



## Hyperion Static Frequency Converter 5 - 3000 kVA Technical Specifications

GENERAL		
Phase	Single-Phase	Three-Phase
Technology	Double Conversion Solid State	
Control	Automatic Digital Signal Processor Control	
INPUT		
Input Voltage	110/120/128/220/230/240/380/400/415/480/600 Vac	
Voltage Tolerance	±15%	
Supply Frequency	50 Hz / 60 Hz ±10% (or custom as per request)	
Input Power Factor	Unity (1.0)	
THDi	<3% (Full Load)	
Input Protection	Overload Protection, High/Low Voltage, Phase Sequence Protection	
OUTPUT		
Output Voltage	110/120/128/220/230/240/380/400/415/480/600 Vac (custom outputs available)	
Output Accuracy	±1%	
Frequency	50 Hz / 60 Hz / 400 Hz ± 1% (or custom as per request)	
Isolation Transformer	Galvanic Isolation Class II	
Topology	Full Bridge High Frequency IGBT Inverter	
Output Power Factor	≥ 0.8 (0.9 or 1.0 options are available)	
THDv	< 2.5% (non-linear load)	
Crest Factor	3:1 at Full Load	
100% Load Change	± 10% in 50 ms	
Waveform	Pure Sine Wave	
Short Circuit Limit	200% for 2 seconds	
Overload Operation	100% - 125% load: 10 min, 125% - 150% load: 1 min, > 150% load: 3 sec	
Output Protection	Over Current / Over Temp / Short Circuit / Mains High-Low	
Efficiency	>95% at Full Load	
CONTROL PANEL		
Display	4x20 LCD (10" touchscreen is optional)	
Displayed Parameters	DC Bus Voltage, Temperature, Alarms Adjust, Communication, Password	
Displayed Units	Input/Output Voltage, Input/Output Frequency, Input/Output Current Operation Time (S:M:H)	
Event Log	500 Events Recorded	
COMMUNICATION		
Standard	Dry Contact Card (up to 10 adjustable relays), RS485 MODBUS	
Optional	SNMP, CANBUS, Profibus, IEC 61850, RS232, USB	
PC Connection	With Software	
SAFETY and STANDARDS		
Over Voltage	IEEE 587 4500 A, 40kA Surge Arrestor	
Interference Reduction	Class B	
Standards	IEC 62040-1-2-3, EN 50091-1 (Security), EN 50091-2 (EMC), ISO 9001, CE	
ENVIRONMENT		
Heat and Humidity	-10 C° / + 60 C°, 0 - 90% (non-condensing)	
Noise Level	Less than 60 dB	
Protection Level	IP21 (higher protection levels are available on request)	
Cooling	Forced Air Cooling with Axial Fans or Natural Air Cooling	
MTBF	250 000 hrs	

### Highlights

- Solid-State Topology
- Microprocessor Controlled
- Easy Control 4x20 LCD Screen
- Customized Input and Output
- Quiet Operation
- High Frequency IGBT Inverter
- 6 or 12 Pulse Thyristor Bridge Rectifier
- PWM Inverter & Rectifier
- Basic Installation
- High Efficiency up to 95%
- Input Power Factor (>0.99)
- Pure Sine Wave Output
- Internal Isolation Transformer
- RFI Filter
- Static and Manual Bypass
- Standard Modbus Communication
- Can Work with Non-linear Loads
- 2 Years Warranty

### General Features

Without any rotary parts inside, Hyperion Series Static Frequency Converters are designed to convert input voltage and frequency to provide the output you need. Converts the input AC power through a full bridge 6 or 12 pulse rectifier to DC and then to AC pure sine-wave with IGBT inverter to have a new frequency and voltage at output. Double conversion technology provides continuous clean power, independently of the input source.

Used in industrial applications where conversion needed, also in aviation, marine, military and railway applications which requires to operate at 50 Hz, 60 Hz, 400 Hz or any other special Voltage and Frequency supplies.