

400V DC vs. AC UPS



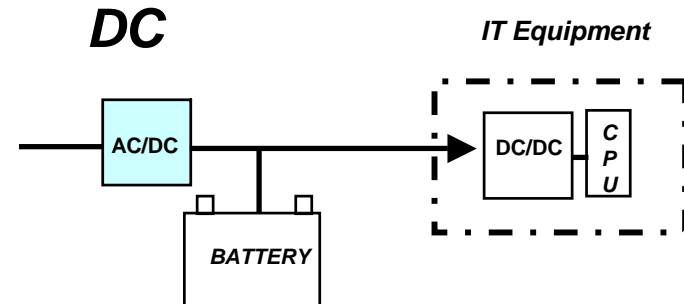
400V DC UPS vs. AC UPS

HVDC UPS-solution

Battery Direct Feed

Control Parameter:

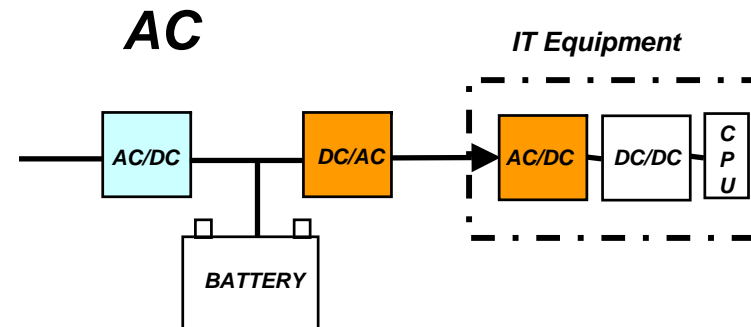
1. V



Traditional UPS-solution

Control Parameters:

1. V
2. Hz
3. Phase
4. Waveform



- DC systems are much simpler - and safer.
- Fewer conversions means better efficiency!

400V DC UPS

1,5 kW – 162 kW

Power Cabinet includes:

- Distribution & Battery Fuses
- AC Fuses
- Power Control Unit (-remote management)
- Hot swappable rectifier modules
- Battery
- Modular architecture enables systematic growth up to 162 kW

External filter/insulation Transformer
- not shown



To read

- **International reports**
- Berkeley Final UPS report 1-9-06.pdf
- Whitepaper_AC_units_on_DC_PA11.pdf
- IEEE paper 070303_PE4.pdf
- Intelec Roma / One year of operation of a 9 kW HVDC UPS 350V at Gnesta Municipality data center
- **Swedish documents below**
- Miljö & Utveckling / Likström i datorhallar minskar energiåtgång (2/2007)
- ERA / Det våras för likströmmen (5/2007)
- Elektronik i Norden (13/2007)
- Elforsk Perspektiv / Bristande elkvalitet (2/2007)



Thank you for your interest!

(More information can be found at www.netpower.se)

