REVISED SEP 2021

Contents

Electric Vehicle Charging Solutions

Integrated electric vehicle solutions for every application

Whether it's a single-family home, multifamily dwelling, parking garage, mall, or city transit project, Siemens has the experience, products, and personnel to help make your EV project a success.

The team at Siemens is ready to help design, layout, and support your EV infrastructure project. Contact your local Siemens sales representative for more details on these cutting-edge products and services.

Commercial VersiCharge™ AC chargers "Level 2" (L2)

- Primarily car market
- Residential, workplace, longer-term stop areas
- 9.6 kW and 11.5kW (240/208 V)
- Multiple hours to charge
- OCPP and Modbus Communications
- Cellular Parent / Child networking

DC heavy-duty MDHD plug-in – SiCharge UC™

- Offers 150kW per cabinet, up to 600 kW total
- Supports four dispensers
- Up to 1,000V
- OCPP compliant

Managed Services

- IoT cloud management of EV assets
- Monitoring
- Billing services
- Reporting
- Demand/maximum - load control
- On-site start-up
- Project design

DC fast charger – VersiCharge Ultra™ "Level 3" (L3)

- Primarily car market
- Highway corridors, etc.
- 50 kW, 175 kW
- Half hour to charge
- OCPP compliant

SiCharge UC™ inverted pantograph

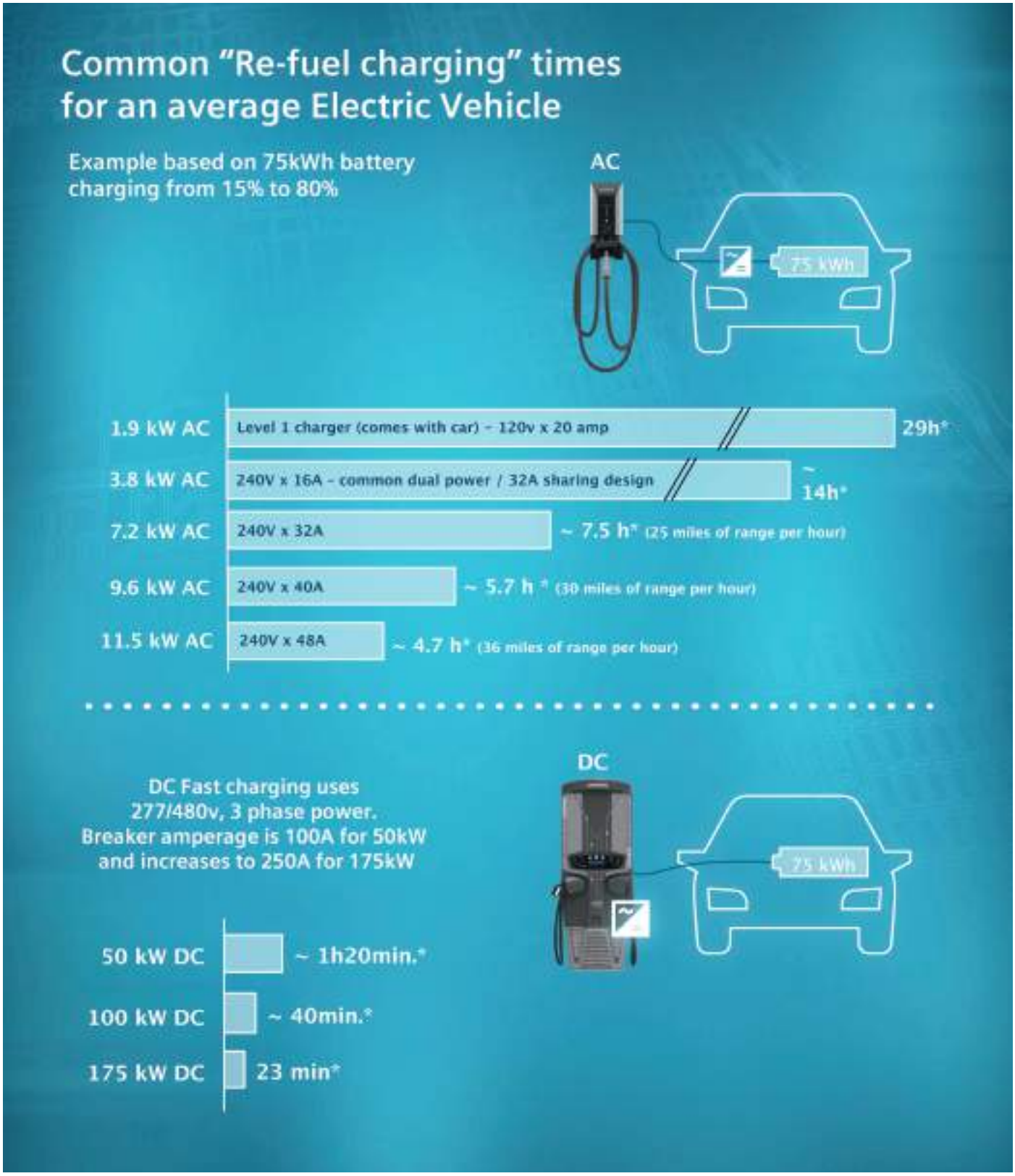
- Pantograph
- Overhead – top down
- On-route and depot ceiling charging solutions
- 300 kW - 600 kW
- Minutes to charge

Make-ready electrical infrastructure

- Low, medium, and high voltage electrical equipment

Electric Vehicle Charging Solutions

AC vs DC chargers:



VersiCharge™ AC Chargers

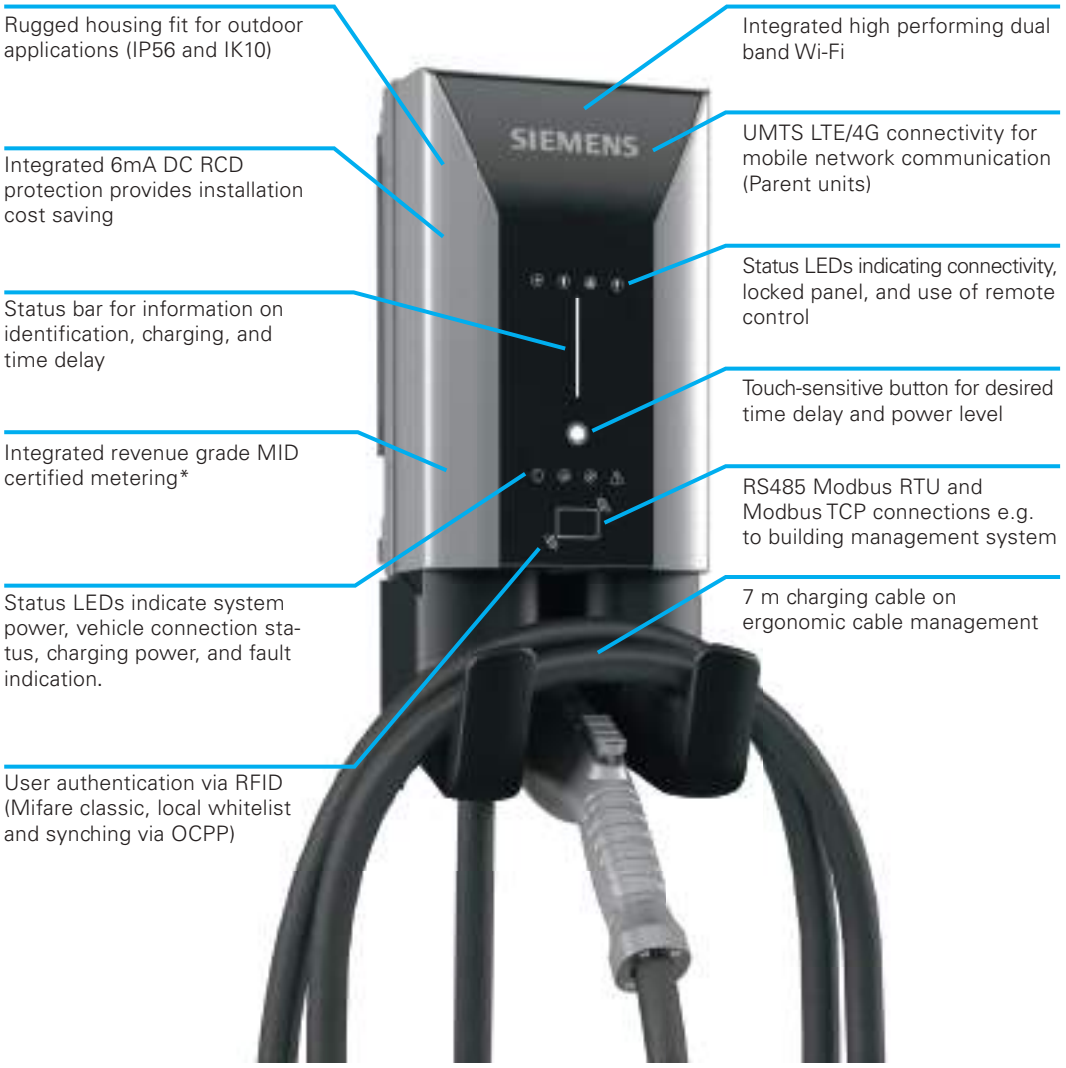
Siemens VersiCharge chargers have stood for superior quality, ruggedness, and proven technology for more than a decade and have reliably provided millions of charges to EV (electric vehicle) drivers worldwide. The new third generation VersiCharge AC charger is continuing this tradition with numerous groundbreaking enhancements, a fresh and appealing design, and up to 11.5 kW of AC (alternating current) charging power. Providing various communication options, including the option to establish a parent-child configuration.

The VersiCharge AC charger can be connected to the customer's preferred back-end system making it scalable and cost-efficient. It also offers revenue-accurate metering and can interact with building management systems, such as Siemens Desigo for dynamic load management that smartly adjusts as building energy demand changes. The rugged and slender VersiCharge AC charger is suitable for both indoor and outdoor (residential or commercial) use and can either be mounted on a wall or supplementary post.

siemens.ca/versicharge

Key features

Compatibility with all common electric vehicles and applicable charging standards plus easy to use, comfort functions such as delayed and planned charging ensure a high degree of customer convenience.



Flexibility for the future

Smart building integration

VersiCharge AC chargers provide numerous communication interfaces and can be connected to various backend systems.

Thanks to its Modbus interface, VersiCharge AC chargers can directly interact with building management systems such as Siemens Desigo for dynamic load management.

Modular system configuration

Through its parent-child configuration the chargers are scalable, while at the same time reduce the investment and operational cost.

Flexible and elegant posts


ShortPole Cable Double 180


ShortPole Cable Double 90

- PV fade-resistant and rust-resistant
- Multiple wiring options
- Single and dual post options
- Cable retraction system, 20 ft. cable

Versicharge post catalog numbers

Description	Catalog number
Post for Single Charger	**8EM1393-1AA10-0AA0**
Post for Dual Charger Side by Side	**8EM1393-1BA10-0AA0**
Post for Quad Charger Back to Back	**8EM1393-1CA10-0AA0**
Cable management unit	**US2:VCCMSSP**


Easy cloud integration


Wi-Fi, Ethernet, 4G, and UMTS


easy to use mobile app


Simple ID card identification

VersiCharge AC Series – Technical data

Features and functions	
Charging mode	Level 2
Vehicle connection	J1772 plug with 20 ft cable, 40/48 A / integrated cable management
AC power output	Single phase up to 9.6 kW (40 A) or 11.5 kW (48 A)
Mounting options	Wall and post mounting, see accessories
Touch Button	Time delay, return to max power level, reset ground fault
Charging status LEDs	Power, Cold start, time delay, charging state, reduced power level, authentication
Communication status LEDs	Connected / not connected during operation, signal strength during commissioning
Parent / child	Gateway parent connects up to 10 units via Wi-Fi, Parent units connect up to 24 child units via Modbus within approx. 100 ft line of sight
Load management	via OCPP or via Modbus
Communication	
Interfaces	Ethernet, Wi-Fi, Modbus RS-485, Modbus TCP/IP, for parent units additionally LTE, WCDMA
User authentification	RFID (local Whitelist, MiFare), ready for plug-and-charge acc. to ISO 15118 (upgradeable OTA)
Configuration	via Siemens mobile app
Back-end protocol	OCPP 1.6, upgrade-able to OCPP 2.0
Software upgrade	over the air (OTA)
Electrical design	
Power supply voltage	Single phase: 208 V / 240 V AC, 60 Hz
Rated current settings (A)	12, 16, 24, 32, 40, 48
Cross wire section	Single phase: 8 Awg / 6 Awg (75C rated wire)
Network type	Single phase / split phase
Energy metering	revenue accurate, ANSI C12.20 compliant metering
Ground fault protection	20 mA
Over voltage protection	Under voltage: 167 V (min. 80 V) / over voltage: 267 V (max. 275 V)
Over current protection	Current +10% above configured threshold, min. +2A, 5 seconds
Operating altitude	9,840 ft
General design	
Environmental rating	Indoor and Outdoor, NEMA 4, IK 10
Dimensions (HxWxD)	16.10 in x 7.09 in x 3.78 in
Weight	17 lbs
Ambient conditions	Operating temperature: -31°F - +122°F, Storage Temp.: -40°F to +140°F, 98% non condensing
Colors	Silver Metallic (Pantone 10077), Black holster
Certificates and standards	
cUL listed	according to UL 1998, UL 991, UL2594/CSA C22.2 No.280/NMX-J-677-ANCE, UL 2231-1/CSA C22.2 No.281.1/ NMX-J-668-1, UL 2231-2/CSA C22.2 No.281.2/NMX-J-668/2-ANCE, UL 2251/CSA C22.2 No.282/NMX-J-678-ANCE
EMC	FCC Part 15.247, FCC Part 15B, FCC Part 15C

Versicharge AC catalog numbers

		Max. current	Catalog number	Wi-Fi and Ethernet	Modbus RTU / TCP	RFID identification	Revenue grade metering	LTE WCDMA
Residential versions	Basic	40 A	**8EM1312-4AF10-0AA3**	–	–	–	–	–
		48 A	**8EM1312-5AF10-0AA3**					
	High End	40 A	**8EM1312-4CF18-0FA3**	✓	–	–	✓	–
		48 A	**8EM1312-5CF18-0FA3**					
Commercial versions	Child	40 A	**8EM1310-4CF14-0GA0**	✓	✓	✓	✓	–
		48 A	**8EM1310-5CF14-0GA0**					
	Parent	40 A	**8EM1310-4CF14-1GA1**	✓	✓	✓	✓	✓
		48 A	**8EM1310-5CF14-1GA1**					

Configuring the mobile app

Free app available for Apple IOS and Android systems.

PC based application tool for available to commission commercial installations of large groups of chargers. PC application available to download: usa.siemens.com/versicharge

Create an account.

Put in your email and create and confirm your password. Click *Create*.

Click on the link Terms and Conditions or Privacy Rights to view these. NOTE: By selecting Create you agree to the Terms and Conditions.

View the End User License Agreement (EULA).

View privacy rights.

Select *OK* to be brought to the *Add a Charger* page to add your charger to your count.

NOTE: *Add a Charger* will be the landing page until a charger has been added to the account.

VersiCharge Ultra 50

Features & benefits

- Slim, compact, and stylish design
- Reduced installation cost
- Durable UV resistant exterior
- Low maintenance
- Open Charge Point Protocol (OCPP) integration
- Can be custom wrapped to reflect the customer branding
- Options include built-in credit card reader, RFID, large display and more
- Continuous 50 kW DC power charges an EV up to 150 miles per hour
- Combined Charging System (CCS) and CHAdeMO plug-in connections

The VersiCharge Ultra 50 provides continuous 50 kW DC power charging an EV up to 150 miles per hour. It's patented, liquid cooling keeps the VersiCharge Ultra 50 footprint small for easy installation and low maintenance. Multiple communication options to both the backend and the driver make this fast charger a preeminent addition to your electric vehicle (EV) charging infrastructure.

VersiCharge Ultra 50

VersiCharge Ultra 50 – Technical data

50 kW Specifications	3 year warranty
Connectors	CHadeMO and CCS (Type 1 or 2)
Power	Up to 50 kW
Supply Input	380 - 480 V AC 3Ø
Supply Frequency	50-60 Hz
IP Rating	IP65
Efficiency	>92%
Power Factor	0.99
Maximum Operating Altitude	6560′
Operating Temperature	-31°F to 122°F
Storage Temperature	-67°F to 176°F
Network Connection	4G and Gigabit Ethernet
RFID	MIFARE ISO/IEC14443A/B, ISO/IEC15693, ISO/IEC18000-3, FeliCa, NFC, EMV 2.0
Credit Card Reader	Optional
Communication Protocol	OCPP 1.5 and 1.6J
Weight	165 kg
Electrical Protection	Short circuit; Over voltage: RCD
Dimensions	6′7″(H) x 2′6″(W) x 1′1″(D)
Freight	24 units per 20′ container
Certification	CE, UL, CHAdeMO, RCM, FCC, IC

VersiCharge Ultra 50 – catalog numbers

Catalog Number	Description
US2:VSCULT50SAG	Ultra 50 DC Fast Charger - with 3 year warranty, RFID, Cellular ready (needs cell plan by customer) and optional credit card reader.
US2:VSCULTCBOTF	Ultra 50 Custom wrap - ONE TIME SETUP/DESIGN charge. Need to add the printing / application cost line (US2:VSCULT50CB) for "each" charger. Includes TWO design mock-ups. If customer wants more designs made up, there will be a change.
US2:VSCULT50CB	Ultra 50 Custom wrap cost "PER CHARGER" for printing and application work.
US2:VSCULTCC	Ultra 50 Credit Card Reader - will require owner to use credit card reader billing services priced by credit card reader company.

VersiCharge Ultra 175

Features & benefits

- Easy to install
- Liquid cooled
- Low maintenance
- Cable management
- 10" screen
- CCS1
- CHAdeMO
- Brandable exterior
- Optional credit card reader
- IP65

Charging your car with the VersiCharge Ultra 175 kW DC charger is safe, secure, and simple with industry standard plugs and a simple interface. Designed for multiple applications, the VersiCharge Ultra 175 is easy to install, operate, and maintain making it a cost-effective solution for DC fast charging. It's patented liquid cooling technology provides durability in various environmental conditions.

VersiCharge Ultra 175

VersiCharge Ultra 175 – Technical data

User Unit	
Connectors	Single: CCS | Dual: CCS and CHAdeMO
Connector Type(s)	US & Canada: CCS1 or CCS1 and CHAdeMO
Output Voltage	200V - 920V DC
Output Current	CCS: up to 350A CHAdeMO: up to 200A
IP Rating	IP65 (NEMA 3R)
IK Rating	IK10 (IK8 Screen)
Efficiency	98.5% at full load (350A, 500V)
Operating Temperature	-30˚C to 50˚C (-22˚F to 122˚F)
Storage Temperature	-55˚C to 80˚C (-67˚F to 176˚F)
Credit Card Reader	Optional
RFID Reader	Fitted standard
Dimensions	2,011mm (6'7") (H) x 993mm (3'3") (W) x 532mm (1'9") (D) Note: Width excludes plugs
Weight	260kg (573lb)
Shipping Weight	310kg (683lb) (estimate)
Authentication / Payment	RFID only OR Credit Card Reader with RFID
Cable Length	4.1m reach (13'5" reach)
Cable Management	Fitted standard
Compliance	UL NRTL certification FCC Class A

VersiCharge Ultra 175 – catalog numbers

Catalog Number	Description
US2:VSCULT175DUSAG	Dispenser Unit
US2:VSCULT175PUSAG	Transformer

Electric Vehicle Charging Solutions

Sicharge UC DC chargers

Overview

SiCharge UC Heavy-duty chargers – coming soon!

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.

Features & benefits

- Fast, secure charging
- Design flexibility
- Sleek, compact dispenser size
- Easily upgradeable
- Low installation costs with one power cable needed
- Customizable: Connect up to four cabinets together to achieve 600kW of power
- Compatible with the Combined Charging System (CCS) charging standard and OCPP compliant.
- Interoperability

SiCharge UC – Technical data

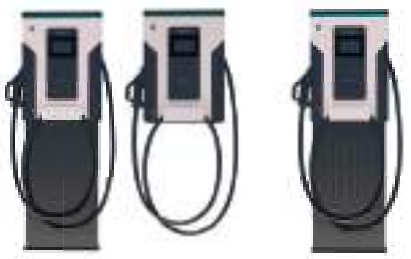
	SICHARGE UC Charging center	SICHARGE UC Charging center and combiner cabinet	SICHARGE UC High-power charger
			

SICHARGE UC	200	400	600	800
Vehicle interface				
Air-cooled CCS cable Dispenser	x	x	–	–
Liquid-cooled CCS cable Dispenser	–	x	x	–
Mast mounted (inverted) Pantograph	x	x	x	x
Nominal input				
Voltage	480 and 600 V AC (3ph + PE) ± 10 %			
Charging status LEDs	60			
Communication status LEDs	> 0.98			
DC output*				
Peak power, kW	200	400	600	800
Rated power, kW	150	300	450	600
Current (cont.), A	200	400	600	800
Voltage (range), V DC	10 ... 1000			
Efficiency factor η (at load 100%)	96% ... 97%			
Environmental conditions				
Operating temperature	-13 °F...+113 °F			
Mechanical specifications				
Operational environment	Indoor and outdoor			
Protection enclosure	IP54, IK10 for housing			
Casing material	Galvanized steel, painted, C3			
Color	Main housing: RAL 9006 – White aluminium; roof and base: RAL 9017 – Traffic black matt			
Overall dimensions W x D x H (in) without combiner cabinets (in side-by-side arrangement)	43x39x87	87x39x87	130x39x87	173x39x87
Approx. weight (lbs) without combiner cabinets	3,307	6,614	9,921	13,228
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			

SiCharge UC – Technical data

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*					
Voltage	480 and 600 V AC (3ph + PE) ± 10 %				
Charging status LEDs	60				
Communication status LEDs	> 0.98				
DC output*					
Connection standard	CCS type 1		OPPCharge		
Peak power, kW	200	400	800		
Rated power, kW	150	300	600		
Current, A	200	500	800		
Voltage (range), V DC	10…1000				
Environmental conditions					
Operating temperature	-13 °F…+113 °F				
Mechanical specifications					
Protection	IP54, IK10 for housing, IK 09 for HMI				
Height, installed (in)	79 (36 for wall mounting)		229	259	259
Road clearance (in)	n/a		179 to 183		
Cantilever length (in) 156 165 205			156	165	205
Approx. distance mast to curb (in)			55	55	95
Footprint on sidewalk (in)	24 x 12		37 × 12	51 × 13	51 × 13
Operating range Pantograph (in)	n/a		35		
Approx. weight, (lb)	209 (132 for wall mounting)	397	4,354	4,123	5,071
Color	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 (ft)	11.5 / 20 / 33	11.5 / 16	n/a		
Compliance	UL				
Network connection	Ethernet interface / 3G / 4G / WLAN				
Local user interface	7" touchscreen HMI (optional)		n/a		
Charging status indicati	LED (optional)		LED		

Electric Vehicle Charging Solutions

Siemens cloud-based services

Overview

Managing your depot and eFleet

Siemens offers a variety of cloud-based service packages designed to effectively manage your depot and eFleet. Our solutions combined with our ecosystem of partners allows you to easily manage your charging infrastructure from remote diagnostics to detailed reporting and operational planning and scheduling with one, simple user interface. Choose which connect, charge, or control option works best fits your device connectivity management, reporting functions, smart charging, route and power optimization and data analytic needs.

Care package

Included with all the Siemens EV chargers, the Care package provides technical support, device updates, driver onboarding, setup configuration, and a mobile app for monitoring and basic control. This package provides your charger is up to date and provides piece of mind that support is at your fingertips!

Get more from your chargers with our Connect, Charge, and Control options

Connect package

The Connect package maintains all the functionality of the Care package and enables users and owners to get a holistic view of the chargers they control along with an aggregated view of data gathered by those chargers. They also gain access to the Location Manager that shows where and how the chargers are being used, a Driver App, RFID setup for groups of chargers, and advanced remote diagnostics to give the charger owner more detailed information to manage the charging infrastructure.

Electric Vehicle Charging Solutions

Siemens cloud-based services

Overview

Charge package

The Charge package includes all functions of the Connect package, offers comprehensive financial and consumption reporting, billing and payment management for owners. This package is perfect for collecting revenue from charging stations within general public areas, or at a workplace environment where fleet and employee charging times and rates are different. The Charge package also enables charging stations to be seen and accessed within other charging networks. This allows public charging stations to be seen from other networks, when they are part of the Siemens Charge package solution, increasing visibility and usage.

Control package

The Control package continues capability expansion by supplying all of the same functions as the Charge package, and adds on cloud smart charging capabilities. The smart charging feature provides dynamic load management and maximum load control for situations where limited power is available for chargers or maximum demand constraints where tariffs are in place. This package allows piece of mind that power sharing chargers are not exceeding equipment load, or that the facility's peak demand levels are not exceeded.

Feature	Care	Connect	Charge	Control
Technical Support	x	x	x	x
Remote Firmware Upgrades	x	x	x	x
Charger Setup	x	x	x	x
Remote Resets		x	x	x
Remote Diagnostics		x	x	x
RFID Management		x	x	x
Aggregated Charger Reporting		x	x	x
Driver App		x	x	x
Driver Billing			x	x
Charger Network Visibility			x	x
Dynamic Load Control				x
Max Load Management				x

Electric Vehicle Charging Solutions

eMobility solutions and more

Overview

Managing your network of L2/L3 public chargers

Siemens offers a variety of cloud-based service packages designed to simplify management and control of EV chargers. The flexibility of our services combined with our ecosystem of partners allows for varying levels of control in parking garages, hotels, hospitals, universities, industrial buildings, malls, retail / convenience stores, multi-family dwellings, and more. Integration into common building management systems and partner EV-solution provider networks expand the offerings to create a seamless, easy-to-use system with a simple user interface.

Choose your level of advanced management with Connect, Charge, or Control

- **Connect package –** The Connect package offers all the services in the Care package along with monitoring, reporting, and smart charging. Group chargers together and apply constraint algorithms to limit power consumption while still meeting charging needs with an easy-to-use PC interface. Requires a one time connection set up fee (part number US2:ACSETUP).
- **Charge package –** The Charge package features all the services in Connect, as well as route planning, depot scheduling and bus and route energy profiling. Requires a one time connection set up fee (part number US2:ACSETUP).
- **Control package –** The Control package includes all the services in Connect and Charge, and also includes Smart Charging with Virtual Power Plant (VPP) software that will interface with other IT systems permitting excess energy selling and buying, thus, offering hands-on energy cost management. Control also provides bus and route scheduling opportunities based on energy, route and seasonal variations. Requires a one time connection set up fee (part number US2:ACSETUP).

Feature	Care	Connect	Charge	Control
Technical Support	x	x	x	x
Marketing Outreach	x	x	x	x
Configuration Tool	x	x	x	x
Remote Device Upgrade	x	x	x	x
GSM Connectivity	x	x	x	x
Remote Charger Monitoring Dashboard		x	x	x
Automated Notifications		x	x	x
Statistics Reporting		x	x	x
Charger Grouping		x	x	x
Smart Charging		x	x	x
Route Charging Optimization			x	x
Bus Schedule Charging Optimization			x	x
Optimization based on power constraints			x	x
Charging Optimization by Price			x	x
Standardized API interfaces to connect to IT systems				x
Data Analytics				x
Profiling for EV energy and route				x
Optimization based on seasonal variations				x
Premium NOC		Option	Option	Option

Service packages catalog numbers

Description	Catalog number
EVSP cloud service on-boarding fee *Required for all packages	**US2:ACSETUP**
Connect package	**US2:ACCONNECT1**
Charge package	**US2:ACCHARGE1**
Control package	**US2:ACCONTROL1**

These packages set the stage for the depot/fleet of the future where distributed generation and local microgrids are integrated into one common smart energy ecosystem. All of this provides you with the ultimate in functionality, both now and wherever the electric road will lead you There is a one time set up service required for connect, charge, and control packages.

Notes