

ELECTROMAGNET TEST REPORT

MODEL 5404 SN 02

LABORATORY ELECTROMAGNET

Date Sold 8/26/2011

System Components

- GMW model 5404 electromagnet, SN: 02
- GMW 231HC power supply, 231HC SN: 0110FD04
- Ametex SGA 160X63C, 160V/63A. SN: 1130A01036
- Chiller: BV Thermal Systems Model MC300-E1H2J2, air cool. SN: 20098R0311
- Field probe: Senis Hy06x2x42 2.5kHz 1% 5T. SN: 6610. B reading uncorrected.

Test Notes:

- Field, voltage output, current output were read from 231HC internal DAQPad. Voltage and - current outputs were from 231HC internal monitor.
- 100mH programming plug (04-00280) was used for 231HC. A 3nF capacitor was added (parallel) to C5 to prevent 231HC from oscillating.

Test data included:

Two solid pole, gap at 5mm:

- Square wave at 0.5Hz, amplitude 5A, 10A, 15A, 20A, 25A, 30A, 35A, 40A, 45A, 50A, 55A, 60A, 65A, 70A.
- Triangle wave at 0.5Hz, 5A, 10A, 15A, 20A, 25A, 30A.
- Excitation curve. -70A to 70A. Data extract from square wave data set.
- Stability with water cooling. Current at 30A, 40A, 50A.
- Current ramp. Triangle wave. 70A, 0.5Hz.
- Field ramp. 1.7T/second.
- 1 hour triangle waveform run. 70A, 0.05Hz.

One solid pole, one Optical pole, gap at 2mm:

- Square wave at 0.5Hz, amplitude 70A.
- Stability air cooled, no water, at 30, 50A (Thermal switch test)
- Excitation curve. Step up current from -70A to +70A, +70A to -70A.

SO No : 9085

Revision Date : Aug 26, 2011

GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

Page: 1 of 14

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

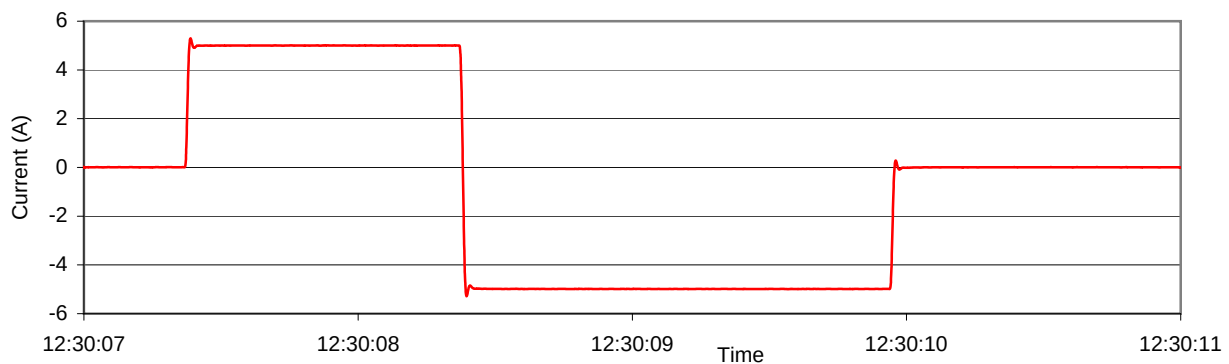
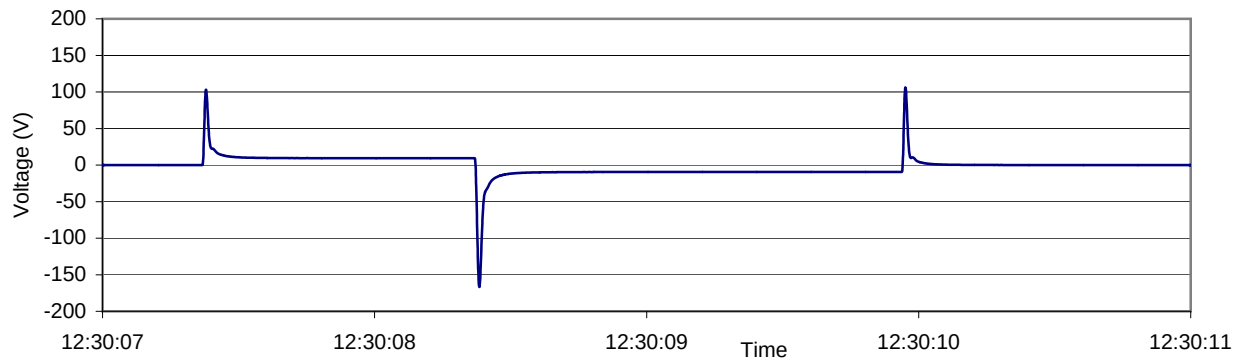
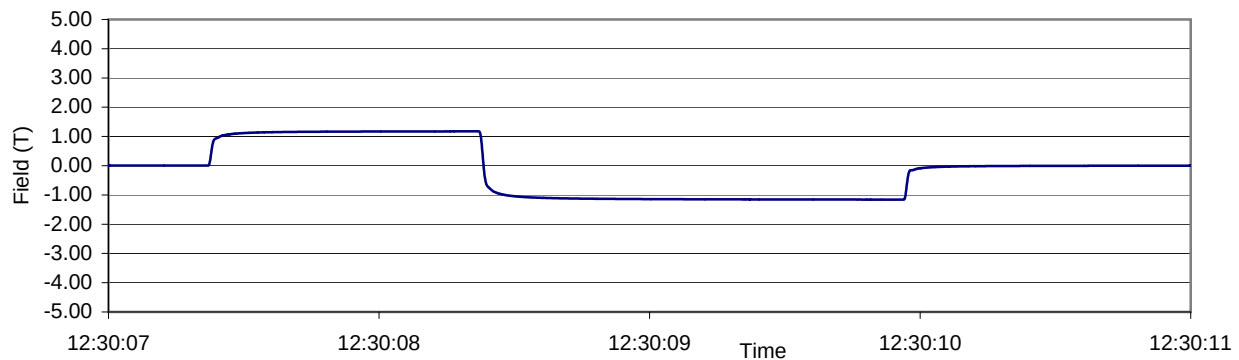
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 5A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

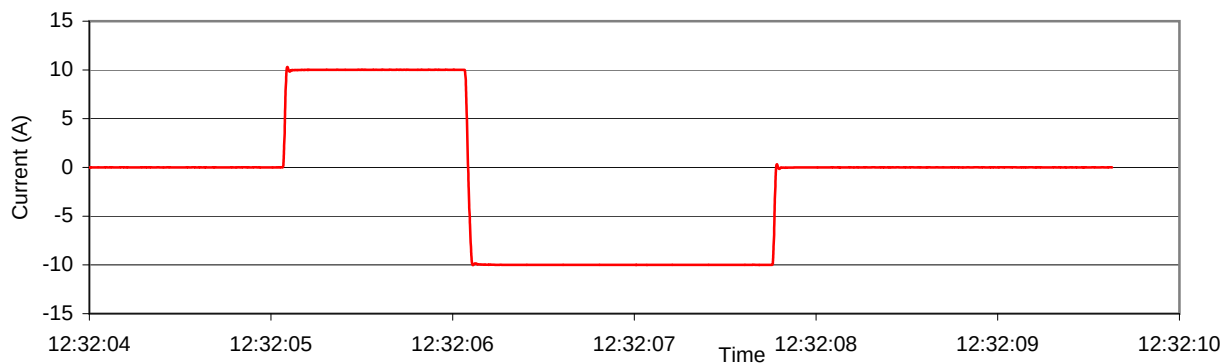
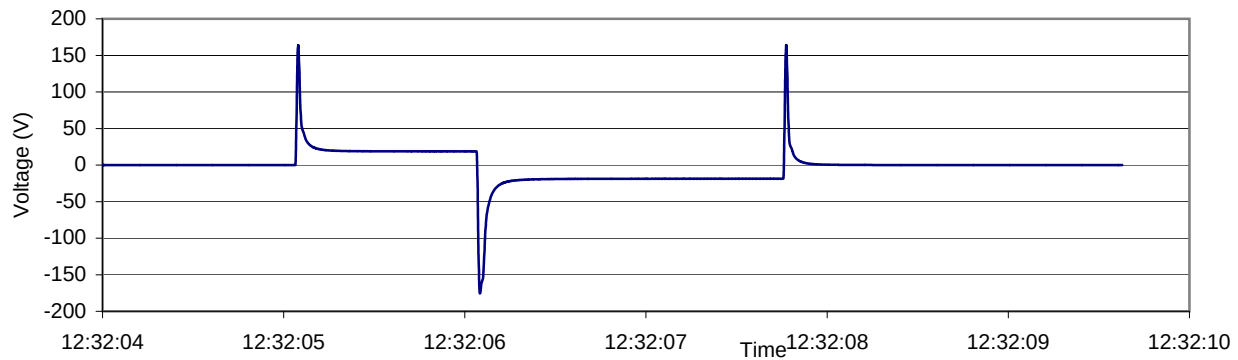
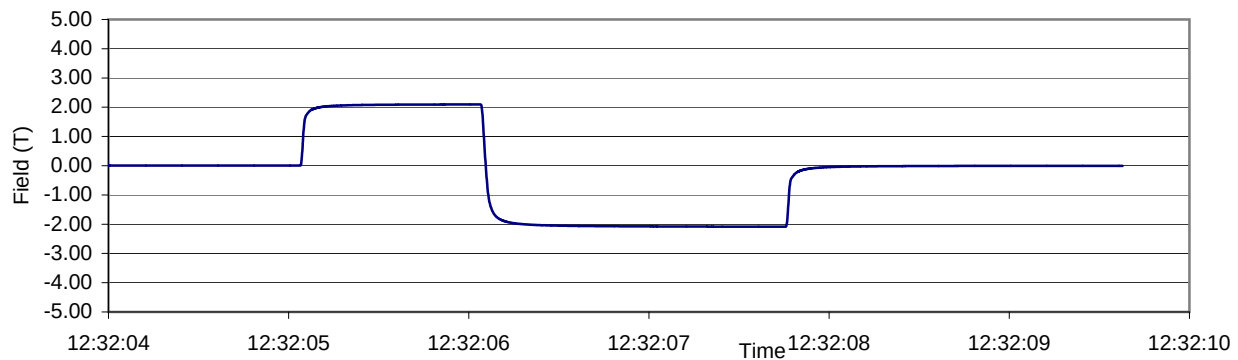
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 10A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

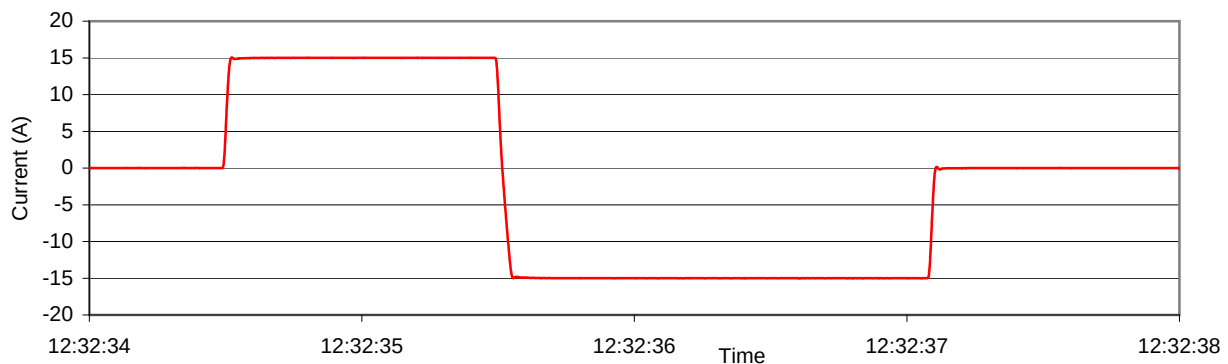
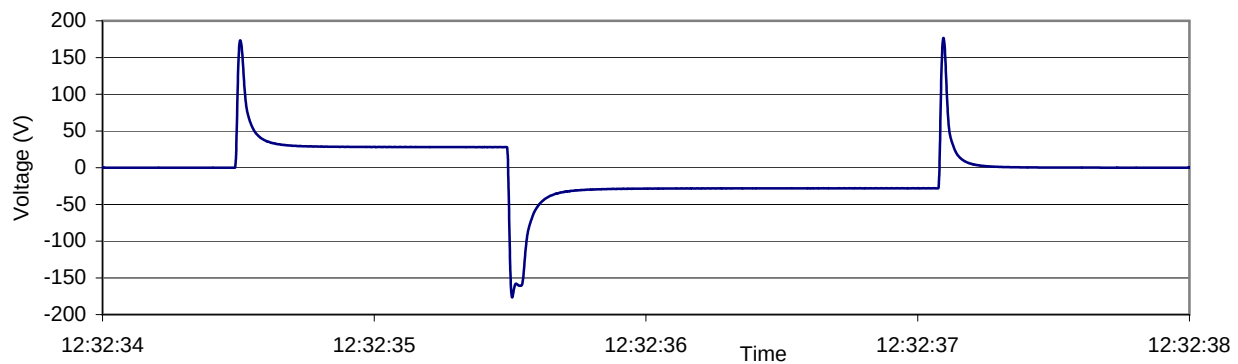
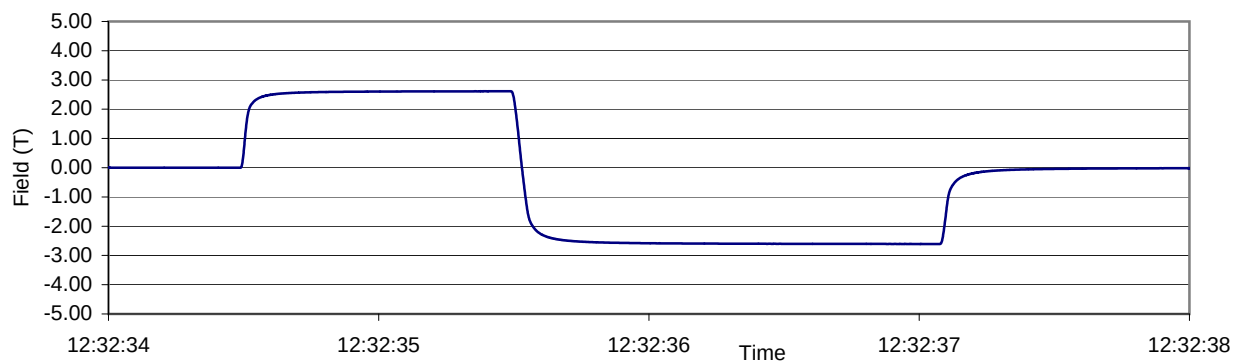
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 15A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

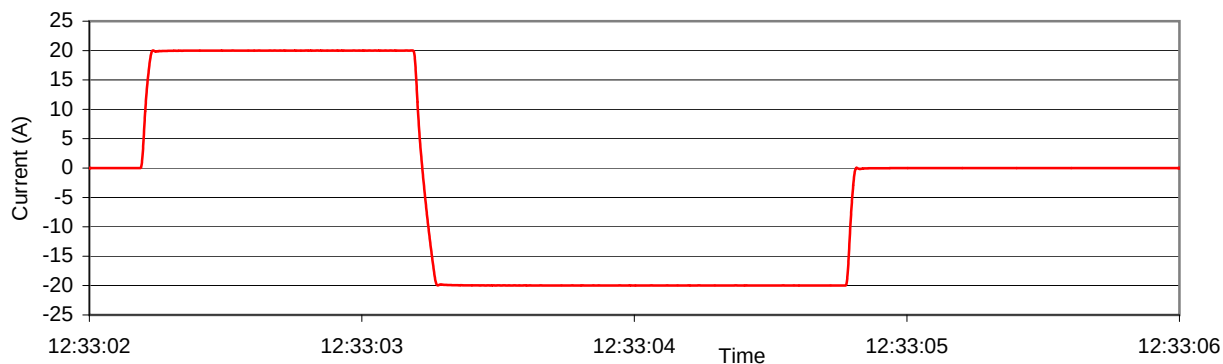
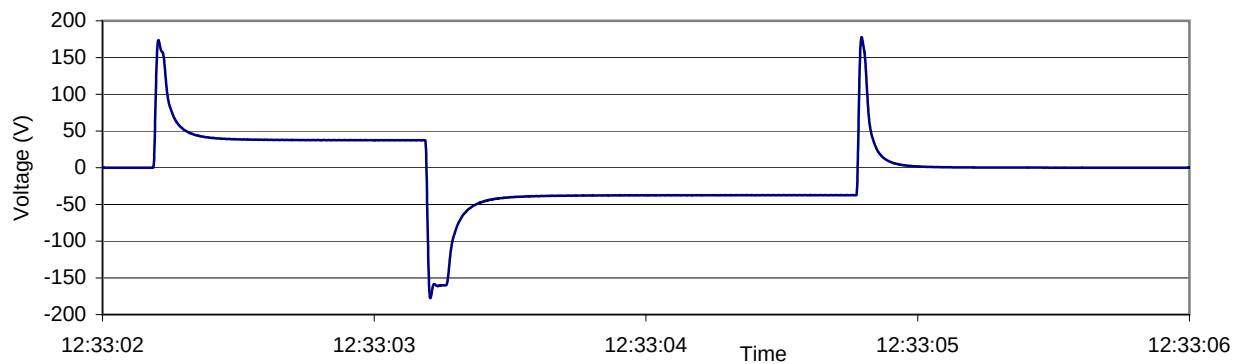
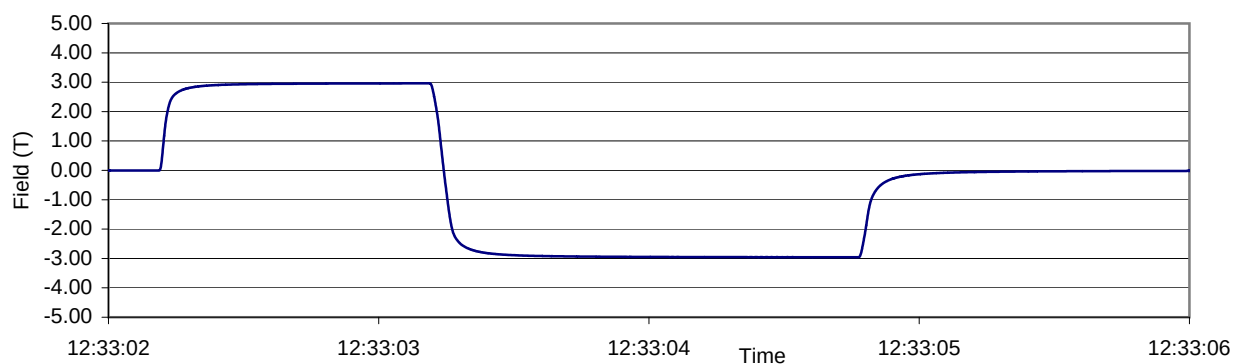
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 20A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

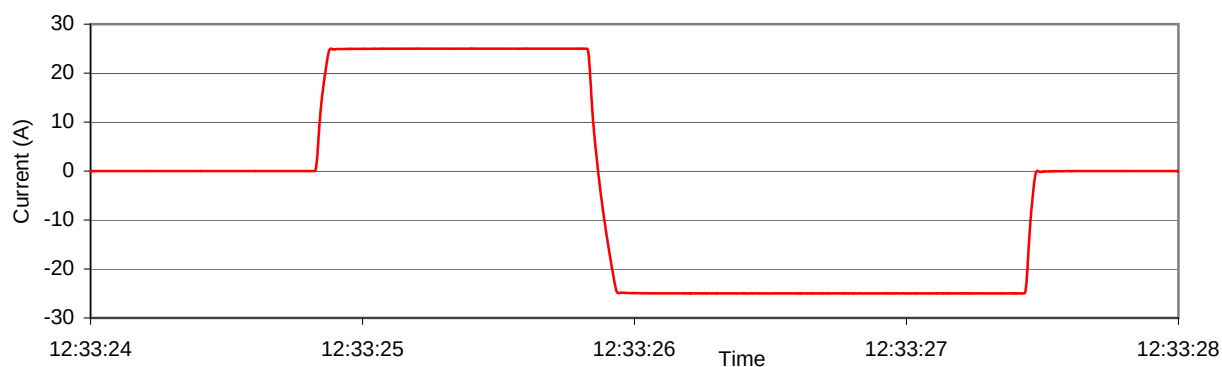
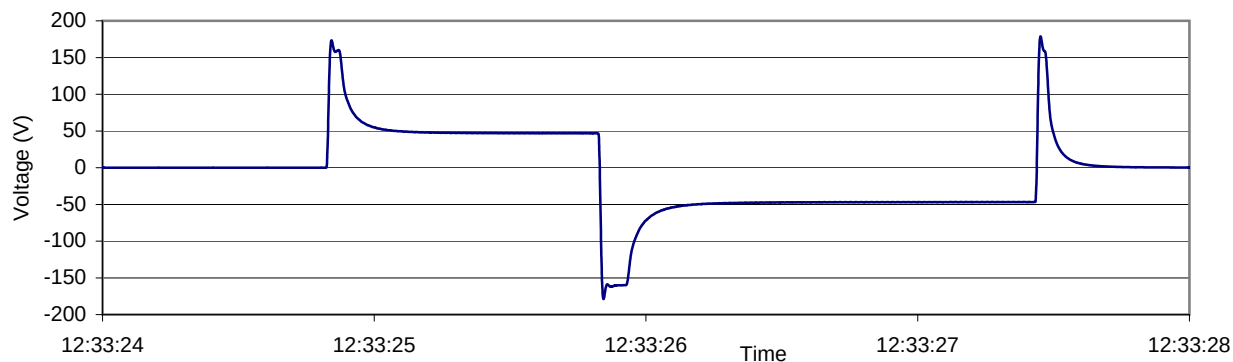
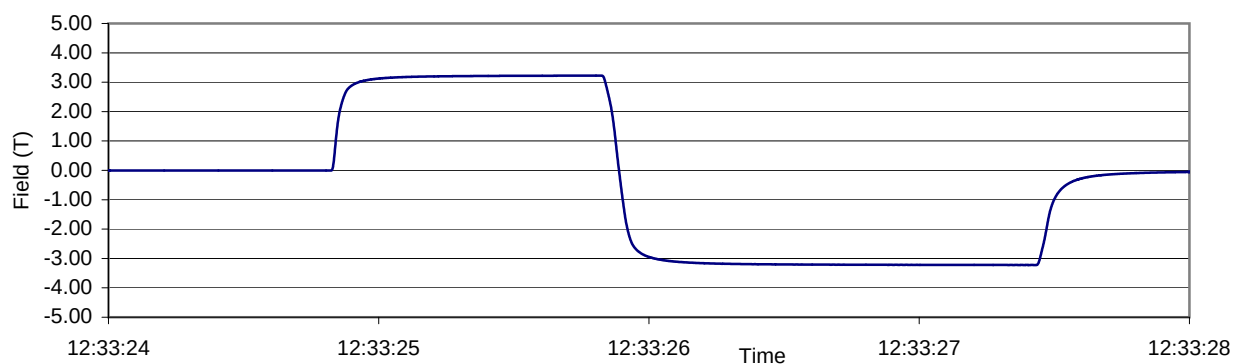
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 25A,



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Electromagnet Waveform Plot

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

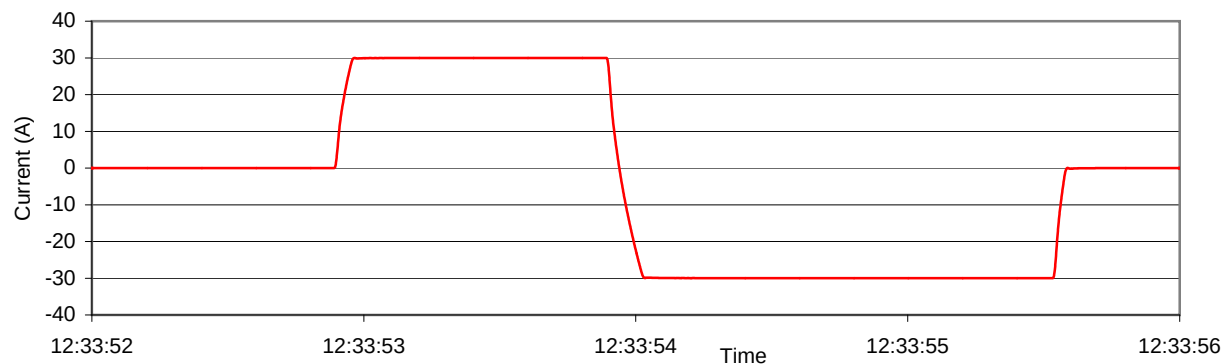
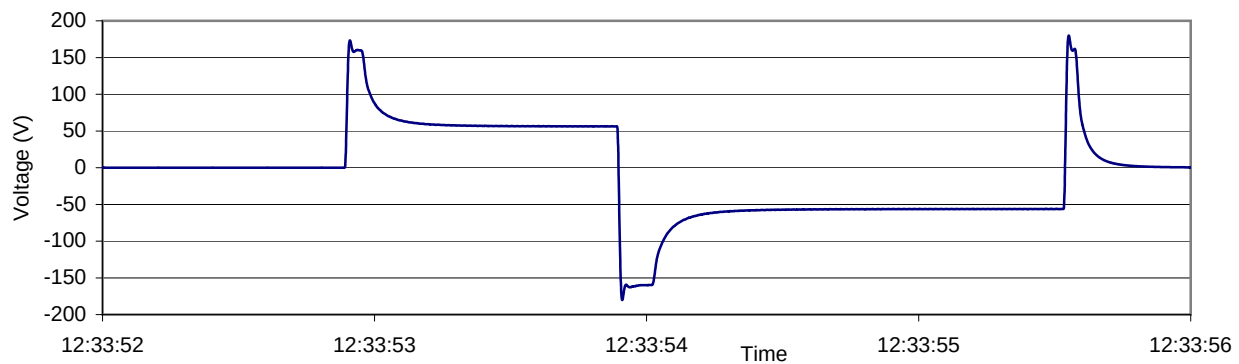
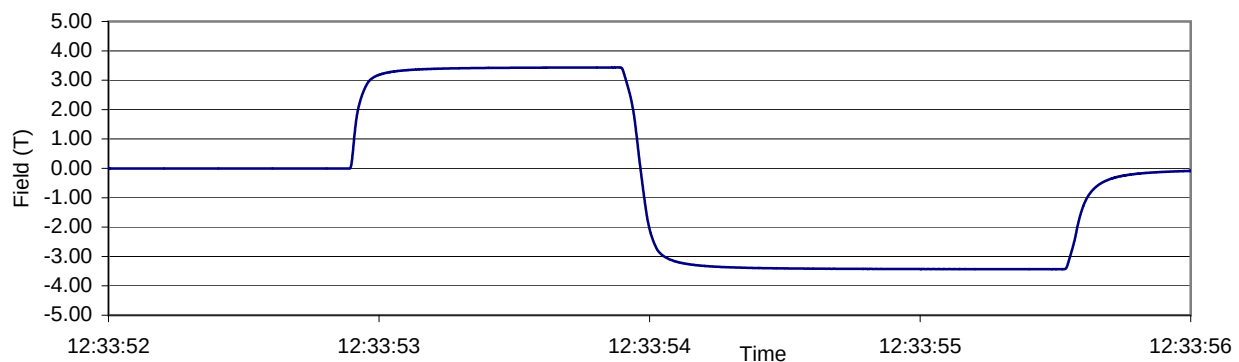
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 30A,



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Electromagnet Waveform Plot

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

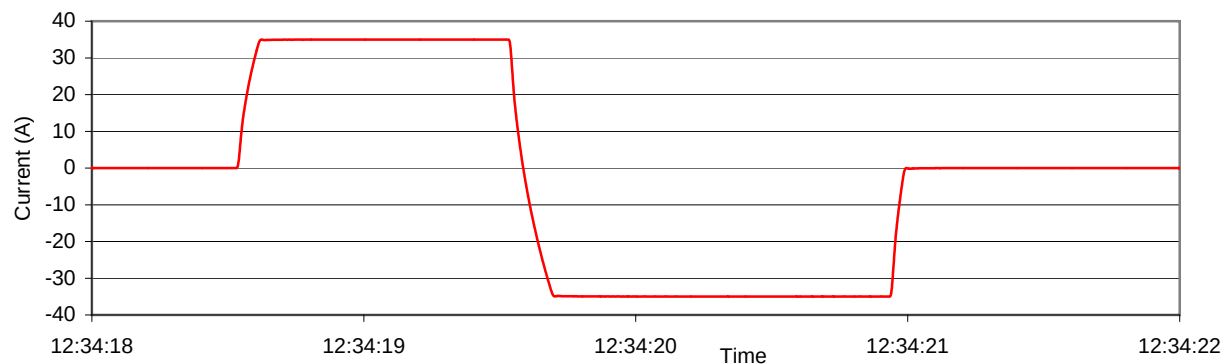
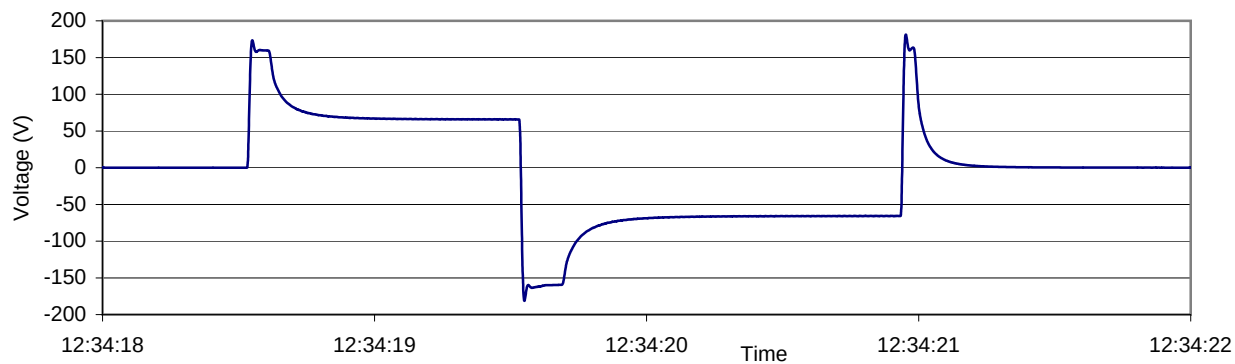
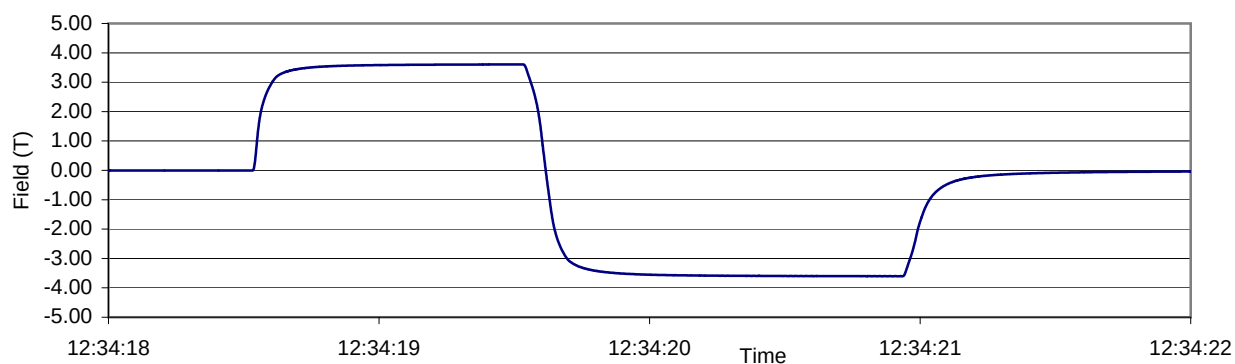
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 35A,

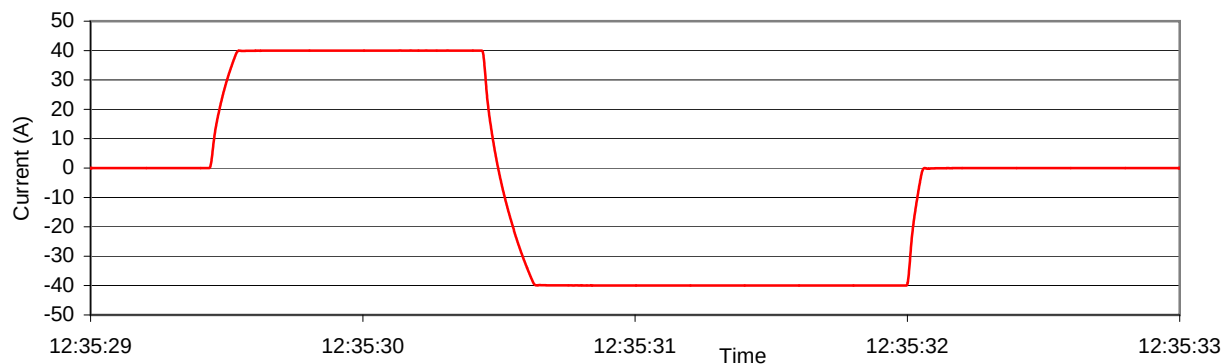
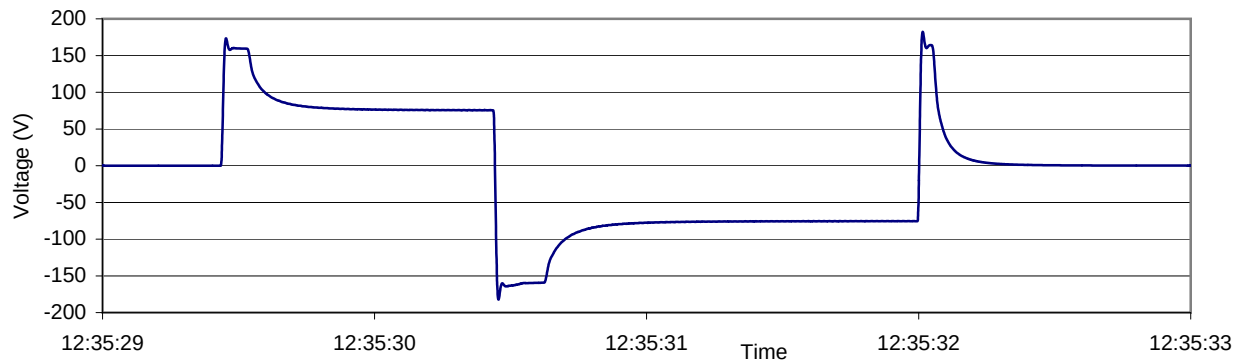
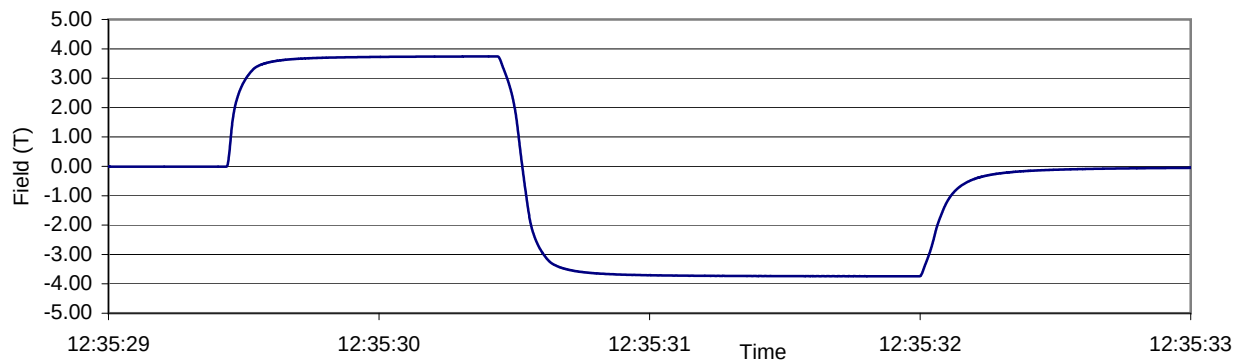


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Electromagnet Waveform Plot

Contract No: 9085 Page: 8 of 14 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Square wave 0.5Hz, 40A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

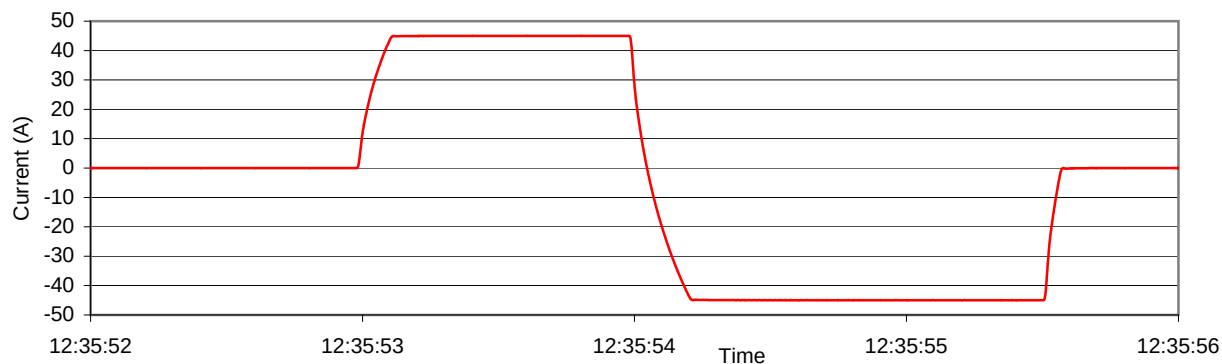
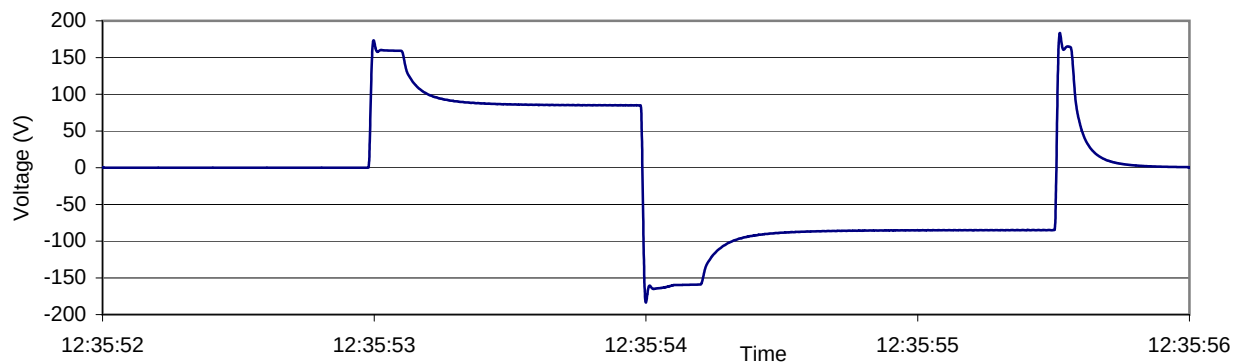
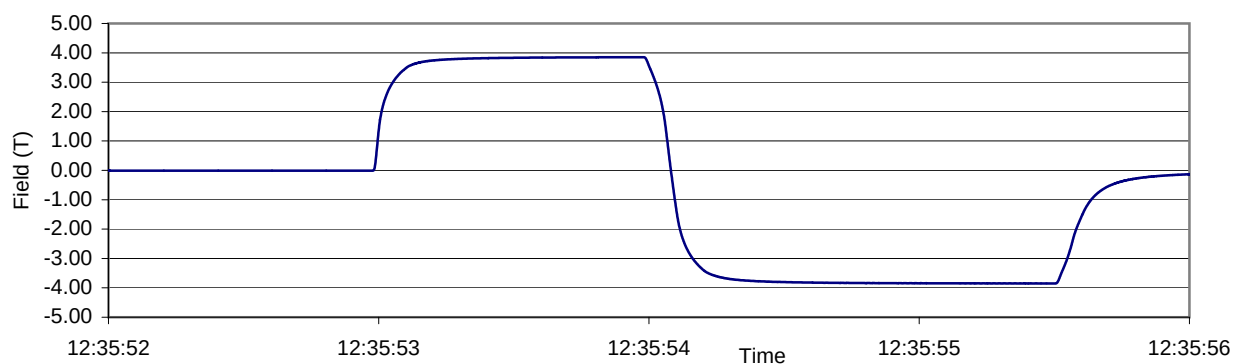
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 45A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

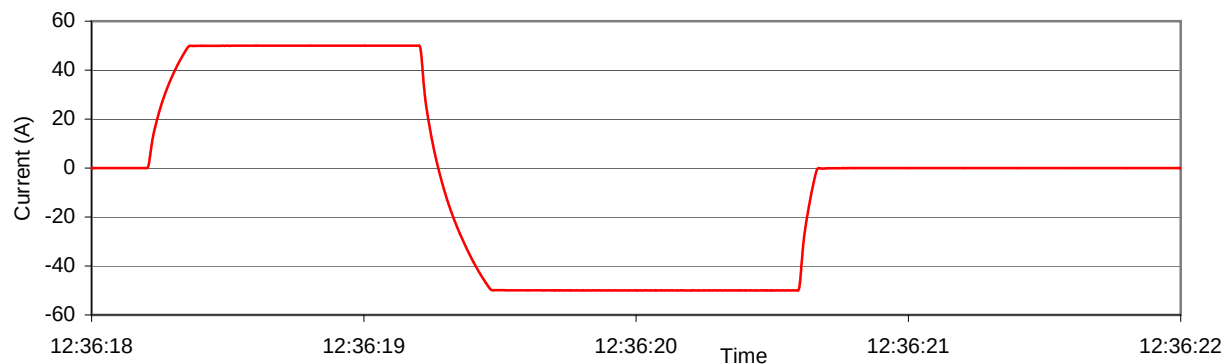
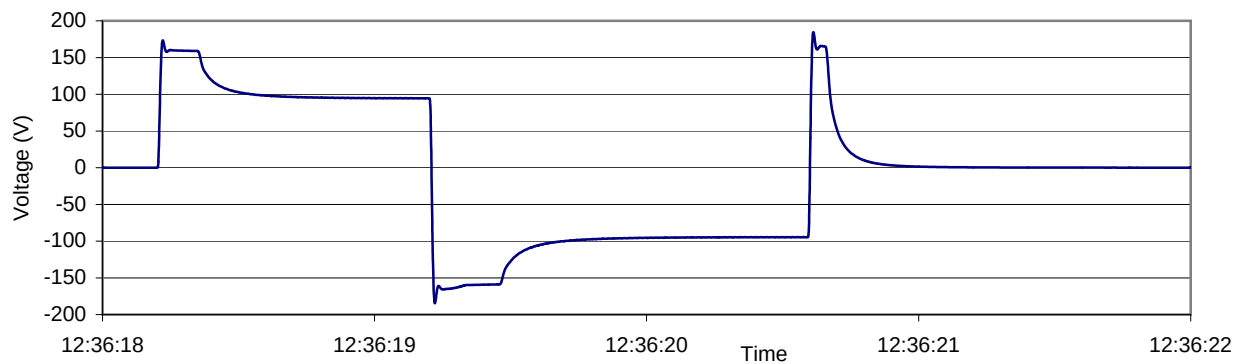
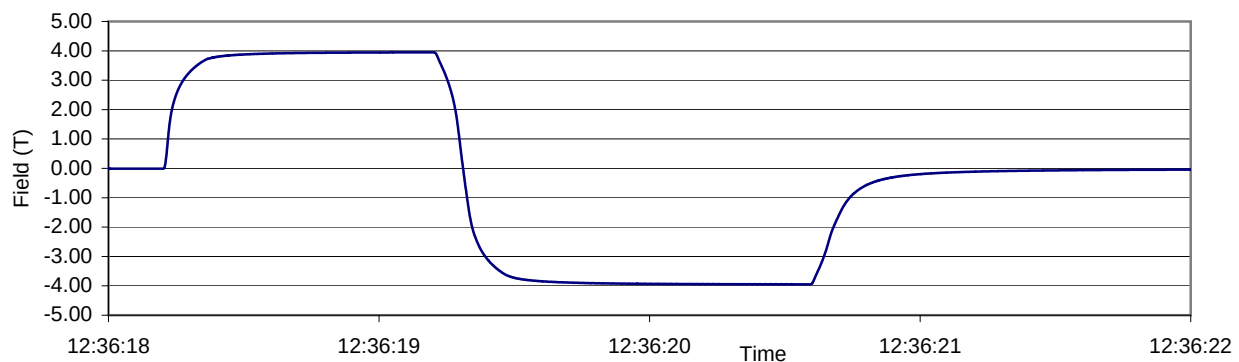
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 50A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

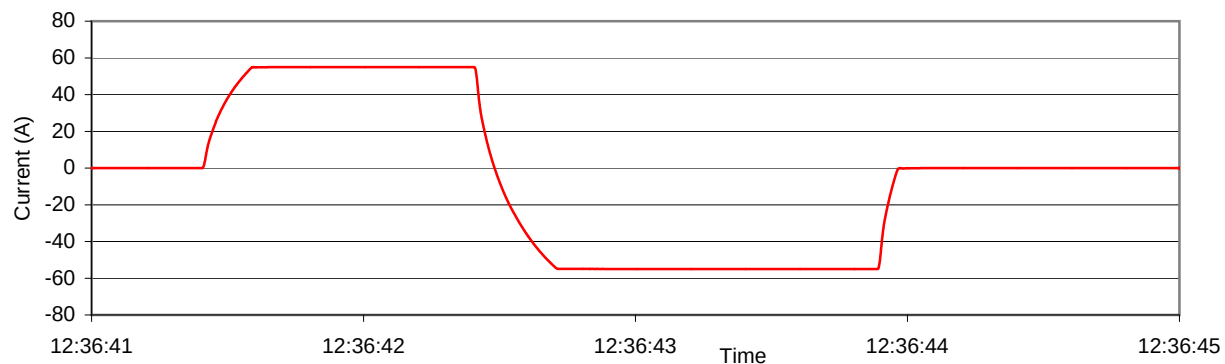
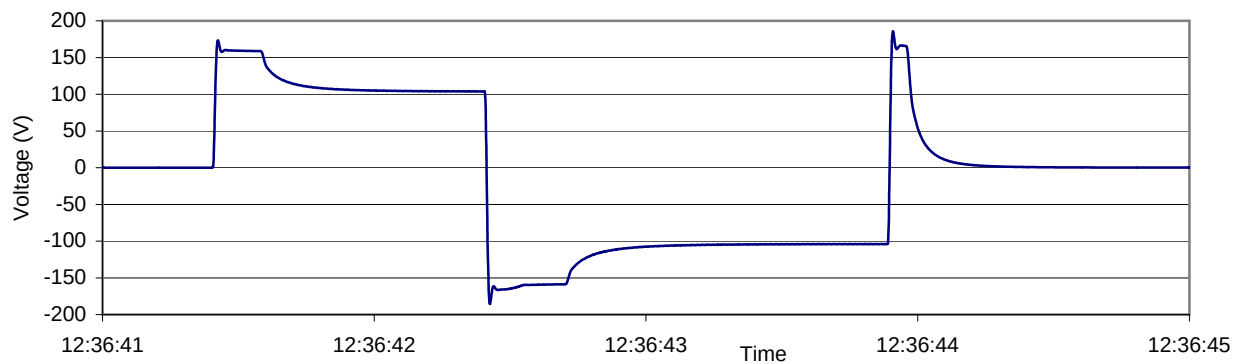
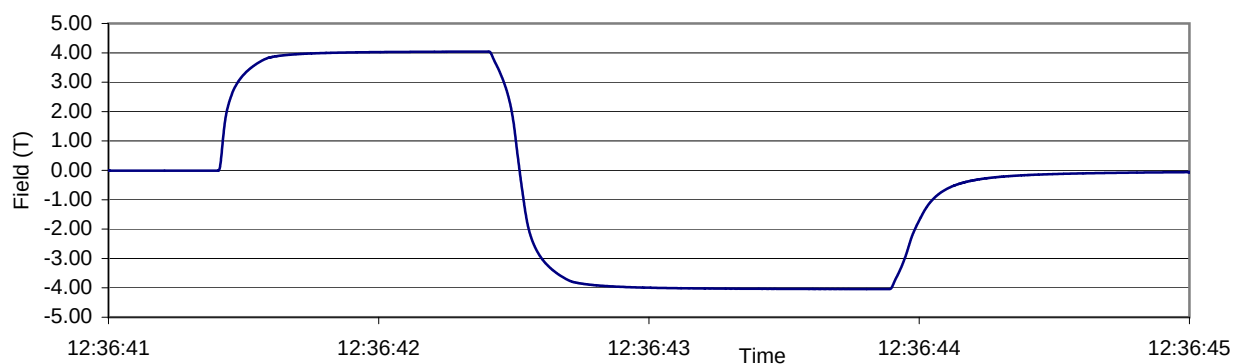
Chiller sn: 20098R0311

Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610 B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 55A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

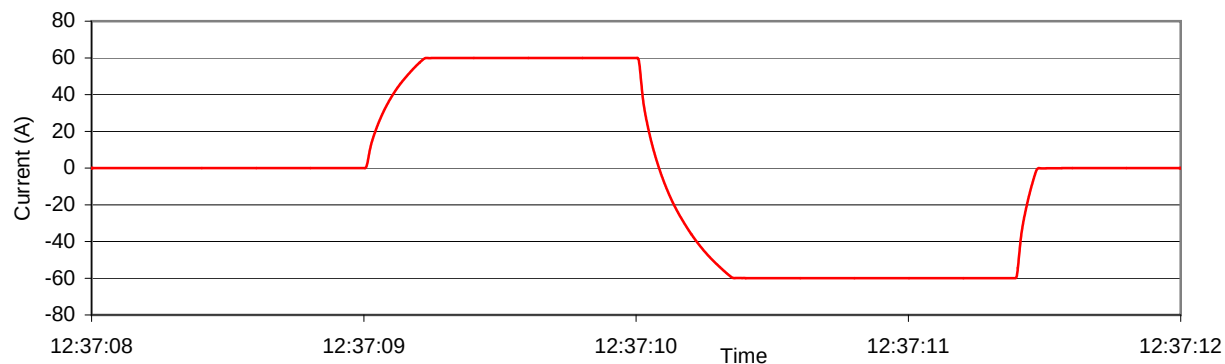
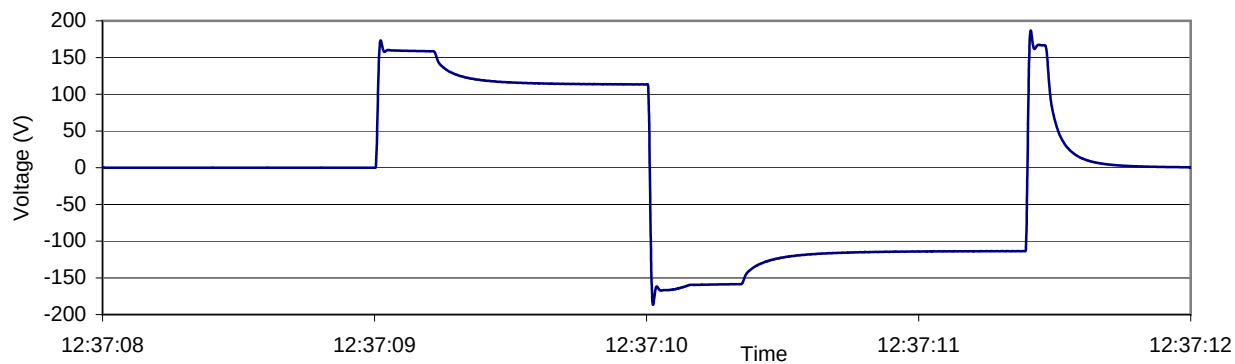
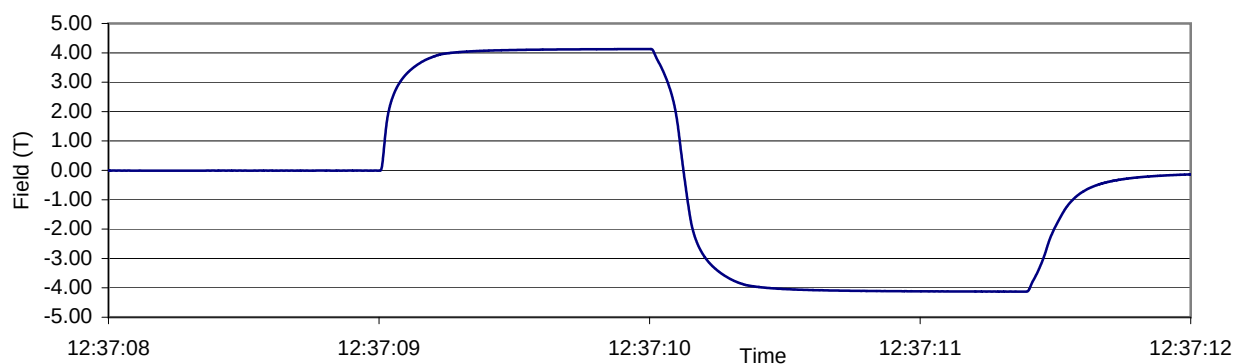
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 60A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

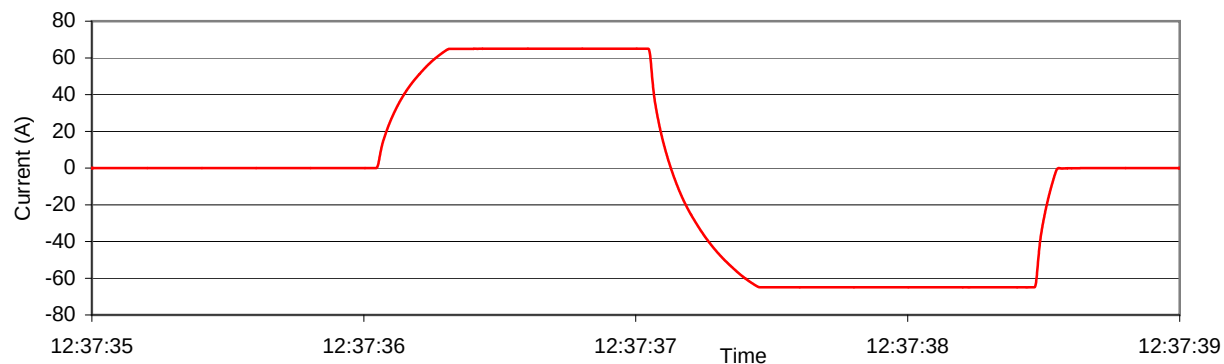
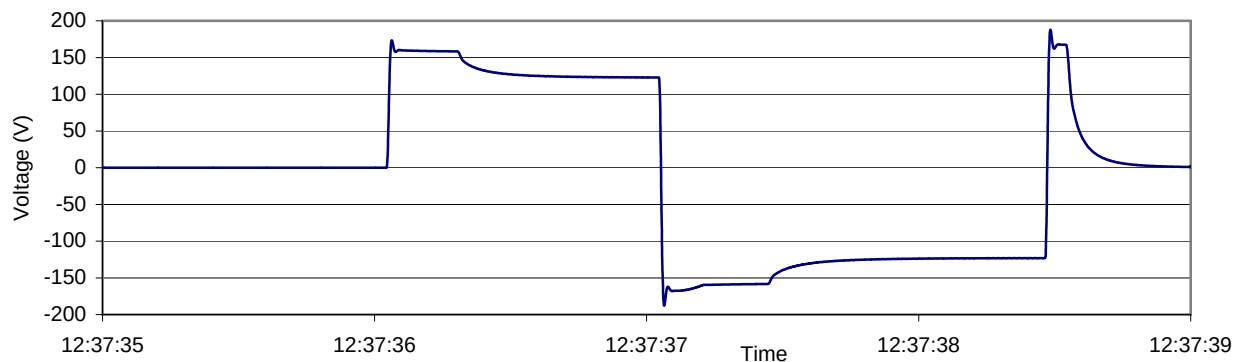
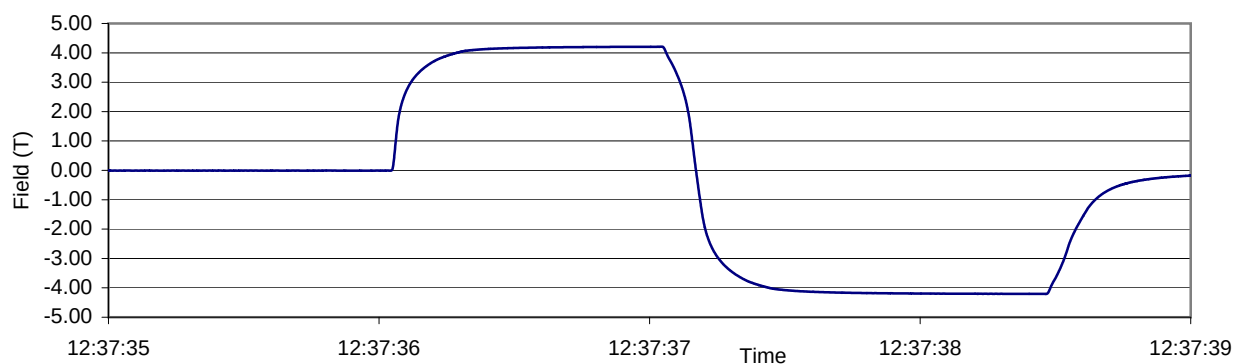
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 65A,



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Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

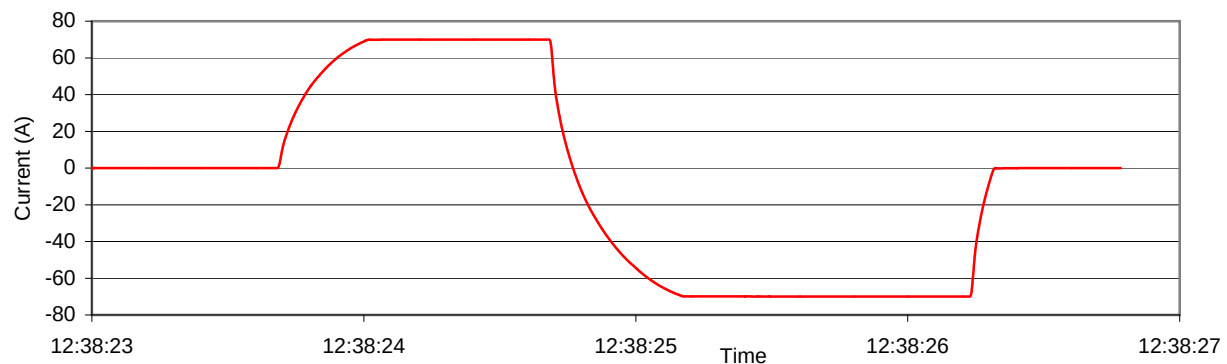
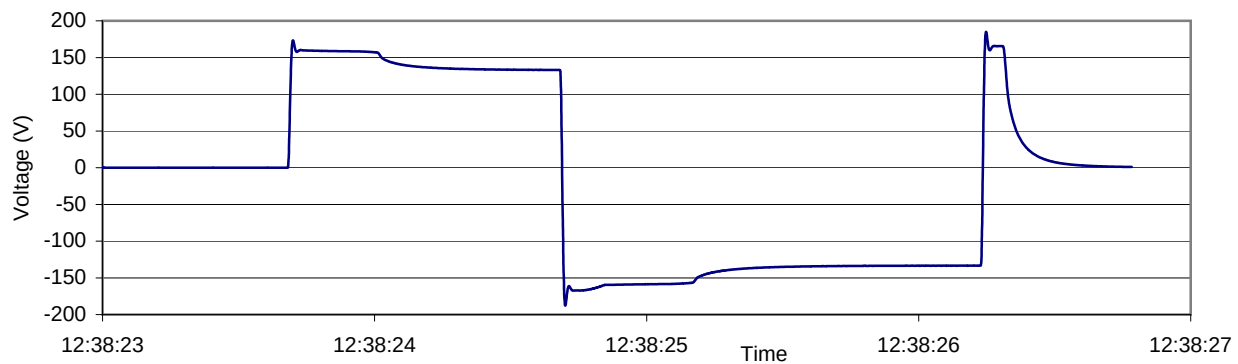
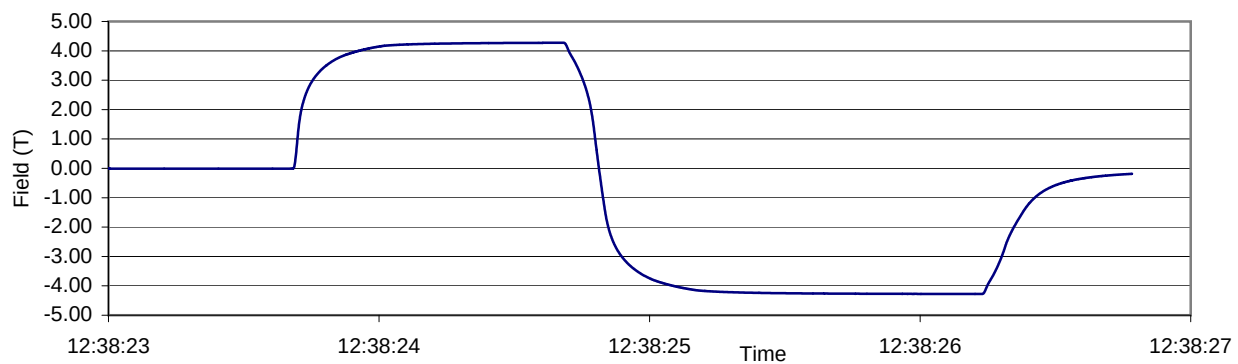
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Square wave 0.5Hz, 70A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

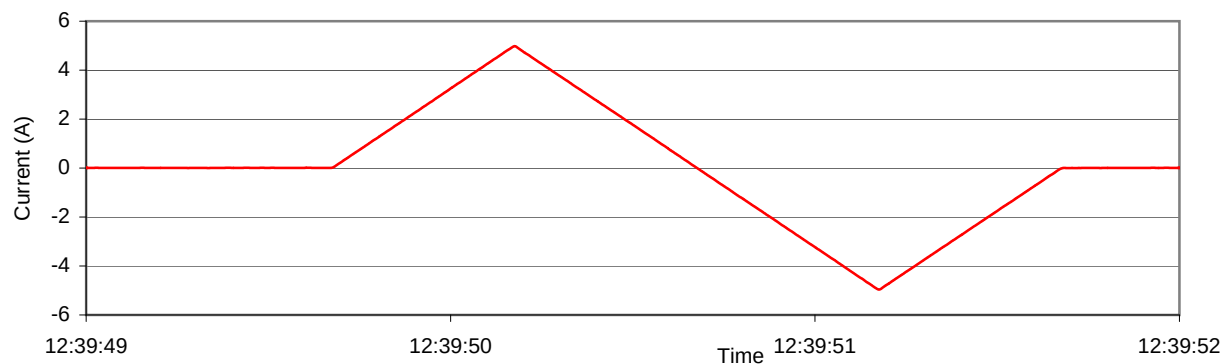
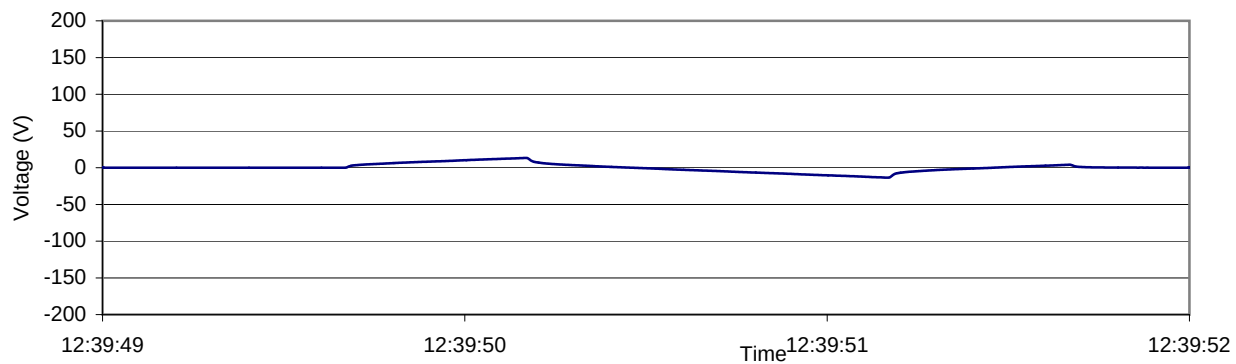
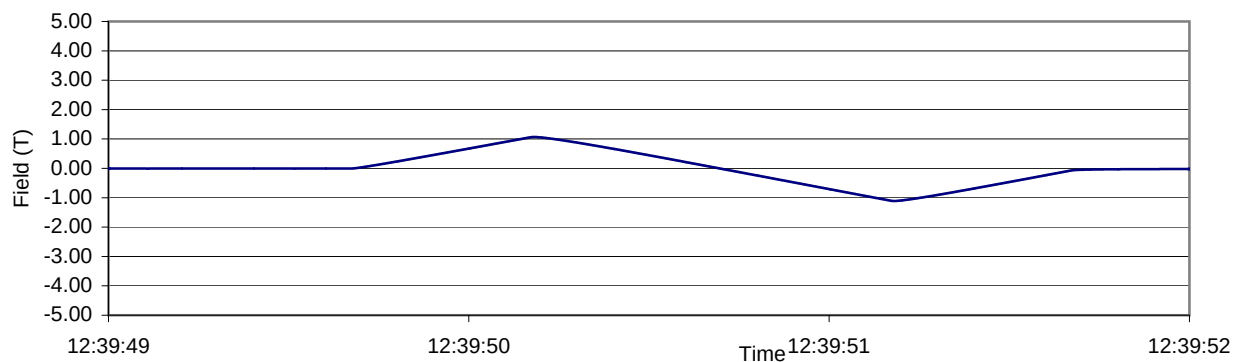
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 5A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

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Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

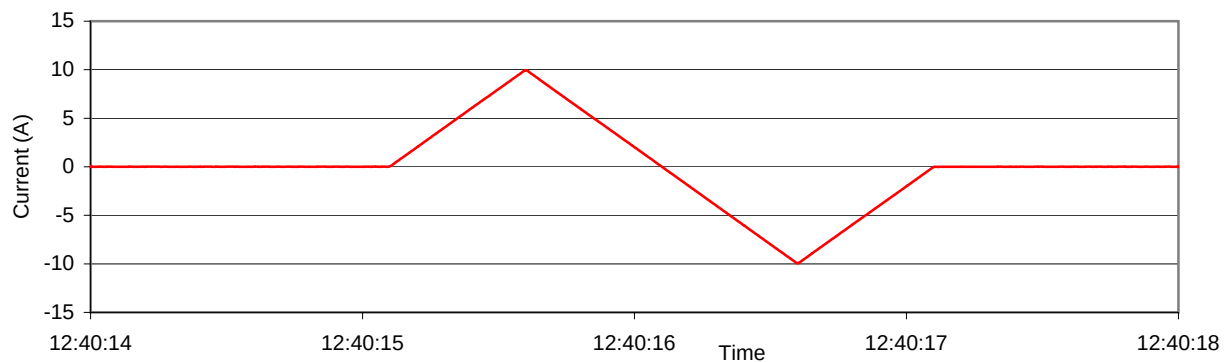
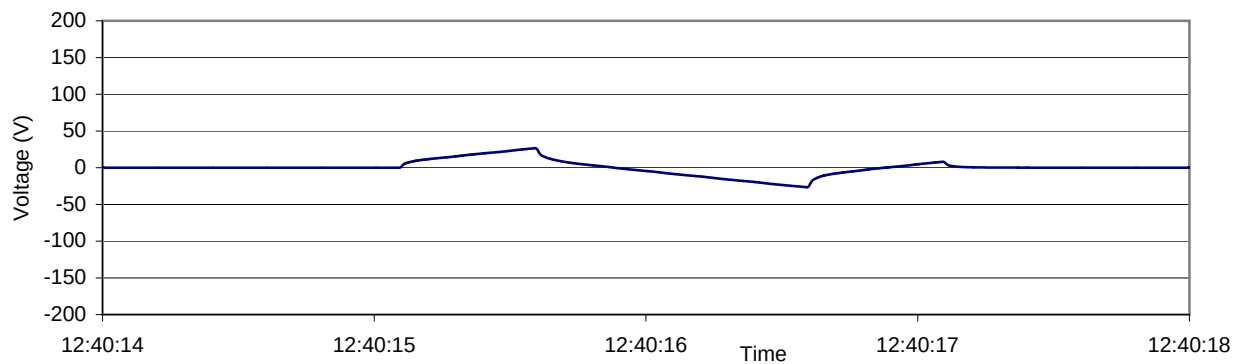
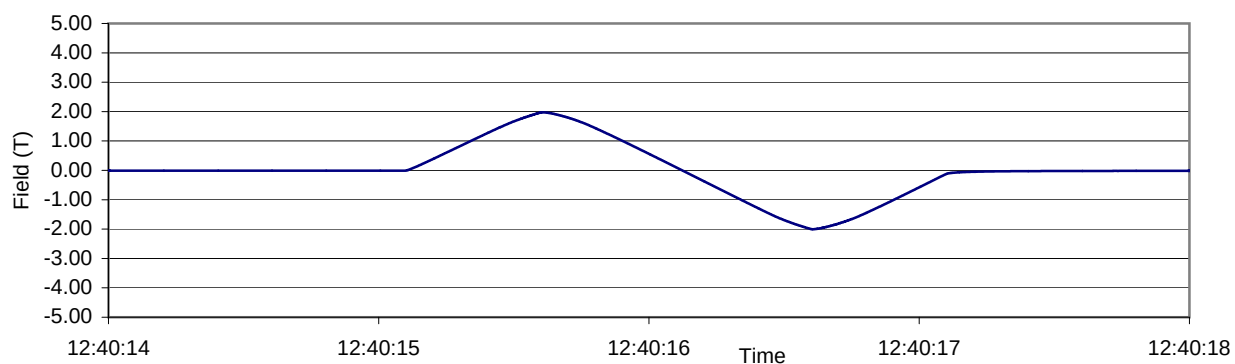
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 10A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

Page: 3 of 6

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

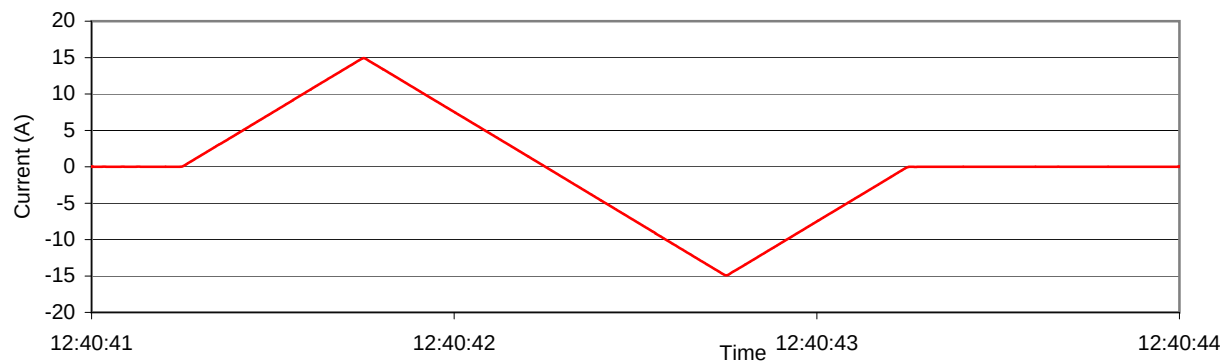
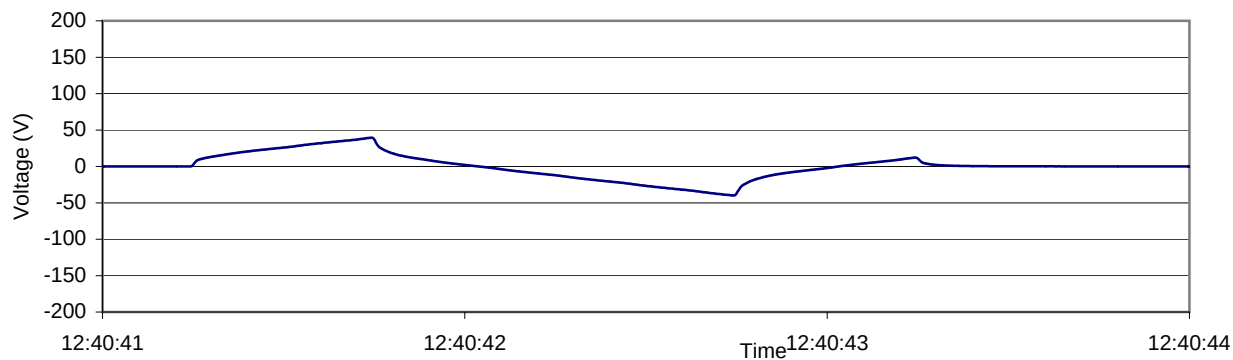
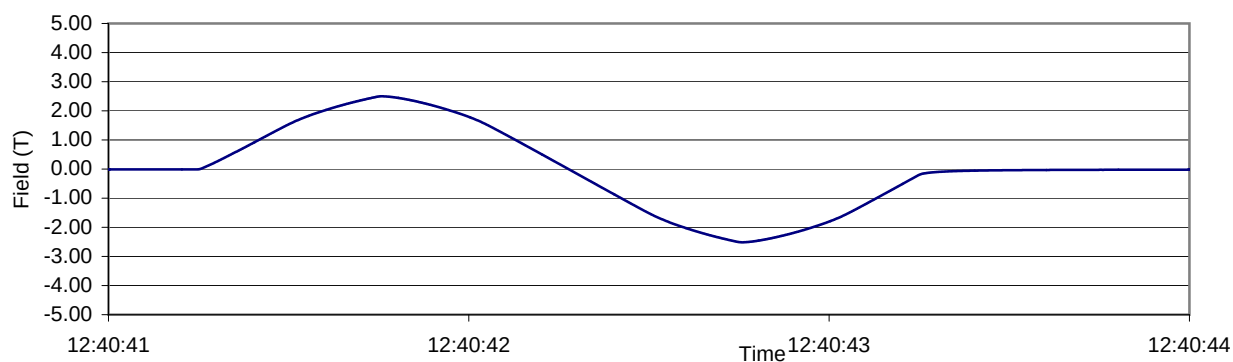
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 15A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

Page: 4 of 6

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

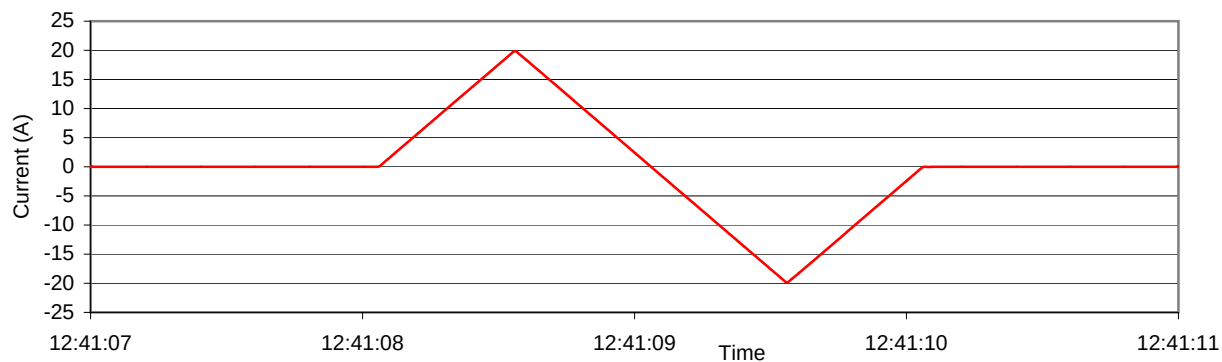
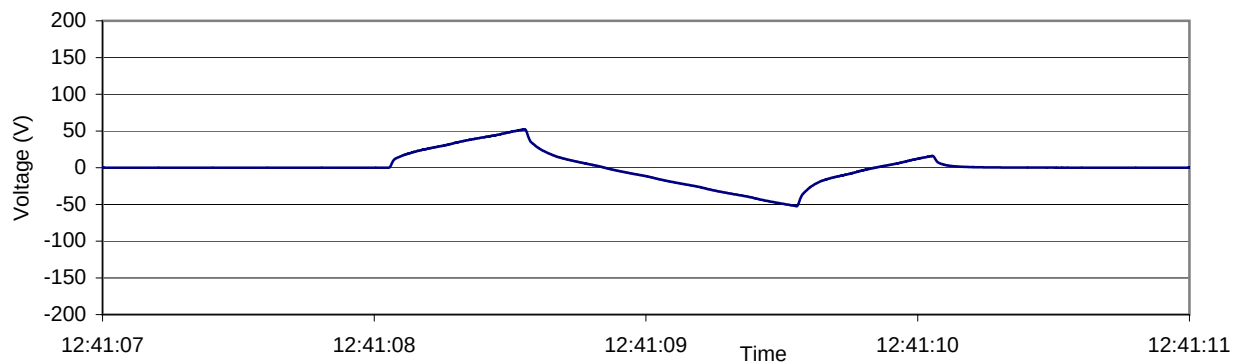
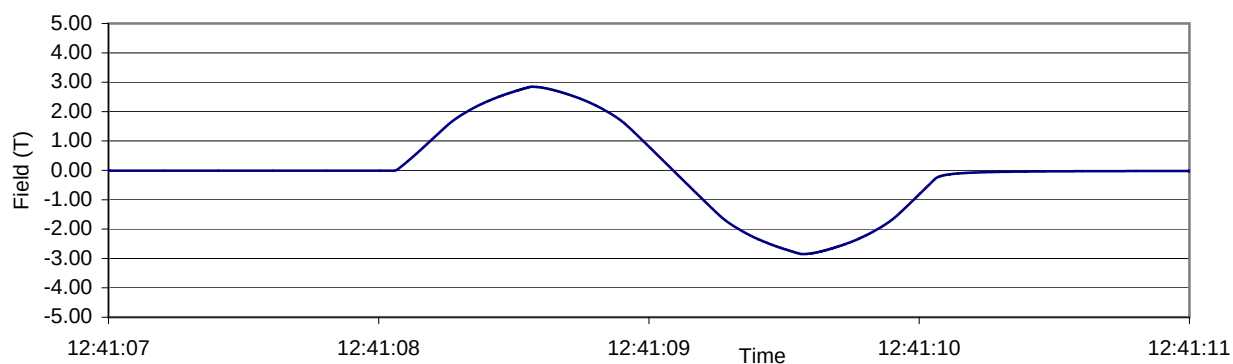
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 20A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

Page: 5 of 6

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

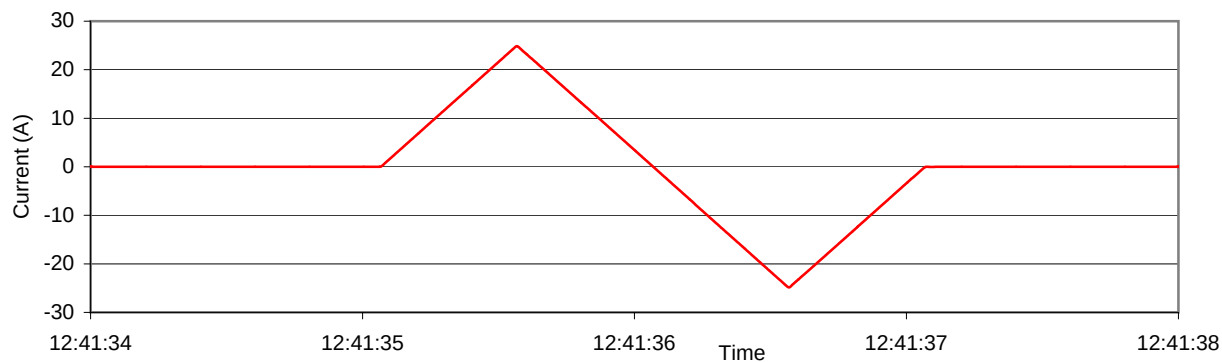
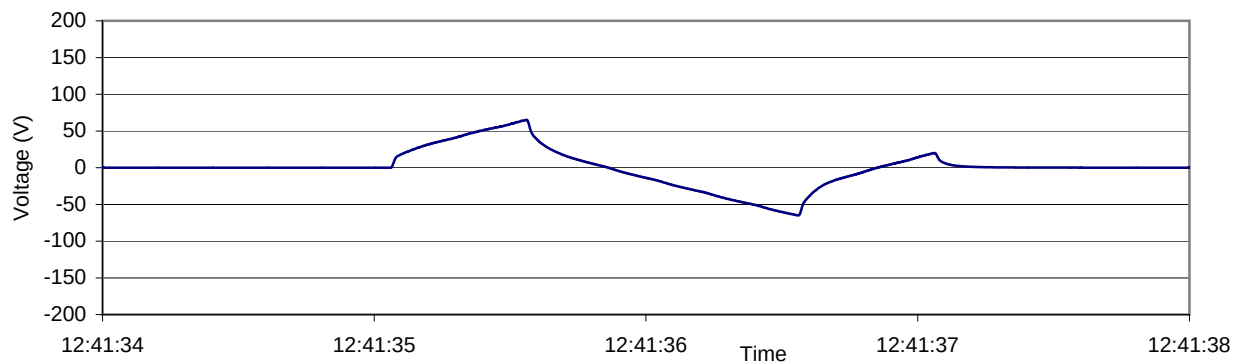
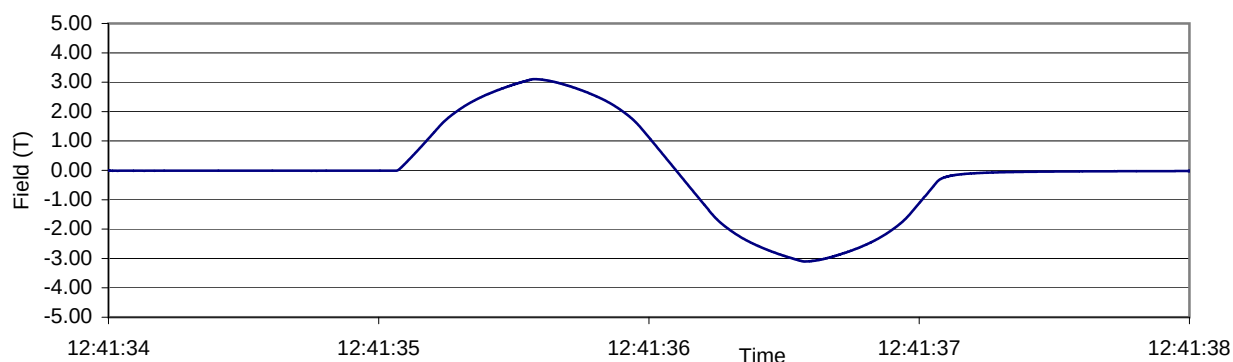
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 25A,



GMW Associates

Electromagnet Waveform Plot

Contract No: 9085

Page: 6 of 6

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

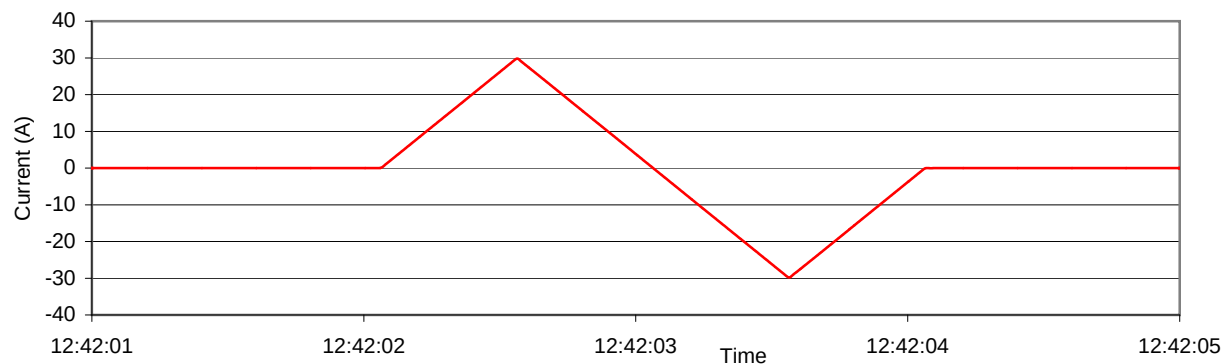
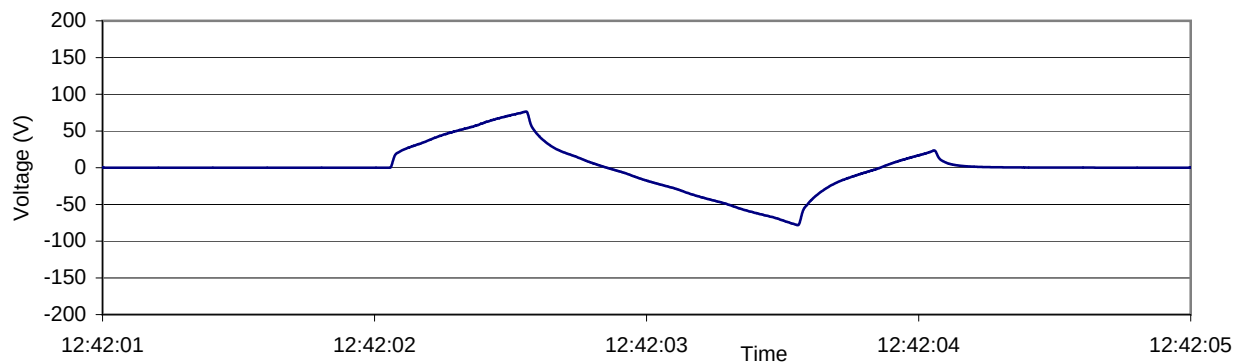
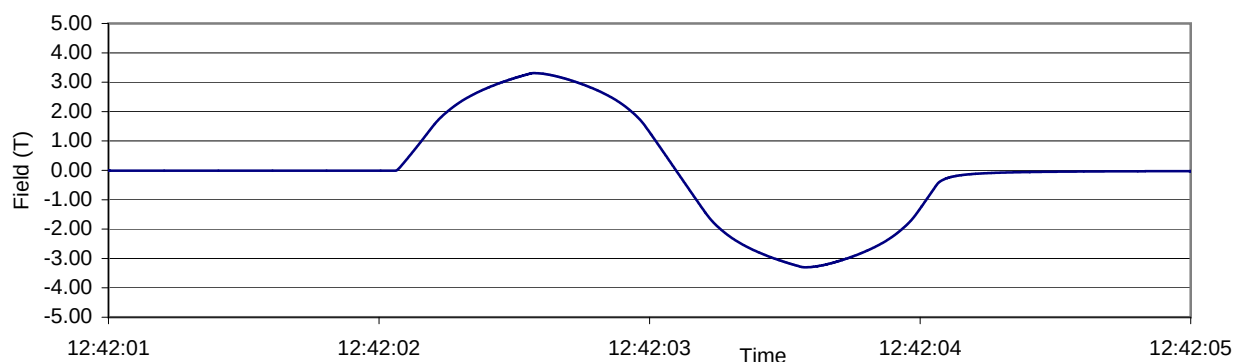
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Triangle waveform. 0.5Hz, 30A,



GMW Associates

Electromagnet Excitation Plot

Contract No: 9085

Page: 1 of 1

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 5 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: Solid

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

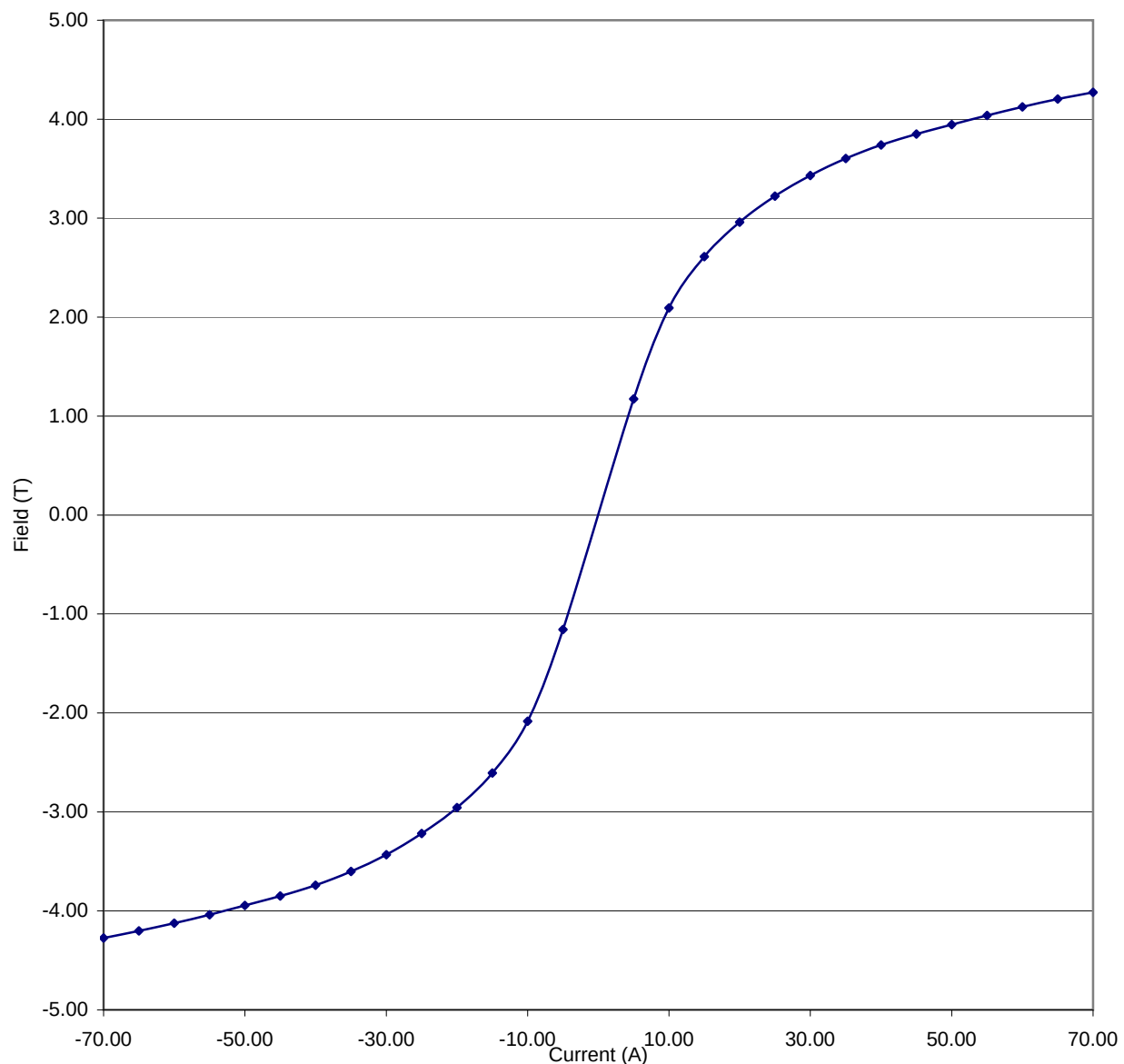
Field Probe: Hy06x2x42 2.5kHz 1% 5T

Probe sn: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: Data extract from square wave data set

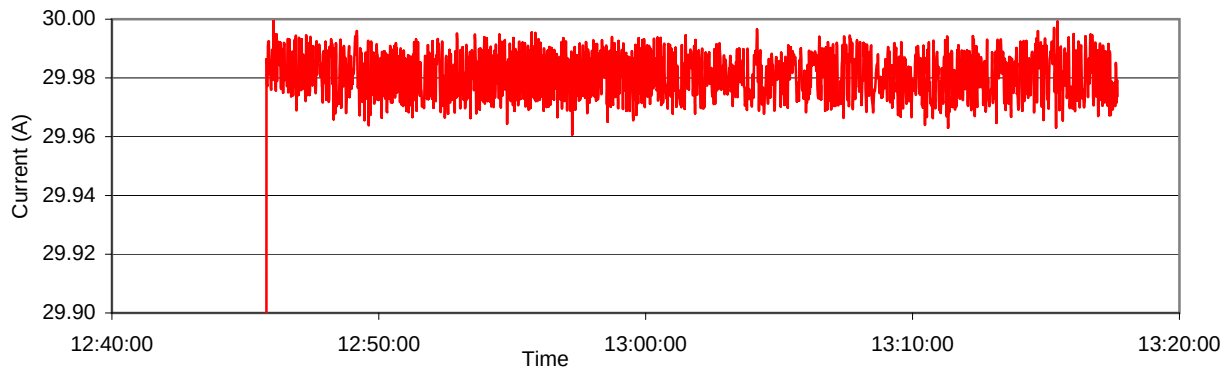
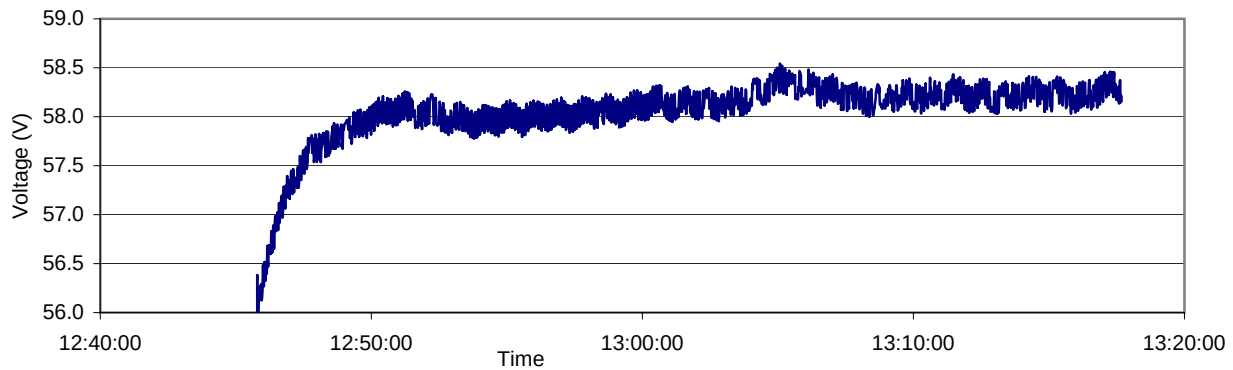
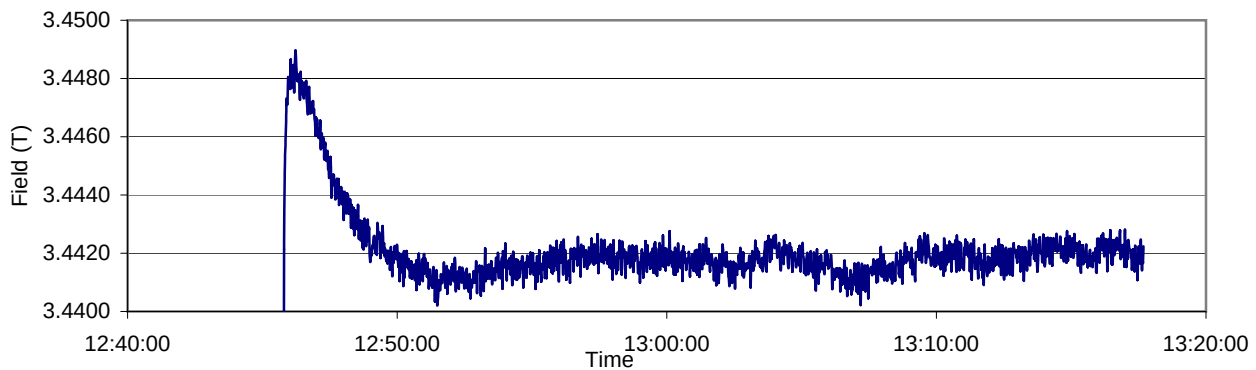


GMW Associates

Electromagnet Stability Plot

Contract No: 9085 Page: 1 of 4 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Stability. water cool, 18 deg C, ~2.6G/min, 30A.

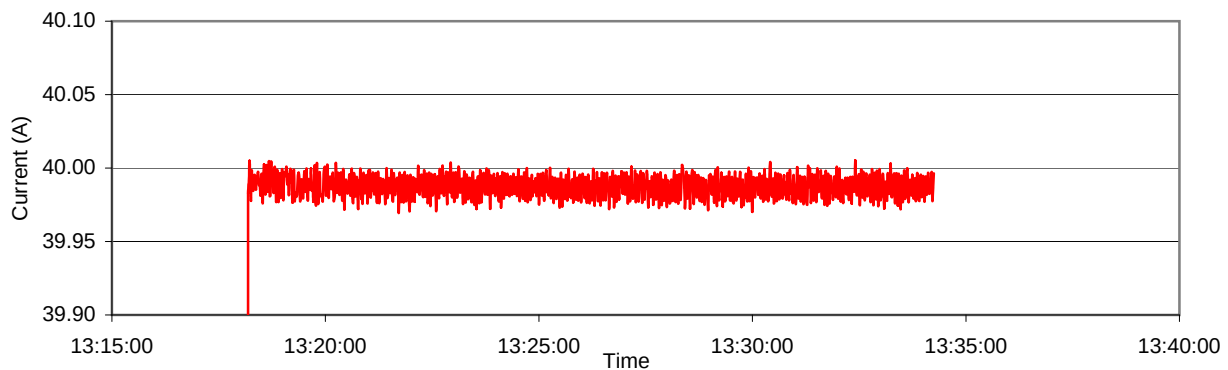
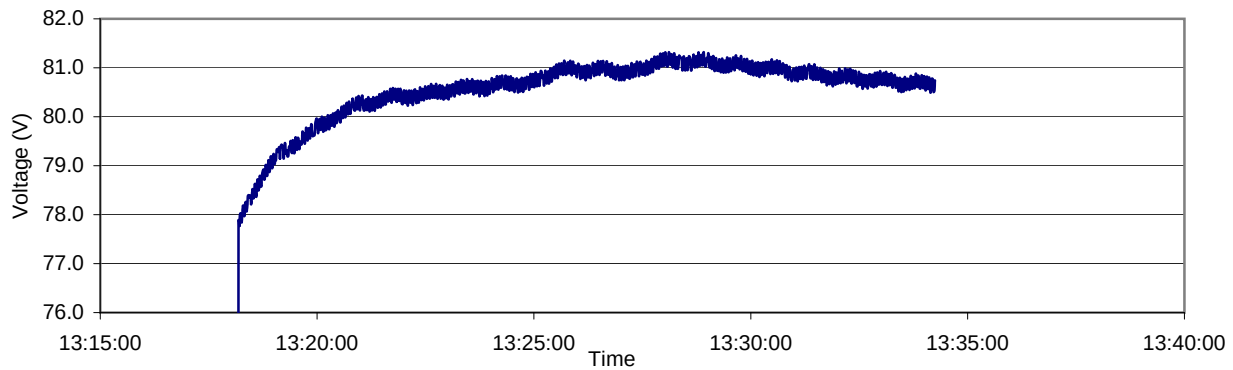
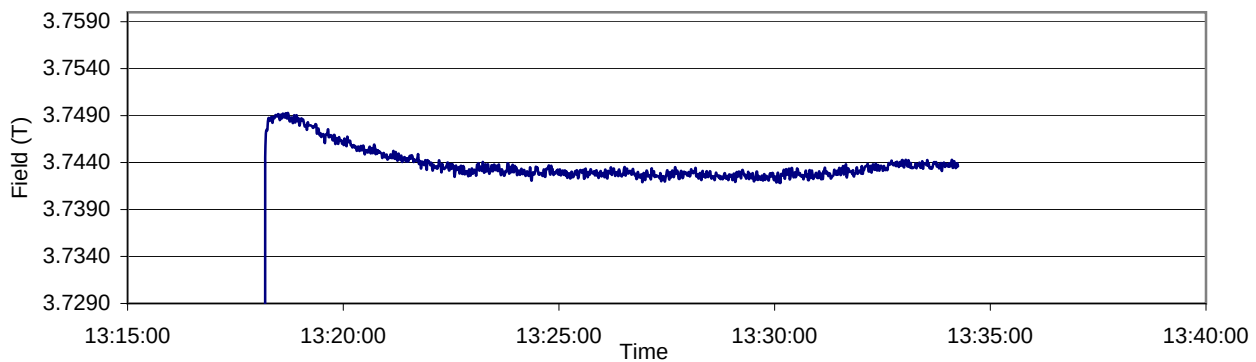


GMW Associates

Electromagnet Stability Plot

Contract No: 9085 Page: 2 of 4 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Stability. water cool, 18 deg C, ~2.6G/min, 40A.

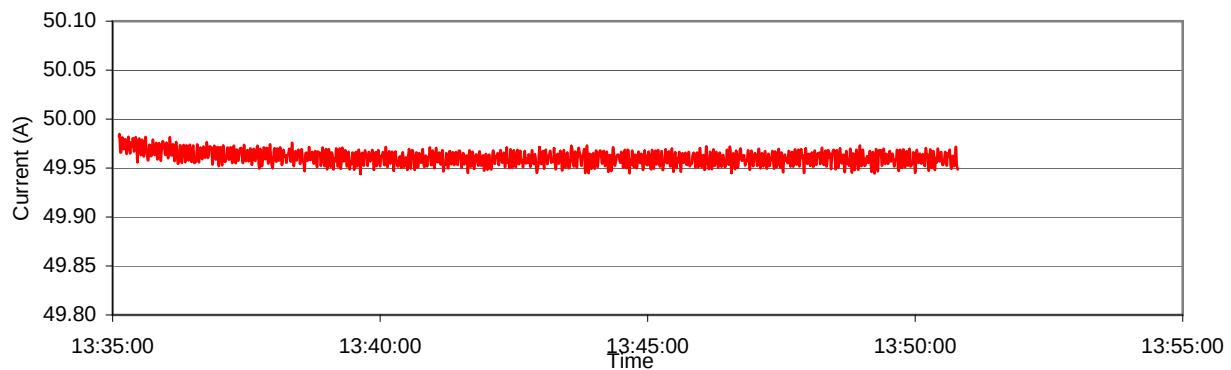
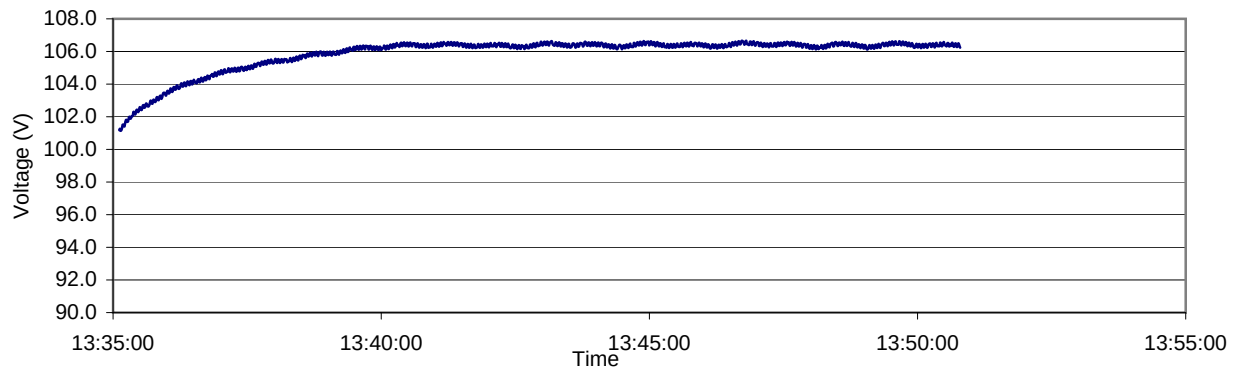
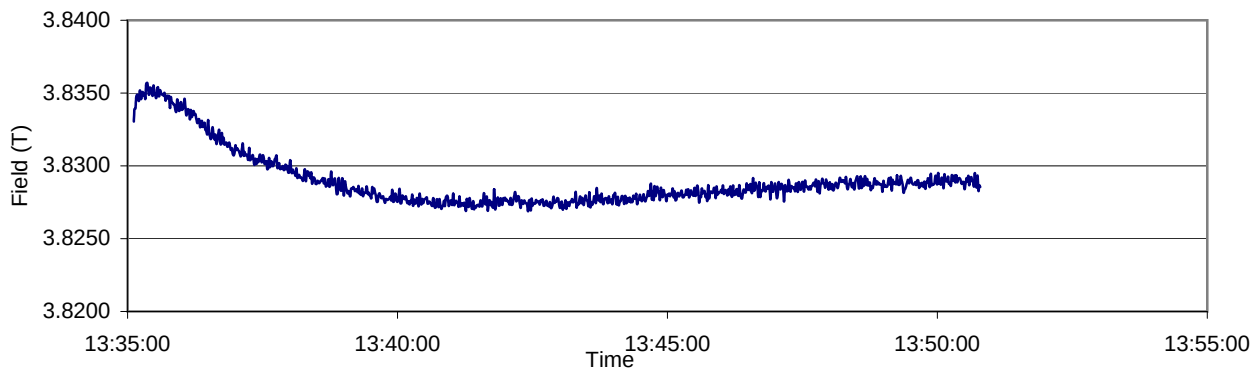


GMW Associates

Electromagnet Stability Plot

Contract No: 9085 Page: 3 of 4 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Stability. water cool, 18 deg C, ~2.6G/min, 50A.



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Electromagnet Stability Plot

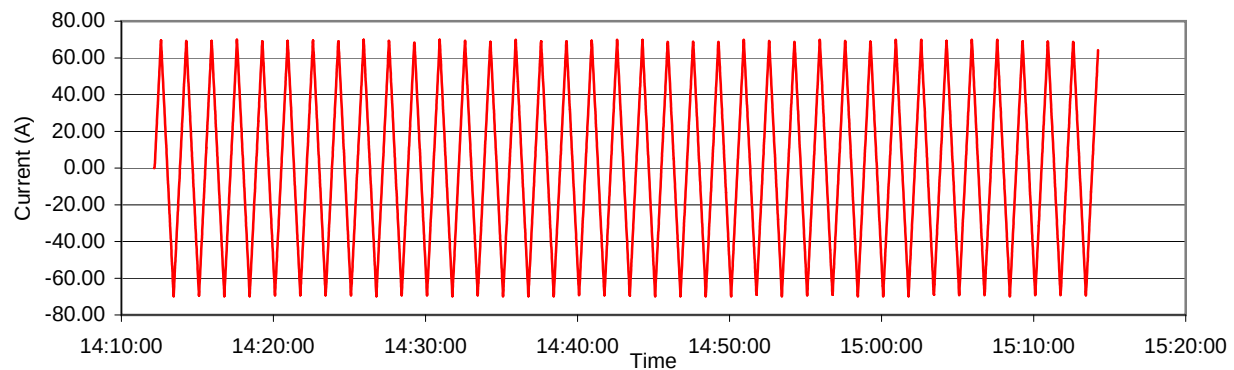
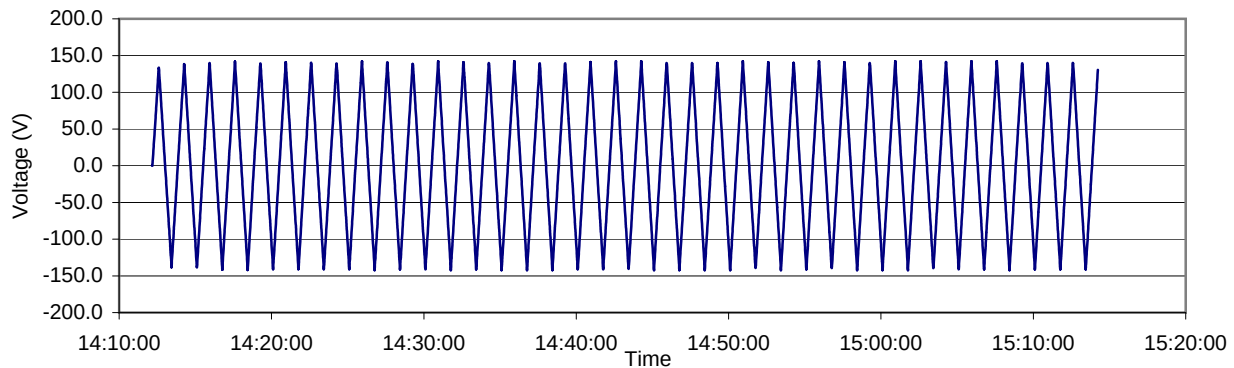
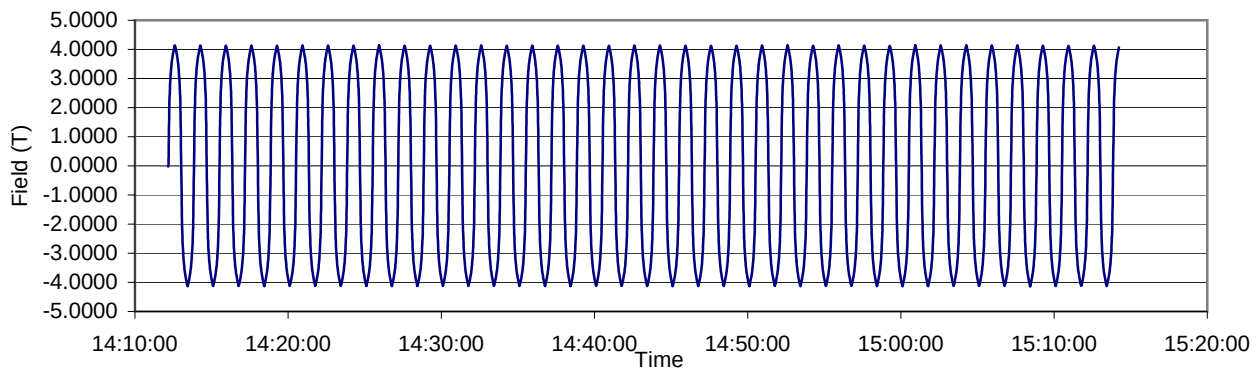
Contract No: 9085
Customer:

Page: 4 of 4

Date: Aug 24, 2011
Engr: Y.Qin

Model: 5404
Serial No: 02
Gap: 5 mm
Pole: Solid
Chiller: MC300-E1H2J2
Field Probe: Hy06x2x42 2.5kHz 1% 5T
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Triangle waveform 1hour 0.01Hz 70A.

Power Supply: 231HC
AMP SN: 0110FD04
DC PS: Ametex SGA 160X63C-0AAA
DC SN: 1130A01036
Chiller sn: 20098R0311
Probe sn: 6610 B reading uncorrected

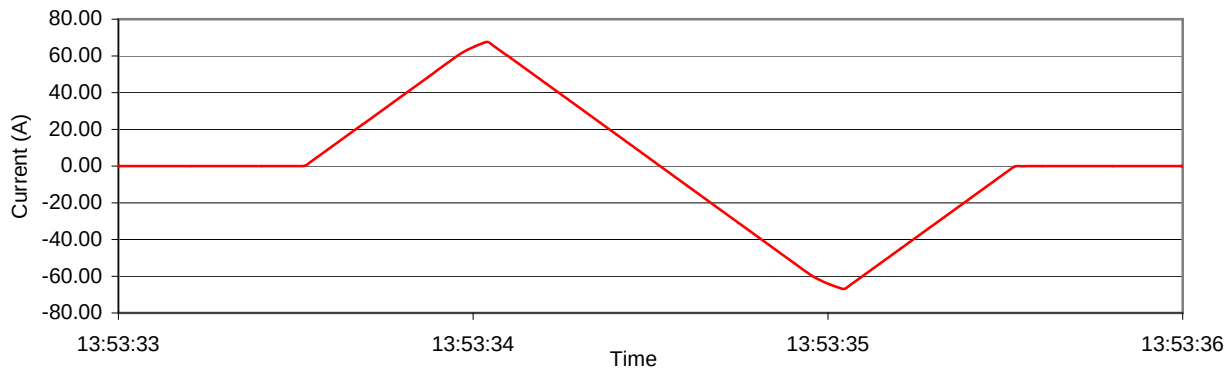
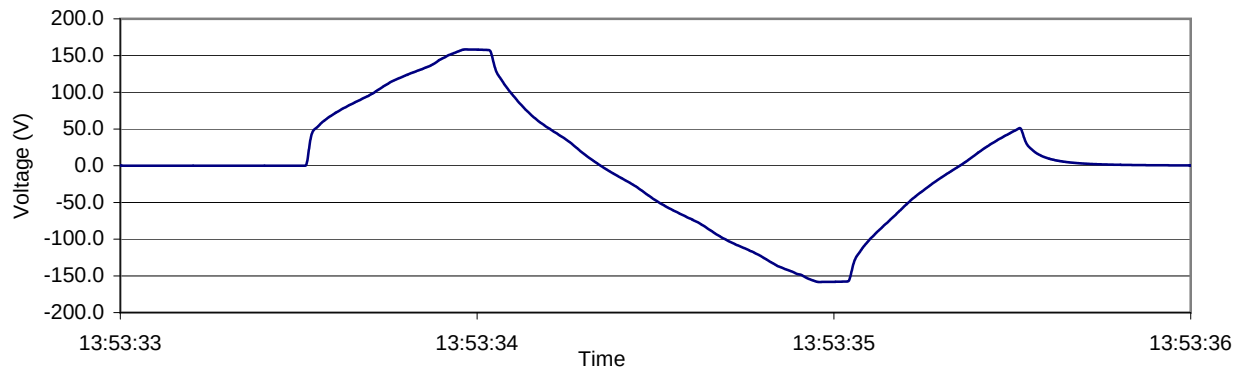
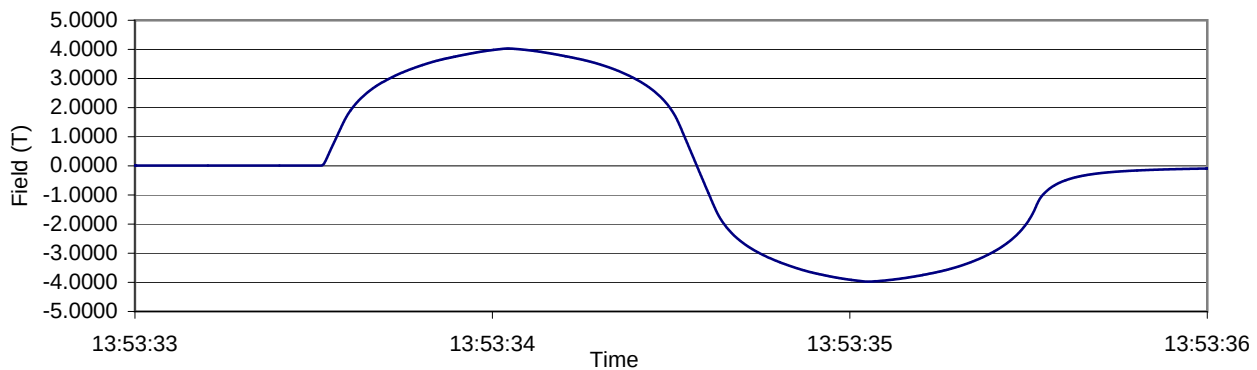


GMW Associates

Electromagnet Stability Plot

Contract No: 9085 Page: 1 of 2 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Current Ramp. Triangle wave 70A 0.5Hz.

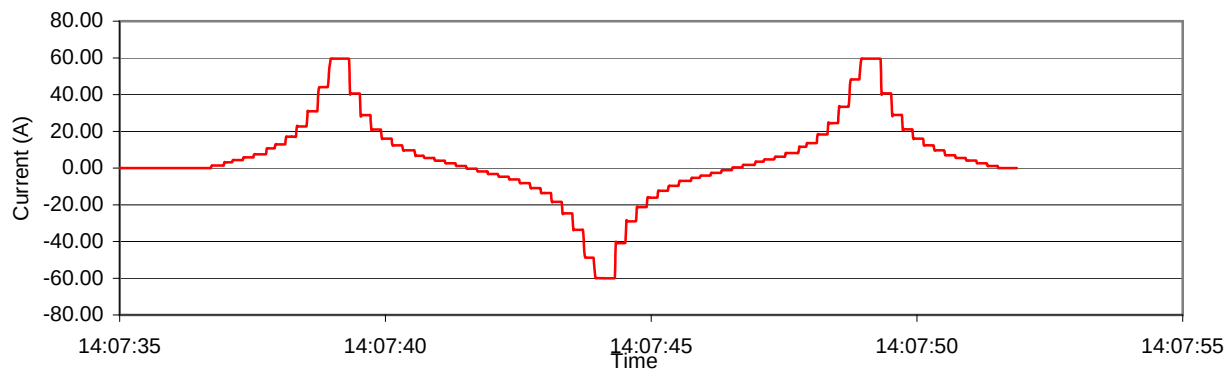
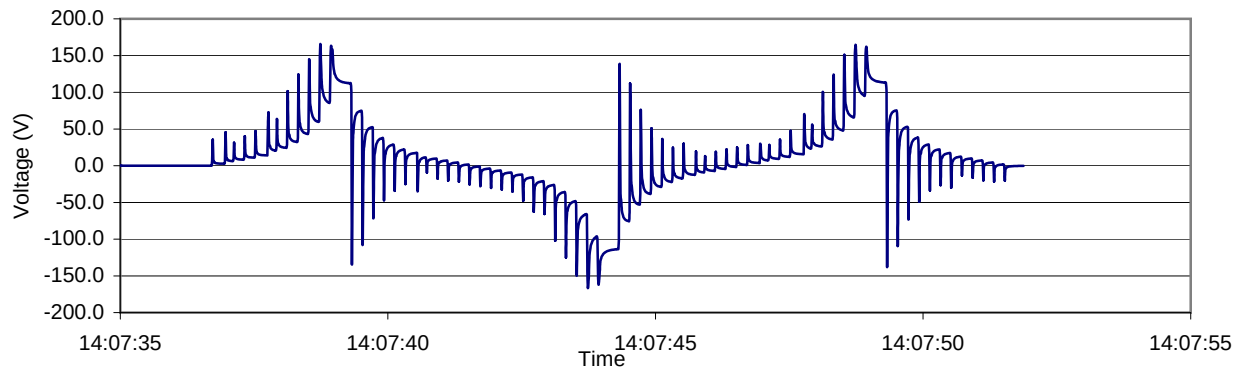
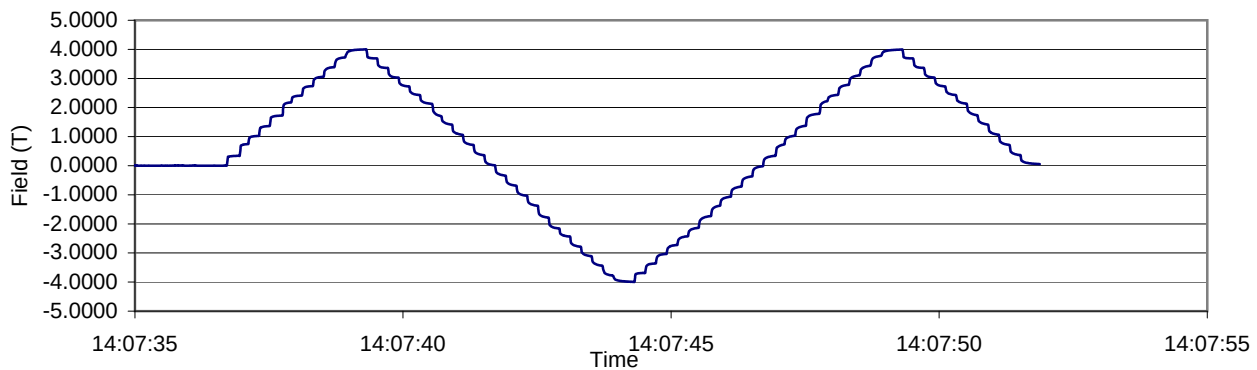


GMW Associates

Electromagnet Stability Plot

Contract No: 9085 Page: 2 of 2 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 5 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: Solid DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T Probe sn: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Field Ramp. 1.7T/sec. 4.0T max

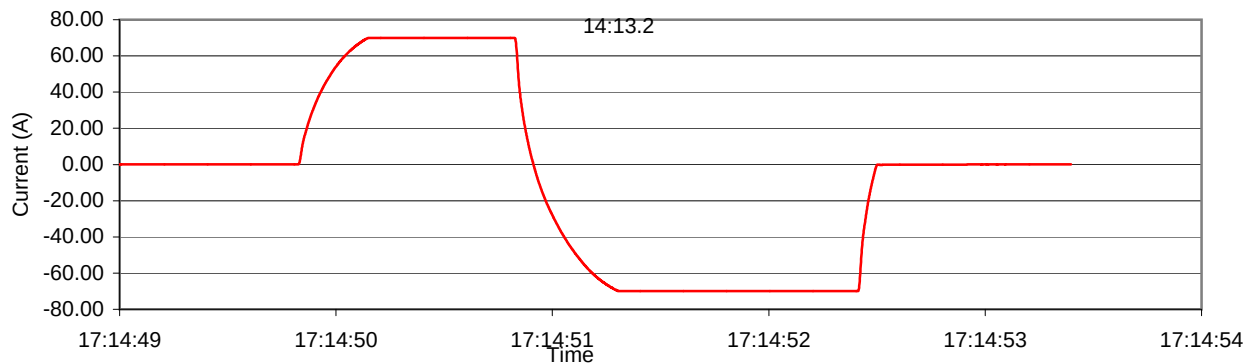
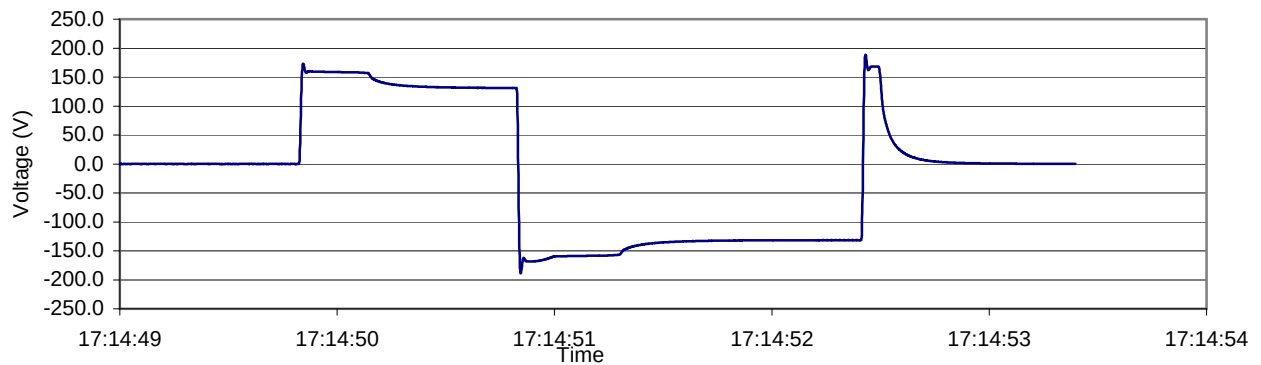
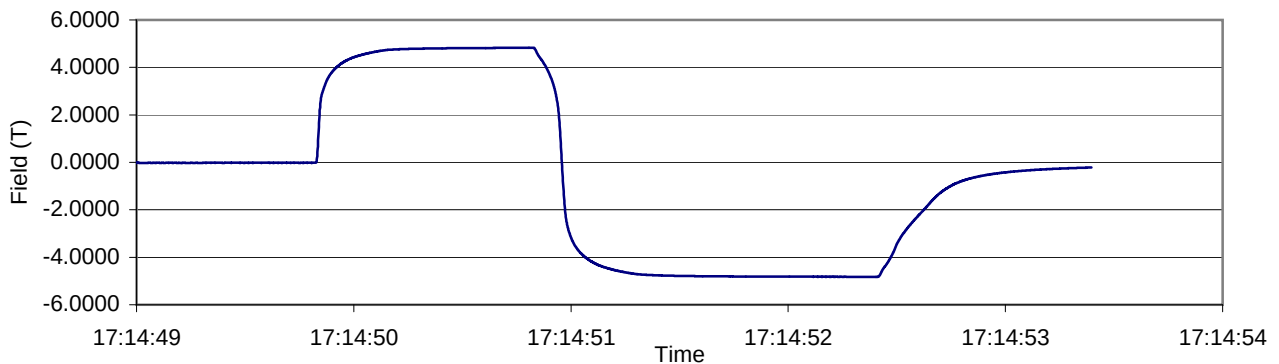


GMW Associates

Electromagnet Waveform Plot

Contract No: 9085 Page: 1 of 1 Date: Aug 24, 2011
Customer: Engr: Y.Qin

Model: 5404 Power Supply: 231HC
Serial No: 02 AMP SN: 0110FD04
Gap: 2 mm DC PS: Ametex SGA 160X63C-0AAA
Pole: One Solid pole, one optical pole. DC SN: 1130A01036
Chiller: MC300-E1H2J2 Chiller sn: 20098R0311
Field Probe: Hy06x2x42 2.5kHz 1% 5T SN: 6610 B reading uncorrected
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.
Note 2: Square waveform. 70A 0.5Hz. V, I read back from int DAQPad



GMW Associates

Electromagnet Thermal Switch Test Plot

Contract No: 9085

Page: 1 of 2

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 2 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: One Solid pole, one optical pole.

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

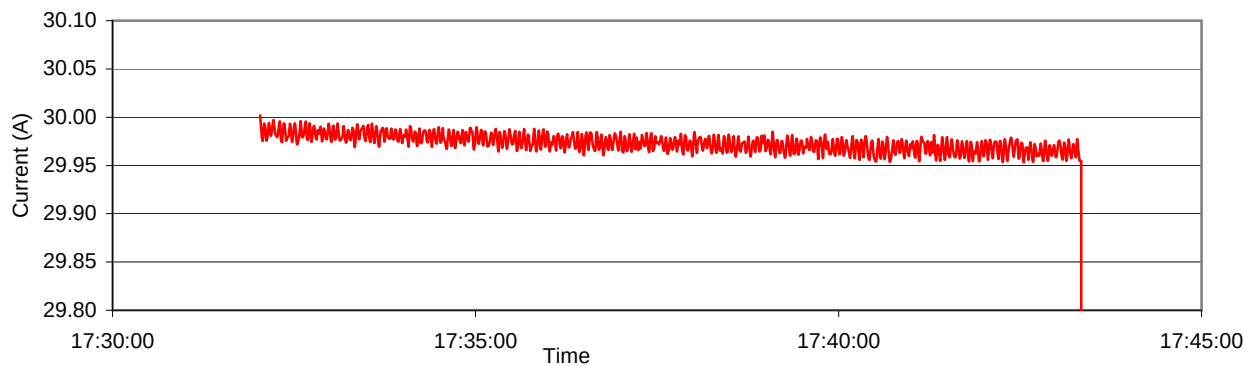
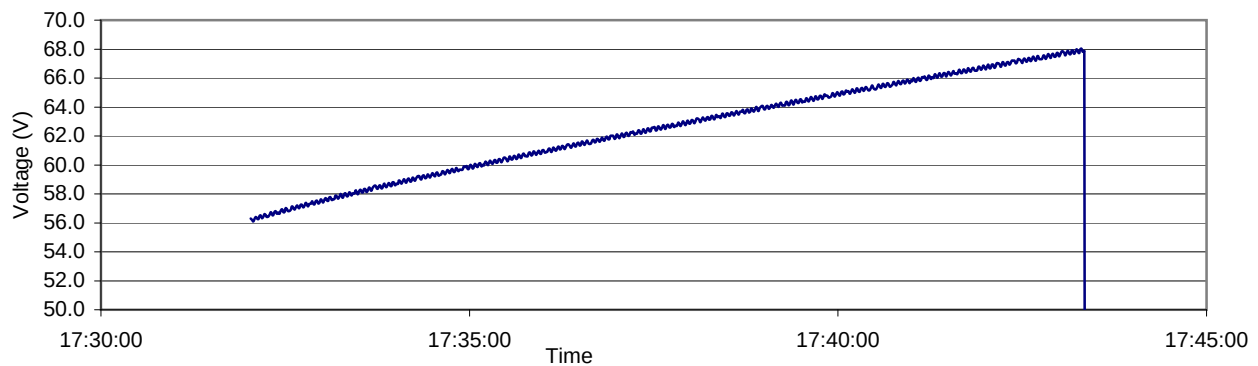
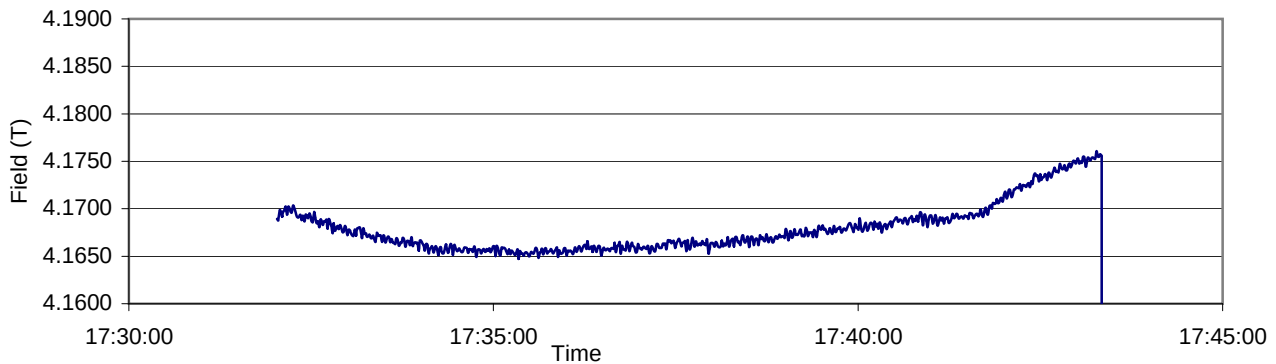
Field Porbe: Hy06x2x42 2.5kHz 1% 5T

SN: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: 30A. Not water cooling. Thermal switch interlock at 17:43:00, 11 min.



GMW Associates

Electromagnet Thermal Switch Test Plot

Contract No: 9085

Page: 2 of 2

Date: Aug 24, 2011

Customer:

Engr: Y.Qin

Model: 5404

Power Supply: 231HC

Serial No: 02

AMP SN: 0110FD04

Gap: 2 mm

DC PS: Ametex SGA 160X63C-0AAA

Pole: One Solid pole, one optical pole.

DC SN: 1130A01036

Chiller: MC300-E1H2J2

Chiller sn: 20098R0311

Field Porbe: Hy06x2x42 2.5kHz 1% 5T

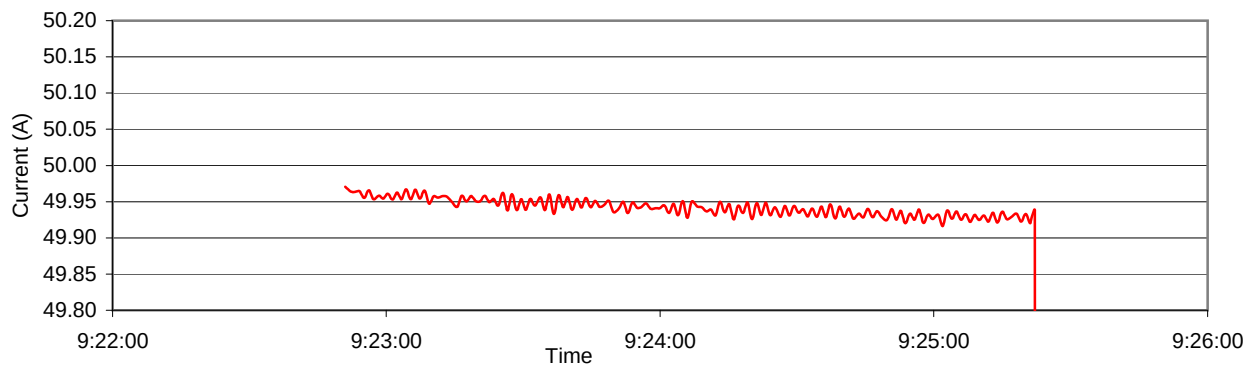
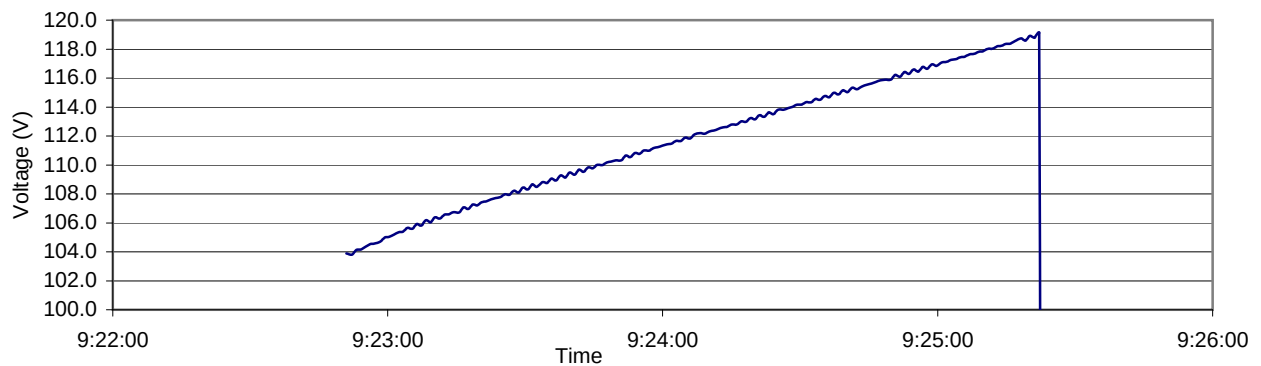
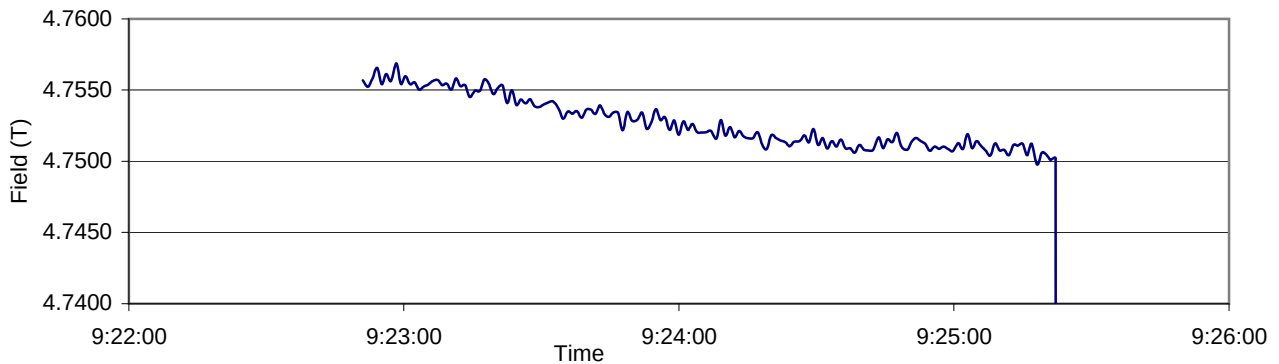
SN: 6610

B reading uncorrected

Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Note 2: 50A. Not water cooling. Thermal switch interlock at 9:25:00, 3 min.

Cold V at 100A =97.2V. Resistance rise=22.4%



GMW Associates

Electromagnet Excitation Plot

Contract No: 9085
Customer:

Page: 1 of 1

Date: Aug 24, 2011
Engr: Y.Qin

Model: 5404
Serial No: 02
Gap: 2 mm
Pole: One Solid pole, one optical pole.
Chiller: MC300-E1H2J2
Field Probe: Hy06x2x42 2.5kHz 1% 5T
Note 1: 100mH programming plug. R10=345kOhm. 3nF capacitor add to C5.

Power Supply: 231HC
AMP SN: 0110FD04
DC PS: Ametex SGA 160X63C-0AAA
DC SN: 1130A01036
Chiller sn: 20098R0311
SN: 6610 B reading uncorrected

