



NOVA ELECTRIC



STANDARD FEATURES

- Microprocessor Based Design With Absolutely Accurate & Stable Frequency
- Compact & Light Weight, Yet Rugged & Vehicle Rated
- Tightly Regulated Output Voltage & Frequency
- Switch Selectable 50 or 60 Hz Output, All Models
- Capable Of Driving Highly Reactive Loads Such As Electric Tools & Appliances
- Capable Of Driving Highly Capacitive Loads Such As Switching Power Supplies
- Three Color LED Status Indicator
- Suitable For Vehicle or Wall Mounting
- Standard Outputs 110V/60Hz, 230V/50Hz
- Switch Selectable $\pm 10V$ Output Change
- UL / e-13 / CE / FCC Approved
- Temperature & Load Controlled Cooling Fan

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA

(201) 385-0500

novaelectric.com
info@novaelectric.com



CGP Series 1 KW Pure Sinewave COTS Inverters

- INPUT & OUTPUT FULLY ISOLATED
- OUTPUT PROTECTION: SHORT CIRCUIT/ OVERLOAD/OVER TEMPERATURE
- OUTPUT FREQUENCY 50/60 HZ SELECTABLE BY DIP SWITCH



- 1000W / 1000VA
- 12 V, 24 V, 48 V INPUT
- SIX MODELS FOR 110V 50/60 HZ & 220V 50/60 HZ OUTPUT



GENERAL OVERVIEW

Nova Electric's CGP-Series pure sine wave inverter are intended for commercial and industrial applications wherever pure sinewave power is needed at 50 or 60 Hz. These inverters are ideal for running electronic load such as computers, monitors, printers, telecom systems, radios, fluorescent lamps from batteries, field generators, and solar electro-voltaic panels. They can also drive hand drills, motors and small compressors – please consult the factory for proper sizing. These CGP models can also be optionally ruggedized against shock, vibration, and humidity for military applications including vehicle mounted, shipboard, submarine, aircraft, and ground fixed shelters.

- Input & Output Fully Isolated
- Output Protection: Short Circuit / Overload / Overtemperature
- Output Frequency 50/60 Hz Selectable By Dip Switch

Applications:

- Computers
- Printers
- Monitors
- Sail Boats
- Photo Voltaic
- Electric Tools
- Appliances
- Instruments
- RVs

The Leader In Rugged Power Conversion Technology Since 1966

Some optional equipment shown. Specifications subject to change without notice.

Rev A-October-22-2020



NOVA ELECTRIC



STANDARD FEATURES

- Microprocessor Based Design With Absolutely Accurate & Stable Frequency
- Compact & Light Weight, Yet Rugged & Vehicle Rated
- Tightly Regulated Output Voltage & Frequency
- Switch Selectable 50 or 60 Hz Output, All Models
- Capable Of Driving Highly Reactive Loads Such As Electric Tools & Appliances
- Capable Of Driving Highly Capacitive Loads Such As Switching Power Supplies
- Three Color LED Status Indicator
- Suitable For Vehicle or Wall Mounting
- Standard Outputs 110V/60Hz, 230V/50Hz
- Switch Selectable $\pm 10V$ Output Change
- UL / e-13 / CE / FCC Approved
- Temperature & Load Controlled Cooling Fan

CONTACT

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



SPECIFICATIONS

Electrical

INPUT VOLTAGE	See Table
OUTPUT VOLTAGE 110V MODEL	100/110/115/120 VAC
OUTPUT VOLTAGE 220V MODEL	200/220/230/240 VAC
OUTPUT FREQUENCY	50 or 60 HZ $\pm 0.5\%$ Accuracy
CONTINUOUS POWER RATING	1000W/1000VA
SURGE RATING	<1750VA (1 Second)
EFFICIENCY 110V MODEL (FULL LOAD)	92% – 93%
EFFICIENCY 220V MODEL (FULL LOAD)	91% – 94%
OUTPUT WAVEFORM SINEWAVE	<5% THD (120V)*
OUTPUT WAVEFORM SINEWAVE	<3% THD (220V)**
OUTPUT VOLTAGE REGULATION	$\pm 5\%$ (120V), $\pm 3\%$ (220V)

Environmental

OPERATING TEMP.	-20° to +40°; + 60°C @ 40% Load
STORAGE TEMP. RANGE	-30° to +71°C
HUMIDITY	To 95% Non-condensing
AIRFLOW	Intake (Fans) to Exhaust Vents in Chassis Panels

Safety & EMC

120V	UL458***; FCC Class B
220V	EN60950-1; EN55022, EN55024; EN61000-3-2, -3-3; EN61000-4-2, 3, 4, 5, 6, 8, 11
E-MARK (220V)	Certified CISPR 25; ISO7637-2

Protective Features

OVERLOAD
SHORT CIRCUIT
REVERSE POLARITY (FUSE)
OVERTEMPERATURE
OVER/UNDER INPUT VOLTAGE

* Normal Condition: $V_{in}=12.5V / 25V / 50V$ $V_o=100 / 110 / 115 / 120$ VAC 80% Full load (PF=1.0)

** Normal Condition: $V_{in}=12.5V / 25V / 50V$ $V_o=200/220 / 230 / 240$ VAC 80% Full load (PF=1.0)

*** UL-458 only for GFCI receptacles

CGP SERIES 1000 W PURE SINEWAVE COTS INVERTERS

	CGP1K-120-120	CGP1K-24-120	CGP1K-48-120	CGP1K-120-220	CGP1K-24-220	CGP1K-48-220
No Load Power Consumption	@12VDC <0.1A $\leq 1.5A$	@24VDC <0.06A $\leq 0.8A$	@48VDC <0.05A $\leq 0.5A$	@12VDC <0.1A $\leq 1.5 A$	@24VDC <0.06A $\leq 0.8 A$	@48VDC <0.05A $\leq 0.5 A$
On Mode @ Save Mode						
On Mode @ No Load Mode						
Input Under – Voltage Protection	10.5 \pm 0.3 VDC	21.0 \pm 0.5 VDC	42.0 \pm 1.0 VDC	10.5 \pm 0.3 VDC	21.0 \pm 0.5 VDC	42.0 \pm 1.0 VDC
Input Under – Voltage Recovery	12.5 \pm 0.3 VDC	25.0 \pm 0.5 VDC	50.0 \pm 1.0 VDC	12.5 \pm 0.3 VDC	25.0 \pm 0.5 VDC	50.0 \pm 1.0 VDC
Input Over – Voltage Protection	16.5 \pm 0.3 VDC	33.0 \pm 0.5 VDC	66.0 \pm 1.0 VDC	16.5 \pm 0.3 VDC	33.0 \pm 0.5 VDC	66.0 \pm 1.0 VDC
Input Over – Voltage Recovery	14.5 \pm 0.3 VDC	29.0 \pm 0.5 VDC	58.0 \pm 1.0 VDC	14.5 \pm 0.3 VDC	29.0 \pm 0.5 VDC	58.0 \pm 1.0 VDC

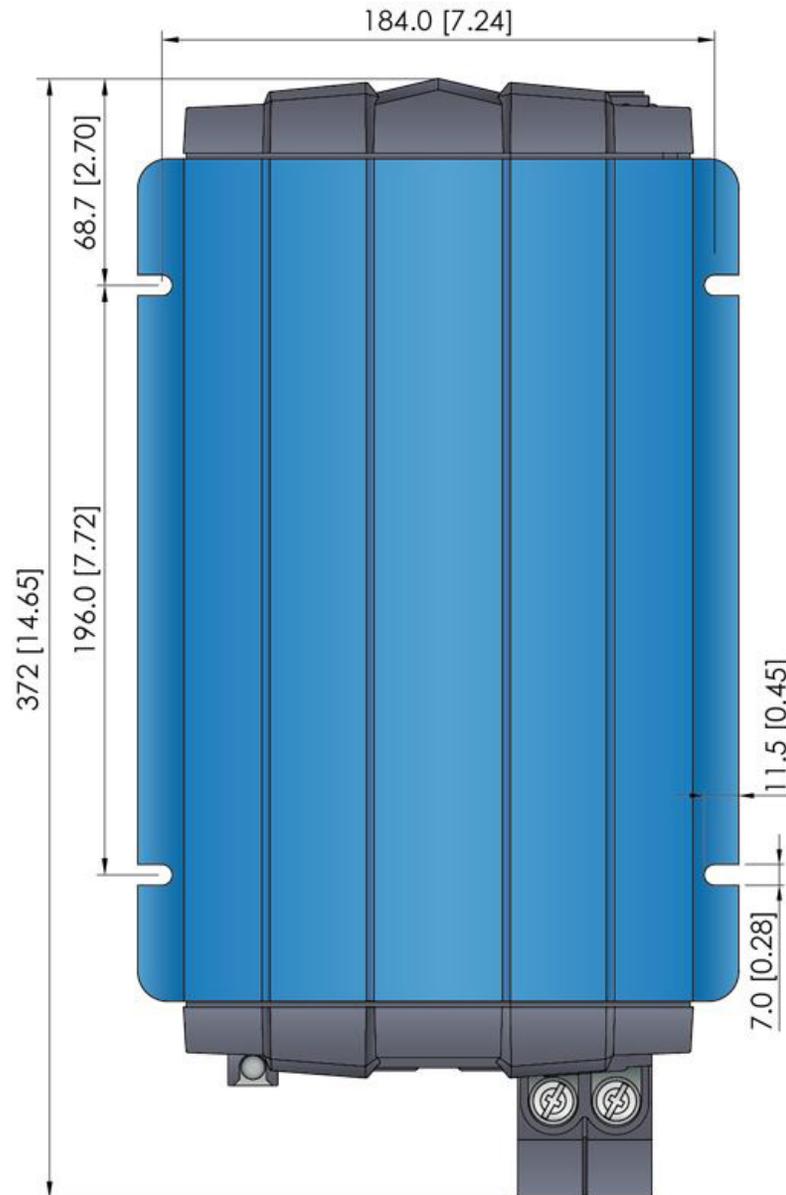
Model Selection

INPUT VDC	120 V MODELS 50 HZ OR 60 HZ	220 V MODELS 50 HZ OR 60 HZ	DIMENSIONS (L" X W" X H") [IN]	DIMENSIONS (L" X W" X H") [MM]	WEIGHT
10.5 – 16.5 V	CGP1K-12-120	CGP1K-12-220	14.65 x 7.87 x 3.27	372 x 200 x 83	7.2 lbs [3.26 kg]
21 – 33 V	CGP1K-24-120	CGP1K-24-220	14.65 x 7.87 x 3.27	372 x 200 x 83	7.2 lbs [3.26 kg]
42 – 66 V	CGP1K-48-120	CGP1K-24-220	14.65 x 7.87 x 3.27	372 x 200 x 83	7.2 lbs [3.26 kg]

The Leader In Rugged Power Conversion Technology Since 1966

Some optional equipment shown. Specifications subject to change without notice.

CGP SERIES 1 KW PURE SINEWAVE COTS INVERTERS OUTLINE DRAWING





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 (MBSs)



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

