

# Megapro

**100-4800 KVA PF 0.9**

 Uninterruptible Power Supply (UPS)



 **SHATRONIX**  
ENERGY SYSTEMS

## Megapro features :

- Available in models 100-120-160-200-250-300-400-500 and 600 KVA
- IGBT Rectifier with input THDi <3% and PF > 0.99
- Built in inverter isolation transformer to protect the load from network disturbances without affecting the overall efficiency that remains within 94%. Also protects the load against accidental battery voltage
- Parallel configuration upto 8 units with Dual Bus and Dynamic Dual Bus system
- Hot Standby Expansion (HSE)
- Efficiency Control System (ECS)

## Low Total Cost of Ownership(TCO)

- Zero impact source solution
- Input power factor  $\geq 0.99$
- Low input THDi < 3%
- Efficiency 94%\*
- Efficiency in standby mode 98%\*
- Extremely small foot print (250KVA=0.85 m<sup>2</sup>)
- Backfeed protection

\* depending on model

## Operating Modes :

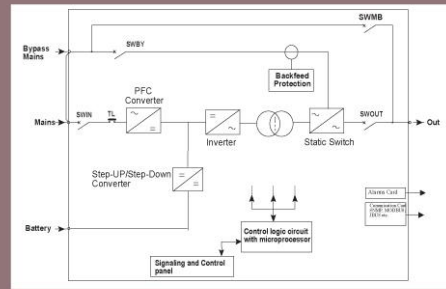
- True online double conversion
- Standby mode
- SMART active mode
- Frequency converter

## Battery Care System (BCS)

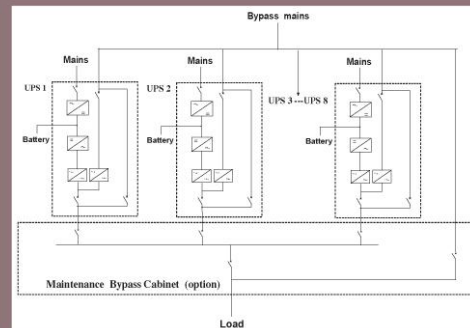
- High battery recharge capacity
- Permits use of variety of battery types
- VRLA & open vented batteries for extended backup times

## Applications :

- Data centers
- IT networks
- Telecommunications
- Medical applications and hospitals
- e-business
- Industrial processes



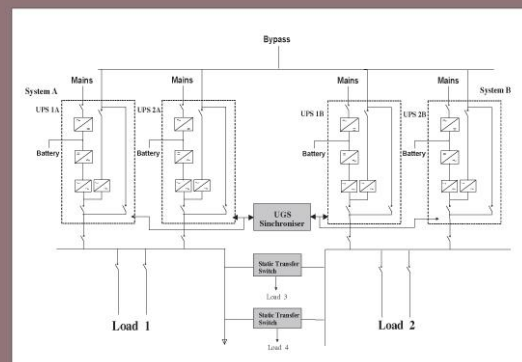
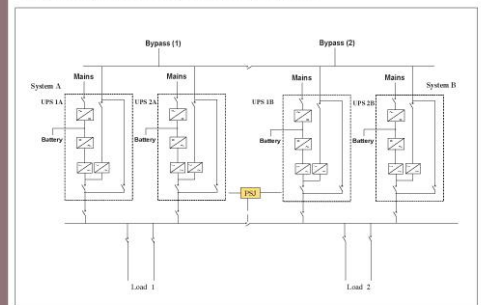
Block diagram



Parallel configuration up to 8 units

### Dynamic Dual Bus System (PSJ)

Two independent systems (up to 4 units each) can be connected in a "Dynamic Dual Bus" configuration by means of the PSJ (Parallel System Joiner) option.



### Dual Bus System(UGS)

Two independent systems can be configured in Dual Bus with a single or separate power source. The synchronisation option (UGS) keeps the outputs of the two systems constantly synchronised, regardless of the input variations and when the system is powered by the battery. Each system comprises up to a maximum of 4 parallel UPSs. This system has been designed for configurations that use the STS (Static Transfer Switch) since it guarantees switching from one continuous source to the other without disturbances to the loads.

**Specifications :****Input :**

Nominal voltage	380-400-415 Vac Three-Phase plus neutral
Voltage Range*	Upto -40%, +20%
Nominal frequency	50 or 60Hz
Input frequency tolerance	45 to 65Hz
Total Harmonic distortion (THDi) and power factor with full load	THDi <3% , 0,99 PF
Rectifier progressive start-up (Power Walk-in duration)	Programmable from 0 to 120 seconds
Adjustable delay for the rectifier start up (Power Walk-in start delay)	Programmable from 1 to 120 seconds

\*at 65% load

**Output :**

Nominal voltage	380/400/415 Vac Three-Phase plus neutral
Nominal frequency	50 / 60Hz
Static stability	± 1%
Dynamic stability	± 3% EN62040-3 class 1
Recovery Time within ± 1%	20ms In compliance with standard EN 62040-3, class 1
Crest factor (I <sub>peak</sub> /I <sub>rms</sub> as per EN 62040-3)	3:1
Voltage distortion with linear and distorting load (EN 62040-3)	≤ 1% with linear load ≤ 3% with distorting load
Inverter frequency stability without by-pass supply synchronisation	0,05%
R <sub>tae</sub> of Frequency variation	1 Hz/sec (adjustable from 0,1 to 3)
Voltage phase Dissymmetry with balanced and unbalanced loads	≤ 1%
Voltage phase shift with balanced and unbalanced loads	120 ± 1 °
Inverter Overload	110% for 60 mins.* 125% for 10 mins. 150% for 1 min. 200% 6 sec.
3 Phase	
1 Phase	
Short circuit current	Phase / Phase Phase / Neutral
	1,8 x I <sub>n</sub> for 1 sec. 3 x I <sub>n</sub> for 1 sec.
Efficiency on battery-operation	94 %

\* @ 25°C room temperature

Specifications subject to change with prior notice

#### Reference Standards

The UPS meets the VFI-SS-111 classification (according to EN 62040-3) and complies with the following specific standards for UPS:

- IEC EN62040-1 : Static uninterruptible power supplies (UPS): general and safety provisions;
- IEC EN 62040-2: Electromagnetic compatibility (EMC) requirements category C2
- EN 62040-3: Methods of specification of performances and test provisions;

The **Maxpro LH** series also satisfies the following general standards, where applicable:

- IEC 60529: Degree of protection provided by enclosures;
- IEC 60664: Insulation for low-voltage equipment;
- IEC 60755: General Requirements for Residual Current Operated Protective Devices;
- IEC 60950: General safety provisions for "Information Technology" equipment;
- IEC 61000-2-2: Electromagnetic compatibility immunity;
- IEC 61000-4-2: Electrostatic discharge immunity test;
- IEC 61000-4-3: Radio frequencies, electromagnetic immunity test;
- IEC 61000-4-4 : Transitory overvoltage immunity test;
- IEC 61000-4-5 : Overvoltage immunity test;
- IEC 61000-4-11 : Voltage dips, short interruptions and voltage variations immunity test.
- IEC 61000-3-12: Harmonic current emissions (for equipment with rated current  $> 16 \text{ A} \leq 75$ )



Via Luserte Sud 8  
CH-6572 Quartino  
Switzerland  
Tel.: +41 91 858 1202  
Fax: +41 91 840 1447

[www.shatronix.com](http://www.shatronix.com)