

19" Rack 400Hz Static Frequency Converters (GPUs) SFC 3000 Series



- Models from 1.5 to 4KVA
- Single Phase or 3-Phase Outputs
- Power factor corrected input (*PFC*)
- Sinusoidal, Galvanically Isolated Output
- Comprehensive Digital Output Display
- Low Acoustic Noise
- Robust IGBT Inverter Section
- Military Variants Available
- Def-Stan 61-5(4), Stanag 1008

Cost-Effective, Compact and Dependable:

SFC 3000 series static frequency converters offer the most cost-effective and flexible way of providing 400Hz for 19" rack-mount installations. By using the most advanced electronic design, SFC 3000 models are not only remarkably compact for their respective power ratings but also extremely quiet. This means that personnel may work in close proximity to them without the tiring noise normally associated with 400Hz converters.

Unity Input Power Factor:

An advanced front-end design ensures that the input power factor to all models is near unity. This means that there are almost no rejected harmonics, input power consumption is minimised and overall converter efficiency is maximised.

Simplicity in Operation

'Two button' operation means minimal Operator training. No special set-up is required.

.....Yet Sophistication in Display:

An accurate digital readout makes all major parameters available for review - these include output Voltage, Amps, Kw, Kva, Hz and power factor. Each may be displayed either for all three phases or several parameters for one particular phase.

28VDC Output Option:

All models may be ordered with an additional 28VDC output (up to 50 Amps). This may be supplied to be used either concurrently with the 400Hz output or independently.

Applications:

SFC 3000 series machines are suitable for static installations within plant rooms, hangars, workshops and laboratories. They should be installed within a standard 19" cabinet, which should have adequate cooling arrangements (normally forced).

High MTBF, Low MTTR:

An oversized rectifier and robust IGBT based inverter offer high reliability, while modular construction and a simple lay-out means that access for maintenance and repair is very straight forward.

Technical Specification:

See overleaf.



The optional LCD readout provides extensive information

CE



SFC 3000 - Technical Specifications

INPUT:

- Input Voltage..... 230V, 1ph (2 & 4kVA only) or 400V, 3ph +/- 10%
- Input Frequency..... 50 or 60Hz, +/- 6%
- Input Current Harmonics..... IEC 1000-3-4
- Input Power Factor..... >0.98
- Rectifier Inrush..... 10 second walk-in, max current < In x 1.2
- Input Connections..... Hard wire or EN60309/2 connectors
- Input Protection..... Circuit breaker, rear panel

OUTPUT:

- Output Voltage..... 115/200V or 120/208V, 3-Phase + N
- Output Voltage Regulation..... Steady-state: +/-2%, dynamic 0-100% step load: +/-5% recovering to steady-state within 10mS
- Total Harmonic Distortion..... <3% linear load
- Output Frequency..... 400Hz +/- 0.1%, quartz generated
- Output Phase Angle Accuracy..... 120 deg. +/- 1%
- Permissible Load Power Factor..... -0.6 to 1
- Output is galvanically isolated from input - the output neutral may be bonded to earth.

SECURITY:

- Permissible Overload..... 110% @ 10 min, 150% @ 10 s, 200% @ 1 s
- Output Overvoltage Cutout..... 130V L-N on any one phase
- Output Undervoltage Cutout..... 100V L-N on any one phase
- Thermal Overload..... Thermal sensors located in rectifier, inverter and output transformer.

INTERFACE:

- Optional RS485 or RS422 *MODBUS* high speed communications port allows the output parameters of the converter to be remotely monitored.

ENVIRONMENT & EQUIPMENT:

- Ambient Temperature Range..... -10 to 40 deg C
- Humidity..... <90%, non-condensing
- Altitude..... All specifications quoted at < 2000m above sea level
- Acoustic Noise..... < 50dBA @ 1m
- Overall Efficiency..... 85 to 91% model dependant
- EMC..... Better than EN55-022B
- Cabinet..... Zinc plated steel, powder coated RAL 7032
- Cabinet Protection..... IP21
- Meters..... Digital readout for output Amps, Volts (both ph-to-ph and ph-to-neutral), Hz, Kw and power factor for each phase.
- CE marked

DIMENSIONS:

All models..... 19" x Height 5U x Depth 500mm

OPTIONS:

- Other input and output voltages and frequencies
- Military variants
- Marine variants

Model	3001	3002	3004	3006
Power	1.5KVA	2.5KVA	4KVA	6KVA
Weight Kg	18	23	29	Contact