Comet **EX**treme
4.5/6/9/12 kVA

Modular protection for your computer rooms, networks, Internet and telecom systems

Advanced Features

◗ **High performance and reliability**
 – On-line double conversion technology
 – Input voltage ranging from 84 to 264 Volts without using battery power

◗ **Redundancy & High availability**
 – Cold start enables UPS to power up without utility
 – Automatic bypass in case of overload or UPS fault
 – Hot-swappable batteries

◗ **Advanced communications**
 – Wide range of communication solutions
 – Solution-Pac remote administration software
 – UPS-Driver personalization software

◗ **Ease of use**
 – Easy installation and integration
 – Full-featured user interface

◗ **Flexibility and scalability**
 – Backup times from 10 minutes to 8 hours
 – ECO mode (efficiency up to 97%)

M G E
UPS SYSTEMS

THE UNINTERRUPTIBLE POWER PROVIDER

The Comet **EX***treme was designed with the same on-line double conversion technology that has won over 95 of the Fortune 100 companies. We are now able to offer the same technology in a high efficiency/small footprint UPS for businesses that need a customized protection solution.*

High performance and reliability

◗ On-line double-conversion technology
This technology guarantees a consistently high level of power quality. Whatever the disturbances on the distribution system, the waveform is regenerated by the UPS to produce a noise-free sinewave output. The battery is used only as a backup source.

◗ High-performance battery charger
The Comet **EX***treme* battery charger:

– Reduces battery recharge time (80% backup time recovered in two hours).

– Increases the service life of the battery by taking into account manufacturer parameters, ambient temperature and battery aging.

– Protects the battery against damage caused by deep discharge.

◗ Avoids disturbances on the distribution system by correcting the power factor

◗ Backfeed protection to avoid propagating faults on the distribution system

◗ Wide input-voltage range
This technology makes Comet **EX***treme* unique in the market. You can adjust the input voltage window (down to 160 to 265V when you use 100% of the load, down to 120V for 66% load and down to 84V for 50% load) to reduce the number of transfers to battery power while main-taining constant output voltage. This maximizes the battery power available for serious power problems and extends battery life.

High availability

◗ Cold start on battery power
Enables UPS to start without utility power if required allowing your equipment to run in the event of an emergency.

◗ Automatic bypass
In the event of an overload or UPS fault, Comet **EX***treme* automatically transfers your equipment to utility AC power.

◗ Redundancy
For your critical applications, you can combine two Comet **EX***treme* UPSs to create a redundant power solution. With your UPSs and a Multislot module equipped with a MetaUPS card and an SNMP card, you can monitor the status of both UPSs via your network.

◗ Hot-swappable batteries
Comet **EX***treme* lets you service the UPS module and replace batteries without interrupting the supply of power to your applications.

Advanced communications

Comet **EX***treme* offers a complete set of communication solutions and accessories designed for electrical and computer applications.

◗ Communications port
The EIA-232 (RS232) link is available for easy connection of the UPS to the server. It may be used for:

– ***Personalization of the*** Comet **EX***treme* by modifying the factory-set parameters (output voltage, intervals between battery tests, operation on bypass, ECO mode, etc.) via UPS-Driver software.

– ***Local or remote administration*** (SNMP/WEB) of the UPS and the protected servers, using Solution-Pac software.

◗ Solution-Pac software
Solution-Pac may be used to:
– Warn the administrator via fax, email or pager.
– Automatically shut down different servers in a multi-platform environment.
– Remotely supervise and control UPSs.

Solution-Pac ensures clean individualized shutdown of servers in heterogeneous environments.

◗ Two communications slots
These slots let you add one or two USB, SNMP, JBus communication cards, or even a relay contact card for UPS status indication. These cards make UPS communications independent of the server. UPS status information is available to any network connected system.

Communications slots *UPScontrol remote control panel*

◗ UPScontrol remote display
Using UPScontrol, the various UPS parameters are remotely displayed.

◗ MultiSlot expansion module
This module provides three additional communications slots which allows multiple network communications such as: SNMP (ethernet), U-Talk, HID, SHUT, etc. as well as providing the ability to concentrate data from a redundant UPS configuration.
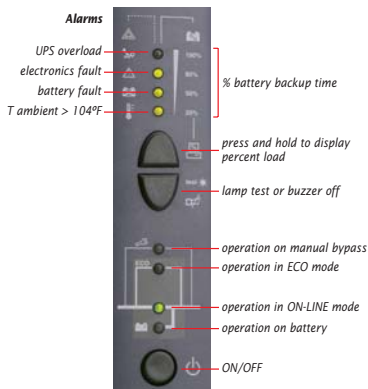
Ease of use

◗ Easy installation and integration
– Tower and 19"-rack models
– Complete installation kit
– Quick start-up guide
– Easy connection via terminal blocks

The Comet EXtreme Rack comes with sliding rails for 24-36 inch rack-mount cabinets.

◗ Comprehensive display and controls

Alarms

UPS overload
electronics fault
battery fault
T ambient > 104°F
% battery backup time

press and hold to display percent load

lamp test or buzzer off

operation on manual bypass
operation in ECO mode
operation in ON-LINE mode
operation on battery

ON/OFF

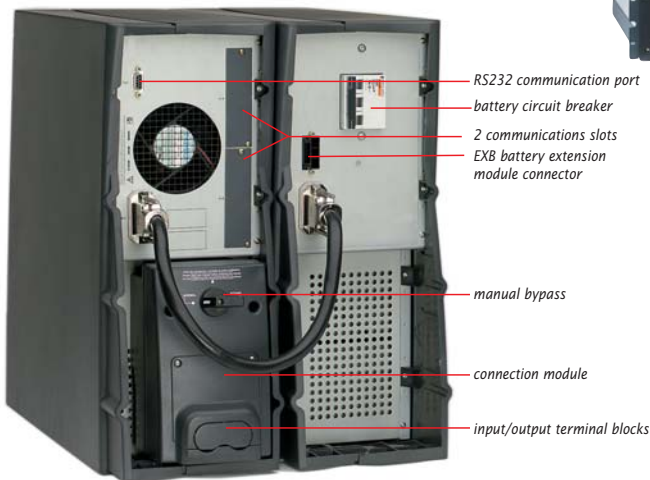Comet **EX**treme *Terminal blocks connection*

Power Range and Runtime Scalability

◗ The Comet **EX**treme offers a variety of solutions as your business grows. From 4.5kVA up to 12kVA, you can choose the right products to suit your needs.

◗ The extended battery module design allows you to scale up your runtime to maximize uptime for your critical systems.

◗ The modular design allows you to configure power backup systems for your specific needs. Choose your voltage needs, redundancy needs and runtime needs. Comet **EX**treme is a reliable and economical solution.

RS232 communication port
battery circuit breaker
2 communications slots
EXB battery extension module connector

manual bypass

connection module

input/output terminal blocks

Rear view of Comet EXtreme 6

◗ Emergency Power Off
An emergency power off function is available as an option.

◗ Electromagnetic compatibility
Comet **EX**treme 19" rack models comply with the most severe EMC standards (level B) to avoid all risk of disturbances in your network rack-mount cabinets.

Return on Investment

Why is it profitable to buy the MGE Comet **Ex***treme?*

◗ You will save up to 15% on your electric bill with the Comet **EX***treme's* power factor corrected input.

◗ Comet **EX***treme* also limits downstream harmonics that can disturb sensitive equipment sharing the utility power and create costly disturbances.

◗ Impressive footprint optimizes your computer room or rack cabinet space - only 12U for 6kVA protection (208V input/120V output).

Characteristics

Comet **EX**treme		4.5kVA	6kVA		9kVA	12kVA
General						
Power		4.5kVA/3kW	6kVA/4kW		9kVA/6kW	12kVA/8kW
Nominal input voltage			200/208/220/230/240V			
Frequency range			50/60Hz			
Power factor (THD Input)			0.99 (<5%)			
Sinusoidal output voltage			104/120/200/208/220/230/240V (with transformer); 200/208/220/230/240V (without transformer)			
Efficiency		92%	93%		92%	93%
Crest factor		4.2	3.1		4.2	3.1
Short circuit current (A)		82	82		164	164
Overload capacity (inverter)			130% for 60s, 160% for 10s, 250% for 1s			
Batteries						
Standard backup time	Full load	14 min (1 batt module)	9 min (1 batt module)		14 min (2 batt modules)	9 min (2 batt modules)
	Half load	30 min (1 batt module)	28 min (1 batt module)		30 min (2 batt modules)	29 min (2 batt modules)
EXB battery (Full load)	LA	35 min (2 batt modules)	26 min (2 batt modules)		35 min (4 batt modules)	29 min (4 batt modules)
extension module	XLA (2xLA)	50 min (3 batt modules)	39 min (3 batt modules)		55 min (6 batt modules)	40 min (6 batt modules)
	2xXLA	97 min (5 batt modules)	73 min (5 batt modules)		100 min (10 batt modules)	69 min (10 batt modules)
Automatic battery test (programmable)			Every day/Once a week/Once a month			
Typical recharge time			2 hours 45 minutes			
Battery Type			5Ah			
Remote Emergency Power Off			Yes			
Communications						
Port			1 RS232/U-Talk + 2 communication slots			
Management software included			Solution-Pac & UPS driver			
Optional cards for UPS or Multislot module			SNMP ; 2 RS232 U-Talk or Basic (volt-free contacts) ports ; RS232 or RS485 Jbus/ModBus ; 6 relay contacts 250V 2A ; USB ; 2 RS232 COM ports (HID protocol) ; 2 AS400 (volt-free contacts) or/and remote shutdown ports			

Power Distribution Module (options)

Configuration 1	16xNEMA 5-15
Configuration 2	4xNEMA L5-20 and 8xNEMA 5-15
Configuration 3	4xNEMA L6-30 and 8xNEMA 5-15
Configuration 4	6xNEMA L5-20 and 2xNEMA L6-30
Configuration 5	4xNEMA 5-20 and 8xNEMA 5-15
Configuration 6	4xNEMA 6-20 and 8xNEMA 5-15
Configuration 7	6xNEMA 5-20 and 2xNEMA 6-30

Physical (HxWxD in inches)/Weight   120V output (with transformer)

Tower	17.44x20.43x18.3 (3 modules)/233 lbs	17.44x35.62x18.3 (4 modules)/479 lbs
Rack	20.89(12U)x19x18.18 (3 modules)/249 lbs	36.56(21U)x19x18.18 (5 modules)/478 lbs

Physical (HxWxD in inches)/Weight   200/208/220/230/240V output (without transformer)

Tower	17.44x13.62x18.3 (2 modules)/136 lbs	17.44x22.12x18.3 (3 modules)/259 lbs
Rack	13.93(8U)x19x18.18 (2 modules)/151.8 lbs	22.63(13U)x19x18.18 (3 modules)/283.8 lbs

Environmental

Acoustic noise	45 dB
Operating temperature	0 to 40ºC, 32 to 104º F
Altitude	3280 feet

Conformance

Approvals	UL, cUL, ISO 9001, ISO 14001

Warranty

	2 years, parts and labor

Comet **EX**treme 4.5/6kVA Standard Configuration (208V output) without transformer

One electronic module and one EXB battery module

Comet **EX**treme
Extended Batteries LA 4.5/6kVA

Comet **EX**treme 9/12kVA Standard Configuration (208V output) without transformer

One electronic module and two EXB battery modules

Comet **EX**treme
Extended Batteries LA 9/12kVA