
MNS®-Up

Combined critical power solution
in a single assembly



- 30% footprint savings
- 20% reduction in installation costs
- 10% cost saving in electrical infrastructure
- Higher levels of quality and safety

MNS®-Up

Upgrade your power supply architecture with MNS-Up

MNS-Up is easy and fast to expand - and is the perfect choice where there are critical power requirements, such in data centers and hospitals.

Benefits



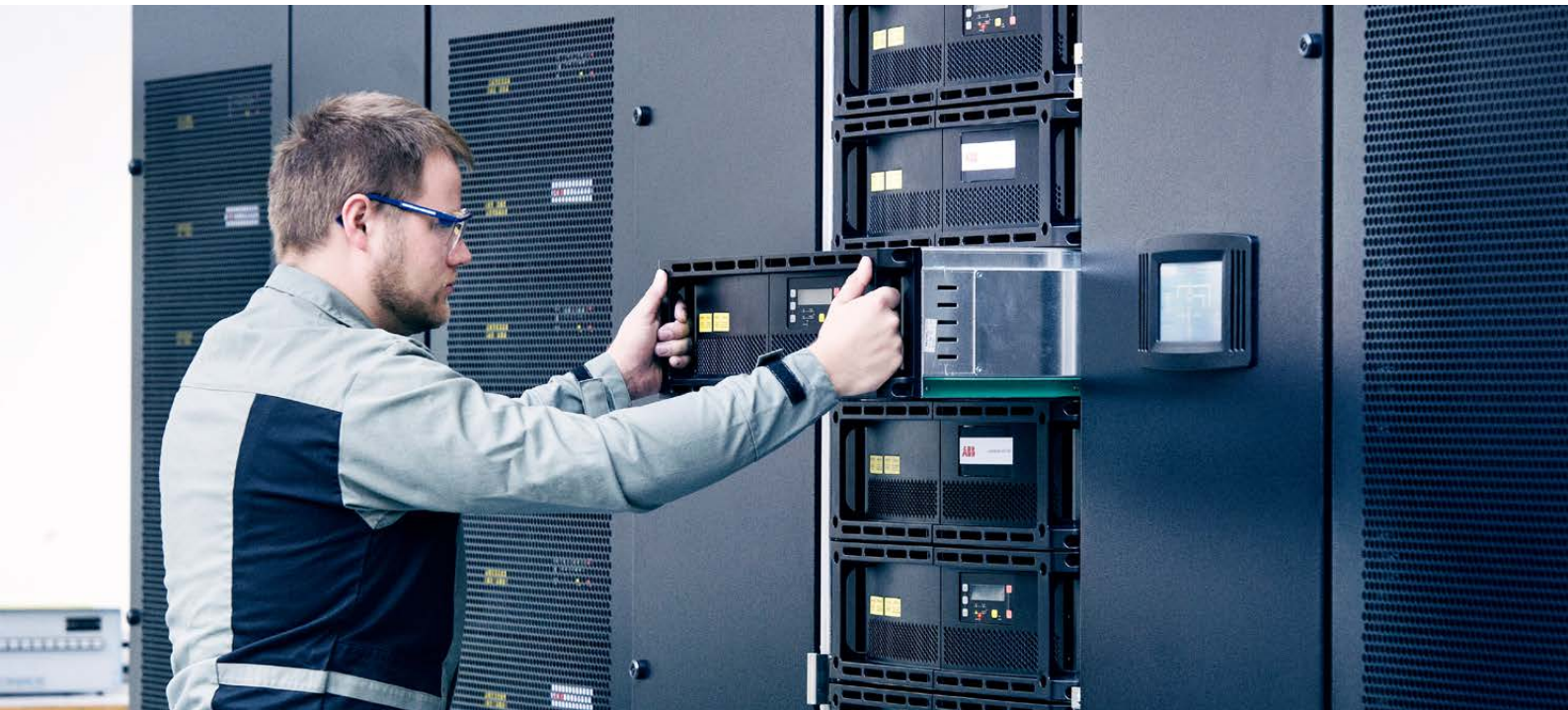
- Scalable 100 kW modules enable rapid growth without over-investment
- Space savings of 20-30%
- Faster installation and commissioning means operations start sooner
- Planned incremental additions ensure responsible energy consumption and facility growth match with business growth
- Switchgear and UPS modules can be safely and rapidly swapped online, lowering maintenance costs and maintaining uptime
- Factory assembly and testing of MNS-Up means higher levels of quality and safety
- With ABB factories and service centers in 106 countries, customers receive fast deliveries and responsive, professional local support

Proven expertise



ABB is the industry leader in providing low-voltage power distribution. The proven MNS-Up power supply solution distills the company's expertise in data center technology, uninterruptible power supply (UPS) and low-voltage power distribution into a compact, powerful system that takes your power supply architecture to the next level.

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01 MNS-Up scales as
your business grows

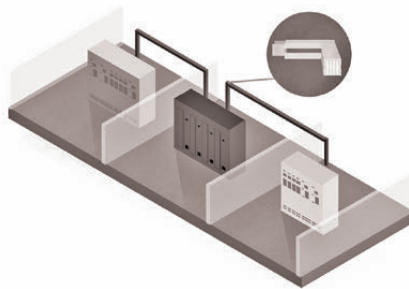


Data centers require new power supply architecture

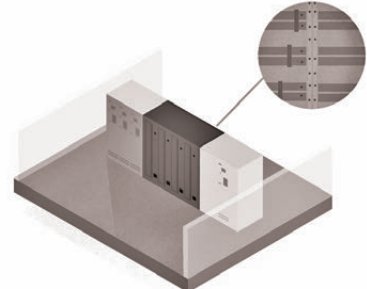
MNS-Up scales as your business grows

01 A conventional solution requires input switchgear, bus duct connections and output switchgear

02 Combined critical power solution in a single assembly, scaleable up to 3 MW



01



02

Scale up with 100 kW modules

MNS-Up's modular design expands in 100 kW steps so that companies just pay as they grow. Each frame of the system can support up to five 100 kW UPS modules. Up to six frames can combine to provide 3 MW of backup power supply.

For more power, further systems can be installed in parallel. ABB can install MNS-Up in whatever configuration works best in the space available or back-to-back – and all without external bus ducts or cables.

Space savings of up to 30%

By integrating proven UPS and switchgear technologies into a single, modular system, MNS-Up saves space, time and money.

For a simple 500 kW system, the space saving can be 20%. For systems of 2 MW or more, the footprint saving is more than 30%.

Product knowledge

Technical data	
Input voltage	380/400/415 VAC +/- 15%, 35-70 Hz
Output voltage	380/400/415 VAC +/- 1%, 50 or 60 Hz
Battery voltage	400-650 VDC
Power factor	Input: 0.99 Output: 1.0
Efficiency	up to 96% in double conversion mode >99% in eco mode
Capacity	500 kW (5x100 kW) per frame
Paralleling capability	Up to 6 frames (6 x 500 kW = 3.0 MW)
Busbar	Main AC: 4-pole (100% N) up to 6300 A AC out: 3-pole up to 6300 A
	Low-voltage switchgear and controlgear assemblies Part 1: General rules
IEC 61439-1/-2	Part 2: Power switchgear and controlgear assemblies
IEC TR 61641	Guide for testing under conditions of arcing due to internal fault
	Information Technology Equipment – Safety Part 1: General requirements
IEC 60950-1	Uninterruptible Power Systems (UPS) Part 1: General and safety requirements for UPS Part 2: Electromagnetic compatibility (EMC) requirements Part 3: Method of specifying the performance and test requirements
IEC 62040-1/-2/-3	

What's inside MNS-Up
MNS-Up integrates tried and tested innovations that enable ABB to eliminate cabling and bulky bolt-ons that waste space.

The system comprises ABB's Conceptpower DPA 500 uninterruptible power supply (UPS) and ABB's MNS switchgear with Emax2 circuit breakers.

Trusted UPS
The Conceptpower DPA 500 was developed for data centers and other mission-critical facilities that demand zero downtime. Major international stock exchanges and data centers use Concept-

power DPA500, the online transformerless, double-conversion UPS of choice worldwide.

MNS-Up's UPS modules use a decentralized parallel architecture. Each module has its own input switch, bypass, UPS and output switch. Each module's hardware and software operates self-sufficiently.

As a result, each module is isolated from failures anywhere else in the system. Each module can also be removed for maintenance without shutting down the UPS.

Design-verified switchgear
MNS-Up combines the proven MNS switchgear with the space-saving new Emax2 circuit breaker.

With four decades of technical development and 1.5 million systems installed around the world, MNS is the industry benchmark in operational safety, reliability and quality.

Simple maintenance
Using standardized withdrawable modules makes maintenance simpler and less expensive.

01 MNS-Up modular technology is simple to use, safe, flexible, reliable and easy to maintain



DELIVERY IS EVERYTHING

At ABB we understand that overcapacity is just as serious a topic for data center operators as uptime. To grow, data centers and power supplies need to be able to grow as well, step-by-step, in ways that save space and energy and that makes investment predictable. ABB is your partner that delivers.

Data center operators seek an effective way to scale their power supply. With MNS-Up, ABB offers a unique way to align critical power supply with business strategies. MNS-Up allows you to cut the space for the electrical infrastructure by 25%, increasing white-space. Furthermore, any expansion demand through a business increase is supported by adding power supply capacity to MNS-Up, ensuring the capital expenditure is matching your business needs.



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