

SIEMENS



SICHARGE UC™

Modular charging system

siemens.ca/sichargeuc

Designed for you with flexibility in mind

Powerful and reliable, SICHARGE UC offers 150 kW (or up to 600 kW) of flexible charging solutions for buses, trucks, and heavy-duty vehicles, whether charging at a depot or en route. It offers you fast, secure charging, interoperability, and lower installation costs.

SICHARGE UC's multiple connection options provide modular building blocks and the freedom to choose between Dispensers and high-power, automated charging with Pantographs, thus, overcoming space constraints.

Each SICHARGE UC cabinet can power up to four charging dispensers with easy installation. With SICHARGE UC you can combine power cabinets to achieve up to 600 kW of DC power. AC incoming and DC outgoing cabinets dramatically reduces the installation cost. This feature reduces infrastructure costs by limiting the number of AC input feeds required for multiple cabinets.



Interoperability and future-proof up to 950 V

Ensure flexibility in electrifying your fleet – today and tomorrow.



Robust, durable, outdoor designed

Ensure longevity of equipment, easy outdoor usage with NEMA 3R and highest fleet availability.



Flexible and space-saving

Easily integrate into existing depot with constraints in HW, SW or layout.



Optimized CAPEX and OPEX

Realize the most competitive solution and efficiently manage your daily operation.



Choosing the right configuration for you

Keeping an electric fleet charged and running efficiently requires the distribution of high power in an intelligent way. SICARGE UC provides the right technical solutions for your needs.

Depot charging

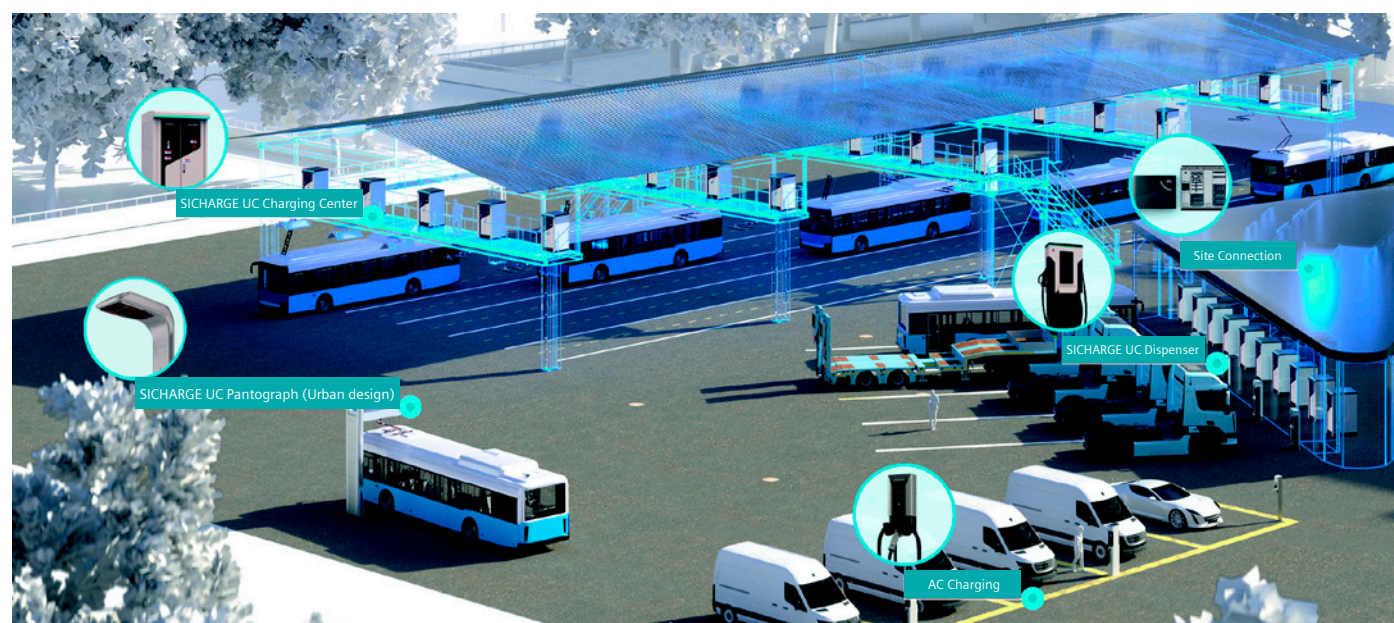
Vehicles spend time in a central depot every day/night and can be sequentially charged to meet their schedule requirements.

SICARGE UC chargers are designed for efficient, overnight charging, using pantographs or CCS1 plugs.

Opportunity charging

High-power automated charging with pantographs is the optimal solution for ultra-fast charging and shorter charging cycles.

This solution can either be implemented for on-route charging or in the depot, when tight schedules need to be considered. The SICARGE UC “night light” provides additional passenger safety at en route locations.



Charging setup tailored to your needs

Flexible configuration options



Sequential charging

SICHARGE UC connects up to four J3105 pantographs, or CCS1 dispensers and allows for dynamic sequential charging.





Ultra-high-power charging

SICHARGE UC can be connected to liquid cooled dispensers with up to 500A or J3105 compatible pantograph connections with up to 800A.



Implementation of charging flexibility – project specific

The SICHARGE UC family can adapt to your individual needs using a flexible combination of switching matrix power.

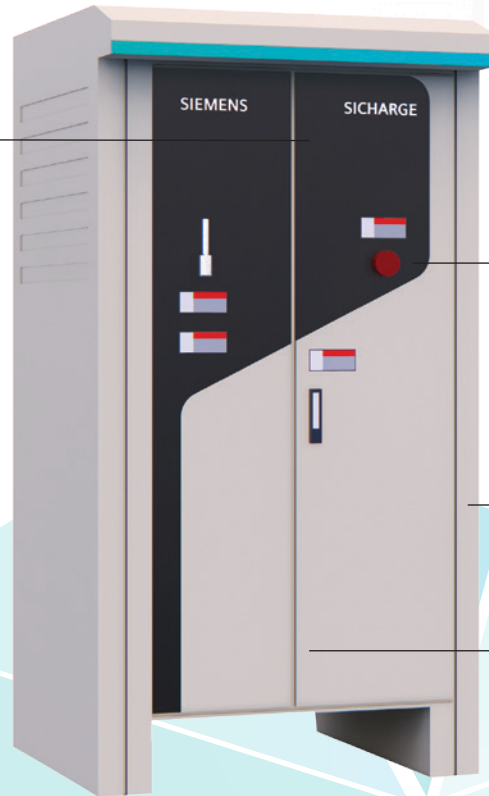


State-of-the-art technology

Charging Center

The Charging Center is the core of your system. Several other vehicle connections like the cable-based Dispenser, or inverted Pantograph can be powered by this unit.

NEMA 3R enclosure provides a high degree of protection against dust and spray water



Emergency Stop button

C3 painted for outdoor usage

Large doors for easy maintenance access

Dispenser

The cable-connected Dispenser of the UC family is installed close to the vehicle's connection point, with a small footprint and elegant design.

For investment and space optimization, several Dispensers can be powered in sequence by a single Charging Center.

Inclined rain protection Hood directs water to the rear

NEMA 3R enclosure provides a high degree of protection against dust and spray water

Covered plug holder

Multiple options for floor, wall or roof mounting

Cable optionally cooled for up to 500 A



Charging status indication via 360 degree LED light (optional)

Multilingual 7" outdoor touchscreen display at an ergonomic height, accessible and easy to read – also in bright sunlight

Cable holder for convenient and clean operation

Power cable for application in congested environments, with comfortable length

Air ventilation slots for the liquid-cooled cable

Inverted Pantograph

MastPanto – industrial design

MastPanto – urban design

The inverted Pantograph is a fully automated option to connect to the fleet, e.g. feeding opportunities along the route.



Technical data

SICHARGE UC
Charging center



SICHARGE UC
Charging center and
combiner cabinet



SICHARGE UC
High-power charger



SICHARGE UC	150	300	450	600
Vehicle interface				
Air-cooled CCS cable Dispenser	×	-	-	-
Liquid-cooled CCS cable Dispenser	-	×	×	-
Mast mounted (inverted) Pantograph	×	×	×	×
Nominal input				
Voltage	480 and 600 V AC (3ph + PE) ± 10 %			
Frequency, Hz	60			
Power factor (cos phi)	> 0.98			
DC output*				
Rated power, kW	150	300	450	600
Current (cont.), A	200	400	600	800
Voltage (range), V DC	10 ... 950			
Efficiency factor η (at load 100%)	96% ... 97%			
Environmental conditions				
Operating temperature	-25°C to +45°C			
Mechanical specifications				
Operational environment	Indoor and outdoor			
Protection enclosure	NEMA 3R, IK10 for housing			
Casing material	Galvanized steel, painted, C3			
Colour	Main housing: RAL 9006 – White aluminium; roof and base: RAL 9017 – Traffic black matt			
Overall dimensions W × D × H (cm) without combiner cabinets (in side-by-side arrangement)	109 × 99 × 220	220 × 99 × 220	330 × 99 × 220	439 × 99 × 220
Approx. weight (kg) without combiner cabinets	1,500	3,000	4,500	6,000
General specifications				
Charge control unit	Siemens SIMATIC S7			
User authentication	RFID (optional)			
Network connection	Ethernet interface / 3G / 4G / WLAN			
Electric safety device	RCD B-type (optional)			
Communications protocol	OCPP 1.6 (J-SON)			
Charging standards	EN 61851-1/23/24, ISO 15118 (DIN 70121)**			
EMC standards	EN 55016-2-1 & -3; EN 61000-4-2 & -3 & -4 & -5 & -6			
Compliance	UL2202; UL2231			

* Details available in the technical manual

** Complies with ISO15118-1 standard use-cases, further use-cases being implemented

SICHARGE UC Dispenser

Air-cooled Liquid-cooled



SICHARGE UC Inverted Pantograph



Connection options	Dispenser		Inverted Pantograph		
Design variants	Air-cooled cables	Liquid-cooled cables	UD Urban design	ID Industrial design	ID-E Industrial design-extended
DC output*					
Connection standard	CCS type 1		OPPCharge		
Rated power, kW	150	300	600		
Current, A	200	500	800		
Voltage (range), V DC	10...950				
Environmental conditions					
Operating temperature	-25°C to +45°C				
Mechanical specifications					
Protection	NEMA 3R, IK10 for housing, IK 09 for HMI				
Height, installed (cm)	200 (91 for wall mounting)		581	658	658
Road clearance (cm)	n/a		455 to 465		
Cantilever length (cm)			396	419	520
Approx. distance mast to curb (cm)			140	140	241
Footprint on sidewalk (cm)	60 × 30		94 × 30	129 × 33	129 × 33
Operating range Pantograph (cm)	n/a		900		
Approx. weight, (kg)	95 (60 for wall mounting)	180	1,975	1,870	2,300
Colour	Main housing: RAL 9006 – White aluminium; roof and base: RAL 9017 – Traffic black matt				
Material	Galvanized powder coated steel		Galvanized steel with fiber glass panel	Galvanized steel, painted, min. C3	
General specifications					
Communication standard	PLC		WiFi IEEE 802.11a		
Number of possible connectors (sequential charging)	up to 4		4		
User authentication	RFID (optional)		RFID (optional)		
Cable lengths (m)	7.5	5	n/a		
Compliance	cUL				
Network connection	Ethernet interface / 3G / 4G / WLAN				
Local user interface	7" touchscreen HMI		n/a		
Charging status indication	LED		LED		

* eVehicle under the Mast Hood will be given priority in charging sequence.

More than charging



Optimizing your charging infrastructure

We offer you world-class services and support throughout the entire lifecycle of your charging equipment, thus, ensuring the maximum uptime and greatest availability of your chargers.



Digital service solutions

Managing your chargers should be simple, which is why Siemens, and our ecosystem of partners offer various EV charging cloud-based services designed to fit your needs.

Easily manage your charging infrastructure from remote diagnostics to detailed reporting and operational planning and scheduling with one, simple user interface.

Care package

The basic Care package is included during the warranty period and can be extended by subscription.

It ensures that firmware updates keep your chargers up to date as eMobility continues to evolve. Remote analysis and diagnostics are performed by our support center on demand.

Charge, Connect, Control

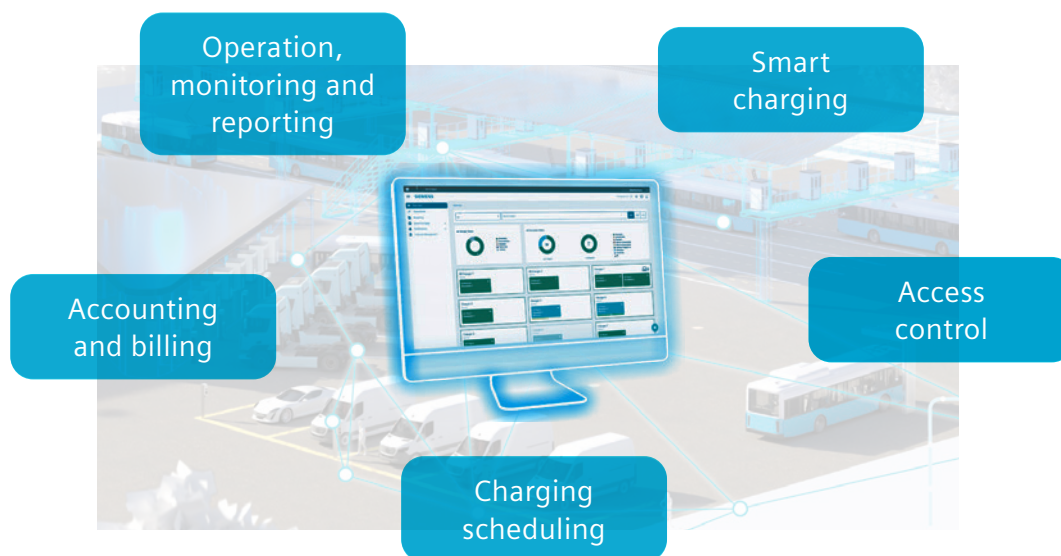
Choose your level of advanced management with our Connect, Charge, and Control packages - From device connectivity management, reporting functions, smart charging, route and power optimization and data analytic needs.

Managing fleet charging



Benefits from Siemens cloud-based services

Siemens' best-in-class cloud-based services, along with the charging equipment, ensure smooth, reliable and efficient operation of your electric fleet.



From planning to operation



Superior support throughout the lifecycle



Intelligent planning: Siemens supports your depot electrification beginning with the expert consultancy and depot planning, including charging simulation analysis.



Smart infrastructure: benefit from our comprehensive charging portfolio which includes DC and AC equipment, as well as advanced solutions for the power connection to your site.



Managing operations: Siemens cloud-based suite offers everything you need to manage charging of your electric fleet intelligently and efficiently.



Rely on us – we care: during the whole lifecycle our cloud-based service packages look after your chargers to ensure maximum availability of your fleet.

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Customer Interaction Centre

Tel: 1 (888) 303-3353
cic.ca@siemens.com

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