



ML Series Product Presentation

Product Management
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“Even a moment’s disruption can have devastating effects on power sensitive customers such as internet service providers, data centres, wireless telecommunications networks, on line traders, computer chip manufacturers and medical research centres. For these customers, power disruptions can result in data corruption, burned circuit boards, component damage, file corruption and lost customers.” - “Electrical Power Interruption Cost Estimates for Individual Industries, Sectors and US Economy” February 2002, US Dept of Energy, Office of Power Technologies

“The system and its data can become corrupt as a result of power failure...a UPS can protect the system if power is lost. A UPS usually provides...temporary power which may be enough to permit a graceful shutdown” - Special Publication 800-34 Contingency Planning Guide for Information Technology Systems, National Institute of Standards and Technology, June 2002

Range

GEDE's ML Series of UPS is an 'entry level' range of UPS, manufactured to a high quality and functionality level, yet price competitive with UPS of much lower performance and reliability (equivalent in price to many off-line UPS, but providing superior protection)

- 350VA, 500VA, 700VA and 1000VA models
- Line interactive with AVR (Automatic Voltage Regulation)
- Step wave output

Topology

A line interactive UPS provides:

Battery back up and voltage stabilisation

As well as providing back up power from the battery when the mains fails, the UPS filters the mains during normal operation, regulating the incoming voltage

Cost effective UPS protection

Lower price compared to on line UPS

Topology

A line interactive UPS provides:

Small break in power

During the switch from mains to battery, there is a small loss of power to the load (typically 2-4ms, not affecting most computer type loads)

Medium degree of protection

When compared to on line UPS

Key Product Features

Automatic Voltage Regulation

The buck and boost function minimises battery operation, increasing the battery life and ensuring the battery is available when required during a power failure.

Excellent High Voltage Protection

The ML Series UPS will protect itself and the supported load up to 350VAC. Most UPS will damage themselves or the load if the input voltage exceeds 300V

Key Product Features

Extremely Wide Input Voltage Window

At 140 - 300V (350 - 700VA) and 160 - 265V (1000VA), the output voltage is limited to 198 - 254V. This minimises the need for battery use, extending battery life

Battery charging even at 140V

Even in a poor mains situation there is a quick recovery of battery power, maximising support time and increasing battery life

Key Product Features

Crest Factor Input Acceptance 6 : 1

The ML Series is especially suited for computer loads, and no oversizing is necessary

Battery Start (Cold Start)

Allows the UPS to be switched on without mains power, for mobile applications or to perform a quick action during a mains failure

Key Product Features

Small and lightweight

The ML Series is small, modern and lightweight, well-suited for the office environment. It is virtually inaudible, so can be placed next to the user.

Intelligent communication

Enables communication between the UPS and supported load. Automatic shutdown software is provided with every UPS, to ensure a graceful shutdown in the event of a lengthy mains failure

Key Product Features

The battery is the most critical component of any UPS. The ML Series UPS superior battery management protects the battery and extends its life, providing the following features:

Quick battery test

Ensures there are no surprises – regular checking of the battery will provide the user with an ‘early warning system’, alerting when the battery needs to be replaced

Automatic boost charge

For areas with poor mains, ensures a faster recharge time than with float charge only. ‘Superboost’ feature makes the input voltage window even wider

3 hours battery recharge time

The battery charges to 80% capacity within 3 hours. This means that loads even in very poor mains areas can be supported more than once during a shift

Autocharging

The charger switches on automatically when the mains input is present.

Lowest battery temperature during mains operation

The electronic design of the UPS means the battery temperature is very low, increasing battery life

No load shutdown

On battery at less than 5% load, the UPS performs an automatic shutdown to protect the battery.

Applications

PCs

Servers

Workstations

Hubs, Switches and Routers

Cash Register Systems (EPOS)

Fax, Modem, ISDN Adaptors

Product Comparison

		Topology	Range (VA)	Input voltage window	Dimensions mm	Battery runtime	Recharge time	Warranty
GE	ML Series	Line interactive (Stepwave output)	350	140 - 300V	150x110x300	3 mins	3 hours	3 years including battery
			500		150x110x420			
			700		150x110x450			
			1000	160 - 265V				
Power-ware	3110	Off line	300	176 - 272V	150x393x59	3 mins	8 hours	2 years UPS, 12 months battery
			550		172x376x79			
			700					
Liebert	Powersure PSA	Line interactive (Stepwave output)	350	163 - 282V	116x196x222	5 mins	6 hours	2 years including battery
			500					
			650		116x358x222			
			1000					
MGE	Pulsar Ellipse	Off line	300	184 - 264V	78x245x252	8 mins	8 hours	2 years UPS, 12 months battery
			500					
			650		78x303x309			
			800					
			1200		78x348x354			

The ML Series 3 year warranty is well above the industry standard, even compared to off line UPS

Product Comparison

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			500		150x110x420			
			700		150x110x450			
			1000	160 - 265V				
APC	BackUPS	Off line	350	180 - 264V	165x92x285	3 mins	8 hours	2 years UPS, 12 months battery
			500					
	BackUPS Pro	Line interactive (Stepwave)	1000	175 - 295V	216x170x439	6 mins	5 hours	
			1400					
Riello	Personal Dialog	Line interactive (Stepwave output)	300	Equal to input	137x201x374	9 mins at "typical load"	6 hours	2 years including battery
			450	179 - 265V				
			650					
	1000							
	Net Dialog		1500		231x158x376			

The wide input voltage window of the ML Series means that the battery will be used less frequently, compared to many other UPS