

Enterprise Networks

Telecom

Data centres

Process & Infrastructures

Three Phase UPS

Galaxy 5000

20/30/40/60/80/100/120 kVA

A new dimension of performance

High power quality

The Galaxy 5000 range supplies clean stable power to sensitive loads to ensure

- ▶ Optimum operation
- ▶ Extended life.

Advanced architecture

- ▶ On-line double conversion supporting the load whether the mains is present or not
- ▶ DSP PWM control with variable pulse width and frequency

The latest compact IGBT Sixpack technology.

Output voltage total harmonic distortion (THDU) less than 2%.

Flexibility: upgrading along with continuity of service

Customer's power demands, types of load to be protected and backup times needed are always changing, Galaxy 5000 range is extremely flexible.

- ▶ Paralleling of up to 6 modules for higher power or redundancy
- ▶ A choice of backup times from 5 minutes to 8 hours
- ▶ Many different architectures with Upsilon STS
- ▶ Compatible with inductive and leading power factor loads
- ▶ Numerous options can be added to the UPS module (lightning arrester, backfeed protection, etc.).

Reduced total cost of ownership

The Galaxy 5000 is designed to minimise infrastructure costs:

- ▶ Small footprint with built-in batteries up to 80kVA rating
- ▶ Input current total harmonic distortion (THDI) less than 3% avoiding oversized cabling, circuit breakers and generator set

The Galaxy 5000 reduces operating costs:

- ▶ The efficiency in on-line double conversion mode is up to 94% and during economy mode the efficiency can reach 97%, reducing your utility bill.



High power availability

The Galaxy 5000 has been designed for non-stop, 24/7 operation.

- ▶ Fault tolerance with built-in automatic and manual bypass
- ▶ Very low component count and redundant cooling for higher reliability
- ▶ High overload and short-circuit capacities to improve down stream circuit discrimination.
- ▶ Battery backup time assured by the Digibat battery management system.

Safe and easy to use

The Galaxy 5000 has an intuitive man / machine interface making it easy to control.

- ▶ Large, high definition display (120x93mm, 320x240 pixels)
- ▶ Animated mimic display
- ▶ 2500 event logs
- ▶ Remote supervision compatible with a wide range of building and network management systems.

Ideal for medium power data centres and industrial application



Data centres: server rooms, communications centres, data storage units, network equipment.



Telecommunications: PSTN/ISDN infrastructure, cell phone MSCs and OMCs, Internet service providers, transmitters, control rooms, editing studios.



Industrial: critical continuous processes (motors, speed controllers), clean rooms, paint booths, instrumentation, monitoring, controls, safety systems.

THE UNINTERRUPTIBLE POWER PROVIDER

MGE
UPS SYSTEMS

Communications

The Galaxy 5000 range can be connected to all type of networks

- ▶ To communicate the UPS status
- ▶ To shut down the operating systems of the servers connected, automatically in a controlled manner
- ▶ To be supervised as part of a group of UPSs.



Easy to maintain

MGE maintenance engineers have played an active role in designing the Galaxy 5000 range to ensure that maintenance and troubleshooting is faster and safer.

- ▶ All components are accessible with greater ease
- ▶ Life cycle monitoring system for preventive maintenance.

Standard features

- ▶ On-line double conversion architecture (EN50091 Voltage and Frequency Independent UPS) with built in static switch and maintenance by-pass
- ▶ IGBT charger with power factor correction for low input current total harmonic distortion
- ▶ Soft start, walk-in charger for compatibility with generator sets
- ▶ Up to 8 hours backup time
- ▶ Can start without mains (cold start)
- ▶ Batteries built-in up to 80kVA
- ▶ Circuit breaker for deep discharge protection
- ▶ Redundant cooling on secondary source
- ▶ Modular paralleling
- ▶ Sequential start-up of UPSs (in parallel configuration) to reduce genset size
- ▶ Multilingual graphic display
- ▶ LED overview
- ▶ 2500 event logging
- ▶ Emergency stop (EPO)
- ▶ Delivered with one programable alarm relay card for remote indication.

MGE PowerServices™

1 year guarantee, including batteries.

- ▶ Commissioning: commissioning your installation in accordance with the OEM's recommendations
- ▶ Teleservice: remote monitoring via the modem
- ▶ Maintenance contracts: a selection that suits your specific needs
- ▶ Battery replacement: optimum match of UPS and batteries
- ▶ Battery monitoring: monitoring and continuous analysis of every cell.
- ▶ Site audit: analysis and recommendations based on the technical environment.

Available options

- ▶ Eco operating mode
- ▶ Transverse communication cards (up to 4)
- ▶ Monitoring and shutdown software
- ▶ Isolation transformer
- ▶ Top cable entry
- ▶ Harsh environment Kit
- ▶ B1000 or Cellwatch, block cell battery monitoring
- ▶ Management of 2 battery circuit breakers
- ▶ Backfeed protection for AC Normal and By-Pass inputs
- ▶ Surge suppressor
- ▶ EMC : Category C2
- ▶ Synchronisation module
- ▶ Total fan redundancy and failure detection.

Technical characteristics

Nominal rating (kVA) PF = 0.8	20	30	40	60	80	100	120
AC Normal supply input							
Input voltage range	250V ⁽¹⁾ to 470V three phase						
AC Normal and By-Pass inputs	Separate or common						
Frequency	50Hz / 60Hz ± 8%						
Input current total harmonic distortion (THDI)	< 3%						
Input power factor	> 0.99						
AC Bypass input							
Nominal input voltage	340V to 470V Three phase + neutral						
Frequency	50Hz / 60Hz ± 8%						
Output							
Output voltages	380V - 400V - 415V ±3% three phase + neutral						
Voltage regulation	± 1%						
Frequency	50Hz / 60Hz						
Over load	150% 1 minute, 125% 10 minutes						
Output voltage total harmonic distortion (on non linear loads)	THDU < 2%						
Max load crest factor	3:1						
Batteries							
Backup time	5 minutes to 8 hours with standard internal charger						
Type	sealed lead acid, open lead acid, nickel cadmium						
Overall efficiency							
Double conversion mode	up to 94%						
Economy mode	up to 97%						
Environmental conditions and noise							
Storage temperature	-25°C to +45°C						
Operating temperature	up to 40°C (2)						
Operating altitude	1000 m						
Paralleling							
Modular	up to 6 modules						
Standards and approvals							
Performance and safety	IEC/EN 62040-1, IEC/EN 60950						
Performance and design	IEC/EN 62040-3						
Design and manufacturing	ISO 14001, ISO 9001, IEC 60146						
EMC immunity	IEC 61000-4 - 2 to 6						
EMC emissions	IEC 62040-2 Category C3						
Approvals	TÜV - LCIE - EMC - CE Mark						
Dimensions and weight (depth = 850 mm and height = 1900 mm)							
	20	30	40	60	80	100	120
UPS without batteries (width in mm)	710						
Weight	400kg			1110		520kg	
UPS + built-in batteries (width in mm)	1110						
From 5 minutes to 35 minutes ⁽³⁾			738kg	888kg	1050kg		
From 10 minutes to 50 minutes ⁽³⁾		732kg	888kg	975kg			
From 15 minutes to 90 minutes ⁽³⁾			975kg				
From 20 minutes to 110 minutes ⁽³⁾	738kg	888kg					
From 30 minutes to 120 minutes ⁽³⁾	888kg	975kg					
Battery cubicles (width and weight)							
From 5 minutes to 35 minutes ⁽³⁾ (width in mm)	710						
From 5 minutes to 35 minutes ⁽³⁾ (weight)						885kg	980kg
From 10 minutes to 50 minutes ⁽³⁾ (width in mm)						710	1010
From 10 minutes to 50 minutes ⁽³⁾ (weight)						885kg	1142kg
From 15 minutes to 80 minutes ⁽³⁾ (width in mm)						710	1010
From 15 minutes to 80 minutes ⁽³⁾ (weight)						885kg	1142kg
From 20 minutes to 110 minutes ⁽³⁾ (width in mm)						710	1010
From 20 minutes to 110 minutes ⁽³⁾ (weight)						885kg	1142kg
From 30 minutes to 120 minutes ⁽³⁾ (width in mm)						710	1010
From 30 minutes to 120 minutes ⁽³⁾ (weight)						882kg	1307kg
						1764kg	2439kg
							2742kg

1: At 70% nominal load. 2: There is a risk of premature battery ageing above 25°C. 3: From 100% to 30% nominal load.

MGE UPS SYSTEMS

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