



NSF-ISR
Registered
to ISO 9001

GALAXY SERIES RUGGED THREE-PHASE 3-8 KW TRUE ONLINE UPS

• MIL-STD Construction

• Compact Rack Mount Chassis

• Transfer Switch Available



These units are suitable for applications such as:

- *Military Shelters*
- *Ground Support*
- *Mobile Systems*
- *Tactical Systems*
- *Shipboard Applications*
- *Airborne Applications*
- *Military Ground Vehicles*
- *Communications Systems*



GALAXY SERIES RUGGED THREE-PHASE 3-8 KW TRUE ONLINE UPS

GENERAL OVERVIEW

Nova's Galaxy-Series Rugged Three-Phase True Online UPS Systems 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-S-901, MIL-STD-1472, MIL-STD-461, MIL-STD-167 and other standards optionally. These models utilize most durable componentry, offering maximum field-proven reliability for severe environment and high reliability applications.

SPECIFICATIONS

Electrical

INPUT VOLTAGE (SELECT)	120/208 VAC, 220/380 VAC, or 277/480 VAC ±10%
OUTPUT VOLTAGE (SELECT)	120/208 VAC, 220/380 VAC, or 277/480 VAC
FREQUENCY	50 Hz, 60 Hz, 400 Hz, 50/60 Hz Available
VOLTAGE REGULATION	±2% No Load to Full Load
DYNAMIC VOLTAGE REGULATION	±10% for 100% Load Change
FREQUENCY REGULATION	±0.5% No Load to Full Load (Free Running)
DISTORTION	Less than 5% T.H.D.
POWER FACTOR	0.7 Lead to 0.7 Lag
HARMONIC DISTORTION	5% THD
EFFICIENCY AT FULL LOAD	75% to 80% AC-AC Typical
SYNC & PHASE LOCK RANGE*	±3 Hz Typical <small>*SYNC Disabled on Certain Models</small>
EFFICIENCY	Approximately 80% Input-to-Output at Full Load (Typical)
POWER FACTOR	0.75 Lead to 0.75 Lag
COOLING	Forced Air (Rear Exhaust)
CONNECTIONS	MS Connectors Standard – Mates Optional
OVERLOAD	125% for 10 minutes 1000% for One Cycle (Via Optional Static Transfer Switch)
MTBF	30,000 Hours per MIL-HDBC-217
MTTR	30 Minutes per Qualified Personnel

Environmental

AMBIENT OPERATING TEMPERATURE RANGE	-20° to +50° C*
UPS STORAGE TEMPERATURE	-40° to +71°C
BATTERY STORAGE TEMPERATURE	up to -40° to +80°C Available*
HUMIDITY	Designed to Meet MIL-STD-810 to 95% RH Non-Condensing. All Boards Conformal Coated with Acrylic MIL-I-46058 Type R.
SHOCK	Designed to Meet MIL-STD-810 to 20g, 11 mS Half Sinewave
EMI	Designed to Meet FCC Part 15, Class A. Can Meet MIL-STD-461 with Optional Additional Filtering.
ELEVATION	Operating**: 15,000 Ft. (4,572 m) Non-Operating**: 40,000 Ft. (12,192 m)
AUDIBLE NOISE	Less than 55 dBA at 5 ft. (1.5 m)
TRANSPORTATION AND HANDLING	MIL-STD-810

*For best results, batteries must be kept at 25 degrees Celsius ambient temperature. Extreme low temperatures will result in reduced run time, while extreme high temperatures result in significantly reduced battery lifespan.

**For batteries, please follow battery manufacturer instructions regarding recommended elevation parameters.

Dimensions & Weight

3-8 KVA UPS DRAWER DIMENSIONS	10.5" High x 19" Wide x 24" Deep (Typical)
EXTERNAL BATTERY DRAWER DIMENSIONS	7" High x 19" Wide x 24" Deep (Typical)
EXTERNAL BATTERY DRAWER WEIGHT	200 Pounds (Typical for Standard VRLA Batteries)

Protective Features

AC & DC INPUT CIRCUIT BREAKERS
LOW BATTERY SHUT OFF
OVERLOAD & THERMAL PROTECTED
INPUT UNDER / OVERVOLTAGE PROTECTED
AUDIBLE ALARM WITH SILENCE SWITCH

Standard Front Panel Diagnostics

SYSTEM STATUS	Green/Red
UTILITY OFF	Red
UPS OFF	Red
LOW BATTERY	Red
LOGIC FAULT	Red
UPS OVERLOAD	Red
OVER-TEMPERATURE	Red
LOAD ON UTILITY	Red
AC & DC VOLTAGE	Meter





NOVA ELECTRIC



POPULAR OPTIONS

- External Solid State Transfer Switch (5.25" High x 19" Wide x 17" Deep)
- Premium 10 Year Life Wide Temperature Range Batteries
- RS232 or SNMP
- Power Distribution Units
- MS Connector Mates and Multiple Output Outlets
- Chassis Slide Guides
- Custom Enclosures
- Additional Run Time via External Batteries
- Internal Lithium Iron Phosphate Batteries for Substantial Weight Savings and Longer Runtime, Including Embedded Battery Management System
- CAD Free Connectors
- Non-PVC Wiring
- High IP Protection for Front / Rear Panels
- AUX DC Outputs
- Environmental Stress Screening Services

CONTACT

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PARTIAL MODEL SELECTION

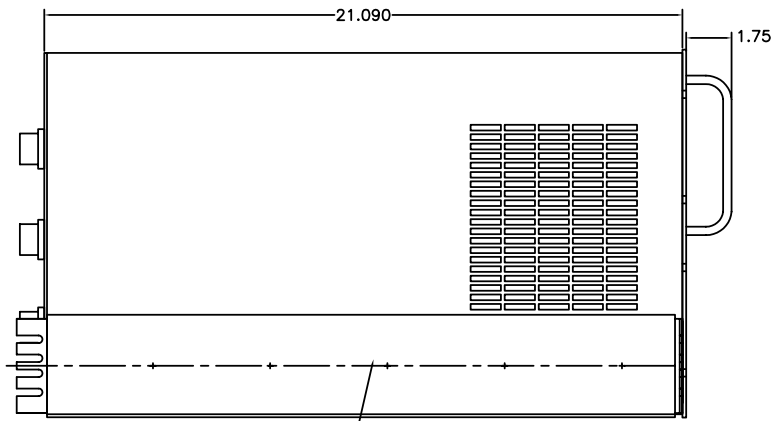
MODEL	KVA	INPUT	OUTPUT	UPS LBS
GRSL11-3K3/6-120/208-120/208	3	120/208 VAC 60Hz	120/208VAC 60Hz	165
GRSL11-3K3/5-220/380-220/380	3	220/380VAC 50Hz	220/380VAC 50Hz	165
GRSL11-3K3/4-115/200-115/200	3	115/200VAC 400Hz	115/200VAC 400Hz	165
GRSL11-5K3/6-120/208-120/208	5	120/208 VAC 60Hz	120/208 VAC 60Hz	175
GRSL11-5K3/5-220/380-220/380	5	220/380VAC 50Hz	220/380VAC 50Hz	175
GRSL11-5K3/4-115/200-115/200	5	115/200VAC 400Hz	115/200VAC 400Hz	175
GRSL11-8K3/6-120/208-120/208	8	120/208 VAC 60Hz	120/208 VAC 60Hz	185
GRSL11-8K3/5-220/380-220/380	8	220/380VAC 50Hz	220/380VAC 50Hz	185
GRSL11-8K3/4-115/200-115/200	8	115/200VAC 400Hz	115/200VAC 400Hz	185

Front Panel



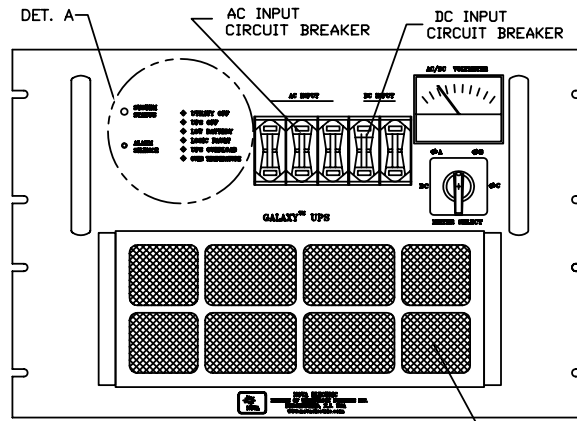
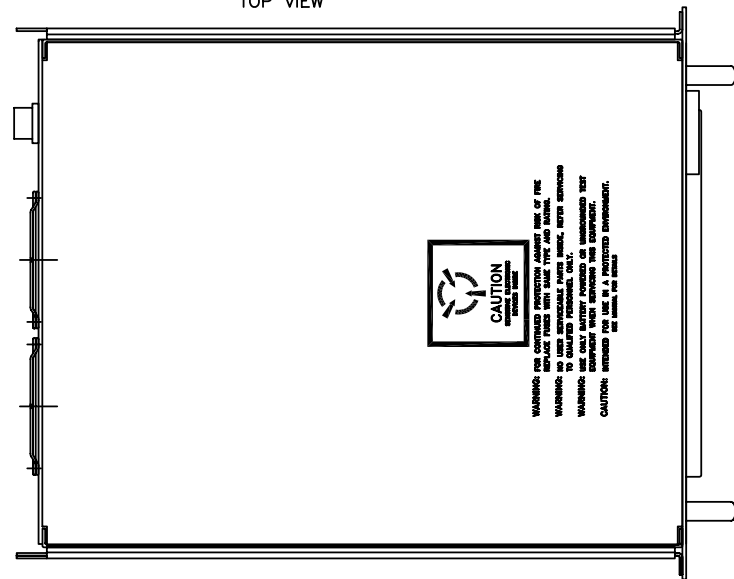
Rear Panel





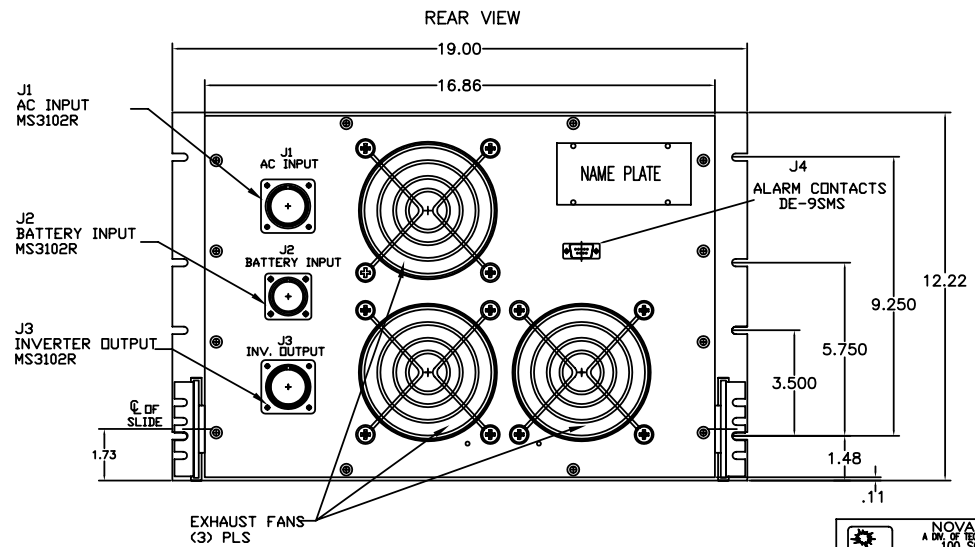
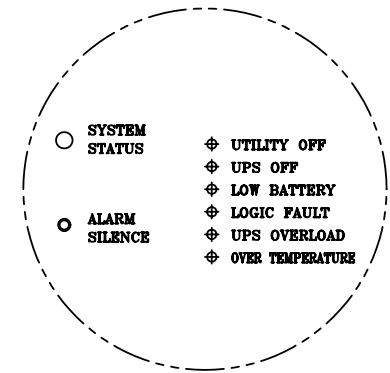
CHASSIS SLIDE (BOTH SIDES)
GENERAL DEVICE P/N: CTHRS-122

TOP VIEW



REVISIONS				
LR	DESCRIPTION	BY	APP	DATE

DET. A (SCALE 2.5 TO 1)

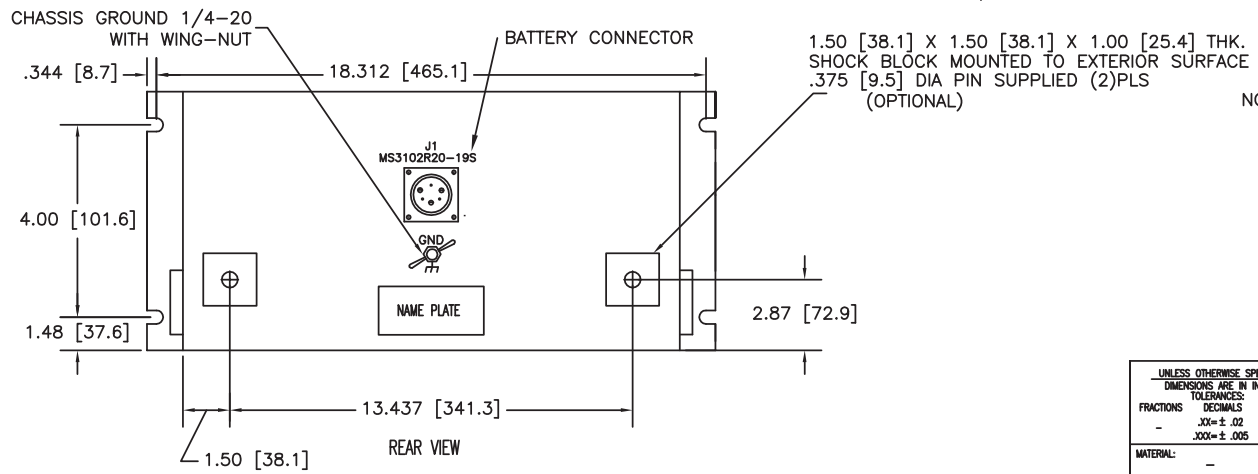
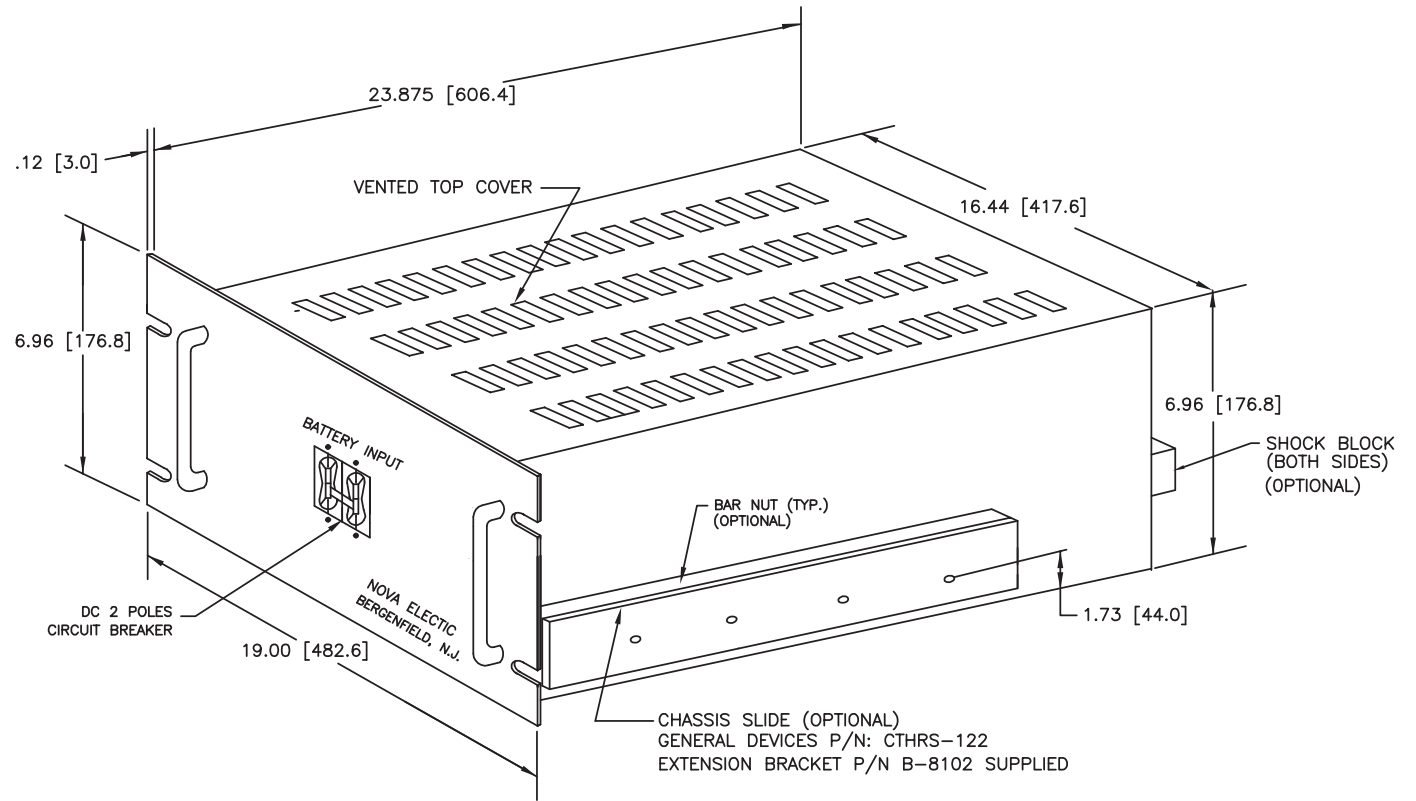


- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
 2. EXTERIOR COLOR ANSI #61 GRAY SEMI-GLOSS.


	NOVA ELECTRIC A DIV. OF TECHNOLOGY FORMS INC. 100 SCHOOL STREET BERGENFIELD, N.J. 07621-2915
	TITLE:
	TYPICAL GALAXY THREE PHASE UPS
	980873-NET
HTTP://WWW.NOVAELECTRIC.COM	



REVISIONS				
SYM	DESCRIPTION	BY	APP	DATE
A	ADDED METRIC DIMENSIONS	RL	BT	1/06/15



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES AND MILLIMETERS [mm].
 2. EXTERIOR ANSI# 61 GRAY SEMI-GLOSS
 3. AIR INTAKE HOLES ON CHASSIS BOTTOM.
 4. HANDLES PROJECT 1.50 INCHES FROM PANEL SURFACE.
 5. APPROXIMATE WEIGHT: 250 LBS.
 6. BATTERY TYPE: 12V, 17AH/20HR SEALED MAINTENANCE-FREE, RECHARGABLE--QTY 16.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONS DECIMALS ANGLES - .001 ± .02 ± 1° - .000 ± .005		THIS DRAWING CONTAINS PROPRIETARY INFORMATION AND MAY NOT BE REPRO- DUCED WITHOUT THE PER- MISSION OF NOVA ELECTRIC.		 NOVA ELECTRIC A DIV. OF TECHNOLOGY DYNAMICS INC. 100 SCHOOL STREET BERGENFIELD, N.J. 07621-2915	
MATERIAL: -	DATE: 10/23/03	TITLE: BATTERY PACK PCBK-192			
FINISH: -	DATE: 10/23/03	SIZE: A	890913		REV. A
HTTP://WWW.NOVAELECTRIC.COM		SCALE: 1/1	CAGE: 29019	SHEET 1 OF 1	





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

