SINEPOWER manufacture a variety of Static Frequency Converters. Static Frequency Converters convert the source power with a specific input voltage and frequency into a different output voltage and frequency depending on what the client requires.

SINE SFC units can be used in a variety of applications: Civil and Military Aviation, Aeronautical industry, Maritime/Nautical Industry and Manufacturing sector.
SINE Static Frequency Converters (Solid-state) have no moving parts, except for the fans to cool the systems down, and are highly efficient units (up to 95% efficiency).

Our High frequency IGBT Technology (Rectifier and inverter) guarantees a perfect sinewave input current with low THDi (THDi < 1.5%) and unitary power factor (PF = 1), perfect for all sorts of extreme electrical conditions (compatible with Genset output).

- **CE Mark Certified** - EN61000-6-4 Electromagnetic compatibility - Generic emission standard; EN61000-6-2 Electromagnetic compatibility - Generic immunity standard; Low Voltage Directive (LVD) 2006/95/EC
- **State of the art semiconductor technology** (IGBT) guarantee **Unity Power Factor** and **Low Input Harmonics** (THDi < 1.5%)
- **High Efficiency** (up to 95% efficiency)
- **User friendly control panel**
- **Data logging**
- **IP54 enclosures** for outdoor use in extreme environmental conditions
- **Low noise emission** (<65dB@1m)
• State of the art semiconductor technology (IGBT) Rectifier
• Power Factor Correction (PF=1)
• 95% efficiency
• 4 Quadrant Operation (better response of the system and safer operation for NBPT)
• Low input harmonics (<1.5% THDi), to comply with the strictest regulations @ any load.

• 4 Quadrant Operation (better response of the system and safer operation for NBPT)
• Vector control Inverter for better response and higher efficiency.

• Over/under voltage at output
• Overload capability designed for:
  • Power stage 150% - Continuous
  • Magnetics 120% - Continuous
• Overload protections set at:
  • 120% for 600seconds
  • 150% for 60 seconds
  • 200% for 5 seconds
• Variable fan speed for internal temperature control
• Over temperature protection
• Short circuit proof by electric current limiting and shutdown.

• RS232

• Communications
  • Monitoring by Web and SNMP
  • MODBUS Rs485
  • MODBUS TC/IP
  • Remote control box

• Uninterruptible power systems (UPS). Part 1: General and safety requirements for UPS.
• IEC 61558-2-6:2009 Safety of transformers, reactors, power supply units and similar products for supply voltages up to 1100 V. Part 2-6: Particular requirements and tests for safety isolating transformers and power supply units incorporating safety isolating transformers.
### INPUT
- 3 phase 400V/415V AC ±15%*
- 50Hz/60Hz ±10%
- Input current harmonics <3% @ 100% load

### OUTPUT
- 3 phase 200VAC/400VAC/440VAC/480VAC ±1%*
- Overall Efficiency up to 93%
- Max. Crest Factor 1.41:1

### RECTIFIER
- 4 Quadrant Operation
- AC Voltage Range -25% +15%
- Efficiency up to 97%
- Inrush Current None
- Overall current limit 150%

### INVERTER
- Static Regulation 0 - 100% load ±1%
- Dynamic regulation 100% 5%, recovering to 1% within 40 milliseconds
- Total harmonic distortion <2% (Linear Load)
- Electronic Limit Overload 120%@600s, 150%@60s, 200%@5s*
- Overload Capacity (IGBTs) 150% Continuous
- Frequency stability ±0.01% Crystal Controlled
- Load power factor 0-1
- Efficiency up to 97%
- Short circuit proof by electric current limiting and shutdown

### ENVIRONMENTAL CONDITIONS
- Temperature range
  - Sea Level -40°C to +40 °C (@100% Load)
  - Above 2000m 30 °C (@100% Load)
- Relative Humidity 0%-90% without condensation
- Noise Level <65 dBA@1 meter
- Altitude up to 2500 m without de-rating

* Other voltages and frequencies available on request
* Other Electronic Overload limits available on request

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**TECHNICAL DRAWINGS**

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**SPECIFICATIONS**

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**SINE SFC**

**STATIC FREQUENCY CONVERTER**

**30-80 kVA 400Hz**

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