newave

CONCEPTPOWER MAXI

Compact protection of your mission critical load
For Continuous Power Protection Availability

English

Technical specifications

GENERAL DATA		Conceptpower Maxi 250–300kVA	
Output Rated Power	kVA	250	300
Output Power Factor		0.8	
Topology		On-Line, Double Conversion	
Parallel Technology		Distributed Parallel Architecture	
Redundancy n+1		High reliability, no limitation of paralleling	
Capacity Upgrade		Add your power as you grow (no limitation)	
Static and Maintenance Bypass		Standard	
Accessibility		Front and rear accessible for service and maintenance (no need for side or top access)	
Efficiency (Double Conversion)		Up to 97%	
Audible Noise with 100%/75% Load dBA		73/70	75/72
INPUT			
Input Voltage	V	3x380/220V+N, 3x400/230V+N, 3x415/240V+N	
Input Voltage Tolerance (Ref. to 3x400/230V)		For loads <100% (–23%, +15%), <80% (–30%, +15%), <60% (–40%, +15%),	
Input Frequency Hz	Hz	35–70	
Input Power Factor		0.98 (electrically regulated)	
Input Current Form (Sinewave)		Sinewave THDI=7–9% at 100% load	
Inrush Current		Soft start	
Input Cabling		Hardwired	
OUTPUT			
Output Voltage	V	3x380/220V+N, 3x400/230V+N, 3x415/240V+N	
Output Voltage Tolerance	%	±1% (linear load), ±3% (non-linear load)	
Output Voltage Tolerance (Load Jumps 0–100–0%)	%	±4%	
Output Frequency	Hz	50 or 60	
Output Frequency Tolerance	%	±0.1% (free-running), ±4% (with mains, adjustable)	
Crest Factor		3:1	
Overload	%	150% for 1 min., 125% for 10 min.	
Permissible Unbalanced Load	%	100% (all 3 phases regulated independently)	
COMUNICATIONS			
Frame level		Power Management Display (PMD), 1x RS 232 1 x RS232 (SMART PORTS), Customer Interface Connectors (Remote shutdown, GENSET-ON, Temperature, Dry Ports)	
Options		1 x slot for SNMP	
WEIGHT, DIMENSIONS			
Size Conceptpower Frame (WxHxD)	mm	1200x1900x750	
Battery cabinet (WxHxD)	mm	(on request)	
Weight Conceptpower (without batteries)	kg	660	735
STANDARDS			
Safety		IEC/EN 62040-1-1, IEC/EN 60950-1	
Electromagnetic Comp. (EMC)		IEC/EN 61000-6-4 (product standard IEC/EN 62040-2 limit A (C2 UPS)) IEC/EN 61000-6-2 (product standard IEC/EN 62040-2 Criterion A (C2 UPS)) IEC/EN 61000-4-2, IEC/EN 61000-4-3, IEC/EN 61000-4-4, IEC/EN 61000-4-5, IEC/EN 61000-4-6	
Performance		IEC/EN 62040-3	
Product Certification		CE, GOST by TÜV	
Enclosure		IP 20	
Manufacturing		ISO 9001:2000, ISO 14001:2004	
Country of origin		**Switzerland**	

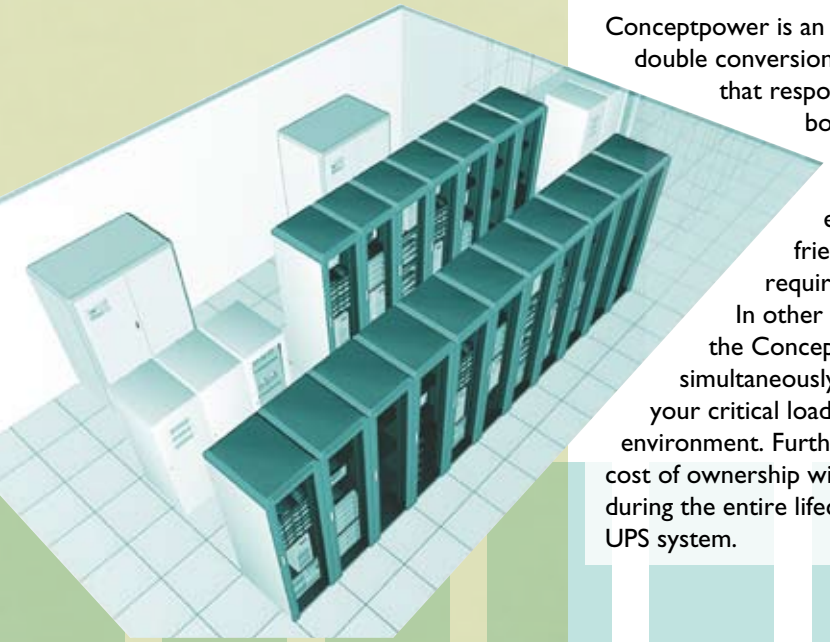
Conceptpower Maxi – Three Phase UPS Systems

Conceptpower Maxi are three phase UPS systems in the range of 250–300kVA and they protect your mission critical load and your environment during the entire UPS lifecycle.
Large and heavy traditional UPS systems have been in the market for a long time. Big and bulky accessories like 12pulse rectifiers and input harmonic filters are used to improve the input power factor and the input current THD in order not to pollute the mains.
The consequences are expensive floor-space, power losses throughout the lifecycle of the UPS and increased audible noise.
In the past decade we have experienced very modest qualitative technological improvements with clear end-user benefits in the area of high power UPS's.
Environmentally conscious customers today are not only demanding highest power protection availability but also systems that are environmentally friendly and ensure low cost of ownership.

Infitintely Expandable

Conceptpower Maxi
250-300 kVA

Datacenter



Conceptpower is an advanced double conversion technology that responds fully to both highest availability and environmentally friendly requirements.
In other words the Conceptpower simultaneously protects your critical load and your environment. Furthermore your cost of ownership will be low during the entire lifecycle of the UPS system.

Thanks to the unique and highest three-phase double conversion efficiency, low mains harmonic pollution, low audible noise and very low material contents Conceptpower is a true green UPS. The proven double conversion technology guarantees highest reliability and unmatched electrical performance. If we add to the above features the unique Distributed Parallel Architecture (DPA) for redundancy and for extension of power capacity it will complete the picture of this exciting power protection system.

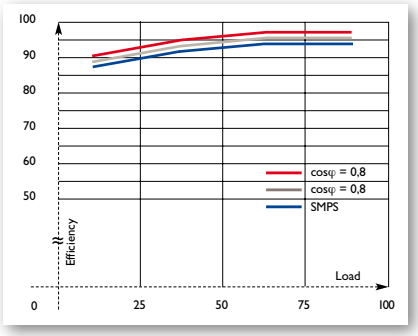
Environmental concept

Keep a constant eye on your environment and your cost of ownership

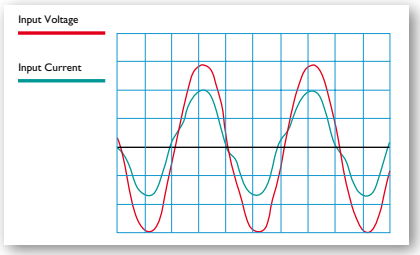
Conceptpower was designed to meet also important environmental demands and to focus on the cost of ownership of a power protection infrastructure. Features like low heat emission, low level of harmonic pollution or low level audible pollution are part of the Power Protection Concept (PPC) and have been built into the Conceptpower design.

High Efficiency

High Conceptpower efficiency means low heat emission and therefore no unnecessary overheating of our environment.
In addition to that, low losses means less energy consumption, which can differ substantially from one product technology to another. Furthermore the heat must always be evacuated by cooling systems, which must be sized to the amount of losses emitted by the UPS. That is also a cost that must be considered during the entire lifecycle of the UPS. Thanks to the transformerless technology and the unique ESIS (Energy Saving Inverter Switching) technology the Conceptpower reaches double conversion efficiency of up to 97%. This advanced high efficiency design has in average at least 5% higher efficiency than equivalent traditional double-conversion designs and has similar efficiency compared to single conversion technologies.



High Input Power Factor/Sinewave Input Current



The near to one input power factor of Conceptpower reduces the input installation cost by using smaller cable sections and smaller fuse sizes. Thanks to the low input current THD=7–9% (sinewave input current) the level of harmonic pollution of the Conceptpower is very low. The low harmonic emission into the mains saves unnecessary over sizing of the gen-sets.
The near to one input power factor and the low input current THD= 7-9% of Conceptpower are electronically regulated and there is therefore no need for expensive filtering or 12pulse rectification like in other double conversion topologies.

Low Audible Noise

With its low audible noise Conceptpower is a very comforting UPS that does not disturb the working environment.
Thanks to the load dependent noise level regulation the noise level is even more reduced when the load is <70% of the UPS's rated power.

Battery Protection and Battery Management

Conceptpower is provided with a unique ripple-free battery charger that protects the battery from overheating and consequently increases the battery lifecycle. A further battery protection feature is the temperature regulated battery charge voltage. The battery charger automatically regulates the battery charge voltage as the ambient temperature changes. The built-in Flexible Battery Management (FBM) periodically and automatically checks the fitness of the battery and alerts immediately if any anomaly appears. The FBM allows the use of various numbers (40–50) of battery blocks to provide the exact battery runtime and thus optimize battery cost.

Features and customer benefits are manifold

Choice of the best Power Protection Solution	Transformer-less Conceptpower maxi	Transformer-based Traditional LIPS
Down-time Cost Saving	Advanced Double Conversion technology with Unique Distributed Parallel Architecture (DPA) without single points of failure and infinitely expandable capability guarantees highest availability	Conventional Double Conversion technology with output transformer. Limited number of parallelable UPS-units (up to 4–9)
Transportation Cost Saving	Compact and light UPS (300kVA=735kg). Reduced freight, bringing-in and manoeuvring cost	Typical weight of UPS 300kVA: – 1200kg for 6 pulse models – 1800kg for 12 pulse models
Energy Cost Saving	High Double Conversion Efficiency (up to 97%) thanks to advanced transformerless technology with ESIS (Energy Saving Inverter Switching)	Low Double Conversion Efficiency (up to 93%) resulting in higher running cost
Floor-Space Cost Saving	Very reduced foot-print: 250kVA=0.900m^2 300kVA=0.900m^2	Typical foot-print of 120kVA: 250kVA=1.80m^2 300kVA=1.80m^2
Installation Cost Saving	Sinewave Input Current (THD=7–9%) and PF=0.98 means smaller installation cost due to reduced cable/fuse ratings	Typical THD < 30% und PF < 0.8 means it is necessary to add expensive 12pulse rectifiers with bulky transformers and/or input harmonic filters
Battery Cost Saving	Flexible Battery Management (FBM) with variable DC-voltage enabling the use of variable number of battery blocks to exactly match the requested battery autonomy. Furthermore the ripple-free battery charger protects your battery from excessive temperatures	Lack of flexibility due to a fix number of battery blocks (typically 32 battery blocks of 12 V)
Power Extension Cost Saving	Every standard unit is provided with the parallel hardware and no on-site time consuming upgrade is necessary	Typically the standard units are not provided with the parallel hardware and therefore expensive on-site time consuming upgrade is necessary

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