STATIC FREQUENCY CONVERTER
1KVA-3KVA

TEKLAB SFC is designed to change conventional 50 Hz to 60Hz or 60 Hz to 50Hz electrical energy or change conventional 50Hz / 60Hz to 100Hz/200Hz/300Hz/400Hz/500Hz/600Hz and 1000Hz etc.
It can produce a stable and high-quality output, often with advanced filtering to eliminate distortion and ensure precise control of voltage and frequency.
The first stage converts the incoming Alternating supply voltage to a controlled DC voltage (rectification).
The second stage inverts the DC voltage to an Alternating supply voltage at the desired output frequency (Inversion).

TEKLAB Static frequency converters are smaller, lighter and almost always more affordable than their rotary counterparts. This means they take up less space and reduces the need for reinforcement of floors that is often required for rotary frequency converters.

APPLICATIONS

- Testing and operating electric equipment
- LV Lab power supply
- Avionics test power supply
- Aircraft
- Rugged and field proven for Industrial and Defence application
- Railways

Static frequency converters are applied in many applications involving the generation, transmission, distribution and use of electrical energy. It is widely used in test centres and on production lines to simulate specific utility voltages and frequencies for product testing.

VARIABLE OUTPUT VOLTAGE AND FREQUENCY RANGES ARE AVAILABLE AS PER REQUEST
FIND SOME STANDARD MODELS AND TECHNICAL SPECIFICATIONS BELOW

TECHNICAL SPECIFICATIONS

1KVA

a) TL115-1-1K-SFC-400H

Technology	IGBT based high frequency double conversion PWM.
Capacity	1KVA
Input Voltage/Frequency	1 Ø 2 Wire 230V AC ± 10% / 50Hz
Output Voltage/Frequency	1 Ø 2 Wire 115V AC ± 1% / 400Hz
Regulation	±1%
Duty Cycle	Continuous
Wave Form	Sine wave
Distortion	≤ 3% for linear loads, ≤ 5% for non-linear loads
Overload Protection	150% for 1 Min., 125% for 5 Min.
Ingress Protection	IP20
Efficiency	>92%
Inverter Topology Control Section	Micro controller / DSP based
Waveform correction	Instantaneous
Protections	Input Circuit Breaker, Input Surge protection, High/low voltage protection, Phase failure
	Over temperature, Rectifier Output short circuit, over current protection
	O/P Overload, Short circuit, Over temperature, Over Voltage, Pulse by Pulse current limit
Display	Displays Input voltage, Output Voltage, DC Voltage, Load Current, Output Frequency, Status messages for - Over Voltage, DC Low (LCD)
Display Messages	Overload, Over voltage, DC Low
Ambient Temperature	0 to + 55degree C
Altitude	6660 ft / 2000m
Storage	-20 to +70degree C
Sound Level @ 1m	< 55 dBA
Cooling	Forced Air
Weight	15 Kg Approximate
Dimensions	W×H×D mm 430×177× 500 mm Approximate

**All appearances and specifications are subject to change without prior notice.*

2KVA

b) TL200-1-3-2K-SFC-60H

Technology	IGBT based high frequency double conversion PWM.
Capacity	2KVA
Input Voltage/Frequency	1 Ø 2 Wire 230V AC ± 10% / 50Hz
Output Voltage/Frequency	3 Ø 4 Wire L-L 200V AC and L-N 115V AC/60Hz
Power Factor	0.8PF
Regulation	±1%
Duty Cycle	Continuous
Wave Form	Sine wave
Distortion	≤ 3% for linear loads, ≤ 5% for non-linear loads
Overload Protection	150% for 1 Min., 125% for 5 Min.
Ingress Protection	IP42
Efficiency	>92%
Inverter Topology Control Section	Micro controller / DSP based
Waveform correction	Instantaneous
Protections	Input Circuit Breaker, Input Surge protection, High/low voltage protection, Phase failure
	Over temperature, Rectifier Output short circuit, over current protection
	O/P Overload, Short circuit, Over temperature, Over Voltage, Pulse by Pulse current limit
Display	Displays Input voltage, Output Voltage, DC Voltage, Load Current, Output Frequency, Status messages for - Over Voltage, DC Low (LCD)
Display Messages	Overload, Over voltage, DC Low
Ambient Temperature	0 to + 55degree C
Altitude	6660 ft / 2000m
Storage	-20 to +70degree C
Sound Level @ 1m	< 55 dBA
Cooling	Forced Air
Weight	20 Kg Approximate
Dimensions	W×H×D mm 430×222× 500 mm Approximate

3KVA

a) TL200-1-3-3K-SFC-400H

TECHNOLOGY	IGBT based high frequency double conversion PWM.
CAPACITY	3KVA
INPUT VOLTAGE/FREQUENCY	230V AC/50Hz ±10%
OUTPUT VOLTAGE/FREQUENCY	3 Ø 4 Wire L-L 200V AC and L-N 115V AC/400Hz
OUTPUT CURRENT	1KVA each Phase
REGULATION	±1%
DUTY CYCLE	Continuous
WAVE FORM	Sine wave
DISTORTION	≤ 3% for linear loads, ≤ 5% for non-linear loads
OVERLOAD PROTECTION	150% for 1 Min., 125% for 5 Min.
INGRESS PROTECTION	IP21
EFFICIENCY	>92%
INVERTER TOPOLOGY CONTROL SECTION	Micro controller / DSP based
WAVEFORM CORRECTION	Instantaneous
PROTECTIONS	Input Circuit Breaker, Input Surge protection, High/low voltage protection, Phase failure
	Over temperature, Rectifier Output short circuit, over current protection
	O/P Overload, Short circuit, Over temperature, Over Voltage, Pulse by Pulse current limit
DISPLAY	Displays Input voltage, Output Voltage, DC Voltage, Load Current, Output Frequency, Status messages for - Over Voltage, DC Low (LCD)
DISPLAY MESSAGES	Overload, Over voltage, DC Low
AMBIENT TEMPERATURE	0 to + 55degree C
ALTITUDE	6660 ft / 2000m
STORAGE	-20 to +70degree C
SOUND LEVEL @ 1M	< 55 dBA
COOLING	Forced Air
WEIGHT	20 Kg Approximate
DIMENSIONS	W×H×D mm 430 × 533 × 600 mm Approximate

Manufactured by,
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