MQXC 120 mm V3

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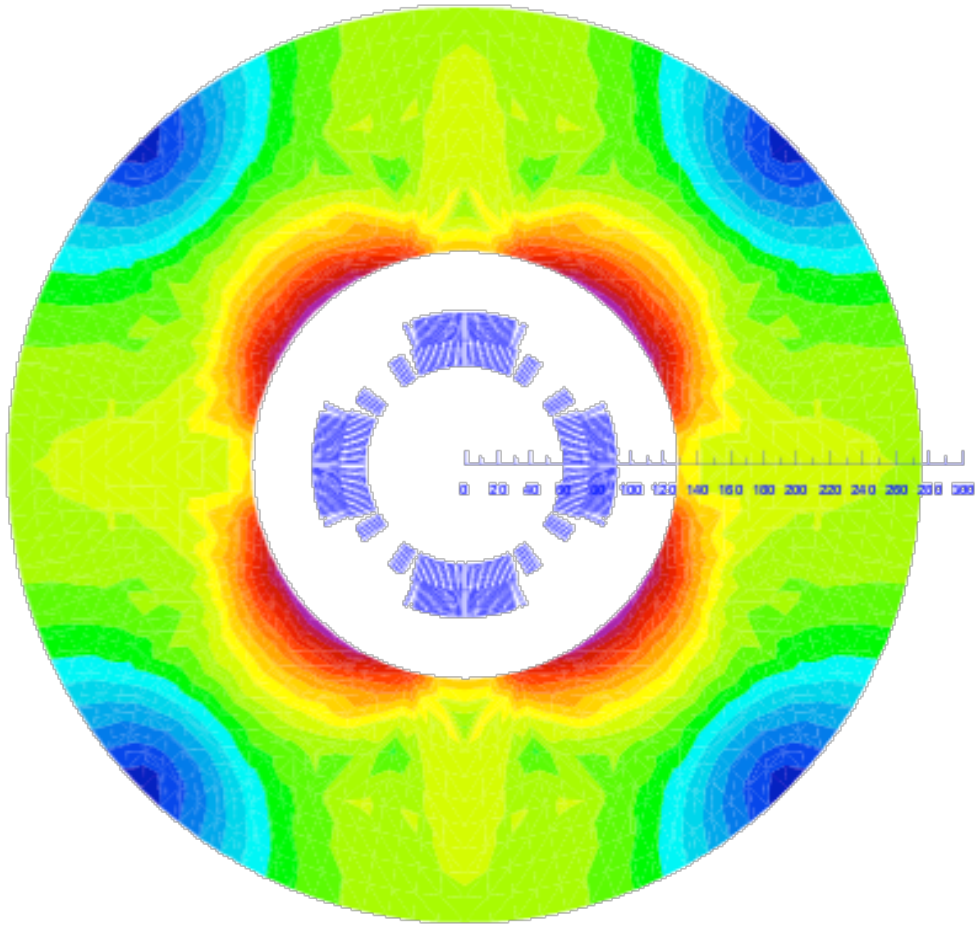
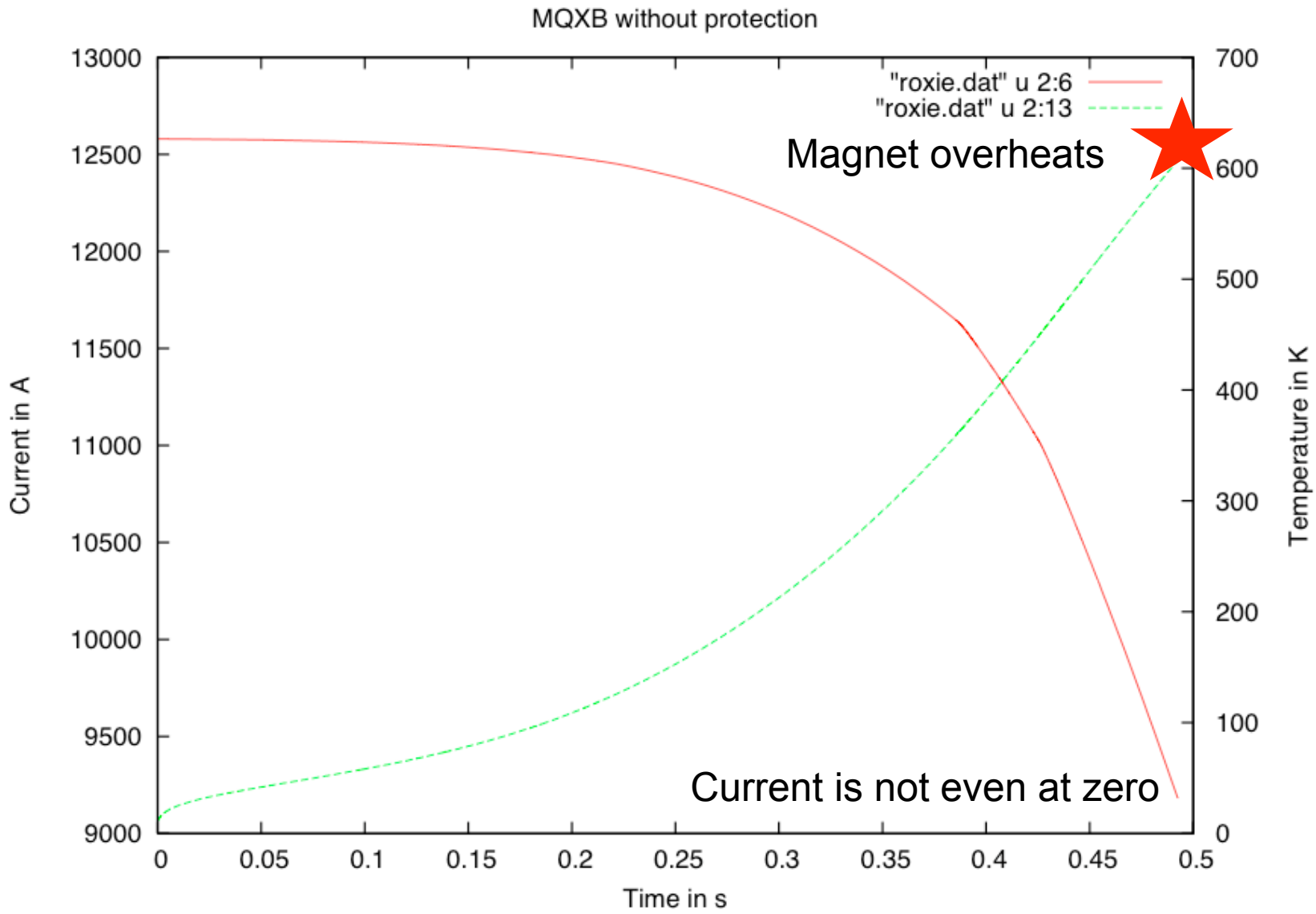
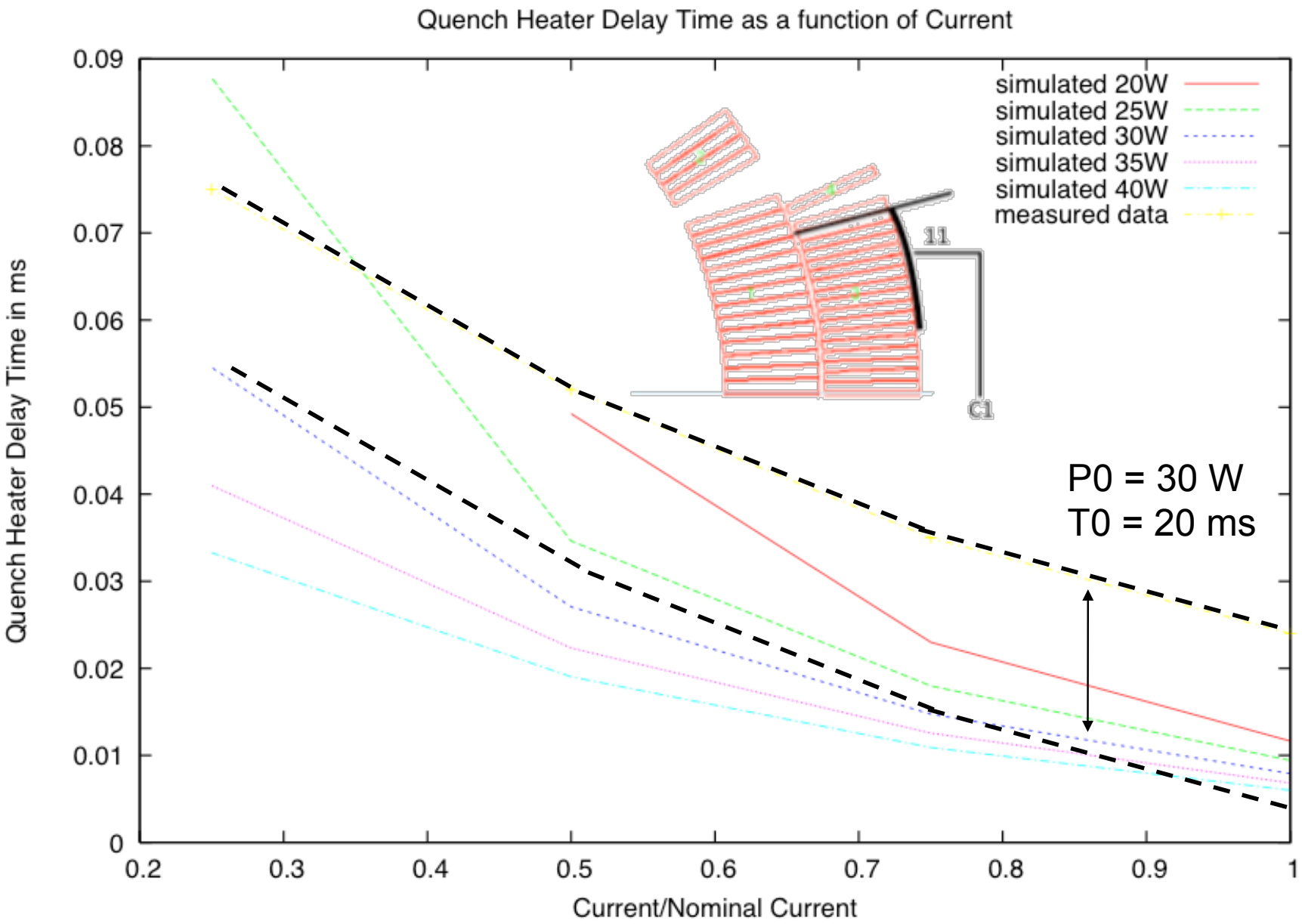
- Introduction of our new team member:
  - Erwin Bielert
  - PhD-student Twente
- First quench simulation results for
  - 120 mm, V3
- Input parameters
  - Discussed in last 2 meetings
  - Fixed in QuenchCaseDefinition
- Quench Protection Study:
  - Gauging quench heaters
  - Selecting dump resistor
  - Simulating quench with double protection
    - At full and half current



MQXC 120 mm V3 – No Protection



MQXC 120 mm V3 – Quench Heater Gauging



MQXC 120 mm V3 – Result for Quench Heater Setting

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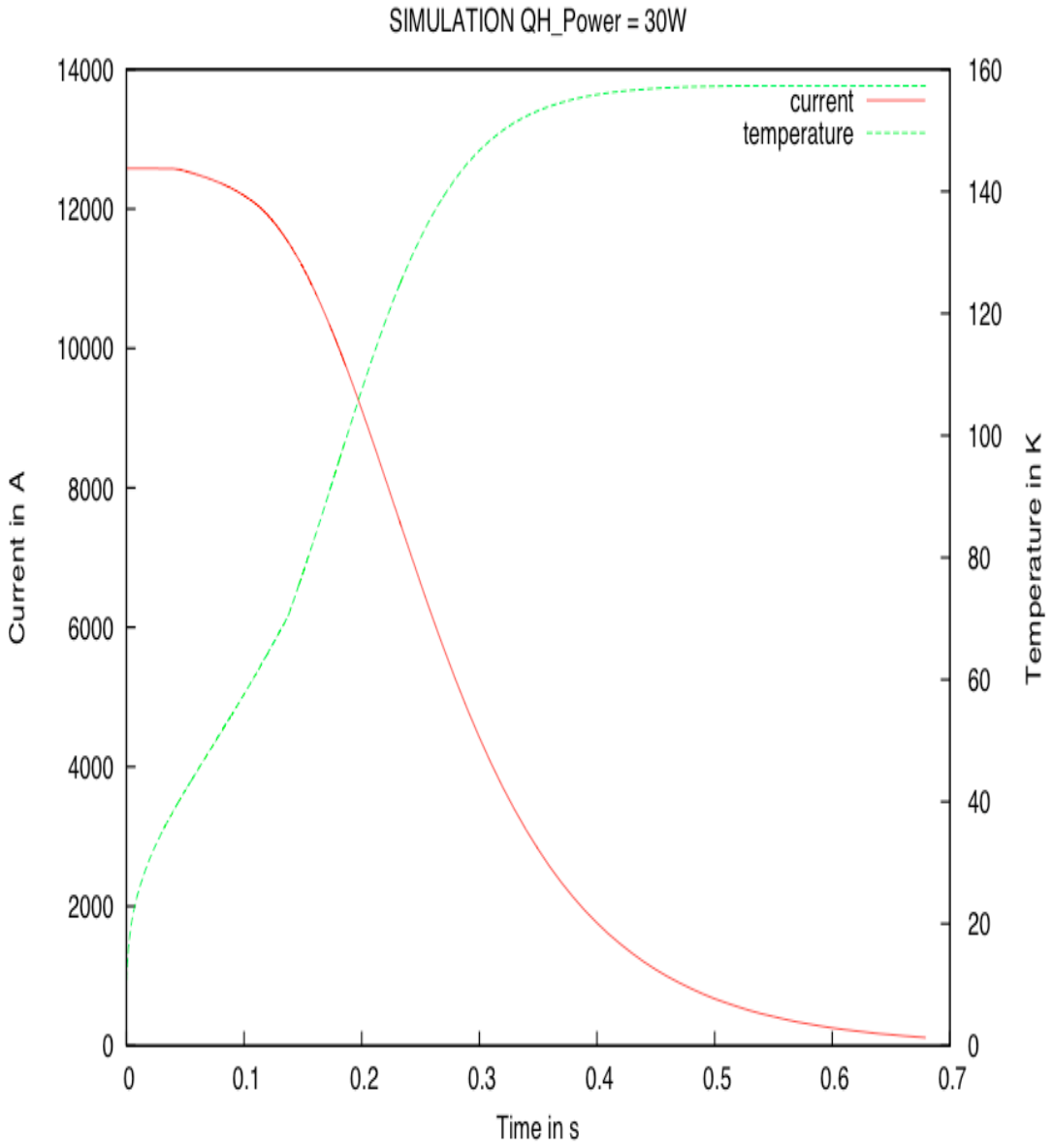
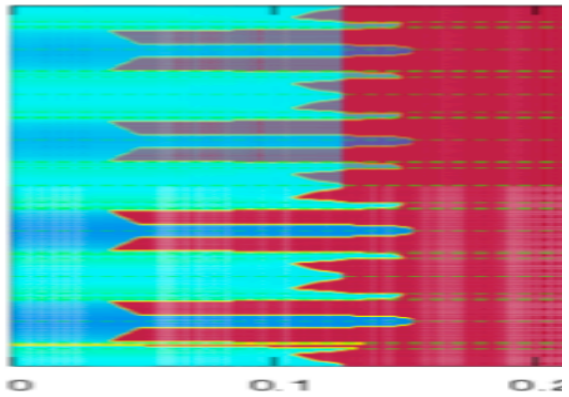
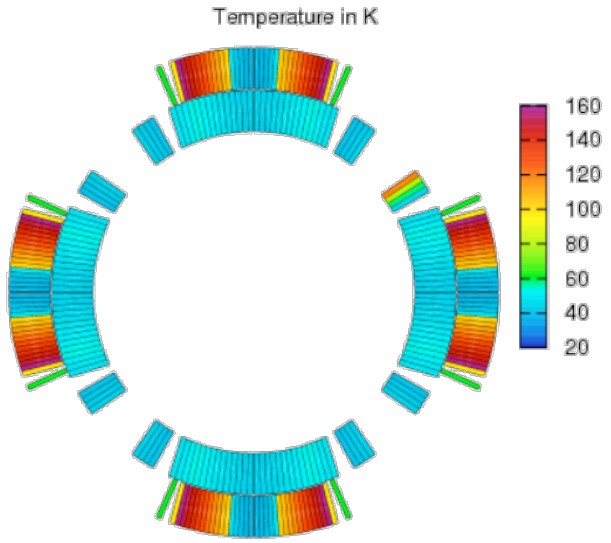
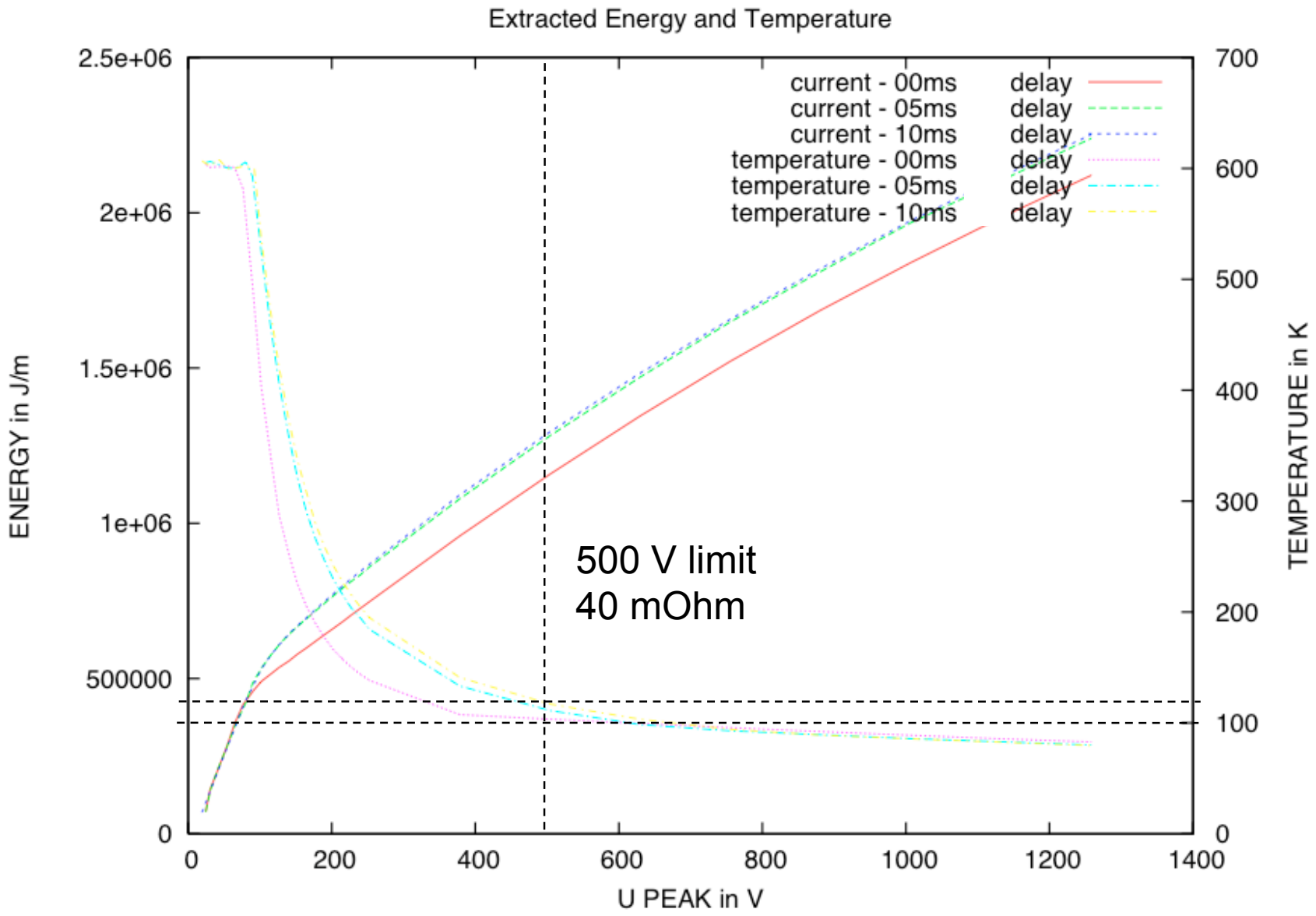






MQXC 120 mm V3 – Dump Resistor Study



MQXC 120 mm V3 – Comparison Dump Resistor Delays

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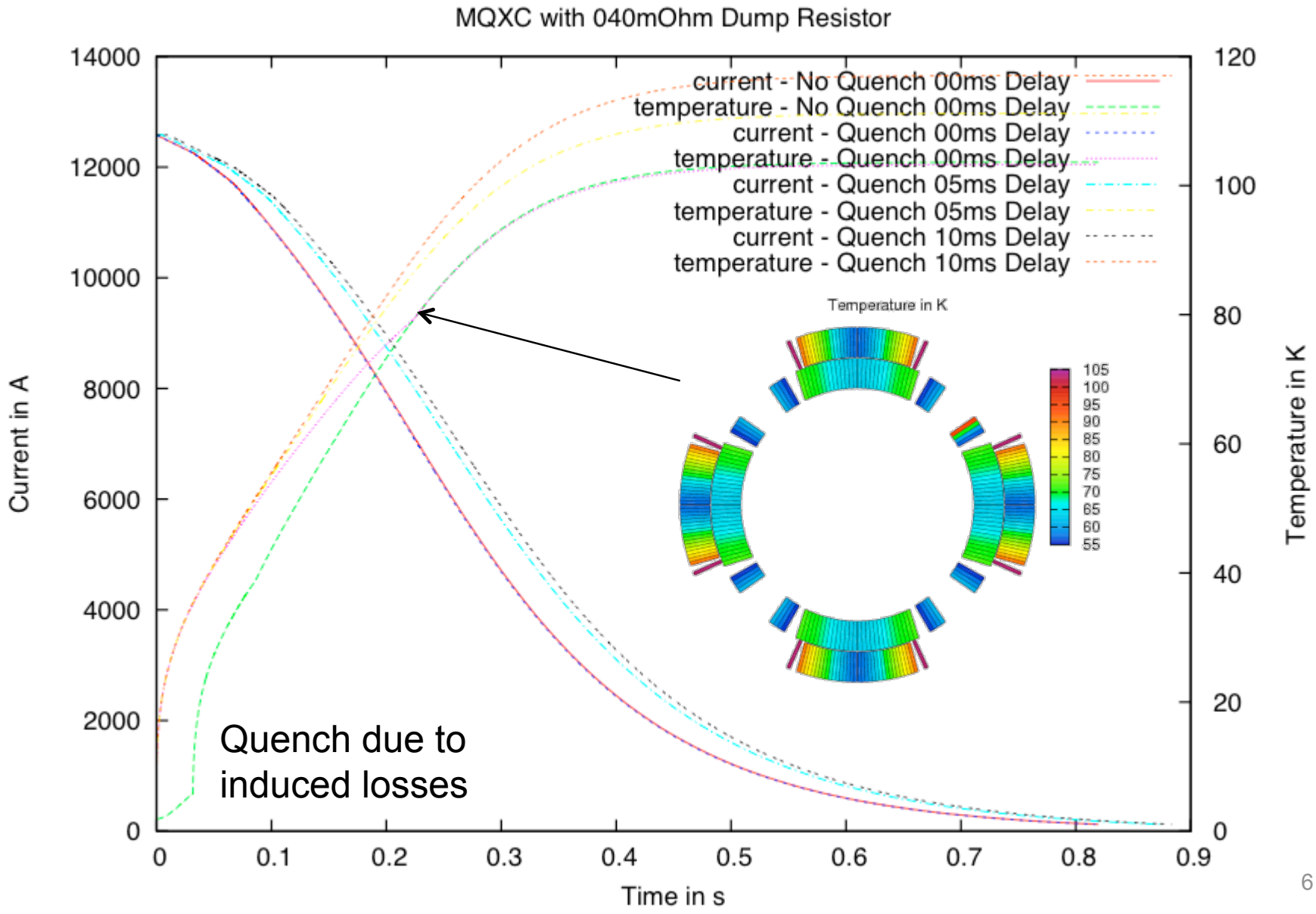
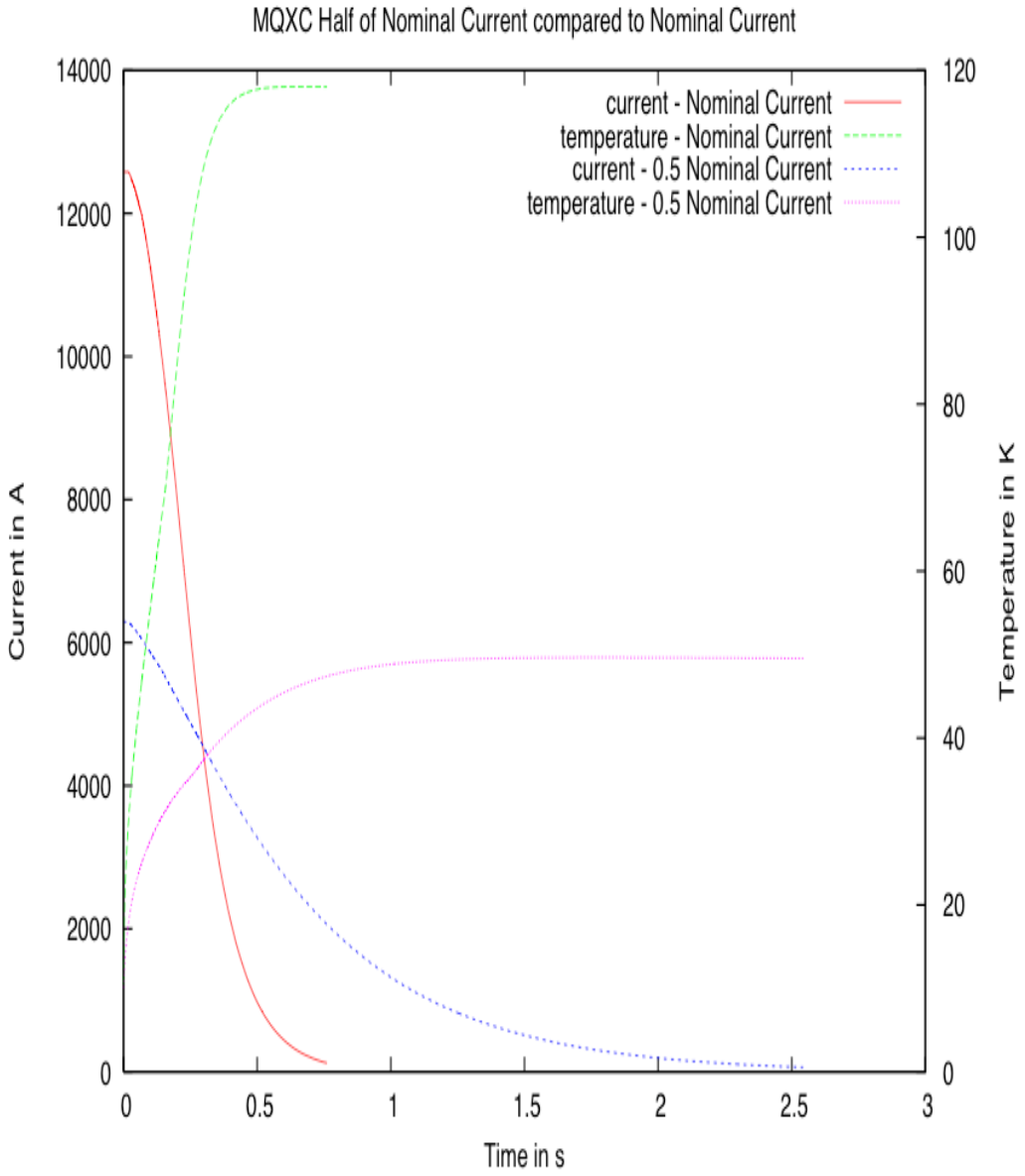
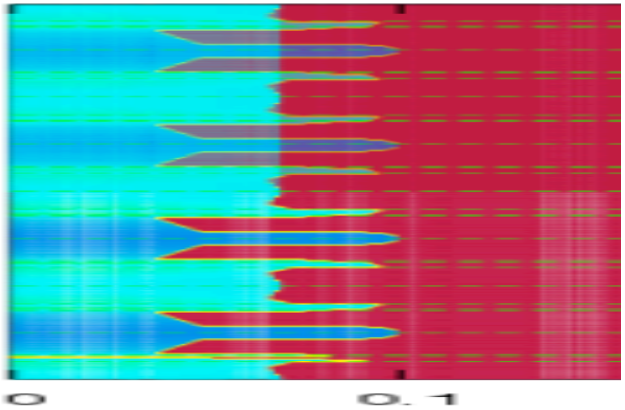
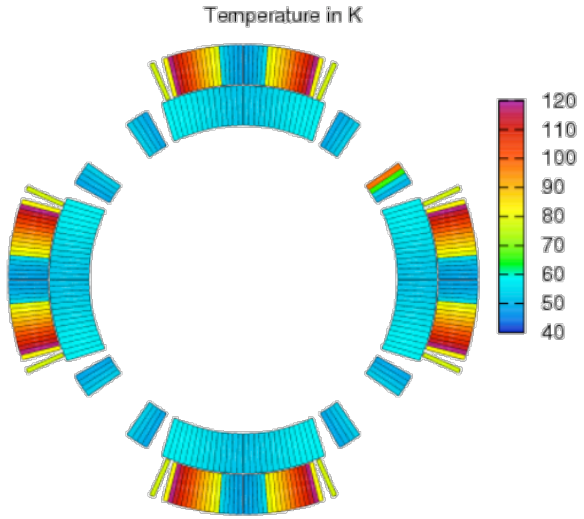


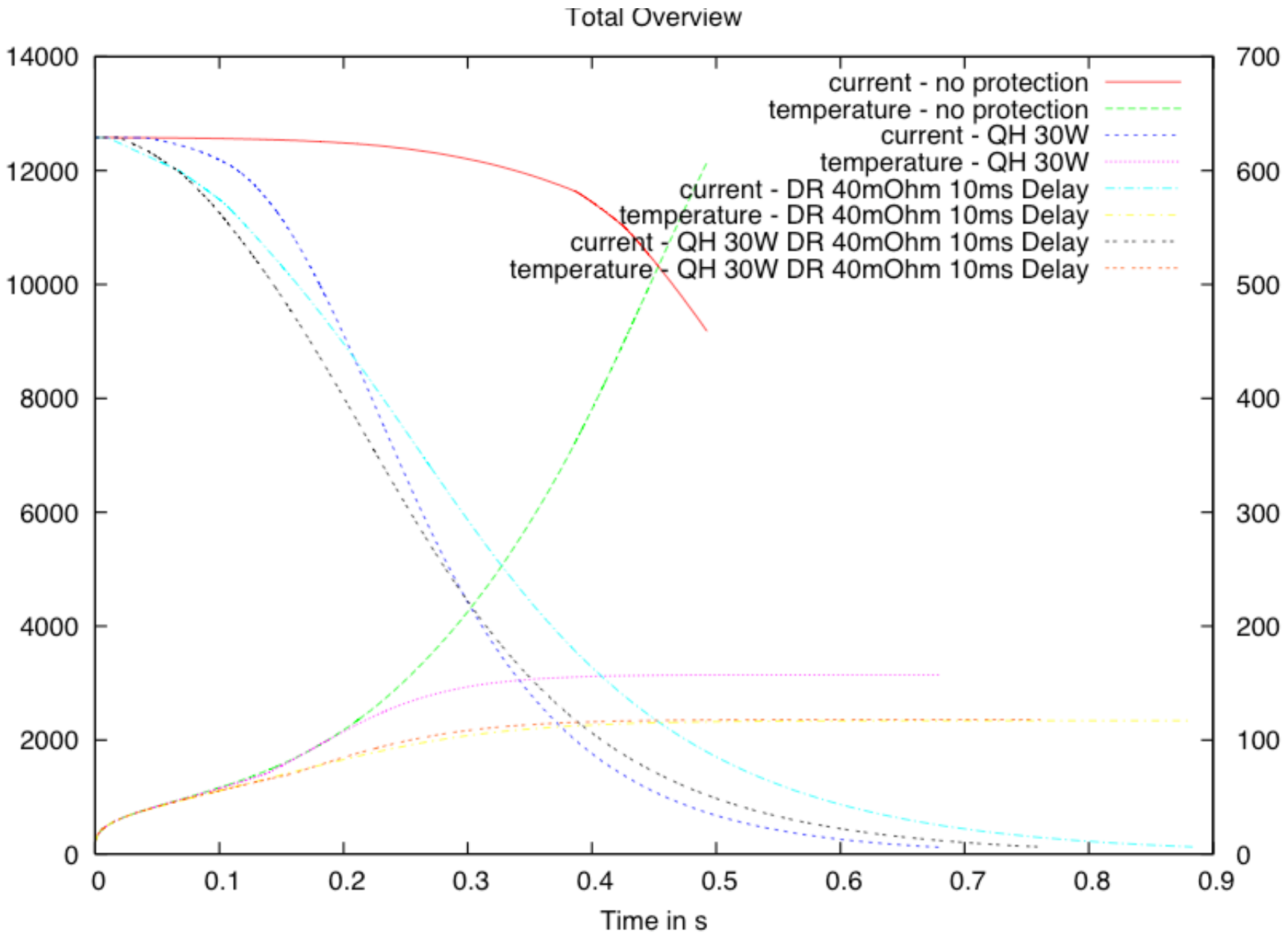
MQXC 120 mm V3 – Full Protection







MQXC 120 mm V3 – Comparison



MQXC – Outlook

- Open studies
  - New coil cross section (no single conductor)
  - Heater setup II
  - Design for greater aperture and length
  - Quench detection
    - 3D, various currents

- Collaboration
  - Fixing standards to exchange designs
  - Documentation