

Static Frequency Converter 5 kVA

For Naval Application



5 kVA Static Frequency Converter, Model 4061

This solid-state 60 Hz to 400 Hz Converter is capable supplying a nominal consumer load up to full power of 5kW/kVA with a power factor of 0.8 lagging to 1.0 to 0.8 leading continuously. The Unit is able to supply an overload up to 130% for 3 min and it comprises a short-circuit protection with constant current behavior, enabling a short-circuit current of approx. 2 x Inom for 30 s during load failure conditions.

The Built-In Test Equipment (BITE) is realized by integrated fault detection and location system with an interface to the monitoring panel. Status and alarm signals are available for external monitoring.

All subassemblies and components are removable from the front of the aluminum cabinet. The air inlet with cut to size filter sheet is located on the lower front side of the cabinet and the air outlet on the rear side at the upper cabinet area.

For redundancy or power increase purposes two Models 4061 can operate in parallel.

Standard Features

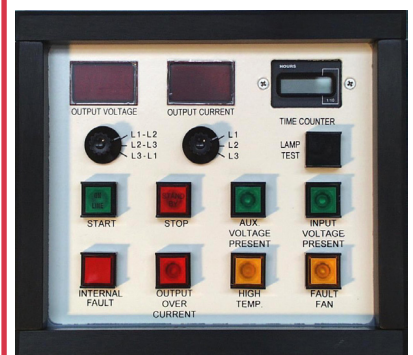
- High efficiency
- Low noise
- High reliability
- Modular design

Application

- Weapon Systems
- Combat Systems
- Navigation
- Communication

Support Service

- Complete Integrated Logistic Support (ILS)



Electrical Specifications

Input

Voltage, Frequency.....	440 V, 60 Hz, 3ph
Quality of Mains.....	Acc. to STANAG 1008, Edition 8

Output

Voltage.....	115V, $\pm 1\%$, 3ph
Voltage Transient at load step	$\leq 5\%$ at 50%-100%-50% load step
Recovery Time at load step	≤ 20 ms
Frequency.....	400 Hz, $\pm 0,01\%$
Power	5 kVA/5kW
Overload	130% for 3 min
Short circuit current	2 x I_{nom} for 30 s
Efficiency	$\geq 90\%$ at 100% load
Total Harmonic Distortion	$\leq 3\%$

Environmental Specification

Temperature Range.....	0°C to +50°C (operation), -25°C to +70°C (storage)
Humidity.....	$\leq 100\%$, non condensing
Shock.....	Acc. to BV 0430/1.89
Vibration	Acc. to BV 0440/10.90
Airborne Noise.....	≤ 55 dB (A) in 1 m distance
EMC.....	Acc. to MIL-STD 461 C, CE 01, CE 03, input and output
Protection	IP 23 (DIN 40050)
Insulation resistance.....	≥ 100 MOhm for signal and power leads

Physical Characteristics

Dimensions.....	705 x 500 x 406 (HxWxD) mm, without shock mounts
Weight	140 kg, $\pm 5\%$

Design Characteristics

Cooling	Self-cooling by integrated fans
Anti-Condensation Heating.....	100 W (115V, 60 Hz)
Colour	RAL 7001
MTBF.....	>25,000 h
MTTR.....	20 minutes max.
Monitoring.....	Output Voltage/Current with phase selector Time Counter
Control	Start/Stop, Lamp Test
Indication	Aux. Voltage, Input Voltage, Over Current, Fan Fault, Temperature, Internal Fault

Specification subject to change without notice



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