



- Suitable for use with all types of lead acid batteries (batteries external to power supply)

◆ 24 Month Warranty



- Uninterruptible **No-Break™** DC Power Supply / battery back-up system
- Deep discharge protection
- Controls load and charge current independently
- Universal input range
- Overload, short circuit & reverse polarity protect
- Automatic temperature compensation
- Detects battery presence/low voltage
- High efficiency switch mode design
- No transition switching to backup battery
- Alarm contacts & LEDs for precise fault indication
- Power factor corrected
- ISO9001 Design management system

SPECIFICATIONS All specifications are typical at nominal input, full load and at 20°C unless otherwise stated.

ELECTRICAL

Input	85-264VAC, 120-370VDC
Fusing / Protection	AC input fuse DC battery output fuse for reverse polarity protection
Isolation	3KVAC input / output 1.5kV input / earth
Output Power	100W continuous (0 - 45°C, derate linearly to zero at 60°C)
Output Voltages	13.8V, 27.6V
Voltage Adjust (internal pot)	+3% to - 10% of Vout
Current Limit	Output current limited to PSU rated current
Power Factor	0.96
Efficiency	13.8V: > 80% 27.6V: > 83%
Line Regulation	0.5% over AC input range
Load Regulation	1% open circuit to 100% load
Noise & Ripple	100mV p-p
Hold-up time	20 mS at full load without battery
Earth leakage	< 3.5mA (at 230VAC input)
Inrush current	<40A (at 230VAC input)
Temperature Compensation	-3.9mV / °C / cell

STANDARDS

EMC	CISPR 22 / EN55022 class A EN61000-4-2,3,4,5,6,8,11; ENV50204
Safety	IEC950 / EN60950
Harmonic Current	EN61000-3-2,3

No-Break™ FUNCTIONS AND ALARMS

Reverse Polarity	Battery reverse connection will open internal fuse (and produce alarm)
Battery System Monitoring	Checks for presence of battery 1 min after start up and then every 60 minutes (refer to alarms for more info)
Electronic Circuit Breaker (ELCB)	Disconnects load from battery when: <ul style="list-style-type: none"> - battery voltage drops to 1.67V/cell (10, 20V) auto reset with return of mains power - system overloads (300ms when load > 600%, 2ms on short circuit)
Alarms (relay output, relay de-energises on alarm condition)	<ul style="list-style-type: none"> • Power OK indicates: <ul style="list-style-type: none"> - loss of converter output for any reason • Battery System OK indicates: <ul style="list-style-type: none"> - blown DC output fuse (battery connected in reverse) - battery missing or battery circuit faulty - battery low voltage (ELVD = 11, 22V) - ELCB open (with possible time delay if caused by overload)
Relay contacts	C - NO - NC clean changeover rated 1A /50V DC, 32VAC
LED Indication	Refer to table

PHYSICAL

AC Input	3 pin IEC320 input socket with EMI filter
DC Output	Plug-in style socket & mating screw terminal block (max. wire 2.5mm ²)
Alarm Connections	Plug-in style socket & mating screw terminal block
Enclosure	Zinc plated steel / powder coated lid
Cooling	Long life fan
Weight	1.5 Kg
Dimensions	290 L x 113 W x 60 H mm
Mounting hole centres	280 x 91 mm

STANDARD PREFERRED MODEL TABLE

MODELS	DC Output *1				
	Output Voltage (V)	Max. Recomm.*2 Load Current (A)	Battery Charge Current Limit *3 (A)	PSU Rated Current (A)	Power (W)
CT100C12	13.8	5.5	2.0	7.5	100
CT100C24	27.6	2.1	1.6	3.7	100
CT100C48	55.2	1.0	0.8	1.8	100

- NOTES: *1 at 180-264VAC input
*2 to allow for adequate capacity for charging battery after mains failure
*3 factory default settings listed, charge current limit can be set to rated current

OPTIONS

- Parallel Redundancy** Use external 15A output diode assembly, Part no. **+P15**
Battery Condition Test Please contact our office for information.

ENVIRONMENTAL

- Operating temperature** 0 - 45 °C ambient at full load
De-rate linearly to zero @ 60 °C
Humidity 20 - 90% relative humidity non-condensing
Storage -20 to 85 °C ambient, 10-95% RH

ACCESSORIES SUPPLIED

- AC power cord
DC connector with mating screw-terminal plug
Alarm connector with mating screw-terminal plug

LED codes No-Break™ III

Alarm and Indicator conditions

Battery System OK LED	Power OK LED	Power OK Alarm	Battery System OK Alarm	
		Normal	Normal	System normal: AC power is on, PSU output is OK, battery circuit is OK.
		Normal	Normal	Battery Detection test in progress / imminent (LED begins flashing 10 sec. Prior to test of < 1 sec).
		Normal	Alarm	System AC power is on, PSU output is OK but either: 1) Internal battery fuse has opened (only if battery has been reverse polarity connected), or 2) Battery circuit open - battery missing, or fuse / circuit breaker / wiring fault.
		Alarm	Normal	Battery voltage is > V Battery Low and either: 1) AC power has failed, or 2) PSU has failed.
		Alarm	Alarm	Either: 1) AC power has failed, or 2) PSU has failed. Battery has discharged to < V Battery Low, unit will continue delivering battery current until low level initiates Electronic Low Voltage Disconnect.
		Alarm	Alarm	AC Power is off / DC has failed and ELVD has activated and disconnected battery from load. Residual current drain on battery following ELVD <1 mA.

LEGEND : =Off =Flashing =On

MODEL CODING AND SELECTION CHART

CT100C 12 T F

