

Static Frequency Converter 80 kVA

For Naval Application



Standard Features

- High efficiency
- Low noise
- High reliability
- Modular design
- Remote control

Application

- Weapon systems
- Combat systems
- Navigation
- Communication

Support Service

- Complete Integrated Logistic Support (ILS)

EUROATLAS 80 kVA Static Frequency Converter, Model 4064

The transistorized (IGBT) 400 Hz Converter is designed in PWM (Pulse Width Modulation) technique. An unregulated Rectifier with autotransformer and 18 pulse rectification supplies the Inverter built up by a central electronic with control and monitoring devices, three power units, output L/C filters and an output transformer. The DC-voltage is separated into phase shifted PWM-signals by power transistor switches. The synthetic sine waves with 400 Hz base frequency are derived from these PWMs and of the transistor bridge arrangement. The high precision output sine waves are achieved by L/C-filtering and galvanic separated by transformer also used for voltage adaption. For suppression of radiated and conducted emission the equipment is fitted out with EMC devices. An integrated Fault Detection and Location (FDL) system is monitoring all important system signals. High efficiency, low noise, modular design, easy servicing and possibility of synchronisation and paralleling are some special advantages of the equipment. The Static Converter fulfills the applicable requirements for naval vessels as MIL-STD and BVs. Type and compatibility tests are also executed.

Electrical Specifications

Input

Voltage.....	440 V (418...462V), 3-ph
Frequency.....	60 Hz, $\pm 5\%$
Harmonic current distortion	< 5%
Power Factor	>0.97

Output

Voltage.....	450 V, 3-ph (other voltages on request)
Static Tolerance	$\pm 1\%$
Frequency.....	400 Hz
Frequency Tolerance	$\pm 0.01\%$
Power	80 kVA/kW
Overload	130 % for 5 min
Power Factor	0.6 lagging to 1 to 0.9 leading
Efficiency	approx. 92% at 100% load
Recovery time to 50% load step.....	≤ 2 s
Short Circuit Current.....	approx. 2 x Inom for 10 s

Environmental Specification

Temperature Range.....	0°C to +50°C (operation), -30°C to +70°C (storage)
Humidity.....	$\leq 98\%$, non condensing
Airborne Noise.....	≤ 68 dB (A)
Shock.....	Acc. to BV 043 aerea II, Class A
Vibration	Acc. to BV 044
EMC.....	Acc. to MIL-STD 461 C, CE 01, CE 03, RE 02
Protection	IP 23 acc. to DIN 40050

Physical Characteristics

Dimensions.....	1620 x 1108 x 605 (HxWxD) mm without shock mounts
Weight	930 kg, $\pm 5\%$

Design Characteristics

Controls	Start/Stop, Lamp test, Remote Start/Stop
Monitoring.....	Output Voltage, Output Current, Time counter, Input out of range, Output over current, Over temperature, Air flow fault, Failure display
Cooling	Self-cooling by fans, Anti-Condensation heating integrated
MTBF.....	>18,000 h

Specification subject to change without notice



WÄRTSILÄ JOVYATLAS EUROATLAS GmbH
Zum Panrepel 2
28307 Bremen
Germany

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