

GMW Associates

Electromagnet Thermal Stability Plot

Contract No: 23612

Page: 1 of 6

Test Date: 7/13/2017

Customer:

Engr: Y.Qin

Model: 3480

Power Supply: Kepoco 36V/28A MG

Serial No: 4

PS Serial No: SN: A109128

Pole gap: 10mm

Pole face: 16mm

Cooling: air cooled, room temperature = 21 Deg C

Note 1: cold R = $14.6V/9.8A = 1.49 \text{ Ohm}$, for magnet and current cable

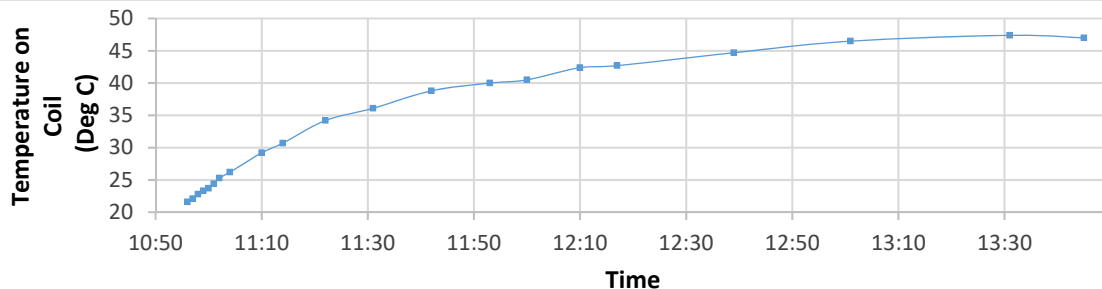
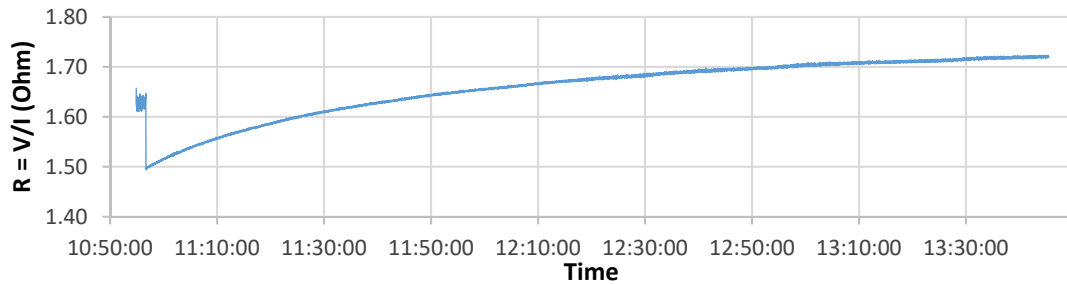
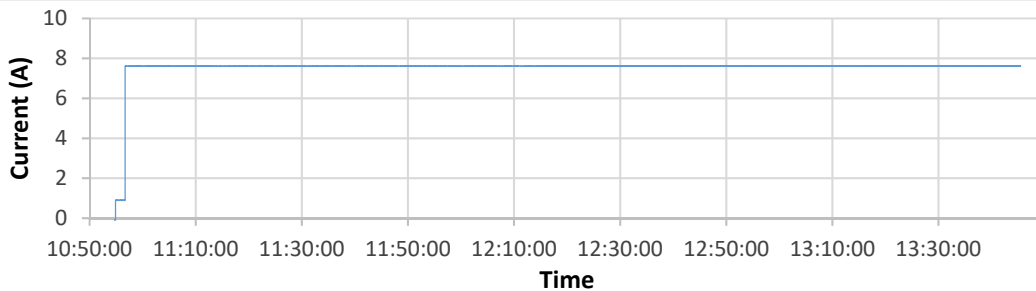
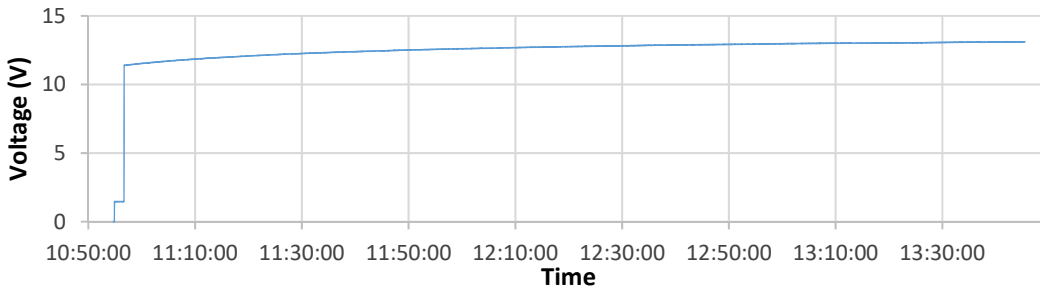
Note 2: Max R = $1.49 \text{ Ohm} * 1.2 = 1.79 \text{ Ohm}$

Note 3: Voltage readback: divider at the terminal of the magnet.

Note 4: Current readback: kepco Analog I/O

Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Set I=7.8A



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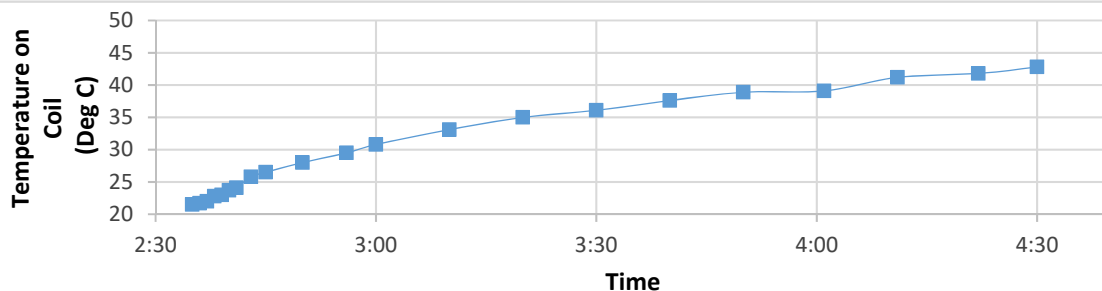
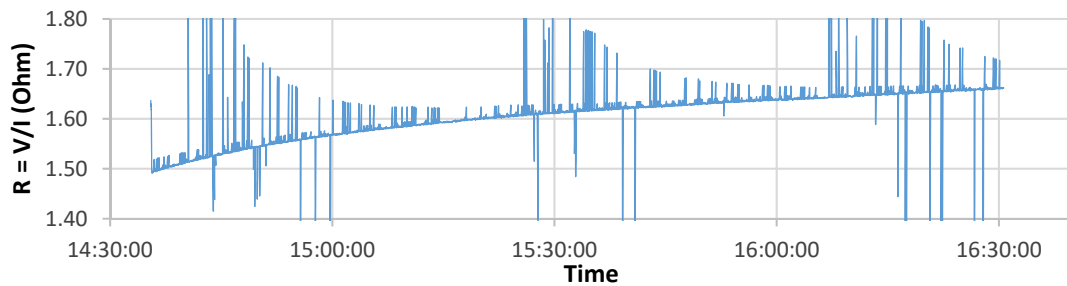
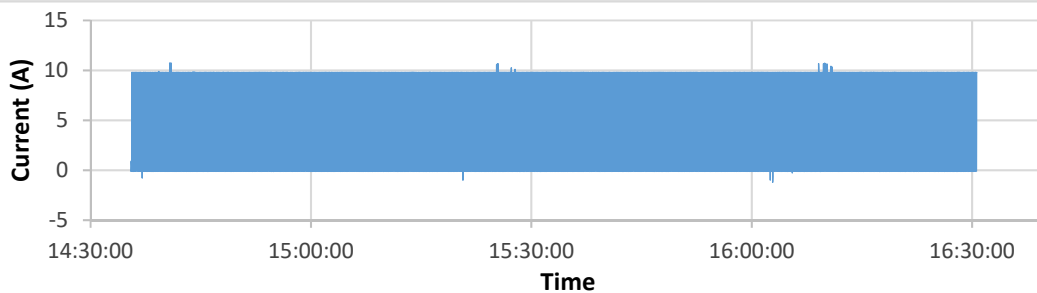
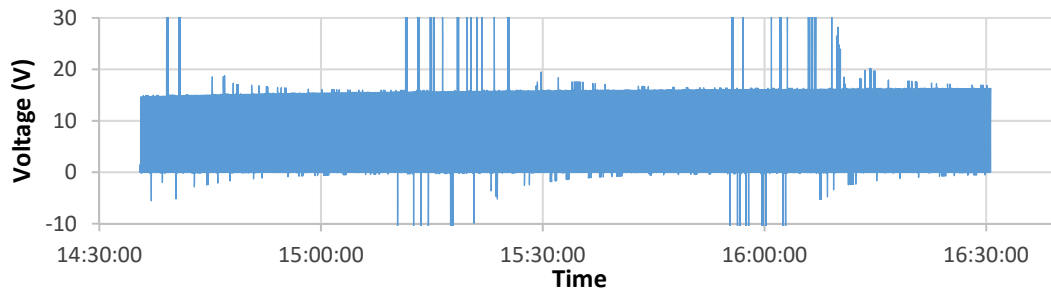
Note 2: Max R = $1.49 \text{ Ohm} * 1.2 = 1.79 \text{ Ohm}$

Note 3: Voltage readback: divider at the terminal of the magnet.

Note 4: Current readback: kepco Analog I/O

Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Square waveform. 5A amplitude, 5A offset (10A On/Off, 50% duty cycle). 0.1Hz



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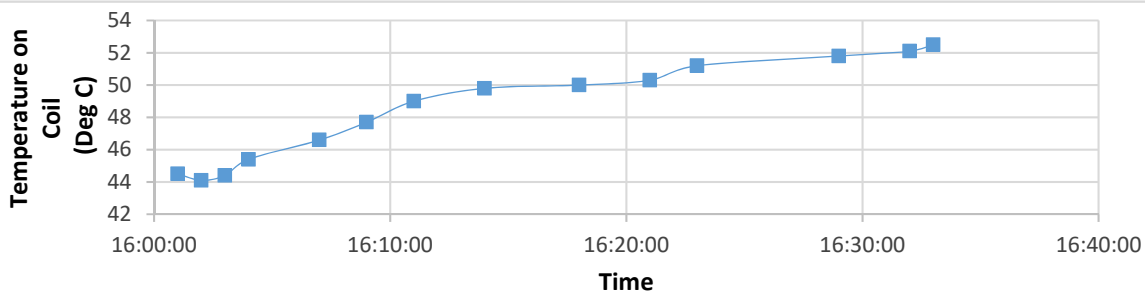
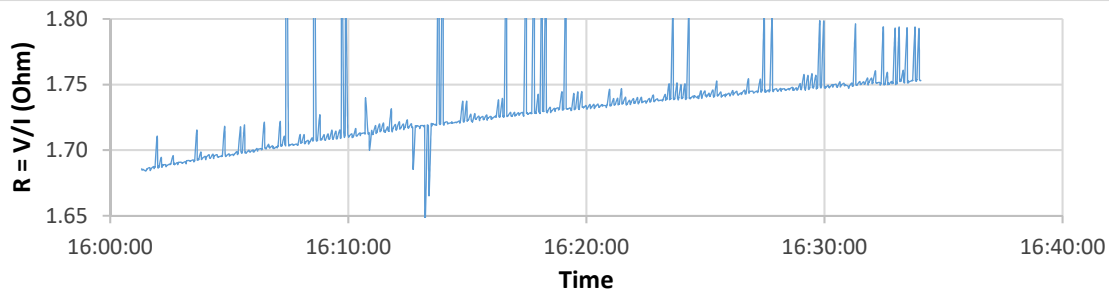
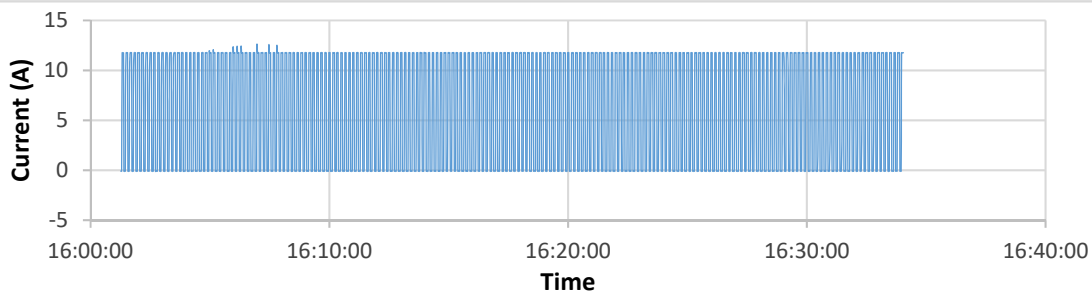
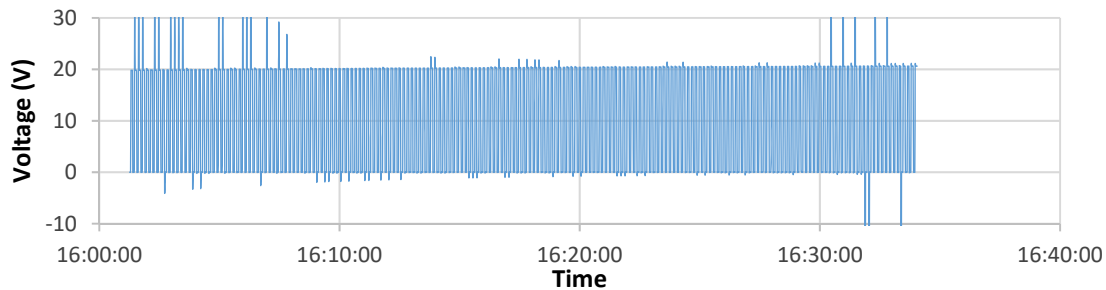
Note 2: Max R = $1.49 \text{ Ohm} * 1.2 = 1.79 \text{ Ohm}$

Note 3: Voltage readback: divider at the terminal of the magnet.

Note 4: Current readback: kepco Analog I/O

Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Square waveform. 6A amplitude, 6A offset (12A On/Off, 50% duty cycle). 0.1Hz



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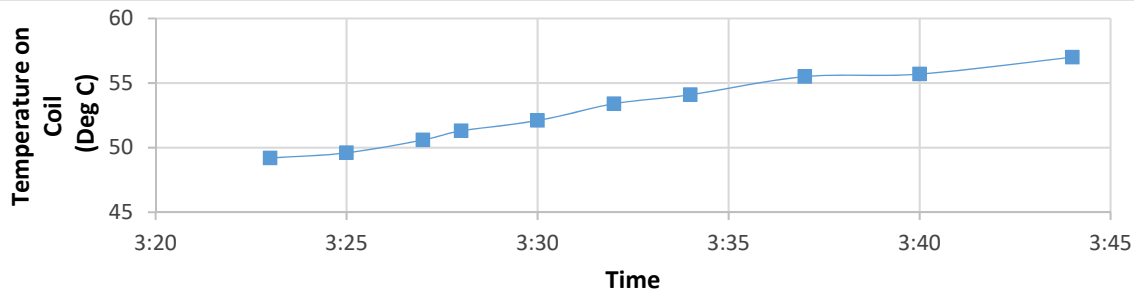
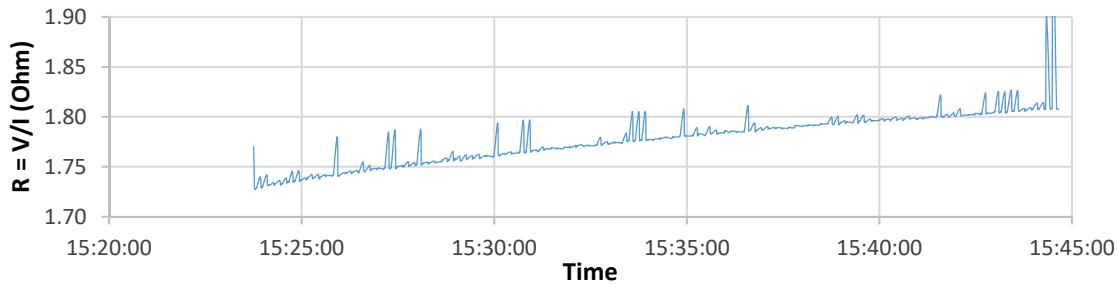
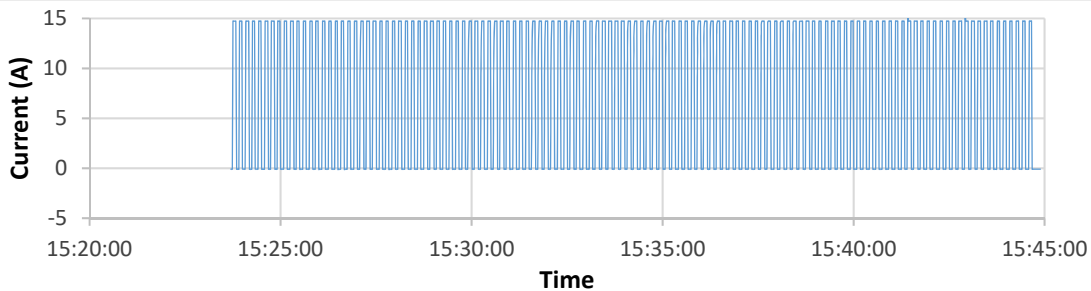
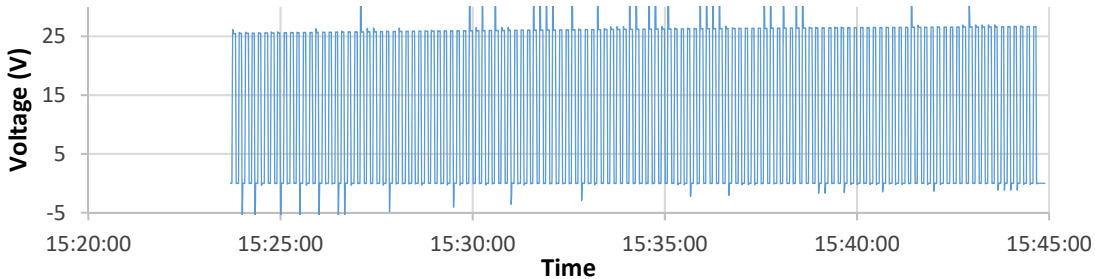
Note 2: Max R = $1.49 \text{ Ohm} * 1.2 = 1.79 \text{ Ohm}$

Note 3: Voltage readback: divider at the terminal of the magnet.

Note 4: Current readback: kepco Analog I/O

Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Square waveform. 7.5A amplitude, 7.5A offset (15A On/Off, 50% duty cycle). 0.1Hz



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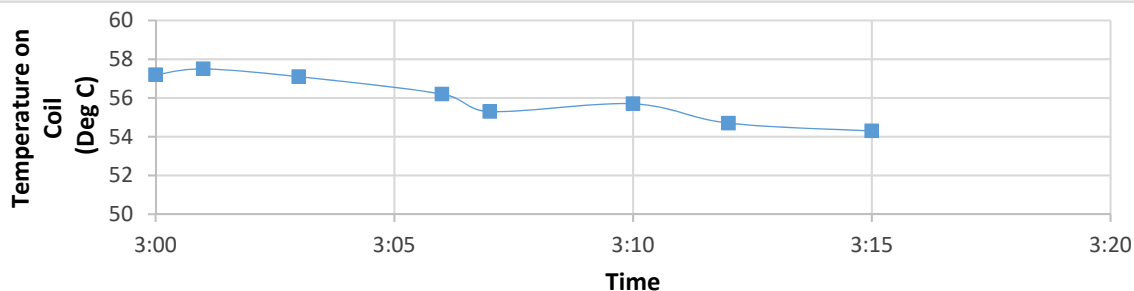
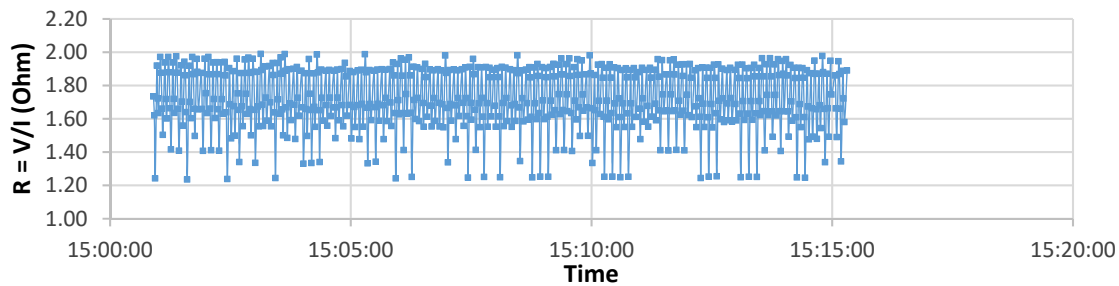
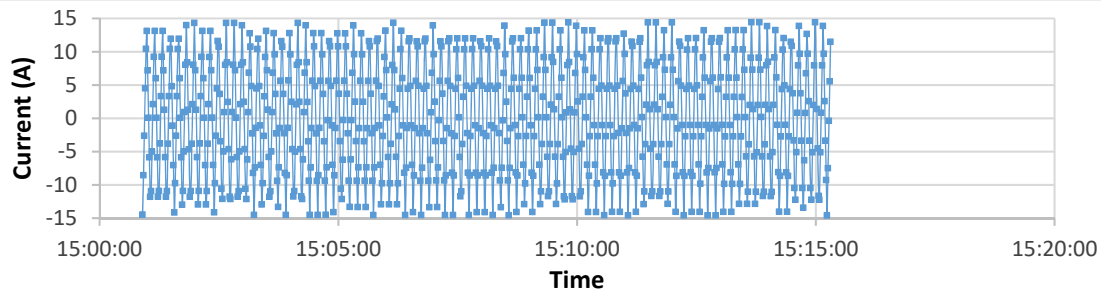
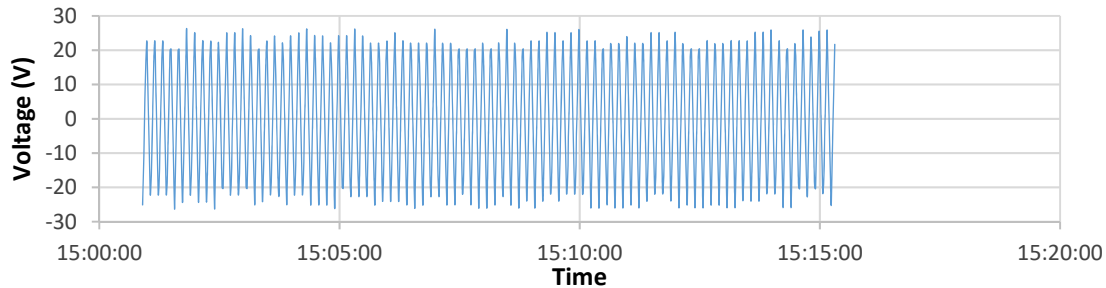
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Note 3: Voltage readback: divider at the terminal of the magnet.

Note 4: Current readback: kepco Analog I/O

Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Triangle waveform. 15A amplitude, 0.1Hz



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Note 5: Temperature read using SR630 SN:34768. Thermal probe on coil.

Note 6: Triangle waveform. 20A amplitude, 0.1Hz

