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WIND POWER TECHNOLOGY

Ultra Cap System, UCC-4 & UCM-90

Long-life reliable energy storage for all-climate conditions

WIND

Ultra Cap System, UCC-4 & UCM-90

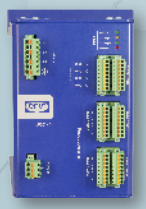
Long-life reliable energy storage for all-climate conditions

The ultra cap system from DEIF Wind Power Technology consists of two building blocks: an UCC-4 Ultra Cap Charger and an UCM-90 Ultra Cap Module. The system is modular, each module supplying a voltage of 90 VDC/4A. The system can be configured parallel or serial to provide the following voltages: 90-180-270-360-450 VDC. Each module stores 43 kJ(12 Wh) and the system can be configured to feature the following storage capacities: 43-86-129-172-215 kJ.

The ultra cap system features full self-contained condition monitoring and has outputs for communication of alarms. In terms of EMC protection and long term tolerance towards mechanical stress, the system is constructed to cope with the real-life demands of operation in the rotating hub of the wind turbine.

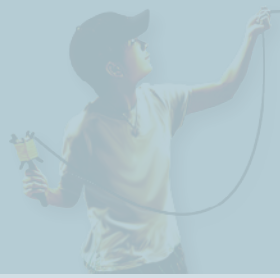
As no explosive gasses evaporate from the ultra caps, they can be mounted inside the pitch panel. Space requirement is kept at a minimum, allowing for design of very compact pitch panels.

The lifetime of ultra caps is 10+ years and will, over the lifetime of a wind turbine, be a more economical choice than conventional batteries due to considerably longer service intervals. This also makes ultra cap technology far more environment-friendly than conventional batteries.



Long-life hassle-free operation – designed for convection cooling the UCC-4 has no maintenance-requiring fan.

Minimum cost of ownership – the durability of the ultra caps implies that the energy storage has to be exchanged only once during the lifetime of the wind turbine – regardless the climatic conditions.



UCC-4

- Input: 3x 400 VAC, 1.7 Amp
- Output: 90-450 VDC, 4 Amp
- Interface: RS 485 communication
- Operating temperature: -30°C to +65°C convection cooling
- Storage temperature: -40°C to +65°C

UCM-90

- Energy capacity: 1-5 modules, each 10 Fahrad
- Input: 90-93 VDC, 10 Amp
- Output: 90 VDC, 35 Amp
- Operating temperature: -30°C to +65°C convection cooling
- Storage temperature: -40°C to +65°C

Features

- Shock and vibration resistant
- Easy installation
- Maintenance-free with long-life ultra capacitors
- Monitoring and surveillance of operation
- Energy-saving load balancing
- Status indication by LED, relay and transistor output

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