

STATIC FREQUENCY CONVERTER 200-400kVA 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



- 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 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 over RS232/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

INPUT

- 3 phase 380V/400V/415V AC* | ±10%
- **50/60Hz** | ±10%
- Input current harmonics | <2% @ Full Load

OUTPUT

- 3 phase 200VAC / 400VAC / 480VAC* | ±1%
- Overall Efficiency | up to 94%
- Max. Crest Factor | 1.4:1

RECTIFIER

- 4 Quadrant Operation
- AC Voltage Range | -25% +15%
- Efficiency | up to 97%
- Inrush Current | None
- * Other voltages and frequencies available on request
- * Other Electronic Overload limits available on request

INVERTER

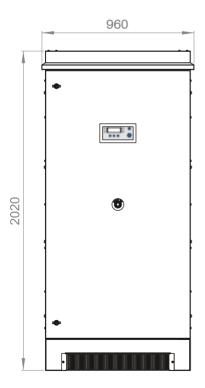
- Static Regulation 0 100% load | \pm 1%
- Dynamic regulation 100% | 5%,recovering to 1% within 40ms
- Total harmonic distortion | < 2% (Linear Load)
- Electronic Limit Overload | 120%@600s; 150%@60s; 200%@5s*
- Frequency stability | ±0.01% Crystal Controlled
- Load power factor | 0-1
- · Short circuit proof by electric current limiting and shutdown

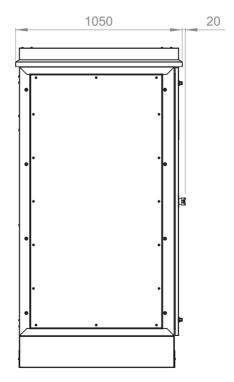
ENVIRONMENTAL CONDITIONS

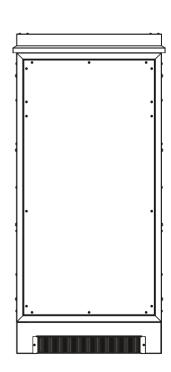
- Cooling | Forced air up to 40°C
- Ambient temperature (min/max) | -40°C to +40°C
- Relative humidity (min/max) | 0% to 90% without condensation
- Pollution degree | 2
- OVC (Overvoltage Category) | 3
- Altitude | Up to 2000m
- Sound power level | Lw <= 70dba according to ISO 3747:2010



TECHNICAL DRAWING









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