



Ramp rates in HL LHC orbit correctors

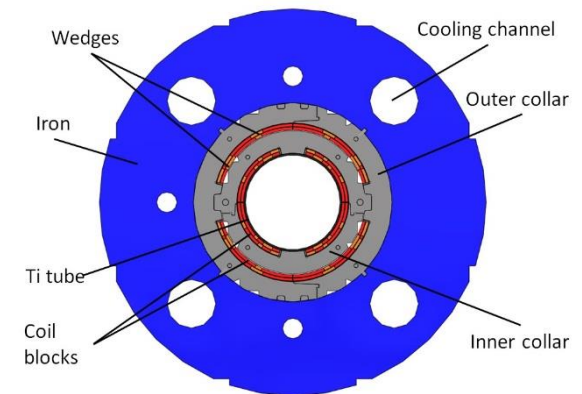
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MCBXF

- Magnet parameters
 - Nominal current 1.5 kA
 - Inductance is 58/125 mH (MCBXFB, inner/outer dipole)
 - Inductance is 107/232 mH (MCBXFA, inner/outer dipole)
- Requirements
 - Ramp rate 1.5 A/s
 - Required 5 A/s – training at 5 A/s
- Tested successfully up to 10 A/s
 - Inner dipole was ramped up to 100 A/s
 - In principle no limitations to high ramp rates 10-100 A/s (but QDS should be checked)



MCBRD

- Magnet parameters
 - Nominal current 392 A
 - Inductance is 800 mH
- Requirements
 - Ramp rate 0.4 A/s
 - Required 5 A/s
- Tested successfully up to 6 A/s
 - More was not possible due to power converter limitations
 - In principle no limitations to high ramp rates 10-50 A/s (but QDS should be checked)

