

# DT Series

DT Series



## Digital Uninterruptible Power System

1,250 VA to 2,400 VA



### 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 UPSs, the DT 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 sine wave, unlike common standby or line interactive designs.

### Uncompromising Performance

Our 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 solutions.

### 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
DT1250T/HT	DT1250R/HT	1,250 VA	875
DT1500T/HT	DT1500R/HT	1,500 VA	1,050
DT2000T/HT	DT2000R/HT	2,000 VA	1,400
DT2400T/HT	DT2400R/HT	2,400 VA	1,680

### Features & Benefits

- Small size - 2U rack, smallest in the industry
- 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 also be started with out AC Present (Cold Start)
- Tower units include carrying handles
- Many options available for custom

Where POWER is a way of life

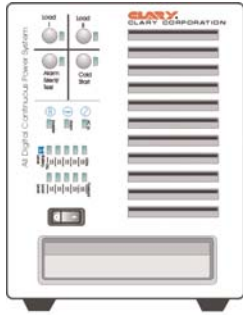
Digital Uninterruptible Power System

**CLARY**  
The Continuous Power Company™

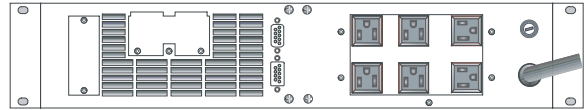
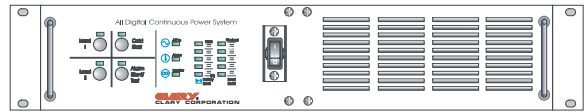
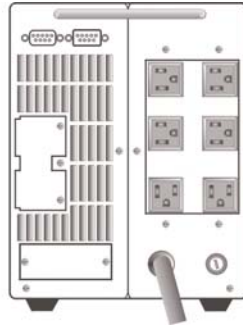


# DT Series

## DT Series Diagrams

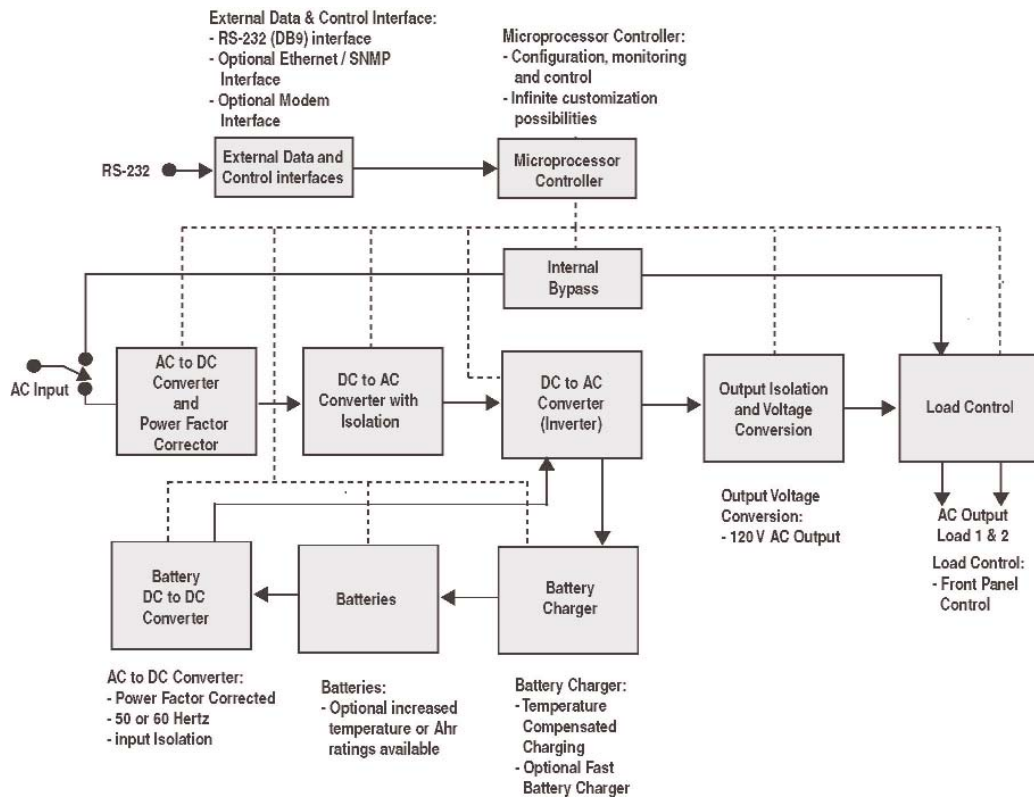


**Tower Style Chassis**



**Rackmount Chassis**

### Block Diagram



# Features Benefits List

## Features

**Input Voltage Range: 120 VAC +12%, - 25%; 90 to 135 VAC before switching to batteries**

### True On-Line Technology

### Full Microprocessor Control

### Power Factor Correction

### Communications and Control Interface

### Complete Power Distribution Center

### Remote Control of Receptacles (Two Output Circuits)

### Long Life Internal Batteries

### Additional Battery Options

### SNMP Option

## Benefits

Assures continuous system operation during electrical surges and sags without switching to the batteries and depleting their capacity.

True On-Line means Fully Regenerative, Dual Conversion operation. It assures complete isolation from voltage and frequency variations. Unlike "line-interactive," "off-line" or "standby" systems, there is absolutely no interruption of power output or shift in line frequency to cause system crashes or resets. Complete compatibility with emergency standby generator systems is assured.

Every aspect of system operation is monitored and controlled by the internal microprocessor. This assures flawless operation regardless of load, environmental or input power conditions. Clary has over 30 years experience designing with Digital Technology, which ensures reliability.

Power Factor Correction eliminates distortion and harmonic currents caused by today's high-tech loads. Eliminating this distortion assures that all of your equipment works together without problems. It also reduces your energy bill.

Allows interactive system control over a variety of network connections and communication interfaces - RS-232 (standard), Contact Closure and TCP/IP - SNMP (optional).

Six NEMA 5-15R connectors on two separate circuits are standard. An ergonomic design feature is two receptacles at 90° enabling a wall mounted transformer to only cover one receptacle. Custom rear panels are available with a variety of connectors to fit special applications.

Each row of output connectors can be individually switched on or off at the front panel. Locked-up devices are a fact of life and this control allows the user to reboot devices powered by the UPS. Using a communications link, a remote operator (and/or network administrator) can also control and monitor each circuit.

Special VRLA batteries that offer longer discharge and float life allow full system operation during blackouts and severe brownouts. (See specification page for run time.)

For applications that require longer operation during a power outage, additional matching battery packs that can be connected to the rear panel and extend run times are available.

SNMP capability via TCP/IP Network connection. Includes RUPS II™ monitoring and control software. Compatible with; HP Openview™, CA Unicenter TNG™, and many other major software monitoring and control packages.

## ELECTRICAL

### Input

Voltage Ranges	120 VAC +12%, -25% (without battery discharge)
Frequency	45 to 65 Hz
Current	See Table Below, Power Factor Corrected per IEC 555 @ 120 VAC

### 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 @100% Load	90% (Normal Mode)
UPS Protection	Input and Output Short Circuit; Input and Output Overload; Excessive Battery Discharge

## ENVIRONMENTAL

Operating Temperatures:	
Standard Models	0°C to +40°C (+32°F to +104°F)
HT Models	0°C to +50°C (+32°F to +122°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 5-15P Plug w/6 ft Cord
2,000 VA Models	NEMA 5-20P Plug w/6 ft Cord
Outputs(typical)	6 - NEMA 5-15R (Contact Factory for Options)

## CUSTOM OPTIONS

Hardwire Input/Output; Input Circuit Breaker; Emergency Power Off Connection; Input Air Filter; Slide Rail Kit; 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: RUPS™ and RUPS II™ and other major UPS software products.
Contact Closure) (DB-9)	Open Collector or optional Dry Contact Module
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 products.

Specifications subject to change without prior notice.

Model Rackmount	Model Tower	VA	Watts	Input Current (A)	Output Current (A)	Backup Time 100% / 50% Load	Unit Weight (lbs)	Rackmount H x W x D (in)	Tower H x W x D (in)
DT1250R/HT	DT1250T/HT	1,250	875	8.8	10.4	7 / 21	42	3.5 x 19.0 x 16.0 (2U)	9.3 x 7.0 x 16.25
DT1500R/HT	DT1500T/HT	1,500	1,050	10.7	12.5	5 / 17	42	3.5 x 19.0 x 16.0 (2U)	9.3 x 7.0 x 16.25
DT2000R/HT	DT2000T/HT	2,000	1,400	14.3	16.7	5 / 18	55	3.5 x 19.0 x 22.5 (2U)	9.3 x 7.0 x 20.25
DT2400R/HT	DT2400T/HT	2,400	1,680	18.3	20.0	4.5 / 14	55	3.5 x 19.0 x 22.5 (2U)	9.3 x 7.0 x 20.25

**CLARY**  
The Continuous Power Company™

Made in the USA

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