

SMART MOBILITY

Optimized energy management for electric vehicle chargers

EVSS Control 100



- Reduces cost
- Highest charger utilization
- Future-proof

Pioneering the future of e-mobility

Delivering end-to-end electrification solutions for the transport of tomorrow, today.

Long standing experience

More than a decade in launching innovative EV charging technology, complimented by a century of experience in power distribution and energy management.

Trusted problem solver

From highway to home, from EV Fleets to retail, we are the partner of choice for the world's biggest brands of electric vehicle OEMs to nation-wide EV network operators.

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EVSS Control 100

Smart optimization of EV charging performance

Why EVSS Control 100?



Reduces costs

- Reduce or eliminate necessary grid upgrades when installing more charging capacity (CAPEX savings).
- Avoid penalty costs for energy demand peaks (OPEX savings).



Highest charger utilization

- Prevents site power outages as a result of total charging power exceeding the site's grid connection limit.
- Increase the number of charge points on site and optimize the energy usage among outlets.



Future proof

- Scalable by design. Can be upgraded in the future to support additional chargers of EVSS that can be used on a site.
- Over-the-air software updates enable new optimization features and services as they are developed.

Where is it used?



Bus Depot: Safe and reliable charging of your business critical operation, with clear insight in charging behavior and optimizing costs.



Fleet Depot: As more companies seek to reduce their carbon footprint, significant progress is achieved by converting their vehicle fleets to electric and upgrading their depots with charging infrastructure



Roadside fast charging station: The refuel station of the future for connecting cities and providing the fastest charge possible in the shortest amount of time.



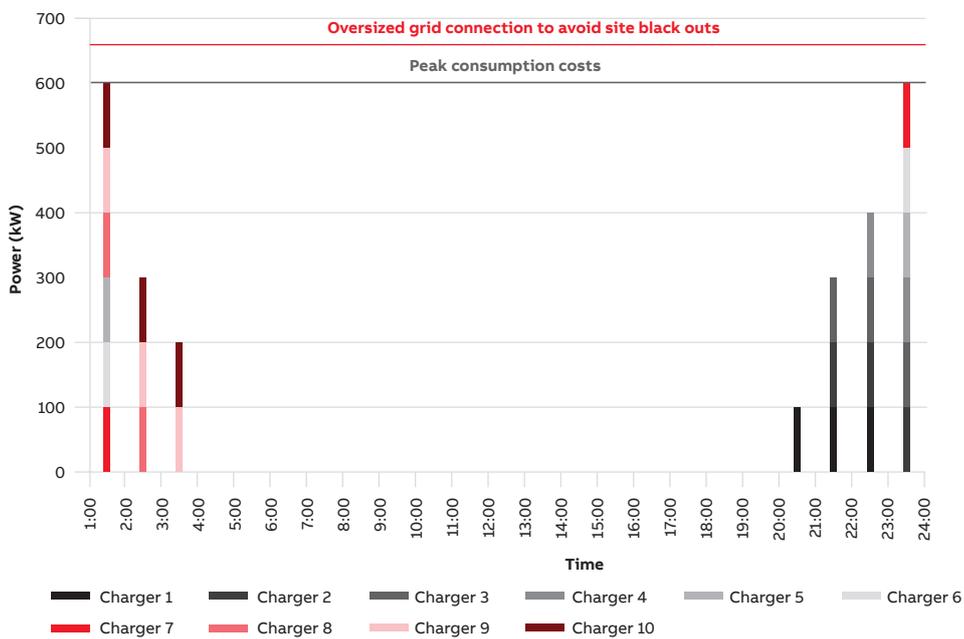
Public parking: As commercial businesses seek to attract a growing population of EV drivers, accessible charging infrastructure is needed within public parking areas.

Sites with multiple DC chargers

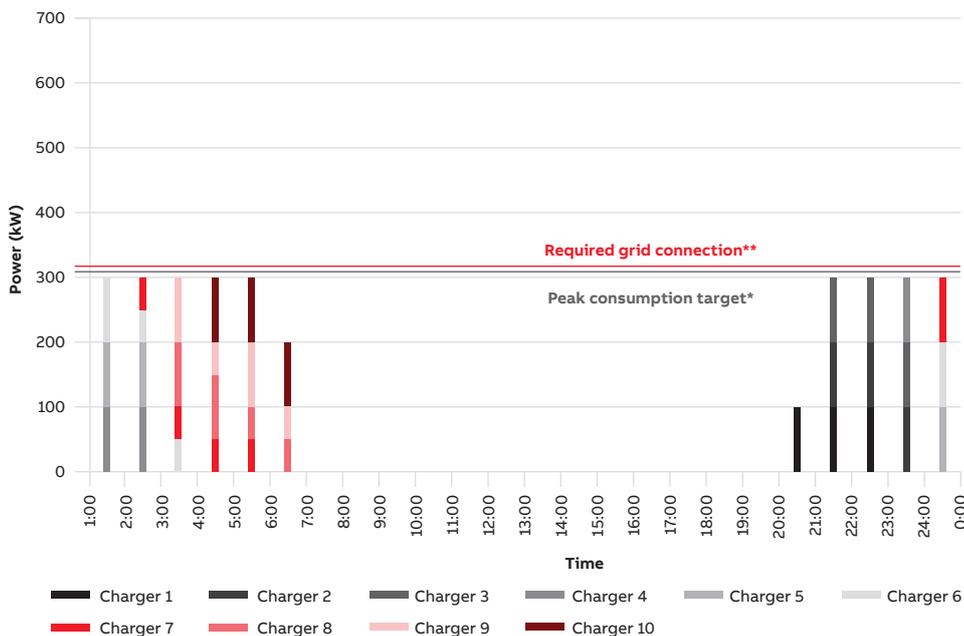
Why energy management is important?

Bus Depot Example: 10 Buses, 300kWh Battery each, 10 x 100 kW chargers

Without energy management



With energy management



** No need to increase grid connection = CapEx savings

* Peak reduction = OpEx savings

How can EV chargers be prioritized?

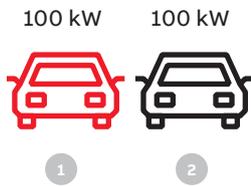
First in, first out (FIFO)

Example: Charging station with 4 x 150 kW EV chargers with maximum available grid capacity of 300 kW.

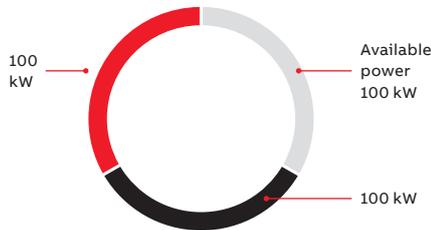
First in, first out principle: The priority of charging power is assigned based on the order of arrival of each car.

At 07:00 a.m.

• Charging power needs:

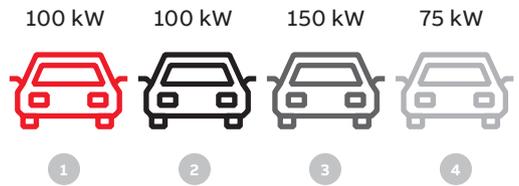


• Charging power delivered:

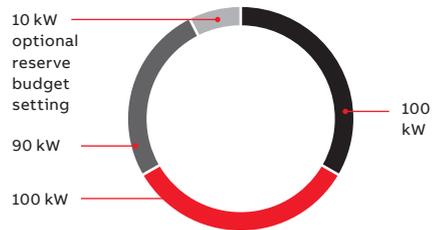


At 07:05 a.m.

• Charging power needs:

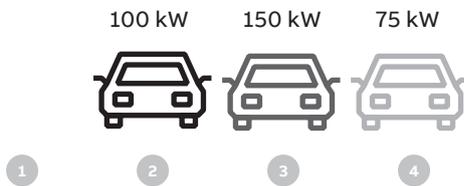


• Charging power delivered:

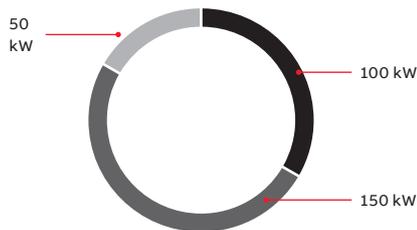


At 07:10 a.m.

• Charging power needs:



• Charging power delivered:



At 07:15 a.m.

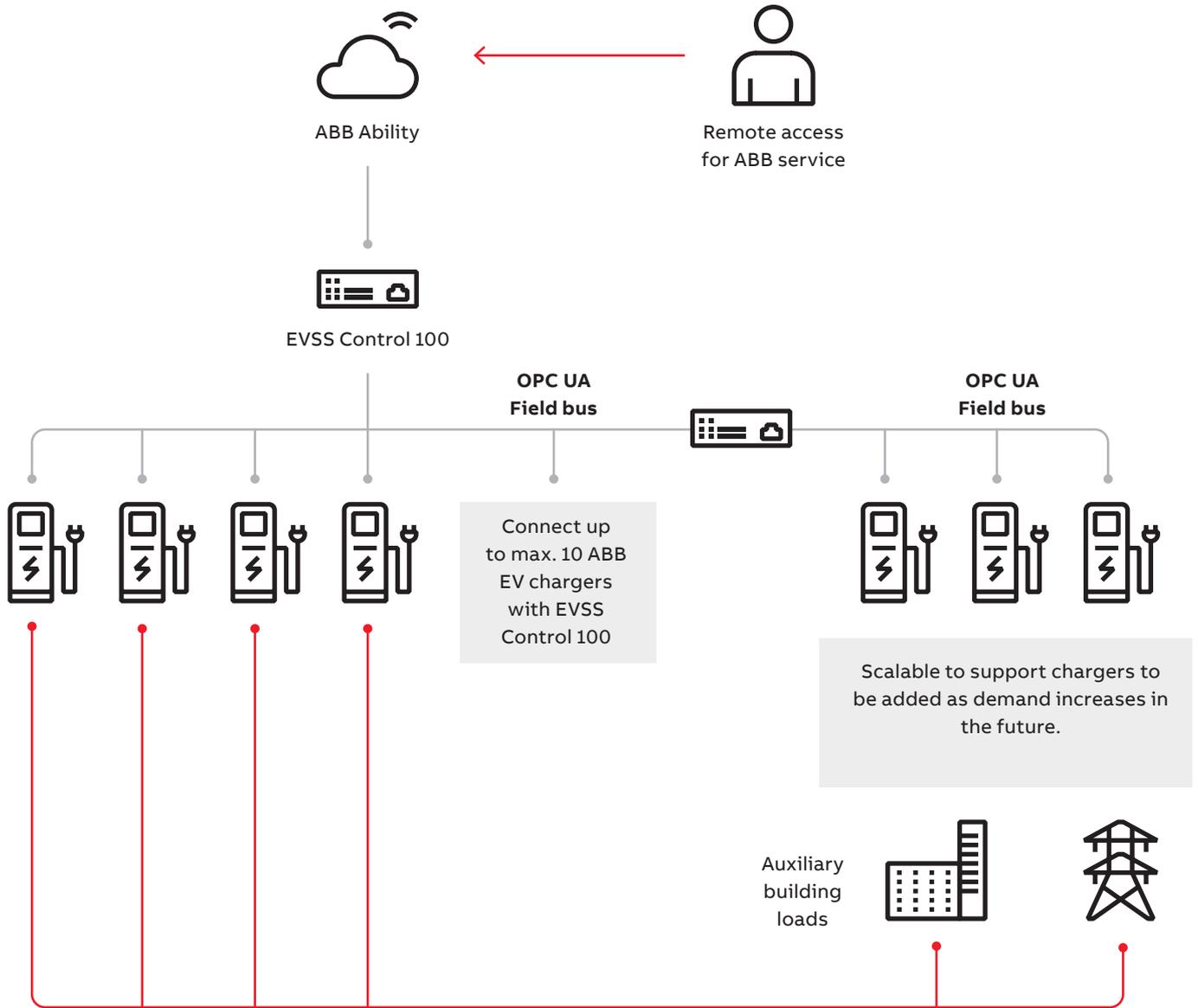
• Charging power needs:



• Charging power delivered:



Architecture



Ordering details

	Product	Features	Order code	Weight (Pkg/1 pce/ kg)
	EVSS Control 100	Connect up to 10 chargers Integrated 4G connection	6AGC083930	26,2

User Interface

Local access for operator interaction with the EVSS Control 100 is possible via a web-based application. The application is accessible by connecting an external laptop.



Once login connected, the user is able to:

- **Monitor** the EV chargers and the status of all charging sessions
- **Configure** the prioritization strategy of the EV chargers (such as equal share or first in, first out)
- **Configure** minimum and default charging power budgets
- **Stop** charge session of a specific connector
- **Set** grid limits



EVSS Control 100

Technical specifications

Electrical specification

Input	
Supply voltage	1-phase: PE, L, N
Input voltage range	230 V AC \pm 10%
Input frequency range	47 - 63 Hz
Typical input current	1.55 A at 230 V AC
Typical power consumption	270 W
Power factor correction	0.75
Inrush current limiting	60 A (max. 5 ms) at 230 V AC
Internal input circuit breaker	10 A, Tripping Characteristic D
Rated Short-Circuit Capacity (I_{cn})	6 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu})	20 kA at 230 V AC

Mechanical specification

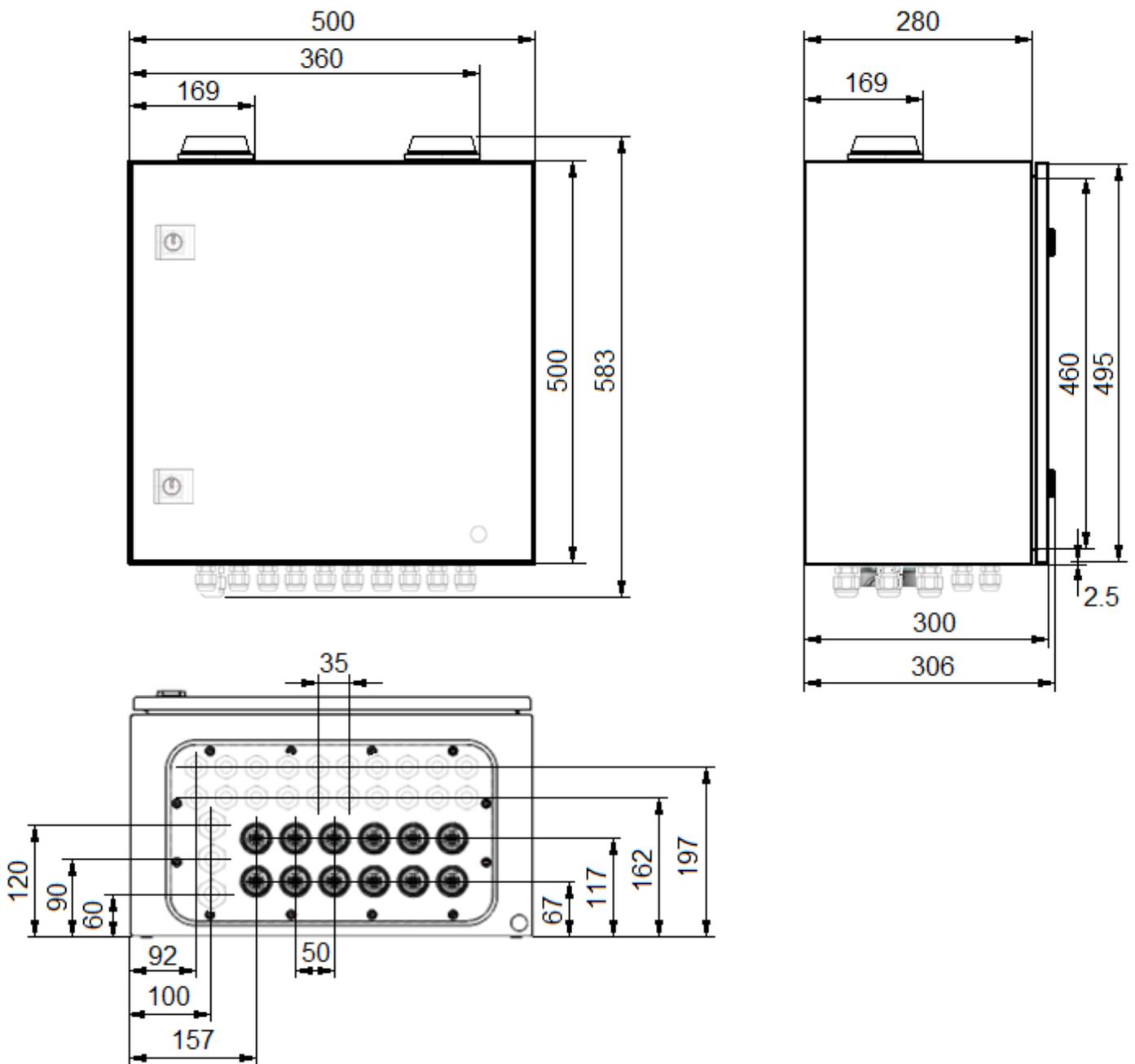
Dimensions (H x W x D)	583.0 x 500.0 x 306.0 mm
Weight	26.2 kg
Volume	0.084 m ³
Dimensions including packaging (H x W x D)	
Weight including packing	
Mechanical impact protection	IK08
Housing	Lacquered sheet steel 1.4301 (AISI 304)

Environment

Ingression protection	IP54
Temperature range – Operation	-25 °C to +40 °C
Temperature range – Storage	-40 °C to +60 °C
Humidity	5 % to 95 %, RH – non-condensing
Air pressure	2000 m (795 hPa)
Storage conditions	Indoors, dry

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Certifications

	EN-IEC 62368-1:2014 + AC:2015 + A11:2017 + AC:2017
CE	EN-60950-22 1:2006 + A11:2008 + AC:2009
Class of protection	1 with PE connection





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ABB

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Additional information

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