SINGLE SURGE TEST REPORT

Select™ — SL3™ Series SPD

Part number SL3-200-208-3Y-MDT-MO-F

Single surge test report

Test date: October 28, 2011

The purpose of this test report is to validate the marketed single surge rating for this product. Test results herein validate the specified surge protective device (SPD) meets its single surge nameplate rating.

Validation process:

- Product samples tested by Mersen, a third-party independent laboratory.
- Pre-test: VPR (6 kV/3 kA) clamping values recorded for each mode tested.
- Oscilloscope screen shots of this test contained in this report.
- Calibration shot used by lab to determine the amount of voltage required to achieve desired surge rating.
- Oscilloscope screen shots for the calibration shots contained in this report.
- Post-test: VPR (6 kV/3 kA) clamping values recorded for each mode tested.
- Pre- and post-test VPR clamping values must not deviate by ± 10% for unit to pass.
- Table on page 5 contains the model tested, modes tested, pre-VPR clamping levels, test voltage required for the calibration shot to achieve desired kA value, actual kA value applied during test, post VPR values and the percent difference.

Note: Most SPD manufacturers simply add up the components used in the construction of their SPDs to provide customers and engineers with the surge capacity of the unit. Many competitive SPD products do not withstand a single surge test at their marketed values.

TRANSIENT IMPULSE TEST REPORT

Prepared for

***Thomas and Betts Power Solutions, LLC**

Prepared by: *Craig McKenzie*
Craig McKenzie, Test Labs Supervisor

Reviewed by: *Jim Marshall*
Jim Marshall, Electro-Mechanical Engineer

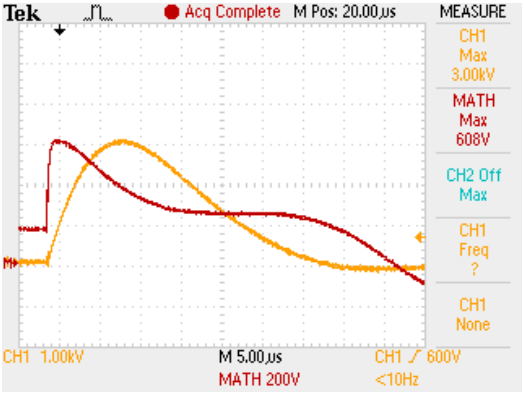
Report Number: 10-28-11

Test Laboratory:	Mersen 374 Merrimac St. Newburyport, MA 01950
Test Location:	Mersen 374 Merrimac St. Newburyport, MA 01950
***Customer:**	T&B Power Solutions, LLC 5900 Eastport Blvd, Richmond VA 23231
Date of Sample Receipt:	October 28, 2011
Date of Test:	Octoberr 30, 2011
Test Conditions:	22ºC 45% Humidity
Description of Test Sample(s):	SL3-200-208-3Y-MDT-M0-F
***Manufacturer:**	Current Technology, Inc 5900 Eastport BLVD Richmond, VA 23231
Test Methods:	IEEE C62.41-1991 Test Procedure: 8x20uS waveform, 6kV/3kA Pre-Measured Limiting Voltage and Post-Measured Limiting Voltage (MLV), 200kA test strike
Test Personnel	Craig McKenzie Test Labs Supervisor
Customer Representative	Corey Leavitt

Test Results

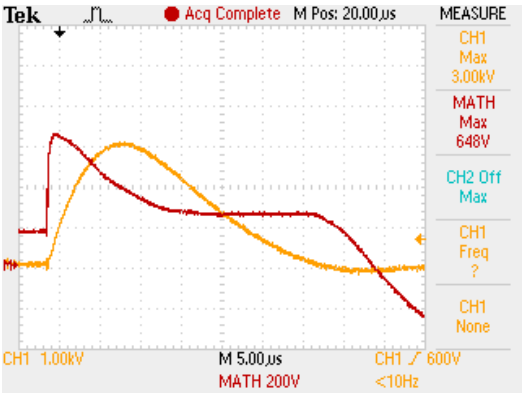
Sample Model Numbers	Sample #	Test	Mode	Pre MLV	Test kA	Test Voltage	Actual kA	Post MLV	% Diff
SL3-100-208-3Y-MDT-M0-F, SL3-200-208-3Y-MDT-M0-F	5	15	B-N	608	200	40kV	168	648	7%
	5	16	C-G	648	200	40kV	170	680	5%

Pre VPR Surge Test #1 B-N



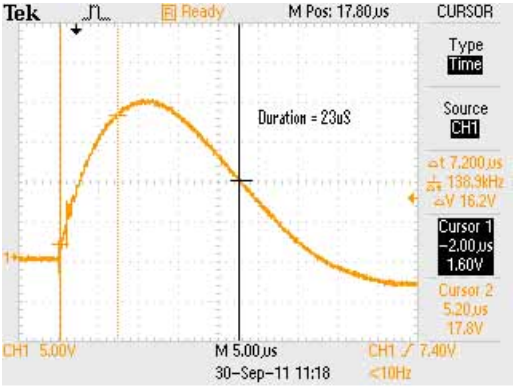
ID 13
COMMENT SL3-200-208-3Y-MDT-M0-F
Sample #5
B-N Pre Measured Limiting Voltage (MLV)
EVENT 6kV/3kA 1.2/50uS - 8/20uS Combination Wave
GRAPHIC FILENAME S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0012.BMP

Pre VPR Surge Test #2 C-G



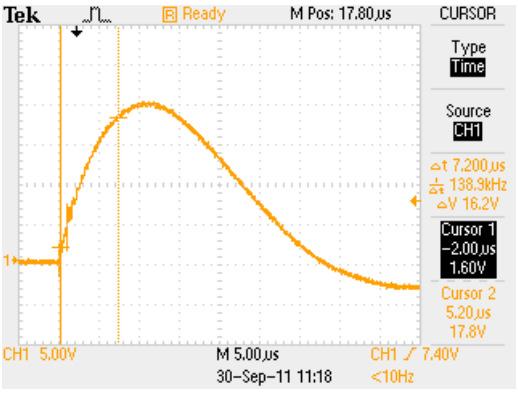
ID 14
COMMENT SL3-200-208-3Y-MDT-M0-F
Sample #5
C-G Pre Measured Limiting Voltage (MLV)
EVENT 6kV/3kA 1.2/50uS - 8/20uS Combination Wave
GRAPHIC FILENAME S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0013.BMP

Single Surge Calibration Shot



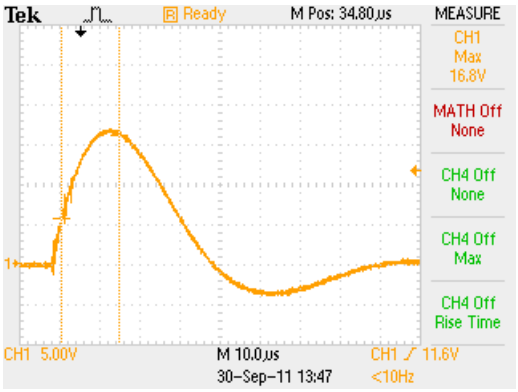
ID	26
COMMENT	40kV/200kA 8/20uS Calibration Rise Time = 9uS Pearson Current Monitor Ratio = 10,000:1
EVENT GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0025.BMP

Single Surge Calibration Shot



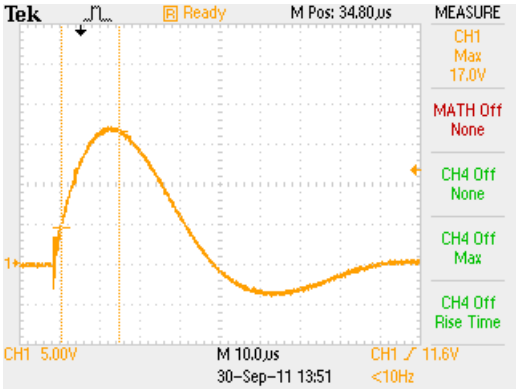
ID	26
COMMENT	40kV/200kA 8/20uS Calibration Duration = 23uS Pearson Current Monitor Ratio = 10,000:1
EVENT GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0025.BMP

Single Surge Test #1



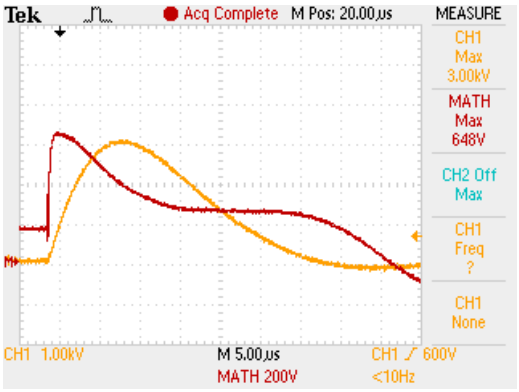
ID	39
COMMENT	SL3-200-208-3Y-MDT-M0-F Sample #5 B-N 40kV/200kA 8/20uS
EVENT GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0038.BMP

Single Surge Test #2



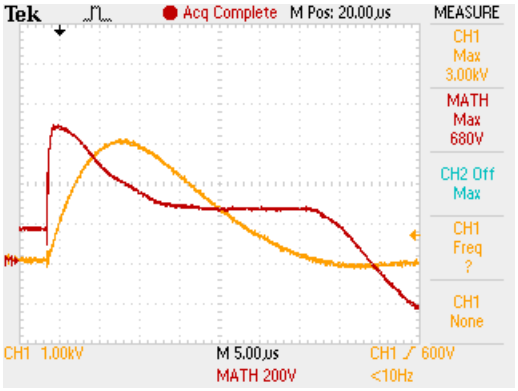
ID	40
COMMENT	SL3-200-208-3Y-MDT-M0-F Sample #5 C-G 40kV/200kA 8/20uS
EVENT GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0039.BMP

Post VPR Surge Test #1 B-N



ID	56
COMMENT	SL3-200-208-3Y-MDT-M0-F Sample #5 B-N Post Measured Limiting Voltage (MLV)
EVENT	
GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0055.BMP

Post VPR Surge Test #2 C-G



ID	57
COMMENT	SL3-200-208-3Y-MDT-M0-F Sample #5 C-G Post Measured Limiting Voltage (MLV)
EVENT	
GRAPHIC FILENAME	S:\nb_eng\cmckenzi\T&B Surge Test October 2011\TEK0056.BMP

Test and Measurement Equipment

Inst. ID No.	Manufacturer/Model/Serial No	Instrument Type	Function/ Range	Last Cal. Date	Next Cal. Date
EC-632	Pearson/1423/86484	Current Monitor	0-200kA	2010-11-30	2011-11-30
EC-698	Tektronix/P6015A/B04 9886	Volt Probe	0-40kA	2011-03-24	2012-03-24
EC-641	Tektronix/P6015A/B04 5787	Volt Probe	0-40kA	2011-03-24	2012-03-24
EC-629	Cole Palmer/99760-00/NA	Temp/Hum		2010-10-22	2011-10-22
EC-640	Tektronix/TDS2024B/ C035952	Oscilloscope	0-120V	2011-03-23	2012-03-23
EC-691	Tektronix/TDS2024B/ C045448	Oscilloscope	0-120V	2010-10-26	2011-10-26
EC-654	Pearson/1423/106996	Current Monitor	0-200kA	2010-10-27	2011-10-27
EC-604	Fluke/23III/76571027	DMM	1000VAC	2010-11-19	2011-11-19

The results relate to the items tested in this report.

Appendix

*Thomas and Betts (T&B) Power Solutions, LLC and Current Technology, Inc were not a part of the ABB Inc. product portfolio at the time of this report. In 2012, ABB Inc. acquired Thomas and Betts (T&B) Power Solutions and the Current Technology brand. Current Technology is now a product line under the ABB brand.

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