

STATIC FREQUENCY CONVERTORS



FC400 - The 400Hz static frequency converter for aerospace application

With MODBUS-BMS communication interface

5KVA - 400KVA

DSP controlled IGBT technology

FC400 - 101 | FC400 - 301 | FC400 - 303
for Aviation applications / simulation and testing

Selectable / Variable output voltage and
dual output option also available.

MANUFACTURER & EXPORTER SINCE 1998

www.ArviUPS.com

Optimise production process to improve Productivity and profitability...

Galvanic isolation offers

Comprehensive Protection and High Availability.

Mains grade raw power contains impurities and large percentages of harmonics injected into the line by various non-linear loads. The common problem of neutral drift can produce considerable increase in output voltage and permanently destroy your critical loads and data.

Isolation transformers increase load protection and ensure human safety by isolating the AC leakage current from developing a potential between the input and ground. Isolated output enhances the attenuation of common mode noise by increasing the impedance between the input and output.

Provides protection of loads against lightning. Galvanic isolation via transformer is the only way to safely protect loads from lightning. It provides protection from high energy transients, which are clamped at the AC input from propagating to the output.



Galvanic Isolation for
Comprehensive Power Protection

Advanced Active Power PFC SFC

Features

- Power Factor Corrected
- Digital Signal Processor
- Isolation Transformer

Power Factor Correction

- Reduces the running cost in terms of electricity bill
- Prevents the overrating of electrical wire
- Reduce reflected harmonics back to the source
- Savings in sizing of utility transformer & generator

Technology

- DSP technology IGBT inverter - IGBT converter

Topology

- Bifilar PWM switching

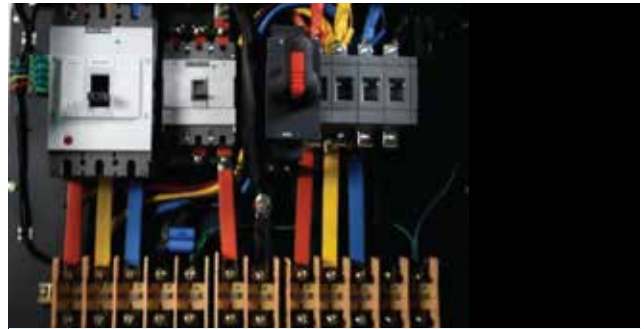
Ideal Power-conditioner

- Constant Frequency source
- Premium Quality Galvaically isolated Power
- Power Factor Corrector

100% Indigenous design



IGBT based PFC rectifier



**Industrial Grade
Designed for Harsh Environment**

100% Indigenous Factory - With In-House R&D.

Application

Aerospace, Industrial application, Special purpose machines, Imported machines using 60Hz.

- 400Hz - FC400 for Aviation applications / simulation and testing
- 60Hz - FC60 for special purpose equipment / simulation and testing
- 60Hz - FC60 for utility power supply is 50Hz but the machine supply required is 60Hz
- 50Hz - FC50 for utility power supply is 60Hz but the machine supply required is 50Hz

Uninterrupted Premium Quality Power using Power-Conditioning topology

The factors contributing to the pre-mature failure of electrical gadgets and eventually the system failure is not limited only to voltage fluctuations but also the poor quality of power. Hence, importance should not only be given for power availability but also for quality power availability.



Arvi SFC is a complete Power-conditioner & Power Factor Corrector

Optimises the product life & process uptime by 35%-40%.

- Constant voltage, frequency, High Grade Premium quality power.
- Galvanic isolation at the output.
- Operating ambient temperature 0-45 degrees.
- Overload handling capability of 150% for 1 minute.
- High surge handling capability.

Industrial Grade design

- Tight voltage and frequency regulation.
- Active boost topology for low noise.
- Capable to handle reactive loads.

- Fully DSP controlled
- IGBT technology
- Industrial grade design

Input

Any voltage (110VAC/200VAC/400VAC)
Any frequency (50Hz / 60Hz / 400Hz) AC/DC 1Ø/3Ø

Output

Any voltage (110VAC/200VAC/400VAC)
Any frequency (50Hz / 60Hz / 400Hz) 1Ø/3Ø
Selectable output voltage / Dual output

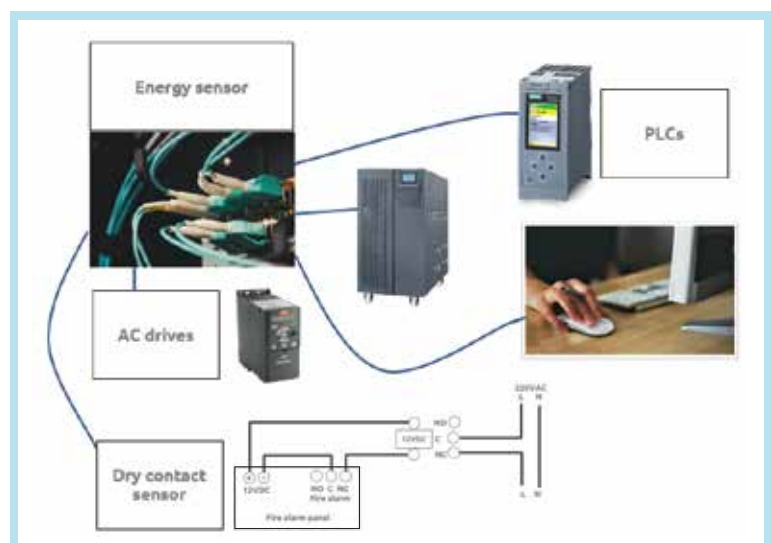
Designed for Harsh environment



MODBUS-BMS interface

BMS - Building management system / BAS - Building automation system / IAS - Industrial system automation System, is a computer-based control system installed in buildings that controls and monitors the building's energy usage, lighting, safety, Heating/cooling, power systems, security and surveillance etc.

FC-400 is compatibility to communicate with other equipment, notify faults or power outage to carry-out preventive / corrective action are some of the unique benefits of BMS.



Winner of the Best in-house R&D among the
UPS manufacturer in India by SoftDisk for the year 2018-19

Technical Specifications

SFC - Static Frequency converter

TECHNOLOGY	DSP based, using IGBT, Industrial grade design.
MODELS	FC400-101, FC400-301, FC400-303
RATING	5KVA - 400KVA
INPUT	
Input Voltage	110VAC, 220VAC, 400VAC or any voltage as per customer requirement, 1Ø/3Ø. DC option is also available.
Input Frequency	60Hz / 50Hz
Input Protection	Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs & fast acting fuses.
OUTPUT	
Output Voltage	110VAC, 220VAC, 400VAC or any voltage, 1Ø/3Ø, (As per custom requirement) Selectable / Variable output voltage and dual output option also available.
Regulation	(±) 1%
Output Frequency	400 Hz ± 0.1Hz
Waveform	True Sinewave
Total Harmonic Distortion	
Linear Load	< 1.5%
Non Linear Load	< 5%
Transient Response	Remains within +/- 5% & recover to normal within 20 msec
Over Load Capacity	
100%	Continuous
125%	1Minute
200%	30 secs
Crest Factor	3:1
Mode of Operation	Designed for Continuous operation with high surge handling
Inverter Protection	Advanced Electronic Protection for device safety backed up with MCB's/ MCCBs & fast acting fuses,high speed pulse by pulse electronic device protection over voltage / under voltage protection, Electronic over current trip.
ALARMS	
	• Input / Low / Fail • Output overload • Over temperature
INTERFACE	MODBUS-BMS interface (optional)
LED Indications (Single LED with multi function)	
	• Inputs ON • FC ON • Overload
User Friendly LCD Displays the following parameters	
	• Input Voltage • Output Voltage • Load current • Output Frequency

*Specifications are indicative to our standard models and are subject to change without notice.

Approved vendor for

Our esteemed customers have been using Arvi SFC for various applications across the country from past 19yrs and have certified the performance of the same.



PARTIAL LIST



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