Today, modern surface combatants and submarines require high integrity electrical power for the different sophisticated loads, such as command and control systems, radar, sonar, weapons and special motors. EUROATLAS, using advanced technology, has developed state-of-the-art Inverters, Converters and Rectifiers, incorporating such operational features as:

- High electrical efficiency
- Low structure/airborne noise
- High reliability
- Single-phase regulation
- Low weight and size

The modular construction of these modern Power Conversion Systems allows installation in any available space within the vessel. The design, mainly based on 19" units, not only guarantees easy maintenance but also permits retrofitting to an existing installation, where hatch size determines access. Cooling is provided by integral fans either as immediate open air-cooling or closed air-cooling system with built-in water cooled heat exchangers. The latest design features a built-in FDL (Fault Detection and Location) system interfaced with ships control systems. Automatic synchronisation, loadsharing facilities and integrated circuit breaker/contactor enables single, redundant or parallel operation of two or more units.
**Electrical Specifications**

**Input**
- Voltage: 440 V, 3-ph
- Frequency: 60 Hz
- Quality of Mains: Acc. to BV 30, Annex f, STANAG 1008

**Output**
- Voltage: 440 V, 3-ph
- Static Tolerance: ± 0.5% at voltage sensing point and unsymmetrical load of 50%, or ± 3% at voltage sensing point and unsymmetrical load of 100% (one phase interrupted)
- Voltage Unbalance: ≤ 1% at voltage sensing point and unsymmetrical load of 50%, or ≤ 3% at voltage sensing point and unsymmetrical load of 100% (one phase interrupted)
- Frequency: 400 Hz
- Frequency Tolerance: < 0.01%
- Power: 60 kVA, 75 kVA for 1 minute
- Power Factor: 0.8 lagging to 1.0 to 0.8 leading
- Efficiency: > 92% at 100% load
- Short-Circuit Current: Approx. 280 A for 10 seconds

**Environmental Specification**
- Temperature Range: -5°C to +45°C (operation), -25°C to +70°C (storage)
- Humidity: < 98%, non condensing
- Airborne Noise: Approx. 58 dB (A)
- Shock: Acc. to BV 043 (85)
- Vibration: Acc. to BV 044 (87)
- EMC: Acc. to MIL-STD 461 C, CE 03, CE 01, RE 02
- Protection: IP 23 acc. to DIN 40050

**Physical Characteristics**
- Dimensions: 1680 x 680 x 780 (HxWxD) mm without shock mounts
- Weight: 515 kg, ± 5%

**Design Characteristics**
- Indicators: Converter stand-by/online, Input voltage out of range, Output over current, Air inlet temperature, Air flow (fan supervision), 7-segment fault display
- Controls: Start/Stop, Lamp test, Remote control
- Monitoring: Time counter, Frequency
- Cooling: Self-cooling by fans
- MTBF: >20,000 h
- MTTR: Up to 30 minutes