



High power EDC system

Uninterruptible power supply for demanding marine and offshore applications.
Output voltage up to 720VDC and output current up to 600ADC.

- Fully automatic
- DNV GL approval
- Small foot print
- Commissioning support

Technical data:



Electrical characteristics:

Input voltage	400–690VAC+/-10%, 50/60Hz
Output voltage	up to 720VDC
Output current	up to 600ADC
Ambient temperature	0 to +55°C
Static stability	< ± 1%
Battery pack	Maintenance-free batteries. Capacity according to customer specifications.
Colour	RAL 7035, other colours on request
Marine society certificate	According to customer specifications
Special input and output voltages	on request

Mechanical:

Size	Width 1400mm x Height 1900mm x Depth 600mm (various versions)
Weight	Approx. 1215kg with batteries (690V/50kW version), weight depends on selected voltage and battery capacity
IP class	IP 44, EN 60529/ IEC 529
Operating temperature	0°C (32°F) to +55°C (+131°F). Maximum battery life is achieved at +20°C (+68°F). Cooling air flow is required.
Battery shelves	SLIDE RACK shelf, vibration IEC 60068-2-6, Test Fc (2007-12)
Cooling method	Cooling unit is available as option. Different cooling options according to customer specifications.

Batteries:

Battery bank	In two cabinets (various versions)
PLC Battery	24V/31Ah (2x12V), with separate charger and temperature compensation
Batteries	Batteries are designed to cope with elevated temperatures and harsh environments
PLC touch display:	Monitors current operating mode, battery voltage and charging current, alarms, alarm log (option).

Charger Operating modes

Boost charging mode	Automatic mode for battery charging after use
Float charging mode	Automatic mode for maintaining batteries fully loaded
Blackout delivery mode	During blackout the DC-UPS unit delivers power instantly
Alarm signals	Power On, Mains Fault, PLC Power Failure, Charger Failure, Charger Over Temperature, UPS Battery Over Voltage, UPS Battery Under Voltage, UPS Battery Failure, UPS Battery Temperature, PLC Battery Failure, Air Flow Failure
Applications include	High power DC-UPS is needed during a blackout situation, when uninterrupted and safety work and control are required. The DC-UPS instantly delivers power to systems, for example electrical steering system, drilling system and dynamic positioning system.

Performance (example):

Input power	690V/5.5kW/max.10A, typical 6A
Output power in blackout	Nominal output 720V/120V, 50kW for 1 min.
Output protection	Power output is protected.
Output power delivery delay	There is no delay in delivering the power.
Ready for the next operation	Automatic re-charging mode
Efficiency	88% at full load, typical 91%, varies according to charging, loading and battery condition
PLC operation	PLC has backup power and functional alarms during blackout.

References:

- Quantum of the Seas
- Anthem of the Seas
- Ovation of the Seas
- Harmony of the Seas



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