



NOVA ELECTRIC



STANDARD FEATURES

- Included 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
- 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)

CONTACT

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CGD Series 3.5 KW Parallelable and Three-Phase Configurable COTS 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



GENERAL OVERVIEW

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.

- Included 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

Applications:

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

The Leader In Rugged Power Conversion Technology Since 1966

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

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SPECIFICATIONS

Electrical

INPUT VOLTAGE	See Model 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
PEAK POWER (3 SECONDS)	4500W
SURGE RATING	6000W < 0.2 seconds
EFFICIENCY	90% (12V), 90% (24V/120), 91% (24V/220), 91% (48V)
OUTPUT WAVEFORM SINEWAVE	<3% THD*
OUTPUT VOLTAGE REGULATION	$\pm 3\%$
OUTPUT FREQUENCY REGULATION	$\pm 0.1\%$
SYNCHRONOUS FREQUENCY	47-57 / 53 - 63 Hz
ATS: INVERTER TO UTILITY AC	8 ~ 10 ms.
ATS: UTILITY AC TO INVERTER	16 ~ 50 ms.

* 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)

Environmental

OPERATING TEMP.	-20° to +40°; +60°C @ 40% Power Load
STORAGE TEMP. RANGE	-40° to +71°C
HUMIDITY	To 90% Non-condensing

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

Indicators & Options

INPUT LEVEL, FAULT STATUS
OPTIONAL REMOTE CONTROL

Communications Port

RS232 (RJ-11 TYPE CONNECTOR) / ETHERNET OPTIONAL

Protective Features

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

CGD SERIES 3500 W PARALLELABLE AND THREE-PHASE CONFIGURABLE COTS INVERTERS

	CGD3.5K-12-120	CGD3.5K-24-120	CGD3.5K-48-120	CGD3.5K-12-220	CGD3.5K-24-220	CGD3.5K-48-220
No Load Power Consumption On Mode @ Save Mode On Mode @ No Load Mode	@12VDC 1.4A <2.9A	@24VDC 0.5A <1.4A	@48VDC 0.5A <0.8A	@12VDC 1.4A <3.6A	@24VDC 0.5A <1.8A	@48VDC 0.5A <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 Shutdown $\pm 3\%$	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 Shutdown $\pm 3\%$	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

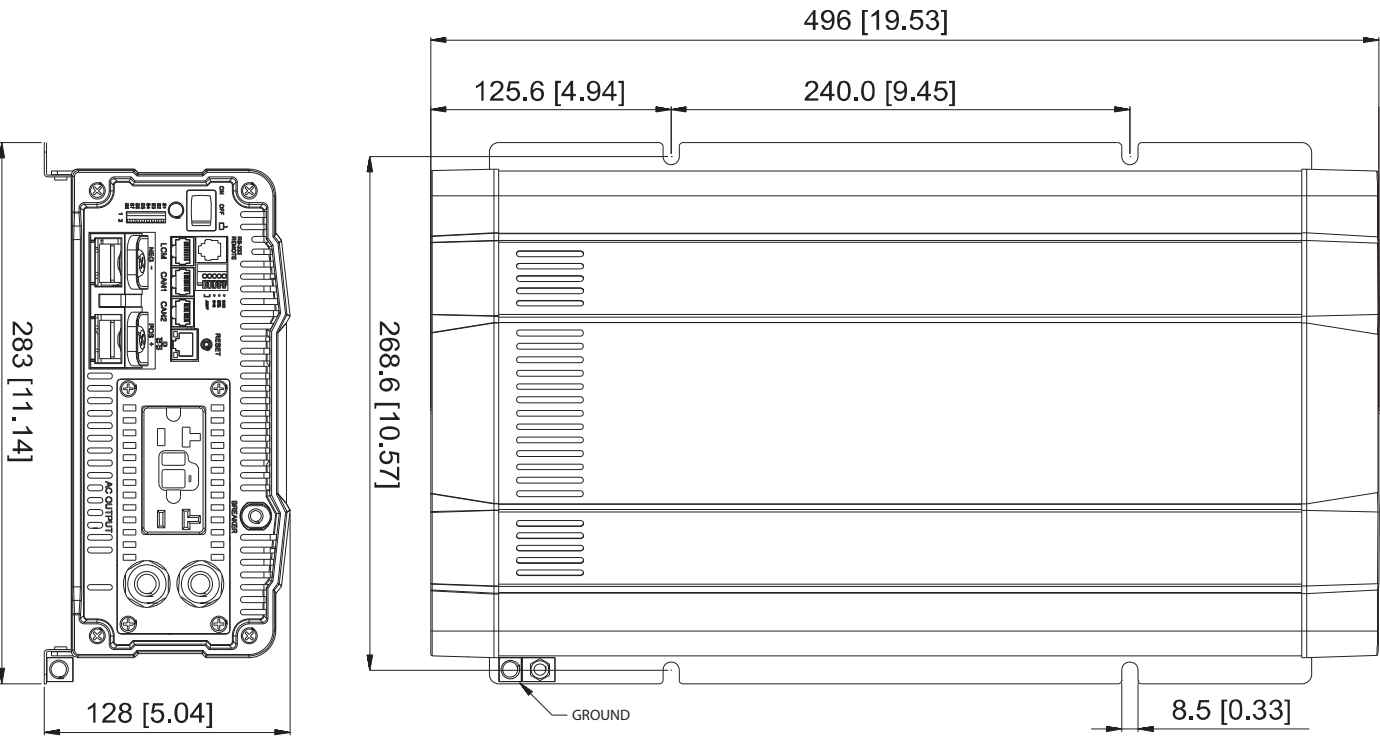
MODEL SELECTION

INPUT VDC	120 V MODELS 50 HZ OR 60 HZ	220 V MODELS 50 HZ OR 60 HZ	DIMENSIONS (L" X W" X H") [IN]	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-48-220	19.53 x 11.14 x 5.04	496 x 283 x 128	22 lbs [10 kg]

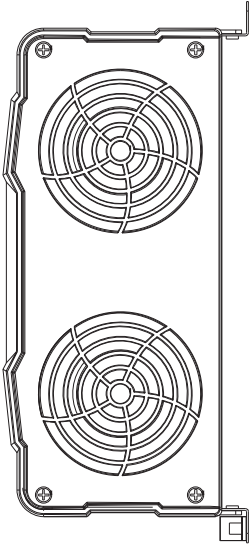
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CGD SERIES 3.5 KW PARALLELABLE AND THREE-PHASE CONFIGURABLE COTS INVERTERS OUTLINE DRAWING



Unit : mm [inch]



North America (GFCI)
NEMA 5-15R
Continental European
United Kingdom
Australia / New Zealand
Universal
UL458





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

