

# STATIC FREQUENCY CONVERTORS



## 60FC50 - 50Hz static frequency converter

50Hz constant output frequency - Input frequency - 60Hz (57Hz to 63Hz)

With MODBUS-BMS, communication interface

### 5KVA - 400KVA

**DSP controlled IGBT technology**

60FC50 - 101 | 60FC50 - 301 | 60FC50 - 303

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

**MANUFACTURER & EXPORTER SINCE 1998**

[www.ArviUPS.com](http://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

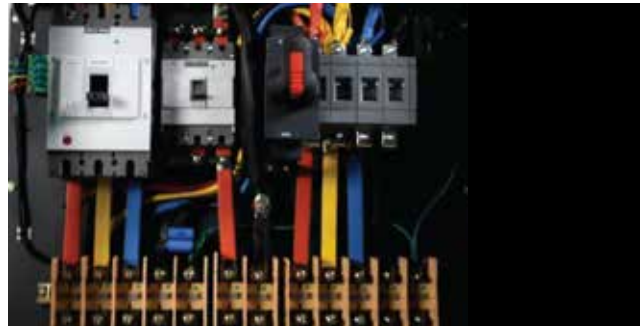
### Ideal Power-conditioner

- 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

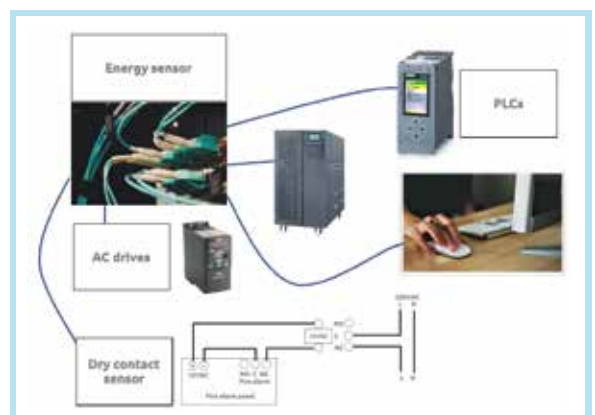
## Designed for Harsh environment



## MODBUS-BMS, communication 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

|                                                     |                                                                                                                                                                                                                                      |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TECHNOLOGY</b>                                   | DSP based, using IGBT, Industrial grade design.                                                                                                                                                                                      |
| <b>MODELS</b>                                       | 60FC50-101, 60FC50-301, 60FC50-303                                                                                                                                                                                                   |
| <b>RATING</b>                                       | 5KVA - 400KVA                                                                                                                                                                                                                        |
| <b>INPUT</b>                                        |                                                                                                                                                                                                                                      |
| Input Voltage                                       | 110VAC, 220VAC, 400VAC or any voltage as per customer requirement, 1Ø/3Ø.<br>DC option is also available.                                                                                                                            |
| Input Frequency                                     | 60Hz (57Hz - 63Hz)                                                                                                                                                                                                                   |
| Input Protection                                    | Advanced Electronic Protection for device safety backed up with<br>MCB's/ MCCBs & fast acting fuses.                                                                                                                                 |
| <b>OUTPUT</b>                                       |                                                                                                                                                                                                                                      |
| Output Voltage                                      | 110VAC, 220VAC, 400VAC or any voltage, 1Ø/3Ø, (As per custom requirement)<br>Selectable / Variable output voltage and dual output option also available.                                                                             |
| Regulation                                          | ( ± ) 1%                                                                                                                                                                                                                             |
| Output Frequency                                    | 50 Hz ± 0.1Hz                                                                                                                                                                                                                        |
| Waveform                                            | True Sinewave                                                                                                                                                                                                                        |
| <b>Total Harmonic Distortion</b>                    |                                                                                                                                                                                                                                      |
| Linear Load                                         | < 1.5%                                                                                                                                                                                                                               |
| Non Linear Load                                     | < 5%                                                                                                                                                                                                                                 |
| Transient Response                                  | Remains within +/- 5% & recover to normal within 20 msec                                                                                                                                                                             |
| <b>Over Load Capacity</b>                           |                                                                                                                                                                                                                                      |
| 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<br>& fast acting fuses,high speed pulse by pulse electronic device protection over<br>voltage / under voltage protection, Electronic over current trip. |
| <b>ALARMS</b>                                       |                                                                                                                                                                                                                                      |
|                                                     | • 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 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



Govt. of India certified  
Importer & Exporter  
Code: 0708009123

MEMBER OF  
एन. एस. आई. सी.  
**NSIC**  
Registration No.  
NSIC/KAR/GP/RS/KT/A-169/2010



**D&B**  
D-U-N-S No. 65052622  
NSIC-D&B-SMERA

**ICS** **JAS-ANZ**  
RQ91/8880  
ISO 9001-2015



80/A2, 1st Main, 3rd Cross, 2nd Phase Industrial Suburb, Yeshwanthpur, Bangalore 560 022. Karnataka, India  
Phone: +91-80-23470657 / 23470658  
enquiry@arviups.com • associates@arviups.com

[www.ArviUPS.com](http://www.ArviUPS.com)