

## ***Fuel Cell DC/DC Converter (FCDD)***

*For Submarines*



**FCDD - 120 kW**

### ***Standard Features***

- Completely qualified
- Remotely controllable
- Easy programmable
- Low noise
- High efficiency
- High reliability
- Low life cycle costs
- Short circuit protected

### ***Support Service***

- Complete Integrated Logistic Support (ILS)

State of the art submarines having DC-mains as their primary source are today more and more fitted out with Fuel Cells as their Air-Independent Propulsion (AIP) System. These Systems require their own right sized controllable power supply to be integrated within the DC-main supply.

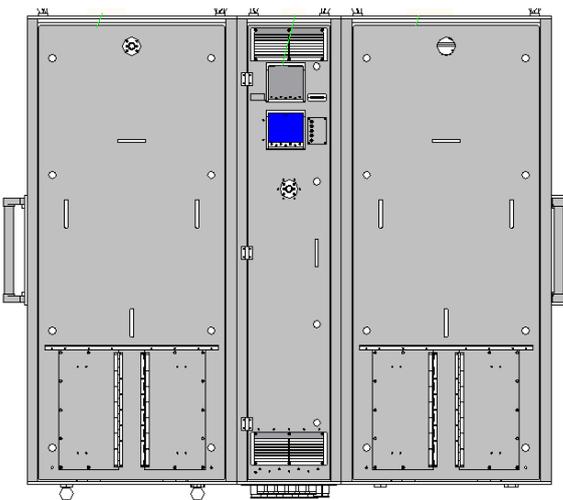
All parameters of the FCDD for driving a motor can be programmed by a parameterization console integrated in the Local Operation Plant (LOP). A certain number of parameters are factory settings to be programmed by using a password. Output over current and short current detection as well as the general remote control of a number of equipment parameters via the interfaced ship control system are given.

# Fuel Cell DC/DC Converter (FCDD)

Bulletin 6420

<b>Electrical Characteristics</b>	<b>120 kW (240 kW)</b>
Input Voltage	210 - 290 VDC
Dynamic Range	160 - 360 VDC
Input Current	0 - 560 A (0 - 1120 A)
Voltage Spikes	400 V for 0,1 ms
Output Voltage	520 - 750 VDC
Output Current	0 - 216 A (0 - 432 A)
Efficiency	93,5% at 100% load
Output Power	120 kW (240 kW)
External Communication	Digital and analog
<b>Physical Characteristics</b>	
Dimensions (H x W x D) mm	1800x1200x600 (1800x2000x600)
Weight (kg)	800 kg (1400 kg)
Protection Grade	IP 23 / IP 43
Cooling	Seawater cooled with integrated water/air heat exchanger
<b>Environmental Characteristics</b>	
Operation Temperature	0°C to +50°C
Storage Temperature	-30°C to +70°C
Relative Humidity	Max. 90%
Shock	Half sinus 22g for 30 ms
EMI/EMC	MIL-STD 461E: CE101, CE102; RE 101, RE102

## 240 kW Version - Fuel Cell DC/DC Converter



Specification subject to change without notice



WÄRTSILÄ JOVYATLAS EUROATLAS GmbH  
Zum Panrepeel 2  
28307 Bremen  
Germany

Phone +49-421-486930  
Fax +49-421-4869341  
info@euroatlas.de  
www.euroatlas.de