

CMN Series

CMN Series

Digital Uninterruptible Power System for Rugged Applications

3,000 VA / 2,100 Watts
Extreme Temperature Operation



When All Others Fail

Turn to Clary's 60 years of technical expertise, and our unmatched experience in providing high performance and reliable UPS systems for applications ranging from extreme temperature environments to offshore drilling rigs, military shipboard, 911 emergency systems or hospital grade medical systems. Clary starts where the competition stops.

Reliability

Clary units supply reliable Continuous Digital Power during brownouts, dirty unstable electrical power and loss of input power. Unlike most other UPS systems, the CMN Series will run continuously from batteries or auxiliary generator systems as long as power is available.

True On-Line Technology

Clary specializes exclusively in True On-Line Double Conversion system. This technology provides ultimate protection from all power anomalies, keeping mission-critical applications out of harm's way. Our systems provide a digitally controlled precision regenerated output sinewave, unlike common standby or line interactive designs.

Uncompromising Performance

Clary CMN products are not for everyone.... they are specifically

designed for mission-critical applications where there is no room for error.... when you just can't afford downtime! Our products are designed, manufactured and serviced by Clary, providing our customers the highest level of power protection.

Communications

Connectivity features include remote control, configuration and monitoring of the UPS. Clary products are compatible with all major network operating systems.

Off-the-shelf and Custom Solutions

In 1977, Clary Corporation pioneered On-Line Double Conversion UPS technology, and in 1996 introduced digital control for continuous power UPS systems for mission-critical applications. Today, Clary manufactures a variety of superior power products here in the USA, and can customize specs to meet your application requirements. What's more, our in-house field service department consistently sets the industry standard. Clary systems are found in hospitals, police and fire emergency systems, oil fields, rugged industrial applications, traffic signals, computer networks, military aerospace systems and numerous other applications.

TOWER MODEL	RACK MODEL	RATING WATTS	
N/A	CMN3000R	3,000 VA	2,100

Features List

- Small size - 5¼" high rack
- Power Factor Corrected to near unity
- Rackmount version fits into standard 19" Rack
- Outputs can be controlled remotely or from front panel
- Software selectable configuration (output frequency, voltage, alarms, auto turn-off, etc.)
- Automatic bypass & battery test
- Unit can be started with out AC present (Cold Start)
- Many options available for custom configurations

Rugged Digital Uninterruptible Power System

CMN Series

Where POWER is a way of life

CLARY
 The Continuous Power Company™

Industrial
 Commercial



CMN Series Specifications

ELECTRICAL

Input

Voltage Ranges	120 VAC +12%, -25% (without battery discharge)
Frequency	45 to 65 Hz
Current	Power Factor Corrected per MIL STD 1399, Sec 300, see table below
Isolation	Transformer Isolation

Output

Voltage	120 VAC ±3%
Frequency	Software Selectable to Sync with Input Utility or Run at Crystal Controlled 50/60 Hz ±1 Hz
Current	See Table Below
Crest Factor Ratio (Non-linear Load and < 5% THD) Typical	@50% Load Up to 4.8:1 @75% Load Up to 3.2:1 @100% Load Up to 2.4:1
Total Harmonic Distortion (THD)	3% Max. (Linear) 5% Max. (Non-linear)
Dynamic Response	±4% for 100% Step Load Change 0.5 ms Recovery Time
Overload	110% for 10 sec; 200% for .05 sec
Efficiency	92% (typical)
UPS Protection	Input and Output Short Circuit; Input and Output Overload; Excessive Battery Discharge

ENVIRONMENTAL

Operating Temperatures:	
CMN3000R	0°C to +55°C (32°F to +131°F)
Humidity	0% to 95% Non-condensing
Altitude	Sea Level to 10,000 ft (some derating of temp. w/altitude)
Noise Level	46 dBA at 5 ft

MECHANICAL

Input	NEMA L5-30P Plug w/6 ft Cord
Outputs(typical)	Load 1 and 2 (3 each) NEMA Type 5-20R receptacles

CUSTOM OPTIONS

Hardwire Input/Output; Input Circuit Breaker; Emergency Power Off Connection; Input Air Filter; Slide Rail Kit; etc. Contact factory for other custom options.

DESIGN

Standard Features	Power Factor Corrected Input; Fully Regenerative; True On-Line; Low Distortion Sinewave Output; Inverter Powers Load Continuously; Designed for Non-linear Loads; Extended Brownout Protection; Continuous Operation on -25% to +12% Utility w/o Draining Batteries; Automatic Bypass; RS232 Data Interface; AC Output - 2 Channel Load Control; Rear Mounted Ground Stud
Specifications	UL 1778; CUL; FCC Class A; IEEE 587/ANSI C62.41; IEC 555 @120 VAC
MTBF	In Excess of 100,000 hrs
Typical Recharge Time to 85% Capacity @100% Load	8 hrs (more time required with extended battery option)

CONTROLS AND INDICATORS

Sequenced LEDs Single LED	Battery Level; Load Level AC In; Inverter On; Load On, Summary Alarm, Alarm Silence
Front Panel Controls	Power On; Load I On/Off; Cold Start; Load II On/Off; Alarm Silence; Test
Audible Alarms	Utility Interrupt; Inverter Failure; Overload; Low Battery; Self Test
RS-232 Data Interface (DB-9)	Full Interactive Remote Computer Monitoring and Control of Most Features, Including Load Control (requires optional monitoring software). Compatible with: Systems Enhancement™ UPS Control Software.
Contact Closure (DB-9)	Open Collector
Optional SNMP Interface	Allows Full Control and Monitoring over Network Connection. Compatible with HP OpenView™, IBM Netview™, CA Unicenter TNG™, and Other Major UPS Software systems.

COMPLIANCE

Manufactured to meet Mil-Std specifications, not certified to
Shock & Vibration: Mil-Std. 167 & 901D
Radiated & Conducted EMI: CS101,116, CE101, 102 - FCC Class A
Specifications subject to change without prior notice.

Model Rackmount	Model Tower	VA	Watts	Input Current (A)	Output Current (A)	Backup Time 80% / 40% Load	Unit Weight (lbs)	Rackmount H x W x D (in)	Tower H x W x D (in)
CMN3000R	N/A	3,000	2,100	21.0	25.0	10 / 25	85	5.25 x 19.0 x 23.0 (3U)	N/A
CMN9600DBR	Dual String External Battery			Chassis			96	3.25 x 19.0 x 23.0 (2U)	N/A

CLARY
The Continuous Power Company™

Made in the USA

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