RxMS Tech Notes

10/21/2014

Site Certified ®

Customer Information

Report Recipient
Recipient Company
Recipient Address

Site Information

Local Contact
Installation Name
Installation Address

Rx Site #: 23807
Monitor S/N:

Client Site Code:
Site Equipment:
Monitor Location: Wall Power

Comments:

Load Profile report:
Average = 5 minute max over survey duration.
Max = Max single cycle.

L1 Average = 37.0 Arms
L1 Max = 139.8 Arms
L2 Average = 42.3 Arms
L2 Max = 143.2 Arms
L3 Average = 39.0 Arms
L3 Max = 150.0 Arms
N Average = 7.5 Arms
N Max = 23.5 Arms

This power quality survey was conducted by an independent power and environmental consulting firm, Rx Monitoring Services, Inc. (RxMS). The equipment used to perform the survey was provided by RxMS and calibrated prior to shipment and again upon return according to our internal procedures and national standards.

The client is only responsible for the installation of the equipment and has either no or limited access to the data. The data gathered at the site is compared to the original equipment's site specification guideline (supplied at the initial installation) and used to provide the recommendations found in the report. For technical assistance please contact, at no extra charge, Rx Tech Support at 1-603-666-6606. RxMS is not affiliated with any power conditioning manufacturer or distributor but will refer solutions for your convenience if no local source is available.

Rx Monitoring Services, Inc.

22A Eastman Ave.
Bedford, NH. 03110

www.rxms.com
1-888-329-2321

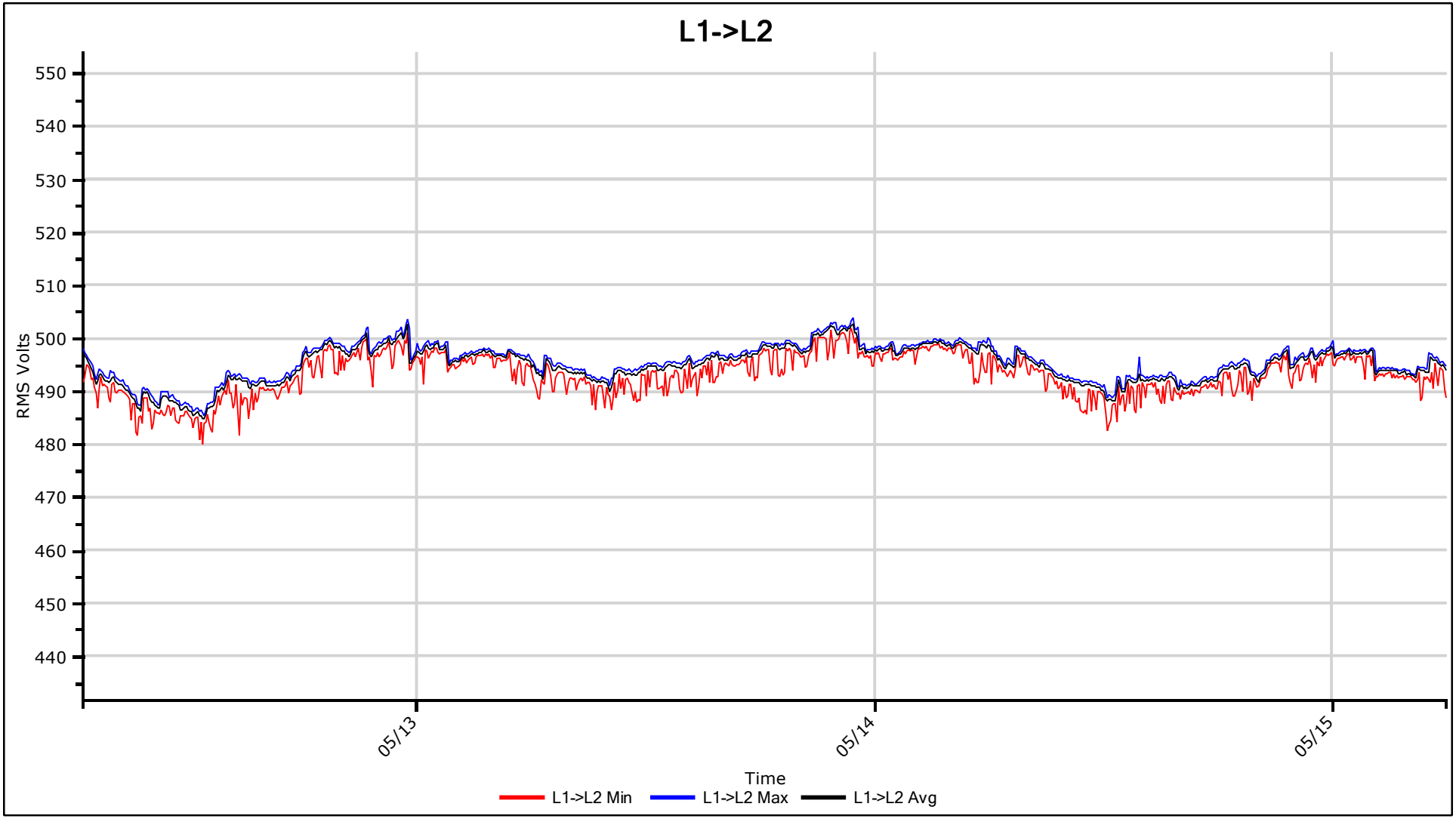
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 485/504
Avg Lo/Hi: 485/503
Min Lo/Hi: 480/502



Comments:

Voltage, Phase - Phase

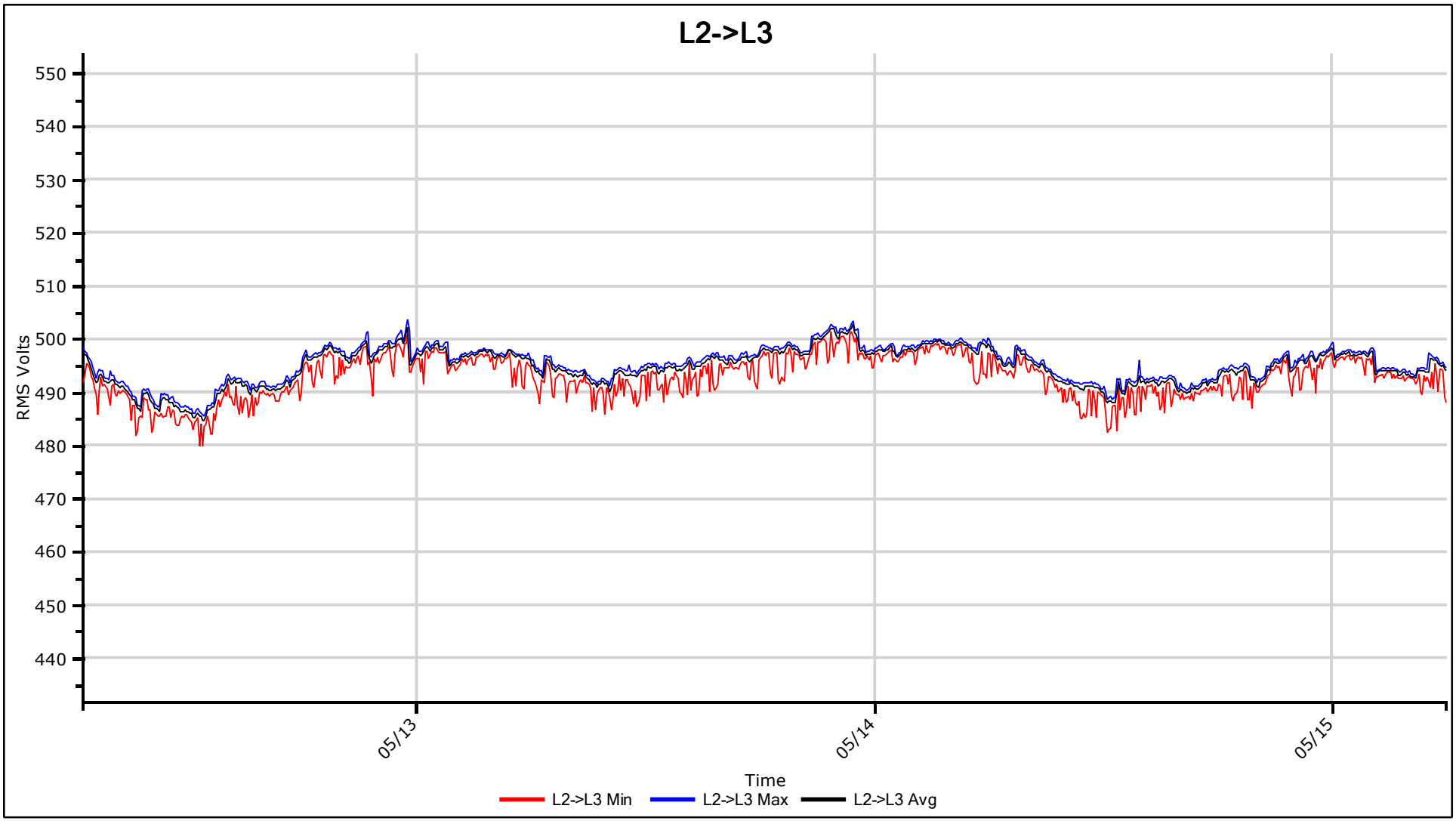
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 486/504
Avg Lo/Hi: 485/503
Min Lo/Hi: 480/502



Comments:

Voltage, Phase - Phase

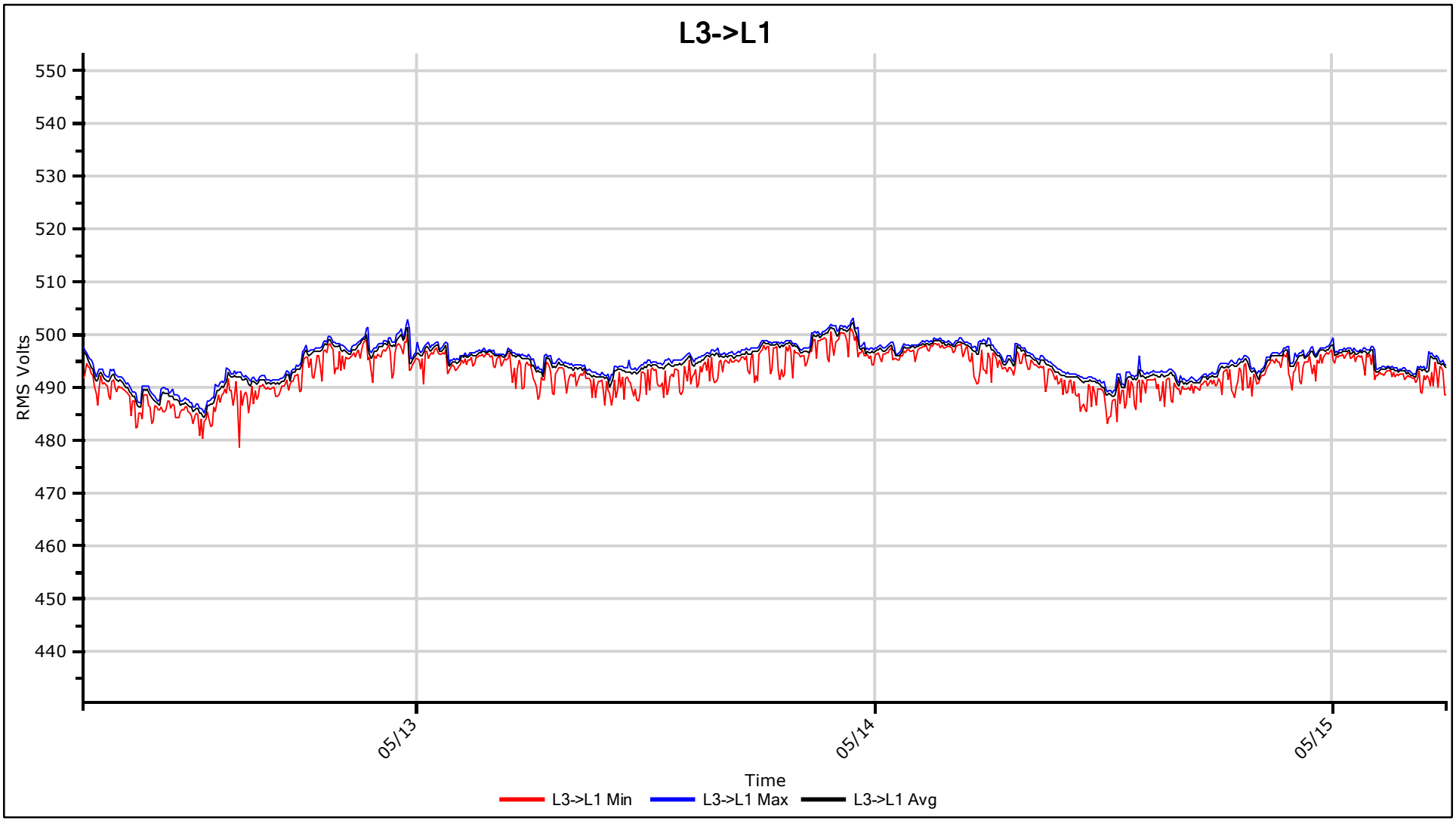
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 485/503
Avg Lo/Hi: 484/502
Min Lo/Hi: 478/501



Comments:

Voltage, Phase - Phase

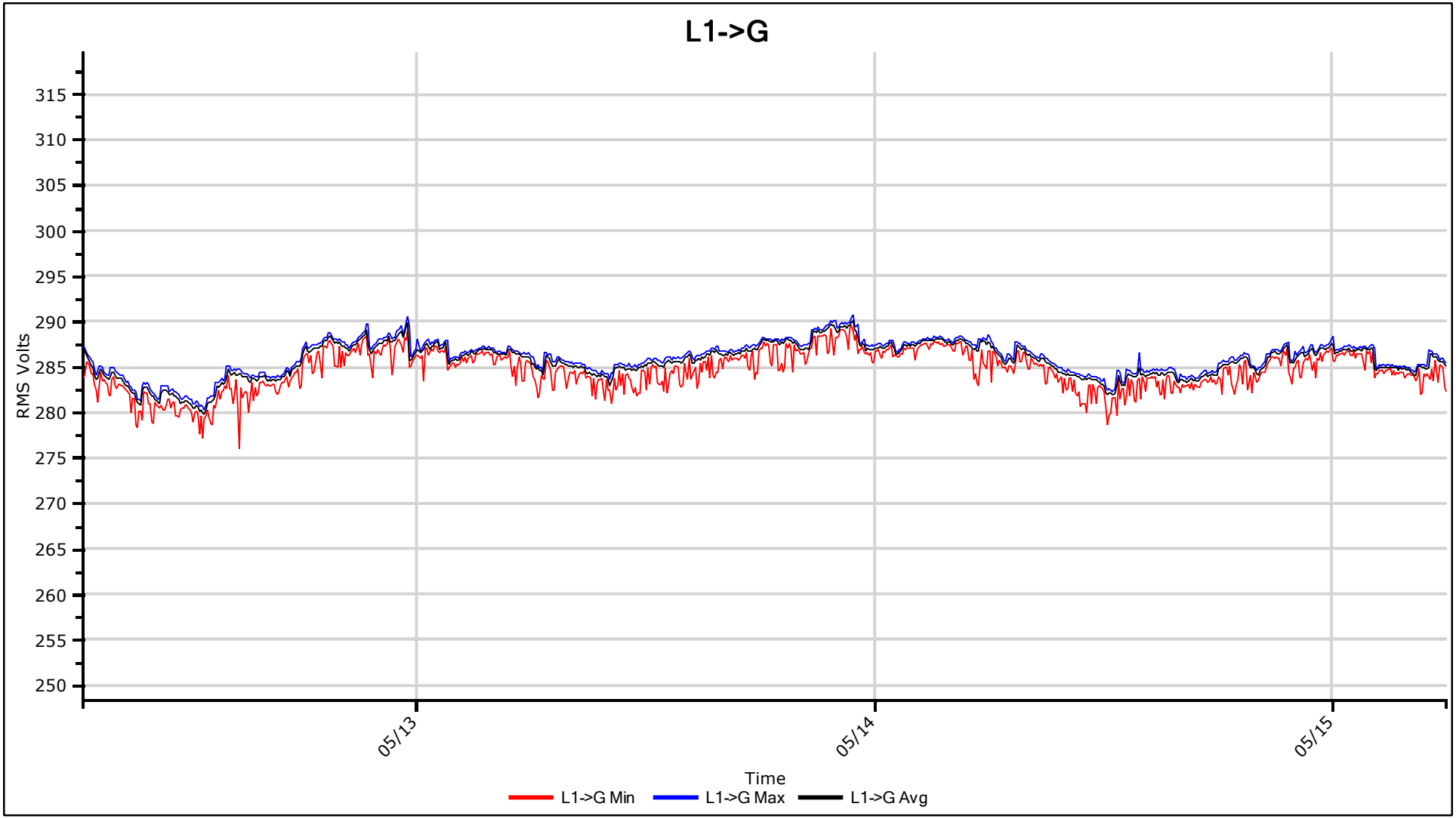
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 280/291
Avg Lo/Hi: 280/290
Min Lo/Hi: 276/290



Comments:

Voltage, Phase - Ground

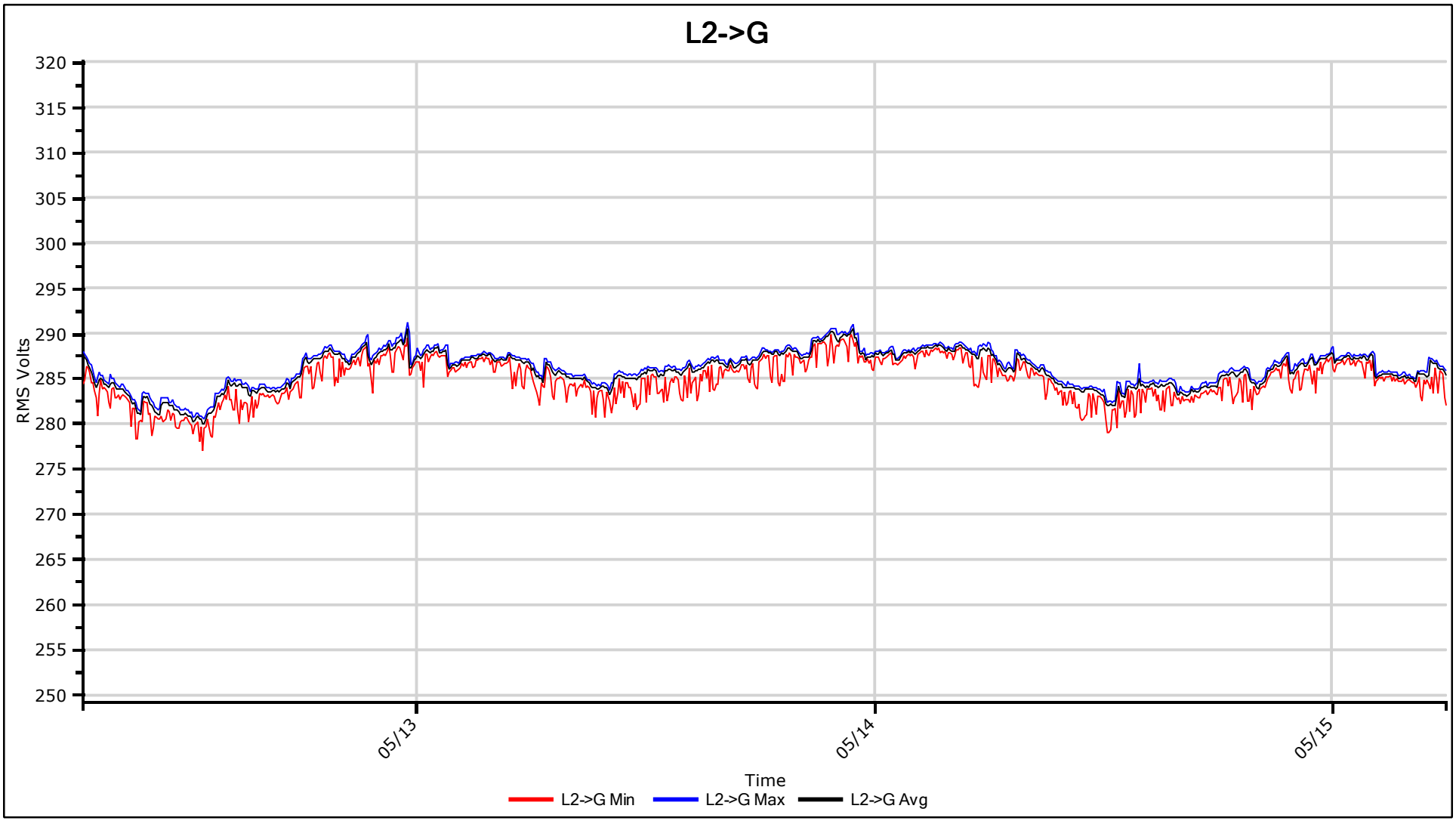
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 280/291
Avg Lo/Hi: 280/291
Min Lo/Hi: 277/290



Comments:

Voltage, Phase - Ground

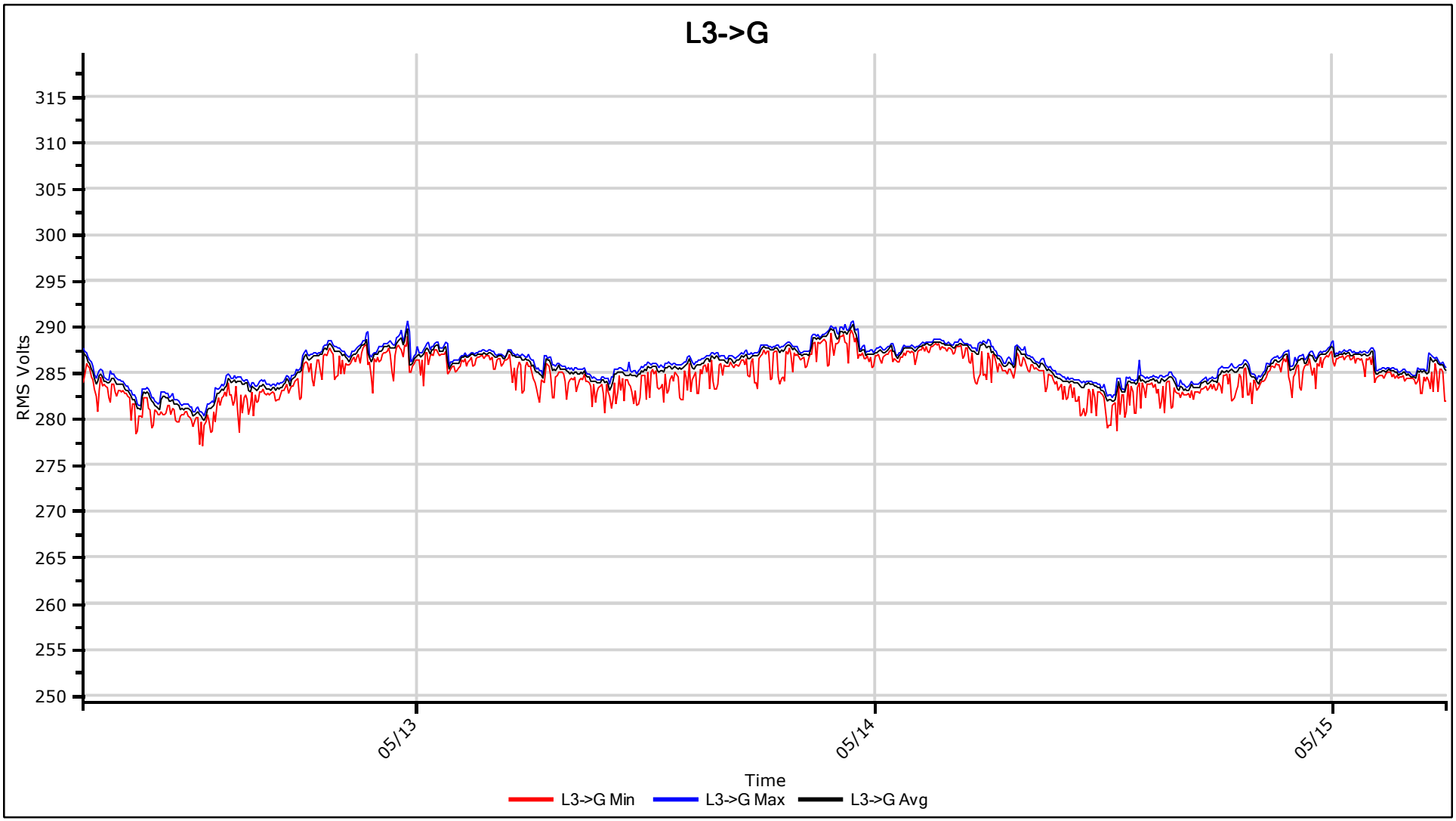
RMS Voltage

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 280/291
Avg Lo/Hi: 280/290
Min Lo/Hi: 277/290



Comments:

Voltage, Phase - Ground

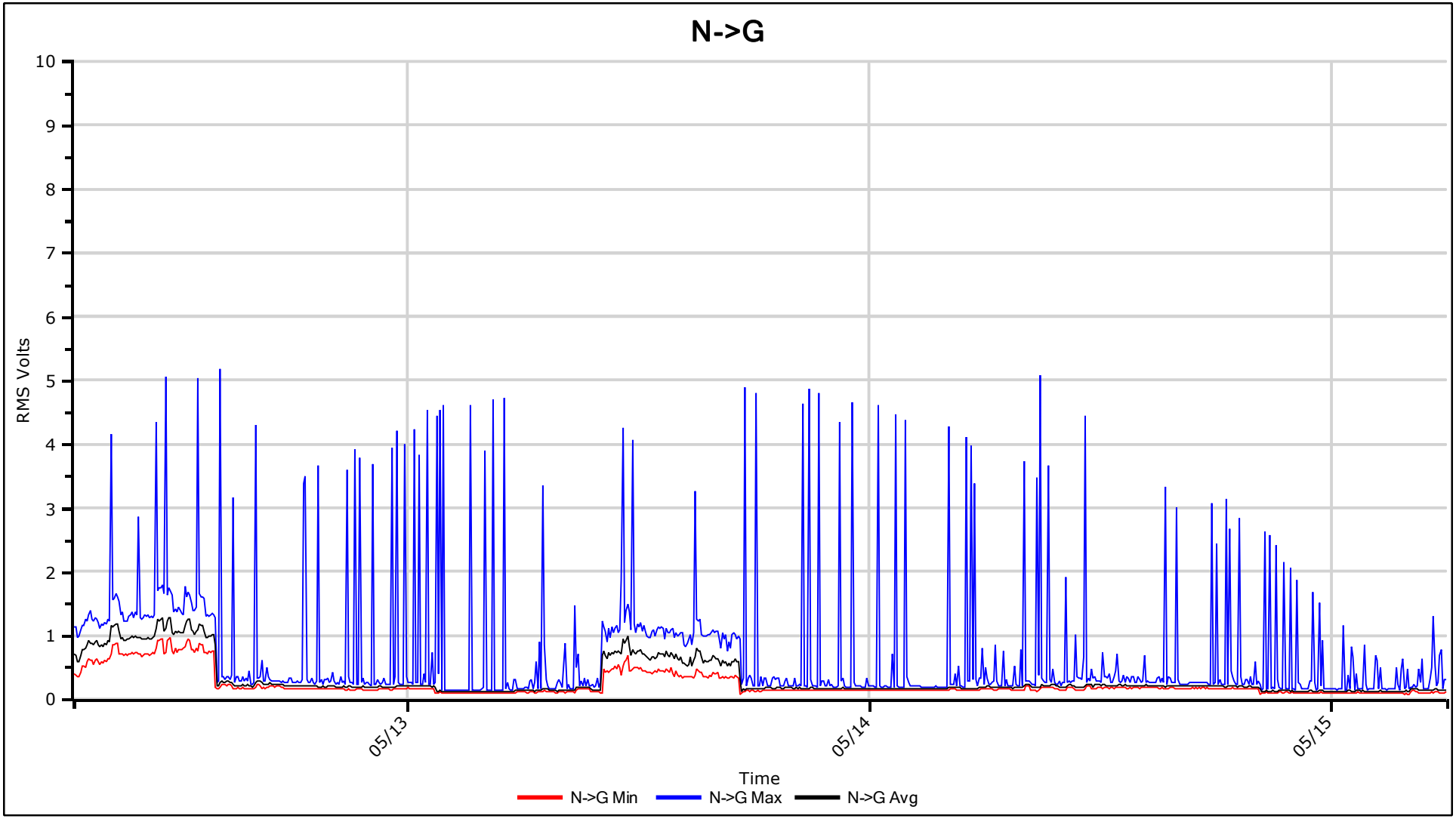
RMS Voltage

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 0.1/5
Avg Lo/Hi: 0.1/1
Min Lo/Hi: 0.1/1.0



Comments:

Voltage, Neutral - Ground

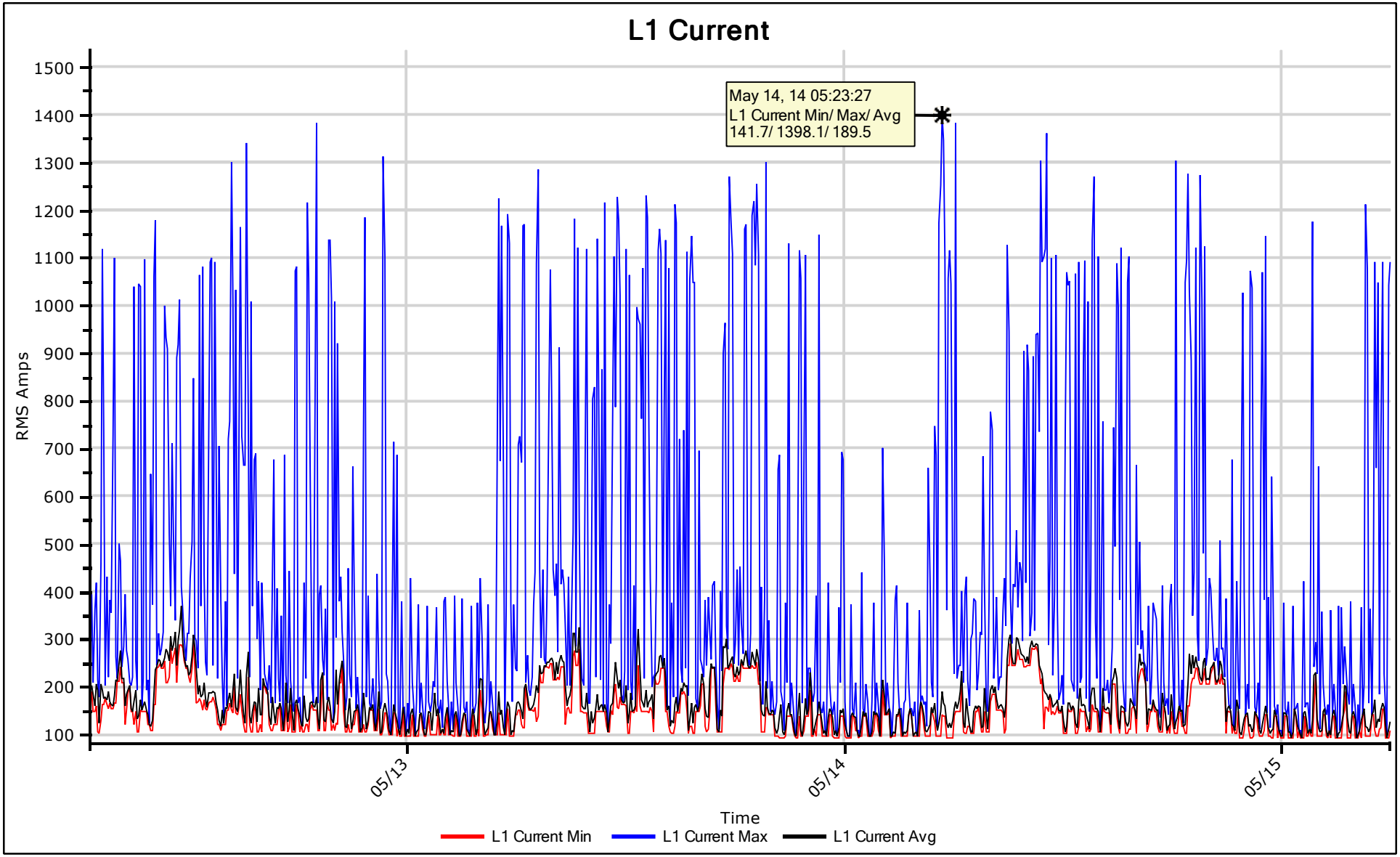
RMS Current

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 94/1398
Avg Lo/Hi: 94/370
Min Lo/Hi: 93/297



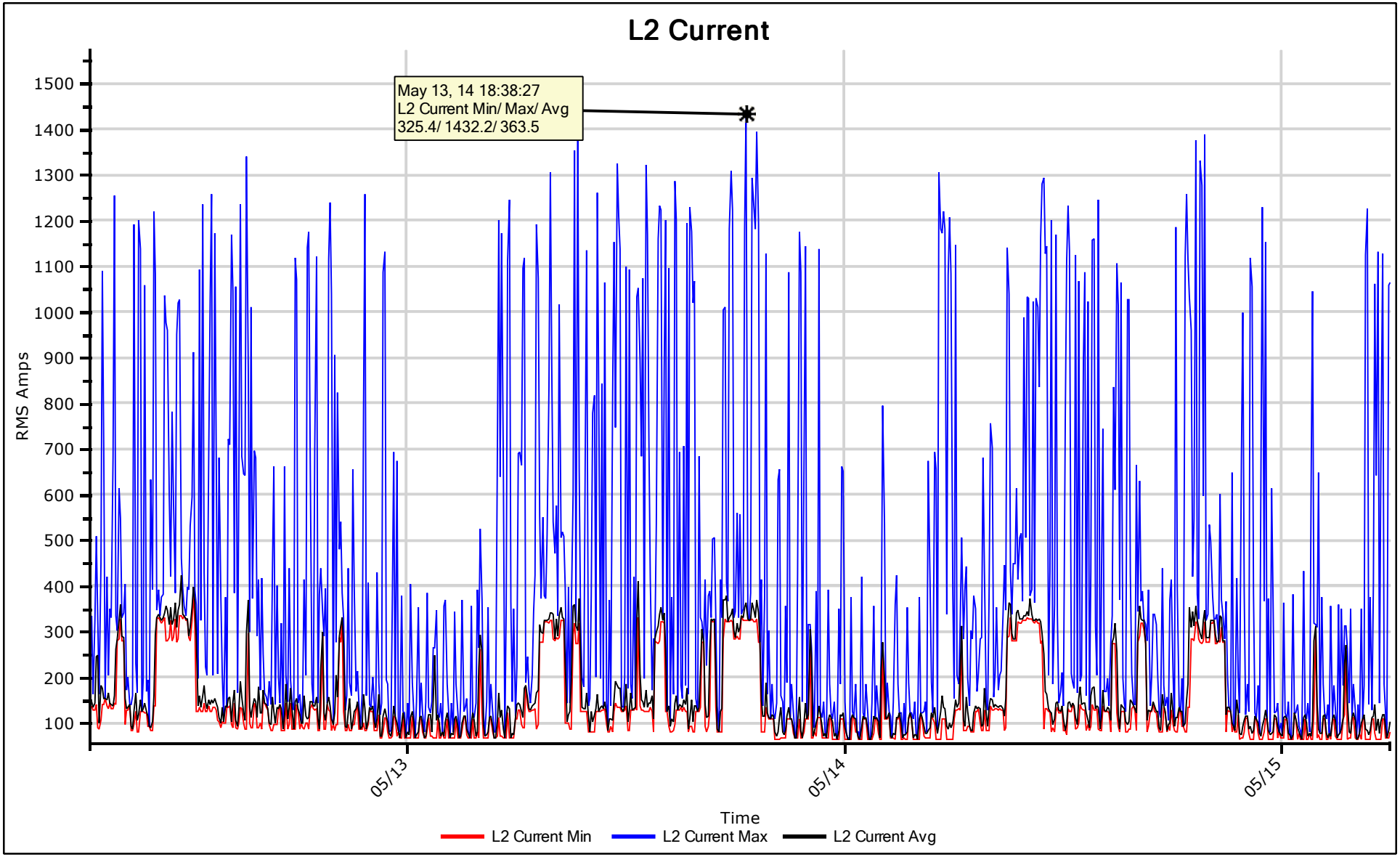
RMS Current

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 66/1432
Avg Lo/Hi: 66/423
Min Lo/Hi: 65/384



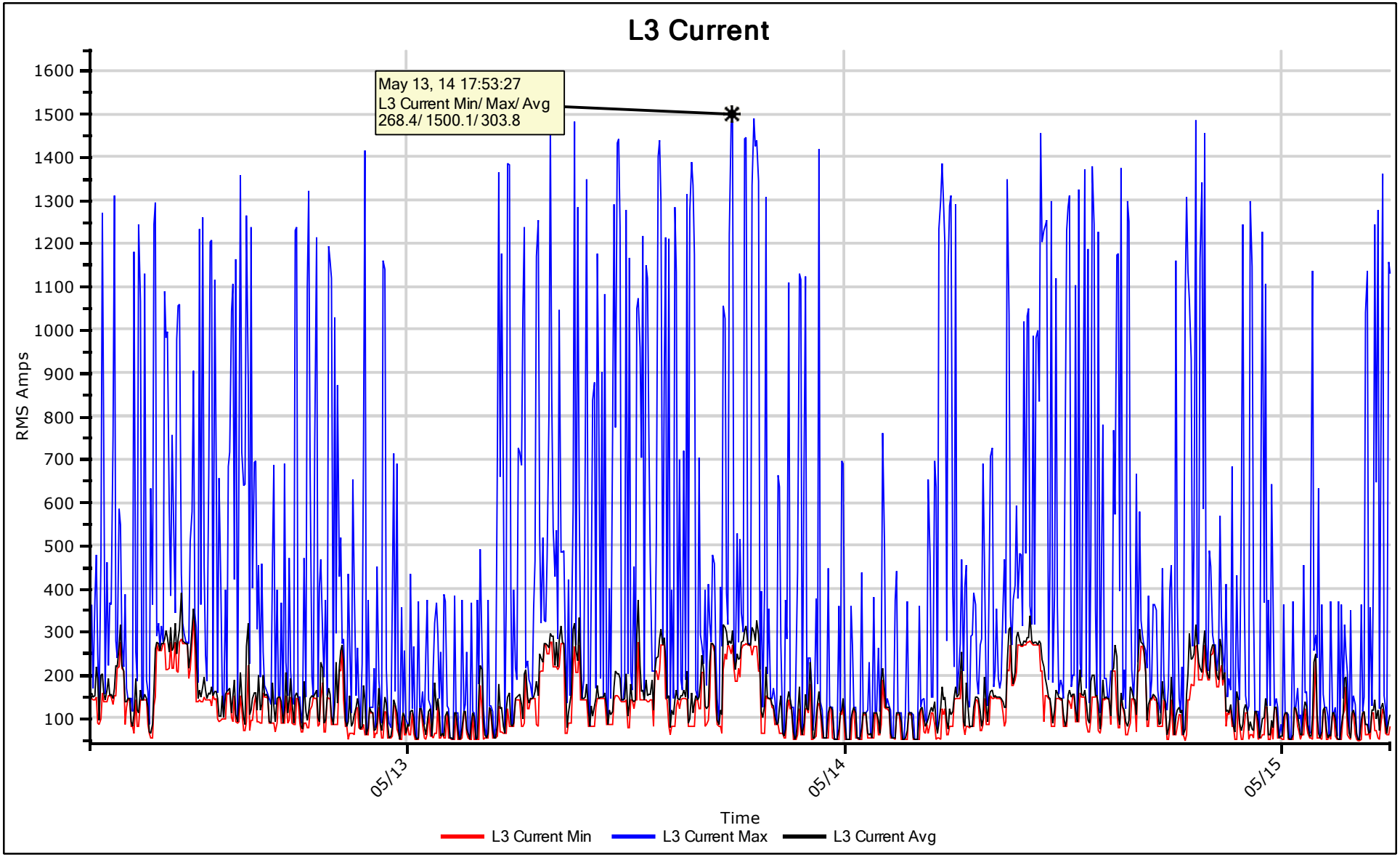
RMS Current

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 50/1500
Avg Lo/Hi: 49/390
Min Lo/Hi: 49/341



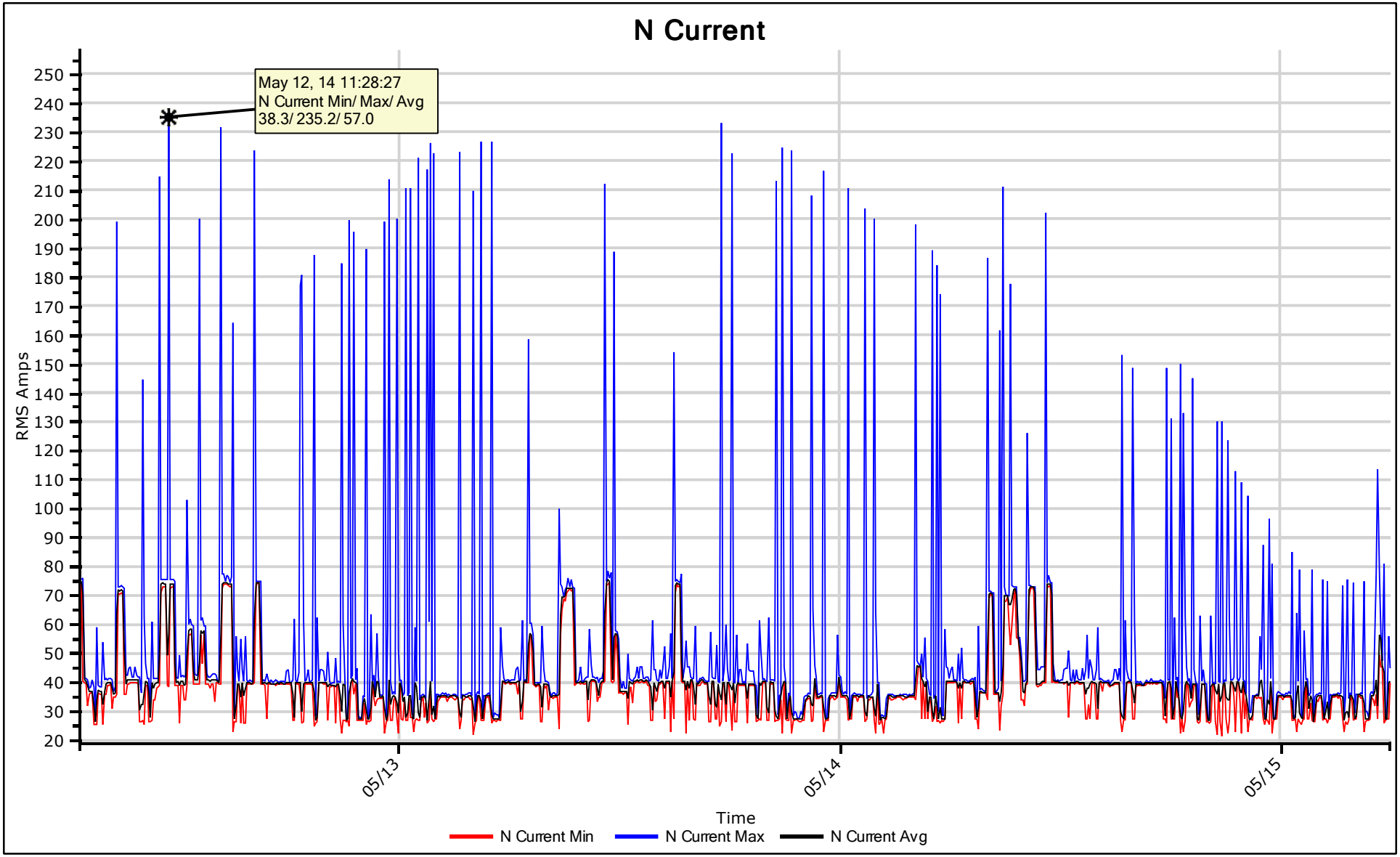
RMS Current

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

Max Lo/Hi: 27/235
Avg Lo/Hi: 26/75
Min Lo/Hi: 21/74



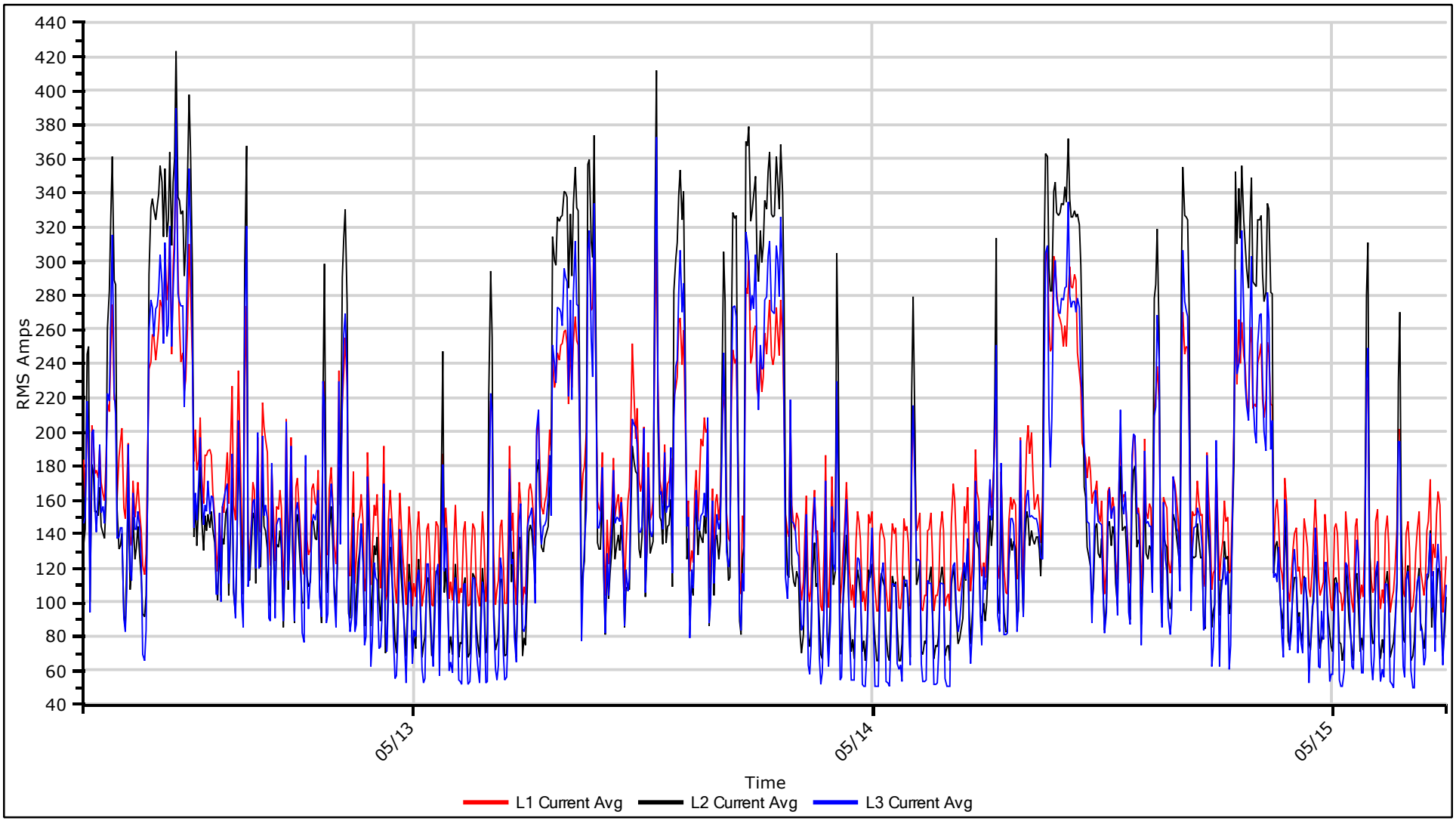
RMS Current

Site: 23807

May 12, 14 06:47 - May 15, 14 05:58

5/20/2014

Avg Lo/Hi: 49/423



Comments:

5 Minute Average.

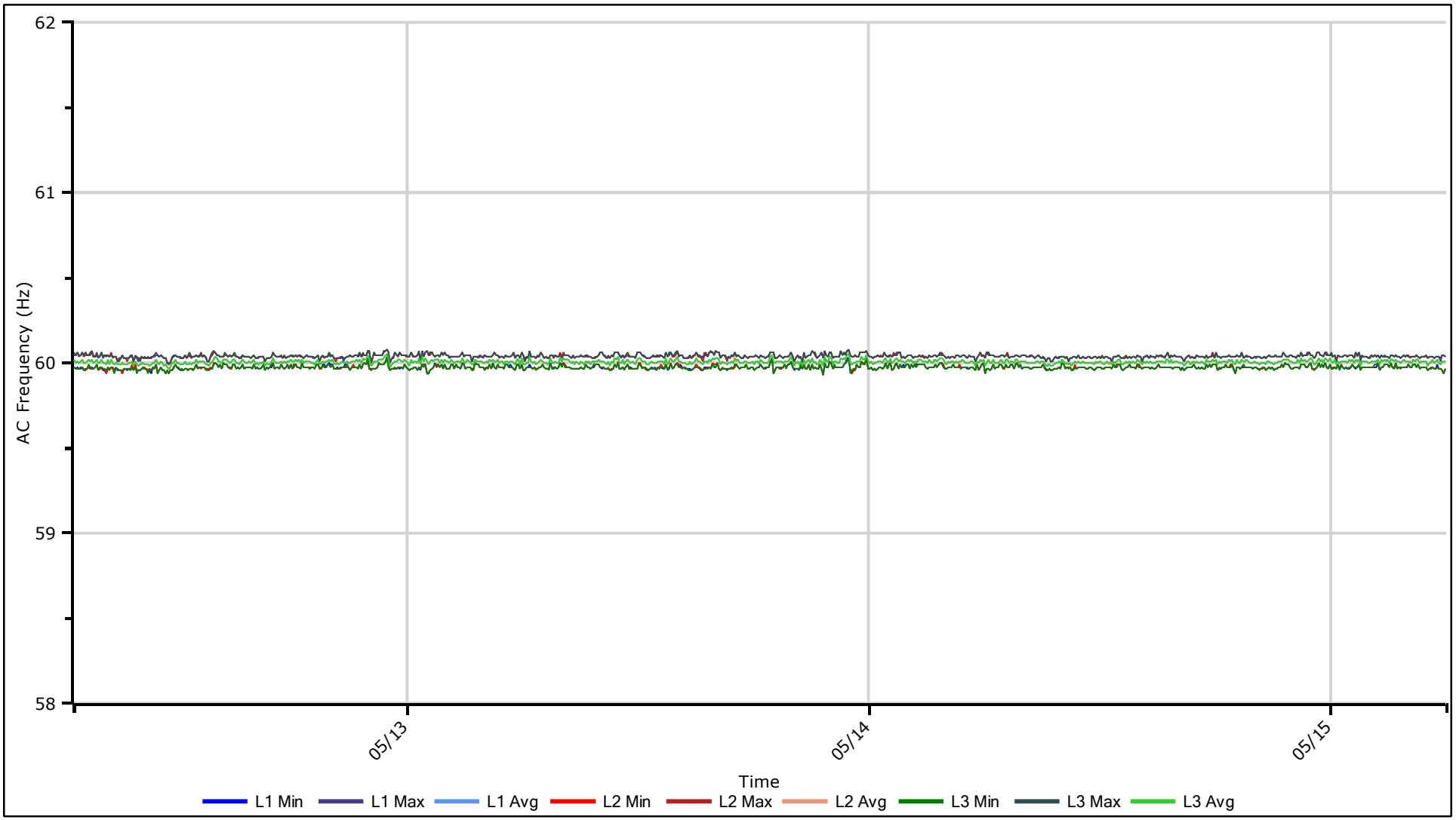
AC Frequency

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58

5/20/2014

L1 Lo/Hi: 59.93/60.08
L2 Lo/Hi: 59.93/60.08
L3 Lo/Hi: 59.93/60.08



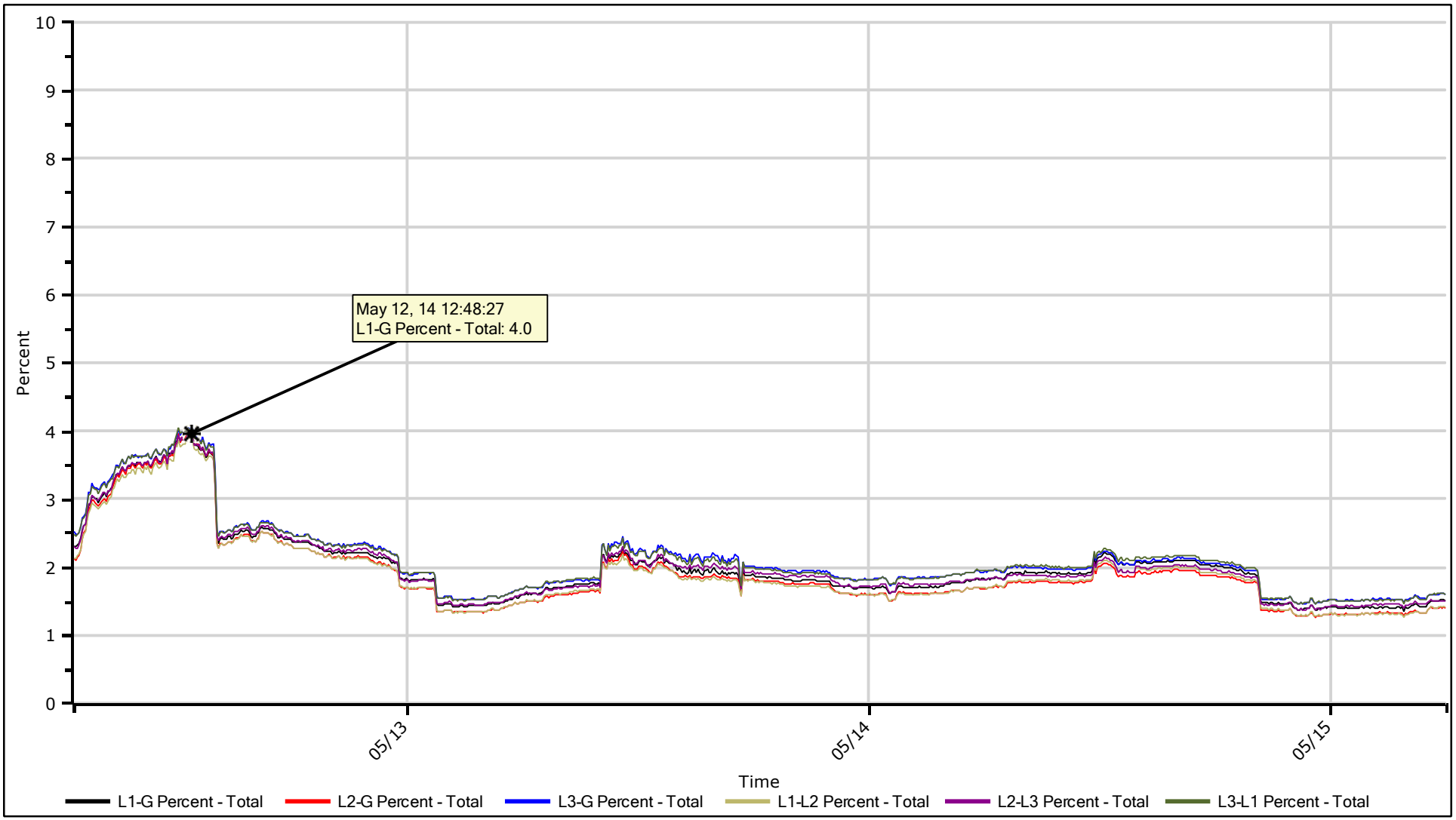
Comments:

Frequency 20 Cycle Average

THD Logs

Site: 23807

May 12, 14 06:38 - May 15, 14 05:58



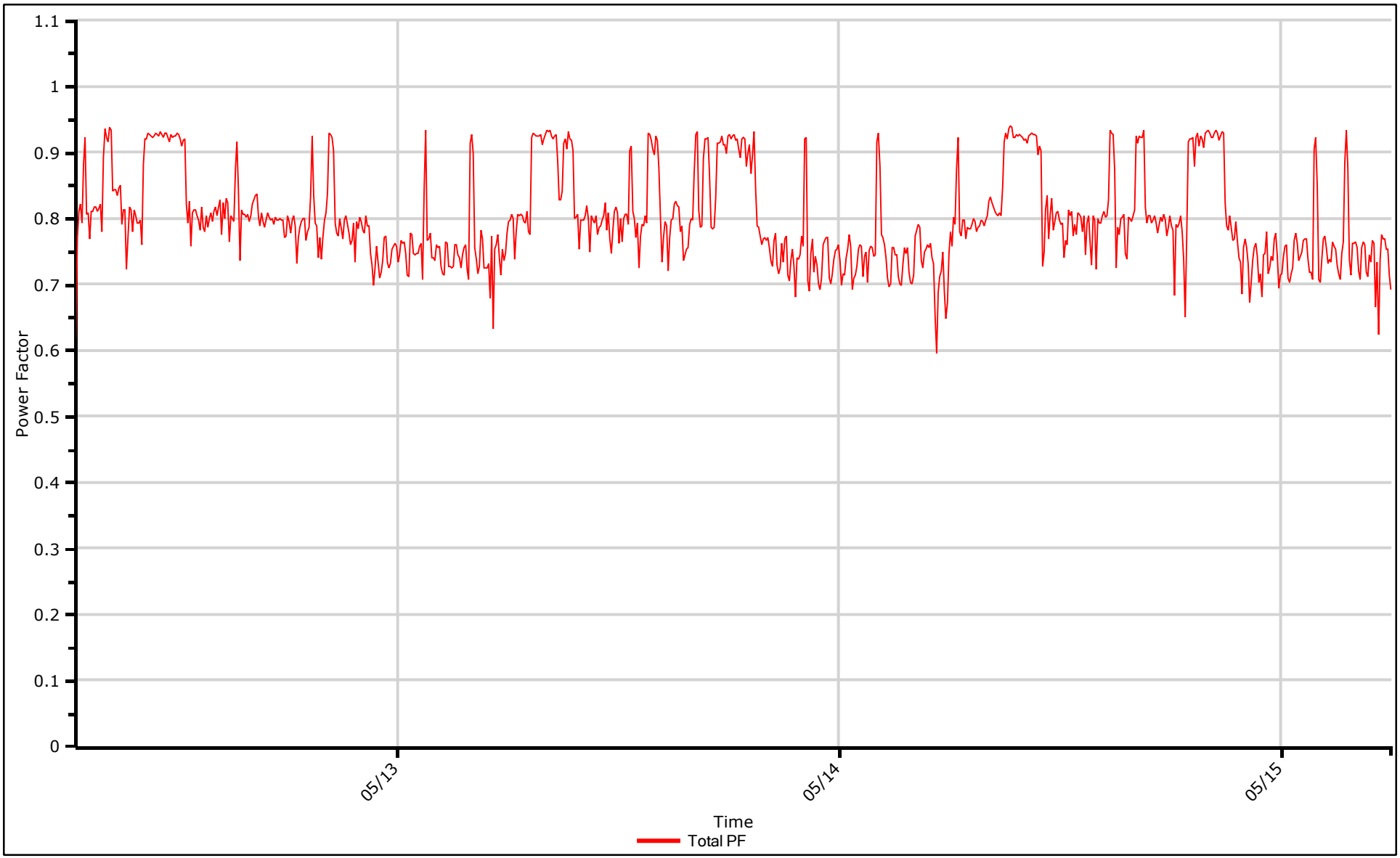
Comments:

% THD

Power Factor

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

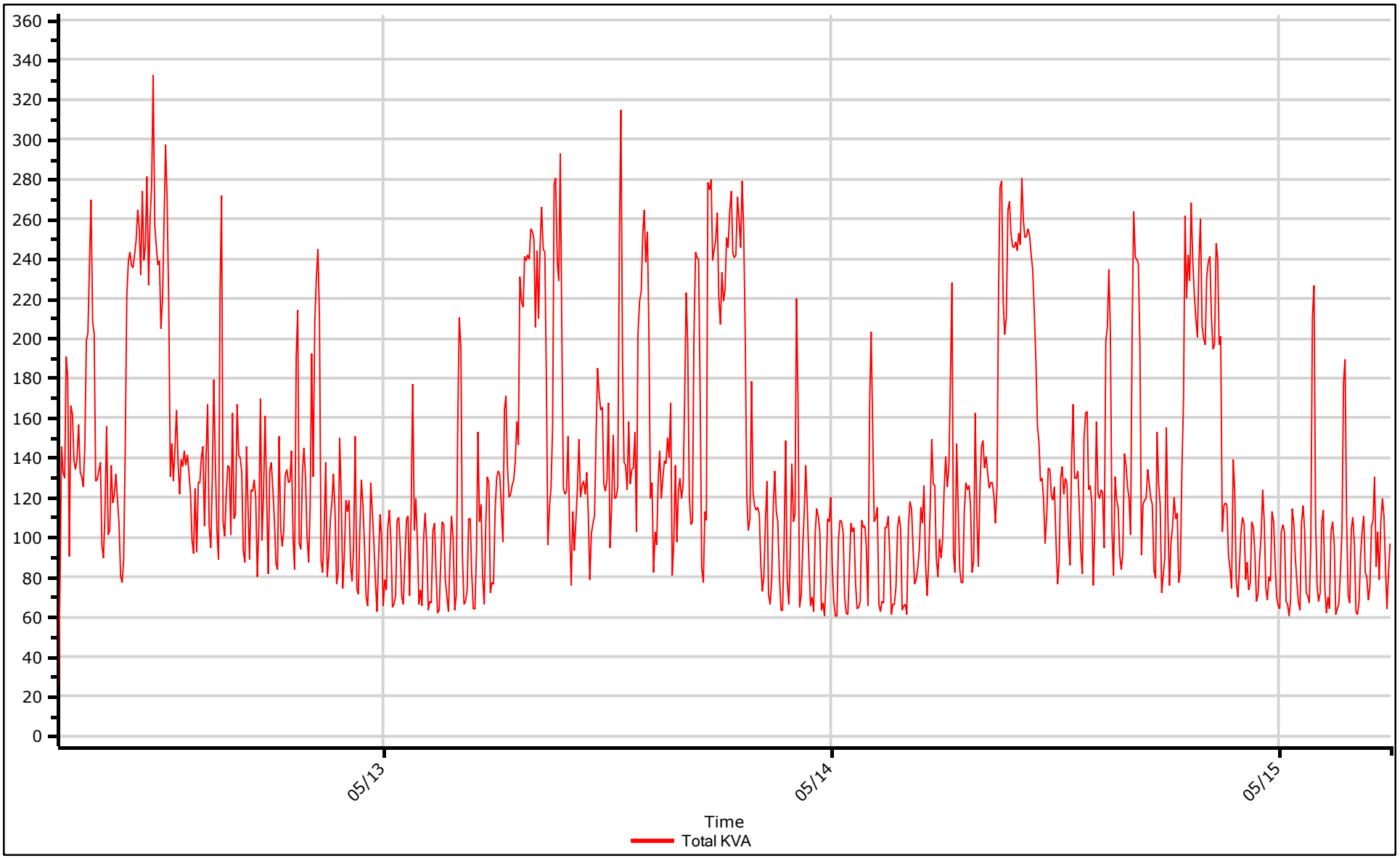


Total KVA

Site: 23807

10/21/2014

May 12, 14 06:33 - May 15, 14 05:58

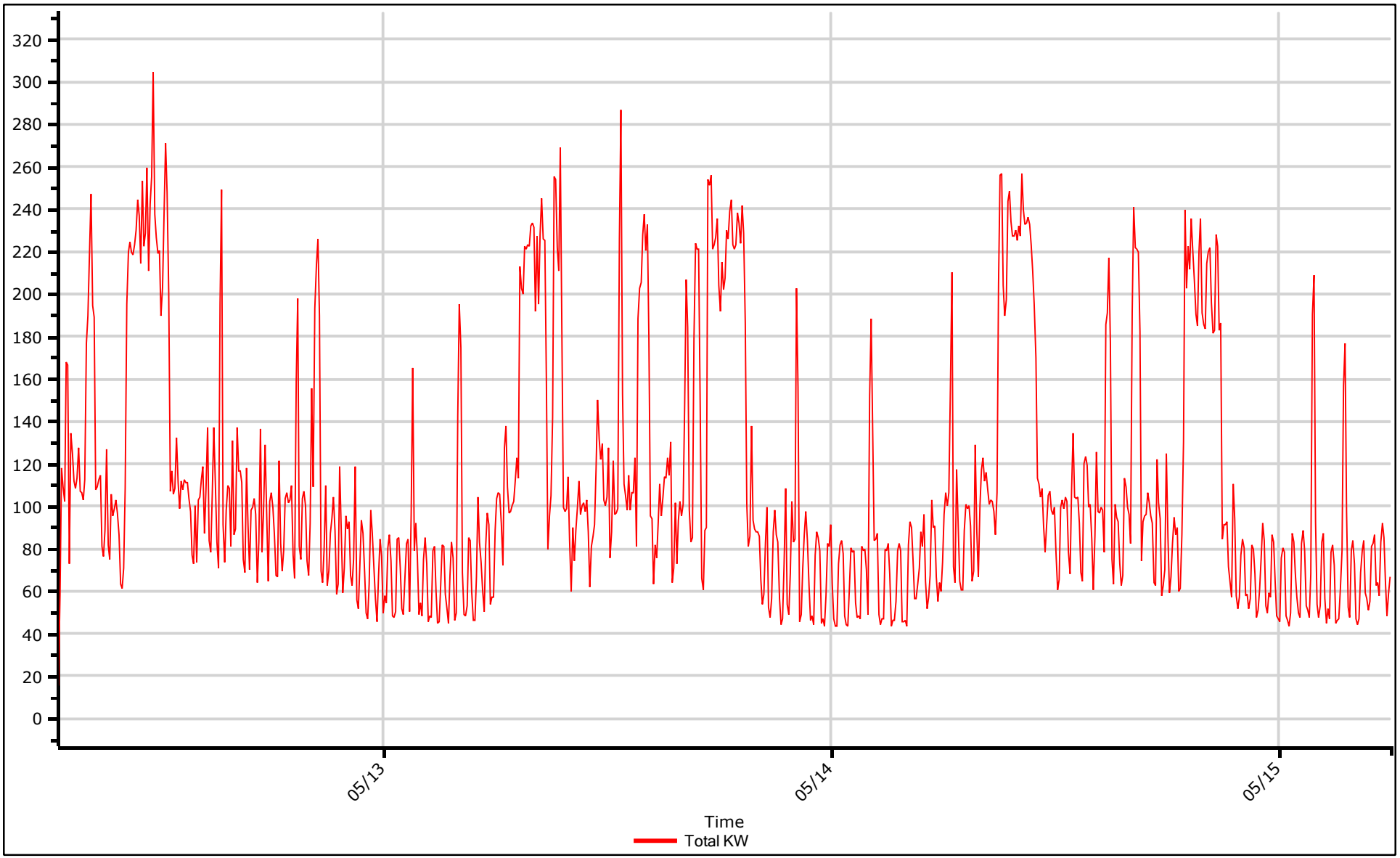


Total KW

Site: 23807

10/21/2014

May 12, 14 06:33 - May 15, 14 05:58



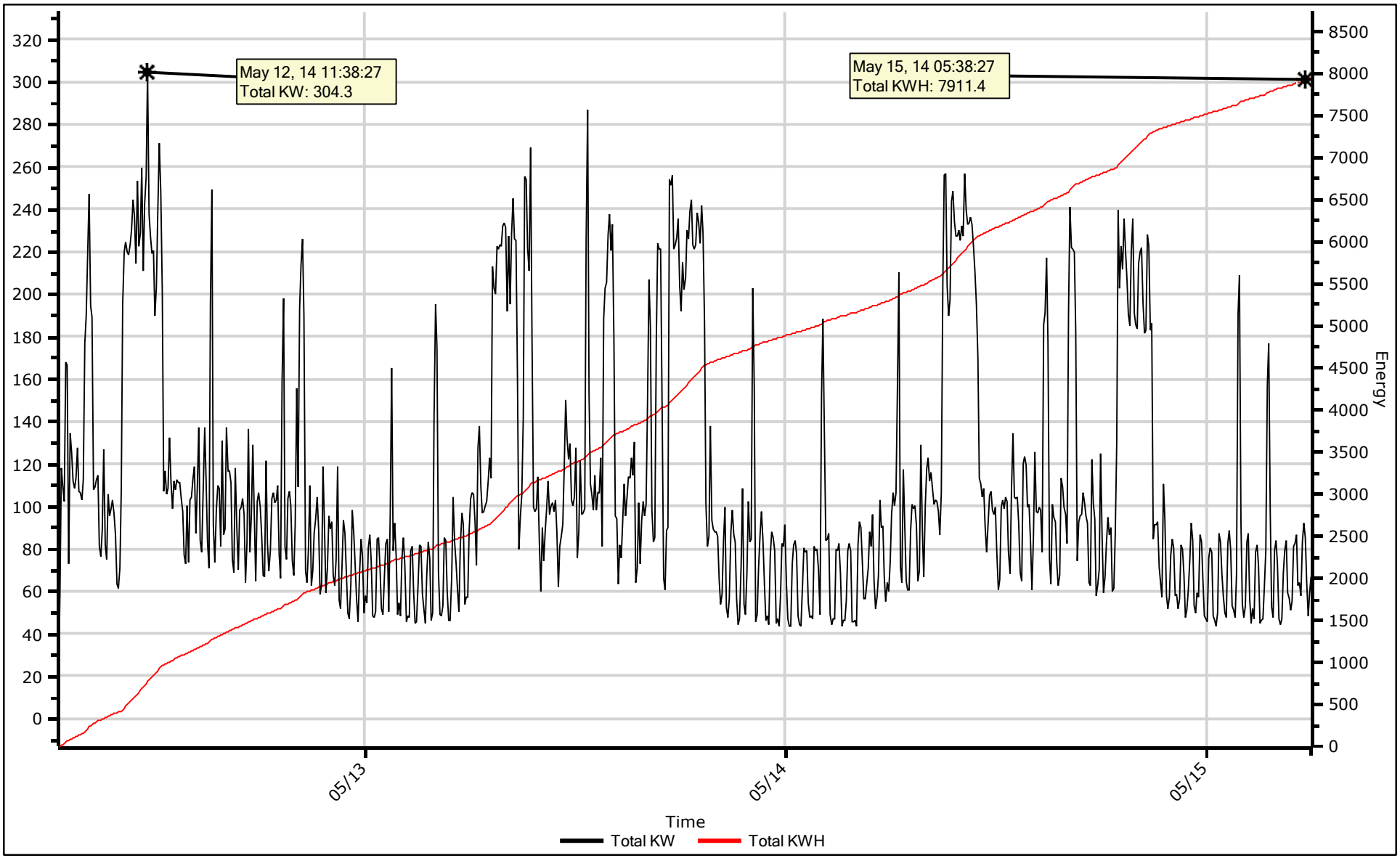
KWh Demand

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

10/21/2014

Total KWH: 7931

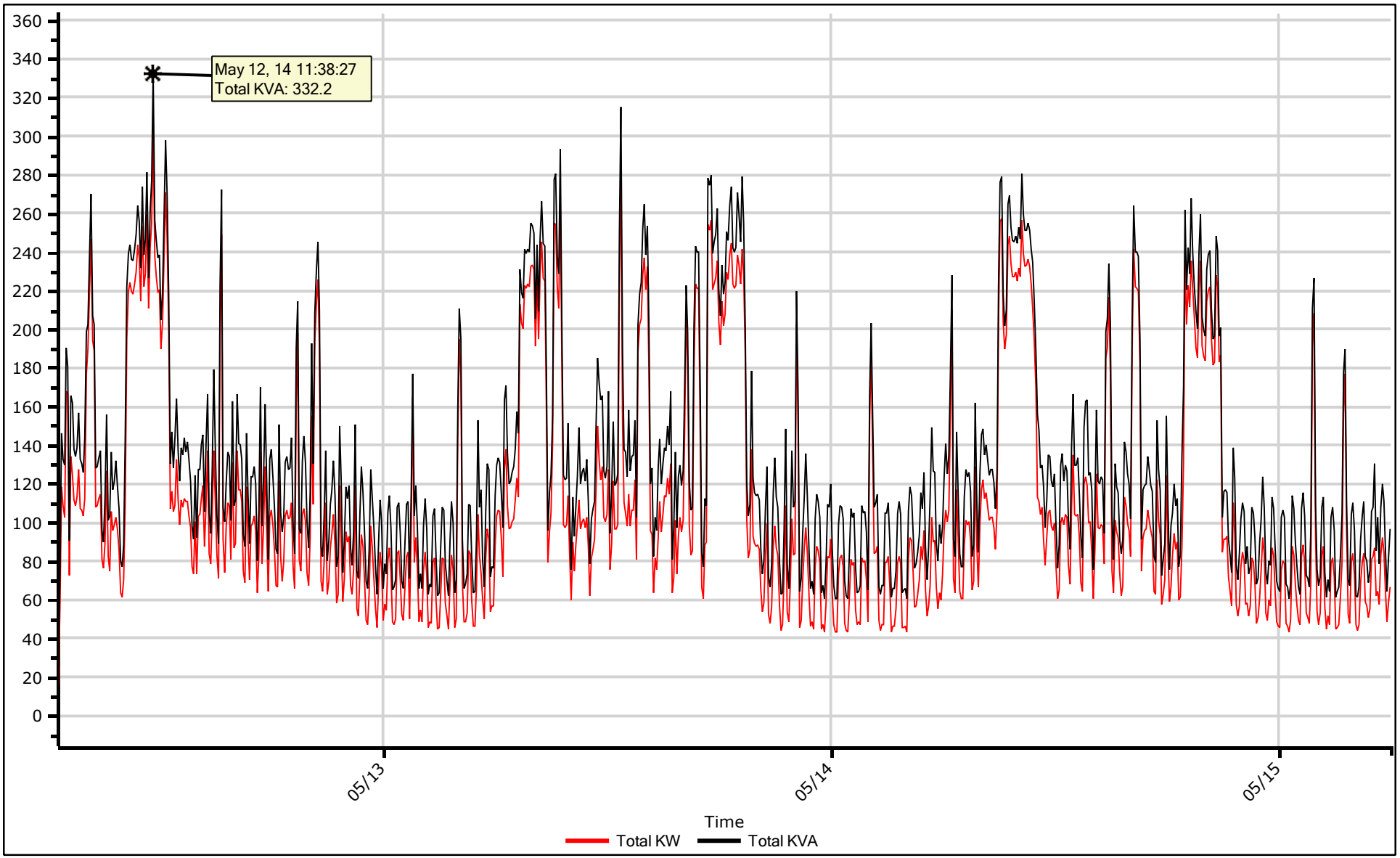


TOTAL KW & KVA

Site: 23807

May 12, 14 06:33 - May 15, 14 05:58

10/21/2014



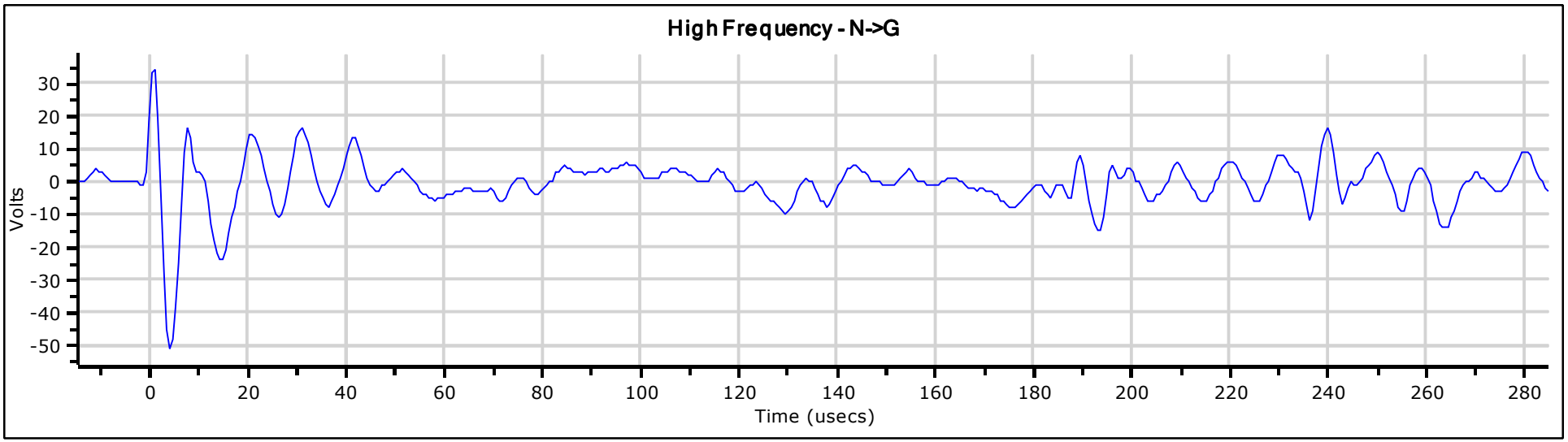
Transient

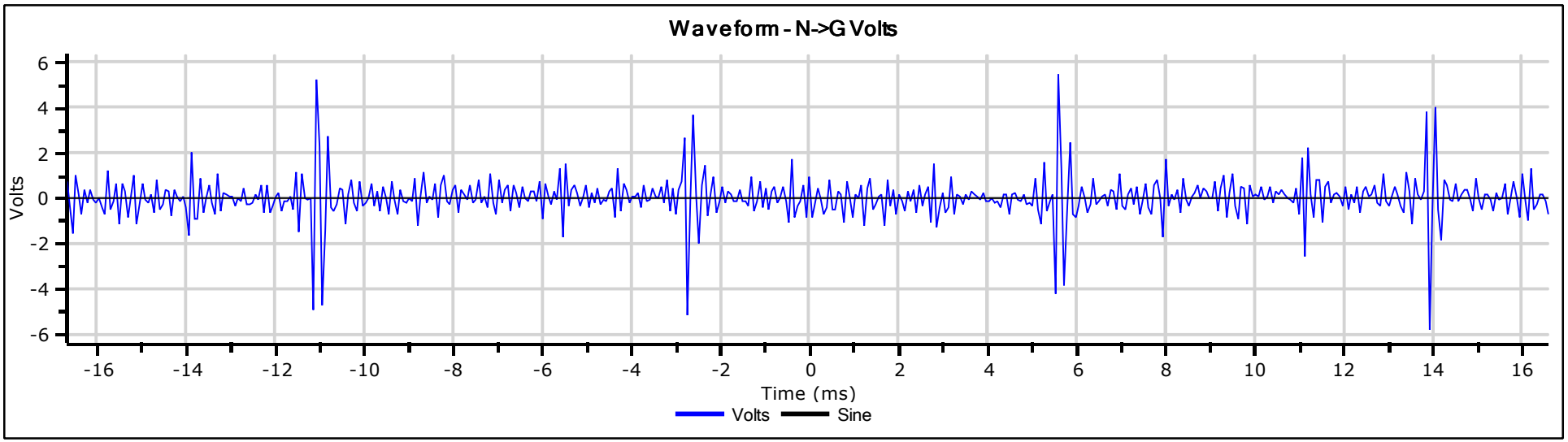
Site: 23807

Event 2242 - Monday, May 12, 2014 09:30:10.546

5/20/2014

Peak: 51
Dur: 283 uS





Comments:

N-G voltage ringing. Consider checking N-G bond.

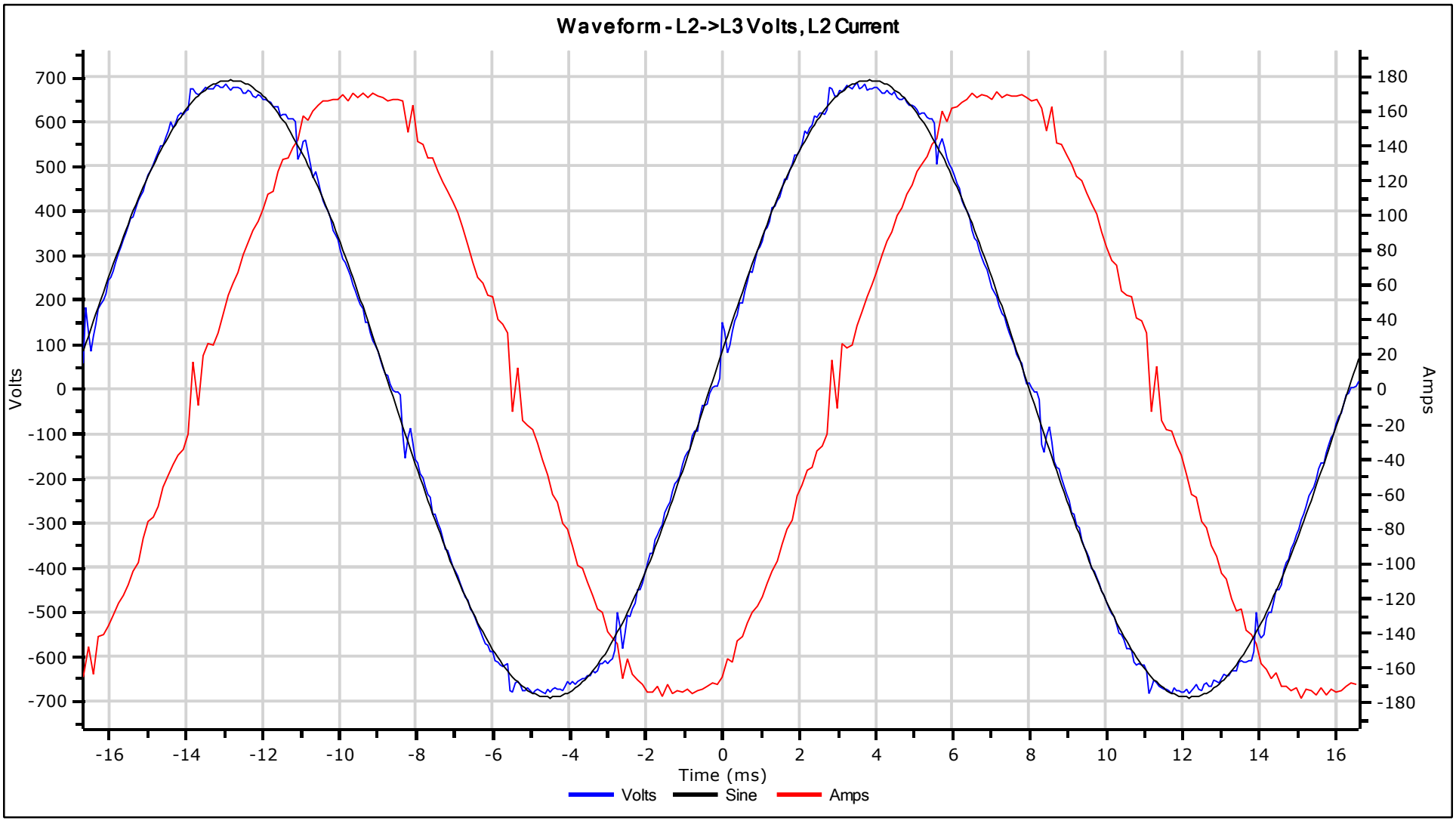
Transient

Site: 23807

Event 2314 - Monday, May 12, 2014 09:40:39.812

5/20/2014

Peak: 80
Dur: 65 uS



Comments:

Waveform notching. Unknown cause.

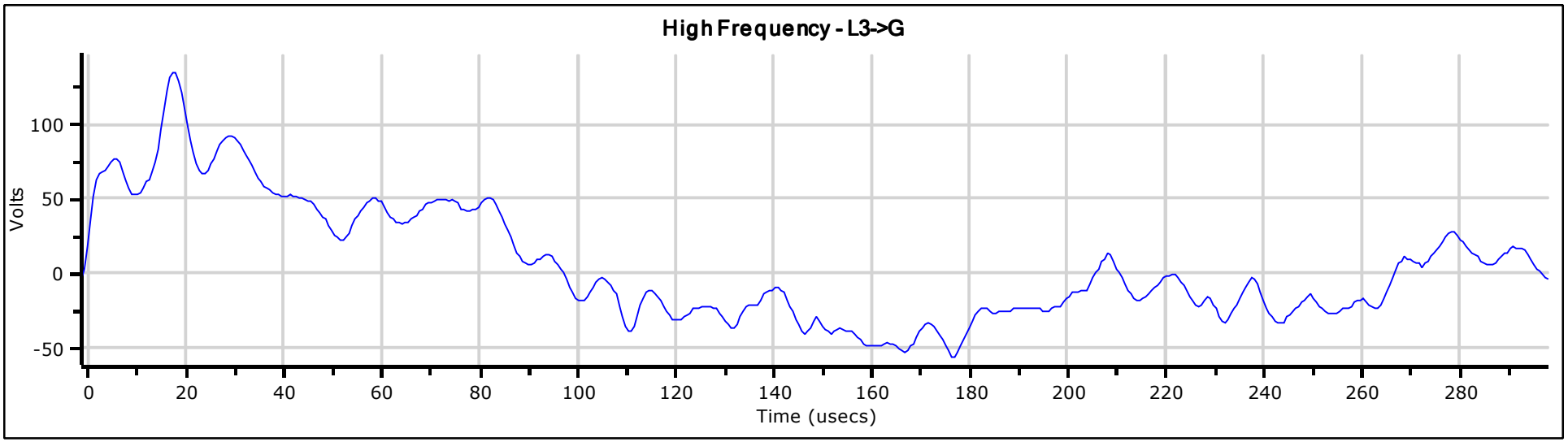
Transient

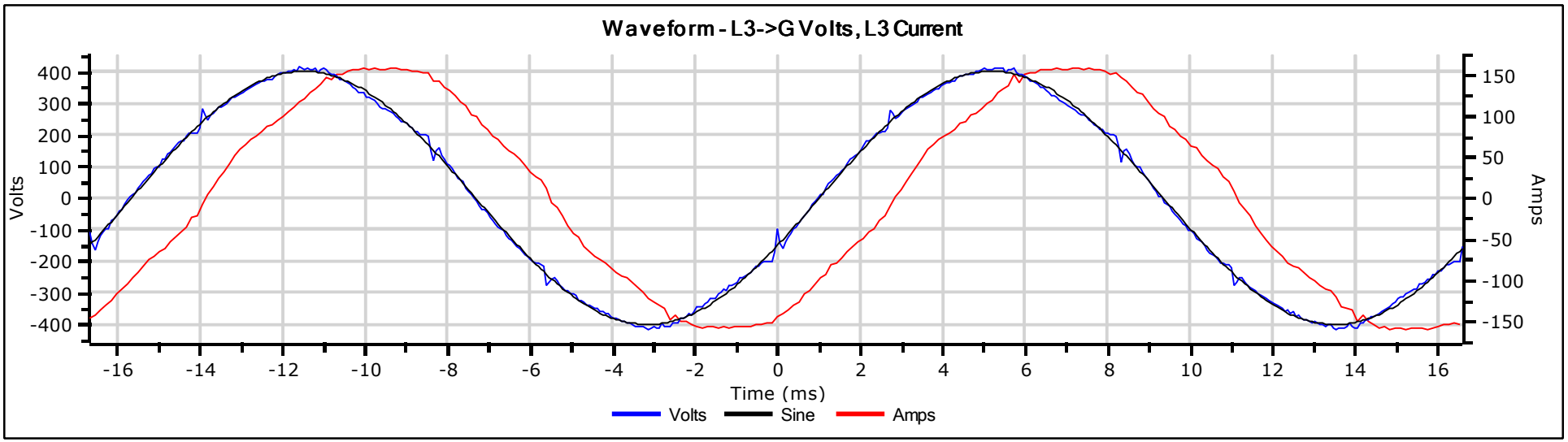
Site: 23807

Event 2377 - Monday, May 12, 2014 09:55:25.169

5/20/2014

Peak: -134
Dur: 294 uS





Comments:

Waveform notching. Unknown cause.

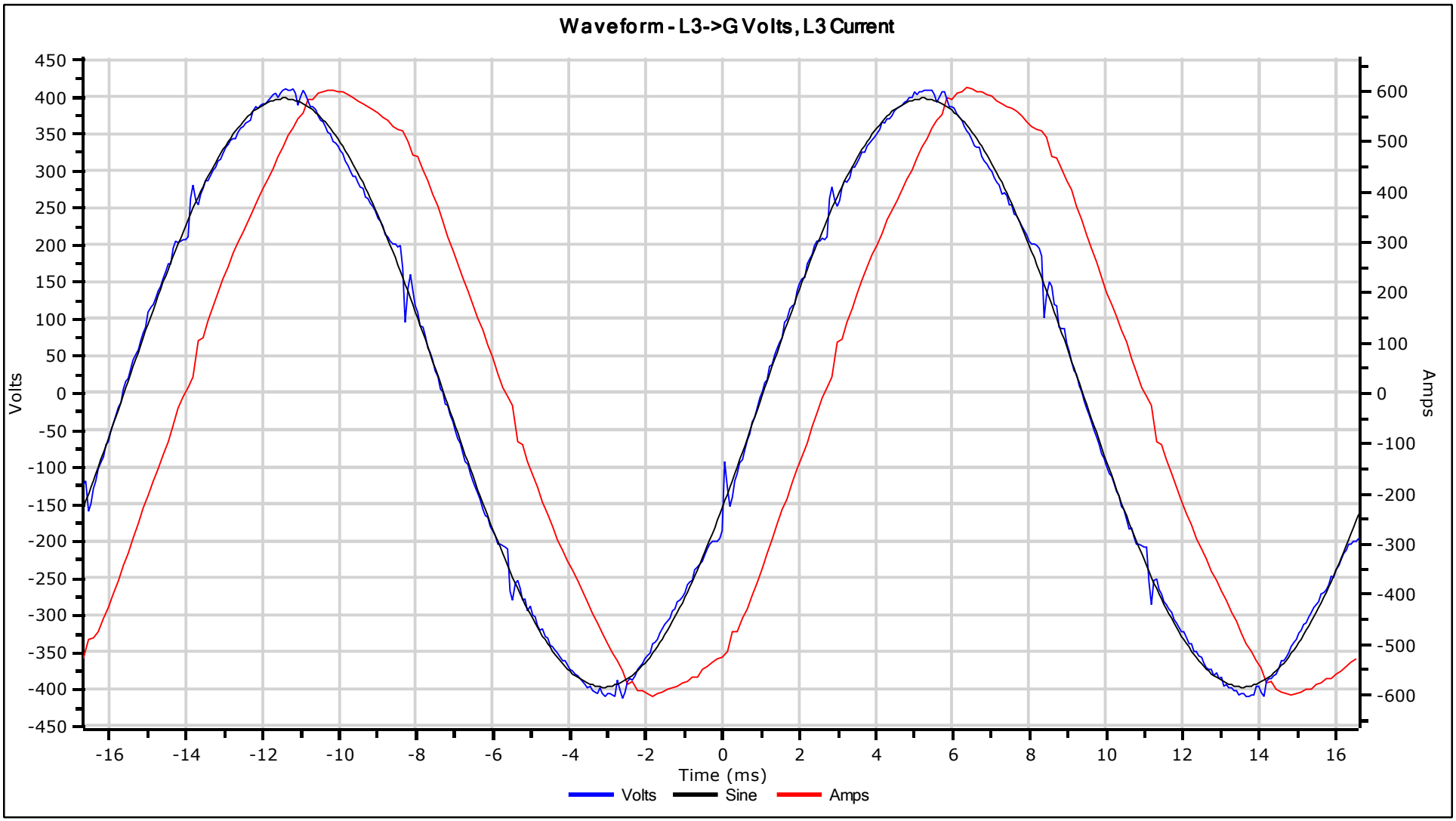
Transient

Site: 23807

Event 2593 - Monday, May 12, 2014 11:35:51.298

5/20/2014

Peak: -54
Dur: 65 uS



Comments:

Waveform notching. Unknown cause.

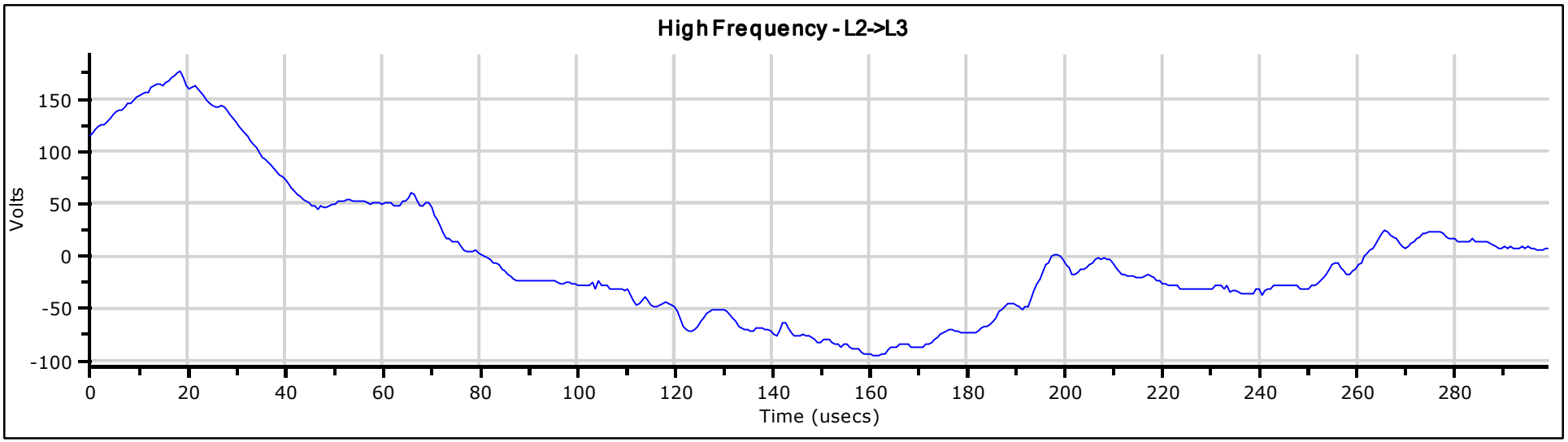
Transient

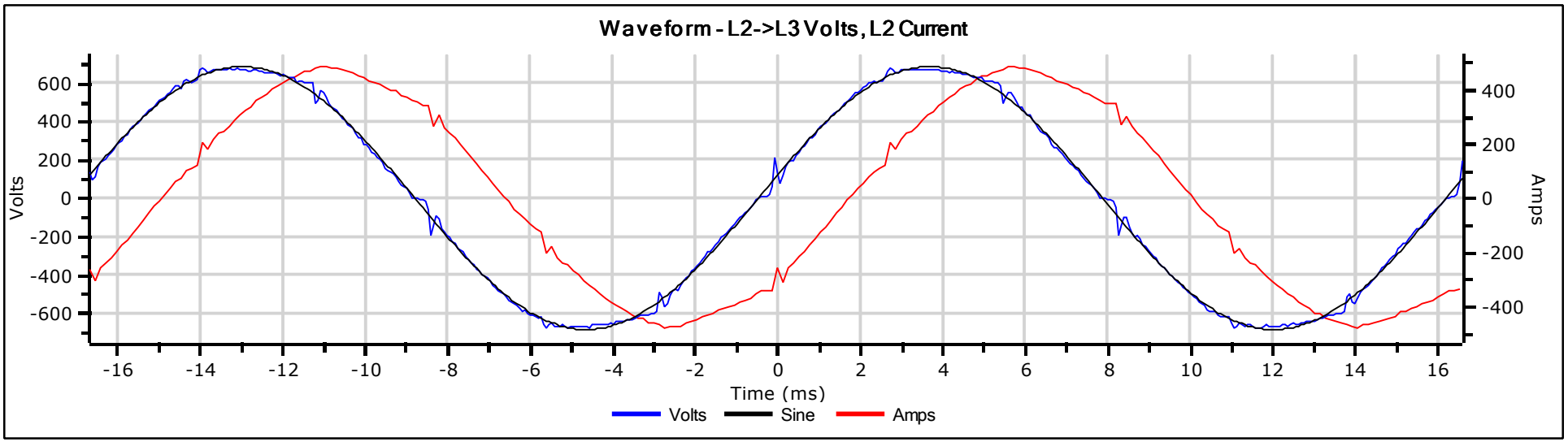
Site: 23807

Event 2661 - Monday, May 12, 2014 11:57:02.126

5/20/2014

Peak: 176
Dur: 284 uS





Comments:

Waveform notching. Unknown cause.

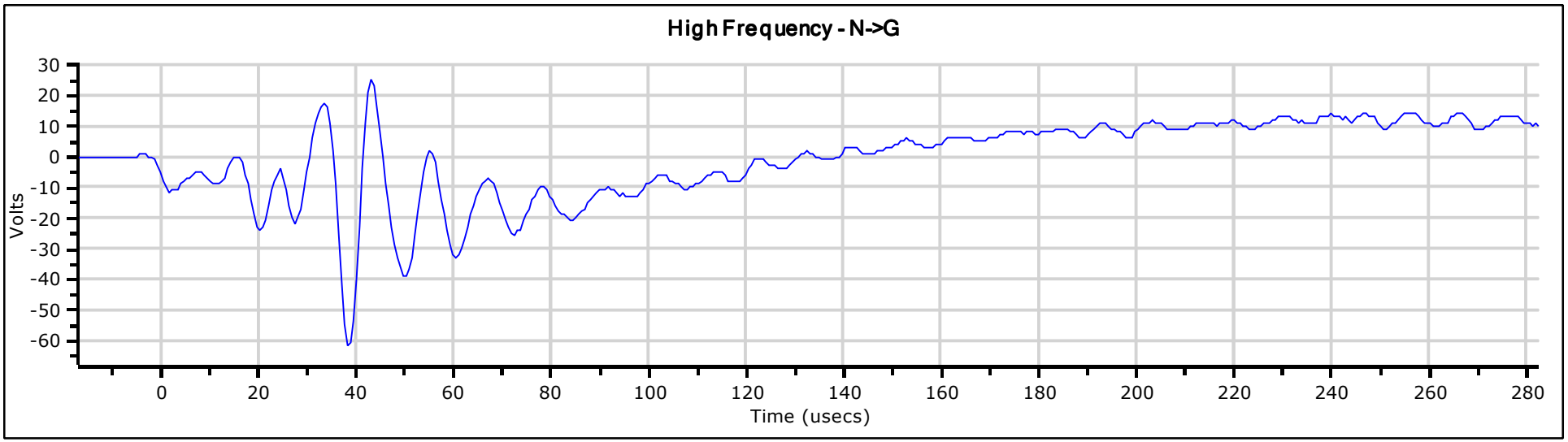
Transient

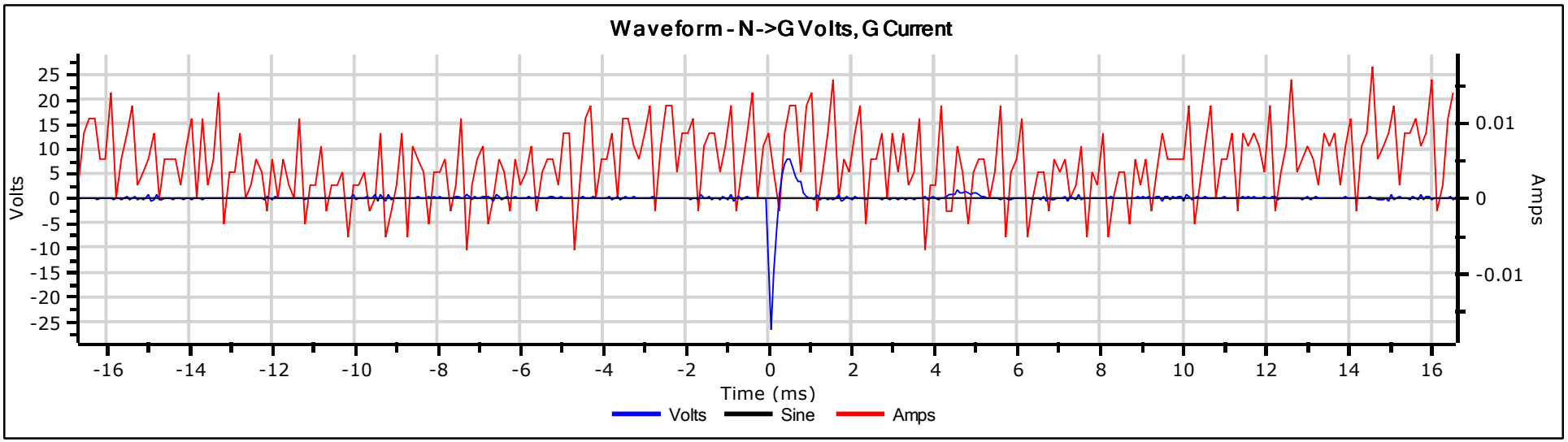
Site: 23807

Event 4485 - Wednesday, May 14, 2014 15:22:10.769

5/20/2014

Peak: 62
Dur: 283 uS





Comments:

High N-G deviation, consider checking N-G bond and N sizing for large Ph-N load.

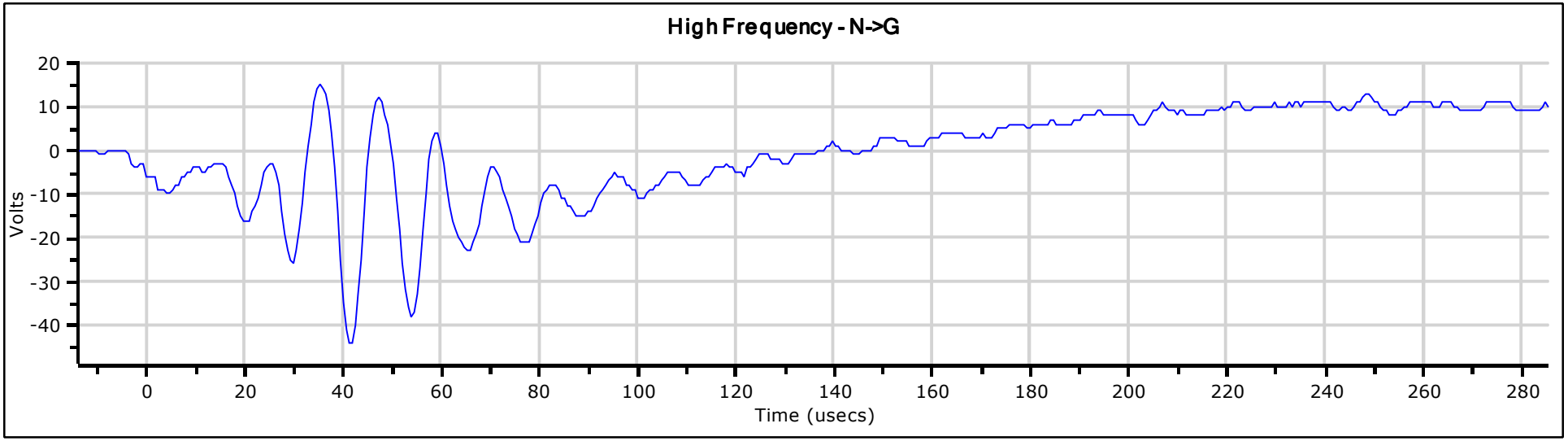
Transient

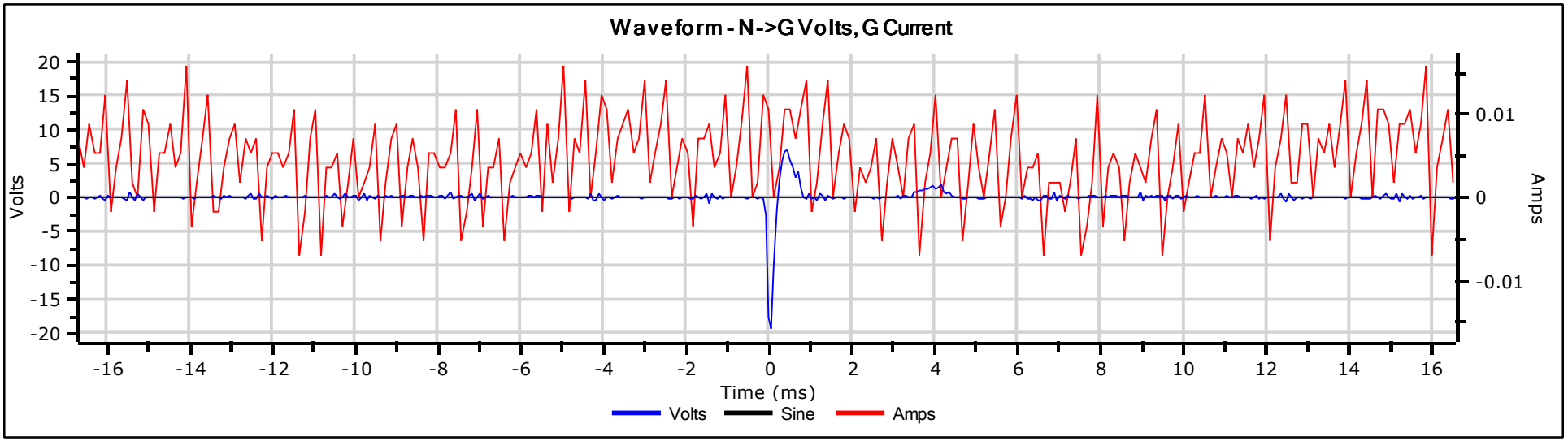
Site: 23807

Event 4552 - Wednesday, May 14, 2014 19:08:55.339

5/20/2014

Peak: 44
Dur: 286 uS





Comments:

High N-G deviation, consider checking N-G bond and N sizing for large Ph-N load.

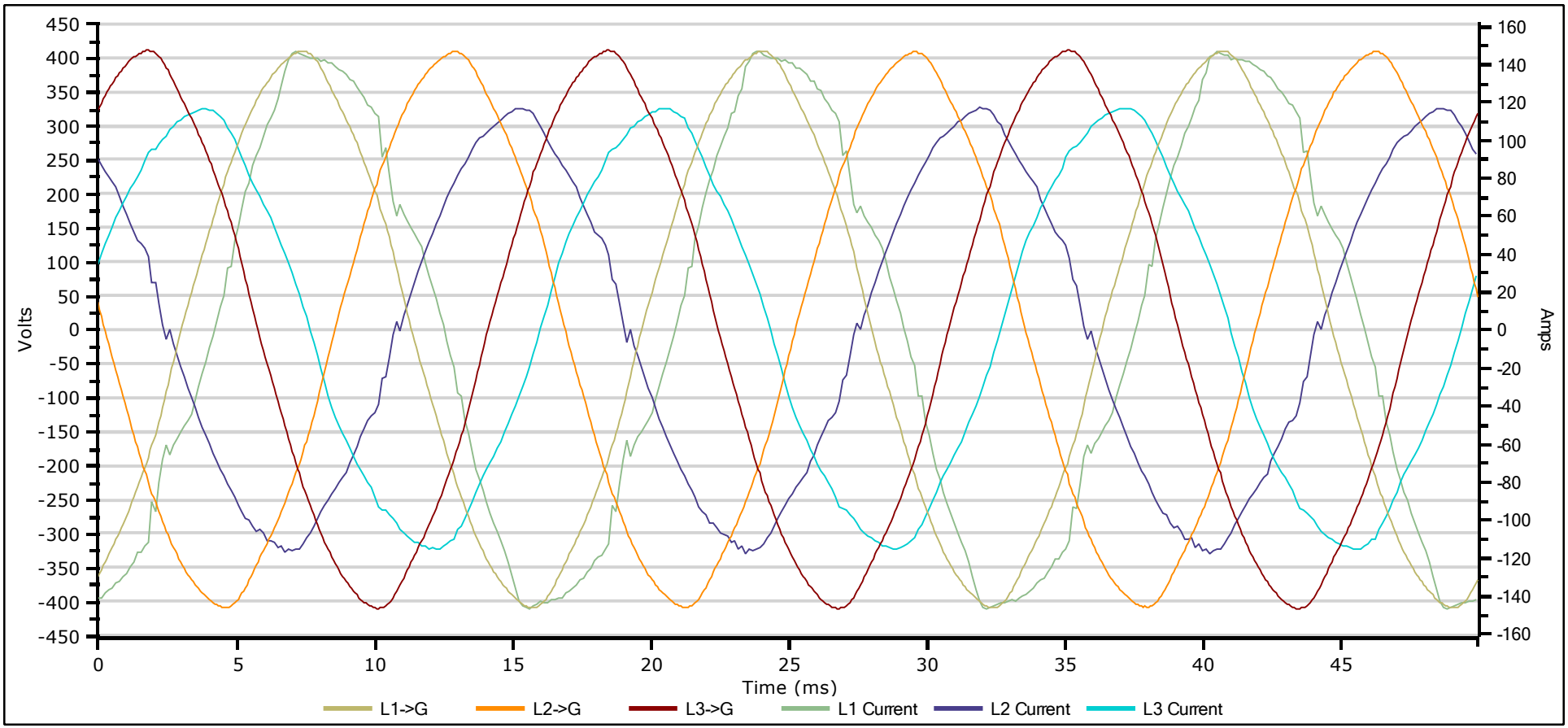
Snapshot

Site: 23807

5/20/2014

Event 3288 - Tuesday, May 13, 2014 10:00:00

Volts Angle: 119.7
Phase Seq: CW(ABC)



Power:

	L1	L2	L3		L1	L2	L3	Total
RMS V:	284	284	284	**KVA:**	29.4	22.9	23.1	75.4
RMS I:	103	80	81	**KW:**	27.4	14.8	17.8	60.0
CF V:	1.4	1.4	1.4	**KVAR:**	10.6	17.4	14.8	42.8
CF I:	1.4	1.5	1.4	**PF:**	0.933	0.648	0.769	0.796

Comments:

Steady state waveforms.

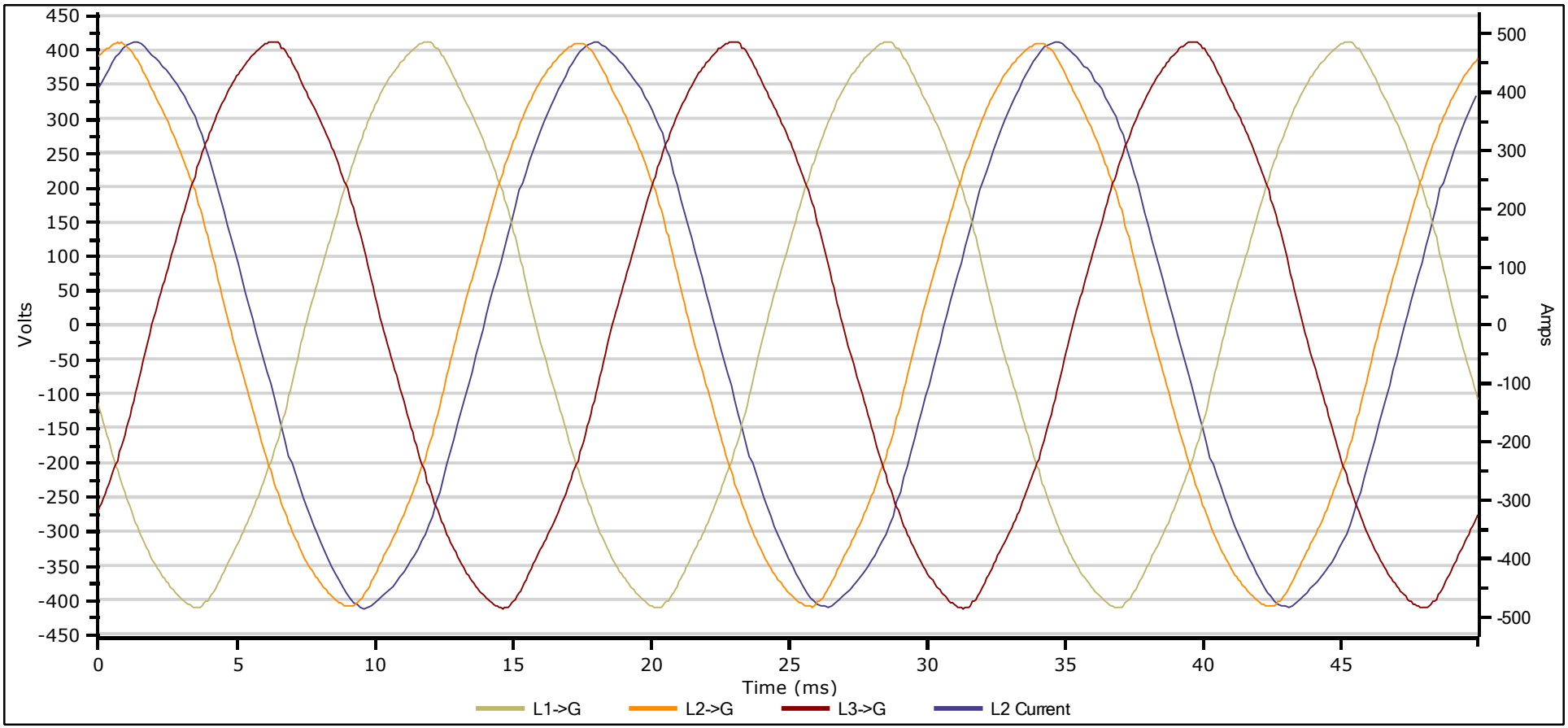
Snapshot

Site: 23807

5/20/2014

Event 4398 - Wednesday, May 14, 2014 10:00:00

Volts Angle: 119.7
Phase Seq: CW(ABC)



Power:

	L1	L2	L3		L1	L2	L3	Total
RMS V:	284	284	284	**KVA:**	72.9	96.1	78.8	248
RMS I:	256	339	277	**KW:**	72.5	90.9	64.6	228
CF V:	1.4	1.4	1.5	**KVAR:**	7.11	31.3	45.1	83.5
CF I:	1.5	1.4	1.4	**PF:**	0.995	0.946	0.820	0.920

Comments:

Steady state waveforms.

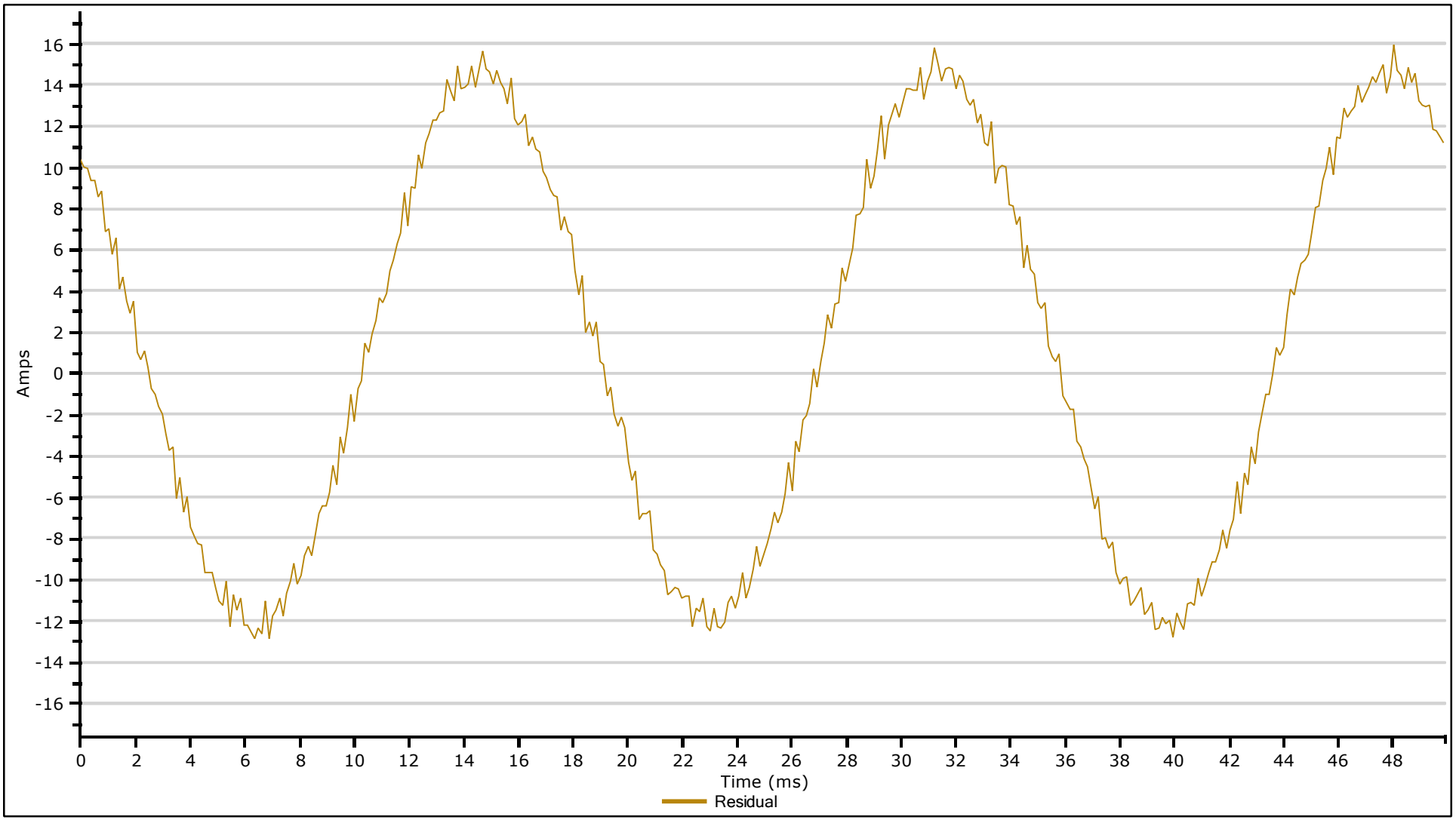
Snapshot

Site: 23807

5/21/2014

Event 4398 - Wednesday, May 14, 2014 10:00:00

Volts Angle: 119.7
Phase Seq: CW(ABC)



Comments:

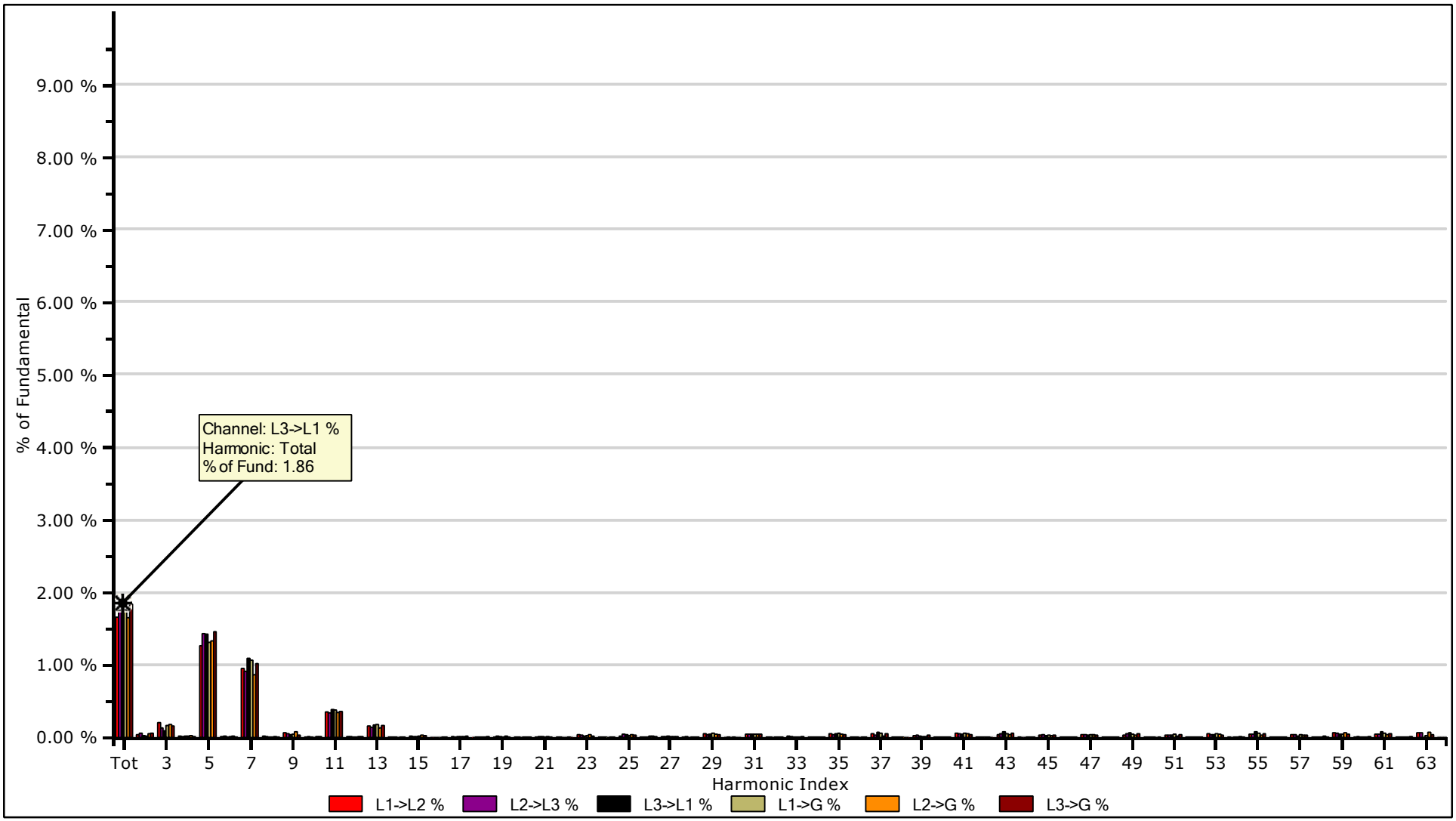
Max error of 4 Ct's

Snapshot Harmonics

Site: 23807

Event 3288 - Tuesday, May 13, 2014 10:00:00

5/20/2014



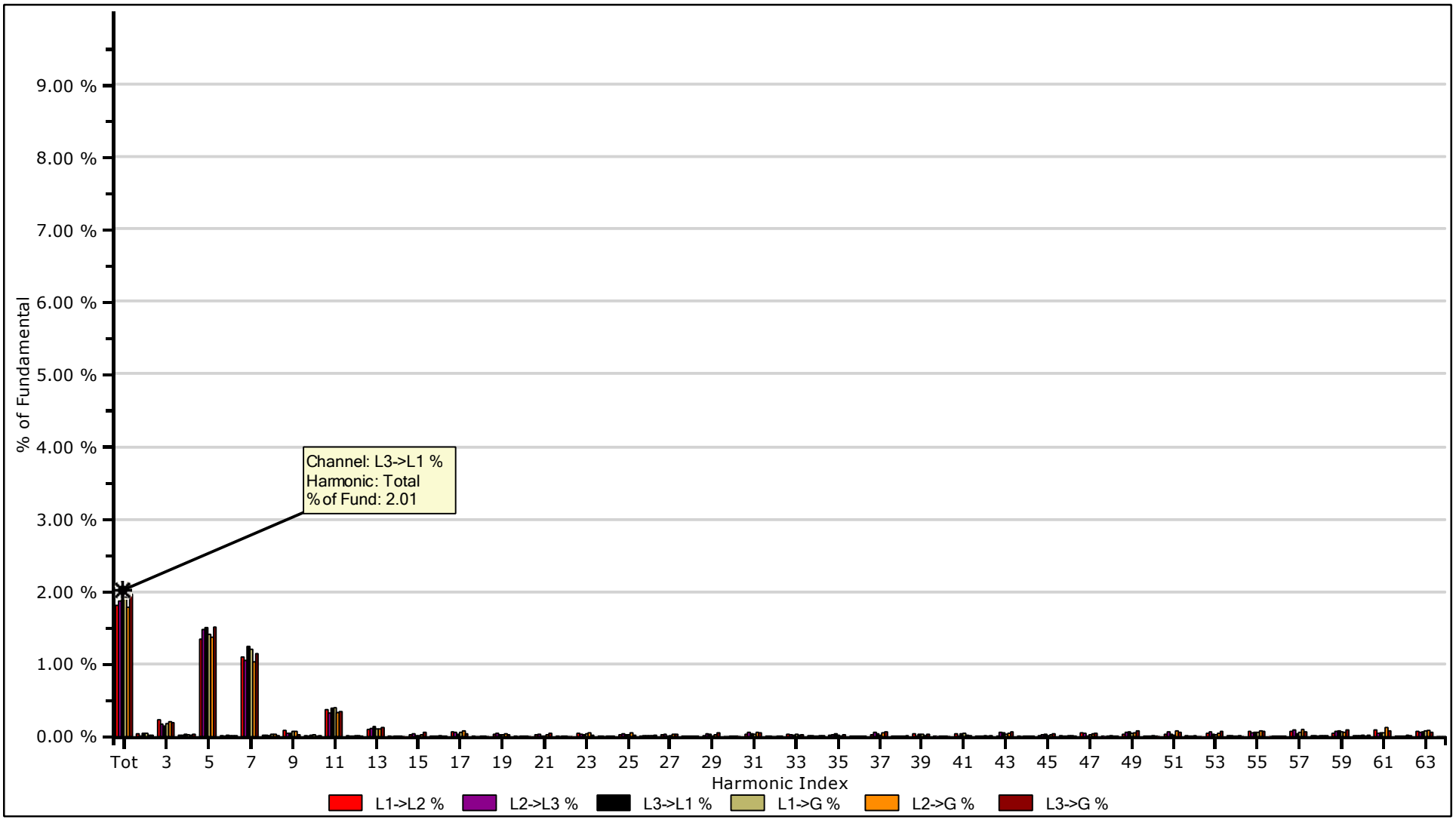
Comments:

Steady State Harmonics

Snapshot Harmonics

Site: 23807

Event 4398 - Wednesday, May 14, 2014 10:00:00



Comments:

Steady State Harmonics

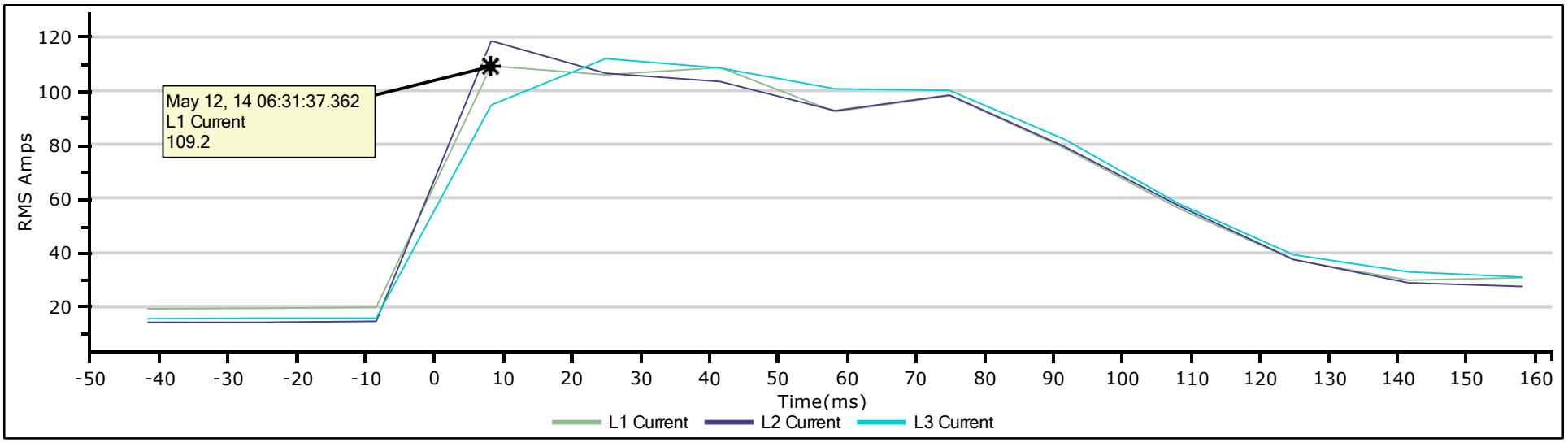
Waveform Capture

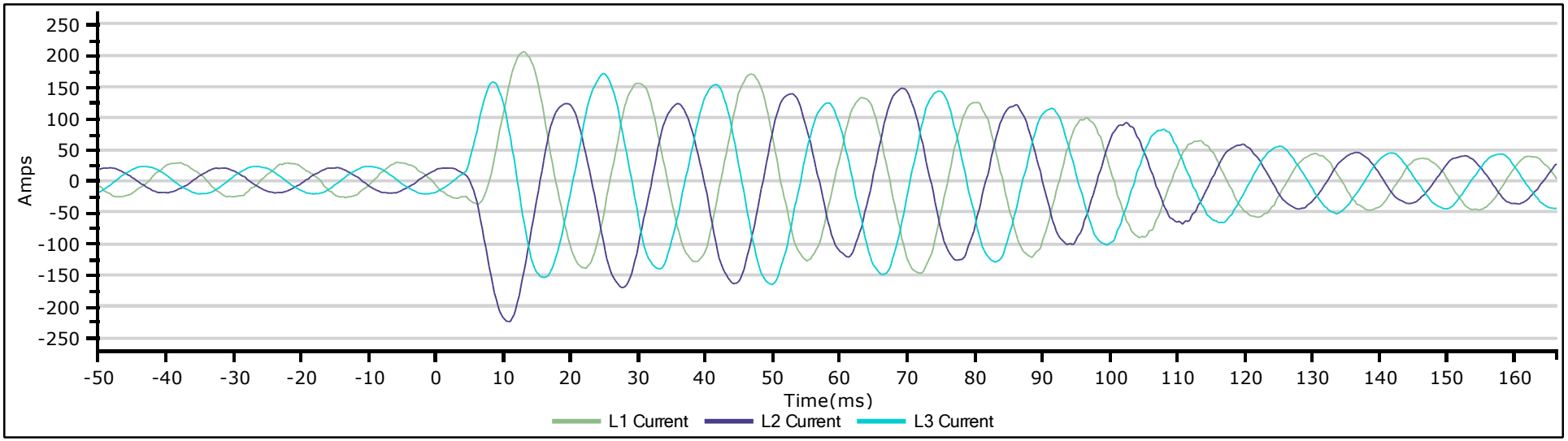
Site: 23807

Event 278 - Monday, May 12, 2014 06:31:37

5/20/2014

Volts Angle: 119.7
Phase Seq: CW(ABC)





Comments:

Load increase.

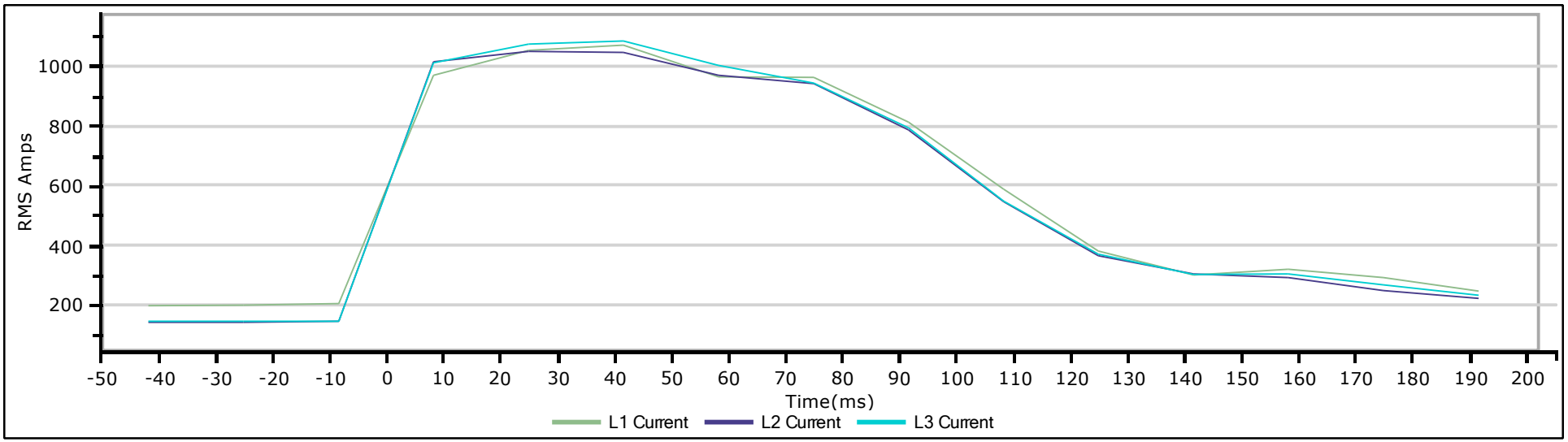
Waveform Capture

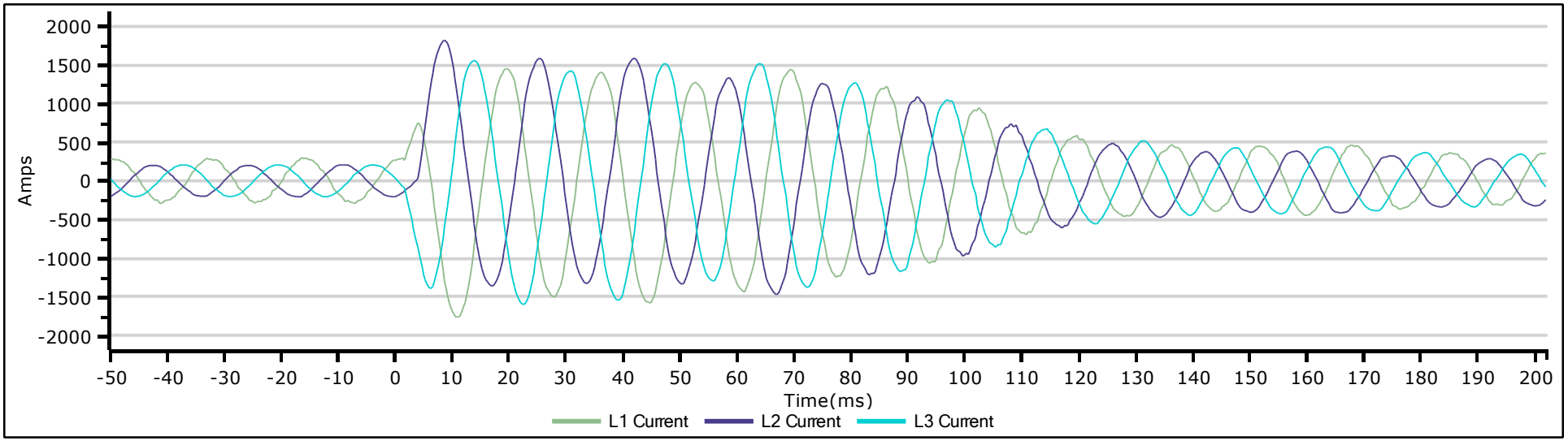
Site: 23807

Event 359 - Monday, May 12, 2014 06:37:58

5/20/2014

Volts Angle: 119.6
Phase Seq: CW(ABC)





Comments:

Current profile of large load on feeder.

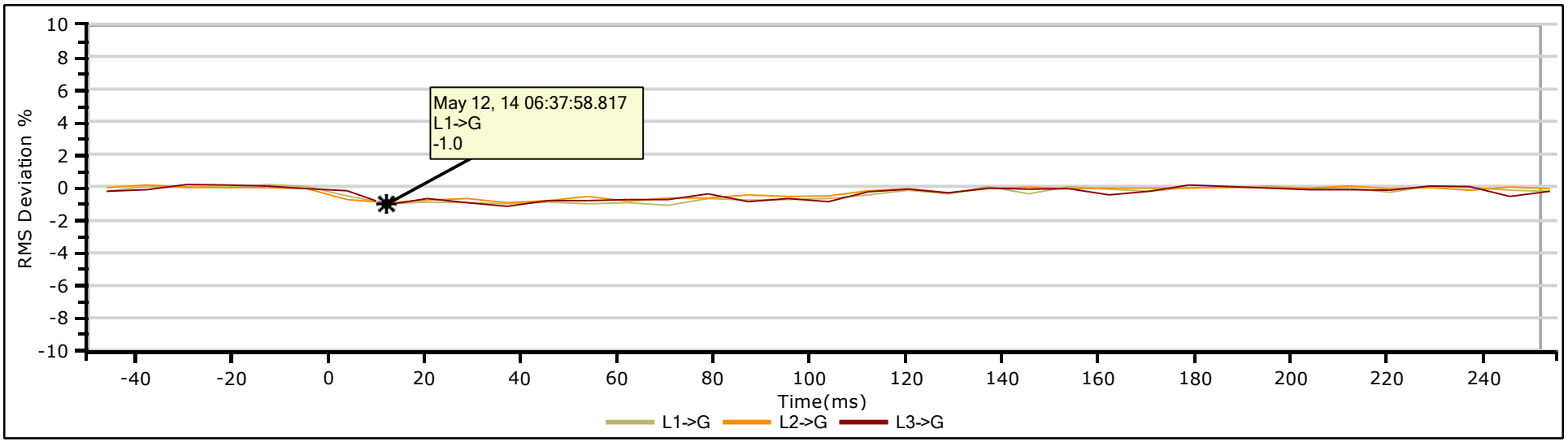
Waveform Capture

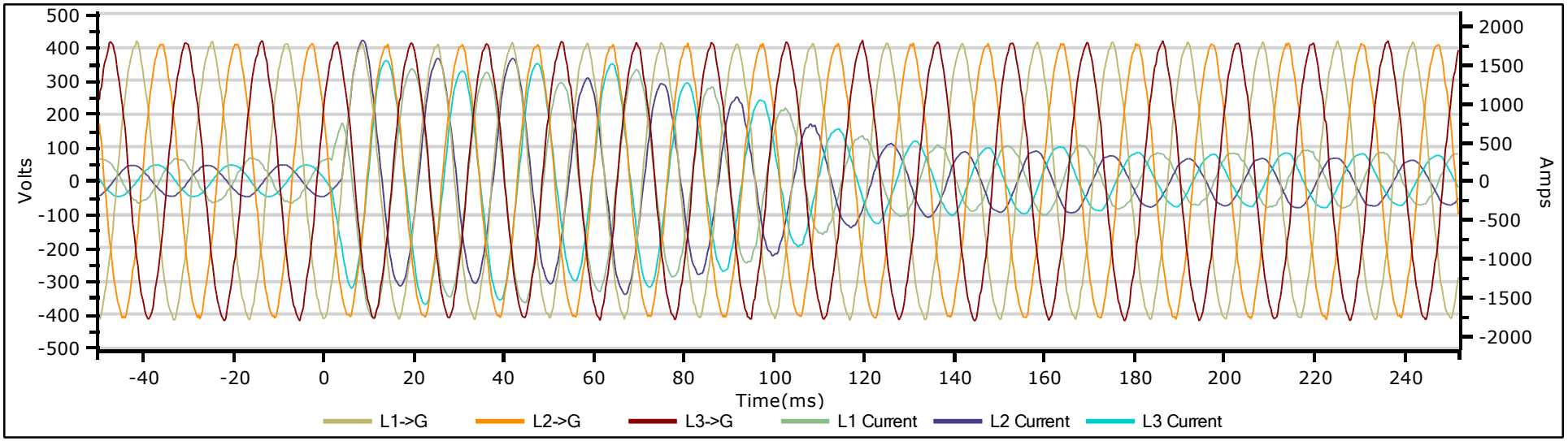
Site: 23807

5/20/2014

Event 359 - Monday, May 12, 2014 06:37:58

Volts Angle: 119.6
Phase Seq: CW(ABC)





Comments:

Voltage deviation under load.

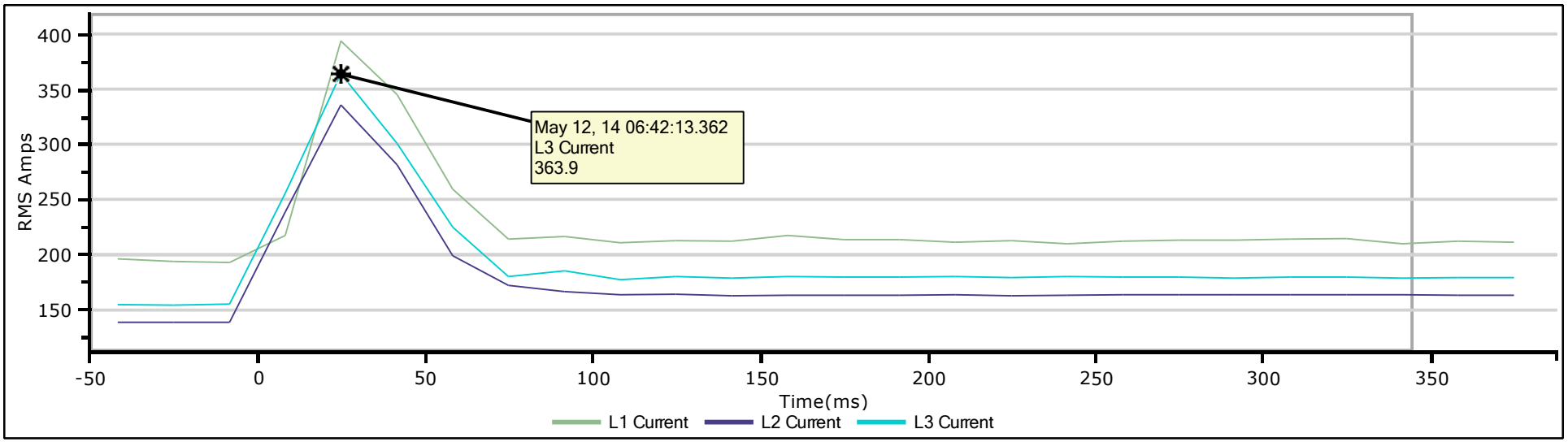
Waveform Capture

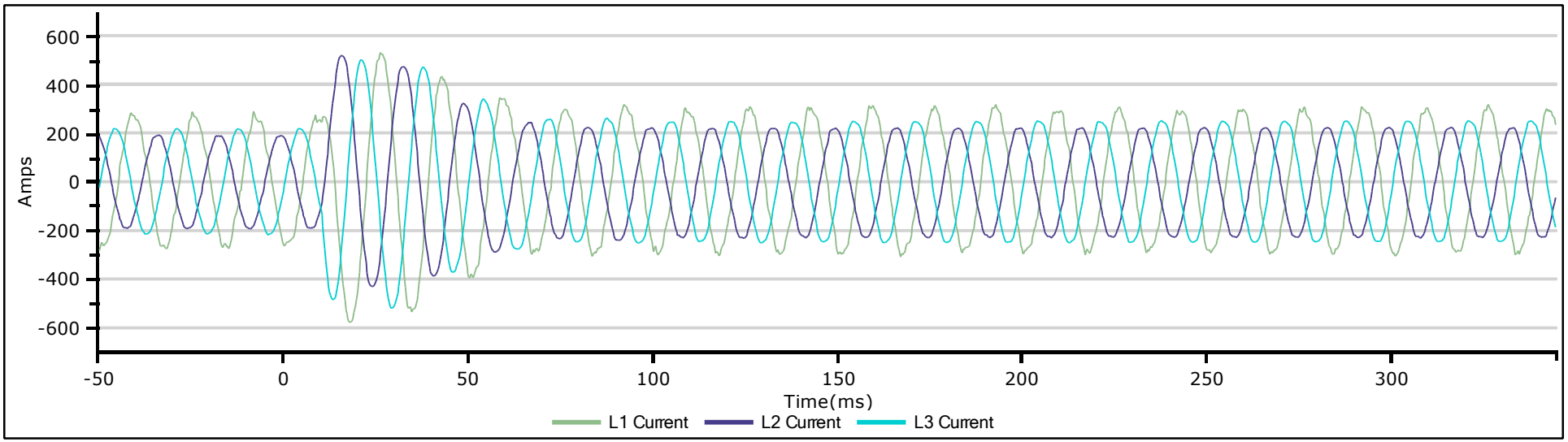
Site: 23807

Event 443 - Monday, May 12, 2014 06:42:13

5/20/2014

Volts Angle: 119.4
Phase Seq: CW(ABC)





Comments:

Load on feeder.

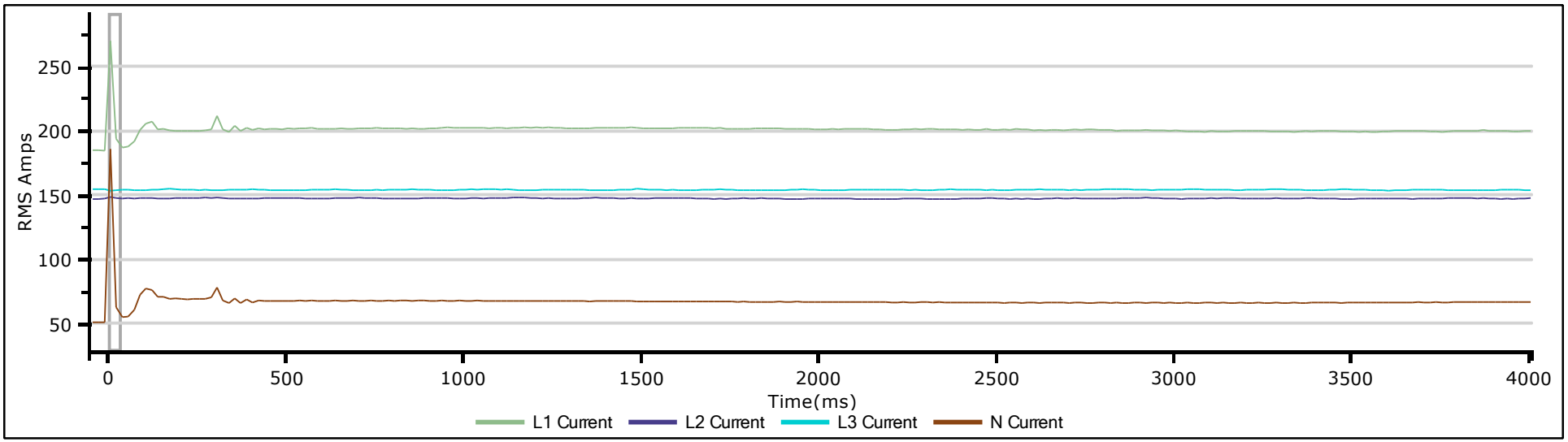
Waveform Capture

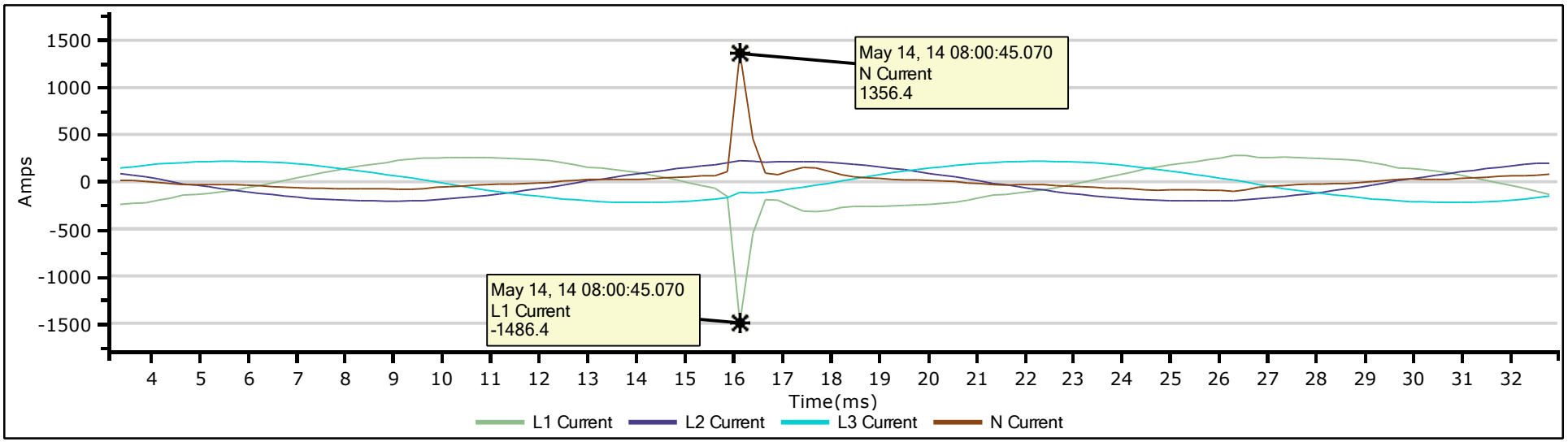
Site: 23807

Event 4335 - Wednesday, May 14, 2014 08:00:45

5/20/2014

Volts Angle: 119.7
Phase Seq: CW(ABC)





Comments:

Ph - N load on feed.

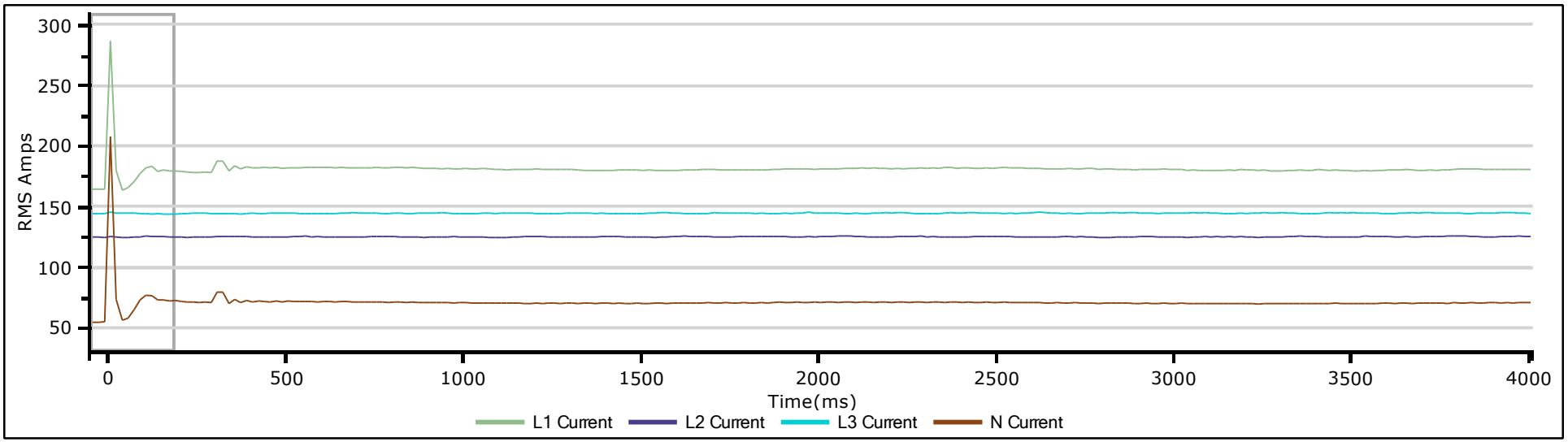
Waveform Capture

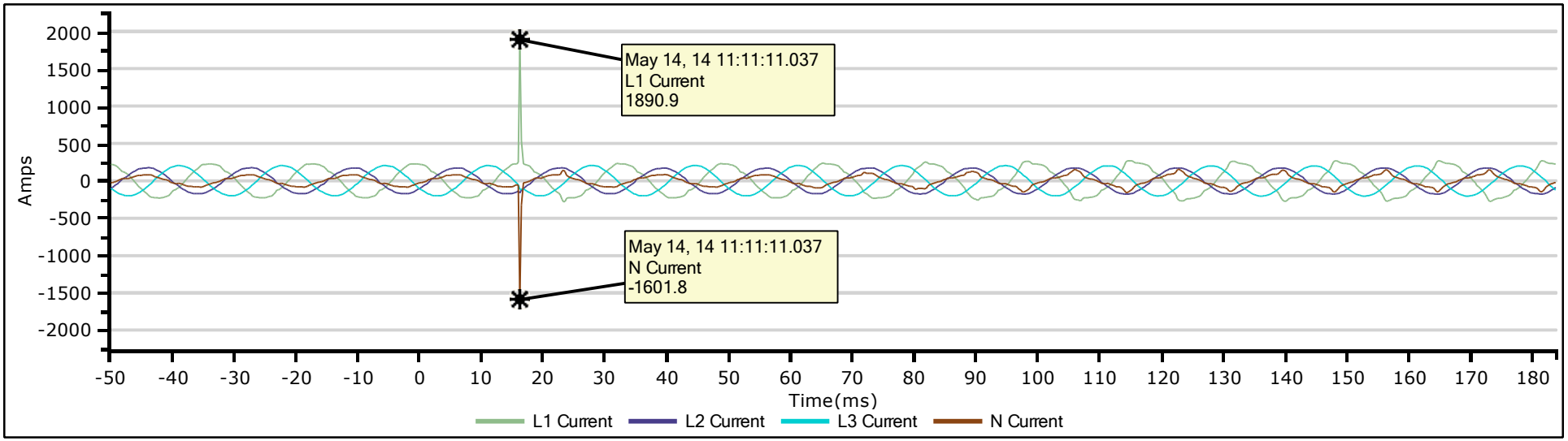
Site: 23807

Event 4446 - Wednesday, May 14, 2014 11:11:11

5/20/2014

Volts Angle: 119.7
Phase Seq: CW(ABC)





Comments:

Ph - N load on feed.

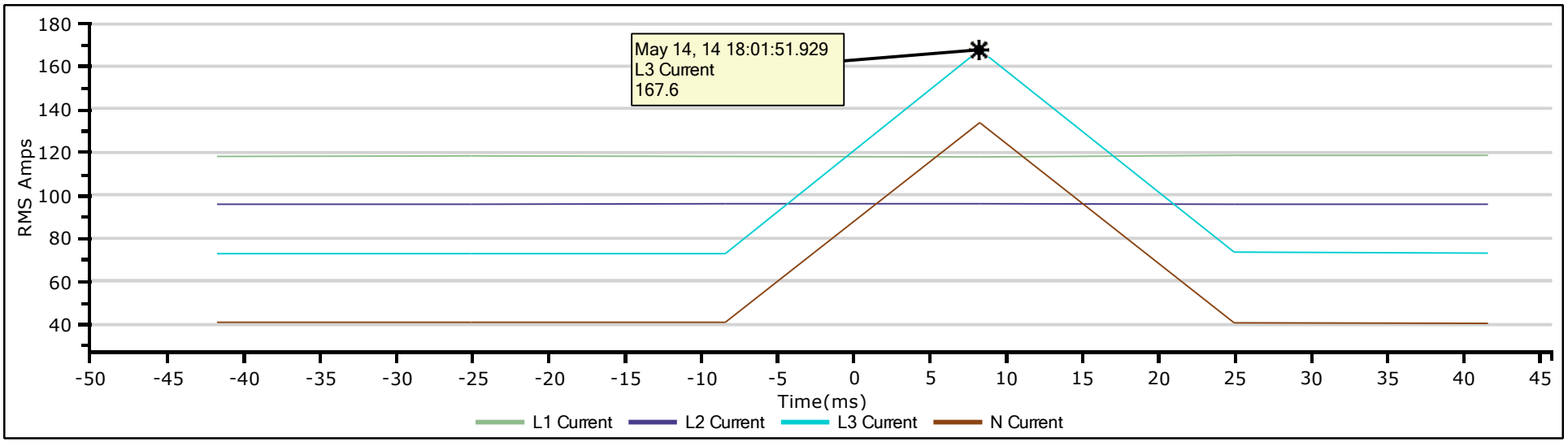
Waveform Capture

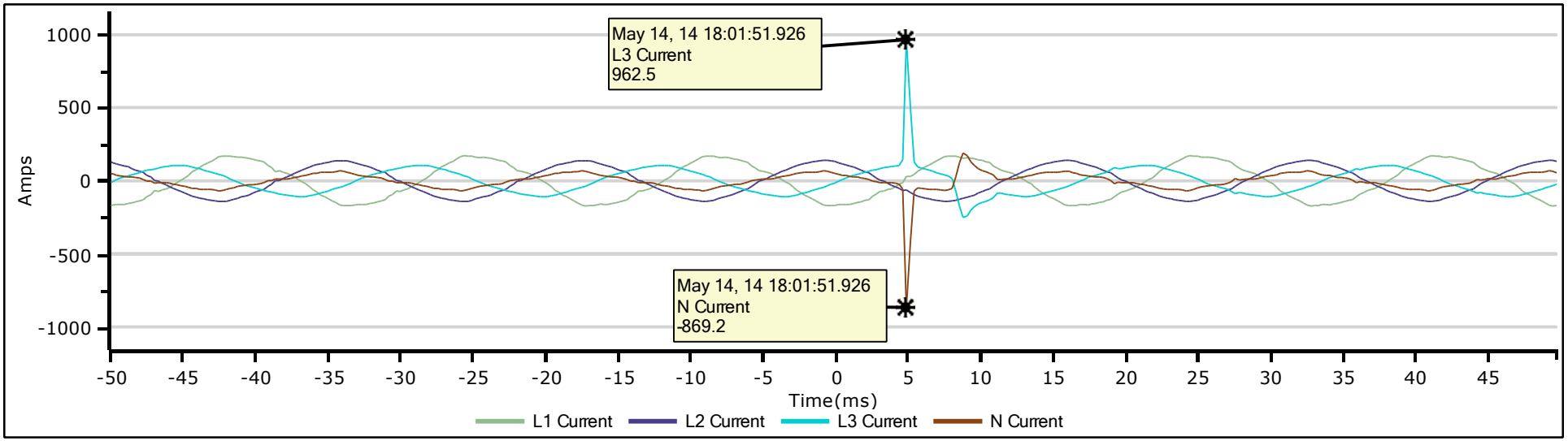
Site: 23807

Event 4522 - Wednesday, May 14, 2014 18:01:51

5/20/2014

Volts Angle: 119.7
Phase Seq: CW(ABC)





Comments:

Ph - N load on feed.

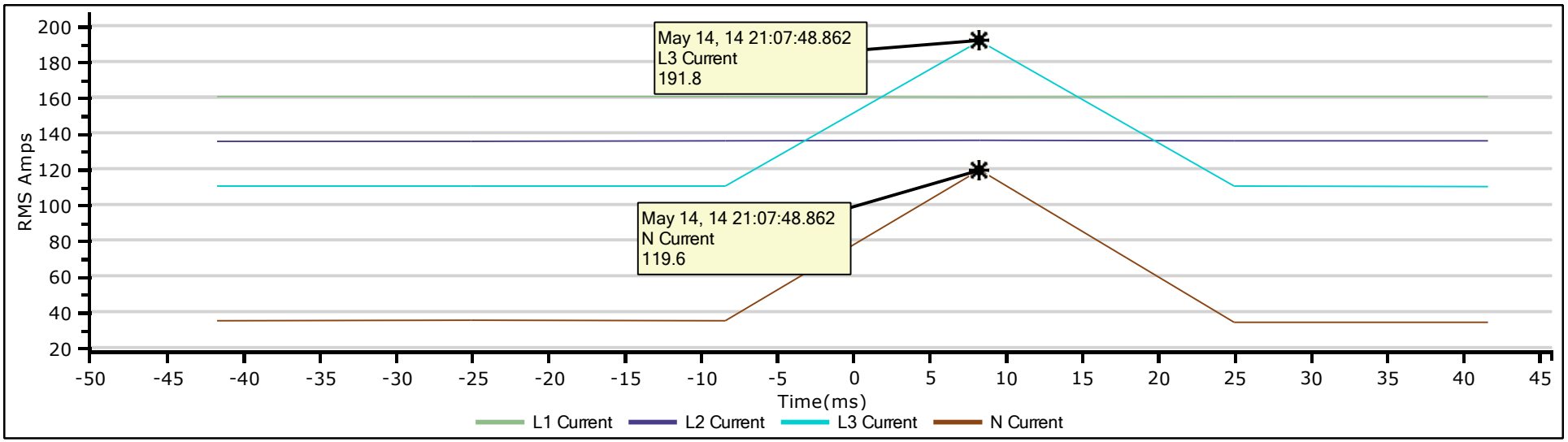
Waveform Capture

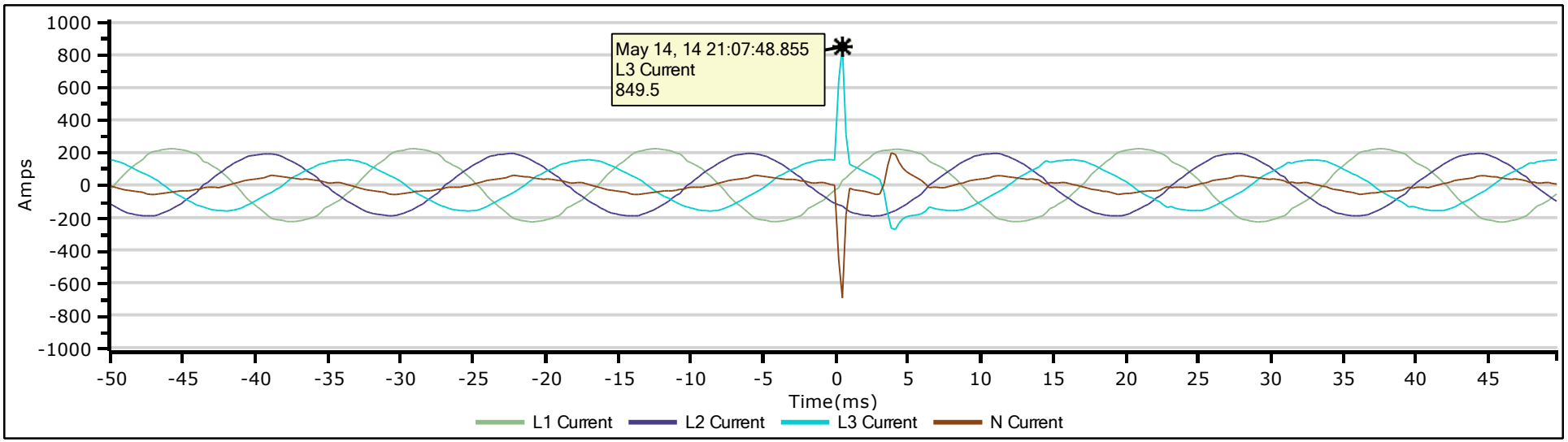
Site: 23807

Event 4587 - Wednesday, May 14, 2014 21:07:48

5/20/2014

Volts Angle: 119.8
Phase Seq: CW(ABC)





Comments:

Ph - N load on feed.