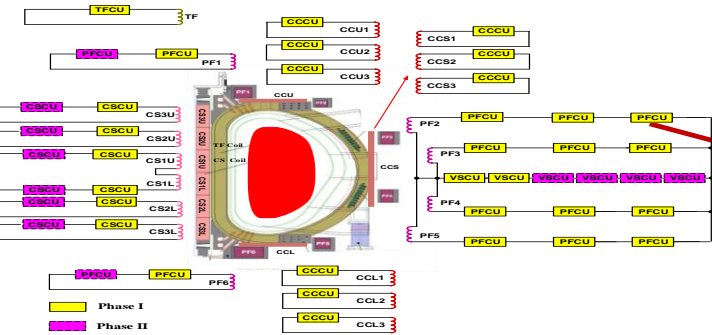
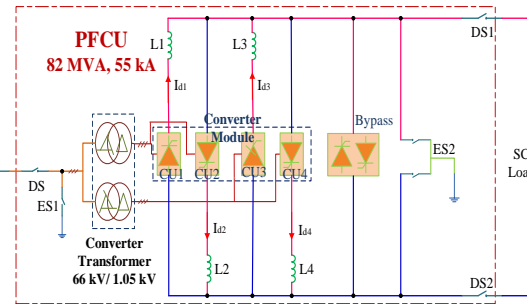


R&D Progress of ITER PF Converter

ASIPP



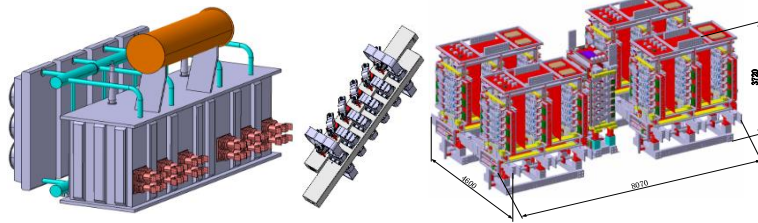
ITER PF Converter PA Package (14 PFCUs, 1.2 GVA)



Main Circuit Topology of PFCU

Main technical challenges:

- High unit power (up to 82 MVA, continuous duty, four-quadrant);
- High dynamic stability (up to 350 kA);
- High safety and reliability;
- Strong coupled superconducting load characteristics.

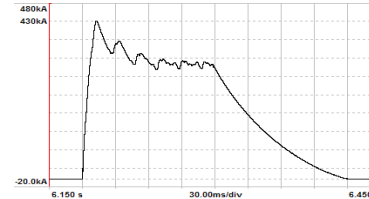


Converter transformer

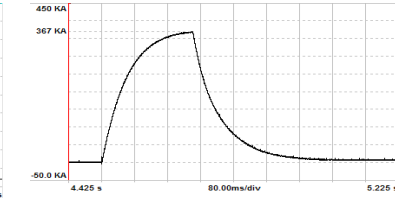
Converter module



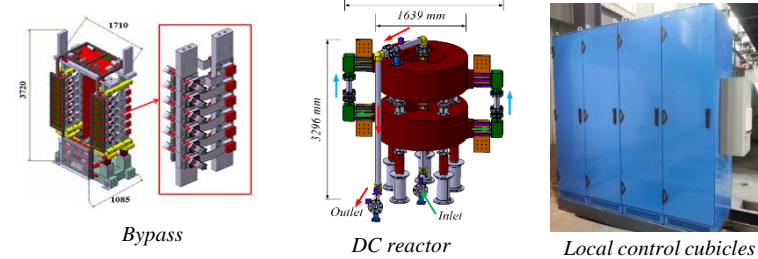
Test site of the converter module



Converter bridge (430 kA/100 ms)



External bypass (367 kA/100 ms)



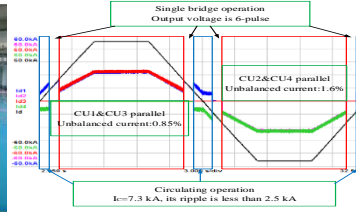
Bypass

DC reactor

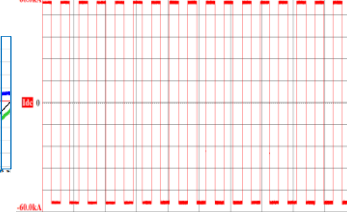
Local control cubicles



System Integration of the PFCU at ASIPP site



4-Quadrant operation capability test



Long time steady-state operation test

Full-scale Prototype R&D of PF Converter Completed

Type Test Results of Main Components

ASIPP undertake the design, fabrication, test, integration and SAT of 14 PF Converter Units (PFCUs), and the total power is up to 1.2 GVA. We have accomplished the prototype R&D and improvement of the PFCU successfully in the past two years. So the following Final Design Review (FDR) and Manufacturing Readiness Review (MRR) of PF converter procurement package have also been finished smoothly, and the series production of the PFCUs are under fabrication now.