



Hyperion Single-Phase Static Frequency Converter Technical Specifications

GENERAL	
Phase	Single-Phase
Technology	Double Conversion Solid State
Control	Microprocessor Controlled
INPUT	
Input Voltage	110/120/128/220/230/240 Vac
Voltage Tolerance	±15%
Supply Frequency	50 Hz / 60 Hz ±10%
Input Power Factor	>0.99
THDi	<3% (Full Load)
Input Protection	Circuit Breaker, Input High/Low Voltage Protection
OUTPUT	
Output Voltage	110/120/128/220/230/240 Vac
Output Accuracy	±1%
Frequency	50 Hz / 60 Hz / 400 Hz
Isolation Transformer	Galvanic Isolation Class II
Topology	Full Bridge High Frequency IGBT Inverter
Output Power Factor	≥ 0.8
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: 30 sec, > 125% load: 3 sec
Output Protection	Overload, Over Temp, Short Circuit, Output High/Low Voltage
Efficiency	>94% at Full Load
CONTROL PANEL	
Display	Graphic LCD Panel
Displayed Parameters	Voltage, Current, Alarms Adjust, Communications
Displayed Units	Input/Output Voltage, Input/Output Frequency, Output Current Optional: Operation Time (S:M:H), Power Factor
Event Log	256 Events Recorded (Optional)
COMMUNICATION	
Standard	Dry Contact Card (up to 6 adjustable relays), RS485 MODBUS
Optional	SNMP, CANBUS, Profibus, IEC 61850, RS232, USB
PC Connection	Via Software
SAFETY and STANDARDS	
Over Voltage	IEEE 587 4500 A
Interference	Class A
Standards	IEC 62040-1-2-3, EN 50091-1 (Security), EN 50091-2 (EMC), ISO 9001, CE
ENVIRONMENT	
Operating Conditions	-10 C° / + 65 C°, 0 - 90% (non-condensing)
Storage Conditions	-20 C° / + 75 C°, 0 - 90% (non-condensing)
Noise Level	Less than 50 dB
Protection Level	IP42 Indoor Type, IP56 Outdoor Type
Cooling	Forced Air Cooling with Axial Fans

Highlights

- Solid-State without Moving Parts
- Internal Isolation Transformer
- Microprocessor Controlled
- Easy Control LCD Panel
- Customized Input and Output
- Quiet Operation
- High Frequency IGBT Inverter
- 6 or 12 Pulse Thyristor Bridge
- PWM Inverter & Rectifier
- Basic Installation
- High Efficiency up to 94%
- Input Power Factor (>0.99)
- Pure Sine Wave Output
- RFI Filter
- 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 or 400 Hz frequencies and customized voltages.