



# RCGP2K SERIES RUGGED PURE-SINEWAVE INVERTER

12, 24 OR 48 VDC INPUT  
120V OR 220V 1Ø OUTPUT  
50 Hz or 60 Hz



## APPLICATIONS

The RCGP (pure sine wave) inverters are intended for commercial, industrial or military applications wherever standard utility-like power is needed at 50 or 60 Hz. These inverters are ideal for running electronic loads 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. This unit can be ruggedized against shock, vibration and humidity optionally for mobile applications.

Utilizing field proven technology, this family of rugged pure sinewave DC-AC Inverters is suitable for harsh environments and can be customized for unique applications including:

- MILITARY SHELTERS
- TACTICAL SYSTEMS
- MIL-STD-810
- GROUND SUPPORT
- UTILITY APPLICATIONS
- MIL-STD-461
- MOBILE SYSTEMS
- COMMUNICATIONS



For more information, please visit us at [www.novaelectric.com](http://www.novaelectric.com) or email us at [novales@theallpower.com](mailto:novales@theallpower.com)

## STANDARD FEATURES

- Microprocessor based design with absolutely accurate and stable frequency.
- Panel LED's for battery voltage & load level.
- Compact and light weight, yet rugged and vehicle rated.
- 93-95% efficient.
- Tightly regulated output voltage and frequency
- Switch selectable 50 or 60 Hz output.
- Capable of driving highly reactive loads such as electric tools and appliances.
- Capable of driving highly capacitive loads such as switching power supplies.
- Very low harmonic distortion, THD<3%.
- Suitable for vehicle mounting.
- Switch selectable  $\pm 10V$  output change.
- Load Controlled Cooling fan.

## PROTECTIVE FEATURES

- Overload • Short Circuit • Reverse Polarity (Fuse)
- O.T, Over/Under Input Voltage.

## ELECTRICAL

**Input Voltage:** 12, 24 or 48 V  
**Output Voltage 110V model:** 100/110/120 VAC  
**Output Voltage 220V model:** 220/230/240 VAC  
**Output Frequency:** 50 or 60 HZ  
 (User Selectable + 0.5% Accuracy)  
**Continuous Power Rating:** 2000W / 2000VA  
**Surge Rating:** 3500VA / 1 second  
**Efficiency 120V model (full load):** 92% - 94%  
**Efficiency 220V model (full load):** 94% - 95%  
**Output Waveform Sinewave:** <5% THD (120V)\*  
 <3% THD (220V)\*\*  
**Output Regulation:**  $\pm 5%$  (120V),  $\pm 3%$  (220V)  
**MTBF:** over 100,000 hours per field data  
**MTTR:** 30 minutes

\* 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)

## ENVIRONMENTAL

**Operating Temperature:** -20°C to +60°C  
 With Derating 2.5% / Degree, above 40°C  
**Storage Temperature:** -40°C to +71°C  
**Shock:** 20g / 11ms per MIL-STD-810  
**Vibration:** per MIL-STD-810  
**Humidity:** per MIL-STD-810 to 95% non condensing  
**EMI:** per MIL-STD-461\*\*\* CE102, CS101, CS114, CS115, CS116, RE102, and RS103  
 \*\*\* Designed to meet

## POPULAR OPTIONS

- MS Connector Mates
- Chassis Slides
- Additional Ruggedization against Shock/Vibration / Humidity to MIL-STD-810
- Weatherproofing Package (Sealed Breakers / Switches, additional dust filtration, and louvered air intake / exhaust for protection from splashing water
- Internal Electromechanical Transfer Switch

## MODEL SELECTION

MODEL	INPUT RANGE VDC	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONTINUOUS OUTPUT POWER	APPROX. WEIGHT (Lb.)	SIZE (H x W x L) (INCHES)
RCGP-2K-12-120	10.5-16.5	120	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90
RCGP-2K-12-220	10.5-16.5	220	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90
RCGP-2K-24-120	21-33	120	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90
RCGP-2K-24-220	21-33	220	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90
RCGP-2K-48-120	42-66	120	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90
RCGP-2K-48-220	42-66	220	50 or 60	2 KW	29 Lb.	3.50 x 19.00 x 16.90

## MECHANICAL SPECIFICATIONS

