



Static Frequency Converter 15 kVA

The Frequency Converter is designed in PWM (Pulse Width Modulation) technique. An unregulated rectifier with transformer and multi-pulse rectification generates the DC-link voltage. This special designed and high reliable rectifier not only generates a sinusoidal input current, but also generates a nearly unity power factor. The three phase Inverter stage is today either built up by IGBT's or MOS-FET's as power switches. High switching frequencies require only small L/C output filtering and enable quick regulation behavior. An output transformer is used for galvanic separation and voltage adaptation.



For Naval Application

Standard Features

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

Application

- Weapon Systems
- Sonar
- Radar
- Communication

Support Service

- Complete Integrated Logistic Support (ILS)



Electrical Specifications

Input

Voltage..... 440 V, 3-ph
 Frequency 60 Hz
 Quality of Mains..... Acc. to BV 30, Annex f, STANAG 1008
 Edition 8 and acc. to MIL-STD 1399,
 Section 300 A, Type I

Output

Voltage..... 115 V, 3-ph (Other Voltage on request)
 Quality of Output Acc. to MIL-STD 1399,
 Section 300 A, Type III
 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..... $\geq 1\%$ at voltage sensing point and
 unsymmetrical load of 50%, or $\geq 3\%$
 at voltage sensing point and
 unsymmetrical load of 100%
 (one phase interrupted)
 Frequency 400 Hz
 Frequency Tolerance $< 0.01\%$
 Power..... 15 kVA
 Power Factor 0.8 lagging to 1,0 to 0.8 leading
 Efficiency..... $> 92\%$ at 100% load
 Short-Circuit Current..... $2 \times I_{nom}$ for 10 seconds

Environmental Specification

Temperature Range -5°C to $+45^{\circ}\text{C}$ (operation),
 -25°C to $+70^{\circ}\text{C}$ (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 E,
 CE 101, CE 102, RE 102
 Protection..... IP 23 acc. to DIN 40050

Physical Characteristics

Dimensions..... 1200 x 610 x 525 (HxWxD) mm without
 shock mounts
 Weight..... 250 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,
 Output Voltage and Current
 Cooling Self-cooling by fans