SINESFC
STATIC FREQUENCY CONVERTER
10-15kVA 400Hz

SINEPOWER manufacture a variety of Static Frequency Converters. Static Frequency Converters convert the source power with a specific input voltage and frequency in to 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
- Manufacturing sector.

INPUT
- 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.

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

EFFICIENCY
- Up to 95%
- No load losses: <2% of full Load.

TECHNOLOGY
- Enclosure Protection class up to IP54
- 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.

OPTIONS
- Communications
  - MODBUS Rs485
  - Remote control box

NORMS AND STANDARDS

EMC
- EN61000-6-4 - Electromagnectic compatibility - Generic emission standard
- EN61000-6-2 - Generic immunity standard

SAFETY
- IEC 60529 - Degrees of protection provided by enclosures (IP Code)
- IEC 62477-1 - Safety requirements for power electronic converter systems and equipment

ENVIRONMENTAL
- Dry heat test (steady state) IEC 60068-2-2 subclause 5.3
- Damp heat test IEC 60068-2-78 subclause 6
- Vibration test IEC 60068-2-6 subclause 6
- Salt mist test IEC 60068-2-52 subclause 6
- Dust and sand test Test Lc1 of IEC 60068-2-68

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SPECIFICATIONS

INPUT

- **3 phase 400V/415V AC** | ±10%*
- **50/60Hz** | ±10%
- **Input current harmonics** | <2% @ Full Load

OUTPUT

- **3 phase 200VAC/ 400VAC/ 440VAC/ 480VAC** | ±1%*
- **400Hz** | ±0.01%*
- **Overall Efficiency** | 88%-90%
- **Max. Crest Factor** | 1.4:1

RECTIFIER

- **4 Quadrant Operation**
- **AC Voltage Range** | -25% +15%
- **Efficiency** | 95%
- **Input Frequency Deviation** | 10%
- **Overload Capacity** | 120% Continuous
- **Inrush Current** | None
- **Overall current limit** | 150%

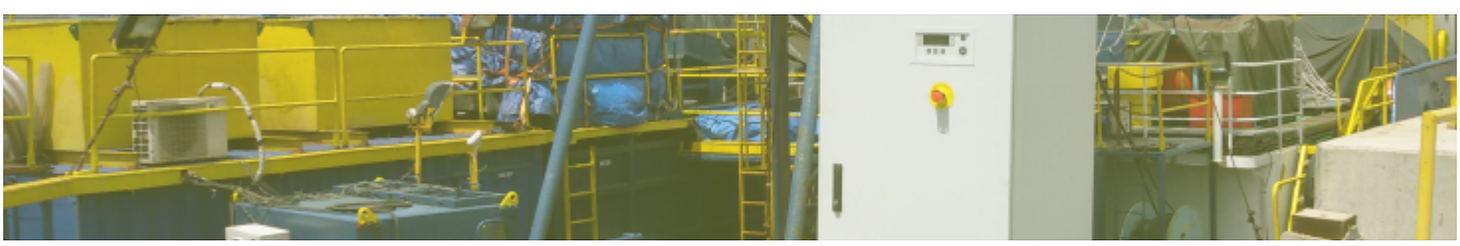
* Other voltages and frequencies available on request
* Other Electronic Overload limits available on request

INVERTER

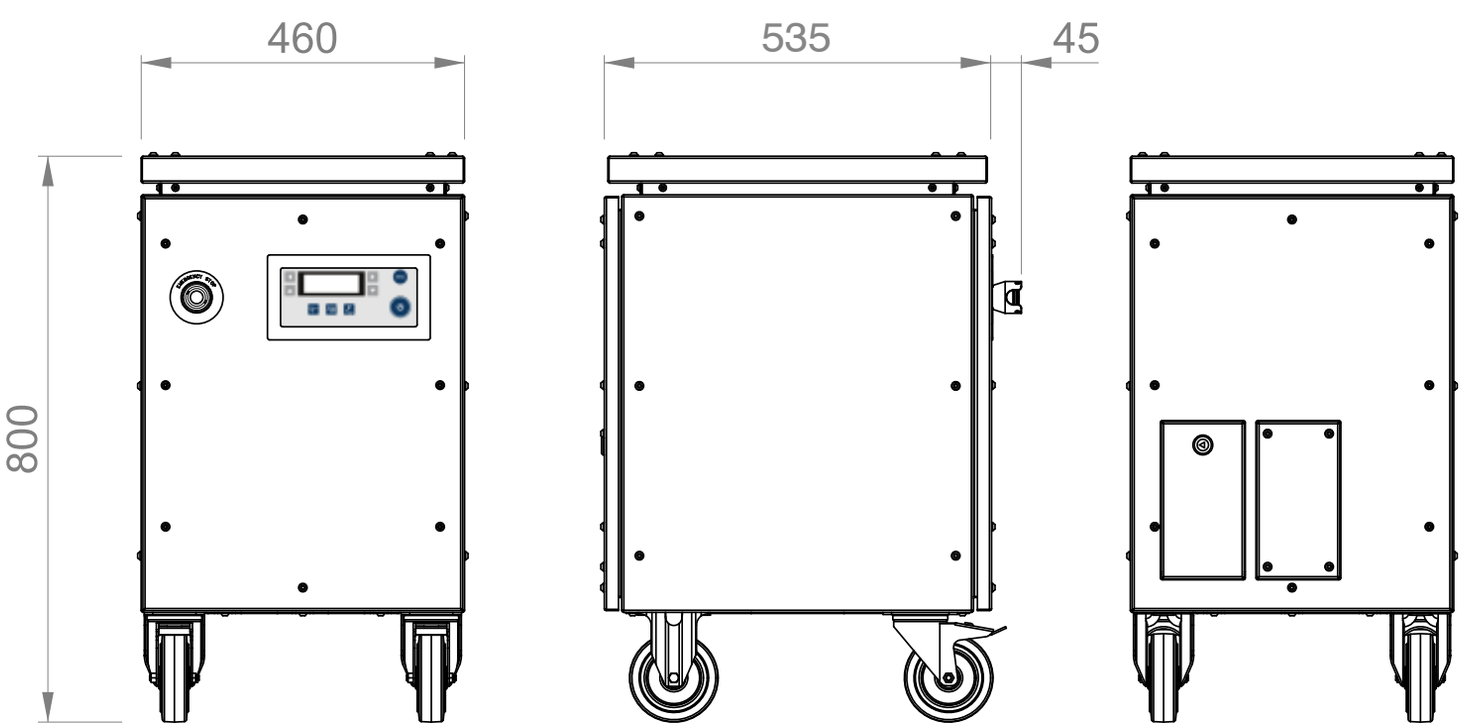
- **Static Regulation 0 - 100% load** | ± 1%
- **Dynamic regulation 100%** | 8%,recovering to 4% within 40ms
- **Total harmonic distortion** | Better than 3% (Linear Load)
- **Electronic Limit Overload** | 120%@600s; 150%@60s; 200%@5s*
- **Overload Capacity (IGBTs)** | 150% Continuous
- **Frequency stability** | ±0.01% Crystal Controlled
- **Load power factor** | 0-1
- **Efficiency** | 95%
- **Short circuit proof by electric current limiting and shutdown**

ENVIRONMENTAL CONDITIONS

- **Coolant temperature (max)** | Forced air up to 40ºC
- **Ambient temperature (min/max)** | -40ºC to +40ºC
- **Relative humidity (min/max)** | 0% to 90% without condensation
- **Pollution degree** | 2
- **OVC (Overvoltage Category)** | 3
- **Altitude** | Up to 2000m



TECHNICAL DRAWING



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