



NOVA ELECTRIC



POPULAR OPTIONS

- Ruggedization Against Shock, Vibration, and Humidity
- UPScan Remote Monitor Panel
- NETAGENT
- Complete Spare Parts Package
- Factory Turn-On Service
- Internal Solid-State Static Transfer Switch
- AUX DC Outputs
- Casters for Portability (22" Wide Models Only)
- Power Distribution Units (PDUs)
- Maintenance Bypass Switches (MBSs)
- Environmental Stress Screening Services

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA
(201) 385-0500
novaelectric.com
info@novaelectric.com



Jupiter Series 10-100 KVA 120 VDC / Single and Three Phase Output Pure Sine Wave DC-AC Inverters



Jupiter-Series 30-50 KVA Cabinet Shown With Optional Shock Mounts

GENERAL OVERVIEW

Nova's Jupiter-Series Pure Sine Wave DC-AC Inverters are high-reliability power sources specifically designed for demanding commercial, heavy industrial, and military applications. They can be built to meet MIL-STD-810, MIL-S-901, MIL-STD-461, and other standards optionally. These models utilize state of the art technology and the most durable components, offering maximum field-proven reliability for severe environment and high reliability applications.

- Military: UAV, Shipboard, Submarine, Aircraft, Mobile Power Units, Shelters
- Utility Stations
- Shore Power
- Communications Systems
- Cellular Sites

The Leader In Rugged Power Conversion Technology Since 1966

**Specifications subject to change without notice.*

Rev D-August-11-2020



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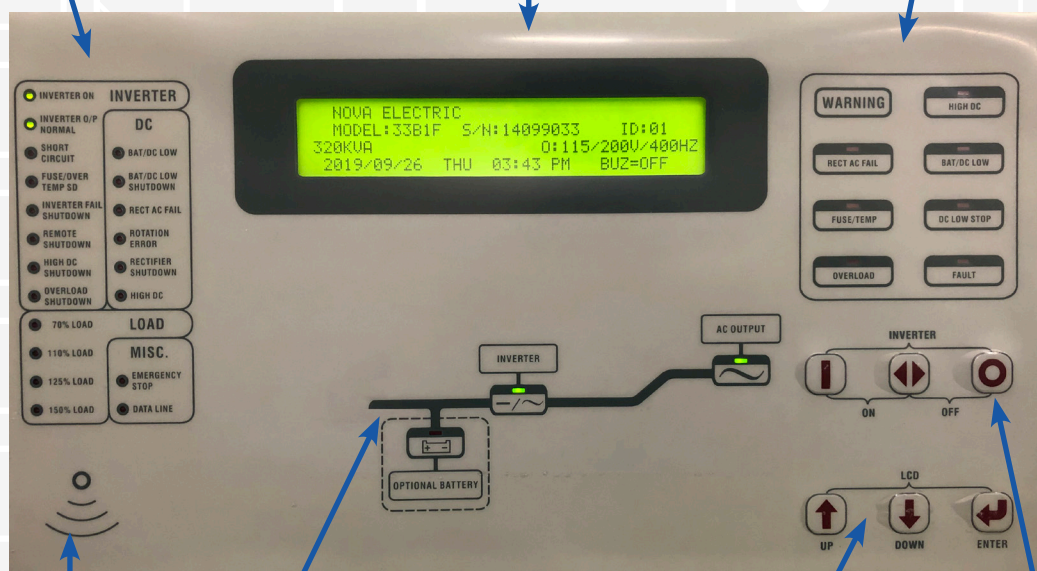


JUPITER-SERIES FRONT PANEL DISPLAY

Status LEDs

LCD Display

Warning LEDs



Audible Alarm

Power Flow Diagram

LCD Scroll Keys

Inverter ON / OFF

MONITORING FEATURES

The Inverter includes an RS232 port for monitoring information related to the Inverter output, and any abnormal conditions that have occurred in real time. Standard commercially available software is provided.

FRONT PANEL LCD DISPLAY AND LED INDICATORS

These will report all Inverter parameters, including input and output voltages, currents, frequency, DC voltage and many other functions.

LCD DISPLAY

Real time status, data, and historical events are displayed via this backlit LCD display. The Inverter parameters, real time clock, and audible alarm also can be set through this LCD.

STATUS LEDs

A series of LEDs representing all the important status information of the Inverter provides critical information to the user. These LEDs are located behind the transparent window, so they can be seen clearly without opening the front door.

WARNING LEDs

When abnormal condition occurs, these LEDs will light to warn of the fault condition.

AUDIBLE ALARM

The audible alarm will beep under certain fault conditions including overload, short circuit, open fuse, overtemp, high DC shutdown, and bypass fault.

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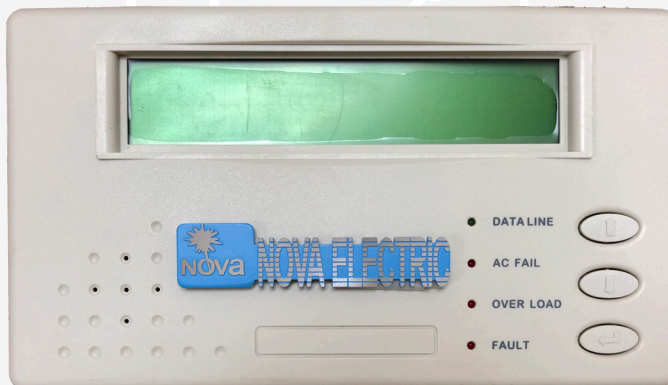


COMMUNICATION OPTIONS

Some popular communications options available for the Jupiter Inverter include the following:

UPSCAN

This is a hand held remote display and control module with LCD and LED display that can monitor via RS-485 up to 99 Inverter Units at a remote distance of up to 3,000 feet.



UPSCAN Remote Display and Control Module

NETAGENT

This provides capability to monitor the Inverter over the internet. It includes the appropriate additional SNMP card and microprocessor. The software required is provided separately. When equipped with this option, the user can connect a CAT-5 cable for Interface to the external LAN.

MULTIPLE POWER CONNECTION CONFIGURATIONS



*Standard Bottom Access Plate and
Terminal Block Connections*



*6 Inch Extension Allows Wire
Conduit Access From Rear Side*

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POPULAR OPTIONS

Ruggedization

Ruggedization is highly recommended for harsh environment applications, and includes conformal coating of the Inverter's PCBs to protect against humidity, condensation, and fungus growth. For military applications, we offer more structural ruggedization, as well as shock mounts, to comply with such standards as MIL-S-901, MIL-STD-810, and other demanding MIL-Specs. This option does not affect size or weight.

Complete Spare Parts Package

We offer a comprehensive spare parts package that includes one of each board, spare fuses, spare semiconductors, and spare fans. These spare parts kits are priced lower when ordered with the initial order than if they are ordered later on.

Factory Turn-On Service

We offer a turn on service for a fee that will ensure the unit has been properly installed and the full warranty is in effect. (Failures caused by incorrect installation are not covered by the warranty.) If this option is selected, the customer will also automatically receive an additional 3 months added to the warranty at no additional charge. This service is provided by factory engineers, not third party engineers. Pricing is dependent upon location, number of units, airfare rates, etc. Please contact us for more details if interested.

Customized EPO

This Emergency Power Off (EPO) Feature can be tailored to trip off current breakers or perform other inhibits per specific customer applications.

Shock and Vibration Mounts

A wide selection of mounts are available for compliance to MIL-S-901, MIL-STD-167, and other related standards.

Drip Shields for protection against falling or dripping liquids

AUX DC Outputs

50/60 Hz Output Switch

Output Voltage Adjustment Knob $\pm 10\%$

Casters for Portability (22" Wide Models Only)

Power Distribution Units (PDUs)

Maintenance Bypass Switches (MBSs)

Environmental Stress Screening Services



***Isolation Mounts available for compliance
with MIL-S-901, MIL-STD-167, MIL-STD-810,
and other related standards***



FREQUENCY



***50/60 Hz Output Frequency
Selector Switch with Output Voltage
Adjustment Knob available***

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*Specifications subject to change without notice.

Typical 22" Wide Jupiter Frequency Converter with Coil Shocks for MIL-S-901 Compliance



Typical 43.5" Wide Jupiter Frequency Converter with Coil Shocks for MIL-S-901 Compliance



JUPITER 120 VDC PURE SINE WAVE INVERTER SERIES		
INVERTER	Input VDC Range	105-150 VDC Input (<i>Extended Range Available</i>) / Single or Three Phase Pure Sine Wave VAC Output
	Output Voltage (VAC)	Three Phase WYE 115/200 120/208 220/380 230/400 240/415 277/480 Three Phase DELTA 220 3 ph 240 3 ph 380 3 ph 400 3 ph 480 3 ph Single Phase 120 1 ph 220 1 ph 240 1 ph 480 a ph <i>Other Voltages Available Optionally - Consult Factory For Details</i>
	Wave Form	Sinewave
	Output Power Factor	0.7 Lead to 0.7 Lag
	Frequency Lock Range	50 / 60 Hz + 0.1 Hz (<i>Crystal Controlled</i>)
	Output Frequency (<i>Free Running</i>)	50 / 60 / 400 Hz (<i>Please Specify</i>)
	Phase Shift Under 100% Unbalanced Load	<0.5%
	THD (<i>Linear Load</i>)	2% Typical 3% Max
OVERLOAD	<110%	Continuous
	110-125%	Up to 15 Minutes
	125-150%	Up to 10 Minutes
	>150	Up to 1 Minute
	Efficiency (100% Load)	89%
STATIC SWITCH (OPTIONAL)	Voltage Range	Same as AC Output (<i>Different Voltages are Available Upon Request</i>)
	Mains <-> Inverter	0 ms (<i>True Online</i>)
	Audible Noise	< 65dBA (<i>at 1m</i>)
	Temperature	0-50°C (32-122°F) (<i>Other Ranges Available</i>)
	Humidity	0%-95% (<i>Non-Condensing</i>)
	Altitude	Up to 1500 m Above Sea Level
	EN50091-1, -2	Yes
	Short Circuit Protection	Yes
	Lightning / EMC Filter	MOV / Input & Output (<i>FCC CLASS A</i>)
	Galvanic Isolation	Output True Galvanic Isolation
	LED, LCD, Audible Alarm	Yes
	Remote Control and Communication Interface Choices	Dry Contact, RS-232, RS-485 (<i>Optional</i>), UPScan Monitoring 1~ 99 Units Simultaneously (<i>Optional</i>), Netagent (<i>Optional</i>), MODBUS (<i>Optional</i>),

**Specifications subject to change without notice.*

PARTIAL 60 Hz SINGLE PHASE OUTPUT MODEL SELECTION - AVAILABLE WITH AND WITHOUT INPUT CIRCUIT BREAKER AND/OR SOLID STATE TRANSFER SWITCH

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	WEIGHT (LB)	SIZE (HxWxL)
J10K60-120	120	60	10 KVA / 8 KW	770	63" x 22" x 31.5"
J15K60-120	120	60	15 KVA / 12 KW	880	63" x 22" x 31.5"
J20K60-120	120	60	20 KVA / 16 KW	880	63" x 22" x 31.5"
J30K60-120	120	60	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J40K60-120	120	60	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J50K60-120	120	60	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J60K60-120	120	60	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J80K60-120	120	60	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J100K60-120	120	60	100 KVA / 80 KW	3520	63" x 87" x 31.5"

**Specifications subject to change without notice.*

Other voltages available include 230/400 VAC, 220 VAC Three-Phase Delta, 240 VAC Three-Phase Delta, 380 VAC Three-Phase Delta, 440 VAC Three-Phase Delta, 480 VAC Three-Phase Delta, and others – please consult factory for details.

PARTIAL 50 Hz SINGLE PHASE OUTPUT MODEL SELECTION - AVAILABLE WITH AND WITHOUT INPUT CIRCUIT BREAKER AND/OR SOLID STATE TRANSFER SWITCH

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	WEIGHT (LB)	SIZE (HxWxL)
J10K60-120(220)	220	50	10 KVA / 8 KW	770	63" x 22" x 31.5"
J15K60-120(220)	220	50	15 KVA / 12 KW	880	63" x 22" x 31.5"
J20K60-120(220)	220	50	20 KVA / 16 KW	880	63" x 22" x 31.5"
J30K60-120(220)	220	50	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J40K60-120(220)	220	50	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J50K60-120(220)	220	50	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J60K60-120(220)	220	50	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J80K60-120(220)	220	50	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J100K60-120(220)	220	50	100 KVA / 80 KW	3520	63" x 87" x 31.5"

**Specifications subject to change without notice.*

Other voltages available include 230/400 VAC, 220 VAC Three-Phase Delta, 240 VAC Three-Phase Delta, 380 VAC Three-Phase Delta, 440 VAC Three-Phase Delta, 480 VAC Three-Phase Delta, and others – please consult factory for details.

PARTIAL 400 Hz SINGLE PHASE OUTPUT MODEL SELECTION - AVAILABLE WITH AND WITHOUT INPUT CIRCUIT BREAKER AND/OR SOLID STATE TRANSFER SWITCH

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	WEIGHT (LB)	SIZE (HxWxL)
J10K400-120	115	400	10 KVA / 8 KW	770	63" x 22" x 31.5"
J15K400-120	115	400	15 KVA / 12 KW	880	63" x 22" x 31.5"
J20K400-120	115	400	20 KVA / 16 KW	880	63" x 22" x 31.5"
J30K400-120	115	400	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J40K400-120	115	400	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J50K400-120	115	400	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J60K400-120	115	400	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J80K400-120	115	400	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J100K400-120	115	400	100 KVA / 80 KW	3520	63" x 87" x 31.5"

**Specifications subject to change without notice.*

Other voltages available include 230/400 VAC, 220 VAC Three-Phase Delta, 240 VAC Three-Phase Delta, 380 VAC Three-Phase Delta, 440 VAC Three-Phase Delta, 480 VAC Three-Phase Delta, and others – please consult factory for details.



PARTIAL THREE PHASE OUTPUT MODEL SELECTION - SINGLE-PHASE INPUT AND / OR OUTPUT AVAILABLE OPTIONALLY ON SELECT MODELS

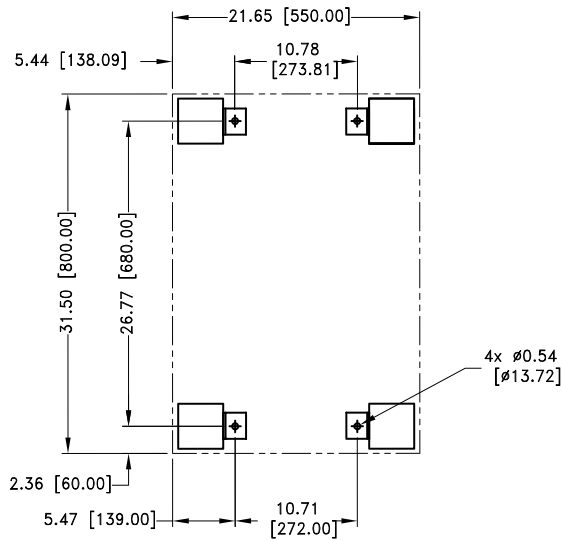
MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	WEIGHT (LB)	SIZE (HxWxL)
J10K3/6-120(120/208)	120/208	60	10 KVA / 8 KW	770	63" x 22" x 31.5"
J10K3/5-120(220/380)	220/380	50	10 KVA / 8 KW	770	63" x 22" x 31.5"
J10K3/4-120(115/200)	115/200	400	10 KVA / 8 KW	770	63" x 22" x 31.5"
J20K3/6-120(120/208)	120/208	60	20 KVA / 16 KW	880	63" x 22" x 31.5"
J20K3/5-120(220/380)	220/380	50	20 KVA / 16 KW	880	63" x 22" x 31.5"
J20K3/4-120(115/200)	115/200	400	20 KVA / 16 KW	880	63" x 22" x 31.5"
J30K3/6-120(120/208)	120/208	60	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J30K3/5-120(220/380)	220/380	50	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J30K3/4-120(115/200)	115/200	400	30 KVA / 24 KW	1650	63" x 43.5" x 31.5"
J40K3/6-120(120/208)	120/208	60	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J40K3/5-120(220/380)	220/380	50	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J40K3/4-120(115/200)	115/200	400	40 KVA / 32 KW	1760	63" x 43.5" x 31.5"
J50K3/6-120(120/208)	120/208	60	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J50K3/5-120(220/380)	220/380	50	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J50K3/4-120(115/200)	115/200	400	50 KVA / 40 KW	1870	63" x 43.5" x 31.5"
J60K3/6-120(120/208)	120/208	60	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J60K3/5-120(220/380)	220/380	50	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J60K3/4-120(115/200)	115/200	400	60 KVA / 48 KW	2420	63" x 87" x 31.5"
J80K3/6-120(120/208)	120/208	60	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J80K3/5-120(220/380)	220/380	50	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J80K3/4-120(115/200)	115/200	400	80 KVA / 64 KW	3080	63" x 87" x 31.5"
J100K3/6-120(120/208)	120/208	60	100 KVA / 80 KW	3520	63" x 87" x 31.5"
J100K3/5-120(220/380)	220/380	50	100 KVA / 80 KW	3520	63" x 87" x 31.5"
J100K3/4-120(115/200)	115/200	400	100 KVA / 80 KW	3520	63" x 87" x 31.5"

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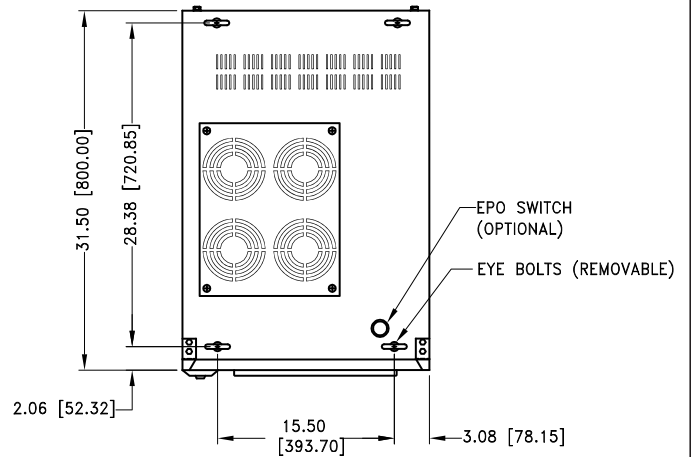
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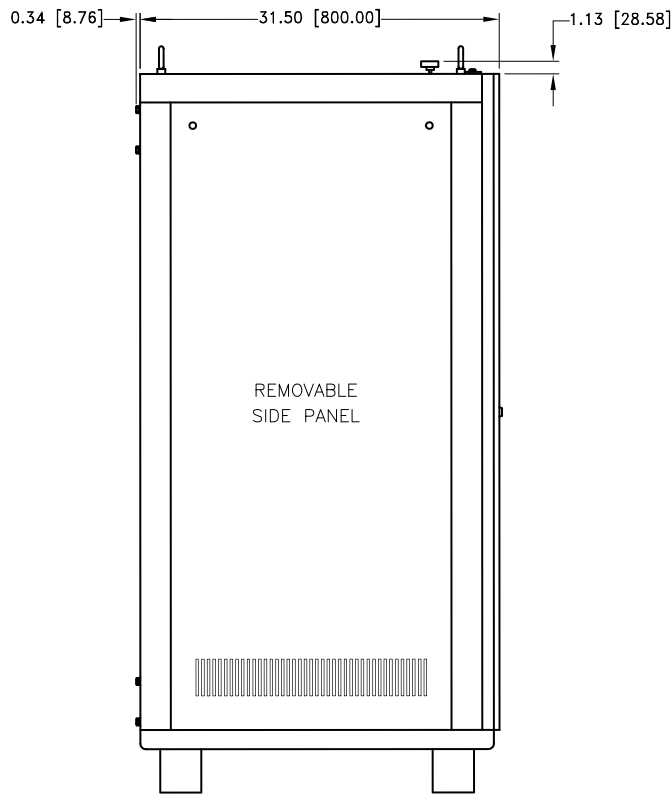
TYPICAL DIMENSION DRAWINGS (22" WIDE CABINET)



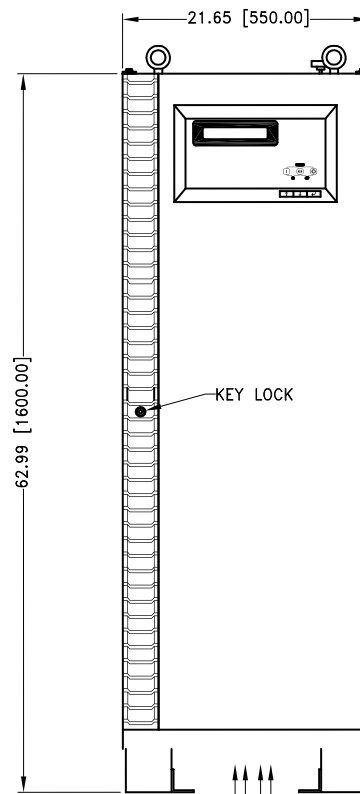
FOOT AND TIE DOWN BRACKET HOLE PATTERN



TOP VIEW



LEFT SIDE VIEW

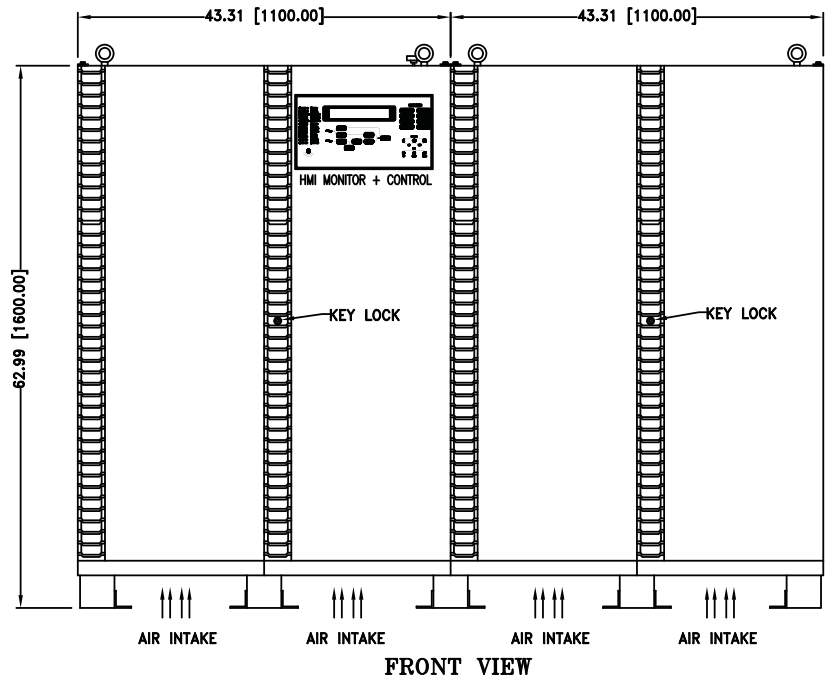
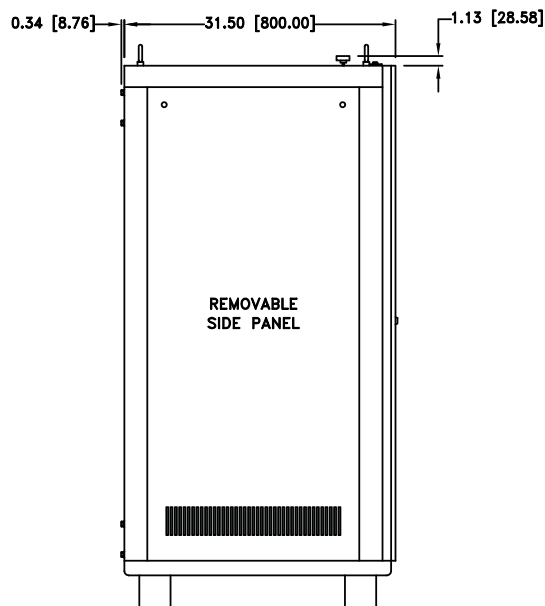
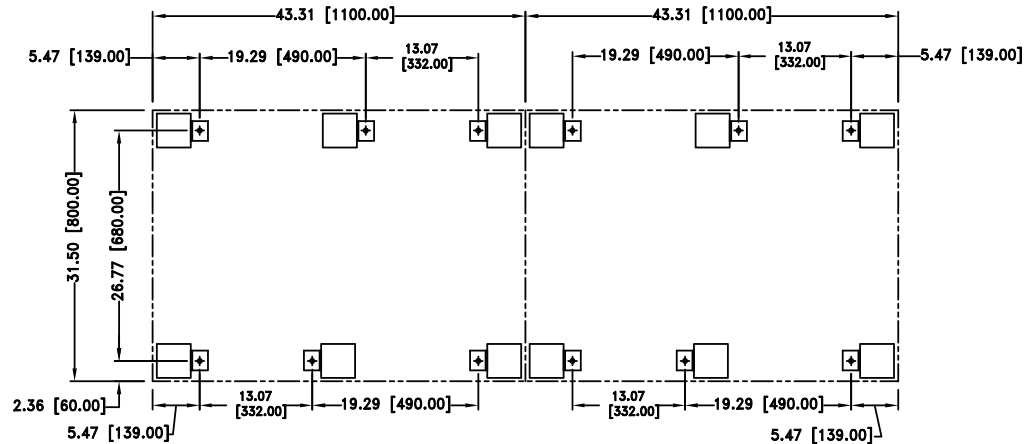
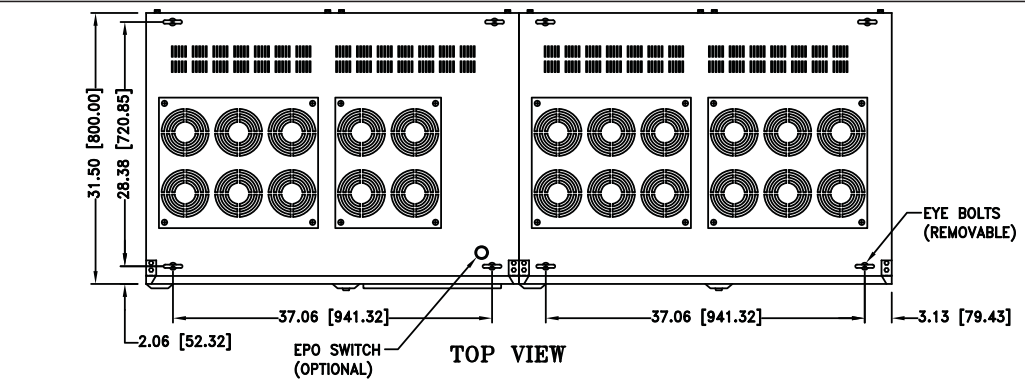


FRONT VIEW

The technical drawings provide the following dimensions and features:

- FOOT AND TIE DOWN BRACKET HOLE PATTERN:**
 - Overall width: 43.51 [1100.00]
 - Overall height: 31.50 [800.00]
 - Horizontal spacing: 5.47 [139.00], 19.29 [490.00], 13.07 [332.00]
 - Vertical spacing: 2.36 [60.00], 26.77 [680.00]
 - Bracket holes: 6x $\phi 0.54$ [$\phi 13.72$]
- TOP VIEW:**
 - Overall width: 43.51 [1100.00]
 - Overall height: 31.50 [800.00]
 - Internal width: 37.06 [941.32]
 - Internal height: 28.38 [720.85]
 - Bottom flange: 2.06 [52.32] (top), 3.13 [79.50] (bottom)
 - Features: EPO SWITCH (OPTIONAL), EYE BOLTS (REMOVABLE)
- LEFT SIDE VIEW:**
 - Overall width: 31.50 [800.00]
 - Top flange: 0.34 [8.76] (left), 1.13 [28.58] (right)
 - Feature: REMOVABLE SIDE PANEL
- FRONT VIEW:**
 - Overall width: 43.51 [1100.00]
 - Overall height: 62.99 [1600.00]
 - Key Lock location indicated
 - AIR INTAKE locations indicated at the base

TYPICAL DIMENSION DRAWINGS (87" WIDE CABINET)





RUGGED AC POWER SYSTEMS



SELECT UNITS QUALIFIED TO MIL-STD-810, MIL-S-901, MIL-STD-1399, MIL-STD-461, MIL-STD-167, MIL-STD-740, RTCA/DO-160, AND MORE

RUGGED TRUE ONLINE UPS



500 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

PURE SINEWAVE DC-AC INVERTERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

SOLID-STATE FREQUENCY CONVERTERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

POWER DISTRIBUTION UNITS (PDUs)



Basic, Switched, Auto-Transfer Switching, and Metered Configurations

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

CUSTOM EMI FILTERS



For MIL-STD-461 Compliance

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

RUGGED PORTABLE TRANSFORMERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

EXTERNAL MAINTENANCE BYPASS SWITCHES (MBSSs)



Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

CUSTOM DESIGNS



Designed & Built to Spec

Integrated AC & DC Capabilities

Multiple Outputs

RELIABLE AC POWER WHEN AND WHERE YOU NEED IT SEVERE ENVIRONMENT PRODUCTS



- AIRBORNE
- SHIPBOARD
- MOBILE
- RACK MOUNT & FREESTANDING

- 50, 60, AND 400 Hz
- AIR & WATER COOLED
- SINGLE AND THREE PHASE
- LIGHTWEIGHT DESIGNS

