



LOCAL AREA NETWORK (LAN)



SERVICE



DATA CENTER



TELECOM-MUNICATION DEVICES



e-BUSINESS (Servers, ISP/ASP/PoP)



INDUSTRIAL PROCESSES



INDUSTRIAL PICS



ELECTRO MEDICAL DEVICES



EMERGENCY DEVICES (Lights/Alarms)

# GEMIN-XP SERIES<sup>TM</sup>

## 10-120 kVA (3Phin/3Phout)



### ABSOLUTE PROTECTION

Gemin-XP is an on-line double conversion UPS (VFI SS 111 in accordance with IEC EN 62040-3) with a transformer isolated inverter. Gemin-XP has a compact foot print and high quality output to provide the ultimate power protection for "mission critical" applications: data processing, telecommunications, industrial processes, security and electro-medical systems.

The Gemin-XP range includes three-phase output models from 10 to 120kVA. Models from 10-120kVA are available with a 6 pulse rectifier.

### EASY SOURCE

Gemin-XP technology removes the problems of over sizing upstream power sources, whilst improving load power factors and current harmonics. The UPS features the latest input-current absorption techniques including progressive rectifier start-up and the option to reduce battery charging currents. These features make Gemin-XP one of the most generator and environmentally friendly UPS available.

### POWER CONTINUITY

ESSCO UPS has been researching and developing UPS technologies for critical applications, worldwide and for many years. ESSCO UPS solutions are flexible, offering the highest levels of availability, whilst achieving low total cost of ownership.

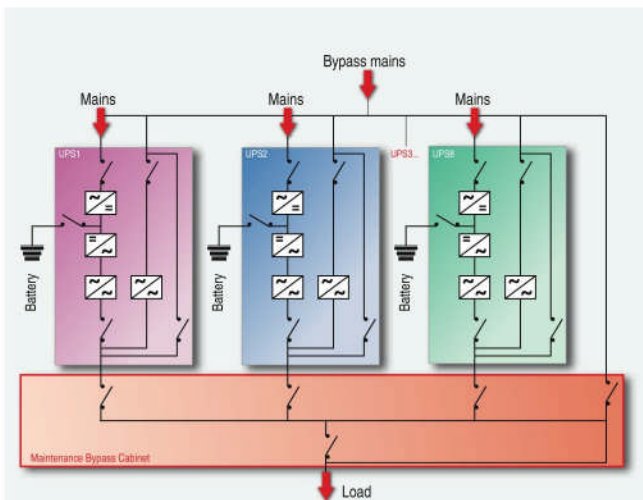
ESSCO UPS are designed to be resilient, with key component inbuilt redundancy. The UPS are designed for ease of installation and maintenance, with top entry cable cabinet options, and simple but secure access to connection terminals and communications interfaces.

## MAXIMUM LEVELS OF RELIABILITY AND AVAILABILITY

Distributed or centralised parallel up to 8 units per backup (N+1) or power parallel. A parallel between models with different power levels is possible.  
**Hot System Expansion (HSE)** : HSE allows the insertion of a new UPS within an existing system, without the need to switch off the UPSs which are already operating or switch them to bypass mode.  
 This guarantees maximum load protection, even during maintenance and enlargement.

Maximum levels of availability also in the event of an interruption to the parallel bus cable: the system is "FAULT TOLERANT". It is not affected by faults with the connection cables and continues to power the load without a continuity solution, signalling the anomaly with an alarm.

**High Efficiency Parallel System (HEPS)** : this is the system which optimises the efficiency of the system in parallel, according to the power required by the load at that moment. The N+1 redundancy is nevertheless guaranteed, but each UPS operating in parallel operates at the best possible load level in order to achieve the highest overall efficiency.

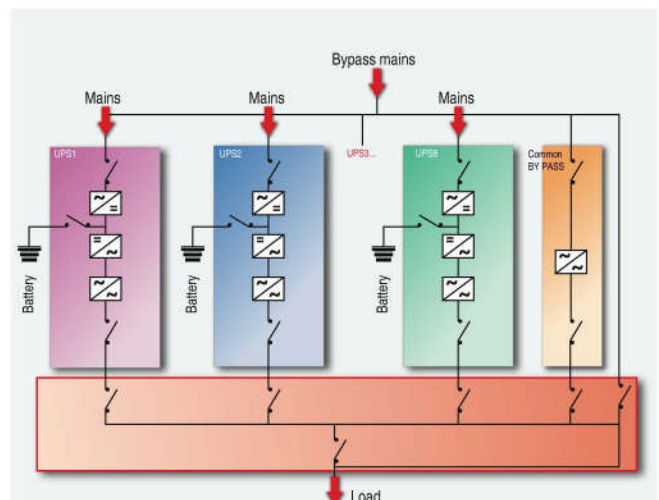


**Parallel configuration of up to 8 units with distributed bypass**

Parallel architecture which guarantees the redundancy of the power source. + **Flexibility and modularity**

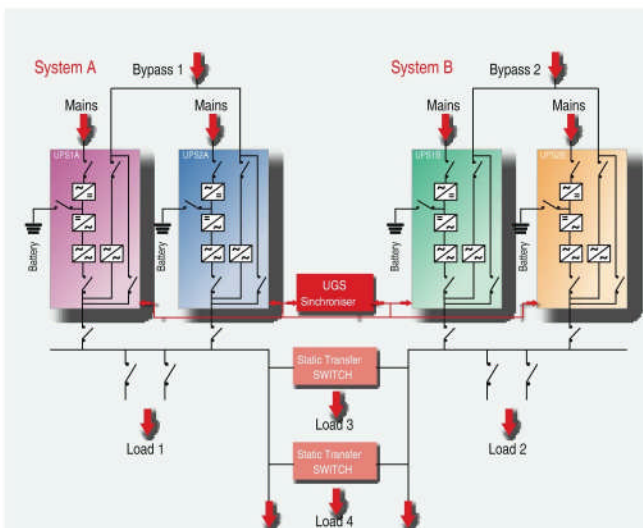
## OPTIONS

- **UGS - UPS Group Synchroniser**  
 Allows 2 or more UPS not in parallel to remain synchronised even during a power failure.  
 The UGS also enables ESSCO UPS to be synchronised with an independent power source, even of a different power rating.
- **PSJ - Parallel Systems Joiner**  
 Connects two UPS groups operating in parallel configurations through a power coupling switch.  
 The Slave UPS Group is permanently synchronised to the Master group. Should one of the UPS in one of the parallel groups fail, the PSJ will automatically connect the remaining UPS to the other group via an external bypass.



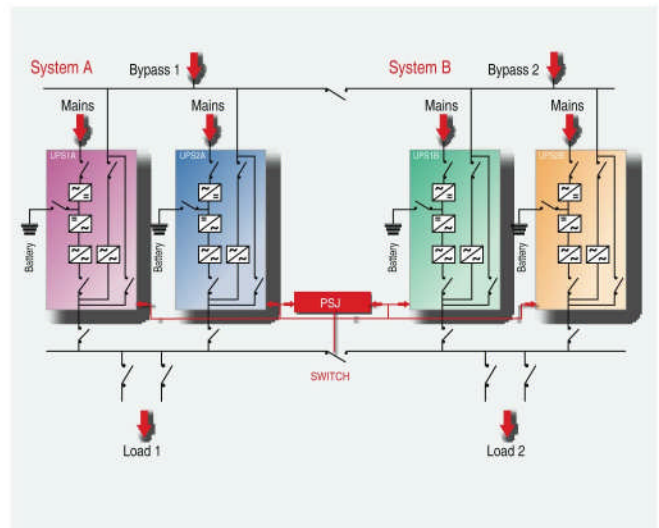
**Parallel configuration of up to 8 units with common bypass**

Parallel architecture which guarantees the redundancy of the power source, with autonomous bypass management. + **Selectivity downstream faults in bypass mode**



**Dynamic dual bus configuration**

Solution which ensures redundancy until the distribution of the power supply to the loads + **Downstream fault discrimination**



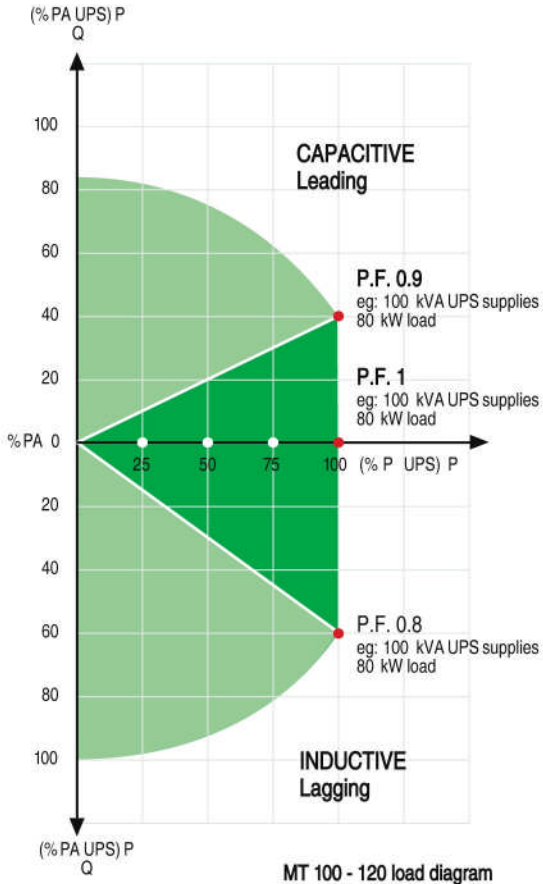
**Dual bus system configuration**

Solution which guarantees the redundancy of the power supply even during maintenance + **High levels of availability and redundancy**



## FLEXIBILITY

Gemin-XP is suitable for a wide range of applications including IT and the most demanding industrial environments. The UPS is suitable for power capacitive loads such as blade servers, without any reduction in active power, from 0.9 leading to 0.8 lagging. With a broad range of accessories and options, complex configurations and system architectures can be achieved to guarantee maximum power availability and the option to add new UPS without interruption to existing users. Using the ESSCO UPS Group Synchroniser (UGS) and Parallel Systems Joiner (PSJ) sophisticated inter group parallel and redundant systems can be achieved to provide the highest possible levels of resilience and availability.



## BATTERY CARE SYSTEM: MAXIMUM LIFETIME POTENTIAL

Traditionally, when a mains supply is present the UPS charges its batteries. Battery power is used for the inverter should the input supply fail. Efficient battery management and care is therefore essential to the overall performance of the UPS in an emergency.

The Gemin-XP Battery Care System consists of a range of features designed to provide optimum performance and enhanced operating life:

- Dual level charging regime to optimise recharge currents and lower recharge times
- Temperature compensation and deep discharge protection to reduce overall battery aging

- Charge blocking system to reduce electrolyte consumption and lengthen the life of VRLA batteries
- Predictive battery testing to spot potential battery deterioration and failure

Gemin-XP is also compatible with different battery technologies: open-vented lead acid and AGM and Gel VRLA, NiCd.

## EASE OF INSTALLATION

Gemin-XP is compact with a foot print of only 0.64 m<sup>2</sup> for a 200kVA system. Front access to internal assemblies and top panel ventilation make space allocation within confined data processing or plant rooms easy. Gemin-XP can be placed against a wall as there is no requirement for rear or side panel access for maintenance or ventilation.

## SPECIFIC SOLUTIONS

The UPS can be adapted to your requirements. Please contact to discuss specific applications and options.

## ADVANCED COMMUNICATION

- Compatible with TeleNetGuard for remote maintenance
- Advanced, multi-platform communication for all operating systems and network environments: PowerShield<sup>®</sup> monitoring and shut-down software included, for windows 2008, Vista, 2003, XP; Mac OS X, linux, Novell and most popular Unix operating systems. The UPS is supplied with a cable for direct connection to the PC (Plug and Play)
- Double RS232 serial port
- Installation slot for an Emergency Power off (EPO) interface to allow the UPS to be switched off remotely in an emergency.
- Generator interface: enables desynchronisation of the UPS output from a generator supply which may be subject to phase and frequency variations. The interface also enables more economic use of the battery charger.



## Dimensions (mm)

Gemin-XP 10KVA-40KVA



Gemin-XP 60KVA-80KVA



Gemin-XP 100KVA-120KVA



## Technical Specifications

MODELS	GM10-XP	GM15-XP	GM20-XP	GM30-XP	GM40-XP	GM60-XP	GM80-XP	GM100-XP	GM120-XP
Power (KVA/KW)	10KVA/8KW	15KVA/12KW	20KVA/16KW	30KVA/24KW	40KVA/32KW	60KVA/48KW	80KVA/64KW	100KVA/80KW	120KVA/96KW
<b>INPUT</b>									
Nominal voltage	380 - 400 - 415 Vac three-phase								
Voltage tolerance	400 V + 20% / - 25%								
Frequency	45 – 65 Hz								
Soft start	0 – 100% in 30" (selectable)								
Permitted frequency tolerance	± 2% (selectable from ± 1% to ± 5% from the front panel)								
Standard features	Back Feed protection; separable bypass line								
<b>BATTERIES</b>									
Type	Lead, flooded and VR A AGM / GEI ; NiCd								
AC ripple	< 1%								
Temperature compensation	-0.5 Vx°C								
Typical charging current	0.2 x C10								
<b>OUTPUT</b>									
Rated power (kVA)	10	15	20	30	40	60	80	100	120
Active power (kw)	8	12	16	24	32	48	64	80	96
Number of phases	3 + N								
Nominal voltage	380 - 400 - 415 Vac three-phase + N								
Static stability	± 1%								
Dynamic stability	± 5% in 10 ms								
Voltage distortion	< 1% with linear load / < 3% with no-linear load								
Crest factor (Ipeak/Irms)	3:1								
Frequency stability on battery mode	0.05%								
Frequency	50 or 60 Hz (selectable)								
Overload	110% for 60'; 125% for 10'; 150% for 1'								
<b>ENVIRONMENTAL</b>									
Weight (kg) without batteries	210 *	220 *	230	280	330	450	600	640	650
Dimensions (hwd) (mm)	1400 x 555 x 740					1400 x 800 x 740			
Remote signalling	Voltage-free contacts								
Remote commands	EPo and bypass								
Communication	double RS232 + remote contacts + 2 communication interface slots								
Operating temperature	0°C / +40°C								
Relative humidity	< 95% non condensing								
Colour	Light grey RA 7035								
Noise dBA at 1 m	54		60		62		63		
Protection rating	IP20								
Efficiency Smart Mode	Up to 98%								
Compliance	European Directives: I V 2006/95/CE; EMC 2004/108/EC; Safety IEC EN 62040-1; EMC IEC EN 62040-2 C2								
Classification according to IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111								

\* Also available with internal batteries

**N.B.: Consult us for the availability**