



CGD3.5K SERIES

PURE-SINEWAVE DC-AC INVERTERS

» INCLUDES BUILT-IN AUTOMATIC TRANSFER SWITCH (ATS) WITH AC INPUT CIRCUIT BREAKER

» PARALLELABLE FOR INCREASED POWER

» 3 PHASE WYE CONFIGURABLE

» 120/240 CT SPLIT PHASE CONFIGURABLE



3500W / 3500VA
12 V, 24 V, 48 V INPUT
SIX MODELS FOR
110V 50/60 Hz & 220V 50/60 Hz OUTPUT



APPLICATIONS

Nova Electric's CGD-Series inverters 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 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 – please consult the factory for proper sizing. These CGD models can also be optionally ruggedized against shock, vibration, and humidity for military applications including vehicle mounted, shipboard, submarine, aircraft, and ground fixed shelters.

☐ COMPUTERS

☐ PRINTERS

☐ MONITORS

☐ SAIL BOATS

☐ PHOTO VOLTAIC

☐ ELECTRIC TOOLS

☐ APPLIANCES

☐ INSTRUMENTS

☐ RVs



For more information, please visit us at www.novaelectric.com or email us at novales@theallpower.com

STANDARD FEATURES

- Microprocessor based design with absolutely accurate and stable frequency.
- Compact and light weight, yet rugged and vehicle rated.
- Tightly regulated output voltage and frequency
- Switch selectable 50 or 60 Hz output, all models
- 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
- Suitable for vehicle or wall mounting
- Standard outputs 110V/60Hz, 230V/50Hz
- Switch selectable $\pm 10V$ output change
- RS-232 communication (RJ11 Connector)
- Built in mechanical transfer switch (ATS)

ELECTRICAL

Input Voltage: See Table
Output Voltage 110V model: 100/110/120 VAC
Output Voltage 220V model: 220/230/240 VAC
Output Frequency: 50 or 60 HZ $\pm 0.1\%$ Accuracy
Continuous Power Rating: 3500W/3500VA
Peak Power (3 seconds): 4500W
Surge Rating: 6000W < 0.2 seconds
Efficiency: 90% (12V, 24V/120), 91% (24V/220, 48V)
Output Waveform Sinewave: <3% THD
Output Voltage Regulation: $\pm 3\%$
Protection: Overload, Short Circuit, Reverse Polarity (Fuse), O.T, Over/Under Input Voltage, Fan Failure
Output Frequency Regulation: $\pm 0.1\%$
Synchronous Frequency: 47-57 / 53 - 63 Hz
ATS: Inverter to utility AC: 8 ~ 10ms.
 Utility AC to inverter: 16 ~ 50 ms.

SAFETY & EMC

120V: UL458*; FCC Class B
220V: EN60950-1; EN55014-1**; EN55014-2**;
 EN61000-3-2, -3-3; EN61204-3;
 EN61000-6-1, -6-2, -6-3, -6-4;
 IEC61000-4-2, 3, 4, 5, 6, 8, 11

ENVIRONMENTAL

- Operating Temp.: -20° to +40°; + 60°C @ 40% Pwr Load
- Storage Temp. Range: -40° to +71°C
- Humidity: To 90% non-condensing

INDICATORS, CONTROL & COMMUNICATIONS

- Input level, Fault Status
- Optional Remote Control
- Optional Ethernet Communications

* UL-458 only support CGD2500W-12-120 and CGD2500W-24-120
 ** EN55014-1, EN55014-2 Class B: output cable less than 6.5 ft (2 meters)

	12V - 120V	24V - 120V	48V - 120V	12V - 220V	24V - 220V	48V - 220V
No Load Power Consumption	@12VDC	@24VDC	@48VDC	@12VDC	@24VDC	@48VDC
On Mode @ Save Mode	1.4A	0.5A	0.5A	1.4A	0.5A	0.5A
On Mode @ No Load Mode	<2.9A	<1.4A	<0.8A	<3.6A	<1.8A	<1A
Fuse	40A x 12	20A x 12	20A x 6	40A x 12	20A x 12	20A x 6
BAT. Low Alarm $\pm 3\%$	10.5 VDC	21.0 VDC	42.0 VDC	10.5 VDC	21.0 VDC	42.0 VDC
BAT. Low Shut-down $\pm 3\%$	10.0 VDC	20.0 VDC	40.0 VDC	10.0 VDC	20.0 VDC	40.0 VDC
BAT. Low Restart $\pm 3\%$	12.5 VDC	25.0 VDC	50.0 VDC	12.5 VDC	25.0 VDC	50.0 VDC
BAT. High Alarm $\pm 3\%$	15.5 VDC	31.0 VDC	62.0 VDC	15.5 VDC	31.0 VDC	62.0 VDC
BAT. High Shut-down $\pm 3\%$	16.0 VDC	32.0 VDC	64.0 VDC	16.0 VDC	32.0 VDC	64.0 VDC
BAT. High Restart $\pm 3\%$	15.0 VDC	30.0 VDC	60.0 VDC	15.0 VDC	30.0 VDC	60.0 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") [mm]	WEIGHT
10 - 16 V	CGD3.5K-12-120	CGD3.5K-12-220	19.53 x 11.14 x 5.04 [496 x 283 x 128]	22 lbs [10 kg]
20 - 32 V	CGD3.5K-24-120	CGD3.5K-24-220	19.53 x 11.14 x 5.04 [496 x 283 x 128]	22 lbs [10 kg]
40 - 60 V	CGD3.5K-48-120	CGD3.5K-24-220	19.53 x 11.14 x 5.04 [496 x 283 x 128]	22 lbs [10 kg]

MECHANICAL SPECIFICATIONS

