

DES-C2 Arc Flash Report (Minimum Utility Fault Current

Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
Bus: C2GM																	
C2GM	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	1,290	0.473	0	0	2	25.6	18	2.1	
C2GM		Arm v Source	0.208	[Manual Time]		Other	VCB	32	1,288	0.473	0	0	2	25.6	18	2.1	
C2GM		Base Case	0.208	[Manual Time]		Other	VCB	32	1,288	0.473	0	0	2	25.6	18	2.1	
C2GM		Emergency	0.208	[Manual Time]		Other	VCB	32	1,190	0.434	0	0	2	24.2	18	1.9	
C2GM		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1,290	0.473	0	0	2	25.6	18	2.1	
C2GM		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1,287	0.472	0	0	2	25.6	18	2.1	
Bus: C4GM																	
C4GM	X	Arm v parallel	0.48	C4GM		Other	VCB	32	2,362	1,638	0.1	0	0.1	8.6	18	0.4	
C4GM		Arm v Source	0.48	C4GM		Other	VCB	32	2,352	1,630	0.1	0	0.1	8.6	18	0.4	
C4GM		Base Case	0.48	C4GM		Other	VCB	32	2,351	1,630	0.1	0	0.1	8.6	18	0.4	
C4GM		Emergency	0.48	C4GM		Other	VCB	32	1,708	1,165	0.1	0	0.1	6.9	18	0.3	
C4GM		Madigan parallel	0.48	C4GM		Other	VCB	32	2,362	1,638	0.1	0	0.1	8.6	18	0.4	
C4GM		Madigan Source	0.48	C4GM		Other	VCB	32	2,348	1,628	0.1	0	0.1	8.5	18	0.4	
Bus: C4GN																	
C4GN	X	Arm v parallel	0.48	C4GN		Other	VCB	32	2,699	1,884	0.1	0	0.1	9.4	18	0.4	
C4GN		Arm v Source	0.48	C4GN		Other	VCB	32	2,684	1,874	0.1	0	0.1	9.4	18	0.4	
C4GN		Base Case	0.48	C4GN		Other	VCB	32	2,683	1,873	0.1	0	0.1	9.4	18	0.4	
C4GN		Emergency	0.48	C4GN		Other	VCB	32	1,877	1,287	0.1	0	0.1	7.3	18	0.3	
C4GN		Madigan parallel	0.48	C4GN		Other	VCB	32	2,698	1,884	0.1	0	0.1	9.4	18	0.4	
C4GN		Madigan Source	0.48	C4GN		Other	VCB	32	2,679	1,870	0.1	0	0.1	9.4	18	0.4	
Bus: C4GO																	
C4GO	X	Arm v parallel	0.48	C4GO		Other	VCB	32	5,635	3,581	0.017	0	0.017	4.8	18	0.1	
C4GO		Arm v Source	0.48	C4GO		Other	VCB	32	5,558	3,530	0.018	0	0.018	4.9	18	0.1	
C4GO		Base Case	0.48	C4GO		Other	VCB	32	5,551	3,526	0.018	0	0.018	4.9	18	0.1	
C4GO		Emergency	0.48	C4GO		Other	VCB	32	2,956	2,073	0.1	0	0.1	10	18	0.5	
C4GO		Madigan parallel	0.48	C4GO		Other	VCB	32	5,629	3,578	0.017	0	0.017	4.8	18	0.1	
C4GO		Madigan Source	0.48	C4GO		Other	VCB	32	5,529	3,510	0.018	0	0.018	4.9	18	0.2	
Bus: C41J																	
C41J	X	Arm v parallel	0.48	C41J		Other	VCB	32	8,091	5,968	0.013	0	0.013	5.6	18	0.2	
C41J		Arm v Source	0.48	C41J		Other	VCB	32	7,935	5,847	0.013	0	0.013	5.5	18	0.2	
C41J		Base Case	0.48	C41J		Other	VCB	32	7,901	5,821	0.013	0	0.013	5.5	18	0.2	
C41J		Emergency	0.48	C41J		Other	VCB	32	3,564	2,524	0.1	0	0.1	11.4	18	0.6	
C41J		Madigan parallel	0.48	C41J		Other	VCB	32	8,077	5,957	0.013	0	0.013	5.6	18	0.2	
C41J		Madigan Source	0.48	C41J		Other	VCB	32	7,875	5,801	0.013	0	0.013	5.5	18	0.2	
Bus: C41K																	
C41K	X	Arm v parallel	0.48	C41K		Other	VCB	32	1,788	1,223	0.1	0	0.1	7.1	18	0.3	
C41K		Arm v Source	0.48	C41K		Other	VCB	32	1,783	1,219	0.1	0	0.1	7.1	18	0.3	
C41K		Base Case	0.48	C41K		Other	VCB	32	1,783	1,219	0.1	0	0.1	7.1	18	0.3	
C41K		Emergency	0.48	C41K		Other	VCB	32	1,388	0,938	0.1	0	0.1	5.9	18	0.2	
C41K		Madigan parallel	0.48	C41K		Other	VCB	32	1,788	1,223	0.1	0	0.1	7.1	18	0.3	
C41K		Madigan Source	0.48	C41K		Other	VCB	32	1,782	1,218	0.1	0	0.1	7.1	18	0.3	
Bus: C42K																	
C42K	X	Arm v parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	5,349	3,391	0.051	0	0.051	9.1	18	0.4	
C42K		Arm v Source	0.48	1-2 F-TS-CC2		Other	VCB	32	5,282	3,346	0.051	0	0.051	9.1	18	0.4	
C42K		Base Case	0.48	1-2 F-TS-CC2		Other	VCB	32	5,276	3,342	0.051	0	0.051	9.1	18	0.4	
C42K		Emergency	0.48	C42K		Other	VCB	32	2,873	2,012	0.1	0	0.1	9.8	18	0.5	
C42K		Madigan parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	5,345	3,388	0.051	0	0.051	9.1	18	0.4	
C42K		Madigan Source	0.48	1-2 F-TS-CC2		Other	VCB	32	5,256	3,329	0.051	0	0.051	9.1	18	0.4	
Bus: C42M																	
C42M	X	Arm v parallel	0.48	C42M		Other	VCB	32	4,079	2,550	0.1	0	0.1	11.6	18	0.6	
C42M		Arm v Source	0.48	C42M		Other	VCB	32	4,044	2,527	0.1	0	0.1	11.5	18	0.6	
C42M		Base Case	0.48	C42M		Other	VCB	32	4,040	2,525	0.1	0	0.1	11.5	18	0.6	
C42M		Emergency	0.48	C42M		Other	VCB	32	2,456	1,706	0.1	0	0.1	8.8	18	0.4	
C42M		Madigan parallel	0.48	C42M		Other	VCB	32	4,077	2,548	0.1	0	0.1	11.6	18	0.6	
C42M		Madigan Source	0.48	C42M		Other	VCB	32	4,031	2,518	0.1	0	0.1	11.5	18	0.6	
Bus: C42N																	
C42N	X	Arm v parallel	0.48	C42N		Other	VCB	32	2,193	1,515	0.1	0	0.1	8.2	18	0.3	
C42N		Arm v Source	0.48	C42N		Other	VCB	32	2,185	1,509	0.1	0	0.1	8.1	18	0.3	
C42N		Base Case	0.48	C42N		Other	VCB	32	2,184	1,508	0.1	0	0.1	8.1	18	0.3	
C42N		Emergency	0.48	C42N		Other	VCB	32	1,618	1,101	0.1	0	0.1	6.6	18	0.2	
C42N		Madigan parallel	0.48	C42N		Other	VCB	32	2,193	1,515	0.1	0	0.1	8.2	18	0.3	
C42N		Madigan Source	0.48	C42N		Other	VCB	32	2,182	1,507	0.1	0	0.1	8.1	18	0.3	
Bus: DFS C2-2																	

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DES C2-2	X	Arm v parallel	0.48	DES-C2 MAIN 2		Other	VCB	32	13.829	10.370	0.5	0	0.5	80.1	18	13	
DES C2-2		Arm v Source	0.48	DES-C2 MAIN 2		Other	VCB	32	13.269	9.944	0.5	0	0.5	77.9	18	12.5	
DES C2-2		Base Case	0.48	DES-C2 MAIN 2		Other	VCB	32	12.935	9.689	0.5	0	0.5	76.6	18	12.1	
DES C2-2		Emergency	0.48	DES-C2 MAIN 2		Other	VCB	32	12.935	9.689	0.5	0	0.5	76	18	12	
DES C2-2		Madigan parallel	0.48	DES-C2 MAIN 2		Other	VCB	32	13.721	10.287	0.5	0	0.5	79.7	18	12.9	
DES C2-2		Madigan Source	0.48	DES-C2 MAIN 2		Other	VCB	32	12.935	9.689	0.5	0	0.5	76.6	18	12.2	
Bus: DES-C2-1																	
DES-C2-1	X	Arm v parallel	0.48	DES-C2 MAIN 1		Other	VCB	32	14.080	10.559	0.5	0	0.5	80.6	18	13.2	
DES-C2-1		Arm v Source	0.48	DES-C2 MAIN 1		Other	VCB	32	13.499	10.119	0.5	0	0.5	78.3	18	12.6	
DES-C2-1		Base Case	0.48	DES-C2 MAIN 1		Other	VCB	32	13.499	10.119	0.5	0	0.5	78.2	18	12.5	
DES-C2-1		Emergency	0.48	DES-C2 MAIN 1		Other	VCB	32	13.499	10.119	0.5	0	0.5	78.2	18	12.5	
DES-C2-1		Madigan parallel	0.48	DES-C2 MAIN 1		Other	VCB	32	13.967	10.474	0.5	0	0.5	80.2	18	13.1	
DES-C2-1		Madigan Source	0.48	DES-C2 MAIN 1		Other	VCB	32	13.153	9.856	0.5	0	0.5	77	18	12.2	
Bus: DES-C2T1 PRI																	
DES-C2T1 PRI	X	Army parallel	13.8	GEN BUS CB-3	51/50/50 IEEE	Other	VCB	152	10.191	9.426	0.016	0.083	0.099	35.6	18	3.5	
DES-C2T1 PRI		Arm v Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	5.160	4.783	0.016	0.083	0.099	23.7	18	1.8	
DES-C2T1 PRI		Base Case	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.939	4.578	0.016	0.083	0.099	22.9	18	1.8	
DES-C2T1 PRI		Emergency	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.929	4.569	0.016	0.083	0.099	22.8	18	1.7	
DES-C2T1 PRI		Madigan parallel	13.8	GEN BUS CB-4	51/50/50 IEEE	Other	VCB	152	9.244	8.555	0.016	0.083	0.099	33.6	18	3.2	
DES-C2T1 PRI		Madigan Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.169	3.863	0.016	0.083	0.099	20.9	18	1.5	
Bus: DES-C2T1 SW1																	
DES-C2T1 SW1	X	Army parallel	13.8	GEN BUS CB-3	51/50/50 IEEE	Other	VCB	152	10.191	9.426	0.016	0.083	0.099	35.6	18	3.5	
DES-C2T1 SW1		Arm v Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	5.160	4.783	0.016	0.083	0.099	23.7	18	1.8	
DES-C2T1 SW1		Base Case	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.939	4.579	0.016	0.083	0.099	22.9	18	1.8	
DES-C2T1 SW1		Emergency	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.929	4.569	0.016	0.083	0.099	22.8	18	1.7	
DES-C2T1 SW1		Madigan parallel	13.8	GEN BUS CB-4	51/50/50 IEEE	Other	VCB	152	9.244	8.555	0.016	0.083	0.099	33.6	18	3.2	
DES-C2T1 SW1		Madigan Source	13.8	PF3-2 Φ	51/50	Other	VCB	152	4.169	3.863	0.016	0.083	0.099	20.9	18	1.5	
Bus: DES-C2T2 PRI																	
DES-C2T2 PRI	X	Arm v parallel	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.145	0.083	0.228	54.9	18	6.9	
DES-C2T2 PRI		Arm v Source	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.198	0.083	0.282	44.7	18	5	
DES-C2T2 PRI		Base Case	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.244	0.083	0.327	42	18	4.5	
DES-C2T2 PRI		Emergency	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.245	0.083	0.328	41.9	18	4.5	
DES-C2T2 PRI		Madigan parallel	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.239	0.083	0.322	51.7	18	6.3	
DES-C2T2 PRI		Madigan Source	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.238	0.083	0.321	42.2	18	4.6	
Bus: DES-C2T2 SW1																	
DES-C2T2 SW1	X	Arm v parallel	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.145	0.083	0.228	54.9	18	6.9	
DES-C2T2 SW1		Arm v Source	13.8	PSG-2 TIE Φ	51/50	Other	VCB	152	4.773	4.424	0.198	0.083	0.282	44.7	18	5	
DES-C2T2 SW1		Base Case	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.244	0.083	0.327	42	18	4.5	
DES-C2T2 SW1		Emergency	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.245	0.083	0.328	41.9	18	4.5	
DES-C2T2 SW1		Madigan parallel	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.239	0.083	0.322	51.7	18	6.3	
DES-C2T2 SW1		Madigan Source	13.8	PSG-2 MAIN 4 Φ	51/50	Other	VCB	152	3.766	3.488	0.238	0.083	0.321	42.2	18	4.6	
Bus: F4GM																	
F4GM		Arm v parallel	0.48	F4GM		Other	VCB	32	2.984	2.094	0.1	0	0.1	10.1	18	0.5	
F4GM		Arm v Source	0.48	F4GM		Other	VCB	32	2.968	2.082	0.1	0	0.1	10.1	18	0.5	
F4GM		Base Case	0.48	F4GM		Other	VCB	32	2.961	2.077	0.1	0	0.1	10	18	0.5	
F4GM	X	Emergency	0.48	F4GM		Other	VCB	32	3.096	2.176	0.1	0	0.1	10.3	18	0.5	
F4GM		Madigan parallel	0.48	F4GM		Other	VCB	32	2.983	2.093	0.1	0	0.1	10.1	18	0.5	
F4GM		Madigan Source	0.48	F4GM		Other	VCB	32	2.963	2.078	0.1	0	0.1	10.1	18	0.5	
Bus: F4GN																	
F4GN		Arm v parallel	0.48	F4GN		Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
F4GN		Arm v Source	0.48	F4GN		Other	VCB	32	2.043	1.407	0.1	0	0.1	7.8	18	0.3	
F4GN		Base Case	0.48	F4GN		Other	VCB	32	2.040	1.404	0.1	0	0.1	7.8	18	0.3	
F4GN	X	Emergency	0.48	F4GN		Other	VCB	32	2.096	1.445	0.1	0	0.1	7.9	18	0.3	
F4GN		Madigan parallel	0.48	F4GN		Other	VCB	32	2.050	1.411	0.1	0	0.1	7.8	18	0.3	
F4GN		Madigan Source	0.48	F4GN		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: F4GO																	
F4GO		Arm v parallel	0.48	F4GO		Other	VCB	32	8.595	6.356	0.013	0	0.013	5.9	18	0.2	
F4GO		Arm v Source	0.48	F4GO		Other	VCB	32	8.464	6.255	0.013	0	0.013	5.8	18	0.2	
F4GO		Base Case	0.48	F4GO		Other	VCB	32	8.383	6.192	0.013	0	0.013	5.8	18	0.2	
F4GO	X	Emergency	0.48	F4GO		Other	VCB	32	9.968	7.413	0.013	0	0.013	6.5	18	0.2	

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E4GO		Madigan parallel	0.48	E4GO		Other	VCB	32	8.584	6.347	0.013	0	0.013	5.8	18	0.2	
E4GO		Madigan Source	0.48	E4GO		Other	VCB	32	8.414	6.216	0.013	0	0.013	5.8	18	0.2	
Bus: F41J																	
F41J		Armv parallel	0.48	F41J		Other	VCB	32	6.155	4.481	0.014	0	0.014	4.8	18	0.1	
F41J		Armv Source	0.48	F41J		Other	VCB	32	6.095	4.436	0.014	0	0.014	4.8	18	0.1	
F41J		Base Case	0.48	F41J		Other	VCB	32	6.060	4.409	0.014	0	0.014	4.8	18	0.1	
F41J	X	Emergency	0.48	F41J		Other	VCB	32	6.692	4.893	0.013	0	0.013	5	18	0.2	
F41J		Madigan parallel	0.48	F41J		Other	VCB	32	6.150	4.478	0.014	0	0.014	4.8	18	0.1	
F41J		Madigan Source	0.48	F41J		Other	VCB	32	6.074	4.419	0.014	0	0.014	4.8	18	0.1	
Bus: F41K																	
F41K		Armv parallel	0.48	F41K		Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
F41K		Armv Source	0.48	F41K		Other	VCB	32	2.043	1.407	0.1	0	0.1	7.8	18	0.3	
F41K		Base Case	0.48	F41K		Other	VCB	32	2.040	1.404	0.1	0	0.1	7.8	18	0.3	
F41K	X	Emergency	0.48	F41K		Other	VCB	32	2.096	1.445	0.1	0	0.1	7.9	18	0.3	
F41K		Madigan parallel	0.48	F41K		Other	VCB	32	2.050	1.411	0.1	0	0.1	7.8	18	0.3	
F41K		Madigan Source	0.48	F41K		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: F42K																	
F42K	X	Armv parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.106	3.229	0.052	0	0.052	9	18	0.4	
F42K		Armv Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.049	3.191	0.052	0	0.052	9	18	0.4	
F42K		Base Case	0.48	2-4 F-TS-EC2		Other	VCB	32	5.021	3.173	0.052	0	0.052	8.9	18	0.4	
F42K		Emergency	0.48	F42K		Other	VCB	32	5.541	3.519	0.018	0	0.018	4.9	18	0.2	
F42K		Madigan parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.102	3.227	0.052	0	0.052	9	18	0.4	
F42K		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.028	3.177	0.052	0	0.052	8.9	18	0.4	
Bus: F42M																	
F42M	X	Armv parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.106	3.229	0.052	0	0.052	9	18	0.4	
F42M		Armv Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.049	3.191	0.052	0	0.052	9	18	0.4	
F42M		Base Case	0.48	2-4 F-TS-EC2		Other	VCB	32	5.021	3.173	0.052	0	0.052	8.9	18	0.4	
F42M		Emergency	0.48	F42M		Other	VCB	32	5.541	3.519	0.018	0	0.018	4.9	18	0.2	
F42M		Madigan parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	5.102	3.227	0.052	0	0.052	9	18	0.4	
F42M		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	5.028	3.177	0.052	0	0.052	8.9	18	0.4	
Bus: F42N																	
F42N		Armv parallel	0.48	F42N		Other	VCB	32	2.050	1.412	0.1	0	0.1	7.8	18	0.3	
F42N		Armv Source	0.48	F42N		Other	VCB	32	2.043	1.407	0.1	0	0.1	7.8	18	0.3	
F42N		Base Case	0.48	F42N		Other	VCB	32	2.040	1.404	0.1	0	0.1	7.8	18	0.3	
F42N	X	Emergency	0.48	F42N		Other	VCB	32	2.096	1.445	0.1	0	0.1	7.9	18	0.3	
F42N		Madigan parallel	0.48	F42N		Other	VCB	32	2.050	1.411	0.1	0	0.1	7.8	18	0.3	
F42N		Madigan Source	0.48	F42N		Other	VCB	32	2.041	1.405	0.1	0	0.1	7.8	18	0.3	
Bus: L2GM																	
L2GM	X	Armv parallel	0.208	L4GM		Other	VCB	32	3.247	1.284	0.1	0	0.1	7.6	18	0.3	
L2GM		Armv Source	0.208	L4GM		Other	VCB	32	3.232	1.277	0.1	0	0.1	7.5	18	0.3	
L2GM		Base Case	0.208	L4GM		Other	VCB	32	3.231	1.277	0.1	0	0.1	7.5	18	0.3	
L2GM		Emergency	0.208	L4GM		Other	VCB	32	3.231	1.277	0.1	0	0.1	7.5	18	0.3	
L2GM		Madigan parallel	0.208	L4GM		Other	VCB	32	3.246	1.283	0.1	0	0.1	7.6	18	0.3	
L2GM		Madigan Source	0.208	L4GM		Other	VCB	32	3.226	1.275	0.1	0	0.1	7.5	18	0.3	
Bus: L2GN																	
L2GN	X	Armv parallel	0.208	L4GN		Other	VCB	32	3.276	1.296	0.1	0	0.1	7.6	18	0.3	
L2GN		Armv Source	0.208	L4GN		Other	VCB	32	3.262	1.290	0.1	0	0.1	7.6	18	0.3	
L2GN		Base Case	0.208	L4GN		Other	VCB	32	3.260	1.289	0.1	0	0.1	7.6	18	0.3	
L2GN		Emergency	0.208	L4GN		Other	VCB	32	3.260	1.289	0.1	0	0.1	7.6	18	0.3	
L2GN		Madigan parallel	0.208	L4GN		Other	VCB	32	3.275	1.296	0.1	0	0.1	7.6	18	0.3	
L2GN		Madigan Source	0.208	L4GN		Other	VCB	32	3.255	1.287	0.1	0	0.1	7.6	18	0.3	
Bus: L4GM																	
L4GM		Armv parallel	0.48	L4GM		Other	VCB	32	7.343	4.727	0.028	0	0.028	7.9	18	0.3	
L4GM		Armv Source	0.48	L4GM		Other	VCB	32	7.172	4.612	0.03	0	0.03	8	18	0.3	
L4GM		Base Case	0.48	L4GM		Other	VCB	32	7.157	4.602	0.03	0	0.03	8.1	18	0.3	
L4GM		Emergency	0.48	L4GM		Other	VCB	32	7.156	4.602	0.03	0	0.03	8.1	18	0.3	
L4GM		Madigan parallel	0.48	L4GM		Other	VCB	32	7.326	4.716	0.028	0	0.028	7.9	18	0.3	
L4GM	X	Madigan Source	0.48	L4GM		Other	VCB	32	7.097	4.562	0.1	0	0.1	17	18	1.1	
Bus: L4GN																	
L4GN		Armv parallel	0.48	L4GN		Other	VCB	32	7.701	4.969	0.025	0	0.025	7.5	18	0.3	
L4GN		Armv Source	0.48	L4GN		Other	VCB	32	7.512	4.842	0.026	0	0.026	7.7	18	0.3	
L4GN		Base Case	0.48	L4GN		Other	VCB	32	7.496	4.831	0.026	0	0.026	7.7	18	0.3	
L4GN		Emergency	0.48	L4GN		Other	VCB	32	7.495	4.830	0.027	0	0.027	7.7	18	0.3	
L4GN		Madigan parallel	0.48	L4GN		Other	VCB	32	7.682	4.956	0.025	0	0.025	7.5	18	0.3	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
L4GN	X	Madigan Source	0.48	L4GN		Other	VCB	32	7.430	4.786	0.027	0	0.027	7.8	18	0.3	
Bus: L4GO																	
L4GO	X	Armvy parallel	0.48	L4GO		Other	VCB	32	11.675	8.726	0.014	0	0.014	7.4	18	0.3	
L4GO		Armvy Source	0.48	L4GO		Other	VCB	32	11.309	8.446	0.014	0	0.014	7.3	18	0.3	
L4GO		Base Case	0.48	L4GO		Other	VCB	32	11.226	8.382	0.014	0	0.014	7.3	18	0.3	
L4GO		Emergency	0.48	L4GO		Other	VCB	32	11.196	8.358	0.014	0	0.014	7.3	18	0.3	
L4GO		Madigan parallel	0.48	L4GO		Other	VCB	32	11.636	8.697	0.014	0	0.014	7.4	18	0.3	
L4GO		Madigan Source	0.48	L4GO		Other	VCB	32	11.160	8.331	0.014	0	0.014	7.3	18	0.3	
Bus: L21K																	
L21K	X	Armvy parallel	0.208	L41K		Other	VCB	32	3.172	1.251	0.1	0	0.1	7.4	18	0.3	
L21K		Armvy Source	0.208	L41K		Other	VCB	32	3.158	1.246	0.1	0	0.1	7.4	18	0.3	
L21K		Base Case	0.208	L41K		Other	VCB	32	3.151	1.242	0.1	0	0.1	7.4	18	0.3	
L21K		Emergency	0.208	L41K		Other	VCB	32	3.143	1.239	0.1	0	0.1	7.4	18	0.3	
L21K		Madigan parallel	0.208	L41K		Other	VCB	32	3.170	1.251	0.1	0	0.1	7.4	18	0.3	
L21K		Madigan Source	0.208	L41K		Other	VCB	32	3.152	1.243	0.1	0	0.1	7.4	18	0.3	
Bus: L41J																	
L41J	X	Armvy parallel	0.48	L41J		Other	VCB	32	11.460	8.562	0.014	0	0.014	7.4	18	0.3	
L41J		Armvy Source	0.48	L41J		Other	VCB	32	11.108	8.291	0.014	0	0.014	7.3	18	0.3	
L41J		Base Case	0.48	L41J		Other	VCB	32	11.027	8.229	0.014	0	0.014	7.2	18	0.3	
L41J		Emergency	0.48	L41J		Other	VCB	32	10.998	8.207	0.014	0	0.014	7.2	18	0.3	
L41J		Madigan parallel	0.48	L41J		Other	VCB	32	11.423	8.533	0.014	0	0.014	7.3	18	0.3	
L41J		Madigan Source	0.48	L41J		Other	VCB	32	10.963	8.180	0.014	0	0.014	7.2	18	0.3	
Bus: L41K																	
L41K		Armvy parallel	0.48	L41K		Other	VCB	32	6.531	4.181	0.1	0	0.1	16.1	18	1	
L41K		Armvy Source	0.48	L41K		Other	VCB	32	6.400	4.094	0.1	0	0.1	15.9	18	1	
L41K		Base Case	0.48	L41K		Other	VCB	32	6.327	4.045	0.1	0	0.1	15.8	18	1	
L41K	X	Emergency	0.48	L41K		Other	VCB	32	6.258	4.561	0.1	0	0.1	16.8	18	1.1	
L41K		Madigan parallel	0.48	L41K		Other	VCB	32	6.518	4.173	0.1	0	0.1	16.1	18	1	
L41K		Madigan Source	0.48	L41K		Other	VCB	32	6.343	4.055	0.1	0	0.1	15.8	18	1	
Bus: L42K																	
L42K	X	Armvy parallel	0.48	L42K		Other	VCB	32	10.328	7.691	0.013	0	0.013	6.6	18	0.2	
L42K		Armvy Source	0.48	L42K		Other	VCB	32	10.112	7.525	0.013	0	0.013	6.5	18	0.2	
L42K		Base Case	0.48	L42K		Other	VCB	32	9.971	7.416	0.013	0	0.013	6.5	18	0.2	
L42K		Emergency	0.48	L42K		Other	VCB	32	9.051	6.707	0.013	0	0.013	6.1	18	0.2	
L42K		Madigan parallel	0.48	L42K		Other	VCB	32	10.306	7.674	0.013	0	0.013	6.6	18	0.2	
L42K		Madigan Source	0.48	L42K		Other	VCB	32	10.024	7.457	0.013	0	0.013	6.5	18	0.2	
Bus: L42M																	
L42M	X	Armvy parallel	0.48	L42M		Other	VCB	32	11.278	8.422	0.014	0	0.014	7.3	18	0.3	
L42M		Armvy Source	0.48	L42M		Other	VCB	32	11.013	8.218	0.014	0	0.014	7.2	18	0.3	
L42M		Base Case	0.48	L42M		Other	VCB	32	10.838	8.083	0.014	0	0.014	7.2	18	0.3	
L42M		Emergency	0.48	L42M		Other	VCB	32	9.706	7.212	0.015	0	0.015	6.9	18	0.3	
L42M		Madigan parallel	0.48	L42M		Other	VCB	32	11.250	8.400	0.014	0	0.014	7.3	18	0.3	
L42M		Madigan Source	0.48	L42M		Other	VCB	32	10.904	8.134	0.014	0	0.014	7.2	18	0.3	
Bus: L42N																	
L42N	X	Armvy parallel	0.48	L42N		Other	VCB	32	6.539	4.775	0.013	0	0.013	4.9	18	0.2	
L42N		Armvy Source	0.48	L42N		Other	VCB	32	6.451	4.708	0.013	0	0.013	4.9	18	0.1	
L42N		Base Case	0.48	L42N		Other	VCB	32	6.393	4.663	0.013	0	0.013	4.9	18	0.1	
L42N		Emergency	0.48	L42N		Other	VCB	32	5.998	4.362	0.014	0	0.014	4.7	18	0.1	
L42N		Madigan parallel	0.48	L42N		Other	VCB	32	6.530	4.768	0.013	0	0.013	4.9	18	0.2	
L42N		Madigan Source	0.48	L42N		Other	VCB	32	6.415	4.680	0.013	0	0.013	4.9	18	0.1	
Bus: MBP																	
MBP	X	Armvy parallel	0.208	[Manual Time]		Other	VCB	32	8.902	3.836	0	0	2	101.3	18	19	
MBP		Armvy Source	0.208	[Manual Time]		Other	VCB	32	8.798	3.788	0	0	2	100.5	18	18.7	
MBP		Base Case	0.208	[Manual Time]		Other	VCB	32	8.798	3.788	0	0	2	100.4	18	18.7	
MBP		Emergency	0.208	[Manual Time]		Other	VCB	32	8.409	3.608	0	0	2	97.4	18	17.8	
MBP		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.882	3.827	0	0	2	101.1	18	18.9	
MBP		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.734	3.758	0	0	2	99.9	18	18.6	
Bus: S-CC2																	
S-CC2		Armvy parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	9.953	7.402	0.05	0	0.05	15	18	0.9	
S-CC2		Armvy Source	0.48	1-2 F-TS-CC2		Other	VCB	32	9.653	7.171	0.05	0	0.05	14.7	18	0.9	
S-CC2		Base Case	0.48	1-2 F-TS-CC2		Other	VCB	32	9.627	7.151	0.05	0	0.05	14.7	18	0.9	
S-CC2	X	Emergency	0.48	S-CC (TS-CC2)		Other	VCB	32	3.928	2.795	0.2	0	0.2	18.9	18	1.3	
S-CC2		Madigan parallel	0.48	1-2 F-TS-CC2		Other	VCB	32	9.925	7.381	0.05	0	0.05	15	18	0.9	
S-CC2		Madigan Source	0.48	1-2 F-TS-CC2		Other	VCB	32	9.525	7.073	0.05	0	0.05	14.6	18	0.9	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
Bus: S-EC2																	
S-EC2	✗	Arm v parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	10.182	7.579	0.05	0	0.05	15.5	18	0.9	
S-EC2		Arm v Source	0.48	2-4 F-TS-EC2		Other	VCB	32	9.884	7.349	0.05	0	0.05	15.2	18	0.9	
S-EC2		Base Case	0.48	2-4 F-TS-EC2		Other	VCB	32	9.724	7.226	0.05	0	0.05	15.1	18	0.9	
S-EC2		Emergency	0.48	S-EC2		Other	VCB	32	13.774	10.328	0.013	0	0.013	8.1	18	0.3	
S-EC2		Madigan parallel	0.48	2-4 F-TS-EC2		Other	VCB	32	10.155	7.558	0.05	0	0.05	15.5	18	0.9	
S-EC2		Madigan Source	0.48	2-4 F-TS-EC2		Other	VCB	32	9.758	7.252	0.05	0	0.05	15.1	18	0.9	
Bus: S-N1C2																	
S-N1C2		Arm v parallel	0.48	1-4 F-S-N1C2		Other	VCB	32	13.047	9.775	0.051	0	0.051	18.4	18	1.2	
S-N1C2		Arm v Source	0.48	1-4 F-S-N1C2		Other	VCB	32	12.504	8.207	0.061	0	0.061	18.3	18	1.2	
S-N1C2		Base Case	0.48	1-4 F-S-N1C2		Other	VCB	32	12.457	8.175	0.061	0	0.061	18.4	18	1.2	
S-N1C2		Emergency	0.48	1-4 F-S-N1C2		Other	VCB	32	12.455	8.174	0.061	0	0.061	18.4	18	1.2	
S-N1C2		Madigan parallel	0.48	1-4 F-S-N1C2		Other	VCB	32	12.989	9.731	0.051	0	0.051	18.4	18	1.2	
S-N1C2	✗	Madigan Source	0.48	1-4 F-S-N1C2		Other	VCB	32	12.260	8.044	0.064	0	0.064	18.7	18	1.3	
Bus: S-N2C2																	
S-N2C2	✗	Arm v parallel	0.48	2-2 F-S-N2C2		Other	VCB	32	12.405	9.285	0.05	0	0.05	17.9	18	1.2	
S-N2C2		Arm v Source	0.48	2-2 F-S-N2C2		Other	VCB	32	11.931	8.922	0.05	0	0.05	17.5	18	1.1	
S-N2C2		Base Case	0.48	2-2 F-S-N2C2		Other	VCB	32	11.663	8.717	0.05	0	0.05	17.2	18	1.1	
S-N2C2		Emergency	0.48	2-2 F-S-N2C2		Other	VCB	32	11.424	8.534	0.05	0	0.05	16.5	18	1	
S-N2C2		Madigan parallel	0.48	2-2 F-S-N2C2		Other	VCB	32	12.355	9.247	0.05	0	0.05	17.8	18	1.2	
S-N2C2		Madigan Source	0.48	2-2 F-S-N2C2		Other	VCB	32	11.718	8.759	0.05	0	0.05	17.3	18	1.1	
Bus: S-O1C2																	
S-O1C2	✗	Arm v parallel	0.48	1-3 F-TS-O1C2		Other	VCB	32	12.146	9.087	0.05	0	0.05	17.2	18	1.1	
S-O1C2		Arm v Source	0.48	1-3 F-TS-O1C2		Other	VCB	32	11.674	8.725	0.05	0	0.05	16.8	18	1.1	
S-O1C2		Base Case	0.48	1-3 F-TS-O1C2		Other	VCB	32	11.633	8.694	0.05	0	0.05	16.7	18	1.1	
S-O1C2		Emergency	0.48	S-O1C (TS-O1C2)		Other	VCB	32	11.495	8.588	0.013	0	0.013	7.2	18	0.3	
S-O1C2		Madigan parallel	0.48	1-3 F-TS-O1C2		Other	VCB	32	12.096	9.049	0.05	0	0.05	17.2	18	1.1	
S-O1C2		Madigan Source	0.48	1-3 F-TS-O1C2		Other	VCB	32	11.462	8.563	0.05	0	0.05	16.6	18	1.1	
Bus: S-O2C2																	
S-O2C2	✗	Arm v parallel	0.48	2-3 F-TS-O2C2		Other	VCB	32	13.015	9.751	0.33	0	0.33	59.6	18	8.1	
S-O2C2		Arm v Source	0.48	2-3 F-TS-O2C2		Other	VCB	32	12.517	9.371	0.33	0	0.33	58	18	7.8	
S-O2C2		Base Case	0.48	2-3 F-TS-O2C2		Other	VCB	32	12.220	9.144	0.33	0	0.33	57.1	18	7.6	
S-O2C2		Emergency	0.48	S-O2C2		Other	VCB	32	11.724	8.764	0.073	0	0.073	22.5	18	1.7	
S-O2C2		Madigan parallel	0.48	2-3 F-TS-O2C2		Other	VCB	32	12.920	9.678	0.33	0	0.33	59.4	18	8.1	
S-O2C2		Madigan Source	0.48	2-3 F-TS-O2C2		Other	VCB	32	12.220	9.144	0.33	0	0.33	57.2	18	7.6	
Bus: SCC																	
SCC	✗	Arm v parallel	0.48	SCC		Other	VCB	32	4.753	3.416	0.33	0	0.33	29.4	18	2.6	
SCC		Arm v Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SCC		Base Case	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SCC		Emergency	0.48	SCC		Other	VCB	32	4.726	3.395	0.33	0	0.33	29.4	18	2.6	
SCC		Madigan parallel	0.48	SCC		Other	VCB	32	4.745	3.410	0.33	0	0.33	29.4	18	2.6	
SCC		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: SEC																	
SEC	✗	Arm v parallel	0.48	SEC		Other	VCB	32	16.236	12.177	0.065	0	0.065	24.7	18	2	
SEC		Arm v Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SEC		Base Case	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SEC		Emergency	0.48	SEC		Other	VCB	32	15.788	11.844	0.065	0	0.065	24.3	18	1.9	
SEC		Madigan parallel	0.48	SEC		Other	VCB	32	16.170	12.128	0.065	0	0.065	24.6	18	2	
SEC		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: SO1C																	
SO1C		Arm v parallel	0.48	SO1C		Other	VCB	32	12.332	9.229	0.065	0	0.065	20.5	18	1.5	
SO1C		Arm v Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SO1C		Base Case	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SO1C	✗	Emergency	0.48	SO1C		Other	VCB	32	12.017	7.880	0.13	0	0.13	29	18	2.6	
SO1C		Madigan parallel	0.48	SO1C		Other	VCB	32	12.285	9.193	0.065	0	0.065	20.5	18	1.5	
SO1C		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: SO2C																	
SO2C		Arm v parallel	0.48	SO2C		Other	VCB	32	12.332	8.092	0.13	0	0.13	29.2	18	2.6	
SO2C		Arm v Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SO2C		Base Case	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
SO2C	✗	Emergency	0.48	SO2C		Other	VCB	32	12.403	8.140	0.13	0	0.13	30.3	18	2.8	
SO2C		Madigan parallel	0.48	SO2C		Other	VCB	32	12.285	8.060	0.13	0	0.13	29.2	18	2.6	
SO2C		Madigan Source	0.48	[Manual Time]		Other	VCB	0	0.000	0.000			0	0	18	0	
Bus: TS-CC2																	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
TS-CC2		Arm v parallel	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.695	7.974	0.05	0	0.05	15.8	18	1	
TS-CC2		Arm v Source	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.348	7.706	0.05	0	0.05	15.5	18	0.9	
TS-CC2		Base Case	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.318	7.683	0.05	0	0.05	15.4	18	0.9	
TS-CC2	X	Emergency	0.48	S-CC (TS-CC2)		ATS	VCB	32	4.038	2.878	0.2	0	0.2	19.3	18	1.3	
TS-CC2		Madigan parallel	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.663	7.949	0.05	0	0.05	15.8	18	1	
TS-CC2		Madigan Source	0.48	1-2 F-TS-CC2		ATS	VCB	32	10.201	7.593	0.05	0	0.05	15.3	18	0.9	
Bus: TS-EC2																	
TS-EC2	X	Arm v parallel	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.717	7.991	0.05	0	0.05	16.1	18	1	
TS-EC2		Arm v Source	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.382	7.733	0.05	0	0.05	15.8	18	1	
TS-EC2		Base Case	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.201	7.593	0.05	0	0.05	15.6	18	1	
TS-EC2		Emergency	0.48	S-EC2		ATS	VCB	32	14.969	11.230	0.013	0	0.013	8.5	18	0.4	
TS-EC2		Madigan parallel	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.686	7.967	0.05	0	0.05	16.1	18	1	
TS-EC2		Madigan Source	0.48	2-4 F-TS-EC2		ATS	VCB	32	10.240	7.623	0.05	0	0.05	15.7	18	1	
Bus: TS-O1C2																	
TS-O1C2	X	Arm v parallel	0.48	1-3 F-TS-O1C2		ATS	VCB	32	12.496	9.355	0.05	0	0.05	17.6	18	1.2	
TS-O1C2		Arm v Source	0.48	1-3 F-TS-O1C2		ATS	VCB	32	11.997	8.973	0.05	0	0.05	17.1	18	1.1	
TS-O1C2		Base Case	0.48	1-3 F-TS-O1C2		ATS	VCB	32	11.954	8.940	0.05	0	0.05	17.1	18	1.1	
TS-O1C2		Emergency	0.48	S-O1C (TS-O1C2)		ATS	VCB	32	11.828	8.844	0.013	0	0.013	7.3	18	0.3	
TS-O1C2		Madigan parallel	0.48	1-3 F-TS-O1C2		ATS	VCB	32	12.443	9.314	0.05	0	0.05	17.5	18	1.1	
TS-O1C2		Madigan Source	0.48	1-3 F-TS-O1C2		ATS	VCB	32	11.773	8.801	0.05	0	0.05	16.9	18	1.1	
Bus: TS-O2C2																	
TS-O2C2	X	Arm v parallel	0.48	2-3 F-TS-O2C2		ATS	VCB	32	13.145	9.850	0.33	0	0.33	60	18	8.2	
TS-O2C2		Arm v Source	0.48	2-3 F-TS-O2C2		ATS	VCB	32	12.637	9.462	0.33	0	0.33	58.4	18	7.9	
TS-O2C2		Base Case	0.48	2-3 F-TS-O2C2		ATS	VCB	32	12.334	9.231	0.33	0	0.33	57.4	18	7.7	
TS-O2C2		Emergency	0.48	S-O2C2		ATS	VCB	32	11.832	8.847	0.073	0	0.073	22.6	18	1.7	
TS-O2C2		Madigan parallel	0.48	2-3 F-TS-O2C2		ATS	VCB	32	13.047	9.775	0.33	0	0.33	59.7	18	8.2	
TS-O2C2		Madigan Source	0.48	2-3 F-TS-O2C2		ATS	VCB	32	12.334	9.231	0.33	0	0.33	57.5	18	7.7	
Bus: TX-O16S PRI																	
TX-O16S PRI	X	Arm v parallel	0.48	F-O12GS		Other	VCB	32	11.952	8.939	0.014	0	0.014	7.5	18	0.3	
TX-O16S PRI		Arm v Source	0.48	F-O12GS		Other	VCB	32	11.566	8.642	0.014	0	0.014	7.4	18	0.3	
TX-O16S PRI		Base Case	0.48	F-O12GS		Other	VCB	32	11.476	8.574	0.014	0	0.014	7.4	18	0.3	
TX-O16S PRI		Emergency	0.48	S-O1C (TS-O1C2)		Other	VCB	32	11.290	8.431	0.013	0	0.013	7.2	18	0.3	
TX-O16S PRI		Madigan parallel	0.48	F-O12GS		Other	VCB	32	11.909	8.906	0.014	0	0.014	7.5	18	0.3	
TX-O16S PRI		Madigan Source	0.48	F-O12GS		Other	VCB	32	11.403	8.518	0.014	0	0.014	7.4	18	0.3	
Bus: UPS INPUT																	
UPS INPUT PANEL	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	8.997	3.880	0	0	2	102.1	18	19.2	
UPS INPUT PANEL		Arm v Source	0.208	[Manual Time]		Other	VCB	32	8.891	3.831	0	0	2	101.2	18	18.9	
UPS INPUT PANEL		Base Case	0.208	[Manual Time]		Other	VCB	32	8.891	3.831	0	0	2	101.2	18	18.9	
UPS INPUT PANEL		Emergency	0.208	[Manual Time]		Other	VCB	32	8.496	3.648	0	0	2	98.1	18	18	
UPS INPUT PANEL		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.977	3.871	0	0	2	101.9	18	19.2	
UPS INPUT PANEL		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.825	3.801	0	0	2	100.7	18	18.8	
Bus: UPS MOD 1																	
UPS MOD 1	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	8.844	3.809	0	0	2	100.8	18	18.8	
UPS MOD 1		Arm v Source	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 1		Base Case	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 1		Emergency	0.208	[Manual Time]		Other	VCB	32	8.354	3.583	0	0	2	96.9	18	17.7	
UPS MOD 1		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 1		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	0	0	2	99.5	18	18.4	
Bus: UPS MOD 2																	
UPS MOD 2	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	8.844	3.809	0	0	2	100.8	18	18.8	
UPS MOD 2		Arm v Source	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 2		Base Case	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 2		Emergency	0.208	[Manual Time]		Other	VCB	32	8.354	3.583	0	0	2	96.9	18	17.7	
UPS MOD 2		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 2		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	0	0	2	99.5	18	18.4	
Bus: UPS MOD 3																	
UPS MOD 3	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	8.844	3.809	0	0	2	100.8	18	18.8	
UPS MOD 3		Arm v Source	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 3		Base Case	0.208	[Manual Time]		Other	VCB	32	8.741	3.762	0	0	2	100	18	18.6	
UPS MOD 3		Emergency	0.208	[Manual Time]		Other	VCB	32	8.354	3.583	0	0	2	96.9	18	17.7	
UPS MOD 3		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.825	3.800	0	0	2	100.7	18	18.8	
UPS MOD 3		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.678	3.732	0	0	2	99.5	18	18.4	
Bus: UPS OUT																	
UPS OUT		Arm v parallel	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
UPS OUT		Arm v Source	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT	X	Base Case	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
UPS OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.996	0.758	0	0	2	35.1	18	3.5	
Bus: UPS OUT PUT																	
UPS OUT PUT PANEL	X	Arm v parallel	0.208	[Manual Time]		Other	VCB	32	8.808	3.793	0	0	2	100.5	18	18.7	
UPS OUT PUT PANEL		Arm v Source	0.208	[Manual Time]		Other	VCB	32	8.707	3.746	0	0	2	99.7	18	18.5	
UPS OUT PUT PANEL		Base Case	0.208	[Manual Time]		Other	VCB	32	8.707	3.746	0	0	2	99.7	18	18.5	
UPS OUT PUT PANEL		Emergency	0.208	[Manual Time]		Other	VCB	32	8.323	3.569	0	0	2	96.7	18	17.6	
UPS OUT PUT PANEL		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	8.789	3.784	0	0	2	100.4	18	18.7	
UPS OUT PUT PANEL		Madigan Source	0.208	[Manual Time]		Other	VCB	32	8.644	3.717	0	0	2	99.2	18	18.4	
Bus: UPS-MOD 1 OUT																	
UPS-MOD 1 OUT		Arm v parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Arm v Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT	X	Base Case	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 1 OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
Bus: UPS-MOD 3 OUT																	
UPS-MOD 3 OUT		Arm v parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Arm v Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT	X	Base Case	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD 3 OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
Bus: UPS-MOD2 OUT																	
UPS-MOD2 OUT		Arm v parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Arm v Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT	X	Base Case	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Emergency	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Madigan parallel	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
UPS-MOD2 OUT		Madigan Source	0.208	[Manual Time]		Other	VCB	32	1.994	0.757	0	0	2	35.1	18	3.5	
MCC: MCC O2C4																	
MCC O2C4		Arm v parallel	0.48	MCC O2C4		MCC	VCB	25	12.551	9.655	0.013	0	0.013	7.3	18	0.3	
MCC O2C4		Arm v Source	0.48	MCC O2C4		MCC	VCB	25	12.235	9.407	0.013	0	0.013	7.2	18	0.3	
MCC O2C4		Base Case	0.48	MCC O2C4		MCC	VCB	25	12.025	9.242	0.013	0	0.013	7.1	18	0.3	
MCC O2C4	X	Emergency	0.48	MCC O2C4		MCC	VCB	25	12.574	9.673	0.013	0	0.013	7.3	18	0.3	
MCC O2C4		Madigan parallel	0.48	MCC O2C4		MCC	VCB	25	12.517	9.629	0.013	0	0.013	7.3	18	0.3	
MCC O2C4		Madigan Source	0.48	MCC O2C4		MCC	VCB	25	12.104	9.304	0.013	0	0.013	7.2	18	0.3	
MCC: MCC O2C5																	
MCC O2C5	X	Arm v parallel	0.48	MCC O2C5		MCC	VCB	25	8.990	6.842	0.073	0	0.073	17.7	18	1.2	
MCC O2C5		Arm v Source	0.48	MCC O2C5		MCC	VCB	25	8.746	6.649	0.073	0	0.073	17.4	18	1.1	
MCC O2C5		Base Case	0.48	MCC O2C5		MCC	VCB	25	8.608	6.540	0.073	0	0.073	17.2	18	1.1	
MCC O2C5		Emergency	0.48	MCC O2C5		MCC	VCB	25	8.076	6.118	0.073	0	0.073	16.8	18	1.1	
MCC O2C5		Madigan parallel	0.48	MCC O2C5		MCC	VCB	25	8.966	6.823	0.073	0	0.073	17.6	18	1.2	
MCC O2C5		Madigan Source	0.48	MCC O2C5		MCC	VCB	25	8.637	6.563	0.073	0	0.073	17.2	18	1.1	
Panel: C2GM2																	
C2GM2	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	1.223	0.466	0	0	2	18.6	18	1.3	
C2GM2		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	1.221	0.465	0	0	2	18.6	18	1.3	
C2GM2		Base Case	0.208	[Manual Time]		Panel	VCB	25	1.221	0.465	0	0	2	18.6	18	1.3	
C2GM2		Emergency	0.208	[Manual Time]		Panel	VCB	25	1.131	0.428	0	0	2	17.6	18	1.2	
C2GM2		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	1.222	0.466	0	0	2	18.6	18	1.3	
C2GM2		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	1.220	0.465	0	0	2	18.6	18	1.3	
Panel: C2GN																	
C2GN	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.3	18	0.6	
C2GN		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.705	0.258	0	0	2	12.6	18	0.7	
C2GN		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.705	0.257	0	0	2	12.6	18	0.7	
Panel: C2GO																	
C2GO	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.678	0.247	0	0	2	12.3	18	0.7	
C2GO		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.677	0.247	0	0	2	12.3	18	0.7	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
C2GO		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.677	0.247	0	0	2	12.3	18	0.7	
C2GO		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.650	0.236	0	0	2	11.9	18	0.6	
C2GO		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.678	0.247	0	0	2	12.3	18	0.7	
C2GO		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.677	0.247	0	0	2	12.3	18	0.7	
Panel: C21J																	
C21J	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.752	0.276	0	0	2	13.2	18	0.7	
C21J		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.751	0.276	0	0	2	13.2	18	0.7	
C21J		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.751	0.276	0	0	2	13.2	18	0.7	
C21J		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.719	0.263	0	0	2	12.8	18	0.7	
C21J		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.752	0.276	0	0	2	13.2	18	0.7	
C21J		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.751	0.276	0	0	2	13.2	18	0.7	
Panel: C21K																	
C21K	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.624	0.226	0	0	2	11.6	18	0.6	
C21K		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.623	0.226	0	0	2	11.6	18	0.6	
C21K		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.623	0.226	0	0	2	11.6	18	0.6	
C21K		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.599	0.217	0	0	2	11.3	18	0.6	
C21K		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.624	0.226	0	0	2	11.6	18	0.6	
C21K		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.623	0.226	0	0	2	11.6	18	0.6	
Panel: C22K																	
C22K	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.7	
C22K		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.6	
C22K		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.6	
C22K		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.649	0.236	0	0	2	11.9	18	0.6	
C22K		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.676	0.246	0	0	2	12.3	18	0.6	
C22K		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.3	18	0.6	
Panel: C22M																	
C22M	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.2	18	0.6	
C22M		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.1	18	0.6	
C22M		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.1	18	0.6	
C22M		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.640	0.232	0	0	2	11.8	18	0.6	
C22M		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.2	18	0.6	
C22M		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.667	0.243	0	0	2	12.1	18	0.6	
Panel: C22N																	
C22N	X	Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.8	18	0.6	
C22N		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
C22N		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
C22N		Emergency	0.208	[Manual Time]		Panel	VCB	25	0.611	0.221	0	0	2	11.4	18	0.6	
C22N		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
C22N		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.636	0.231	0	0	2	11.7	18	0.6	
Panel: E2GM																	
E2GM		Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.659	0.240	0	0	2	12	18	0.6	
E2GM		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
E2GM		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.654	0.238	0	0	2	12	18	0.6	
Panel: E2GN																	
E2GN		Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E2GN		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E2GN		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E2GN	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.637	0.231	0	0	2	11.8	18	0.6	
E2GN		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E2GN		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
Panel: E2GO																	
E2GO		Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.687	0.251	0	0	2	12.4	18	0.7	
E2GO		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.686	0.250	0	0	2	12.4	18	0.7	
E2GO		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.686	0.250	0	0	2	12.4	18	0.7	
E2GO	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.692	0.253	0	0	2	12.5	18	0.7	
E2GO		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	0.687	0.251	0	0	2	12.4	18	0.7	
E2GO		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	0.686	0.250	0	0	2	12.4	18	0.7	
Panel: E21J																	
E21J		Arm v parallel	0.208	[Manual Time]		Panel	VCB	25	0.679	0.248	0	0	2	12.3	18	0.7	
E21J		Arm v Source	0.208	[Manual Time]		Panel	VCB	25	0.679	0.247	0	0	2	12.3	18	0.7	
E21J		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.679	0.247	0	0	2	12.3	18	0.7	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
E21J	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.684	0.249	0	0	2	12.4	18	0.7	
E21J		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	0.679	0.248	0	0	2	12.3	18	0.7	
E21J		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	0.679	0.247	0	0	2	12.3	18	0.7	
Panel: E21K																	
E21K		Arm's parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E21K		Arm's Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E21K		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E21K	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.637	0.231	0	0	2	11.8	18	0.6	
E21K		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E21K		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
Panel: E22K																	
E22K		Arm's parallel	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.2	18	0.6	
E22K		Arm's Source	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
E22K		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
E22K	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.680	0.248	0	0	2	12.3	18	0.7	
E22K		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.2	18	0.6	
E22K		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
Panel: E22M																	
E22M		Arm's parallel	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.2	18	0.6	
E22M		Arm's Source	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
E22M		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
E22M	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.680	0.248	0	0	2	12.3	18	0.7	
E22M		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	0.675	0.246	0	0	2	12.2	18	0.6	
E22M		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	0.674	0.246	0	0	2	12.2	18	0.6	
Panel: E22N																	
E22N		Arm's parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E22N		Arm's Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E22N		Base Case	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
E22N	X	Emergency	0.208	[Manual Time]		Panel	VCB	25	0.637	0.231	0	0	2	11.8	18	0.6	
E22N		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	0.633	0.230	0	0	2	11.7	18	0.6	
E22N		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	0.633	0.229	0	0	2	11.7	18	0.6	
Panel: L2GM1																	
L2GM1	X	Arm's parallel	0.208	L4GM		Panel	VCB	25	3.036	1.248	0.1	0	0.1	5.5	18	0.2	
L2GM1		Arm's Source	0.208	L4GM		Panel	VCB	25	3.023	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM1		Base Case	0.208	L4GM		Panel	VCB	25	3.022	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM1		Emergency	0.208	L4GM		Panel	VCB	25	3.022	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM1		Madisoan parallel	0.208	L4GM		Panel	VCB	25	3.034	1.247	0.1	0	0.1	5.5	18	0.2	
L2GM1		Madisoan Source	0.208	L4GM		Panel	VCB	25	3.018	1.240	0.1	0	0.1	5.4	18	0.2	
Panel: L2GM2																	
L2GM2	X	Arm's parallel	0.208	L4GM		Panel	VCB	25	3.036	1.248	0.1	0	0.1	5.5	18	0.2	
L2GM2		Arm's Source	0.208	L4GM		Panel	VCB	25	3.023	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM2		Base Case	0.208	L4GM		Panel	VCB	25	3.022	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM2		Emergency	0.208	L4GM		Panel	VCB	25	3.022	1.242	0.1	0	0.1	5.4	18	0.2	
L2GM2		Madisoan parallel	0.208	L4GM		Panel	VCB	25	3.034	1.247	0.1	0	0.1	5.5	18	0.2	
L2GM2		Madisoan Source	0.208	L4GM		Panel	VCB	25	3.018	1.240	0.1	0	0.1	5.4	18	0.2	
Panel: L2GN1																	
L2GN1	X	Arm's parallel	0.208	L4GN		Panel	VCB	25	2.968	1.218	0.1	0	0.1	5.4	18	0.2	
L2GN1		Arm's Source	0.208	L4GN		Panel	VCB	25	2.957	1.213	0.1	0	0.1	5.4	18	0.2	
L2GN1		Base Case	0.208	L4GN		Panel	VCB	25	2.956	1.212	0.1	0	0.1	5.4	18	0.2	
L2GN1		Emergency	0.208	L4GN		Panel	VCB	25	2.956	1.212	0.1	0	0.1	5.4	18	0.2	
L2GN1		Madisoan parallel	0.208	L4GN		Panel	VCB	25	2.967	1.217	0.1	0	0.1	5.4	18	0.2	
L2GN1		Madisoan Source	0.208	L4GN		Panel	VCB	25	2.952	1.210	0.1	0	0.1	5.3	18	0.2	
Panel: L2GO																	
L2GO	X	Arm's parallel	0.208	[Manual Time]		Panel	VCB	25	2.395	0.831	0	0	2	27.5	18	2.4	
L2GO		Arm's Source	0.208	[Manual Time]		Panel	VCB	25	2.388	0.828	0	0	2	27.4	18	2.3	
L2GO		Base Case	0.208	[Manual Time]		Panel	VCB	25	2.388	0.828	0	0	2	27.4	18	2.3	
L2GO		Emergency	0.208	[Manual Time]		Panel	VCB	25	2.388	0.828	0	0	2	27.4	18	2.3	
L2GO		Madisoan parallel	0.208	[Manual Time]		Panel	VCB	25	2.394	0.830	0	0	2	27.5	18	2.4	
L2GO		Madisoan Source	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
Panel: L21K1																	
L21K1		Arm's parallel	0.208	L21K1		Panel	VCB	25	2.644	0.925	1.351	0	1.351	23.1	18	1.8	
L21K1		Arm's Source	0.208	L21K1		Panel	VCB	25	2.636	0.922	1.358	0	1.358	23.1	18	1.8	
L21K1		Base Case	0.208	L21K1		Panel	VCB	25	2.631	0.920	1.363	0	1.363	23.1	18	1.8	
L21K1		Emergency	0.208	L21K1		Panel	VCB	25	2.631	0.920	1.363	0	1.363	23.1	18	1.8	

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Arc Fault Bus Name	Worst Case	Scenario	Arc Fault Bus kV	Upstream Trip Device Name	Upstream Trip Device Function	Equip Type	Electrode Configuration	Electrode Gap (mm)	Bus Bolted Fault (kA)	Bus Arc Fault (kA)	Trip Time (sec)	Opening Time (sec)	Arc Time (sec)	Est Arc Flash Boundary (inches)	Working Distance (inches)	Incident Energy (cal/cm2)	Comments
L21K1		Madigan parallel	0.208	L21K1		Panel	VCB	25	2.643	0.924	1.352	0	1.352	23.1	18	1.8	
L21K1	X	Madigan Source	0.208	L21K1		Panel	VCB	25	2.631	0.920	1.363	0	1.363	23.1	18	1.8	
Panel: L22K																	
L22K	X	Armvy parallel	0.208	L42K		Panel	VCB	25	2.350	0.944	0.1	0	0.1	4.5	18	0.1	
L22K		Armvy Source	0.208	L42K		Panel	VCB	25	2.342	0.941	0.1	0	0.1	4.5	18	0.1	
L22K		Base Case	0.208	L42K		Panel	VCB	25	2.338	0.940	0.1	0	0.1	4.5	18	0.1	
L22K		Emergency	0.208	L42K		Panel	VCB	25	2.335	0.938	0.1	0	0.1	4.5	18	0.1	
L22K		Madigan parallel	0.208	L42K		Panel	VCB	25	2.349	0.944	0.1	0	0.1	4.5	18	0.1	
L22K		Madigan Source	0.208	L42K		Panel	VCB	25	2.339	0.940	0.1	0	0.1	4.5	18	0.1	
Panel: L22M																	
L22M	X	Armvy parallel	0.208	[Manual Time]		Panel	VCB	25	1.385	0.533	0	0	2	20.3	18	1.5	
L22M		Armvy Source	0.208	[Manual Time]		Panel	VCB	25	1.382	0.532	0	0	2	20.3	18	1.5	
L22M		Base Case	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
L22M		Emergency	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
L22M		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	1.384	0.532	0	0	2	20.3	18	1.5	
L22M		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	1.381	0.531	0	0	2	20.3	18	1.5	
Panel: L22N																	
L22N	X	Armvy parallel	0.208	[Manual Time]		Panel	VCB	25	1.332	0.511	0	0	2	19.8	18	1.4	
L22N		Armvy Source	0.208	[Manual Time]		Panel	VCB	25	1.330	0.510	0	0	2	19.8	18	1.4	
L22N		Base Case	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.8	18	1.4	
L22N		Emergency	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.7	18	1.4	
L22N		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	1.332	0.511	0	0	2	19.8	18	1.4	
L22N		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	1.329	0.510	0	0	2	19.8	18	1.4	
Panel: PNL-L21J																	
PNL-L21J	X	Armvy parallel	0.208	[Manual Time]		Panel	VCB	25	2.391	0.829	0	0	2	27.4	18	2.4	
PNL-L21J		Armvy Source	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Base Case	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Emergency	0.208	[Manual Time]		Panel	VCB	25	2.384	0.827	0	0	2	27.4	18	2.3	
PNL-L21J		Madigan parallel	0.208	[Manual Time]		Panel	VCB	25	2.390	0.829	0	0	2	27.4	18	2.4	
PNL-L21J		Madigan Source	0.208	[Manual Time]		Panel	VCB	25	2.380	0.825	0	0	2	27.3	18	2.3	