

UPS

EVOLUTION

650/850/1150/1550/2000 VA

EVOLUTION S

1250/1750/2500/3000 VA

High density protection for network devices

Protection for 1 to 15 servers, ideal for:

- network devices
- rack-mounted servers
- conventional rack-mounted or tower servers
- network storage systems

Maximum availability

- Powershare. The Evolution output sockets are individually controlled to provide load-shedding to maximise the backup time and provide remote reboot and sequential start-up as standard.
- Continuous power supply. Hot swappable batteries. The HotSwap MBP (Maintenance By-Pass) module allows the UPS to be replaced without interrupting the power supply.
- Long backup times. 1 to 4 EXB battery units can be added to the Evolution S (from 1250 to 3000VA).

Minimum total cost of ownership

- Line-interactive HF technology: the best price/performance ratio.
- No additional cost: rack 1U and RT models are provided with the rail kits.
- Remote supervision. A wide range of options using the Solution-Pac supplied: SNMP and HTML and relay outputs.

PRODUCT FEATURES & BENEFITS

- 1 Full user interface:
 - ON/OFF button for UPS and outlets
 - Load protected/ not protected LED
 - Utilised power level/Battery charge level
 - Status of switchable outlets
- 2 Panel for replacing batteries without interrupting the output.
- 3 1 USB port + 1 serial port + remote ON/OFF and emergency stop inputs.
- 4 EXB battery unit connector.
- 5 EXB units recognised automatically.
- 6 4 IEC 10A sockets, including 2 programmable sockets.
- 7 8 IEC 10A sockets, including 4 programmable sockets.
- 8 8 Communications card slots.



Rack 1U and
Tower models

Flexibility

Evolution has unmatched Flexibility.

- Format. Evolution is available in tower format, rack 1U format, RT2U convertible rack/tower version (optimised for rack mounting) or RT3U (for tower or short-depth racks).
- Connections. With FlexPDU and HotSwap MBP the Evolution can be connected by sockets or terminal blocks. They can be installed as required behind, on the side or on top of the unit.
- Compatible with high power factor loads. The Evolution S are rated for 0.9 total power factor (1250 VA/1150 W, 1750 VA/1600 W, 2500 VA/2250 W and 3000 VA/2700 W)
- Interfaces. USB + serial + remote start/stop + slot for optional communications card..



Evolution 1550



Evolution S 3000 RT2U Netpack

■ MGE PowerServices™

2 year guarantee, including batteries

Standard exchange of product in case of failure, including batteries.

■ Associated services(1):

Warranty+: 3 year extended guarantee

1: Depending on the country, see www.mgeups.com/services.

■ Communications software and hardware

Solution-Pac software on CD-ROM with each UPS

For monitoring the server(s) powered by the UPS and for local and remote UPS supervision.

Network Management Card (NMC) 2006

For connecting the UPS to an Ethernet 10/100 network, raising SNMP alarms and supervising the UPS using a simple browser interface.

NMC environment sensor

Monitoring the temperature, humidity and 2 relay contacts via SNMP or HTML.

Enterprise Power Manager supervisor

For comprehensive management of a set of UPSs using a Windows PC.

Management-Pac 2 suite

NMS integration kit: HP OpenView, IBM Tivoli Netview, CA Unicenter, etc.

Management Card Contacts/Serial

Add a second relay contacts or Serial port to the UPS.

UPS Control remote display

To monitor the UPS status up to 25m from the unit.

Technical Characteristics

Model	Evolution					Evolution S			
	650	850	1150	1550	2000	1250	1750	2500	3000
Rating	650 VA 420 W	850 VA 600 W	1150 VA 770 W	1550 VA 1100 W	2000 VA 1600 W	1250 VA 1150 W	1750 VA 1600 W	2500 VA 2250 W	3000 VA 2700 W
Format	Tower or 1U Rack					RT2U (tower / rack 2U)			
						& RT3U			

Electrical characteristics	
Technology	Line-Interactive High Frequency (Booster + Fader)
Input voltage and frequency ranges without using batteries	160V-294V (adjustable to 150V-294V) 47 to 70 Hz (50 Hz system), 56,5 to 70 Hz (60 Hz system) (1)
Output voltage and frequency	230 V (+6/-10 %) (2), 50/60 Hz +/- 0.1 %

Connections	
Input	1 IEC C14 (10 A) socket
Outputs	4 IEC C13 (10 A) 8 IEC C13 (10 A) 1 IEC C20 (16 A) socket 8 IEC C13 (10 A) sockets IEC C19 (16 A) socket
Remotely controlled sockets	2 groups of 1 x IEC C13 (10 A) 2 groups of 2 x IEC C13 (10 A)
Additional outputs with HS MBP	4 FR/Schuko sockets or 3 BS sockets or 6 IEC 10A sockets or terminal blocks (HW version)
Additional outputs with FlexPDU	8 FR/Schuko sockets or 6 BS sockets or 12 IEC 10A sockets

Batteries	
Typical backup times for 50 and 70% of the VA	
Evolution/Evolution S	9/6 mn 16/7 mn 14/7 mn 14/7 mn 14/7 mn 20/14 mn 14/9 mn 17/11 mn 15/10 mn
Evolution S + 1 EXB	- - - - - 105/60 mn 60/36 mn 85/55 mn 60/42 mn
Evolution S + 4 EXB	- - - - - 300/200 mn 180/115 mn 290/200 mn 210/135 mn
Battery management	Automatic weekly test (period adjustable), automatic recognition of external battery units => continuous maximisation of backup time + deep discharge protection

Interfaces	
Communication ports	1 USB port + 1 RS232 serial port and relay contacts(3) + 1 mini terminal block for remote ON/OFF and Remote Power Off
Communications card slots	1 slot for NMC Minislot 2006 card (included in Netpack versions) or NMC ModBus/Bus or MC Contacts/Serial

Operating conditions, standards and approvals	
Operating temperature	0 to 35°C 0 to 40°C
Noise level	< 40dbA < 45 dBA < 50 dBA
Performance - Safety - EMC	IEC/EN 62040-1-1 (Safety), IEC/EN 62040-2 EN 50091-2 class B (EMC), IEC/EN 62040-3 (Performance), IEC/EN 61000-4-2, 61000-4-3, 61000-4-4; 61000-4-5, 61000-4-6, 61000-4-8 (EMI)
Approvals	CE, CB report, TÜV

Dimensions (WxDxH) in mm / Weight in kg	
Dimensions of the Tower	147*418*234 147*492*234 440*509*86,2 (2U) 440*634*86,2 (RT2U)
Dimensions of the Rack	438*366*43,2 (1U) 438*512*43,2 (1U) 438*556*43,2 (1U) 440*484*130,7 (RT3U)
Weight of the Tower/Rack	8,4/10,1 10,85/16,1 12,5/16,6 16,53/20 25,7 24,3 26,6 33,8 33,8 (RT2U) 34,3 (RT3U)
Dimensions of EXB	- - - - - 440*509*86,2 (2U) - 440*484*130,7 (3U)
Weight of the EXB	- - - - - 30,4 - 41,7

1: Up to 40 Hz in low-sensitivity mode (programmable using Personal Solution-Pac software. 2: Adjustable to 200V (10 % derating of output power) / 208 V / 220 V / 230 V / 240 V. 3: USB and RS232 ports cannot be used simultaneously.

Part numbers

Evolution	650	850	1150	1550	2000	S 1250	S 1750	S 2500	S 3000	S 3000
					RT2U	RT2U	RT2U	RT2U	RT3U	RT2U
								Netpack*		Netpack*
Tower	68450	68452	68454	68457	-	-	-	-	-	-
Rack 1U	68451	68453	68455	68458	-	-	-	-	-	-
Convertible Tower/Rack	-	-	-	-	68460	68456	68459	68463	68464	68465
EXB Models	-	-	-	-	-	68470	68470	68471	68471	68471

* NMC card included in Netpack versions.