UPS

Multi Guard

Illustrative photo

Service
1st start

System features

- Maximum 120kVA capacity in a 19'' rack
- Input power factor >0,99
- THDi
- <2% and output voltage distortion equal to 1.5%
- 15 kVA per module with hot-swap function
- The LCD display on the front panel displays unit status and important information such as input and output nominal values, capacity, temperature and autonomy
- Communication port for standard Ethernet and relay contact board
- DSP technology, IGB T input
- 36 Ampere battery charge current on a 120 kVA system

Further advantages

- The Multi Guard UPS power modules use the latest DSP microchip technology. This reduces hardware components, increases UPS reliability and also makes it easier to update and maintain the software
- The UPS operates with load sharing technology. Should any of the UPS modules fail, the load will be taken over by the rest of the modules without interruption. This increases the real time operation and power availability compared to other standby UPS
- The Multi Guard UPS is designed to connect to external battery banks in order to ensure the required battery run time

The Multi Guard modular UPS is a scalable three-phase / three-phase uninterruptible power supply system with double conversion technology. Its power capacity ranges from 15kVA to 120kVA, delivering the best combination of reliability, functionality and flexibility.
The Multi Guard N+X parallel architecture adopts a highly intelligent modular design to achieve maximum power availability and redundancy.
It is specially designed to meet the protection demands of mission critical loads in data centres or other important applications.
Each module has an individual power capacity of 15 kVA, and a standard cabinet can be fitted with up to 8 modules to reach 120 kVA. If the load is within permitted limits, modules can be hot-swapped to enable true power continuity without any interruptions.

Advanced modular design

The Multi Guard system contains UPS modules, a LCD Display module, the PDU and other accessories. Each UPS module is a fully independent 15kVA UPS. Thanks to the advanced wireless parallel control technology and smart communication, the UPS modules and LCD display modules can be easily replaced at any time without affecting UPS operation. The user friendly "plug & play" design simplifies UPS servicing and maintenance.
The Multi Guard de-centralises the control units in each UPS Module. The LCD Display module is for display and communication purposes only. If the LCD Display module fails, the UPS system still functions and supports the load without any interruption.

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High capacity MTBF

System MTBF for two modules in parallel is more than 1,000,000 hours and power availability is above 99.999%.
Each 15-120 kVA redundant configuration guarantees correct operation even in the event of the failure of one of the UPS modules. The module replacement procedure only takes 5 minutes for full system recovery.
This solution allows you to:

- Minimise downtime
- Reduce the number of stored spare parts
- Avoid the need for specialised technicians

Intelligent recharging system

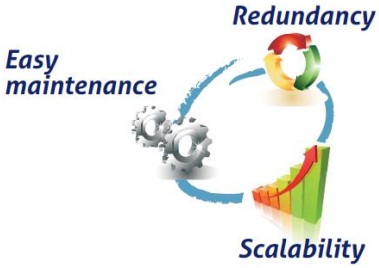
The Multi Guard UPS system applies a two-step intelligent charging system. The first stage is a constant charging current that can recharge the battery capacity to 90% very quickly. The system then transfers to a constant voltage mode to guarantee the battery can stay fully charged all the time.
This intelligent charging system not only reduces the battery recharging time but also extends battery life, saving on battery replacement costs.

Modular autonomy

The Multi Guard 30 and 60 versions are designed to build up internal run time using a single battery module for all power and autonomy requirements.
The same battery module is also used to build up the required autonomy in an external cabinet.

Low total cost of ownership (TCO):

- Lower system set-up costs
- Lower energy costs
- Lower cooling costs
- Lower expansions costs
- Lower maintenance costs



Illustrative photo

UPS power selection

The Multi Guard can be configured from 1 up to 8 modules in its cabinet to
form the most suitable N + X configuration for the application.
Multi Guard grows as your needs grow by simply adding further UPS modules and battery modules to the existing frame. The initial investment is recuperated in cost savings. New power supply requirements can be satisfied without complex and costly replacement operations.

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MULTI GUARD 30

Multi Guard 30 is the entry level to the range. It is the ideal solution for supplying medium-power loads that require one level of redundancy.
The solution is very compact and allows the possibility to expand autonomy up to one and a half hours for a 15 kVA model in a N+1 configuration.
The power rating ranges from 15 kVA to 30 kVA with 1 or 2 UPS modules in a 19'' rack cabinet, which is able to house up to 4 battery shelves.

No. of power modules	kVA	Typical autonomy (min)*
1	15	90
2	30	42

* The autonomy refers to the max. number of installed batteries inside the UPS

MULTI GUARD 60

The Multi Guard 60 system allows you to install from one to four UPS modules (15 kVA to 60 kVA) in a 19" rack cabinet, which is able to house up to 5 battery shelves.
If redundancy is required (N+1 modules) the max. output power will be 45 kVA.

No. of power modules	kVA	Typical autonomy (min)*
1	15	113
2	30	54
3	45	30
4	60	21

* The autonomy refers to the max. number of installed batteries inside the UPS

MULTI GUARD 120

The Multi Guard 120 system allows you to install from one to eight UPS modules (15 kVA to 120 kVA) in a 19" rack cabinet, with batteries housed in an external cabinet. This cabinet houses the same battery modules as those used for the GMT 30/60 versions, up to a maximum of 9 battery shelves.

No. of power modules	kVA	Typická autonómia (min)*
1	15	217
2	30	103
3	45	65
4	60	49
5	75	36
6	90	30
7	105	22
8	120	10

* The autonomy refers to the max. number of installed batteries inside the UPS

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Technical specification

Models	GMT-from 15kVA to 120kVA
Input	**GMT-from 15kVA to 120kVA**
Nominal voltage	380-400-415 V_{AC} 3-ph+N
Voltage tolerance	from 294 V_{AC} to 520 V_{AC}
Frequency tolerance	between 40 and 70 Hz
Power factor	>0,99
THDI	<2%
Bypass	**GMT-from 15kVA to 120kVA**
Voltage	380-400-415 V_{AC} 3-ph+N
Voltage tolerance	from 323 V_{AC} to 437V_{AC}
Transfer time from on-line to offline or vice versa	0 sec
Output	**GMT-from 15kVA to 120kVA**
Voltage	380-400-415 V_{AC} 3-ph+N (selectable)
Voltage stability	≤1,5%
Frequency	50/60 Hz
UPS module	**GMT-from 15kVA to 120kVA**
Power	15kVA/13,5kW
Output power	15kVA x number of modules, up to maximum of 8
Other features	**GMT-from 15kVA to 120kVA**
Noise level at 1 m	From ≤60dBA to ≤62dBA
Operating temperature	0°C/+40ºC
Relative humidity	20%-90% non-condensing
Storage temperature	-15ºC+55ºC
UPS module weight	35 kg
UPS module dimensions (w x d x h)	440x700x131 mm
GMT30 cabinet dimensions (w x d x h)	600x1000x1500 mm
GMT60 cabinet dimensions (w x d x h)	600x1000x2000 mm
GMT120 cabinet dimensions (w x d x h)	600x1000x2000 mm
Modular battery cabinet dimensions (w x d x h)	9 battery shelves, 36 battery modules 597x1003x2000 mm
Eco Mode efficiency	Up to 99%
Standards	Safety: IEC EN 62040-1; EMC: IEC 62040-2
Options	

Product accessories

- Modular battery cabinet (9 shelves, 36 battery modules)
- Relay alarm board
- Battery cabinets for any autonomy requirements

A2B, s.r.o. reserves the right to change any specifications without prior notice (V012014)