

# JUPITER SERIES

## RUGGED SINGLE & THREE PHASE INVERTERS

### 120, 240 and 350 VDC Nominal Input

### Pure Sine-Wave Output

### GALVANIC ISOLATED



## APPLICATIONS

*Nova inverters are high-reliability power sources specifically designed for demanding applications in high shock, vibration, humidity, and EMI environments. They can be built to meet MIL-STD-810, MIL-STD-1399, MIL-STD-1472, MIL-STD-461, and other standards optionally.*

- Military programs, vehicular, shipboard
- AC Power from battery
- Communications
- Shelters
- Utility Applications
- Emergency Lighting

## FEATURES

- Complete input to output 'Galvanic' isolation.
- Almost silent high frequency operation
- Push button starting and stopping
- Diagnostic panel with LCD and LED display
- Soft start on inverter
- Overload and short circuit protection
- Optional solid state transfer switch built in
- Optional maintenance bypass switch built in
- Optional DC input circuit breaker
- Remote isolated dry relay contacts
- Available options to meet military specs including MIL-STD-461, MIL-STD-167, MIL-STD-810
- All electronics are built in modular front access and front removable sub assemblies for easy service and maintenance



**NOVA ELECTRIC**  
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[novasales@theallpower.com](mailto:novasales@theallpower.com)



A Leader in Inverter Technology since 1966 - 500VA-500+KVA

# JUPITER SERIES DC-AC INVERTERS

## MONITORING FEATURES

The Inverter includes an RS232 communication option called UPSCOM. This is an RS232 connection to a PC that can monitor the information related to the inverter output and any abnormal conditions that have occurred in real time. Standard commercially available software is provided. The RS232 Feature is included at no additional charge.

**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 the LCD display. The Inverter parameters, real time clock, and buzzer alarm also can be set through this LCD. The LCD is backlit by LEDs for easy visuals.

**STATUS LEDs** - A series of LEDs representing all the important status information of the Inverter provide information to the user. These LEDs are especially important when abnormal conditions occur. Since these LEDs are located behind the transparent window, the user can see them clearly without opening the door. LED descriptions are as follows:

- **INVERTER ON** – Inverter is running normally.
- **INVERTER SS** – Inverter static switch is on while the reserve static switch is opened (off).
- **SHORT CIRCUIT** – Inverter output is in short circuit state.
- **FUSE / OVERTEMP SD** – Inverter has shut down due to either open fuse open or overtemperature.
- **INVERTER FAIL SHUT DOWN** – Inverter has shut down due to low inverter AC output.
- **BYPASS ON SHUT DOWN** – Inverter shut down due closed bypass breaker (while inverter running).
- **HIGH DC SHUT DOWN** – Inverter shut down due to high DC bus.
- **OVERLOAD SHUT DOWN** – Inverter shut down due to overload of the inverter for a period greater than the inverter can accept. The inverter will start after 7 seconds.
- **70% LOAD** – load connected to the output is over 70% of the inverter rating.
- **110% LOAD** – load connected to the output is over 110% of the inverter rating.
- **125% LOAD** – load connected to the output is over 125% of the inverter rating.
- **150% LOAD** – load connected to the output is over 150% of the inverter rating.
- **RESERVE AC FAIL** – reserve AC magnitude is out of range.
- **RESERVE FREQ FAIL** – reserve frequency is out of range.
- **BATTERY LOW** - DC bus (or battery) is lower than specified range. Low battery shut down will occur soon.

**BATTERY LOW SHUT DOWN** – Inverter shut down due to DC bus (or battery) lower than the acceptable DC voltage of the inverter.

## COMMUNICATIONS OPTIONS

Some popular communications options available at additional cost include the following:

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

**UPSCALL:** This is a modem that will automatically dial out to a specified number when an abnormal situation occurs.

**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.

**HIGH DC** – DC voltage over the acceptable DC voltage of the inverter.

**EMERGENCY STOP** – Inverter shutdown activated by emergency stop switch.

**DATA LINE** – Blinks when data is transmitted to or received from the communication port.

**WARNING LEDs** – When abnormal condition occurs, these LEDs will light to warn the user of the cause of the fault condition. Therefore all these LEDs are off under normal condition. These LEDs are:

**RECT AC FAIL** – Rectifier AC input is abnormal either due to AC magnitude out of the range or phase rotation error; rectifier shut down.

**RESERVE FAIL** – Reserve AC input is abnormal either due to AC magnitude out of range or frequency out of range.

**FUSE/TEMP** - Either inverter fuse is open or over temperature has occurred.

**OVERLOAD** – Output is overloaded by over 110%, 125% or 150%

**HIGH DC** – This LED will light as long as the DC voltage is over 430VDC.

**BAT LOW** – This LED will light when the DC voltage is lower than 320VDC.

**BAT LOW STOP** – This LED will light when the DC voltage is lower than 295VDC, inverter on is inhibited.

**FAULT** – The inverter is off due to abnormal conditions such as overload, short circuit, high DC, fuse over temperature, bypass breaker on emergency stop.

**AUDIBLE ALARM** – The audible alarm will beep under one of the following conditions:

- **INVERTER IS OVERLOADED:**
  - 110% beep once every 3 seconds
  - 125% beep once every second
  - 150% beep twice every second
- **INVERTER IS SHORT CIRCUITED** – Beeps continuously
- **FUSE OPEN** – Beeps continuously
- **HEAT SINK OVER TEMPERATURE** – Beeps continuously
- **HIGH DC SHUTDOWN** – Beeps continuously
- **BYPASS ON STOP** – Beeps continuously
- **EMERGENCY ON STOP** – Beeps continuously. The buzzer will also beep once every time the inverter is switched on or off to acknowledge to the user that his key entry is valid and accepted.

## OTHER OPTIONS

**DC INPUT BREAKER OPTION** – The optional DC Input breaker disconnect is offered to provide protection for the input.

**SHOCK MOUNT OPTION** – The cabinet can be shock mounted using optional rubber or coil type isolators. This will enable the unit to withstand shock levels as specified in MIL-S-901

**RUGGEDIZING OPTION** – This option will add conformal coating and other additional internal structural members to allow the unit to meet many portions of MIL-STD-810 including shock, vibration, and humidity.

**TURN ON SERVICE OPTION** – We offer a turn on service that will ensure the Inverter 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.

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

**DRIP SHIELD OPTIONS** – This option offers protection against falling or dripping liquids.

**CUSTOMIZED EPO** – This feature can be customized to trip off current breakers or perform other inhibits depending customer needs.

# JUPITER SERIES DC-AC INVERTERS

## SPECIFICATIONS FOR JUPITER 120 VDC SINGLE & 3-PHASE INVERTER SERIES

### STANDARD PRODUCT LISTING - 120 VDC

PHASE INVERTER	DC INPUT / SINGLE OR 3-PHASE OUTPUT	
Input Frequency Range	+/- 5% (wider ranges offered, please consult factory)	
Output Voltage (VAC)	<p><b>3-Phase Models</b>                      Please Specify   120/208   220/380   230/400   240/415   277/480   120 delta   220 delta   240 delta   380 delta   480 delta</p> <p>OR</p> <p><b>Single Phase</b>                      Please Specify   120 VAC   220 VAC   240 VAC   480 VAC</p>	
Wave Form	Pure Sinewave	
Output Power Factor	0.7 lead to 0.7 lag	
Frequency Lock Range	+/- 5% (alternate ranges offered on special order)	
Output Frequency (Free Running)	Please Specify: 50 Hz or 60 Hz or 400 Hz (crystal controlled)	
Phase Shift Under 100% Unbalanced Load	<0.5% (3-Phase Models)	
THD (Linear Load)	2% typical 3% max	
Overload	<110%	Continuous
	110-125%	15 minutes
	125-150%	10 minutes
	>150%	1 minute
Efficiency (100% Load)	89 - 90%	
STATIC SWITCH	Optional	
Voltage Range	Same as AC output. (Different voltages are available upon request)	
Mains <-> Inverter	0 ms (True Online)	
Audible Noise	<65 dBA (at 1m)	
Temperature	-10°C to +50°C (Extended ranges available)	
Humidity	0%-95% (Non-condensing)	
Altitude	Up to 1500 m Above Sea Level	
EN50091-1,-2	Yes	
Short Circuit Protection	Yes	
Lightning / EMC Filter	MOV / Input & Output ( FCC CLASS A)	
Galvanic Isolation	Output True Galvanic Isolation	
LED, LCD, Audible Alarm	Yes	
Remote Control / Communication Interface	Monitoring 1~99 Units simultaneously / Dry Contact, RS-232, RS-485 (Optional)	

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

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

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

3-PHASE MODELS	OUTPUT VAC	OUTPUT FREQ (Hz)	CONTINUOUS OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (H x W x L) (INCHES)
J10K3/6-120 (120/208)	120/208	60	10KVA / 8KW	770	63x22x31.5
J10K3/5-120 (220/380)	220/380	50	10KVA / 8KW	770	63x22x31.5
J10K3/4-120 (115/200)	115/200	400	10KVA / 8KW	770	63x22x31.5
J20K3/6-120 (120/208)	120/208	60	20KVA / 16KW	880	63x22x31.5
J20K3/5-120 (220/380)	220/380	50	20KVA / 16KW	880	63x22x31.5
J20K3/4-120 (115/200)	115/200	400	20KVA / 16KW	880	63x22x31.5
J30K3/6-120 (120/208)	120/208	60	30KVA / 24KW	1650	63x43.5x31.5
J30K3/5-120 (220/380)	220/380	50	30KVA / 24KW	1650	63x43.5x31.5
J30K3/4-120 (115/200)	115/200	400	30KVA / 24KW	1650	63x43.5x31.5
J40K3/6-120(120/208)	120/208	60	40KVA / 32KW	1760	63x43.5x31.5
J40K3/5-120(220/380)	220/380	50	40KVA / 32KW	1760	63x43.5x31.5
J40K3/4-120 (115/200)	115/200	400	40KVA / 32KW	1760	63x43.5x31.5
J50K3/6-120 (120/208)	120/208	60	50KVA / 40KW	1870	63x43.5x31.5
J50K3/5-120 (220/380)	220/380	50	50KVA / 40KW	1870	63x43.5x31.5
J50K3/4-120 (115/200)	115/200	400	50KVA / 40KW	1870	63x43.5x31.5
J60K3/6-120 (120/208)	120/208	60	60KVA / 48KW	2420	63x87x31.5
J60K3/5-120 (220/380)	220/380	50	60KVA / 48KW	2420	63x87x31.5
J60K3/4-120 (115/200)	115/200	400	60KVA / 48KW	2420	63x87x31.5
J80K3/6-120 (120/208)	120/208	60	80KVA / 64KW	3080	63x87x31.5
J80K3/5-120 (220/380)	220/380	50	80KVA / 64KW	3080	63x87x31.5
J80K3/4-120 (115/200)	115/200	400	80KVA / 64KW	3080	63x22x31.5
J100K3/6-120 (120/208)	120/208	60	100KVA / 80KW	3520	63x87x31.5
J100K3/5-120 (220/380)	220/380	50	100KVA / 80KW	3520	63x87x31.5
J100K3/4-120 (115/200)	115/200	400	100KVA / 80KW	3520	63x87x31.5

\*For Input Circuit Breaker, add "B1" suffix to part number  
 For Solid State Transfer Switch, add "Y11" suffix to part number

# JUPITER SERIES DC-AC INVERTERS

## SPECIFICATIONS FOR JUPITER 240 VDC SINGLE & 3-PHASE INVERTER SERIES

## STANDARD PRODUCT LISTING - 240 VDC

PHASE INVERTER	DC INPUT / SINGLE OR 3-PHASE OUTPUT	
Input Frequency Range	+/- 5% (wider ranges offered, please consult factory)	
Output Voltage (VAC)	<p><b>3-Phase Models</b> Please Specify   120/208   220/380   230/400   240/415   277/480   120 delta   220 delta   240 delta   380 delta   480 delta</p> <p>OR</p> <p><b>Single Phase</b> Please Specify   120 VAC   220 VAC   240 VAC   480 VAC</p>	
Wave Form	Sinewave	
Output Power Factor	0.7 lead to 0.7 lag	
Frequency Lock Range	+/- 5% (alternate ranges offered on special order)	
Output Frequency (Free Running)	Please Specify: 50 Hz or 60 Hz or 400 Hz (crystal controlled)	
Phase Shift Under 100% Unbalanced Load	<0.5%	
THD (Linear Load)	2% typical 3% max	
Overload	<110%	Continuous
	110-125%	15 minutes
	125-150%	10 minutes
	>150%	1 minute
Efficiency (100% Load)	90 - 91% typical	
STATIC SWITCH	Optional	
Voltage Range	Same as AC output. (Different voltages are available upon request)	
Mains <-> Inverter	0 ms (True Online)	
Audible Noise	<65 dBA (at 1m)   <67 dBA (at 1m)	
Temperature	-10°C to +50°C (Extended ranges available)	
Humidity	0%-95% (Non-condensing)	
Altitude	Up to 1500 m Above Sea Level	
EN50091-1,-2	Yes	
Short Circuit Protection	Yes	
Lightning / EMC Filter	MOV / Input & Output ( FCC CLASS A)	
Galvanic Isolation	Input and Output True Galvanic Isolation	
LED, LCD, Audible Alarm	Yes	
Remote Control / Communication Interface	Monitoring 1~99 Units simultaneously / Dry Contact, RS-232, RS-485 (Optional)	

60HZ MODELS	OUTPUT VAC	OUTPUT FREQ.	CONTINUOUS OUTPUT POWER	WEIGHT	SIZE (H" x W" x L")
J10K60-240	120	60 Hz	10 KVA/ 8 KW	638Lbs.	63 x 22 x 31.5
J20K60-240	120	60 Hz	20 KVA/ 16 KW	770Lbs.	63 x 22 x 31.5
J30K60-240	120	60 Hz	30 KVA/ 24 KW	990Lbs.	63 x 22 x 31.5
J40K60-240	120	60 Hz	40 KVA/ 32 KW	1210Lbs.	63 x 22 x 31.5
J50K60-240	120	60 Hz	50 KVA/ 40 KW	1650Lbs.	63 x 43.5 x 31.5
J60K60-240	120	60 Hz	60 KVA/ 48 KW	1870Lbs.	63 x 43.5 x 31.5
J80K60-240	120	60 Hz	80 KVA/ 64 KW	2090Lbs.	63 x 87 x 31.5
J100K60-240	120	60 Hz	100 KVA/ 80 KW	2420Lbs.	63 x 87 x 31.5
J120K60-240	120	60 Hz	120 KVA/ 96 KW	3300Lbs.	63 x 87 x 31.5
J160K60-240	120	60 Hz	160 KVA/ 128 KW	3960Lbs.	63 x 87 x 31.5
J200K60-240	120	60 Hz	200 KVA/ 160 KW	4840Lbs.	63 x 87 x 31.5

50 HZ MODELS	OUTPUT VAC	OUTPUT FREQ.	CONTINUOUS OUTPUT POWER	WEIGHT	SIZE (H" x W" x L")
J10K50-240(220)	220	50Hz	10 KVA/ 8 KW	638Lbs.	63 x 22 x 31.5
J20K50-240(220)	220	50Hz	20 KVA/ 16 KW	770Lbs.	63 x 22 x 31.5
J30K50-240(220)	220	50Hz	30 KVA/ 24 KW	990Lbs.	63 x 22 x 31.5
J40K50-240(220)	220	50Hz	40 KVA/ 32 KW	1210Lbs.	63 x 22 x 31.5
J50K50-240(220)	220	50Hz	50 KVA/ 40 KW	1650Lbs.	63 x 43.5 x 31.5
J60K50-240(220)	220	50Hz	60 KVA/ 48 KW	1870Lbs.	63 x 43.5 x 31.5
J80K50-240(220)	220	50Hz	80 KVA/ 64 KW	2090Lbs.	63 x 43.5 x 31.5
J100K50-240(220)	220	50Hz	100 KVA/ 80 KW	2420Lbs.	63 x 43.5 x 31.5
J120K50-240(220)	220	50Hz	120 KVA/ 96 KW	3300Lbs.	63 x 87 x 31.5
J160K50-240(220)	220	50Hz	160KVA/ 128 KW	3960Lbs.	63 x 87 x 31.5
J200K50-240(220)	220	50Hz	200 KVA/ 160 KW	4840Lbs.	63 x 87 x 31.5

400HZ MODELS	OUTPUT VAC	OUTPUT FREQ.	CONTINUOUS OUTPUT POWER	WEIGHT	SIZE (H" x W" x L")
J10K400-240	115	400Hz	10 KVA/ 8 KW	638Lbs.	63 x 22 x 31.5
J20K400-240	115	400Hz	20 KVA/ 16 KW	770Lbs.	63 x 22 x 31.5
J30K400-240	115	400Hz	30 KVA/ 24 KW	990Lbs.	63 x 22 x 31.5
J40K400-240	115	400Hz	40 KVA/ 32 KW	1210Lbs.	63 x 22 x 31.5
J50K400-240	115	400Hz	50 KVA/ 40 KW	1650Lbs.	63 x 43.5 x 31.5
J60K400-240	115	400Hz	60 KVA/ 48 KW	1870Lbs.	63 x 43.5 x 31.5
J80K400-240	115	400Hz	80 KVA/ 64 KW	2090Lbs.	63 x 43.5 x 31.5
J100K400-240	115	400Hz	100 KVA/ 80 KW	2420Lbs.	63 x 43.5 x 31.5
J120K400-240	115	400Hz	120 KVA/ 96 KW	3300Lbs.	63 x 87 x 31.5
J160K400-240	115	400Hz	160KVA/ 128 KW	3960Lbs.	63 x 87 x 31.5
J200K400-240	115	400Hz	200 KVA/ 160 KW	4840Lbs.	63 x 87 x 31.5

3-PHASE MODELS*	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONTINUOUS OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (H x W x D) (INCHES)
J10K3/6-240(120/208)	120/208	60	10KVA	638	63x22x31.5
J10K3/5-240(220/380)	220/380	50	10KVA	638	63x22x31.5
J20K3/6-240(120/208)	120/208	60	20KVA	770	63x22x31.5
J20K3/5-240(220/380)	220/380	60	20KVA	770	63x22x31.5
J30K3/6-240(120/208)	120/208	60	30KVA	990	63x22x31.5
J30K3/5-240(220/380)	220/380	50	30KVA	990	63x22x31.5
J40K3/6-240(120/208)	120/208	60	40KVA	1210	63x22x31.5
J40K3/5-240(220/380)	220/380	50	40KVA	1210	63x22x31.5
J50K3/6-240(120/208)	120/208	60	50KVA	1650	63x44x31.5
J50K3/5-240(220/380)	220/380	50	50KVA	1650	63x44x31.5
J60K3/6-240(120/208)	120/208	60	60KVA	1870	63x43.5x31.5
J60K3/5-240(220/380)	220/380	50	60KVA	1870	63x43.5x31.5
J80K3/6-240(120/208)	120/208	60	80KVA	2090	63x43.5x31.5
J80K3/5-240(220/380)	220/380	50	80KVA	2090	63x43.5x31.5
J100K3/6-240(120/208)	120/208	60	100KVA	2420	63x43.5x31.5
J100K3/5-240(220/380)	220/380	50	100KVA	2420	63x43.5x31.5
J120K3/6-240(120/208)	120/208	60	120KVA	3300	63x87x31.5
J120K3/5-240(220/380)	220/380	50	120KVA	3300	63x87x31.5
J160K3/6-240(120/208)	120/208	60	160KVA	3960	63x87x31.5
J160K3/5-240(220/380)	220/380	50	160KVA	3960	63x87x31.5
J200K3/6-240(120/208)	120/208	60	200KVA	4840	63x87x31.5
J200K3/5-240(220/380)	220/380	50	200KVA	4840	63x87x31.5

# JUPITER SERIES DC-AC INVERTERS

## SPECIFICATIONS FOR JUPITER 350 VDC SINGLE & 3-PHASE INVERTER SERIES

## STANDARD PRODUCT LISTING - 350 VDC

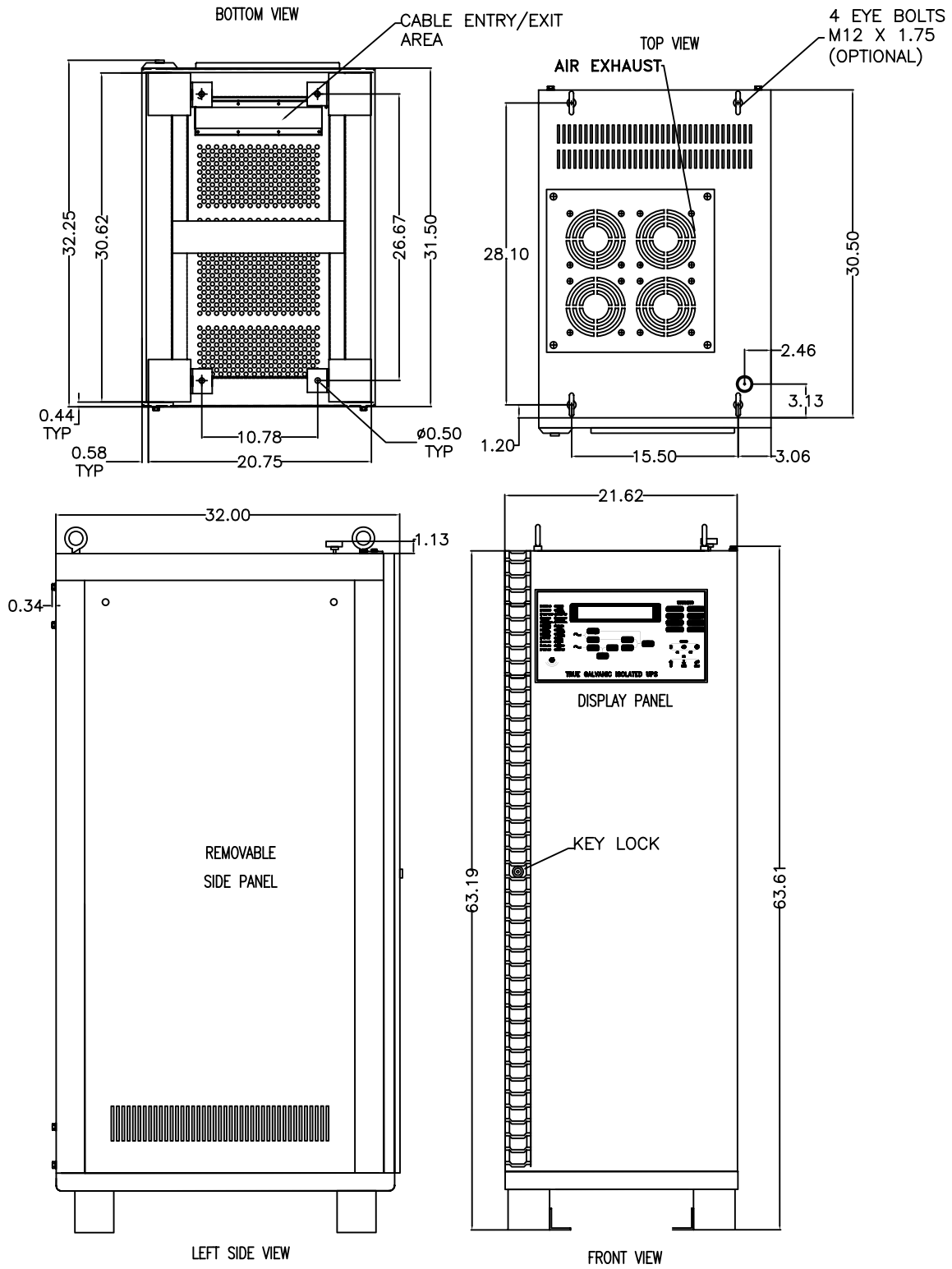
PHASE INVERTER		DC INPUT / SINGLE OR 3-PHASE OUTPUT	
Input Frequency Range		+/- 5% (wider ranges offered, please consult factory)	
Output Voltage (VAC)		<b>3-Phase Models</b> Please Specify   120/208   220/380   230/400   240/415   277/480   120 delta   220 delta   240 delta   380 delta   480 delta OR <b>Single Phase</b> Please Specify   120 VAC   220 VAC   240 VAC   480 VAC	
Wave Form		Sinewave	
Output Power Factor		0.7 lead to 0.7 lag	
Frequency Lock Range		+/- 5% (alternate ranges offered on special order)	
Output Frequency (Free Running)		Please Specify: 50 Hz or 60 Hz or 400 Hz (crystal controlled)	
Phase Shift Under 100% Unbalanced Load		<0.5%	
THD (Linear Load)		2% typical 3% max	
Overload	<110%	Continuous	
	110-125%	15 minutes	
	125-150%	10 minutes	
	>150%	1 minute	
Efficiency (100% Load)		90 - 91% typical	
STATIC SWITCH		Optional	
Voltage Range		Same as AC output. (Different voltages are available upon request)	
Mains <-> Inverter		0ms (True Online)	
Audible Noise		<65 dBA (at 1m)	<67 dBA (at 1m)
Temperature		0-50°C (32-122°F) (Other ranges available)	
Humidity		0%-95% (Non-condensing)	
Altitude		Up to 1500m Above Sea Level	
EN50091-1,-2		Yes	
Short Circuit Protection		Yes	
Lightning / EMC Filter		MOV / Input & Output ( FCC CLASS A)	
Galvanic Isolation		Input and Output True Galvanic Isolation	
LED, LCD, Audible Alarm		Yes	
Remote Control / Communication Interface		Monitoring 1~99 Units simultaneously / Dry Contact, RS-232, RS-485 (Optional)	

3-PHASE MODELS*	OUTPUT VAC	OUTPUT FREQ (Hz)	CONTINUOUS OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (H x W x D) (INCHES)
J10K3/5-350(220/380)	220/380	50	10KVA	660	63x22x31.5
J10K3/6-350(120/208)	120/208	60	10KVA	640	63x22x31.5
J10K3/4-350(115/200)	115/200	400	10KVA	640	63x22x31.5
J20K3/5-350(220/380)	220/380	50	20KVA	790	63x22x31.5
J20K3/6-350(120/208)	120/208	60	20KVA	770	63x22x31.5
J20K3/4-350(115/200)	115/200	400	20KVA	770	63x22x31.5
J30K3/5-350(220/380)	220/380	50	30KVA	1010	63x22x31.5
J30K3/6-350(120/208)	120/208	60	30KVA	990	63x22x31.5
J30K3/4-350(115/200)	115/200	400	30KVA	990	63x22x31.5
J40K3/5-350(220/380)	220/380	50	40KVA	1230	63x22x31.5
J40K3/6-350(120/208)	120/208	60	40KVA	1210	63x22x31.5
J40K3/4-350(115/200)	115/200	400	40KVA	1210	63x22x31.5
J50K3/5-350(220/380)	220/380	50	50KVA	1580	63x22x31.5
J50K3/6-350(120/208)	120/208	60	50KVA	1540	63x22x31.5
J50K3/4-350(115/200)	115/200	400	50KVA	1540	63x22x31.5
J60K3/5-350(220/380)	220/380	50	60KVA	1800	63x22x31.5
J60K3/6-350(120/208)	120/208	60	60KVA	1760	63x22x31.5
J60K3/4-350(115/200)	115/200	400	60KVA	1760	63x22x31.5
J80K3/5-350(220/380)	220/380	50	80KVA	2040	63x43.5x31.5
J80K3/6-350(120/208)	120/208	60	80KVA	1980	63x43.5x31.5
J80K3/4-350(115/200)	115/200	400	80KVA	1980	63x43.5x31.5
J100K3/5-350(220/380)	220/380	50	100KVA	2490	63x43.5x31.5
J100K3/6-350(120/208)	120/208	60	100KVA	2420	63x43.5x31.5
J100K3/4-350(115/200)	115/200	400	100KVA	2420	63x43.5x31.5
J120K3/5-350(220/380)	220/380	50	120KVA	3410	63x43.5x31.5
J120K3/6-350(120/208)	120/208	60	120KVA	3300	63x43.5x31.5
J120K3/4-350(115/200)	115/200	400	120KVA	3300	63x43.5x31.5
J160K3/5-350(220/380)	220/380	50	160KVA	4100	63x43.5x31.5
J160K3/6-350(120/208)	120/208	60	160KVA	3960	63x43.5x31.5
J160K3/4-350(115/200)	115/200	400	160KVA	3960	63x43.5x31.5
J200K3/5-350(220/380)	220/380	50	200KVA	4900	63x87x31.5
J200K3/6-350(120/208)	120/208	60	200KVA	4840	63x87x31.5
J200K3/4-350(115/200)	115/200	400	200KVA	4840	63x87x31.5
J240K3/5-350(220/380)	220/380	50	240KVA	5760	63x87x31.5
J240K3/6-350(120/208)	120/208	60	240KVA	5760	63x87x31.5
J240K3/4-350(115/200)	115/200	400	240KVA	5760	63x87x31.5
J300K3/5-350(220/380)	220/380	50	300KVA	6160	63x87x31.5
J300K3/6-350(120/208)	120/208	60	300KVA	6160	63x87x31.5
J300K3/4-350(115/200)	115/200	400	300KVA	6160	63x87x31.5
J320K3/5-350(220/380)	220/380	50	320KVA	6510	63x87x31.5
J320K3/6-350(120/208)	120/208	60	320KVA	6510	63x87x31.5
J320K3/4-350(115/200)	115/200	400	320KVA	6510	63x87x31.5

\*For Input Circuit Breaker, add "B1" suffix to part number  
 For Solid State Transfer Switch, add "Y11" suffix to part number

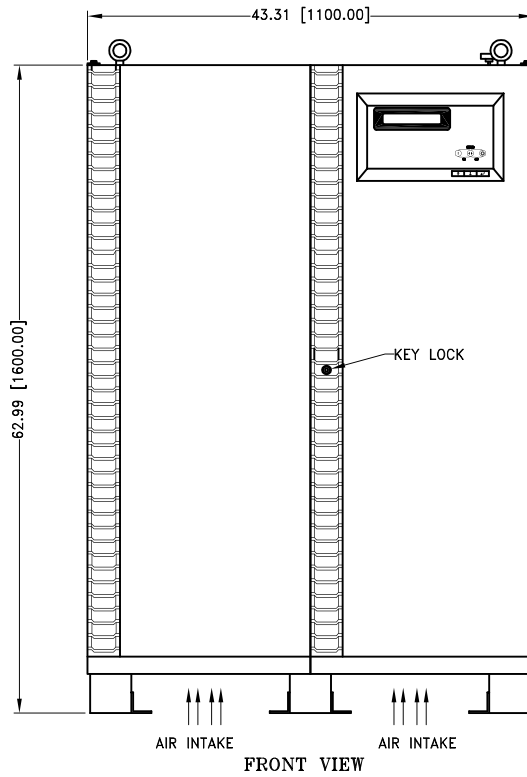
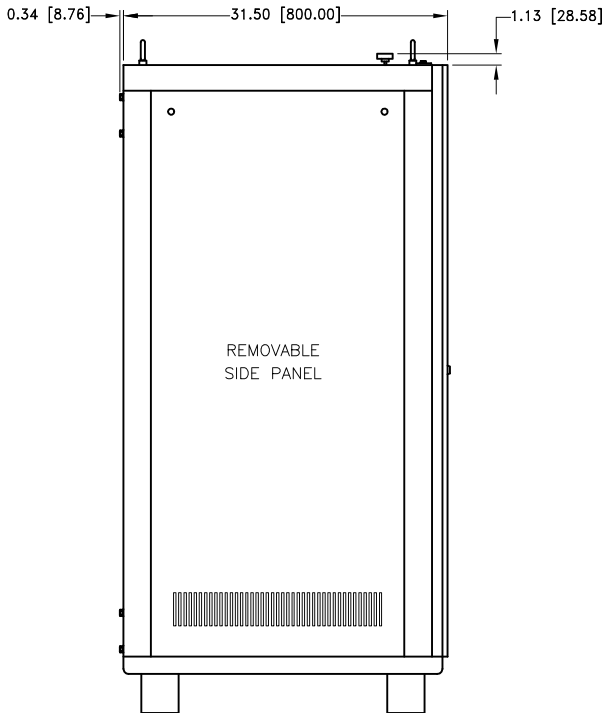
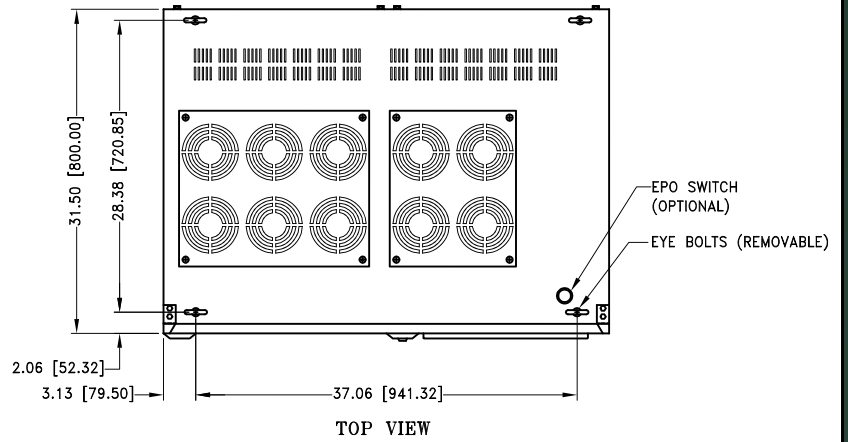
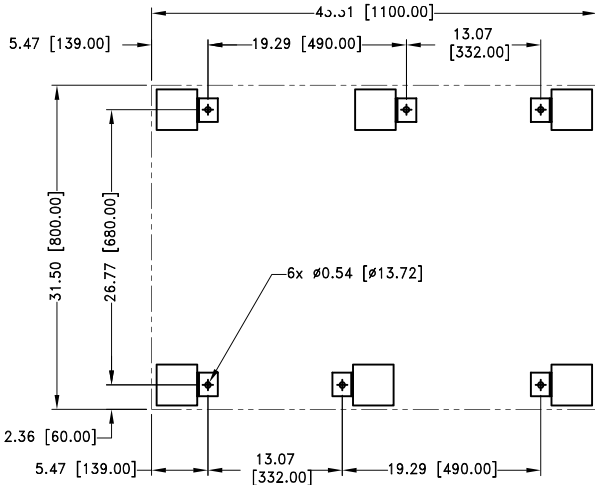
# JUPITER SERIES DC-AC INVERTERS

## TYPICAL DIMENSION DRAWINGS (22" WIDE)



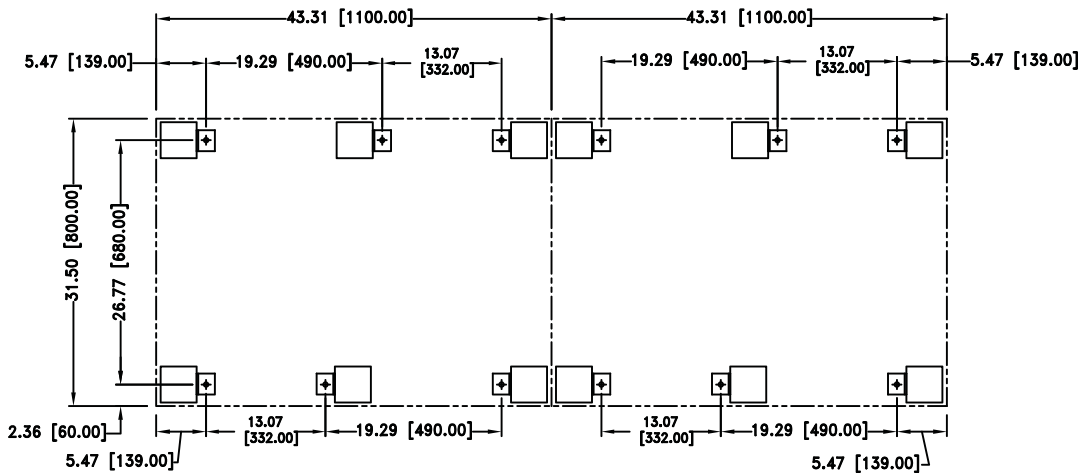
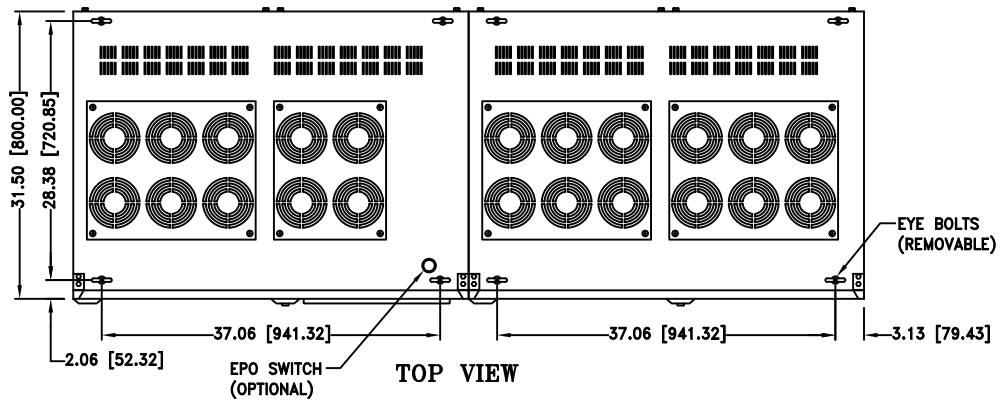
# JUPITER SERIES DC-AC INVERTERS

## TYPICAL DIMENSION DRAWINGS (43.5" WIDE)

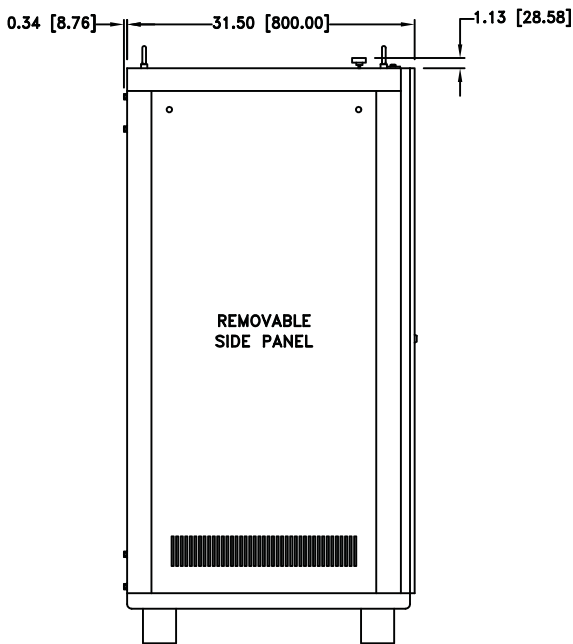


# JUPITER SERIES DC-AC INVERTERS

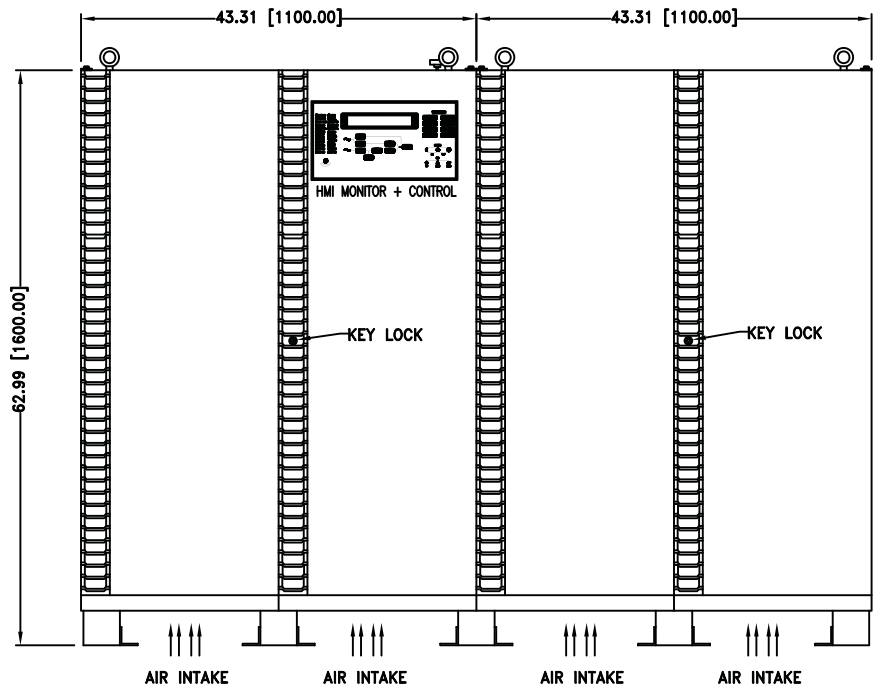
## TYPICAL DIMENSION DRAWINGS (87" WIDE)



FOOT AND TIE DOWN BRACKET HOLE PATTERN



LEFT SIDE VIEW



FRONT VIEW



# JUPITER SERIES DC-AC INVERTERS

## RELIABILITY AND SERVICEABILITY (MTBF & MTTR)

Reliability is a feature that is designed and integrated into every piece of equipment that carries the Nova Electric name. This is accomplished by utilizing state of the art circuitry which substantially reduces the total number of components (especially heat producing components). The result is greater efficiency, high reliability and low cost.

A study of installed units has indicated an MTBF of over 100,000 hours! MTBF figures are based upon ground fixed normal 25-degree ambient temperature and proper and preventive maintenance.

The MTTR for all items offered is approximately 30 minutes. Part of the maintenance and repair philosophy of the units is to use the BIT equipment to aid in fault isolation. At that point, a decision is made to either replace an LRU or a component within the power supply with a spare. The construction methods used throughout the JUPITER Series provide for user friendly service. All circuit boards are plug in and are easily accessed from the front of the system. Power modules are designed on slide out trays for easy access to all power semiconductors and similar power components. The MTTR value specified is based upon proper training of local maintenance technicians and engineers.

## QUALITY CONTROL

Nova Electric operates under a program of Continuous Quality Improvement (CQI) as evidenced by its ISO-9001 Quality Management Systems Standard Certification and decades of compliance to formal Quality Control systems and procedures that remain in compliance with MIL-I-45208A inspection and MIL-STD-45662A calibration requirements. ISO registration was granted in 1997 by Underwriters Laboratories (UL) after first assessment. Operators are certified to J-STD-001A and IPC-A-610B Class 2 (formerly MIL-STD-2000) for soldered assemblies. Instructors certified by the DOD to MIL-STD-2000 Category C are on staff. Our COTS products benefit from the same rigorous QC procedures as original developed for our military customers.

Copies of our current ISO Certificate and Factory Quality Control Manual are available upon request.

## MILITARY AND RUGGED COMMERCIAL (COTS) DESIGNS

All of Nova Electric's products feature robust construction quality and rugged designs. They are suitable for demanding military, industrial, and commercial applications. Most products can be equipped to meet MIL-STD-461, MIL-STD-810, MIL-S-901, MIL-STD-167, MIL-STD-1399, MIL-STD-1472, and other important specifications as required. Please consult the factory about your specific application.

## GOVERNMENT QUALITY ASSURANCE

Our Quality Assurance Department will be glad to work with the designated Government Quality Assurance Representative (GQAR) on government or military projects.

## WARRANTY

*All Nova Electric products are warranted against defects in material and workmanship for a period of one year from shipping date. Our obligation includes replacing, repairing, or adjusting products (excluding fuses) that prove to be defective during the warranty period. This warranty is fully transferable. If a product is sold to a manufacturer for use in a product for resale, the complete warranty is in force, providing the power system is sold as original equipment. Nova Electric assumes no liabilities for consequential damages of any kind through the use of misuse of its products by the purchaser or others. No other obligations are expressed or implied. Batteries used with or contained within Uninterruptible Power Supply Systems are sold with a "pass-along" battery warranty from the battery manufacturer. On site warranty repair is available at extra cost to cover the cost of travel to the work location. Extended warranties are also available - please consult the factory for details.*

