

# Uninterruptible Power Supplies



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## XT Series 1.6-6kVA True On-Line UPS



### Features

- Standalone Format
- Isolation Transform (XT6000 only)
- A400, RS232 & SNMP Adaptor Options
- Front Panel LED Mimic
- Green Mode Operation
- Optional 10 Year Batteries

### Electrical Specification

#### INPUT

Input Voltage (full load without using batteries)	230VAC version: 160-276VAC
Input Frequency	45-65Hz
Input Power Factor	>0.98 at full load
Input Protection	Breaker (see notes on next page)

#### OUTPUT

Output Voltage	230VAC nominal
Output Regulation	±2% of nominal
Output Waveform	Sine Wave
Output THD	<3% linear load
Crest Factor	3:1
Output Protection	Electronic Overload Protection (ultimately by fuse/breaker)
Efficiency (AC-AC)	86% up to 1.5kVA, 90% up to 6kVA
Overload Capacity	See Overload Characteristics
Output Frequency	50/60Hz dependant on input

#### BATTERY

Internal Battery Type	VRLA 5 year design life. For 10 year option add suffix 'X' to model number
Recharge	<8 hours to 90%, standard battery only
Battery String Voltage	48VDC: 1.6kVA, 96VDC: 3.2kVA, 192VDC: 6.0kVA
Autonomy	See Tables
Temperature	Autonomy, recharge & battery life based on 25°C ambient

#### GENERAL

Input Receptacles	See rear panel drawings
Output Receptacles	See rear panel drawings
Display/Alarm	Front panel LED's, audible alarms. See front panel layout
Interface (Rear Panel)	1 x RS232 & 1 x USB (fitted in option slot)
Software	Supplied bundled to support Windows 95, 98, ME, 2000, XP & NT
REPO (XTi 6000 only)	Remote emergency power off, must be fitted for unit to function. Connector on rear of unit. Remove link to shut down output in AC mode or shut down unit in battery mode

#### ENVIRONMENTAL

Operating Temperature	0°C to +40°C
Storage Temperature	-15°C to +50°C
Operating Humidity	0-95% RH non-condensing
Operating Altitude	3000m without derating
Acoustic Noise	<45dBA at 1 metre
Ingress	IP20

#### EMC & SAFETY

Emissions	EN55022 level B
ESD Immunity	EN61000-4-2, level 3
Radiated Immunity	EN61000-4-3, level 2
EFT/Burst	EN61000-4-4, level 2
Surge	EN61000-4-5, level 3
Safety Approvals	EN50091-1-1, EN60240-1-1

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## Models and Ratings

MODEL	OUTPUT POWER		OUTPUT CURRENT (at 230VAC)	AUTONOMY (full load)
	VA	Watts		
XT1600	1600VA	1120W	6.9A	7 Minutes
XT3200	3200VA	2240W	13.9A	7 Minutes
XT6000	6000VA	4200W	26.0A	7 Minutes

## Run Time Charts

UPS Model	Standard Run Time in Minutes (Autonomy vs Load)											
	200VA (140W)	400VA (280W)	600VA (420W)	800VA (560W)	1000VA (700W)	1600VA (1120W)	2000VA (1400W)	2500VA (1750W)	3200VA (2240W)	4000VA (2800W)	5000VA (3500W)	6000VA (4200W)
XT1600	86	39	24	17	12	7						
+BM1	328	142	90	62	49	30						
+BM2	569	264	163	114	86	55						
XT3200	201	86	55	39	30	10	12	9	7			
+BM3	439	201	122	86	69	43	29	23	18			
+BM4	684	325	199	140	108	68	49	38	30			
XT6000	453	201	119	84	67	43	30	23	18	12	9	7
+1BM	990	453	288	201	151	97	67	53	43	30	23	18
+2BM		718	453	328	253	151	110	82	67	49	37	30
+3BM		990	600	453	351	214	151	117	92	67	53	47

## Accessory Products

XT232	RS232 Option Card (XT6000 Models only)
XT S	SNMP Network Adaptor Option Card replaces USB port, allowing the UPS to be addressed directly on the LAN
XT V	AS400 Volt Free Contact Option Card replaces USB comms port with a 15 way D-type connector Providing Utility Fail, Battery Low, Bypass & UPS Alarm Contacts

## Option Order Codes



E.G. XT1600V  
 XT Series, 1600VA  
 With AS400 Volt Free Contact Card fitted

### Options (Examples)

Add suffix 'S' to Model Number - Adds internal SNMP to UPS (in place of USB port)

Add suffix 'V' to Model Number - Adds AS400 VFC to UPS for Utility Fail, Bypass, Battery Low and UPS Fault (in place of USB port)

Add suffix 'X' to Model Number - Replaces 5 year design life batteries with 10 year

(1) Options should be listed in alphabetical order

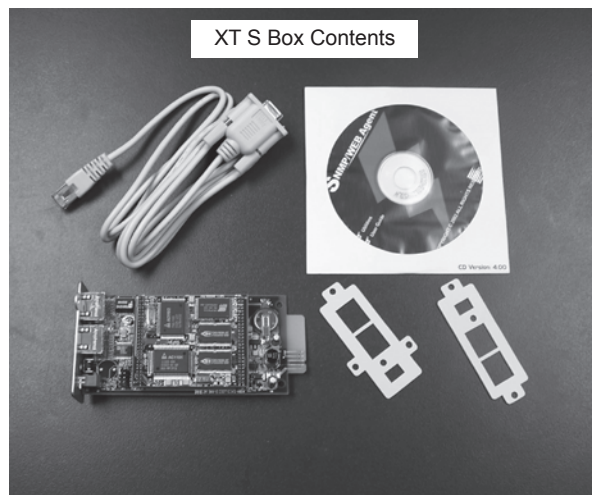
## Option Card & REPO Details

### XT S Option Card

The XT S card provides network connectivity and SNMP management protocol capability to the XT series of UPS.

Supplied with the option card is a CD which contains all relevant software including the Manual and MIB.

The card can be factory fitted with this option on request - please contact sales for assistance

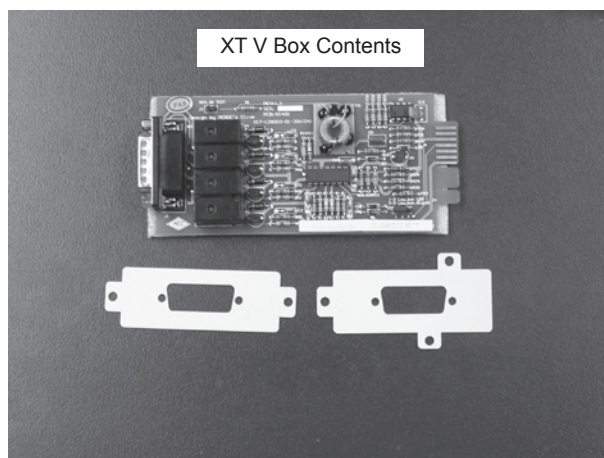


### XT V Option Card

The XT V card provides true volt free contact indication of the following key parameters:

- Mains Fail
- Battery Low
- Bypass
- UPS Fault

These are 250VAC 2A rated contacts.



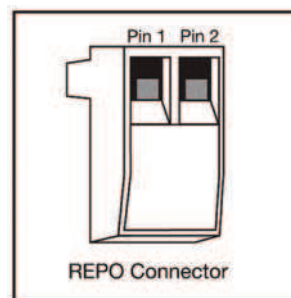
### REPO (must be fitted to a 6kVA UPS to operate)

The REPO feature shuts down the protected equipment immediately and does not follow the orderly shutdown procedure initiated by any power management software.

This occurs when the link between pin 1 and 2 is broken.

Any devices which are operating on battery are also shutdown immediately. When the REPO switch is closed, the equipment will not return to battery power until the UPS input is re-cycled.

This can be done by shutting down the UPS and re-starting it.



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## Mechanical Formats

### XT1600

Standard unit with internal batteries



### XT3200

Standard unit with internal batteries



### XT6000

Standard unit with internal batteries



XT1600	XT3200	XT6000
Unit supplied in 1 box	Unit supplied in 1 box	Unit supplied in 1 box
BOX 1	BOX 1	BOX 1
UPS with battery pack fitted	UPS with battery pack fitted	UPS with battery pack fitted
1 x Input Cable	1 x Input Cable	Input & Output Hard Wired
1 x Output Cable	1 x Output Cable	REPO Connector
RS232 Cable / USB Cable	RS232 Cable / USB Cable	RS232 Cable / USB Cable
Software CD	Software CD	Software CD
Manual	Manual	Manual

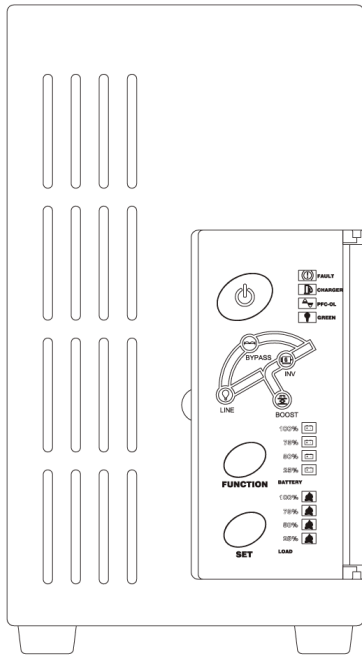
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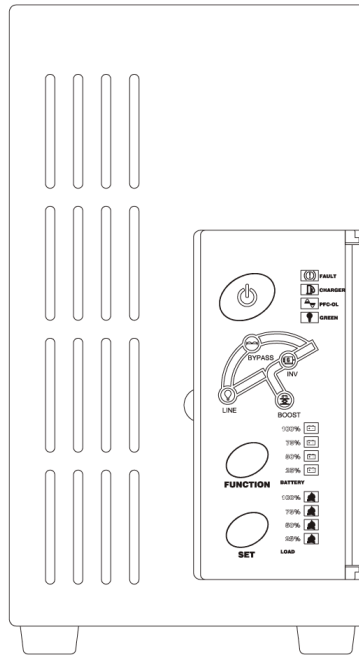
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## Front Panel Layouts

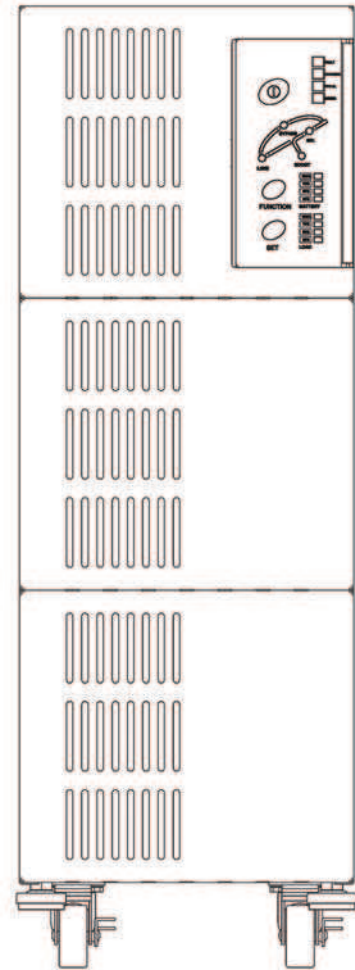
XT1600



XT3200



XT6000

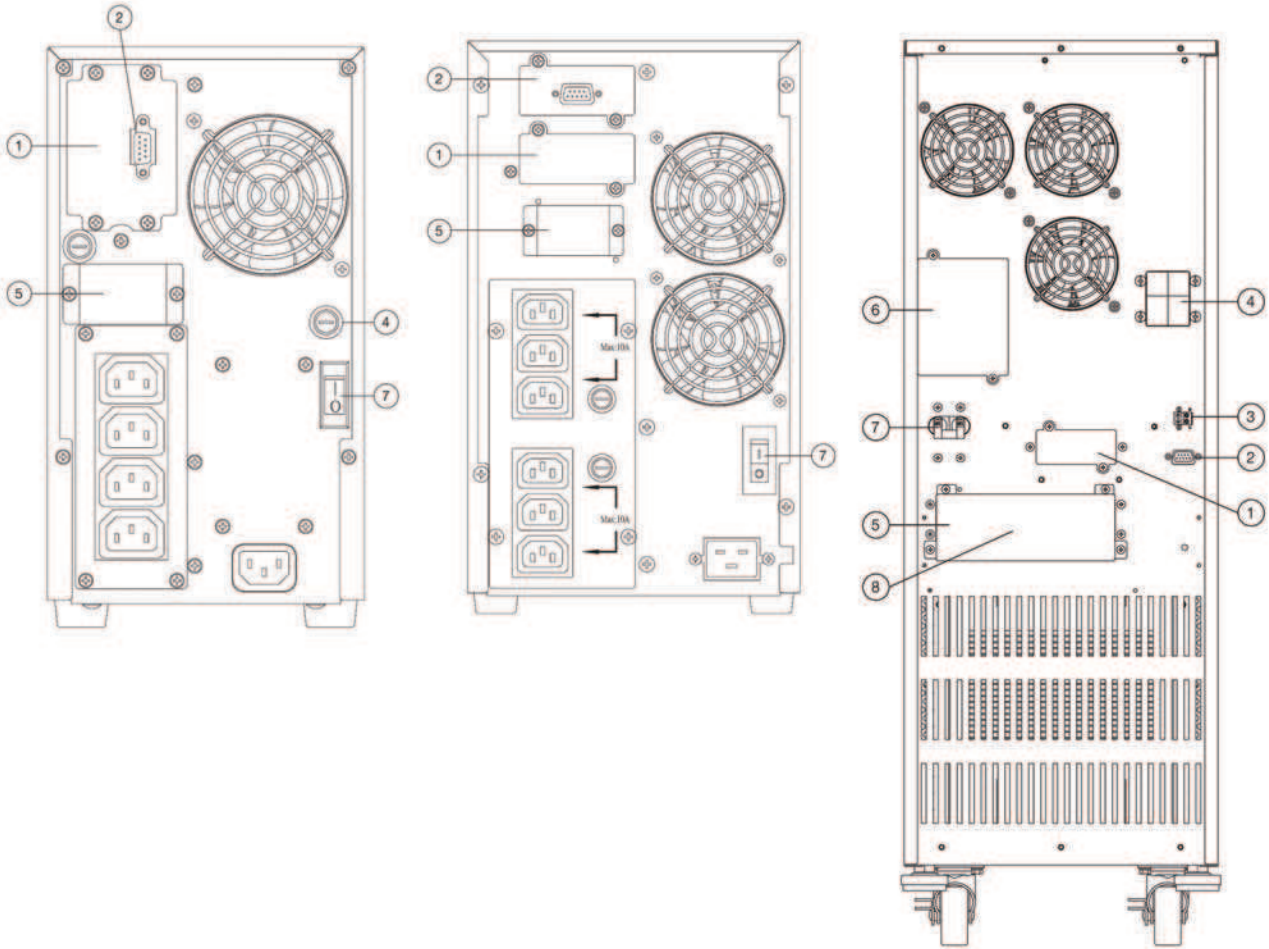


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## Rear Panel Layouts



No.	Item	Description
1	Option Slot	Option slot allows user to fit AS400 Dry Contact Card or SNMP Internal Network Adaptor
2	Comms. Port	Standard Serial RS232 Communications via 9 pin D-type connector
3	REPO	Remote Emergency Power Off (remove link to shutdown)
4	Input/Output Fuses	Overload Protection
5	External Battery	Allows user to connect external battery packs
6	Maintenance Bypass	Allows unit to be isolated for maintenance
7	Input Breaker	Input breaker for 4, 5 & 6kVA Models
8	Hardware Terminals	For Input, Output & Battery (if required)

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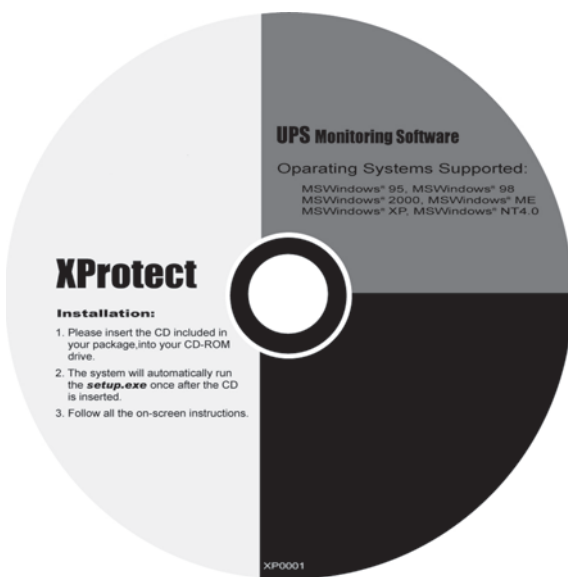
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## Software Options

The XT is supplied as standard with XProtect software. However, the XT has been designed to work with UPSilon software packages, which allow the user to use the XT where MSXP UPS have previously been used.

UPSilon software must be used with the supplied RS232 cable. It will not function if used with the green UPSilon cable.

UPSilon is also available for Unix operating systems - please consult sales office for details.



### XProtect Features:

- Simple installation & configuration
- Read/write function allows for engineer configuration of UPS
- Simple meter display of load battery capacity & temperature
- Complete data & event logging as standard
- Configurable tool bars

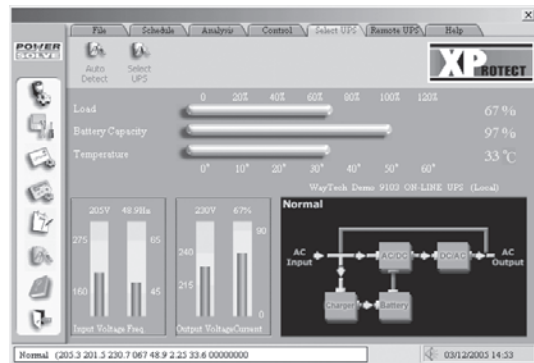
All models within the XT range are provided as standard with shutdown & monitoring software.

This software is supplied on a CD and covers all Windows® based platforms. The software offers all of the functionality of standard shutdown packages with some additional features for remote monitoring and control.

Monitoring is achieved either locally through the RS232 cable (supplied) or remotely via a connected network. This can provide the user with information about major input and output parameters along with alarm information as and when it appears.

Control is via the console in the software and allows the user (again locally via the serial connection or remotely via network connection) to schedule remote system shutdown (password controlled) and general UPS housekeeping.

In combination with its very flexible shutdown features, the software also lets the user know which programs were shutdown at last mains failure, to ensure that no saved files go unmissed.



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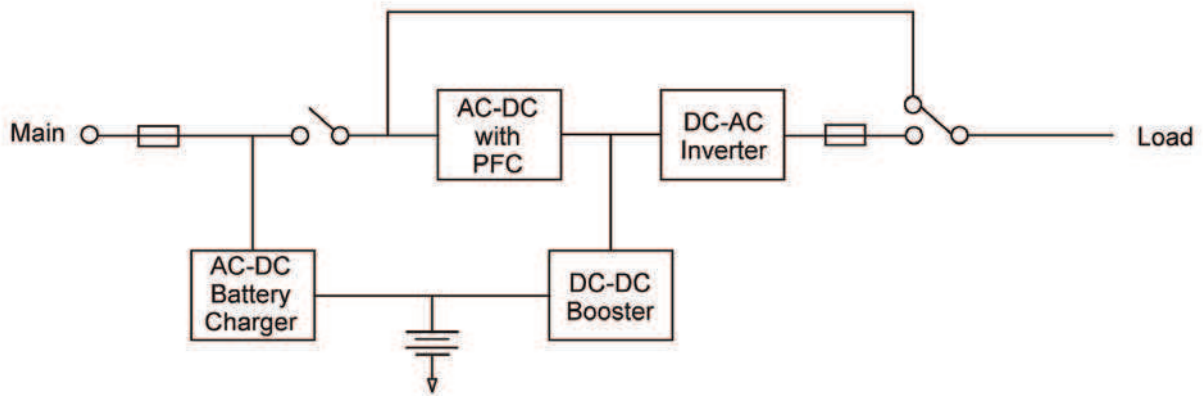


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## UPS Topology

The XT series of On Line UPS provides a high integrity AC power source with zero transfer time on mains fail conditions to battery. This On Line double conversion topology ensures that the load is protected against noise and transients.

XT Series Schematic



## Weights & Dimensions

Model Number	Unit Dimensions Inches (mm)			Unit Weight (total kg)	Shipping Dimensions Inches (mm)			Shipping Weight	Boxes
	Height	Depth	Width		Height	Depth	Width		
XT1600	10.4 (265)	17.7 (450)	5.9 (150)	19	TBC	TBC	TBC	TBC	1 Box
XT3200	12.7 (323)	19.1 (485)	7.6 (193)	38	TBC	TBC	TBC	TBC	1 Box
XT6000	29.7 (755)	24.8 (630)	10.4 (263)	117	TBC	TBC	TBC	TBC	1 Box
XTBM (1-4)	12.7 (323)	7.6 (193)	7.6 (193)	TBC	TBC	TBC	TBC	TBC	TBC