

## *Static Frequency Converter 60 kVA*

*For Naval Application*



### **Standard Features**

- High efficiency
- Low noise
- High reliability
- Low weight and size
- Remote control

### **Application**

- Weapon systems
- Combat systems
- Navigation
- Communication

### **Support Service**

- Complete Integrated Logistic Support (ILS)

EUROATLAS 60 kVA Static Frequency Converter, Model 4050

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/contactors enable 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 .....	$\pm 0.5\%$ at voltage sensing point and unsymmetrical load of 50%, or $\pm 3\%$ at voltage sensing point and unsymmetrical load of 100% (one phase interrupted)
Voltage Unbalance .....	$\leq 1\%$ at voltage sensing point and unsymmetrical load of 50%, or $\leq 3\%$ 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.....	$\leq 98\%$ , 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, $\pm 5\%$

## 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
MTRR.....	Up to 30 minutes

Specification subject to change without notice



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