

STATIC FREQUENCY CONVERTORS

50HZ / 60HZ / 400HZ

For Aviation & Special purpose power supply



400HZ
For Aviation



60HZ
For Special Purpose Equipment

Constant Voltage Constant Frequency (CVCF)

DSP controlled IGBT technology

Input

Any voltage / Any frequency / 1Ø/3Ø

Output

Any voltage / Any frequency / 1Ø/3Ø

Variable / Selectable / Dual output option

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 Corrections

- Reduces the running cost in terms of electricity bill
- Prevent 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

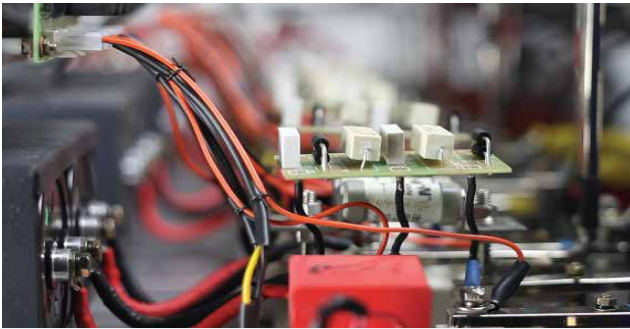
Topology

- Bifilar PWM switching

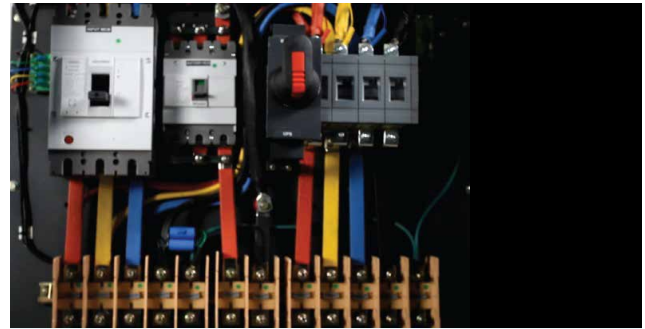
Ideal Power-conditioner

- 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



Regenerative energy (4-quadrant load) handling capability.

All the three phase models of Arvi SFC - FC50-303, FC60-303, FC400-303 can be customised to handle regenerative power. By doing so the regenerative back-feed power from the motorised loads can be sensed and clamped using resistive load bank.

The re-generative braking energy is produced in the following conditions...

Quickly decelerating a high inertia (mechanical arm, flywheel), controlling the speed of a load moving downwards (Milling, cutting, declining conveyor), sudden drop in load torque (Drilling operation, industrial saw), repetitive acceleration and retardation to stop etc.

The conventional SFC UPS cannot absorb this energy and the DC bus voltage starts increasing and leads to failure of DC capacitor and switching device.



Best In-house R&D
ISO 9001-2015

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

Technical Specifications

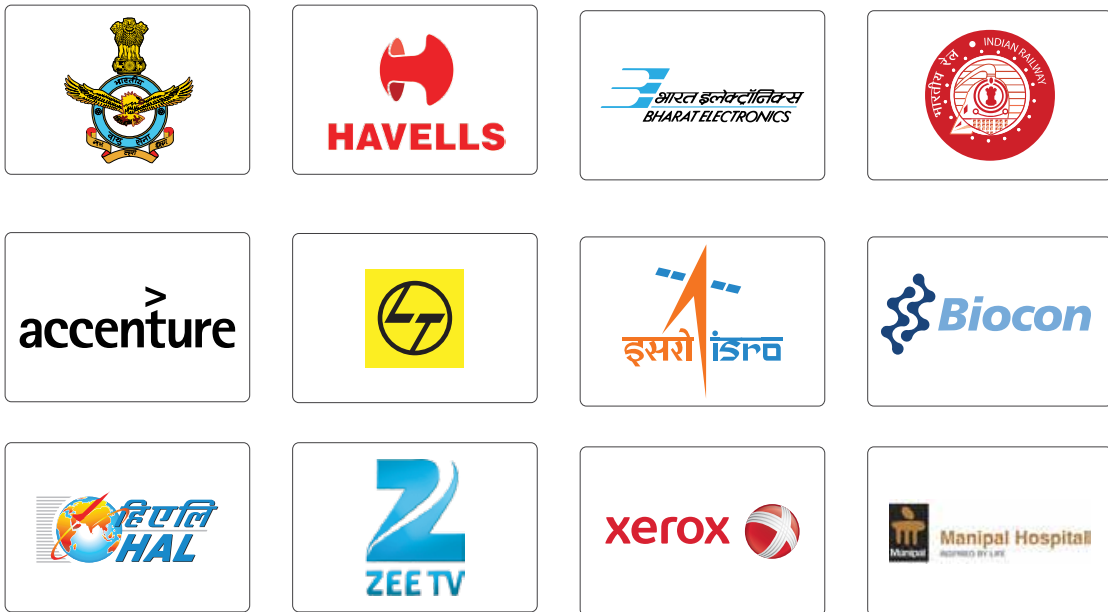
SFC - Static Frequency converter

TECHNOLOGY	DSP based, using IGBT, Industrial grade design.
MODELS	FC50-101, FC50-301, FC50-303 / FC60-101, FC60-301, FC60-303 FC400-101, FC400-301, FC400-303
RATING	5KW - 200KW
INPUT	
Input Voltage	110VAC, 220VAC, 400VAC or any voltage as per customer requirement, 1Ø/3Ø. DC option is also available.
Input Frequency	50HZ / 60Z / 400HZ or any frequency (Variable / selectable frequency option available)
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	50 Hz ± 0.1Hz / 60 Hz ± 0.1Hz / 400 Hz ± 0.1Hz (Or any frequency as per customer requirement)
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
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 vendors 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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