8	66.65
6381	[BOQIII34	34.500]	AMP	26370.4	-87.06	0.0	0.00
6460	[ECO230	230.00]	AMP	9103.5	-98.26	2879.2	60.87
6520	[SBA230	230.00]	AMP	9238.5	-93.88	2611.6	70.43
6521	[SBA115	115.00]	AMP	8970.2	-97.36	0.0	0.00
6522	[SBA34	34.500]	AMP	13901.5	-93.48	6109.1	-94.31
6840	[PAN3 230	230.00]	AMP	13620.7	-95.25	2940.0	43.39

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current ($I''k$) is determined as below:

3ph fault = $I''k = I_{a1}$
 LG Fault = $I''k = I_a = 3 \cdot I_{a0}$
 LLG Fault = $I''k = I_b + I_c = 3 \cdot I_{a0} = 2 \cdot I_{a0} - (I_{a1} + I_{a2})$
 LL Fault = $I''k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

SCMVA = PU MVA * SBASE = $\sqrt{3}$ * $I''k$ (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	10404.9	-92.34	2993.0	39.36
6002	[PAN115	115.00]	AMP	17095.4	-95.52	115.7	50.16
6003	[PANII230	230.00]	AMP	9561.3	-93.78	3118.3	37.06
6004	[PANIII115	115.00]	AMP	13199.5	-102.11	0.0	0.00
6005	[CHO230	230.00]	AMP	9519.6	-94.98	2907.9	44.31
6007	[CHO34	34.500]	AMP	24135.4	-111.33	489.9	-125.92
6008	[LSA230	230.00]	AMP	11397.8	-91.89	2333.6	66.38
6009	[LSA115	115.00]	AMP	13531.3	-97.17	0.0	0.00
6010	[LSA34	34.500]	AMP	19046.5	-72.25	493.5	-77.36
6011	[MDN230	230.00]	AMP	12541.3	-87.57	3095.6	71.80
6012	[MDN115	115.00]	AMP	13957.8	-90.13	22.6	81.12
6013	[MDN34	34.500]	AMP	15246.4	-92.61	490.1	-103.62
6014	[PRO230	230.00]	AMP	9661.4	-85.67	4315.5	65.32
6015	[PRO115	115.00]	AMP	8223.5	-89.00	0.0	0.00
6016	[PRO34	34.500]	AMP	11249.3	-89.32	486.3	-93.07
6018	[CAC115	115.00]	AMP	16848.8	-95.76	115.6	50.06
6087	[CAL115	115.00]	AMP	16904.9	-91.10	22.7	82.94
6179	[GUA230	230.00]	AMP	11924.3	-89.64	3019.5	70.92
6182	[VEL230	230.00]	AMP	11782.6	-90.08	2402.0	72.70
6240	[EHIG230	230.00]	AMP	6949.5	-97.97	2763.6	53.13
6262	[CHA34	34.500]	AMP	8088.4	-98.25	0.0	0.00
6340	[CAN230	230.00]	AMP	9058.1	-91.39	5561.6	34.78
6370	[BOQIII34B	34.500]	AMP	26269.1	-86.00	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8952.7	-86.77	4011.5	67.14
6381	[BOQIII34	34.500]	AMP	26269.1	-86.00	0.0	0.00
6460	[ECO230	230.00]	AMP	8553.1	-96.50	2867.6	60.09
6520	[SBA230	230.00]	AMP	8889.3	-92.38	2587.3	70.58
6521	[SBA115	115.00]	AMP	8792.8	-96.26	0.0	0.00
6522	[SBA34	34.500]	AMP	13827.1	-92.42	6087.0	-93.36
6840	[PAN3 230	230.00]	AMP	10639.8	-92.23	2994.7	40.17

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current ($I''k$) is determined as below:

3ph fault = I"k = Ia1
 LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X----LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	15917.0	-97.53	2980.4	50.21
6002	[PAN115	115.00]	AMP	24473.4	-100.13	117.7	58.39
6003	[PANII230	230.00]	AMP	14911.5	-98.14	3076.7	49.31
6004	[PANII115	115.00]	AMP	17019.2	-104.65	0.0	0.00
6005	[CHO230	230.00]	AMP	12615.4	-99.97	2895.0	52.03
6007	[CHO34	34.500]	AMP	25639.6	-111.31	496.3	-122.56
6008	[LSA230	230.00]	AMP	11524.2	-99.79	2380.8	62.91
6009	[LSA115	115.00]	AMP	13287.3	-104.61	0.0	0.00
6010	[LSA34	34.500]	AMP	18851.5	-80.73	494.5	-85.59
6011	[MDN230	230.00]	AMP	12647.2	-93.19	3120.8	67.85
6012	[MDN115	115.00]	AMP	14005.0	-95.45	22.7	76.54
6013	[MDN34	34.500]	AMP	15236.2	-99.96	492.5	-110.80
6014	[PRO230	230.00]	AMP	9615.4	-91.72	4359.9	59.82
6015	[PRO115	115.00]	AMP	8232.7	-95.51	0.0	0.00
6016	[PRO34	34.500]	AMP	11293.4	-97.33	488.7	-101.18
6018	[CAC115	115.00]	AMP	23986.6	-100.23	117.7	58.32
6087	[CAL115	115.00]	AMP	17050.3	-95.65	22.9	79.23
6179	[GUA230	230.00]	AMP	12116.9	-94.38	3057.9	68.62
6182	[VEL230	230.00]	AMP	11734.9	-96.86	2415.0	68.70
6240	[EHIG230	230.00]	AMP	7716.2	-102.10	2790.8	55.53
6262	[CHA34	34.500]	AMP	8163.0	-98.67	0.0	0.00
6340	[CAN230	230.00]	AMP	9677.7	-94.84	5737.0	36.14
6370	[BOQIII34B	34.500]	AMP	26032.0	-93.24	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8962.3	-92.60	4050.4	62.13
6381	[BOQIII34	34.500]	AMP	26032.0	-93.24	0.0	0.00
6460	[ECO230	230.00]	AMP	9160.7	-103.97	2941.5	57.65
6520	[SBA230	230.00]	AMP	8440.0	-99.58	2635.3	65.26
6521	[SBA115	115.00]	AMP	7787.5	-104.81	0.0	0.00
6522	[SBA34	34.500]	AMP	10389.6	-106.50	5646.6	-107.48
6840	[PAN3 230	230.00]	AMP	16343.3	-97.54	2977.3	50.80

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-02-05 08:21:47.623000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES

SEQUENCES

- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1

LG Fault = I"k = Ia = 3*Ia0
 LLG Fault = I"k = Ib + Ic = 3*Ia0 = 2Ia0 - (Ia1+Ia2)
 LL Fault = I"k = Ib = -Ic = a^2*Ia1 + a*Ia2

SCMVA = PU MVA * SBASE = sqrt(3) * I"k (in kA) * bus base kV [where SBASE=100.0 MVA and is defined at 1 PU voltage]

				THREE PHASE FAULT		X----LG FAULT---X	
X----- BUS -----X				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	16421.5	-99.14	3005.4	48.95
6002	[PAN115	115.00]	AMP	25150.9	-101.77	118.6	56.71
6003	[PANII230	230.00]	AMP	15251.4	-99.75	3116.1	47.87
6004	[PANII115	115.00]	AMP	17360.6	-106.27	0.0	0.00
6005	[CHO230	230.00]	AMP	13159.7	-101.69	2913.0	51.20
6007	[CHO34	34.500]	AMP	26584.5	-112.95	499.5	-123.33
6008	[LSA230	230.00]	AMP	13238.3	-101.05	2363.2	63.94
6009	[LSA115	115.00]	AMP	14659.9	-105.42	0.0	0.00
6010	[LSA34	34.500]	AMP	20675.9	-80.43	496.5	-84.20
6011	[MDN230	230.00]	AMP	13184.8	-93.20	3105.0	68.44
6012	[MDN115	115.00]	AMP	14313.6	-95.19	22.7	76.77
6013	[MDN34	34.500]	AMP	15424.2	-99.16	488.8	-110.97
6014	[PRO230	230.00]	AMP	9899.7	-91.26	4331.1	60.84
6015	[PRO115	115.00]	AMP	8336.7	-94.73	0.0	0.00
6016	[PRO34	34.500]	AMP	11353.7	-96.06	488.6	-99.95
6018	[CAC115	115.00]	AMP	24646.5	-101.87	118.5	56.63
6087	[CAL115	115.00]	AMP	17397.3	-95.60	22.9	79.48
6179	[GUA230	230.00]	AMP	12753.0	-94.79	3041.7	69.04
6182	[VEL230	230.00]	AMP	12990.2	-97.66	2397.6	69.54
6240	[EHIG230	230.00]	AMP	8159.3	-103.34	2791.2	55.68
6262	[CHA34	34.500]	AMP	8226.4	-98.89	0.0	0.00
6340	[CAN230	230.00]	AMP	9906.2	-95.41	5725.5	36.35
6370	[BOQIII34B	34.500]	AMP	26544.2	-92.54	0.0	0.00
6380	[BOQIII230	230.00]	AMP	9209.4	-92.28	4025.5	62.98
6381	[BOQIII34	34.500]	AMP	26544.2	-92.54	0.0	0.00
6460	[ECO230	230.00]	AMP	9789.4	-104.44	2926.5	58.65
6520	[SBA230	230.00]	AMP	9727.2	-100.47	2584.7	66.63
6521	[SBA115	115.00]	AMP	9229.4	-104.84	0.0	0.00
6522	[SBA34	34.500]	AMP	14318.8	-105.20	6269.6	-105.83
6840	[PAN3 230	230.00]	AMP	16873.4	-99.14	3002.2	49.58

PSS(R)E-35.6.2 ASCC SHORT CIRCUIT CURRENTS

FRI, MAY 23

2025 18:55

BASE DE DATOS ETESA

2024-03-25 08:05:52.181000

OPTIONS USED:

- SET PRE-FAULT VOLTAGES AND PHASE SHIFT ANGLES TO POWER FLOW SOLUTION
- SET SYNCHRONOUS/ASYNCHRONOUS MACHINE POWER OUTPUTS TO POWER FLOW SOLUTION
- SET GENERATOR POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- SET INDUCTION MACHINE POSITIVE SEQUENCE REACTANCES TO SUBTRANSIENT
- TRANSFORMER TAP RATIOS AND PHASE SHIFT ANGLES UNCHANGED
- LINE CHARGING REPRESENTED IN +/-0 SEQUENCES
- LINE/FIXED/SWITCHED SHUNTS AND TRANSFORMER MAGNETIZING ADMITTANCE REPRESENTED IN +/-0 SEQUENCES
- LOAD REPRESENTED IN +/-0 SEQUENCES
- DC LINES AND FACTS DEVICES BLOCKED
- IMPEDANCE CORRECTIONS NOT APPLIED TO TRANSFORMER ZERO SEQUENCE IMPEDANCES
- NUMBER OF NON-CONVENTIONAL SOURCES [GENERATORS]=0
- NUMBER OF SERIES CAPACITOR BRANCHES WITH MOV PROTECTION ENABLED=0

For different fault types Total Fault Current (I"k) is determined as below:

3ph fault = I"k = Ia1

LG Fault = I"k = Ia = 3*Ia0

$LLG\ Fault = I''k = I_b + I_c = 3 \cdot I_{a0} = 2I_{a0} - (I_{a1} + I_{a2})$
 $LL\ Fault = I''k = I_b = -I_c = a^2 \cdot I_{a1} + a \cdot I_{a2}$

$SCMVA = PU\ MVA \cdot SBASE = \sqrt{3} \cdot I''k\ (in\ kA) \cdot bus\ base\ kV$ [where SBASE=100.0 MVA and is defined at 1 PU voltage]

X----- BUS -----X				THREE PHASE FAULT		X---LG FAULT---X	
				/I+/ AN(I+)		/3I0/ AN(I0)	
6001	[PAN230	230.00]	AMP	12279.4	-98.33	3056.9	47.50
6002	[PAN115	115.00]	AMP	19412.3	-100.81	116.0	57.24
6003	[PANII230	230.00]	AMP	11561.6	-98.99	3159.5	46.37
6004	[PANIII115	115.00]	AMP	14631.3	-104.94	0.0	0.00
6005	[CHO230	230.00]	AMP	10523.7	-100.52	2968.4	49.81
6007	[CHO34	34.500]	AMP	24578.6	-111.80	493.7	-122.31
6008	[LSA230	230.00]	AMP	11060.3	-100.17	2391.7	62.70
6009	[LSA115	115.00]	AMP	12901.1	-104.82	0.0	0.00
6010	[LSA34	34.500]	AMP	19058.3	-80.52	491.2	-85.06
6011	[MDN230	230.00]	AMP	12442.2	-92.86	3129.6	68.48
6012	[MDN115	115.00]	AMP	13821.7	-94.90	23.0	78.13
6013	[MDN34	34.500]	AMP	15735.6	-98.39	490.2	-105.88
6014	[PRO230	230.00]	AMP	9540.3	-91.29	4368.8	60.47
6015	[PRO115	115.00]	AMP	8195.6	-95.05	0.0	0.00
6016	[PRO34	34.500]	AMP	11333.4	-96.82	487.3	-99.88
6018	[CAC115	115.00]	AMP	19069.3	-100.89	116.0	57.17
6087	[CAL115	115.00]	AMP	16857.4	-95.08	22.9	80.11
6179	[GUA230	230.00]	AMP	11825.5	-94.11	3053.7	68.78
6182	[VEL230	230.00]	AMP	11659.2	-97.02	2399.0	68.95
6240	[EHIG230	230.00]	AMP	7145.8	-102.48	2843.6	54.46
6262	[CHA34	34.500]	AMP	8233.2	-98.70	0.0	0.00
6340	[CAN230	230.00]	AMP	9272.6	-94.49	5729.9	35.27
6370	[BOQIII34B	34.500]	AMP	25914.2	-92.40	0.0	0.00
6380	[BOQIII230	230.00]	AMP	8882.0	-92.10	4059.3	62.81
6381	[BOQIII34	34.500]	AMP	25914.2	-92.40	0.0	0.00
6460	[ECO230	230.00]	AMP	8706.7	-104.23	2969.9	56.91
6520	[SBA230	230.00]	AMP	8694.4	-100.04	2606.4	65.52
6521	[SBA115	115.00]	AMP	8582.7	-105.18	0.0	0.00
6522	[SBA34	34.500]	AMP	12988.9	-106.83	6068.0	-107.64
6840	[PAN3 230	230.00]	AMP	12590.3	-98.32	3050.6	48.09