High voltage supplies: General Conception

- 19 inch grate with master unit with USB and floating input as global reference
- master unit with microcontroller; setup menus for internal voltage referencing
- master unit ranges for external voltage reference: ±400V, ±1500V; ±5000V
- 4 double HV modules with switchable between remote controlled or via manual adjustment (all bipolar)
- double modules as versions for ±100V; ±400V; ±1500V; ±5000V,
- voltage range of A and B supply must be equal
- each module has its own 2x12 digits display and communicates to the master
- modules are prepared for current monitoring
- set times typ. 0.05 seconds to 2 seconds, depending on voltage range
Stability results of prototype modules

Series parameter aims:
Stability: < 3 * 1E-6;
Noise: < 3 mV

Preliminary (prototype tests):
Stability: std. dev. below 1 mV
Noise (LF and HF): about 2 mV