

Power convertor – Optics point of view

Why I am here

- I don't care about:
 - Protokolls
 - Network types ...
- I CARE about:
 - Speed
 - Max power (but only via magnets)
 - Noise
- I want
 - To get an idea about power convertors
- Note:
 - HEBT: $1.137 < Brho < 6.34$

Noise

- Any change in B-field changes the extracted beam-intensity.
- The magnet-lamination is already reduced to 1mm.
- Bit -resolution:
 - How precise I can set the tune for extraction.
 - Betatroncore: If stepwise, extracted spill is stepwise.
- All stationary power converters should be 'locked' to prevent them from making single DAC steps (due to noise or drift in control circuit) during the spill.
- The problem of DAC steps is one of the key reasons why the amplitude-momentum extraction technique using a betatron core to accelerate the beam has been chosen for PIMMS.

Noise 2

- It all depends a bit on the Beam instrumentation/ Beam delivery system/ beam delivery strategy in the nozzle (But avoiding noise is always better than trying to compensate for it.)
- This work package still needs to be defined.