



CENACE[®]
CENTRO NACIONAL DE
CONTROL DE ENERGÍA

Niveles de cortocircuito de la Red Nacional de Transmisión 2025

Dirección de Operación y Planeación
del Sistema
Subdirección de Planeación

Diciembre de 2022

**Se actualizan Niveles de Corto Circuito
Máximos y Mínimos**

*Capacidad de cortocircuito en las subestaciones eléctricas del Sistema Eléctrico Nacional
calculados con base en el Estándar IEC 60909.*

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1. Objetivo

Determinar los niveles de cortocircuito máximos y mínimos en las subestaciones eléctricas de la Red Nacional de Transmisión.

2. Fundamento legal

De conformidad con los Criterios INTG 11, así como CONE 5, de las Disposiciones Administrativas de carácter general que contienen los criterios de eficiencia, calidad, confiabilidad, continuidad, seguridad y sustentabilidad del Sistema Eléctrico Nacional: Código de Red, publicadas en el Diario Oficial de la federación el 8 de abril de 2016, corresponde al Centro Nacional de Control de Energía (CENACE) calcular y publicar anualmente los niveles de cortocircuito máximos y mínimos en los Puntos de Interconexión de Centrales Eléctricas y conexión de Centros de Carga.

3. Consideraciones de cálculo

Los niveles de cortocircuito se calcularon con base en lo siguiente:

- a) A fin de calcular los valores máximos y mínimos en los Puntos de Interconexión de Centrales Eléctricas y Conexión de Centros de Carga, se analizaron los escenarios esperados para 2025.
- b) Para el escenario de mínima capacidad, se considera red completa (sin contingencia) y las condiciones esperadas para invierno de 2025.
- c) Para el escenario de máxima capacidad, se consideran cerrados todos los interruptores y elementos de transmisión que pueden estar en servicio en la Red Nacional de Transmisión, para dos condiciones: con los retiros solicitados al CENACE para 2025, así como con el Programa Indicativo Para el Retiro de Centrales Eléctricas 2022-2036.
- d) Los modelos eléctricos del Sistema Eléctrico Nacional (SEN) contemplan las obras indicadas en los programas de ampliación y modernización para la Red Nacional de Transmisión y los elementos de las Redes Generales de Distribución que correspondan al Mercado Eléctrico Mayorista (PAMRNT) 2022-2036 y en el Programa de Desarrollo del Sistema Eléctrico Nacional (PRODESEN) 2022-2036.

- e) Los modelos eléctricos del SEN se desarrollaron con base en la información proporcionada por los Transportistas y Distribuidores.
- f) Los modelos de las Centrales Eléctricas y de los Centros de Cargas programados en los escenarios de estudio son con base en la información proporcionada en las solicitudes de interconexión y de conexión respectivamente que fueron consideradas para el PAMRNT 2022-2036.
- g) El método de cálculo es el establecido en el Estándar IEC 60909.
- h) Para efectos de cálculo se utiliza la herramienta de software PSS®E V35.4, con los siguientes parámetros:
 - Taps de los transformadores unitarios.
 - Reactores de Líneas de Transmisión (LT) y barra en servicio y sin cambio.
 - Susceptancia de las LT sin cambio.
 - Reactancia subtransitoria de las unidades de Centrales Eléctricas.
 - Cargas del sistema eléctrico sin cambio.
 - Para el escenario de máxima capacidad se considera el factor $C = 1.1$.
 - Para el escenario de mínima capacidad se considera el factor $C=1.0$.
- i) Se reporta la magnitud de la corriente simétrica inicial I_k'' (r.m.s.)

Los niveles de cortocircuito calculados pueden variar dependiendo de las impedancias de las unidades de las Centrales Eléctricas, transformadores, autotransformadores, transformadores defasadores, reactores, etc., que tienen fecha de entrada en operación entre 2022 y 2025.

4. Niveles de cortocircuito reportados por nivel de tensión y por Gerencia de Control Regional

En la figura 1 se muestran los niveles de cortocircuito reportados por nivel de tensión. Se observa que el nivel de tensión con el mayor número de subestaciones eléctricas es 115 kV, con aproximadamente el 68% de los valores reportados.

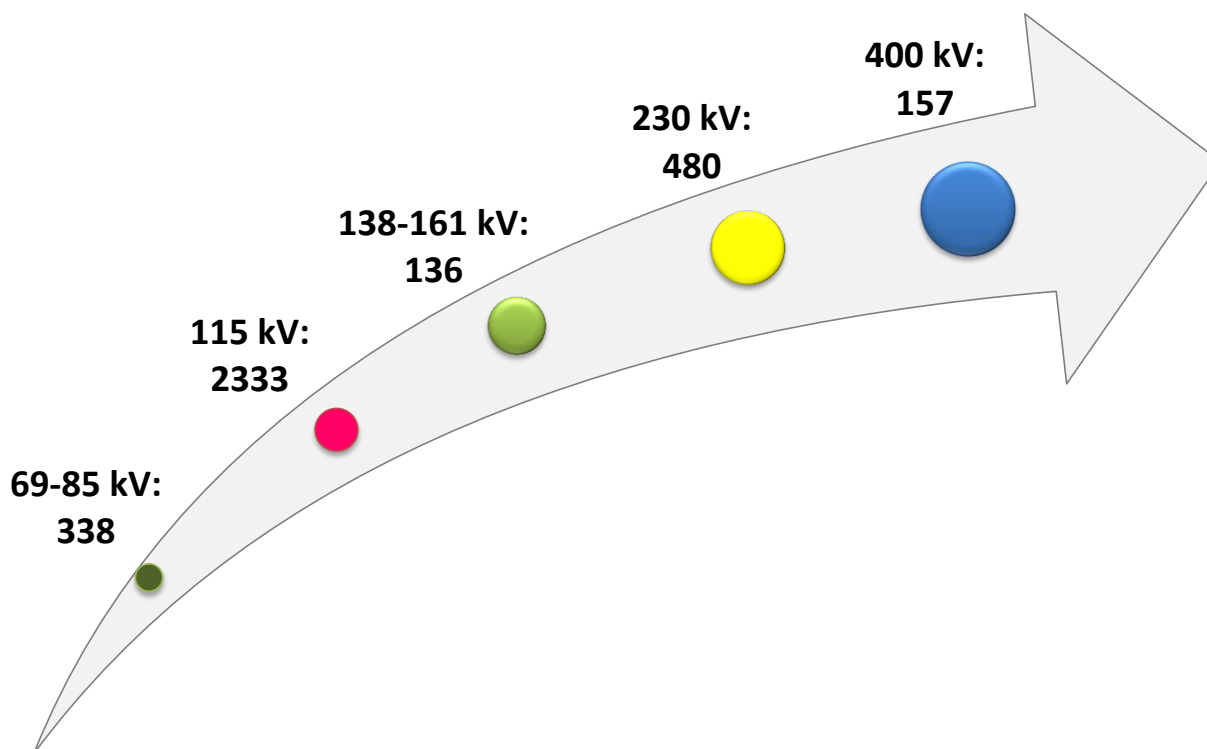
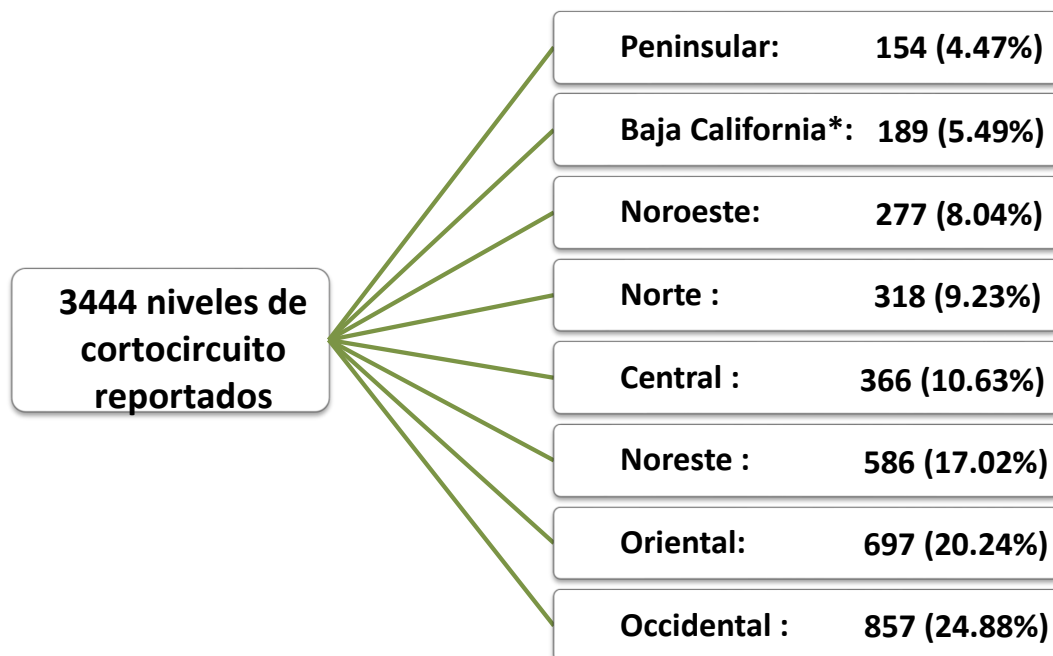


Figura 1: Niveles de cortocircuito por nivel de tensión

Considerando las diferentes Gerencias de Control Regional, en la figura 2 se indica el número de subestaciones eléctricas reportadas por Gerencia de Control, por ejemplo, el 25% de los niveles de cortocircuito reportados corresponde a la Gerencia de Control Regional Occidental.



* Incluye los Sistemas Interconectados Baja California, Baja California Sur y Mulegé

Figura 2: Niveles de cortocircuito por Gerencia de Control Regional

5. Referencias

- [1] Ley de la Industria Eléctrica. DOF: 11/08/2014.
- [2] Reglamento de la Ley de la Industria eléctrica. DOF: 31/10/14.
- [3] Disposiciones Administrativas de carácter general que contienen los criterios de eficiencia, calidad, confiabilidad, continuidad, seguridad y sustentabilidad del Sistema Eléctrico Nacional: Código de Red. DOF: 08/04/2016.
- [4] Programa de Ampliación y Modernización de la Red Nacional de Transmisión y Redes Generales de Distribución del Mercado Eléctrico Mayorista 2022-2036.
- [5] Estándar IEC 60909 Short-circuit currents in three-phase a.c. systems.
- [6] IEEE Standard 551-2006. Recommended Practice for Calculating Short-Circuit Currents in Industrial and Commercial Power Systems.

Gerencia de Control Regional Central





Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ACEROS CAMESA	ACM-85	85.0	16.84	5.98	0.538+j2.864	2.007+j18.699	20.17	7.83	0.425+j2.643	2.429+j15.140
ACEROS CORSA	ACS-230	230.0	12.39	9.24	1.696+j10.579	3.805+j21.359	14.49	10.54	1.388+j9.985	3.763+j21.118
ACEROS CORSA	ACC-85	85.0	13.30	5.46	0.703+j3.623	2.636+j19.432	15.50	7.60	0.611+j3.428	2.822+j14.059
ACEROS NACIONALES	ACN-85	85.0	17.17	6.31	0.594+j2.795	2.179+j17.502	19.97	8.63	0.511+j2.655	2.502+j13.115
ACOLMAN	ACO-230	230.0	24.04	18.58	1.004+j5.433	2.134+j10.182	28.88	21.52	0.717+j5.007	2.104+j10.037
ACTOPAN	AAN-85	85.0	5.60	2.40	2.527+j8.386	8.413+j43.102	6.27	2.66	2.451+j8.256	8.450+j42.866
ACULCO	AUO-115	115.0	2.83	1.60	4.340+j23.044	14.986+j75.928	3.12	1.76	4.274+j22.987	14.987+j75.928
AGUAVIVA	AGV-85	85.0	5.54	1.42	1.851+j8.655	8.468+j85.300	6.20	1.57	1.775+j8.519	8.468+j85.300
ÁGUILAS	AGU-230	230.0	26.39	27.45	1.330+j4.853	0.690+j4.419	32.77	33.22	0.904+j4.364	0.664+j4.226
AGUSTÍN MILLÁN	ANM-115	115.0	15.93	12.23	0.774+j4.095	1.252+j7.841	21.59	15.13	0.501+j3.345	1.272+j7.605
ALMOLOYA	AML-400	400.0	11.87	10.33	3.478+j19.144	2.115+j28.141	15.64	12.62	1.939+j16.123	2.198+j27.757
ALPURA	ALR-85	85.0	17.25	5.83	0.542+j2.792	2.155+j19.472	21.02	7.62	0.414+j2.534	2.577+j15.905
ALTAMIRANO (115 KV)	ATM-115	115.0	2.68	1.59	6.825+j23.793	20.332+j72.928	3.35	2.34	5.449+j21.132	11.904+j48.328
AMOMOLULCO	AMO-85	85.0	8.91	4.77	1.245+j5.362	2.532+j19.713	10.25	5.40	1.121+j5.146	2.599+j19.308
APAPLASTIC	AAP-85	85.0	9.23	4.87	1.178+j5.185	2.747+j19.413	10.63	5.51	1.054+j4.967	2.815+j19.008
APASCO	APA-230	230.0	20.25	17.84	1.074+j6.468	1.142+j9.153	24.65	21.17	0.755+j5.877	1.100+j8.770
APASCO	APA-85	85.0	18.27	4.58	0.394+j2.656	1.948+j26.713	21.38	5.11	0.330+j2.503	1.987+j26.593
APM TERMINALS	ATS-115	115.0	10.25	9.25	1.137+j6.377	1.496+j8.334	13.54	11.66	0.840+j5.329	1.487+j7.835
ARAGÓN	ARA-230	230.0	18.15	17.45	1.255+j7.208	1.360+j8.099	21.52	20.59	0.920+j6.724	1.262+j7.611
ARAGÓN	ARA-85	85.0	9.05	2.80	0.600+j5.388	0.311+j41.847	11.21	3.15	0.489+j4.792	0.311+j41.847
ARCELIA NUEVA	ANU-115	115.0	2.33	1.42	9.471+j26.869	27.150+j78.616	2.94	2.41	7.448+j23.674	8.559+j40.530
ARCELIA NUEVA	ANU-69	69.0	2.13	2.63	4.096+j18.207	0.616+j8.240	2.52	3.05	3.349+j17.086	0.618+j8.250
ARCELOR MITTAL MANIOBRAS	MAN-230	230.0	11.81	10.42	2.651+j10.926	2.649+j15.141	18.97	15.02	1.294+j7.592	2.562+j13.366
ARMEX	ARX-230	230.0	24.85	19.54	0.933+j5.261	1.967+j9.500	31.16	23.57	0.614+j4.647	1.909+j9.020
ARTEAGA	ATG-115	115.0	2.58	1.91	5.654+j25.145	8.635+j52.134	2.96	2.19	5.329+j24.102	8.246+j50.004
ARTEAGA	ATG-69	69.0	1.94	1.94	4.069+j20.177	2.762+j20.394	2.19	2.19	4.045+j19.578	2.683+j19.924
ATENCO	ATE-230	230.0	16.69	17.40	1.929+j7.719	0.761+j6.995	20.31	20.80	1.388+j7.057	0.714+j6.650
ATENCO	ATE-85	85.0	14.77	7.61	0.681+j3.251	1.049+j12.704	17.55	8.75	0.562+j3.024	1.117+j12.302
ATIZAPÁN	ATI-230	230.0	21.08	17.64	1.282+j6.167	1.774+j9.837	25.44	20.72	0.905+j5.669	1.688+j9.515
ATLACOMULCO	ATU-115	115.0	8.03	5.75	1.646+j8.100	3.290+j17.802	9.06	6.41	1.515+j7.916	3.291+j17.758
ATLACOMULCO INDUSTRIAL	AIN-115	115.0	6.27	4.28	2.351+j10.320	5.338+j24.801	7.04	4.75	2.219+j10.137	5.339+j24.756
ATLACOMULCO POTENCIA	AMP-400	400.0	9.57	8.55	3.996+j23.788	2.559+j32.714	12.16	10.25	2.431+j20.756	2.632+j32.403
ATLACOMULCO POTENCIA	AMP-115	115.0	15.25	14.44	0.644+j4.306	0.354+j5.083	17.69	16.47	0.511+j4.098	0.358+j5.030
ATOTONILCO	ANL-85	85.0	2.89	1.39	4.331+j16.398	14.556+j70.847	3.21	1.53	4.249+j16.260	14.590+j70.543
AURORA	AUR-230	230.0	31.22	31.65	0.967+j4.142	0.635+j4.049	38.87	38.13	0.626+j3.706	0.616+j3.929
AURORA	AUR-85	85.0	20.15	2.76	0.371+j2.407	0.097+j48.465	23.57	3.06	0.303+j2.270	0.097+j48.465
AUTOMETALES	AUM-85	85.0	13.20	5.43	0.725+j3.646	2.728+j19.508	15.41	7.72	0.631+j3.446	2.811+j13.683
AVANDARO	AVA-115	115.0	6.81	4.63	2.772+j9.343	6.740+j22.526	8.21	5.37	2.463+j8.547	6.704+j22.021
AVANTE TEXTIL	AVT-85	85.0	12.85	6.91	0.795+j3.736	1.279+j13.649	15.13	7.94	0.674+j3.503	1.344+j13.200
AYOTLA	AYO-230	230.0	20.68	19.98	1.245+j6.300	0.846+j7.067	24.58	23.38	0.900+j5.874	0.808+j6.818



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AYOTLA	AYO-85	85.0	16.90	2.24	0.446+j2.870	3.150+j59.881	19.55	2.47	0.379+j2.735	3.150+j59.881
AZCAPOTZALCO	AZC-230	230.0	32.48	30.96	1.028+j3.957	2.509+j4.116	41.67	37.99	0.630+j3.448	2.447+j4.017
AZTECA	ATK-230	230.0	26.34	25.38	0.974+j4.946	0.766+j5.581	32.07	30.11	0.658+j4.506	0.743+j5.399
BANCOMER	BBV-230	230.0	21.86	11.72	1.273+j5.940	2.164+j21.798	26.50	13.42	0.889+j5.441	2.099+j21.544
BÁRBARA (SANTA)	BBR-115	115.0	7.22	4.86	2.050+j8.961	4.569+j22.122	9.73	7.68	1.418+j7.373	1.885+j13.336
BARRIENTOS	BAR-85	85.0	19.81	6.94	0.521+j2.422	1.762+j16.178	23.24	9.74	0.437+j2.282	2.084+j11.791
BECTON DICKINSON	BDK-85	85.0	16.89	5.76	0.555+j2.852	2.189+j19.660	20.58	7.51	0.425+j2.589	2.611+j16.093
BOSQUES	BOS-230	230.0	23.64	21.07	1.436+j5.431	1.657+j7.502	28.98	24.88	1.024+j4.935	1.623+j7.350
CAMPO MORADO	CMO-115	115.0	1.77	1.07	11.348+j35.720	32.629+j106.214	2.16	1.60	9.311+j32.546	13.857+j67.887
CAMPOS HERMANOS	CHE-85	85.0	18.31	6.59	0.560+j2.621	1.984+j16.885	21.37	9.12	0.476+j2.481	2.307+j12.498
CANCHESDA NUEVA	CSN-115	115.0	3.05	1.91	5.717+j20.982	15.432+j58.739	3.39	2.11	5.583+j20.803	15.433+j58.692
CARACOL	ROL-230	230.0	22.59	18.59	1.112+j5.772	1.937+j9.492	27.02	21.60	0.812+j5.344	1.887+j9.297
CARBONER	CSR-115	115.0	5.31	4.79	2.624+j12.234	3.575+j16.103	6.39	5.63	2.320+j11.194	3.570+j15.628
CAREAGA	CAR-85	85.0	19.19	6.32	0.505+j2.507	2.164+j18.077	22.36	9.14	0.428+j2.375	2.182+j12.705
CARTAGENA	CTG-230	230.0	28.98	25.77	0.943+j4.484	0.722+j6.280	35.98	30.69	0.611+j4.013	0.700+j6.124
CARTÓN Y PAPEL DE MÉXICO	CPM-230	230.0	27.00	24.18	0.979+j4.820	1.186+j6.546	32.98	28.60	0.663+j4.379	1.159+j6.368
CAYACAL	CAY-115	115.0	7.45	6.70	1.838+j8.723	2.214+j11.602	9.31	8.11	1.530+j7.693	2.195+j11.106
CAÑAS	CNA-69	69.0	1.44	1.21	11.550+j25.176	13.987+j41.168	1.70	1.41	10.915+j23.344	13.496+j39.465
CEILÁN	CEI-230	230.0	24.30	22.01	1.044+j5.365	1.173+j7.077	30.00	26.41	0.674+j4.821	1.126+j6.763
CEMENTOS ANÁHUAC	CAH-85	85.0	17.14	6.39	0.600+j2.800	1.942+j17.237	20.00	8.71	0.512+j2.650	2.309+j12.992
CEMENTOS APASCO	CEA-85	85.0	10.14	3.06	0.854+j4.763	5.484+j37.998	11.53	3.40	0.791+j4.615	5.522+j37.878
CEMENTOS FORTALEZA	CFZ-85	85.0	2.50	1.16	4.925+j18.995	16.814+j85.971	2.77	1.28	4.847+j18.872	16.851+j85.734
CEMENTOS TOLTECA	TLT-85	85.0	9.50	2.74	0.899+j5.085	6.940+j42.813	10.80	3.04	0.835+j4.929	6.979+j42.692
CERRO DEL CAMPO	CCM-115	115.0	3.32	2.27	6.085+j19.061	14.919+j45.383	4.00	2.93	5.269+j17.468	11.384+j36.566
CERRO GORDO	CRG-230	230.0	34.55	36.42	0.859+j3.746	0.445+j3.242	43.53	44.51	0.548+j3.311	0.428+j3.109
CERRO GORDO	CRG-85	85.0	23.75	8.33	0.383+j2.030	0.953+j13.538	29.21	14.18	0.287+j1.826	0.935+j7.671
CERVECERÍA MODELO	CVM-85	85.0	13.61	4.62	0.717+j3.534	7.261+j23.607	15.60	6.15	0.637+j3.401	7.236+j18.136
CHALCO	CHA-230	230.0	16.44	16.32	2.385+j7.719	2.178+j7.964	19.29	18.93	2.038+j7.293	2.135+j7.713
CHALCO	CHA-85	85.0	12.27	1.93	0.733+j3.933	4.863+j67.991	14.03	2.14	0.660+j3.792	4.863+j67.991
CHALCO	CHA-85B	85.0	12.27	1.93	0.733+j3.933	4.863+j67.991	14.03	2.14	0.660+j3.792	4.863+j67.991
CHAPINGO	CPG-230	230.0	37.93	33.79	0.748+j3.420	0.938+j4.709	47.86	40.50	0.460+j3.017	0.919+j4.629
CHICOLAPAN	CHC-230	230.0	34.58	23.72	0.770+j3.762	1.920+j8.921	43.12	27.82	0.480+j3.353	1.877+j8.789
CHIMALPA	MLP-230	230.0	30.10	31.29	1.174+j4.253	0.872+j3.815	38.16	38.10	0.771+j3.749	0.866+j3.743
CHIMALPA DOS	MLD-400	400.0	23.15	22.25	2.357+j9.692	1.803+j11.067	31.33	27.85	1.217+j8.017	1.810+j10.974
CHIMALPA DOS	MLD-230	230.0	31.45	32.92	1.105+j4.075	0.579+j3.629	40.12	40.24	0.702+j3.573	0.576+j3.558
CHRYSLER DE MÉXICO	KDM-85	85.0	12.18	6.98	0.820+j3.945	1.115+j13.026	14.41	8.09	0.694+j3.681	1.176+j12.463
CIUDAD BICENTENARIO	CDB-115	115.0	6.13	4.95	1.422+j10.745	2.281+j18.417	6.84	5.51	1.333+j10.586	2.272+j18.303
COAPA	COA-230	230.0	17.69	15.64	1.489+j7.355	1.803+j10.326	21.16	18.33	1.074+j6.818	1.717+j9.960
COFRADÍA UNO	CFI-230	230.0	28.27	24.97	0.983+j4.594	0.893+j6.513	35.30	29.77	0.626+j4.090	0.874+j6.381
COMALCO	COM-115	115.0	3.68	2.40	4.293+j17.522	10.708+j45.580	4.10	2.66	4.156+j17.328	10.711+j45.529



Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CONDESA	CDS-230	230.0	21.37	22.26	1.692+j5.978	1.185+j5.350	25.90	26.67	1.261+j5.497	1.117+j5.022
CONTADERO	CTD-230	230.0	22.77	20.62	1.461+j5.646	1.481+j7.525	27.77	24.41	1.044+j5.155	1.423+j7.289
CONTRERAS	CRS-230	230.0	15.64	13.36	1.661+j8.327	1.289+j12.819	18.38	15.49	1.248+j7.849	1.224+j12.348
COVADONGA	CVD-85	85.0	11.80	1.95	0.752+j4.089	4.628+j66.988	13.46	2.16	0.682+j3.952	4.628+j66.988
COYOACÁN	COY-230	230.0	22.56	23.39	1.519+j5.687	1.287+j5.107	27.47	28.14	1.088+j5.204	1.218+j4.785
COYOTEPEC	CYO-85	85.0	7.46	3.30	2.049+j6.249	6.633+j30.858	9.77	4.13	1.435+j5.334	7.047+j27.253
CRUZ AZUL	CCZ-230	230.0	25.20	20.81	0.827+j5.204	1.577+j8.463	31.82	25.29	0.514+j4.562	1.560+j8.003
CUAJIMALPA	CJM-230	230.0	22.79	21.74	1.355+j5.666	0.839+j6.655	27.81	25.71	0.928+j5.171	0.820+j6.490
CUAUHTÉMOC	CMC-230	230.0	21.12	19.86	1.256+j6.161	1.250+j7.396	25.36	23.56	0.909+j5.689	1.170+j6.982
CUAUTITLÁN	CTT-85	85.0	16.56	5.65	0.596+j2.903	2.427+j19.986	20.87	7.42	0.425+j2.551	2.847+j16.403
CUBITOS	CBT-85	85.0	8.61	3.40	1.331+j5.544	5.212+j31.519	9.76	3.80	1.250+j5.391	5.254+j31.179
CULHUACÁN	LUN-230	230.0	18.41	8.44	1.475+j7.062	1.779+j32.865	21.99	9.83	1.072+j6.556	1.635+j31.321
DEACERO	DCO-85	85.0	19.84	6.96	0.516+j2.420	1.769+j16.144	23.70	9.66	0.415+j2.240	2.153+j12.017
DEPORTIVA	DVA-400	400.0	14.63	13.08	2.998+j15.503	1.449+j21.426	19.29	16.03	1.572+j13.075	1.467+j21.104
DEPORTIVA	DVA-230	230.0	16.55	17.27	1.513+j7.877	0.597+j7.031	19.90	20.36	1.024+j7.267	0.578+j6.818
DIANA	DAA-230	230.0	21.35	22.27	1.700+j5.983	1.209+j5.320	25.87	26.69	1.269+j5.502	1.139+j4.991
DISTRIBUCIÓN BMX	BMX-85	85.0	16.07	5.52	0.598+j2.994	2.433+j20.452	19.58	7.15	0.461+j2.718	2.855+j16.882
DISTRIBUCIÓN DRT	DRT-115	115.0	6.25	4.26	2.359+j10.360	5.367+j24.947	7.01	4.73	2.228+j10.177	5.368+j24.902
DONATO GUERRA	DOG-400	400.0	14.80	14.22	3.183+j15.274	1.380+j17.464	23.72	20.23	1.305+j10.632	1.698+j16.016
DONATO GUERRA	DOG-115	115.0	23.42	22.10	0.472+j2.796	0.240+j3.337	35.63	30.15	0.205+j2.039	0.262+j3.148
DONATO GUERRA	DOG-115B	115.0	24.26	22.87	0.476+j2.695	0.251+j3.227	37.18	31.42	0.209+j1.953	0.271+j3.024
DOS CARLOS	DCA-85	85.0	5.65	2.46	2.007+j8.457	6.939+j41.893	6.32	2.73	1.927+j8.318	6.973+j41.590
ECATEPEC	ECA-230	230.0	21.77	18.87	1.146+j5.991	1.637+j8.778	26.23	22.21	0.819+j5.508	1.547+j8.455
EL CARMEN	CRM-85	85.0	5.34	3.07	2.595+j8.813	7.438+j28.585	6.60	3.85	2.342+j7.835	6.839+j24.747
EL CERRILLO	ECR-230	230.0	12.67	11.41	2.325+j10.218	1.857+j13.866	14.93	13.40	1.806+j9.615	1.699+j13.036
EL GALLO	ELG-115	115.0	2.09	1.29	7.191+j30.933	19.980+j89.196	2.97	3.22	4.336+j24.171	1.638+j18.901
EL ROSAL	RSL-230	230.0	15.51	13.11	1.639+j8.402	1.347+j13.233	18.20	15.15	1.236+j7.932	1.288+j12.822
EL SALTO	SAO-230	230.0	5.71	6.12	3.877+j22.950	1.752+j18.531	7.27	7.48	2.655+j19.908	1.716+j18.223
EL SALTO	SAO-85	85.0	8.50	7.08	0.932+j5.699	1.712+j9.095	13.22	14.86	0.480+j4.054	0.264+j2.643
EL VIDRIO	EVD-230	230.0	20.52	15.84	1.254+j6.348	2.378+j11.979	24.54	18.36	0.938+j5.879	2.316+j11.736
ENERGÍA DEL VALLE DE MÉXICO DOS MANIOBRAS	MAN-400	400.0	21.64	18.59	1.618+j10.548	2.046+j15.800	27.59	22.39	0.899+j9.163	2.035+j15.468
ENERGÍA DEL VALLE DE MÉXICO DOS MANIOBRAS	MAN-230	230.0	18.78	15.17	1.104+j6.984	1.680+j12.040	22.26	17.54	0.841+j6.508	1.627+j11.763
ESMERALDA	ESR-230	230.0	17.89	17.75	1.265+j7.315	1.233+j7.511	21.21	21.02	0.928+j6.824	1.126+j6.986
ESMERALDA	ESR-230B	230.0	17.89	17.75	1.265+j7.315	1.233+j7.511	21.21	21.02	0.928+j6.824	1.126+j6.986
ESMERALDA	ESR-85	85.0	9.40	2.87	0.557+j5.191	0.000+j40.867	11.63	3.23	0.451+j4.619	0.000+j40.867
ESTADIO	EST-230	230.0	15.40	15.20	1.592+j8.475	0.851+j8.957	18.37	17.81	1.106+j7.872	0.819+j8.665
ESTRELLA	ETR-230	230.0	21.55	19.80	1.865+j5.873	2.712+j7.325	26.15	23.34	1.482+j5.385	2.690+j7.133
ESTRELLA	ETR-230B	230.0	16.44	13.75	2.095+j7.798	3.244+j12.405	19.61	15.99	1.684+j7.255	3.195+j12.092
FERROCARRILES NACIONALES	FNL-230	230.0	33.19	32.72	0.873+j3.905	0.613+j4.140	42.48	40.09	0.522+j3.399	0.597+j4.007
FERTIMÉX	FTM-230	230.0	5.94	4.32	4.093+j21.985	11.569+j45.625	8.18	6.04	2.588+j17.670	9.091+j35.913



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
FISISA	FIS-230	230.0	15.45	12.74	1.612+j8.440	2.582+j13.869	18.17	14.70	1.215+j7.947	2.496+j13.510
FORD MOTOR COMPANY	FMC-85	85.0	22.07	7.04	0.420+j2.183	1.537+j16.406	27.29	9.55	0.304+j1.954	1.959+j12.846
FRANCISCO DE LOS REYES	FRR-115	115.0	1.87	1.14	9.703+j34.092	27.472+j99.645	2.07	1.26	9.569+j33.915	27.473+j99.598
FUNDIDORA MÉXICO	FUM-85	85.0	20.51	6.90	0.462+j2.348	1.443+j16.497	25.05	9.32	0.349+j2.127	1.865+j12.938
GENERAL MOTORS	GMC-85	85.0	12.53	7.08	0.796+j3.834	1.362+j12.912	14.89	8.23	0.668+j3.563	1.427+j12.332
GUACAMAYAS	GMV-115	115.0	9.53	8.96	1.301+j6.842	1.322+j8.110	12.36	11.48	0.989+j5.824	1.174+j7.159
GUADALUPE	GUA-85	85.0	14.56	5.79	0.687+j3.299	2.529+j18.541	17.27	9.16	0.582+j3.072	2.235+j11.199
HÉROES DE CARRANZA	HRC-230	230.0	17.10	13.09	1.260+j7.665	3.294+j14.532	20.72	15.26	0.948+j6.984	3.284+j14.260
HIDALGO	HDG-85	85.0	6.55	3.28	1.691+j7.299	3.811+j29.774	7.35	3.65	1.615+j7.163	3.831+j29.499
HIPÓDROMO	HIP-85	85.0	15.59	5.18	0.588+j3.092	3.222+j21.899	17.99	7.12	0.509+j2.958	3.212+j16.435
HUASTECA	HTC-85	85.0	14.64	4.81	0.682+j3.282	7.163+j22.848	16.83	6.45	0.602+j3.150	7.138+j17.377
HUETAMO	HTM-115	115.0	2.38	1.45	6.956+j26.984	19.372+j79.661	3.13	2.51	4.958+j22.777	7.408+j39.952
HUETAMO	HTM-69	69.0	1.76	2.06	3.369+j22.346	0.638+j12.751	2.08	2.39	2.635+j20.906	0.641+j12.809
INDIANILLA	INN-85	85.0	8.86	0.17	0.793+j5.484	0.458+j-876.784	10.29	0.19	0.699+j5.200	0.458+j-876.784
INDUSTRIA DE LA DEFENSA NAL.	IDN-85	85.0	15.93	5.13	0.629+j3.016	5.334+j21.883	18.40	7.01	0.550+j2.882	5.316+j16.416
INDUSTRIA MILITAR	INM-85	85.0	9.76	3.92	1.063+j4.914	4.737+j27.088	11.05	5.06	0.984+j4.787	4.754+j21.710
INDUSTRIAL SAN CRISTÓBAL	ISC-85	85.0	14.40	5.42	0.624+j3.349	2.748+j20.163	17.44	9.47	0.498+j3.055	1.463+j10.816
INDUSTRIAS UNIDAS S. A.	INU-115	115.0	9.36	7.23	1.357+j6.966	2.408+j13.142	10.63	8.10	1.222+j6.760	2.411+j13.089
INFIERNILLO	IFR-69	69.0	0.86	0.90	21.014+j41.139	6.680+j41.355	0.99	1.02	20.367+j39.320	6.832+j41.342
INSURGENTES	INS-85	85.0	17.58	6.67	0.565+j2.733	1.688+j16.412	21.46	12.25	0.447+j2.475	1.044+j8.123
IROLO	IRO-230	230.0	12.63	9.84	1.715+j10.372	3.295+j19.221	14.74	11.31	1.415+j9.808	3.153+j18.678
IUSASOL 1	IUN-115	115.0	14.64	13.64	0.680+j4.484	0.437+j5.524	16.95	15.53	0.545+j4.275	0.440+j5.471
IXTAPALUCA	IXL-230	230.0	21.12	20.41	1.190+j6.174	0.733+j6.933	25.13	23.84	0.848+j5.750	0.709+j6.725
IXTAPAN DE LA SAL	IXS-115	115.0	2.34	1.35	6.195+j27.709	19.097+j89.177	4.21	2.82	3.714+j16.933	9.354+j41.911
IXTAPANTONGO	IXT-115	115.0	9.90	7.09	1.412+j6.555	2.687+j14.451	13.96	10.94	0.868+j5.158	1.378+j9.436
IXTLAHUACA DOS	ITD-115	115.0	10.01	7.79	1.181+j6.526	1.752+j12.188	11.39	8.73	1.046+j6.327	1.755+j12.137
IZTAPALAPA	IZT-230	230.0	20.02	18.29	1.356+j6.491	1.038+j8.486	24.25	21.62	0.946+j5.948	0.989+j8.172
JABÓN LA CORONA	JLC-230	230.0	22.52	19.94	1.094+j5.793	1.407+j8.077	27.06	23.42	0.772+j5.343	1.352+j7.801
JAMAICA	JAM-230	230.0	18.98	19.26	1.469+j6.839	0.918+j6.658	22.64	22.71	1.077+j6.360	0.866+j6.340
JAMAICA	JAM-85	85.0	9.55	0.17	0.633+j5.098	0.041+j-877.953	11.15	0.19	0.539+j4.813	0.041+j-877.953
JASSO	JAS-230	230.0	25.89	21.97	0.800+j5.066	1.185+j7.790	33.06	27.14	0.484+j4.391	1.150+j7.215
JASSO	JAS-85	85.0	14.75	2.92	0.384+j3.305	6.893+j43.208	17.24	3.25	0.320+j3.116	6.932+j43.087
JILOTEPEC	JIL-115	115.0	13.43	11.11	0.603+j4.905	0.960+j7.989	15.01	12.33	0.536+j4.836	0.961+j7.985
JILOTEPEC INDUSTRIAL	JID-115	115.0	12.68	10.11	0.655+j5.197	1.315+j9.134	14.13	11.20	0.589+j5.137	1.315+j9.133
JILOTEPEC POTENCIA	JIP-400	400.0	16.04	12.96	2.007+j14.256	3.836+j24.285	19.30	14.98	1.302+j13.100	3.842+j24.193
JILOTEPEC POTENCIA	JIP-230	230.0	22.68	21.05	0.900+j5.785	1.049+j7.130	27.54	24.71	0.628+j5.266	1.046+j7.036
JILOTEPEC POTENCIA	JIP-115	115.0	16.58	15.75	0.411+j3.984	0.393+j4.617	18.54	17.51	0.345+j3.923	0.393+j4.616
JOROBAS	JRB-230	230.0	25.89	20.62	0.901+j5.049	1.808+j8.881	32.65	25.00	0.582+j4.436	1.751+j8.401
JUANDO	JUA-85	85.0	6.50	2.62	2.154+j7.239	6.991+j40.667	7.29	2.90	2.083+j7.105	7.030+j40.502
JUCHITEPEC	JCP-85	85.0	6.41	1.53	1.547+j7.492	7.490+j80.730	7.20	1.69	1.472+j7.355	7.490+j80.730



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
JUGOS DEL VALLE	JDV-85	85.0	6.94	3.06	2.120+j6.743	7.073+j33.227	8.80	3.78	1.561+j5.935	7.487+j29.625
JUGOSMEX	JMX-85	85.0	17.56	6.47	0.549+j2.741	2.057+j17.054	21.13	10.07	0.444+j2.516	1.940+j10.800
KILOMETRO 110	KMC-230	230.0	9.66	9.73	2.218+j13.568	1.802+j13.362	11.93	11.62	1.626+j12.139	1.751+j13.057
KILOMETRO 110	KMC-85	85.0	9.30	4.45	0.925+j5.196	3.994+j22.181	11.46	5.36	0.793+j4.644	3.964+j20.413
KILOMETRO 42	KCD-85	85.0	2.11	1.05	9.272+j21.308	44.510+j82.229	2.38	1.19	9.136+j20.752	44.044+j79.861
KILOMETRO 48	KCO-85	85.0	4.27	2.64	2.097+j11.289	5.344+j32.409	6.18	3.80	1.651+j8.577	4.257+j24.649
KILOMETRO CERO	KCR-230	230.0	21.90	20.61	1.189+j5.946	0.911+j7.165	26.38	24.51	0.844+j5.473	0.838+j6.756
LA CEIBA	LAC-115	115.0	2.52	1.56	6.197+j25.585	16.923+j72.981	3.49	3.27	3.973+j20.525	3.640+j24.864
LA COSTEÑA	LCT-85	85.0	17.21	6.38	0.527+j2.803	1.935+j17.263	20.82	10.80	0.417+j2.558	1.391+j9.710
LA ESTANCIA	LES-115	115.0	5.87	4.07	3.044+j10.900	6.933+j25.325	7.03	4.74	2.696+j10.038	6.835+j24.526
LA LOMA	LOM-85	85.0	14.34	5.46	0.719+j3.345	2.919+j19.924	16.46	7.36	0.640+j3.217	3.123+j15.129
LA MIRA	MIR-115	115.0	6.63	5.52	2.244+j9.767	2.918+j15.682	8.13	7.36	1.921+j8.773	1.895+j11.675
LA PAZ	LAP-400	400.0	25.83	25.61	2.053+j8.700	0.968+j9.203	34.67	32.04	1.088+j7.247	0.958+j9.087
LA PAZ	LAP-230	230.0	27.25	29.39	1.005+j4.768	0.365+j3.823	33.25	35.04	0.666+j4.342	0.354+j3.708
LA QUEBRADA	LAQ-85	85.0	17.03	6.40	0.609+j2.817	2.033+j17.150	20.10	8.75	0.509+j2.638	2.402+j12.907
LAFARGE	LFG-230	230.0	20.76	15.38	0.959+j6.323	2.292+j12.912	25.55	18.23	0.643+j5.680	2.256+j12.408
LAGO	LGO-400	400.0	23.07	14.76	1.852+j9.839	3.899+j26.672	30.14	17.47	1.001+j8.369	3.865+j26.488
LAGO	LGO-230	230.0	21.89	22.65	0.974+j5.988	0.849+j5.397	26.14	26.72	0.659+j5.549	0.821+j5.167
LAGO DE GUADALUPE	LDG-230	230.0	27.28	23.54	1.007+j4.763	1.089+j7.113	33.90	27.93	0.648+j4.260	1.072+j6.986
LAS AMÉRICAS	LAR-230	230.0	24.52	18.05	0.911+j5.339	2.250+j11.013	30.39	21.32	0.586+j4.770	2.215+j10.731
LÁZARO CÁRDENAS DISTRIBUCIÓN	LCD-115	115.0	9.44	8.95	1.323+j6.909	1.282+j7.981	12.24	11.24	1.015+j5.880	1.256+j7.442
LÁZARO CÁRDENAS POTENCIA	LCP-400	400.0	11.67	12.61	3.424+j19.488	0.898+j14.392	29.59	32.45	0.651+j8.561	0.313+j5.593
LÁZARO CÁRDENAS POTENCIA	LCP-230	230.0	16.40	19.03	1.639+j7.929	0.216+j4.361	32.82	37.42	0.480+j4.425	0.142+j2.634
LÁZARO CÁRDENAS POTENCIA	LCP-115	115.0	14.21	15.15	0.597+j4.635	0.202+j3.701	20.41	21.09	0.310+j3.565	0.198+j3.205
LECHERÍA	LEC-85	85.0	24.34	7.90	0.417+j1.972	1.242+j14.574	29.69	11.28	0.316+j1.790	1.653+j10.592
LERMA	LER-85	85.0	0.86	0.46	14.759+j54.899	50.736+j199.010	2.56	2.80	2.353+j20.953	0.341+j10.277
LIQUIMEX	LQX-85	85.0	9.50	3.95	1.475+j4.948	5.003+j26.475	11.96	4.98	1.134+j4.368	5.417+j22.875
LOMAS VERDES	LVE-230	230.0	22.20	18.77	1.253+j5.850	1.608+j9.124	26.95	22.08	0.869+j5.351	1.543+j8.870
LOS REYES	RES-230	230.0	24.87	25.88	1.073+j5.229	0.505+j4.717	30.08	30.56	0.732+j4.801	0.494+j4.605
LOS REYES	RES-85	85.0	17.37	2.46	0.451+j2.789	1.986+j54.297	20.10	2.71	0.385+j2.658	1.986+j54.297
MADERO	MAD-230	230.0	22.67	22.75	1.039+j5.766	1.075+j5.706	27.18	26.87	0.722+j5.325	1.040+j5.471
MAGDALENA	MAG-230	230.0	24.60	24.69	1.170+j5.270	0.808+j5.296	30.18	29.67	0.783+j4.777	0.762+j5.036
MAGDALENA	MAG-85	85.0	19.12	2.05	0.400+j2.535	5.736+j66.307	23.09	2.27	0.301+j2.319	5.736+j66.307
MANIOBRAS ASL	ASL-MAN	230.0	15.43	11.09	1.211+j8.522	2.990+j18.490	18.02	12.79	0.909+j8.055	2.860+j17.827
MATILDE	MAT-85	85.0	5.42	2.08	1.819+j8.871	12.306+j51.348	6.12	2.32	1.723+j8.654	12.379+j50.824
MERCED (A)	MER-230	230.0	17.24	16.73	1.641+j7.527	1.261+j8.329	20.40	19.58	1.249+j7.049	1.197+j7.973
MERCED (B)	MER-230B	230.0	17.24	16.73	1.641+j7.527	1.261+j8.329	20.40	19.58	1.249+j7.049	1.197+j7.973
MILAGROS	MGR-85	85.0	12.32	2.29	0.763+j3.909	2.621+j56.462	14.07	2.53	0.689+j3.773	2.621+j56.462
MILLÁN DOS	MDO-400	400.0	14.20	13.14	3.206+j15.943	1.482+j20.153	21.85	18.03	1.366+j11.548	1.747+j18.812
MINERA TIZAPA	MTI-115	115.0	6.96	5.26	1.964+j9.342	3.339+j18.481	8.88	6.94	1.460+j8.098	2.495+j14.888



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MOCTEZUMA	MZA-85	85.0	7.83	2.56	0.829+j6.213	1.266+j44.922	9.53	2.88	0.712+j5.622	1.266+j44.922
MORALES	MOS-230	230.0	17.96	17.42	1.543+j7.232	1.677+j7.923	21.27	20.48	1.196+j6.761	1.589+j7.503
MORALES	MOS-85	85.0	17.36	5.49	0.522+j2.778	3.027+j20.955	20.14	7.66	0.443+j2.644	3.017+j15.492
MORELOS	MOR-230	230.0	11.11	8.92	1.997+j11.782	3.731+j20.409	12.77	10.19	1.608+j11.324	3.567+j19.832
NACEL Y NACOBRE	NYN-85	85.0	12.17	5.18	0.866+j3.939	2.779+j20.172	14.09	6.73	0.776+j3.752	3.193+j16.078
NARVARTE	NAR-230	230.0	21.76	22.76	1.637+j5.879	1.233+j5.161	26.41	27.33	1.205+j5.398	1.160+j4.833
NAUCALPAN	NAU-85	85.0	17.38	6.35	0.576+j2.764	1.676+j17.480	20.40	10.02	0.489+j2.601	1.420+j10.784
NECAXA	NEC-85A	85.0	7.80	6.18	1.137+j6.188	2.260+j10.997	11.85	12.34	0.663+j4.505	0.557+j3.900
NECAXA	NEC-85B	85.0	7.80	6.18	1.137+j6.188	2.260+j10.997	11.84	12.32	0.667+j4.511	0.557+j3.900
NECAXA	NEC-85C	85.0	7.80	6.18	1.137+j6.188	2.260+j10.997	11.84	12.32	0.667+j4.511	0.557+j3.900
NECAXA	NEC-85D	85.0	7.80	6.18	1.137+j6.188	2.260+j10.997	11.89	12.37	0.656+j4.492	0.557+j3.900
NESTLÉ	NLE-85	85.0	11.89	6.54	0.861+j4.038	1.604+j14.179	13.98	7.54	0.737+j3.790	1.670+j13.660
NETZAHUALCÓYOTL	NET-85	85.0	14.29	2.41	0.628+j3.377	1.911+j54.216	16.42	2.66	0.556+j3.240	1.911+j54.216
NISSAN	NIS-85	85.0	10.08	5.24	1.069+j4.751	2.618+j18.174	11.66	5.95	0.946+j4.531	2.685+j17.770
NOCHISTONGO	NOC-230	230.0	31.09	26.77	0.791+j4.198	1.139+j6.239	40.21	32.92	0.471+j3.602	1.124+j5.940
NOCHISTONGO	NOC-115	115.0	7.49	6.89	1.024+j8.802	0.801+j11.163	8.40	7.70	0.935+j8.643	0.792+j11.049
NONOALCO	NON-85	85.0	24.83	7.92	0.371+j1.941	1.199+j14.595	32.41	19.46	0.249+j1.647	0.274+j4.992
NOPALA	NOP-400	400.0	25.73	27.00	2.257+j8.686	0.819+j7.722	35.92	34.95	1.120+j6.983	0.824+j7.601
NOPALA	NOP-230A	230.0	28.07	27.46	1.047+j4.614	0.693+j5.011	35.11	32.87	0.654+j4.109	0.694+j4.961
NOPALA	NOP-230B	230.0	28.07	27.46	1.047+j4.614	0.693+j5.011	35.11	32.87	0.654+j4.109	0.694+j4.961
NOPALA	NOP-230C	230.0	28.16	27.77	1.044+j4.599	0.660+j4.885	35.23	33.25	0.652+j4.094	0.663+j4.839
NUEVO AEROPUERTO INTERNACIONAL MANIOBRAS	NAI-MAN	230.0	21.25	22.03	1.033+j6.164	0.951+j5.510	25.33	25.96	0.716+j5.723	0.916+j5.272
NUEVO FANAL	NFA-85	85.0	19.30	6.86	0.532+j2.486	1.812+j16.312	23.01	9.50	0.431+j2.306	2.193+j12.168
NUTRIGO	NTG-115	115.0	8.09	5.96	1.607+j8.048	2.981+j16.761	9.15	6.65	1.471+j7.850	2.984+j16.709
OCEANÍA	OCE-230	230.0	16.24	15.04	1.790+j7.976	3.317+j9.627	19.15	17.52	1.398+j7.498	3.253+j9.270
OCEANÍA	OCE-230B	230.0	14.85	12.16	1.682+j8.782	9.178+j12.699	17.39	14.20	1.344+j8.291	8.774+j12.060
ODÓN DE BUEN	ODB-230	230.0	14.82	12.71	1.843+j8.771	2.335+j13.232	17.38	14.78	1.413+j8.285	2.190+j12.650
OLIVAR	OLI-230	230.0	22.69	22.80	1.450+j5.671	0.999+j5.693	27.63	27.25	1.020+j5.187	0.959+j5.421
OTUMBA	OTM-230	230.0	17.82	14.27	1.161+j7.361	1.837+j12.913	21.07	16.49	0.895+j6.874	1.777+j12.611
PACHUCA	PAC-85	85.0	8.82	3.57	1.372+j5.395	4.536+j29.797	9.98	3.99	1.293+j5.253	4.570+j29.494
PACHUCA POTENCIA	PHP-400	400.0	10.93	8.27	2.438+j20.984	6.435+j41.049	13.21	9.69	1.597+j19.166	6.275+j39.714
PACHUCA POTENCIA	PHP-230	230.0	9.30	9.64	1.742+j14.172	1.228+j12.705	10.90	11.18	1.359+j13.332	1.165+j12.327
PALIZADA	PLZ-115	115.0	7.83	5.17	2.274+j8.164	5.677+j20.775	9.10	5.84	2.084+j7.752	5.683+j20.681
PANTITLAN	PNT-85	85.0	10.57	2.07	0.965+j4.541	4.344+j61.919	12.04	2.28	0.885+j4.397	4.344+j61.919
PAPELERA EL NEVADO	PDO-115	115.0	3.99	2.41	3.551+j16.250	9.764+j48.480	4.60	2.71	3.259+j15.526	9.783+j48.256
PAPELERA SAN RAFAEL	PSR-85	85.0	3.93	1.21	3.156+j12.098	12.529+j95.930	4.37	1.34	3.080+j11.962	12.529+j95.930
PAPELES HIGIÉNICOS DEL CENTRO	PHC-230	230.0	10.89	8.12	1.964+j12.033	4.522+j24.316	12.68	9.27	1.642+j11.403	4.397+j23.826
PARQUE INDUSTRIAL	PQI-115	115.0	6.66	5.31	1.604+j9.833	2.932+j17.353	7.45	5.90	1.518+j9.690	2.926+j17.263
PARQUE INDUSTRIAL REFORMA	PIR-85	85.0	10.19	3.15	0.904+j4.730	7.573+j36.348	11.78	3.54	0.811+j4.508	7.647+j35.824
PASO DE CORTES	PDC-115	115.0	2.64	1.60	7.918+j23.892	22.537+j70.625	2.92	1.77	7.827+j23.740	22.526+j70.529



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PATERA	PAT-85	85.0	13.24	5.49	0.694+j3.641	2.269+j19.266	15.40	7.22	0.604+j3.454	2.683+j15.172
PATLA	PTL-85	85.0	5.62	4.73	2.052+j8.495	3.439+j13.216	8.22	8.17	1.343+j6.425	1.356+j6.489
PEMEX	PMX-230	230.0	28.16	26.40	0.764+j4.653	0.557+j5.640	37.11	34.64	0.449+j3.910	0.456+j4.745
PEMEX	PEX-85	85.0	14.53	4.73	0.688+j3.306	8.525+j22.918	16.70	6.30	0.609+j3.174	8.499+j17.447
PEMEX	PEX-85B	85.0	7.15	0.17	0.913+j6.804	0.187+j-877.409	8.22	0.19	0.818+j6.519	0.187+j-877.409
PEMEX -ZONA LCP	PMX-115	115.0	5.32	4.80	2.601+j12.208	3.583+j16.076	6.41	5.64	2.303+j11.156	3.580+j15.601
PEMEX -ZONA TUL	PMX-115	115.0	6.13	5.71	0.370+j10.816	0.661+j13.225	8.49	10.08	0.216+j8.605	0.226+j4.516
PEMEX AZCAPOTZALCO	PXA-85	85.0	15.73	6.03	0.621+j3.057	1.817+j18.107	18.49	9.68	0.529+j2.871	1.428+j10.809
PENSADOR	PEN-230	230.0	20.43	18.16	1.295+j6.371	2.906+j8.506	24.45	21.46	0.949+j5.899	2.788+j8.078
PENWALT	PEW-85	85.0	18.79	7.10	0.492+j2.565	1.552+j15.442	22.55	11.18	0.395+j2.361	1.535+j9.574
PERALVILLO	PEV-230	230.0	16.93	15.46	1.330+j7.729	4.015+j9.450	19.99	18.30	0.992+j7.238	3.612+j8.811
PITIRERA	PIT-400	400.0	10.81	10.34	3.552+j21.060	2.963+j23.342	25.61	26.86	0.780+j9.890	0.609+j7.879
PITIRERA	PIT-230A	230.0	10.94	11.83	1.749+j12.009	0.715+j9.093	17.20	17.92	0.702+j8.462	0.462+j7.335
PITIRERA	PIT-230B	230.0	10.94	11.83	1.749+j12.009	0.715+j9.093	17.20	17.92	0.702+j8.462	0.462+j7.335
PITIRERA	PIT-230C	230.0	10.94	11.83	1.749+j12.009	0.715+j9.093	17.20	17.92	0.702+j8.462	0.462+j7.335
PITIRERA	PIT-230D	230.0	10.94	11.83	1.749+j12.009	0.715+j9.093	17.20	17.92	0.702+j8.462	0.462+j7.335
PLACERES DEL ORO	PLO-115	115.0	1.61	0.95	11.477+j39.541	35.089+j122.309	1.91	1.24	10.090+j36.889	26.321+j97.227
POLANCO	POO-230	230.0	30.34	29.04	1.073+j4.243	2.773+j4.317	38.48	35.40	0.675+j3.735	2.707+j4.217
PROCTER & GAMBLE	PYG-230	230.0	25.53	20.22	0.922+j5.118	2.014+j9.087	32.14	24.47	0.603+j4.505	1.957+j8.607
PRODUCTORA MEXICANA DE TUB.	PMT-115	115.0	6.58	5.77	2.125+j9.866	2.868+j13.936	8.10	6.89	1.817+j8.834	2.851+j13.445
PROGRESO	PGS-85	85.0	3.38	1.59	4.757+j13.731	14.855+j62.042	3.75	1.75	4.686+j13.597	14.894+j61.876
PROPIMEX	PRO-85	85.0	12.14	6.58	0.847+j3.954	1.514+j14.231	14.27	7.56	0.724+j3.714	1.584+j13.764
PUERTA DE HIERRO	PTH-85	85.0	6.79	4.72	1.376+j7.094	1.654+j16.704	8.58	5.84	1.145+j6.187	1.626+j15.031
PUESTO CENTRAL DE CONTROL	PCC-85	85.0	8.67	0.17	0.830+j5.598	0.566+j-876.484	10.06	0.19	0.735+j5.314	0.566+j-876.484
PUESTO CENTRAL DE CONTROL	PCC-85B	85.0	19.88	6.42	0.544+j2.407	6.104+j16.973	25.04	12.40	0.422+j2.114	5.159+j7.363
REFORMA	REF-85	85.0	11.76	4.52	0.910+j4.073	4.003+j23.900	13.38	5.99	0.831+j3.947	4.019+j18.523
REMEDIOS	REM-230	230.0	36.01	40.18	0.963+j3.560	0.296+j2.547	47.08	50.47	0.566+j3.051	0.286+j2.460
REMEDIOS	REM-85	85.0	31.09	8.27	0.296+j1.550	1.077+j14.629	37.63	13.29	0.220+j1.418	1.095+j9.257
ROBERT BOSCH	RBS-85	85.0	11.93	6.65	0.850+j4.026	1.523+j13.866	14.06	7.67	0.725+j3.769	1.587+j13.324
SAFIMEX	SAF-85	85.0	12.76	6.88	0.800+j3.761	1.284+j13.683	15.03	7.91	0.679+j3.527	1.348+j13.231
SAN ANDRÉS	ANS-85	85.0	13.42	1.89	0.643+j3.599	6.955+j70.172	15.75	2.09	0.542+j3.385	6.955+j70.172
SAN ÁNGEL	SNG-230	230.0	23.63	24.66	1.434+j5.434	0.848+j4.857	28.92	29.72	1.003+j4.951	0.809+j4.568
SAN BERNABÉ	BRN-400	400.0	25.20	25.27	2.310+j8.867	1.128+j9.079	34.66	32.12	1.178+j7.234	1.127+j8.988
SAN BERNABÉ	BRN-230	230.0	28.00	29.90	1.180+j4.594	0.398+j3.851	35.09	36.24	0.754+j4.094	0.391+j3.750
SAN DIEGO	SDI-85	85.0	6.87	4.77	1.361+j7.018	1.622+j16.529	8.66	5.89	1.133+j6.133	1.601+j14.910
SAN FELIPE DEL PROGRESO	FPG-115	115.0	4.29	2.78	3.754+j15.015	9.633+j39.407	4.79	3.09	3.619+j14.809	9.637+j39.353
SAN FRANCISCO	SSO-85	85.0	11.92	7.19	0.857+j4.028	1.041+j12.246	14.18	8.37	0.725+j3.738	1.092+j11.676
SAN FRANCISCO SOYANIQUILPAN	SFS-230	230.0	12.27	10.84	1.689+j10.691	2.453+j14.889	14.86	12.71	1.294+j9.746	2.459+j14.616
SAN ISIDRO	ISO-115	115.0	6.52	5.28	2.282+j9.929	3.385+j16.950	7.99	7.39	1.959+j8.933	1.694+j11.235
SAN MATEO	SMT-115	115.0	4.86	2.94	2.767+j13.385	7.500+j39.769	5.66	3.32	2.476+j12.660	7.519+j39.545



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SAN SEBASTIÁN	SSE-115	115.0	4.41	3.03	3.597+j14.611	10.578+j34.021	4.91	3.35	3.490+j14.470	10.577+j34.002
SANTA CRUZ	CRU-400	400.0	25.18	24.70	2.127+j8.923	1.216+j9.699	33.54	30.72	1.141+j7.488	1.201+j9.585
SANTA CRUZ	CRU-230	230.0	29.03	32.70	1.058+j4.449	0.300+j3.056	36.35	40.18	0.675+j3.962	0.277+j2.864
SANTA FÉ	SFE-230	230.0	23.05	21.52	1.441+j5.579	1.283+j6.884	28.14	25.56	1.020+j5.090	1.229+j6.643
SANTIAGO TLAUTLA	STU-115	115.0	5.16	3.63	3.171+j12.475	7.304+j28.130	5.74	4.02	3.088+j12.352	7.300+j28.065
SECRETARÍA DE SEGURIDAD PÚBLICA	SSP-85	85.0	10.21	4.06	1.022+j4.697	4.516+j26.292	11.57	5.27	0.943+j4.571	4.532+j20.914
SMURFIT KAPPA	SKP-85	85.0	10.18	4.35	0.853+j4.746	3.598+j23.905	11.69	5.45	0.766+j4.555	4.083+j20.074
SUBESTACIÓN CINCO BOMBEO	ENB-115	115.0	10.87	7.43	1.149+j6.002	2.392+j14.385	14.94	9.06	0.715+j4.834	2.413+j14.190
SUBESTACIÓN CUATRO BOMBEO	ECB-115	115.0	21.09	18.34	0.560+j3.098	0.509+j4.532	32.06	24.52	0.260+j2.263	0.530+j4.336
SUBESTACIÓN DOS BOMBEO	EDB-115	115.0	12.03	8.75	1.077+j5.414	1.919+j11.563	16.81	11.41	0.660+j4.294	1.730+j10.346
SUBESTACIÓN SEIS BOMBEO	ESB-115	115.0	12.31	8.85	0.990+j5.303	1.834+j11.561	16.59	10.78	0.645+j4.355	1.855+j11.361
SUBESTACIÓN TRES BOMBEO	ETB-115	115.0	18.04	14.71	0.672+j3.619	0.805+j6.129	26.91	19.17	0.336+j2.694	0.826+j5.933
SUBESTACIÓN UNO BOMBEO	EUB-115	115.0	9.01	6.16	1.515+j7.208	3.116+j17.311	12.54	8.00	0.940+j5.750	2.767+j15.482
TACUBA	TAC-85	85.0	16.71	6.31	0.598+j2.874	1.710+j17.404	20.04	11.15	0.492+j2.648	1.089+j9.082
TACUBAYA	TYA-230	230.0	21.87	22.55	1.556+j5.868	1.074+j5.433	26.55	27.02	1.125+j5.386	1.013+j5.110
TACUBAYA	TYA-85	85.0	9.45	3.84	1.101+j5.075	5.045+j27.533	10.68	4.93	1.022+j4.949	5.061+j22.155
TAXQUEÑA	TAX-230B	230.0	13.37	10.92	1.919+j9.743	2.752+j16.404	15.59	12.64	1.491+j9.252	2.576+j15.710
TAXQUEÑA	TAX-230	230.0	13.37	10.92	1.919+j9.743	2.752+j16.404	15.59	12.64	1.491+j9.252	2.576+j15.710
TAXQUEÑA	TAX-85	85.0	12.76	1.79	0.586+j3.802	8.179+j74.050	14.88	1.98	0.494+j3.593	8.179+j74.050
TECÁMAC	TCM-230	230.0	16.21	11.97	1.166+j8.106	2.464+j16.734	18.97	13.87	0.868+j7.650	2.319+j16.037
TECAMACHALCO	TEH-230	230.0	23.16	20.48	1.472+j5.541	1.784+j7.791	28.33	24.15	1.059+j5.045	1.747+j7.634
TEJUPILCO	TJP-115	115.0	7.46	6.23	1.970+j8.686	2.725+j13.915	9.33	7.69	1.562+j7.672	2.568+j12.530
TEOLOAPAN	TLP-69	69.0	0.85	1.07	18.393+j43.067	2.367+j19.028	0.96	1.20	17.620+j42.032	2.344+j18.918
TENANGO DEL VALLE	TDV-85	85.0	5.26	3.95	2.274+j9.045	1.792+j18.601	5.98	4.44	2.126+j8.770	1.831+j18.417
TEOTIHUACÁN	TTH-400	400.0	29.69	29.65	1.640+j7.604	0.820+j7.814	41.17	38.22	0.799+j6.118	0.817+j7.549
TEOTIHUACÁN	TTH-230	230.0	34.23	32.39	0.731+j3.810	0.560+j4.528	42.79	38.85	0.450+j3.384	0.548+j4.421
TEPEXIC	TEP-85	85.0	7.05	5.31	1.461+j6.806	3.035+j13.479	10.59	10.52	0.912+j5.014	0.778+j5.071
TEXCALTITLAN	TTT-115	115.0	5.52	4.56	2.629+j11.747	3.795+j19.191	6.90	5.66	2.138+j10.361	3.491+j17.198
TEXCOCO	TEX-400	400.0	30.58	32.28	1.720+j7.353	0.649+j6.389	43.55	42.55	0.818+j5.776	0.656+j6.211
TEXCOCO	TEX-230	230.0	41.68	43.43	0.678+j3.113	0.333+j2.803	53.94	53.36	0.387+j2.680	0.333+j2.779
TIANGUISTENCO	TIA-230	230.0	10.13	8.53	2.766+j12.810	3.004+j20.285	11.82	9.85	2.222+j12.155	2.853+j19.558
TINGAMBATO	TIN-115	115.0	5.40	4.39	2.473+j12.033	3.896+j20.443	7.41	6.86	1.580+j9.728	1.618+j12.031
TIQUICHEO	TQC-115	115.0	1.87	1.14	8.212+j34.589	23.018+j100.707	2.42	1.93	5.977+j29.540	9.569+j52.271
TIZAPA MANIOBRAS	TMA-115	115.0	7.62	5.92	1.804+j8.520	2.878+j15.996	9.88	8.00	1.300+j7.275	2.035+j12.403
TIZAYUCA	TIZ-230	230.0	14.87	11.31	1.290+j8.834	2.438+j17.201	17.44	13.14	0.976+j8.318	2.286+j16.430
TLAHUAC	TLH-230	230.0	10.29	7.49	2.083+j12.741	5.950+j26.734	11.75	8.43	1.737+j12.315	5.912+j26.485
TLAPEHUALA	TPA-115	115.0	2.41	1.44	8.327+j26.203	24.643+j79.291	2.99	2.14	6.804+j23.452	13.813+j51.737
TLATELULCO MÓVIL	TTO-85	85.0	9.89	6.41	1.076+j4.845	1.124+j13.047	11.60	7.40	0.940+j4.557	1.157+j12.539
TOLUCA	TOL-230	230.0	14.65	14.37	1.987+j8.842	1.059+j9.580	17.56	16.85	1.452+j8.189	1.020+j9.307
TOLUCA	TOL-85	85.0	14.40	8.43	0.658+j3.343	0.651+j10.661	17.43	9.97	0.528+j3.052	0.710+j10.021



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Central

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
TOLUCA 2000	TDK-230	230.0	11.63	9.85	2.438+j11.152	2.195+j17.531	13.57	11.41	1.944+j10.584	2.052+j16.757
TOPILEJO	TOP-400	400.0	26.56	26.79	2.099+j8.438	1.197+j8.438	35.90	33.72	1.095+j6.990	1.193+j8.366
TOPILEJO	TOP-230	230.0	23.29	23.24	1.151+j5.584	0.567+j5.746	28.21	27.38	0.765+j5.121	0.558+j5.625
TOTOLTEPEC	TTC-230	230.0	14.12	13.24	2.150+j9.156	1.554+j11.204	16.83	15.59	1.620+j8.526	1.461+j10.643
TRATAMIENTO AGUAS RESIDUALES	RAT-230	230.0	25.36	21.50	0.836+j5.168	1.331+j7.948	31.93	25.94	0.524+j4.545	1.338+j7.622
TREN INTERURBANO MÉXICO-TOLUCA DOS	TTD-230	230.0	20.68	19.00	1.446+j6.256	1.515+j7.989	24.96	22.27	1.017+j5.764	1.498+j7.829
TREN INTERURBANO MÉXICO-TOLUCA UNO	TTU-230	230.0	14.77	11.76	1.713+j8.823	3.142+j15.592	17.43	13.47	1.264+j8.282	3.133+j15.475
TREN SUBURBANO	TSU-230	230.0	23.03	20.45	1.093+j5.661	1.850+j7.741	28.31	24.48	0.719+j5.110	1.746+j7.391
TRIMEX	TRX-85	85.0	17.93	5.97	0.530+j2.685	2.301+j19.060	22.36	7.88	0.381+j2.384	2.721+j15.483
TULA	TUL-400	400.0	26.81	23.47	1.647+j8.455	1.728+j12.174	38.86	36.86	0.718+j6.497	0.713+j7.558
TULA	TUL-230	230.0	35.46	37.11	0.627+j3.692	0.261+j3.244	48.93	53.32	0.315+j2.968	0.128+j2.235
TULANCINGO	TLG-85	85.0	6.33	3.16	2.050+j7.477	7.269+j30.206	7.35	3.65	1.912+j7.087	7.266+j28.782
VALLE DE MÉXICO (230 KV)	VAE-230	230.0	43.88	46.10	0.612+j2.964	0.339+j2.585	54.99	55.79	0.375+j2.630	0.329+j2.526
VALLE DE MÉXICO (85 KV)	VDM-85	85.0	11.43	4.09	0.708+j4.236	3.965+j27.137	14.55	9.00	0.515+j3.674	0.838+j10.540
VALLE SAN PEDRO	VAP-230	230.0	16.36	11.56	1.362+j8.001	2.465+j18.071	19.11	13.18	1.057+j7.572	2.409+j17.792
VALLE TULANCINGO	VTU-85	85.0	4.85	2.85	2.740+j9.750	7.653+j30.458	5.58	3.29	2.603+j9.325	7.633+j28.857
VALLEJO	VAJ-230	230.0	23.03	20.45	1.093+j5.661	1.850+j7.741	28.31	24.48	0.719+j5.110	1.746+j7.391
VALLEJO	VAJ-85	85.0	16.71	6.33	0.470+j2.900	1.565+j17.333	19.74	8.47	0.384+j2.708	2.050+j13.502
VERÓNICA	VRN-230	230.0	19.97	18.91	1.427+j6.496	1.561+j7.621	23.86	22.37	1.080+j6.025	1.476+j7.205
VERÓNICA	VRN-85	85.0	14.02	4.88	0.696+j3.431	3.548+j22.915	16.09	6.61	0.617+j3.297	3.538+j17.451
VERÓNICA	VRN-85B	85.0	7.33	0.17	0.866+j6.635	0.053+j-877.911	8.44	0.19	0.771+j6.350	0.053+j-877.911
VERTIZ	VER-230	230.0	18.40	17.95	1.503+j7.057	2.123+j7.492	21.89	21.11	1.112+j6.579	2.042+j7.160
VICTORIA	VIC-400	400.0	23.96	21.62	2.013+j9.426	1.823+j12.653	32.21	27.25	1.017+j7.820	1.779+j12.045
VICTORIA	VIC-230	230.0	36.90	39.13	0.825+j3.503	0.327+j2.987	48.14	49.03	0.474+j2.997	0.312+j2.853
VICTORIA	VIC-85	85.0	24.42	7.59	0.382+j1.973	1.221+j15.354	30.48	10.48	0.269+j1.751	1.644+j11.796
VIDRIERA LOS REYES	VLR-85	85.0	10.65	4.51	0.811+j4.535	3.408+j23.179	12.26	5.67	0.725+j4.344	3.893+j19.348
VIDRIERA TOLUCA	VDT-85	85.0	13.70	7.19	0.744+j3.505	1.222+j13.276	16.19	8.27	0.623+j3.275	1.287+j12.850
VIDRIO PLANO	VPM-85	85.0	11.49	5.10	0.817+j4.192	2.493+j20.165	13.23	6.75	0.730+j4.015	2.759+j15.572
VILLA DE LAS FLORES	VDF-85	85.0	7.40	3.08	1.380+j6.482	6.832+j33.893	9.16	4.72	1.076+j5.795	5.110+j21.964
VILLA GUERRERO	VGU-115	115.0	1.93	1.11	8.148+j33.465	24.333+j108.107	3.12	2.00	5.616+j22.740	14.578+j60.819
VILLITA	VIL-230	230.0	11.32	10.17	2.417+j11.474	2.961+j15.057	20.28	22.38	0.941+j7.141	0.490+j5.357
VILLITA	VIL-115	115.0	11.09	10.73	1.025+j5.897	0.838+j6.442	14.79	14.55	0.709+j4.888	0.568+j5.150
VITO	VIT-85	85.0	9.81	2.85	0.862+j4.928	6.478+j41.196	11.15	3.16	0.800+j4.776	6.517+j41.075
VITRO FIBRAS	VFI-85	85.0	11.55	5.11	0.812+j4.170	2.518+j20.200	13.30	6.74	0.724+j3.993	2.796+j15.668
VOLCÁN GORDO	VOG-400	400.0	7.19	5.60	4.735+j31.753	4.275+j59.348	9.36	6.84	2.720+j27.015	4.340+j56.784
VOLCÁN GORDO	VOG-115	115.0	8.17	8.27	1.535+j7.984	0.550+j7.844	10.35	10.53	1.131+j6.964	0.503+j6.664
XALOSTOC	XAL-230	230.0	21.16	19.10	1.139+j6.172	1.358+j8.204	25.30	22.44	0.815+j5.717	1.296+j7.873
XICOTEPEC	XIP-85	85.0	6.79	7.42	1.483+j7.074	0.327+j5.433	9.95	11.40	0.975+j5.335	0.413+j3.257
XOCHIMILCO	XOC-230	230.0	19.30	17.74	1.424+j6.732	1.483+j8.579	23.15	20.89	1.021+j6.225	1.410+j8.247
XOCHITLA	XCH-230	230.0	22.30	15.68	0.988+j5.872	2.739+j13.222	27.18	18.27	0.654+j5.335	2.689+j12.972



Niveles de cortocircuito de la Red Nacional de Transmisión

[illegible]

Gerencia de Control Regional Oriental





Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AB CALSA	ABL-115	115.0	1.89	1.04	7.721+j34.260	32.931+j117.385	2.20	1.21	7.142+j32.392	31.485+j110.821
ABENT 3T	ABT-230	230.0	8.11	9.10	2.184+j16.232	1.063+j11.633	9.60	10.57	1.744+j15.116	1.062+j11.485
ACACOYAUA	AYA-115	115.0	2.98	2.08	6.578+j21.250	16.490+j48.359	3.50	2.44	5.765+j20.056	15.736+j45.460
ACAHUIZOTLA	AHZ-115	115.0	1.94	1.34	9.181+j32.927	17.144+j78.806	2.34	1.54	7.380+j30.337	17.128+j78.318
ACAJETE	ACJ-115	115.0	5.17	3.35	2.494+j12.589	7.004+j33.008	6.15	3.82	2.099+j11.695	6.980+j32.806
ACALA	AAA-115	115.0	4.26	3.03	3.861+j15.099	11.369+j32.768	4.98	3.51	3.452+j14.268	11.157+j31.248
ACAPULCO	APC-115	115.0	5.27	6.76	4.146+j11.899	1.282+j4.056	7.35	9.13	2.483+j9.618	1.317+j3.915
ACATLÁN	ACA-115	115.0	2.87	1.70	7.228+j22.008	17.151+j69.094	3.17	1.87	7.108+j21.880	17.151+j69.070
ACATZINGO	ACZ-115	115.0	4.38	2.75	5.562+j14.119	10.699+j40.851	4.87	3.04	5.468+j13.976	10.689+j40.774
ACAYUCAN	ACY-115	115.0	10.74	7.34	1.237+j6.060	3.086+j14.528	12.92	8.73	1.059+j5.552	2.904+j13.547
ACEROS TLAXCALA	ATX-230	230.0	6.55	4.85	3.484+j19.982	9.370+j40.706	7.61	5.54	2.989+j18.961	9.206+j39.643
ACTOPAN	AOC-115	115.0	2.99	1.92	6.132+j21.359	12.376+j58.122	3.33	2.12	5.989+j21.110	12.364+j58.037
ACUITLAPILCO	ACU-115	115.0	12.37	7.70	1.089+j5.254	3.281+j14.800	14.01	8.60	1.004+j5.115	3.272+j14.721
ADOLFO RUIZ CORTINEZ	ARC-115	115.0	5.22	6.43	4.241+j11.989	1.362+j5.388	7.25	8.56	2.565+j9.735	1.396+j5.249
AEROPUERTO	ARU-115	115.0	17.51	16.00	0.670+j3.732	1.025+j4.767	22.49	19.57	0.475+j3.212	1.016+j4.596
AEROPUERTO	ARP-69	69.0	5.82	3.86	1.939+j6.560	4.529+j16.702	6.36	4.23	1.937+j6.613	4.529+j16.716
AGRONITROGENADOS	ARG-115	115.0	6.85	4.41	1.677+j9.544	4.992+j25.464	7.84	5.03	1.569+j9.184	4.785+j24.539
AGUA DULCE DOS	ADD-115	115.0	5.24	3.99	2.878+j12.347	5.646+j24.072	5.89	4.45	2.814+j12.079	5.634+j23.891
AGUA FRÍA	AGF-69	69.0	3.09	2.77	4.459+j12.083	4.982+j16.724	3.39	3.04	4.458+j12.134	4.982+j16.737
AGUA SANTA	AGA-115	115.0	9.54	5.60	1.402+j6.819	5.679+j20.929	10.74	6.23	1.309+j6.672	5.671+j20.844
AGUA ZARCA	AZA-115	115.0	1.57	0.92	14.713+j39.563	36.453+j128.218	1.78	1.02	13.741+j38.744	36.361+j127.869
ALMECATLA	LML-115	115.0	35.16	29.35	0.338+j1.858	0.505+j2.989	42.68	34.99	0.252+j1.693	0.485+j2.823
ALTOTONGA DOS	TTG-115	115.0	9.20	10.13	1.152+j7.125	0.504+j5.212	11.64	12.67	0.831+j6.217	0.457+j4.680
ALTZAYANCA	AZY-115	115.0	5.54	3.51	3.160+j11.566	7.502+j31.878	6.25	3.92	3.023+j11.296	7.487+j31.686
ALTZAYANCA MANIOBRAS	AZM-230	230.0	6.96	5.05	3.221+j18.793	9.919+j39.649	8.41	6.03	2.570+j17.185	9.184+j36.592
ALUMINIO	AMN-115	115.0	20.06	21.04	0.591+j3.256	0.536+j2.807	26.29	26.21	0.399+j2.749	0.539+j2.754
ALVARADO DOS	AVD-115	115.0	1.98	1.13	10.615+j31.810	30.292+j104.940	2.31	1.45	9.501+j30.204	23.368+j84.842
AMATLAN DOS	ATD-230	230.0	7.97	7.99	2.871+j16.421	1.499+j16.516	9.73	9.46	2.182+j14.859	1.465+j16.236
AMATLAN DOS	ATD-115	115.0	15.99	17.82	0.758+j4.083	0.238+j2.883	19.84	21.61	0.575+j3.636	0.230+j2.773
AMOZOC	AMZ-115	115.0	7.26	4.70	3.201+j8.571	6.306+j23.274	8.13	5.22	3.110+j8.434	6.302+j23.234
ANA CHIAUTEMPAN SANTA	ANC-115	115.0	14.58	9.54	1.007+j4.440	2.820+j11.463	16.60	10.69	0.922+j4.303	2.811+j11.384
ANDRÉS DOS SAN	ADS-115	115.0	2.09	1.17	11.074+j29.760	26.975+j103.185	2.69	2.32	8.336+j25.863	8.972+j39.310
ANGOSTURA	ANG-400	400.0	7.45	6.69	5.276+j30.554	7.088+j41.337	15.33	18.47	1.426+j16.514	0.376+j7.551
ANGOSTURA	ANG-115	115.0	10.15	9.69	1.028+j6.461	0.620+j7.498	13.36	13.50	0.599+j5.434	0.172+j5.276
ANTUÑANO	AUN-115	115.0	18.88	12.65	0.885+j3.403	1.657+j8.582	21.79	14.27	0.795+j3.256	1.649+j8.509
APAXTLA SWITCHEO	AXS-115	115.0	2.18	1.51	10.200+j28.630	20.962+j68.104	2.66	1.78	8.296+j26.217	20.266+j65.274
APIZACO DOS	API-115	115.0	11.18	7.82	1.368+j5.778	3.549+j13.183	12.68	8.78	1.268+j5.617	3.525+j13.010
AQUASISTEMAS	ASI-115	115.0	2.51	2.48	5.985+j25.796	7.267+j26.999	3.14	2.97	4.800+j22.721	7.152+j26.626
ARRIAGA	ARR-115	115.0	2.59	2.68	6.698+j24.745	3.022+j22.971	3.03	3.08	5.996+j23.345	3.013+j22.756
ASTATA	AST-115	115.0	1.63	1.26	9.298+j39.718	9.681+j75.791	1.84	1.60	8.767+j38.695	5.934+j57.970



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ATENCINGO	AEN-115	115.0	1.80	1.05	11.329+j35.088	28.886+j113.127	1.99	1.15	11.222+j34.966	28.880+j113.064
ATEXCACO	AXO-115	115.0	3.43	2.73	4.481+j18.835	11.145+j32.348	4.61	4.66	3.067+j15.550	2.284+j15.172
ATLIHUETZIA	ATZ-115	115.0	17.09	12.53	0.916+j3.775	2.016+j7.931	19.57	14.13	0.829+j3.638	2.003+j7.835
ATLIXCO	ATC-115	115.0	7.97	4.59	1.862+j8.116	6.783+j25.927	8.95	5.10	1.765+j7.970	6.768+j25.816
ATLIXCOYOTL	AXT-115	115.0	20.92	13.39	0.772+j3.079	1.949+j8.318	24.29	15.15	0.681+j2.929	1.940+j8.236
AUTO MANUFACTURAS	AMF-115	115.0	16.78	12.46	0.664+j3.901	1.906+j7.870	18.94	13.92	0.597+j3.809	1.908+j7.832
AYUTLA	AYT-115	115.0	0.82	0.47	24.268+j76.782	64.764+j258.101	0.92	0.52	23.274+j75.994	64.667+j257.743
BACHAJON	BAC-115	115.0	0.99	0.61	22.676+j62.831	67.312+j180.271	1.10	0.68	22.348+j62.325	67.235+j179.224
BALSAS	BAA-115	115.0	3.23	2.52	6.739+j19.437	13.006+j35.665	4.15	3.12	4.891+j16.900	12.325+j32.861
BARRA NORTE	BRN-115	115.0	3.10	3.42	4.903+j20.836	3.383+j15.138	3.43	3.78	4.863+j20.747	3.378+j14.997
BELISARIO DOMÍNGUEZ	BDZ-115	115.0	5.16	4.40	3.771+j12.302	4.191+j19.132	6.47	5.54	2.854+j10.925	3.596+j16.608
BELISARIO DOMÍNGUEZ II	BDD-115	115.0	2.16	1.44	9.893+j29.057	25.065+j72.649	2.49	1.65	8.970+j27.867	24.462+j70.066
BENITO JUÁREZ	BJU-115	115.0	7.06	5.52	1.668+j9.253	2.533+j17.336	8.24	6.35	1.504+j8.735	2.474+j16.796
BENTELER	BEN-115	115.0	15.60	9.53	1.055+j4.122	2.208+j12.230	17.83	10.66	0.967+j3.981	2.203+j12.178
BERRIOZÁBAL	BRZ-115	115.0	7.34	5.15	1.579+j8.913	3.948+j20.218	8.68	5.89	1.330+j8.306	3.935+j19.956
BII HIOXO	BII-115	115.0	4.42	5.12	1.501+j14.950	0.325+j8.860	5.65	6.35	1.195+j12.864	0.310+j8.657
BII HIOXO	BII-115B	115.0	3.47	4.20	2.088+j19.011	0.288+j9.209	4.90	5.65	1.392+j14.846	0.275+j8.990
BII NEE STIPA	BNS-115	115.0	5.47	7.21	1.736+j12.024	0.231+j3.540	7.26	9.27	1.116+j10.000	0.242+j3.617
BII STINÚ I	BSU-115	115.0	6.90	9.08	1.707+j9.464	0.230+j2.919	9.63	12.16	1.088+j7.508	0.240+j2.962
BII STINÚ II	BSD-230	230.0	5.07	5.48	2.392+j26.059	2.092+j20.298	6.88	7.00	1.782+j21.170	2.032+j19.996
BIO PAPEL PRINTING	BPP-115	115.0	7.51	6.24	1.854+j8.642	1.953+j14.196	9.45	7.65	1.480+j7.582	1.962+j13.215
BOCA DEL RIO	BDR-115	115.0	16.69	12.68	0.765+j3.904	1.300+j7.656	22.31	16.57	0.518+j3.233	1.115+j6.584
BOCHIL	BCH-115	115.0	3.61	2.29	4.425+j17.830	10.831+j49.037	4.12	2.57	4.146+j17.216	10.824+j48.803
BONFIL	BNL-115	115.0	4.92	5.18	4.543+j12.718	2.303+j11.283	6.64	6.57	2.887+j10.606	2.311+j11.107
BOSQUES	BOE-115	115.0	18.93	13.37	0.695+j3.437	1.683+j7.719	21.79	15.06	0.609+j3.295	1.680+j7.682
BRIDGESTONE	BDG-115	115.0	8.31	6.73	1.319+j7.879	2.432+j13.405	9.38	7.54	1.163+j7.702	2.408+j13.271
BUENA VISTA	BVI-115	115.0	7.23	4.58	1.879+j8.990	6.415+j24.259	8.02	5.06	1.850+j8.921	6.416+j24.226
BUGAMBILIAS	BGB-115	115.0	17.45	10.75	0.930+j3.690	2.827+j10.562	20.05	12.07	0.839+j3.544	2.826+j10.515
BUGAMBILIAS SF6	BGS-115	115.0	17.28	10.61	0.944+j3.725	2.874+j10.717	19.85	11.91	0.852+j3.579	2.873+j10.670
CACTUS PEMEX	CAX-115	115.0	7.45	7.31	1.674+j8.757	1.752+j9.662	8.93	8.49	1.414+j8.051	1.751+j9.626
CACTUS SWITCHEO	CSX-115	115.0	16.65	19.09	0.541+j3.950	0.190+j2.899	19.67	22.18	0.450+j3.685	0.183+j2.833
CALPULALPAN	CPL-115	115.0	4.25	3.67	4.927+j14.842	4.282+j22.706	4.64	4.03	4.988+j14.943	4.265+j22.611
CANTICAS	CIC-115	115.0	13.11	10.36	0.988+j4.969	1.684+j9.125	15.80	12.13	0.883+j4.536	1.686+j8.792
CAPILLA	CAP-115	115.0	5.15	3.22	2.855+j12.567	9.647+j34.733	7.27	4.70	2.167+j9.805	7.613+j25.399
CARACOL	CRL-230	230.0	3.29	2.70	10.158+j39.003	14.446+j65.256	8.90	10.26	1.577+j16.337	0.285+j9.352
CARACOL	CRL-115	115.0	1.77	1.18	12.131+j35.422	26.310+j90.120	2.11	1.37	10.220+j33.014	25.611+j87.283
CARDEL	CAE-115	115.0	4.06	3.41	3.663+j15.923	3.822+j25.459	4.50	3.77	3.630+j15.832	3.809+j25.354
CÁRDENAS	CDN-115	115.0	10.80	9.57	1.270+j6.016	1.852+j8.440	12.64	10.97	1.117+j5.668	1.826+j8.298
CÁRDENAS CENTRO	CDC-115	115.0	8.73	7.60	1.694+j7.411	2.792+j10.760	10.09	8.64	1.545+j7.070	2.760+j10.605
CÁRDENAS DOS	CDD-230	230.0	8.70	8.57	2.558+j15.053	2.474+j16.243	10.98	10.49	1.869+j13.169	2.303+j15.238



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CÁRDENAS DOS	CDD-115	115.0	13.11	13.23	0.819+j4.997	0.603+j5.028	15.62	15.51	0.659+j4.629	0.559+j4.827
CÁRDENAS SUR	CSU-115	115.0	7.10	6.36	2.187+j9.091	2.957+j12.408	8.12	7.19	2.046+j8.758	2.895+j12.204
CARLOS A. CARRILLO	CAC-115	115.0	3.92	2.43	5.242+j16.126	13.694+j46.063	4.55	2.87	4.857+j15.309	12.642+j42.491
CASABLANCA	SBL-115	115.0	9.81	7.40	1.259+j6.650	2.630+j13.263	11.48	8.39	1.065+j6.275	2.628+j13.229
CATEMACO	CTO-115	115.0	2.27	1.28	10.225+j27.377	24.483+j94.605	2.96	2.68	7.575+j23.508	7.168+j31.669
CAVERNAS TUZANDEPETL	CVN-115	115.0	13.49	10.05	1.012+j4.818	1.969+j9.866	16.41	11.64	0.882+j4.364	1.972+j9.765
CAYACO	CAY-115	115.0	6.03	7.00	3.829+j10.330	0.972+j6.460	8.69	9.45	2.163+j8.124	0.987+j6.295
CAZONES	CZN-115	115.0	9.77	6.76	0.925+j6.736	3.224+j15.552	10.85	7.47	0.897+j6.672	3.224+j15.530
CD. HIDALGO. CHIAPAS.	CGO-115	115.0	1.92	1.40	10.200+j32.987	25.843+j68.741	2.19	1.57	9.456+j31.905	25.902+j67.897
CD. INDUSTRIAL VILLAHERMOSA	CIH-115	115.0	13.84	12.46	0.890+j4.713	1.071+j6.450	16.63	14.42	0.700+j4.337	1.069+j6.420
CEBADAS Y MALTA	CBM-115	115.0	4.04	3.42	5.194+j15.601	5.046+j25.027	4.41	3.75	5.255+j15.702	5.029+j24.932
CECILIO DEL VALLE	CCL-69	69.0	1.67	1.75	2.400+j23.695	1.498+j20.506	2.93	3.59	1.056+j14.929	0.186+j6.640
CEFERESO	CFS-85	85.0	2.50	1.36	3.555+j19.329	12.952+j68.048	2.79	1.51	3.405+j19.016	12.927+j67.701
CEFERESO VILLACOMALTITLAN	CFV-115	115.0	2.86	2.01	6.897+j22.166	17.050+j49.765	3.35	2.34	6.047+j20.963	16.400+j47.069
CELANESE	CLS-115	115.0	11.99	8.63	1.204+j5.407	2.431+j11.840	14.41	9.92	1.072+j4.954	2.433+j11.738
CELCSA MANIOBRAS	CCB-115	115.0	13.14	11.87	0.802+j4.991	0.882+j6.973	15.56	13.74	0.718+j4.638	0.879+j6.805
CEMENTOS APASCO (TABASCO)	CEM-115	115.0	5.02	3.71	2.957+j12.895	9.771+j25.648	5.91	4.23	2.550+j12.082	9.754+j25.516
CEMENTOS APASCO S.A. DE C.V.	CSS-115	115.0	5.88	7.40	3.944+j10.579	0.471+j4.436	8.46	10.17	2.273+j8.333	0.486+j4.275
CEMENTOS CRUZ AZUL (OAXACA)	CCA-115	115.0	4.41	3.23	4.392+j14.386	7.583+j30.872	5.29	3.71	3.996+j13.223	7.512+j30.639
CEMENTOS MOCTEZUMA (MORELOS)	CUM-230	230.0	12.35	11.07	1.974+j10.565	3.058+j14.191	14.90	13.70	1.378+j9.705	2.290+j12.165
CEMENTOS MOCTEZUMA(APAZAPAN)	CMT-115	115.0	4.23	2.77	3.200+j15.366	5.760+j40.162	4.75	3.08	3.031+j15.075	5.740+j40.048
CEMENTOS TOLTECA	TOC-230	230.0	8.39	6.81	2.270+j15.672	5.521+j26.336	9.56	7.64	1.958+j15.147	5.522+j26.328
CEMENTOS VERACRUZ	CVE-115	115.0	10.47	8.32	1.204+j6.223	2.682+j10.962	12.48	9.59	1.020+j5.760	2.683+j10.840
CENTENARIO	CIO-85	85.0	3.71	2.26	2.222+j13.039	6.287+j38.242	4.19	2.52	2.077+j12.720	6.263+j37.899
CENTRAL EÓLICA SURESTE UNO FASE DOS	SUD-230	230.0	8.58	11.34	1.326+j15.412	0.721+j4.199	12.98	16.40	0.829+j11.220	0.717+j4.170
CENTRO DE EXPOSICIONES Y CONVENCIONES FUERTES	CEF-115	115.0	15.31	8.98	1.074+j4.203	2.574+j13.270	17.47	10.05	0.985+j4.062	2.569+j13.218
CERRO AZUL DOS	CDO-115	115.0	4.17	2.40	3.666+j15.476	19.403+j47.778	4.62	2.64	3.629+j15.383	19.390+j47.687
CERRO DE ORO	EDO-400	400.0	16.79	17.86	2.445+j13.534	1.389+j11.389	26.79	25.39	1.121+j9.414	1.353+j10.968
CERRO DE ORO	EDO-115	115.0	18.59	18.10	0.370+j3.551	0.191+j3.891	25.26	23.23	0.202+j2.884	0.208+j3.599
CERVECERÍA DEL TRÓPICO	CVT-115	115.0	5.91	4.12	2.100+j11.045	4.641+j25.636	6.83	4.68	1.930+j10.511	4.608+j25.191
CERVECERÍA MOCTEZUMA (ORIZABA)	CMA-115	115.0	11.43	10.24	1.590+j5.585	1.730+j7.655	14.34	12.57	1.298+j4.924	1.639+j7.058
CHAKAJ	CKJ-115	115.0	2.65	0.88	6.029+j24.345	75.388+j161.057	3.11	0.98	5.172+j22.904	75.358+j160.907
CHAPULCO	CPO-115	115.0	8.65	2.92	1.477+j7.535	12.567+j51.284	9.71	3.23	1.385+j7.391	12.574+j51.334
CHICONTEPEC	CHI-115	115.0	3.13	3.78	5.040+j20.589	1.660+j10.211	3.46	4.18	5.012+j20.525	1.633+j10.038
CHIGNAHUAPAN	CHH-115	115.0	2.78	1.70	6.185+j23.095	19.256+j66.405	3.08	1.89	6.066+j22.913	19.205+j66.090
CHILAPA	CIP-115	115.0	3.50	3.21	4.861+j18.327	5.531+j23.497	4.58	3.96	3.034+j15.641	5.482+j22.756
CHILAPAN	CHP-115	115.0	2.20	1.24	10.603+j28.261	25.432+j97.729	2.91	2.80	7.630+j23.952	5.943+j27.372
CHILPANCINGO	CHG-115	115.0	4.44	4.26	4.301+j14.321	2.891+j16.680	6.19	5.50	2.476+j11.532	2.846+j15.973
CHILPANCINGO	CHG-69	69.0	1.59	1.71	1.765+j24.946	0.000+j19.845	2.12	2.31	1.161+j20.609	1.623+j15.612
CHILPANCINGO DOS	CCS-115	115.0	5.10	5.52	3.669+j12.486	1.245+j10.060	7.35	7.49	1.896+j9.754	1.188+j9.274



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CHILPANCINGO POTENCIA	CGP-230	230.0	3.37	3.50	11.580+j37.722	4.978+j34.847	5.35	5.12	5.037+j26.837	4.806+j30.361
CHILPANCINGO POTENCIA	CGP-115	115.0	5.23	6.07	3.523+j12.201	0.653+j7.503	7.57	8.39	1.759+j9.482	0.608+j6.774
CHINAMECA DOS	CHD-115	115.0	19.24	15.85	0.579+j3.403	0.872+j5.715	24.81	19.38	0.431+j2.912	0.839+j5.418
CHINAMECA POTENCIA	CHM-400	400.0	9.08	8.46	3.402+j25.203	4.531+j31.474	13.72	11.26	2.118+j18.398	4.426+j30.549
CHINAMECA POTENCIA	CHM-115	115.0	21.59	20.15	0.469+j3.039	0.428+j3.834	28.23	25.10	0.331+j2.565	0.414+j3.602
CHONTALPA	CHT-115	115.0	3.98	2.92	4.177+j16.172	12.523+j32.680	4.47	3.25	4.017+j15.839	12.497+j32.538
CIA. GRESS	GRE-115	115.0	12.98	8.26	1.078+j4.999	3.286+j13.535	14.72	9.23	0.993+j4.862	3.278+j13.456
CICLO COMBINADO CENTRO (HUEXCA)	CBE-400	400.0	18.42	18.51	1.760+j12.411	1.067+j12.373	22.31	21.81	1.104+j11.333	1.039+j12.138
CINCO DE MAYO	CIY-115	115.0	14.39	9.26	1.184+j4.460	3.557+j11.771	16.40	10.36	1.093+j4.317	3.557+j11.742
CINTALAPA DOS	CIT-115	115.0	6.27	4.38	2.088+j10.376	4.770+j23.853	7.36	4.98	1.823+j9.758	4.760+j23.636
CIUDAD PEMEX	CPX-115	115.0	6.96	5.53	1.343+j9.444	2.957+j16.775	8.50	6.44	0.989+j8.538	2.941+j16.646
CIUDAD TEXTIL	CDX-115	115.0	10.09	6.28	1.169+j6.475	4.673+j17.996	11.31	6.98	1.096+j6.362	4.649+j17.918
CIVAC	CIV-115	115.0	10.40	9.37	1.034+j6.302	1.224+j8.402	11.80	10.57	0.879+j6.124	1.201+j8.267
CLORO DE TEHUANTEPEC	CLO-115	115.0	13.13	9.57	0.861+j4.982	1.852+j10.642	15.91	11.04	0.720+j4.534	1.855+j10.541
COAPAN	CPA-115	115.0	4.58	2.77	4.002+j13.923	10.039+j41.775	5.12	3.07	3.857+j13.722	10.031+j41.691
COATEPEC	COP-115	115.0	4.62	3.64	2.832+j14.081	5.371+j25.501	5.31	4.11	2.536+j13.513	5.343+j25.170
COATZACOALCOS DOS	CTS-400	400.0	11.37	11.69	2.854+j20.115	2.264+j19.290	17.17	15.87	1.565+j14.715	2.252+j18.500
COATZACOALCOS DOS	CTS-115	115.0	26.47	26.03	0.334+j2.486	0.281+j2.749	34.32	32.40	0.230+j2.116	0.269+j2.569
COATZINTLA	CZT-115	115.0	14.51	12.98	0.677+j4.524	1.903+j5.942	16.16	14.39	0.652+j4.471	1.903+j5.922
COGENERACIÓN DE ENERGÍA LIMPIA DE COSOLEACAQUE	CGC-115	115.0	11.77	11.29	0.862+j5.573	0.613+j6.817	13.75	12.98	0.791+j5.254	0.604+j6.641
COGENERACIÓN NUEVO PEMEX	CNX-115	115.0	16.65	19.09	0.541+j3.950	0.190+j2.899	19.67	22.18	0.450+j3.685	0.183+j2.833
COLOTLIPA	CLT-69	69.0	0.85	0.95	12.011+j45.113	22.968+j26.159	1.31	1.48	6.759+j32.827	10.918+j19.449
COMALCALCO	COM-115	115.0	8.41	7.69	1.725+j7.705	3.668+j9.628	9.72	8.75	1.556+j7.350	3.615+j9.474
COMALCALCO ORIENTE	CAO-115	115.0	8.76	8.26	1.454+j7.442	2.114+j8.824	10.16	9.46	1.279+j7.077	2.041+j8.604
COMALCALCO POTENCIA	CMP-230	230.0	5.66	5.21	4.084+j23.093	5.700+j29.434	6.76	6.09	3.375+j21.332	5.450+j28.507
COMALCALCO POTENCIA	CMP-115	115.0	9.05	8.97	1.325+j7.217	1.381+j7.508	10.52	10.34	1.150+j6.848	1.304+j7.255
COMALCALCO SUR	CMU-115	115.0	6.95	5.95	2.359+j9.255	5.269+j13.540	7.96	6.72	2.204+j8.912	5.224+j13.390
COMITÁN	CJT-115	115.0	1.46	0.99	14.450+j43.239	42.779+j102.319	1.65	1.11	13.630+j41.999	42.299+j100.052
COMPLEJO PETROQUÍMICO CANGREJERA	CGJ-115	115.0	8.07	4.88	1.785+j8.037	5.628+j23.790	9.26	5.59	1.690+j7.708	5.421+j22.866
COMPLEJO PETROQUÍMICO COSOLEACAQUE	CPQ-115	115.0	6.94	4.38	1.900+j9.380	5.705+j25.778	9.22	6.86	1.337+j7.811	2.224+j16.075
COMPLEJO PETROQUÍMICO INDEPENDENCIA	PEI-115	115.0	11.16	9.28	1.198+j5.828	1.319+j9.510	12.46	10.30	1.143+j5.751	1.316+j9.478
COMPLEJO PETROQUÍMICO MORELOS	PMO-115	115.0	9.30	8.60	1.136+j7.052	2.002+j9.037	10.42	9.57	1.085+j6.928	1.997+j9.008
CONALEP	LEP-115	115.0	7.20	6.55	1.687+j9.060	3.430+j11.582	8.68	7.64	1.345+j8.309	3.414+j11.453
CONEJOS	CNJ-115	115.0	1.44	0.92	13.175+j44.087	23.897+j121.672	1.61	1.07	12.694+j43.452	21.604+j112.223
CONTLA	CNU-115	115.0	21.03	14.19	0.626+j3.095	1.703+j7.552	24.39	16.10	0.540+j2.945	1.693+j7.453
CÓRDOBA	COR-115	115.0	11.74	8.74	1.029+j5.561	2.654+j11.173	14.10	10.08	0.845+j5.112	2.655+j11.079
CÓRDOBA DOS	CBS-115	115.0	13.73	11.96	0.894+j4.753	1.395+j6.853	16.73	14.03	0.710+j4.307	1.390+j6.751
COSCOMATEPEC	CSE-115	115.0	4.76	2.86	2.477+j13.726	11.774+j40.176	5.42	3.19	2.284+j13.279	11.777+j40.074
COSOLAPA	CSL-115	115.0	3.57	2.50	2.967+j18.343	5.697+j42.239	4.53	3.23	2.289+j15.942	4.732+j35.276
COSOLEACAQUE	CSQ-115	115.0	10.96	7.39	1.075+j5.964	2.861+j14.676	13.14	8.54	0.921+j5.481	2.818+j14.324



Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
COSTA AZUL	CAZ-115	115.0	5.53	6.34	4.042+j11.298	1.132+j7.419	7.75	8.38	2.374+j9.119	1.139+j7.237
COYOACO MANIOBRAS	CYM-230	230.0	5.37	5.46	4.126+j24.390	2.933+j23.345	6.82	6.68	3.024+j21.204	2.821+j22.430
COYUCA	CYC-115	115.0	4.62	4.54	4.426+j13.673	2.834+j14.901	6.54	5.99	2.657+j10.852	2.821+j13.957
CRISOL TEXTIL	CTX-115	115.0	10.91	7.06	1.035+j5.996	3.916+j15.579	12.24	7.86	0.964+j5.890	3.896+j15.511
CRISTÓBAL SAN	CRI-115	115.0	3.71	2.41	5.174+j17.123	14.508+j44.529	4.26	2.74	4.791+j16.442	14.446+j43.510
CRUCES	CRC-69	69.0	6.66	7.17	1.734+j5.728	1.896+j4.318	8.98	9.15	1.109+j4.752	1.952+j4.226
CRUCES GENERACIÓN	CUG-115	115.0	6.01	6.97	3.816+j10.374	1.026+j6.472	8.67	9.42	2.146+j8.142	1.053+j6.324
CRUZ AZUL MANIOBRAS	CZM-400	400.0	11.97	9.73	2.764+j19.095	6.102+j32.165	15.19	11.58	1.743+j16.628	6.079+j32.027
CRUZ GRANDE	CGN-115	115.0	2.09	1.31	10.183+j30.062	27.376+j84.375	2.43	1.47	8.883+j28.692	27.350+j84.188
CRYO INFRA DOS	CRX-115	115.0	7.19	5.02	2.209+j8.964	4.545+j20.816	8.34	5.66	2.076+j8.512	4.548+j20.714
CRYOINFRA - PRAXAIR	CYX-115	115.0	9.24	7.86	1.168+j7.092	2.415+j11.078	10.36	8.77	1.116+j6.961	2.397+j10.988
CRYOINFRA CÁRDENAS	ICD-115	115.0	10.44	9.14	1.329+j6.221	2.076+j8.950	12.19	10.46	1.175+j5.874	2.050+j8.808
CRYO_INFRA	CRY-115	115.0	12.01	10.70	1.150+j5.407	1.003+j7.636	14.73	13.22	1.004+j4.856	0.962+j6.676
CUAUHTÉMOC	CTM-115	115.0	8.52	5.85	1.794+j7.581	4.128+j18.056	9.64	6.56	1.680+j7.385	4.092+j17.847
CUAUTLA	CUA-115	115.0	9.26	7.58	1.410+j7.029	1.750+j11.834	10.36	8.44	1.322+j6.924	1.731+j11.747
CUAUTLA DOS	CUS-115	115.0	7.09	4.84	1.936+j9.159	4.679+j21.908	7.90	5.37	1.853+j9.052	4.674+j21.859
CUAUTLA INDUSTRIAL	CIL-115	115.0	6.36	4.54	2.441+j10.151	5.578+j22.346	7.08	5.02	2.354+j10.049	5.567+j22.279
CUCHAPA PEMEX	CUH-115	115.0	8.96	6.04	1.625+j7.230	3.687+j17.887	10.39	6.83	1.517+j6.862	3.675+j17.706
CUERNAVACA	CUE-85	85.0	5.47	4.70	1.369+j8.864	1.574+j13.321	6.25	5.34	1.226+j8.543	1.550+j12.978
CUETZALAN	CTZ-115	115.0	3.50	2.09	3.383+j18.693	12.007+j56.252	3.94	2.32	3.221+j18.238	12.000+j55.976
CUICATLAN	CUX-115	115.0	1.81	1.16	9.701+j35.333	37.901+j91.628	2.01	1.28	9.491+j35.057	37.877+j91.305
CUICHAPA DOS	CCP-115	115.0	9.21	6.18	1.571+j7.037	3.612+j17.567	10.70	6.99	1.464+j6.670	3.600+j17.386
CUITLÁHUAC	CTH-115	115.0	4.59	2.86	2.638+j14.229	9.032+j39.761	5.21	3.19	2.452+j13.789	9.024+j39.651
CUNDUACÁN	DUA-115	115.0	5.83	4.07	1.987+j11.208	6.173+j25.634	6.64	4.55	1.822+j10.843	6.133+j25.494
CYCNA DE ORIENTE	CYR-400	400.0	8.99	6.79	3.302+j25.468	9.581+j49.940	10.99	7.89	2.276+j23.005	9.496+j49.656
DISTRIBUCIÓN TRC-115	TRC-115	115.0	5.97	3.93	1.912+j10.960	6.037+j27.947	6.92	4.42	1.656+j10.417	6.028+j27.864
DISTRITO INDUSTRIAL	DIN-69	69.0	12.23	11.03	0.324+j3.243	0.616+j4.278	13.22	11.99	0.322+j3.299	0.616+j4.288
DONAJI	DOJ-115	115.0	3.99	2.52	4.093+j16.124	10.183+j44.840	4.61	2.83	3.840+j15.372	10.137+j44.632
DOS BOCAS CICLO COMBINADO	DBC-230	230.0	10.55	9.45	2.115+j12.408	3.735+j16.606	13.37	11.32	1.459+j10.831	3.738+j16.462
DOS BOCAS CICLO COMBINADO	DBC-115	115.0	22.85	22.67	0.508+j2.861	0.364+j2.964	33.67	35.54	0.262+j2.153	0.153+j1.821
DOS BOCAS DOS	DBD-400	400.0	11.23	11.37	3.346+j20.292	2.671+j19.736	15.76	15.29	1.721+j16.024	2.044+j17.505
DOS BOCAS PEMEX	DBX-115	115.0	4.53	3.51	3.390+j14.262	9.019+j26.107	5.12	3.93	3.208+j13.908	8.942+j25.874
DPA DRAEXLMAIER, PARTES AUTOMOTORAS DE MÉXICO	DXM-115	115.0	10.83	6.80	1.081+j6.032	4.300+j16.537	12.16	7.56	1.009+j5.919	4.276+j16.459
EASTMAN (CHEMICAL)	EAS-115	115.0	6.69	4.30	2.964+j9.472	6.323+j25.867	7.76	4.86	2.811+j8.987	6.289+j25.570
EJUTLA	EJT-115	115.0	3.29	2.44	5.074+j19.504	8.733+j40.425	3.69	2.72	4.812+j19.212	8.635+j39.907
EL CARMEN	CNM-230	230.0	9.13	10.13	2.193+j14.377	1.280+j10.740	11.15	12.01	1.647+j13.001	1.291+j10.574
EL CARMEN	CNM-115	115.0	11.91	13.44	0.749+j5.522	0.390+j3.795	13.90	15.41	0.611+j5.220	0.396+j3.775
EL CASTILLO	ELC-230	230.0	4.93	4.79	4.891+j26.491	3.708+j29.120	6.04	5.71	3.822+j23.884	3.631+j27.721
EL CASTILLO	ELC-115	115.0	7.60	8.58	1.653+j8.578	0.448+j5.758	9.06	10.14	1.354+j7.951	0.414+j5.396
EL CERRO	CEO-115	115.0	6.67	4.30	1.963+j9.765	5.622+j25.817	7.91	4.90	1.640+j9.087	5.597+j25.559



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
EL CONDE	ECN-115	115.0	20.14	14.76	0.740+j3.213	1.276+j6.802	23.36	16.77	0.653+j3.058	1.266+j6.716
EL GIRASOL	GIS-115	115.0	1.56	0.98	10.803+j41.075	41.683+j110.853	1.73	1.08	10.593+j40.799	41.659+j110.531
EL GUAYABO	GYB-115	115.0	7.80	4.71	1.634+j8.354	5.226+j24.686	12.89	8.11	0.952+j5.586	3.193+j15.354
EL JÍCARO	JIC-115	115.0	5.49	3.21	2.129+j11.913	7.942+j37.119	6.58	3.88	1.841+j10.949	7.085+j33.520
EL MEZQUITE	MEQ-115	115.0	5.26	4.59	2.843+j12.287	3.394+j18.004	6.65	5.62	2.340+j10.727	2.992+j16.828
EL MORAL (OAXACA)	MOR-115	115.0	2.63	1.95	6.957+j24.309	18.622+j48.408	2.93	2.16	6.749+j24.033	18.600+j48.088
EL MORAL (PUEBLA)	MOA-115	115.0	10.17	6.61	1.118+j6.434	3.882+j16.656	11.38	7.34	1.048+j6.335	3.873+j16.608
EL SABINO	SAB-400	400.0	9.41	9.21	3.708+j24.261	3.653+j26.233	16.14	14.12	1.338+j15.685	3.538+j21.963
EL SABINO	SAB-115	115.0	16.72	16.22	0.572+j3.929	0.395+j4.355	21.93	20.46	0.337+j3.313	0.375+j4.013
EL TEJAR	TJR-115	115.0	21.29	19.88	0.536+j3.072	0.527+j3.757	30.63	29.57	0.290+j2.367	0.317+j2.621
EL TREINTA	ETT-115	115.0	5.06	5.09	4.356+j12.365	2.473+j12.769	7.01	6.50	2.674+j10.066	2.505+j12.617
EL TULE	TLE-115	115.0	3.96	3.05	4.233+j16.205	6.960+j31.001	4.46	3.41	4.006+j15.876	6.929+j30.649
EL ZOPO	ZOP-115	115.0	5.52	4.13	2.632+j11.735	8.537+j22.844	6.55	4.73	2.226+j10.920	8.519+j22.712
EMILIANO ZAPATA	EMZ-115	115.0	2.54	1.56	6.733+j25.248	21.697+j72.613	2.86	1.73	6.545+j24.705	21.599+j72.098
ENCANTO	ECT-115	115.0	4.46	4.79	3.420+j14.505	2.115+j11.637	5.39	5.95	2.875+j13.240	1.493+j9.626
ENTABLADERO	ETD-115	115.0	6.30	3.99	1.930+j10.369	9.878+j27.225	7.02	4.42	1.878+j10.237	9.871+j27.118
ESCÁMELA	ECM-115	115.0	10.73	8.48	1.154+j6.082	2.417+j10.846	12.91	9.86	0.950+j5.576	2.403+j10.659
ESFUERZO	ESF-115	115.0	3.40	2.98	4.618+j18.951	7.998+j26.686	3.76	3.29	4.579+j18.863	7.978+j26.534
ESPERANZA	ERZ-115	115.0	6.91	5.94	2.508+j9.271	2.342+j14.186	7.79	6.68	2.374+j9.065	2.282+j13.890
ETLA	ETX-115	115.0	3.99	3.51	4.367+j16.051	7.599+j22.282	4.49	3.93	4.149+j15.739	7.567+j21.916
EXCELOPOLIS	EXE-115	115.0	18.52	11.39	0.857+j3.480	2.455+j10.046	21.36	12.81	0.766+j3.333	2.447+j9.983
FENO QUIMIA	FNQ-115	115.0	7.01	4.35	1.932+j9.270	5.814+j26.327	8.46	5.31	1.684+j8.465	4.942+j23.589
FERMEX	FEM-115	115.0	10.68	8.42	1.651+j5.992	3.091+j10.807	13.19	10.13	1.391+j5.359	2.950+j10.130
FLORES MAGÓN	FLM-115	115.0	3.54	2.62	4.561+j18.196	13.306+j36.153	4.18	3.08	3.977+j17.027	12.843+j33.911
FORJAMEX	FJM-115	115.0	12.81	9.80	1.135+j5.056	2.332+j9.733	14.63	11.11	1.031+j4.884	2.284+j9.504
FORTÍN	FOR-115	115.0	13.66	10.54	0.860+j4.783	2.169+j8.938	16.68	12.28	0.675+j4.327	2.172+j8.837
FRAMBOYANES	FRY-115	115.0	20.04	23.12	0.588+j3.261	0.285+j1.976	25.99	28.93	0.404+j2.781	0.288+j1.932
FRONTERA	FRT-115	115.0	1.46	1.15	12.052+j43.746	32.981+j76.972	1.62	1.27	11.852+j43.401	32.980+j76.951
FRONTERA COMALAPA	FCM-115	115.0	1.01	0.62	18.471+j63.345	53.222+j180.819	1.13	0.70	17.501+j62.230	52.600+j178.203
FUERTES	FUE-115	115.0	16.44	10.70	1.001+j3.913	1.996+j10.374	18.82	12.00	0.912+j3.772	1.991+j10.322
GABINO BARREDA	GBA-115	115.0	9.45	6.96	1.377+j6.890	3.173+j14.260	11.69	8.30	1.136+j6.144	3.177+j13.591
GARITA	GAR-115	115.0	5.67	6.35	3.856+j11.067	1.270+j7.931	8.07	8.43	2.193+j8.780	1.303+j7.798
GAVIOTAS	GAV-115	115.0	13.49	11.58	0.916+j4.835	1.310+j7.385	16.19	13.37	0.722+j4.452	1.308+j7.348
GIRANDAS PEMEX	GIR-115	115.0	5.31	3.65	2.603+j12.228	7.238+j28.848	6.02	4.08	2.474+j11.870	7.232+j28.729
GRAN PRIDECO	GRA-115	115.0	15.36	12.98	0.866+j4.234	1.681+j6.507	19.15	15.32	0.683+j3.753	1.685+j6.463
GRIJALVA	GIA-115	115.0	6.37	4.17	2.514+j10.114	5.458+j26.358	7.54	4.80	2.207+j9.429	5.374+j25.749
GUADALUPE ANALCO	GAN-115	115.0	17.80	12.90	0.876+j3.625	2.362+j7.644	20.46	14.51	0.786+j3.482	2.363+j7.626
GUTIÉRREZ ZAMORA DOS	GZD-115	115.0	5.87	4.11	1.741+j11.185	5.456+j25.199	6.59	4.59	1.647+j10.952	5.428+j25.019
HELIPUERTO	HEL-115	115.0	2.48	2.40	6.654+j25.966	3.978+j29.259	3.06	2.87	4.784+j23.382	3.920+j28.453
HUAJUAPAN	HJP-115	115.0	1.83	1.09	10.698+j34.691	27.118+j106.519	2.02	1.20	10.550+j34.543	27.112+j106.443



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
HUAMANTLA DOS	HUA-115	115.0	9.06	6.30	1.633+j7.148	3.792+j16.580	10.27	7.07	1.521+j6.950	3.757+j16.383
HUAMUXTITLAN	HUU-115	115.0	1.02	0.65	18.765+j62.366	40.668+j173.546	1.18	0.73	16.769+j59.830	40.607+j172.765
HUATULCO	HCO-115	115.0	1.44	0.91	13.634+j43.976	25.016+j123.717	1.61	1.05	13.164+j43.393	22.909+j115.211
HUATUSCO	HTU-115	115.0	3.49	2.04	3.376+j18.716	16.541+j57.534	3.94	2.27	3.180+j18.273	16.544+j57.432
HUAUTLA DE JIMENEZ	HUJ-69	69.0	0.67	0.49	31.079+j51.026	50.820+j111.925	0.73	0.54	31.058+j51.248	50.821+j112.242
HUEJOTZINGO	HJO-115	115.0	12.89	8.45	0.895+j5.071	3.633+j12.806	14.52	9.43	0.824+j4.963	3.606+j12.730
HUEYAPAN	HYN-115	115.0	2.74	2.11	5.867+j23.527	15.598+j43.369	3.52	3.20	4.447+j20.253	6.735+j26.190
HUEYAPAN DE OCAMPO	HOC-115	115.0	3.19	1.77	6.857+j19.658	17.945+j68.830	3.86	2.66	5.832+j17.974	10.450+j43.287
HUIMANGUILLO	HMG-115	115.0	5.52	4.53	2.868+j11.675	6.096+j19.123	6.27	5.09	2.733+j11.332	6.043+j18.917
HUIXTLA	HUX-115	115.0	3.26	2.39	6.389+j19.369	13.777+j40.471	3.85	2.81	5.492+j18.137	13.190+j37.913
HUIXTLA DOS	HUD-115	115.0	3.20	2.35	6.131+j19.799	13.892+j40.936	3.79	2.77	5.266+j18.541	13.317+j38.394
HUMEROS DOS	HMD-115	115.0	6.64	6.37	1.645+j9.856	1.594+j11.190	8.13	7.73	1.353+j8.886	1.598+j10.234
HUMEROS LOS	HMS-115	115.0	4.31	4.18	2.813+j15.145	3.072+j16.552	5.34	5.46	2.247+j13.485	1.794+j12.638
HUMEROS TRES	HMT-115	115.0	6.48	6.28	1.667+j10.108	1.238+j11.170	7.78	7.45	1.418+j9.278	1.274+j10.552
IDESA	IDE-115	115.0	9.77	7.98	1.098+j6.704	2.513+j11.446	11.02	8.94	1.042+j6.544	2.486+j11.306
IGUALA	IGU-115	115.0	2.44	2.69	7.020+j26.338	1.171+j19.768	3.00	3.24	5.131+j23.788	1.143+j19.085
INDEPENDENCIA	IPD-115	115.0	3.38	2.20	4.700+j19.090	10.762+j50.191	4.16	3.26	3.751+j17.146	5.192+j31.694
INDUSTRIAL	INT-115	115.0	18.19	12.16	0.874+j3.544	1.728+j8.928	20.91	13.68	0.786+j3.404	1.724+j8.883
INDUSTRIAL CUAUTLA DOS	ICS-115	115.0	6.47	4.72	2.390+j9.976	5.330+j21.006	7.20	5.23	2.302+j9.874	5.318+j20.935
INDUSTRIAL PATRONA	IPA-115	115.0	13.66	11.37	0.901+j4.778	1.630+j7.640	16.63	13.29	0.717+j4.332	1.625+j7.538
INFONAVIT	IFN-115	115.0	18.79	16.21	0.709+j3.462	0.935+j5.143	24.81	20.13	0.499+j2.901	0.908+j4.916
INFRA VILLA HERMOSA	IVH-115	115.0	12.78	11.16	1.058+j5.087	1.439+j7.466	15.25	12.85	0.868+j4.711	1.438+j7.437
INGENIO LA GLORIA	GLR-115	115.0	3.58	3.40	4.122+j18.089	1.771+j21.626	3.94	3.75	4.143+j18.079	1.751+j21.478
INGENIO SAN NICOLÁS	ISN-115	115.0	3.10	1.78	3.542+j21.097	16.283+j67.234	4.43	4.25	2.171+j16.329	1.711+j18.564
IQUISA	IQU-115	115.0	13.00	11.92	0.964+j5.015	0.670+j6.601	16.15	14.98	0.818+j4.447	0.634+j5.626
ISLA	ISL-115	115.0	2.66	1.58	6.811+j23.967	21.419+j72.864	2.99	1.77	6.617+j23.486	21.351+j72.264
ITUNDUJIA	ITU-115	115.0	0.77	0.46	23.015+j82.762	62.343+j254.105	0.85	0.51	22.826+j82.570	62.329+j253.911
IXHUATLAN DE MADERO	IXH-115	115.0	1.51	1.32	8.907+j43.022	24.498+j59.248	1.67	1.45	8.864+j42.935	24.483+j59.130
IXTALTEPEC	IXT-115	115.0	4.61	4.01	3.129+j14.043	4.669+j20.705	5.92	4.80	2.477+j12.078	4.662+j20.657
IXTAPA POTENCIA	ITP-230	230.0	6.11	4.52	3.764+j21.394	10.958+j43.142	8.61	6.02	2.273+j16.811	9.857+j37.633
IXTAPA POTENCIA	ITP-115	115.0	5.57	4.80	1.277+j11.843	2.749+j17.431	8.90	7.08	1.123+j8.125	2.631+j14.298
IXTEPEC	IXP-115	115.0	3.76	2.97	4.048+j17.196	7.181+j31.317	4.68	3.47	3.392+j15.234	7.174+j31.270
IXTEPEC POTENCIA	IPO-400	400.0	7.03	8.86	2.924+j32.697	0.826+j12.662	10.94	12.89	1.429+j23.173	0.831+j12.660
IXTEPEC POTENCIA	IPO-230	230.0	9.67	12.96	0.925+j13.702	0.206+j3.323	15.25	19.50	0.440+j9.571	0.206+j3.298
IXTEPEC POTENCIA	IPO-115	115.0	16.05	19.58	0.234+j4.130	0.106+j1.911	23.39	26.89	0.112+j3.120	0.106+j1.900
IXTLAN DE JUÁREZ	IXJ-115	115.0	3.04	2.03	5.122+j21.241	11.762+j53.092	3.40	2.26	4.918+j20.893	11.739+j52.831
IZUCAR DE MATAMOROS	IZM-115	115.0	2.83	1.64	7.768+j22.124	19.449+j71.821	3.14	1.81	7.660+j21.998	19.443+j71.758
IZUCAR DE MATAMOROS DOS	IZD-115	115.0	2.95	1.72	7.506+j21.247	19.000+j68.447	3.26	1.89	7.399+j21.120	18.993+j68.379
J. B. LOBOS	JBL-115	115.0	15.14	13.21	0.797+j4.312	1.305+j6.182	19.20	15.97	0.590+j3.757	1.285+j5.981
JALACINGO	JAL-230	230.0	7.60	7.30	3.039+j17.210	2.914+j19.405	9.99	9.30	2.064+j14.479	2.660+j17.189



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
JALACINGO	JAL-115	115.0	9.39	10.55	1.116+j6.979	0.402+j4.742	11.93	13.26	0.796+j6.071	0.356+j4.211
JALAPA DOS	JLD-115	115.0	4.76	3.82	2.765+j13.685	4.910+j23.760	5.48	4.33	2.463+j13.101	4.880+j23.418
JALPA	JAA-115	115.0	7.45	7.52	1.810+j8.728	6.518+j7.138	8.55	8.53	1.645+j8.379	6.480+j7.084
JARDÍN	JDN-230	230.0	13.35	14.42	1.796+j9.784	1.353+j7.642	17.65	18.13	1.133+j8.198	1.358+j7.496
JARDÍN	JDN-115	115.0	22.02	25.83	0.538+j2.967	0.178+j1.685	29.46	33.20	0.344+j2.455	0.181+j1.632
JIUTEPEC	JIU-115	115.0	9.80	8.48	1.037+j6.697	1.268+j9.858	11.05	9.54	0.912+j6.544	1.228+j9.677
JOJUTLA	JJT-115	115.0	6.55	4.65	2.031+j9.936	4.407+j22.083	7.39	5.19	1.877+j9.697	4.398+j22.025
JUCHITÁN DOS	JUD-230	230.0	4.97	6.44	4.165+j26.413	0.864+j8.772	7.90	9.63	2.066+j18.381	0.853+j8.652
JUCHITÁN DOS	JUD-115	115.0	7.86	10.79	1.401+j8.332	0.119+j1.781	11.34	15.09	0.788+j6.394	0.114+j1.751
JUCHITÁN UNO	JUC-115	115.0	6.24	6.70	2.075+j10.434	1.797+j8.575	8.51	8.53	1.429+j8.465	1.790+j8.528
JUILE	JUI-400	400.0	13.26	12.73	2.459+j17.246	3.270+j19.534	21.45	17.59	1.103+j11.794	3.271+j19.351
JUILE	JUI-230	230.0	10.28	12.00	1.117+j12.874	0.579+j7.469	13.71	15.25	0.562+j10.640	0.567+j7.422
JUILE	JUI-115	115.0	4.11	2.63	4.035+j15.623	9.798+j42.564	4.69	2.95	3.852+j15.095	9.679+j41.931
JUY JUY	JUY-115	115.0	12.17	12.65	0.863+j5.385	0.603+j4.838	15.17	15.22	0.636+j4.772	0.600+j4.713
KILOMETRO VEINTE	KLV-230	230.0	12.36	12.85	1.968+j10.562	1.324+j9.797	17.00	16.55	1.101+j8.522	1.282+j9.415
KILOMETRO VEINTE	KLV-115	115.0	19.88	21.07	0.561+j3.292	0.303+j2.887	25.32	25.78	0.355+j2.863	0.289+j2.794
KIMBERLEY CLARK	KIA-115	115.0	12.41	10.02	1.101+j5.234	1.674+j9.073	14.22	11.43	0.983+j5.042	1.623+j8.759
KIMBERLEY CLARK, PUÉ.	KIC-115	115.0	11.53	9.06	1.201+j5.634	1.956+j10.314	13.16	10.30	1.083+j5.442	1.905+j10.001
KIMBERLEY CLARK, VER.	KIM-115	115.0	12.62	11.00	0.896+j5.184	1.165+j7.504	15.53	12.96	0.688+j4.651	1.168+j7.414
KRUPP METALÚRGICA	KRU-115	115.0	14.00	8.92	0.812+j4.672	2.981+j12.526	15.92	10.00	0.731+j4.528	2.970+j12.423
LA BARRA	LBR-115	115.0	3.52	4.14	4.201+j18.362	1.551+j10.356	3.90	4.59	4.162+j18.273	1.531+j10.191
LA CHOCA	LCH-115	115.0	15.33	13.88	0.816+j4.253	1.164+j5.764	18.45	16.07	0.649+j3.905	1.163+j5.736
LA CIÉNEGA	CIG-230	230.0	3.59	3.56	8.213+j36.035	5.134+j37.732	4.14	4.09	7.332+j34.527	4.936+j36.358
LA CIÉNEGA	CIG-115	115.0	6.43	6.65	2.414+j10.045	1.124+j9.287	7.33	7.60	2.191+j9.717	1.063+j8.879
LA CURVA	LVA-115	115.0	7.37	6.21	1.314+j8.910	2.386+j13.918	8.95	7.24	0.979+j8.102	2.370+j13.790
LA GARZA	LGZ-115	115.0	1.92	1.14	9.572+j33.172	28.267+j101.325	2.15	1.27	9.294+j32.612	28.257+j101.100
LA GLORIA MANIOBRAS	GLM-115	115.0	3.67	3.38	4.077+j17.636	2.297+j22.786	4.04	3.73	4.086+j17.607	2.279+j22.649
LA GRANJA TRES	GRT-115	115.0	10.57	6.79	1.152+j6.177	3.543+j16.412	13.65	9.58	0.857+j5.280	2.422+j11.908
LA GUADALUPE	LGP-115	115.0	1.66	1.11	10.403+j38.561	30.762+j95.261	1.87	1.24	10.006+j37.671	30.405+j93.818
LA ISLA	ISL-115	115.0	11.54	13.06	0.790+j5.700	0.573+j3.832	13.44	14.97	0.651+j5.396	0.578+j3.812
LA MALINCHE	MLC-230	230.0	11.80	11.76	2.132+j11.054	1.679+j11.358	14.03	14.99	1.715+j10.272	1.019+j8.390
LA MALINCHE	MLC-115	115.0	19.11	22.17	0.656+j3.412	0.203+j2.089	22.15	25.99	0.557+j3.250	0.148+j1.872
LA MARGARITA	LMG-115	115.0	4.21	2.68	2.561+j15.559	7.094+j42.207	5.19	3.45	2.096+j13.914	5.794+j34.804
LA MIRA	MRA-115	115.0	4.63	4.85	4.437+j13.631	2.765+j12.096	6.24	6.14	2.776+j11.368	2.797+j11.970
LA REFORMA	RFA-115	115.0	10.17	7.61	1.088+j6.435	2.658+j13.180	11.75	8.57	0.977+j6.137	2.654+j13.130
LA REINA	RNA-115	115.0	6.49	6.01	1.988+j10.033	2.147+j12.500	7.60	6.93	1.701+j9.456	2.119+j12.170
LA TINAJA	TNJ-115	115.0	2.27	1.25	6.624+j28.428	27.491+j97.613	2.68	1.47	6.052+j26.554	26.048+j91.053
LA TRINITARIA	TNI-115	115.0	1.29	0.86	15.833+j49.130	46.903+j119.100	1.46	0.97	15.006+j47.900	46.422+j116.832
LA UNIÓN	UNN-115	115.0	5.39	2.31	2.667+j12.032	16.532+j59.165	8.43	4.19	1.794+j8.476	9.227+j33.661
LA VENTA DOS	LVD-230	230.0	4.28	5.42	4.647+j30.664	1.511+j11.869	6.68	7.92	2.402+j21.741	1.489+j11.688



Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
LA VENTA DOS	VED-115	115.0	4.76	3.76	3.187+j13.574	5.693+j24.545	5.32	4.18	3.151+j13.364	5.681+j24.364
LA VENTA MANIOBRAS	VMN-230	230.0	3.82	4.71	5.013+j34.432	1.237+j15.370	5.97	6.85	2.518+j24.353	1.204+j15.111
LA VENTA PEMEX	VEP-115	115.0	4.70	3.68	3.231+j13.757	5.891+j25.270	5.25	4.09	3.197+j13.551	5.880+j25.089
LACANJÁ	LCJ-115	115.0	0.89	0.44	20.531+j71.300	131.499+j280.578	1.01	0.48	19.612+j69.942	131.466+j280.425
LAGUNA DE TRES PALOS	LTP-115	115.0	4.82	5.11	4.559+j12.985	2.321+j11.309	6.50	6.47	2.897+j10.857	2.329+j11.133
LAGUNA VERDE	LAV-400	400.0	14.74	16.15	2.056+j15.535	0.937+j11.548	22.04	25.13	0.893+j11.491	0.378+j7.286
LAGUNA VERDE	LAV-230	230.0	10.91	11.68	1.133+j12.121	0.466+j9.787	13.35	14.10	0.689+j10.919	0.350+j9.193
LAMOSA	LOA-115	115.0	21.41	18.11	0.521+j3.057	0.800+j4.741	24.36	20.37	0.453+j2.964	0.799+j4.707
LAPSOLITE	LSL-115	115.0	15.73	11.45	0.725+j4.158	2.210+j8.709	17.73	12.77	0.658+j4.066	2.213+j8.670
LAS BRISAS	BRS-115	115.0	18.92	16.59	0.669+j3.446	0.753+j4.937	24.78	20.30	0.465+j2.911	0.748+j4.843
LAS CHOAPAS DOS	LHD-115	115.0	3.35	2.07	5.661+j19.021	12.431+j55.272	3.75	2.30	5.550+j18.660	12.419+j55.091
LAS HACIENDAS	LHA-115	115.0	11.40	8.08	1.130+j5.715	2.777+j12.903	13.41	9.17	0.965+j5.360	2.773+j12.853
LAS JUNTAS	LJU-115	115.0	1.75	1.05	10.968+j36.224	28.438+j110.004	1.94	1.16	10.813+j36.068	28.430+j109.911
LAS MARGARITAS	MGS-115	115.0	3.83	2.42	3.172+j17.062	9.731+j46.724	4.43	2.73	2.883+j16.235	9.718+j46.149
LAS MATAS	MAS-115	115.0	11.72	7.96	0.957+j5.585	2.782+j13.516	15.12	10.67	0.711+j4.779	1.911+j10.778
LAS TRANCAS	TRN-115	115.0	6.17	5.40	2.123+j10.546	2.784+j15.155	7.19	6.18	1.842+j9.993	2.759+j14.842
LAS VIGAS DOS	VGS-115	115.0	4.60	3.13	2.782+j14.163	7.306+j34.067	5.59	3.60	2.258+j12.865	7.281+j33.923
LERDO	LRD-115	115.0	1.88	1.05	11.692+j33.377	31.063+j114.461	2.25	1.52	9.925+j30.920	19.380+j76.736
LIBERACIÓN MEXICANA	LMX-115	115.0	2.89	2.28	5.698+j22.241	8.017+j40.631	3.33	2.58	5.232+j21.276	8.011+j40.473
LIBRES	LIB-115	115.0	4.74	3.08	3.549+j13.544	8.253+j35.847	5.39	3.44	3.354+j13.134	8.258+j35.571
LOMA BONITA DOS	LBD-115	115.0	3.44	2.04	5.193+j18.612	17.302+j56.394	3.90	2.29	4.975+j18.033	17.277+j55.804
LOMAS	LMS-115	115.0	10.18	0.17	1.288+j6.395	176.680+j-255.552	21.48	0.18	1.196+j6.249	176.680+j-255.552
LOMAS COCOYOC	LOC-115	115.0	9.13	6.39	1.498+j7.113	3.254+j16.296	10.22	7.10	1.412+j7.006	3.250+j16.253
LOMAS DEL MAR	LMM-115	115.0	5.51	6.31	4.072+j11.341	1.178+j7.482	7.71	8.32	2.404+j9.163	1.185+j7.299
LÓPEZ MATEOS	LME-115	115.0	10.60	8.45	1.694+j6.032	1.994+j11.035	12.71	10.04	1.574+j5.527	1.968+j10.261
LOS AMATES	LAT-230	230.0	3.35	4.07	13.406+j37.329	1.750+j18.887	4.99	5.71	7.081+j28.425	1.852+j18.174
LOS AMATES	LAT-115	115.0	6.15	7.97	3.800+j10.108	0.252+j3.512	8.91	11.12	2.137+j7.916	0.259+j3.329
LOS ARCOS	AOS-115	115.0	13.90	14.88	0.612+j4.737	0.301+j3.834	15.72	16.73	0.517+j4.618	0.298+j3.793
LOS RÍOS	LRS-230	230.0	4.33	3.60	6.391+j29.969	9.981+j48.724	6.40	5.25	3.187+j22.588	6.917+j38.115
LOS RÍOS	LRS-115	115.0	5.24	1.45	2.385+j12.433	46.828+j102.586	6.61	1.64	1.573+j10.944	46.802+j102.441
LUIS GIL PEREZ	LGI-115	115.0	11.35	9.52	0.874+j5.785	2.173+j9.371	13.14	10.77	0.769+j5.505	2.168+j9.318
MACTUMATZA	MAA-115	115.0	9.72	6.11	1.482+j6.668	2.989+j18.748	11.82	7.06	1.226+j6.057	2.969+j18.432
MACULTEPEC	MCL-115	115.0	6.81	5.43	2.195+j9.500	6.139+j16.275	7.80	6.10	2.009+j9.139	6.137+j16.254
MACUSPANA	MCP-115	115.0	5.69	4.64	2.398+j11.423	6.571+j18.640	6.73	5.33	2.034+j10.652	6.554+j18.509
MACUSPANA DOS	MCD-230	230.0	9.35	9.01	2.688+j13.944	2.287+j15.966	12.86	11.52	1.483+j11.264	2.213+j15.407
MACUSPANA DOS	MCD-115	115.0	10.40	11.62	0.915+j6.320	0.277+j4.439	13.01	14.15	0.592+j5.584	0.261+j4.311
MAGDALENA MANIOBRAS	MMA-400	400.0	9.34	9.58	3.048+j24.540	2.356+j22.762	12.15	11.93	1.836+j20.832	2.324+j21.906
MAGDALENA MANIOBRAS DOS	MDM-230	230.0	8.17	8.61	2.445+j16.078	1.693+j13.709	9.91	10.16	1.874+j14.624	1.681+j13.527
MALINALTEPEC	MLN-115	115.0	0.84	0.48	22.353+j75.608	62.070+j247.051	0.94	0.53	21.360+j74.801	61.973+j246.694
MALPASO	MPS-400	400.0	15.32	16.70	2.203+j14.917	1.170+j11.580	29.14	31.88	0.626+j8.695	0.422+j6.174



Niveles de cortocircuito de la Red Nacional de Transmisión
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Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MALPASO	MPS-115	115.0	5.80	6.73	1.771+j11.300	0.418+j6.781	6.81	7.96	1.545+j10.605	0.341+j6.133
MALPASO DOS	MPD-230	230.0	12.45	14.05	1.005+j10.622	0.313+j7.175	17.85	19.60	0.385+j8.175	0.206+j5.935
MALPASO TRES	MPE-115	115.0	5.71	6.52	1.815+j11.478	0.545+j7.365	6.70	7.69	1.589+j10.783	0.468+j6.717
MANDINGA	MDG-115	115.0	10.79	4.10	1.051+j6.065	13.805+j33.826	13.45	4.76	0.804+j5.371	13.591+j32.706
MANIOBRAS GENERADORES EÓLICOS DE MÉXICO	GEM-115	115.0	1.98	2.11	9.651+j32.132	3.874+j27.200	2.28	2.41	8.987+j30.771	3.797+j26.828
MANIOBRAS PRO MDF	MPR-115	115.0	6.09	5.36	2.564+j10.595	3.761+j15.032	6.92	6.04	2.435+j10.273	3.679+j14.792
MANIOBRAS SOLAR XOXOCOTLA	SMX-115	115.0	9.24	8.97	1.157+j7.090	0.966+j7.789	10.71	10.21	0.988+j6.745	0.965+j7.774
MANLIO FABIO ALTAMIRANO	MFA-400	400.0	13.05	13.74	3.026+j17.440	2.082+j14.980	18.90	18.70	1.489+j13.358	1.884+j13.749
MANLIO FABIO ALTAMIRANO	MFA-230	230.0	16.87	19.64	1.428+j7.743	0.541+j4.542	22.99	25.61	0.825+j6.299	0.515+j4.372
MANUEL MORENO TORRES	MMT-400	400.0	15.07	17.92	2.266+j15.153	0.575+j8.376	32.39	37.96	0.498+j7.827	0.231+j4.157
MANUEL MORENO TORRES	MMT-115	115.0	13.67	16.32	0.697+j4.807	0.082+j2.537	17.28	20.14	0.473+j4.199	0.078+j2.415
MAPASTEPEC	MAP-115	115.0	3.78	2.59	5.001+j16.860	11.616+j40.025	4.51	3.11	4.248+j15.642	10.588+j36.621
MARTÍNEZ DE LA TORRE DOS	MDD-115	115.0	3.81	3.08	4.185+j16.933	8.797+j28.528	4.43	3.57	3.799+j16.026	8.446+j27.093
MARTÍNEZ DE LA TORRE TRES	MTT-115	115.0	3.72	2.85	4.061+j17.372	9.370+j32.983	4.30	3.27	3.716+j16.562	9.070+j31.751
MATAPIONCHE	MPH-115	115.0	2.44	1.39	6.287+j26.453	24.757+j85.841	2.89	1.65	5.723+j24.572	23.316+j79.287
MATÍAS ROMERO	MRO-115	115.0	6.45	5.38	2.173+j10.056	3.226+j16.195	8.07	6.38	1.784+j8.873	3.155+j15.962
MATÍAS ROMERO POTENCIA	MSP-230	230.0	5.69	5.89	3.504+j23.073	4.292+j20.813	7.92	7.60	2.197+j18.313	4.181+j20.521
MATÍAS ROMERO POTENCIA	MSP-115	115.0	8.92	9.39	1.135+j7.355	0.891+j6.352	11.53	11.57	0.798+j6.286	0.850+j6.232
MAZATAN	MAZ-115	115.0	4.17	3.58	3.923+j15.428	6.541+j22.859	4.99	4.19	3.206+j14.269	6.602+j22.021
MAZATEPEC	MZT-230	230.0	6.81	5.15	2.828+j19.288	8.824+j37.437	10.95	10.49	1.289+j13.282	1.262+j13.368
MEDIA LUNA	MLU-115	115.0	3.11	2.41	6.997+j20.167	13.817+j37.509	3.97	2.97	5.145+j17.640	13.135+j34.705
METALOIDES	MET-115	115.0	19.69	14.23	0.771+j3.282	1.364+j7.143	22.82	16.15	0.683+j3.127	1.354+j7.053
METEPEC	MEC-115	115.0	6.98	4.04	2.327+j9.220	7.944+j29.296	7.82	4.48	2.231+j9.074	7.929+j29.183
METLATONOC	MTL-115	115.0	0.94	0.59	19.647+j67.799	44.571+j192.970	1.08	0.66	17.650+j65.246	44.510+j192.187
MEZCALA	MZL-230	230.0	4.51	4.41	9.119+j27.995	6.266+j30.899	9.02	8.57	2.814+j15.956	3.492+j18.130
MEZCALA	MZL-115	115.0	6.66	6.67	2.778+j9.581	1.553+j9.831	10.67	10.51	1.062+j6.763	0.890+j7.053
MEZCALAPA	MEZ-115	115.0	5.97	4.75	2.409+j10.865	6.248+j18.828	6.83	5.36	2.263+j10.449	6.236+j18.611
MEZCALAPA SWITCHEO	MZW-230	230.0	7.88	6.33	2.511+j16.664	5.492+j29.026	10.46	8.24	1.633+j13.862	4.590+j24.932
MIAHUATLAN	MHT-115	115.0	1.99	1.28	9.718+j31.894	21.037+j86.228	2.21	1.43	9.427+j31.602	20.737+j85.049
MIAHUATLÁN DOS	MUD-115	115.0	2.13	1.39	8.936+j29.857	19.034+j78.729	2.37	1.55	8.651+j29.567	18.789+j77.727
MINAS	MIS-69	69.0	1.45	1.02	5.545+j26.900	14.954+j60.937	2.30	2.44	2.820+j18.876	0.974+j15.729
MINATITLÁN DOS	MID-400	400.0	12.16	13.07	2.765+j18.782	1.567+j15.723	19.02	18.32	1.479+j13.275	1.576+j15.017
MINATITLÁN DOS	MID-115	115.0	26.72	29.42	0.347+j2.461	0.104+j1.892	36.20	37.88	0.218+j2.006	0.107+j1.791
MINATITLÁN UNO	MIU-115	115.0	9.15	5.75	1.261+j7.146	4.334+j19.753	11.00	6.60	1.071+j6.552	4.316+j19.534
MINERA AUTLÁN, PUÉ.	MAU-115	115.0	7.35	7.78	1.691+j8.880	1.028+j7.478	9.43	9.94	1.265+j7.638	1.003+j6.463
MINERA CAPELA	MCA-115	115.0	1.50	0.96	15.569+j41.583	32.385+j115.432	1.75	1.09	13.615+j39.346	31.686+j112.595
MINERA CUZCATLAN	MCN-115	115.0	3.02	2.17	5.613+j21.272	10.173+j46.943	3.37	2.41	5.374+j20.967	10.105+j46.518
MINERA FILOS-BERMEJAL	MFB-115	115.0	4.71	3.87	3.851+j13.547	4.478+j22.865	6.66	5.17	2.120+j10.754	3.815+j20.087
MISANTLA DOS	MSD-115	115.0	2.09	1.62	8.458+j30.572	20.884+j55.826	2.37	1.83	8.062+j29.679	20.529+j54.386
MITLA	MTX-115	115.0	1.94	1.28	9.104+j33.010	19.719+j84.901	2.16	1.42	8.872+j32.694	19.687+j84.549



Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MOCAMBO	MCB-115	115.0	16.00	10.28	0.832+j4.065	1.532+j10.991	21.11	12.87	0.587+j3.410	1.370+j10.009
MOCAMBO	MCB-115B	115.0	16.00	10.28	0.832+j4.065	1.532+j10.991	21.11	12.87	0.587+j3.410	1.370+j10.009
MOTOZINTLA	MTO-115	115.0	1.62	1.03	13.462+j38.730	36.438+j105.001	1.84	1.17	12.519+j37.572	35.824+j102.401
MOZIMBA	MOZ-115	115.0	5.17	5.91	4.021+j12.207	1.931+j7.774	7.16	7.74	2.368+j9.917	1.958+j7.653
MUNDO IMPERIAL	MIP-115	115.0	4.68	4.59	4.697+j13.377	3.091+j14.819	6.27	5.72	3.034+j11.249	3.099+j14.643
NACAJUCA	NAC-115	115.0	4.71	3.67	2.808+j13.814	10.261+j24.358	5.32	4.10	2.643+j13.468	10.223+j24.304
NANCHITAL DOS	NND-115	115.0	9.82	6.73	1.555+j6.579	3.363+j15.820	11.61	7.66	1.422+j6.128	3.366+j15.719
NAONILCO	NAO-115	115.0	4.16	3.32	3.533+j15.580	5.551+j27.523	4.77	3.75	3.233+j14.956	5.517+j27.161
NISSAN	NSN-115	115.0	10.09	9.09	1.132+j6.481	1.299+j8.671	11.45	10.24	0.976+j6.303	1.276+j8.538
NOCHIXTLAN	NCH-115	115.0	1.93	1.28	9.724+j32.937	26.741+j83.333	2.14	1.41	9.530+j32.708	26.726+j83.090
NOGALES	NGL-115	115.0	9.23	6.61	1.910+j6.936	3.602+j15.330	11.12	7.70	1.678+j6.353	3.535+j14.894
NORTE	NOR-115	115.0	32.94	26.84	0.423+j1.971	0.572+j3.362	39.67	31.53	0.336+j1.810	0.559+j3.240
NUEVA XCALA MANIOBRAS	NXM-230	230.0	9.78	9.84	2.009+j13.435	2.274+j13.157	11.75	11.48	1.548+j12.334	2.274+j13.109
NUEVO MORELOS	NMO-115	115.0	3.72	2.27	4.665+j17.232	11.667+j50.669	4.24	2.55	4.450+j16.624	11.598+j50.319
NUEVO PEMEX	NPX-115	115.0	4.54	3.43	3.122+j14.291	10.933+j27.303	5.09	3.81	3.031+j14.025	10.925+j27.238
OAXACA	OAX-115	115.0	4.55	4.05	3.711+j14.124	4.472+j19.533	5.13	4.55	3.481+j13.795	4.438+j19.159
OAXACA DOS	OXD-115	115.0	5.72	5.14	2.848+j11.248	3.221+j15.206	6.51	5.82	2.624+j10.914	3.190+j14.855
OAXACA PONIENTE	OAP-115	115.0	4.88	4.90	3.451+j13.159	2.618+j13.204	5.52	5.54	3.222+j12.828	2.582+j12.821
OAXACA POTENCIA	OXP-230	230.0	3.93	4.01	7.492+j32.908	3.239+j31.874	4.56	4.63	6.626+j31.317	3.090+j30.542
OAXACA POTENCIA	OXP-115	115.0	6.62	7.68	2.357+j9.749	0.398+j5.942	7.57	8.83	2.135+j9.409	0.360+j5.549
OAXACA UNO	OAU-230	230.0	3.45	4.14	6.093+j38.014	2.289+j19.460	5.06	5.70	3.706+j28.636	2.249+j19.207
OCOZINGO	OCO-115	115.0	1.17	0.74	20.106+j53.311	59.341+j144.045	1.30	0.82	19.752+j52.782	59.265+j142.999
OCOZOCUAUTLA	OCZ-115	115.0	6.77	4.63	2.197+j9.553	4.654+j22.937	7.97	5.27	1.947+j8.958	4.645+j22.715
OJO DE AGUA POTENCIA	OJP-400	400.0	12.12	12.66	3.235+j18.774	1.696+j16.696	18.74	17.47	1.890+j13.421	1.689+j16.499
OJO DE AGUA POTENCIA	OJP-115	115.0	20.17	20.85	0.519+j3.250	0.267+j2.972	26.04	25.88	0.337+j2.784	0.268+j2.850
OLINALA	OLN-115	115.0	1.20	0.85	15.081+j53.461	34.800+j117.747	1.39	0.96	13.135+j50.865	34.742+j116.977
OMEALCA	OME-115	115.0	3.25	1.74	3.353+j20.176	16.468+j71.591	4.30	3.15	2.394+j16.820	6.469+j34.905
OMETEPEC	OMT-115	115.0	1.52	0.88	15.395+j40.919	37.404+j134.226	1.71	0.98	14.537+j40.243	37.286+j133.811
ORIENTE	ORT-115	115.0	20.49	15.10	0.711+j3.162	1.382+j6.577	23.69	17.06	0.623+j3.019	1.381+j6.547
ORIZABA	ORI-115	115.0	14.82	13.56	0.883+j4.393	1.007+j5.654	19.16	17.29	0.623+j3.760	0.866+j4.977
OXCHUC	OXC-115	115.0	1.61	1.03	13.738+j38.984	41.127+j103.533	1.80	1.14	13.352+j38.400	41.054+j102.494
PACHAMAMA II MANIOBRAS	MPA-400	400.0	11.85	12.56	2.625+j19.315	1.938+j16.134	15.55	15.81	1.512+j16.266	1.923+j15.821
PAGÉS	PAG-115	115.0	18.27	13.30	0.745+j3.557	1.105+j7.640	24.23	16.54	0.520+j2.969	1.039+j7.141
PAGÉS	PAG-115B	115.0	18.27	13.30	0.745+j3.557	1.105+j7.640	24.23	16.54	0.520+j2.969	1.039+j7.141
PAJARITOS DOS	PJD-115	115.0	13.31	12.24	0.937+j4.898	0.650+j6.404	16.61	15.50	0.789+j4.327	0.604+j5.390
PAKAL	PKN-115	115.0	2.58	1.01	5.990+j25.048	60.562+j133.305	3.02	1.13	5.155+j23.591	60.536+j133.161
PALENQUE	PLQ-115	115.0	2.09	0.89	7.711+j30.858	66.817+j147.460	2.42	0.99	6.867+j29.413	66.791+j147.315
PALMAR DE BRAVO	PLB-115	115.0	4.55	3.19	4.863+j13.742	8.048+j32.293	5.08	3.55	4.743+j13.564	8.009+j32.088
PALMAS	PMM-115	115.0	12.07	9.10	0.655+j5.461	2.096+j10.684	13.42	10.07	0.629+j5.406	2.095+j10.664
PANOTLA	PNA-115	115.0	11.98	7.96	1.555+j5.317	3.894+j13.423	13.52	8.87	1.476+j5.198	3.890+j13.369



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PANTEPEC	PPC-230	230.0	5.67	5.39	3.728+j23.119	2.673+j26.956	6.37	6.05	3.571+j22.639	2.572+j26.490
PANTEPEC	PPC-115	115.0	9.02	10.20	1.241+j7.260	0.367+j4.804	10.05	11.44	1.203+j7.167	0.339+j4.609
PAPAGAYO	PPG-115	115.0	4.13	2.96	5.224+j15.202	13.783+j32.395	5.33	3.51	3.621+j13.208	13.791+j32.248
PAPALOTLA	PPL-115	115.0	19.49	13.01	0.631+j3.348	1.896+j8.307	22.56	14.77	0.544+j3.191	1.881+j8.176
PAPANOA	PPN-115	115.0	1.25	1.16	11.997+j51.620	39.119+j56.115	2.40	1.99	7.700+j29.392	25.505+j43.231
PAPANTLA DISTRIBUCIÓN	PPD-115	115.0	10.12	7.30	0.975+j6.487	3.098+j13.827	11.31	8.10	0.936+j6.389	3.096+j13.797
PAPANTLA POTENCIA	PPT-400	400.0	14.79	12.71	1.624+j15.528	4.321+j22.839	19.32	15.69	1.008+j13.112	4.356+j21.757
PAPANTLA POTENCIA	PPT-115	115.0	19.46	18.20	0.276+j3.402	0.563+j4.078	22.29	20.73	0.224+j3.269	0.556+j3.971
PAPELERA TUXTEPEC	PTU-230	230.0	5.03	3.63	3.871+j26.095	12.571+j55.769	5.98	4.18	3.243+j24.221	12.534+j54.668
PARAÍSO	PSO-115	115.0	6.83	5.79	2.008+j9.511	3.942+j14.570	7.83	6.55	1.829+j9.151	3.865+j14.337
PAREDÓN PEMEX	PPX-115	115.0	2.54	1.82	6.301+j25.420	21.557+j53.542	2.84	2.02	6.150+j25.008	21.544+j53.325
PARQUE INDUSTRIAL	PRQ-115	115.0	5.47	4.01	2.212+j11.933	7.712+j24.471	6.21	4.48	2.046+j11.574	7.673+j24.377
PARQUE INDUSTRIAL API	API-115	115.0	5.35	4.27	2.798+j12.098	6.735+j20.917	6.07	4.80	2.616+j11.742	6.659+j20.684
PARQUE INDUSTRIAL DE ENERGÍA RENOVABLE, S.A. DE C.V.	PIE-230	230.0	4.80	5.15	2.631+j27.557	1.707+j21.874	5.35	5.76	2.445+j27.168	1.675+j21.500
PARRILLA	PLL-115	115.0	15.98	14.23	0.704+j4.095	0.944+j5.729	19.71	16.79	0.499+j3.671	0.932+j5.645
PASO DEL TORO	PDT-115	115.0	14.00	10.19	0.880+j4.659	1.938+j9.885	18.05	12.81	0.638+j3.995	1.744+j8.841
PE INGENIO	EIN-230	230.0	3.50	4.14	5.498+j37.530	2.523+j20.618	5.33	5.83	2.950+j27.244	2.490+j20.360
PEROTE DOS	PEE-115	115.0	4.83	5.06	2.616+j13.492	2.637+j11.580	6.13	6.15	1.963+j11.745	2.607+j11.485
PETATLÁN	PTT-115	115.0	1.93	1.74	7.339+j33.602	23.395+j40.490	3.07	2.61	5.665+j23.098	18.009+j32.549
PETROQUÍMICA ESCOLIN	PQS-115	115.0	14.71	13.31	0.669+j4.464	1.859+j5.688	16.38	14.76	0.644+j4.412	1.859+j5.668
PEÑITAS	PEA-230	230.0	10.07	8.74	1.789+j13.063	3.354+j19.157	16.28	17.18	0.723+j8.943	0.510+j7.496
PEÑITAS	PEA-115	115.0	4.06	3.29	3.450+j15.985	9.709+j26.300	4.62	3.71	3.301+j15.444	9.679+j25.934
PEÑITAS DOS	PED-115	115.0	4.05	3.29	3.449+j16.009	9.680+j26.241	4.62	3.71	3.299+j15.465	9.649+j25.871
PICHUCALCO	PCO-115	115.0	2.24	1.54	8.017+j28.564	27.725+j64.757	2.50	1.71	7.788+j28.170	27.710+j64.662
PIE DE LA CUESTA	PIC-230	230.0	3.59	4.38	12.313+j34.891	1.727+j17.181	5.38	6.16	6.374+j26.404	1.876+j16.706
PIE DE LA CUESTA	PIC-115	115.0	6.16	8.00	3.484+j10.204	0.262+j3.412	9.03	11.25	1.879+j7.869	0.287+j3.303
PIEDRAS NEGRAS	PNS-115	115.0	5.35	3.08	2.450+j12.169	8.886+j38.877	7.00	4.05	1.921+j10.258	7.473+j32.369
PIER II QUECHOLAC FELIPE ÁNGELES S.A. DE C.V.	PDQ-115	115.0	5.92	5.54	2.820+j10.855	1.599+j13.487	6.65	6.25	2.689+j10.650	1.518+j13.068
PINOTEPA NACIONAL	PIN-115	115.0	1.62	0.93	13.893+j38.515	32.261+j127.429	1.81	1.04	13.387+j38.151	32.033+j126.633
PLAYA DIAMANTE	PDI-115	115.0	4.96	5.21	4.447+j12.638	2.294+j11.280	6.72	6.62	2.782+j10.510	2.302+j11.103
PLAYA NORTE	PYN-115	115.0	19.16	15.12	0.690+j3.396	0.893+j6.190	25.44	18.74	0.477+j2.831	0.857+j5.890
PLAYA VICENTE	PVC-115	115.0	1.85	1.05	9.413+j34.699	35.960+j111.685	2.07	1.17	9.190+j34.123	35.934+j111.092
PLAYAS	PYS-115	115.0	4.68	4.95	4.446+j13.485	2.596+j11.553	6.31	6.28	2.779+j11.228	2.627+j11.425
POCHUTLA	POC-115	115.0	1.64	1.01	13.277+j38.278	26.327+j113.565	1.82	1.14	12.897+j37.917	25.374+j109.911
POLIDESA	PLS-115	115.0	11.66	8.53	1.266+j5.551	2.860+j11.681	13.27	9.62	1.162+j5.378	2.812+j11.453
POLIFIL	POF-115	115.0	18.11	14.42	0.699+j3.600	1.220+j6.375	20.50	16.15	0.632+j3.507	1.219+j6.340
POMOCA	PMC-115	115.0	15.69	16.30	0.751+j4.166	0.497+j3.882	19.00	19.10	0.570+j3.802	0.495+j3.860
PONIENTE	PON-115	115.0	23.38	16.41	0.671+j2.759	1.307+j6.345	27.34	18.71	0.581+j2.608	1.297+j6.250
PORCEL	POR-115	115.0	19.71	13.08	0.661+j3.303	1.851+j8.308	22.78	14.80	0.575+j3.154	1.841+j8.209
POTRERO DOS	PTD-115	115.0	6.39	4.64	3.083+j9.925	6.361+j21.267	7.37	5.23	2.898+j9.483	6.353+j21.157



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			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
POZA RICA	PRI-230	230.0	15.27	16.17	0.724+j8.668	0.657+j7.208	18.43	19.07	0.532+j7.910	0.664+j6.975
POZA RICA	PRI-115	115.0	23.30	28.17	0.205+j2.842	0.052+j1.371	26.08	31.45	0.182+j2.795	0.052+j1.351
POZA RICA	PRI-69	69.0	22.49	29.39	0.063+j1.770	0.027+j0.523	24.03	31.39	0.060+j1.823	0.028+j0.536
POZA RICA DOS	PRD-400	400.0	20.93	18.51	1.148+j10.972	2.330+j15.054	30.55	25.40	0.549+j8.297	2.202+j13.022
POZA RICA DOS	PRD-230	230.0	16.35	17.77	0.633+j8.095	0.418+j6.147	20.07	21.35	0.421+j7.267	0.397+j5.821
POZA RICA TRES	PRT-69	69.0	12.08	9.69	0.349+j3.278	1.101+j5.640	13.09	10.56	0.347+j3.331	1.101+j5.654
POZO RANEY	PZR-115	115.0	4.15	2.85	5.125+j15.143	26.839+j28.908	5.44	3.40	3.474+j12.962	26.861+j28.774
POZOS HUAZUNTLAN	POZ-115	115.0	5.36	3.46	4.267+j11.637	8.628+j31.752	6.15	3.89	4.117+j11.148	8.595+j31.455
PROCTER & GAMBLE MANUFACTURAS S DE R.L. DE C.V.	PGC-115	115.0	9.06	7.67	1.307+j7.208	1.530+j11.614	10.12	8.57	1.242+j7.106	1.495+j11.423
PROENERMEX SANTA GERTRUDIS	PSG-115	115.0	12.57	10.12	0.968+j5.190	1.892+j8.936	15.76	12.65	0.727+j4.578	1.556+j7.903
PUEBLA DOS	PBD-400	400.0	20.93	22.11	2.265+j10.802	1.157+j9.330	28.73	28.47	1.268+j8.751	1.125+j9.103
PUEBLA DOS	PBD-230	230.0	16.68	17.92	1.086+j7.889	0.446+j6.349	19.79	20.84	0.760+j7.343	0.447+j6.274
PUEBLA DOS	PBD-115	115.0	39.37	38.29	0.315+j1.657	0.151+j1.843	47.70	45.10	0.229+j1.514	0.149+j1.805
PUEBLA DOS	PBD-115B	115.0	39.37	38.29	0.315+j1.657	0.151+j1.843	47.70	45.10	0.229+j1.514	0.149+j1.805
PUEBLA DOS MIL	PDM-115	115.0	32.18	28.10	0.419+j2.020	0.556+j2.923	38.31	32.50	0.333+j1.877	0.554+j2.888
PUEBLA UNO SF6	PSF-115	115.0	18.97	12.58	0.864+j3.391	1.575+j8.719	21.88	14.17	0.774+j3.247	1.570+j8.661
PUENTE DE IXTLA	PTI-85	85.0	2.96	1.59	2.751+j16.324	10.242+j58.441	3.33	1.77	2.602+j16.009	10.217+j58.094
PUERTO CHIAPAS	PUC-115	115.0	2.91	2.25	6.808+j21.810	13.539+j40.865	3.39	2.57	6.074+j20.694	13.598+j40.023
PUERTO ESCONDIDO	PUE-115	115.0	1.28	0.75	18.129+j48.589	38.290+j158.394	1.42	0.83	17.727+j48.295	37.601+j155.839
PUERTO FRANCO	PFR-115	115.0	10.30	8.53	1.611+j6.238	1.812+j10.473	12.36	10.17	1.486+j5.719	1.783+j9.651
PUERTO MADERO	PTM-115	115.0	3.10	2.42	6.443+j20.424	12.086+j37.562	3.63	2.77	5.709+j19.307	12.145+j36.720
PUERTO MARQUEZ	PUM-115	115.0	5.62	6.55	3.985+j11.114	0.978+j6.822	7.92	8.71	2.319+j8.930	0.986+j6.639
PUNTA IXTAPA, GRO.	PUI-115	115.0	4.14	3.15	2.283+j15.888	6.254+j30.363	6.03	4.26	2.107+j11.931	6.067+j26.451
PUNTA LIMÓN	PLI-115	115.0	1.96	1.39	8.745+j32.686	14.506+j74.448	2.16	1.53	8.754+j32.657	14.487+j74.310
QUEMADO	QMD-230	230.0	3.44	4.33	13.245+j36.309	0.979+j15.185	5.17	6.17	6.906+j27.368	1.136+j14.580
QUEMADO	QMD-115	115.0	6.52	8.77	3.621+j9.525	0.124+j2.439	9.74	12.68	1.951+j7.238	0.158+j2.294
QUEMADO	QMD-69	69.0	8.04	10.72	1.308+j4.778	0.021+j1.279	11.34	14.75	0.683+j3.802	0.077+j1.186
REAL DEL BOSQUE	RDB-115	115.0	9.51	6.94	1.418+j6.836	2.703+j14.534	11.55	8.08	1.163+j6.215	2.678+j14.185
REFINERÍA LÁZARO CÁRDENAS RECONFIGURACIÓN	RLC-115	115.0	10.56	6.90	1.101+j6.189	3.513+j16.015	13.68	11.54	0.806+j5.277	0.920+j8.303
REFINERÍA MINATITLÁN	RMN-115	115.0	9.05	5.74	1.228+j7.234	4.368+j19.676	11.26	6.66	0.969+j6.414	4.362+j19.522
REFINERÍA PEMEX	RFP-115	115.0	10.77	7.05	1.064+j6.071	3.414+j15.652	13.95	11.68	0.779+j5.179	0.956+j8.282
REFINERÍA SALINA CRUZ	RSC-115	115.0	3.11	3.03	4.851+j20.788	5.693+j22.884	4.12	3.76	3.507+j17.395	5.545+j22.380
RENACIMIENTO	REN-115	115.0	5.99	7.60	3.895+j10.380	0.401+j4.128	8.66	10.52	2.224+j8.134	0.416+j3.966
RESURRECCIÓN	RSN-115	115.0	14.71	9.78	0.971+j4.409	2.359+j11.107	16.77	10.96	0.884+j4.263	2.354+j11.049
REYES MANTECÓN	RMC-115	115.0	5.20	4.57	2.960+j12.423	3.607+j17.662	5.89	5.16	2.735+j12.092	3.558+j17.274
RIO BLANCO	RBO-115	115.0	8.96	6.39	1.607+j7.235	3.574+j15.986	10.71	7.37	1.381+j6.677	3.537+j15.682
RÍO COATAN	RCT-115	115.0	3.63	2.85	5.348+j17.484	6.683+j32.814	4.59	3.88	3.977+j15.399	3.785+j24.418
RÍO COATAN	RCT-69	69.0	1.68	1.76	2.377+j23.647	1.451+j20.351	2.93	3.60	1.048+j14.908	0.196+j6.656
RÍO GRANDE (NEJAPA)	RGD-115	115.0	1.24	0.71	18.270+j50.381	41.064+j167.686	1.37	0.79	17.841+j50.085	40.542+j165.851
RÍO GRANDE (NEJAPA)	RGD-115B	115.0	0.99	0.57	21.990+j63.405	50.851+j209.017	1.10	0.63	21.563+j63.113	50.327+j207.179



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
RÍO MEDIO	RME-115	115.0	16.49	12.95	0.835+j3.940	1.155+j7.249	21.06	15.43	0.631+j3.409	1.153+j7.176
RODRÍGUEZ CLARA	RDC-115	115.0	2.66	1.63	6.728+j23.995	19.030+j70.045	2.99	1.81	6.544+j23.545	18.927+j69.389
SACRIFICIOS	SCF-115	115.0	16.12	10.06	0.836+j4.033	1.550+j11.477	21.23	12.49	0.595+j3.389	1.407+j10.568
SALINA CRUZ	SAC-115	115.0	3.41	3.28	4.291+j18.972	5.656+j21.569	4.51	4.06	3.107+j15.898	5.541+j21.196
SALOYA	SYA-115	115.0	14.73	12.88	0.895+j4.417	1.259+j6.516	17.68	14.86	0.724+j4.067	1.258+j6.490
SAMARIA	SMI-115	115.0	9.34	6.54	1.236+j7.003	3.411+j16.131	10.79	7.36	1.091+j6.679	3.409+j16.097
SAMARIA	SMI-115B	115.0	9.34	6.54	1.236+j7.003	3.411+j16.131	10.79	7.36	1.091+j6.679	3.409+j16.097
SAN CRISTÓBAL ORIENTE	SCO-115	115.0	2.72	1.76	7.524+j23.209	21.806+j60.772	3.09	1.98	7.131+j22.561	21.740+j59.747
SAN FELIPE OAXACA	SFO-115	115.0	4.50	3.93	3.656+j14.301	4.863+j20.619	5.08	4.42	3.430+j13.965	4.829+j20.247
SAN JACINTO TLACOTEPEC	JTL-115	115.0	1.67	1.01	10.254+j38.463	26.291+j115.487	1.85	1.11	9.901+j38.169	26.138+j114.867
SAN JERÓNIMO	JRN-115	115.0	1.75	1.37	11.259+j36.167	21.503+j65.762	2.81	2.14	6.775+j25.106	16.310+j47.661
SAN JOSÉ CHIAPA	JOC-230	230.0	5.00	3.49	4.413+j26.167	15.351+j59.389	5.88	4.06	3.743+j24.576	14.612+j56.325
SAN LORENZO	LRZ-115	115.0	38.59	34.31	0.304+j1.693	0.283+j2.373	47.34	41.50	0.218+j1.527	0.262+j2.204
SAN LUIS	SNL-115	115.0	2.64	1.49	5.786+j24.461	22.756+j79.904	3.15	1.79	5.224+j22.578	21.317+j73.353
SAN LUIS ACATLÁN	SLU-115	115.0	1.19	0.68	18.688+j52.514	47.425+j173.152	1.34	0.76	17.700+j51.707	47.329+j172.797
SAN LUIS MORELIA	SSM-115	115.0	1.15	0.66	18.626+j54.760	43.830+j181.745	1.27	0.73	18.502+j54.640	43.830+j181.721
SAN LUIS SAN PEDRO	SLS-115	115.0	1.06	0.72	18.360+j60.086	39.617+j144.048	2.29	1.73	8.325+j30.721	23.830+j58.252
SAN MARTIN	MAR-115	115.0	24.12	20.55	0.454+j2.715	0.649+j4.151	27.62	23.22	0.386+j2.616	0.647+j4.112
SAN MARTIN	SMT-115	115.0	3.75	2.39	4.729+j17.061	13.194+j46.273	4.30	2.69	4.375+j16.405	13.153+j45.535
SAN MARTIN POTENCIA	MPT-400	400.0	16.26	14.03	2.406+j14.002	3.274+j20.810	20.34	16.64	1.491+j12.397	3.264+j20.636
SAN MARTIN POTENCIA	MPT-115	115.0	26.93	24.51	0.392+j2.434	0.390+j3.190	30.92	27.77	0.324+j2.340	0.389+j3.156
SAN MIGUEL	SMG-115	115.0	12.66	8.56	0.865+j5.172	4.555+j12.076	14.20	9.54	0.800+j5.079	4.504+j11.986
SAN MIGUEL SANTA FLOR	SMF-115	115.0	1.35	0.84	12.049+j47.645	45.859+j132.298	1.50	0.92	11.839+j47.369	45.835+j131.975
SAN PABLO HUIXTEPEC	HTP-115	115.0	4.43	4.23	3.422+j14.588	2.507+j17.024	4.99	4.76	3.190+j14.273	2.446+j16.616
SAN RAFAEL DOS	RFD-115	115.0	2.28	1.61	7.750+j28.130	23.391+j61.498	2.59	1.82	7.355+j27.238	23.035+j60.057
SANTA ANITA	STN-115	115.0	15.88	14.18	0.912+j4.080	1.550+j5.593	18.14	16.11	0.827+j3.940	1.528+j5.445
SANTA FE	SNF-115	115.0	9.89	7.28	1.185+j6.609	3.094+j13.607	11.59	8.27	1.022+j6.217	3.096+j13.571
SANTA ROSA	RSO-115	115.0	1.27	0.73	17.981+j48.970	40.466+j163.587	1.41	0.81	17.534+j48.664	40.030+j162.087
SANTA SOFÍA	SNS-115	115.0	4.06	2.75	2.932+j16.093	9.112+j38.746	4.59	3.08	2.756+j15.671	9.004+j38.260
SANTO DOMINGO	STD-115	115.0	3.45	2.48	4.716+j18.683	9.461+j40.906	4.14	2.84	4.177+j17.120	9.458+j40.876
SARABIA	SRB-115	115.0	5.16	4.65	2.849+j12.539	3.407+j16.850	6.13	5.36	2.555+j11.635	3.369+j16.729
SCHPOINA	SCH-115	115.0	2.59	1.85	6.854+j24.693	20.677+j52.690	3.03	2.14	6.106+j23.327	20.208+j50.438
SIMOJOVEL	SMJ-115	115.0	1.15	0.73	15.525+j55.840	49.503+j149.281	1.27	0.81	15.288+j55.450	49.488+j149.185
SÍNTESIS ORGÁNICAS, TLAXCALA	SIA-115	115.0	10.68	7.80	1.384+j6.060	3.092+j12.770	12.12	8.79	1.280+j5.887	3.043+j12.541
SIVESA	SIV-115	115.0	10.76	9.98	1.661+j5.945	1.625+j7.457	13.44	12.24	1.353+j5.263	1.539+j6.868
SN. LORENZO POTENCIA	LRP-400	400.0	20.72	21.40	2.234+j10.919	1.179+j10.160	27.91	27.26	1.258+j9.015	1.095+j9.781
SN. LORENZO POTENCIA	LRP-115	115.0	46.08	46.23	0.261+j1.417	0.104+j1.451	57.91	58.06	0.174+j1.249	0.083+j1.277
SN. LORENZO POTENCIA	LRP-115B	115.0	46.08	46.23	0.261+j1.417	0.104+j1.451	57.91	58.06	0.174+j1.249	0.083+j1.277
SOLEDAD DE DOBLADO	SOD-115	115.0	4.07	2.33	3.829+j15.840	12.133+j51.466	4.62	2.60	3.641+j15.368	12.137+j51.422
SOYALÓ	SOY-115	115.0	5.25	3.54	2.994+j12.295	6.868+j30.290	6.09	4.00	2.713+j11.675	6.859+j30.034



**Niveles de cortocircuito de la Red Nacional de Transmisión
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Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SWITCHEO ARRIAGA	SWA-115	115.0	2.45	2.54	7.076+j26.147	3.639+j24.282	2.86	2.91	6.379+j24.759	3.624+j24.046
SWITCHEO VILLACOMALTITLAN	SWV-115	115.0	2.95	2.09	6.788+j21.484	16.536+j47.401	3.46	2.44	5.937+j20.280	15.887+j44.706
TABACHINES	TBH-85	85.0	5.54	4.68	1.318+j8.755	1.598+j13.679	6.34	5.32	1.175+j8.434	1.574+j13.337
TABASCO POTENCIA	TSP-400	400.0	8.74	8.87	4.683+j25.991	2.656+j25.745	12.72	11.67	2.017+j19.861	2.723+j25.402
TABASCO POTENCIA	TSP-230	230.0	13.40	15.19	1.728+j9.761	0.608+j6.661	18.82	19.97	0.829+j7.717	0.616+j6.535
TABASQUILLO	TBQ-115	115.0	1.96	1.63	8.904+j32.736	21.269+j50.442	2.18	1.80	8.707+j32.387	21.267+j50.421
TACOTALPA	TCT-115	115.0	2.51	1.75	7.155+j25.438	24.192+j56.526	2.81	1.94	6.926+j25.042	24.177+j56.431
TAJÍN	TAJ-115	115.0	14.74	14.85	0.590+j4.467	1.240+j4.252	16.64	16.66	0.548+j4.354	1.237+j4.217
TALLERES Y ACEROS S.A. (TYASA)	TYS-400	400.0	11.68	12.17	3.303+j19.489	1.664+j17.488	17.80	16.61	1.954+j14.137	1.660+j17.309
TALLERES Y ACEROS S.A. (TYASA)	TYS-115	115.0	11.71	8.47	0.571+j5.643	0.086+j12.224	13.69	9.66	0.446+j5.316	0.085+j12.035
TAMARINDO DOS	TDD-115	115.0	5.55	4.09	2.362+j11.739	4.595+j24.300	6.22	4.55	2.254+j11.532	4.590+j24.239
TAMAZULAPAN DOS	TAD-115	115.0	1.70	1.04	11.205+j37.440	29.772+j110.071	1.88	1.14	11.035+j37.262	29.761+j109.927
TAMSA DOS	TSD-230	230.0	12.16	10.83	2.025+j10.734	3.049+j14.652	15.51	13.03	1.401+j9.315	3.023+j14.481
TAMSA DOS	TSD-230B	230.0	12.16	10.83	2.025+j10.734	3.049+j14.652	15.51	13.03	1.401+j9.315	3.023+j14.481
TAMULTE	TAT-115	115.0	14.36	12.24	0.829+j4.549	1.664+j7.097	17.04	14.04	0.691+j4.229	1.661+j7.060
TAMULTE MANIOBRAS	TMM-115	115.0	13.60	11.39	0.804+j4.815	1.570+j7.869	16.01	13.00	0.679+j4.511	1.566+j7.828
TAPACHULA	TCH-115	115.0	4.23	3.29	4.226+j15.133	5.385+j28.701	5.24	4.15	3.231+j13.564	4.445+j24.562
TAPACHULA AEROPUERTO	TAE-115	115.0	5.91	5.39	2.964+j10.829	1.919+j14.464	7.45	6.74	2.162+j9.562	1.790+j12.789
TAPACHULA NORTE	TNE-115	115.0	4.35	3.49	4.129+j14.697	4.861+j26.240	5.48	4.57	3.053+j12.982	3.445+j20.983
TAPACHULA ORIENTE	TOE-115	115.0	4.44	3.49	3.893+j14.428	4.781+j26.816	5.48	4.31	2.976+j12.999	4.229+j23.835
TAPACHULA POTENCIA	THP-400	400.0	2.50	2.69	22.753+j89.645	5.869+j73.309	3.27	3.42	15.418+j76.144	6.451+j67.140
TAPACHULA POTENCIA	THP-115	115.0	6.66	6.85	2.428+j9.665	0.569+j9.285	8.43	8.50	1.715+j8.498	0.630+j8.447
TAPANATEPEC	TNP-115	115.0	2.29	1.76	7.780+j27.875	11.399+j53.981	2.65	1.99	7.200+j26.616	11.393+j53.849
TAPIJULAPA	TPJ-115	115.0	1.86	1.28	9.601+j34.342	33.627+j77.627	2.07	1.42	9.368+j33.948	33.612+j77.532
TAXCO	TXO-115	115.0	2.30	1.96	7.180+j27.989	7.582+j43.117	2.81	2.31	5.304+j25.404	7.484+j42.172
TEAPA, TABASCO.	TTB-115	115.0	3.39	2.39	5.223+j18.896	17.155+j40.794	3.81	2.66	4.997+j18.495	17.141+j40.700
TEAPA, VERACRUZ	TEA-115	115.0	18.80	14.74	0.518+j3.494	1.098+j6.498	23.12	18.46	0.412+j3.131	0.892+j5.574
TECALI	TCL-400	400.0	19.52	19.85	2.230+j11.620	1.532+j11.247	27.30	25.47	1.245+j9.221	1.559+j11.271
TECALI	TCL-230	230.0	15.85	17.41	1.001+j8.319	0.427+j6.149	18.68	20.12	0.693+j7.788	0.428+j6.141
TECALI	TCL-115	115.0	25.46	25.32	0.431+j2.572	0.146+j2.669	29.69	28.73	0.343+j2.436	0.152+j2.718
TECAMACHALCO	TML-115	115.0	7.46	4.83	2.159+j8.630	4.875+j22.944	8.35	5.35	2.062+j8.497	4.879+j22.973
TECAMACHALCO II	TLD-115	115.0	7.13	4.63	2.153+j9.054	5.019+j23.917	7.98	5.12	2.058+j8.921	5.024+j23.952
TECNOLÓGICO	TNL-115	115.0	3.49	3.07	3.839+j18.646	6.208+j26.515	4.52	3.71	2.822+j15.904	6.136+j26.273
TECOUTILLA DOS	TCD-115	115.0	3.61	2.71	4.517+j17.829	14.433+j34.072	4.05	3.02	4.346+j17.485	14.380+j33.918
TECOMAXTLAHUACA	TCX-115	115.0	0.81	0.46	23.060+j78.812	61.700+j261.341	0.89	0.51	22.935+j78.695	61.700+j261.316
TECPAN	TCA-115	115.0	1.28	0.90	15.382+j49.736	32.005+j111.792	2.40	1.76	8.033+j29.354	21.300+j59.854
TEHUACÁN	THN-115	115.0	5.21	3.25	3.587+j12.229	8.184+j34.931	5.83	3.60	3.450+j12.044	8.173+j34.840
TEHUANTEPEC	THT-115	115.0	3.49	2.94	4.412+j18.496	8.558+j29.280	4.43	3.49	3.543+j16.108	8.488+j29.068
TEJALPA	TJA-115	115.0	10.37	9.30	1.039+j6.315	1.254+j8.534	11.78	10.49	0.884+j6.138	1.231+j8.400
TELMAC	TLM-115	115.0	15.41	13.45	0.874+j4.218	1.182+j6.121	17.83	15.53	0.759+j4.026	1.134+j5.823



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
TEMASCAL DOS	TMD-400	400.0	17.71	19.23	2.424+j12.813	1.255+j10.056	28.71	28.00	1.087+j8.782	1.160+j9.452
TEMASCAL DOS	TMD-230	230.0	14.31	16.44	1.221+j9.200	0.311+j5.737	19.91	22.59	0.612+j7.313	0.276+j4.641
TEMASCAL UNO	TMU-230	230.0	11.65	11.49	1.596+j11.287	1.858+j11.800	16.27	17.43	0.863+j8.937	0.707+j7.025
TEMASCAL UNO	TMU-115	115.0	13.86	7.27	0.673+j4.744	3.435+j17.501	20.31	18.22	0.357+j3.578	0.308+j4.690
TEMAXCALAC	TXB-115	115.0	19.22	15.15	0.562+j3.409	1.252+j6.131	21.78	16.97	0.495+j3.317	1.253+j6.095
TEMIXCO	TMX-85	85.0	5.93	4.63	1.266+j8.182	1.826+j15.134	6.80	5.26	1.126+j7.859	1.802+j14.791
TENOSIQUE	TNQ-115	115.0	2.43	0.83	6.856+j26.413	78.708+j167.219	2.84	0.93	5.987+j24.989	78.678+j167.068
TEPALCINGO	TPL-115	115.0	4.40	2.77	3.147+j14.754	8.289+j40.898	4.88	3.06	3.059+j14.651	8.285+j40.855
TEPEACA	TPE-115	115.0	7.43	5.02	1.429+j8.822	4.833+j21.266	8.31	5.56	1.341+j8.687	4.839+j21.315
TEPEJI	TPI-115	115.0	3.78	2.30	4.659+j16.937	11.179+j50.146	4.19	2.54	4.555+j16.807	11.183+j50.164
TEPEYAC, VERACRUZ	TPY-115	115.0	10.61	7.47	0.908+j6.191	2.974+j13.828	11.82	8.27	0.878+j6.119	2.974+j13.804
TEREFTALATOS	TRT-115	115.0	6.67	4.22	2.976+j9.502	6.541+j26.673	7.73	4.77	2.823+j9.017	6.508+j26.376
TERNIUM MÉXICO - LARGOS PUEBLA	TRP-230	230.0	6.70	5.03	2.982+j19.589	8.378+j38.788	7.59	5.62	2.648+j19.055	8.378+j38.713
TEZIUTLAN	TZT-115	115.0	7.66	8.31	1.578+j8.527	0.649+j6.619	9.90	10.74	1.154+j7.283	0.625+j5.604
TEZIUTLAN	TZT-69	69.0	3.15	3.33	0.573+j12.635	0.134+j10.578	4.30	4.56	0.413+j10.174	0.303+j8.459
TEZIUTLAN DOS	TZD-115	115.0	6.10	4.37	2.001+j10.703	4.437+j23.436	7.54	5.17	1.606+j9.557	4.417+j22.585
TEZOYUCA	TEZ-115	115.0	10.33	8.95	1.177+j6.320	1.535+j9.277	11.74	10.10	1.027+j6.134	1.502+j9.129
TIERRA BLANCA	TBL-115	115.0	4.27	2.45	3.912+j15.068	11.392+j48.810	4.99	2.93	3.601+j14.190	10.267+j44.300
TIERRA COLORADA	TIE-115	115.0	2.98	2.22	6.528+j21.327	9.555+j44.373	3.75	2.61	4.778+j18.879	9.563+j44.069
TIHUATLAN DOS	THD-115	115.0	8.49	5.76	1.406+j7.697	6.083+j18.041	9.45	6.39	1.368+j7.605	6.069+j17.925
TILAPA	TIL-69	69.0	0.99	0.80	14.970+j37.464	24.579+j64.500	1.08	0.87	14.946+j37.695	24.580+j64.817
TIXTLA	TIT-115	115.0	4.24	4.29	4.150+j15.084	2.915+j14.935	5.80	5.52	2.354+j12.379	2.868+j14.200
TLACOACHISTLAHUACA	THU-115	115.0	1.18	0.68	18.783+j53.159	46.634+j174.957	1.32	0.75	17.923+j52.492	46.515+j174.542
TLACOLULA	TLL-115	115.0	2.39	1.63	7.291+j26.839	15.032+j65.073	2.66	1.81	7.060+j26.518	15.001+j64.721
TLACOTALPAN	TTA-115	115.0	2.42	1.41	8.356+j26.122	25.233+j82.474	2.79	1.71	7.694+j25.044	21.748+j72.750
TLACOTEPEC	TTP-115	115.0	2.64	1.59	8.885+j23.575	16.732+j73.238	2.92	1.75	8.787+j23.445	16.736+j73.267
TLACOTEPEC	TCE-115	115.0	1.33	0.85	15.237+j47.535	35.223+j129.560	1.55	0.97	13.320+j45.134	34.521+j126.718
TLALTIZAPAN	TLZ-85	85.0	3.66	2.39	2.068+j13.256	5.574+j34.449	4.13	2.67	1.923+j12.938	5.549+j34.104
TLAPA NUEVA	TAN-115	115.0	1.42	0.93	13.707+j44.717	27.451+j117.733	1.67	1.06	11.725+j42.161	27.391+j116.956
TLAPACOYAN	TLY-115	115.0	4.77	6.06	3.223+j13.528	0.546+j5.060	5.76	7.34	2.731+j12.372	0.480+j4.492
TLATLAUQUITEPEC	TUQ-115	115.0	1.82	1.26	10.368+j34.985	19.248+j82.564	2.18	1.45	8.432+j32.384	19.191+j81.796
TLAXIACO	TXI-115	115.0	1.03	0.63	18.765+j61.503	48.172+j182.641	1.14	0.69	18.577+j61.311	48.158+j182.448
TONALÁ	TNA-115	115.0	1.66	1.46	10.858+j38.431	16.921+j54.433	1.90	1.64	10.144+j37.074	16.907+j54.197
TONANTZINTLA	TNZ-115	115.0	15.19	8.88	0.883+j4.282	3.343+j13.307	17.36	9.97	0.790+j4.131	3.326+j13.186
TRANSISTMICA (MANIOBRAS SEDENA)	TST-115	115.0	4.28	4.16	3.373+j15.129	4.938+j16.987	5.52	5.06	2.628+j12.958	4.865+j16.801
TRES ESTRELLAS	TTE-400	400.0	19.02	18.85	0.922+j12.106	0.840+j12.045	30.14	31.40	0.365+j8.421	0.330+j6.886
TRES VALLES	TVS-115	115.0	8.09	6.77	1.687+j8.030	1.823+j12.928	10.33	8.42	1.303+j6.950	1.823+j11.877
TROY	TOY-115	115.0	7.35	4.54	1.580+j8.894	4.992+j25.464	8.88	7.76	1.324+j8.120	1.049+j11.826
TULIPÁN	TLN-115	115.0	6.94	5.98	2.361+j9.269	4.523+j13.583	7.93	6.74	2.221+j8.942	4.473+j13.426
TUXPAN DOS	TUD-115	115.0	3.57	2.86	4.560+j18.030	10.465+j30.846	3.95	3.16	4.520+j17.941	10.447+j30.701



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Oriental**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
TUXPAN VAPOR	TUV-400	400.0	11.19	7.61	2.205+j20.525	11.150+j48.639	23.45	26.43	0.508+j10.819	0.221+j6.972
TUXPANGO	TPG-115	115.0	9.84	7.84	1.307+j6.618	2.207+j11.716	12.39	10.03	0.984+j5.812	1.663+j9.931
TUXTEPEC DOS	TXD-115	115.0	5.99	4.18	2.062+j10.897	4.520+j25.279	6.93	4.75	1.892+j10.362	4.488+j24.834
TUXTEPEC TRES	TPS-115	115.0	8.21	5.91	1.465+j7.951	3.630+j17.282	9.83	6.86	1.264+j7.319	3.636+j16.803
TUXTLA GUTIÉRREZ	TGU-115	115.0	10.73	8.11	1.284+j6.054	2.230+j12.012	13.19	9.53	1.028+j5.443	2.211+j11.697
TUXTLA GUTIÉRREZ DOS	TGD-115	115.0	9.42	6.70	1.589+j6.866	3.065+j15.343	11.46	7.83	1.314+j6.233	3.024+j14.931
TUXTLA NORTE	TXN-115	115.0	10.82	8.12	1.250+j6.010	2.207+j12.076	13.32	9.56	0.990+j5.395	2.182+j11.732
TUXTLA SUR	TXS-115	115.0	12.65	10.32	0.885+j5.173	1.360+j8.733	15.88	12.35	0.643+j4.555	1.341+j8.411
UNILIVER	UNL-115	115.0	3.93	4.61	3.597+j16.519	1.426+j9.314	4.37	5.13	3.441+j16.342	1.403+j9.181
UNIÓN CARBIDE TEAPA	UCT-115	115.0	13.45	9.29	0.910+j4.852	2.224+j11.498	16.01	11.07	0.803+j4.490	2.017+j10.573
UXPANAPA DOS	UXD-115	115.0	5.99	3.85	2.589+j10.772	6.307+j29.078	6.83	4.31	2.481+j10.405	6.295+j28.896
UXPANAPA III	UXT-115	115.0	1.61	0.94	11.358+j39.649	30.290+j125.931	1.80	1.04	11.139+j39.050	30.219+j125.577
UXPANAPA UNO	UXU-115	115.0	3.14	1.84	5.302+j20.498	14.535+j64.244	3.51	2.04	5.194+j20.130	14.524+j64.062
VALLE NACIONAL	VAN-115	115.0	3.12	2.00	4.669+j20.783	11.822+j55.674	3.50	2.23	4.493+j20.352	11.787+j55.332
VALSEQUILLO	VSE-115	115.0	7.91	4.80	1.516+j8.255	5.363+j24.138	8.87	5.32	1.425+j8.113	5.366+j24.123
VEGA DE ALATORRE	VDA-115	115.0	1.38	0.98	15.837+j45.435	31.196+j102.971	1.55	1.09	15.440+j44.548	30.839+j101.527
VENTA	VEN-69	69.0	2.44	2.87	6.051+j15.188	10.106+j4.812	3.97	4.76	2.781+j10.694	2.597+j5.041
VERACRUZ DOS	VRD-230	230.0	14.45	16.20	1.663+j9.039	0.758+j6.203	19.37	20.67	1.016+j7.474	0.764+j6.071
VERACRUZ DOS	VRD-115	115.0	23.09	27.62	0.502+j2.831	0.160+j1.465	30.80	35.50	0.319+j2.349	0.164+j1.421
VERACRUZ UNO	VRU-115	115.0	18.20	14.02	0.728+j3.575	1.128+j6.833	24.41	18.07	0.493+j2.952	1.017+j6.057
VETROTEX	VET-115	115.0	14.34	12.28	0.926+j4.537	1.179+j6.898	16.53	14.13	0.808+j4.345	1.129+j6.585
VIDRIERA DE TIERRA BLANCA	VTB-115	115.0	5.54	3.19	2.170+j11.796	9.113+j37.427	6.60	3.85	1.862+j10.916	8.259+j33.841
VILLA FLORES DOS	VFD-115	115.0	1.55	0.91	12.015+j41.045	36.100+j127.487	1.73	1.01	11.733+j40.493	36.090+j127.262
VILLAHERMOSA CENTRO	VHC-115	115.0	12.92	9.39	1.102+j5.020	2.416+j10.898	15.25	10.68	0.953+j4.693	2.413+j10.858
VILLAHERMOSA DOS	VID-115	115.0	13.95	11.87	0.889+j4.674	1.318+j7.282	16.84	13.75	0.692+j4.283	1.314+j7.235
VILLAHERMOSA NORTE	VHN-230	230.0	10.23	10.14	2.208+j12.787	1.828+j13.662	13.06	12.24	1.470+j11.091	1.845+j13.582
VILLAHERMOSA NORTE	VHN-115	115.0	16.49	18.32	0.711+j3.962	0.276+j2.968	20.09	21.64	0.529+j3.597	0.275+j2.947
VILLAHERMOSA PONIENTE	VIP-115	115.0	13.50	11.16	0.946+j4.825	1.915+j7.994	16.05	12.79	0.785+j4.482	1.913+j7.962
VILLAHERMOSA UNO	VIU-115	115.0	10.00	7.62	1.237+j6.525	2.497+j12.769	11.70	8.64	1.044+j6.153	2.495+j12.738
VISTAMAR	VIS-115	115.0	9.96	7.58	1.544+j6.487	2.530+j12.840	11.82	8.86	1.427+j6.012	2.519+j12.221
VOLKSWAGEN	VWG-115	115.0	40.79	37.37	0.293+j1.601	0.254+j2.084	50.44	45.71	0.206+j1.433	0.233+j1.909
XALAPA DE DÍAZ	JDD-230	230.0	5.42	4.21	3.478+j24.261	12.226+j44.303	6.46	4.87	2.805+j22.420	12.207+j43.342
XICOTENCATL	XIT-115	115.0	17.17	16.04	0.721+j3.798	0.673+j4.675	19.97	18.71	0.604+j3.606	0.623+j4.367
XOCHICALCO	XCH-85	85.0	2.89	1.41	2.890+j16.751	13.225+j69.277	3.24	1.56	2.740+j16.436	13.200+j68.930
XOXTLA-CORONANGO	XCR-115	115.0	16.69	10.67	0.727+j3.912	2.458+j10.452	19.19	12.06	0.638+j3.752	2.438+j10.299
YAUTEPEC POTENCIA	YTP-400	400.0	22.91	22.85	1.968+j9.887	1.387+j10.110	29.88	28.26	1.098+j8.431	1.347+j9.879
YAUTEPEC POTENCIA	YTP-230	230.0	18.62	20.85	1.142+j7.041	0.378+j4.855	22.53	25.01	0.713+j6.445	0.355+j4.540
YAUTEPEC POTENCIA	YTP-115	115.0	19.29	19.80	0.362+j3.423	0.164+j3.180	21.97	22.38	0.274+j3.313	0.161+j3.139
YECAPIXTLA	YCP-230	230.0	10.49	7.95	1.842+j12.522	5.150+j24.292	12.11	10.53	1.436+j11.972	2.573+j17.307
YOLOMECATL	YOL-115	115.0	1.42	0.88	13.588+j44.635	35.812+j128.847	1.57	0.97	13.403+j44.439	35.799+j128.656



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
YUCUDAA	YUC-115	115.0	1.74	1.09	11.088+j36.422	29.613+j101.989	1.93	1.21	10.906+j36.223	29.600+j101.800
ZACAPOAXTLA	ZXP-115	115.0	2.66	1.99	5.454+j24.379	16.929+j47.182	3.05	2.26	5.152+j23.420	16.931+j46.223
ZACATEPEC	ZTP-115	115.0	2.02	1.24	7.482+j32.041	21.928+j92.524	2.25	1.37	7.281+j31.642	21.933+j92.248
ZANATEPEC	ZNT-115	115.0	2.46	1.69	7.162+j26.066	14.226+j62.331	2.85	1.90	6.646+j24.761	14.222+j62.268
ZAPATA	ZAP-230	230.0	14.37	13.95	1.881+j9.047	1.555+j9.983	17.91	17.17	1.208+j8.064	1.381+j9.109
ZAPATA	ZAP-115	115.0	15.24	17.16	0.617+j4.313	0.189+j2.897	17.57	19.77	0.463+j4.131	0.165+j2.767
ZAPATA	ZAP-85	85.0	7.54	7.44	0.751+j6.463	0.213+j6.778	8.75	8.63	0.613+j6.136	0.189+j6.436
ZAPATA DOS	ZPD-115	115.0	5.21	1.45	2.408+j12.510	46.918+j102.789	6.56	1.63	1.595+j11.021	46.892+j102.645
ZAPATA ORIENTE	ZPO-115	115.0	3.89	1.92	3.864+j16.614	27.909+j64.071	4.61	2.17	3.268+j15.501	27.886+j63.932
ZAPATA PONIENTE	EZA-115	115.0	3.64	1.02	4.073+j17.761	67.486+j144.426	4.39	1.14	3.235+j16.301	67.457+j144.277
ZIHUATANEJO	ZIH-115	115.0	3.76	2.78	2.785+j17.433	7.580+j35.581	5.39	3.72	2.542+j13.308	7.322+j30.975
ZIHUATANEJO DOS	ZHD-115	115.0	3.81	2.81	2.781+j17.203	7.151+j35.237	5.70	3.98	2.430+j12.576	6.717+j28.626
ZINACATEPEC	ZIP-115	115.0	2.80	1.64	6.731+j22.741	18.236+j71.591	3.11	1.81	6.588+j22.548	18.228+j71.507
ZINACATEPEC	ZIP-69	69.0	1.79	2.04	3.006+j22.091	0.000+j14.167	1.95	2.21	2.972+j22.332	0.000+j14.482
ZOCAC	ZOC-230	230.0	12.82	12.25	2.010+j10.163	2.286+j11.662	15.77	14.92	1.519+j9.140	2.123+j10.601
ZOCAC	ZOC-115	115.0	17.87	17.27	0.691+j3.651	0.544+j4.102	20.84	20.25	0.574+j3.458	0.494+j3.789
ZONGOLICA	ZGL-115	115.0	4.15	2.40	2.732+j15.774	12.559+j49.413	5.48	4.92	1.907+j13.184	2.558+j17.723

Gerencia de Control Regional Occidental





Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
3M	P3M-115	115.0	17.58	16.26	0.804+j3.689	0.876+j4.616	20.42	18.58	0.696+j3.509	0.873+j4.560
ABASOLO	ABS-115	115.0	10.35	9.70	1.557+j6.221	1.684+j7.525	11.75	11.01	1.416+j6.051	1.637+j7.296
ABASOLO DOS	ABA-230	230.0	6.61	5.79	3.969+j19.702	4.075+j28.319	7.58	6.60	3.418+j18.953	3.901+j27.702
ABASOLO DOS	ABA-115	115.0	11.67	11.91	1.306+j5.540	0.674+j5.320	13.30	13.63	1.164+j5.367	0.623+j5.082
ABASTOS	ABT-115	115.0	8.43	6.89	2.067+j7.602	3.030+j12.803	9.41	7.67	1.959+j7.507	3.018+j12.719
ACÁMBARO	AQM-110	115.0	5.61	3.39	3.128+j11.422	9.947+j33.660	6.35	3.77	2.899+j11.138	9.949+j33.636
ACAPONETA	ACP-115	115.0	1.22	0.82	20.560+j50.530	52.886+j122.416	1.37	0.92	19.931+j49.455	52.821+j121.782
ACATLÁN	ATN-400	400.0	14.29	15.40	4.002+j15.662	1.677+j12.601	22.63	21.86	1.556+j11.116	1.717+j12.308
ACATLÁN	ATN-230	230.0	17.74	20.85	1.823+j7.262	0.412+j4.140	24.92	27.69	0.905+j5.792	0.414+j4.086
ACATLÁN	ATN-115	115.0	12.57	15.13	0.723+j5.231	0.106+j2.611	14.85	17.57	0.470+j4.896	0.107+j2.637
ACATLÁN	ATN-69	69.0	23.80	26.54	0.274+j1.651	0.056+j1.160	28.35	31.05	0.187+j1.535	0.055+j1.143
ACERLAN SA	ACR-115	115.0	13.18	13.19	1.091+j4.920	0.854+j4.949	14.78	14.74	1.037+j4.831	0.852+j4.917
ACERLAN SA	ACR-69	69.0	12.13	10.49	0.819+j3.180	1.044+j4.712	14.02	11.95	0.721+j3.042	1.040+j4.639
ACERO SAN LUIS	ACE-115	115.0	15.65	14.26	0.986+j4.125	1.177+j5.360	18.06	16.21	0.878+j3.948	1.174+j5.304
ACUEDUCTO	ACU-69	69.0	13.71	7.85	0.723+j2.814	2.157+j9.173	15.83	8.83	0.628+j2.696	2.140+j9.098
ACUEDUCTO II	AUD-115	115.0	3.00	2.57	4.023+j21.795	5.527+j32.697	3.72	3.14	3.032+j19.411	5.025+j30.165
AEROESPACIAL	ARL-115	115.0	8.06	5.47	2.242+j7.929	5.195+j19.265	8.97	6.06	2.186+j7.842	5.182+j19.178
AEROPUERTO	AER-115	115.0	5.44	4.00	3.233+j11.768	7.876+j24.143	6.01	4.42	3.167+j11.724	7.874+j24.093
AEROPUERTO ZACATECAS	AEZ-115	115.0	6.69	5.65	2.379+j9.639	3.173+j15.073	7.66	6.38	2.134+j9.288	3.164+j14.988
AEROTECH	AET-115	115.0	8.21	5.63	2.191+j7.780	4.995+j18.549	9.15	6.24	2.135+j7.692	4.982+j18.460
AGAVE	AVE-115	115.0	3.07	3.03	6.826+j20.504	5.693+j21.793	3.41	3.37	6.639+j20.340	5.650+j21.614
AGOSTADERITO	AGO-115	115.0	13.51	10.48	0.969+j4.818	1.185+j9.107	15.66	11.87	0.820+j4.592	1.180+j9.073
AGROGEN, S.A. DE C.V.	AGR-115	115.0	11.31	8.53	1.422+j5.697	2.116+j11.432	12.58	9.47	1.375+j5.639	2.092+j11.354
AGROINDUSTRIAL	AIL-115	115.0	6.49	4.01	2.825+j9.825	9.259+j27.671	7.28	4.46	2.695+j9.670	9.243+j27.545
AGUA AZUL	AGZ-230	230.0	9.87	8.40	2.916+j13.132	4.809+j19.971	12.19	9.90	2.012+j11.813	4.760+j19.747
AGUAMILPA	AGM-400	400.0	6.23	5.55	7.160+j36.390	9.112+j49.822	15.37	17.43	1.146+j16.492	0.666+j10.628
AGUAMILPA	AGM-115	115.0	2.32	1.70	7.278+j27.700	23.238+j55.510	2.98	2.87	5.463+j23.932	7.519+j26.253
AGUAPRIETA	APR-230	230.0	9.88	8.79	2.917+j13.123	3.403+j18.102	14.21	13.37	1.486+j10.172	1.720+j12.088
AGUASCALIENTES NORTE	AGN-115	115.0	17.99	12.95	0.829+j3.596	0.663+j8.018	21.05	14.67	0.689+j3.400	0.662+j8.011
AGUASCALIENTES ORIENTE	AGS-230	230.0	17.64	18.35	1.601+j7.355	1.187+j6.556	22.34	22.25	1.067+j6.451	1.186+j6.544
AGUASCALIENTES ORIENTE	AGS-115	115.0	23.06	24.81	0.584+j2.820	0.211+j2.271	27.42	28.83	0.446+j2.626	0.210+j2.280
AGUASCALIENTES PONIENTE	AGP-115	115.0	13.25	10.31	0.979+j4.915	0.823+j9.283	15.29	11.65	0.834+j4.704	0.814+j9.249
AGUASCALIENTES POTENCIA	APT-400	400.0	16.46	17.42	3.099+j13.685	1.693+j11.630	22.26	22.13	1.664+j11.289	1.693+j11.572
AGUASCALIENTES POTENCIA	APT-230	230.0	19.92	22.51	1.411+j6.516	0.544+j4.344	25.49	27.76	0.897+j5.661	0.540+j4.323
AGUASCALIENTES POTENCIA	APT-115	115.0	21.93	22.44	0.555+j2.976	0.225+j2.823	26.56	26.48	0.400+j2.720	0.222+j2.778
AGUASCALIENTES SUR	ASS-115	115.0	13.52	9.94	0.998+j4.807	1.665+j10.088	15.68	11.23	0.847+j4.580	1.663+j10.069
AGUASCALIENTES UNO	AGT-230	230.0	13.08	11.64	2.028+j9.950	2.756+j13.643	15.89	13.61	1.492+j9.073	2.726+j13.566
AGUASCALIENTES UNO	AGT-115	115.0	16.71	15.66	0.726+j3.906	0.552+j4.751	19.42	17.89	0.588+j3.714	0.535+j4.707
AGYDSA	AGY-69	69.0	21.70	18.26	0.458+j1.777	0.477+j2.838	25.83	21.37	0.362+j1.657	0.449+j2.724
AHRESTY	ART-115	115.0	7.39	6.57	2.482+j8.640	3.134+j11.939	8.51	7.46	2.236+j8.289	3.113+j11.824



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AHUACATLÁN	AHN-110	115.0	1.27	1.11	13.414+j50.566	21.840+j72.153	1.40	1.22	13.429+j50.583	21.747+j71.471
ALAMEDA	ALA-69	69.0	9.28	7.47	1.087+j4.153	1.965+j7.158	10.72	8.48	0.966+j3.974	1.947+j7.065
ALAMOS	ALS-230	230.0	10.01	8.52	2.894+j12.952	4.219+j19.746	12.39	10.07	1.984+j11.621	4.158+j19.517
ALAMOS	ALS-69	69.0	10.94	12.28	0.720+j3.569	0.167+j2.462	12.71	14.31	0.611+j3.394	0.153+j2.296
ALFA NISSAN	ALF-115	115.0	13.58	11.82	0.948+j4.798	0.981+j7.006	15.81	13.47	0.794+j4.552	0.978+j6.963
ALFA NISSAN MANIOBRAS	AIS-115	115.0	15.52	14.71	0.833+j4.196	0.539+j4.972	18.22	16.91	0.679+j3.950	0.536+j4.929
ALKANOVA	ALK-69	69.0	6.26	4.70	1.327+j6.226	2.529+j12.449	7.10	5.28	1.217+j6.053	2.516+j12.283
ALMERIA	ALM-69	69.0	3.33	2.09	5.005+j10.872	11.995+j31.023	3.75	2.32	4.773+j10.663	11.994+j31.006
ALUPRINT	ALU-115	115.0	17.83	18.15	0.803+j3.636	0.499+j3.502	20.70	20.81	0.695+j3.458	0.496+j3.447
ALZA	ALZ-115	115.0	6.42	5.78	3.464+j9.746	3.971+j13.202	7.37	6.55	3.205+j9.378	3.950+j13.074
ALZADA	AZA-115	115.0	3.33	2.35	5.944+j19.011	12.261+j43.196	3.90	2.84	5.379+j17.945	10.495+j38.306
AMATITÁN	AMT-69	69.0	2.65	1.76	5.737+j13.918	9.428+j36.921	4.03	3.22	3.555+j10.264	5.654+j18.207
AMECA	AMK-115	115.0	2.22	1.42	6.772+j29.132	20.700+j77.804	2.51	1.58	6.243+j28.428	20.701+j77.830
AMERI AXLE& MANUF DE MEX S.A. DE C.V.	AXL-115	115.0	7.13	6.42	2.500+j8.977	4.599+j11.572	7.99	7.16	2.374+j8.827	4.593+j11.515
AMISTAD BAJÍO	AMB-115	115.0	18.26	9.74	0.644+j3.579	3.082+j12.810	20.62	10.86	0.569+j3.495	3.077+j12.756
ANDARES	ADS-69	69.0	14.22	9.22	0.684+j2.717	1.523+j7.207	16.44	10.43	0.589+j2.599	1.501+j7.119
ANGAMACUTIRO DOS	ARD-115	115.0	3.21	2.13	7.265+j19.376	16.681+j49.558	3.70	2.72	6.672+j18.552	11.752+j39.326
ANTEA	NTA-115	115.0	16.27	14.25	1.194+j3.903	0.428+j5.881	18.32	15.89	1.138+j3.820	0.429+j5.882
ANTÚNEZ	ANN-115	115.0	3.02	3.20	6.609+j20.984	1.836+j18.481	4.03	4.10	4.355+j17.574	1.929+j17.241
ANTÚNEZ	ANN-69	69.0	3.14	4.23	3.245+j12.274	0.144+j2.922	4.51	5.93	2.123+j9.490	0.160+j2.759
APA	APA-115	115.0	16.75	16.64	0.683+j3.904	0.562+j4.011	19.19	18.90	0.593+j3.759	0.553+j3.947
APASCO	APP-115	115.0	5.52	4.07	3.377+j11.546	8.841+j23.237	6.52	4.65	3.050+j10.782	8.837+j23.115
APASEO	APS-110	115.0	18.33	14.88	0.689+j3.556	1.266+j6.005	20.71	16.71	0.614+j3.473	1.259+j5.942
APASEO ORIENTE	APO-115	115.0	10.13	6.95	2.221+j6.166	4.636+j14.828	11.26	7.68	2.173+j6.114	4.637+j14.836
APATZINGÁN	APZ-161	161.0	2.71	2.59	8.889+j33.194	4.667+j39.009	3.73	3.52	5.541+j26.879	3.906+j32.018
APATZINGÁN	APZ-115	115.0	3.97	4.15	4.908+j15.985	1.712+j14.580	5.53	5.78	2.940+j12.878	1.367+j11.459
ARANCIA	ARN-115	115.0	14.52	14.71	0.834+j4.495	0.621+j4.351	16.32	16.46	0.780+j4.407	0.618+j4.319
ARANDAS	ARS-115	115.0	2.98	2.73	7.081+j21.112	8.095+j27.192	3.31	3.03	6.894+j20.950	8.054+j27.020
ARBOLEDAS	ABL-115	115.0	7.54	5.99	2.288+j8.501	4.316+j15.012	8.56	6.72	2.095+j8.275	4.300+j14.930
ARELLANO	ARE-115	115.0	12.56	9.38	1.066+j5.178	1.669+j10.544	14.52	10.58	0.914+j4.947	1.667+j10.519
ARIO DE ROSALES	ADR-69	69.0	1.49	0.86	10.553+j24.528	25.320+j81.821	2.25	1.36	6.617+j18.329	15.498+j55.496
ARMERÍA	AIA-115	115.0	5.14	3.56	3.058+j12.554	9.697+j28.487	6.04	4.05	2.737+j11.772	9.690+j28.359
ARRAYANAL	AYL-115	115.0	5.99	4.37	2.780+j10.739	7.288+j22.257	7.13	5.00	2.461+j9.950	7.284+j22.145
ARTEVA SPECIAL TES S.R.L. C.V.	ATV-115	115.0	15.95	14.39	0.954+j4.053	1.056+j5.417	17.93	16.03	0.900+j3.973	1.057+j5.421
ASMOLES	ASM-115	115.0	5.66	4.46	3.352+j11.235	7.938+j19.706	6.69	5.11	3.019+j10.484	7.931+j19.572
ASUNCIÓN	ASU-115	115.0	17.71	14.45	0.758+j3.672	0.951+j6.219	20.65	16.41	0.621+j3.482	0.950+j6.224
ATEQUIZA	ATQ-400	400.0	15.39	16.38	3.429+j14.612	1.715+j12.191	22.62	22.03	1.464+j11.135	1.728+j12.025
ATEQUIZA	ATQ-230	230.0	17.30	19.92	1.832+j7.453	0.489+j4.648	22.94	25.29	1.036+j6.282	0.483+j4.578
ATEQUIZA	ATQ-69	69.0	17.86	22.95	0.501+j2.173	0.034+j0.757	21.13	27.24	0.403+j2.034	0.029+j0.684
ATOTONILCO	ATO-115	115.0	5.16	6.43	3.809+j12.299	0.652+j5.262	5.77	7.22	3.623+j12.125	0.608+j5.071



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AUTLÁN	AUT-115	115.0	1.22	0.82	16.660+j51.992	34.451+j128.384	1.36	0.91	16.298+j51.252	34.436+j128.243
AVENTEC	AVN-115	115.0	17.35	15.97	0.817+j3.739	0.895+j4.737	20.12	18.23	0.709+j3.559	0.893+j4.682
AYALA	AYA-115	115.0	12.08	8.57	1.189+j5.365	2.714+j11.936	13.66	9.59	1.069+j5.237	2.706+j11.879
AYOTLAN	AYN-115	115.0	3.79	3.26	5.239+j16.739	7.805+j24.789	4.22	3.62	5.052+j16.567	7.771+j24.640
AYUNTAMIENTO	AYU-115	115.0	12.78	9.14	1.043+j5.091	1.851+j11.242	14.78	10.31	0.892+j4.862	1.849+j11.221
AZUFRES SWITCHEO	AZS-115	115.0	11.10	12.70	1.051+j5.891	0.460+j3.696	12.11	13.91	1.042+j5.941	0.465+j3.665
AZUFRES SWITCHEO SUR	ASR-115	115.0	9.78	11.43	1.163+j6.687	0.405+j3.838	10.63	12.53	1.169+j6.767	0.387+j3.738
BANDERAS	BAN-115	115.0	4.18	4.09	4.721+j15.167	5.186+j16.120	5.00	4.75	4.003+j14.045	5.186+j16.084
BARRACUDA	BCD-115	115.0	12.53	9.47	1.101+j5.185	1.926+j10.255	14.31	10.64	0.992+j5.007	1.924+j10.199
BAÑÓN	BON-110	115.0	2.67	1.81	9.899+j22.797	20.320+j56.940	3.05	2.03	9.224+j22.060	20.307+j56.854
BELTICOS S.A. DE C.V.	BEL-69	69.0	19.18	14.98	0.497+j2.017	0.831+j3.731	22.50	17.13	0.406+j1.905	0.824+j3.688
BICENTENARIO	BCT-115	115.0	7.79	7.69	1.919+j8.302	1.708+j8.698	9.46	9.09	1.584+j7.555	1.686+j8.501
BMW	BMW-230	230.0	10.67	8.54	2.389+j12.208	5.139+j21.167	12.96	10.08	1.946+j11.097	5.066+j20.341
BOCAS	BOC-115	115.0	4.50	3.54	3.266+j14.382	8.634+j25.497	5.03	3.92	3.140+j14.169	8.636+j25.499
BOLAÑOS	BLA-110	115.0	0.91	0.57	34.107+j64.715	61.467+j192.727	1.00	0.63	33.957+j64.555	61.448+j192.680
BONLAN	BNL-115	115.0	16.84	14.61	0.849+j3.851	1.095+j5.649	19.50	16.62	0.741+j3.671	1.092+j5.594
BOQUILLA	BOQ-115	115.0	2.15	1.12	9.391+j29.457	32.786+j110.540	2.37	1.24	9.330+j29.372	32.779+j110.473
BOTELLO	BOT-115	115.0	4.14	2.80	4.802+j15.300	11.114+j37.484	4.94	4.29	4.066+j14.229	3.571+j21.226
BUENA VISTA NORTE	BVN-115	115.0	13.07	10.30	1.356+j4.895	2.313+j8.891	14.69	11.46	1.298+j4.799	2.314+j8.878
BUENAVISTA	BNA-115	115.0	14.24	11.09	1.295+j4.479	1.833+j8.445	16.02	12.35	1.237+j4.389	1.834+j8.438
BUGAMBILIAS	BUG-69	69.0	10.87	6.99	0.950+j3.541	2.096+j9.537	12.34	7.80	0.862+j3.445	2.096+j9.533
C. H. SANTA ROSA	SRO-69	69.0	2.81	1.72	5.360+j13.138	10.883+j39.755	5.17	5.87	1.988+j8.246	0.317+j5.494
C.H. LA YESCA	LYE-400	400.0	5.13	3.49	6.151+j44.599	24.124+j105.826	10.46	11.49	1.432+j24.244	0.955+j17.759
CABLESA	CAB-115	115.0	14.45	14.47	1.181+j4.441	0.721+j4.536	16.27	16.16	1.115+j4.347	0.721+j4.538
CALERA	CAL-230	230.0	6.59	7.52	5.069+j19.489	1.519+j12.694	7.76	8.75	4.254+j18.341	1.484+j12.466
CALERA	CAL-115	115.0	10.53	13.30	1.595+j6.101	0.207+j2.388	12.38	15.57	1.353+j5.743	0.196+j2.297
CALERA INDUSTRIAL	CAI-115	115.0	7.18	7.71	2.167+j8.996	1.095+j7.251	8.48	9.05	1.828+j8.415	1.036+j6.923
CALVILLO	CVO-115	115.0	4.15	2.54	3.554+j15.584	7.530+j45.964	4.63	2.81	3.410+j15.406	7.512+j45.918
CAMPESTRE	CPE-115	115.0	8.50	7.38	2.046+j7.541	2.405+j11.119	9.52	8.24	1.919+j7.426	2.389+j11.013
CAPILLA DE GUADALUPE	CIA-115	115.0	2.36	1.39	8.509+j26.779	23.760+j83.942	2.62	1.53	8.343+j26.641	23.741+j83.855
CARAPAN DISTRIBUCIÓN	CRD-115	115.0	9.18	5.87	1.593+j7.057	4.164+j19.003	10.35	6.54	1.467+j6.900	4.158+j18.944
CARAPAN POTENCIA	CRP-400	400.0	10.34	10.09	4.305+j21.924	2.674+j23.785	13.29	12.28	2.461+j18.956	2.732+j23.725
CARAPAN POTENCIA	CRP-230	230.0	13.80	16.33	2.017+j9.409	0.453+j5.137	17.35	20.00	1.265+j8.325	0.456+j5.071
CARAPAN POTENCIA	CRP-115	115.0	15.45	18.07	0.928+j4.196	0.192+j2.433	18.63	21.56	0.691+j3.859	0.188+j2.325
CARTONES PODEROSA S.A. DE	PON-115	115.0	14.41	14.32	0.932+j4.511	0.759+j4.636	16.20	16.01	0.878+j4.423	0.757+j4.604
CASTILLO	CST-69	69.0	16.51	15.35	0.641+j2.326	0.735+j2.867	19.26	17.61	0.552+j2.207	0.734+j2.821
CASTRO DEL RIO	CDR-115	115.0	11.04	7.28	1.349+j5.860	3.259+j14.990	12.52	8.14	1.224+j5.702	3.253+j14.931
CATARINA	CTA-69	69.0	4.47	2.87	3.637+j8.133	8.245+j22.437	5.08	3.20	3.405+j7.923	8.244+j22.420
CAÑADA	KDA-400	400.0	14.94	16.66	3.224+j15.118	1.376+j10.637	19.68	20.90	1.844+j12.775	1.387+j10.650
CAÑADA	KDA-230	230.0	18.50	22.00	1.369+j7.046	0.365+j3.754	23.46	27.04	0.862+j6.166	0.368+j3.769



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CAÑADA	KDA-115	115.0	19.39	19.48	0.598+j3.372	0.265+j3.380	22.55	22.36	0.471+j3.204	0.265+j3.367
CD. HIDALGO	CDH-115	115.0	5.62	4.11	3.113+j11.400	8.718+j23.246	6.24	4.55	3.054+j11.305	8.721+j23.213
CELANECE (OCOTLAN)	CME-115	115.0	5.14	3.68	4.258+j12.192	9.081+j26.835	5.97	4.63	3.823+j11.619	6.825+j21.847
CELAYA AEROPUERTO	CAE-110	115.0	13.85	11.63	1.125+j4.661	1.717+j7.332	15.61	13.07	1.039+j4.561	1.700+j7.223
CELAYA DOS	CYA-230	230.0	15.21	13.68	1.832+j8.536	1.747+j11.538	17.74	15.69	1.521+j8.092	1.731+j11.387
CELAYA DOS	CYA-115	115.0	21.99	23.48	0.591+j2.961	0.297+j2.429	25.00	26.67	0.515+j2.875	0.289+j2.372
CELAYA I	CLY-115	115.0	16.28	13.14	0.976+j3.961	1.722+j6.788	18.39	14.75	0.894+j3.870	1.713+j6.714
CELAYA III	CEY-230	230.0	15.88	13.99	1.924+j8.136	2.010+j11.583	18.87	16.31	1.556+j7.583	1.977+j11.306
CELAYA III	CEY-115	115.0	17.55	18.23	0.778+j3.702	0.376+j3.350	19.93	20.76	0.690+j3.600	0.357+j3.228
CELAYA INDUSTRIAL	CYI-110	115.0	17.28	16.95	0.807+j3.757	0.973+j3.949	19.50	19.07	0.732+j3.673	0.968+j3.895
CELAYA PONIENTE	CLP-115	115.0	12.12	9.80	1.347+j5.311	2.316+j9.077	13.61	10.96	1.264+j5.217	2.294+j8.982
CELAYA SUR	CYS-115	115.0	11.84	8.32	1.391+j5.433	3.536+j12.233	13.27	9.26	1.311+j5.343	3.529+j12.168
CEMENTOS MOCTEZUMA (MATEHUALA)	CMZ-115	115.0	1.25	0.74	22.551+j47.873	51.998+j156.196	1.41	0.82	21.537+j47.023	52.000+j156.176
CEMEX MÉXICO S.A. DE C.V. (C.D GUZMÁN)	CMX-115	115.0	3.92	3.11	4.545+j16.326	6.808+j29.389	4.42	3.49	4.254+j15.950	6.751+j29.051
CEMEX MÉXICO S.A. DE C.V. (GUADALAJARA)	CMX-69	69.0	5.91	4.23	1.821+j6.489	3.300+j14.401	6.69	4.75	1.709+j6.322	3.287+j14.235
CEMEX MÉXICO S.A. DE C.V. (HUICHAPAN)	CMX-230	230.0	6.67	5.08	3.660+j19.565	8.352+j37.698	8.02	5.91	3.045+j17.960	8.332+j36.771
CENTRO	CTR-115	115.0	4.23	4.11	4.379+j15.086	4.008+j16.604	5.09	4.79	3.590+j13.901	4.001+j16.529
CENTRO LOGÍSTICO JALISCO	CLJ-230	230.0	10.95	9.08	2.610+j11.846	5.073+j18.946	13.91	10.82	1.681+j10.367	5.073+j18.882
CENTRO LOGÍSTICO JALISCO	CLJ-115	115.0	6.25	5.15	2.475+j10.335	6.230+j16.344	7.13	5.78	2.216+j10.004	6.229+j16.356
CEPAMISA	CMS-115	115.0	7.80	7.03	2.194+j8.225	2.262+j11.102	8.75	7.86	2.049+j8.091	2.241+j10.972
CERRO BLANCO	CBL-400	400.0	8.20	7.74	6.020+j27.525	6.335+j32.462	18.80	18.41	1.148+j13.466	2.449+j14.185
CERRO DEL MERCADO	COM-115	115.0	5.79	4.97	2.783+j11.130	4.530+j16.520	6.87	5.78	2.422+j10.351	4.419+j16.071
CERRO GORDO	GOC-115	115.0	15.54	12.58	0.995+j4.155	1.540+j7.125	17.71	14.18	0.875+j4.029	1.527+j7.052
CERRO HUECO	CHC-69	69.0	0.97	0.57	19.268+j36.354	42.804+j121.491	1.26	0.76	15.564+j31.229	34.275+j98.328
CERVECERÍA MODELO DE GUADALAJARA	MOD-69	69.0	11.53	7.71	0.932+j3.327	2.109+j8.329	13.19	8.66	0.840+j3.215	2.097+j8.270
CH ZIMAPAN	ZMN-230	230.0	4.19	3.79	5.789+j31.137	6.384+j41.422	7.02	7.60	2.519+j20.652	1.142+j16.029
CH ZIMAPAN	ZMN-115	115.0	4.32	5.09	2.264+j15.190	0.715+j8.390	5.70	6.96	1.326+j12.742	0.214+j5.860
CHAMELA	CML-115	115.0	1.44	1.13	12.027+j44.567	32.133+j77.658	1.61	1.26	11.690+j43.761	32.120+j77.519
CHAPALA	CHA-69	69.0	4.52	2.78	2.636+j8.419	6.314+j24.486	5.06	3.09	2.534+j8.289	6.311+j24.421
CHAPALILLA	CPI-115	115.0	1.72	1.70	8.584+j37.681	7.221+j39.368	1.89	1.88	8.597+j37.699	7.133+j38.694
CHARAPAN	CHN-230	230.0	6.37	6.54	3.140+j20.623	2.549+j19.057	7.54	7.59	2.640+j19.203	2.509+j18.814
CHARAPAN	CHN-115	115.0	4.29	3.02	4.637+j14.769	12.519+j32.801	4.88	3.38	4.285+j14.341	12.512+j32.717
CHARCAS	CAK-110	115.0	6.63	7.18	2.071+j9.803	1.762+j7.506	7.36	8.00	2.022+j9.715	1.745+j7.355
CHARCAS POTENCIA	CHK-230	230.0	4.04	4.23	5.669+j32.340	2.412+j28.408	4.51	4.72	5.443+j31.920	2.351+j28.036
CHARCAS POTENCIA	CHK-115	115.0	7.65	9.07	1.561+j8.532	0.320+j4.625	8.51	10.14	1.512+j8.444	0.303+j4.474
CHILATÁN	CHL-115	115.0	1.73	1.26	12.009+j36.402	22.055+j78.471	2.54	2.37	6.795+j27.907	5.246+j34.770
CHIPILO	CHI-115	115.0	10.37	8.90	1.399+j6.245	2.772+j9.191	11.79	9.99	1.313+j6.052	2.765+j9.157
CICLO COMBINADO TIERRA MOJADA S. DE R.L. DE C.V.	TIM-400	400.0	15.56	17.24	3.170+j14.496	1.095+j10.502	22.32	23.06	1.369+j11.299	1.080+j10.241
CIÉNEGA	CMP-115	115.0	11.68	9.54	0.926+j5.609	1.753+j9.355	15.18	11.54	0.644+j4.767	1.747+j9.215
CIENEGUILLAS	CGS-115	115.0	5.38	4.36	3.170+j11.921	5.623+j20.230	6.11	4.89	2.920+j11.583	5.612+j20.144



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CIENEGUILLAS	CGS-115.0	115.0	5.06	5.70	4.580+j12.289	1.169+j8.838	6.11	6.74	3.818+j11.323	1.153+j8.747
CIFUNSA DEL BAJÍO S.A. DE C.V.	CIF-115	115.0	22.75	22.64	0.650+j2.846	0.458+j2.927	26.88	26.39	0.528+j2.665	0.451+j2.861
CIHUATLAN	CHT-115	115.0	3.23	2.78	5.154+j19.882	11.005+j28.513	3.71	3.15	4.830+j19.071	10.995+j28.380
CIMATARIO	CIM-115	115.0	12.42	10.44	1.325+j5.179	0.504+j8.466	13.92	11.60	1.265+j5.093	0.503+j8.462
CIUDAD GUZMÁN	CGM-230	230.0	4.95	4.68	6.212+j26.083	4.426+j31.247	5.89	5.46	5.133+j24.271	4.204+j30.380
CIUDAD GUZMÁN	CGM-115	115.0	6.82	7.71	2.243+j9.480	0.631+j6.347	7.85	8.91	1.957+j9.090	0.574+j6.008
COAHUAYANA	CHY-115	115.0	1.97	1.29	10.269+j32.175	30.016+j81.127	2.21	1.44	9.915+j31.460	30.011+j81.005
COALCOMÁN	CMN-115	115.0	1.27	0.83	20.025+j48.444	48.928+j127.422	1.48	1.08	18.130+j45.950	31.273+j98.769
COBANO	CBN-161	161.0	3.29	3.00	6.391+j27.510	6.436+j35.848	5.26	5.42	3.157+j19.167	2.160+j17.669
COBANO	CBN-69	69.0	2.58	1.60	5.276+j14.495	12.499+j41.969	6.36	5.80	1.220+j6.778	0.828+j8.873
COBRECEL	COB-115	115.0	8.45	7.12	1.696+j7.674	2.975+j11.901	9.43	7.93	1.608+j7.578	2.962+j11.804
COCULA	CLA-115	115.0	4.94	3.92	3.373+j13.022	8.601+j22.355	5.78	4.46	2.852+j12.300	8.602+j22.382
COENEO	CNE-115	115.0	10.57	7.51	1.299+j6.148	2.535+j13.718	12.00	8.41	1.191+j5.969	2.532+j13.656
COLIMA DOS	CMD-230	230.0	6.85	6.82	3.890+j18.981	2.929+j19.490	8.96	8.46	2.742+j16.063	2.862+j19.016
COLIMA DOS	CMD-115	115.0	9.53	11.15	1.447+j6.817	0.387+j3.926	11.84	13.64	1.114+j6.065	0.365+j3.729
COLIMA NORTE	CNO-115	115.0	6.55	5.94	2.431+j9.833	3.091+j12.909	7.83	6.90	2.093+j9.092	3.069+j12.712
COLIMILLA	CLL-69	69.0	10.76	7.27	0.957+j3.577	2.270+j8.749	14.61	13.75	0.622+j2.933	0.465+j3.541
COLINAS	COI-115	115.0	11.39	8.29	1.220+j5.701	2.242+j12.167	12.97	9.29	1.112+j5.522	2.239+j12.105
COLINAS DEL RINCÓN PARQUE INDUSTRIAL	RPI-115	115.0	13.59	10.45	0.938+j4.797	1.864+j9.103	15.40	11.70	0.821+j4.672	1.864+j9.074
COLOMO	COL-230	230.0	10.75	12.41	1.744+j12.227	1.013+j7.339	16.71	18.02	0.744+j8.708	0.995+j6.778
COLOMO	COL-115	115.0	15.65	18.53	0.658+j4.192	0.172+j2.259	21.68	24.68	0.374+j3.348	0.166+j2.134
COLOMO DISTRIBUCIÓN	CDI-115	115.0	15.45	18.20	0.678+j4.242	0.201+j2.347	21.35	24.15	0.394+j3.398	0.195+j2.222
COLON	CLN-230	230.0	12.83	11.57	2.626+j10.014	2.817+j13.431	16.42	13.94	1.726+j8.725	2.808+j13.368
COMPOSTELA	CMP-110	115.0	3.30	2.36	7.353+j18.710	15.256+j41.670	3.87	2.68	6.752+j17.618	15.222+j41.365
CONDEMBARO	CON-115	115.0	2.07	1.66	9.718+j30.630	17.335+j52.986	2.59	2.05	7.398+j27.179	16.205+j47.868
CONDUCTORES MONTERREY	CDM-115	115.0	16.89	15.52	0.842+j3.840	0.768+j4.923	19.56	17.68	0.734+j3.661	0.764+j4.867
CONIN	CNI-230	230.0	16.20	15.73	1.567+j8.046	1.062+j8.881	19.30	18.40	1.300+j7.454	1.050+j8.624
CONIN	CNI-115	115.0	20.79	23.54	0.620+j3.134	0.140+j2.082	23.57	26.49	0.560+j3.048	0.139+j2.080
CORONEO	COO-110	115.0	2.41	1.94	10.417+j25.565	14.095+j45.693	2.65	2.13	10.406+j25.543	14.085+j45.663
CORPORACIÓN DE OCCIDENTE	COC-69	69.0	13.02	11.86	0.766+j2.962	0.849+j3.866	15.10	13.57	0.668+j2.824	0.845+j3.792
CORTÁZAR	CZR-115	115.0	7.27	6.72	2.035+j8.899	2.791+j11.021	8.10	7.48	1.949+j8.805	2.781+j10.939
COTIJA	CTJ-115	115.0	5.16	3.34	3.504+j12.393	8.809+j32.620	5.80	3.72	3.303+j12.162	8.808+j32.586
CRUCERO	CCR-115	115.0	2.11	1.57	9.987+j29.776	15.008+j62.511	3.00	2.62	6.047+j23.585	6.566+j34.196
CRUZ AZUL	CZA-230	230.0	5.88	4.22	4.370+j22.138	12.810+j47.597	6.76	4.75	3.779+j21.275	12.797+j47.541
CRYOINFRA	CRI-115	115.0	9.15	9.43	1.856+j7.013	1.426+j6.461	10.70	11.01	1.684+j6.613	1.420+j6.112
CRYOINFRA	CRY-115	115.0	21.83	23.92	0.752+j2.946	0.419+j2.207	24.76	26.90	0.698+j2.866	0.420+j2.211
CUADRO DE MANIOBRAS ELECTROLUX	PGE-115	115.0	7.87	6.03	2.215+j8.144	4.384+j15.539	8.93	6.76	2.023+j7.921	4.373+j15.470
CUADRO DE MANIOBRAS VIDANTA	CMV-115	115.0	4.87	5.46	3.602+j13.139	2.224+j8.958	5.91	6.46	2.874+j12.017	2.223+j8.918
CUAUHTÉMOC	SCC-115	115.0	3.53	2.53	5.320+j18.058	11.091+j39.427	4.10	2.95	4.855+j17.155	10.307+j37.159
CUERÁMARO	CUE-110	115.0	7.64	5.21	1.991+j8.465	6.936+j19.680	8.58	5.81	1.860+j8.303	6.919+j19.587



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CUITZEO MORELIA	CTZ-115	115.0	5.13	3.48	3.682+j12.398	10.700+j29.472	5.71	3.86	3.571+j12.276	10.694+j29.409
CUITZEO OCOTLAN	CZO-115	115.0	8.32	6.61	2.288+j7.643	3.601+j13.721	9.42	7.43	2.107+j7.461	3.557+j13.537
CUITZILLOS	CZS-115	115.0	6.33	4.82	2.791+j10.112	6.193+j19.400	7.02	5.33	2.709+j10.049	6.188+j19.340
CUMBRES	CUB-115	115.0	17.69	17.83	0.759+j3.676	0.451+j3.646	20.67	20.42	0.618+j3.479	0.451+j3.653
CUMMINS FILTRACIÓN	CSF-115	115.0	13.15	8.52	1.054+j4.939	2.467+j13.056	15.05	9.55	0.947+j4.759	2.464+j12.999
CUPATITZIO	CPT-161	161.0	3.75	3.76	4.915+j24.284	3.256+j24.443	5.99	6.56	2.255+j16.912	1.196+j12.622
CUPRO	CPO-115	115.0	17.88	18.20	0.850+j3.614	0.614+j3.473	20.78	20.87	0.742+j3.436	0.611+j3.417
CUQUIO	CUQ-115	115.0	2.08	1.35	9.030+j30.680	30.278+j78.164	2.30	1.49	8.862+j30.534	30.258+j78.077
DAIDO METAL	DAI-69	69.0	6.20	3.81	1.610+j6.219	4.058+j18.071	6.95	4.23	1.519+j6.117	4.057+j18.060
DAL-TILE MÉXICO S. DE R.L. DE C.V	DLT-115	115.0	17.40	16.43	0.744+j3.742	0.831+j4.410	20.80	19.43	0.608+j3.459	0.825+j4.196
DANISCO MEXICANA	DAM-115	115.0	5.53	4.09	3.449+j11.509	8.952+j23.045	6.52	4.67	3.116+j10.755	8.947+j22.924
DANONE DE MÉXICO S.A. DE C.V.	DNN-115	115.0	10.57	7.49	1.459+j6.110	4.282+j13.388	11.99	8.39	1.338+j5.942	4.276+j13.325
DAÑU	DAN-230	230.0	12.14	11.81	1.889+j10.775	1.765+j11.716	15.81	14.90	1.295+j9.147	1.745+j10.790
DE ACERO MORELIA	DEO-115	115.0	8.72	7.13	1.988+j7.352	3.113+j12.298	9.73	7.93	1.891+j7.268	3.104+j12.225
DE ACERO CELAYA	DEA-230	230.0	13.15	10.58	2.265+j9.844	3.443+j17.117	15.39	12.15	1.892+j9.300	3.411+j16.840
DELCO REMY	DLC-115	115.0	18.92	17.79	0.753+j3.428	0.711+j4.122	22.07	20.40	0.645+j3.246	0.709+j4.063
DENSO	DEN-115	115.0	6.70	5.26	2.532+j9.586	4.178+j17.586	7.48	5.84	2.406+j9.460	4.168+j17.515
DESCANSADERO	DSC-69	69.0	1.45	1.17	11.579+j24.974	15.053+j44.643	1.73	1.38	10.831+j22.901	14.322+j42.198
DESTILADERAS	DST-115	115.0	3.76	3.39	4.895+j16.946	5.122+j22.902	4.46	3.90	4.160+j15.830	5.121+j22.860
DICUMSA	DIC-115	115.0	16.87	15.47	0.843+j3.845	0.773+j4.955	19.53	17.62	0.735+j3.667	0.770+j4.899
DISTEX	DTX-115	115.0	17.29	15.85	1.039+j3.696	0.933+j4.808	19.49	17.69	0.985+j3.615	0.934+j4.812
DOLORES HIDALGO	DHD-115	115.0	7.05	4.63	2.754+j9.009	5.165+j23.651	7.82	5.12	2.711+j8.936	5.169+j23.592
DOMINICA	DMN-115	115.0	5.52	6.78	1.069+j11.976	0.138+j5.359	6.07	7.49	1.059+j11.992	0.134+j5.197
DOMO SAN PEDRO	DSP-115	115.0	1.66	1.76	8.179+j39.033	3.459+j33.299	1.82	1.94	8.249+j39.191	3.351+j32.545
DON VASCO	VCO-115	115.0	2.75	1.87	8.047+j22.804	20.301+j54.402	3.08	2.08	7.697+j22.436	20.284+j54.280
EATON	EAT-115	115.0	16.49	13.70	0.914+j3.922	1.231+j6.372	19.06	15.55	0.807+j3.745	1.228+j6.312
EDOSA	EDO-69	69.0	7.16	4.79	1.600+j5.332	3.371+j13.409	8.10	5.35	1.500+j5.201	3.367+j13.336
EL ARBOLITO	ABO-115	115.0	4.14	2.81	5.970+j14.900	13.489+j36.352	4.62	3.12	5.858+j14.699	13.478+j36.206
EL CAJÓN	CJN-400	400.0	7.13	6.22	6.354+j31.748	9.810+j45.507	16.12	16.85	1.184+j15.713	1.298+j13.649
EL CAMPANARIO	CAM-115	115.0	15.82	12.10	0.893+j4.100	1.668+j7.889	17.82	13.49	0.835+j4.012	1.667+j7.878
EL GRANJENO	EGJ-115	115.0	13.20	11.07	1.314+j4.857	2.045+j7.666	14.97	12.42	1.195+j4.731	2.041+j7.636
EL GRULLO	GRU-110	115.0	0.82	0.52	27.260+j75.813	60.104+j215.488	0.92	0.57	26.891+j75.087	60.089+j215.347
EL MARQUÉS	MRQ-115	115.0	14.98	13.52	1.050+j4.306	1.606+j5.645	16.84	15.08	0.991+j4.221	1.605+j5.643
EL MARQUÉS ORIENTE	MQO-115	115.0	14.05	11.90	0.985+j4.621	1.376+j7.161	15.77	13.24	0.925+j4.537	1.375+j7.159
EL MIRADOR	MRR-115	115.0	5.60	4.91	3.543+j11.318	3.735+j16.489	6.91	5.83	2.673+j10.225	3.662+j16.046
EL MOLINO	MOL-115	115.0	10.39	8.27	1.349+j6.247	2.251+j11.085	11.68	9.23	1.232+j6.128	2.237+j11.016
EL MONTEON	MTN-115	115.0	2.79	2.24	8.526+j22.173	16.953+j37.933	3.25	2.54	7.835+j21.076	16.946+j37.862
EL PALMAR	EPM-115	115.0	3.62	1.80	5.765+j17.398	21.738+j70.530	4.01	1.99	5.705+j17.313	21.731+j70.463
EL PARDILLO	PRL-110	115.0	3.57	2.56	4.988+j17.900	11.476+j39.130	4.02	2.84	4.745+j17.545	11.466+j39.039
EL POTOSÍ	EPS-400	400.0	12.13	12.07	3.105+j18.781	2.428+j19.283	14.60	14.06	2.234+j17.257	2.461+j19.348



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
EL POTOSÍ	EPS-230	230.0	16.96	19.16	1.372+j7.708	0.563+j5.128	20.34	22.50	1.056+j7.103	0.569+j5.106
EL POTOSÍ	EPS-115	115.0	20.39	20.73	0.512+j3.216	0.265+j3.095	23.27	23.34	0.435+j3.108	0.268+j3.108
EL REALITO	ELR-115	115.0	2.51	1.46	4.955+j25.990	16.106+j82.411	2.77	1.60	4.920+j25.922	16.093+j82.276
EL REFUJO	RFJ-115	115.0	3.53	2.11	5.603+j17.939	15.842+j54.489	3.92	2.33	5.435+j17.797	15.823+j54.402
EL SALTO	ESJ-69	69.0	15.46	12.96	0.657+j2.491	1.025+j3.939	17.90	14.71	0.574+j2.380	1.026+j3.909
EL SAUCITO	MSU-115	115.0	7.16	6.69	2.560+j8.910	1.707+j11.159	8.16	7.53	2.341+j8.638	1.706+j11.130
EL SAUZ	SAU-230	230.0	15.21	14.51	1.477+j8.605	1.124+j9.943	19.29	19.04	1.083+j7.495	0.730+j7.848
EL SAUZ	SAU-115	115.0	20.46	23.26	0.487+j3.208	0.131+j2.077	23.25	26.66	0.434+j3.112	0.110+j1.937
EL SOL	SOL-69	69.0	18.98	14.72	0.521+j2.033	0.845+j3.833	22.27	16.84	0.429+j1.920	0.834+j3.779
EL SOL (BUS B)	SOL-69B	69.0	19.26	15.03	0.512+j2.004	0.817+j3.729	22.62	17.21	0.420+j1.891	0.807+j3.676
EL SOL (CARAPAN)	ESO-115	115.0	5.97	4.07	3.305+j10.626	8.859+j25.200	6.72	4.53	3.111+j10.409	8.855+j25.138
EL TARAY	TAY-115	115.0	4.46	2.81	3.707+j14.434	2.298+j41.307	4.97	3.11	3.564+j14.251	2.280+j41.262
EL TORO	TOO-115	115.0	11.07	5.72	1.237+j5.869	5.853+j22.074	12.46	6.35	1.121+j5.751	5.853+j22.041
EL ZAPOTILLO	EZP-115	115.0	3.23	2.11	4.947+j19.975	14.861+j51.267	3.58	2.33	4.806+j19.844	14.856+j51.254
EMMAN TABLEROS S.A. DE C.V.	EMM-115	115.0	6.05	4.30	2.887+j10.590	5.818+j23.719	6.79	4.79	2.705+j10.409	5.774+j23.534
EMPAQUES MODERNOS	EMP-69	69.0	7.84	5.32	1.854+j4.731	4.251+j11.535	8.85	5.93	1.769+j4.623	4.252+j11.504
ENCARNACIÓN DE DÍAZ	ENC-110	115.0	5.09	3.28	3.137+j12.669	9.184+j33.476	5.69	3.63	2.986+j12.480	9.181+j33.460
ENVASES INNOVATIVOS	ENV-69	69.0	12.22	8.71	0.880+j3.139	1.727+j6.991	13.95	9.76	0.799+j3.039	1.726+j6.970
ENVASES UNIVERSALES	EVS-69	69.0	12.76	11.43	0.786+j3.023	0.914+j4.114	14.78	13.05	0.688+j2.885	0.910+j4.041
ENVASES Y TAPAS	EYT-115	115.0	6.94	7.27	2.252+j9.291	1.377+j8.173	8.19	8.50	1.913+j8.710	1.318+j7.845
EÓLICA CERRITOS (MESA MORENOS) MANIOBRAS	ECM-230	230.0	6.06	5.80	3.822+j21.570	3.960+j24.565	7.19	6.72	3.215+j20.054	3.900+j24.258
EÓLICA HUIMILPAN (SAN PEDRO) MANIOBRAS IXMIQUILPAN	HUM-115	115.0	3.74	3.68	5.910+j16.757	3.565+j18.347	4.12	4.06	5.898+j16.735	3.555+j18.316
ESTADIO CORREGIDORA	ECO-115	115.0	13.21	9.43	0.945+j4.937	1.156+j11.023	14.77	10.46	0.891+j4.863	1.155+j11.024
ESTANCIA DE ANIMAS	EDA-115	115.0	3.72	2.84	6.231+j16.750	12.548+j31.931	4.22	3.19	5.853+j16.273	12.545+j31.886
ESTANCITA	ETA-115	115.0	0.80	0.48	28.790+j77.847	60.601+j241.753	1.06	0.76	18.773+j66.560	30.568+j145.796
EXPERIENCIA	EXP-69	69.0	8.13	5.35	1.043+j4.785	3.200+j12.153	9.32	6.01	0.927+j4.611	3.188+j12.081
EZEQUIEL MONTES	EZM-110	115.0	5.92	3.49	3.263+j10.733	10.649+j33.047	6.57	3.85	3.203+j10.646	10.642+j32.981
FERTIMEX	FER-69	69.0	5.01	3.43	2.230+j7.638	4.485+j18.440	5.64	3.83	2.118+j7.471	4.472+j18.273
FIBERWEB DE MÉXICO S.A. DE C.V.	VTC-115	115.0	9.67	8.17	1.617+j6.674	3.252+j10.168	10.93	9.12	1.541+j6.502	3.251+j10.167
FLAMINGOS	FLA-115	115.0	5.13	5.93	3.446+j12.473	1.492+j7.593	6.25	7.05	2.730+j11.358	1.492+j7.567
FLEXTRONICS PLANTA SUR	SLT-69	69.0	9.87	6.21	1.065+j3.893	2.457+j10.914	11.17	6.91	0.977+j3.798	2.457+j10.910
FLUVIAL	FLU-115	115.0	4.69	4.92	3.808+j13.650	2.526+j11.908	5.67	5.79	3.054+j12.503	2.519+j11.833
FORJAS	FRJ-115	115.0	17.60	16.80	0.842+j3.678	0.818+j4.236	19.85	18.77	0.785+j3.594	0.819+j4.238
FRESNILLO INDUSTRIAL	FRI-110	115.0	7.08	6.87	2.735+j8.975	2.664+j9.872	8.06	7.74	2.522+j8.705	2.663+j9.845
FRESNILLO NORTE	FRN-115	115.0	8.12	9.70	2.122+j7.896	0.587+j4.164	9.27	11.01	1.918+j7.642	0.585+j4.140
FRESNILLO POTENCIA	FSO-230	230.0	4.66	5.43	7.122+j27.563	1.491+j16.520	5.36	6.18	6.315+j26.485	1.502+j16.541
FRESNILLO POTENCIA	FSO-115	115.0	8.41	10.65	2.023+j7.634	0.220+j2.946	9.61	12.11	1.820+j7.380	0.218+j2.922
FRESNILLO SUR	FNO-115	115.0	7.72	7.39	2.459+j8.245	2.105+j9.545	8.83	8.34	2.238+j7.962	2.103+j9.513
FRESNO	FRE-69	69.0	13.15	9.14	0.794+j2.924	1.709+j6.808	15.12	10.30	0.702+j2.812	1.699+j6.753
GENERADORA ELÉCTRICA SAN RAFAEL, S.A.P.I. DE C.V.	SRA-115	115.0	2.78	2.08	5.975+j23.148	18.468+j44.692	3.70	4.02	4.134+j19.325	2.379+j14.773



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
GENERAL MOTORS DE MÉXICO	GMC-115	115.0	nan	nan	nan+jnan	nan+jnan	8.37	6.12	2.139+j8.454	5.051+j17.660
GENERAL TIRE	GRP-115	115.0	6.34	4.11	2.556+j10.160	7.968+j26.392	7.14	4.58	2.434+j9.941	7.955+j26.252
GKN	GKN-115	115.0	8.99	7.59	1.577+j7.217	2.736+j11.122	10.04	8.47	1.489+j7.120	2.721+j11.020
GÓMEZ PORTUGAL	GOP-115	115.0	9.25	6.26	1.459+j7.025	3.817+j17.058	10.48	6.98	1.323+j6.844	3.816+j17.056
GRAHAM PACKAGING PLASTIC	GRH-115	115.0	10.46	7.44	1.495+j6.170	4.294+j13.420	11.86	8.33	1.374+j6.002	4.288+j13.356
GRÁN JARDÍN	GJA-115	115.0	10.89	8.21	1.333+j5.950	2.312+j11.853	12.27	9.18	1.214+j5.828	2.294+j11.758
GUADALAJARA DOS	GUD-230	230.0	15.04	16.37	2.135+j8.568	0.954+j6.632	19.46	20.26	1.311+j7.390	0.943+j6.559
GUADALAJARA DOS	GUD-161	161.0	5.71	7.75	1.654+j16.187	0.129+j3.456	6.58	8.93	1.228+j15.502	0.121+j3.264
GUADALAJARA DOS	GUD-69	69.0	24.24	26.85	0.311+j1.614	0.094+j1.165	28.57	31.20	0.233+j1.516	0.092+j1.145
GUADALAJARA INDUSTRIAL	GUI-230	230.0	12.04	11.79	2.659+j10.702	1.812+j11.613	15.18	14.14	1.765+j9.462	1.817+j11.602
GUADALAJARA INDUSTRIAL	GUI-69	69.0	21.32	24.23	0.452+j1.813	0.084+j1.206	24.86	27.82	0.370+j1.723	0.084+j1.206
GUADALAJARA NORTE	GUN-230	230.0	11.07	10.47	2.700+j11.684	2.217+j13.891	16.19	15.92	1.326+j8.926	1.150+j9.420
GUADALAJARA NORTE	GUN-69	69.0	20.20	23.11	0.374+j1.937	0.098+j1.229	25.13	28.57	0.249+j1.726	0.074+j1.113
GUADALAJARA ORIENTE	GDO-230	230.0	14.07	14.64	2.162+j9.188	1.254+j8.249	19.20	18.88	1.172+j7.517	1.227+j7.903
GUADALAJARA ORIENTE	GDO-69	69.0	22.71	24.69	0.301+j1.728	0.098+j1.333	28.20	30.13	0.196+j1.541	0.095+j1.254
GUADALAJARA UNO	GDU-230	230.0	13.83	14.23	2.420+j9.294	1.372+j8.712	17.95	17.53	1.511+j7.996	1.355+j8.625
GUADALAJARA UNO	GDU-69	69.0	28.44	30.35	0.329+j1.362	0.107+j1.140	34.34	35.82	0.242+j1.253	0.104+j1.117
GUADALCAZAR	GDL-115	115.0	1.43	0.86	19.978+j41.903	45.229+j132.847	1.62	0.95	18.975+j41.006	45.231+j132.826
GUADALUPE	GPE-110	115.0	7.09	6.65	3.226+j8.787	3.149+j10.776	8.18	7.57	2.970+j8.424	3.127+j10.649
GUANAJUATO	GTO-115	115.0	8.11	5.13	1.793+j7.988	5.576+j21.768	9.11	5.72	1.667+j7.840	5.552+j21.620
GUANAJUATO SUR	GSU-115	115.0	9.27	6.03	1.590+j6.985	4.431+j18.150	10.45	6.73	1.463+j6.836	4.418+j18.049
GUARDIÁN INDUSTRIE VP	GDI-115	115.0	7.15	5.10	2.601+j8.915	5.853+j19.655	7.95	5.64	2.543+j8.826	5.844+j19.601
GUASCARO	GSO-115	115.0	5.68	3.78	3.254+j11.231	7.922+j28.188	6.41	4.21	3.038+j10.982	7.919+j28.146
GUAYABITOS	GYS-115	115.0	2.72	2.11	8.905+j22.739	18.410+j41.565	3.15	2.39	8.220+j21.647	18.400+j41.479
GUEVARA	GVA-115	115.0	0.89	0.54	26.297+j69.971	53.956+j211.456	1.20	0.92	16.359+j58.435	23.978+j115.596
HACIENDA	HDA-115	115.0	12.58	10.27	1.357+j5.099	2.153+j8.580	14.14	11.49	1.276+j5.007	2.127+j8.483
HACIENDA NUEVA	HNV-115	115.0	4.70	4.32	4.084+j13.535	5.561+j16.992	5.34	4.87	3.800+j13.131	5.537+j16.801
HENKEL CAPITAL S.A. DE C.V.	RSS-115	115.0	14.56	13.78	1.009+j4.447	1.042+j5.231	17.67	16.56	0.838+j4.048	1.036+j4.882
HERDEZ	HER-115	115.0	16.35	13.50	0.874+j3.967	1.069+j6.557	18.90	15.31	0.766+j3.788	1.066+j6.502
HIGUERILLAS	HIG-69	69.0	15.45	9.30	0.939+j2.401	1.481+j7.596	17.77	10.43	0.858+j2.312	1.474+j7.570
HILASAL MEXICANA S.A.B. DE C.V.	HYL-69	69.0	13.75	11.09	0.773+j2.793	1.376+j4.791	15.84	12.54	0.689+j2.680	1.377+j4.756
HIROTEC MÉXICO S.A. DE C.V.	AVT-115	115.0	7.35	7.08	2.420+j8.698	3.833+j9.354	8.25	7.92	2.294+j8.548	3.828+j9.297
HONDA DE MÉXICO S.A. DE C.V. EL SALTO	HON-69	69.0	14.32	11.56	0.727+j2.686	1.230+j4.616	16.51	13.07	0.644+j2.575	1.231+j4.585
HORUS MANIOBRAS	HOM-230	230.0	8.80	6.70	2.656+j14.857	7.956+j28.245	10.52	7.70	2.060+j13.727	7.952+j28.216
HUACANA	HUC-69	69.0	1.33	0.84	13.793+j26.516	27.912+j78.188	1.83	1.18	10.752+j21.399	21.734+j59.903
HUANACAXTLE	HUA-115	115.0	4.00	3.77	4.684+j15.941	4.335+j19.198	4.76	4.35	3.956+j14.824	4.335+j19.162
HUANIMARO	HNM-115	115.0	3.98	2.98	4.551+j16.028	12.143+j31.287	4.44	3.31	4.410+j15.864	12.095+j31.057
HUENTITÁN	HUN-69	69.0	10.33	7.02	1.015+j3.720	2.443+j8.990	13.07	10.55	0.802+j3.255	1.555+j5.549
HUICHAPAN	HCH-115	115.0	1.56	0.83	13.263+j40.366	46.312+j147.986	1.72	0.91	13.203+j40.286	46.304+j147.919
HUMEDADES	HUM-115	115.0	1.43	1.01	15.612+j43.812	31.480+j99.330	1.66	1.16	14.575+j41.555	30.962+j96.771



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
HUNTSMAN INTERNATIONAL DE MÉXICO	HMA-115	115.0	3.53	2.27	4.719+j18.232	12.178+j48.645	3.92	2.51	4.537+j18.054	12.134+j48.459
IBÍDEM	IBD-115	115.0	11.27	8.59	1.573+j5.675	3.369+j10.912	12.86	9.66	1.468+j5.487	3.366+j10.807
IBM DE MÉXICO S.A. DE C.V.	IBM-69	69.0	21.62	21.53	0.353+j1.809	0.281+j1.845	25.29	24.75	0.274+j1.711	0.279+j1.824
IBM-ALKA	IBA-69	69.0	22.76	23.69	0.333+j1.718	0.196+j1.533	26.71	27.36	0.255+j1.620	0.194+j1.513
IMMSA	IMM-115	115.0	5.24	5.07	3.065+j12.302	4.590+j13.157	5.81	5.63	3.016+j12.214	4.573+j13.006
IND MINERA MÉXICO	MNR-230	230.0	10.75	8.93	2.303+j12.138	4.691+j19.391	12.64	10.21	1.930+j11.398	4.699+j19.275
INDEPENDENCIA	INE-115	115.0	8.15	7.17	2.105+j7.866	2.382+j11.268	9.14	8.01	1.970+j7.742	2.363+j11.152
INDUSTRIAL SAN FRANCISCO	ISF-115	115.0	11.07	8.02	1.211+j5.875	2.174+j12.646	12.58	8.98	1.078+j5.704	2.173+j12.637
INGENIO TALA	ING-69	69.0	0.87	0.56	23.275+j39.326	44.477+j112.939	1.10	0.73	20.228+j34.211	38.276+j94.632
INNOPACK	INN-115	115.0	9.98	7.22	1.533+j6.475	3.663+j13.823	11.23	8.04	1.413+j6.349	3.655+j13.782
INVISTA	INV-115	115.0	18.34	20.18	0.969+j3.489	0.500+j2.588	20.69	22.61	0.915+j3.409	0.500+j2.592
IRAPUATO II	IRA-230	230.0	19.29	19.25	1.519+j6.716	1.140+j6.833	24.27	23.65	1.047+j5.926	1.125+j6.520
IRAPUATO II	IRA-115	115.0	25.42	27.89	0.544+j2.554	0.191+j1.918	30.30	32.94	0.423+j2.373	0.184+j1.852
IRAPUATO INDUSTRIAL	IRI-115	115.0	12.78	9.73	1.229+j5.049	2.887+j9.660	14.59	10.96	1.108+j4.881	2.881+j9.596
IRAPUATO PONIENTE	IPP-115	115.0	13.94	9.77	1.023+j4.653	2.199+j10.629	15.94	10.99	0.901+j4.493	2.193+j10.568
IRAPUATO UNO	IRP-110	115.0	20.85	17.28	0.723+j3.101	1.055+j5.050	24.38	19.79	0.600+j2.935	1.049+j4.993
IRAPUATO VILLAS	IRV-115	115.0	16.02	11.78	0.909+j4.043	1.758+j8.434	18.45	13.32	0.786+j3.880	1.752+j8.376
ITALAISE	ITA-115	115.0	11.65	9.48	1.298+j5.549	1.767+j9.458	13.21	10.63	1.218+j5.394	1.751+j9.391
IXTLAHUACAN	ITC-400	400.0	9.59	7.43	4.563+j23.637	8.773+j44.180	16.08	12.46	1.517+j15.725	5.919+j29.061
IXTLAN	ITL-115	115.0	6.47	4.80	2.850+j9.857	7.131+j19.765	7.30	5.35	2.661+j9.645	7.123+j19.702
JABIL CIRCUIT DE MÉXICO	JBL-69	69.0	11.90	6.94	0.787+j3.253	2.518+j10.218	13.67	7.79	0.692+j3.131	2.505+j10.155
JACONA	JCN-115	115.0	9.76	7.81	1.666+j6.594	2.754+j11.559	11.18	8.81	1.473+j6.365	2.744+j11.494
JAGUAR	CBO-69	69.0	15.61	10.80	0.604+j2.479	1.136+j5.856	18.14	12.24	0.514+j2.360	1.129+j5.806
JALOSTOTITLAN	JLT-115	115.0	7.08	5.65	2.122+j9.129	4.057+j15.978	7.93	6.28	1.984+j8.992	4.054+j15.970
JALPA	JAP-115	115.0	2.29	1.36	9.294+j27.468	9.696+j88.746	2.54	1.50	9.147+j27.302	9.677+j88.700
JARAL DEL PROGRESO	JDP-115	115.0	4.82	2.99	3.654+j13.290	11.397+j37.358	5.39	3.32	3.530+j13.072	11.385+j37.218
JARRETADERAS	JDA-115	115.0	4.90	5.55	3.588+j13.061	2.129+j8.544	5.95	6.57	2.861+j11.941	2.128+j8.506
JATCO	JAT-115	115.0	11.29	8.16	1.235+j5.747	2.043+j12.507	12.99	9.18	1.083+j5.517	2.041+j12.482
JATCO II	JTC-115	115.0	13.65	11.93	0.923+j4.776	1.014+j6.893	15.90	13.61	0.769+j4.530	1.012+j6.850
JEREZ	JRZ-115	115.0	2.13	1.48	10.746+j29.274	22.921+j68.166	2.37	1.64	10.494+j28.951	22.910+j68.078
JESÚS DEL MONTE	JEM-110	115.0	10.97	8.29	1.306+j5.908	2.854+j11.586	12.37	9.26	1.188+j5.782	2.845+j11.540
JESUS MARÍA	JSM-115	115.0	14.71	10.58	0.948+j4.413	1.422+j9.701	17.02	11.94	0.808+j4.215	1.416+j9.680
JESÚS MARÍA	JMA-115	115.0	3.14	2.71	6.577+j20.076	9.949+j29.712	3.49	3.00	6.390+j19.909	9.911+j29.552
JIQUILPAN	JIQ-115	115.0	7.81	5.40	2.057+j8.246	4.853+j19.251	8.85	6.03	1.876+j8.035	4.853+j19.222
JOCOTEPEC	JCT-69	69.0	3.82	2.24	3.131+j9.943	9.059+j31.325	4.26	2.47	3.042+j9.834	9.058+j31.308
JOYUELAS	JYU-110	115.0	5.47	3.72	3.383+j11.663	8.737+j27.925	6.11	4.13	3.266+j11.498	8.727+j27.827
JUAN JOSÉ ARREOLA	JUJ-115	115.0	5.78	5.82	2.803+j11.134	2.761+j10.898	6.61	6.64	2.517+j10.755	2.709+j10.584
JUAN RULFO	JRU-115	115.0	2.05	1.32	10.027+j30.874	26.898+j81.948	2.28	1.46	9.743+j30.542	26.869+j81.748
JULIÁN CARRILLO	JCR-115	115.0	4.94	3.27	4.061+j12.823	10.129+j32.470	5.48	3.61	3.981+j12.711	10.132+j32.482
JURICA	JUR-110	115.0	12.23	9.62	1.714+j5.151	0.935+j9.934	13.70	10.68	1.658+j5.066	0.936+j9.934



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
KELLOGG'S DE MÉXICO S.R.L. DE C.V.	KEL-115	115.0	13.42	12.56	1.324+j4.768	1.114+j5.866	15.11	14.02	1.254+j4.669	1.113+j5.867
KIMBERLY CLARK DE MÉXICO	KIM-115	115.0	15.29	13.99	0.820+j4.263	0.898+j5.478	17.18	15.68	0.771+j4.182	0.884+j5.400
KODAK DE MÉXICO S.A. DE C.V.	KDK-69	69.0	12.96	8.65	0.814+j2.963	1.795+j7.456	14.90	9.74	0.722+j2.851	1.785+j7.403
KRUPP	KRP-115	115.0	17.91	17.79	0.785+j3.623	0.579+j3.744	20.81	20.39	0.677+j3.444	0.576+j3.688
LA BARCA	BRC-115	115.0	8.00	6.51	2.507+j7.912	4.164+j13.341	9.05	7.33	2.326+j7.724	4.120+j13.148
LA BUFA MANIOBRAS	BFM-230	230.0	5.62	5.40	4.711+j23.166	4.599+j26.125	6.47	6.19	4.083+j22.200	4.414+j25.334
LA CALIFORNIA	CLF-115	115.0	11.83	8.51	1.289+j5.464	2.694+j11.879	13.19	9.47	1.252+j5.394	2.687+j11.773
LA CUEVA	CUV-115	115.0	5.72	4.10	3.033+j11.213	7.590+j24.236	6.39	4.54	2.890+j11.059	7.587+j24.227
LA ESPERANZA	LAE-115	115.0	6.21	5.51	3.376+j10.151	3.349+j14.392	7.75	6.59	2.521+j9.081	3.291+j14.032
LA ESPIGA	ESP-115	115.0	16.38	12.55	0.845+j3.964	1.571+j7.603	18.46	13.98	0.788+j3.877	1.571+j7.597
LA ESTRELLA	ELA-115	115.0	3.53	2.51	5.301+j18.048	10.809+j40.164	4.18	3.15	4.656+j16.859	8.117+j33.586
LA FRAGUA	FRA-115	115.0	13.39	12.81	1.091+j4.838	0.972+j5.548	15.21	14.45	1.016+j4.693	0.956+j5.482
LA GRIEGA	GRI-115	115.0	7.24	5.14	2.588+j8.794	6.101+j19.495	8.06	5.69	2.530+j8.705	6.094+j19.453
LA HUERTA	LHT-115	115.0	2.11	1.69	8.657+j30.213	14.056+j53.188	2.39	1.89	8.308+j29.435	14.042+j53.048
LA JOYA	LJY-115	115.0	16.63	15.09	0.905+j3.887	0.991+j5.129	19.02	17.11	0.784+j3.759	0.976+j5.047
LA LOMA	LLM-115	115.0	12.56	10.11	1.247+j5.137	1.738+j8.968	14.03	11.25	1.195+j5.065	1.717+j8.916
LA MANGA	MAN-230	230.0	8.73	6.17	2.475+j15.014	8.449+j33.136	10.19	7.13	2.155+j14.172	8.211+j31.844
LA MANSIÓN	MNS-115	115.0	12.83	10.04	0.908+j5.093	1.864+j9.306	14.41	11.21	0.851+j4.995	1.856+j9.232
LA MORA	MRA-115	115.0	10.70	8.01	1.349+j6.054	3.423+j11.997	12.06	8.93	1.231+j5.929	3.422+j11.970
LA PALMA	PLM-115	115.0	10.77	8.17	1.687+j5.929	3.990+j11.385	12.05	9.11	1.633+j5.837	3.974+j11.274
LA PIEDAD	LPI-115	115.0	6.94	5.00	2.837+j9.137	7.010+j19.446	7.85	5.59	2.643+j8.920	7.007+j19.386
LA PIEDAD PONIENTE	LPP-115	115.0	5.87	3.97	3.354+j10.800	9.351+j25.877	6.61	4.43	3.160+j10.581	9.347+j25.814
LA PILA	SPI-230	230.0	14.04	14.38	1.723+j9.300	1.424+j8.686	17.28	17.30	1.319+j8.351	1.423+j8.318
LA PILA	SPI-115	115.0	21.57	22.42	0.663+j3.006	0.365+j2.712	25.37	26.00	0.557+j2.824	0.361+j2.650
LA PRIMAVERA (BAJÍO)	PRI-230	230.0	9.63	8.27	2.879+j13.490	4.628+j20.053	12.40	10.01	1.785+j11.639	4.598+j19.722
LA RESOLANA	LRE-115	115.0	8.68	8.36	1.436+j7.517	2.541+j8.155	10.09	9.53	1.159+j7.147	2.542+j8.181
LA SOLEDAD	SDD-115	115.0	10.57	8.48	1.406+j6.124	3.829+j10.270	11.85	9.46	1.355+j6.013	3.824+j10.196
LA VEGA	LVG-69	69.0	1.89	1.36	7.103+j19.825	10.262+j44.895	2.45	1.62	5.256+j17.106	10.313+j44.320
LA VENTA	LVT-69	69.0	4.86	2.92	2.459+j7.823	6.097+j23.823	6.27	3.91	1.796+j6.750	4.716+j19.043
LA VENTILLA	VLT-115	115.0	5.18	4.16	3.345+j12.385	5.815+j21.506	5.81	4.65	3.230+j12.157	5.777+j21.230
LA VIRGEN	LVR-115	115.0	4.92	3.05	3.267+j13.101	8.059+j37.447	5.46	3.37	3.146+j12.993	8.040+j37.352
LABORATORIOS PISA	LBP-69	69.0	6.78	4.24	1.496+j5.683	3.616+j16.037	7.61	4.71	1.405+j5.581	3.615+j16.025
LAGOS DE MORENO	LGS-110	115.0	5.16	3.22	3.111+j12.478	7.504+j35.327	5.74	3.57	2.990+j12.368	7.485+j35.231
LAGOS GALERA	LGG-115	115.0	5.09	3.18	3.077+j12.667	7.609+j35.791	5.66	3.52	2.956+j12.558	7.590+j35.695
LAGUNA LARGA	LGL-115	115.0	4.04	2.48	5.179+j15.610	16.138+j44.427	4.51	2.75	5.001+j15.404	16.125+j44.345
LAGUNA SAN VICENTE	LSV-230	230.0	10.71	8.83	2.375+j12.164	4.583+j19.814	12.88	10.32	1.936+j11.171	4.553+j19.272
LAGUNA SECA	LAS-110	115.0	4.84	3.68	4.551+j12.953	8.402+j25.267	5.54	4.14	4.205+j12.492	8.389+j25.181
LAGUNILLAS	LAG-115	115.0	3.86	2.83	5.121+j16.437	13.105+j33.480	4.34	3.15	4.828+j16.135	13.090+j33.369
LALA DERIVADOS LÁCTEOS S.A. DE C.V.	LAL-115	115.0	10.74	7.72	1.422+j6.017	4.072+j12.826	12.19	8.65	1.301+j5.849	4.066+j12.763
LAMOSA	LAM-115	115.0	16.06	13.26	0.943+j4.025	1.340+j6.618	18.54	15.04	0.836+j3.849	1.337+j6.558



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			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
LAMPOTAL	LPL-115	115.0	5.35	4.06	3.338+j11.961	6.189+j23.464	6.11	4.56	3.056+j11.566	6.169+j23.365
LAPEM	LPM-115	115.0	10.50	7.88	1.677+j6.098	3.721+j12.079	11.91	8.83	1.557+j5.929	3.715+j12.015
LAS BRISAS	BRI-115	115.0	7.71	6.65	1.839+j8.412	2.641+j12.427	9.92	8.16	1.288+j7.251	2.591+j11.856
LAS COLINAS	LCN-115	115.0	8.78	7.06	2.010+j7.288	3.235+j12.680	9.87	7.88	1.885+j7.154	3.224+j12.608
LAS DELICIAS	LDE-230	230.0	22.63	25.58	0.823+j5.809	0.336+j3.826	26.22	29.43	0.701+j5.527	0.327+j3.738
LAS FAJAS	FAJ-110	115.0	0.99	0.61	27.952+j60.628	69.433+j178.157	1.10	0.68	27.745+j60.429	69.431+j178.131
LAS FRESAS	LFR-400	400.0	15.22	14.55	3.196+j14.835	2.846+j17.037	20.11	18.52	1.835+j12.500	2.753+j15.887
LAS FRESAS	LFR-115	115.0	23.77	22.24	0.529+j2.743	0.394+j3.352	27.84	25.74	0.411+j2.591	0.384+j3.265
LAS PINTAS	LPS-69	69.0	15.47	10.64	0.734+j2.468	1.125+j5.997	17.76	11.92	0.651+j2.380	1.124+j5.998
LAS TORRES	LTL-115	115.0	11.15	9.88	1.268+j5.820	1.313+j8.142	12.54	11.08	1.155+j5.709	1.290+j8.048
LAS VARAS	VRS-115	115.0	2.65	1.93	9.460+j23.165	19.962+j49.096	3.07	2.18	8.805+j22.078	19.944+j48.942
LEAR CORP (SELVA)	LCO-115	115.0	15.96	13.17	0.950+j4.050	1.365+j6.674	18.42	14.93	0.843+j3.874	1.362+j6.615
LECHERA MANIOBRAS	LEM-69	69.0	10.70	9.24	0.972+j3.595	1.136+j5.365	12.29	10.47	0.874+j3.458	1.134+j5.307
LEÓN ALFARO	LNA-115	115.0	11.08	8.63	1.450+j5.814	2.388+j10.826	12.48	9.63	1.332+j5.697	2.384+j10.795
LEÓN CUATRO	LNC-230	230.0	10.68	10.20	2.751+j12.131	2.273+j14.015	12.41	11.63	2.273+j11.549	2.287+j14.018
LEÓN CUATRO	LNC-115	115.0	15.94	17.25	0.918+j4.063	0.365+j3.206	18.10	19.45	0.802+j3.954	0.363+j3.198
LEÓN MALECÓN	LNМ-115	115.0	11.77	9.49	1.510+j5.434	2.071+j9.494	13.30	10.62	1.391+j5.313	2.061+j9.437
LEÓN NORTE	LNN-115	115.0	13.35	11.07	1.089+j4.853	1.688+j7.860	15.13	12.45	0.970+j4.728	1.675+j7.785
LEÓN ORIENTE	LNO-110	115.0	12.10	10.65	1.311+j5.327	1.608+j7.566	13.65	11.90	1.194+j5.214	1.606+j7.556
LEÓN PONIENTE	LNP-110	115.0	13.74	10.28	1.074+j4.710	2.131+j9.471	15.60	11.54	0.954+j4.583	2.119+j9.402
LEÓN TRES	LNT-230	230.0	12.43	11.80	2.316+j10.427	2.077+j12.222	14.60	13.61	1.845+j9.834	2.027+j12.076
LEÓN TRES	LNT-115	115.0	19.55	21.17	0.776+j3.306	0.300+j2.611	22.51	24.34	0.656+j3.178	0.282+j2.515
LEÓN UNO	LNU-230	230.0	14.85	15.40	2.035+j8.707	1.253+j7.898	17.70	17.97	1.563+j8.104	1.251+j7.849
LEÓN UNO	LNU-115	115.0	20.21	22.23	0.669+j3.217	0.223+j2.390	23.26	25.40	0.550+j3.091	0.219+j2.359
LINDAVISTA	LIV-115	115.0	8.23	7.01	2.004+j7.815	3.040+j11.911	9.37	7.89	1.811+j7.584	3.020+j11.815
LOGISTIK	LOG-115	115.0	11.53	8.86	1.548+j5.547	3.275+j10.478	13.16	9.97	1.443+j5.358	3.272+j10.374
LOMBARDÍA	LMB-69	69.0	2.49	1.58	5.604+j14.995	12.471+j42.089	5.63	4.87	1.755+j7.582	1.749+j11.318
LORETO	LOR-115	115.0	4.62	3.06	4.539+j13.624	9.999+j35.026	5.18	3.39	4.363+j13.405	9.999+j35.012
LOS FRESNOS	FRS-115	115.0	9.98	7.30	1.432+j6.499	3.218+j13.596	11.26	8.16	1.307+j6.352	3.210+j13.531
LOS HERNÁNDEZ	HDZ-110	115.0	1.42	0.96	18.448+j43.010	44.294+j104.574	1.59	1.07	17.769+j42.296	44.281+j104.487
LOS OLIVOS (IRAPUATO)	OLV-115	115.0	13.10	9.02	1.055+j4.957	2.383+j11.702	14.94	10.13	0.933+j4.799	2.376+j11.636
LOS REYES	RYS-115	115.0	4.14	2.71	4.685+j15.342	12.480+j39.537	4.66	3.01	4.429+j15.047	12.478+j39.485
LOS SAUCES	LSA-115	115.0	9.21	6.32	2.177+j6.871	4.573+j16.494	10.36	7.03	2.056+j6.742	4.571+j16.461
LUIS MOYA	LMY-110	115.0	5.27	4.30	4.632+j11.708	4.552+j20.779	6.04	4.86	4.355+j11.288	4.550+j20.729
MABE LEISER (SLP)	MBL-115	115.0	17.64	16.58	0.800+j3.678	0.818+j4.413	20.48	18.95	0.692+j3.498	0.815+j4.357
MABE MÉXICO S. DE R.L. DE C.V. (QUERETARO)	MBE-115	115.0	15.11	14.41	1.117+j4.250	0.927+j4.955	17.01	16.08	1.057+j4.163	0.927+j4.956
MAHLE	MAH-115	115.0	11.36	9.36	1.399+j5.676	3.196+j9.056	12.98	10.53	1.260+j5.483	3.196+j9.065
MALPASO	MPO-115	115.0	3.22	2.32	7.448+j19.222	11.820+j43.146	3.61	2.58	7.197+j18.892	11.809+j43.059
MANIOBRAS AISIN TAKAOKA	MTK-115	115.0	9.49	6.09	1.542+j6.824	3.974+j18.277	10.72	6.79	1.416+j6.667	3.968+j18.218
MANIOBRAS BMW	MBM-230	230.0	10.70	8.57	2.384+j12.175	5.113+j21.066	13.00	10.12	1.942+j11.064	5.039+j20.241



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			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MANIOBRAS GENERAL MOTORS	MGM-230	230.0	10.22	8.26	2.726+j12.698	4.870+j21.730	11.95	9.43	2.245+j12.018	4.860+j21.576
MANIOBRAS GETRAG	MGT-115	115.0	7.67	4.96	1.827+j8.465	4.740+j22.354	8.60	5.55	1.703+j8.316	4.633+j22.035
MANIOBRAS GKN	MGK-115	115.0	9.10	7.71	1.560+j7.125	2.679+j10.908	10.17	8.60	1.472+j7.028	2.664+j10.806
MANIOBRAS HONDA	MHN-115	115.0	14.03	10.33	0.919+j4.644	2.292+j9.546	15.76	11.53	0.840+j4.557	2.286+j9.482
MANIOBRAS IBERDROLA	MIB-115	115.0	15.03	13.78	0.842+j4.336	0.895+j5.551	16.87	15.43	0.793+j4.256	0.879+j5.469
MANIOBRAS KASAI	MKI-115	115.0	17.36	17.44	0.768+j3.747	0.679+j3.709	19.86	19.77	0.648+j3.621	0.674+j3.679
MANIOBRAS MEXSOLAR	MMX-115	115.0	10.34	9.94	1.242+j6.301	1.424+j7.046	11.88	11.29	1.133+j6.040	1.401+j6.984
MANIOBRAS PLANTA FLOTACIÓN DE MINERAL	MPM-115	115.0	4.80	4.06	4.109+j13.211	5.959+j20.548	5.39	4.52	3.903+j12.963	5.957+j20.524
MANIOBRAS SOLEM	MSL-230	230.0	8.47	9.14	2.798+j15.432	1.664+j12.114	10.45	10.94	2.101+j13.815	1.648+j12.009
MANIOBRAS TOYOTA	TOM-230	230.0	12.17	9.11	1.878+j10.746	3.685+j21.613	13.86	10.21	1.642+j10.408	3.685+j21.579
MANIOBRAS VESTA PARK	MVP-115	115.0	9.10	6.38	1.991+j7.021	4.403+j16.035	10.15	7.08	1.936+j6.933	4.390+j15.942
MANIOBRAS WORLD TRADE CENTER DOS	MWD-230	230.0	10.06	8.01	2.372+j12.992	5.494+j22.664	12.15	9.44	1.921+j11.870	5.409+j21.766
MANUFACTURAS KALTEX S.A. DE C.V.	KAL-115	115.0	11.63	7.40	1.323+j5.554	3.971+j14.965	13.01	8.23	1.272+j5.467	3.960+j14.880
MANUFACTURAS VITROMEX I	VTM-115	115.0	9.31	7.41	1.862+j6.884	3.768+j12.040	10.52	8.27	1.786+j6.711	3.766+j12.038
MANUFACTURAS VITROMEX II	VT2-115	115.0	9.59	8.91	1.725+j6.702	2.911+j8.021	10.85	9.97	1.649+j6.529	2.909+j8.019
MANZANILLO	MNZ-400	400.0	10.43	12.53	3.249+j21.910	0.645+j10.997	25.05	30.81	0.599+j10.124	0.159+j4.452
MANZANILLO	MNZ-230	230.0	10.22	12.14	1.720+j12.882	0.524+j6.805	15.60	17.60	0.739+j9.334	0.479+j6.161
MARABIS CONMONFORT	MRC-115	115.0	8.27	5.65	2.314+j7.685	6.621+j18.020	9.21	6.26	2.253+j7.607	6.619+j17.996
MARAVATIO	MAV-115	115.0	2.26	1.44	8.285+j28.198	27.926+j74.387	2.51	1.59	8.054+j27.922	27.927+j74.363
MARGARITAS	MRS-115	115.0	14.82	10.95	0.897+j4.390	1.545+j9.099	17.10	12.34	0.761+j4.202	1.544+j9.099
MATEHUALA SUBESTACIÓN	MHS-110	115.0	2.50	1.98	8.693+j25.100	10.559+j46.225	2.75	2.19	8.706+j25.110	10.489+j45.957
MATEHUALA SUR	MHR-115	115.0	2.47	1.89	8.454+j25.529	12.348+j50.155	2.72	2.08	8.456+j25.524	12.292+j49.918
MAZAMITLA	MTA-400	400.0	10.43	8.15	3.957+j21.780	8.197+j39.803	14.10	10.01	2.019+j17.901	8.211+j39.321
MAZDA MANIOBRAS	MMZ-115	115.0	13.41	9.56	0.955+j4.857	2.408+j10.667	15.78	10.97	0.814+j4.557	2.403+j10.466
MEADWEST VACO (SAINT GO BAIN)	MEA-115	115.0	14.74	11.94	1.048+j4.379	1.723+j7.488	16.96	13.49	0.941+j4.203	1.720+j7.429
MELAUQUE	MLQ-115	115.0	3.63	4.16	4.269+j17.770	2.633+j10.983	4.19	4.76	3.937+j16.965	2.620+j10.845
METAL FOARMING	SMF-115	115.0	9.50	6.84	1.782+j6.755	4.168+j14.584	10.78	7.66	1.676+j6.567	4.164+j14.480
MEXICHEM DERIVADOS	MCH-115	115.0	10.91	9.02	1.689+j5.844	3.152+j9.414	12.27	10.05	1.624+j5.727	3.147+j9.380
MEXICHEM DERIVADOS	MCH-69	69.0	13.45	12.42	0.849+j2.837	1.116+j3.531	15.58	14.18	0.756+j2.708	1.115+j3.473
MÉXICO	MXJ-69	69.0	13.27	8.63	0.840+j2.883	1.629+j7.686	15.30	9.77	0.744+j2.766	1.601+j7.572
MEXTICACAN	MXT-115	115.0	3.14	2.06	5.348+j20.434	15.541+j52.132	3.48	2.28	5.207+j20.303	15.535+j52.118
MEZQUITÁN	MZI-110	115.0	1.14	0.78	17.487+j55.305	55.383+j127.275	1.40	0.90	13.958+j50.374	55.384+j127.302
MICHELIN	MIC-115	115.0	18.81	16.36	0.723+j3.454	0.937+j5.027	21.23	18.27	0.669+j3.374	0.938+j5.031
MICHELÍN MANIOBRAS	MMH-115	115.0	9.14	6.33	2.083+j6.955	4.283+j16.389	10.28	7.04	1.962+j6.829	4.281+j16.361
MICROPARQUE	MPQ-115	115.0	20.41	20.14	0.829+j3.146	0.751+j3.299	23.10	22.57	0.775+j3.065	0.752+j3.303
MIGUEL AUZA	MGU-115	115.0	0.83	0.51	34.283+j72.030	84.059+j215.697	0.92	0.56	34.080+j71.834	84.056+j215.671
MINA FRESNILLO	CMF-115	115.0	6.45	5.73	2.963+j9.861	2.764+j13.912	7.32	6.43	2.745+j9.590	2.763+j13.884
MINA LA PAZ	MLP-115	115.0	2.25	1.82	9.889+j27.840	10.511+j49.541	2.47	2.01	9.922+j27.873	10.416+j49.221
MINA PEÑOLES	PNO-115	115.0	3.71	2.78	4.627+j17.304	11.042+j34.078	4.17	3.10	4.378+j16.965	11.031+j33.993
MINA SAN JAVIER	MSJ-115	115.0	7.08	5.03	2.172+j9.125	5.535+j20.133	7.92	5.58	2.082+j8.979	5.527+j20.069



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MINA SAUCITO	SUM-115	115.0	5.08	4.00	3.824+j12.499	5.351+j23.048	5.73	4.46	3.604+j12.236	5.350+j23.019
MINATITLÁN	MTC-115	115.0	6.50	4.64	2.551+j9.887	6.085+j21.651	7.79	5.33	2.224+j9.112	6.081+j21.542
MINERA PEÑASQUITO	PNQ-400	400.0	4.71	3.27	7.587+j48.418	26.461+j111.101	5.44	3.68	6.529+j46.212	26.431+j110.936
MINERALES Y MINAS MEXICANAS BOLAÑOS	BOL-115	115.0	0.91	0.57	34.296+j64.778	61.656+j192.799	1.00	0.63	34.145+j64.618	61.637+j192.752
MINSA, S.A. DE C.V.	MIN-69	69.0	9.87	5.93	1.582+j3.713	3.257+j11.665	11.17	6.61	1.501+j3.625	3.251+j11.639
MIRAMAR	MRM-115	115.0	8.81	7.42	1.653+j7.350	3.825+j11.174	10.97	8.78	1.357+j6.518	3.818+j11.048
MIRAVALLE	MIL-69	69.0	16.14	8.90	0.877+j2.307	1.820+j8.336	18.63	9.95	0.792+j2.215	1.820+j8.331
MISIÓN HILLS	MHI-115	115.0	11.13	10.95	1.242+j5.834	0.812+j6.217	12.57	12.34	1.167+j5.691	0.780+j6.095
MOCTEZUMA	MZM-115	115.0	5.94	4.27	2.633+j10.859	6.104+j23.479	6.75	4.78	2.437+j10.537	6.106+j23.460
MOJONERA	MOJ-69	69.0	16.35	11.52	0.570+j2.369	1.018+j5.407	19.05	13.08	0.479+j2.250	1.011+j5.357
MONARCA	MNC-115	115.0	6.02	4.02	3.319+j10.515	8.048+j26.311	6.86	4.50	3.157+j10.162	8.052+j26.231
MONTENEGRO	MNG-115	115.0	12.02	9.15	1.731+j5.246	1.435+j10.712	13.46	10.16	1.675+j5.161	1.436+j10.711
MORALETE	MTE-115	115.0	6.59	6.02	2.483+j9.771	3.352+j12.485	7.87	7.00	2.145+j9.032	3.330+j12.288
MORELIA	MEL-115	115.0	9.95	10.01	1.772+j6.436	1.334+j6.414	11.20	11.26	1.638+j6.309	1.316+j6.296
MORELIA DOS	MRD-115	115.0	8.58	7.81	2.019+j7.471	1.972+j9.835	9.63	8.74	1.881+j7.344	1.952+j9.714
MORELIA INDUSTRIAL	MOI-115	115.0	9.15	7.58	1.887+j7.006	2.720+j11.438	10.22	8.44	1.787+j6.920	2.710+j11.364
MORELIA NORTE	MOR-115	115.0	9.48	8.45	1.871+j6.749	2.234+j9.308	10.63	9.44	1.753+j6.641	2.220+j9.213
MORELIA POTENCIA	MRP-230	230.0	6.06	5.85	4.600+j21.422	2.908+j24.204	6.95	6.63	3.947+j20.642	2.837+j23.917
MORELIA POTENCIA	MRP-115	115.0	10.67	11.99	1.534+j6.033	0.407+j4.180	12.05	13.56	1.390+j5.897	0.386+j4.049
MORELOS	MRE-115	115.0	14.00	10.82	0.968+j4.644	1.561+j8.790	16.19	12.22	0.823+j4.435	1.559+j8.786
MORELOS (LEÓN)	MRL-115	115.0	12.98	11.33	1.157+j4.981	1.362+j7.225	14.67	12.68	1.040+j4.869	1.360+j7.212
MOROLEÓN	MLO-110	115.0	5.08	3.12	3.721+j12.540	11.791+j35.795	5.66	3.46	3.606+j12.390	11.785+j35.727
MUELLE	MLE-115	115.0	4.31	4.46	4.311+j14.796	4.408+j13.103	5.19	5.23	3.541+j13.633	4.401+j13.028
NAL DE CONDOC ELEC S.A DE C.V	CDT-115	115.0	15.58	16.24	0.766+j4.191	0.526+j3.705	17.55	18.21	0.710+j4.101	0.525+j3.674
NESTLÉ MÉXICO S.A. DE C.V.	NST-115	115.0	15.11	10.74	1.117+j4.249	2.138+j9.521	17.01	11.94	1.057+j4.163	2.138+j9.523
NISSAN	NIS-115	115.0	11.42	8.46	1.196+j5.689	1.905+j11.763	13.11	9.52	1.046+j5.470	1.904+j11.747
NISSAN MANIOBRAS	NSS-115	115.0	11.70	8.60	1.168+j5.553	1.889+j11.675	13.45	9.67	1.018+j5.333	1.888+j11.659
NITROPISO	NTP-115	115.0	13.15	9.39	1.054+j4.939	2.060+j10.917	15.05	10.56	0.947+j4.759	2.057+j10.859
NIÑOS HÉROES	NHE-230	230.0	9.18	7.79	3.020+j14.148	4.805+j21.674	11.72	9.37	1.922+j12.318	4.755+j21.315
NOGALES	NGA-115	115.0	12.14	10.14	1.084+j5.361	1.648+j8.549	13.77	11.35	1.012+j5.206	1.647+j8.542
NOGALITO	NGT-115	115.0	3.97	3.74	4.710+j16.033	5.031+j19.234	4.77	4.35	3.886+j14.800	5.024+j19.160
NUCOR MANIOBRAS	NUM-115	115.0	7.64	7.40	2.331+j8.367	3.668+j8.874	8.58	8.27	2.206+j8.218	3.662+j8.817
NUEVA ITALIA	NVI-69	69.0	2.86	2.22	4.507+j13.160	6.585+j25.319	5.07	4.27	2.382+j8.313	3.178+j13.127
NUEVA JAUJA	JAU-115	115.0	6.69	5.59	2.327+j9.645	4.259+j15.218	8.38	6.70	1.781+j8.530	4.208+j14.702
NUEVA PEDREGAL	NPD-115	115.0	8.00	5.41	1.994+j8.058	3.488+j19.968	8.90	5.98	1.938+j7.976	3.489+j19.970
NUEVA PEDREGAL	PDL-115	115.0	9.70	7.10	1.654+j6.644	3.775+j13.878	10.93	7.91	1.560+j6.500	3.775+j13.839
NUEVO VALLARTA POTENCIA	NVT-230	230.0	3.24	4.18	10.388+j39.597	1.166+j13.610	4.08	5.15	7.638+j34.962	1.177+j13.513
NUEVO VALLARTA POTENCIA	NVT-115	115.0	5.73	7.54	3.024+j11.185	0.246+j3.288	7.07	9.17	2.312+j10.067	0.247+j3.264
NYPRO KANAAK SA CV	NKA-69	69.0	13.05	9.66	0.699+j2.972	1.612+j6.060	15.32	11.03	0.586+j2.800	1.601+j5.991
OBLATOS	OBL-69	69.0	11.54	7.81	0.814+j3.355	1.938+j8.176	15.11	12.66	0.576+j2.843	0.893+j4.490



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
OCOTLÁN	OCN-230	230.0	7.37	6.47	3.830+j17.595	3.950+j25.229	8.59	7.41	3.112+j16.725	3.802+j24.812
OCOTLÁN	OCN-115	115.0	12.94	13.32	1.329+j4.957	0.615+j4.678	14.90	15.32	1.149+j4.766	0.571+j4.485
OJO CALIENTE	OCL-110	115.0	6.46	6.55	3.621+j9.621	2.219+j9.681	7.71	7.63	3.091+j8.955	2.211+j9.617
OJO SECO	OJO-110	115.0	10.48	7.19	1.486+j6.159	4.286+j14.411	11.72	7.99	1.406+j6.070	4.281+j14.358
OJUELOS	OJU-115	115.0	1.76	1.05	13.749+j35.127	25.305+j111.041	1.95	1.16	13.596+j34.921	25.304+j111.023
OMEGA	OMG-115	115.0	8.17	5.38	1.713+j7.946	4.405+j20.299	9.28	6.01	1.557+j7.715	4.402+j20.266
OMYA MÉXICO S.A. DE C.V.	OMY-115	115.0	13.65	6.70	0.971+j4.767	8.989+j18.132	15.35	7.43	0.911+j4.669	8.987+j18.093
P. H. TROJES	TJS-115	115.0	1.82	1.21	13.012+j34.051	30.869+j85.978	2.18	1.74	11.125+j31.537	13.297+j57.383
PABELLÓN	PAB-115	115.0	7.24	5.48	2.175+j8.907	3.071+j17.762	8.18	6.15	2.029+j8.695	3.069+j17.724
PACHAMAMA MANIOBRAS	MPM-400	400.0	13.03	12.04	3.256+j17.417	3.965+j21.770	16.88	14.63	1.845+j14.938	3.965+j21.721
PAILERÍA	PAI-115	115.0	16.33	14.79	0.895+j3.966	0.896+j5.269	18.84	16.82	0.790+j3.795	0.890+j5.203
PALO ALTO	PAO-115	115.0	5.37	3.41	4.007+j11.702	7.461+j32.934	6.02	3.78	3.859+j11.494	7.460+j32.925
PÁNFILO NATERA	PFN-115	115.0	3.01	2.22	5.189+j21.409	21.884+j40.990	3.43	2.49	4.651+j20.755	21.876+j40.926
PARACHO II	POD-115	115.0	6.59	5.04	3.189+j9.554	6.750+j18.126	7.74	5.75	2.770+j9.025	6.736+j18.015
PARQUE DE TECNOLOGÍA	PTE-69	69.0	11.12	7.43	0.910+j3.464	1.746+j8.749	12.71	8.34	0.822+j3.348	1.736+j8.694
PARQUE INDUSTRIAL	PQI-69	69.0	15.79	12.65	0.662+j2.435	1.016+j4.280	18.22	14.31	0.580+j2.335	1.015+j4.259
PARQUE INDUSTRIAL COLINAS DE APASEO	API-115	115.0	6.27	4.18	3.274+j10.063	8.452+j25.086	6.94	4.61	3.226+j10.012	8.453+j25.094
PARQUE INDUSTRIAL COLINAS DE LEÓN	ICL-115	115.0	14.47	10.91	1.015+j4.474	1.805+j8.896	16.46	12.25	0.895+j4.345	1.796+j8.842
PARQUE INDUSTRIAL FINSA QUERETARO	PFQ-115	115.0	12.00	9.09	1.730+j5.255	1.515+j10.834	13.44	10.09	1.673+j5.170	1.516+j10.833
PARQUE INDUSTRIAL GUANAJUATO CENTRAL	IGC-115	115.0	13.06	10.09	1.208+j4.938	2.806+j9.155	14.94	11.38	1.087+j4.768	2.800+j9.092
PARQUE INNOVACIÓN	PQN-115	115.0	13.51	11.29	1.061+j4.798	1.646+j7.640	15.15	12.56	1.001+j4.714	1.645+j7.638
PARQUE PIEL	PAP-115	115.0	14.63	12.81	1.025+j4.420	1.587+j6.274	16.64	14.41	0.906+j4.294	1.584+j6.245
PARQUE SOLAR SANTIAGO MANIOBRAS	MSG-230	230.0	6.33	6.27	3.794+j20.647	3.467+j21.306	7.64	7.36	3.099+j18.879	3.423+j21.000
PÁTZCUARO NORTE	PTN-115	115.0	3.39	2.39	5.968+j18.639	15.288+j41.327	3.86	2.68	5.500+j18.124	15.271+j41.163
PÁTZCUARO SUR	PCS-115	115.0	3.41	2.40	5.923+j18.529	15.096+j41.494	3.86	2.68	5.509+j18.084	15.078+j41.352
PEDREGAL	PDG-115	115.0	7.14	6.36	2.501+j8.955	3.980+j12.088	8.03	7.12	2.332+j8.793	3.961+j11.968
PELETIZADORA ALZADA	PAL-115	115.0	3.32	2.34	5.973+j19.064	12.324+j43.405	3.88	2.81	5.420+j18.025	10.717+j38.812
PEMSA	PEM-115	115.0	10.54	7.83	2.023+j5.969	3.772+j12.277	11.81	8.73	1.940+j5.875	3.758+j12.181
PENAL	PNL-69	69.0	9.28	6.16	0.950+j4.185	2.594+j10.503	10.68	6.94	0.842+j4.016	2.592+j10.437
PÉNJAMO	PNJ-115	115.0	5.83	4.08	3.386+j10.866	7.680+j24.955	6.54	4.54	3.229+j10.684	7.651+j24.816
PERFORMANCE FIBERS MÉXICO	PER-115	115.0	14.50	17.20	1.175+j4.424	0.457+j2.387	16.28	19.22	1.121+j4.344	0.458+j2.391
PERIBAN	PBN-115	115.0	3.90	2.59	5.036+j16.283	13.957+j40.508	4.39	2.88	4.754+j15.955	13.955+j40.447
PETROQUÍMICA	INP-69	69.0	12.59	10.74	0.938+j3.022	1.534+j4.552	14.51	12.18	0.847+j2.898	1.534+j4.502
PEÑA COLORADA	PEC-115	115.0	6.23	4.40	2.709+j10.310	6.473+j23.097	7.43	5.03	2.381+j9.538	6.469+j22.988
PEÑASCO	PNS-115	115.0	10.31	7.29	1.315+j6.305	2.807+j14.188	11.57	8.09	1.235+j6.188	2.809+j14.186
PEÑITAS	PEN-115	115.0	3.20	2.18	6.353+j19.734	14.852+j47.733	3.75	2.48	5.755+j18.599	14.793+j47.108
PEÑUELAS	PEN-115	115.0	6.85	4.39	2.096+j9.464	5.760+j25.298	7.73	4.89	1.940+j9.242	5.757+j25.268
PINAR	PNR-69	69.0	16.24	11.46	0.533+j2.395	0.907+j5.446	18.99	13.03	0.441+j2.265	0.903+j5.404
PINZÁNDARO	PIZ-115	115.0	2.13	1.60	9.946+j29.483	14.716+j60.295	2.84	2.27	6.913+j24.771	11.201+j43.779
PIRELLI NEUMÁTICOS S.A. DE C.V.	PIR-115	115.0	6.37	4.91	2.729+j10.063	4.798+j19.097	7.11	5.46	2.603+j9.937	4.788+j19.026



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Occidental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PITILLAL	PTL-115	115.0	4.95	5.44	3.491+j12.957	1.784+j9.598	6.02	6.45	2.750+j11.815	1.777+j9.523
PM CIGATAM PS S. DE R.L. DE C.V.	CIG-69	69.0	12.92	8.61	0.828+j2.970	1.809+j7.508	14.85	9.69	0.736+j2.858	1.798+j7.455
PONCITLÁN	PNC-115	115.0	4.44	2.95	4.306+j14.334	9.920+j36.332	4.95	3.27	4.124+j14.157	9.876+j36.147
PORCELANITE SJI	POR-115	115.0	14.51	14.23	1.182+j4.421	0.867+j4.779	16.34	15.89	1.118+j4.328	0.867+j4.781
POTOSÍ SOLAR MANIOBRAS	MFP-400	400.0	6.37	6.00	4.407+j35.986	7.319+j42.390	7.99	7.17	2.941+j31.668	7.297+j42.251
POTRERILLOS	POS-400	400.0	13.79	13.72	3.498+j16.379	2.257+j16.890	17.67	16.77	2.114+j14.224	2.298+j16.713
POTRERILLOS	POS-230	230.0	15.15	17.60	1.816+j8.575	0.437+j5.109	18.03	20.64	1.353+j7.987	0.438+j5.085
POTRERILLOS	POS-115	115.0	21.06	20.44	0.557+j3.103	0.352+j3.427	24.24	23.26	0.442+j2.980	0.352+j3.394
POTRERO SOLAR MANIOBRAS	POM-400	400.0	9.71	7.34	3.873+j23.474	8.787+j45.960	12.14	8.62	2.390+j20.792	8.804+j45.873
PPG	PPG-115	115.0	14.51	13.38	0.879+j4.491	1.199+j5.606	16.32	14.95	0.822+j4.398	1.198+j5.577
PRADERA	PAD-115	115.0	3.12	2.80	6.514+j20.294	6.306+j27.952	4.22	3.77	4.214+j16.795	5.181+j22.840
PRAXAIR MÉXICO S.A. DE C.V. (GUADALAJARA)	PRA-69	69.0	10.74	7.33	1.148+j3.528	2.296+j8.582	12.25	8.23	1.056+j3.416	2.285+j8.527
PRIMERO DE MAYO	PMY-400	400.0	8.38	9.40	3.553+j27.338	1.854+j18.508	10.85	11.69	2.270+j23.306	1.835+j18.309
PROCTER & GAMBLE MANIOBRAS (IRAPUATO)	PGM-115	115.0	11.80	4.96	1.414+j5.448	7.668+j27.865	13.40	5.52	1.293+j5.296	7.660+j27.775
PROCTER & GAMBLE QUERETARO	P&G-115	115.0	5.75	3.81	3.460+j11.015	9.044+j27.809	6.36	4.20	3.411+j10.964	9.044+j27.817
PROD FARMACÉUTICOS COLLINS	CNS-69	69.0	16.05	11.68	0.654+j2.394	1.158+j5.143	18.61	13.20	0.566+j2.285	1.155+j5.120
PROD MET MEX DE POSTES SA CV	AMX-69	69.0	12.84	7.92	1.096+j2.901	1.663+j8.796	14.64	8.85	1.017+j2.815	1.653+j8.761
PRODUCTOS GATORADE	GAT-69	69.0	4.68	2.90	2.550+j8.115	6.020+j23.527	5.25	3.21	2.450+j7.984	6.017+j23.463
PROTEINOL	POT-115	115.0	7.33	4.93	3.155+j8.492	7.265+j21.032	8.16	5.47	3.079+j8.406	7.256+j20.974
PUEBLO NUEVO	PNV-115	115.0	6.43	4.34	2.862+j9.921	8.491+j23.784	7.20	4.83	2.730+j9.765	8.469+j23.630
PUENTE GRANDE	PGN-69	69.0	7.74	6.90	1.280+j4.987	0.944+j6.988	8.94	8.24	1.137+j4.770	0.763+j6.115
PUENTE GRANDE DOS	PTD-115	115.0	2.44	0.96	7.219+j26.195	50.789+j143.864	2.71	1.06	6.952+j26.015	50.769+j143.777
PUENTE GRANDE DOS	PTD-69	69.0	7.80	6.95	1.270+j4.949	0.928+j6.938	9.00	8.30	1.128+j4.734	0.753+j6.078
PUERTO INTERIOR	PTI-115	115.0	6.93	5.43	2.485+j9.252	4.084+j17.032	7.75	6.04	2.358+j9.126	4.074+j16.961
PUERTO INTERIOR (FONDEPORT)	FDP-115	115.0	9.63	8.27	1.489+j6.734	2.999+j9.863	12.13	9.87	1.194+j5.901	2.993+j9.738
PUNTA DE MITA	PMI-115	115.0	3.50	2.86	5.162+j18.252	6.198+j31.078	4.13	3.27	4.426+j17.137	6.197+j31.036
PURÉPECHA POTENCIA	PRH-400	400.0	9.14	7.96	4.527+j24.848	5.602+j36.062	11.71	9.55	2.615+j21.545	5.653+j35.971
PURÉPECHA POTENCIA	PRH-115	115.0	16.98	16.72	0.652+j3.855	0.434+j4.067	19.85	19.14	0.486+j3.647	0.435+j4.068
PURUANDIRO	PUR-115	115.0	3.01	1.96	7.241+j20.859	17.381+j54.998	3.48	2.57	6.560+j19.927	10.958+j41.971
PURUARÁN	PUU-69	69.0	1.33	0.78	13.431+j26.799	29.843+j87.960	1.87	1.14	9.788+j21.349	21.341+j64.828
QUERÉTARO I	QRO-230	230.0	18.64	19.50	1.419+j6.979	0.728+j6.150	21.85	22.40	1.204+j6.577	0.740+j6.159
QUERÉTARO I	QRO-115	115.0	28.23	34.26	0.502+j2.298	0.087+j1.114	32.29	38.86	0.448+j2.217	0.088+j1.119
QUERÉTARO INDUSTRIAL	QRI-110	115.0	14.68	14.66	1.123+j4.380	0.704+j4.499	16.50	16.36	1.063+j4.296	0.704+j4.501
QUERÉTARO MANIOBRAS	QMR-110	115.0	15.30	16.33	0.993+j4.226	0.458+j3.495	17.17	18.22	0.938+j4.149	0.459+j3.499
QUERÉTARO NORTE	QRN-115	115.0	14.74	14.02	1.307+j4.309	0.828+j5.167	16.57	15.63	1.251+j4.225	0.828+j5.167
QUERÉTARO ORIENTE	QRE-115	115.0	12.00	10.32	1.547+j5.314	0.561+j8.325	13.43	11.47	1.488+j5.229	0.560+j8.321
QUERÉTARO PONIENTE	QPE-115	115.0	11.92	9.75	1.311+j5.411	1.522+j9.177	13.28	10.84	1.264+j5.352	1.498+j9.103
QUERÉTARO POTENCIA	QRP-400	400.0	18.60	16.89	1.932+j12.267	1.869+j16.023	22.80	19.95	1.214+j11.075	1.919+j15.876
QUERÉTARO POTENCIA	QRP-230	230.0	23.87	27.75	0.944+j5.482	0.254+j3.225	27.93	32.07	0.734+j5.179	0.255+j3.217
QUERÉTARO POTENCIA	QRP-115	115.0	28.44	35.56	0.363+j2.307	0.047+j0.933	32.10	39.94	0.314+j2.253	0.048+j0.941



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
QUERÉTARO POTENCIA MANIOBRAS	QPM-400	400.0	19.77	16.07	1.735+j11.550	3.497+j19.368	24.25	18.97	1.066+j10.420	3.497+j18.962
QUERÉTARO SUR	QRS-115	115.0	17.87	15.19	0.893+j3.607	1.869+j5.376	20.00	16.89	0.844+j3.552	1.865+j5.376
QUINCEO	QNC-115	115.0	9.64	9.16	1.825+j6.641	1.730+j7.795	10.84	10.26	1.697+j6.522	1.713+j7.687
RANCHO GRANDE	RAG-115	115.0	2.64	1.82	7.988+j23.880	17.371+j56.706	2.93	2.01	7.778+j23.646	17.369+j56.681
REXAM BEVERAGE CAN AM S.A.	RXM-115	115.0	15.99	15.04	1.016+j4.026	0.935+j4.850	18.01	16.80	0.957+j3.940	0.935+j4.852
REXEL	RES-115	115.0	6.55	4.39	2.882+j9.713	7.323+j24.046	7.48	4.91	2.730+j9.378	7.327+j23.970
REYMA	RYM-115	115.0	14.27	11.52	1.019+j4.539	1.846+j7.763	16.22	12.94	0.900+j4.413	1.841+j7.728
RÍO GRANDE	RGR-110	115.0	1.44	0.92	17.340+j42.596	44.957+j116.648	1.60	1.01	17.128+j42.384	44.954+j116.622
RIO GRANDE II	RIG-115	115.0	1.52	0.97	15.594+j40.716	41.667+j110.170	1.69	1.07	15.382+j40.501	41.664+j110.145
ROMITA	RTA-115	115.0	8.39	6.27	1.671+j7.740	3.129+j15.624	9.42	6.99	1.548+j7.597	3.119+j15.552
S.I.A.P.A. (TOLUQUILLA)	SPB-69	69.0	16.60	11.58	0.668+j2.305	1.243+j5.379	19.26	13.08	0.581+j2.200	1.241+j5.361
S.I.A.P.A. PLANTA 2	STO-69	69.0	4.78	3.41	2.275+j8.011	4.759+j17.743	5.39	3.81	2.163+j7.844	4.746+j17.576
S.I.A.P.A. PTA BOMBEO STA CRUZ	SCH-69	69.0	2.63	1.49	4.747+j14.372	12.617+j48.634	2.92	1.64	4.645+j14.245	12.615+j48.570
SAHUAYO	SHY-115	115.0	7.53	5.18	1.998+j8.593	4.559+j20.274	8.50	5.78	1.822+j8.393	4.549+j20.210
SALAHUA	SLH-115	115.0	9.31	7.37	1.564+j6.959	4.017+j12.158	11.67	8.71	1.269+j6.127	4.010+j12.032
SALAMANCA	SLM-400	400.0	17.98	17.91	2.610+j12.578	1.648+j12.896	25.57	27.17	1.263+j9.853	0.752+j8.499
SALAMANCA	SLM-230	230.0	24.65	28.06	1.075+j5.278	0.298+j3.422	33.08	38.83	0.609+j4.374	0.168+j2.610
SALAMANCA	SLM-115	115.0	22.61	25.35	0.509+j2.893	0.127+j1.987	29.04	32.98	0.337+j2.493	0.121+j1.638
SALAMANCA COGENERACIÓN	SCG-230	230.0	24.75	28.00	1.080+j5.255	0.329+j3.494	33.04	38.16	0.622+j4.377	0.231+j2.785
SALAMANCA DOS	SMD-400	400.0	17.81	17.68	2.718+j12.677	1.860+j13.117	24.88	24.86	1.360+j10.119	1.422+j10.443
SALAMANCA DOS	SMD-230	230.0	11.92	9.24	2.132+j10.938	4.982+j20.249	14.27	10.80	1.665+j10.100	4.911+j19.677
SALAMANCA DOS	SMD-115	115.0	20.18	19.87	0.543+j3.245	0.364+j3.426	24.08	23.49	0.420+j3.004	0.350+j3.269
SALAMANCA NORTE	SLN-115	115.0	15.21	10.31	0.987+j4.253	2.742+j10.232	18.34	11.99	0.832+j3.895	2.742+j9.977
SALAMANCA PONIENTE	SPO-115	115.0	16.83	14.31	0.680+j3.885	1.085+j5.931	19.89	16.62	0.552+j3.630	1.073+j5.766
SALAMANCA SUR	SSU-110	115.0	17.54	19.87	0.760+j3.707	0.174+j2.464	21.28	24.43	0.610+j3.378	0.165+j2.133
SALERO	SLR-400	400.0	7.04	5.19	4.757+j32.435	14.695+j66.363	8.36	5.93	3.771+j30.160	14.665+j66.198
SALINAS	SNA-115	115.0	1.61	0.99	10.640+j39.762	61.692+j104.269	1.81	1.10	10.100+j39.114	61.683+j104.204
SALITRE	STE-115	115.0	3.68	2.22	4.283+j17.503	7.143+j53.448	4.10	2.45	4.136+j17.329	7.124+j53.402
SALVATIERRA	SVT-110	115.0	5.60	3.64	3.206+j11.425	10.344+j29.245	6.24	4.03	3.086+j11.285	10.343+j29.210
SAMSUNG	SAM-115	115.0	9.32	8.52	1.992+j6.837	2.347+j8.820	10.40	9.46	1.934+j6.748	2.348+j8.813
SAN AGUSTÍN	SAG-69	69.0	11.89	7.70	0.927+j3.221	2.024+j8.595	13.56	8.60	0.838+j3.120	2.024+j8.587
SAN ANDRÉS	ADE-115	115.0	9.07	7.34	1.957+j7.054	2.748+j12.199	10.29	8.27	1.776+j6.872	2.704+j12.018
SAN ANTONIO	SAN-115	115.0	7.48	7.36	2.501+j8.522	1.274+j9.280	8.53	8.45	2.310+j8.243	1.264+j9.192
SAN CARLOS	SCA-115	115.0	10.02	7.55	1.686+j6.406	2.959+j12.813	11.27	8.40	1.568+j6.287	2.958+j12.797
SAN CLEMENTE	SCM-115	115.0	1.59	1.10	12.797+j39.876	38.816+j89.955	2.02	1.29	9.291+j34.910	38.818+j89.982
SAN CLEMENTE	SCM-69	69.0	1.02	0.01	7.121+j38.4181	2.208+j-14,886.32	11.32	0.01	5.031+j32.88512	2.208+j-14,886.321
SAN DIEGO PEÑUELAS	SDP-115	115.0	4.69	2.92	3.561+j13.687	10.152+j38.679	5.19	3.22	3.525+j13.619	10.139+j38.545
SAN FELIPE	SFL-115	115.0	1.90	1.25	10.551+j33.230	31.644+j83.507	2.10	1.38	10.511+j33.161	31.648+j83.447
SAN FRANCISCO DE LOS ROMO	SFR-115	115.0	10.53	7.48	1.288+j6.174	2.452+j13.787	11.95	8.37	1.155+j6.003	2.451+j13.779
SAN FRANCISCO DEL RINCÓN	SFQ-110	115.0	9.88	6.89	1.371+j6.577	3.241+j15.109	11.10	7.67	1.255+j6.458	3.241+j15.076



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Occidental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SAN GASPAR	GPR-69	69.0	21.57	22.18	0.330+j1.817	0.191+j1.687	26.62	26.77	0.225+j1.631	0.188+j1.607
SAN ILDEFONSO	SFS-115	115.0	11.57	8.50	1.646+j5.495	3.341+j11.482	12.96	9.47	1.591+j5.406	3.328+j11.385
SAN JERÓNIMO	SJE-115	115.0	2.52	1.77	8.594+j24.897	18.166+j57.364	2.80	1.95	8.387+j24.656	18.163+j57.340
SAN JORGE	SAJ-115	115.0	3.26	2.11	5.442+j19.624	13.858+j51.905	3.63	2.34	5.259+j19.446	13.814+j51.719
SAN JORGE	SAJ-69	69.0	7.66	5.22	1.523+j4.970	3.022+j12.144	8.69	5.84	1.423+j4.839	3.018+j12.071
SAN JOSÉ DE GRACIA	JOG-115	115.0	3.10	1.98	7.712+j19.982	18.443+j54.523	3.45	2.19	7.530+j19.774	18.444+j54.494
SAN JOSÉ ITURBIDE	SJI-230	230.0	11.68	11.06	1.702+j11.245	1.792+j13.156	13.32	12.42	1.520+j10.862	1.822+j13.240
SAN JOSÉ ITURBIDE	SJI-115	115.0	17.40	20.31	0.659+j3.758	0.213+j2.169	20.07	23.16	0.588+j3.592	0.214+j2.175
SAN JUAN ZITÁCUARO	SJZ-115	115.0	5.93	3.93	3.406+j10.672	8.158+j27.097	6.76	4.40	3.237+j10.306	8.162+j27.015
SAN JUAN DE LOS LAGOS	JDL-115	115.0	6.95	5.48	2.388+j9.246	5.146+j16.472	7.79	6.09	2.249+j9.102	5.143+j16.463
SAN JUAN DE LOS LAGOS II	SJD-230	230.0	7.59	7.00	3.261+j17.196	2.912+j21.707	8.79	7.94	2.718+j16.403	2.924+j21.769
SAN JUAN DE LOS LAGOS II	SJD-115	115.0	10.67	11.64	1.097+j6.126	0.455+j4.662	12.04	13.04	0.964+j5.990	0.451+j4.655
SAN JUAN DEL RÍO	SJR-110	115.0	15.67	14.58	0.784+j4.165	0.815+j5.124	17.61	16.33	0.734+j4.081	0.808+j5.060
SAN JUAN DEL RÍO MANIOBRAS	SJM-110	115.0	15.36	14.13	0.782+j4.252	1.083+j5.338	17.32	15.83	0.724+j4.155	1.082+j5.299
SAN JUAN DEL RIO ORIENTE	SJO-115	115.0	12.57	10.18	1.157+j5.155	2.321+j8.695	14.07	11.35	1.107+j5.072	2.307+j8.616
SAN JUAN POTENCIA	SJP-230	230.0	11.56	10.82	1.951+j11.319	1.656+j13.767	13.74	12.57	1.627+j10.509	1.693+j13.492
SAN JUAN POTENCIA	SJP-115	115.0	18.47	23.28	0.612+j3.541	0.111+j1.367	20.95	26.37	0.552+j3.442	0.111+j1.336
SAN LUIS DE LA PAZ	SAP-110	115.0	18.54	17.25	0.583+j3.533	0.682+j4.329	20.84	19.40	0.548+j3.462	0.677+j4.234
SAN LUIS DE LA PAZ II	SPA-230	230.0	20.86	22.42	0.934+j6.297	0.621+j4.998	24.28	25.87	0.796+j5.963	0.605+j4.872
SAN LUIS DE LA PAZ II	SPA-115	115.0	23.38	24.57	0.369+j2.816	0.218+j2.417	26.39	28.00	0.334+j2.747	0.205+j2.283
SAN LUIS DOS	SLD-230	230.0	14.39	14.38	1.683+j9.074	1.586+j9.118	17.25	16.82	1.333+j8.360	1.583+j9.004
SAN LUIS DOS	SLD-115	115.0	18.17	19.24	0.625+j3.600	0.297+j3.043	20.90	21.96	0.536+j3.454	0.289+j2.979
SAN LUIS I	SLP-230	230.0	14.62	14.74	1.995+j8.863	1.299+j8.782	17.94	17.59	1.571+j7.991	1.301+j8.545
SAN LUIS I (BUS A)	SLP-115	115.0	19.72	21.90	0.700+j3.293	0.223+j2.365	23.04	25.33	0.592+j3.114	0.219+j2.310
SAN LUIS I (BUS B)	SLP-115B	115.0	17.13	17.77	0.815+j3.790	0.357+j3.452	19.78	20.35	0.712+j3.622	0.349+j3.381
SAN LUIS INDUSTRIAL	SLI-110	115.0	16.67	13.72	0.907+j3.878	1.253+j6.438	19.28	15.57	0.800+j3.703	1.249+j6.377
SAN LUIS NORTE	SNE-115	115.0	8.30	5.63	1.656+j7.830	4.495+j18.826	9.28	6.24	1.572+j7.716	4.498+j18.827
SAN LUIS ORIENTE	SLO-110	115.0	13.53	10.91	1.051+j4.795	1.876+j8.240	15.42	12.26	0.953+j4.640	1.872+j8.189
SAN LUIS PONIENTE	SLW-110	115.0	9.67	6.82	1.585+j6.680	3.567+j15.065	10.87	7.58	1.495+j6.552	3.570+j15.046
SAN LUIS PROGRESO	SPR-110	115.0	11.41	8.70	1.327+j5.667	2.485+j10.989	12.92	9.73	1.231+j5.517	2.481+j10.937
SAN MARTIN	SMR-230	230.0	10.36	8.85	2.763+j12.518	4.120+j18.936	12.92	10.49	1.850+j11.152	4.086+j18.756
SAN MIGUEL	MIG-115	115.0	3.45	2.31	4.869+j18.631	12.137+j46.094	3.83	2.55	4.731+j18.496	12.133+j46.085
SAN MIGUEL ALLENDE SUR	SMS-115	115.0	9.16	6.14	1.993+j6.972	4.974+j17.229	10.20	6.80	1.938+j6.893	4.974+j17.218
SAN MIGUEL DE ALLENDE	MAL-115	115.0	11.19	8.02	1.426+j5.761	2.779+j12.683	12.50	8.89	1.372+j5.679	2.778+j12.675
SAN NICOLÁS	SNS-69	69.0	4.68	2.93	2.435+j8.152	5.914+j23.027	5.25	3.25	2.335+j8.019	5.911+j22.960
SAN PEDRO	PDR-115	115.0	12.60	10.03	1.020+j5.171	2.072+j9.090	14.30	11.25	0.926+j5.021	2.067+j9.036
SAN RAFAEL MANIOBRAS	SRM-115	115.0	2.80	2.10	5.914+j22.933	18.243+j44.181	3.73	4.03	4.101+j19.163	2.539+j14.936
SAN ROQUE	SRQ-115	115.0	11.89	8.66	1.110+j5.471	2.268+j11.624	13.42	9.66	0.995+j5.352	2.268+j11.592
SAN VICENTE	VTE-115	115.0	5.29	6.44	3.282+j12.118	1.179+j5.686	6.47	7.72	2.564+j11.000	1.180+j5.657
SANMINA-SCI SYSTEMS DE MEXICO	SCI-69	69.0	10.30	6.84	1.001+j3.738	2.273+j9.467	11.67	7.63	0.923+j3.641	2.271+j9.447



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SANMINA-SCISYSTEMS MÉXICO	SCR-115	115.0	10.66	8.34	1.392+j6.070	2.637+j11.111	12.01	9.33	1.272+j5.944	2.617+j11.046
SANMINA-SCISYSTEMS MÉXICO	SCR-69	69.0	13.74	10.25	0.775+j2.794	1.386+j5.691	15.75	11.53	0.693+j2.694	1.385+j5.670
SANTA CRUZ	SCZ-115	115.0	6.00	4.02	3.606+j10.454	8.453+j26.041	6.67	4.45	3.531+j10.370	8.445+j25.984
SANTA CRUZ	SCU-69	69.0	14.58	10.71	0.729+j2.634	1.334+j5.541	16.81	12.06	0.640+j2.527	1.333+j5.530
SANTA FE	STF-230	230.0	11.12	10.32	2.106+j11.750	2.079+j14.570	12.63	11.54	1.913+j11.410	2.108+j14.677
SANTA FE	STF-115	115.0	17.63	20.25	0.729+j3.695	0.216+j2.301	19.92	22.75	0.674+j3.604	0.216+j2.299
SANTA FE II	SFD-115	115.0	7.03	5.63	2.444+j9.123	3.838+j16.022	7.86	6.27	2.318+j8.997	3.828+j15.951
SANTA FÉ IV	STC-115	115.0	7.58	5.89	2.277+j8.461	3.847+j15.834	8.49	6.56	2.152+j8.331	3.836+j15.763
SANTA FE TRES	SFT-115	115.0	6.93	5.38	2.471+j9.253	4.147+j17.363	7.75	5.99	2.345+j9.126	4.136+j17.292
SANTA MARÍA	STM-400	400.0	17.99	16.11	2.169+j12.650	2.836+j17.053	22.76	19.74	1.281+j11.088	2.781+j16.197
SANTA MARÍA	STM-115	115.0	24.81	23.84	0.445+j2.638	0.424+j2.972	28.26	27.07	0.371+j2.557	0.417+j2.909
SANTA MARÍA	SNM-115	115.0	8.16	7.02	2.135+j7.854	2.564+j11.820	9.14	7.84	2.005+j7.735	2.547+j11.709
SANTIAGO	SNG-115	115.0	8.06	5.44	1.808+j8.034	4.662+j19.608	9.02	6.03	1.721+j7.912	4.665+j19.598
SANTIAGO IXCUINTLA	SNI-115	115.0	3.98	2.84	5.076+j15.900	11.338+j34.904	4.74	3.27	4.486+j14.754	11.279+j34.283
SANTIAGO UNDAMEO	SUN-115	115.0	5.55	4.50	3.350+j11.493	7.074+j19.070	6.23	5.02	3.153+j11.299	7.058+j18.956
SANTIAGUITO	STG-115	115.0	9.65	8.28	1.822+j6.636	2.429+j9.991	10.81	9.24	1.714+j6.538	2.418+j9.909
SAPAL PROC AGUAS RESID	SPL-115	115.0	11.41	9.07	1.341+j5.660	3.042+j9.875	12.89	10.14	1.222+j5.534	3.040+j9.848
SATÉLITE	SEI-115	115.0	11.42	8.31	1.212+j5.684	2.195+j12.153	13.01	9.32	1.104+j5.505	2.192+j12.091
SATÉLITE	SAT-115	115.0	15.28	12.62	1.038+j4.220	1.694+j6.887	17.15	14.06	0.984+j4.142	1.687+j6.871
SAYULA	SYL-115	115.0	3.96	3.10	4.794+j16.074	10.914+j28.784	4.46	3.46	4.513+j15.727	10.886+j28.585
SCHAEFFLER MANIOBRAS	SFM-115	115.0	7.62	4.93	1.844+j8.520	4.768+j22.443	8.55	5.52	1.720+j8.372	4.655+j22.109
SENDERO	SDE-115	115.0	10.86	8.36	1.361+j5.961	2.663+j11.289	12.28	9.35	1.266+j5.812	2.658+j11.237
SERVICIOS AGUAMILPA	SEA-110	115.0	2.17	1.59	7.836+j29.545	25.095+j59.219	2.76	2.60	6.020+j25.776	9.375+j29.962
SERVICIOS EL CAJÓN	SCJ-115	115.0	2.47	1.88	6.595+j26.107	14.127+j50.332	2.79	2.10	6.286+j25.458	14.100+j49.934
SERVICIOS LA YESCA	SLY-115	115.0	0.79	0.61	23.300+j81.273	55.343+j147.202	0.86	0.67	23.315+j81.290	55.247+j146.513
SHULMANN	SHU-115	115.0	18.12	16.73	0.780+j3.580	0.841+j4.503	21.08	19.14	0.673+j3.398	0.838+j4.445
SIBASA	SIB-230	230.0	13.07	11.32	2.155+j9.932	2.898+j14.562	15.30	13.05	1.787+j9.379	2.866+j14.284
SIDERÚRGICA GUADALAJARA	SGG-161	161.0	3.10	2.56	6.826+j29.199	12.100+j47.480	3.50	2.86	6.389+j28.543	12.093+j47.288
SIEMENS	SIE-69	69.0	9.78	6.14	1.076+j3.926	2.496+j11.062	11.08	6.83	0.988+j3.831	2.496+j11.057
SILAO	SIL-115	115.0	13.99	13.83	1.187+j4.594	0.920+j4.830	15.96	15.68	1.062+j4.452	0.908+j4.756
SILAO POTENCIA	SIP-230	230.0	13.12	12.85	2.384+j9.835	1.663+j10.649	15.58	14.96	1.902+j9.181	1.644+j10.509
SILAO POTENCIA	SIP-115	115.0	17.05	19.95	0.895+j3.790	0.211+j2.199	19.60	22.92	0.772+j3.645	0.201+j2.127
SIPOSA (GASA)	GAS-115	115.0	13.56	11.34	1.065+j4.781	1.254+j7.671	15.53	12.80	0.956+j4.603	1.251+j7.616
SISTEMAS JUÁREZ	SIS-69	69.0	19.83	15.43	0.539+j1.935	0.787+j3.646	23.27	17.59	0.451+j1.828	0.785+j3.625
SOLEDAD DE GRACIANO SÁNCHEZ	SGS-110	115.0	11.51	8.72	1.056+j5.671	1.774+j11.165	12.99	9.73	0.969+j5.537	1.771+j11.131
STIVA LEON	STI-115	115.0	3.90	2.88	5.191+j16.224	11.984+j32.934	4.54	3.27	4.535+j15.449	11.951+j32.687
SUBESTACIÓN PIQ	SPQ-115	115.0	13.70	10.51	1.316+j4.664	1.960+j9.065	15.39	11.69	1.259+j4.575	1.961+j9.058
TABACALERA	TBK-110	115.0	7.08	5.91	2.157+j9.132	3.577+j14.525	8.95	7.13	1.609+j8.001	3.524+j13.985
TACUBAYA	TYA-115	115.0	5.60	3.92	3.499+j11.335	9.341+j25.404	6.29	4.37	3.320+j11.129	9.331+j25.326
TALA	TLA-69	69.0	3.47	3.69	3.989+j10.772	0.973+j9.537	5.31	5.16	2.173+j7.965	1.024+j8.962



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
TALA ELECTRIC	ELT-69	69.0	3.34	3.69	4.070+j11.193	0.651+j8.813	5.15	5.19	2.177+j8.222	0.717+j8.363
TALPA	TPA-69	69.0	0.50	0.01	28.676+j74.8011	2.295+j-14.897.30	70.71	0.01	17.946+j58.8751	2.295+j-14.897.307
TAMARINDOS	TMI-115	115.0	5.81	7.74	3.004+j11.019	0.320+j2.897	7.21	9.49	2.278+j9.877	0.314+j2.823
TAMAZULA	TAZ-115	115.0	2.84	2.05	6.191+j22.502	12.069+j48.971	3.19	2.29	5.901+j22.121	12.012+j48.632
TANGAMANGA	TMG-115	115.0	9.44	6.70	1.662+j6.831	3.877+j15.198	10.62	7.45	1.571+j6.697	3.879+j15.172
TANGANCÍCUARO	TGR-115	115.0	8.50	7.91	2.064+j7.536	2.907+j9.094	9.72	8.95	1.859+j7.279	2.892+j9.004
TANQUE TENORIO (DEGREMONT)	TQT-115	115.0	15.97	13.83	0.897+j4.060	0.959+j6.018	18.44	15.70	0.788+j3.882	0.956+j5.963
TAPALPA	TLP-115	115.0	3.63	2.69	5.126+j17.539	13.438+j35.131	4.09	3.00	4.851+j17.198	13.423+j34.999
TAPEIXTLES	TAP-115	115.0	13.18	13.65	0.919+j4.954	0.748+j4.453	17.54	17.25	0.630+j4.116	0.734+j4.312
TAPEIXTLES	TAP-69	69.0	3.79	5.01	0.859+j10.479	0.099+j2.844	4.52	6.00	0.699+j9.674	0.088+j2.504
TAPEIXTLES POTENCIA	TPX-400	400.0	9.97	11.75	3.472+j22.895	1.018+j12.621	22.00	24.37	0.789+j11.521	0.945+j8.129
TAPEIXTLES POTENCIA	TPX-230	230.0	11.70	14.63	1.595+j11.238	0.303+j4.519	18.75	22.37	0.606+j7.765	0.291+j4.002
TAPEIXTLES POTENCIA	TPX-115	115.0	17.23	19.47	0.552+j3.814	0.196+j2.516	24.48	26.31	0.279+j2.970	0.188+j2.354
TARANDACUAO	TDC-115	115.0	2.88	1.82	6.435+j22.112	21.437+j59.664	3.22	2.02	6.205+j21.834	21.439+j59.640
TARETAN	TAR-69	69.0	1.72	0.71	7.132+j22.105	36.722+j115.582	2.28	1.44	5.788+j18.315	13.439+j51.249
TARIMBARO	TRB-115	115.0	7.02	5.42	2.618+j9.086	5.560+j16.945	7.83	6.02	2.510+j8.982	5.551+j16.870
TECHNICOLOR MEXICANA S. DE R.L. DE C.V.	TNI-69	69.0	13.26	8.90	0.803+j2.894	1.732+j7.218	15.26	10.03	0.711+j2.782	1.722+j7.165
TECNOLÓGICO	TAG-115	115.0	15.10	12.22	0.897+j4.304	1.350+j7.388	17.52	13.83	0.754+j4.100	1.349+j7.389
TECOLAPA	TOA-115	115.0	5.94	4.44	3.224+j10.703	8.091+j20.998	7.05	5.09	2.891+j9.949	8.086+j20.876
TECOLOTLAN	TCT-115	115.0	2.47	1.77	7.741+j25.798	22.831+j54.243	2.99	2.04	6.205+j23.634	22.832+j54.269
TECOMÁN	TEC-115	115.0	5.10	3.65	3.669+j12.499	10.219+j26.683	5.98	4.15	3.339+j11.739	10.214+j26.560
TECOMÁN SUR	TES-115	115.0	4.15	2.93	4.500+j15.334	13.206+j33.470	4.82	3.31	4.169+j14.576	13.201+j33.347
TECOMATES	TCS-115	115.0	1.70	1.26	11.285+j37.311	20.751+j77.817	1.91	1.40	10.929+j36.547	20.737+j77.676
TECOZAUTLA	TCZ-115	115.0	2.09	1.16	10.052+j30.170	36.004+j102.564	2.30	1.27	9.992+j30.089	35.997+j102.497
TECUALA	TEL-115	115.0	1.07	0.72	23.906+j57.173	61.357+j141.894	1.20	0.80	23.276+j56.104	61.291+j141.260
TECUAN	TCN-115	115.0	6.64	4.27	2.746+j9.610	5.171+j26.175	7.51	4.76	2.592+j9.376	5.168+j26.145
TEJEDA	TJD-115	115.0	14.52	18.49	0.990+j4.464	0.343+j1.588	16.27	20.65	0.937+j4.391	0.343+j1.596
TEOCALTICHE	TEO-115	115.0	4.51	3.07	3.748+j14.244	9.287+j34.253	5.01	3.39	3.615+j14.109	9.283+j34.245
TEPalcATEPEC DOS	TPD-115	115.0	1.53	1.10	13.458+j41.121	27.059+j89.829	2.17	1.91	8.226+j32.665	10.240+j46.120
TEPATITLÁN	TPT-115	115.0	5.72	3.55	3.365+j11.106	9.631+j31.453	6.40	3.94	3.197+j10.959	9.612+j31.366
TEPETONGO	TGO-115	115.0	1.33	0.94	15.243+j47.713	38.859+j104.190	1.47	1.04	14.989+j47.393	38.848+j104.103
TEPEYAC	TPY-115	115.0	8.95	6.19	2.047+j7.127	4.655+j16.722	9.98	6.87	1.991+j7.039	4.643+j16.646
TEPIC DOS	TED-400	400.0	7.56	7.73	6.638+j29.801	4.102+j28.195	17.85	18.37	1.254+j14.174	1.932+j12.879
TEPIC DOS	TED-230	230.0	8.39	10.18	3.077+j15.520	0.751+j7.456	13.65	16.38	1.028+j10.655	0.422+j5.323
TEPIC DOS	TED-115	115.0	11.39	13.27	1.008+j5.743	0.218+j3.356	16.00	18.44	0.459+j4.540	0.165+j2.748
TEPIC INDUSTRIAL	TID-110	115.0	7.77	6.71	1.944+j8.326	2.855+j12.249	9.93	8.18	1.400+j7.217	2.805+j11.745
TEPIC UNO	TES-115	115.0	8.84	8.20	1.594+j7.341	1.849+j9.091	11.62	10.29	1.048+j6.195	1.797+j8.536
TEQUILA	TQA-115	115.0	0.95	0.59	24.179+j65.232	49.077+j193.598	1.32	1.04	14.294+j53.501	19.195+j97.889
TEQUILA	TQA-69	69.0	2.00	1.13	7.813+j18.321	17.341+j63.853	3.03	2.23	4.337+j13.779	6.600+j29.311
TEQUISQUIAPAN	TEQ-115	115.0	7.30	4.16	2.297+j8.804	11.803+j27.345	8.12	4.60	2.237+j8.711	11.799+j27.297



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Occidental

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
TERMINAL DE GAS MANZANILLO	TGM-115	115.0	11.68	9.54	0.926+j5.609	1.753+j9.355	15.18	11.54	0.644+j4.767	1.747+j9.215
TERMOENVASES EXPANDIBLES	TER-115	115.0	15.78	14.26	0.936+j4.103	1.194+j5.426	17.99	16.08	0.817+j3.977	1.190+j5.394
TERRAPLENA	TRP-115	115.0	6.68	7.70	1.655+j9.801	1.134+j5.885	8.05	9.13	1.356+j8.971	1.121+j5.745
TESISTAN	TSN-400	400.0	13.50	14.23	4.311+j16.556	2.055+j14.362	23.84	22.55	1.390+j10.565	1.954+j12.343
TESISTAN	TSN-230	230.0	16.08	18.80	1.968+j8.020	0.455+j4.682	23.61	26.16	0.887+j6.123	0.438+j4.363
TESISTAN	TSN-69	69.0	30.87	30.63	0.228+j1.270	0.106+j1.321	38.54	37.01	0.135+j1.129	0.102+j1.275
TESISTÁN (BUS B)	TSN-69B	69.0	19.99	22.16	0.250+j1.977	0.063+j1.411	25.45	27.46	0.130+j1.717	0.063+j1.342
TETRAPAK	TTK-115	115.0	14.57	10.27	1.124+j4.415	7.226+j8.086	16.26	11.39	1.075+j4.360	7.223+j8.086
TISAMATIC	TIS-115	115.0	16.89	16.37	0.850+j3.838	0.637+j4.267	19.56	18.69	0.742+j3.660	0.634+j4.212
TLAJOMULCO POTENCIA	TLJ-400	400.0	13.87	14.11	3.858+j16.197	2.343+j15.641	20.51	18.83	1.652+j12.278	2.383+j15.524
TLAJOMULCO POTENCIA	TLJ-230	230.0	15.40	17.24	2.017+j8.383	0.643+j5.865	20.10	21.45	1.182+j7.169	0.649+j5.870
TLALTENANGO	TLO-110	115.0	1.89	1.12	9.752+j33.813	19.659+j106.132	2.09	1.23	9.602+j33.648	19.640+j106.085
TOLIMAN	TLI-115	115.0	1.71	1.07	11.338+j37.049	31.547+j103.278	1.90	1.19	11.054+j36.719	31.518+j103.078
TOTOTLAN	TTO-115	115.0	5.03	3.56	3.789+j12.648	9.834+j27.845	5.62	3.96	3.613+j12.483	9.800+j27.702
TREJO	TRJ-115	115.0	8.35	6.86	2.219+j7.631	5.086+j12.158	9.41	7.67	2.094+j7.476	5.083+j12.110
TREMEC	TRE-115	115.0	18.27	15.95	0.762+j3.554	0.972+j5.126	20.60	17.80	0.708+j3.474	0.972+j5.130
TRES MARÍAS	TSM-115	115.0	7.67	5.84	2.073+j8.399	3.738+j16.364	8.55	6.48	1.976+j8.314	3.729+j16.294
TRES NACIONES	TEN-115	115.0	17.23	14.47	0.865+j3.756	1.058+j5.975	19.96	16.45	0.759+j3.579	1.055+j5.916
TRIARA	TTR-115	115.0	12.76	11.38	1.526+j4.976	0.700+j7.145	14.30	12.66	1.468+j4.891	0.700+j7.143
TRIGUILLOS	TGS-115	115.0	2.82	1.89	8.379+j21.996	19.787+j54.671	3.11	2.09	8.297+j21.933	19.782+j54.611
TURBORREACTORES S.A. DE C.V.	REA-115	115.0	18.58	19.96	0.944+j3.446	0.534+j2.786	20.98	22.37	0.890+j3.365	0.535+j2.790
TUXPAN	TUX-115	115.0	3.37	2.65	6.726+j18.492	11.252+j33.943	3.80	2.97	6.444+j18.113	11.195+j33.604
TUXPAN	TXP-115	115.0	5.67	3.85	3.251+j11.255	9.081+j26.854	6.38	4.28	3.137+j11.018	9.082+j26.802
TUZANIA	TUZ-230	230.0	13.68	13.72	2.252+j9.441	1.644+j9.481	19.52	18.40	1.115+j7.398	1.539+j8.715
UNIVERSIDAD AUTÓNOMA DE GUADALAJARA	UAG-69	69.0	17.46	12.57	0.559+j2.212	0.942+j4.858	20.44	14.40	0.464+j2.093	0.917+j4.756
UNIVERSIDAD DEL VALLE DE MÉXICO	UVM-69	69.0	19.83	15.43	0.539+j1.935	0.787+j3.646	23.27	17.59	0.452+j1.828	0.785+j3.625
UNIVEX	UVX-115	115.0	4.37	3.28	4.839+j14.401	8.986+j28.956	4.95	3.68	4.666+j14.002	8.980+j28.606
URIANGATO	URG-115	115.0	5.12	3.39	3.693+j12.432	10.212+j31.122	5.71	3.76	3.578+j12.279	10.204+j31.034
URUAPAN ORIENTE	UOT-115	115.0	6.60	5.99	3.166+j9.549	3.049+j12.817	8.29	7.21	2.325+j8.494	2.990+j12.441
URUAPAN POTENCIA	UPP-230	230.0	4.30	4.32	6.904+j30.091	3.313+j30.318	5.88	5.91	3.938+j24.520	2.485+j24.358
URUAPAN POTENCIA	UPP-161	161.0	4.00	4.27	4.258+j22.850	1.544+j18.779	6.15	6.75	2.094+j16.492	1.079+j12.189
URUAPAN POTENCIA	UPP-115	115.0	7.59	8.66	2.573+j8.357	0.577+j5.557	9.89	11.08	1.689+j7.189	0.483+j5.011
URUAPAN TRES	UPT-115	115.0	7.71	7.74	2.692+j8.184	1.995+j8.276	9.91	9.59	1.864+j7.132	1.931+j7.875
URUAPAN TRES	UPT-69	69.0	2.72	0.97	3.182+j14.310	26.852+j90.604	4.06	2.73	1.975+j10.599	3.604+j26.310
USI	USI-69	69.0	7.60	4.79	1.421+j5.046	3.745+j13.949	9.25	6.46	1.207+j4.581	2.856+j10.508
USM	USM-115	115.0	7.12	6.68	2.497+j8.980	4.202+j10.424	7.99	7.45	2.371+j8.831	4.197+j10.367
VALLARTA POTENCIA	VTP-230	230.0	3.26	4.16	10.468+j39.365	1.319+j14.485	4.11	5.13	7.692+j34.719	1.308+j14.298
VALLARTA POTENCIA	VTP-115	115.0	5.87	7.91	2.966+j10.908	0.183+j2.596	7.29	9.72	2.240+j9.765	0.176+j2.522
VALLARTA UNO	VRT-115	115.0	4.73	5.01	3.837+j13.505	2.494+j11.438	5.74	5.91	3.077+j12.350	2.487+j11.364
VALLE DE AGUASCALIENTES	VAG-115	115.0	14.73	11.39	0.856+j4.425	1.451+j8.357	16.95	12.85	0.725+j4.247	1.451+j8.349



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
VALLE DE GUADALUPE	VGP-115	115.0	6.00	4.42	2.822+j10.708	7.295+j21.715	6.69	4.90	2.681+j10.576	7.289+j21.701
VALLE DE LAS DELICIAS	VDL-115	115.0	3.20	2.48	5.934+j19.864	13.355+j36.655	3.58	2.76	5.741+j19.590	13.345+j36.567
VALLE DE SANTIAGO	VAS-115	115.0	11.88	8.90	1.301+j5.433	3.093+j10.780	13.67	10.08	1.178+j5.211	3.080+j10.640
VALLE DE TECOMAN	VAT-115	115.0	2.82	1.86	7.048+j22.469	19.317+j56.930	3.21	2.08	6.701+j21.741	19.312+j56.808
VALLE DEL MEZQUITAL	VDM-230	230.0	6.61	6.85	3.050+j19.870	2.475+j17.780	7.97	8.05	2.484+j18.165	2.459+j17.580
VALLE VERDE	VAV-115	115.0	3.43	3.25	5.823+j18.475	4.346+j22.225	4.65	4.37	3.744+j15.239	3.806+j18.359
VALLEJO (ANTES CARLOTA)	CAR-115	115.0	12.83	9.95	1.193+j5.035	2.061+j9.458	14.30	11.04	1.145+j4.977	2.047+j9.421
VALPARAISO	VPS-110	115.0	1.27	0.82	18.482+j48.863	43.964+j132.232	1.41	0.90	18.273+j48.626	43.962+j132.207
VAQUERÍAS MANIOBRAS	VQM-230	230.0	7.10	7.61	2.807+j18.486	1.695+j14.884	8.50	8.92	2.294+j17.037	1.663+j14.665
VELCON	VEL-115	115.0	12.39	9.92	1.281+j5.202	2.263+j9.082	13.94	11.11	1.195+j5.103	2.246+j8.973
VENUSTIANO CARRANZA	VNC-115	115.0	5.46	3.62	3.042+j11.765	7.287+j29.915	6.13	4.02	2.864+j11.568	7.272+j29.829
VERGELES	VGL-115	115.0	4.41	3.97	5.154+j14.136	5.901+j19.242	4.87	4.37	5.131+j14.097	5.894+j19.223
VIDRIERA	VRA-115	115.0	16.47	13.47	0.920+j3.925	1.284+j6.602	19.03	15.28	0.814+j3.750	1.280+j6.541
VIDRIERA GUADALAJARA	VID-69	69.0	20.86	17.18	0.474+j1.850	0.548+j3.093	24.75	20.03	0.378+j1.729	0.519+j2.979
VIDRIERA QUERÉTARO	VRR-115	115.0	15.39	14.76	1.088+j4.174	0.879+j4.799	17.33	16.47	1.028+j4.087	0.879+j4.800
VILLA DE ÁLVAREZ	VDA-115	115.0	7.64	7.44	1.980+j8.460	1.863+j9.227	9.26	8.77	1.644+j7.715	1.841+j9.030
VILLA DE ARISTA	VAR-115	115.0	2.75	1.75	9.344+j22.268	20.693+j61.961	3.20	1.98	8.343+j21.214	20.696+j61.941
VILLA DE REYES	VDR-230	230.0	18.60	20.21	1.175+j7.044	0.555+j5.417	26.14	30.57	0.695+j5.545	0.215+j3.159
VILLA DE REYES	VDR-115	115.0	9.36	10.18	1.146+j7.001	0.400+j5.378	10.69	11.69	1.026+j6.757	0.348+j5.068
VILLA HIDALGO	VHO-115	115.0	3.41	2.34	6.641+j18.314	14.509+j44.009	3.83	2.60	6.360+j17.977	14.509+j43.981
VILLA JIMÉNEZ	VIJ-115	115.0	5.36	3.82	3.716+j11.805	7.977+j26.252	6.34	5.25	3.193+j11.065	4.143+j18.270
VILLA JUÁREZ	VJU-115	115.0	8.80	6.31	1.534+j7.386	2.796+j16.268	9.95	7.04	1.397+j7.206	2.796+j16.256
VILLAGRÁN	VIG-110	115.0	7.99	6.81	1.918+j8.084	3.122+j12.253	8.91	7.57	1.830+j7.989	3.110+j12.160
VINITECK S.A. DE C.V.	VIN-69	69.0	6.26	4.70	1.326+j6.226	2.529+j12.449	7.10	5.28	1.216+j6.053	2.516+j12.283
VISTA HERMOSA	VIH-115	115.0	8.57	6.38	2.264+j7.408	4.912+j14.936	9.73	7.15	2.080+j7.208	4.903+j14.865
VIZARRÓN	VIZ-110	115.0	2.37	1.16	8.989+j26.577	32.765+j110.507	2.61	1.28	8.928+j26.494	32.758+j110.440
VOLCANES	VCS-69	69.0	0.66	0.01	18.618+j57.0742	477+j-14,917.972	0.90	0.01	12.959+j47.1002	477+j-14,917.972
VOLKSWAGEN	VWS-115	115.0	6.82	5.40	2.527+j9.408	4.122+j16.888	7.62	6.01	2.400+j9.282	4.112+j16.817
VYNMSA	VYN-115	115.0	7.55	4.94	1.883+j8.588	4.752+j22.225	8.47	5.55	1.758+j8.440	4.594+j21.781
XALISCO	XLS-115	115.0	7.04	5.77	2.014+j9.209	3.283+j15.307	8.90	6.95	1.463+j8.074	3.233+j14.766
YERBABUENA	YER-115	115.0	4.86	3.05	3.174+j13.289	8.614+j36.909	5.42	3.39	3.001+j13.124	8.584+j36.778
YURÉCUARO	YUR-115	115.0	6.58	5.02	2.997+j9.633	5.541+j18.673	7.41	5.60	2.810+j9.441	5.526+j18.592
ZACAPU	ZCP-110	115.0	5.25	3.78	4.325+j11.887	9.141+j25.809	6.08	4.64	3.919+j11.364	7.307+j22.040
ZACATECAS	ZCT-115	115.0	6.72	5.57	2.766+j9.483	4.327+j15.400	7.70	6.29	2.519+j9.141	4.315+j15.308
ZACATECAS II	ZCD-230	230.0	6.97	7.17	4.602+j18.500	2.791+j17.277	8.20	8.30	3.821+j17.399	2.721+j17.018
ZACATECAS II	ZCD-115	115.0	10.02	11.61	1.686+j6.409	0.492+j3.904	11.74	13.53	1.441+j6.049	0.465+j3.767
ZACATECAS SUR	ZCS-115	115.0	6.85	5.74	2.756+j9.296	4.100+j14.736	7.86	6.49	2.510+j8.952	4.085+j14.640
ZALATITAN	ZLT-69	69.0	12.55	9.08	0.700+j3.095	1.408+j6.663	14.67	10.33	0.594+j2.928	1.406+j6.601
ZAMORA	ZMA-110	115.0	8.02	6.25	2.201+j7.979	4.351+j14.666	9.11	7.01	2.009+j7.758	4.339+j14.595
ZAMORA POTENCIA	ZRP-230	230.0	7.93	6.96	3.310+j16.414	4.333+j23.321	9.34	7.99	2.570+j15.431	4.294+j23.182



Subestación Eléctrica	Acronimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ZAMORA POTENCIA	ZRP-115	115.0	10.84	11.60	1.352+j5.971	0.651+j4.887	12.48	13.28	1.159+j5.734	0.627+j4.773
ZAPOPAN	ZPA-230	230.0	9.42	8.15	2.955+j13.789	4.314+j20.201	12.07	9.86	1.859+j11.962	4.253+j19.824
ZAPOPAN	ZPA-69	69.0	22.61	19.49	0.443+j1.706	0.407+j2.583	27.01	22.90	0.347+j1.585	0.378+j2.469
ZAPOTILTIC	ZTI-115	115.0	4.94	4.48	3.708+j12.930	4.934+j16.853	5.62	5.07	3.420+j12.546	4.877+j16.515
ZAPOTLANEJO	ZPO-400	400.0	12.76	12.58	3.859+j17.677	3.090+j18.642	18.36	16.48	1.674+j13.735	3.125+j18.324
ZAPOTLANEJO	ZPO-230	230.0	15.27	16.84	1.966+j8.472	0.742+j6.245	20.71	21.61	1.052+j6.976	0.750+j6.125
ZAPOTLANEJO DISTRIBUCIÓN	ZAD-115	115.0	2.72	1.32	8.066+j22.995	33.501+j96.645	3.03	1.46	7.852+j22.830	33.481+j96.558
ZARAGOZA	ZAG-115	115.0	5.42	3.50	2.369+j12.023	8.211+j31.380	6.06	3.88	2.262+j11.842	8.207+j31.318
ZIBATA	ZBT-115	115.0	9.15	6.59	1.871+j7.013	4.820+j14.938	10.20	7.31	1.812+j6.924	4.816+j14.916
ZIMAPAN	ZIM-115	115.0	2.36	1.93	6.619+j27.361	13.477+j45.111	2.85	2.29	5.614+j25.011	12.965+j42.562
ZINÁPARO	ZID-115	115.0	9.40	7.19	2.045+j6.764	4.654+j12.776	10.76	8.09	1.848+j6.528	4.651+j12.707
ZINAPÉCUARO	ZIN-115	115.0	8.52	6.94	1.532+j7.643	2.602+j12.851	9.37	7.64	1.496+j7.646	2.604+j12.820
ZITÁCUARO	ZIT-115	115.0	6.63	4.43	2.842+j9.595	7.272+j23.882	7.57	4.96	2.690+j9.259	7.275+j23.806
ZITÁCUARO DOS	ZTD-115	115.0	6.33	4.15	2.878+j10.083	7.463+j25.946	7.25	4.66	2.709+j9.697	7.468+j25.854
ZOLTECH	CYD-69	69.0	15.39	16.32	0.615+j2.515	0.389+j2.111	18.02	18.95	0.517+j2.376	0.385+j2.038
ZOQUIPAN	ZQP-69	69.0	14.14	10.62	0.640+j2.743	1.341+j5.459	16.71	12.18	0.525+j2.570	1.329+j5.387
ZUMPIMITO	ZMP-69	69.0	2.67	0.99	3.457+j14.525	25.971+j87.482	4.08	2.94	2.049+j10.532	2.727+j23.195

Gerencia de Control Regional Noroeste





Subestación Eléctrica	Acónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ACUÍCOLA	ACU-115	115.0	2.04	1.40	8.569+j31.339	26.274+j72.782	2.35	1.57	8.012+j30.049	26.252+j72.671
AGRÍCOLA SONOYTA	AGS-115	115.0	0.61	0.39	32.003+j104.271	80.488+j285.123	0.75	0.45	25.467+j93.590	80.482+j284.977
AGUA PRIETA	AGI-115	115.0	4.63	3.09	2.744+j14.081	6.042+j35.358	5.55	3.54	2.280+j12.964	6.030+j34.954
AGUA PRIETA DOS	AGD-230	230.0	8.07	8.44	2.425+j16.269	2.421+j14.674	15.67	17.09	0.692+j9.295	0.505+j6.231
AHOME	AHO-115	115.0	4.75	3.40	3.031+j13.647	8.726+j29.242	5.48	3.84	2.858+j13.006	8.713+j29.123
ÁLAMOS	AAM-115	115.0	1.78	1.17	17.593+j32.938	34.010+j89.031	2.09	1.45	16.319+j30.923	27.059+j76.421
ALTAR	ALT-115	115.0	2.51	1.84	7.669+j25.285	14.942+j53.604	3.44	2.30	5.143+j20.576	14.348+j50.630
ANGOSTURA	ANG-115	115.0	4.69	3.34	4.059+j13.575	8.226+j30.113	5.76	3.92	3.569+j12.159	8.182+j28.992
ANTIMONIO	ANT-115	115.0	2.46	2.15	7.773+j25.836	9.844+j37.522	3.92	2.89	4.054+j18.171	9.846+j37.399
ARROYO SECO	ASE-115	115.0	1.76	1.28	10.631+j36.279	26.444+j76.224	2.40	1.63	7.257+j29.567	24.911+j69.091
BACHIGUALATO	BCH-115	115.0	4.56	2.38	2.897+j14.281	15.845+j52.310	5.31	2.67	2.583+j13.522	15.830+j52.067
BÁCUM	BAC-400	400.0	8.76	8.91	3.110+j26.186	3.087+j24.656	11.33	10.87	1.863+j22.347	3.135+j24.792
BÁCUM	BAC-230	230.0	12.04	13.03	1.455+j10.928	0.717+j8.450	15.96	16.29	0.917+j9.104	0.734+j8.428
BÁCUM	BAC-115	115.0	17.30	16.38	0.498+j3.805	0.300+j4.465	22.07	19.73	0.344+j3.292	0.312+j4.433
BACURATO	BRT-115	115.0	3.40	1.52	3.533+j19.185	20.347+j89.666	6.14	6.46	1.323+j11.815	0.282+j7.657
BAGOTES	BGT-115	115.0	11.54	10.95	1.811+j5.463	2.853+j6.090	16.62	14.56	1.315+j4.194	2.886+j5.624
BAMOA	BMO-115	115.0	2.76	1.79	8.548+j22.527	19.712+j59.562	3.20	2.03	8.125+j21.366	19.691+j58.813
BANDERAS	BND-115	115.0	12.79	10.66	0.937+j5.108	1.315+j8.178	16.20	12.78	0.727+j4.451	1.313+j7.952
BIZANI	BZI-115	115.0	3.39	3.28	5.757+j18.736	5.811+j20.778	6.22	5.04	2.220+j11.530	5.443+j19.247
BUENA VISTA	BNV-230	230.0	7.29	6.63	5.285+j17.443	4.405+j23.616	10.57	8.59	2.991+j13.490	4.374+j22.790
CABORCA	CBA-115	115.0	3.71	3.14	4.960+j17.208	4.881+j27.397	6.91	5.25	1.655+j10.444	3.370+j20.295
CAJEME	CAJ-115	115.0	12.92	10.86	0.834+j5.072	1.160+j7.959	16.25	12.94	0.640+j4.450	1.165+j7.791
CARDONAL	CRD-115	115.0	2.05	1.45	8.533+j31.206	26.274+j68.311	2.36	1.63	7.975+j29.916	26.253+j68.200
CARRIZO	CRZ-115	115.0	3.93	3.76	5.300+j16.048	5.784+j18.221	5.03	4.72	4.362+j13.849	5.201+j16.533
CENTENARIO	CNT-115	115.0	12.58	10.49	1.111+j5.160	1.738+j8.097	15.94	12.59	0.926+j4.486	1.716+j7.934
CENTINELA	CLA-115	115.0	8.43	6.68	1.624+j7.704	4.119+j13.512	9.87	7.59	1.475+j7.254	4.117+j13.490
CERRO CAÑEDO	CCA-115	115.0	3.30	2.70	5.628+j19.295	7.118+j32.876	5.58	4.11	2.414+j12.857	5.779+j26.538
CHINITOS	CHI-115	115.0	2.21	1.48	8.883+j28.761	25.052+j70.321	2.51	1.65	8.527+j27.860	25.041+j69.934
CHOACAHUI	CHO-400	400.0	11.91	13.76	1.924+j19.298	0.668+j10.672	15.53	17.33	0.996+j16.329	0.661+j10.507
CHOACAHUI	CHO-230	230.0	18.30	20.09	0.657+j7.226	0.341+j4.586	24.58	25.94	0.359+j5.933	0.362+j4.419
CIUDAD OBREGÓN CUATRO	COC-230	230.0	9.95	10.33	2.038+j13.196	1.720+j11.677	13.67	13.24	1.285+j10.605	1.703+j11.398
CIUDAD OBREGÓN CUATRO	COC-115	115.0	14.93	13.07	0.744+j4.385	0.809+j6.284	19.28	15.91	0.546+j3.749	0.802+j6.083
CIUDAD OBREGÓN DOS	COD-115	115.0	15.54	13.75	0.663+j4.221	0.738+j5.882	19.98	16.68	0.481+j3.623	0.746+j5.722
CIUDAD OBREGÓN TRES	COT-230	230.0	8.61	8.66	2.379+j15.242	2.063+j14.966	11.51	10.85	1.590+j12.592	2.040+j14.631
CIUDAD OBREGÓN TRES	COT-115	115.0	15.38	14.24	0.668+j4.265	0.537+j5.316	20.03	17.65	0.467+j3.616	0.533+j5.025
CIUDAD OBREGÓN UNO	OBU-115	115.0	13.93	11.87	0.915+j4.677	1.233+j7.134	17.92	14.37	0.701+j4.015	1.229+j6.924
COCORIT	CCI-115	115.0	11.21	7.84	0.963+j5.844	2.634+j13.280	13.84	9.16	0.770+j5.220	2.637+j13.054
COMEDERO	CMR-115	115.0	3.55	1.64	3.794+j18.333	20.770+j81.186	5.98	6.66	1.620+j12.096	0.301+j7.444
COMPUERTAS	CMP-115	115.0	10.65	8.38	1.115+j6.132	2.087+j10.954	13.19	9.87	0.926+j5.461	2.065+j10.801
COSTA RICA	CSA-115	115.0	6.33	4.84	2.382+j10.219	4.655+j19.598	7.68	5.59	1.978+j9.304	4.670+j19.541



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CRUZ DE PIEDRA	CDP-115	115.0	6.41	6.02	2.442+j10.069	2.151+j12.218	7.72	7.04	2.105+j9.229	2.117+j12.026
CULIACÁN CENTRO	CCC-115	115.0	11.40	9.76	1.229+j5.691	1.767+j8.534	15.87	12.51	0.776+j4.536	1.715+j7.971
CULIACÁN CINCO	CUI-115	115.0	12.13	11.33	1.129+j5.356	1.402+j6.427	16.78	14.38	0.703+j4.296	1.421+j6.244
CULIACÁN CUATRO	CUC-115	115.0	12.85	12.43	1.069+j5.055	1.200+j5.513	17.69	15.71	0.664+j4.074	1.215+j5.447
CULIACÁN LIBRAMIENTO	CLI-115	115.0	10.76	9.95	1.298+j6.032	1.858+j7.391	14.58	12.53	0.860+j4.935	1.859+j7.102
CULIACÁN MILENIUM	CMI-115	115.0	10.89	11.14	1.275+j5.962	1.693+j5.391	14.63	15.06	0.851+j4.920	1.465+j4.237
CULIACÁN NORTE	CUN-115	115.0	11.58	10.97	1.209+j5.603	1.453+j6.473	16.09	14.72	0.763+j4.474	1.278+j5.522
CULIACÁN ORIENTE	CUO-115	115.0	11.82	11.26	1.217+j5.485	1.285+j6.264	16.61	14.84	0.765+j4.329	1.235+j5.685
CULIACÁN PONIENTE	CPO-400	400.0	7.30	7.67	5.633+j31.126	3.509+j26.177	10.76	10.26	2.582+j23.475	3.534+j26.147
CULIACÁN PONIENTE	CPO-115	115.0	14.97	12.64	0.738+j4.375	0.872+j6.779	20.10	15.71	0.433+j3.608	0.857+j6.537
CULIACÁN SUR	CUS-115	115.0	11.09	9.98	1.214+j5.863	1.710+j7.754	14.83	12.31	0.802+j4.859	1.725+j7.645
CULIACÁN TRES	CUT-230	230.0	8.45	9.58	3.148+j15.401	1.434+j9.844	12.46	13.09	1.617+j11.612	1.389+j9.502
CULIACÁN TRES	CUT-115	115.0	13.65	13.94	0.982+j4.765	0.669+j4.458	20.18	19.89	0.523+j3.581	0.549+j3.575
CULIACÁN UNO	CUU-115	115.0	13.32	13.22	1.038+j4.874	1.009+j4.953	19.02	18.96	0.604+j3.792	0.625+j3.701
DEL MAR	DMA-115	115.0	11.89	10.45	1.164+j5.462	1.398+j7.741	17.98	14.39	0.618+j4.014	1.351+j6.960
DERIVACIÓN	DER-115	115.0	8.50	6.67	1.908+j7.572	3.897+j13.717	11.39	8.24	1.360+j6.265	3.833+j13.245
DESEO	DSE-115	115.0	2.23	1.88	9.068+j28.409	17.013+j43.136	3.33	2.47	5.508+j21.230	16.645+j41.604
DYNATECH	DYN-115	115.0	11.88	12.35	1.797+j5.293	2.085+j4.522	18.00	17.85	1.177+j3.882	1.865+j3.785
EL DORADO	EDR-115	115.0	1.76	1.15	10.698+j36.176	18.516+j95.626	1.99	1.28	10.268+j35.294	18.530+j95.568
EL FRESNAL	EFR-230	230.0	9.04	10.68	2.331+j14.496	0.552+j8.579	15.67	17.43	0.840+j9.283	0.524+j6.075
EL FRESNAL	EFR-115	115.0	7.26	5.65	1.024+j9.091	0.844+j17.093	9.19	6.72	0.609+j7.921	0.825+j16.621
EL FUERTE	EFU-115	115.0	3.09	2.07	6.801+j20.404	15.174+j50.730	5.02	5.31	3.294+j14.163	1.212+j12.230
EL FUERTE PENAL	EFP-115	115.0	3.77	2.62	5.394+j16.787	11.437+j39.055	5.74	5.23	3.052+j12.353	3.329+j16.044
EL HABAL	HBL-230	230.0	7.50	7.58	3.206+j17.421	1.834+j16.969	13.69	13.25	1.106+j10.613	1.691+j11.565
EL HABAL	HBL-115	115.0	11.74	10.51	1.046+j5.560	0.960+j7.563	17.97	14.64	0.493+j4.035	0.891+j6.759
EL LLANO	LNO-115	115.0	3.64	2.65	6.189+j17.184	11.035+j37.082	4.70	3.14	4.804+j14.793	11.023+j36.937
EL MAYO	EMY-230	230.0	5.83	6.06	4.237+j22.377	2.461+j19.910	8.46	8.03	2.537+j17.073	2.509+j19.497
EL MAYO	EMY-115	115.0	9.12	10.10	1.343+j7.154	0.553+j5.098	12.74	13.25	0.851+j5.670	0.566+j4.943
EMPALME	EPM-115	115.0	9.87	8.79	1.329+j6.595	1.574+j9.095	12.01	10.28	1.107+j5.981	1.566+j9.016
EMPALME CICLO COMBINADO	ECC-400	400.0	10.50	12.24	2.219+j21.876	0.725+j12.686	13.56	15.25	1.125+j18.700	0.701+j12.472
EMPALME CICLO COMBINADO	ECC-230	230.0	16.24	18.86	0.840+j8.132	0.274+j4.893	20.55	23.14	0.513+j7.088	0.266+j4.800
ESCUINAPA	EPA-115	115.0	1.64	0.98	8.952+j39.391	36.239+j116.599	1.88	1.10	8.334+j38.027	36.157+j115.849
ESPERANZA	ESP-230	230.0	5.45	5.41	4.910+j23.851	3.512+j24.796	7.82	7.20	2.749+j18.476	3.320+j23.276
ESPERANZA	ESP-115	115.0	9.33	8.72	1.561+j6.941	1.048+j8.595	12.73	10.95	1.016+j5.647	1.027+j8.484
ESTACIÓN TORRES	ETO-115	115.0	3.63	2.33	5.919+j17.280	14.793+j46.624	4.31	2.70	5.441+j16.050	14.482+j45.142
ÉVORA	EVO-115	115.0	8.53	7.20	1.435+j7.653	1.584+j11.911	11.64	9.22	0.948+j6.205	1.541+j10.737
FÁTIMA	FMA-115	115.0	10.38	9.48	1.195+j6.284	1.280+j8.153	12.39	10.96	1.040+j5.802	1.275+j8.112
FUNDICIÓN	FUC-115	115.0	5.68	3.68	3.963+j11.007	9.196+j29.338	6.91	4.27	3.491+j9.973	9.073+j28.759
GRUPO MÉXICO (SE MINA)	SMI-230	230.0	5.25	3.94	7.040+j24.306	11.714+j49.348	6.85	4.73	4.671+j20.796	11.682+j48.521
GUAMÚCHIL	GML-115	115.0	7.70	6.14	1.641+j8.471	2.383+j14.931	10.22	7.65	1.153+j7.051	2.339+j13.811



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			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
GUAMÚCHIL DOS	GMD-230	230.0	6.43	6.03	3.926+j20.288	3.902+j24.032	8.75	7.63	2.496+j16.506	3.706+j23.054
GUAMÚCHIL DOS	GMD-115	115.0	9.04	7.94	1.312+j7.228	1.103+j10.268	12.56	10.38	0.826+j5.754	1.063+j9.047
GUASAVE	GSV-115	115.0	6.03	4.36	2.478+j10.722	6.780+j22.539	7.32	5.07	2.137+j9.746	6.778+j22.070
GUAYMAS CERESO	GYC-230	230.0	11.62	12.09	1.545+j11.324	1.433+j10.105	14.87	14.74	1.035+j9.766	1.434+j10.046
GUAYMAS CERESO	GYC-115	115.0	16.41	15.22	0.524+j4.012	0.448+j5.003	20.29	17.96	0.386+j3.578	0.450+j5.000
HERMOSILLO AEROPUERTO	HAE-230	230.0	9.10	9.56	3.188+j14.239	2.752+j12.251	16.86	17.88	1.049+j8.598	1.003+j7.148
HERMOSILLO CERESO	HCE-115	115.0	12.12	12.01	1.605+j5.237	1.788+j5.364	18.48	17.17	1.001+j3.823	1.603+j4.625
HERMOSILLO CINCO	HLI-230	230.0	11.12	12.32	2.481+j11.676	1.454+j8.407	18.78	18.71	0.914+j7.725	1.332+j7.794
HERMOSILLO CINCO	HLI-115	115.0	15.39	15.76	0.983+j4.200	0.615+j3.994	27.95	31.60	0.360+j2.588	0.143+j1.740
HERMOSILLO CUATRO	HLC-230	230.0	9.86	11.18	2.868+j13.161	1.306+j8.682	17.09	17.62	1.077+j8.480	1.225+j7.713
HERMOSILLO CUATRO	HLC-115	115.0	16.67	18.10	0.914+j3.877	0.388+j3.046	27.68	27.82	0.419+j2.605	0.421+j2.580
HERMOSILLO DOS	HLD-115	115.0	12.72	11.26	1.178+j5.086	1.345+j7.143	18.76	14.84	0.658+j3.837	1.362+j6.854
HERMOSILLO LA MANGA	HMA-115	115.0	8.84	7.09	2.234+j7.167	2.986+j12.775	11.91	8.75	1.720+j5.885	3.014+j12.435
HERMOSILLO LOMAS	HLM-230	230.0	9.24	10.02	3.160+j14.021	1.891+j10.943	16.07	15.78	1.171+j9.016	1.718+j9.467
HERMOSILLO LOMAS	HLM-115	115.0	13.76	14.10	1.027+j4.715	0.636+j4.457	20.74	19.42	0.514+j3.484	0.662+j4.202
HERMOSILLO MANIOBRAS	HMB-115	115.0	8.67	8.28	1.806+j7.440	1.089+j8.744	12.71	11.40	1.101+j5.641	1.016+j7.697
HERMOSILLO MISIÓN	HMI-115	115.0	11.25	11.02	1.386+j5.738	1.522+j6.108	15.97	14.52	0.874+j4.489	1.555+j5.756
HERMOSILLO NUEVE	HLN-115	115.0	15.28	16.04	1.305+j4.145	0.896+j3.640	24.95	24.15	0.741+j2.832	0.832+j3.128
HERMOSILLO OCHO	HLO-115	115.0	12.70	11.71	1.237+j5.080	1.512+j6.389	20.00	17.17	0.632+j3.597	1.341+j5.329
HERMOSILLO SEIS	HLS-115	115.0	12.36	11.81	1.231+j5.231	1.370+j5.985	18.09	15.82	0.725+j3.973	1.397+j5.624
HERMOSILLO SIETE	HLE-115	115.0	11.77	9.10	1.201+j5.512	2.068+j10.418	17.04	11.67	0.671+j4.233	2.066+j10.021
HERMOSILLO TRES	HLT-230	230.0	9.92	10.80	2.965+j13.048	1.749+j10.068	17.05	16.59	1.108+j8.496	1.653+j9.166
HERMOSILLO TRES	HLT-115	115.0	14.01	11.95	0.977+j4.637	0.933+j7.166	21.73	16.32	0.449+j3.330	0.906+j6.662
HERMOSILLO UNO	HLU-115	115.0	15.16	16.28	1.213+j4.207	0.781+j3.408	24.96	25.21	0.642+j2.855	0.681+j2.775
HERNANDO DE VILLAFañE	HVF-115	115.0	5.37	3.72	2.650+j12.066	7.763+j27.697	6.48	4.30	2.288+j11.043	7.764+j27.161
HIERRO DE SONORA	HDS-115	115.0	9.12	4.98	2.212+j6.936	7.131+j24.435	11.22	5.73	1.961+j6.209	7.109+j24.152
HORNILLOS	HRS-115	115.0	2.63	1.73	8.221+j23.909	18.741+j61.604	4.11	3.86	4.405+j17.223	4.208+j20.853
HUATABAMPO	HPO-115	115.0	6.06	4.44	2.327+j10.713	6.532+j22.014	7.73	5.27	1.821+j9.274	6.498+j21.660
HUITES	HTS-230	230.0	2.99	1.64	6.822+j43.867	37.031+j149.669	7.78	8.39	1.261+j18.725	0.432+j11.725
HUMAYA	HYA-115	115.0	5.59	2.90	2.198+j11.679	10.774+j43.485	8.63	8.84	1.096+j8.390	0.395+j7.086
IMURIS	IMR-115	115.0	3.34	2.77	5.983+j18.956	10.244+j30.471	4.33	3.33	4.255+j16.312	10.235+j30.336
INDUSTRIAL CABORCA	ICA-230	230.0	2.44	2.60	15.910+j51.958	7.045+j44.397	5.12	4.40	4.263+j28.213	6.265+j41.799
INDUSTRIAL CABORCA	ICA-115	115.0	3.94	3.65	4.655+j16.176	2.853+j20.955	7.82	6.85	1.334+j9.249	1.234+j13.207
INDUSTRIAL SAN CARLOS	ISC-115	115.0	3.82	3.36	4.999+j16.653	4.713+j24.157	5.03	4.10	3.141+j14.175	4.692+j23.982
ISLA MUSALÁ	ISM-115	115.0	13.29	12.78	1.068+j4.881	0.770+j5.497	19.47	17.57	0.611+j3.700	0.666+j4.764
JAIME SEVILLA POYASTRO	JSP-115	115.0	11.50	11.71	1.209+j5.643	1.446+j5.220	15.69	16.11	0.781+j4.588	1.157+j4.028
JOSÉ ÁNGEL ESPINOZA	JAE-115	115.0	1.68	1.05	12.374+j37.579	32.788+j106.135	2.51	2.11	7.059+j28.199	11.842+j44.073
JUAN JOSÉ RÍOS	JJR-115	115.0	7.28	5.45	1.591+j8.981	4.536+j17.641	8.75	6.30	1.359+j8.236	4.504+j17.410
LA CARIDAD	LCD-230	230.0	7.45	5.80	3.072+j17.552	8.463+j32.090	9.22	6.79	2.266+j15.686	8.456+j31.712
LA CARIDAD FUNDICIÓN	LCF-230	230.0	9.86	9.62	1.716+j13.358	2.196+j14.393	12.09	11.37	1.164+j12.025	2.188+j14.132



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			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
LA CARIDAD GENERACIÓN	LCG-230	230.0	11.61	12.79	1.447+j11.343	0.566+j8.362	14.54	15.48	0.899+j10.005	0.558+j8.101
LA CHOYA	LCH-115	115.0	1.85	1.38	10.433+j34.271	29.005+j67.285	3.06	1.82	4.545+j23.449	28.998+j67.141
LA CRUZ	LCZ-115	115.0	1.07	0.67	19.137+j58.909	54.857+j165.854	1.21	0.74	18.460+j57.503	54.775+j165.015
LA HIGUERA	HGA-400	400.0	6.97	7.58	6.074+j32.564	2.458+j24.571	10.41	10.26	2.725+j24.251	2.509+j24.625
LA HIGUERA	HGA-230	230.0	9.49	11.89	2.666+j13.741	0.315+j5.328	14.03	16.62	1.301+j10.329	0.326+j5.186
LA HIGUERA	HGA-115	115.0	15.35	19.37	0.826+j4.245	0.081+j1.594	21.72	26.21	0.455+j3.332	0.090+j1.534
LA MISA	LMA-115	115.0	3.57	2.69	5.451+j17.759	9.945+j35.589	4.13	3.04	5.108+j16.928	9.910+j35.396
LA PINTA	LPN-115	115.0	1.82	1.41	11.279+j34.592	19.965+j65.916	2.87	1.83	5.798+j24.822	19.961+j65.776
LA PRIMAVERA	PMV-115	115.0	10.96	9.56	1.209+j5.937	1.739+j8.487	14.86	11.89	0.779+j4.854	1.756+j8.282
LADRILLERAS	LAD-115	115.0	12.18	10.74	1.179+j5.323	1.542+j7.502	17.64	14.00	0.658+j4.087	1.562+j7.226
LEYVA SOLANO	LVS-115	115.0	4.66	3.44	2.850+j13.961	8.805+j28.029	5.47	3.92	2.552+j13.109	8.793+j27.712
LLANO BLANCO	LLB-115	115.0	2.58	1.80	7.415+j24.608	15.746+j56.976	3.67	2.31	4.650+j19.346	14.947+j53.101
LOS MOCHIS COLINAS	LMC-115	115.0	13.67	10.59	0.840+j4.782	1.651+j8.796	17.72	12.81	0.634+j4.073	1.623+j8.598
LOS MOCHIS DOS	LMD-230	230.0	9.61	8.63	2.203+j13.640	3.399+j17.750	13.42	11.07	1.360+j10.798	3.307+j17.079
LOS MOCHIS DOS	LMD-115	115.0	9.97	7.23	1.074+j6.572	1.648+j13.999	12.79	8.97	0.811+j5.652	1.588+j12.822
LOS MOCHIS INDUSTRIAL	LMI-230	230.0	9.77	9.15	1.943+j13.454	2.509+j15.526	14.25	12.85	1.118+j10.188	2.120+j13.004
LOS MOCHIS INDUSTRIAL	LMI-115	115.0	14.91	12.37	0.674+j4.401	0.920+j6.990	19.72	15.28	0.463+j3.674	0.879+j6.762
LOS MOCHIS TRES	LMT-115	115.0	13.03	10.68	0.944+j5.007	1.722+j8.134	16.64	12.86	0.748+j4.325	1.698+j7.969
LOS MOCHIS UNO	LMU-115	115.0	14.02	11.36	0.810+j4.667	1.457+j7.777	18.18	13.81	0.609+j3.970	1.432+j7.586
LOUISIANA	LOU-230	230.0	12.37	12.93	1.374+j10.642	1.146+j8.606	17.93	18.04	0.771+j8.112	1.038+j7.442
LOUISIANA	LOU-115	115.0	17.39	16.87	0.483+j3.788	0.295+j4.004	23.12	21.21	0.315+j3.143	0.282+j3.885
LUIS DONALDO COLOSIO	LDO-115	115.0	4.03	3.17	4.959+j15.698	8.228+j28.748	5.45	3.87	3.298+j13.001	8.218+j28.611
MANIOBRA MINA COBRE DEL MAYO	MCM-115	115.0	3.05	2.02	8.980+j19.828	17.887+j52.411	3.77	2.74	7.712+j17.792	10.960+j39.820
MANIOBRAS APASCO	MAP-115	115.0	6.56	4.43	2.129+j9.898	5.877+j24.033	9.08	6.01	1.366+j7.923	4.876+j19.797
MANIOBRAS AT SOLAR V	MNV-230	230.0	2.96	4.00	12.433+j43.054	0.849+j10.401	12.41	14.53	0.891+j11.736	0.651+j6.270
MANIOBRAS BLUMEX	MBL-115	115.0	7.13	7.16	2.050+j9.079	1.146+j9.202	8.68	8.47	1.714+j8.237	1.112+j9.009
MANIOBRAS CERVECERA OBREGÓN	MCO-115	115.0	12.52	10.15	1.100+j5.186	1.759+j8.836	15.83	12.11	0.887+j4.528	1.754+j8.628
MANIOBRAS DON DIEGO	DDS-MAN	230.0	3.78	4.29	8.769+j34.012	2.652+j22.720	5.94	6.11	3.876+j24.273	2.595+j22.331
MANIOBRAS FRESNILLO	MFN-115	115.0	2.04	1.62	10.946+j30.660	15.216+j56.323	3.12	2.08	6.215+j22.595	15.215+j56.190
MANIOBRAS MI RANCHITO SUR	MMR-115	115.0	6.47	6.08	3.203+j9.745	2.502+j12.068	8.33	7.37	2.617+j8.368	2.523+j11.987
MANIOBRAS MINA PANGEA	MAN-PSP	115.0	3.76	2.08	3.156+j17.375	11.718+j59.143	5.58	2.53	1.819+j12.971	11.678+j57.922
MANIOBRAS MUNISOL	MMU-115	115.0	5.73	4.88	3.657+j11.000	3.243+j17.413	7.22	5.81	3.064+j9.634	3.245+j17.253
MANIOBRAS OREJANA	MAO-230	230.0	3.58	3.99	7.162+j36.369	3.614+j25.509	5.78	5.81	2.923+j25.088	3.552+j24.594
MARINA	MRN-115	115.0	10.58	8.24	1.250+j6.151	1.674+j11.492	15.45	10.80	0.698+j4.677	1.618+j10.700
MAZATLÁN AEROPUERTO	MAE-115	115.0	9.08	9.43	1.586+j7.138	1.776+j6.228	12.48	12.51	1.070+j5.753	1.725+j5.554
MAZATLÁN CENTRO	MAC-115	115.0	11.79	9.55	1.146+j5.513	1.594+j9.441	17.72	12.81	0.606+j4.076	1.540+j8.717
MAZATLÁN DOS	MZD-400	400.0	7.06	7.52	6.587+j32.058	2.958+j26.348	12.70	11.88	1.912+j19.915	2.675+j23.802
MAZATLÁN DOS	MZD-230	230.0	8.31	8.77	2.790+j15.730	0.876+j13.429	17.29	19.86	0.651+j8.424	0.192+j5.122
MAZATLÁN DOS	MZD-115	115.0	15.43	14.34	0.756+j4.237	0.334+j5.272	25.55	21.20	0.256+j2.847	0.285+j4.598
MAZATLÁN NORTE	MZN-115	115.0	12.39	10.85	1.107+j5.242	1.124+j7.546	19.10	15.10	0.559+j3.784	1.074+j6.762



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Noroeste**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MAZATLÁN ORIENTE	MZO-115	115.0	10.85	8.54	1.357+j5.970	2.215+j10.845	15.84	11.21	0.821+j4.536	2.166+j10.089
MAZATLÁN TECNOLÓGICO	MTE-115	115.0	10.55	8.62	1.499+j6.114	2.065+j10.308	15.26	11.32	0.969+j4.686	2.016+j9.559
MAZATLÁN UNO	MZU-115	115.0	13.40	11.13	0.906+j4.873	1.130+j7.889	20.92	15.36	0.392+j3.469	1.080+j7.194
MOCHIS CENTRO	MCE-115	115.0	13.19	10.85	1.026+j4.928	1.731+j7.954	16.93	13.12	0.828+j4.235	1.706+j7.764
MOCHIS LAS VILLAS	MLV-115	115.0	12.35	9.68	0.843+j5.308	1.621+j9.543	15.60	11.55	0.657+j4.636	1.595+j9.357
MOCUZARI	MRI-115	115.0	2.09	1.38	13.789+j28.538	27.878+j75.910	2.59	2.03	11.503+j25.705	12.129+j50.632
MORELOS-LA ATRAVESADA	MLA-115	115.0	4.26	3.36	4.374+j14.971	7.131+j27.148	4.97	3.83	4.032+j14.137	7.096+j26.955
NACUZARI	NRI-230	230.0	12.23	11.61	1.736+j10.717	2.504+j12.499	16.47	14.51	0.962+j8.814	2.496+j12.120
NAINARI	NNR-115	115.0	13.59	11.51	0.763+j4.825	1.110+j7.432	17.24	13.84	0.570+j4.198	1.112+j7.202
NAVOJOA	NVJ-115	115.0	9.34	6.96	1.424+j6.968	2.873+j14.074	12.90	8.91	0.931+j5.584	2.621+j12.903
NAVOJOA INDUSTRIAL	NVI-115	115.0	6.06	4.90	2.521+j10.669	4.453+j18.113	7.76	5.85	2.020+j9.196	4.469+j17.962
NAVOJOA NORTE	NVN-115	115.0	8.16	5.92	1.794+j7.934	3.822+j16.896	10.87	7.39	1.292+j6.595	3.548+j15.693
NAVOJOA ORIENTE	NVO-115	115.0	8.70	5.88	1.460+j7.491	3.210+j18.283	11.81	7.47	0.970+j6.107	2.844+j16.611
NAVOLATO	NTO-115	115.0	4.21	2.90	3.659+j15.335	9.880+j35.744	4.92	3.28	3.277+j14.479	9.885+j35.656
NOGALES	NGS-115	115.0	3.81	3.36	5.105+j16.645	4.743+j24.175	5.02	4.09	3.244+j14.175	4.721+j24.001
NOGALES AEROPUERTO	NGA-230	230.0	2.75	3.17	14.404+j46.089	3.001+j29.559	4.04	4.32	7.566+j35.322	2.945+j29.143
NOGALES AEROPUERTO	NGA-115	115.0	4.99	5.33	4.034+j12.692	0.853+j10.943	7.06	6.97	2.263+j10.099	0.832+j10.769
NOGALES NORTE	NGN-115	115.0	3.88	3.54	5.154+j16.305	3.897+j21.856	5.14	4.34	3.297+j13.833	3.875+j21.682
NOVILLO	NVL-115	115.0	2.00	0.85	6.914+j32.453	46.408+j160.706	4.42	5.33	1.742+j16.446	0.403+j6.776
NUEVO NOGALES	NNG-115	115.0	3.79	3.22	5.491+j16.615	5.144+j26.561	5.00	3.91	3.643+j14.132	5.122+j26.387
NUEVO PROGRESO	NPO-115	115.0	4.42	3.00	3.377+j14.649	6.771+j35.792	5.28	3.43	2.913+j13.534	6.758+j35.388
OASIS	OAS-115	115.0	2.51	1.58	9.555+j24.646	22.855+j69.600	2.96	1.79	8.719+j23.084	22.829+j69.396
OBSERVATORIO	OBS-230	230.0	5.74	4.92	6.149+j22.303	7.089+j34.296	8.11	6.21	3.490+j17.674	7.058+j33.597
OCUCA	OCU-115	115.0	3.18	2.36	5.976+j19.997	10.836+j41.367	4.30	2.88	4.025+j16.495	10.739+j40.586
ORIENTE	ORI-115	115.0	1.88	1.34	10.554+j33.673	21.762+j75.129	3.13	1.76	4.633+j22.833	21.757+j74.986
OVIACHIC	OVI-115	115.0	2.25	1.57	13.959+j26.032	24.602+j63.340	2.90	2.63	10.449+j22.906	5.747+j31.284
PARQUE INDUSTRIAL HERMOSILLO NORTE	PIH-115	115.0	12.43	11.72	1.131+j5.222	1.213+j6.211	18.09	15.50	0.616+j3.990	1.237+j5.951
PARTICULAR MINA ÁLAMO DORADO	PAD-115	115.0	1.58	1.01	15.692+j38.894	36.580+j107.613	2.10	1.54	12.171+j32.643	22.476+j68.948
PARTICULAR MINA PIEDRAS VERDES	PVD-115	115.0	2.25	1.34	12.542+j26.730	29.799+j84.387	2.69	1.74	11.267+j24.714	21.170+j68.807
PARTICULAR SAUZAL	PSZ-115	115.0	0.86	0.51	23.119+j73.529	69.355+j222.774	1.43	1.91	10.336+j50.138	0.484+j12.834
PIAXTLA	PXT-115	115.0	1.64	0.99	12.019+j38.770	32.206+j114.941	1.87	1.11	11.369+j37.326	32.126+j114.106
PLANTA GUAYMAS DOS	PGD-230	230.0	12.17	12.40	1.471+j10.810	1.671+j10.283	15.65	15.15	0.968+j9.280	1.667+j10.204
PLANTA GUAYMAS DOS	PGD-115	115.0	13.63	11.66	0.703+j4.819	1.009+j7.298	16.69	13.64	0.551+j4.341	1.003+j7.254
PLAYA ENCANTO	PYE-115	115.0	1.87	1.44	10.857+j33.811	19.559+j64.904	3.02	1.89	5.208+j23.577	19.555+j64.763
PORTALES	PTS-115	115.0	13.27	12.04	1.113+j4.879	1.166+j6.446	19.92	16.24	0.608+j3.616	1.189+j6.058
PROGRESO	PRG-115	115.0	5.39	3.78	2.810+j11.987	7.729+j27.035	6.20	4.24	2.654+j11.475	7.741+j27.003
PROVIDENCIA	PRO-115	115.0	15.26	12.40	0.621+j4.307	0.941+j7.292	19.24	14.66	0.458+j3.769	0.952+j7.240
PUEBLITOS	PUE-115	115.0	12.22	11.17	1.151+j5.308	1.353+j6.852	17.71	14.64	0.636+j4.076	1.377+j6.590
PUEBLO NUEVO	PNO-230	230.0	7.34	8.02	3.337+j17.777	1.650+j13.251	12.11	12.05	1.608+j11.951	1.516+j11.649
PUEBLO NUEVO	PNO-115	115.0	10.18	7.13	1.178+j6.413	2.270+j14.685	14.44	9.46	0.694+j5.009	1.873+j12.795



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PUERTO LIBERTAD	PLD-230	230.0	2.97	3.96	12.433+j42.909	1.286+j11.561	13.47	16.36	0.709+j10.821	0.276+j4.767
PUERTO PEÑASCO	PPA-115	115.0	1.98	1.54	10.039+j31.995	18.282+j59.886	3.39	2.08	4.150+j21.144	18.277+j59.743
QUILA	QLA-115	115.0	2.59	1.68	7.119+j24.596	6.138+j67.537	2.96	1.88	6.694+j23.705	6.152+j67.479
QUIROGA	QRG-115	115.0	8.07	6.68	2.264+j7.911	4.845+j12.495	10.63	8.22	1.764+j6.643	4.878+j12.029
RÍO SONORA	RIS-115	115.0	13.24	14.95	1.166+j4.879	0.704+j3.232	20.11	21.84	0.641+j3.575	0.692+j2.703
ROCA FUERTE	RFT-115	115.0	13.36	9.79	0.748+j4.911	1.900+j10.259	16.19	11.28	0.605+j4.469	1.900+j10.246
ROLANDO GARCÍA URREA	RGU-115	115.0	13.04	13.85	1.611+j4.832	1.454+j3.958	20.30	20.50	1.017+j3.452	1.300+j3.274
ROSARIO	ROS-115	115.0	2.30	1.44	6.406+j28.119	26.317+j76.029	2.67	1.63	5.810+j26.755	26.244+j75.303
RUIZ CORTINES	RUC-115	115.0	5.30	3.68	2.372+j12.289	7.730+j27.905	6.26	4.20	2.101+j11.478	7.712+j27.622
SAHUARO	SHO-115	115.0	2.16	1.74	10.114+j28.955	12.736+j51.776	3.36	2.27	5.577+j21.007	12.735+j51.644
SALVADOR ALVARADO	SAA-115	115.0	7.10	5.66	2.010+j9.128	3.383+j16.043	9.26	6.97	1.534+j7.734	3.346+j14.947
SAN CARLOS	SCR-115	115.0	5.85	3.67	2.537+j11.070	7.873+j30.521	6.71	4.11	2.387+j10.622	7.871+j30.499
SAN NICOLÁS	SNC-115	115.0	1.79	1.38	14.153+j34.334	25.456+j64.931	2.04	1.55	13.597+j33.056	25.437+j64.822
SAN RAFAEL	SRF-115	115.0	6.48	4.82	2.290+j9.980	5.475+j20.004	8.11	5.72	1.877+j8.804	5.455+j19.257
SAN RAFAEL AMPLIACIÓN	SRA-115	115.0	6.48	4.82	2.290+j9.980	5.475+j20.004	8.11	5.72	1.877+j8.804	5.455+j19.257
SANALONA	SLA-115	115.0	2.57	1.86	11.854+j22.992	17.994+j52.642	3.13	3.01	10.254+j20.993	4.441+j26.095
SANTA ANA	STA-230	230.0	4.57	5.36	9.253+j27.574	2.540+j16.394	8.85	8.88	3.157+j16.206	2.519+j16.047
SANTA ANA	STA-115	115.0	6.96	7.05	2.649+j9.164	0.848+j9.293	11.27	9.90	1.064+j6.390	0.833+j9.123
SANTA FE	STF-115	115.0	10.05	7.97	1.239+j6.490	2.412+j11.483	12.99	9.77	0.865+j5.558	2.278+j10.851
SANTA MARÍA	STM-115	115.0	5.66	3.99	2.573+j11.435	7.254+j25.317	6.84	4.62	2.223+j10.440	7.253+j24.821
SEIS DE ABRIL	SSA-230	230.0	2.47	3.04	16.332+j51.283	2.195+j24.028	6.33	6.29	3.263+j22.829	2.191+j23.291
SEIS DE ABRIL	SSA-115	115.0	4.19	5.51	4.667+j15.155	0.377+j4.589	9.74	11.23	0.998+j7.433	0.378+j4.466
SELECTA	SEL-115	115.0	1.82	1.19	10.804+j34.897	30.605+j89.977	2.08	1.33	10.199+j33.569	30.583+j89.866
SERI	SER-400	400.0	6.77	7.10	4.915+j33.764	2.918+j29.310	9.57	9.22	2.101+j26.463	2.969+j29.493
SERI	SER-230	230.0	11.25	13.67	2.195+j11.594	0.562+j5.583	18.47	20.70	0.831+j7.864	0.578+j5.357
SIEMPRE VIVA	SVV-115	115.0	3.15	3.16	6.223+j20.146	6.679+j19.747	5.62	4.75	2.621+j12.739	6.561+j19.099
SONOYTA	SNY-115	115.0	0.79	0.51	24.871+j79.860	60.456+j212.661	1.02	0.60	18.390+j69.187	60.450+j212.515
SUBESTACIÓN BAHÍA DE KINO	SBK-115	115.0	1.78	1.38	16.343+j33.607	25.456+j64.931	2.03	1.55	15.786+j32.332	25.437+j64.822
SUBESTACIÓN CANANEA	SCN-230	230.0	7.18	6.72	5.282+j17.718	3.924+j22.388	10.53	8.79	2.914+j13.566	3.884+j21.568
SUBESTACIÓN CANANEA	SCN-115	115.0	6.81	5.76	1.643+j9.612	0.960+j15.195	8.49	6.88	1.056+j8.536	0.921+j14.581
SUBESTACIÓN CANANEA SUR	CNS-230	230.0	6.45	5.22	6.228+j19.608	7.914+j34.719	8.84	6.45	3.887+j16.052	7.882+j33.892
SUBESTACIÓN CENTRO	SCE-230	230.0	5.78	4.48	6.713+j21.984	9.855+j42.181	7.70	5.44	4.347+j18.469	9.823+j41.355
SUBESTACIÓN CINCO	SBI-115	115.0	3.27	2.49	4.693+j19.730	15.095+j36.583	3.86	2.85	4.138+j18.440	15.073+j36.473
SUBESTACIÓN COLINAS	SCL-115	115.0	11.15	9.08	1.309+j5.809	2.019+j9.848	15.79	11.54	0.786+j4.557	2.033+j9.543
SUBESTACIÓN CONCENTRADORA	SCO-230	230.0	5.74	4.50	6.904+j22.099	9.825+j41.503	7.57	5.44	4.572+j18.747	9.793+j40.676
SUBESTACIÓN CUATRO	SBC-115	115.0	3.04	2.07	6.783+j20.748	15.000+j50.341	3.58	2.35	6.180+j19.421	14.978+j50.230
SUBESTACIÓN CULIACÁN POTENCIA	SCP-230	230.0	8.56	10.04	3.130+j15.186	1.080+j8.395	12.74	13.89	1.586+j11.352	1.075+j8.139
SUBESTACIÓN CULIACÁN POTENCIA	SCP-115	115.0	13.94	14.69	0.922+j4.672	0.414+j3.977	20.29	19.72	0.494+j3.566	0.429+j3.750
SUBESTACIÓN DIEZ	SBZ-115	115.0	2.97	1.95	6.568+j21.374	14.842+j55.719	3.48	2.20	6.018+j20.098	14.823+j55.611
SUBESTACIÓN DOS	SBD-115	115.0	5.94	4.73	2.699+j10.854	4.980+j19.104	7.50	5.60	2.111+j9.510	4.959+j18.993



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SUBESTACIÓN ESDE	SES-230	230.0	6.10	4.82	6.428+j20.808	8.898+j38.507	8.24	5.89	4.081+j17.262	8.867+j37.680
SUBESTACIÓN GUAYMAS UNO	SGU-115	115.0	11.96	8.33	0.912+j5.476	2.566+j12.589	14.37	9.54	0.765+j5.026	2.564+j12.567
SUBESTACIÓN NUEVE	SBN-115	115.0	1.78	1.14	12.668+j35.031	29.972+j95.732	2.04	1.28	12.056+j33.722	29.950+j95.621
SUBESTACIÓN OCHO	SBO-115	115.0	1.75	1.18	13.037+j35.579	26.804+j88.824	2.00	1.32	12.476+j34.313	26.785+j88.715
SUBESTACIÓN PERICOS	SPE-115	115.0	4.35	2.87	4.215+j14.679	10.844+j37.242	5.08	3.25	3.884+j13.836	10.836+j36.938
SUBESTACIÓN PONIENTE	SPO-230	230.0	5.73	4.49	6.910+j22.119	9.846+j41.577	7.56	5.43	4.577+j18.768	9.814+j40.750
SUBESTACIÓN PUNTO P	SPP-115	115.0	9.16	8.37	1.653+j7.056	1.362+j9.230	12.43	10.45	1.110+j5.771	1.344+j9.122
SUBESTACIÓN SANTA INÉS	STI-115	115.0	3.73	2.77	5.584+j16.898	9.624+j35.085	4.45	3.17	5.032+j15.623	9.605+j34.977
SUBESTACIÓN SEIS	SBS-115	115.0	2.55	1.83	6.819+j25.124	20.128+j53.235	2.96	2.07	6.262+j23.834	20.107+j53.124
SUBESTACIÓN SIETE	SBE-115	115.0	4.44	3.11	4.512+j14.272	8.376+j33.011	5.38	3.59	3.964+j12.994	8.358+j32.903
SUBESTACIÓN TRES	SBT-115	115.0	4.56	3.28	4.359+j13.900	8.177+j30.529	5.54	3.79	3.810+j12.619	8.159+j30.420
SUBESTACIÓN UNO	SBU-115	115.0	2.38	1.69	9.325+j26.235	17.491+j59.677	2.76	1.91	8.767+j24.966	17.473+j59.568
SUBESTACIÓN VILLA UNIÓN	SVU-115	115.0	8.86	7.57	1.616+j7.313	2.545+j11.034	12.11	9.65	1.095+j5.930	2.492+j10.354
TAMAZULA	TZU-115	115.0	6.02	4.44	2.509+j10.741	6.271+j21.813	7.46	5.24	2.095+j9.565	6.251+j21.066
TASTIOTA	TST-115	115.0	2.11	1.42	9.412+j30.007	24.191+j73.412	2.43	1.60	8.807+j28.679	24.169+j73.300
TEACAPÁN	TEA-115	115.0	1.40	0.84	10.626+j46.290	40.702+j136.002	1.59	0.94	10.004+j44.925	40.618+j135.246
TECNOLÓGICO HERMOSILLO	TCG-115	115.0	10.44	8.19	1.378+j6.208	2.457+j11.369	14.48	10.23	0.849+j4.970	2.474+j11.071
TERRAMARA	TER-115	115.0	2.95	1.83	8.026+j21.044	19.590+j60.685	3.49	2.08	7.312+j19.624	19.553+j60.414
TETABATE	TTB-115	115.0	12.12	10.37	0.988+j5.388	1.588+j8.078	15.23	12.40	0.777+j4.731	1.585+j7.857
TOBARITO	TBR-115	115.0	6.44	4.40	2.425+j10.020	6.325+j23.782	7.57	5.01	2.222+j9.388	6.318+j23.580
TOPOLOBAMPO	TPO-230	230.0	7.46	6.45	2.403+j17.644	4.507+j25.120	12.79	13.04	0.988+j11.382	0.864+j10.291
TOPOLOBAMPO	TPO-115	115.0	6.69	3.52	2.271+j9.666	9.071+j35.403	7.93	3.99	2.066+j8.973	9.045+j35.211
TOPOLOBAMPO DOS	TPD-400	400.0	11.83	13.81	1.898+j19.435	0.497+j10.236	15.33	17.36	0.995+j16.543	0.482+j10.039
TRES RÍOS	TSR-115	115.0	12.94	12.30	1.056+j5.020	1.118+j5.774	18.29	16.95	0.626+j3.945	0.844+j4.739
UNIÓN ENERGÉTICA DEL NOROESTE	UEN-230	230.0	7.97	8.28	2.445+j16.479	2.556+j15.133	15.32	16.49	0.714+j9.510	0.658+j6.724
URES	URE-115	115.0	1.94	1.17	9.452+j32.866	27.680+j97.582	2.23	1.32	8.897+j31.582	27.652+j97.075
VALLE DEL MAYO	VMY-115	115.0	4.49	3.03	3.380+j14.394	10.390+j34.593	5.49	3.53	2.873+j12.991	10.284+j33.960
VALLE DEL YAQUI	VDY-115	115.0	5.12	3.56	3.978+j12.335	8.369+j28.905	5.88	3.99	3.822+j11.828	8.381+j28.874
VALLE DEL YAQUI DOS	VYD-115	115.0	3.83	2.34	4.408+j16.785	14.389+j48.171	4.37	2.62	4.203+j16.156	14.382+j47.969
VENADILLO	VND-115	115.0	10.13	7.94	1.270+j6.432	1.672+j11.832	14.63	10.36	0.716+j4.939	1.612+j11.037
VICAM	VCM-115	115.0	4.16	2.79	3.518+j15.568	9.881+j38.147	4.74	3.12	3.340+j15.044	9.877+j38.101
VILLA ÁNGEL FLORES	VAF-115	115.0	8.26	6.24	1.547+j7.889	3.327+j15.428	10.22	7.29	1.194+j7.045	3.327+j15.304
VILLA GUADALUPE	VGU-115	115.0	3.18	1.94	5.198+j20.212	14.790+j59.317	3.59	2.15	5.044+j19.697	14.802+j59.285
VILLA JUÁREZ	VIJ-115	115.0	2.77	1.71	6.568+j23.086	19.472+j65.831	3.22	1.94	6.061+j21.856	19.236+j64.839
VILLAS DEL CEDRO	VDC-115	115.0	11.02	10.89	1.241+j5.896	1.243+j6.069	14.85	14.61	0.819+j4.849	0.902+j4.961
VILLAS DEL PITIC	VPI-115	115.0	13.63	14.57	1.477+j4.641	1.212+j3.761	21.56	21.85	0.891+j3.269	1.073+j3.096
VIÑEDOS	VNO-115	115.0	4.79	2.99	4.519+j13.107	11.231+j37.311	5.88	3.46	3.923+j11.783	11.177+j36.930

Gerencia de Control Regional Norte





**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Norte**

Subestación Eléctrica	Acronímico	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ABRAHAM GONZÁLEZ	ABG-115	115.0	5.23	4.31	3.317+j12.260	5.435+j20.149	7.07	5.79	2.169+j10.093	4.499+j16.615
AEROPUERTO	AEP-115	115.0	9.35	7.46	1.659+j6.902	4.204+j11.824	12.19	8.98	1.212+j5.870	4.202+j11.736
AGNICO EAGLE	AGE-115	115.0	2.09	2.29	9.346+j30.432	5.828+j22.627	2.35	2.58	8.693+j29.785	5.801+j22.228
ALDAMA	AMA-115	115.0	4.11	3.09	4.317+j15.565	12.336+j29.795	4.82	3.51	3.844+j14.665	12.337+j29.736
ALTARES	ATR-115	115.0	0.74	0.49	38.793+j81.474	102.013+j198.825	0.82	0.54	38.327+j80.819	101.961+j198.625
ALTAVISTA	ALV-115	115.0	2.20	2.02	11.278+j28.036	9.486+j37.178	2.53	2.32	10.161+j26.969	9.306+j35.783
ÁLVARO OBREGÓN	AVO-115	115.0	4.27	3.65	4.382+j14.919	8.182+j22.109	4.99	4.16	3.873+j14.127	8.177+j22.044
AMADO NERVO	AMN-115	115.0	2.82	2.13	6.841+j22.508	17.692+j43.164	3.21	2.38	6.534+j21.823	17.642+j43.034
AMÉRICAS	AMR-115	115.0	10.47	9.14	1.544+j6.149	2.407+j8.843	13.39	10.97	1.091+j5.343	2.377+j8.789
ANAPRA	APR-115	115.0	7.20	5.93	1.777+j9.045	5.476+j14.240	9.01	7.01	1.327+j7.996	5.483+j14.198
ARENALES	ARE-115	115.0	8.15	10.11	2.015+j7.897	0.497+j3.459	10.09	12.26	1.520+j7.079	0.489+j3.387
ARMENDÁRIZ	ARM-115	115.0	2.99	2.10	6.090+j21.367	17.112+j47.723	3.58	2.43	5.225+j19.693	16.799+j46.493
ASCENSIÓN	AON-115	115.0	4.67	4.78	2.689+j13.957	2.408+j13.069	5.38	5.44	2.403+j13.359	2.387+j12.884
ASCENSIÓN DOS	AOD-230	230.0	2.89	3.25	7.609+j45.383	2.220+j30.525	3.37	3.76	6.506+j42.906	2.116+j29.837
ASCENSIÓN DOS	AOD-115	115.0	4.94	6.27	2.301+j13.232	0.260+j4.957	5.71	7.23	2.017+j12.633	0.238+j4.720
AUMA	AUM-115	115.0	10.94	9.88	1.278+j5.934	1.901+j7.862	14.36	12.05	0.810+j5.023	1.904+j7.816
AUTLÁN	NAZ-230	230.0	10.99	11.24	2.336+j11.855	1.576+j11.218	17.02	16.94	1.127+j8.506	1.342+j8.840
AUTOMOTIVE LIGHTING	ALI-115	115.0	14.79	15.09	1.130+j4.344	1.085+j4.091	21.87	20.30	0.667+j3.272	1.080+j3.976
AVALOS	AVL-230	230.0	10.37	12.36	3.030+j12.442	0.996+j6.846	16.94	18.45	1.294+j8.525	0.997+j6.522
AVALOS	AVL-115	115.0	15.86	19.32	0.934+j4.079	0.204+j2.008	22.86	26.39	0.476+j3.159	0.198+j1.930
AZTECAS	AZT-115	115.0	12.10	10.69	1.414+j5.303	2.680+j7.203	16.72	13.43	0.972+j4.260	2.681+j7.126
BABISAS	BBS-115	115.0	3.74	2.85	5.965+j16.718	12.294+j32.078	5.40	4.93	3.714+j12.992	3.810+j17.057
BACIS	BAC-115	115.0	0.55	0.35	54.569+j108.683	39.803+j292.426	0.60	0.39	54.100+j108.051	39.748+j292.220
BASASEACHIC	BAS-115	115.0	2.39	2.84	8.149+j26.544	2.440+j14.566	2.71	3.21	7.499+j25.879	2.416+j14.186
BENITO JUÁREZ	BJZ-115	115.0	5.57	4.49	2.690+j11.614	7.804+j19.121	6.59	5.13	2.370+j10.833	7.803+j19.124
BIOPAPEL	BIO-115	115.0	5.47	5.08	2.881+j11.785	4.085+j14.375	6.40	5.83	2.632+j11.100	4.014+j14.213
BISMARCK	BSM-115	115.0	1.61	1.20	12.472+j39.249	30.322+j77.543	1.80	1.34	12.176+j38.660	30.297+j77.302
BOLÍVAR	BLV-115	115.0	1.66	1.44	13.089+j37.872	19.341+j55.019	1.89	1.63	11.948+j36.801	19.145+j53.601
BOQUILLA	BOQ-115	115.0	3.70	2.81	6.180+j16.838	12.658+j32.755	5.44	5.08	3.756+j12.882	3.002+j16.102
BUENA VISTA	BUV-115	115.0	2.50	2.06	6.133+j25.835	14.874+j41.372	2.82	2.30	5.845+j25.239	14.853+j41.187
BÚFALO	BUF-115	115.0	2.99	2.14	7.825+j20.788	17.600+j45.520	3.86	2.83	6.089+j17.918	13.019+j37.491
CAHUISORI POTENCIA	CPO-230	230.0	1.43	1.65	25.408+j89.343	2.467+j57.418	1.63	1.87	22.849+j86.407	2.374+j56.316
CAHUISORI POTENCIA	CPO-115	115.0	2.49	3.13	7.840+j25.537	0.488+j10.490	2.82	3.56	7.190+j24.879	0.462+j10.091
CAMARGO DOS	CGD-230	230.0	5.78	7.09	6.153+j22.120	0.930+j10.556	9.03	10.42	2.912+j15.911	0.939+j9.748
CAMARGO DOS	CGD-115	115.0	9.05	11.63	1.764+j7.117	0.134+j2.549	13.25	16.40	0.885+j5.440	0.137+j2.358
CAMARGO UNO	CGU-115	115.0	5.81	4.92	2.780+j11.084	3.816+j17.281	7.91	6.51	1.733+j9.073	3.402+j14.801
CANATLAN DOS	CND-115	115.0	4.65	5.27	2.703+j14.011	2.360+j8.973	5.46	6.12	2.362+j13.163	2.330+j8.797
CANATLAN DOS POTENCIA	CAP-230	230.0	3.33	3.44	6.625+j39.290	5.832+j35.631	4.08	4.08	5.312+j35.424	5.746+j35.295
CANATLAN DOS POTENCIA	CAP-115	115.0	4.88	5.76	2.370+j13.392	0.834+j7.376	5.75	6.72	2.035+j12.538	0.799+j7.191
CARICHIC	CRC-115	115.0	1.86	1.29	9.428+j34.387	24.280+j79.537	2.10	1.44	8.862+j33.560	24.284+j79.502



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CAROLINAS	CAS-115	115.0	10.65	9.97	1.529+j6.042	2.194+j7.250	13.65	12.04	1.079+j5.241	2.161+j7.222
CARTAGENA	CAR-115	115.0	12.40	11.26	1.390+j5.169	2.239+j6.626	17.29	14.27	0.932+j4.119	2.242+j6.556
CASAS GRANDES	CGR-115	115.0	7.30	6.95	1.633+j8.948	2.249+j10.261	8.65	8.02	1.360+j8.333	2.241+j10.197
CATEDRAL	CAT-115	115.0	0.81	0.59	29.720+j76.697	68.596+j161.931	0.90	0.65	28.512+j75.810	68.353+j160.440
CATERPILLAR	CTP-115	115.0	12.25	10.33	1.090+j5.308	1.986+j8.223	15.17	12.17	0.849+j4.740	1.987+j8.164
CEMENTOS SAMALAYUCA	CMS-115	115.0	4.80	3.81	3.461+j13.401	9.394+j22.894	5.84	4.43	2.936+j12.150	9.387+j22.782
CERESO	CER-115	115.0	7.40	6.60	2.180+j8.698	4.377+j11.498	9.58	8.01	1.661+j7.439	4.370+j11.386
CERESO JUÁREZ	CEJ-115	115.0	6.81	5.91	2.377+j9.452	5.173+j13.307	8.69	7.09	1.857+j8.194	5.166+j13.195
CERRO DEL MERCADO	CME-115	115.0	8.26	8.05	1.697+j7.853	2.803+j8.242	10.18	9.56	1.389+j7.038	2.798+j8.170
CERROS BLANCOS	CRB-115	115.0	1.48	0.98	12.168+j43.247	40.195+j106.663	1.65	1.08	11.856+j42.567	40.193+j106.642
CHALCHIHUITES	CHL-115	115.0	1.57	1.11	12.480+j40.334	37.811+j87.774	1.76	1.23	12.148+j39.675	37.758+j87.642
CHAMIZAL	CZL-115	115.0	14.65	14.74	1.124+j4.389	1.086+j4.324	21.53	19.64	0.668+j3.326	1.085+j4.244
CHARCOS	CHA-115	115.0	0.94	0.66	20.338+j67.278	65.644+j149.371	1.05	0.73	20.005+j66.610	65.590+j149.239
CHAVEÑA	CVA-115	115.0	12.97	12.14	1.280+j4.956	1.863+j5.897	18.29	15.55	0.826+j3.906	1.868+j5.838
CHIHUAHUA NORTE	CUN-230	230.0	9.07	8.86	3.434+j14.235	3.307+j15.588	13.32	11.78	1.813+j10.813	3.184+j15.020
CHIHUAHUA NORTE	CUN-115	115.0	12.84	14.25	1.217+j5.026	0.604+j3.658	17.01	17.87	0.771+j4.224	0.573+j3.655
CHIHUAHUA PLANTA	CUP-115	115.0	12.40	11.65	1.329+j5.187	1.800+j6.192	16.43	14.37	0.867+j4.361	1.777+j6.138
CHIHUAHUA PONIENTE	CPN-115	115.0	10.16	8.88	1.672+j6.321	3.032+j8.929	12.93	10.62	1.229+j5.513	3.017+j8.880
CHUVISCAR	CHU-230	230.0	9.39	11.67	3.173+j13.788	0.581+j6.113	14.97	17.27	1.386+j9.659	0.596+j5.931
CHUVISCAR	CHU-115	115.0	14.72	17.49	1.024+j4.392	0.239+j2.437	20.74	23.23	0.560+j3.477	0.244+j2.405
CIÉNEGA	CIE-115	115.0	0.56	0.36	54.680+j104.092	37.807+j287.742	0.63	0.40	54.215+j103.483	37.753+j287.535
CIÉNEGA DOS	CID-115	115.0	0.57	0.36	53.830+j102.787	35.924+j282.862	0.63	0.40	53.365+j102.176	35.870+j282.656
CLID	CLI-115	115.0	6.53	5.61	2.354+j9.893	7.691+j13.505	8.19	6.66	1.868+j8.715	7.684+j13.428
COLEGIO	CLG-115	115.0	13.42	11.94	1.305+j4.770	2.222+j6.436	19.19	15.32	0.840+j3.711	2.220+j6.339
COLINA	CLN-115	115.0	3.41	2.53	7.084+j18.164	16.174+j36.202	4.81	4.21	4.790+j14.409	6.816+j20.623
COMPLEJO DE SEGURIDAD	CSG-115	115.0	9.41	8.25	1.688+j6.851	3.193+j9.588	12.04	9.90	1.220+j5.941	3.196+j9.534
COMPLEJO INDUSTRIAL	CIN-115	115.0	10.60	9.96	1.609+j6.052	2.269+j7.190	13.59	12.03	1.151+j5.249	2.241+j7.157
COMPLEJO LALA	CLA-115	115.0	13.94	10.22	1.128+j4.627	3.169+j9.468	17.38	12.02	0.899+j4.104	3.160+j9.350
COMPONENTES	COM-115	115.0	11.33	11.31	1.473+j5.670	1.548+j5.758	14.68	13.81	1.021+j4.869	1.518+j5.744
CONCHEÑO	CON-115	115.0	1.95	2.05	10.741+j32.240	8.336+j28.132	2.20	2.30	10.075+j31.619	8.306+j27.727
CONCORDIA	CCD-115	115.0	13.32	13.97	1.113+j4.859	0.885+j4.258	18.27	17.85	0.647+j3.945	0.888+j4.213
CONDEMBARO	LSC-115	115.0	10.11	9.03	1.853+j6.303	2.673+j8.503	12.38	10.64	1.583+j5.683	2.648+j8.412
CONEJOS MÉDANOS	CJM-115	115.0	2.54	2.73	6.658+j25.329	4.156+j20.320	3.21	3.33	5.166+j22.172	4.054+j19.874
CORONEL	CRN-115	115.0	8.76	5.94	1.492+j7.432	4.531+j17.807	10.53	6.83	1.206+j6.827	4.518+j17.682
CREEL	CRL-115	115.0	1.24	0.95	18.258+j50.265	40.610+j94.215	1.39	1.06	17.595+j49.647	40.563+j93.952
CUADRO DE MANIOBRAS BISMARCK	CMB-115	115.0	2.38	2.02	6.572+j27.089	15.888+j40.169	2.68	2.25	6.277+j26.498	15.863+j39.929
CUADRO DE MANIOBRAS BORDER	MBO-230	230.0	10.74	10.79	2.194+j12.165	2.508+j11.962	18.01	15.72	0.936+j8.056	2.540+j11.429
CUADRO DE MANIOBRAS CEMENTOS	CMC-115	115.0	5.07	4.07	3.266+j12.683	8.628+j21.152	6.21	4.75	2.741+j11.431	8.622+j21.040
CUADRO DE MANIOBRAS ELECTROLUX	CME-115	115.0	16.42	18.16	0.915+j3.940	0.517+j2.843	25.14	25.44	0.479+j2.866	0.518+j2.757
CUADRO DE MANIOBRAS FOXCONN	TRS-400	400.0	7.22	8.38	5.380+j31.515	1.760+j18.827	10.34	11.32	2.729+j24.425	1.793+j18.325



Subestación Eléctrica	Acronímico	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CUADRO DE MANIOBRAS FOXCONN	CMF-115	115.0	9.61	7.78	1.622+j6.713	4.080+j11.125	12.60	9.40	1.176+j5.678	4.079+j11.040
CUADRO DE MANIOBRAS GUADALUPE AGUILERA	MGA-230	230.0	4.27	4.57	4.989+j30.682	4.010+j24.771	5.42	5.56	3.702+j26.695	4.017+j24.596
CUADRO DE MANIOBRAS INTERNACIONAL WIRE	CMI-115	115.0	8.19	8.01	1.670+j7.935	3.061+j8.167	10.23	9.59	1.321+j7.013	3.054+j8.091
CUADRO DE MANIOBRAS LA LUCHA	MLU-230	230.0	4.63	4.69	5.357+j28.159	3.614+j27.524	6.10	5.83	3.497+j23.680	3.617+j27.152
CUADRO DE MANIOBRAS LA PARRILLA	CMP-115	115.0	2.67	1.99	7.419+j23.707	19.331+j46.626	3.03	2.23	7.104+j23.030	19.280+j46.496
CUADRO DE MANIOBRAS NAICA	NAC-115	115.0	2.78	1.94	10.832+j21.302	20.474+j51.170	3.49	2.47	9.482+j18.632	17.052+j43.764
CUADRO DE MANIOBRAS SAN FRANCISCO	PDA-115	115.0	1.62	0.94	17.981+j36.847	58.425+j116.619	1.81	1.04	17.657+j36.365	58.387+j116.360
CUADRO DE MANIOBRAS SAN FRANCISCO	CMF-115	115.0	2.69	2.96	8.262+j23.218	2.853+j18.124	3.15	3.47	7.145+j22.091	2.676+j16.735
CUADRO DE MANIOBRAS VITROMEX	VIM-115	115.0	13.04	13.60	1.179+j4.952	1.147+j4.382	17.81	17.33	0.715+j4.037	1.149+j4.323
CUATRO SIGLOS	CSS-115	115.0	10.51	8.81	1.750+j6.069	3.435+j9.393	14.16	10.88	1.273+j4.997	3.419+j9.238
CUAUHTÉMOC	CHC-115	115.0	7.21	7.95	2.569+j8.845	1.846+j6.427	8.88	9.49	2.026+j7.975	1.852+j6.397
CUAUHTÉMOC DOS	CHD-230	230.0	5.23	6.31	6.463+j24.535	1.224+j12.731	6.76	7.88	4.546+j21.115	1.216+j12.562
CUAUHTÉMOC DOS	CHD-115	115.0	8.50	11.03	1.926+j7.571	0.176+j2.538	10.58	13.50	1.432+j6.751	0.169+j2.466
CUESTA	CUE-115	115.0	13.45	12.27	1.346+j4.751	2.089+j6.020	19.66	16.44	0.850+j3.616	1.924+j5.599
DELICIAS	DEL-115	115.0	7.75	6.78	1.938+j8.339	2.268+j12.110	10.85	8.92	1.080+j6.642	2.001+j10.938
DELICIAS DOS	DLD-115	115.0	7.94	7.57	2.089+j8.099	3.343+j9.074	11.24	10.09	1.221+j6.383	3.286+j8.193
DELPHI	DPH-115	115.0	14.94	11.85	0.981+j4.336	2.282+j7.601	18.86	14.08	0.751+j3.799	2.281+j7.520
DELPHI	DLP-115	115.0	14.87	15.28	1.125+j4.320	1.067+j3.975	22.01	20.59	0.663+j3.251	1.063+j3.872
DIAGONAL	DGN-115	115.0	11.43	8.59	1.121+j5.699	2.983+j11.199	14.08	10.05	0.866+j5.116	2.978+j11.083
DINAMITA	DIN-115	115.0	4.76	3.04	3.315+j13.543	11.111+j35.943	5.45	3.41	3.068+j13.042	11.092+j35.785
DIVISADERO	DIV-115	115.0	0.93	0.67	26.632+j66.040	62.303+j139.654	1.04	0.75	25.946+j65.480	62.251+j139.384
DIVISIÓN DEL NORTE	DDN-230	230.0	9.17	8.95	3.266+j14.116	3.324+j15.451	13.64	11.98	1.655+j10.582	3.242+j14.908
DIVISIÓN DEL NORTE	DDN-115	115.0	13.82	15.31	1.146+j4.666	0.600+j3.416	18.68	19.50	0.702+j3.847	0.572+j3.390
DUNAS	DUN-115	115.0	3.86	2.87	4.489+j16.613	13.608+j32.465	4.60	3.29	3.964+j15.362	13.601+j32.353
DURANGO DOS	DGD-230	230.0	7.67	8.53	2.823+j17.080	1.798+j11.957	10.35	10.97	1.836+j13.996	1.805+j11.612
DURANGO DOS	DGD-115	115.0	11.04	13.45	1.054+j5.918	0.287+j2.793	14.22	16.87	0.752+j5.080	0.279+j2.713
DURANGO UNO	DGU-115	115.0	9.47	9.71	1.370+j6.877	1.910+j6.233	11.86	11.69	1.078+j6.065	1.908+j6.170
DURAPLAY	DUR-115	115.0	2.18	2.00	11.349+j28.268	9.735+j37.744	2.51	2.29	10.232+j27.201	9.555+j36.349
EL CAPULIN	ECU-115	115.0	3.78	3.02	4.165+j17.065	10.892+j28.914	4.32	3.40	3.882+j16.457	10.886+j28.847
EL SALTO	ESL-115	115.0	1.22	0.78	19.229+j51.058	64.812+j130.432	1.35	0.86	19.185+j50.773	64.809+j130.368
EL SAUCITO	SAU-115	115.0	9.71	7.83	1.733+j6.616	3.113+j11.399	12.27	9.28	1.279+j5.814	3.083+j11.334
EL SAUZ	ESZ-115	115.0	3.19	2.47	8.197+j19.137	14.862+j36.029	3.67	2.78	7.745+j18.353	14.831+j36.026
EL TRÉBOL	TRE-115	115.0	1.72	1.35	9.288+j37.404	14.154+j69.630	2.05	1.55	7.651+j34.726	14.115+j69.158
EL VERGEL	ELV-115	115.0	8.77	5.52	1.546+j7.409	4.670+j20.429	10.43	6.30	1.304+j6.882	4.651+j20.258
ENCINO	ENO-400	400.0	6.37	7.22	6.393+j35.659	1.498+j24.242	9.68	10.36	2.365+j26.125	1.001+j21.324
ENCINO	ENO-230	230.0	13.35	17.06	2.230+j9.693	0.327+j3.746	24.36	30.14	0.731+j5.952	0.185+j2.645
ENCINO DOS	END-230	230.0	13.34	16.96	2.230+j9.700	0.366+j3.869	24.11	29.19	0.739+j6.014	0.286+j2.991
EÓLICA HUIMILPAN (SAN PEDRO) MANIOBRAS IXMIQUILPAN	MAU-115	115.0	14.40	10.13	0.952+j4.510	2.114+j10.244	18.12	11.93	0.716+j3.967	2.102+j10.111
ESCALÓN	ESC-115	115.0	1.92	1.21	13.290+j31.948	32.474+j89.435	2.19	1.36	12.639+j30.902	32.108+j88.636
FLEXTRONICS	FLE-115	115.0	14.24	13.73	0.990+j4.558	1.651+j4.931	20.73	18.07	0.561+j3.479	1.653+j4.847



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
FORD	FRD-115	115.0	11.27	11.31	1.460+j5.709	1.542+j5.679	14.57	13.82	1.008+j4.909	1.512+j5.665
FORD MANIOBRAS	FOM-115	115.0	11.65	11.90	1.406+j5.525	1.343+j5.227	15.15	14.62	0.955+j4.724	1.313+j5.213
FOXCONN DOS	FXD-115	115.0	4.64	2.22	2.680+j14.072	24.095+j56.432	5.53	2.51	2.226+j13.028	24.102+j56.390
FRANCISCO VILLA	FVL-230	230.0	7.33	8.05	4.807+j17.478	2.279+j13.308	13.86	15.50	1.597+j10.421	0.744+j7.213
FRANCISCO VILLA	FVL-115	115.0	10.89	12.34	1.393+j5.937	0.485+j3.991	17.17	19.47	0.552+j4.217	0.174+j2.765
FUENTES	FTS-115	115.0	11.04	9.33	1.656+j5.784	3.224+j8.755	15.01	11.59	1.182+j4.721	3.214+j8.628
FUENTES MARES	FMR-115	115.0	13.83	14.06	1.079+j4.678	0.862+j4.553	19.11	17.99	0.619+j3.771	0.856+j4.477
FUNDILAG	FDL-115	115.0	11.04	9.03	1.256+j5.881	2.667+j9.694	13.50	10.55	1.014+j5.313	2.668+j9.635
GALEANA	GNA-115	115.0	3.16	2.35	5.220+j20.322	16.314+j39.865	3.60	2.63	4.923+j19.671	16.309+j39.830
GAMMON LAKE	GML-115	115.0	1.87	1.93	10.066+j34.122	9.352+j30.631	2.10	2.17	9.414+j33.468	9.325+j30.232
GASASEACHIC	GAS-115	115.0	1.98	2.09	10.622+j31.879	7.929+j27.206	2.23	2.34	9.956+j31.257	7.898+j26.801
GAVILÁN	GAV-115	115.0	1.45	1.01	13.297+j43.682	42.326+j97.305	1.63	1.12	12.925+j42.858	42.326+j97.321
GÉMINIS	GEM-115	115.0	12.32	11.02	1.442+j5.193	2.567+j6.858	17.14	13.93	1.009+j4.139	2.565+j6.767
GENERAL TRÍAS	GTR-115	115.0	4.67	3.61	3.397+j13.802	10.395+j24.863	5.49	4.11	2.917+j12.991	10.381+j24.840
GRANJERO	GJO-115	115.0	12.84	12.08	1.319+j5.002	2.608+j5.633	18.13	15.58	0.854+j3.937	2.588+j5.517
GRUPO ESSEX MÉXICO	GEX-115	115.0	10.00	8.61	1.658+j6.426	3.156+j9.351	12.14	10.05	1.405+j5.852	3.156+j9.279
GUACHOCHI	GCH-115	115.0	0.67	0.49	30.056+j95.202	82.484+j193.002	0.74	0.54	28.864+j94.180	82.243+j191.514
GUADALUPE VICTORIA	GVR-115	115.0	1.90	1.43	11.270+j33.074	8.884+j69.154	2.17	1.61	10.753+j31.953	8.877+j69.078
GUADIANA	GDN-115	115.0	6.80	5.79	2.306+j9.486	5.365+j13.973	8.19	6.71	1.996+j8.690	5.364+j13.910
GUANACEVI	GVI-115	115.0	0.57	0.39	42.401+j108.465	109.626+j249.750	0.63	0.44	41.203+j107.651	109.362+j248.229
GUENACEVI DURANGO	GVD-115	115.0	0.59	0.41	41.190+j105.243	106.016+j241.584	0.65	0.45	39.991+j104.422	105.753+j240.062
HACIENDAS	HDS-115	115.0	9.24	7.63	1.830+j6.946	3.365+j11.326	11.60	9.01	1.383+j6.141	3.348+j11.280
HÉRCULES	HCL-230	230.0	1.13	0.94	29.191+j113.733	42.842+j186.143	1.34	1.08	23.936+j106.037	42.685+j184.385
HÉRCULES POTENCIA	HCP-400	400.0	3.14	2.04	8.141+j73.130	50.045+j187.139	3.87	2.39	5.374+j65.502	49.202+j181.976
HUMEDADES	LRT-115	115.0	8.01	6.31	3.171+j7.654	5.496+j13.953	9.60	7.28	2.893+j7.033	5.484+j13.843
IBERDROLA	IEL-115	115.0	27.85	33.77	0.453+j2.341	0.076+j1.144	39.61	46.75	0.243+j1.828	0.070+j1.024
INDUSTRIAL JUÁREZ	INJ-115	115.0	14.27	13.75	1.227+j4.487	1.669+j4.913	21.18	19.10	0.760+j3.363	1.361+j4.384
INDUSTRIAS SUPERIOR	ISP-115	115.0	11.25	11.27	1.462+j5.720	1.558+j5.713	14.54	13.77	1.010+j4.920	1.527+j5.699
INSURGENTES	IGS-115	115.0	15.20	16.72	1.041+j4.241	0.583+j3.133	22.52	22.76	0.597+j3.187	0.591+j3.092
INTERCERAMIC	ITC-115	115.0	10.44	9.74	1.637+j6.144	2.373+j7.428	13.35	11.74	1.178+j5.341	2.345+j7.395
INTERMEX ORIENTE	INO-115	115.0	12.57	13.23	1.259+j5.129	3.559+j3.519	17.64	17.32	0.803+j4.061	3.546+j3.429
INTERMEX SUR	INS-115	115.0	13.41	13.20	1.144+j4.816	1.463+j4.992	19.18	17.23	0.709+j3.742	1.464+j4.906
INTERNATIONAL WIRE	INW-115	115.0	8.05	7.90	1.710+j8.066	3.086+j8.224	10.04	9.46	1.362+j7.144	3.079+j8.148
JABIL	JAB-115	115.0	10.35	9.63	1.650+j6.197	2.424+j7.540	13.22	11.60	1.191+j5.394	2.396+j7.507
JANOS	JOS-115	115.0	4.57	3.98	3.005+j14.199	5.501+j20.347	5.27	4.50	2.717+j13.600	5.492+j20.233
JARDÍN	JAR-115	115.0	15.39	12.96	1.013+j4.195	1.839+j6.493	19.86	16.07	0.753+j3.600	1.732+j6.069
JERÓNIMO ORTIZ MARTÍNEZ	JOM-400	400.0	5.36	5.01	5.398+j42.718	5.213+j51.869	6.87	6.05	3.069+j36.851	5.286+j51.795
JERÓNIMO ORTIZ MARTÍNEZ	JOM-230	230.0	8.97	10.89	2.174+j14.643	0.657+j6.995	12.11	14.23	1.335+j11.986	0.671+j6.673
JERÓNIMO ORTIZ MARTÍNEZ	JOM-115	115.0	11.35	14.07	0.897+j5.778	0.156+j2.480	14.43	17.48	0.640+j5.022	0.153+j2.414
JIMÉNEZ	JEZ-115	115.0	3.91	3.00	5.443+j16.092	12.096+j30.218	4.94	3.64	4.278+j14.157	11.240+j28.550



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
JUÁREZ	JRZ-115	115.0	10.20	8.37	1.480+j6.337	3.173+j10.324	13.55	10.22	1.042+j5.288	3.169+j10.222
KILOMETRO OCHENTA Y OCHO	KOO-115	115.0	5.03	3.77	3.705+j12.660	7.337+j25.530	6.44	4.57	2.849+j10.969	7.024+j24.302
LA FLOR	LAF-115	115.0	1.59	1.15	9.469+j40.586	35.687+j82.657	1.79	1.28	9.207+j39.825	35.684+j82.591
LA MORA	EDU-115	115.0	6.75	4.63	2.482+j9.521	8.102+j21.981	7.87	5.24	2.247+j9.002	8.092+j21.862
LA PARILLA	LPA-115	115.0	2.45	1.78	7.975+j25.893	22.013+j53.594	2.77	1.99	7.660+j25.216	21.962+j53.464
LA PERLA	LPL-115	115.0	2.93	3.06	6.500+j21.735	6.384+j18.650	3.59	3.65	5.222+j19.680	6.360+j18.252
LA SALADA	LSA-115	115.0	1.78	1.41	9.089+j36.213	25.677+j62.372	1.99	1.56	8.793+j35.626	25.653+j62.131
LA TRINIDAD	LTR-230	230.0	9.14	10.78	1.837+j14.404	0.733+j7.949	12.96	15.28	1.024+j11.221	0.472+j6.164
LA UNIÓN	LAU-115	115.0	18.63	13.75	0.781+j3.478	1.811+j7.145	24.32	16.58	0.554+j2.951	1.799+j7.014
LAGOS	LAG-115	115.0	13.19	12.00	1.398+j4.836	2.255+j6.143	18.90	15.62	0.917+j3.753	2.210+j5.926
LAGUNA ENCINILLAS	LEN-230	230.0	3.69	2.56	5.799+j35.469	21.889+j81.346	4.46	2.94	4.467+j32.479	21.862+j81.151
LALA	LAL-115	115.0	19.82	17.33	0.749+j3.266	1.315+j4.622	26.71	22.83	0.503+j2.688	1.108+j4.010
LAS CUATAS	CUA-115	115.0	2.18	1.56	4.682+j30.051	26.618+j62.106	2.48	1.75	4.349+j29.163	26.619+j62.123
LÁZARO CÁRDENAS	LCS-115	115.0	5.59	4.24	2.841+j11.530	5.844+j22.493	7.27	5.18	1.958+j9.855	5.700+j21.472
LEBARON	LEB-115	115.0	1.77	1.25	9.945+j36.137	33.117+j77.878	1.99	1.39	9.644+j35.490	33.112+j77.842
LEONI CABLE	LEO-115	115.0	7.99	9.15	2.056+j8.048	1.213+j5.087	9.87	11.00	1.561+j7.230	1.206+j5.015
LEXMARK	LEX-115	115.0	10.42	8.62	1.560+j6.175	3.868+j9.682	13.94	10.56	1.120+j5.117	3.870+j9.599
LEXMARK DOS	LXD-115	115.0	10.64	9.32	1.182+j6.129	3.174+j8.391	14.30	11.53	0.749+j5.054	3.175+j8.307
LIBERTAD	LTD-115	115.0	12.63	11.04	1.456+j5.050	2.441+j7.128	18.04	14.43	0.973+j3.930	2.259+j6.734
LIBERTAD (MONTEMORELOS)	SPD-115	115.0	6.33	4.56	2.508+j10.179	6.414+j21.856	7.56	5.23	2.100+j9.429	6.396+j21.703
LIBERTAD (VICTORIA)	TRR-115	115.0	12.48	9.45	1.015+j5.224	2.540+j10.129	15.58	11.17	0.750+j4.626	2.522+j9.968
LICUEFACCIÓN DE GAS NATURAL	GNN-115	115.0	4.30	2.65	3.956+j14.921	15.248+j41.743	4.93	2.97	3.653+j14.343	15.211+j41.487
LÓPEZ MATEOS	LZM-115	115.0	3.52	3.34	5.218+j18.151	7.467+j20.561	4.06	3.80	4.633+j17.376	7.450+j20.422
MANIOBRAS BAHUICHIVO	MBH-115	115.0	0.79	0.55	32.601+j77.518	77.456+j180.166	0.88	0.60	31.907+j76.991	77.402+j179.892
MANIOBRAS CENTAURO	MAC-115	115.0	5.58	5.19	2.783+j11.568	4.076+j14.009	6.54	5.96	2.532+j10.880	4.011+j13.856
MANIOBRAS CERRO DEL MERCADO	MCM-115	115.0	7.78	6.94	1.854+j8.335	4.042+j10.956	9.51	8.15	1.546+j7.524	4.038+j10.888
MANIOBRAS CIENTO OCHO	MCO-115	115.0	4.59	3.81	4.052+j13.888	7.005+j22.365	5.39	4.34	3.546+j13.090	7.000+j22.299
MANIOBRAS MARÍA SOLAR	MMS-230	230.0	4.02	4.74	5.346+j32.559	1.366+j18.130	5.14	5.84	3.804+j28.161	1.369+j18.125
MANIOBRAS MINA MULATOS	MMT-115	115.0	1.31	1.15	16.282+j47.861	25.945+j67.216	1.47	1.28	15.601+j47.276	25.910+j66.802
MANIOBRAS MVC	MVC-115	115.0	8.42	8.28	1.536+j7.735	2.444+j7.941	10.47	9.89	1.218+j6.867	2.443+j7.878
MANIOBRAS PARQUE EÓLICO	MPE-115	115.0	1.40	1.66	13.488+j45.328	1.815+j25.573	1.53	1.83	13.754+j45.576	1.749+j25.021
MANIOBRAS PEÑALES	MPL-230	230.0	9.72	8.84	2.780+j13.371	3.678+j17.390	14.46	12.84	1.498+j9.987	2.935+j13.903
MANIOBRAS SABINAS	MAS-115	115.0	1.57	1.04	16.731+j38.830	40.039+j99.426	1.76	1.15	16.396+j38.206	39.987+j99.294
MANIOBRAS SANTA ROSA	MSR-115	115.0	3.98	3.06	4.342+j16.125	12.461+j29.290	4.63	3.47	3.829+j15.309	12.457+j29.267
MANIOBRAS TREINTA Y CUATRO	MTC-115	115.0	5.46	5.15	3.427+j11.675	5.067+j13.503	6.52	5.97	2.875+j10.822	5.071+j13.469
MANIOBRAS VILLANUEVA	MVI-400	400.0	6.57	7.43	5.276+j34.739	2.769+j22.866	9.35	9.95	2.693+j27.050	2.722+j22.234
MANITOBA	MBA-115	115.0	5.66	4.71	2.794+j11.395	4.294+j18.356	6.74	5.42	2.292+j10.585	4.288+j18.290
MANTE	SCT-115	115.0	20.18	18.97	0.697+j3.216	1.078+j3.781	27.01	24.35	0.463+j2.664	0.987+j3.488
MAPIMI	MPI-115	115.0	2.58	1.49	5.507+j25.122	19.593+j80.078	2.90	1.65	5.249+j24.626	19.563+j79.909
MASISA	MSS-115	115.0	6.41	5.69	2.280+j10.102	5.091+j13.444	7.69	6.60	1.969+j9.290	5.086+j13.372



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MÉDANOS	MED-115	115.0	11.08	8.94	1.393+j5.829	3.341+j9.778	15.03	11.03	0.927+j4.769	3.329+j9.643
MENONITAS	MEN-115	115.0	2.83	2.37	6.357+j22.608	13.916+j34.488	3.23	2.67	5.847+j21.834	13.906+j34.380
MEOQUI	MOQ-115	115.0	6.07	4.79	2.609+j10.622	5.799+j18.869	8.02	5.93	1.727+j8.938	5.700+j17.923
MESTEÑAS	MES-230	230.0	1.92	2.22	18.355+j66.682	2.697+j42.316	2.43	2.73	13.428+j58.661	2.559+j40.610
MESTEÑAS	MES-115	115.0	3.36	4.30	5.150+j19.048	0.344+j7.063	4.22	5.33	3.823+j16.881	0.310+j6.608
MILENIO	MIL-115	115.0	7.73	7.44	1.695+j8.425	3.254+j9.078	9.39	8.74	1.420+j7.645	3.253+j9.017
MINA CERRO DEL MERCADO	CDM-115	115.0	7.65	6.31	1.908+j8.467	5.220+j13.312	9.34	7.36	1.599+j7.656	5.216+j13.243
MINERA AUTLÁN TAP	MAX-115	115.0	14.92	10.57	0.897+j4.360	2.006+j9.743	18.85	12.50	0.661+j3.817	1.994+j9.610
MINERA DEL TORO	MDT-115	115.0	1.54	1.08	12.713+j41.252	38.757+j89.922	1.72	1.20	12.381+j40.593	38.705+j89.790
MINERA DOLORES	MDO-115	115.0	1.16	0.97	18.746+j54.253	33.367+j83.672	1.29	1.08	18.059+j53.684	33.331+j83.256
MINERA ROBLE	MRO-115	115.0	1.51	0.88	19.024+j39.630	61.675+j123.990	1.68	0.97	18.699+j39.154	61.636+j123.731
MINERA SAN JUAN	SAJ-115	115.0	0.68	0.48	36.006+j90.949	86.483+j201.954	0.76	0.53	34.792+j90.116	86.238+j200.460
MIRAVALLE	MIR-115	115.0	16.83	13.49	0.753+j3.871	1.448+j6.735	21.61	16.28	0.528+j3.338	1.431+j6.572
MITLA	MLA-115	115.0	11.37	9.94	1.300+j5.692	1.900+j8.146	15.53	12.40	0.851+j4.626	1.896+j8.052
MOCTEZUMA	MCZ-400	400.0	5.42	6.08	6.911+j42.006	1.816+j29.182	7.64	7.95	3.390+j33.091	1.878+j29.413
MOCTEZUMA	MCZ-230	230.0	10.69	13.19	2.290+j12.208	0.431+j5.468	15.97	18.49	1.114+j9.078	0.443+j5.426
MOCTEZUMA	MCZ-115	115.0	12.66	15.99	0.723+j5.193	0.070+j1.999	16.87	20.54	0.396+j4.312	0.070+j2.016
MONTE VERDE	MTV-115	115.0	2.02	1.53	8.571+j31.713	5.712+j64.377	2.27	1.71	8.272+j31.133	5.702+j64.262
NAICA	NAI-115	115.0	2.78	1.94	10.813+j21.285	20.426+j51.206	3.49	2.47	9.468+j18.633	17.107+j43.961
NAMIQUIPA	NQA-115	115.0	2.51	2.09	6.743+j25.526	13.947+j40.125	2.86	2.35	6.237+j24.770	13.929+j39.952
NAZAS	NAZ-115	115.0	20.54	22.77	0.665+j3.163	0.263+j2.283	28.45	30.68	0.392+j2.537	0.228+j2.031
NICOLÁS BRAVO	NCB-115	115.0	1.21	0.89	15.476+j52.588	43.463+j106.570	1.35	0.98	14.958+j51.854	43.444+j106.395
NOMBRE DE DIOS	NDD-115	115.0	10.82	10.08	1.572+j5.929	2.284+j7.207	13.94	12.20	1.114+j5.118	2.257+j7.170
NORTE CERESO	NCE-230	230.0	14.47	18.15	1.662+j9.026	0.214+j3.623	28.50	33.30	0.513+j5.100	0.244+j2.911
NUEVA HOLANDA	NHO-115	115.0	1.66	1.25	9.542+j38.883	16.050+j78.088	1.96	1.42	8.007+j36.479	16.011+j77.615
NUEVO CASAS GRANDES	NCG-230	230.0	6.14	7.22	3.480+j21.355	1.057+j11.928	7.69	8.80	2.468+j18.839	1.029+j11.745
NUEVO CASAS GRANDES	NCG-115	115.0	9.11	11.68	1.093+j7.209	0.122+j2.499	10.98	13.94	0.830+j6.598	0.114+j2.420
NUEVO IDEAL	NID-115	115.0	1.52	1.14	16.637+j40.529	38.794+j77.678	1.70	1.27	16.230+j39.772	38.754+j77.489
OASIS	OAS-115	115.0	1.62	1.21	10.146+j39.819	16.749+j80.857	1.91	1.38	8.538+j37.304	16.709+j80.380
OCAMPO	OCP-115	115.0	9.91	8.61	1.705+j6.482	3.246+j9.261	12.65	10.32	1.250+j5.636	3.238+j9.198
OJINAGA	OJI-115	115.0	0.88	0.62	24.212+j71.482	56.758+j159.692	1.00	0.70	22.541+j69.128	56.714+j159.209
ORIENTE VEINTIUNO	OTV-115	115.0	12.30	10.50	1.248+j5.251	2.736+j7.733	17.13	13.22	0.792+j4.190	2.729+j7.625
PALMAREJO	PAL-115	115.0	0.66	0.44	39.783+j92.101	95.385+j230.861	0.73	0.49	39.086+j91.609	95.330+j230.586
PALOMAR	PMR-115	115.0	8.58	6.87	1.891+j7.507	3.558+j13.108	10.65	8.05	1.442+j6.702	3.536+j13.069
PALOMAS	PMS-115	115.0	1.52	1.17	11.160+j42.197	32.132+j76.929	1.70	1.30	10.862+j41.611	32.107+j76.688
PAPELERA CHIHUAHUA	PCH-115	115.0	10.49	9.59	1.467+j6.159	2.417+j7.824	13.67	11.67	0.999+j5.250	2.420+j7.769
PARQUE	PQE-115	115.0	15.92	17.26	1.078+j4.030	0.784+j3.103	24.97	25.80	0.573+j2.868	0.574+j2.584
PARQUE PIEL	EZT-115	115.0	3.88	2.99	5.430+j16.212	13.296+j29.634	4.42	3.36	5.207+j15.688	13.281+j29.477
PARRAL	PAR-115	115.0	2.06	1.82	12.006+j29.851	11.472+j43.581	2.37	2.09	10.886+j28.792	11.290+j42.183
PASO DEL AGULIA	PSA-115	115.0	10.50	7.42	1.539+j6.136	4.631+j13.441	12.67	8.57	1.306+j5.614	4.621+j13.323



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PASO DEL NORTE	PNR-230	230.0	8.82	10.00	2.964+j14.769	1.833+j9.540	13.86	14.30	1.435+j10.438	1.862+j9.407
PASO DEL NORTE	PNR-115	115.0	16.09	18.94	0.995+j4.004	0.329+j2.257	24.34	26.59	0.553+j2.949	0.336+j2.220
PATRIA	PAT-115	115.0	11.42	9.77	1.423+j5.639	3.012+j8.258	15.61	12.18	0.959+j4.580	3.001+j8.149
PEÑITAS	AND-230	230.0	10.81	11.19	2.344+j12.052	1.791+j10.937	15.72	15.19	1.275+j9.203	1.804+j10.260
PEÑUELAS	ADI-115	115.0	6.49	5.24	3.013+j9.778	6.774+j16.259	7.62	6.00	2.744+j9.179	6.755+j16.089
POLVORÍN	TMA-115	115.0	1.65	1.34	12.877+j38.244	21.336+j64.107	1.84	1.48	12.512+j37.691	21.401+j65.006
PONDERCEL	POE-115	115.0	5.60	5.96	3.010+j11.457	2.417+j9.470	6.65	6.93	2.549+j10.675	2.393+j9.377
PORVENIR	PRR-115	115.0	1.73	1.20	10.466+j36.896	34.724+j82.126	1.96	1.34	9.995+j35.866	34.666+j81.968
PUENTE DE NEGROS	PDN-115	115.0	5.03	4.35	3.325+j12.761	6.492+j18.316	5.88	4.97	3.044+j12.048	6.444+j18.189
PUERTO JUSTO	PTJ-115	115.0	1.81	1.61	12.408+j34.611	16.110+j47.361	2.06	1.84	11.253+j33.539	15.903+j45.927
QUEVEDO	QVD-230	230.0	3.04	3.56	9.735+j42.517	1.846+j25.051	3.66	4.20	7.764+j39.191	1.781+j24.594
QUEVEDO	QVD-115	115.0	5.18	6.46	2.723+j12.531	0.274+j5.302	6.10	7.56	2.232+j11.754	0.257+j5.131
QUINCE DE OCTUBRE	QDO-115	115.0	6.97	6.20	2.143+j9.287	4.423+j12.344	8.44	7.23	1.827+j8.461	4.422+j12.283
QUINCEO	PHS-115	115.0	23.30	19.81	0.589+j2.789	0.780+j4.294	31.91	24.97	0.366+j2.259	0.766+j4.153
RANCHO LUCERO	RLO-115	115.0	12.12	8.33	1.121+j5.360	2.926+j12.640	14.93	9.70	0.879+j4.811	2.914+j12.508
RANCHO SAN LUCAS	RSL-115	115.0	2.69	2.10	7.788+j23.394	16.705+j42.353	3.23	2.42	6.690+j21.610	16.700+j42.139
REFORMA	REA-230	230.0	11.80	13.73	2.281+j11.022	0.908+j6.464	20.92	21.89	0.923+j6.921	0.934+j5.994
REFORMA	REA-115	115.0	17.95	22.16	0.829+j3.606	0.165+j1.594	28.50	33.17	0.410+j2.529	0.159+j1.477
REGIO MÁRMOL	REM-115	115.0	4.42	2.83	3.595+j14.600	12.236+j38.499	5.04	3.17	3.348+j14.099	12.216+j38.340
REVOLUCIÓN	REV-115	115.0	7.87	6.00	2.203+j8.143	5.908+j15.280	9.35	6.89	1.935+j7.568	5.897+j15.142
RIO FLORIDO	RIF-115	115.0	3.51	2.74	5.457+j18.104	13.230+j32.314	4.43	3.28	4.193+j15.953	12.872+j31.439
RIVEREÑA	RVA-115	115.0	15.10	15.72	1.116+j4.252	1.023+j3.750	22.56	21.46	0.651+j3.171	1.016+j3.602
ROBERT BOSH	ROB-115	115.0	12.00	10.80	1.506+j5.326	2.563+j6.942	16.79	13.88	1.020+j4.229	2.496+j6.669
ROBINSON	RNN-115	115.0	11.75	11.29	1.277+j5.503	1.696+j6.184	15.66	14.00	0.810+j4.592	1.699+j6.129
RUIZ CORTINES	RCS-115	115.0	3.97	3.88	3.753+j16.289	3.929+j17.514	4.61	4.43	3.257+j15.519	3.911+j17.342
SABINAS	SAB-115	115.0	1.53	1.01	17.227+j39.778	41.208+j102.462	1.71	1.12	16.892+j39.155	41.156+j102.331
SALVARCAR	SVC-115	115.0	12.72	11.23	1.218+j5.075	2.624+j6.854	17.86	14.25	0.779+j4.014	2.627+j6.771
SAMALAYACA SUR	SYS-230	230.0	12.31	12.95	2.036+j10.590	1.804+j9.046	27.68	29.94	0.497+j5.253	0.576+j4.063
SAMALAYUCA	SYC-230	230.0	12.52	13.38	1.998+j10.417	1.630+j8.422	29.69	34.47	0.429+j4.901	0.225+j2.886
SAN ANTONIO DE BELÉN	ABE-115	115.0	1.72	1.15	14.907+j35.684	35.930+j88.778	1.92	1.28	14.574+j35.053	35.878+j88.646
SAN BUENAVENTURA	SBV-115	115.0	3.11	2.28	5.231+j20.727	17.387+j41.318	3.54	2.55	4.925+j20.036	17.384+j41.297
SAN FRANCISCO DE BORJA	SFB-115	115.0	1.54	0.98	11.980+j41.474	36.244+j110.259	1.73	1.09	11.436+j40.702	36.239+j110.235
SAN FRANCISCO DE LOS ROMO	AMS-115	115.0	12.88	9.16	1.060+j5.044	2.693+j11.138	15.97	10.74	0.820+j4.500	2.675+j10.959
SAN FRANCISCO DEL ORO	SFO-115	115.0	2.45	2.50	9.271+j25.461	5.487+j24.969	2.85	2.91	8.153+j24.338	5.310+j23.580
SAN IGNACIO	SIG-115	115.0	2.36	1.67	7.613+j27.093	24.364+j58.660	2.70	1.87	7.144+j26.059	24.306+j58.502
SAN ISIDRO	SID-115	115.0	7.34	5.97	2.127+j8.787	4.829+j14.555	9.23	7.08	1.677+j7.733	4.772+j14.399
SAN JERÓNIMO	SJE-115	115.0	5.02	2.34	2.492+j12.995	23.149+j54.284	6.02	2.65	2.039+j11.951	23.156+j54.242
SAN MARTIN	MRT-115	115.0	1.55	1.02	16.982+j39.305	40.623+j100.943	1.73	1.14	16.647+j38.681	40.570+j100.812
SAN MIGUEL DE ALLENDE	LJT-115	115.0	16.18	12.95	0.771+j4.030	1.984+j6.922	20.66	15.49	0.541+j3.493	1.983+j6.842
SAN PEDRO POTENCIA	SPP-230	230.0	2.33	2.58	15.090+j55.080	3.771+j40.536	2.73	2.99	12.763+j51.913	3.656+j39.989



**Niveles de cortocircuito de la Red Nacional de Transmisión
Gerencia de Control Regional Norte**

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SAN PEDRO POTENCIA	SPP-115	115.0	3.88	4.79	4.556+j16.508	0.583+j7.466	4.49	5.53	3.962+j15.764	0.547+j7.221
SANTA BÁRBARA	BBA-115	115.0	2.55	2.68	9.137+j24.328	4.272+j22.311	2.97	3.12	8.026+j23.201	4.098+j20.929
SANTA MARÍA DEL ORO	SMO-115	115.0	0.81	0.59	29.248+j76.379	69.029+j160.928	0.91	0.65	28.053+j75.474	68.779+j159.427
SANTIAGO DOS	SGD-230	230.0	1.67	1.82	26.189+j75.056	5.211+j61.610	1.99	2.16	21.900+j70.062	4.464+j56.800
SANTIAGO DOS	SGD-115	115.0	2.91	3.37	7.641+j21.528	0.933+j13.788	3.41	3.99	6.530+j20.389	0.759+j12.407
SANTIAGO PAPASQUIARO	SGP-115	115.0	1.10	0.78	25.379+j55.039	61.769+j118.916	1.22	0.87	24.946+j54.325	61.724+j118.722
SANTIAGO UNO	SGU-115	115.0	2.84	3.25	7.896+j21.996	1.410+j14.874	3.33	3.83	6.786+j20.860	1.237+j13.493
SANTOS SOLAR MANIOBRAS	SSM-115	115.0	11.43	13.42	0.811+j5.753	0.598+j3.198	14.93	16.81	0.483+j4.867	0.598+j3.215
SAUZAL	SAZ-115	115.0	10.76	8.75	1.510+j5.985	3.567+j9.835	14.54	10.81	1.033+j4.915	3.537+j9.653
SETENTA Y TRES	SAT-115	115.0	1.79	1.37	10.439+j35.634	27.926+j66.227	2.01	1.52	9.923+j34.873	27.915+j66.119
SOMBRERETE	SOM-115	115.0	1.46	0.96	18.148+j41.794	43.505+j108.401	1.63	1.06	17.814+j41.170	43.453+j108.270
TABALAOPA	TBL-115	115.0	11.97	12.10	1.412+j5.366	1.668+j5.175	16.04	15.16	0.948+j4.455	1.668+j5.118
TACUBAYA	TBA-115	115.0	3.00	3.18	6.324+j21.238	5.861+j17.463	3.68	3.80	5.046+j19.182	5.838+j17.066
TAKATA	TAK-115	115.0	16.17	13.45	0.780+j4.032	1.548+j6.424	20.75	16.16	0.548+j3.476	1.550+j6.365
TECNOLÓGICO	TEC-115	115.0	11.33	10.14	1.603+j5.636	2.684+j7.466	15.61	12.85	1.122+j4.543	2.655+j7.253
TEPIC UNO	GPL-230	230.0	11.88	13.03	2.094+j10.980	0.761+j8.250	19.18	20.98	0.908+j7.562	0.495+j5.808
TERRANOVA	TER-230	230.0	11.44	13.22	2.401+j11.356	0.868+j6.909	21.00	21.72	0.900+j6.899	0.896+j6.215
TERRANOVA	TER-115	115.0	18.26	22.62	0.808+j3.546	0.159+j1.538	29.27	33.98	0.379+j2.466	0.161+j1.455
TINAJAS	TIN-115	115.0	2.87	2.12	3.941+j22.777	18.708+j44.616	3.29	2.38	3.592+j21.918	18.708+j44.632
TORREONCITOS SOLAR	TOS-115	115.0	3.42	2.68	5.688+j18.567	13.479+j32.881	4.30	3.20	4.401+j16.389	13.120+j32.005
TORRES	TOR-115	115.0	14.63	14.31	1.071+j4.411	1.654+j4.572	21.43	18.96	0.637+j3.348	1.656+j4.487
TRECE SOLAR MANIOBRAS	TSM-115	115.0	2.29	2.03	6.937+j28.122	7.459+j39.566	2.84	2.40	5.273+j25.204	7.423+j39.103
TRES HERMANOS	THS-115	115.0	1.85	1.72	10.973+j34.129	17.141+j40.478	2.19	1.99	9.628+j31.979	17.106+j40.021
VADO SANTA MARÍA	VSM-115	115.0	1.73	1.44	9.235+j37.199	3.749+j61.967	1.94	1.60	8.962+j36.596	3.741+j61.888
VALLARTA UNO	LED-230	230.0	11.08	10.95	2.373+j11.742	2.249+j12.266	17.96	19.03	1.062+j8.065	0.922+j6.999
VALLE DE JUÁREZ	VJZ-230	230.0	10.15	11.03	2.673+j12.806	1.493+j9.864	17.36	16.87	1.104+j8.341	1.416+j9.054
VALLE DE JUÁREZ	VJZ-115	115.0	16.90	19.93	0.968+j3.807	0.290+j2.133	26.82	29.96	0.489+j2.679	0.243+j1.857
VALLE DE TECOMAN	MAT-115	115.0	10.96	9.94	1.428+j5.885	2.267+j7.601	13.58	11.86	1.138+j5.258	2.247+j7.425
VALLE DEL MEZQUITAL	PLA-115	115.0	0.99	0.91	20.845+j64.072	27.568+j79.628	1.08	1.00	21.177+j64.415	27.501+j79.073
VALLE ESPERANZA	VEZ-115	115.0	2.23	1.54	5.065+j29.322	27.513+j64.991	2.53	1.72	4.714+j28.465	27.513+j65.008
VERDE INDEPENDENCIA UNO	VIU-115	115.0	9.13	7.44	1.322+j7.151	4.538+j11.490	11.89	8.98	0.889+j6.076	4.539+j11.406
VICENTE GUERRERO	VGR-115	115.0	2.66	1.97	7.676+j23.751	19.791+j47.407	3.01	2.20	7.354+j23.082	19.740+j47.276
VIDRIERA CHIHUAHUA MANIOBRAS	VCM-115	115.0	5.73	4.38	2.765+j11.262	5.930+j21.499	7.48	5.37	1.880+j9.586	5.809+j20.517
VILLA AHUMADA	VAH-115	115.0	2.30	1.66	7.936+j27.695	24.712+j57.540	2.62	1.85	7.577+j26.852	24.713+j57.557
VIÑEDOS	VDS-115	115.0	13.21	9.70	1.166+j4.888	3.244+j9.989	16.39	11.38	0.930+j4.357	3.236+j9.870
WERNER	WER-115	115.0	11.83	10.42	1.506+j5.406	2.805+j7.401	16.29	13.07	1.073+j4.352	2.803+j7.309
WRANGLER	WRA-115	115.0	8.14	7.57	2.066+j7.886	4.375+j9.179	11.61	10.13	1.207+j6.171	4.334+j8.212
ZARAGOZA	ZZA-115	115.0	14.66	14.50	1.210+j4.363	1.470+j4.455	21.83	19.77	0.724+j3.266	1.402+j4.181

Gerencia de Control Regional Noreste





Subestación Eléctrica	Acónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ACERO	AEO-115	115.0	9.54	8.73	1.119+j6.872	1.561+j8.808	11.40	10.11	0.920+j6.338	1.558+j8.756
ACEROS PLANOS	APM-115	115.0	24.67	16.57	0.541+j2.636	1.287+j6.512	28.18	18.57	0.485+j2.546	1.287+j6.495
ACUARIO	ACU-138	138.0	12.24	10.60	1.507+j6.334	1.761+j9.543	14.22	12.08	1.351+j6.015	1.750+j9.421
ACUÑA	AUA-138	138.0	5.53	5.85	2.933+j14.101	1.649+j11.994	7.12	7.52	2.246+j12.096	1.492+j10.208
ACUÑA DOS	ACD-138	138.0	5.67	5.96	2.578+j13.810	1.580+j11.918	7.66	8.16	1.727+j11.313	1.272+j9.226
AEROPUERTO	AER-400	400.0	15.12	16.93	2.309+j15.098	1.187+j10.904	20.29	21.75	1.392+j12.444	1.216+j10.287
AEROPUERTO	AER-230	230.0	20.72	24.75	1.031+j6.326	0.284+j3.418	27.19	31.72	0.660+j5.331	0.281+j3.158
AEROPUERTO	AER-138	138.0	21.28	24.77	0.642+j3.688	0.188+j2.209	26.53	30.36	0.483+j3.268	0.183+j2.102
AEROPUERTO NORTE	ANE-115	115.0	15.96	8.76	0.826+j4.077	3.155+j14.061	17.93	9.72	0.772+j3.999	3.155+j14.042
AEROPUERTO OMA MONTERREY	OMA-115	115.0	17.72	13.13	0.595+j3.700	1.640+j7.502	20.94	15.10	0.508+j3.451	1.629+j7.383
AFI STEEL FOUNDRY	ASF-115	115.0	16.98	13.16	0.565+j3.869	1.549+j7.166	20.32	15.45	0.445+j3.567	1.505+j6.848
AGUA NUEVA	AGN-115	115.0	11.04	10.76	1.133+j5.905	0.829+j6.447	12.82	12.29	0.993+j5.608	0.818+j6.396
AGUAS TRATADAS	ATM-115	115.0	11.28	8.00	0.991+j5.803	2.754+j12.903	13.97	10.08	0.795+j5.168	2.217+j11.104
ALAMO	ALM-115	115.0	11.61	9.13	1.151+j5.601	2.419+j10.097	13.23	10.27	1.055+j5.417	2.408+j10.015
ÁLCALI MANIOBRAS	ACM-115	115.0	23.69	24.35	0.396+j2.774	0.237+j2.550	26.38	27.17	0.366+j2.744	0.228+j2.500
ALCOA PRIVADA	APV-115	115.0	16.58	9.12	0.794+j3.925	3.030+j13.506	18.64	10.12	0.739+j3.847	3.029+j13.488
ALEN DEL NORTE	ADN-115	115.0	11.20	7.48	1.112+j5.825	2.925+j14.468	12.63	8.32	1.033+j5.692	2.925+j14.463
ALIANZA REAL	AIR-115	115.0	23.38	17.15	0.443+j2.805	0.875+j5.874	26.52	19.18	0.391+j2.726	0.875+j5.854
ALLENDE	ALN-115	115.0	3.89	2.27	3.755+j16.646	12.695+j51.997	4.31	2.51	3.694+j16.556	12.672+j51.851
ALLENDE DOS	AED-138	138.0	5.47	4.32	2.692+j14.318	4.798+j25.742	6.98	5.19	2.006+j12.386	4.716+j25.073
ALMACENTRO DEFINITIVO	ALE-115	115.0	21.94	16.27	0.502+j2.984	1.205+j6.079	25.43	18.43	0.435+j2.839	1.203+j6.035
ALPES	ALP-115	115.0	14.48	11.74	0.722+j4.529	1.517+j7.657	16.97	13.62	0.603+j4.262	1.470+j7.349
ALTAMIRA	ALT-400	400.0	21.46	20.73	0.988+j10.716	2.021+j11.983	31.31	31.62	0.551+j8.095	1.082+j8.082
ALTAMIRA	ALT-230	230.0	20.45	24.08	0.576+j6.468	0.377+j3.777	24.61	28.97	0.461+j5.917	0.296+j3.475
ALTAMIRA	ALT-115	115.0	27.05	29.07	0.325+j2.433	0.187+j1.992	31.64	33.75	0.296+j2.289	0.178+j1.923
ALTAMIRA DE AGUA Y DRENAJE DE MONTERREY	AAD-115	115.0	25.51	18.20	0.498+j2.554	1.017+j5.655	29.24	20.61	0.440+j2.459	1.002+j5.549
ALTAMIRA III Y IV	ATC-400	400.0	22.27	24.48	0.822+j10.338	0.819+j7.723	35.75	42.14	0.380+j7.096	0.388+j4.593
ALTAMIRA V	ATV-400	400.0	22.24	24.46	0.826+j10.353	0.819+j7.723	35.67	42.11	0.383+j7.111	0.386+j4.584
ALTAMIRANO	ATR-115	115.0	7.49	5.76	1.524+j8.734	3.367+j16.572	8.81	6.57	1.314+j8.183	3.360+j16.491
ALTOS HORNOS DE MÉXICO	AHM-400	400.0	8.70	8.74	4.065+j26.229	3.001+j27.133	11.56	10.92	2.451+j21.845	3.069+j26.417
AMERICAN INDUSTRIES	AIN-138	138.0	16.59	16.68	0.973+j4.702	0.878+j4.700	20.25	19.86	0.799+j4.253	0.869+j4.560
AMERICAN INDUSTRIES DULCES NOMBRES	AID-115	115.0	21.96	16.90	0.461+j2.989	1.117+j5.629	26.14	19.77	0.380+j2.768	1.095+j5.408
AMÉRICAS	AME-115	115.0	18.71	12.12	0.609+j3.496	1.895+j9.147	21.33	13.56	0.539+j3.381	1.894+j9.127
AMISTAD	AMI-138	138.0	3.20	2.75	5.595+j24.263	8.101+j36.121	4.68	5.25	3.215+j18.432	1.133+j12.681
AMPAD	AMP-138	138.0	9.73	10.53	1.642+j8.023	0.992+j6.446	11.09	11.93	1.508+j7.756	0.970+j6.321
ANÁHUAC	ANH-138	138.0	2.23	1.39	8.066+j34.869	20.293+j98.531	2.55	1.55	7.298+j33.580	20.271+j98.349
ANÁHUAC POTENCIA	ANP-400	400.0	16.44	25.57	1.285+j13.992	1.978+j-0.832	20.23	32.47	0.964+j12.520	2.199+j-1.433
ANÁHUAC POTENCIA	ANP-115	115.0	19.39	25.29	0.448+j3.395	0.279+j1.031	22.02	28.90	0.419+j3.290	0.316+j0.951
ANÁHUAC TAM.POTENCIA	ATP-400	400.0	11.80	13.80	2.196+j19.446	0.828+j12.431	16.84	20.28	1.154+j15.042	0.432+j8.240
ANÁHUAC TAM.POTENCIA	ATP-230	230.0	15.62	20.49	1.166+j8.419	0.152+j3.083	18.80	24.34	0.895+j7.716	0.143+j2.973



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ANGOSTURA	ANG-115	115.0	10.61	8.13	0.953+j6.188	2.565+j11.721	11.99	9.08	0.870+j6.029	2.563+j11.692
ANILLO PERIFÉRICO	APF-115	115.0	13.77	10.02	0.815+j4.753	1.975+j10.041	15.42	11.14	0.765+j4.675	1.964+j10.000
ANZALDUAS	ANZ-138	138.0	15.57	13.28	1.006+j5.016	1.491+j7.665	18.56	15.40	0.847+j4.645	1.474+j7.531
ANZALDUAS RODÉ	ANR-138	138.0	12.76	9.74	1.348+j6.099	2.587+j11.797	14.97	11.21	1.186+j5.732	2.519+j11.501
APASCO	APC-230	230.0	10.10	8.40	2.170+j12.961	4.665+j20.690	11.60	9.48	1.886+j12.448	4.655+j20.582
APODACA	APO-115	115.0	17.07	11.31	0.766+j3.813	1.968+j9.631	19.19	12.58	0.716+j3.738	1.967+j9.611
ARCO VIAL	ARV-115	115.0	23.34	23.69	0.470+j2.806	0.327+j2.691	26.16	26.33	0.432+j2.758	0.333+j2.707
ARROYO DEL COYOTE	ADC-400	400.0	3.37	3.48	12.544+j67.426	4.774+j61.966	4.59	4.46	7.323+j54.810	5.113+j60.287
ARROYO DEL COYOTE	ADC-230	230.0	4.59	5.09	6.442+j28.189	1.544+j20.558	5.93	6.30	4.465+j24.242	1.570+j20.263
ARROYO DEL COYOTE	ADC-138	138.0	8.88	11.52	2.277+j8.675	0.163+j2.891	11.61	14.74	1.568+j7.382	0.167+j2.780
ARTEAGA	ATG-115	115.0	4.40	4.34	4.152+j14.517	3.649+j15.256	5.35	5.13	3.440+j13.220	3.613+j14.937
ARTES GRAFICAS	AGR-115	115.0	18.20	12.88	0.701+j3.580	1.543+j8.026	20.44	14.33	0.655+j3.512	1.541+j8.004
ARVIN MERITOR	AVM-115	115.0	14.82	8.12	0.888+j4.392	3.415+j15.201	16.62	9.00	0.834+j4.314	3.414+j15.182
ATLAPEXCO	APX-115	115.0	2.87	2.75	5.676+j22.433	7.801+j25.085	3.16	3.03	5.653+j22.385	7.795+j24.991
AXTLA	AXA-115	115.0	4.86	3.21	3.502+j13.193	8.730+j33.669	5.35	3.53	3.491+j13.196	8.727+j33.612
AZTECAS	AZT-115	115.0	2.94	1.79	6.464+j21.611	20.695+j62.688	3.29	2.01	6.290+j21.278	20.015+j61.231
AZTLÁN	AZN-138	138.0	16.90	14.40	0.967+j4.614	1.509+j7.052	20.37	16.92	0.806+j4.225	1.457+j6.821
BAJÍO	BAO-115	115.0	2.27	1.63	6.915+j28.460	14.869+j61.902	2.61	1.83	6.401+j27.256	14.856+j61.666
BALL METAL BEVERAGE	BMB-115	115.0	19.95	13.18	0.617+j3.271	1.773+j8.265	23.06	14.94	0.552+j3.119	1.767+j8.153
BARRETAL	BET-115	115.0	3.41	2.28	7.235+j18.092	16.538+j45.384	3.76	2.52	7.211+j18.062	16.532+j45.306
BARRY CALLEBAUT	BAC-115	115.0	21.67	10.90	0.551+j3.015	2.564+j11.876	24.55	12.13	0.498+j2.933	2.560+j11.846
BASF	BSF-115	115.0	15.81	11.16	0.763+j4.130	1.890+j9.307	18.38	13.27	0.714+j3.909	1.704+j8.440
BERLÍN	BRN-115	115.0	27.19	19.35	0.489+j2.392	1.575+j5.188	31.27	21.79	0.434+j2.295	1.574+j5.168
BICENTENARIO	BIC-115	115.0	9.07	7.96	1.120+j7.234	2.190+j10.174	10.01	8.77	1.098+j7.209	2.206+j10.186
BIOFILM	BFL-115	115.0	17.02	11.53	0.690+j3.839	1.960+j9.303	19.92	14.05	0.640+j3.610	1.663+j8.141
BLACK & DECKER	BAD-138	138.0	17.62	14.53	0.816+j4.447	1.294+j7.338	21.26	17.06	0.660+j4.070	1.237+j7.099
BOMBEO LOMA LARGA	BLL-115	115.0	24.09	16.05	0.553+j2.700	1.209+j6.793	27.51	18.06	0.497+j2.608	1.202+j6.716
BOMBEO NUEVA CASTILLA III	BNC-115	115.0	11.28	5.50	1.074+j5.787	5.037+j23.930	12.61	6.09	1.020+j5.703	5.022+j23.871
BOMBEO PORVENIR	POR-115	115.0	3.18	2.27	6.407+j19.892	18.487+j42.308	3.52	2.50	6.373+j19.772	18.501+j42.259
BRAVO	BRA-115	115.0	2.05	1.28	9.445+j30.942	29.377+j85.620	2.27	1.41	9.399+j30.836	29.417+j85.509
CADEREYTA	CYN-115	115.0	15.44	11.56	0.651+j4.250	1.269+j8.546	17.94	13.42	0.571+j4.032	1.197+j8.099
CADEREYTA II (1)	CDT-115B2	115.0	2.41	1.85	4.565+j27.213	16.870+j49.974	2.67	2.05	4.447+j27.007	16.847+j49.819
CADEREYTA II (2)	CDT-115B1	115.0	2.42	1.86	4.914+j26.948	16.903+j50.031	2.69	2.05	4.794+j26.747	16.879+j49.875
CAMARGO	CAM-138	138.0	5.95	3.40	3.646+j12.884	11.186+j42.190	6.93	4.48	3.273+j12.215	7.464+j32.537
CAMPESTRE	CPR-138	138.0	7.29	7.34	2.732+j10.588	1.737+j10.612	9.20	8.86	2.002+j9.315	1.740+j10.499
CAMPO TAMAULIPAS	CTS-115	115.0	11.32	7.74	1.312+j5.716	3.347+j13.648	12.79	8.64	1.281+j5.566	3.341+j13.589
CAPELLANIA	CAP-115	115.0	11.79	9.27	0.876+j5.564	2.022+j10.028	13.62	10.51	0.764+j5.309	2.028+j9.925
CARBÓN DOS	CBD-400	400.0	8.51	8.28	4.773+j26.712	3.937+j29.508	23.21	27.52	0.689+j10.922	0.347+j6.259
CARPLASTIC	CIS-115	115.0	18.21	12.96	0.612+j3.595	1.720+j7.893	21.20	14.73	0.534+j3.404	1.714+j7.814
CASA BLANCA	CBL-138	138.0	9.89	7.94	1.718+j7.868	2.609+j13.942	11.34	8.94	1.571+j7.567	2.602+j13.862



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CASTECH	CAS-115	115.0	16.85	13.08	0.571+j3.898	1.577+j7.202	20.12	15.29	0.452+j3.601	1.540+j6.921
CATERPILA JAGUAR	CJR-115	115.0	13.95	7.63	0.941+j4.665	3.637+j16.182	15.63	8.46	0.886+j4.587	3.636+j16.163
CEDROS	CED-230	230.0	12.38	12.51	1.843+j10.570	1.393+j10.321	14.55	14.47	1.501+j9.929	1.375+j10.132
CEDROS	CED-115	115.0	25.96	28.58	0.475+j2.513	0.208+j1.856	31.65	34.33	0.371+j2.277	0.205+j1.765
CEJA	CJA-115	115.0	2.37	1.88	4.873+j27.588	18.007+j47.313	2.63	2.08	4.754+j27.385	17.983+j47.158
CELULOSA	CEL-115	115.0	31.33	21.87	0.427+j2.076	0.950+j4.777	36.14	24.63	0.372+j1.987	0.949+j4.763
CEMENTOS ANÁHUAC	CAN-115	115.0	13.43	12.54	0.876+j4.864	1.333+j5.882	15.11	14.06	0.846+j4.759	1.370+j5.802
CEMENTOS HIDALGO	CEH-115	115.0	7.13	4.67	2.579+j8.953	8.755+j22.418	7.91	5.16	2.527+j8.876	8.755+j22.398
CEMENTOS MEXICANOS	CEM-115	115.0	28.03	20.72	0.432+j2.329	0.903+j4.795	32.17	23.34	0.376+j2.239	0.902+j4.766
CEMEX (VALLES)	CMX-115	115.0	7.28	5.39	2.311+j8.820	4.311+j18.274	8.12	5.98	2.275+j8.703	4.350+j18.177
CENDEC	CNE-115	115.0	10.42	7.20	1.500+j6.193	3.509+j14.518	11.86	8.06	1.404+j5.997	3.507+j14.454
CENTRAL	CEN-138	138.0	12.34	11.51	1.450+j6.292	1.319+j7.933	14.27	13.09	1.304+j6.002	1.311+j7.848
CENTRAL ANÁHUAC	CAH-230	230.0	15.59	20.46	1.162+j8.440	0.145+j3.077	18.75	24.28	0.893+j7.741	0.139+j2.974
CENTRAL DULCES NOMBRES	CDU-400	400.0	29.79	32.10	1.474+j7.612	0.550+j6.101	38.74	42.45	0.940+j6.490	0.395+j4.872
CENTRAL DULCES NOMBRES	CDU-115	115.0	16.09	17.91	0.137+j4.123	0.058+j2.873	13.10	15.75	0.204+j5.573	0.055+j2.765
CENTRAL DULCES NOMBRES II	DNO-115	115.0	36.78	38.76	0.267+j1.786	0.170+j1.518	44.89	47.29	0.203+j1.614	0.168+j1.380
CENTRAL IBERDROLA COGENERACIÓN RAMOS	ICR-115	115.0	15.21	12.86	0.550+j4.330	1.001+j6.718	18.16	15.34	0.429+j3.998	0.939+j6.207
CERRALVO	CER-115	115.0	3.17	2.26	5.693+j20.189	15.827+j43.497	3.52	2.50	5.535+j19.985	15.814+j43.552
CERRO PRIETO	CEP-115	115.0	4.71	4.06	2.422+j13.889	5.723+j20.076	5.24	4.50	2.368+j13.736	5.722+j20.043
CHAIREL	CHR-115	115.0	17.72	14.69	0.650+j3.691	1.804+j5.880	20.42	16.69	0.612+j3.524	1.792+j5.787
CHAMPAYAN	CPY-400	400.0	25.67	27.26	0.791+j8.961	0.979+j7.548	38.78	43.43	0.405+j6.538	0.603+j4.879
CHAPACAO	CHW-115	115.0	4.33	3.06	4.019+j14.797	13.769+j31.791	4.81	3.38	3.984+j14.667	13.769+j31.738
CHRYSLER CAMIONES PLANTA MOTORES SUR	CPS-115	115.0	12.99	10.96	0.926+j5.025	1.785+j7.755	14.87	12.34	0.841+j4.839	1.781+j7.738
CHRYSLER DE MÉXICO	CYM-115	115.0	19.35	16.17	0.713+j3.357	1.184+j5.335	23.06	18.81	0.603+j3.109	1.169+j5.193
CHRYSLER PLANTA CAMIONES	CYC-115	115.0	13.36	11.51	0.880+j4.892	1.652+j7.188	15.31	12.97	0.796+j4.705	1.648+j7.171
CIBIOSA (FERSINSA)	CIB-115	115.0	11.92	8.54	0.900+j5.498	2.209+j11.987	13.74	9.64	0.794+j5.258	2.223+j11.910
CIFUNSA	CIF-115	115.0	18.18	15.04	0.747+j3.575	1.170+j5.836	21.22	17.16	0.651+j3.380	1.169+j5.773
CIMA	CIM-138	138.0	12.29	12.90	1.357+j6.339	0.730+j5.716	14.15	14.71	1.221+j6.070	0.714+j5.609
CITROFRUT	CIT-115	115.0	4.48	2.70	3.832+j14.315	11.189+j42.781	4.97	2.98	3.801+j14.181	11.189+j42.748
CIUDAD INDUSTRIAL	CID-230	230.0	4.52	4.76	6.968+j28.547	3.192+j24.952	5.82	5.84	4.951+j24.623	3.174+j24.583
CIUDAD INDUSTRIAL	CID-138	138.0	7.13	7.82	2.897+j10.790	1.059+j8.230	9.02	9.55	2.153+j9.469	1.039+j8.058
CLOSURES INTERIORES	CLI-138	138.0	10.35	8.56	1.890+j7.465	2.659+j12.395	12.01	9.76	1.713+j7.092	2.636+j12.198
CODEFRONT	CFT-138	138.0	2.84	2.05	5.207+j27.544	10.625+j59.411	3.29	2.32	4.450+j26.239	10.606+j59.238
COMPAÑÍA CERVECERA DE COAHUILA	CVC-138	138.0	6.89	6.75	2.425+j11.302	2.094+j12.139	8.89	8.28	1.865+j9.684	2.087+j11.774
CONCEPCIÓN DEL ORO	CDO-115	115.0	1.45	0.84	14.985+j43.267	36.952+j141.406	1.61	0.92	14.825+j43.009	36.940+j141.354
CONDUCTORES MONTERREY	CDY-115	115.0	23.61	16.98	0.530+j2.762	1.441+j5.940	27.03	19.07	0.472+j2.660	1.439+j5.921
CONEK II	COK-115	115.0	22.62	22.35	0.487+j2.894	0.398+j3.008	25.34	24.83	0.449+j2.847	0.405+j3.024
CONTEC MEXICANA	CON-115	115.0	28.59	25.41	0.330+j2.299	0.555+j3.146	34.91	30.70	0.249+j2.078	0.533+j2.925
CONTROLADORA DE TERMINALES	COT-115	115.0	20.19	9.29	0.595+j3.235	3.092+j14.552	22.84	10.32	0.541+j3.152	3.082+j14.509
CONTRY	CNY-115	115.0	24.12	15.48	0.507+j2.706	1.385+j7.228	27.57	17.45	0.449+j2.611	1.372+j7.129



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
CORONA	CRO-138	138.0	8.53	7.78	1.926+j9.140	2.085+j11.909	11.60	9.78	1.319+j7.437	2.078+j11.539
CORPORATE PROPERTIES OF AMÉRICA	CPA-115	115.0	11.87	6.47	1.094+j5.487	4.304+j19.125	13.26	7.16	1.039+j5.409	4.303+j19.106
COSMOPOLIS	CPL-115	115.0	15.61	9.77	0.797+j4.177	2.553+j11.620	17.56	10.85	0.749+j4.091	2.552+j11.604
CRUZ DE ATAQUE	CRQ-115	115.0	0.86	0.65	20.037+j74.252	60.123+j138.992	0.95	0.72	19.994+j74.170	60.107+j138.872
CRYOINFRA	CRY-115	115.0	nan	nan	nan+jnan	nan+jnan	18.27	15.20	0.795+j3.918	1.152+j6.451
CRYOINFRA SCMS	COF-115	115.0	40.03	33.46	0.307+j1.630	0.378+j2.612	46.87	38.22	0.253+j1.538	0.376+j2.593
CUADRO DE MANIOBRAS EÓLICA DE COAHUILA	MEH-230	230.0	5.71	7.29	3.151+j23.053	0.937+j8.207	6.41	8.17	2.927+j22.608	0.932+j8.096
CUADRO DE MANIOBRAS PRESA GRANDE	PGE-400	400.0	8.13	5.65	2.986+j28.264	13.595+j64.695	12.13	12.42	1.499+j20.897	1.470+j19.832
CUADRO DE MANIOBRAS PROMAX	MPX-115	115.0	34.33	15.44	0.396+j1.893	1.846+j8.845	39.69	17.25	0.344+j1.808	1.846+j8.837
CUADRO MANIOBRAS DE ABSORMEX	MBX-115	115.0	20.97	16.50	0.534+j3.121	1.085+j5.686	24.93	20.85	0.480+j2.890	0.818+j4.633
CUADRO MANIOBRAS EÓLICO SANTA CATARINA	MEO-230	230.0	14.80	11.98	1.339+j8.869	3.668+j14.930	17.03	13.53	1.127+j8.502	3.640+j14.862
CUATRO CIÉNEGAS	CCE-115	115.0	1.65	1.08	16.262+j36.717	37.041+j97.785	1.84	1.19	16.059+j36.223	37.037+j97.731
CUMBRES FRONTERA	CUF-230	230.0	16.27	14.88	1.115+j8.086	1.404+j10.402	19.86	17.54	0.805+j7.313	1.395+j10.216
CUMBRES FRONTERA	CUF-138	138.0	21.89	23.65	0.635+j3.583	0.331+j2.851	26.79	28.34	0.491+j3.234	0.320+j2.752
CUMBRES ORIENTE	CBO-115	115.0	15.48	10.90	0.651+j4.239	2.109+j9.469	17.32	12.10	0.604+j4.173	2.109+j9.460
CUMBRES PONIENTE	CMN-115	115.0	18.56	13.96	0.549+j3.535	1.504+j6.957	20.85	15.53	0.501+j3.467	1.503+j6.946
DE ACERO	DEA-230	230.0	10.19	9.17	2.147+j12.853	3.108+j17.141	11.83	10.46	1.805+j12.214	3.089+j16.951
DE ACERO CLAVOS MONTERREY	DCM-115	115.0	34.55	23.92	0.389+j1.882	0.905+j4.394	40.34	27.14	0.333+j1.780	0.904+j4.364
DE ACERO POTENCIA	DEP-400	400.0	19.85	11.63	1.823+j11.488	5.185+j36.018	24.35	13.30	1.224+j10.363	5.226+j36.117
DECOFINMEX	DFX-138	138.0	11.20	9.29	1.588+j6.933	2.166+j11.484	12.96	10.54	1.432+j6.609	2.155+j11.362
DENSO	DSO-115	115.0	18.23	12.46	0.723+j3.570	1.709+j8.534	20.50	13.86	0.675+j3.499	1.708+j8.514
DENSO GUADALUPE	DGP-115	115.0	17.32	10.39	0.673+j3.774	2.042+j11.323	19.67	11.61	0.615+j3.662	2.039+j11.271
DERRAMADERO	DMD-400	400.0	14.60	12.48	2.399+j15.636	4.032+j23.572	17.68	14.57	1.707+j14.265	3.951+j23.296
DERRAMADERO	DMD-115	115.0	21.65	22.07	0.422+j3.038	0.306+j2.882	25.03	25.14	0.347+j2.897	0.302+j2.871
DÍAZ ORDAZ	DOR-138	138.0	6.50	4.03	3.205+j11.837	8.706+j33.754	7.47	4.76	2.959+j11.360	7.646+j30.850
DINASTÍA	DNA-115	115.0	27.27	17.92	0.455+j2.392	1.186+j6.136	31.31	20.08	0.395+j2.299	1.186+j6.134
DIRONA	DIR-115	115.0	19.30	8.90	0.612+j3.386	3.152+j15.185	21.82	9.90	0.558+j3.301	3.138+j15.128
DIRONA Y FORJA	DFO-115	115.0	19.29	8.90	0.612+j3.387	3.161+j15.167	21.80	9.90	0.558+j3.303	3.147+j15.112
DOFASCO DE MÉXICO	DAO-115	115.0	19.87	9.07	0.604+j3.287	3.150+j14.947	22.47	10.09	0.551+j3.204	3.139+j14.898
DULCES NOMBRES AYD	RDN-115	115.0	7.48	4.74	1.650+j8.718	5.760+j23.633	8.43	5.28	1.567+j8.516	5.754+j23.544
DYNASOL	DYN-115	115.0	16.63	12.75	0.790+j3.913	1.734+j7.502	19.02	14.36	0.759+j3.765	1.727+j7.441
EARTH TECH	ETH-115	115.0	8.10	3.31	1.420+j8.075	9.180+j42.795	9.79	4.05	1.181+j7.367	7.743+j38.414
ÉBANO	EBN-115	115.0	4.42	3.13	4.167+j14.431	13.376+j31.061	4.91	3.46	4.131+j14.297	13.369+j31.000
EL ABRA	ABR-115	115.0	2.37	1.61	8.974+j26.537	17.211+j65.418	2.77	1.95	8.102+j25.132	13.670+j57.915
EL CANADÁ	ECN-115	115.0	21.66	10.78	0.496+j3.026	2.241+j12.135	24.57	12.06	0.441+j2.940	2.211+j12.032
EL COCO	COC-115	115.0	19.05	24.44	0.468+j3.453	0.343+j1.176	21.63	27.89	0.438+j3.348	0.380+j1.096
EL CUCHILLO	CCL-230	230.0	5.91	5.24	3.859+j22.149	4.782+j30.788	6.90	5.99	3.401+j20.895	4.728+j30.474
EL CUCHILLO	CCL-115	115.0	5.60	6.30	1.436+j11.764	0.652+j7.922	6.28	7.06	1.320+j11.555	0.629+j7.767
EL FRAILE	FAI-400	400.0	26.03	27.25	1.154+j8.796	0.589+j7.709	31.05	31.80	0.794+j8.144	0.582+j7.611
EL GUERREÑO	GRR-400	400.0	12.69	12.95	2.502+j18.025	2.511+j17.608	16.76	16.23	1.534+j15.081	2.573+j16.892



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
EL GUERREÑO	GRR-138	138.0	20.07	23.86	0.657+j3.916	0.124+j2.142	24.75	28.77	0.494+j3.506	0.129+j2.115
EL HIGO DOS	HGD-115	115.0	2.89	1.71	4.497+j22.508	19.353+j68.390	3.18	1.88	4.515+j22.547	19.335+j68.294
EL MIRADOR	MIO-115	115.0	29.09	20.76	0.437+j2.240	0.984+j4.936	33.56	23.65	0.380+j2.143	0.968+j4.819
EL PORVENIR	EPR-138	138.0	8.01	7.20	2.110+j9.724	1.946+j13.198	9.19	8.16	1.969+j9.335	1.924+j13.064
EL REGIONMONTANO	RGM-400	400.0	20.00	17.52	1.765+j11.413	2.716+j16.252	24.35	20.77	1.270+j10.354	2.682+j15.669
EL REGIONMONTANO	RGM-115	115.0	30.04	28.34	0.293+j2.191	0.250+j2.598	34.78	32.39	0.242+j2.086	0.248+j2.559
EL SARAPE	SRP-230	230.0	11.98	11.88	1.909+j10.918	1.954+j11.229	14.01	13.67	1.578+j10.304	1.944+j11.078
ELECTRICIDAD ÁGUILA ALTAMIRA	EAA-400	400.0	22.09	23.87	0.842+j10.421	0.983+j8.257	35.51	41.43	0.389+j7.142	0.462+j4.865
ELENA	ELN-115	115.0	14.99	15.42	0.753+j4.366	0.619+j4.067	17.88	18.63	0.658+j4.031	0.543+j3.604
EMERSON	EMR-138	138.0	11.05	8.26	1.588+j7.031	3.018+j14.281	13.65	10.00	1.273+j6.295	2.815+j13.278
EMERSON DOS	EMD-138	138.0	14.73	10.28	1.169+j5.282	2.867+j12.131	17.54	11.86	1.007+j4.894	2.810+j11.885
EMPALME	EML-138	138.0	7.23	4.96	2.841+j10.651	6.144+j25.545	8.45	5.72	2.577+j10.051	5.980+j24.684
ENERGÍA MK KF	KAF-115	115.0	20.69	16.83	0.545+j3.163	0.915+j5.385	24.46	20.77	0.496+j2.944	0.746+j4.570
ENERTEK	ETK-115	115.0	22.38	20.75	0.443+j2.934	0.519+j3.696	26.47	25.15	0.400+j2.730	0.446+j3.232
EÓLICA CIUDAD VICTORIA	ECV-115	115.0	13.14	13.50	0.645+j5.011	0.864+j4.580	14.55	14.97	0.622+j4.981	0.870+j4.531
EÓLICA GUADALUPE MANIOBRAS	EGM-400	400.0	8.90	8.71	2.646+j25.803	3.492+j27.480	10.16	9.84	2.307+j24.899	3.493+j27.367
EÓLICA LA MESA	ELM-115	115.0	7.22	6.81	1.613+j9.051	1.889+j10.723	7.96	7.46	1.595+j9.034	1.937+j10.853
EÓLICA TRES MESAS	EMS-115	115.0	5.00	3.36	0.197+j13.276	8.087+j32.150	5.60	3.75	0.172+j13.048	8.080+j31.784
ÉOLICA TRES MESAS FASE CUATRO	EMC-115	115.0	3.85	3.71	1.175+j17.228	1.003+j19.087	4.37	4.20	1.073+j16.686	1.000+j18.723
ESCOBEDO	ESC-400	400.0	27.58	27.91	1.704+j8.198	1.217+j7.981	35.59	34.41	1.119+j7.049	1.216+j7.780
ESCOBEDO	ESC-230	230.0	20.87	19.04	0.957+j6.291	1.242+j8.118	24.58	22.17	0.746+j5.895	1.173+j7.812
ESCOBEDO	ESC-115	115.0	53.36	54.13	0.217+j1.225	0.112+j1.191	63.08	62.82	0.165+j1.146	0.112+j1.170
ESPERANZAS	ESP-115	115.0	2.24	1.64	7.178+j28.721	14.348+j60.840	2.58	1.84	6.658+j27.530	14.334+j60.604
ESTANZUELA (1)	ETZ-115	115.0	17.62	13.38	0.570+j3.726	1.351+j7.233	19.93	15.08	0.511+j3.629	1.328+j7.087
ESTANZUELA (2)	ETZ-115B	115.0	21.87	14.94	0.589+j2.979	1.397+j7.124	24.93	16.90	0.530+j2.882	1.373+j6.978
ESTRELLA	ELL-115	115.0	7.02	5.01	1.565+j9.321	4.404+j20.388	7.75	5.53	1.542+j9.293	4.404+j20.334
FALCÓN MEXICANO	FAM-138	138.0	5.21	3.03	4.230+j14.707	12.525+j46.787	6.39	5.28	3.409+j13.282	2.951+j22.304
FARO	FAR-115	115.0	18.67	12.00	0.670+j3.493	1.783+j9.324	21.16	13.43	0.613+j3.397	1.777+j9.247
FÉLIX U. GÓMEZ	FUG-115	115.0	29.44	21.13	0.424+j2.215	0.884+j4.839	33.90	23.90	0.368+j2.123	0.879+j4.783
FINSA	FIT-115	115.0	14.69	10.13	0.780+j4.451	2.257+j10.390	16.41	11.24	0.738+j4.390	2.253+j10.353
FINSA	FIS-115	115.0	16.17	13.77	0.643+j4.056	1.338+j6.124	18.82	15.71	0.543+j3.842	1.338+j6.055
FINSA GUADALUPE	FIG-115	115.0	22.99	15.82	0.533+j2.838	1.410+j6.670	26.80	18.04	0.468+j2.685	1.404+j6.554
FINSA LAREDO	FIL-138	138.0	7.25	7.33	3.107+j10.546	2.337+j10.389	9.16	8.86	2.366+j9.275	2.340+j10.274
FIRESTONE	FRS-115	115.0	17.65	11.10	0.738+j3.688	2.249+j10.183	19.88	12.34	0.683+j3.609	2.249+j10.165
FLEX AMÉRICAS	FME-115	115.0	15.40	10.10	0.523+j4.281	2.277+j10.912	17.93	11.98	0.471+j4.046	2.056+j10.000
FOMERREY	FOM-115	115.0	11.17	7.46	1.118+j5.839	2.938+j14.527	12.58	8.29	1.042+j5.712	2.937+j14.522
FREIGHTLINER	FRI-115	115.0	11.16	8.68	1.086+j5.847	2.612+j10.752	12.68	9.71	1.002+j5.673	2.609+j10.736
FRISA	FSA-115	115.0	19.99	17.33	0.455+j3.290	0.813+j4.766	22.24	19.26	0.424+j3.257	0.806+j4.724
FRONTERA	FRO-400	400.0	9.67	9.85	3.745+j23.591	2.433+j23.329	13.23	12.61	2.100+j19.080	2.502+j22.509
FRONTERA	FRO-230	230.0	10.89	12.91	1.784+j12.067	0.473+j6.662	13.68	15.80	1.193+j10.610	0.469+j6.500



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
FRONTERA	FRO-115	115.0	11.82	14.60	0.765+j5.565	0.134+j2.459	14.38	17.48	0.575+j5.046	0.131+j2.406
FUENTES	FTE-138	138.0	8.58	8.46	1.852+j9.095	1.673+j9.587	11.71	10.81	1.216+j7.386	1.643+j9.138
FUNDICIÓN	FDC-115	115.0	18.91	15.14	0.512+j3.473	1.225+j6.026	23.04	18.23	0.387+j3.146	1.156+j5.580
FUNDIDORA	FUN-115	115.0	27.44	20.13	0.445+j2.378	0.923+j4.976	31.76	23.70	0.382+j2.268	0.796+j4.582
G. E. PLASTIC	GEP-115	115.0	9.37	5.89	1.286+j6.969	4.102+j19.249	10.64	6.74	1.237+j6.750	3.928+j18.417
GALVASID	GLS-115	115.0	24.23	17.33	0.496+j2.695	1.172+j5.904	27.59	19.41	0.443+j2.610	1.171+j5.886
GARCIA	GAC-115	115.0	9.90	8.03	0.851+j6.650	2.186+j11.171	10.96	8.88	0.817+j6.613	2.182+j11.142
GENERACIÓN ELÉCTRICA HUINALA	GEH-115	115.0	7.75	7.83	0.764+j8.529	0.745+j8.281	8.49	8.70	0.752+j8.565	0.696+j7.969
GENERAL MOTOR	GMO-115	115.0	12.25	9.40	1.024+j5.323	2.239+j10.123	14.05	10.59	0.924+j5.115	2.239+j10.059
GIRASOLES	GRS-115	115.0	25.98	18.34	0.456+j2.515	1.122+j5.639	29.67	20.57	0.402+j2.428	1.122+j5.624
GOLLEK	GOK-115	115.0	4.64	3.47	2.156+j14.142	6.148+j28.172	5.35	4.30	1.945+j13.514	4.237+j23.310
GP BIENES INMUEBLES	GPI-115	115.0	18.12	12.54	0.718+j3.593	1.658+j8.403	20.37	13.94	0.671+j3.523	1.657+j8.382
GRANJAS	GRA-115	115.0	7.97	5.88	1.447+j8.206	3.525+j16.914	9.39	6.69	1.243+j7.676	3.520+j16.851
GUADALUPE	GDL-115	115.0	24.12	16.09	0.557+j2.696	1.373+j6.738	27.64	18.10	0.499+j2.595	1.368+j6.683
GUILLFORD MILLS	GUI-115	115.0	15.20	10.97	0.695+j4.312	1.823+j9.307	17.40	12.41	0.661+j4.146	1.799+j9.134
GÜEMEZ	GUE-400	400.0	13.68	13.28	1.859+j16.774	2.181+j18.360	16.18	15.43	1.532+j15.629	2.170+j18.057
GÜEMEZ	GUE-115	115.0	16.16	17.75	0.389+j4.091	0.216+j3.002	17.92	19.79	0.365+j4.060	0.210+j2.924
H.C. INDUSTRIAS	HCI-115	115.0	13.27	9.76	1.121+j4.875	2.359+j10.145	15.25	11.00	1.025+j4.679	2.358+j10.080
HIDALGO	HID-115	115.0	7.88	5.28	2.280+j8.113	8.075+j19.288	8.76	5.84	2.228+j8.036	8.075+j19.267
HUASTECA	HST-115	115.0	3.68	2.24	4.622+j17.453	12.877+j51.345	4.05	2.46	4.609+j17.433	12.878+j51.298
HUEJUTLA II	HJD-115	115.0	4.11	3.37	3.725+j15.710	7.905+j25.668	4.53	3.72	3.715+j15.697	7.900+j25.579
HUERTAS	HUS-115	115.0	7.18	6.29	1.190+j9.175	2.875+j12.892	8.03	7.00	1.136+j9.021	2.874+j12.860
HUICHIHUAYAN	HUH-115	115.0	3.25	1.95	5.819+j19.569	15.347+j59.583	3.59	2.14	5.800+j19.515	15.358+j59.536
HUINALA	HUI-400	400.0	30.29	32.75	1.489+j7.477	0.528+j5.935	39.78	43.64	0.945+j6.316	0.376+j4.727
HUINALA	HUI-230	230.0	25.22	28.70	0.781+j5.208	0.273+j3.355	33.52	38.07	0.479+j4.331	0.223+j2.826
HUINALA	HUI-115	115.0	41.20	47.06	0.239+j1.594	0.069+j1.010	52.86	61.99	0.159+j1.372	0.048+j0.789
HUINALÁ (BUS B)	HUI-230B	230.0	25.21	28.50	0.785+j5.208	0.316+j3.445	33.55	37.90	0.481+j4.327	0.252+j2.889
HUINALÁ (BUS B)	HUI-115B	115.0	25.60	31.95	0.287+j2.577	0.075+j1.047	33.21	42.20	0.179+j2.192	0.052+j0.819
HUINALA DOS	HUO-400	400.0	30.16	32.57	1.485+j7.512	0.534+j5.983	39.53	43.47	0.944+j6.356	0.364+j4.716
HYLSA MANIOBRAS	HYM-400	400.0	26.00	24.62	2.048+j8.642	1.648+j10.273	33.19	30.07	1.465+j7.512	1.629+j9.932
HYLSA NORTE	EHN-230	230.0	14.94	11.37	1.474+j8.765	4.085+j16.810	17.76	13.11	1.207+j8.136	4.047+j16.539
IBERDROLA COGENERACIÓN ALTAMIRA	IBC-115	115.0	20.50	19.57	0.464+j3.205	0.444+j3.729	23.59	22.31	0.438+j3.065	0.445+j3.653
IMIS	IMI-115	115.0	9.93	7.68	1.367+j6.545	3.109+j12.188	11.31	8.64	1.261+j6.336	3.097+j12.067
IMSA	INM-115	115.0	10.58	11.23	0.917+j6.209	0.692+j5.191	12.74	13.22	0.723+j5.688	0.681+j5.093
IMSA PARTICULARES	IMO-115	115.0	20.86	13.40	0.618+j3.122	1.717+j8.330	23.67	14.95	0.563+j3.034	1.717+j8.316
INDUSTRIA VIDRIERA DE COAHUILA	IVC-138	138.0	7.53	6.43	2.276+j10.329	3.114+j15.732	9.97	7.89	1.667+j8.628	3.107+j15.362
INFONAVIT	INV-138	138.0	9.83	8.25	1.670+j7.928	2.308+j12.756	11.22	9.26	1.535+j7.659	2.303+j12.708
INFONAVIT	INF-115	115.0	15.98	13.57	0.699+j4.096	2.085+j6.138	18.32	15.36	0.661+j3.931	2.077+j6.063
INGENIO SAN MIGUEL EL NARANJO	MGN-115	115.0	2.53	2.59	7.874+j25.021	3.405+j24.562	3.07	3.37	6.498+j22.862	2.384+j17.562
INTERNACIONAL REGIOMONTANA DE ACERO	IRG-115	115.0	19.88	14.41	0.548+j3.295	1.459+j7.001	23.05	16.33	0.478+j3.132	1.456+j6.946



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
INTERPUERTO	IPR-115	115.0	17.10	7.98	0.578+j3.839	3.225+j16.894	19.29	8.86	0.521+j3.751	3.224+j16.874
IQUISA NORESTE	IQN-115	115.0	15.11	11.19	0.589+j4.353	1.887+j8.823	16.82	12.40	0.552+j4.307	1.883+j8.798
JABIL	JAB-138	138.0	11.19	8.44	1.570+j6.944	2.922+j13.840	13.78	10.18	1.267+j6.232	2.746+j12.943
JARACHINA	JRA-138	138.0	18.37	15.93	0.833+j4.257	1.172+j6.261	22.32	19.09	0.671+j3.868	1.062+j5.867
JARDÍN DOS	JAD-138	138.0	12.13	10.68	1.494+j6.394	1.654+j9.274	14.05	12.14	1.345+j6.093	1.645+j9.175
JERÓNIMO POTENCIA	JEP-400	400.0	20.36	19.53	2.061+j11.152	1.801+j12.713	24.94	23.04	1.462+j10.082	1.801+j12.624
JERÓNIMO POTENCIA	JEP-115	115.0	41.76	40.38	0.276+j1.566	0.168+j1.751	48.61	46.01	0.222+j1.486	0.168+j1.753
JERÓNIMO POTENCIA (BUS B)	JEP-115B	115.0	41.64	40.28	0.277+j1.570	0.168+j1.754	48.47	45.90	0.223+j1.490	0.168+j1.756
JIMÉNEZ	JIM-115	115.0	1.58	1.07	13.114+j39.911	41.578+j94.185	1.74	1.17	13.094+j39.884	41.570+j94.103
JOHNSON AND CONTROL	JCC-115	115.0	12.81	8.19	0.904+j5.103	3.000+j13.649	14.34	9.08	0.848+j5.023	2.999+j13.631
JOHNSON CONTROL	JHC-115	115.0	14.96	11.98	0.580+j4.400	1.415+j7.619	16.61	13.26	0.546+j4.362	1.411+j7.590
JOSEFA ZOZAYA	JZO-115	115.0	17.64	10.71	0.722+j3.694	2.326+j10.816	20.22	12.05	0.659+j3.551	2.322+j10.724
JUÁREZ	JUZ-138	138.0	19.86	18.81	0.761+j3.940	0.912+j4.640	24.36	22.36	0.602+j3.547	0.897+j4.520
JUÁREZ NORTE	JNO-115	115.0	14.59	11.36	0.673+j4.500	1.672+j8.276	17.58	13.29	0.563+j4.116	1.649+j8.047
KALOS GUADALUPE	KGP-115	115.0	18.99	13.34	0.504+j3.460	1.782+j7.744	22.10	15.23	0.431+j3.277	1.775+j7.601
KEMET	KMM-138	138.0	8.33	6.42	1.944+j9.364	3.391+j17.973	9.45	7.18	1.810+j9.095	3.386+j17.926
KEMET	KMT-115	115.0	21.08	14.39	0.589+j3.094	1.767+j7.343	24.08	16.12	0.528+j2.986	1.765+j7.325
KEMET VICTORIA	KWM-115	115.0	6.73	5.34	2.270+j9.596	5.259+j16.808	7.43	5.89	2.247+j9.570	5.266+j16.774
KIKAPU	KIK-115	115.0	2.08	1.46	7.609+j30.988	17.050+j70.189	2.39	1.64	7.095+j29.783	17.036+j69.953
KRAFT	KRA-115	115.0	34.97	24.31	0.385+j1.859	0.886+j4.306	40.87	27.61	0.328+j1.757	0.884+j4.276
KRAFT FOODS DE MÉXICO	KRF-115	115.0	18.06	11.26	0.655+j3.617	2.242+j10.099	20.35	12.52	0.601+j3.538	2.241+j10.080
LA ESFERA	LEF-115	115.0	13.62	9.61	0.988+j4.773	2.692+j10.646	15.32	10.76	0.928+j4.677	2.668+j10.500
LA FE	LAF-115	115.0	37.59	26.68	0.350+j1.731	0.725+j3.868	44.16	30.39	0.294+j1.628	0.723+j3.839
LA ROSITA	RSI-115	115.0	4.08	2.94	4.745+j15.547	14.165+j32.488	4.53	3.25	4.711+j15.427	14.179+j32.439
LA SILLA (1)	SLL-115	115.0	16.72	11.14	0.686+j3.911	2.008+j9.739	18.96	12.46	0.629+j3.801	2.005+j9.690
LA SILLA (2)	SLL-115B	115.0	16.80	11.20	0.684+j3.892	1.995+j9.687	19.05	12.52	0.626+j3.782	1.993+j9.638
LADRILLERA	LDA-115	115.0	3.80	2.68	3.377+j17.166	8.129+j38.494	4.20	2.96	3.326+j17.061	8.128+j38.469
LADRILLERA REVOLUCIÓN	LRR-115	115.0	23.30	16.91	0.545+j2.798	1.069+j5.987	26.68	19.32	0.485+j2.694	1.021+j5.779
LAGO	LAO-138	138.0	6.91	6.76	3.166+j11.080	2.608+j12.069	8.67	8.10	2.432+j9.813	2.611+j11.956
LAGUNA DEL CONEJO	LDC-115	115.0	24.20	21.94	0.412+j2.713	0.547+j3.608	28.88	27.25	0.366+j2.502	0.434+j3.014
LAGUNAS DE MIRALTA	LGM-115	115.0	17.04	13.33	0.645+j3.843	1.730+j7.016	19.60	15.08	0.607+j3.677	1.722+j6.944
LAJAS	LAJ-400	400.0	11.84	10.64	2.310+j19.374	4.114+j25.834	13.72	12.11	1.909+j18.412	4.126+j25.679
LAJAS	LAJ-115	115.0	9.33	12.16	0.591+j7.094	0.090+j2.148	10.49	13.67	0.538+j6.940	0.089+j2.115
LAMOSA	LMS-115	115.0	17.21	11.93	0.603+j3.811	2.139+j8.734	19.92	13.56	0.531+j3.628	2.133+j8.592
LAMOSA LAREDO	LAL-138	138.0	7.15	7.10	3.134+j10.696	2.528+j11.133	9.01	8.55	2.392+j9.427	2.531+j11.015
LAMPAZOS	LAM-400	400.0	8.90	6.30	3.566+j25.702	12.850+j56.918	12.58	8.25	1.812+j20.117	11.952+j50.935
LAREDO PONIENTE	LAP-138	138.0	6.18	5.64	3.376+j12.446	3.032+j16.410	7.65	6.66	2.627+j11.158	3.023+j16.267
LAS BRISAS	BRI-115	115.0	17.95	15.45	0.791+j3.614	0.964+j5.422	20.90	17.64	0.694+j3.425	0.961+j5.356
LAS CRUCES	CRU-115	115.0	1.50	1.19	13.697+j41.963	26.778+j74.910	1.80	1.53	11.615+j38.955	19.856+j58.493
LAS GLORIAS	GLO-400	400.0	21.44	17.64	1.683+j10.639	2.584+j17.593	26.25	20.89	1.177+j9.605	2.534+j16.990



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
LAS GLORIAS	GLO-115	115.0	35.06	31.98	0.288+j1.872	0.278+j2.429	40.08	36.10	0.244+j1.806	0.276+j2.414
LAS LOMAS	LLM-138	138.0	12.72	10.31	1.445+j6.094	2.236+j10.491	16.55	13.82	1.072+j5.185	1.783+j8.414
LAS MESAS	MES-115	115.0	11.31	11.42	0.604+j5.842	0.370+j5.660	12.37	12.57	0.599+j5.872	0.364+j5.585
LAS NORIAS	NOI-115	115.0	0.96	0.59	23.835+j65.216	67.668+j188.142	1.05	0.65	23.823+j65.192	67.659+j188.058
LAS TORRES	LTO-138	138.0	11.18	10.62	1.484+j6.970	1.345+j8.341	12.82	12.02	1.349+j6.703	1.333+j8.258
LAURO VILLAR	LVI-230	230.0	8.63	9.36	3.051+j15.090	1.651+j12.228	10.00	10.71	2.695+j14.362	1.619+j12.038
LAURO VILLAR	LVI-138	138.0	12.73	14.10	1.276+j6.130	0.498+j4.612	14.67	16.14	1.142+j5.863	0.477+j4.487
LECHUGAL	LEC-115	115.0	15.10	10.47	0.814+j4.322	2.037+j10.029	17.12	11.68	0.736+j4.202	2.037+j10.026
LEGO REAL ESTATE	LGR-115	115.0	14.92	8.18	0.882+j4.362	3.390+j15.090	16.74	9.07	0.827+j4.284	3.389+j15.071
LEONA	LEO-115	115.0	14.71	10.19	0.869+j4.428	2.102+j10.310	17.03	11.47	0.748+j4.223	2.102+j10.309
LG	LGE-115	115.0	18.32	12.47	0.718+j3.552	1.720+j8.551	20.61	13.88	0.670+j3.480	1.718+j8.530
LIBERTAD (MONTEMORELOS)	LBT-115	115.0	7.51	7.91	0.958+j8.787	2.313+j7.241	8.41	8.83	0.904+j8.633	2.311+j7.209
LIBERTAD (VICTORIA)	LBT-115	115.0	7.44	6.01	2.011+j8.698	4.319+j14.671	8.21	6.63	1.989+j8.672	4.325+j14.637
LIBRAMIENTO	LBR-115	115.0	2.66	1.70	7.974+j23.687	17.806+j64.813	3.06	2.00	7.388+j22.736	15.284+j59.842
LINARES	LSN-115	115.0	3.82	2.68	2.905+j17.126	8.660+j38.578	4.32	3.10	2.749+j16.684	7.678+j36.031
LINDA VISTA	LDV-115	115.0	4.99	3.05	2.372+j13.094	8.077+j37.900	5.56	3.38	2.333+j12.932	8.027+j37.710
LLANO GRANDE	LLG-230	230.0	9.41	10.47	2.829+j13.832	1.319+j10.286	10.95	12.03	2.479+j13.109	1.300+j10.128
LLANO GRANDE	LLG-138	138.0	12.96	14.65	1.276+j6.014	0.407+j4.209	14.95	16.72	1.142+j5.748	0.400+j4.155
LLERA DE CANALES	LLC-400	400.0	9.37	6.46	2.545+j24.510	11.373+j57.053	11.00	7.40	2.195+j22.994	11.288+j56.112
LOMA LARGA	LOL-115	115.0	31.49	24.36	0.406+j2.069	0.621+j3.914	36.43	27.87	0.349+j1.974	0.607+j3.809
LOS NOVILLOS	LVN-230	230.0	5.52	5.43	3.982+j23.717	4.020+j24.982	7.45	7.12	2.544+j19.449	3.522+j21.945
LOS NOVILLOS	LVN-138	138.0	6.62	7.07	2.022+j11.866	1.129+j9.701	8.88	9.49	1.336+j9.778	0.969+j7.861
LUVATA	LUV-115	115.0	22.19	15.07	0.554+j2.941	1.504+j7.079	25.80	17.15	0.489+j2.789	1.499+j6.967
MABE	MAB-115	115.0	17.11	13.41	0.789+j3.800	1.543+j6.932	20.06	15.35	0.685+j3.576	1.536+j6.835
MAGNA FORMEX SALTILLO	MFS-115	115.0	26.84	26.20	0.423+j2.437	0.373+j2.642	34.72	35.04	0.292+j2.083	0.272+j2.039
MAGNA POWER TRAIN	MGP-115	115.0	24.46	24.36	0.475+j2.673	0.400+j2.731	30.96	31.91	0.346+j2.333	0.301+j2.136
MAGNÉTICOS DE MÉXICO	MME-138	138.0	7.14	7.24	3.057+j10.733	2.303+j10.504	9.01	8.74	2.319+j9.444	2.306+j10.392
MALE PISTONES	MPI-115	115.0	21.54	19.09	0.573+j3.029	0.785+j4.208	26.44	23.34	0.451+j2.725	0.727+j3.804
MANIOBRAS DULCES NOMBRES II	MDU-115	115.0	40.57	44.29	0.256+j1.617	0.133+j1.216	50.47	55.72	0.188+j1.435	0.123+j1.043
MANIOBRAS PARQUE EOLICO EL MEZQUITE	MMQ-230	230.0	7.06	6.33	2.827+j18.599	6.266+j24.671	7.94	7.06	2.633+j18.213	6.256+j24.553
MANIOBRAS RANCHO NORTE	MRN-400	400.0	8.61	6.93	2.945+j26.670	7.885+j46.032	11.21	9.36	1.909+j22.573	6.255+j35.999
MANIOBRAS TRACTEBEL ENERGÍA DE PANUCO	ENP-115	115.0	17.09	14.91	0.760+j3.809	0.945+j5.631	19.62	16.86	0.726+j3.651	0.947+j5.604
MANNESMANN SACH	MSC-115	115.0	21.23	18.64	0.582+j3.073	0.821+j4.367	26.02	22.73	0.459+j2.769	0.763+j3.963
MANTE	MAN-115	115.0	1.39	1.57	17.425+j44.556	4.912+j31.731	1.72	1.89	13.838+j40.041	4.808+j31.242
MANUEL	MUL-115	115.0	6.96	2.99	2.496+j9.201	12.097+j46.016	7.82	3.34	2.434+j9.019	11.821+j45.435
MATAMOROS	MTM-138	138.0	12.75	11.21	1.461+j6.077	1.652+j8.847	14.89	12.84	1.300+j5.742	1.638+j8.699
MATAMOROS	MTM-69	69.0	4.49	4.78	0.512+j8.850	0.147+j7.331	4.98	5.28	0.472+j8.784	0.147+j7.349
MATAMOROS POTENCIA	MMP-230	230.0	11.61	12.33	1.939+j11.270	1.586+j9.909	13.70	14.23	1.625+j10.538	1.583+j9.817
MATAMOROS POTENCIA	MMP-138	138.0	13.69	15.57	1.102+j5.717	0.399+j3.885	15.84	17.79	0.972+j5.447	0.394+j3.854
MATRIMAR	MTR-115	115.0	3.23	2.27	5.557+j19.779	15.630+j43.968	3.59	2.51	5.410+j19.587	15.616+j44.016



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acronímico	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MAXITILE	MAX-138	138.0	6.36	6.02	3.246+j12.090	2.527+j14.500	7.91	7.16	2.498+j10.791	2.514+j14.347
MAYTAG	MYG-138	138.0	11.09	8.31	1.585+j7.008	2.992+j14.156	13.68	10.05	1.274+j6.280	2.798+j13.189
MESAS	MES-400	400.0	23.96	24.50	0.670+j9.615	0.496+j8.377	27.48	28.07	0.494+j9.232	0.478+j8.091
METALDYNE SINTERED COMPONENTS MÉXICO S. DE R.L DE C.V.	MST-115	115.0	22.89	23.06	0.519+j2.854	0.426+j2.817	28.55	29.76	0.392+j2.528	0.329+j2.231
METALSA	MSA-115	115.0	27.23	20.35	0.430+j2.400	0.920+j4.827	31.15	22.87	0.377+j2.314	0.918+j4.809
METRO CUAUHTÉMOC	MCU-115	115.0	21.12	13.96	0.587+j3.088	1.587+j7.822	24.00	15.63	0.531+j2.997	1.585+j7.781
METRO LINCOLN	MLI-115	115.0	20.08	12.61	0.631+j3.245	1.897+j8.991	23.09	14.13	0.556+j3.114	1.898+j8.982
MEXICHEM FLUOR	MEF-138	138.0	9.66	7.55	2.004+j7.997	3.298+j14.962	11.12	8.54	1.843+j7.661	3.284+j14.815
MÉXICO	MEX-138	138.0	15.88	13.98	1.039+j4.907	1.502+j6.953	19.33	16.49	0.862+j4.452	1.486+j6.772
MEZQUITAL	MZQ-115	115.0	14.03	8.99	0.838+j4.658	2.736+j12.387	15.74	9.99	0.797+j4.572	2.734+j12.370
MEZQUITAL PROVISIONAL	MZP-115	115.0	nan	nan	nan+jnan	nan+jnan	15.59	9.70	0.804+j4.616	2.865+j12.917
MICARE	MCR-138	138.0	9.03	9.48	1.801+j8.636	1.286+j7.492	12.50	12.40	1.177+j6.914	1.251+j7.004
MICARE DOS	MDS-138	138.0	9.66	10.87	1.335+j8.138	0.637+j5.489	14.10	15.12	0.669+j6.181	0.558+j4.852
MIGUEL ALEMÁN	MIG-138	138.0	5.28	3.05	4.216+j14.478	12.476+j46.668	6.28	4.51	3.635+j13.472	5.936+j29.892
MINA TAYAHUA	MTU-115	115.0	1.28	0.75	16.865+j48.880	43.124+j155.397	1.42	0.83	16.704+j48.623	43.112+j155.345
MINERA	MIE-115	115.0	3.57	3.96	3.057+j18.320	1.775+j13.015	4.23	4.61	2.554+j17.096	1.761+j12.780
MINERA AUTLÁN	MIA-230	230.0	6.69	4.74	3.073+j19.608	10.724+j43.511	7.52	5.27	2.962+j19.186	10.710+j43.372
MIRAMAR	MID-115	115.0	19.65	16.69	0.512+j3.340	0.897+j5.158	22.83	19.38	0.476+j3.164	0.859+j4.884
MIRAMAR DOS	MMD-230	230.0	15.72	16.69	0.845+j8.406	0.826+j7.449	18.15	19.14	0.769+j8.011	0.803+j7.253
MIRAVALLE	MAV-115	115.0	25.63	20.18	0.451+j2.551	1.355+j4.509	29.14	22.59	0.398+j2.474	1.354+j4.510
MISIONES	MSI-115	115.0	10.41	6.96	1.455+j6.207	4.316+j15.277	11.65	7.76	1.395+j6.112	4.293+j15.131
MITRAS	MIT-115B2	115.0	25.96	19.00	0.430+j2.521	1.092+j5.259	29.44	21.23	0.382+j2.452	1.091+j5.248
MODELO	MOD-115	115.0	22.85	13.59	0.553+j2.852	1.833+j8.658	25.91	15.14	0.501+j2.773	1.833+j8.651
MODINE	MNE-138	138.0	7.19	7.23	3.133+j10.622	2.433+j10.672	9.08	8.73	2.392+j9.354	2.436+j10.556
MOLANGO	MOL-115	115.0	1.58	1.12	12.425+j40.115	35.644+j87.739	1.74	1.23	12.416+j40.104	35.638+j87.648
MONCLOVA	MON-230	230.0	10.16	10.97	2.056+j12.909	1.272+j10.275	12.61	13.20	1.476+j11.486	1.245+j10.062
MONCLOVA	MON-115	115.0	11.69	13.83	0.805+j5.624	0.216+j3.091	14.21	16.54	0.611+j5.103	0.205+j2.992
MONTE KRISTAL	MKL-115	115.0	13.75	9.12	0.821+j4.758	2.239+j11.972	15.50	10.17	0.764+j4.649	2.237+j11.926
MONTEMORELOS	MTN-115	115.0	3.60	2.54	3.664+j18.060	9.000+j40.473	3.99	2.81	3.613+j17.955	8.998+j40.448
MONTERREY	MTY-115	115.0	44.39	41.05	0.276+j1.470	0.185+j1.858	52.34	47.28	0.223+j1.378	0.183+j1.840
MONTERREY POTENCIA SF6	MTP-400	400.0	28.49	29.24	1.785+j7.906	0.819+j7.484	36.97	36.82	1.214+j6.764	0.754+j6.952
MONTERREY POTENCIA SF6	MTP-115	115.0	47.37	44.58	0.257+j1.378	0.151+j1.665	56.53	51.84	0.202+j1.276	0.149+j1.643
MONTERREY POTENCIA SF6 (BUS B)	MTP-115B	115.0	45.28	42.71	0.270+j1.441	0.153+j1.731	53.47	49.30	0.217+j1.349	0.151+j1.713
MONTOI	MTI-115	115.0	20.74	9.63	0.578+j3.149	2.987+j13.968	23.47	10.71	0.525+j3.067	2.979+j13.930
MORELOS	MRL-115	115.0	11.16	8.29	0.957+j5.874	2.531+j11.872	12.83	9.41	0.844+j5.631	2.500+j11.662
MÚNICH	MUN-115	115.0	18.35	12.13	0.585+j3.570	1.890+j8.995	20.90	13.56	0.517+j3.456	1.890+j8.985
MUSEO	MSO-115	115.0	10.04	7.87	1.304+j6.484	3.165+j11.703	11.26	8.78	1.266+j6.363	3.205+j11.596
NARANJOS	NRJ-115	115.0	3.28	1.98	5.074+j19.568	22.680+j55.779	3.63	2.19	5.037+j19.471	22.666+j55.692
NARCISO MENDOZA	NMZ-138	138.0	6.28	5.69	3.384+j12.218	3.298+j16.401	7.78	6.72	2.641+j10.952	3.298+j16.279
NAVA	NAV-230	230.0	8.88	9.48	2.767+j14.702	1.915+j12.030	16.03	15.57	1.005+j9.058	1.693+j9.582



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
NAVA	NAV-138	138.0	8.90	10.10	1.573+j8.812	0.665+j5.771	12.65	13.79	0.896+j6.870	0.583+j5.104
NAVIDAD	NVD-115	115.0	1.71	1.79	12.021+j37.006	7.353+j32.915	2.09	2.12	9.783+j33.548	7.283+j32.488
NAVISTAR	NAS-115	115.0	15.74	9.62	0.777+j4.147	2.543+j11.996	17.68	10.69	0.725+j4.067	2.543+j11.976
NEMAK	NEK-115	115.0	16.02	12.67	0.571+j4.105	1.473+j7.281	17.82	14.05	0.536+j4.063	1.467+j7.248
NGM CERÁMICA	NGM-115	115.0	15.54	9.60	0.831+j4.192	2.659+j11.917	17.45	10.66	0.776+j4.113	2.659+j11.898
NOGALAR	NOG-115	115.0	46.91	40.76	0.291+j1.385	0.315+j2.036	55.52	46.91	0.236+j1.294	0.315+j2.019
NOKIA	NOK-138	138.0	16.50	11.29	0.985+j4.727	2.599+j11.262	19.85	13.12	0.823+j4.339	2.525+j10.968
NORTE	NRE-138	138.0	10.82	7.48	1.682+j7.168	3.959+j16.805	12.58	8.57	1.515+j6.798	3.832+j16.342
NUEVA CASTILLA	NUC-115	115.0	12.70	6.10	0.954+j5.141	4.564+j21.728	14.22	6.76	0.900+j5.057	4.548+j21.668
NUEVA ESCOBEDO	NUE-115	115.0	28.89	22.31	0.389+j2.265	0.691+j4.280	33.02	25.08	0.337+j2.186	0.691+j4.260
NUEVA ROSITA	NUR-230	230.0	5.46	5.81	4.810+j23.828	2.207+j20.005	7.42	7.42	3.196+j19.416	2.211+j19.453
NUEVA ROSITA	NUR-115	115.0	5.34	6.31	1.815+j12.306	0.349+j6.733	6.55	7.60	1.318+j11.074	0.336+j6.498
NUEVO LAREDO	NUL-138	138.0	7.38	7.54	3.072+j10.356	2.245+j9.897	9.34	9.13	2.329+j9.089	2.248+j9.780
NUEVO PROGRESO	NVP-138	138.0	9.60	7.05	2.040+j8.047	3.952+j16.929	11.86	8.74	1.683+j7.196	3.552+j15.040
NUEVO SANTANDER	NST-115	115.0	8.02	7.37	1.373+j8.160	1.914+j10.325	8.85	8.09	1.353+j8.141	1.945+j10.413
NUTEC FIBRATEC S.A. DE C.V.	NUF-115	115.0	18.03	14.65	0.765+j3.601	1.473+j6.070	21.32	16.90	0.659+j3.361	1.464+j5.946
OBISPADO	OBI-115	115.0	1.16	0.64	11.520+j56.108	45.121+j192.299	1.28	0.70	11.459+j56.025	45.121+j192.302
OBRA DE TOMA	ODT-115	115.0	1.82	1.22	12.543+j34.206	31.729+j84.042	2.01	1.35	12.523+j34.187	31.762+j84.132
OJO CALIENTE	OJC-138	138.0	6.58	6.13	3.188+j11.677	2.828+j14.546	8.19	7.29	2.449+j10.411	2.829+j14.428
OLIVO	OVO-115	115.0	9.73	8.57	1.002+j6.748	2.144+j9.374	10.75	9.46	0.979+j6.723	2.156+j9.362
ORIENTE	OTE-138	138.0	12.41	12.25	1.404+j6.267	1.036+j6.781	14.32	13.94	1.264+j5.990	1.026+j6.696
ORIÓN	ORN-115	115.0	17.80	12.48	0.683+j3.667	2.062+j8.252	20.05	13.88	0.628+j3.588	2.062+j8.254
ORIZATLAN	ORZ-138	138.0	12.72	9.92	1.322+j6.121	2.336+j11.396	15.70	11.92	1.055+j5.482	2.222+j10.770
OXFORD	OXF-115	115.0	15.09	11.24	0.734+j4.337	1.769+j8.759	18.12	13.40	0.600+j3.985	1.665+j8.141
OZULUAMA	OZL-115	115.0	3.31	2.16	5.256+j19.380	20.003+j48.231	3.66	2.39	5.220+j19.258	19.976+j48.114
P. IND. COLONIAL	PIC-138	138.0	11.13	8.32	1.575+j6.986	2.988+j14.174	13.75	10.09	1.258+j6.247	2.782+j13.157
P. IND. PUENTE	PIP-138	138.0	10.13	7.41	1.906+j7.631	3.989+j16.123	12.23	8.74	1.642+j6.977	3.855+j15.391
P.I. DEL NORTE	INO1-138	138.0	15.01	10.43	1.140+j5.183	2.831+j12.026	17.91	12.04	0.978+j4.795	2.769+j11.768
P.I. SANTA MARÍA	PSM-115	115.0	21.73	19.59	0.479+j3.018	0.693+j4.011	27.17	24.88	0.345+j2.665	0.589+j3.393
PANUCO	PAN-115	115.0	5.07	2.62	2.068+j12.939	11.417+j49.555	5.53	2.87	2.108+j13.040	11.383+j49.426
PARQUE DE INVESTIGACIONES E INNOVACIÓN TECNOLÓGICA	IIT-115	115.0	11.48	8.07	0.782+j5.730	2.642+j12.859	13.15	9.14	0.701+j5.509	2.620+j12.638
PARQUE EÓLICO VICENTE GUERRERO	VIG-115	115.0	7.23	7.76	1.359+j9.076	0.780+j7.296	7.97	8.63	1.337+j9.062	0.741+j7.061
PARQUE IND. ACUÑA	PIU-138	138.0	5.74	5.76	2.450+j13.656	1.886+j13.652	7.67	7.67	1.659+j11.309	1.632+j11.262
PARQUE INDL. ESTRELLA	EST-115	115.0	17.89	11.23	0.734+j3.638	2.226+j10.077	20.15	12.49	0.679+j3.560	2.226+j10.058
PARQUE INDUSTRIAL	PAI-138	138.0	14.10	11.80	1.149+j5.534	1.658+j8.868	17.48	14.24	0.900+j4.932	1.586+j8.394
PARQUE INDUSTRIAL AMISTAD-AEROPUERTO	PIA-115	115.0	10.51	7.33	1.082+j6.222	3.006+j14.249	12.16	8.34	0.959+j5.929	2.973+j13.956
PARQUE INDUSTRIAL APODACA TECHNOLOGY PARK	PQT-115	115.0	12.23	8.08	0.862+j5.361	3.003+j13.486	13.65	8.95	0.814+j5.288	3.000+j13.466
PARQUE INDUSTRIAL DEL NORTE	INO2-138	138.0	15.01	10.42	1.141+j5.184	2.831+j12.028	17.90	12.04	0.979+j4.797	2.769+j11.769
PARQUE INDUSTRIAL ESCOBEDO	PIE-115	115.0	23.77	17.38	0.468+j2.754	1.123+j5.766	27.04	19.47	0.414+j2.669	1.123+j5.749
PARQUE INDUSTRIAL LA SILLA	SIA-115	115.0	13.52	9.22	0.808+j4.845	2.601+j11.510	15.54	10.39	0.725+j4.643	2.595+j11.421



Subestación Eléctrica	Acronímico	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PARQUE INDUSTRIAL MONTERREY - APODACA	PMA-115	115.0	18.20	12.47	0.724+j3.575	1.702+j8.517	20.46	13.87	0.676+j3.505	1.701+j8.497
PARQUE INDUSTRIAL ORADEL	PIO-138	138.0	6.91	7.11	3.045+j11.114	1.840+j10.486	8.70	8.59	2.299+j9.805	1.824+j10.327
PARQUE INDUSTRIAL SALTILLO RAMOS ARIZPE	ISR1-115	115.0	21.83	20.36	0.560+j2.990	0.642+j3.654	26.90	25.38	0.436+j2.679	0.565+j3.164
PARQUE INDUSTRIAL SALTILLO RAMOS ARIZPE	ISR2-115	115.0	16.81	13.18	0.574+j3.908	1.565+j7.065	20.05	15.37	0.456+j3.615	1.534+j6.819
PEMEX	PEM-115	115.0	51.35	42.12	0.270+j1.264	0.388+j2.110	61.97	49.07	0.213+j1.159	0.386+j2.077
PEMEX CADEREYTA	PCD-230	230.0	9.01	7.10	2.462+j14.528	6.000+j26.024	11.22	8.36	1.912+j12.877	5.975+j25.689
PEMEX CRIOGÉNICA	PXC-138	138.0	7.92	5.16	1.949+j9.868	5.435+j25.711	9.40	6.78	1.670+j9.175	3.311+j19.873
PEMEX NARANJOS	PMX-115	115.0	3.15	1.91	5.305+j20.376	23.526+j57.701	3.49	2.11	5.269+j20.279	23.511+j57.613
PEMEX-REFINERÍA	PRF-115	115.0	8.36	4.08	1.372+j7.824	8.584+j31.870	10.19	5.92	1.120+j7.077	4.210+j22.268
PERFILES	PFS-115	115.0	26.66	19.80	0.439+j2.451	0.960+j4.990	30.48	22.24	0.386+j2.365	0.958+j4.971
PESQUERÍA	PQA-115	115.0	16.93	13.02	0.614+j3.874	1.424+j7.321	18.91	14.50	0.575+j3.819	1.415+j7.257
PETROCEL	GPT-115	115.0	15.72	12.71	0.817+j4.144	2.039+j7.000	18.41	15.46	0.753+j3.895	1.688+j6.073
PETROLERA	PER-138	138.0	15.18	13.30	1.007+j5.152	1.419+j7.380	18.08	15.40	0.847+j4.774	1.412+j7.292
PEÑOLES	PÑL-115	115.0	18.26	14.92	0.757+j3.557	1.438+j5.911	21.61	17.24	0.650+j3.317	1.428+j5.787
PHEPS DODGE	PHD-115	115.0	13.68	7.48	0.957+j4.759	3.711+j16.513	15.32	8.29	0.902+j4.681	3.710+j16.494
PIEDRAS NEGRAS	PNE-138	138.0	8.70	8.60	1.815+j8.975	1.510+j9.377	11.91	11.02	1.175+j7.262	1.484+j8.967
PIEDRAS NEGRAS POTENCIA	PNG-230	230.0	8.09	8.32	2.941+j16.156	2.289+j14.930	13.27	12.32	1.258+j10.939	2.201+j13.196
PIEDRAS NEGRAS POTENCIA	PNG-138	138.0	9.84	10.85	1.483+j7.961	0.678+j5.833	13.93	14.54	0.850+j6.236	0.647+j5.400
PLANTA	PTA-138	138.0	12.07	10.42	1.525+j6.425	1.800+j9.743	13.99	11.86	1.371+j6.112	1.790+j9.627
PLANTA BOMBEO DOS	PBD-115	115.0	4.58	4.39	1.976+j14.373	3.857+j15.906	5.11	4.90	1.860+j14.165	3.833+j15.751
PLANTA BOMBEO UNO	PBU-115	115.0	3.55	3.08	2.892+j18.470	8.341+j26.080	3.95	3.42	2.774+j18.264	8.317+j25.925
PLANTA DE AGUAS RESIDUALES NORTE	RNO-115	115.0	23.92	15.07	0.439+j2.740	1.524+j7.520	27.24	16.85	0.385+j2.654	1.519+j7.494
PLANTA DE BOMBEO 0	PB0-115	115.0	2.23	1.70	5.235+j29.314	19.776+j54.862	2.47	1.88	5.115+j29.111	19.752+j54.707
PLANTA DE BOMBEO LA SILLA	PBS-115	115.0	15.11	9.65	0.789+j4.322	2.446+j11.598	17.07	10.78	0.730+j4.216	2.436+j11.515
PLANTA DE BOMBEO SAN ROQUE DE AYD	PBR-115	115.0	14.88	9.47	0.802+j4.390	2.512+j11.847	16.81	10.57	0.743+j4.281	2.505+j11.776
PLANTA DE BOMBEO SANTA ROSA APODACA	PBA-115	115.0	12.94	8.64	0.801+j5.069	2.785+j12.485	14.46	9.59	0.753+j4.996	2.782+j12.464
PLANTA DUPONT	DUT-115	115.0	16.92	14.76	0.767+j3.849	0.944+j5.696	19.41	16.68	0.733+j3.691	0.947+j5.669
PLANTA EL SALTO	STO-115	115.0	2.34	2.07	9.019+j26.901	10.605+j38.275	2.94	3.06	6.959+j23.850	3.720+j21.892
PLANTA FALCÓN	PFA-115	115.0	4.15	4.97	3.199+j15.679	0.283+j8.139	4.78	5.65	2.699+j15.026	0.293+j8.346
PLAYA	PLY-115	115.0	8.00	5.15	1.153+j8.214	4.867+j21.602	9.23	5.96	1.049+j7.839	4.595+j20.546
PLAZA SF6	PZA-400	400.0	19.77	19.03	2.126+j11.487	1.684+j12.986	24.15	22.46	1.525+j10.407	1.668+j12.836
PLAZA SF6	PZA-115	115.0	38.55	30.00	0.331+j1.690	0.383+j3.179	45.05	34.44	0.275+j1.598	0.377+j3.103
POLARIS	POI-115	115.0	20.69	15.58	0.494+j3.170	1.257+j6.247	24.52	18.13	0.414+j2.949	1.235+j6.026
POLICYD	PLC-115	115.0	19.01	15.80	0.628+j3.435	1.154+j5.559	21.84	17.90	0.599+j3.290	1.146+j5.493
POLVORÍN	POL-115	115.0	17.26	14.98	0.669+j3.787	1.088+j5.552	21.18	18.43	0.556+j3.404	0.942+j4.952
POSCO DE MÉXICO	PCO-115	115.0	21.75	14.78	0.416+j3.024	1.397+j7.280	26.03	19.40	0.363+j2.782	0.916+j5.659
PRAX AIR	PAX-115	115.0	31.76	22.87	0.429+j2.046	0.854+j4.449	36.66	25.79	0.374+j1.957	0.853+j4.434
PRIMEX	PRX-115	115.0	21.79	17.83	0.491+j3.007	0.881+j5.055	25.98	22.80	0.437+j2.777	0.613+j3.997
PROEZA GREDE	PGR-115	115.0	22.58	17.42	0.536+j2.890	1.903+j5.261	25.60	19.50	0.485+j2.812	1.902+j5.241
PROLAMSA	POM-115	115.0	19.56	8.93	0.597+j3.342	3.145+j15.186	22.12	9.94	0.542+j3.257	3.130+j15.128



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
PROLEC	PLE-115	115.0	17.59	11.89	0.680+j3.713	2.022+j8.983	19.82	13.24	0.629+j3.631	2.021+j8.966
PROLEC PARTICULAR	PLP-115	115.0	24.67	17.76	0.485+j2.648	1.131+j5.724	28.10	19.90	0.432+j2.563	1.130+j5.706
PROLOGIS	POG-138	138.0	11.53	8.82	1.516+j6.742	2.732+j13.048	14.19	10.62	1.224+j6.054	2.581+j12.251
PROLOGIS-APODACA	PLG-115	115.0	19.35	14.23	0.603+j3.378	1.373+j7.008	21.73	15.84	0.559+j3.314	1.371+j6.984
PROPARK	PPK-115	115.0	6.29	3.90	1.960+j10.370	6.970+j29.206	7.06	4.33	1.877+j10.168	6.964+j29.117
PROPASA	PDP-115	115.0	20.96	14.28	0.593+j3.112	1.781+j7.406	23.97	16.01	0.531+j3.001	1.779+j7.388
PTA BOMBEO CUATRO	PBC-115	115.0	2.13	1.62	5.660+j30.621	18.670+j58.159	2.36	1.79	5.540+j30.421	18.647+j58.004
PTA DE TRATAMIENTO DE AGUAS RESIDUALES NORESTE	RNE-115	115.0	11.41	7.44	0.927+j5.747	3.281+j14.770	12.72	8.24	0.880+j5.674	3.278+j14.750
PTA. BOMBEO TRES	PBT-115	115.0	2.68	2.15	4.316+j24.371	14.951+j41.066	2.98	2.38	4.196+j24.169	14.927+j40.911
PUENTE INTERNACIONAL	PUI-138	138.0	7.80	6.85	2.020+j10.010	2.739+j14.258	10.41	8.49	1.379+j8.305	2.710+j13.820
PUENTES (1)	PTS-115B2	115.0	32.83	23.06	0.383+j1.986	0.879+j4.508	38.00	26.03	0.329+j1.894	0.878+j4.492
PUENTES (2)	PTS-115B1	115.0	32.36	22.31	0.391+j2.014	0.917+j4.736	37.49	25.19	0.336+j1.919	0.916+j4.719
PUERTO	PUO-115	115.0	25.69	17.75	0.306+j2.566	1.087+j5.995	30.95	22.42	0.261+j2.345	0.849+j5.032
PUERTO ALTAMIRA ELÉCTRICA	PAE-400	400.0	22.70	25.20	0.794+j10.141	0.775+j7.313	36.66	43.96	0.354+j6.920	0.339+j4.215
PUERTO ALTAMIRA ELÉCTRICA	PAE-115	115.0	27.35	19.06	0.270+j2.413	0.977+j5.545	33.13	24.35	0.225+j2.193	0.737+j4.579
QUÍMICA FLUOR	QFL-138	138.0	9.67	7.55	2.004+j7.996	3.298+j14.962	11.12	8.54	1.844+j7.661	3.284+j14.815
RAMOS ARIZPE	RRA-115	115.0	21.34	18.57	0.598+j3.053	0.870+j4.433	25.93	22.15	0.481+j2.776	0.836+j4.185
RAMOS ARIZPE POTENCIA	RAP-400	400.0	22.62	20.21	1.722+j10.061	2.535+j13.686	28.21	24.42	1.125+j8.933	2.262+j13.051
RAMOS ARIZPE POTENCIA	RAP-115	115.0	28.65	29.62	0.387+j2.285	0.232+j2.094	37.67	41.27	0.254+j1.922	0.118+j1.438
RASSINI	RNI-138	138.0	7.06	5.61	2.409+j11.028	4.097+j19.643	9.24	6.80	1.767+j9.318	4.071+j19.233
RAYÓN	RAY-115	115.0	2.44	1.60	7.817+j26.042	24.450+j65.500	2.70	1.77	7.772+j25.932	24.490+j65.390
REAL DE PALMAS	RDP-115	115.0	16.52	10.92	0.665+j3.964	2.173+j9.980	18.61	12.15	0.608+j3.877	2.172+j9.962
REBOMBEO I	RBV-115	115.0	2.99	2.08	7.605+j20.852	16.886+j48.732	3.29	2.28	7.585+j20.833	16.917+j48.822
REBOMBEO II	RBD-115	115.0	4.49	3.36	4.284+j14.142	8.893+j28.315	4.95	3.70	4.264+j14.122	8.924+j28.404
REFINERÍA MADERO	RMA-115	115.0	12.71	9.32	0.928+j5.141	2.230+j10.740	16.13	12.18	0.718+j4.471	1.650+j8.823
REGIDORES	RGS-115	115.0	9.04	6.61	1.195+j7.247	3.127+j15.161	10.74	7.56	0.998+j6.729	3.124+j15.109
REYNOSA	REY-138	138.0	16.80	14.54	0.905+j4.655	1.245+j6.887	20.12	16.98	0.748+j4.291	1.213+j6.701
REYNOSA CENTRO	RYC-138	138.0	12.23	9.66	1.336+j6.378	2.521+j11.471	14.34	11.03	1.183+j5.994	2.518+j11.383
RHEEM	RHM-138	138.0	7.19	7.23	3.133+j10.622	2.433+j10.672	9.08	8.73	2.392+j9.354	2.436+j10.556
RICSA	RIS-138	138.0	10.78	7.95	1.769+j7.175	3.675+j14.909	12.94	9.30	1.537+j6.598	3.582+j14.362
RIEL	RIE-115	115.0	31.66	21.00	0.410+j2.057	1.057+j5.186	36.64	23.69	0.354+j1.961	1.056+j5.162
RIO	RIO-115	115.0	26.74	18.17	0.478+j2.436	0.979+j5.918	30.66	20.51	0.422+j2.344	0.972+j5.842
RIO BRAVO	RIB-230	230.0	14.26	12.93	1.550+j9.180	2.335+j12.171	19.80	20.50	0.909+j7.323	0.729+j6.711
RIO BRAVO	RIB-138	138.0	16.31	15.54	1.035+j4.773	0.815+j5.637	22.93	24.97	0.625+j3.770	0.243+j3.071
RIO BRAVO III	RBT-400	400.0	11.61	13.58	2.196+j19.766	0.876+j12.615	16.62	20.03	1.145+j15.241	0.444+j8.302
RIO BRAVO IV	RBC-400	400.0	11.69	13.71	2.182+j19.626	0.821+j12.435	16.60	20.03	1.147+j15.260	0.444+j8.302
RIO BRAVO PONIENTE	RBP-138	138.0	12.11	9.25	1.378+j6.432	2.304+j12.556	15.49	11.90	1.018+j5.566	1.903+j10.765
RIO ESCONDIDO	REC-400	400.0	8.45	8.36	4.820+j26.895	3.446+j28.317	22.77	26.50	0.711+j11.136	0.451+j6.780
RIO ESCONDIDO	REC-230	230.0	10.53	12.68	2.303+j12.397	0.577+j6.285	22.63	27.56	0.516+j6.433	0.118+j2.781
RIO ESCONDIDO	REC-138	138.0	9.96	11.74	1.246+j7.899	0.291+j4.404	14.68	16.68	0.581+j5.940	0.209+j3.756



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
RIO SALADO	SDO-138	138.0	3.62	2.47	5.940+j21.168	13.670+j51.055	4.23	3.69	5.291+j20.014	5.225+j29.439
RÍO VERDE	RVE-115	115.0	2.21	1.38	8.710+j28.694	26.926+j80.053	2.45	1.52	8.664+j28.587	26.966+j79.942
ROCKWELL	ROW-115	115.0	21.65	14.64	0.566+j3.014	1.555+j7.307	25.14	16.66	0.502+j2.861	1.549+j7.192
SABINAS	SAB-115	115.0	3.86	3.26	3.316+j16.860	5.459+j26.276	4.67	3.78	2.686+j15.407	5.446+j26.041
SABINAS HIDALGO	SAH-115	115.0	1.97	2.07	10.268+j32.082	2.800+j29.083	2.18	2.30	10.195+j31.977	2.724+j28.549
SALITRILLO	SLT-115	115.0	4.29	3.54	2.809+j15.215	8.290+j24.129	4.77	3.92	2.755+j15.061	8.289+j24.096
SALITRILLOS	SLT-138	138.0	5.87	7.20	1.678+j13.464	0.977+j6.021	6.64	8.11	1.544+j13.113	0.991+j5.993
SALTILLO	SAL-230	230.0	12.47	13.61	1.803+j10.496	0.911+j7.968	14.56	15.69	1.489+j9.919	0.907+j7.856
SALTILLO	SAL-115	115.0	24.02	26.03	0.532+j2.713	0.221+j2.127	28.44	30.37	0.440+j2.530	0.220+j2.079
SAN AGUSTÍN	AUS-115	115.0	27.31	19.19	0.454+j2.389	1.007+j5.430	31.35	21.71	0.397+j2.295	0.998+j5.345
SAN BARTOLO	SBT-115	115.0	1.11	0.89	13.924+j57.981	41.372+j96.831	1.23	0.98	13.880+j57.897	41.356+j96.712
SAN BERNABÉ	BER-115	115.0	17.04	11.07	0.708+j3.831	2.129+j9.976	19.14	12.30	0.658+j3.759	2.129+j9.963
SAN CARLOS POTENCIA	SCP-400	400.0	8.75	7.65	2.696+j26.259	5.639+j37.395	9.98	8.65	2.356+j25.347	5.560+j36.940
SAN CRISTOBAL	CRB-138	138.0	11.05	7.87	1.409+j7.071	3.350+j15.643	13.14	9.73	1.200+j6.563	2.559+j13.476
SAN FERNANDO	FDO-115	115.0	0.82	0.49	28.560+j75.241	78.865+j230.064	0.91	0.54	28.553+j75.219	78.856+j229.980
SAN JORGE	JOR-115	115.0	22.50	14.54	0.562+j2.897	1.547+j7.649	25.81	16.28	0.494+j2.787	1.547+j7.644
SAN JUAN	JAN-115	115.0	6.34	4.12	1.987+j10.278	6.874+j26.507	7.25	4.64	1.874+j9.897	6.851+j26.277
SAN MARCOS	MCO-115	115.0	7.70	5.08	1.493+j8.491	4.906+j21.460	8.88	5.74	1.381+j8.109	4.883+j21.231
SAN MARTIN	SMA-115	115.0	12.59	8.13	0.829+j5.210	2.302+j13.750	14.08	9.02	0.776+j5.127	2.301+j13.731
SAN NICOLÁS	NIC-400	400.0	25.78	25.18	1.917+j8.749	1.466+j9.502	32.86	30.67	1.329+j7.617	1.467+j9.286
SAN NICOLÁS	NIC-115	115.0	59.65	56.81	0.227+j1.090	0.146+j1.277	71.92	66.37	0.174+j1.001	0.146+j1.266
SAN NICOLÁS (BUS B)	NIC-115B	115.0	59.83	57.13	0.227+j1.086	0.145+j1.264	72.15	66.76	0.173+j0.997	0.145+j1.254
SAN ROBERTO	RBO-115	115.0	0.89	0.95	33.776+j66.565	20.639+j56.579	1.05	1.11	30.189+j62.310	20.534+j56.088
SAN ROQUE	ROQ-115B	115.0	20.30	13.66	0.582+j3.219	1.662+j7.872	23.19	15.35	0.522+j3.105	1.658+j7.811
SANDOVAL	SDV-138	138.0	8.22	6.93	2.470+j9.372	3.347+j14.905	9.52	7.90	2.262+j8.919	3.315+j14.661
SANTA AMALIA TAMAULIPAS	AAT-115	115.0	21.03	20.02	0.444+j3.126	0.437+j3.661	24.24	22.87	0.418+j2.984	0.437+j3.581
SANTA CATARINA	CAT-115	115.0	11.48	7.64	1.074+j5.681	2.870+j14.215	12.89	8.48	1.006+j5.574	2.870+j14.210
SANTA CRUZ	STZ-115	115.0	27.04	18.97	0.458+j2.413	1.147+j5.467	31.68	21.70	0.395+j2.271	1.143+j5.377
SANTA ELENA	STE-115	115.0	10.69	6.73	0.901+j6.147	3.738+j16.792	11.92	7.45	0.849+j6.067	3.737+j16.776
SANTANDER	SNT-138	138.0	18.53	17.00	0.751+j4.234	0.876+j5.431	22.35	19.99	0.601+j3.875	0.847+j5.275
SANTO DOMINGO	DON-400	400.0	26.58	25.72	2.002+j8.456	1.393+j9.493	34.05	31.62	1.422+j7.323	1.367+j9.112
SANTO DOMINGO	DON-115	115.0	52.72	51.95	0.258+j1.233	0.122+j1.318	62.84	60.40	0.203+j1.144	0.123+j1.304
SANTO DOMINGO VIEJO PROVISIONAL	DVP-115	115.0	23.55	16.53	0.530+j2.769	1.515+j6.235	26.98	18.57	0.471+j2.666	1.514+j6.216
SELLO ROJO	SER-115	115.0	4.33	3.16	2.347+j15.142	7.097+j31.726	4.98	3.86	2.136+j14.515	5.192+j26.880
SENDERO NACIONAL	SEN-138	138.0	10.69	8.66	1.674+j7.261	2.402+j12.656	12.33	9.80	1.519+j6.941	2.391+j12.540
SERVER	SVR-115	115.0	10.10	7.72	1.254+j6.455	3.506+j12.180	11.61	8.79	1.135+j6.190	3.459+j11.873
SIDERÚRGICA	SIG-138	138.0	11.69	9.94	1.530+j6.639	1.941+j10.406	13.56	11.31	1.374+j6.315	1.930+j10.286
SIDERÚRGICA DEL GOLFO S.A.	SGA-230	230.0	10.29	8.17	1.983+j12.747	4.791+j22.711	13.31	11.14	1.334+j10.897	3.185+j17.251
SIECOR	SIE-138	138.0	15.37	10.63	1.099+j5.065	2.775+j11.850	18.37	12.29	0.937+j4.677	2.709+j11.580
SINAÍ	SIN-138	138.0	13.83	10.57	1.121+j5.652	2.252+j10.910	16.55	12.79	0.938+j5.211	1.879+j9.819



Niveles de cortocircuito de la Red Nacional de Transmisión Gerencia de Control Regional Noreste

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SOLIDARIDAD	SRD-115	115.0	16.27	10.52	0.732+j4.015	2.275+j10.538	18.26	11.68	0.682+j3.942	2.275+j10.524
SORIANA CEDIS	SOC-115	115.0	17.04	10.32	0.751+j3.822	2.510+j11.243	19.18	11.46	0.697+j3.744	2.510+j11.224
SOTO LA MARINA	SOT-115	115.0	1.07	0.71	20.384+j58.380	58.587+j143.823	1.18	0.79	20.365+j58.362	58.620+j143.915
SPARTECH	SEH-115	115.0	14.72	10.86	0.755+j4.447	1.859+j9.154	17.63	12.90	0.621+j4.095	1.755+j8.537
STIVA	STV-115	115.0	17.36	12.60	0.626+j3.773	1.807+j7.967	20.36	14.40	0.541+j3.547	1.799+j7.861
TAMALIN	TLN-115	115.0	3.00	1.88	5.777+j21.354	23.038+j57.611	3.32	2.07	5.741+j21.247	23.019+j57.515
TAMAULIPAS	TAM-115	115.0	14.48	11.16	0.844+j4.506	2.232+j8.449	16.97	12.96	0.774+j4.233	2.176+j8.080
TAMAZUNCHALE 115	TZE-115	115.0	6.81	5.23	1.807+j9.575	3.783+j18.161	7.47	5.76	1.802+j9.605	3.777+j18.086
TAMAZUNCHALE 400	TMH-400	400.0	23.72	24.45	0.676+j9.713	0.426+j8.215	27.16	28.00	0.505+j9.341	0.406+j7.919
TAMBACA	TBC-115	115.0	3.39	2.33	5.322+j18.853	16.599+j43.498	3.75	2.57	5.279+j18.738	16.638+j43.390
TAMOS	TMO-400	400.0	17.58	14.82	1.210+j13.082	4.126+j20.313	23.53	19.43	0.798+j10.765	3.564+j17.577
TAMOS	TMO-115	115.0	20.78	18.63	0.471+j3.160	0.771+j4.289	24.12	21.56	0.433+j2.997	0.721+j4.099
TAMPICO	TPC-230	230.0	15.56	15.47	0.950+j8.482	1.404+j8.960	18.11	17.77	0.849+j8.022	1.388+j8.800
TAMPICO	TPC-115	115.0	26.40	28.25	0.359+j2.489	0.264+j2.079	31.12	32.93	0.323+j2.324	0.258+j2.019
TAMPIQUITO	TPQ-115	115.0	27.19	20.21	0.411+j2.407	0.855+j4.899	31.02	22.63	0.357+j2.327	0.855+j4.901
TANCOL	TCL-115	115.0	16.78	14.39	0.653+j3.903	1.924+j5.724	19.28	16.31	0.615+j3.737	1.917+j5.653
TECHNOCAST	THC-115	115.0	14.23	10.24	0.752+j4.605	2.060+j9.931	17.03	12.15	0.617+j4.245	1.947+j9.275
TECNOLÓGICO POTENCIA SF6	TEC-400	400.0	19.25	18.10	2.217+j11.792	1.857+j14.206	23.46	21.36	1.617+j10.705	1.824+j13.956
TECNOLÓGICO POTENCIA SF6	TEC-115	115.0	42.02	38.31	0.308+j1.550	0.212+j2.037	49.60	45.29	0.250+j1.451	0.188+j1.891
TEKSID	TKS-115	115.0	8.61	7.96	1.120+j7.625	1.779+j9.510	10.19	9.16	0.928+j7.108	1.776+j9.456
TELEFLEX	TLX-138	138.0	6.96	6.75	2.764+j11.113	2.096+j12.395	8.72	8.08	2.037+j9.837	2.099+j12.283
TEMPOAL II	TED-115	115.0	2.72	1.70	5.188+j23.807	17.187+j66.475	3.00	1.87	5.189+j23.811	17.177+j66.398
TERNIUM MANIOBRAS	TNM-400	400.0	12.41	9.07	2.101+j18.494	7.434+j38.601	15.68	11.79	1.386+j16.137	5.965+j31.880
TEXTILERAS	TXE-115	115.0	16.37	12.13	0.636+j4.006	1.596+j8.208	18.79	13.78	0.602+j3.839	1.572+j8.035
TIERRA NUEVA	TNA-115	115.0	6.16	4.50	3.382+j10.237	7.352+j21.535	6.80	4.96	3.358+j10.207	7.346+j21.457
TOPO CHICO	THO-115	115.0	28.98	21.66	0.473+j2.242	0.876+j4.534	33.30	24.38	0.418+j2.153	0.876+j4.521
TOSHIBA	TOS-115	115.0	13.68	7.48	0.956+j4.760	3.711+j16.513	15.32	8.29	0.901+j4.682	3.710+j16.494
TRANE	TNE-115	115.0	17.36	12.60	0.626+j3.773	1.807+j7.967	20.36	14.40	0.541+j3.547	1.799+j7.861
TRES MESAS MANIOBRAS	TMS-400	400.0	9.40	6.61	2.406+j24.445	11.828+j54.692	10.97	7.53	2.079+j23.067	11.777+j53.997
TRIARA II	TII-115	115.0	18.52	13.54	0.673+j3.521	1.369+j7.416	20.80	15.07	0.628+j3.455	1.367+j7.394
TRICO COMPTS.	TCO-138	138.0	11.01	9.08	1.600+j7.060	2.224+j11.805	12.72	10.30	1.445+j6.738	2.213+j11.690
TUBACERO MONTERREY	TBM-115	115.0	22.12	15.30	0.562+j2.949	1.647+j6.821	25.32	17.18	0.501+j2.840	1.646+j6.802
UCAR	UCA-230	230.0	15.35	12.53	1.424+j8.533	3.404+j14.124	18.44	14.63	1.144+j7.840	3.363+j13.767
UNIDAD DEPORTIVA	UDP-138	138.0	6.79	6.58	3.235+j11.283	3.288+j12.472	8.51	7.88	2.489+j9.994	3.283+j12.336
UNIVERSIDAD	UNI-115	115.0	21.80	14.11	0.573+j2.991	1.634+j7.857	25.41	15.92	0.485+j2.833	1.635+j7.850
UNIVERSIDAD SACH	UNT-115	115.0	16.12	12.63	0.705+j4.057	1.495+j7.453	19.22	14.84	0.618+j3.749	1.412+j7.079
VALADECES	VDL-138	138.0	6.81	4.21	3.089+j11.284	8.395+j32.384	7.89	5.13	2.806+j10.751	6.832+j28.197
VALLE	VLL-115	115.0	27.90	28.58	0.423+j2.342	0.275+j2.197	31.88	32.25	0.368+j2.261	0.275+j2.199
VALLE ALTO	VAL-115	115.0	12.13	10.23	0.967+j5.388	1.981+j8.328	13.67	11.47	0.929+j5.262	2.024+j8.211
VALLE DEL ROBLE	VRO-115	115.0	9.56	6.34	1.157+j6.850	3.678+j17.139	10.87	7.18	1.076+j6.631	3.604+j16.689



Subestación Eléctrica	Acronímico	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
VALLE HERMOSO	VHE-138	138.0	3.18	2.76	7.505+j23.869	8.901+j35.461	3.59	3.12	7.216+j23.309	8.735+j34.599
VALLE ORIENTE	VOT-115	115.0	37.42	28.67	0.347+j1.740	0.438+j3.377	43.67	32.87	0.291+j1.647	0.432+j3.299
VALLE PONIENTE	VAP-115	115.0	16.03	12.25	0.778+j4.069	1.539+j7.822	18.39	13.77	0.682+j3.912	1.539+j7.822
VALLE SOLEADO DEFINITIVO	VSL-115	115.0	22.99	14.38	0.577+j2.830	1.660+j7.903	26.42	16.17	0.519+j2.715	1.658+j7.855
VALLE SUR	VSR-138	138.0	3.64	3.41	6.513+j20.904	6.431+j25.659	4.12	3.87	6.227+j20.339	6.265+j24.797
VALLES	VES-115	115.0	12.23	10.25	0.965+j5.340	1.963+j8.389	13.77	11.47	0.929+j5.223	2.001+j8.292
VENTIKA MANIOBRAS	VKM-230	230.0	6.77	7.24	3.121+j19.358	2.439+j15.675	7.60	8.10	2.936+j18.986	2.432+j15.554
VERDE CO.	VEC-138	138.0	10.09	7.29	1.915+j7.663	4.076+j16.538	12.21	8.67	1.642+j6.990	3.892+j15.591
VICTORIA	VRA-115	115.0	7.67	6.16	1.806+j8.464	3.816+j14.528	8.47	6.80	1.784+j8.439	3.826+j14.505
VIDRIERA MONTERREY	VMO-115	115.0	24.88	17.36	0.494+j2.622	1.183+j6.026	28.43	19.49	0.438+j2.532	1.182+j5.991
VILLA DE CASAS	VDC-115	115.0	2.39	1.61	10.127+j25.911	22.980+j64.207	2.63	1.77	10.106+j25.892	23.012+j64.298
VILLA DE GARCIA	VDG-400	400.0	28.74	28.83	1.499+j7.894	1.348+j7.908	36.89	35.18	0.936+j6.823	1.347+j7.820
VILLA DE GARCIA	VDG-230	230.0	24.38	28.02	0.761+j5.393	0.298+j3.336	28.75	32.48	0.559+j5.050	0.298+j3.335
VILLA DE GARCIA	VDG-115	115.0	27.50	31.55	0.388+j2.383	0.103+j1.482	31.11	35.47	0.344+j2.322	0.103+j1.477
VILLA DE JUÁREZ DOS	VJD-115	115.0	11.09	7.53	0.984+j5.905	3.089+j14.140	13.06	8.63	0.871+j5.524	3.066+j13.911
VILLA DE SANTIAGO	VDS-115	115.0	9.21	5.88	1.659+j7.019	5.444+j18.665	10.28	6.54	1.599+j6.925	5.420+j18.519
VILLA FLORIDA	VLV-138	138.0	17.40	15.02	0.821+j4.505	1.170+j6.697	20.93	17.65	0.666+j4.134	1.114+j6.460
VISTEON	VIS-115	115.0	15.77	11.08	0.718+j4.149	1.953+j9.360	17.62	12.31	0.676+j4.089	1.948+j9.323
WHIRLPOOL	WHI-115	115.0	14.36	10.50	0.776+j4.557	1.949+j9.549	17.17	12.44	0.642+j4.205	1.845+j8.932
WHIRLPOOL APODACA	WHA-115	115.0	26.14	19.30	0.448+j2.500	0.998+j5.149	29.85	21.66	0.395+j2.414	0.997+j5.130
XICOTENCATL II	XID-115	115.0	1.73	1.09	11.924+j36.468	34.692+j99.339	1.94	1.24	11.512+j35.816	32.857+j96.008
XOCHIPILLI	XOC-115	115.0	9.13	7.79	1.205+j7.168	2.078+j10.892	10.92	9.00	0.997+j6.615	2.070+j10.810
YESOS INDUSTRIALES DEL NORTE	YIN-115	115.0	33.21	10.66	0.428+j1.953	5.588+j13.633	38.21	11.86	0.377+j1.874	5.587+j13.612
ZACUALTIPÁN	ZAC-115	115.0	1.13	0.74	17.768+j55.922	50.322+j142.841	1.24	0.82	17.760+j55.910	50.316+j142.749
ZAPALINAME	ZPL-115	115.0	12.57	9.85	0.956+j5.197	1.914+j9.474	14.44	11.15	0.851+j4.987	1.903+j9.354
ZINC NACIONAL	ZNA-115	115.0	32.85	14.86	0.412+j1.979	1.918+j9.161	37.89	16.59	0.360+j1.894	1.918+j9.153

Gerencia de Control Regional Baja California

Sistema Interconectado Baja California





Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ACUEDUCTO	ACU-115	115.0	3.45	2.66	3.144+j18.982	10.446+j35.206	4.12	3.05	2.776+j17.489	10.435+j35.129
AEROPUERTO DOS	APD-230	230.0	10.08	8.61	1.636+j13.076	3.423+j19.640	12.07	9.95	1.403+j12.017	3.434+j19.576
AGUAS DE ENSENADA	AUE-115	115.0	7.80	8.28	1.543+j8.375	1.360+j6.993	10.03	10.23	1.165+j7.190	1.338+j6.814
ALAMAR	ALA-69	69.0	21.17	17.12	0.325+j1.853	0.590+j3.174	25.23	19.73	0.281+j1.714	0.586+j3.155
BAJA RECYCLING	B.RECYCLING	69.0	13.74	12.67	0.445+j2.866	0.664+j3.578	15.83	14.36	0.408+j2.738	0.664+j3.575
BAJÍO	BAJ-69	69.0	6.12	2.15	2.111+j6.160	10.732+j41.361	6.87	2.37	2.069+j6.038	10.728+j41.344
CACHANILLA	KCH-161	161.0	15.80	13.58	0.722+j5.840	1.780+j8.610	19.48	15.97	0.572+j5.219	1.766+j8.549
CÁRDENAS	CNA-69	69.0	13.97	9.94	0.557+j2.798	1.276+j6.199	16.53	11.34	0.492+j2.605	1.276+j6.192
CARRANZA	CNZ-161	161.0	15.07	13.02	0.786+j6.118	1.796+j8.913	18.95	16.41	0.603+j5.363	1.546+j7.739
CAÑÓN	KON-115	115.0	2.54	2.00	7.091+j25.171	10.503+j45.993	2.92	2.26	6.656+j24.147	10.491+j45.889
CEMENTOS	CEC-115	115.0	7.39	6.80	1.666+j8.828	5.798+j10.279	9.39	8.21	1.294+j7.673	5.779+j10.100
CENTENARIO	CNT-230	230.0	13.70	11.22	1.205+j9.618	3.640+j15.767	17.21	13.27	0.936+j8.435	3.641+j15.704
CENTINELA	CTA-69	69.0	2.59	3.03	3.751+j14.887	11.348+j4.904	2.87	3.34	3.729+j14.833	11.347+j4.891
CENTRO	CRO-230	230.0	15.71	13.92	1.061+j8.387	1.778+j11.597	20.20	16.81	0.780+j7.190	1.763+j11.487
CENTRO	CRO-161	161.0	18.61	18.49	0.619+j4.957	0.699+j5.047	23.54	22.42	0.464+j4.319	0.687+j4.946
CERRO PRIETO CUATRO	CPC-161	161.0	13.43	13.75	0.806+j6.874	0.770+j6.399	16.01	16.11	0.687+j6.350	0.777+j6.213
CERRO PRIETO DOS	CPD-230	230.0	14.10	15.17	1.145+j9.347	0.752+j7.408	18.77	19.34	0.778+j7.743	0.768+j7.059
CERRO PRIETO TRES	CPT-230	230.0	14.06	15.14	1.156+j9.371	0.760+j7.401	18.79	19.25	0.785+j7.736	0.778+j7.171
CERRO PRIETO UNO	CPU-161	161.0	13.28	12.55	0.876+j6.946	1.182+j8.139	15.89	14.67	0.745+j6.391	1.171+j7.946
CESPT	CPT-69	69.0	13.38	9.27	0.483+j2.939	1.382+j6.805	15.55	10.50	0.433+j2.785	1.376+j6.773
CETYS	CTY-230	230.0	10.81	9.77	1.453+j12.203	2.408+j16.023	12.96	11.32	1.236+j11.207	2.419+j15.977
CETYS	CTY-161	161.0	17.23	16.65	0.694+j5.351	0.893+j5.892	21.79	20.64	0.526+j4.662	0.831+j5.403
CHAPULTEPEC	CHQ-230	230.0	9.64	8.38	1.993+j13.624	3.804+j19.673	12.88	11.10	1.370+j11.254	3.295+j16.511
CICLO COMBINADO MEXICALI	CCM-230	230.0	21.89	24.76	0.701+j6.024	0.326+j3.962	32.66	34.14	0.376+j4.456	0.320+j3.909
CIPRÉS	CIP-230	230.0	5.72	5.93	3.963+j22.871	2.359+j21.139	7.33	7.28	2.944+j19.706	2.276+j20.656
CIPRÉS	CIP-115	115.0	8.65	10.41	1.368+j7.551	0.339+j3.887	11.38	13.32	0.988+j6.339	0.317+j3.706
COLONET	COE-115	115.0	1.87	1.32	10.581+j33.797	19.174+j77.980	2.13	1.47	10.121+j32.802	19.162+j77.875
COMISIÓN ESTATAL DE SERVICIOS PÚBLICOS DE TIJUANA	CES-69	69.0	17.48	14.24	0.360+j2.250	0.709+j3.783	21.12	16.51	0.296+j2.054	0.709+j3.776
CUCAPAH	CUC-400	400.0	4.02	3.68	3.754+j57.255	5.027+j73.294	4.62	4.13	2.984+j54.937	5.114+j74.417
CUCAPAH	CUC-230	230.0	16.38	15.37	1.003+j8.045	1.662+j9.580	21.18	18.71	0.728+j6.859	1.667+j9.510
DURAZNO	DRA-69	69.0	12.22	9.33	0.588+j3.206	1.057+j6.213	14.18	10.61	0.533+j3.043	1.038+j6.143
DYNAMIC PLASTICS	PLA-69	69.0	15.89	14.06	0.445+j2.468	0.595+j3.441	18.68	16.20	0.390+j2.313	0.590+j3.393
ENCINAL	ENL-69	69.0	4.33	3.88	1.515+j9.074	1.993+j12.224	4.82	4.33	1.480+j8.966	1.936+j12.021
ENSENADA	EDA-115	115.0	7.66	7.95	1.595+j8.520	1.647+j7.650	9.74	9.73	1.236+j7.399	1.620+j7.447
FÁBRICAS MONTERREY	FAM-115	115.0	7.41	7.40	1.656+j8.804	2.046+j8.865	9.39	9.00	1.292+j7.671	2.019+j8.669
FEVISA	FEV-161	161.0	11.23	8.92	1.200+j8.189	2.958+j14.427	13.46	10.33	1.036+j7.524	2.927+j14.209
FLORIDO	FLO-69	69.0	13.62	9.15	0.552+j2.872	1.621+j7.044	15.71	10.29	0.510+j2.743	1.620+j7.034
FRANCISCO VILLA	FCO-69	69.0	13.14	9.99	0.527+j2.986	1.488+j5.733	15.18	11.29	0.479+j2.847	1.486+j5.708
FRONTERA	FTA-69	69.0	21.40	16.35	0.330+j1.832	0.733+j3.522	25.56	18.80	0.284+j1.690	0.732+j3.511
GALLO	GLL-115	115.0	7.72	7.92	1.597+j8.455	1.972+j7.792	9.86	9.71	1.228+j7.308	1.948+j7.607



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
GONZÁLEZ ORTEGA	GOR-161	161.0	15.23	12.69	0.787+j6.051	1.858+j9.613	19.66	17.70	0.577+j5.168	1.093+j6.808
GUERRERO	GER-69	69.0	17.47	12.88	0.433+j2.239	0.930+j4.637	20.98	14.83	0.369+j2.056	0.927+j4.623
HIDALGO	HGO-161	161.0	6.80	5.40	2.204+j13.499	4.480+j23.901	8.21	6.49	1.805+j12.327	4.155+j21.941
HIPÓDROMO	HMO-69	69.0	26.04	21.06	0.308+j1.498	0.572+j2.564	32.31	24.78	0.249+j1.333	0.571+j2.553
HUNTER	HTR-69	69.0	15.91	11.05	0.451+j2.463	1.223+j5.692	18.81	12.59	0.393+j2.296	1.222+j5.682
HYUNDAI	HIU-69	69.0	25.82	17.36	0.290+j1.516	0.634+j3.755	31.44	20.08	0.245+j1.372	0.629+j3.727
INDUSTRIAL	INA-69	69.0	23.84	18.20	0.292+j1.645	0.655+j3.169	28.81	21.04	0.245+j1.501	0.655+j3.162
JATAY	JAT-115	115.0	3.66	2.79	2.972+j17.886	9.836+j33.944	4.37	3.20	2.617+j16.520	9.821+j33.842
JOYA	JOY-115	115.0	7.78	9.05	1.068+j8.470	1.292+j4.842	13.06	13.62	0.593+j5.562	1.290+j4.812
KENWORTH	KEN-230	230.0	5.88	6.89	2.777+j22.409	2.452+j12.496	6.83	7.91	2.494+j21.254	2.437+j12.370
LA ENCANTADA	ENA-69	69.0	16.84	17.67	0.421+j2.327	0.355+j2.012	19.76	20.44	0.376+j2.186	0.351+j1.986
LA HERRADURA	HRA-230	230.0	12.69	11.27	1.417+j10.370	2.035+j14.340	15.97	13.44	1.082+j9.082	2.046+j14.334
LA HERRADURA	HRA-69	69.0	24.46	27.09	0.240+j1.611	0.105+j1.159	29.18	31.69	0.203+j1.488	0.105+j1.157
LA JOVITA	JOV-230	230.0	7.49	8.38	2.004+j17.609	0.907+j13.010	9.02	9.92	1.672+j16.106	0.873+j12.679
LA MESA	LMS-69	69.0	21.26	16.50	0.368+j1.838	0.704+j3.432	25.63	19.10	0.311+j1.681	0.702+j3.412
LA ROSITA	ROA-230	230.0	25.34	26.85	0.621+j5.204	0.636+j4.327	36.62	35.69	0.356+j3.973	0.631+j4.282
LAGO	LGO-69	69.0	14.74	11.35	0.530+j2.651	1.004+j5.038	17.24	12.93	0.473+j2.498	1.000+j5.002
LIBRAMIENTO	LIB-230	230.0	6.47	5.48	3.176+j20.263	5.351+j31.195	8.92	8.22	2.055+j16.238	3.049+j20.325
LOMAS	LOS-230	230.0	5.81	5.66	3.821+j22.553	3.253+j24.841	7.44	6.91	2.834+j19.417	3.160+j24.344
LOMAS	LOS-115	115.0	8.09	9.37	1.435+j8.077	0.477+j4.949	10.32	11.66	1.099+j6.992	0.443+j4.710
LOMAS	LOS-69	69.0	2.57	2.72	2.942+j15.224	0.633+j13.067	3.19	3.40	2.361+j13.513	0.515+j11.268
MABAMEX	MAB-69	69.0	16.55	10.85	0.414+j2.371	1.011+j6.127	19.37	12.29	0.370+j2.232	1.007+j6.108
MANEADERO	MND-115	115.0	6.75	7.34	1.877+j9.651	1.055+j7.502	8.50	8.95	1.484+j8.459	1.033+j7.327
MANIOBRAS PARQUE INDUSTRIAL SUR	MIS-230	230.0	14.73	12.97	1.305+j8.922	2.736+j12.510	20.37	16.38	0.859+j7.120	2.730+j12.374
MANIOBRAS SANTA CLARA	MSC-400	400.0	2.33	2.01	5.910+j98.797	25.676+j144.378	2.62	2.24	5.245+j96.999	25.659+j144.004
MATRIX	MATRIX-69	69.0	10.74	6.42	0.866+j3.606	2.426+j10.946	12.32	7.18	0.819+j3.462	2.426+j10.938
MESA INDUSTRIAL GROUP	MGI-69	69.0	14.91	9.89	0.577+j2.608	1.435+j6.591	17.38	11.18	0.529+j2.464	1.434+j6.583
METRÓPOLI POTENCIA	MEP-230	230.0	19.36	20.41	0.961+j6.790	1.008+j5.823	28.63	27.83	0.550+j5.073	0.997+j5.685
METRÓPOLI POTENCIA	MEP-69	69.0	29.72	30.78	0.194+j1.326	0.118+j1.207	36.76	37.05	0.149+j1.183	0.113+j1.179
MEXICALI DOS	MXI-230	230.0	19.17	18.67	0.906+j6.867	1.153+j7.413	25.49	23.32	0.628+j5.696	1.126+j7.257
MEXICALI DOS	MXI-161	161.0	20.89	21.69	0.544+j4.417	0.505+j3.932	27.46	27.43	0.369+j3.705	0.467+j3.700
MEXICALI ORIENTE	MOE-161	161.0	12.46	11.57	0.942+j7.398	1.542+j9.075	15.03	13.65	0.786+j6.759	1.514+j8.728
MÉXICO	MXC-69	69.0	16.97	11.64	0.484+j2.296	1.168+j5.462	20.27	13.32	0.421+j2.120	1.165+j5.448
MINERA	MIN-115	115.0	0.76	0.63	28.662+j82.251	36.671+j134.864	0.85	0.70	28.349+j81.622	36.668+j134.792
MISIÓN	MSN-115	115.0	3.39	2.69	3.160+j19.358	10.129+j33.624	4.07	3.10	2.779+j17.716	10.122+j33.568
MONTECITO	MUE-69	69.0	16.71	12.84	0.452+j2.341	0.905+j4.456	19.73	14.71	0.396+j2.186	0.903+j4.427
NACUZARI	NZI-161	161.0	14.09	11.59	0.891+j6.537	1.912+j10.709	17.26	13.68	0.732+j5.878	1.871+j10.409
OJOS NEGROS	ONG-69	69.0	1.23	0.94	11.311+j30.220	16.462+j60.667	1.44	1.08	10.706+j28.514	16.343+j58.865
ÓPTICA	OPT-69	69.0	22.24	16.63	0.288+j1.768	0.736+j3.540	26.63	19.12	0.244+j1.628	0.736+j3.532
ORIZABA	OZA-230	230.0	17.02	14.74	1.005+j7.736	1.980+j11.279	22.17	17.90	0.727+j6.550	1.961+j11.147



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
P. I. VALLE SUR	VAL-69	69.0	15.25	10.14	0.515+j2.560	1.303+j6.441	18.08	11.55	0.451+j2.382	1.300+j6.426
PACÍFICO	PAF-69	69.0	21.73	16.77	0.298+j1.809	0.704+j3.402	26.66	19.55	0.239+j1.626	0.703+j3.393
PACKARD	PKD-161	161.0	17.54	16.50	0.692+j5.253	1.082+j6.224	22.31	20.21	0.520+j4.553	1.038+j5.924
PANAMERICANA FRACCIONAMIENTO	PNM-115	115.0	6.27	5.73	1.384+j10.505	3.383+j13.248	9.53	7.59	0.894+j7.608	3.381+j13.217
PANAMERICANA POTENCIA	PAP-230	230.0	15.99	17.48	1.221+j8.213	0.890+j6.261	24.33	24.53	0.661+j5.966	0.889+j6.091
PANAMERICANA POTENCIA	PAP-69	69.0	31.56	36.66	0.189+j1.248	0.058+j0.747	40.73	45.86	0.132+j1.068	0.057+j0.739
PAREDONES	PAR-161	161.0	6.37	4.54	2.258+j14.414	7.208+j31.445	7.53	5.30	1.958+j13.438	6.954+j29.964
PARQUE INDUSTRIAL	PID-230	230.0	6.71	5.94	3.067+j19.551	3.783+j27.191	9.60	9.76	1.840+j15.097	1.003+j14.476
PARQUE INDUSTRIAL	PID-161	161.0	7.80	7.89	1.713+j11.788	1.246+j11.448	9.91	10.64	1.202+j10.248	0.479+j8.198
PARQUE INDUSTRIAL LOS OLIVOS	POL-69	69.0	17.01	18.49	0.415+j2.305	0.283+j1.768	19.97	21.43	0.370+j2.163	0.279+j1.741
PARQUE INDUSTRIAL PACÍFICO	PFCO	69.0	14.19	11.93	0.490+j2.765	0.872+j4.324	16.71	13.66	0.431+j2.586	0.872+j4.316
PLANTA DE BOMBEO UNO	PB1-69	69.0	13.00	6.98	0.658+j2.993	2.607+j10.699	15.24	7.86	0.595+j2.812	2.606+j10.691
POPOTLA	POP-115	115.0	4.79	4.37	1.957+j13.726	5.675+j17.145	6.45	5.41	1.501+j11.228	5.674+j17.117
PRESIDENTE JUÁREZ	PJZ-230	230.0	17.88	23.11	1.097+j7.347	0.213+j2.556	31.78	39.94	0.430+j4.576	0.167+j2.138
PRESIDENTE JUÁREZ	PJZ-115	115.0	8.85	11.45	0.747+j7.464	0.111+j2.454	16.03	19.06	0.280+j4.548	0.109+j2.425
PUERTO NUEVO	PNU-115	115.0	3.93	3.88	2.536+j16.724	5.596+j16.885	4.96	4.66	2.112+j14.575	5.594+j16.855
PUNTA CHINA	PCH-115	115.0	2.18	1.98	7.930+j29.401	9.510+j38.635	2.50	2.24	7.517+j28.251	9.490+j38.477
RÍO	RII-69	69.0	21.43	16.44	0.380+j1.820	0.723+j3.489	26.09	19.11	0.319+j1.649	0.720+j3.472
RÍO NUEVO	RIN-161	161.0	16.36	14.50	0.728+j5.636	1.467+j7.748	20.29	17.17	0.575+j5.006	1.454+j7.659
RSI HOME PRODUCTS	RSI-69	69.0	23.75	20.43	0.269+j1.656	0.478+j2.460	28.64	23.82	0.224+j1.513	0.473+j2.434
RUBÍ	RUB-230	230.0	12.86	13.63	1.530+j10.213	1.416+j8.634	19.26	18.77	0.853+j7.537	1.421+j8.418
RUBÍ	RUB-69	69.0	27.02	28.47	0.209+j1.460	0.125+j1.258	34.56	34.91	0.145+j1.260	0.125+j1.252
RUIZ CORTINEZ	RZC-161	161.0	7.74	6.24	1.934+j11.852	3.449+j20.384	9.41	7.54	1.564+j10.748	3.199+j18.680
RUMOROSA	RUM-230	230.0	9.31	8.19	1.776+j14.151	2.709+j19.956	11.03	9.41	1.532+j13.152	2.714+j19.960
RUMOROSA	RUM-69	69.0	9.97	13.24	0.375+j3.980	0.051+j1.032	11.12	14.78	0.352+j3.924	0.050+j1.019
SAMSUNG	SAM-230	230.0	17.34	16.98	1.068+j7.583	1.521+j8.119	24.75	22.25	0.657+j5.866	1.511+j7.980
SAN FELIPE	SAF-115	115.0	0.78	0.67	27.683+j80.927	26.709+j124.384	0.86	0.74	27.366+j80.290	26.705+j124.311
SAN LUIS REY	SRY-230	230.0	6.50	5.30	3.137+j20.190	6.496+j33.662	8.69	7.43	2.152+j16.661	4.739+j24.932
SAN MATÍAS	SMT-115	115.0	1.17	1.42	17.383+j53.874	0.989+j27.679	1.31	1.58	17.083+j53.218	0.986+j27.607
SAN QUINTÍN	SQN-115	115.0	1.17	0.74	19.240+j53.144	39.563+j152.848	1.32	0.82	18.735+j52.212	39.550+j152.740
SAN SIMÓN	SMN-115	115.0	0.95	0.58	22.425+j65.942	50.560+j199.700	1.06	0.64	21.910+j65.022	50.547+j199.592
SAN VICENTE	SVE-115	115.0	2.55	1.95	7.018+j25.091	11.620+j48.817	2.93	2.20	6.585+j24.033	11.607+j48.700
SÁNCHEZ TABOADA	STB-230	230.0	16.15	14.39	1.108+j8.149	2.132+j11.059	20.75	17.39	0.831+j6.990	2.116+j10.933
SANTA ISABEL	SIS-230	230.0	20.36	19.52	0.810+j6.473	1.287+j7.268	27.58	24.52	0.538+j5.268	1.270+j7.195
SANTA ISABEL	SIS-161	161.0	20.97	22.10	0.490+j4.405	0.507+j3.729	26.76	26.88	0.346+j3.805	0.495+j3.741
SAUZAL	SAZ-115	115.0	3.32	2.60	3.441+j19.693	9.954+j35.469	3.95	2.98	3.043+j18.247	9.943+j35.381
SEMINARIO	SIO-69	69.0	14.77	8.90	0.501+j2.650	1.723+j7.859	17.24	10.04	0.449+j2.502	1.722+j7.842
SHARP	SHA-115	115.0	8.09	9.41	0.871+j8.158	0.625+j4.763	13.88	14.37	0.401+j5.245	0.622+j4.729
SIDERÚRGICA	CSC-230	230.0	12.33	10.38	1.489+j10.662	3.209+j16.553	15.55	12.35	1.174+j9.322	3.209+j16.397
SKYWORKS	SKW-161	161.0	15.51	13.87	0.796+j5.939	1.302+j8.023	19.29	16.74	0.632+j5.262	1.249+j7.616



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SONY	SON-69	69.0	10.82	6.13	0.717+j3.613	2.562+j11.882	12.44	6.87	0.659+j3.460	2.559+j11.845
TAYCO	TYC-69	69.0	15.67	12.43	0.474+j2.497	0.877+j4.453	18.42	14.23	0.418+j2.342	0.874+j4.418
TECATE DOS	TCD-69	69.0	7.51	5.41	0.945+j5.222	2.237+j11.251	8.45	6.06	0.907+j5.106	2.194+j11.119
TECATE UNO	TCU-69	69.0	8.51	3.56	1.018+j4.567	6.089+j23.403	9.62	3.96	0.978+j4.447	6.081+j23.372
TECNOLÓGICO	TEK-230	230.0	14.65	12.77	1.186+j8.989	2.543+j12.837	18.29	15.17	0.935+j7.931	2.524+j12.696
TECOLOTE	TEE-69	69.0	15.40	10.52	0.402+j2.556	1.290+j6.067	18.36	12.02	0.338+j2.363	1.290+j6.059
TECRA	TCR-69	69.0	8.21	3.36	1.087+j4.731	6.516+j25.031	9.27	3.73	1.048+j4.611	6.507+j25.000
TENSHO	TSHO-115	115.0	8.31	9.96	0.834+j7.950	0.458+j4.030	14.46	15.56	0.365+j5.037	0.455+j3.996
THOMSOM	THO-230	230.0	14.13	11.82	1.270+j9.310	2.934+j14.651	17.79	14.04	0.993+j8.152	2.918+j14.525
TIJUANA I	TJI-230	230.0	21.36	24.22	0.849+j6.160	0.534+j4.072	31.62	33.52	0.477+j4.594	0.536+j4.007
TIJUANA I	TJI-69	69.0	36.70	43.42	0.141+j1.076	0.040+j0.591	46.44	53.63	0.101+j0.938	0.039+j0.583
TIJUANA I	TJI-69A	69.0	17.89	20.12	0.373+j2.196	0.098+j1.500	21.22	23.70	0.319+j2.041	0.092+j1.438
TOREO	TOR-69	69.0	17.08	13.05	0.475+j2.284	0.821+j4.426	20.38	15.04	0.413+j2.111	0.812+j4.392
TOYOTA	TOY-230	230.0	11.52	9.57	1.558+j11.420	3.110+j18.401	14.42	11.32	1.207+j10.055	3.116+j18.367
TRINIDAD	TRI-115	115.0	1.51	1.42	12.962+j41.960	10.340+j52.114	1.70	1.58	12.587+j41.123	10.337+j52.049
UNIVERSIDAD	UND-69	69.0	14.12	9.14	0.548+j2.767	1.632+j7.270	16.49	10.32	0.492+j2.611	1.631+j7.261
VALLE DE GUADALUPE	VLP-69	69.0	2.24	1.53	6.184+j16.671	11.139+j41.342	2.63	1.74	5.830+j15.636	11.095+j40.631
VALLE DE LAS PALMAS	VPM-69	69.0	3.19	2.17	5.205+j11.346	7.027+j29.437	3.60	2.42	5.113+j11.047	7.035+j29.330
VALLE DE PUEBLA	VPA-230	230.0	12.57	10.03	1.456+j10.465	4.281+j18.147	15.45	11.73	1.196+j9.377	4.264+j18.012
VALLE DORADO	VLD-115	115.0	7.30	7.14	1.657+j8.944	3.091+j9.373	9.29	8.67	1.281+j7.761	3.069+j9.195
VALLE POTENCIA	VPO-161	161.0	6.98	5.61	2.032+j13.166	4.185+j22.668	8.47	6.80	1.627+j11.959	3.827+j20.627
VALLECITOS	VLC-69	69.0	2.44	1.63	6.648+j14.924	10.876+j39.557	2.78	1.82	6.471+j14.381	10.871+j39.259
VICTORIA POTENCIA	VIC-230	230.0	6.99	5.34	2.741+j18.811	7.965+j35.701	8.81	6.59	2.108+j16.450	7.456+j32.538
VIGOBITE	VIB-69	69.0	20.27	13.38	0.360+j1.932	1.075+j4.899	24.25	15.29	0.309+j1.781	1.074+j4.892
WISTERIA	WIS-230	230.0	20.22	19.47	0.852+j6.510	1.213+j7.250	27.24	24.44	0.577+j5.331	1.193+j7.121
XOCHIMILCO	XCO-230	230.0	18.19	16.37	0.947+j7.239	1.701+j9.597	23.94	20.11	0.670+j6.065	1.678+j9.453

Gerencia de Control Regional Baja California

Sistema Interconectado Baja California Sur



Regresar a mapa del SEN



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AEROPUERTO SAN JOSÉ	ASJ-115	115.0	2.37	2.09	9.333+j26.354	8.296+j38.606	4.08	2.97	3.934+j17.476	8.246+j37.098
AURA SOLAR	ASU-115	115.0	3.42	4.19	4.910+j18.758	1.086+j8.771	8.28	8.53	1.067+j8.761	1.220+j7.664
BLEDALES	BLE-115	115.0	3.29	3.81	5.404+j19.467	2.435+j11.627	7.95	7.78	1.270+j9.100	2.233+j9.322
BUENA VISTA	BUV-115	115.0	1.78	1.36	12.831+j35.053	17.308+j69.761	2.70	1.78	7.719+j25.912	16.728+j66.621
CABO BELLO	CAB-115	115.0	2.69	2.81	8.193+j23.279	4.038+j21.435	5.48	4.80	2.483+j13.104	3.904+j18.498
CABO DEL SOL	CAS-115	115.0	2.67	2.72	8.134+j23.461	4.211+j23.384	5.25	4.44	2.566+j13.668	4.173+j21.065
CABO FALSO	CAF-115	115.0	2.83	3.18	7.658+j22.182	2.215+j15.764	6.42	6.33	1.937+j11.201	1.929+j11.664
CABO REAL	CRE-115	115.0	2.85	3.04	7.738+j21.943	3.064+j19.064	5.70	5.05	2.396+j12.593	3.063+j17.461
CABO SAN LUCAS DOS	CAD-115	115.0	2.91	3.32	7.656+j21.501	2.030+j14.400	6.63	6.61	1.963+j10.847	1.803+j10.913
CAMINO REAL	CAR-115	115.0	2.28	2.10	8.494+j27.920	11.938+j34.674	4.32	3.49	3.616+j16.521	10.145+j27.054
CENTRAL TURBOGÁS LOS CABOS	TCB-230	230.0	1.63	2.10	25.291+j77.657	2.082+j27.337	3.80	4.43	5.399+j38.027	1.498+j21.827
COROMUEL	COR-230	230.0	2.31	3.02	12.227+j56.103	0.973+j17.425	4.97	6.04	2.188+j29.324	0.661+j13.368
EL PALMAR	ELP-230	230.0	1.73	2.21	24.212+j72.608	2.751+j27.521	4.01	4.54	5.298+j36.028	2.521+j23.414
EL PALMAR	ELP-115	115.0	3.11	3.65	7.190+j20.106	1.175+j12.174	6.75	6.79	1.916+j10.642	1.173+j10.553
EL RECREO	RCO-115	115.0	3.32	3.91	5.269+j19.266	2.139+j10.756	8.02	7.98	1.198+j9.022	2.063+j8.795
EL TRIUNFO	ETR-115	115.0	2.11	1.81	9.940+j29.928	13.474+j45.219	3.62	2.70	4.916+j19.571	12.163+j39.002
ERENDIRA	MPC-115	115.0	3.33	3.81	5.470+j19.152	2.496+j12.191	10.28	12.25	0.732+j7.068	0.344+j3.512
GENERAL AGUSTÍN OLACHEA	GAO-115	115.0	1.37	1.72	13.235+j46.758	1.335+j19.137	3.27	4.17	2.615+j22.151	0.314+j7.960
INSURGENTES	INS-115	115.0	1.25	1.69	18.705+j49.549	2.534+j11.627	2.63	3.31	6.167+j27.038	2.208+j10.369
LA PAZ	LPZ-115	115.0	2.95	3.10	6.317+j21.591	5.168+j18.650	6.71	5.89	1.886+j10.713	4.304+j14.685
LAS PILAS	LAP-115	115.0	1.79	1.82	11.692+j35.135	10.821+j33.872	3.34	2.85	4.876+j21.320	9.926+j31.564
LORETO	LRO-115	115.0	0.62	0.48	37.194+j100.694	43.759+j196.106	0.89	0.60	23.464+j78.711	43.408+j194.799
MANIOBRAS EÓLICO COROMUEL	MAN-ENV	115.0	2.18	2.59	7.726+j29.405	2.864+j15.998	3.66	3.93	3.812+j19.599	3.041+j15.371
MONTE REAL	MOR-115	115.0	2.49	2.27	9.009+j25.137	7.074+j33.735	4.40	3.31	3.591+j16.211	7.040+j32.231
OLAS ALTAS	OLA-230	230.0	2.26	2.82	13.938+j57.197	2.958+j23.722	5.07	5.54	2.466+j28.705	2.895+j20.994
OLAS ALTAS	OLA-115	115.0	3.67	4.68	4.694+j17.452	0.721+j6.405	9.64	10.66	0.871+j7.527	0.838+j5.049
PALMILLA	PAA-115	115.0	2.86	2.85	6.313+j22.310	4.915+j23.095	6.49	5.39	1.818+j11.105	3.963+j17.510
PALMILLA	PML-115	115.0	2.58	2.50	8.442+j24.280	5.492+j27.886	4.74	3.80	3.026+j15.096	5.488+j26.322
PUERTO ESCONDIDO	PES-115	115.0	0.68	0.55	34.058+j92.006	36.613+j164.888	1.00	0.70	20.456+j69.901	36.263+j163.583
PUNTA PRIETA	PUP-115	115.0	3.34	3.83	5.459+j19.115	2.464+j12.048	10.32	12.34	0.727+j7.043	0.326+j3.433
PUNTA PRIETA II	PUP-115B	115.0	3.33	3.81	5.466+j19.177	2.472+j12.196	10.23	12.15	0.740+j7.100	0.361+j3.599
REFORMAS AGRARIAS	REA-115	115.0	2.01	2.26	8.590+j31.827	5.677+j21.658	3.29	3.30	4.471+j21.768	5.807+j20.960
ROFOMEX	RFO-115	115.0	1.26	0.97	15.757+j50.424	28.697+j96.493	1.81	1.22	9.871+j39.105	28.312+j94.894
SAN JOSÉ DEL CABO	SJC-115	115.0	2.72	2.70	8.346+j22.970	4.787+j24.522	5.15	4.22	2.921+j13.891	4.775+j22.989
SANTIAGO	SNT-115	115.0	1.81	1.40	13.136+j34.191	16.082+j67.514	2.75	1.82	7.962+j25.318	15.744+j65.264
SANTO DOMINGO	DOM-115	115.0	1.12	1.31	20.143+j55.640	7.168+j32.874	2.14	2.18	7.463+j33.228	6.841+j31.613
TURBOGÁS LOS CABOS	TCB-115	115.0	2.99	3.73	6.985+j21.103	0.548+j9.226	7.69	9.51	1.316+j9.409	0.151+j4.010
VILLA CONSTITUCIÓN	VIO-115	115.0	1.46	1.78	15.229+j42.972	4.324+j20.368	3.49	4.10	3.677+j20.599	1.552+j11.418

Gerencia de Control Regional Baja California

Sistema Interconectado Mulegé





Niveles de cortocircuito de la Red Nacional de Transmisión

Gerencia de Control Regional Mulege

Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
BAHÍA ASUNCIÓN	BAS-115	115.0	0.35	0.44	46.406+j183.833	7.789+j61.295	0.57	0.69	34.954+j123.313	7.601+j60.277
MEZQUITAL	MEZ-115	115.0	0.51	0.65	18.475+j130.030	6.443+j37.220	1.19	1.36	4.950+j60.927	6.407+j36.670
SANTA ROSALÍA	SRI-115	115.0	0.47	0.62	22.094+j139.230	2.738+j29.402	1.18	1.42	4.976+j61.955	2.632+j28.554
TRES VÍRGENES	GLV-115	115.0	0.51	0.64	16.621+j128.766	6.636+j44.690	1.09	1.22	6.144+j66.680	6.608+j44.232
VIZCAÍNO	VIZ-115	115.0	0.51	0.61	17.746+j129.431	7.579+j49.385	1.08	1.17	6.563+j67.478	7.502+j48.906

Gerencia de Control Regional Peninsular





Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
AH KIM PECH	AKI-115	115.0	4.30	3.76	5.049+j14.606	6.497+j21.118	5.77	4.71	3.427+j12.184	6.468+j20.287
AK TUNCHEN	AUC-115	115.0	6.43	5.99	3.549+j9.703	2.855+j12.333	8.48	7.36	2.079+j8.356	2.853+j12.237
AKUMAL II	AKD-115	115.0	5.68	4.75	3.924+j11.005	4.352+j18.144	7.30	5.68	2.471+j9.690	4.350+j18.047
ALOM	ALO-115	115.0	10.64	10.11	1.799+j5.978	1.519+j7.069	16.67	14.49	0.808+j4.306	1.306+j6.169
API SEYBA PLAYA	API-115	115.0	3.93	3.09	4.910+j16.147	6.731+j30.099	5.18	3.76	3.323+j13.704	6.701+j29.365
AVENTURA PALACE	AVP-115	115.0	5.93	3.83	3.782+j10.530	7.435+j28.726	7.71	4.52	2.311+j9.184	7.433+j28.630
BALAM	BLM-230	230.0	4.75	5.73	10.133+j26.071	1.086+j14.141	7.49	8.36	3.918+j19.107	1.027+j13.463
BALAM	BLM-115	115.0	9.71	12.82	2.734+j6.268	0.191+j1.962	16.27	20.35	1.060+j4.363	0.179+j1.800
BICENTERARIO	BIN-115	115.0	9.85	9.14	1.970+j6.446	2.024+j8.053	14.03	11.75	1.113+j5.087	2.024+j7.942
BONAMPAK	BNP-115	115.0	9.14	11.65	2.928+j6.648	0.434+j2.631	15.47	18.52	1.136+j4.582	0.383+j2.370
BONFIL	BNI-115	115.0	7.73	7.60	3.165+j7.989	2.144+j8.863	12.23	10.80	1.311+j5.824	1.916+j8.126
BULUC CHABTÁN	BCH-115	115.0	10.37	10.15	1.936+j6.100	1.984+j6.526	15.33	13.60	1.014+j4.655	1.932+j6.265
CALICA	CLC-115	115.0	6.84	7.13	3.421+j9.090	2.329+j8.237	9.35	9.08	1.832+j7.591	2.329+j8.195
CALKINI II	CKD-115	115.0	3.07	1.93	6.569+j20.584	18.340+j56.883	3.67	2.21	5.449+j19.133	18.320+j56.641
CANCUN	CNC-115	115.0	9.11	10.64	2.924+j6.675	0.825+j4.178	15.77	17.83	1.074+j4.505	0.430+j3.010
CANDELARIA II	CAS-115	115.0	1.76	1.23	9.734+j36.520	33.925+j80.036	2.02	1.38	8.765+j35.020	33.921+j79.953
CANEK	CEK-115	115.0	8.72	9.50	2.966+j7.015	1.284+j5.694	13.93	13.75	1.263+j5.090	1.191+j5.323
CAUCEL POTENCIA	CCP-230	230.0	7.53	9.13	4.691+j16.988	0.969+j8.403	11.98	13.49	1.730+j12.066	0.954+j7.948
CAUCEL POTENCIA	CCP-115	115.0	12.14	15.02	1.553+j5.245	0.176+j2.364	19.40	22.50	0.638+j3.711	0.175+j2.162
CAYAL	CYL-115	115.0	2.31	1.59	8.187+j27.492	18.295+j65.029	2.82	1.85	6.564+j25.046	18.267+j64.241
CD. DEL CARMEN	CRE-115	115.0	3.47	4.07	3.793+j18.750	1.842+j10.543	5.23	6.36	1.778+j13.849	0.847+j7.213
CEMENTOS MAYA	CMY-115	115.0	8.70	7.21	2.306+j7.272	3.133+j11.968	13.36	10.80	1.152+j5.345	2.175+j9.030
CENTRO	CNO-115	115.0	10.67	10.07	1.940+j5.910	1.726+j7.143	16.03	13.70	1.001+j4.446	1.582+j6.652
CHAAC	HAA-115	115.0	7.81	9.55	3.289+j7.834	0.826+j3.864	12.34	14.04	1.466+j5.734	0.805+j3.691
CHAMPOTON	CMO-115	115.0	3.69	2.63	5.047+j17.295	9.811+j38.571	4.63	3.09	3.705+j15.318	9.790+j38.201
CHANKANAAB	CHB-115	115.0	5.39	4.42	4.984+j11.273	6.723+j19.350	7.48	5.48	2.902+j9.319	6.729+j19.346
CHANKANAAB II	CHS-115	115.0	5.51	5.15	4.905+j10.995	5.268+j13.654	7.70	6.53	2.836+j9.057	5.274+j13.651
CHEMAX	CEX-115	115.0	3.00	2.06	5.662+j21.389	15.973+j49.932	3.74	2.41	4.561+j18.982	15.932+j49.273
CHETUMAL NORTE	CTE-115	115.0	3.09	3.07	7.107+j20.255	4.913+j21.481	4.73	4.20	3.680+j15.000	4.854+j20.580
CHICBUL	CBU-115	115.0	2.86	1.96	5.798+j22.445	14.097+j53.583	3.42	2.24	4.751+j20.843	14.094+j53.477
CHICHÍ SUÁREZ	CCS-230	230.0	7.51	9.06	4.980+j16.970	0.953+j8.644	11.82	13.19	1.928+j12.207	0.954+j8.354
CHICHÍ SUÁREZ	CCS-115	115.0	13.26	17.03	1.493+j4.781	0.190+j1.696	20.40	24.86	0.675+j3.515	0.186+j1.611
CHOLUL	HOL-115	115.0	12.01	14.47	1.621+j5.283	1.084+j2.492	17.80	20.23	0.805+j4.023	1.082+j2.409
CHUBURNA	CBR-115	115.0	9.89	9.09	1.980+j6.411	2.015+j8.252	14.05	11.63	1.131+j5.076	2.014+j8.149
CONCORDIA	CNR-115	115.0	3.15	3.28	4.418+j20.576	3.989+j18.296	4.60	4.73	2.382+j15.700	2.993+j14.965
DZITAS	DZI-115	115.0	3.42	2.36	4.947+j18.798	13.612+j43.583	4.25	2.76	4.044+j16.708	13.586+j42.914
DZITNUP	DZT-400	400.0	3.51	3.51	22.270+j61.996	13.798+j65.030	5.21	4.66	8.570+j48.037	13.751+j64.485
DZYTIA	DYT-115	115.0	10.21	9.11	1.643+j6.295	2.016+j8.574	14.07	11.42	0.880+j5.114	2.013+j8.510
ENVASES UNIVERSALES DE MEXICO	EUM-115	115.0	3.64	2.66	4.221+j17.764	9.848+j37.151	4.38	3.06	3.303+j16.344	9.847+j36.998
ESCÁRCEGA	ESA-400	400.0	4.62	5.32	12.123+j48.510	2.019+j30.995	6.63	7.15	4.615+j38.057	1.956+j30.410



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
ESCÁRCEGA	ESA-230	230.0	5.70	7.19	5.614+j22.606	0.553+j9.042	8.79	10.60	2.117+j16.490	0.523+j8.622
ESCÁRCEGA	ESA-115	115.0	6.74	8.41	1.743+j9.691	0.091+j4.050	8.91	10.82	0.801+j8.155	0.087+j3.968
HECELCHACAN	HCE-115	115.0	2.90	1.79	6.970+j21.773	14.916+j64.160	3.51	2.05	5.688+j20.044	14.906+j63.811
HÉROES	HRO-115	115.0	10.38	10.25	1.869+j6.118	2.042+j6.317	14.48	13.15	1.090+j4.926	2.038+j6.240
HIDROGENADORA YUCATECA	HRA-115	115.0	10.73	10.19	1.905+j5.889	1.521+j7.035	18.12	17.72	0.760+j3.959	0.612+j4.190
HOLPECHEN	HOP-115	115.0	1.21	0.78	15.999+j52.714	43.571+j139.336	1.38	0.87	14.688+j51.027	43.559+j138.984
HUNABKU	HBK-115	115.0	7.98	9.88	3.269+j7.657	0.730+j3.521	12.66	14.66	1.456+j5.583	0.707+j3.340
HUNUCMA	HNC-115	115.0	4.47	3.30	3.314+j14.478	7.714+j29.590	5.50	3.84	2.397+j13.056	7.713+j29.437
HUXECTAMAN	HUX-115	115.0	8.94	7.58	2.244+j7.084	2.730+j11.102	13.80	11.46	1.096+j5.176	1.807+j8.274
IBEROESTAR	IBR-115	115.0	6.43	6.08	3.292+j9.788	2.642+j11.885	8.73	7.63	1.628+j8.206	2.625+j11.710
INSURGENTES	INS-115	115.0	3.12	3.13	7.022+j20.101	4.475+j20.778	4.78	4.29	3.600+j14.841	4.416+j19.877
ISLA DE TRIS	ILT-115	115.0	3.49	3.99	3.736+j18.660	2.569+j11.586	5.17	5.90	1.794+j14.009	2.141+j9.340
ITZAES	IZE-115	115.0	9.76	8.64	2.112+j6.465	2.177+j9.214	14.86	12.29	1.070+j4.796	1.724+j7.757
ITZIMNA	IZI-115	115.0	10.69	11.61	1.799+j5.946	1.847+j4.371	15.22	15.37	0.989+j4.696	1.845+j4.294
IXCHEL	IXC-115	115.0	5.97	5.55	4.136+j10.318	6.117+j12.252	8.31	7.07	2.442+j8.446	6.104+j12.088
IZAMAL	IZL-115	115.0	3.08	1.89	6.419+j20.564	17.176+j60.029	3.64	2.14	5.609+j19.269	17.179+j59.787
KABAH	KAB-115	115.0	8.21	10.26	3.203+j7.425	0.651+j3.260	13.18	15.42	1.396+j5.361	0.627+j3.075
KALA	KAL-115	115.0	4.97	4.70	4.114+j12.698	4.040+j15.161	6.99	6.15	2.433+j10.161	4.007+j14.280
KAMBUL	KBL-115	115.0	2.98	3.21	6.530+j21.311	2.009+j17.688	3.72	3.85	4.815+j19.044	2.010+j17.673
KANASÍN POTENCIA	KNP-230	230.0	8.07	9.50	4.737+j15.768	1.345+j9.010	12.93	13.90	1.737+j11.166	1.355+j8.733
KANASÍN POTENCIA	KNP-115	115.0	12.22	17.37	1.566+j5.201	0.072+j0.611	18.77	26.32	0.696+j3.829	0.071+j0.501
KANTENÁH	KTH-400	400.0	2.94	3.72	29.440+j72.922	2.341+j30.368	4.42	5.29	12.134+j56.123	2.309+j29.564
KANTENÁH	KTH-115	115.0	8.19	10.45	2.829+j7.602	0.175+j2.966	11.53	14.13	1.332+j6.195	0.174+j2.864
KAY	KAY-115	115.0	6.56	6.05	3.230+j9.597	3.238+j12.291	9.48	7.84	1.434+j7.566	3.225+j12.156
KEEH	KEE-115	115.0	7.45	7.34	3.185+j8.324	2.224+j9.107	11.64	10.16	1.330+j6.130	2.143+j8.765
KEKEN	KEK-115	115.0	8.66	10.08	2.840+j7.122	1.133+j4.337	13.51	14.47	1.194+j5.271	1.126+j4.191
KOHUNLICH	KHN-115	115.0	8.53	9.18	2.804+j7.262	1.377+j6.057	12.87	12.61	1.241+j5.537	1.363+j5.875
KOPTE	KOP-115	115.0	4.42	3.33	4.044+j14.457	9.731+j28.159	5.18	3.79	3.521+j13.649	9.727+j28.099
KUKULKAN	KUK-115	115.0	8.37	8.85	3.069+j7.319	1.324+j6.629	13.25	12.61	1.338+j5.349	1.233+j6.234
LAGUNA DE TÉRMINOS	LTE-115	115.0	3.18	3.29	4.403+j20.438	4.027+j18.329	4.64	4.76	2.368+j15.563	3.031+j14.998
LÁZARO CÁRDENAS	LAC-115	115.0	2.41	1.95	9.608+j25.793	14.225+j44.835	3.19	2.38	6.797+j21.833	14.175+j44.209
LEE	LEE-115	115.0	7.06	4.01	2.144+j9.153	9.820+j29.333	9.16	4.69	1.272+j7.870	9.818+j29.268
LEONA VICARIO	LEV-400	400.0	3.01	3.75	28.392+j71.228	3.018+j32.842	4.62	5.38	11.125+j53.853	3.037+j31.873
LEONA VICARIO	LEV-115	115.0	9.38	11.57	2.590+j6.585	0.325+j3.171	14.54	16.76	1.052+j4.913	0.322+j3.031
LERMA	LRA-230	230.0	3.26	3.87	11.514+j39.052	1.098+j22.132	4.81	5.56	5.318+j29.899	0.862+j18.460
LERMA	LRA-115	115.0	6.25	8.09	3.139+j10.154	0.140+j3.474	9.65	12.49	1.432+j7.436	0.106+j2.505
MAHAHUAL	MHH-115	115.0	1.21	0.73	18.722+j51.755	50.661+j155.068	1.45	0.83	15.862+j47.804	50.606+j154.429
MALECÓN	MAC-115	115.0	9.07	10.66	2.941+j6.705	0.786+j4.065	15.49	17.09	1.115+j4.580	0.572+j3.357
MANIOBRAS EÓLICA PROGRESO	MEP-115	115.0	5.60	6.00	2.362+j11.623	0.926+j9.155	6.78	7.10	1.723+j10.626	0.906+j9.014
MANIOBRAS LA PIMIENTA	MPI-230	230.0	4.38	5.19	6.471+j29.614	1.753+j16.323	7.17	8.54	2.640+j20.194	1.434+j12.390



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
MAXCANU	MAX-115	115.0	4.51	2.86	4.653+j13.954	11.867+j38.357	5.55	3.30	3.645+j12.656	11.842+j38.180
MAYA KOBÁ	MYK-115	115.0	6.41	6.23	3.465+j9.770	2.503+j11.058	8.73	7.82	1.756+j8.182	2.502+j11.000
MÉRIDA II	MDA-115	115.0	11.55	11.75	1.776+j5.466	1.194+j5.355	20.36	22.67	0.627+j3.531	0.236+j2.417
MÉRIDA ORIENTE	MDN-115	115.0	9.98	9.47	2.005+j6.347	2.016+j7.469	14.31	12.27	1.124+j4.980	2.000+j7.353
MÉRIDA POTENCIA	MDP-230	230.0	7.84	10.00	4.307+j16.382	0.330+j6.073	12.53	15.14	1.525+j11.559	0.295+j5.549
METROPOLITANA	MTO-115	115.0	9.89	9.04	2.045+j6.395	2.208+j8.342	15.21	13.09	0.995+j4.698	1.731+j6.868
MOON PALACE	MPA-115	115.0	5.81	4.52	3.477+j10.877	5.252+j20.588	7.91	5.54	1.732+j9.074	5.235+j20.404
NACHI COCOM	NCM-115	115.0	12.54	14.32	1.643+j5.035	0.882+j3.204	19.54	20.58	0.756+j3.660	0.836+j3.022
NICHUPTE	NCT-115	115.0	8.51	10.78	3.106+j7.159	0.527+j2.909	13.69	16.31	1.347+j5.162	0.504+j2.726
NICTE HA	NIH-115	115.0	7.76	9.22	3.225+j7.921	0.976+j4.474	12.32	13.47	1.381+j5.764	0.959+j4.312
NIZUC	NIZ-230	230.0	5.00	5.86	9.818+j24.662	1.887+j15.305	7.98	8.68	3.645+j17.937	1.611+j13.841
NIZUC	NIZ-115	115.0	9.25	13.09	2.824+j6.600	0.100+j0.914	16.40	22.70	0.968+j4.346	0.083+j0.751
NORTE	NTE-230	230.0	7.37	8.79	4.974+j17.328	1.104+j9.296	11.56	12.73	1.937+j12.485	1.108+j8.985
NORTE	NTE-115	115.0	12.83	16.00	1.497+j4.956	0.253+j2.091	19.35	22.79	0.699+j3.709	0.248+j2.011
OXTANKAH	OXT-115	115.0	2.98	2.72	7.504+j21.013	9.033+j27.307	4.49	3.62	4.074+j15.762	8.973+j26.404
PESCADORES	PSD-115	115.0	6.25	6.02	3.690+j9.961	2.732+j11.591	8.46	7.51	2.018+j8.399	2.737+j11.573
PHOTOEMERIS SUSTENTABLE	PHS-115	115.0	2.89	3.16	6.694+j22.014	1.765+j17.134	3.60	3.80	4.950+j19.690	1.767+j17.121
PLAYA CAR	PLY-115	115.0	7.78	7.70	3.292+j7.875	1.729+j8.762	11.38	10.08	1.555+j6.226	1.735+j8.758
PLAYA DEL CARMEN	PCN-230	230.0	4.25	5.05	11.197+j29.183	1.976+j16.743	6.25	6.92	4.777+j22.876	2.009+j16.587
PLAYA DEL CARMEN	PCN-115	115.0	8.05	10.26	3.203+j7.596	0.274+j3.067	11.93	14.34	1.467+j5.943	0.280+j3.063
PLAYA MUJERES	PMU-115	115.0	6.92	6.83	3.468+j8.939	2.261+j9.840	10.03	8.94	1.776+j7.065	2.248+j9.676
POKTAPOK	PKP-115	115.0	8.77	11.18	3.054+j6.929	0.484+j2.715	14.48	17.33	1.262+j4.885	0.457+j2.522
POLYUC	PYU-230	230.0	2.64	2.69	14.168+j48.167	6.537+j47.466	3.63	3.43	7.559+j39.548	6.446+j46.599
POLYUC	PYU-115	115.0	3.99	4.81	4.309+j16.074	0.686+j8.235	5.19	6.07	2.582+j13.836	0.649+j7.933
PONIENTE	PTE-115	115.0	11.37	12.06	1.702+j5.584	0.924+j4.766	17.33	16.63	0.806+j4.136	0.924+j4.613
POPOLNAH	PPH-115	115.0	2.72	2.10	6.345+j23.580	11.474+j44.627	3.16	2.38	5.462+j22.437	11.468+j44.538
PUERTO JUÁREZ	PJU-115	115.0	9.40	11.64	2.803+j6.482	0.493+j3.047	15.54	17.88	1.114+j4.564	0.462+j2.830
PUERTO MORELOS	PMO-115	115.0	7.39	7.37	3.008+j8.471	1.810+j8.963	10.49	9.62	1.359+j6.832	1.779+j8.681
PUERTO PROGRESO	PPO-115	115.0	4.62	4.40	3.096+j14.043	3.223+j15.859	5.50	5.11	2.455+j13.050	3.203+j15.719
PUERTO REAL	PTR-230	230.0	2.56	3.46	10.983+j50.628	0.350+j11.762	3.68	4.89	5.397+j39.324	0.392+j11.631
PUERTO REAL	PTR-115	115.0	4.26	6.05	3.022+j15.302	0.038+j1.808	6.20	8.82	1.436+j11.692	0.048+j1.775
PUNTA SAM	PSA-115	115.0	8.12	8.00	3.018+j7.597	1.844+j8.448	12.46	10.85	1.332+j5.708	1.831+j8.284
RIVIERA MAYA	RMY-400	400.0	3.04	3.96	29.738+j69.870	1.962+j24.396	4.75	5.86	11.740+j52.141	1.860+j23.337
RIVIERA MAYA	RMY-230	230.0	4.88	6.39	10.190+j25.203	0.495+j8.453	7.55	9.40	4.005+j18.928	0.459+j7.993
RIVIERA MAYA	RMY-115	115.0	8.62	10.19	2.794+j7.175	0.345+j4.292	12.81	14.29	1.173+j5.577	0.307+j3.954
SABANCUY	SBY-115	115.0	2.51	1.65	6.924+j25.561	17.333+j65.687	2.97	1.87	5.810+j23.897	17.326+j65.540
SAMULA	SAM-115	115.0	4.94	4.80	4.083+j12.803	3.530+j14.232	6.99	6.34	2.370+j10.179	3.496+j13.296
SAMULA II	SAD-115	115.0	4.56	4.52	4.300+j13.916	3.131+j14.684	6.30	5.89	2.595+j11.295	3.096+j13.746
SAN IGNACIO	IGN-115	115.0	6.20	6.27	2.039+j10.520	1.484+j9.977	7.59	7.45	1.396+j9.515	1.471+j9.860
SAN PEDRO	SAE-115	115.0	2.12	1.36	5.564+j30.774	26.610+j79.870	2.57	1.57	4.598+j28.005	26.611+j79.011



Subestación Eléctrica	Acrónimo	Tensión (kV)	Corriente de cortocircuito (kA) e impedancias de Thévenin secuencias positiva y cero (Ω)							
			NCC mínimo 2025				NCC máximo 2025			
			3F	1F	ZTH(+)	ZTH(0)	3F	1F	ZTH(+)	ZTH(0)
SANTA LUCIA	SLC-230	230.0	4.75	4.83	5.985+j27.323	5.233+j26.208	8.30	9.69	2.073+j17.480	0.953+j11.318
SANTO DOMINGO	SDM-115	115.0	3.68	3.87	3.790+j17.645	2.649+j15.382	4.15	4.35	3.595+j17.219	2.596+j15.120
SIHOCHAC	SHC-115	115.0	2.79	1.86	6.778+j22.831	13.755+j57.799	3.43	2.16	5.316+j20.646	13.730+j57.266
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 1	SET1-115	115.0	3.14	1.92	6.309+j20.179	16.766+j59.188	3.71	2.18	5.505+j18.909	16.767+j58.965
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 2	SET2-115	115.0	5.49	4.85	2.656+j11.809	4.605+j16.286	7.89	6.36	1.667+j9.102	4.554+j15.315
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 3	SET3-115	115.0	2.45	1.61	7.791+j25.908	21.939+j66.360	2.95	1.84	6.442+j23.942	21.920+j66.088
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 4	SET4-115	115.0	5.84	4.80	3.484+j10.830	4.660+j18.234	7.99	5.93	1.717+j8.973	4.648+j18.098
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 5	SET5-115	115.0	4.81	3.68	4.462+j13.064	6.075+j25.953	6.01	4.31	3.045+j11.771	6.073+j25.848
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 6	SET6-115	115.0	2.14	1.71	6.757+j30.305	12.226+j52.678	2.56	1.98	4.981+j28.126	12.189+j52.376
SUBESTACIÓN ELÉCTRICA DE TRACCIÓN DEL TREN MAYA 7	SET7-115	115.0	2.49	2.08	9.318+j24.982	12.668+j40.693	3.34	2.56	6.432+j20.866	12.617+j40.035
SUCILA	SUC-115	115.0	3.70	3.14	4.140+j17.455	8.247+j26.837	4.24	3.54	3.837+j16.773	8.236+j26.715
SUR	SUR-115	115.0	11.56	11.92	1.792+j5.459	1.329+j5.055	18.19	17.37	0.819+j3.930	1.140+j4.394
TEKAX II	TKD-115	115.0	5.66	4.55	3.260+j11.277	3.958+j19.967	7.10	5.36	2.242+j10.044	3.949+j19.881
TEMAX II	TXS-115	115.0	3.80	3.51	3.805+j17.052	5.873+j21.148	4.30	3.93	3.570+j16.615	5.860+j21.031
TICUL I	TIU-115	115.0	8.97	10.20	1.883+j7.154	0.500+j4.770	12.01	13.01	0.949+j6.008	0.487+j4.656
TICUL II	TIC-400	400.0	4.37	5.12	17.004+j50.025	2.703+j30.561	6.66	7.21	6.119+j37.672	2.491+j29.502
TICUL II	TIC-230	230.0	7.55	9.39	5.618+j16.663	0.640+j7.461	11.64	13.66	2.059+j12.378	0.570+j6.999
TICUL II	TIC-115	115.0	9.53	11.60	1.733+j6.745	0.128+j3.311	12.91	15.12	0.801+j5.598	0.116+j3.196
TIXMEHUAC	TXM-115	115.0	2.81	1.88	5.230+j23.064	15.200+j56.692	3.28	2.13	4.209+j21.832	15.191+j56.605
TIZIMIN	TZM-115	115.0	4.75	4.38	3.057+j13.628	4.610+j17.785	5.60	5.02	2.677+j12.757	4.607+j17.669
TULUM	TUM-115	115.0	3.55	2.47	6.004+j17.729	10.768+j41.938	4.28	2.84	4.690+j16.390	10.753+j41.753
UCU	UCU-115	115.0	7.83	6.81	2.173+j8.199	2.953+j11.942	10.62	8.45	1.269+j6.759	2.953+j11.789
UMAN	UMA-115	115.0	6.20	4.03	3.513+j10.112	8.718+j26.668	8.05	4.79	2.534+j8.706	8.592+j26.203
VALLADOLID	VAD-230	230.0	8.52	10.63	2.520+j15.387	0.184+j6.399	12.92	15.72	0.782+j11.283	0.124+j5.207
VALLADOLID	VAD-115	115.0	7.91	10.09	1.493+j8.263	0.104+j3.039	13.80	17.48	0.482+j5.269	0.042+j1.943
VALLADOLID DISTRIBUCIÓN	VDD-115	115.0	6.76	5.86	1.958+j9.626	6.262+j13.293	10.54	7.99	1.007+j6.854	6.266+j12.440
XCALACOCO	XLC-115	115.0	6.50	6.15	3.276+j9.673	2.452+j11.788	8.85	7.73	1.613+j8.097	2.435+j11.590
XCUNYA	XCN-115	115.0	8.22	6.71	1.799+j7.879	3.084+j13.057	10.65	8.07	1.080+j6.769	3.080+j12.996
XPUJIL	XPU-115	115.0	1.68	1.30	7.222+j38.911	18.707+j72.023	2.02	1.50	5.121+j35.778	18.684+j71.662
XUL HA	XUL-230	230.0	2.18	2.77	19.023+j57.781	1.184+j23.081	3.53	4.25	7.526+j40.701	0.876+j20.040
XUL HA	XUL-115	115.0	3.98	5.38	5.329+j15.822	0.140+j3.826	6.87	9.02	2.008+j10.441	0.083+j2.931
YAXCHE	YXE-115	115.0	8.19	8.52	2.868+j7.582	1.463+j7.110	12.32	11.54	1.258+j5.795	1.461+j6.981
YAXKIN	YXN-115	115.0	7.28	8.15	3.398+j8.462	1.541+j6.072	10.33	10.75	1.705+j6.859	1.546+j6.061
ZAC NICTÉ	ZNE-115	115.0	6.98	7.06	3.364+j8.893	1.390+j9.266	9.79	9.04	1.635+j7.276	1.396+j9.234