

New MPS - Amplifiers and Rack

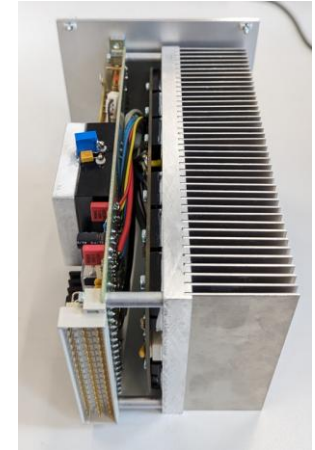
Tobias Zuber, R&D power electronics

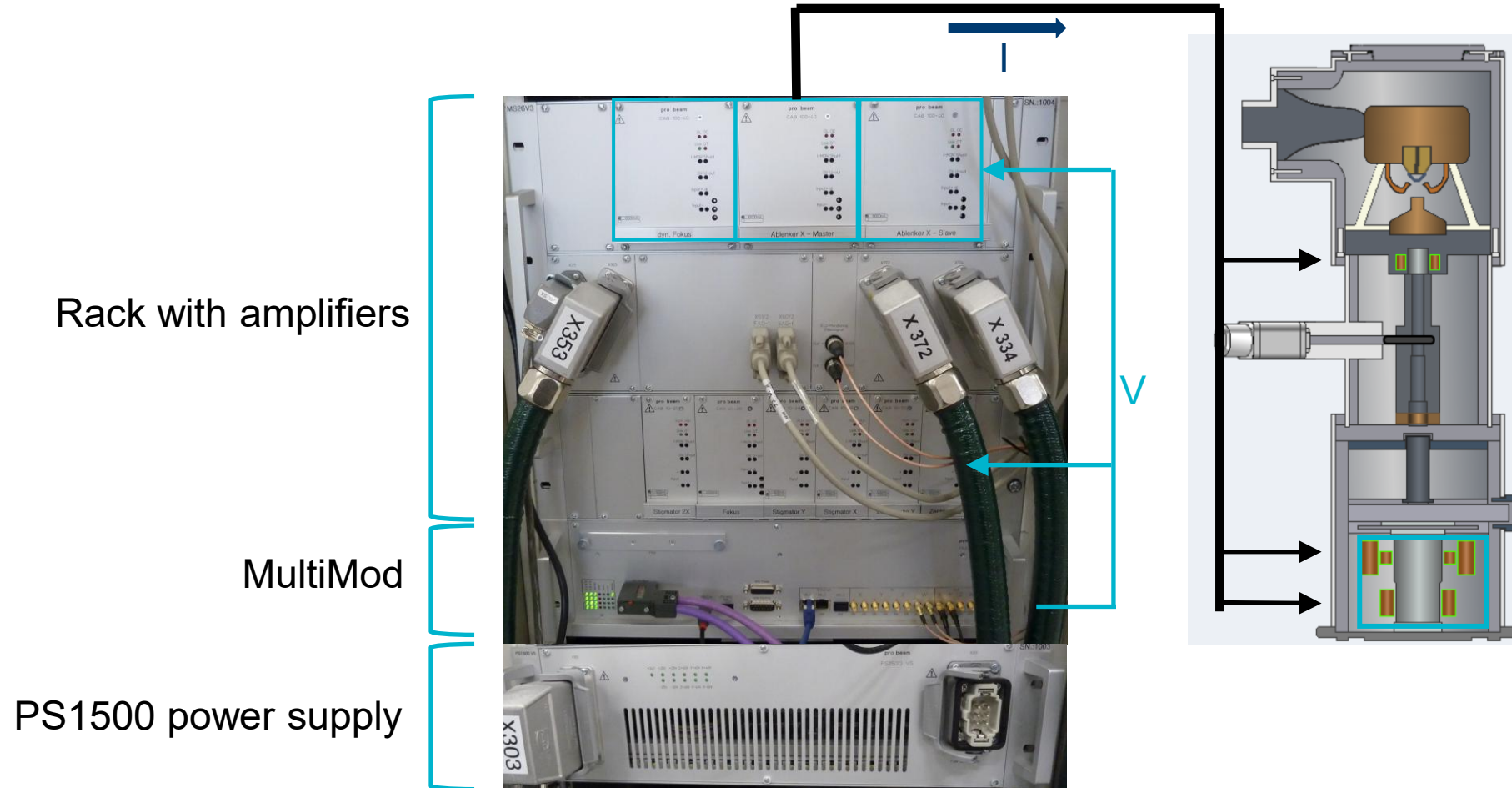
18.09.2025

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INTERNAL

- Dependency on external manufacturer
- Outdated Technology
- Adaptions for new requirements difficult (large deflection angle EBM)
- -> in house development for flexibility and independence





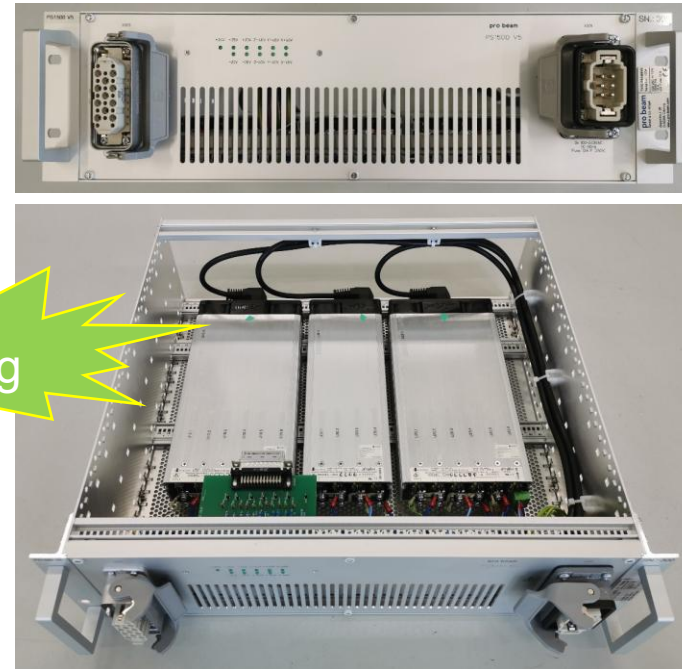
previous:

- Not tested according to current device standards



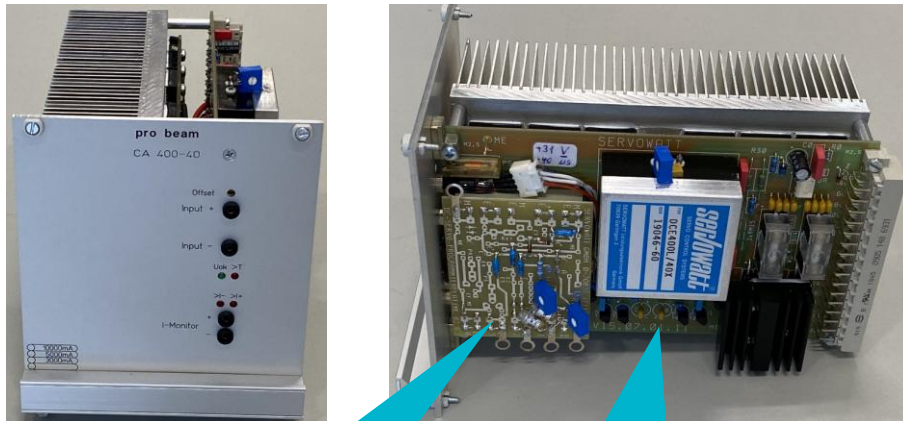
new:

- Built from internationally approved components
- Testing-lab approval more easily achievable
- compatible with old PS1500
- Reduced height



previous (Servowatt)

- Dependency on external manufacturer Servowatt
- Dynamically inaccurate output current insufficient for EBM applications



Difficult adjustment
in installed state

Traditional design
with manual
assembly (THT)

new (CAB)

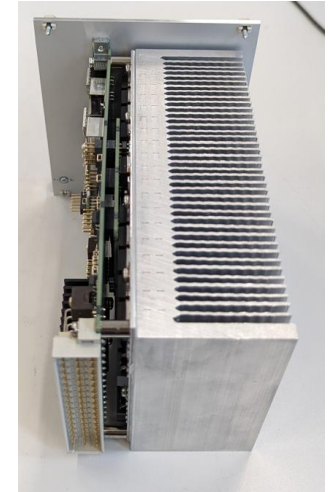
- In-house development, know-how at pb
- Mechanically and electrically compatible (pin-compatible)
- Precise dynamic current control → better positioning accuracy
- → improves performance in multi-beam applications
- Parallel configuration possible for higher output current



Easy adjustment in
installed state

SMD design with
automatic assembly

- Mechanically and electrically compatible (pin-compatible)
- Smaller and lighter
- Modular design
- Current technology
- Enhanced precision for multi-beam applications and EBM
- Parallel configuration possible: 20A for large deflection angle in EBM application



Thank you very much for your attention.

Tobias Zuber, R&D power electronics

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