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Works test of ultralong AC and DC cables

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General Considerations

- Routine Testing of AC cables
 - Upto 70km per phase
 - AC test
- Routine Testing of DC cables
 - DC test or AC test at reduced AC voltage
- On-Site Testing of AC cables
 - Upto 70km per phase
 - AC test
- On-Site Testing of DC cables
 - DC test or AC test at reduced AC voltage

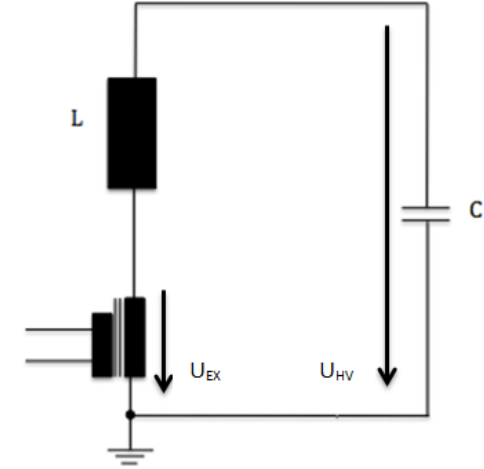


General Testing Solutions

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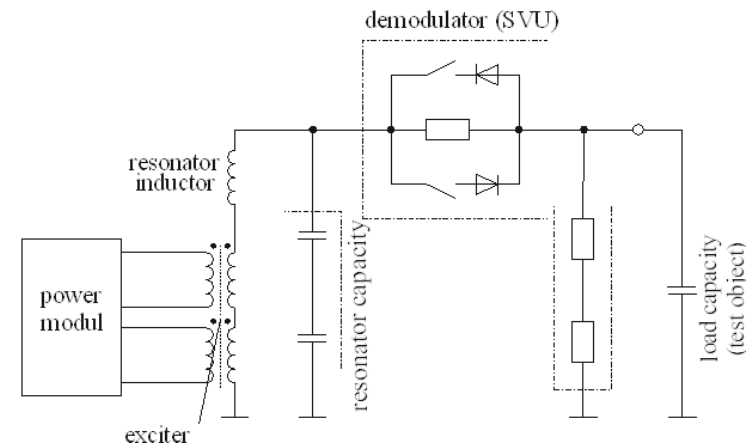
- Frequency Tuned Resonant Test Systems

Frequency of test voltage: (5) 10...300Hz



- Very Low Frequency Test Systems

Frequency of test voltage: 0,1Hz





General Testing Solutions

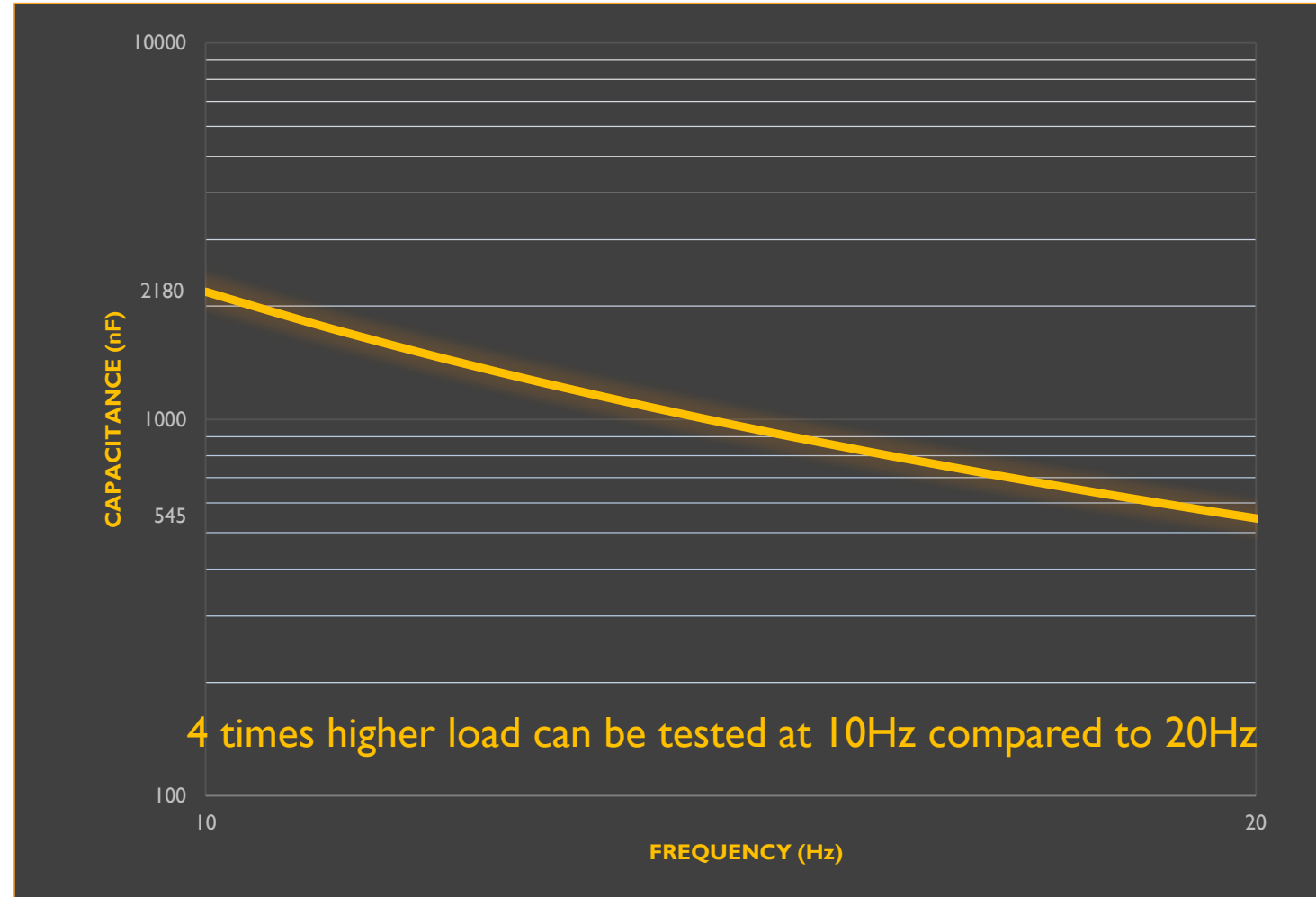
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- Frequency Tuned Resonant Test Systems
 - Established and proven technology
 - Gets “bulky” at lower frequencies
- Very Low Frequency Test Systems
 - Established in MV – no experience in HV and EHV
 - Complex technology
 - Better weight/performance ratio at frequencies $<5\text{Hz}$



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General Testing Solutions





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VFRTS – Possible Solutions

- Available at down to 10Hz
- Test voltages upto 1000kV or above (if required)
- Output power upto 100s of MVA @10Hz
- Input power range of MW
- Test capacitance in the range of 100 μ F

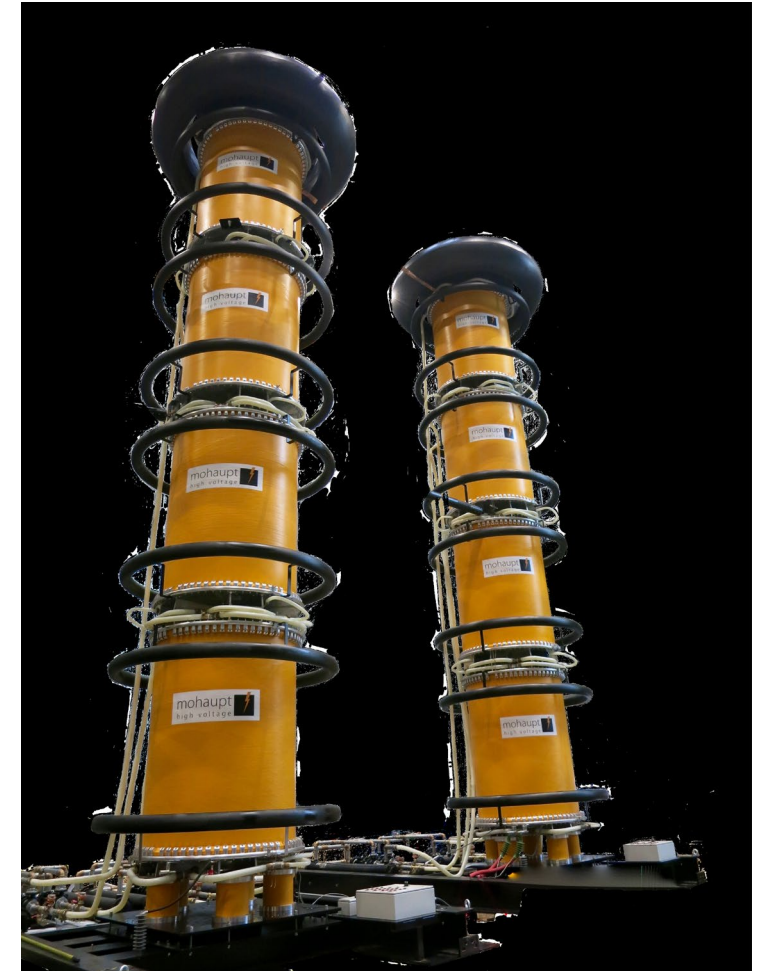




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VFRTS – Limitations

- In this size/power not suitable for on site use
- Power/cooling demands

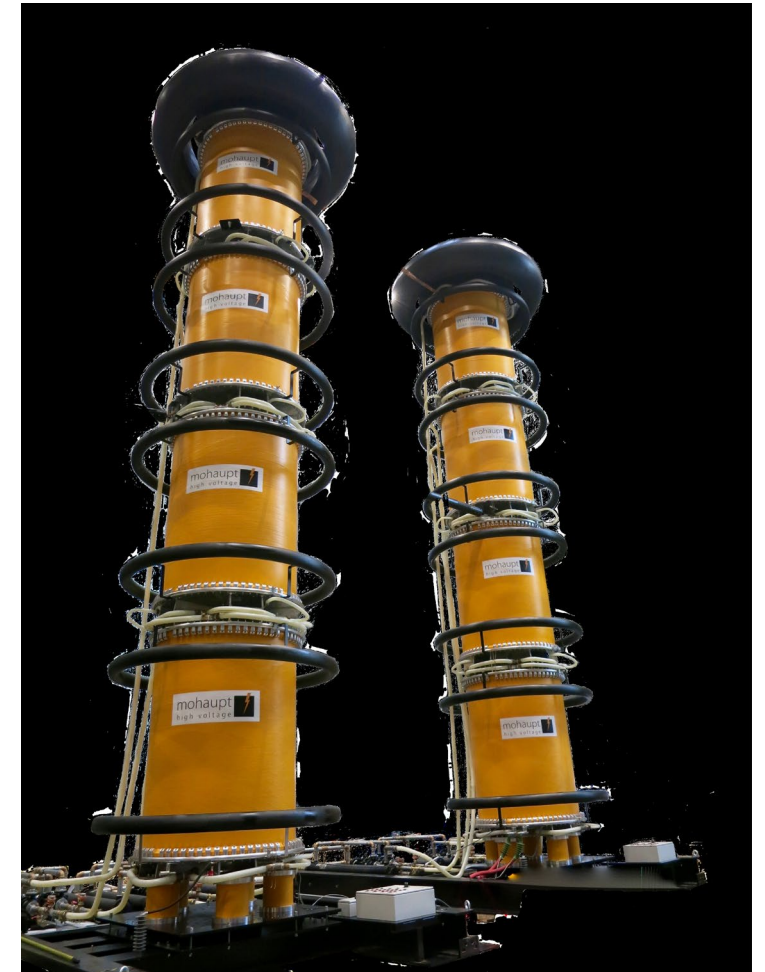




Outlook

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- Decrease of frequency – 5Hz?
- VLF – 0,1?





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Thank you for your attention!