



LSK Green Group



## ADS-TEC Energy

ADS-TEC Energy develops and produces battery-based platform solutions for the energy industry of the future.

ADS-TEC Energy's systems are complemented with comprehensive services and secure remote access to all operational data, enabling long-lasting and long-term operation.

This way, ADS-TEC ensure that the future decentralized energy system in a CO2-neutral world is safe, efficient, and optimally deployed.

Together we drive  
the energy transition  
forward.



The transformation to a climate-neutral energy economy is one of the greatest challenges of our time. In particular, tomorrow's energy system will be more electric, more digital and more decentralized. In addition, today's electricity, heat and mobility sectors will increasingly interact to compensate for volatility in renewable energy supply. This will require decentralized and intelligent energy platforms with integrated buffer storage in our real estate, industry and infrastructure. On the basis of these, we will enable future energy suppliers to control the complex interaction of producers and consumers.

Thomas Speidel,  
Founder and CEO of ADS-TEC Energy,  
in context of the Deutscher Zukunftspreis 2022.



LSK  
Green Group  
*Powering the Future*

LSK Green Group is the authorized representative of ADS-TEC Energy in the Czech Republic and Slovakia.



## Charging Solutions



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ChargeBox



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ChargePost

## Battery Storage



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Indoor



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Outdoor

# Charging solutions for the challenges of tomorrow.

Our charging solutions aren't just simple charging stations. They're platform solutions that help you make your business model sustainable and implement it cost-effectively – as quickly as possible.

How you benefit at a glance:



**Integrated battery storage**

Battery-buffered fast charging solution, ideal for use on power-limited grids



**Maximum flexibility**

Maximum power with a tiny footprint allows for flexible use almost anywhere



**Flexible overall system**

consisting of hardware, software and services with custom configuration



**High charging capacity**

Up to 320 kW charging capacity



**Developed in Germany**

State-of-the-art technology: made in Germany



**Can be operated without the need for grid expansion**

No need for transformer station or grid expansion – connects to existing 400-V grid



**Use of renewable energy sources**

Easy to integrate into existing systems with photovoltaic installations or renewable energies for charging with green electricity

The integrated battery storage is at the heart of our charging technology. This is made up of lots of individual battery modules that can be easily replaced and monitored down to cell level. That's how the ADS-TEC Energy solution focuses on longevity and sustainability.

Why is battery storage important for charging?

Battery storage enables ultra-fast charging at any location. Fast charging makes electric mobility more practical, which leads to greater acceptance in society. Driving this forward means expanding the fast-charging infrastructure rapidly. Ultra-fast charging points require fewer AC charging points, so the transition to green transport options can be achieved more easily with the faster expansion of the charging infrastructure.

Yet fast charging presents other challenges. Grids aren't always designed for such output. But that's where our products come into play. Both ChargeBox and ChargePost continuously store the energy available from the low-voltage grid. As soon as this energy is needed, it can be released ultra-fast, enabling charging with a range of up to 100 km in around 5 minutes.

Our technology enables ultra-fast charging even in places where this would not ordinarily be possible due to the available grid capacity.

Alternative to transformer stations and grid expansion

Costly and time-consuming grid expansion, including upgrading the necessary infrastructure (e.g. transformer stations), is usually required in order to make ultra-fast, high-capacity charging possible. It makes sense to question whether this undertaking is actually worth it. After all, the outlay involved in expanding the grid is high and the entire process can often take several months. It also means a high level of dependence on the local grid operator. This means that this solution isn't suitable for every location or every business model.

ADS-TEC Energy's solutions save you both time and money. Thanks to the integrated battery storage, grid expansion is not required. The system also offers additional sources of income and is very quick to install.

Our platform solutions include hardware, software and services as a comprehensive solution. They are designed to be space-saving and flexible – the minimum amount of innovative technology within the smallest possible space.

Our platform solutions are highly versatile. ChargeBox and ChargePost enable more profitable business models than just charging.



Ultra-fast charging on power-limited grids



Self-consumption optimisation



Electricity trading with renewable energies



Grid security and stability

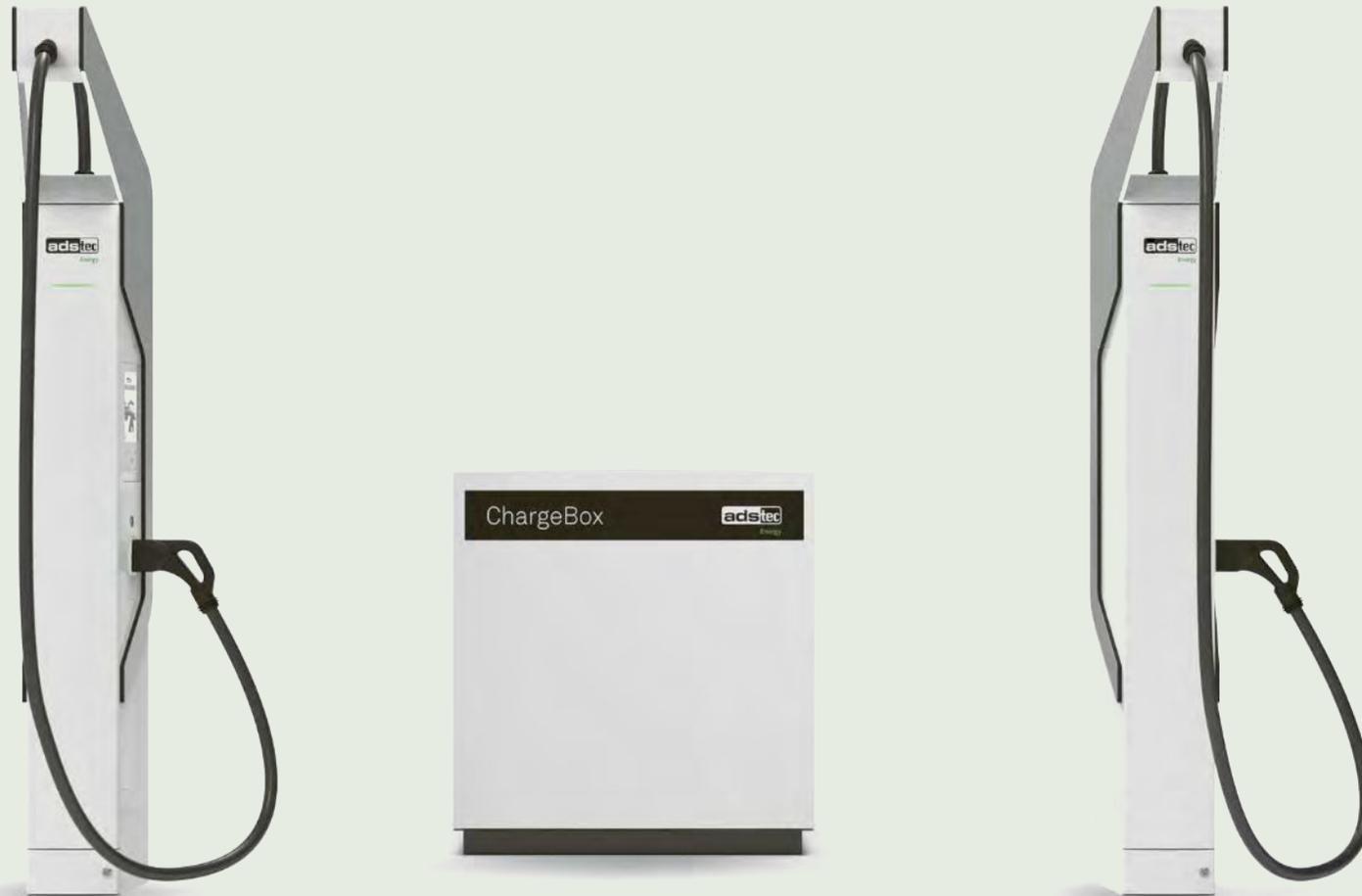


Appealing advertising space



# ChargeBox System

Ultra-fast charging on power-limited grids





# ChargeBox System

## Ultra-fast charging on power-limited grids

### ChargeBox Booster

Power amplifier

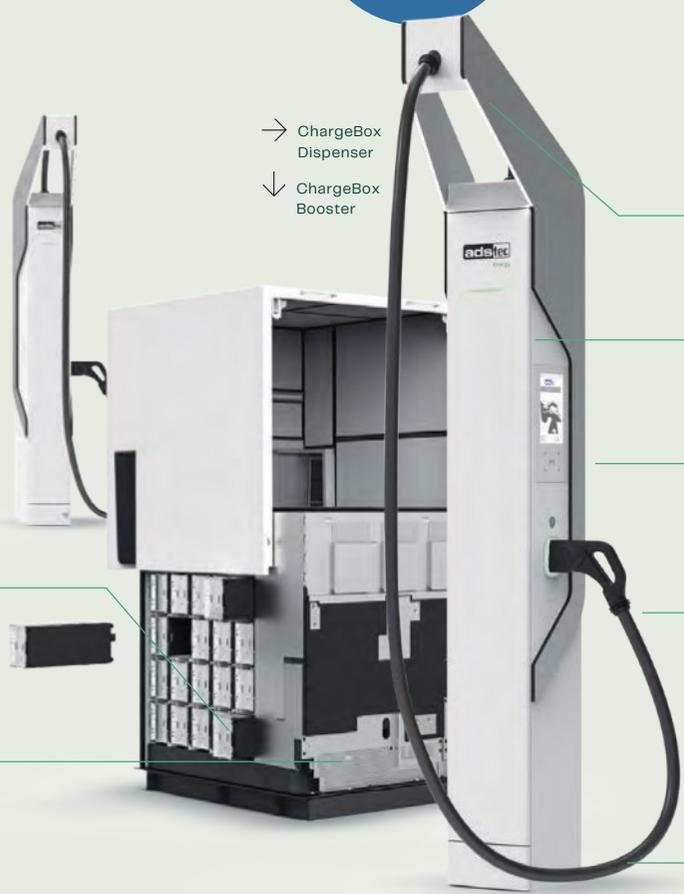
Developed in Germany and designed for high outputs, our compact power electronics and our battery modules with their high energy density form the core of the ChargeBox Booster.

With its future-proof high-voltage technology, the system is compatible with voltage ranges from 150 V to 920 V, making it suitable for future electric vehicles.

With a footprint of just 1.6 m<sup>2</sup>, the ChargeBox Booster requires just 15% of the area of comparable fast-charging systems with a connected medium-voltage installation.

Thanks to its flexible installation options, the ChargeBox Booster offers the utmost freedom even under tricky installation conditions. Above-ground installation means that the ultra-fast charging solution can be put into operation even faster, including in places where civil engineering work is not an option.

Nominated for the **Deutscher Zukunftspreis** (German Future Prize) 2022



→ ChargeBox Dispenser  
↓ ChargeBox Booster

### ChargeBox Dispenser

Charging station

In order to make ultra-fast charging as easy, convenient and safe as possible for operators and users, we left nothing to chance when it comes to our ChargeBox Dispenser.

High suspension point ensures easy access to the charging socket on the electric vehicle.

LED status display on the charging station is clearly visible from a distance and in the dark.

Sunlight-readable 10-inch touch screen ensures optimal readability even in direct sunlight.

CCS2 charging connector for maximum charging power of up to 320 kW.

Liquid-cooled charging cable ensures consistently high charging performance without overheating or derating.

Low-noise charging allows for installation in mixed-use and residential areas.

This system solution for battery-buffered ultra-fast charging offers the ultimate flexibility and is the most compact and efficient solution in its class.

up to **320 kW** charging capacity

**6x** more power on power-limited grids

**140 kWh** battery capacity

**1.6 m<sup>2</sup>** installation footprint (smallest system in its class)

up to **300 m** between grid connection and charging point

**Noiseless** charging stations for charging in residential areas



# ChargeBox Booster

Power amplifier



Grid	Grid Configuration	TN-S with 3Ph+N+1+PE(stationary)
	Frequency	50 Hz
	Inlet power	50–110 kVA
	Inlet voltage	346–415 V (+/- 10%)
	Inlet current	Max. 186 A
Battery system	Warranty	Up to 10-year Cell Performance Warranty on battery cells (in combination with Advanced Service contract and Bat-X)
	Cell chemistry	Lithium NMC
	Battery capacity	140 kWh
	Cooling	Air- and liquid-cooled
ChargeBox Booster	Vehicle charging power	2 x 160 kW/1 x 320 kW
	Electrical efficiency	Up to 96%*
	Target markets	EU (USA and Canada on request)
	Noise emissions	Low-noise charging
	L x W x H	1.3 x 1.3 x 1.4 m plus foundation and underground cabling**
	Weight (total)	2.8 t (incl. cooling medium and batteries)
	Installation options	Up to 200 m from the mains connection
Communication interfaces	Back-end connection	Fibre-optic cable, 4G, Ethernet
	Protocol	OCPP 1.6J
Ambient conditions	Temperature range	-30°C to 50°C
	Installation options	Outdoors***
Standards/safety	Safety	Battery safety according to IEC62619 Power converter safety according to EN 62477-1
	Conformity	CE, UL
	EMC	EN 61000-6-2;EN 61000-6-4
	Transport	UN 38.3 test for lithium batteries



# ChargeBox Booster

Charging station



Dimensions	L x W x H	0.4 x 0.4 m (floor area) x 2.7 m
	Weight	170 kg
System	Screen	Sunlight-optimised 10-inch HD touch screen
	Authentication	RFID
	Energy measurement	Optionally using calibrated DC energy meter
	Vandalism class	IK09
	Noise emissions	Noiseless, no discharge of cooling air
	Installation options	Indoors and outdoors, up to 100 m from ChargeBox Booster
Charging cable	Cooling	Liquid-cooled
	Plug type	CCS2 (USA and Canada on request)
	Functionality	Flexible cable for conveniently reaching the charging sockets on the vehicle
	Cable length	3.8 m without ground contact when plugged in

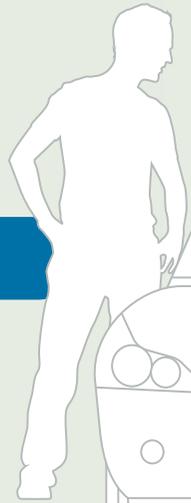


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# Only the best ultra-fast charging experience.

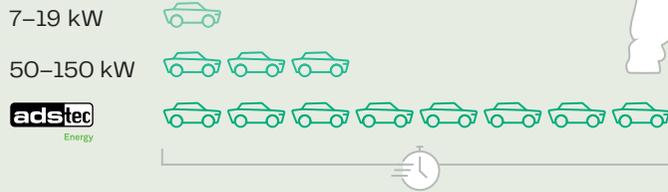
## Make a future-proof investment.

ADS-TEC Energy ChargeBox with up to 320kW offers significant advantages over AC chargers and many standard DC chargers. It charges EVs in minutes, is versatile and highly efficient with advanced features such as cooling systems, making it a crucial component for the rapid adoption of electric vehicles.



60 miles range in approx. 5 minutes.

Increase the number of cars charged per hour!



> 1,550 charging points across Europe

> 230 charging points across the USA and Canada

ChargeBox has been installed at more than 500 sites within Europe and North America. Field proven, robust and highly reliable. Due to the integrated battery-buffer the Total Cost of Ownership is significantly lower. Use self-generated green energy to optimize your business case.

ChargeBox is field proven with 98% availability.



Maximum customer satisfaction!



Highest quality standards – engineered in Germany

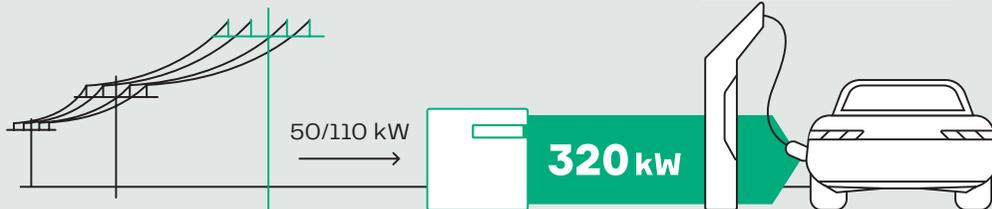


140 kWh battery capacity

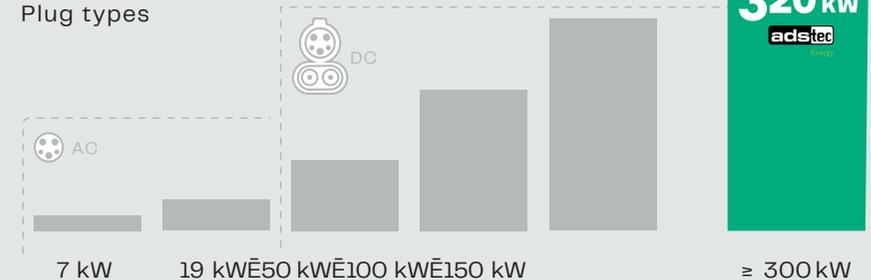


17 sq ft installation footprint (smallest system of its class)

Ultra-fast charging on limited grids



Plug types





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# ChargePost

All-in-one charging solution



# ChargePost

Today's all-in-one charging solution for tomorrow's challenges.



## ChargePost

All-in-one charging station

Smart, innovative and custom-designed: ChargePost enables HPC charging within minutes on power-limited grids – taking ultra-fast charging to a new level with best-in-class technologies.



ChargePost is setting new standards for ultra-fast charging solutions with pioneering technologies.

**75-inch** advertising displays for ULTRA-HD advertising content

**up to 300 kW** charging capacity for one electric vehicle or 2x 150 kW if two vehicles are being charged at the same time

**24/7** cost-optimised operation with smart buffer storage

**5 minutes** charging for over 100 km travel distance

**Modular system:** battery modules can be replaced individually for quick and convenient upkeep.

**Air conditioning** for battery cooling, power electronics and advertising display.

**Innovative lighting system** for displaying the system status.

**Sunlight-optimised 10-inch touch screen** for easy, intuitive operation.

**Integrated contactless credit and debit card reader** enables convenient payment.

**CCS2 charging cable** (minimum 3 m, uncooled) for convenient use.

**Powder-coated sheet steel** ensures high resistance to weathering.

**Full-HD image sensor** for smart security monitoring.

**Maximum security** for your system and data with in-house IT and firewall.

**CE-certified** in accordance with protection class IP54.

**DC meter** for energy measurement and billing in compliance with weights and measures regulations.

**75-inch displays** with ultra-HD resolution and smart energy-saving modes for displaying custom advertising content.

**Outdoor displays** with high brightness, protection against vandalism, and UV filter.

**Large lockable doors** allow easy access for maintenance work.





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# ChargePost

All-in-one charging solution



Product variants		ChargePost
<b>Electronics</b>	Charging power Output voltage DC Max. charge current (output) Gross capacity Cell technology	Up to 300kW or 2x150kW 150 – 920 VDC Max. 400 A 143.6 kWh or 201kWh Lithium-ion
<b>Battery</b>	Operation parallel to the grid Secured charging cable	Yes Yes, fixed installations with connection terminals
<b>Installations</b>	Power supply form Power supply system Power supply frequency Input voltage AC Input power EMC	3-phase + N + PE TN-S 50 Hz 400 V (+/- 10%) 39 – 86.6 kW Class A according to EN 61000-6-4
<b>Grid connection</b>		
<b>Mechanical data</b>	Color Air conditioning Housing material	RAL 9003, signal white For the cooling of the batteries, inverter and advertising displays; Air and liquid cooling Sheet steel
<b>Advertising display</b>	Size Resolution Number of monitors Remote upload of advertising content Lifetime Night mode  UV resistance	75" 4K: 2160 x 3840 px 0, 1 or 2 displays Yes, the customer's content client 1,500 cd/m <sup>2</sup> brightness after 50,000 operating hours Automatic reduction in brightness of the display depending on the measured brightness of the environment Yes, test standard: EN ISO 4892-1/-2; test class: A (artificial weathering)
<b>User interface</b>	Human-machine interface RFID reader Payment terminal	1x10-inch HD touchscreen, sunlight optimized HMI integrated 1xCredit and debit card reader with PIN pad for contactless payment
<b>Service &amp; operation</b>	Access Operation Project specific features	Maintenance door(s), lockable Continuous operation at one location Bidirectionality; advanced communication interfaces
<b>General data</b>	Dimensions (L x W x H) <sup>1</sup> Weight without battery modules Weight with battery modules Weight Battery module Certification Degree of protection Protection class Operating temperature range Communication channels Communication Backend protocol Charging cables Usable cable length Charging plug (vehicle interface) DC electricity meters  Noise emissions	1.3x1.5 m (floor space)x2.4 m 2.1t* 3.2t* < 25 kg CE IP54 IK10/ Payment terminal IK8, HMI unit IK8.5 -20 °C to +40 °C** 3 separate communication channels Mobile data (4G/LTE), Ethernet RJ45 10/100 Mbit/s OCPP1.6J Uncooled, external, bracket for plug 3 m CCS2 Integrated, one per charging point, each with viewing window Compliant with Eichrecht/MID For urban use

\* Total weight depends on the configuration.

\*\* Depending on configuration



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# PowerBooster

Outdoor battery storage

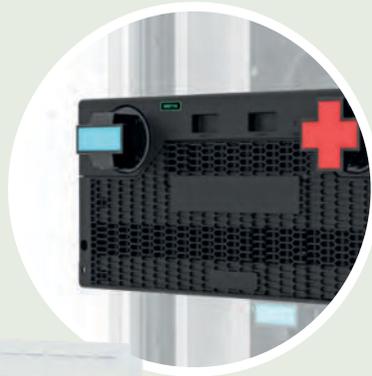


# PowerBooster

Battery-based platform solution for outdoor use.

## GSS0813

The Grid Service Station is developed and manufactured in Germany for long-term use.



Full control through the intelligent energy management system (EMS). The system developed by ADS-TEC Energy monitors and manages the PowerBooster battery storage system. If desired, this can also be easily replaced in order to integrate the PowerBooster into the customer's monitoring and/or control systems.

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Controller for monitoring the battery string.

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Compact system with integrated inverter. No additional attachments necessary – simplified planning.

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**Plug and Play** – All elements relevant for operation, such as the battery modules or the inverter, are mounted and wired in the plant. This means that the turnkey solution can be delivered directly to the site of operation and put into operation without much effort.

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Battery modules monitored down to cell level.

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**Scalable** – up to 8 PowerBooster can be connected.

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Low-pitch roof ensures effective rainwater drainage.

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The integrated air conditioning system for optimal operating conditions to achieve high efficiency and maximum service life.

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Steel housing according to IK10. Certified for maximum resistance against weather and vandalism.



**75 kW**  
Max. effective power

**128.7 kWh**  
Battery capacity

**Complete system**  
with integrated inverter and HVAC

Optimised for installation  
**outdoors**

# PowerBooster

Battery storage



GSS0813



System	System type	AC-coupled storage system in outdoor cabinet
	Actuation/functions	ADS-TEC Energy apps: peak shaving, self-consumption optimisation, charging station load management/ADS-TEC master interface Options: → Backup power supply → PV power reduction via SolarLog
	Network connection	Ethernet, RJ45, LTE
	Inverter	Integrated
Grid	Max. discharging power	75 kW
	Max. charging power	50 kW
	Apparent power	75 kVA
	Grid voltage	400 VAC
	Configuration	TN-S with 3Ph + N + PE (stationary)
	Frequency	50Hz
Battery storage	Nominal energy content	128.7 kWh
	Cell chemistry	Lithium NMC
	Usable energy content	111.6 kWh
General data	Installation option	Outdoors
	Temperature range	-20°C to +40°C
	Protection class	IP55
	Warranty	Up to 10-year Cell Performance Warranty on battery cells (in combination with Advanced Service contract and Bat-X)
	Break-in protection	RC2
	Vandalism class	IK10
	Dimensions W x H x D	Approx. 1,430 x 2,500 x 940 mm
	Weight	Approx. 1,400 kg incl. battery modules



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# StorageRackSystem

Indoor battery storage





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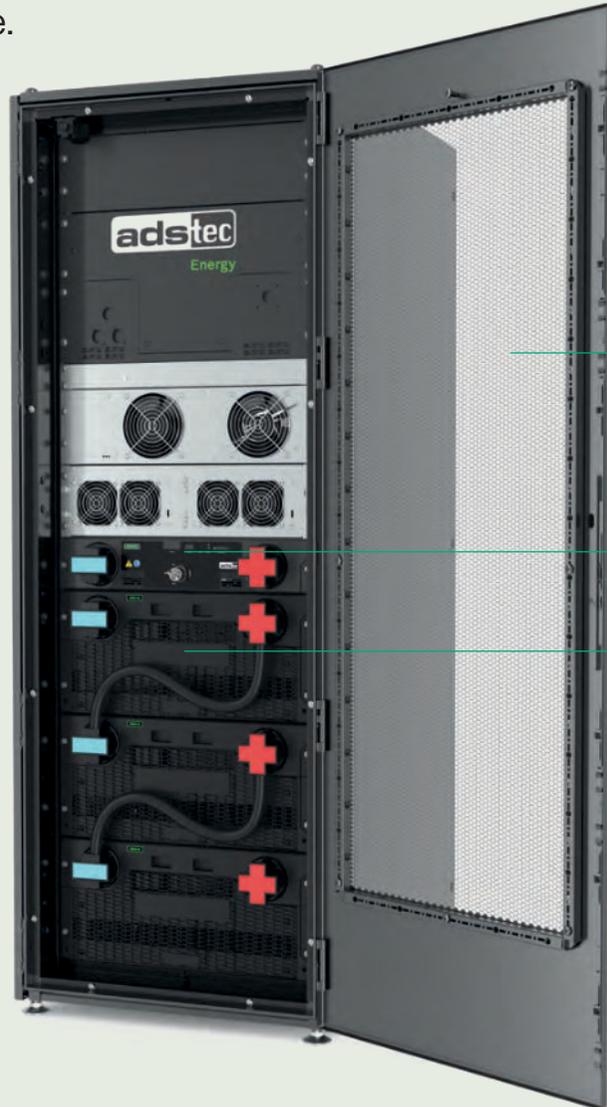
# StorageRackSystem

Battery-based platform solution for indoor use.



## SRS2543

Our SRS - Storage Rack System is - a compact indoor battery storage system with our trademark of the + and - symbols. A complete system with integrated inverter that can be used in many ways and offers a solution for every requirement.



For indoor use with IP20 and perforated door.

**Powder coated steel plate** provides high quality and durability.

**Controller** for monitoring the battery string.

**Modular system:** battery modules can be replaced individually for convenient and quick maintenance.

**CE certified** according to protection class IP54

**25 kW**  
Effective power

**42.9 kWh**  
Battery capacity

**Complete system**  
with integrated inverter

Optimised for installation  
**indoors**

# StorageRack System

Battery storage



SRS2543



System	System type	AC-coupled storage system in indoor cabinet
	Actuation/functions	ADS-TEC Energy apps: peak shaving, self-consumption optimisation charging station load management/ADS-TEC master interface Options: → Backup power supply → PV power limitation via SolarLog
	Network connection	Ethernet, RJ45
	Inverter	Integrated
Grid	Max. discharging power	25kW
	Max. charging power	18kW
	Apparent power	25kVA
	Grid voltage	400VAC
	Configuration	TN-S with 3Ph + N + PE (stationary)
	Frequency	50Hz
Battery storage	Nominal energy content	42,9 kWh
	Cell chemistry	Lithium NMC
	Usable energy content	37,2kWh
General data	Installation option	Indoors
	Temperature range	10°C to 25°C
	Protection class	IP20
	Warranty	Up to 10-year Cell Performance Warranty on battery cells (in combination with Advanced Service contract and Bat-X)
	Dimensions W x H x D	Approx. 610 x 1.720 x 880mm
	Weight	Approx. 500kg incl. battery modules



# Reference

## ADS-TEC Energy



ChargeBox for Iberdrolain Spain happy change to a zero emission electric world at McDonald's in Alicante.

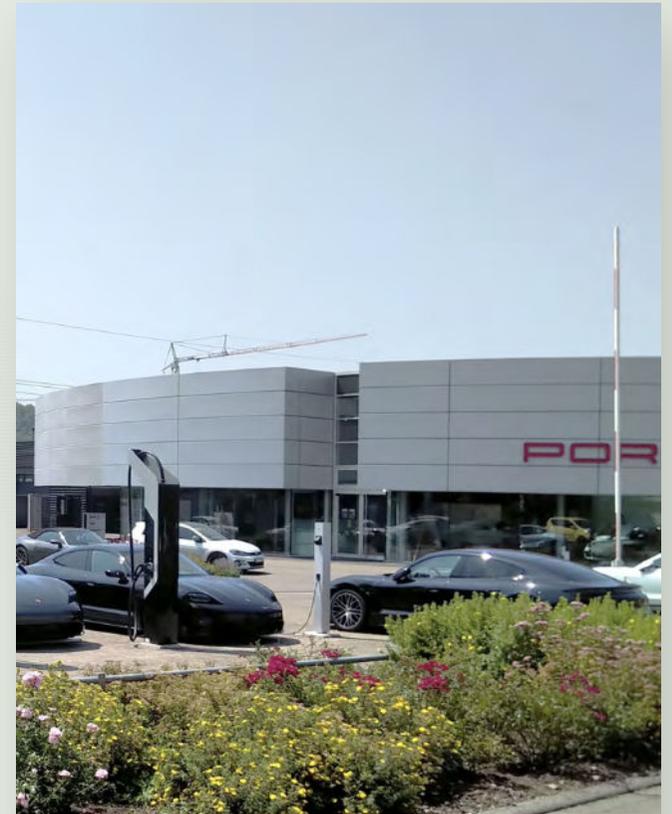
One of Europe's largest energy providers relies on ADS-TEC Energy's charging technology in its transition to a CO2 neutral world. The first 15 systems were purchased in 2021 and two stations went into operation the same year (in Alicante and Valencia)



Porsche, Paris



Porsche, Stockholm



Porsche, Hegau



eFantom from  
Frauscher and Porsche  
at Lake Garda



PowerBooster



Storage Power Plant  
Allgäu Grid Services  
in Sonthofen



**PowerBooster in France (in Douges near the Belgian border) GSS2824 for fast charging and peak shaving at gas stations.**

Under the brand “V-Gas”, Proviridis builds intelligent multi energy filling stations with CNG, LNG and electricity for fast charging.

In combination with its own PV and storage system, a cost-efficient power supply for Supercharger (2x150kW) can be guaranteed.



Bosch Reutlingen



ChargeTrailer, Porsche

**2.1**  
MWh  
ON WHEELS

**PORSCHE  
TURBO  
CHARGING** MOBILE CHARGING UNIT





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