

Static Frequency Converters

SFC 5000 Series (1-Phase, Stationary Applications)



- Hangar/plant room/laboratory
- Models from 8 to 40KVA
- Continuous Duty
- Isolated, Sinusoidal Output
- Single Phase 60Hz or 400Hz output
- Power factor corrected input (PFC)
- Highest Power Density Available
- Low Acoustic Noise
- Optional IP54 Cabinet
- Optional Secondary 28VDC Output
- Military Variants Available

Cost-Effective, Compact and Dependable:

SFC 5000 series static frequency converters offer the most cost-effective and flexible way of providing 400Hz (and 60Hz) for high power *single phase* (for 3-phase outputs see SFC6000 range), stationary installations. By using the most advanced electronic design, SFC 5000 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. An emergency stop is also fitted.

Very Compact, Easily Manoeuvrable:

Unlike other frequency converters of this power level, which need lifting equipment to manoeuvre them, SFC5000 units are so compact that they are supplied on castors, with even the largest models being easy to manoeuvre.

Applications:

SFC 5000 series machines are suitable for static installations within plant rooms, hangars and workshops. They are a cost-effective way of producing a high powered single-phase supply from an incoming 3-phase supply. They are suitable for use in powering production lines, test and development laboratories and simulators.

High MTBF, Low MTRR:

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

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SFC 5000 - Technical Specifications

INPUT:

- Input Voltage..... 200V or 400V or 460VAC +/- 10%, 3-Phase
- 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 aircraft cables
- Input Protection..... Circuit breaker, rear panel

OUTPUT:

- Output Voltage..... 115 or 230V, 1-Phase + N
- Output Isolation transformer fitted.
- 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..... 60Hz or 400Hz +/- 0.1%, quartz generated
- Permissible Load Power Factor..... -0.6 to 1

SECURITY:

- Permissible Overload..... 10% @ 10 min, 50% @ 10 s, 150% @ 1 s
- Short-circuit proof.
- Output Overvoltage Cutout..... Nominal +10%
- Output Undervoltage Cutout..... Nominal -10%
- Thermal Overload..... Thermal sensors located in rectifier, inverter and output transformer

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 or IP45
- Meters..... Analogue (output volts & Amps)
- Wheels..... 80mm Steel, Rubber tyres, front brakes
- Lifting Eyes..... Optional - 25mm eye
- Connections..... Hard Wire at rear.

DIMENSIONS:

- 8 to 20KVA..... Height 800 x Width 360 x Depth 800mm
- 25 to 40KVA..... Height 1100 x Width 420 x Depth 850mm

OPTIONS:

- Other input and output voltages and frequencies
- IP 54 cabinets
- Military variants
- Marine variants

Model	5080	5100	5120	5200	5250	5300	5400
Power	8KVA	10KVA	12KVA	20KVA	25KVA	30KVA	40KVA
Weight Kg	80	110	130	165	195	220	280