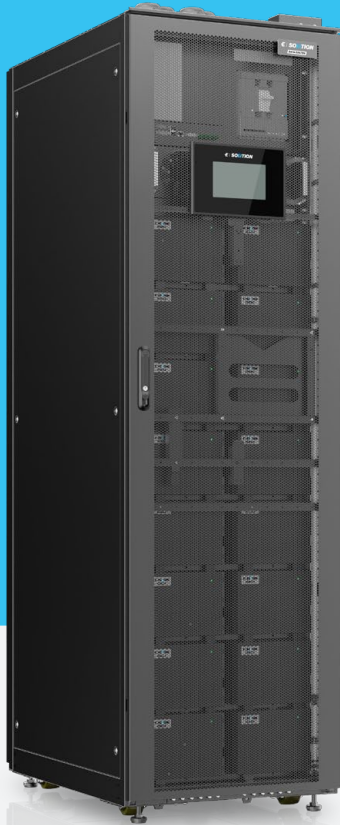


The authority in matters of security.

The hunt for the most efficient technology has one winner. Our cutting-edge system Solition Data Center: efficient, compact, reliable and safe.



Creating the future – the Exide Technologies way:



Innovation



Reliability



Sustainability



High Performance

exidegroup.com

SOLUTION
DATA CENTER

E / **ENERGIZING**
A NEW
WORLD

The Li-Ion who manages your data back-up.

Our lithium-ion-based energy storage solution is the biggest number when it comes to safeguarding your data.

Performance above the norm.



Sustained power delivery and longevity



Integrated fire protecting system



Highest energy density per square meter in the market



Highest power availability per cabinet, 80% less operating and maintenance costs



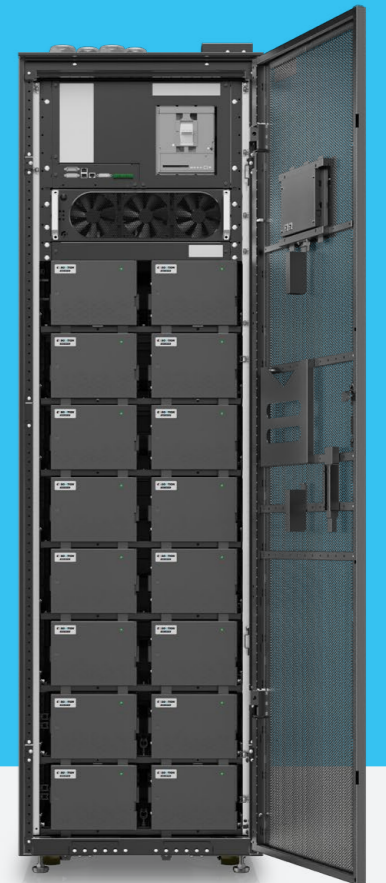
Constant operation – if one module fails, the others team up



Remote real-time monitoring from any device – no special software required



Space savings up to 60%
(compared to other technologies)



Data centers need reliable and advanced data security backup systems in case of a power outage. Demands in relation to performance and cost savings are high. This is the best choice to get the highest power and reduce energy costs – while becoming greener.



Commercial and industrial entities cannot afford to experience power interruptions that could disrupt their operations and cause financial losses.

Tough demands outside, **smart solutions** inside.

Our new Solition Data Center energy storage system boosts intelligent features.



Longevity – cycle lifetime up to 5,000 times

Stability – made with safest LiFePO₄ (LFP) cell chemistry – highly stable, no thermal runaway

All-encompassing – three-level Battery Management System (BMS) ensures dependability

Safety – integrated fire extinguishing system on battery module level – precise & quick fire control, non-proliferation



Flexibility – active current balance control supports new and used battery cabinet combinations

Intelligence – active voltage balance control allows for battery strings of different numbers to be connected in parallel with each-other

Cost-effective – automatic grouping and capacity checks cut manual capacity test costs and avoid power failure risks



60% less footprint – high power density means a significant space saving

80% less costs – thanks to its smart BMS, operating and maintenance time is remarkably low

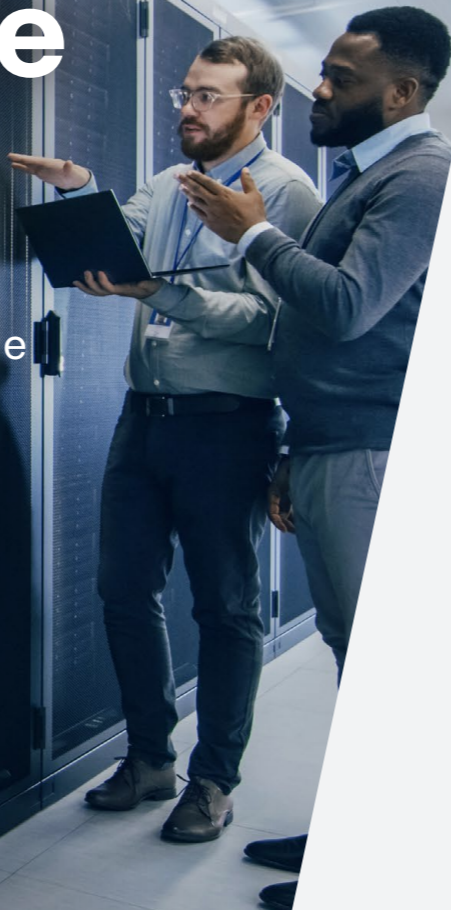


Thinking outside the box.

Lithium-ion is the most advanced energy storage technology. But it's not the only reason that makes Solition Data Center the perfect match. It is the Battery Management System (BMS) and the intelligence behind it.

The system supports the mix of new and existing modules and includes a three-level BMS. The intelligent battery system will reduce the total cost of ownership, not only in space but especially for maintenance expenses. What's more, its high

cycle stability meets emerging market trends, such as the increase in decentralized energy solutions. Ultimately, Solition Data Center's outstanding performance in all grid conditions, as well as the clever features, makes it the perfect partner.



All under control: The intelligence behind.



A three-level BMS structure delivers both excellent performance and protection of the entire battery system. Each battery module has a built-in BMS, which allows it to communicate with the Battery Control Unit (BCU) for each specific cabinet.



Users can find every parameter and history file – all accessed from a built-in LCD screen or with an internet browser on a TCP IP connection.



A flexible managing system between the UPS and the BCU allows the Solition Data Center battery to work in two modes:

An autonomous mode (stand-alone) – This emulates the behaviour of VRLA batteries with dry contacts communication

A connected mode – This links to the UPS by a Modbus RS485 or Modbus over TCP connection

Three-level BMS via Modbus / Dry contacts



Solition Data Center BMS

Feature	Data collected and monitored					
Parameter detection	Cell voltage	Battery module voltage	Battery string voltage	Current	T °C	
Abnormal protection	Cell over / under voltage	Battery string over / under voltage	Overcurrent	Over / low temperature	BMS board failure	Cell failure
Data analysis and storage	Data storage	Fault locating	SOC calculation	SOH calculation	Performance data collection	
Intelligent management	Cell balance management	Active current balance control	Real-time communication			

Third-level (UPS):

- Management of Battery Control Unit (BCU), communication with UPS or network management, providing interface ports
- Alarm management and report analysis
- SoC and SoH management
- **Communication to the UPS via Modbus interface or dry contacts**

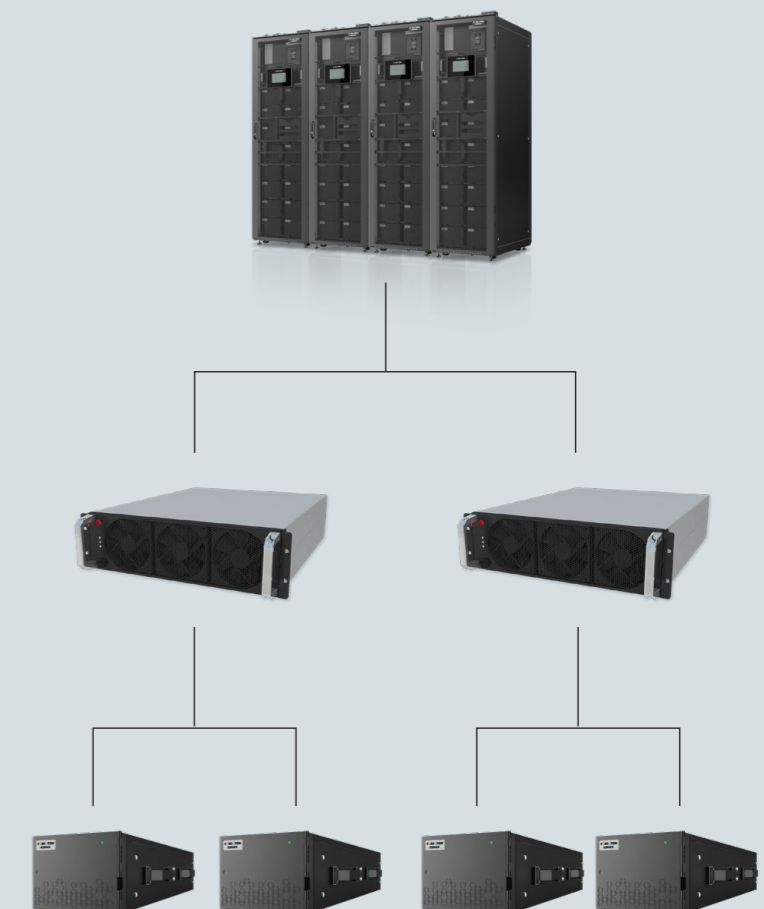
Second-level BCU system:

- Battery management
- Charge and discharge current detection
- Alarm & protection of abnormal work
- Current balance control between cabinets
- **Intelligent Battery Control Unit (BCU)**
- **One BCU for one cabinet**
- **Up to 10 cabinets can be used**

First-level BMS:

- Voltage and temperature detection
- Battery current balance management

Solition Data Center BMS architecture



The technology is there.

Just as our experts.



Solution Data Center is the cutting-edge, lithium-ion-based energy storage solution, ideal for data centers that require a reliable and efficient emergency power supply. It's the product with the highest energy density per square meter in the market, the highest power availability per cabinet and on the other side **80 % less operating and maintenance costs**.

We have the expertise to deliver smart innovations and **lead the industry** towards a sustainable future.

Energy consultation and service, made in Europe.

At Exide Technologies, we pride ourselves on cooperation. This means being there when our clients need us. After your purchase, our work has just begun. We are ready to offer you our services, standing by your side to energize a new world.



**Designed and
assembled in Europe**



**Sales and service all
over Europe and MEA**



**R&D facility
in Europe**



**Service and energy
consultation**

Those who lead should leave a green footprint.

The world is evolving and with it the demands on energy supply. Together, we can work to leave a future worth living for generations to come.



The world is changing. That's why we are energizing a new world.

For Exide Technologies, now is the time to release new energies to move even further into the future. Our new claim “**Energizing a new world**” is designed to convey this aspiration. We want to bring change to life, face challenges together with our partners, and develop solutions for today and tomorrow. **Let's create the future – the Exide way:**



Innovation is the engine of technology leadership. That's why we are constantly evolving, remain self-critical, and continue to inspire our customers. We believe that great questions deserve great answers, which is what our innovative R&D is responsible for.



Reliability defines our business. This applies to our products as well as our innovative development work, services, and partnerships. We have a responsibility that doesn't stop with our products, but rather starts there.



Sustainability is an important part of our responsibility. That's why we rely on renewable energy and intelligent recycling concepts.



High performance is the standard we set for our products and services. We want all our solutions to be best in class. This gives our customers the certainty of being optimally equipped for any task.

Fits neatly into the family.

With our extensive product portfolio, we have the perfect battery solution for every project. We provide you with competent advice, project support, and an installation service. Our application expertise with best-in-class online tools ensures that every customer can find the perfect battery technology for their requirements.

Battery ranges & application coverage

Application		Sonnenschein								Solition	Sprinter				Marathon		Absolyte	Powerfit	Classic					
		A400	A400 FT	A500	A600	Solar	Rail	Power Cycle	Data Center		Pure Power	P/XP	XP-FT	M-FT	Power Cycle	L/XL	GP/GX	S100/S100L/S300	OCSM	OPzS	Energy Bloc/OGI	OPzS Solar	Ener Sol	Rail
UPS	Data center									■	■	■	■	■	■	■	■							
	Commercial & industrial									■	■	■	■	■	■	■	■							
Telecoms	Stable grid	■	■																					
	Poor/off-grid																							
Electric utility	Power generation																							
	TSO/DSO																							
	Stable-grid BESS																							
	Poor/off-grid BESS																							
Solar-powered equipment																								
Emergency & security	Alarm systems, CCTV																							
	Emergency lighting																							
Railway	Signaling & infrastructure																							
	Rolling stock																							

best fit/highly recommended
 good fit/recommended
 possible/recommended
 not recommended/still possible

The technical features or rather: The skill for high efficiency.

Technical features:

- Design life: 15 years at 25 °C (until 70 % nominal capacity)
- Safe and stable LiFePO₄ technology
- Include fire protecting system at module level
- Specially designed for fast-discharge applications (UPS / Datacenters): Power from 50 kW/ 60 min to 300 kW/ 10 min (1C to 6C)
- Wide voltage range (384 to 600 V nominal) and wide temperature range (0 °C to 40 °C)
- Wide range of applications in stand-alone mode or with Modbus communication

Standards & certifications:

- IP21 according to IEC60529 standard
- UN38.3 approval for transport of dangerous goods
- Approval UL1942 & UL1973
- Successfully completed UL 9540A fire test
- LVD, RoHS and EMC EU directives compliant



For further information please scan the QR code to view the data sheet.



Design life 15 years



Nominal capacity 68.5 kWh



Up to 5,000 cycles



UL9540A fire test



Maintenance-free



Special high current performances: 1C to 6C



Recyclable

We don't imitate. We innovate.

We are technology-agnostic and always search for the best possible solution for our customers.

Solition Data Center

Solition Data Center offers a cutting-edge lithium-ion-based energy storage solution for data centers that need reliable and efficient backup power. Provides high cycle stability, outstanding performance, inherent safety features and durability.

We don't just develop good technology,
we break new ground!

Sprinter Pure Power

Welcome to our most advanced data backup with the latest generation of pure lead AGM technology. Best example to illustrate our mission: Even the hottest technology can still get improved.



And never stop thinking in all directions.



Solition Mega

Renewable energy supply is harder to predict, and production can be more volatile. Data centers can help reduce the volatility in the power grid by promoting the transition towards green energy and, in the process, generate revenues from their UPS. No matter what size, Solition Mega energy storage systems provide a reliable and efficient solution for a wide range of energy storage needs.



Energy that goes beyond.



- Automotive plant
- Industrial plant
- R&D facility
- Recycling
- Global HQ
- Principal sales offices
+ sales offices and distribution centers worldwide



<p>All manufacturing plants ISO 9001 certified</p>	<p>All automotive plants IATF 16949 certified</p>	<p>All manufacturing plants ISO 14001 certified</p>	<p>All manufacturing plants ISO 50001 certified</p>	<p>Most manufacturing plants ISO 45001 certified</p>
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**ENERGIZING
A NEW
WORLD**

EXIDE[®]
TECHNOLOGIES