



Static Frequency Converter Systems with In-built Isolation Transformer - FC3X Series

Features

- VFI independent output as per IEC62040
- User friendly controls and indications
- Compact design with inbuilt transformer
- Rugged and field proven for Industrial and Defence application
- Ultra light weight
- Higher efficiency of operation means significantly lower running costs
- State of the art IGBT based PWM technology, to increase crest factor tolerance & dynamic stability
- Continuously delivers full output power at ambient as high as 45°C
- Can feed upto 400% rated current for half cycle
- Very high MTBF



With increasing Global trade, manufacturers in India need to test equipment on commercial line supply available in those countries. Equipment exported to several countries require 115V supply at 60Hz. Equipment used by aircraft industry needs 115V supply at 400Hz. Aplab is the largest manufacturer and exporter of Frequency Converters up to 100KVA capacity in single phase & 200KVA in 3 phase category.

Aplab Frequency converter consists of a Rectifier and a Static Inverter. The Rectifier converts the commercial AC power to very precise DC power and supplies to Static Inverter. The IGBT-based pulse Width Modulation (PWM) technology is used to convert DC power to a very precise low distortion Sine wave output with high efficiency.

Technical Specifications (10KVA to 60KVA) (3Ø - 1Ø, 3Ø - 3Ø)

Ratings	10 KVA	20 KVA	30 KVA	40 KVA	50 KVA	60 KVA
Output Rating	8 KW	16 KW	24 KW	32 KW	40 KW	48 KW
Topology	IGBT based.					
Input Voltage	415V AC, 335 to 475V AC, 3P4W.					
Input Frequency	50Hz, 47 to 53Hz.					
Output Voltage (Fixed)	115V 1Ø / 200V 3Ø / 400V 3Ø ±1%			200V 3Ø / 400V 3Ø ±1%		
Output Frequency (Fixed)	60 Hz / 400Hz ±0.5%.					
Isolation Transformer	Provided Inbuilt.					
Power Factor	0.8 Lag to Unity.					
Crest Factor	3:1.					
Waveform	Sinusoidal.					
THD	<3% on linear load.					
Overload	110% for 10 minutes, 125% for 1 minute, 150% for 10 sec.					
Transient Response	For 0 - 50% & 50% - 100% load change voltage remains within ±5%.					
Protections	Input & Output Over / Under Voltage, Single Phasing					
	DC - High / Under Voltage Output Overload / Short Circuit / Over Temp.					
Audio Alarm	Inverter Trip.					
Metering	LCD display for Input & Output - Voltage, Current & Frequency, Battery - Voltage & Current.					
Indications	Mains - On / High / Low / Single Phasing DC - On Inverter - On / Trip / High / Low / Over Current					
Switchgear	MCB / MCCB for Input, Output.					
Termination	Input, Output.					
Enclosure	IP 20 (IP 21 / IP 42 / IP 54 - Optional).					
Operating Temp.	0 to 40°C.					
Altitude	<1500m.					
Humidity	Upto 95% Rh (non-condensing).					
Cooling	Forced Air.					
Noise	<75 dB.					
Configuration	Standalone / Hot Standby.					
Dimensions (mm) (W x H x D)	500 x 1100 x 800		600 x 1200 x 900		800 x 1600 x 800	

Ordering Information

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1 → Single Phase O/P
3 → 3 Phase O/P

KVA Rating
10 → 10KVA
20 → 20KVA
30 → 30KVA
40 → 40KVA
50 → 50KVA
60 → 60KVA
**Higher rating on request*

Output Frequency
400 → 400 Hz
060 → 60Hz

B → Battery
Blank → No Battery

Output Voltage
036 → 36V
115 → 115V
200 → 200V
208 → 208V
230 → 230V
380 → 380V
400 → 400V
415 → 415V

WE PURSUE A POLICY OF CONTINUOUS DEVELOPMENT AND PRODUCT IMPROVEMENT.
THUS THE SPECIFICATIONS IN THIS DOCUMENT AND THE LOCATION OF CONTROLS ON THE FRONT PANEL MAY BE CHANGED WITHOUT NOTICE.