

Surge Protection Analysis Report

Method of Surge Computation: IEC 61643-1:1998 and IEEE C62.41, C62.41.1, C62.41.2

Method of SCA Computation: IEEE Std. 141, 242, per Unit

Lightning Strike Location: Receptacle Load #3

Lightning Strike Voltage: 300kV

Prepared By: Dan Laws

Company: Dolphins Software

File Name: Auto Body Shop.elc

Saturday, Apr. 11, 2009

Item Description	Voltage	Phase	Hz	OCPD	SCA	Inherent BIL (kV)	SPD BIL (kV)	Surge Voltage (kV)	Surge Current (kA)
MDP	480	3	60	1000A	63,095	--	--	87.91	0.55
Transformer #3	480	3	60	250A	14,489	10	--	20.00	0.15
Transformer #2	480	3	60	250A	14,487	10	--	26.00	0.12
Transformer #1	480	3	60	45A	5,379	10	--	26.00	0.12
Shop Panel F	208	3	60	100A	2,621	--	--	43.61	0.21
Shop Panel E	208	3	60	175A	5,066	--	--	43.61	0.21
Panel D	480	3	60	200A	29,160	--	--	142.01	0.85
Panel C	480	3	60	175A	26,957	--	--	142.01	0.85
Panel B	480	3	60	175A	27,165	--	--	142.01	0.85
Panel A	480	3	60	200A	17,263	--	--	142.01	0.85
Panel A-1	480	3	60	175A	14,610	--	--	142.01	0.85
Office Panel G	208	3	60	60A	10,910	--	--	400.00	5.00
OfficePanel H **	208	3	60	110A	2,485	--	--	300.00	7.50

** Denotes first item from lightning strike