

# Power Analysis Summary

## Introduction

This is a summary of the power conditions measured with these setup parameters:

*Measurement File:* C:\Users\fhaley\Documents\Fluke\Power Analyze\Core 2 Recording.odn  
*Start Time:* 12/12/2010 00:00:00  
*End Time:* 12/19/2010 00:00:00  
*Duration:* 7 - 00:00:00

*Power Configuration:* 3-ph Delta  
*Nominal Voltage:* 480V  
*Nominal Frequency:* 60Hz

## Instrument

The measurement was performed with a FLUKE 1750 with these characteristics:

*Instrument:* 1750 <9488005>

### Voltage Inputs

*A:* A-A, 1.00:1  
*B:* B-B, 1.00:1  
*C:* C-C, 1.00:1  
*N:* N-N, 1.00:1

### Current Inputs

*A:* A-A, 1.00:1  
*B:* B-B, 1.00:1  
*C:* C-C, 1.00:1  
*N:* N-N, 1.00:1  
*G:* G-G, 1.00:1

### Current Probes

*A:* 2-100A Flexi-CT Model 3110 or 3112  
*B:* 2-100A Flexi-CT Model 3110 or 3112  
*C:* 2-100A Flexi-CT Model 3110 or 3112  
*N:* Unidentified CT Defaults to 5A  
*G:* Unidentified CT Defaults to 5A

## Summary

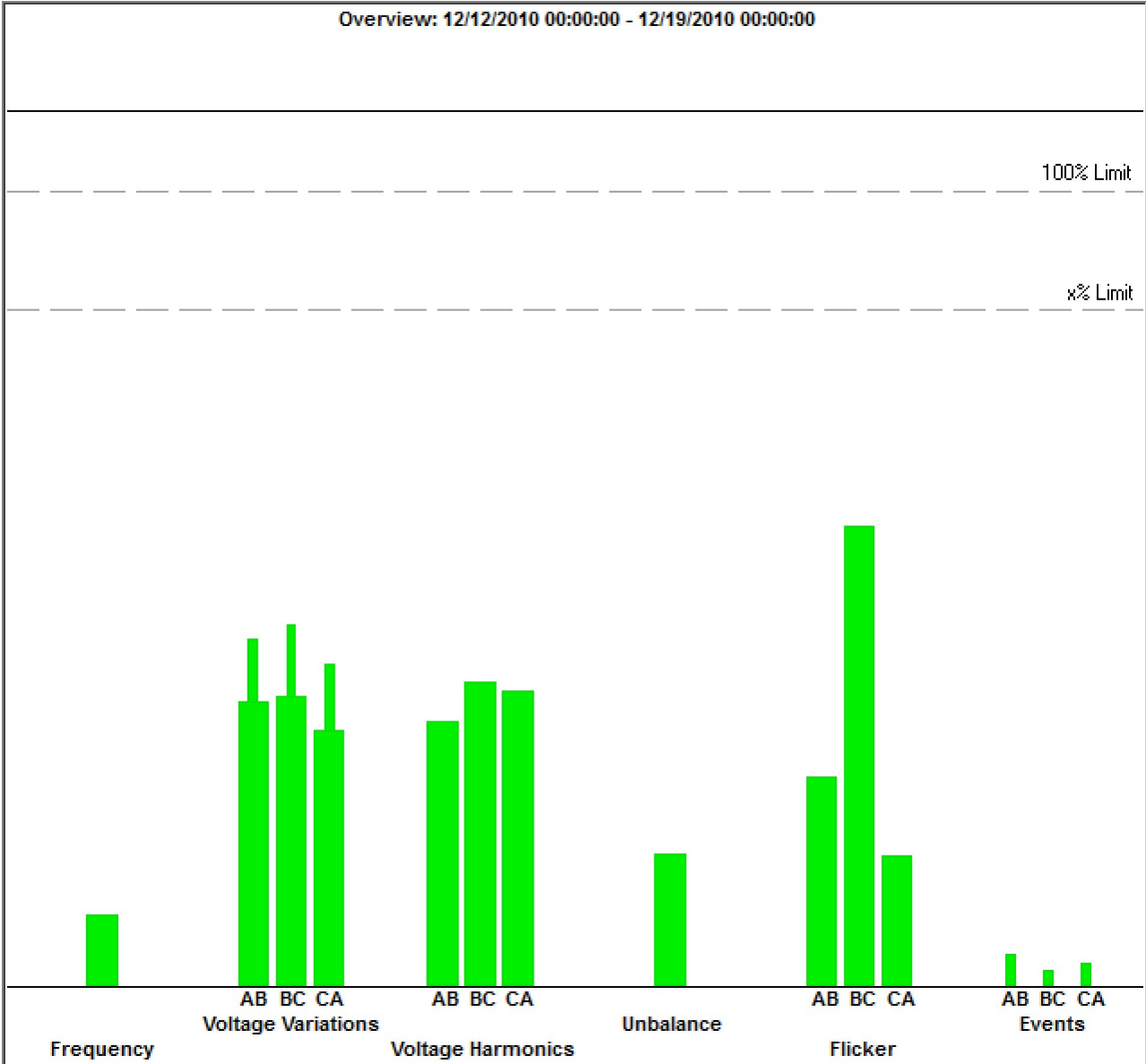
*The Summary section compares the key power quality parameters to pre-defined levels. It consists of three elements: Overview, Events and Harmonics.*

*The overview summarizes the overall power quality for the chosen reporting period in six classes: frequency, voltage variations, voltage harmonics, unbalance, flicker and events. The total number of readings for each of these variables is compared to the 100% limits. A different percentage of the total number of readings (typically 95%) is also compared to specific limits. This allows a power quality survey according to international or local standards (e.g. EN50160).*

*The summary indicates the number of values within the limit and the extreme value measured during the selected period.*

# Summary

## Overview Graph



## Summary

### Frequency

#### Settings

<i>Required values within limit</i>	99.5% of the time
<i>Maximum 99.5% / 100%</i>	+1/+4
<i>Minimum 99.5% / 100%</i>	-1/-6

#### Results

	99.5% Value	Extreme Value
% Within Limit	100.00%	100.00%
Maximum 99.5% / 100%	60.06Hz (0.10%)	60.08Hz (0.13%)
Time		12/17/2010 05:57:50
Minimum 99.5% / 100%	59.94Hz (-0.11%)	59.91Hz (-0.15%)
Time		12/13/2010 06:13:10

### Slow Voltage Variations

#### Settings

<i>Required values within limit</i>	95% of the time
<i>Maximum 95% / 100%</i>	+10/+10
<i>Minimum 95% / 100%</i>	-10/-15

#### Results

	95% Value			Extreme Value		
	AB	BC	CA	AB	BC	CA
% Within Limit	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Maximum 95% / 100%	500.17V (4.20%)	500.58V (4.29%)	498.20V (3.79%)	500.92V (4.36%)	501.79V (4.54%)	499.43V (4.05%)
Time				12/13/2010 14:20:00	12/14/2010 00:50:00	12/13/2010 14:20:00
Minimum 95% / 100%	494.17V (2.95%)	494.46V (3.01%)	492.28V (2.56%)	493.03V (2.71%)	492.96V (2.70%)	490.53V (2.19%)
Time				12/13/2010 06:10:00	12/13/2010 07:20:00	12/13/2010 06:10:00

## Summary

### Voltage Harmonics

#### Settings

Required values within limit 95% of the time  
 5. Order 95% / 100% 6/-

#### Results

	95% Value			Extreme Value		
	AB	BC	CA	AB	BC	CA
5. Order 95% / 100%	2.35%	2.71%	2.62%	(2.47%)	(2.85%)	(2.78%)
Time				12/13/2010 14:10:00	12/13/2010 14:10:00	12/13/2010 14:10:00

### Unbalance

#### Settings

Required values within limit 95% of the time  
 Maximum 95% / 100% 2/-

#### Results

	95% Value	Extreme Value
% Within Limit	100.00%	-
Maximum 95% / 100%	0.39%	(0.45%)
Time		12/12/2010 21:00:00

## Summary

### Flicker (Plt)

#### Settings

Required values within limit                      95% of the time  
 Maximum 95% / 100%                                1/-

#### Results

	95% Value			Extreme Value		
	AB	BC	CA	AB	BC	CA
% Within Limit	98.81%	98.81%	97.62%	-	-	-
Maximum 95% / 100%	0.31	0.68	0.19	(2.23)	(2.04)	(1.87)
Time				12/14/2010 00:20:00	12/14/2010 00:20:00	12/18/2010 02:20:00

### Events Summary

#### Settings

Number of allowed events                            100

#### Results

	AB	BC	CA
Number of	4	2	3

## Summary

### Events

#### Settings

<i>Swell threshold</i>	110% of nominal voltage
<i>Dip threshold</i>	90% of nominal voltage
<i>Short Interruption</i>	< 1% of nominal voltage
<i>Long Interruption</i>	< 1% of nominal voltage, > 180s

#### Results

##### Swell

	AB	BC	CA
Quantity	0	0	0
Max. Value			
Max. Duration			

##### Dip

	AB	BC	CA
Quantity	4	2	3
Max. Value	406.86V (-15.24%)	412.21V (-14.12%)	395.06V (-17.70%)
Max. Duration	0 - 00:00:00,058	0 - 00:00:00,066	0 - 00:00:00,058

##### Short Interruption

	AB	BC	CA
Quantity	0	0	0
Max. Value			
Max. Duration			

##### Long Interruption

	AB	BC	CA
Quantity	0	0	0
Max. Value			
Max. Duration			

## Summary

### DisDIP Table

#### Results

##### Swell

	Duration				
	t < 10ms	10ms ≤ t ≤ 500ms	500ms < t ≤ 5s	5s < t ≤ 60s	60s < t
u ≥ 120% (u ≥ 576V)					
120% > u > 110% (576V > u > 528V)					
110% ≥ u (528V ≥ u)					

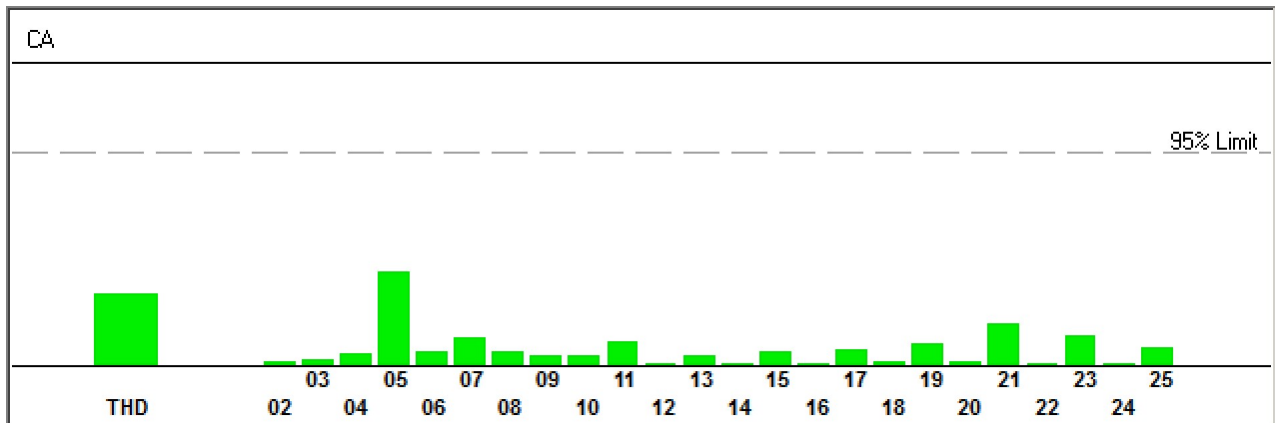
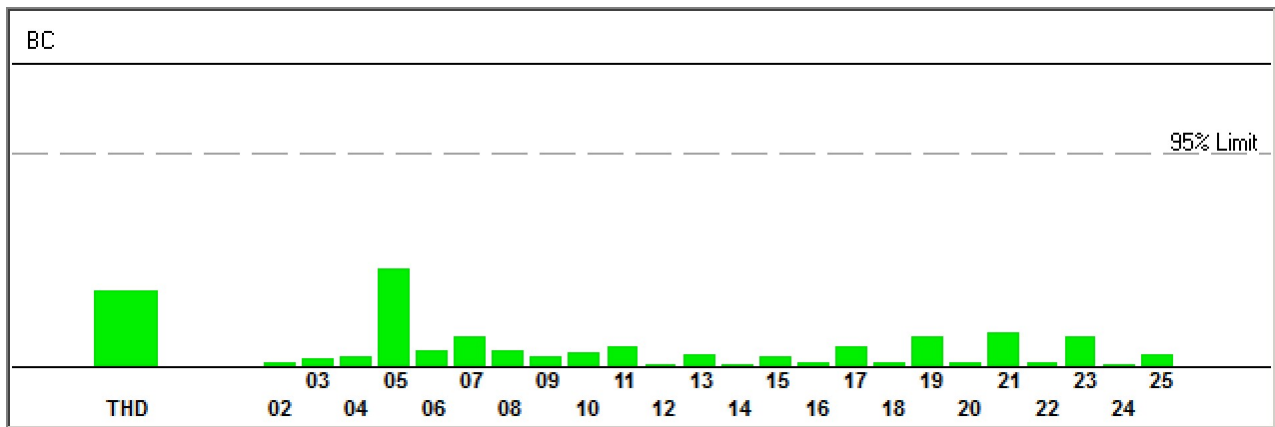
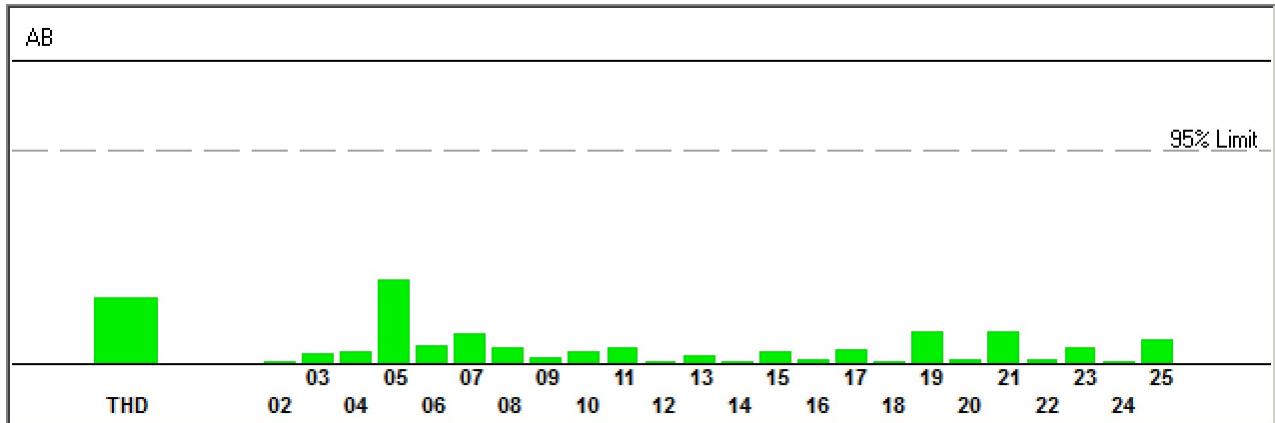
##### Dip

	Duration						
	t < 10ms	10ms ≤ t ≤ 200ms	200ms < t ≤ 500ms	500ms < t ≤ 1s	1s < t ≤ 5s	5s < t ≤ 60s	60s < t
u ≥ 90% (u ≥ 432V)							
90% > u ≥ 80% (432V > u ≥ 384V)		9					
80% > u ≥ 70% (384V > u ≥ 336V)							
70% > u ≥ 40% (336V > u ≥ 192V)							
40% > u ≥ 5% (192V > u ≥ 24V)							
5% > u (24V > u)							



## Summary

### Voltage Harmonics Graphs



## Summary

### Voltage Harmonics Tables

#### Settings

Required values within limit

95% of the time

#### Phase AB

	95% Value			Extreme Value			
	Limit	Value	% Within Limit	Limit	Value	% Within Limit	Time
THD	8%	2.46%	100.00%	-	2.61%	-	12/13/2010 14:10:00
2. Order	2%	0.03%	100.00%	-	0.04%	-	12/15/2010 10:10:00
3. Order	5%	0.25%	100.00%	-	0.28%	-	12/17/2010 07:00:00
4. Order	1%	0.05%	100.00%	-	0.07%	-	12/14/2010 09:10:00
5. Order	6%	2.35%	100.00%	-	2.47%	-	12/13/2010 14:10:00
6. Order	0.5%	0.04%	100.00%	-	0.10%	-	12/17/2010 02:10:00
7. Order	5%	0.71%	100.00%	-	0.82%	-	12/13/2010 14:00:00
8. Order	0.5%	0.04%	100.00%	-	0.07%	-	12/17/2010 02:10:00
9. Order	1.5%	0.04%	100.00%	-	0.06%	-	12/18/2010 05:10:00
10. Order	0.5%	0.03%	100.00%	-	0.05%	-	12/15/2010 11:20:00
11. Order	3.5%	0.27%	100.00%	-	0.30%	-	12/12/2010 03:10:00
12. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/15/2010 11:20:00
13. Order	3%	0.12%	100.00%	-	0.15%	-	12/13/2010 03:20:00
14. Order	0.5%	0.00%	100.00%	-	0.01%	-	12/13/2010 04:30:00
15. Order	0.5%	0.03%	100.00%	-	0.05%	-	12/13/2010 03:20:00
16. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/14/2010 09:10:00
17. Order	2%	0.14%	100.00%	-	0.28%	-	12/13/2010 03:30:00
18. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
19. Order	1.5%	0.23%	100.00%	-	0.43%	-	12/13/2010 03:20:00
20. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
21. Order	0.5%	0.07%	100.00%	-	0.12%	-	12/13/2010 03:20:00
22. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
23. Order	1.5%	0.12%	100.00%	-	0.27%	-	12/13/2010 03:30:00
24. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
25. Order	1.5%	0.16%	100.00%	-	0.30%	-	12/13/2010 03:20:00

## Summary

### Phase BC

	95% Value			Extreme Value			
	Limit	Value	% Within Limit	Limit	Value	% Within Limit	Time
THD	8%	2.80%	100.00%	-	2.95%	-	12/13/2010 14:10:00
2. Order	2%	0.03%	100.00%	-	0.05%	-	12/14/2010 01:00:00
3. Order	5%	0.19%	100.00%	-	0.23%	-	12/17/2010 20:40:00
4. Order	1%	0.05%	100.00%	-	0.08%	-	12/17/2010 02:10:00
5. Order	6%	2.71%	100.00%	-	2.85%	-	12/13/2010 14:10:00
6. Order	0.5%	0.04%	100.00%	-	0.11%	-	12/17/2010 02:10:00
7. Order	5%	0.68%	100.00%	-	0.78%	-	12/15/2010 17:40:00
8. Order	0.5%	0.04%	100.00%	-	0.07%	-	12/16/2010 19:20:00
9. Order	1.5%	0.06%	100.00%	-	0.07%	-	12/16/2010 04:50:00
10. Order	0.5%	0.03%	100.00%	-	0.05%	-	12/13/2010 13:20:00
11. Order	3.5%	0.34%	100.00%	-	0.37%	-	12/17/2010 23:50:00
12. Order	0.5%	0.00%	100.00%	-	0.01%	-	12/13/2010 04:30:00
13. Order	3%	0.17%	100.00%	-	0.19%	-	12/18/2010 19:00:00
14. Order	0.5%	0.00%	100.00%	-	0.01%	-	12/13/2010 04:30:00
15. Order	0.5%	0.02%	100.00%	-	0.03%	-	12/12/2010 09:30:00
16. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
17. Order	2%	0.18%	100.00%	-	0.36%	-	12/13/2010 03:20:00
18. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
19. Order	1.5%	0.21%	100.00%	-	0.40%	-	12/13/2010 03:20:00
20. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
21. Order	0.5%	0.08%	100.00%	-	0.13%	-	12/13/2010 04:00:00
22. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
23. Order	1.5%	0.21%	100.00%	-	0.39%	-	12/13/2010 03:30:00
24. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
25. Order	1.5%	0.09%	100.00%	-	0.20%	-	12/13/2010 03:20:00

## Summary

### Phase CA

	95% Value			Extreme Value			
	Limit	Value	% Within Limit	Limit	Value	% Within Limit	Time
THD	8%	2.71%	100.00%	-	2.89%	-	12/13/2010 14:10:00
2. Order	2%	0.03%	100.00%	-	0.04%	-	12/14/2010 01:00:00
3. Order	5%	0.12%	100.00%	-	0.16%	-	12/13/2010 17:20:00
4. Order	1%	0.05%	100.00%	-	0.07%	-	12/13/2010 23:50:00
5. Order	6%	2.62%	100.00%	-	2.78%	-	12/13/2010 14:10:00
6. Order	0.5%	0.03%	100.00%	-	0.11%	-	12/15/2010 11:50:00
7. Order	5%	0.66%	100.00%	-	0.76%	-	12/16/2010 08:10:00
8. Order	0.5%	0.03%	100.00%	-	0.06%	-	12/15/2010 11:50:00
9. Order	1.5%	0.07%	100.00%	-	0.09%	-	12/16/2010 02:40:00
10. Order	0.5%	0.02%	100.00%	-	0.04%	-	12/15/2010 11:20:00
11. Order	3.5%	0.38%	100.00%	-	0.41%	-	12/12/2010 03:00:00
12. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/15/2010 11:20:00
13. Order	3%	0.15%	100.00%	-	0.17%	-	12/18/2010 19:00:00
14. Order	0.5%	0.00%	100.00%	-	0.01%	-	12/13/2010 04:30:00
15. Order	0.5%	0.03%	100.00%	-	0.05%	-	12/13/2010 03:50:00
16. Order	0.5%	0.00%	100.00%	-	0.01%	-	12/13/2010 04:30:00
17. Order	2%	0.16%	100.00%	-	0.33%	-	12/13/2010 03:20:00
18. Order	0.5%	0.01%	100.00%	-	0.02%	-	12/13/2010 04:30:00
19. Order	1.5%	0.15%	100.00%	-	0.26%	-	12/13/2010 03:30:00
20. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 03:30:00
21. Order	0.5%	0.10%	100.00%	-	0.15%	-	12/13/2010 03:20:00
22. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
23. Order	1.5%	0.21%	100.00%	-	0.43%	-	12/13/2010 03:30:00
24. Order	0.5%	0.01%	100.00%	-	0.01%	-	12/13/2010 04:30:00
25. Order	1.5%	0.12%	100.00%	-	0.23%	-	12/13/2010 03:30:00

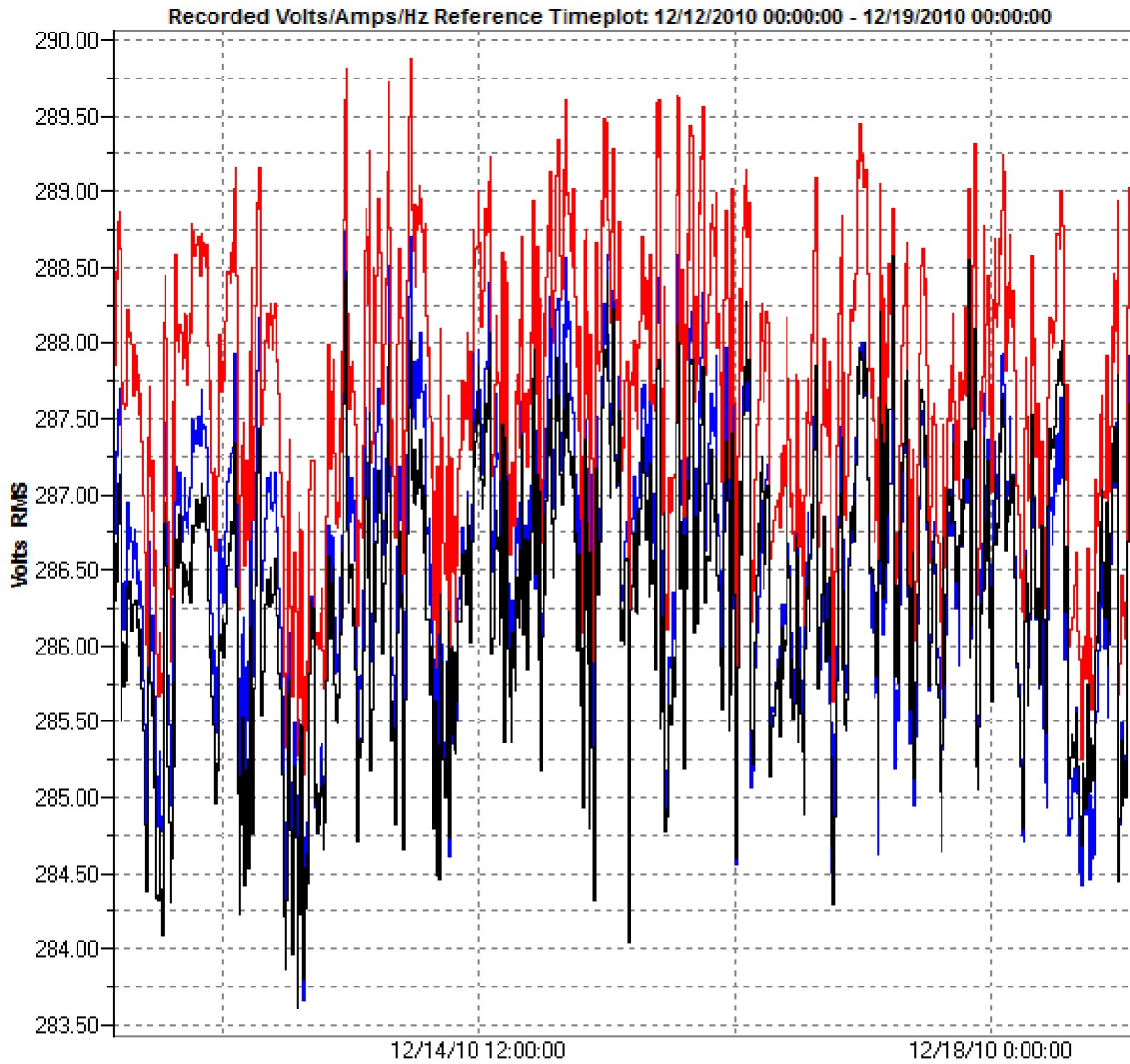
## ***Volts/Amps/Hz***

*This section contains graphical summaries for each of the selected parameters during the monitor period.*

# Volts/Amps/Hz

## 10 Minutes Trend Data

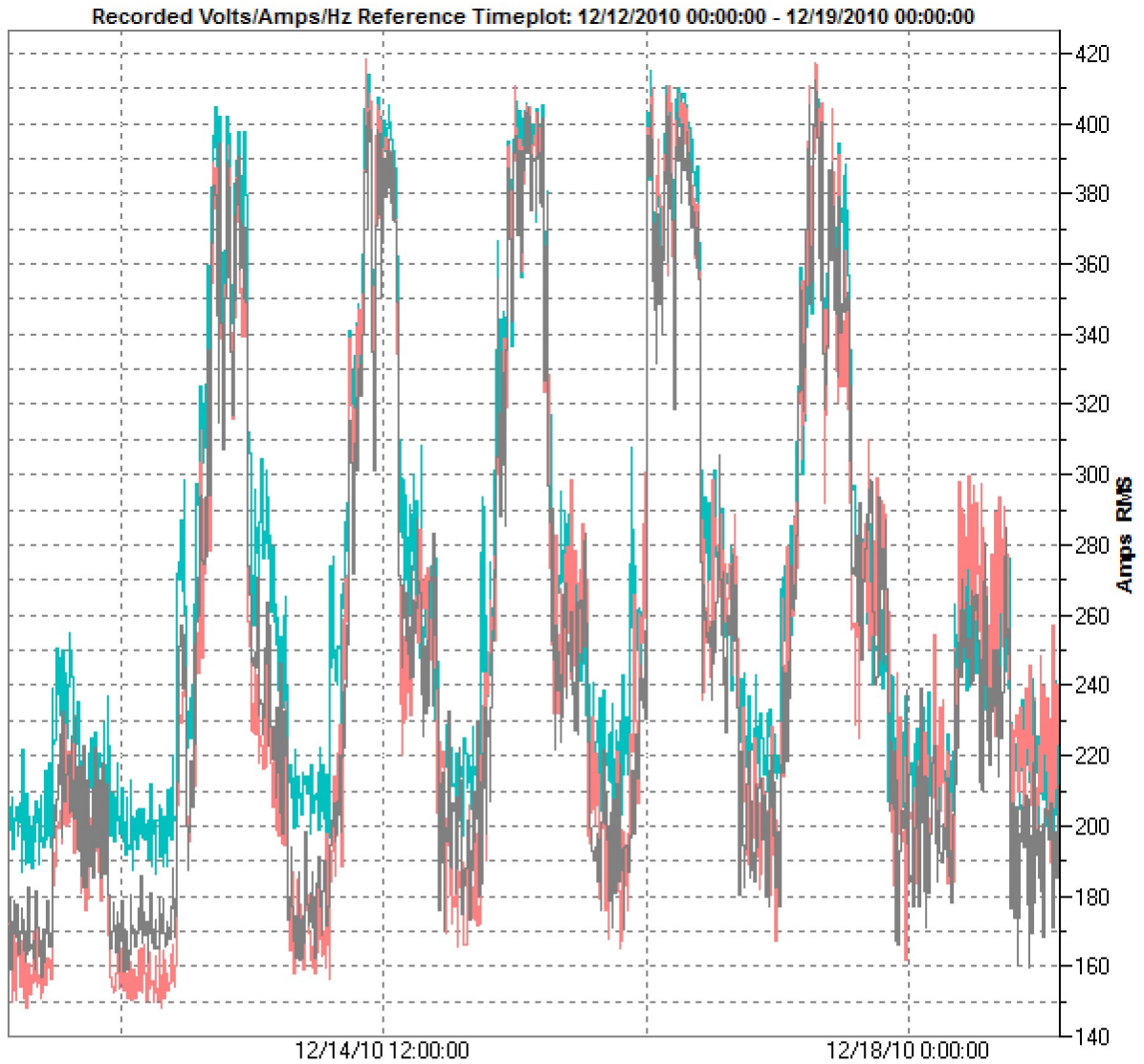
Phase	Max	Time	Min	Time
V RMS Avg AN	288.57 V RMS	12/17/2010 08:00:00	283.62 V RMS	12/13/2010 06:10:00
V RMS Avg BN	289.87 V RMS	12/14/2010 00:50:00	285.15 V RMS	12/13/2010 07:20:00
V RMS Avg CN	288.95 V RMS	12/13/2010 14:20:00	283.67 V RMS	12/13/2010 07:20:00



# Volts/Amps/Hz

## 10 Minutes Trend Data

Phase	Max	Time	Min	Time
A RMS Avg A	412.41 A RMS	12/17/2010 09:00:00	156.89 A RMS	12/12/2010 05:30:00
A RMS Avg B	418.32 A RMS	12/14/2010 09:10:00	148.43 A RMS	12/13/2010 00:30:00
A RMS Avg C	415.03 A RMS	12/16/2010 06:40:00	186.27 A RMS	12/12/2010 23:40:00

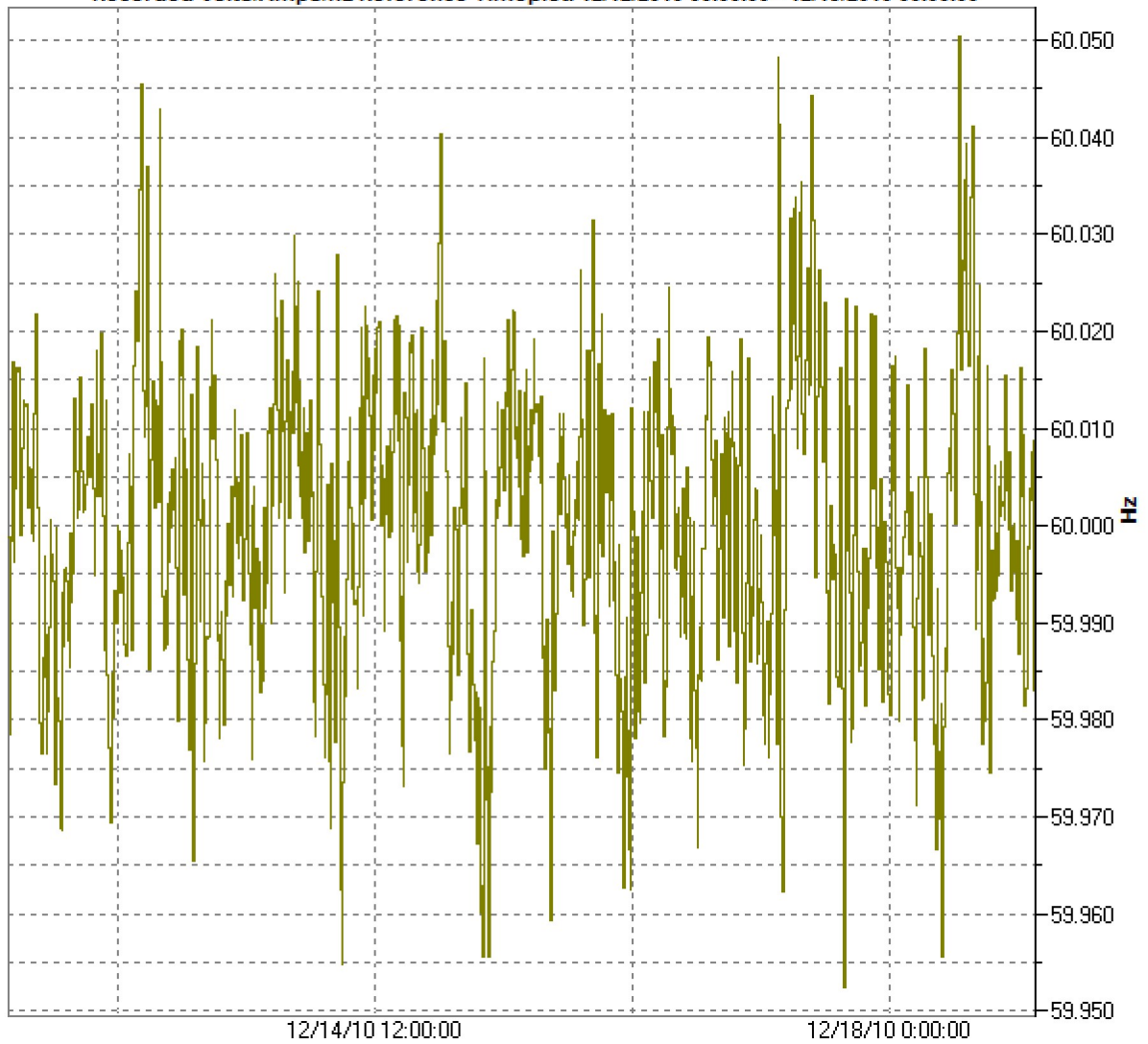


# Volts/Amps/Hz

## 10 Minutes Trend Data

Phase	Max	Time	Min	Time
Freq Avg	60.05 Hz	12/18/2010 11:40:00	59.95 Hz	12/17/2010 16:50:00

Recorded Volts/Amps/Hz Reference Timeplot: 12/12/2010 00:00:00 - 12/19/2010 00:00:00

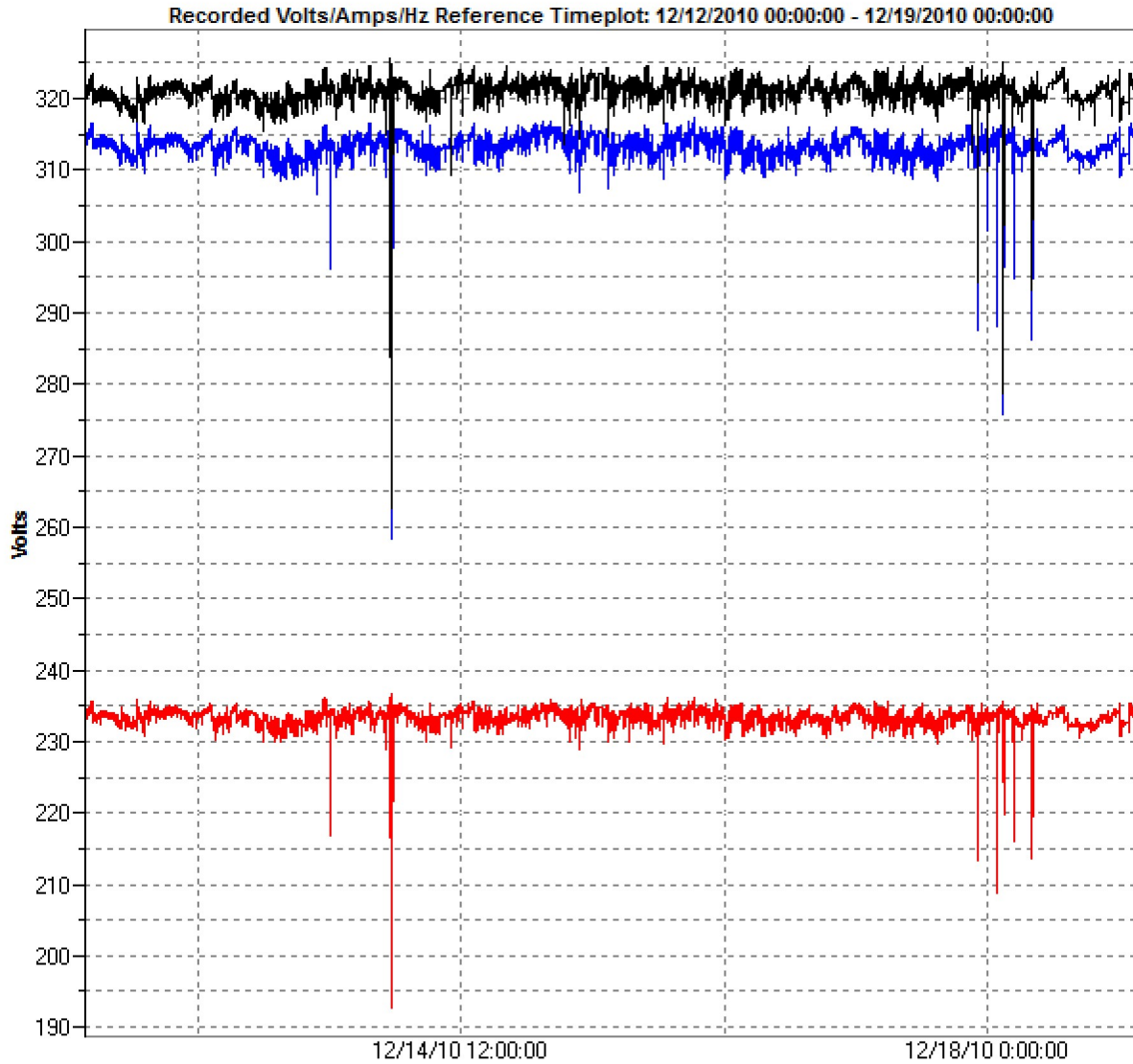




# Volts/Amps/Hz

## Detailed View

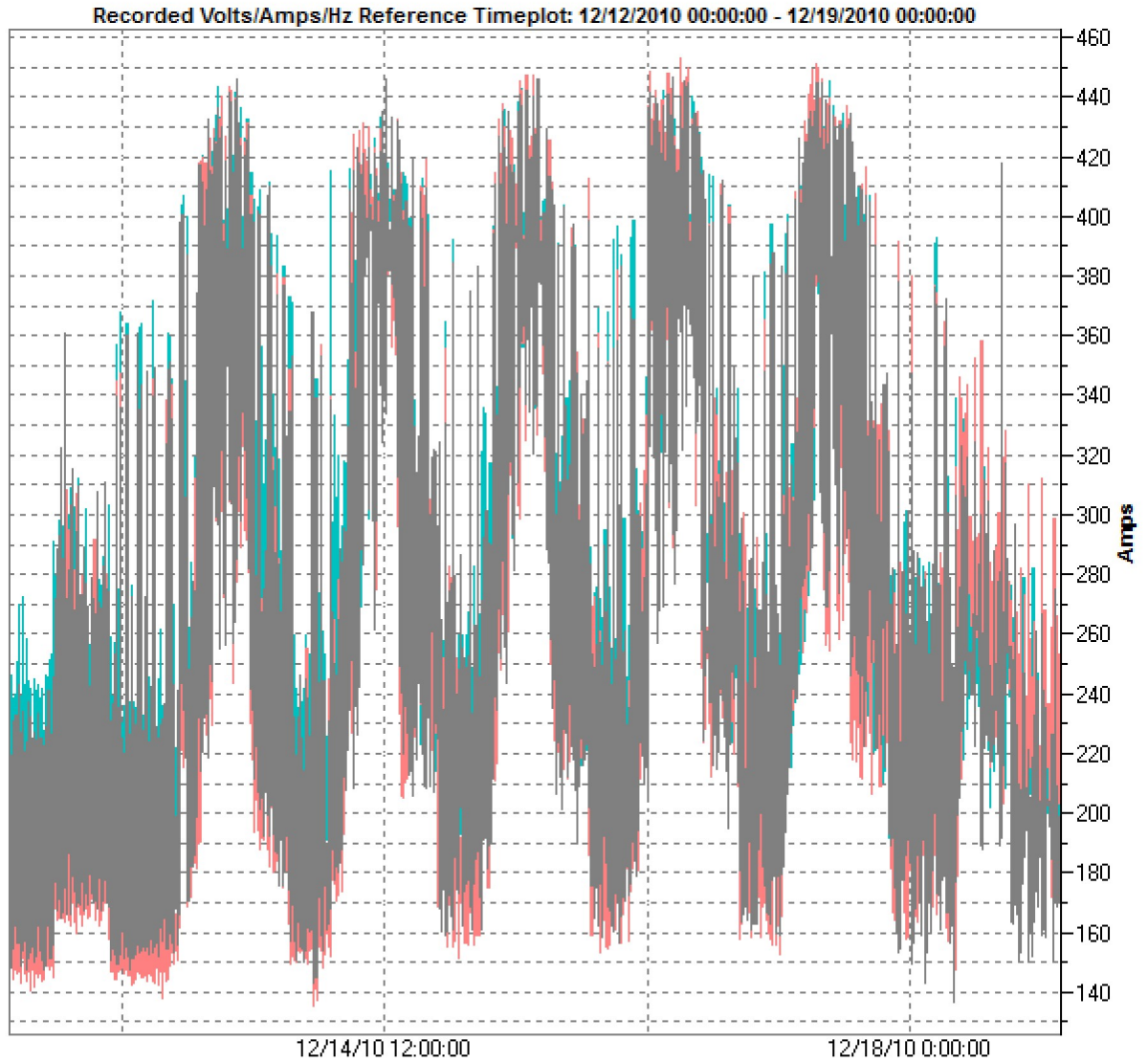
Phase	Max	Time	Min	Time
V RMS Avg AN	325.69 V RMS	12/14/2010 00:36:24	262.59 V RMS	12/14/2010 00:53:58
V RMS Avg BN	236.62 V RMS	12/14/2010 00:55:54	192.80 V RMS	12/14/2010 00:53:58
V RMS Avg CN	318.17 V RMS	12/14/2010 00:55:54	258.51 V RMS	12/14/2010 00:53:58



# Volts/Amps/Hz

## Detailed View

Phase	Max	Time	Min	Time
A RMS Avg A	446.42 A RMS	12/16/2010 09:59:13	136.75 A RMS	12/18/2010 06:45:51
A RMS Avg B	453.06 A RMS	12/16/2010 11:15:51	135.64 A RMS	12/14/2010 00:42:18
A RMS Avg C	445.65 A RMS	12/16/2010 11:15:51	164.91 A RMS	12/18/2010 06:45:51

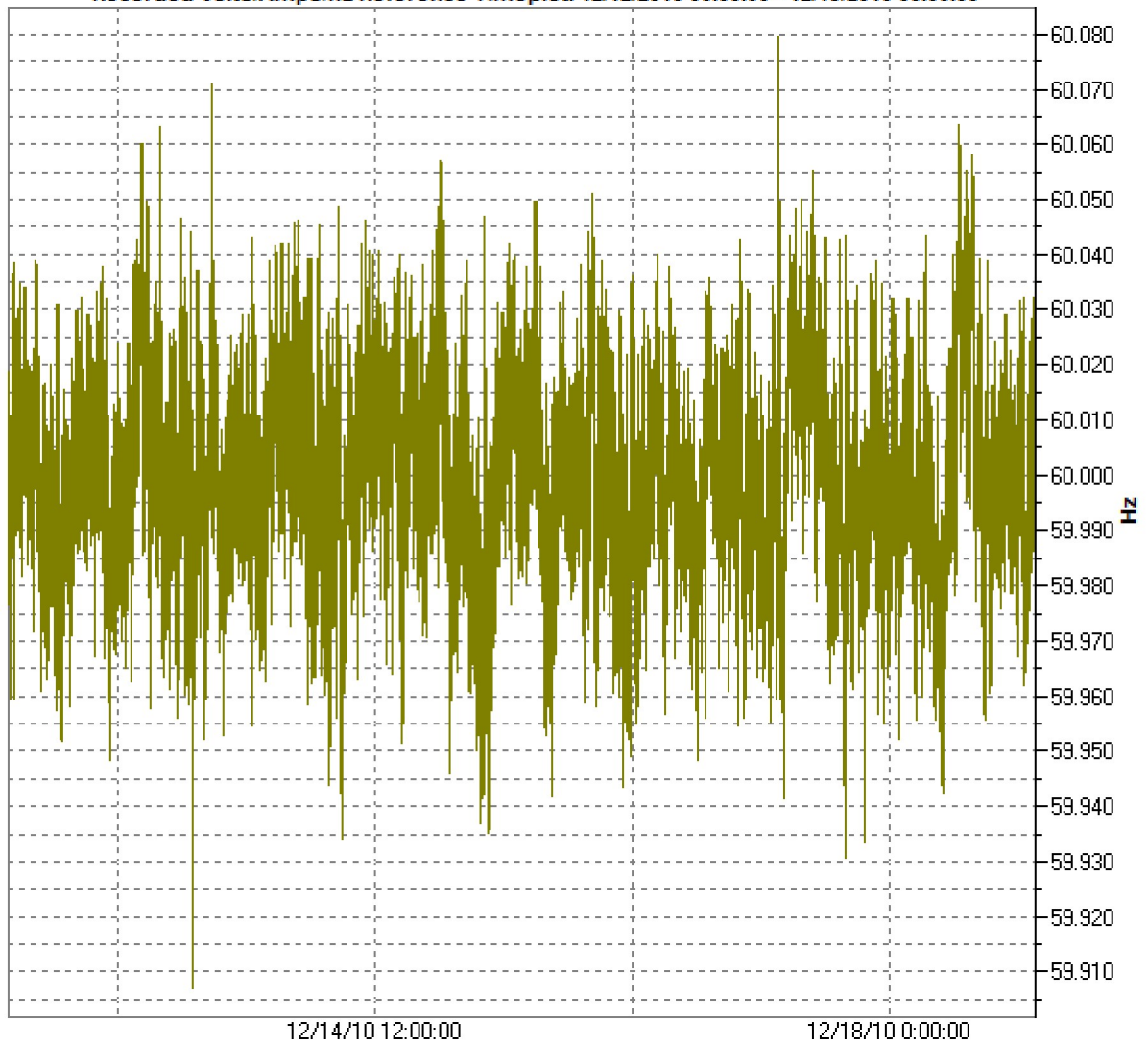


# Volts/Amps/Hz

## Detailed View

Phase	Max	Time	Min	Time
Freq Avg	60.08 Hz	12/17/2010 05:57:40	59.91 Hz	12/13/2010 06:12:10

Recorded Volts/Amps/Hz Reference Timeplot: 12/12/2010 00:00:00 - 12/19/2010 00:00:00



## Events

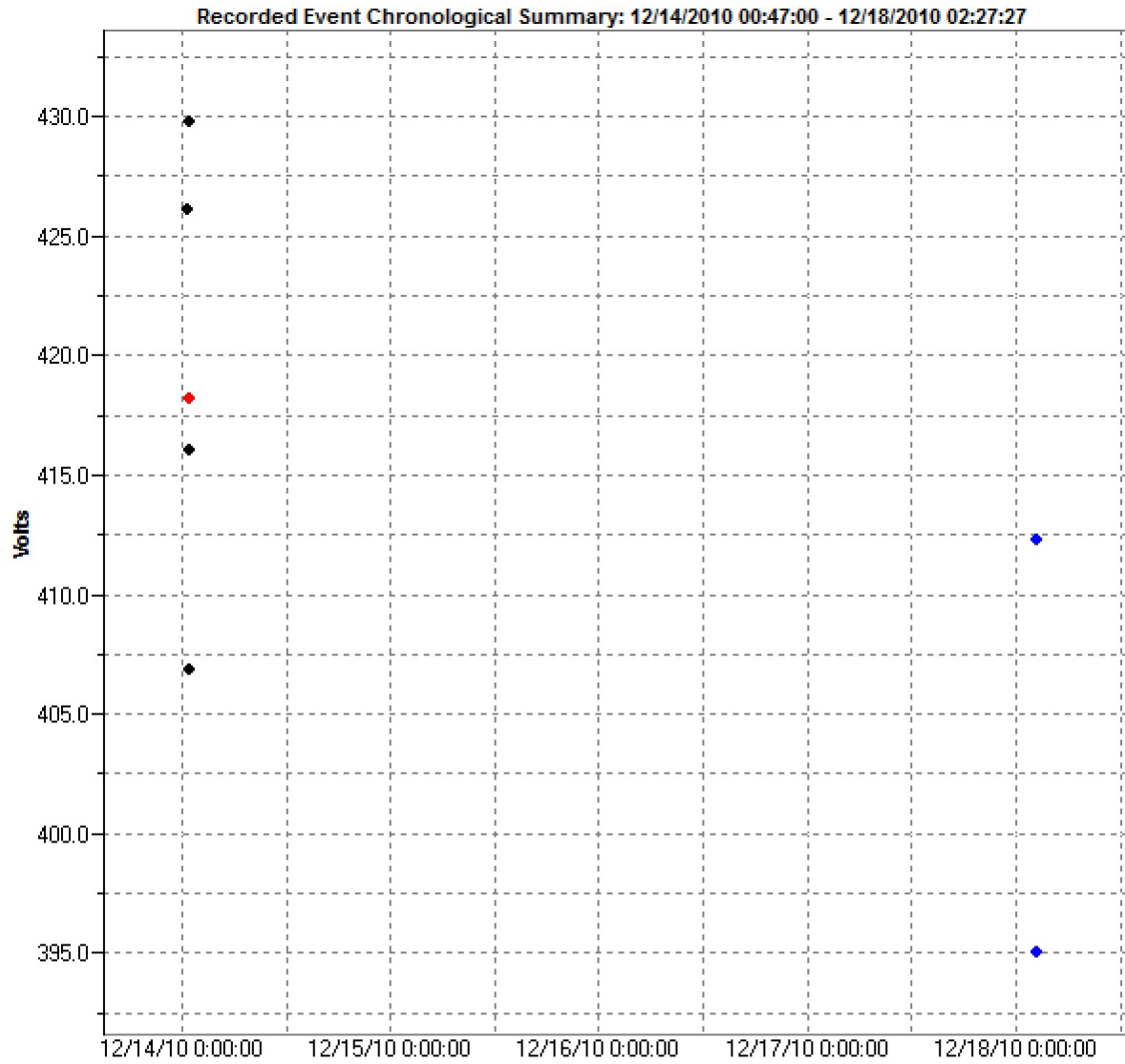
*The Events section is a summary of the voltage and current events that occurred at this location during the monitor period.*

*Events are defined as changes in the monitored voltage or current. These changes may be subtle or severe.*

*Tolerance curves provide a graphical representation of the likelihood of an event to disrupt equipment operations. Tolerance curves classify the event by magnitude and duration; there are standardized tolerance curves for voltage such as CBEMA or ITIC and for current, circuit breaker manufacturers supply curves of their equipments operation.*

## Events

Phase	Max	Time	Min	Time
V RMS Avg AB	429.79 V	12/14/2010 00:54:02	406.86 V	12/14/2010 00:54:43
V RMS Avg BC	418.16 V	12/14/2010 00:54:51	418.16 V	12/14/2010 00:54:51
V RMS Avg CA	412.25 V	12/18/2010 02:27:27	395.06 V	12/18/2010 02:27:16



## Events

7 of 7 shown (max 50 worst per type)

#	Date/Time	Type	Duration (d-h:mm:ss)	% of Nominal	Absolute	Phase
1	12/18/2010 02:27:16.483.995	Dip	0 - 00:00:00.058096300	82.30%	395.06 V	CA
2	12/14/2010 00:54:42.834.938	Dip	0 - 00:00:00.050029700	84.76%	406.86 V	AB
3	12/18/2010 02:27:26.573.486	Dip	0 - 00:00:00.041521300	85.88%	412.25 V	CA
4	12/14/2010 00:53:57.020.506	Dip	0 - 00:00:00.050005200	86.67%	416.01 V	AB
5	12/14/2010 00:54:51.230.315	Dip	0 - 00:00:00.058511800	87.12%	418.16 V	BC
6	12/14/2010 00:46:59.745.900	Dip	0 - 00:00:00.025038700	88.77%	426.09 V	AB
7	12/14/2010 00:54:02.161.249	Dip	0 - 00:00:00.033316900	89.54%	429.79 V	AB

## Events

Phase	Max	Time	Min	Time
A RMS Avg A	463.62 A	12/06/2010 14:12:34	463.62 A	12/06/2010 14:12:34

Recorded Event Chronological Summary: 12/06/2010 14:12:34 - 01/06/2011 09:01:37



## Events

1 of 1 shown (max 50 worst per type)

#	Date/Time	Type	Duration (d-h:mm:ss)	% of Nominal	Absolute	Phase
1	12/06/2010 14:12:34.195.428	Current	30 - 18:49:03.189677900	96.59%	463.62 A	A



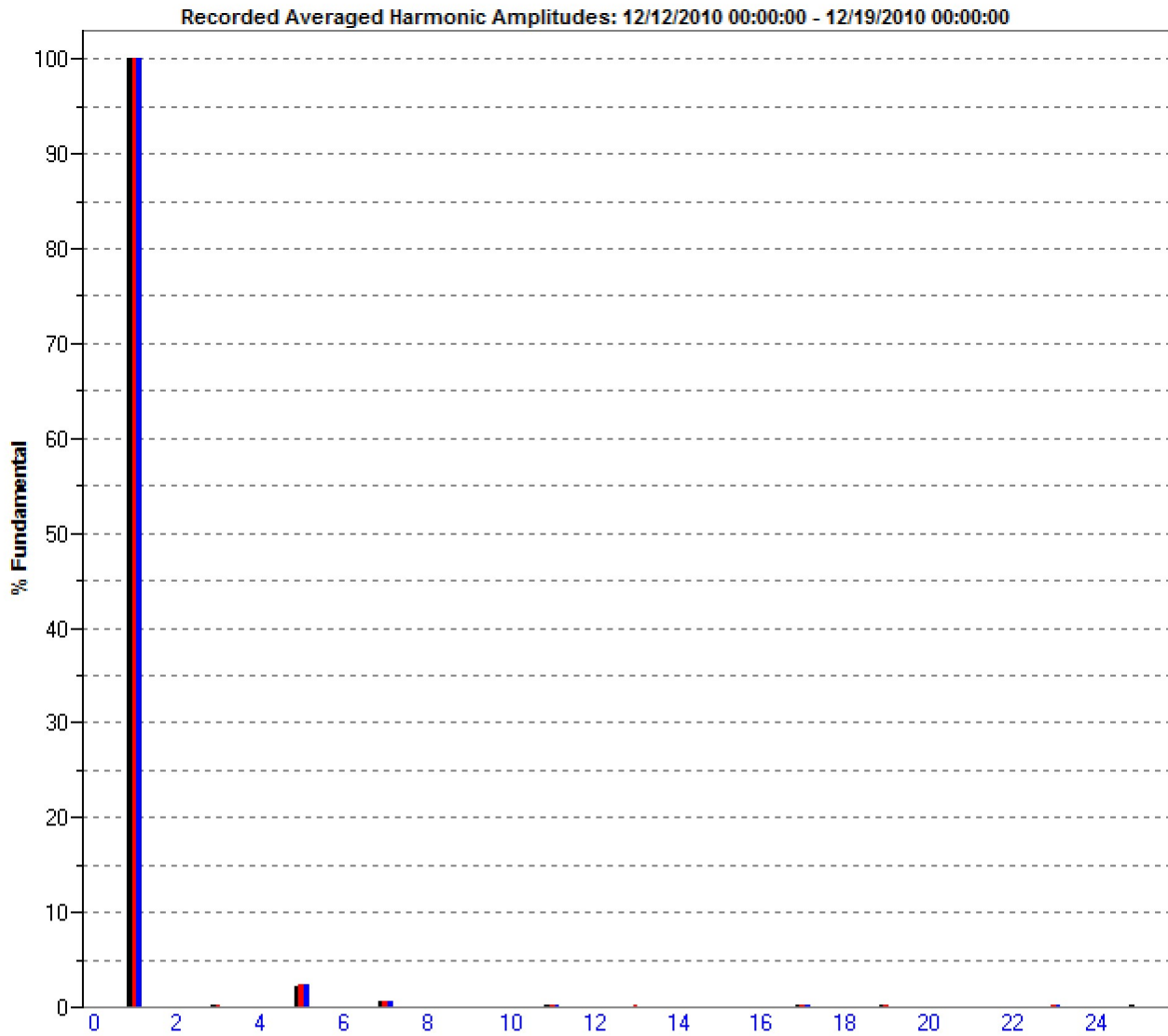
## **Harmonics/ Interharmonics**

*This section contains the voltage and current harmonics acquired during the monitor period. Harmonics may be represented in summary showing the overall harmonics in a spectral format or individual harmonics may be graphed over time to indicate the effects of harmonics and particular loads switching on.*

*Harmonics are typically caused by switching electronic loads. The distortion caused by harmonics can cause overheating in conductors and equipment and may cause equipment malfunctions.*

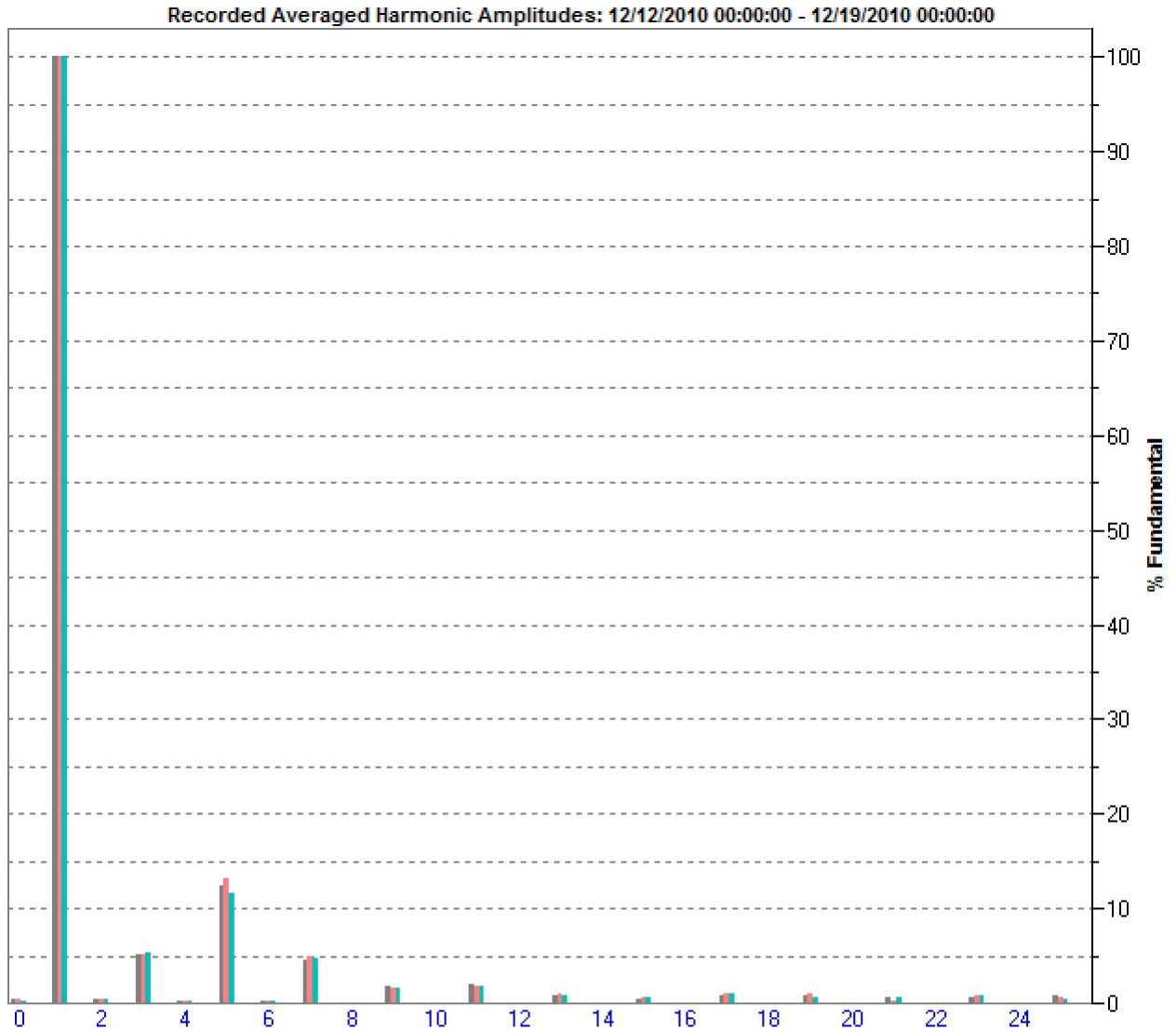
# Harmonics/ Interharmonics

Phase	Max	Harmonic Order
V Harmonics Avg AB	100.00 %	1
V Harmonics Avg BC	100.00 %	1
V Harmonics Avg CA	100.00 %	1



# Harmonics/ Interharmonics

Phase	Max	Harmonic Order
A Harmonics Avg A	100.00 %	1
A Harmonics Avg B	100.00 %	1
A Harmonics Avg C	100.00 %	1



## **Total Harmonic Distortion (THD) / Unbalance**

*This section contains summaries of THD for voltage and current. Additionally graphical summaries of voltage and current unbalanced are displayed during the monitor interval.*

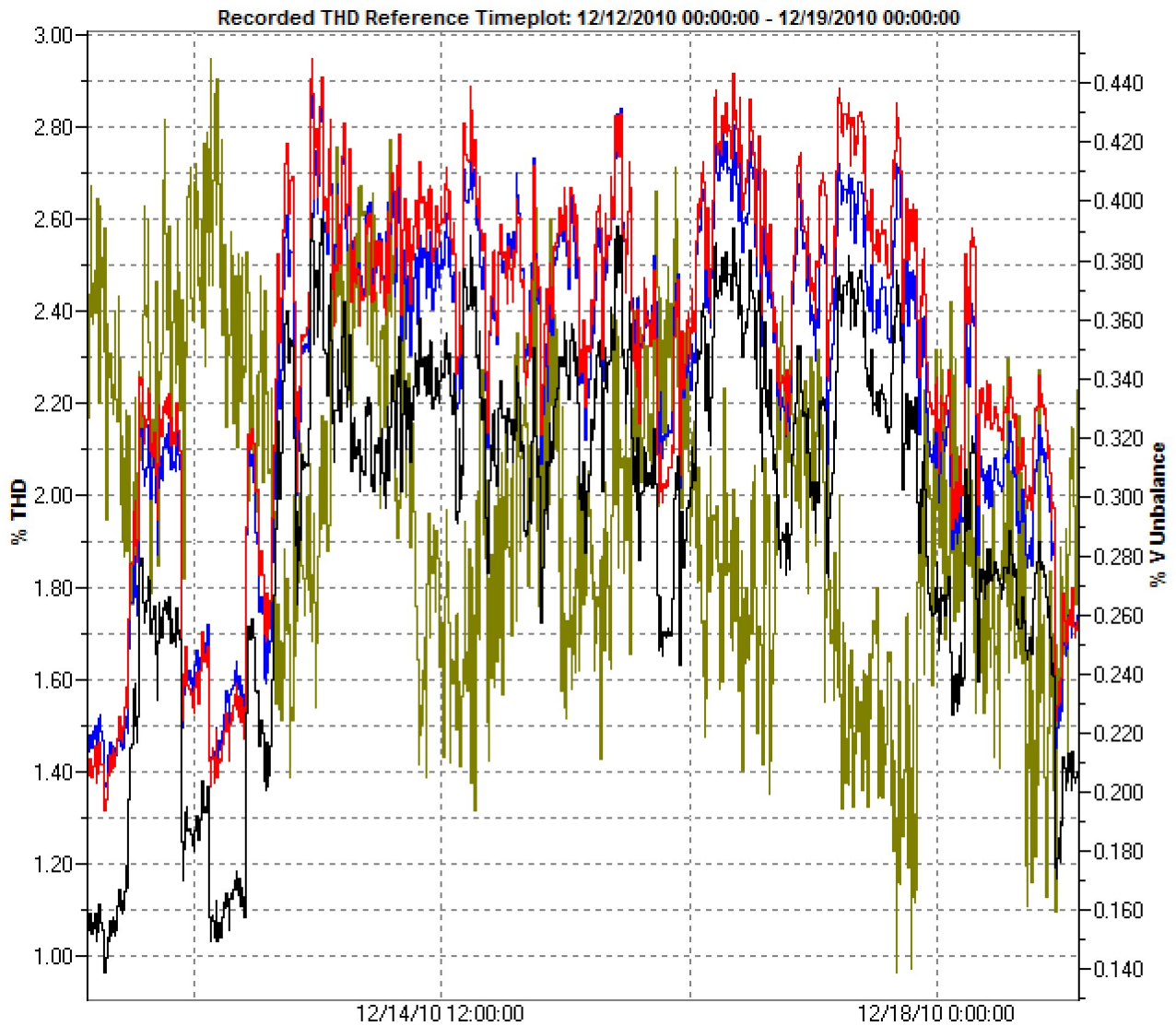
*There are international standards recommending the allowable level of harmonic distortion, the levels vary depending on the operating voltage level, it is recommended that you consult the local prevailing standard for comparison with the levels found in this report.*

*Excessive voltage unbalance is an indication that one or two phases may be overloaded. A redistribution of the loads on one or more of the phases may be in order.*

*Excessive current unbalance also indicates a poor distribution of loads. Although there may be no corresponding voltage unbalance, excessive current unbalance may result in tripped circuit breakers or transformer overheating.*

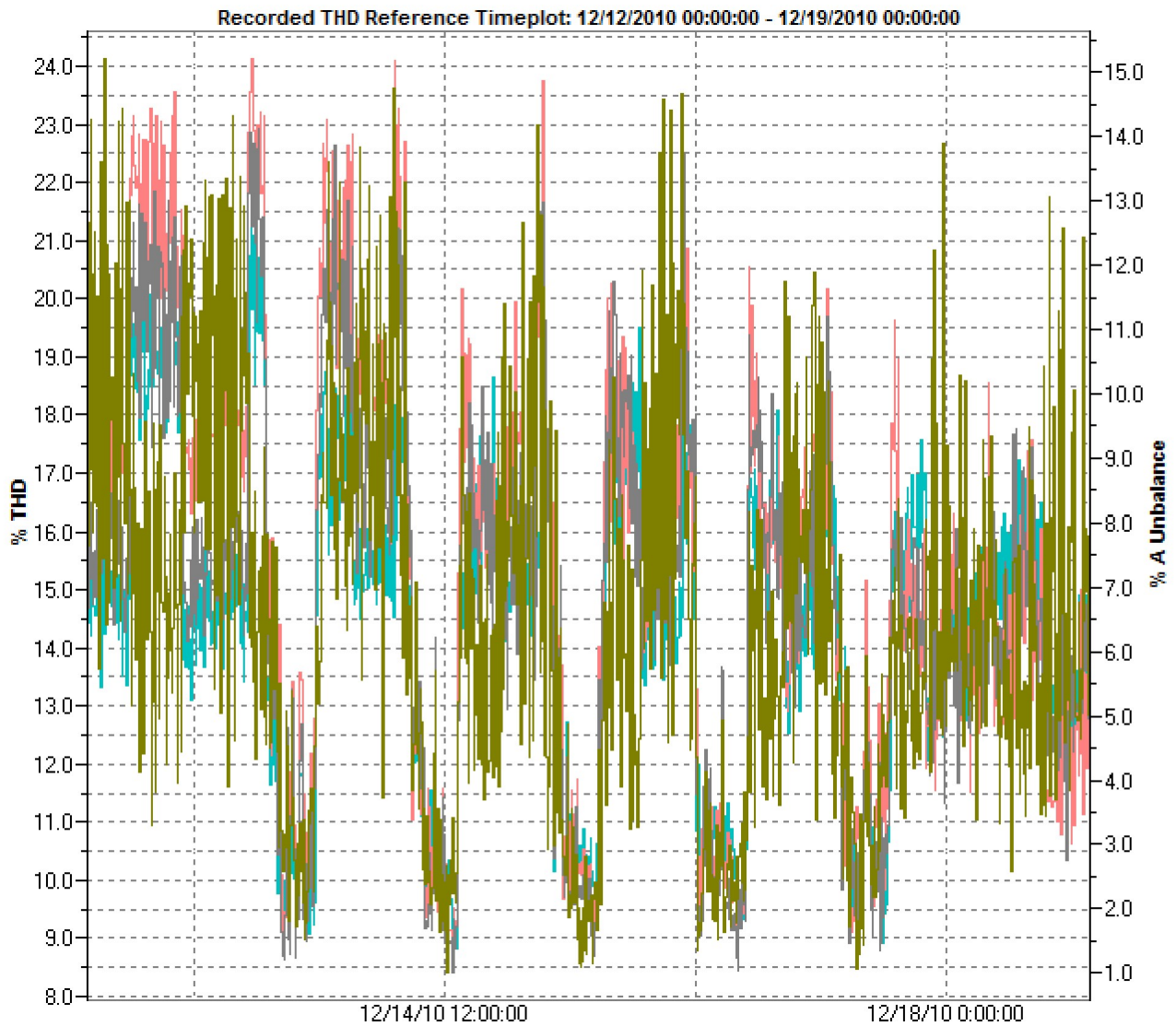
## Total Harmonic Distortion (THD) / Unbalance

Phase	Max	Time	Min	Time
V THD Avg AB	2.61 % THD	12/13/2010 14:10:00	0.97 % THD	12/12/2010 03:00:00
V THD Avg BC	2.95 % THD	12/13/2010 14:10:00	1.31 % THD	12/12/2010 03:00:00
V THD Avg CA	2.89 % THD	12/13/2010 14:10:00	1.37 % THD	12/12/2010 03:10:00
% V Unbalance	0.45	12/12/2010 21:00:00	0.14	12/17/2010 17:10:00



## Total Harmonic Distortion (THD) / Unbalance

Phase	Max	Time	Min	Time
% A Unbalance	15.21	12/12/2010 03:00:00	1.02	12/14/2010 12:30:00
A THD Avg A	22.93 % THD	12/13/2010 04:50:00	8.42 % THD	12/14/2010 13:20:00
A THD Avg B	24.13 % THD	12/13/2010 03:40:00	8.82 % THD	12/16/2010 13:10:00
A THD Avg C	21.20 % THD	12/13/2010 03:30:00	8.81 % THD	12/14/2010 14:00:00



## **Flicker**

*The Flicker section shows the effects of large fluctuating loads.*

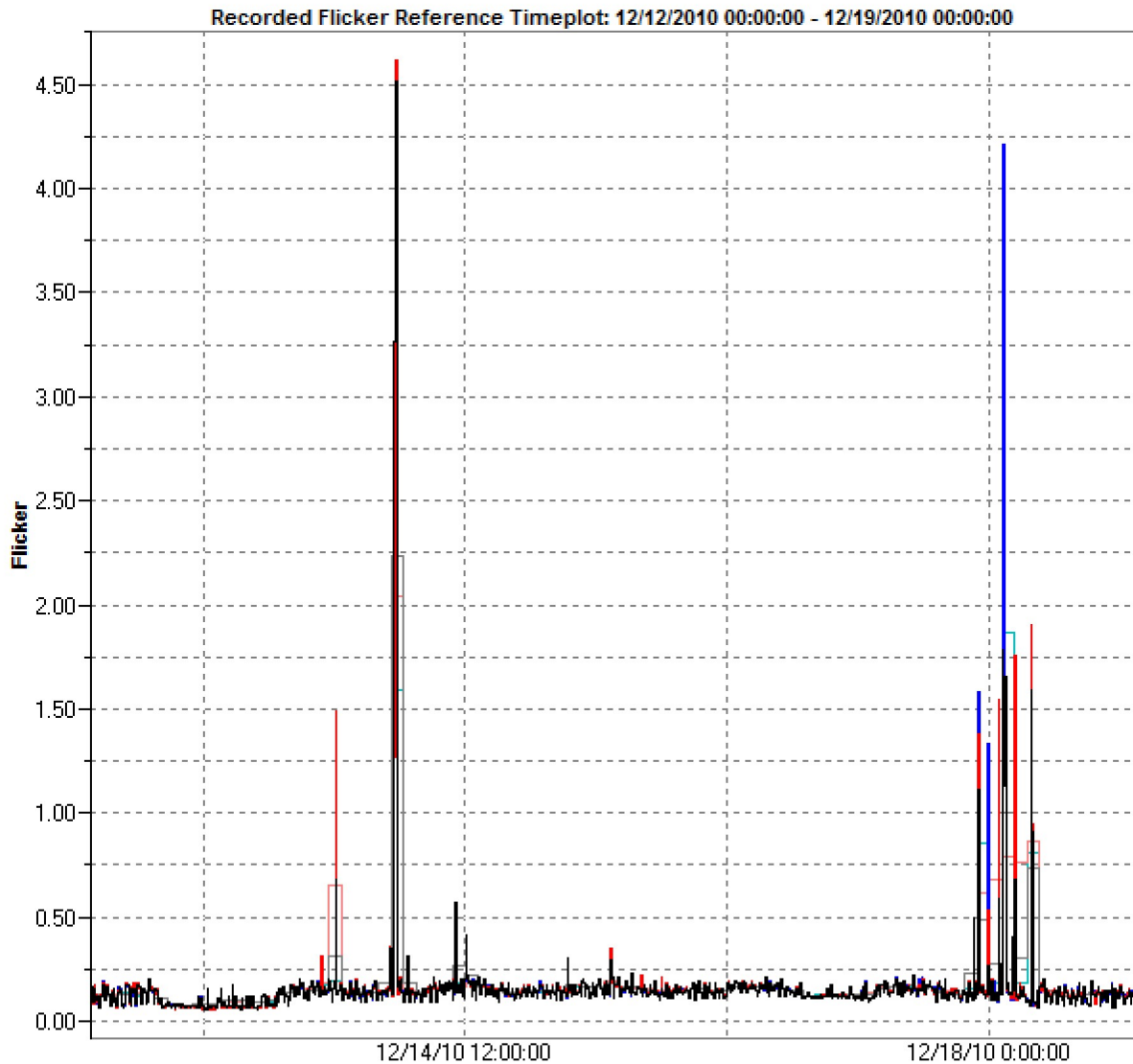
*The standard flicker variables PST (short term, 10 minute value) and PLT (long term, 120 minute value) are graphed.*

*Flicker is a statistical measurement relating to the effect of fluctuating loads on lighting and other sensitive equipment.*

*The typical sources of flicker are steel mills using large electric motors or arc furnaces on a distribution network, or frequent starting of an elevator motor in an office building, or if a rural residence has a large water pump starting regularly on a long feeder system.*

# Flicker

Phase	Max	Time	Min	Time
Flicker Pst Avg AB	4.51	12/14/2010 01:00:00	0.06	12/13/2010 00:10:00
Flicker Pst Avg BC	4.62	12/14/2010 01:00:00	0.06	12/12/2010 19:20:00
Flicker Pst Avg CA	4.22	12/18/2010 02:30:00	0.06	12/12/2010 22:30:00
Flicker Plt Avg AB	2.23	12/14/2010 00:20:00	0.07	12/12/2010 14:20:00
Flicker Plt Avg BC	2.04	12/14/2010 00:20:00	0.07	12/12/2010 14:20:00
Flicker Plt Avg CA	1.87	12/18/2010 02:20:00	0.07	12/12/2010 14:20:00





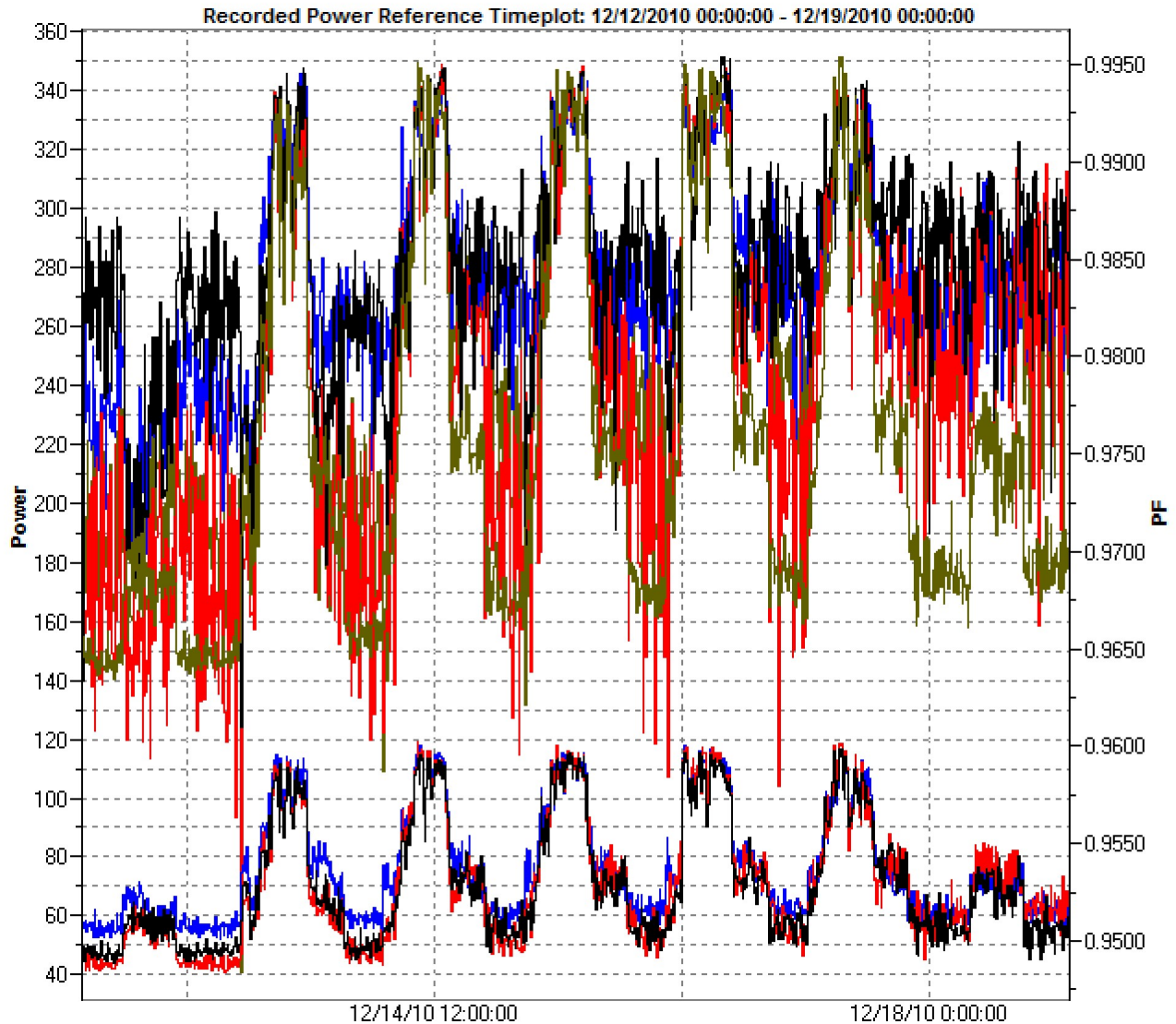
## ***Power/Energy***

*The VA, var, Watts, power factor and energy by phase and totals acquired during the monitor period are graphed or totals shown in tabular form.*

# Power

Demand Period: 10 min

Phase	Max	Time	Min	Time
kW Avg A	116.89 kW	12/17/2010 09:00:00	43.78 kW	12/12/2010 05:30:00
kW Avg B	119.33 kW	12/14/2010 09:10:00	41.04 kW	12/13/2010 00:30:00
kW Avg C	117.69 kW	12/16/2010 06:40:00	52.35 kW	12/12/2010 23:40:00
kW Avg Total	351.51 kW	12/17/2010 09:00:00	140.62 kW	12/12/2010 05:30:00
PF Avg A	1.00 PF	12/16/2010 12:50:00	0.96 PF	12/13/2010 03:10:00
PF Avg B	1.00 PF	12/16/2010 13:10:00	0.95 PF	12/13/2010 03:10:00
PF Avg C	0.99 PF	12/15/2010 13:20:00	0.96 PF	12/13/2010 03:10:00
PF Avg Total	0.99 PF	12/15/2010 13:20:00	0.95 PF	12/13/2010 03:10:00



# Energy

Demand Period: 10 min

Phase	Max	Time	Min	Time
kWh Avg A	21008.14 kWh	12/19/2010 00:10:00	9137.47 kWh	12/12/2010 00:00:00
kWh Avg B	20993.67 kWh	12/19/2010 00:10:00	9034.73 kWh	12/12/2010 00:00:00
kWh Avg C	22842.27 kWh	12/19/2010 00:10:00	10022.89 kWh	12/12/2010 00:00:00
kWh Avg Total	64844.08 kWh	12/19/2010 00:10:00	28195.09 kWh	12/12/2010 00:00:00

