ejoin



EJOIN **RAPID**

DC charging stations manufactured and developed in Slovakia. Top of the market solutions for EV charging, with powers from 60 to 400 kW. Customizable for different EV markets.

DIRECT CHARGING

DC charging stations allow charging of the EV's battery directly, allowing high power charging and quick charge times

EASY TO CONNECT

Rapid can be simply connected to the grid at any location. We can also provide dynamic power regulation that ensures, the reserved capacity at the location won't be exceeded.



CONNECTORS

Rapid is commonly produced with two CCS2 connectors, which are standard for European market. However, the connectors can be customized for different markets and changed to CCS1 or GB/T, which can be more popular in other parts of the world

INTERFACE

Rapid is equipped with 10" screen that shows all the relevant information about charging session combined with easy to understand visualizations. It is able to show you time of charging, charging power, charging current, percentage of charging and also how much power is your car able to charge compared to how much it is charging right now.

CABLE MANAGEMENT

if you choose to configure Rapid with longer cables, we can easily ensure their safety and longevity. Our cable management solution adds cable holders on the roof of the station, so they are safe and easy to operate. This way, you don't have to be worried about cables laying on the ground.

UPGRADABLE POWER

power of Rapid is ensured by power modules inside of it. This can be easily increased by adding more power modules. Total of 10 power modules can be installed in one Rapid.

WHY EJOIN RAPID?

IT'S UNIQUE

Rapid is a complete in-house solution: Software, Hardware and all additional features are all developed in Slovakia. That means, Rapid can be changed to any customer's specific requirements – be it design or technical specification.

IT'S RELIABLE

Rapid is made from solid stainless steel case, having protection level of IP54 and IK10, ensuring resilience in any conditions involving four season weather.
No matter how cold your winters can get or how hot are your summers, you can count on Rapid to keep you going.

IT UNDERSTANDS THE FUTURE

thanks to its options for upgrades, you can easily make Rapid more powerful or capable, as the future market will demand. Our R&D teams are always hard at work to make more cool features for our stations.

IT'S FOR EVERYONE

Rapid has interface adjusted to be in the ideal height, allowing people with disabilities to be able to reach it.
Everyone is able to control the station through the display and see the charging session details.

IT'S SMART

Do you want to know, who charged at your station? Do you want to make sure, only specific people can use Rapid for charging? No problem!
Rapid offers authorization method through RFID or mobile app. It can also be equipped with numerous ways of internet connection, so it is always online. That way, you can remotely control Rapid from anywhere and at any time. You also have access to full history of charging sessions, including data about your customers.

SIMULTANEOUS CHARGING AND POWER SHARING

Rapid can charge two cars simultaneously. That means the full power of the station is shared between both vehicles.

This is why high power DC charging stations are better – even if two cars are charging at the same time, they both can get sufficient charging power. Full charging power of Rapid is shared 50:50 between both cars. So if you have our 240 kW Rapid, both cars get 120 kW charging power.





LONGER CABLES
ARE NOT A PROBLEM

Rapid can be produced with cables up to 6,5 meters long. But don't worry, that doesn't mean mean, they will be just laying around. We can install cable management construction on top of the charging station, to make sure, all cables are safe and easy to use.

With this construction, cables are lifted upwards and being held by the cable holders. Holders are movable, so that makes using cables very easy, and also keeps them away from the ground.

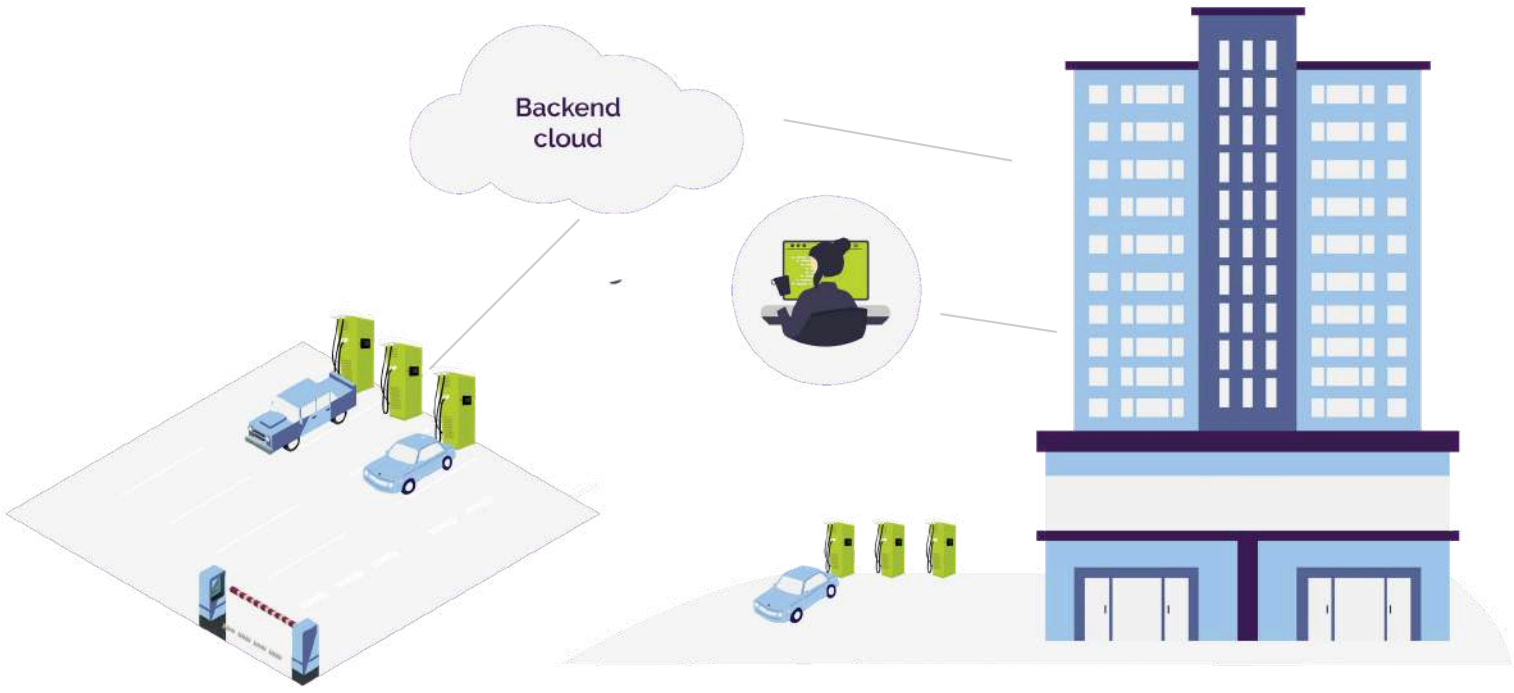
We definitely recommend to get cable holders, if you are considering longer cables on your new Rapid station.



MANAGE YOUR CHARGING STATIONS THROUGH **OCPP PROTOCOL**

You finally decided for a charging station – and you definitely chose the right one!
But how do you control it?
Rapid has OCPP protocol, that can communicate with any backend system of your choosing. Just make sure, that you have an internet connection in your Rapid configuration and you can remotely control charging station through OCPP.

Rapid supports all basic OCPP commands that are available in all commonly used backends – you can remotely start or start charging, access data of charging sessions, make remote updates and see realtime information about the station.



At ejoin, we can also provide you with our own complex management software, that we call Smart Fuel Pass. You can run this system easily through your web browser or use our mobile app.



CONNECT YOUR STATIONS **TO PUBLIC INFRASTRUCTURE** OF CHARGING POINTS

You can provide charging stations for public use, by connecting them to any public charging network. Rapid supports charging authorization through RFID card or a mobile app, so you can make sure, only drivers of a network of your choosing are able to charge on the station. This also gives CPOs exact data about their customers, that can later be used for invoicing. All data are being send to your backend system through OCPP protocol.

Rapid can be produced in a custom design, so we can easily add colors and logo of the public network you chose.

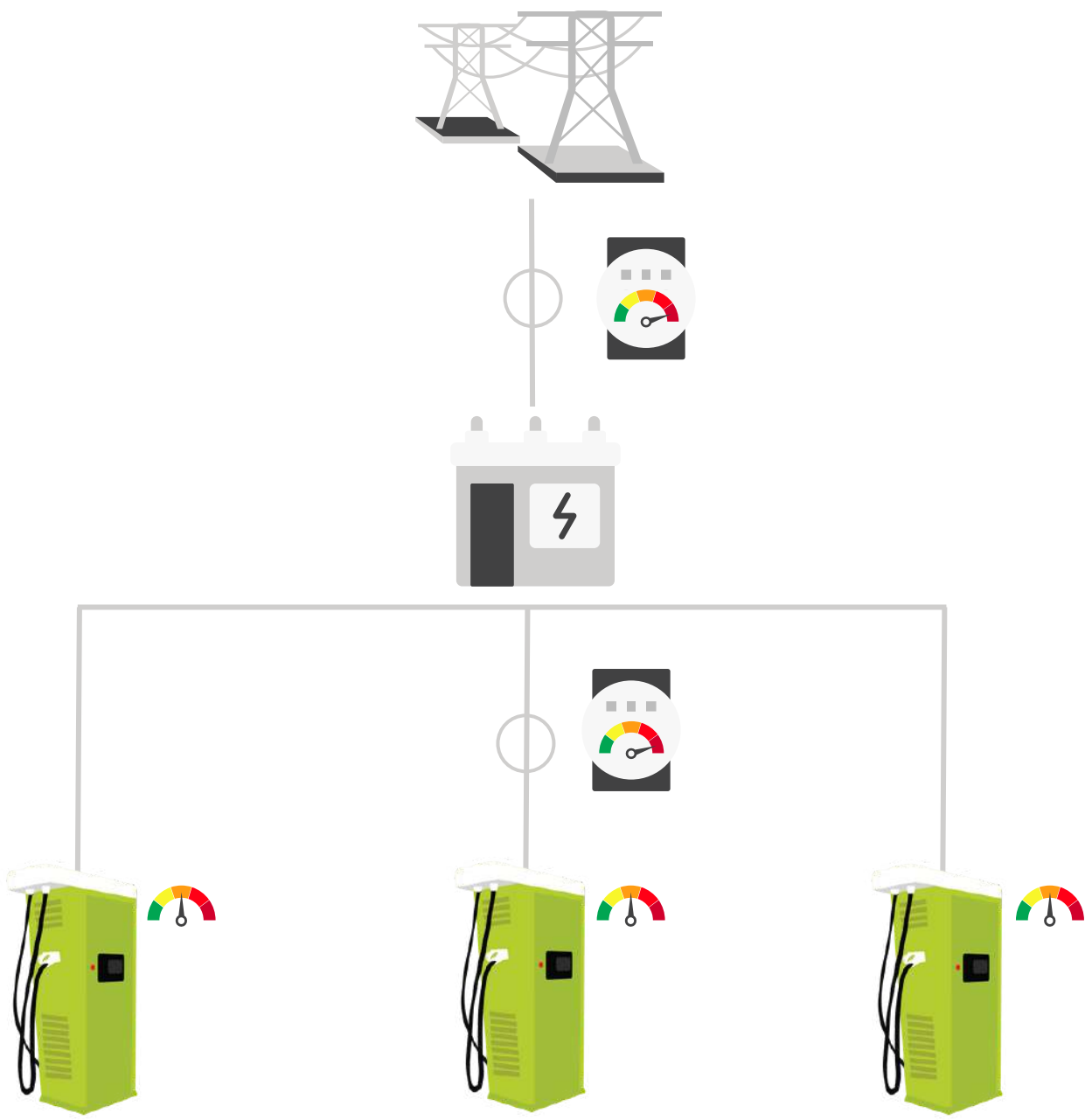


DYNAMIC POWER REGULATION

EJOIN GRID GUARD

ejoin Grid Guard is a smart metering device, that secures dynamic power regulation at a location with one or multiple charging points. Grid Guard can be connected in front of a main transformer station or a switchboard that supplies specific grid branch. This means, that even if all of your charging stations at the location are being used, you are not going to run into possible outage problems or exceeding reserved capacity. Grid Guard will make sure, that only as much power is delivered through charging stations, as you allow.

Grid Guard uses communication protocol called Modbus to communicate with grid and charging stations. Values for Grid Guard can be set up remotely through a web interface.



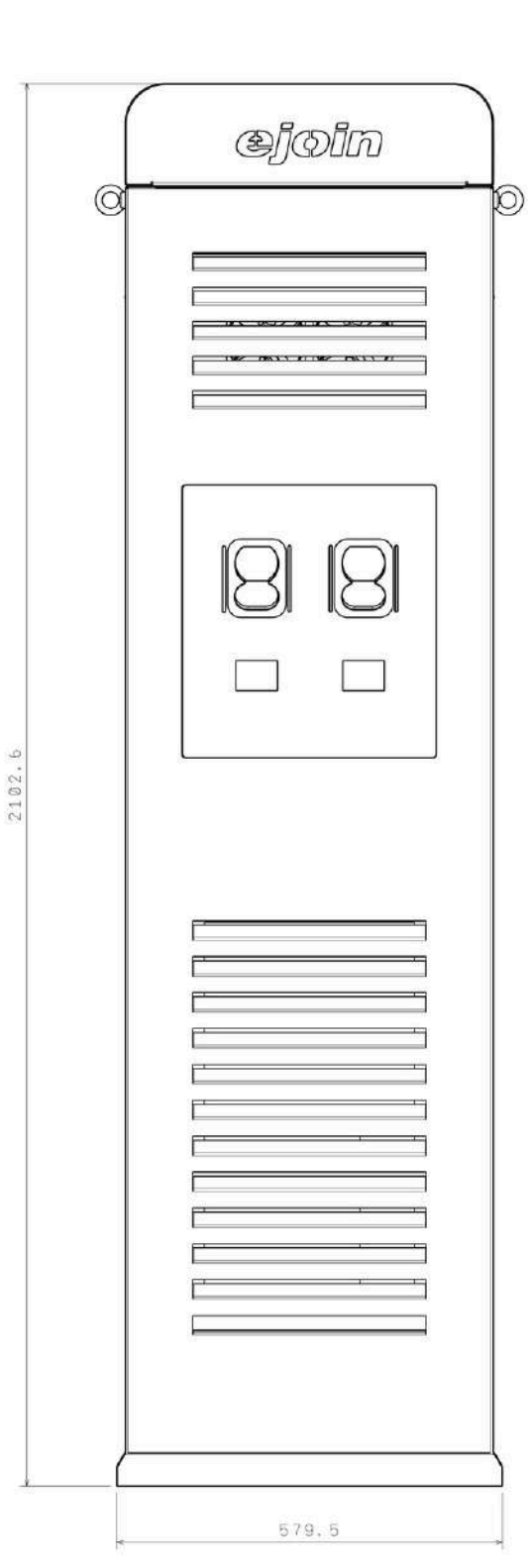
TECHNICAL SPECIFICATION

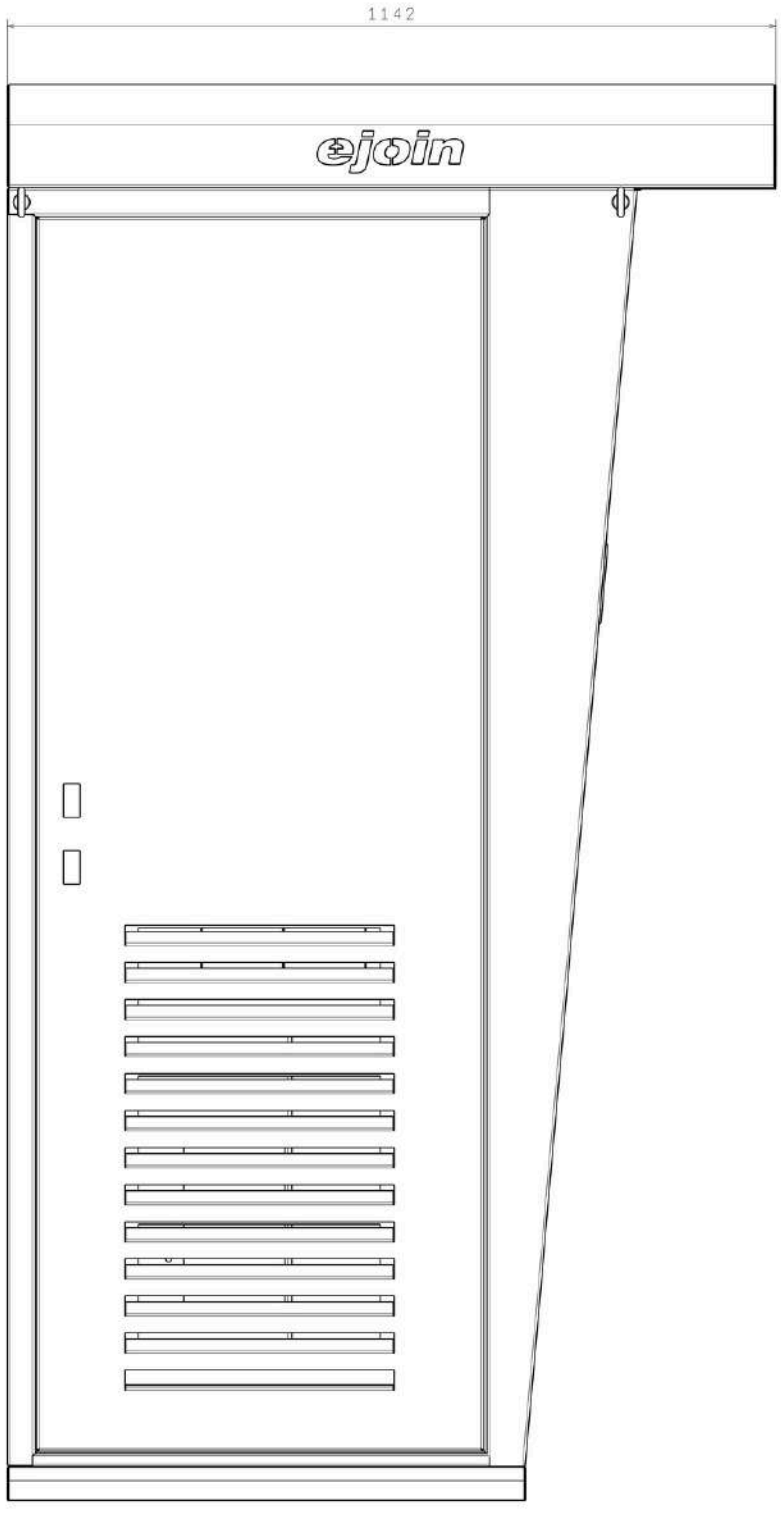
Product information	
Charging type	DC fast charging, optional AC socket
Outlet options	CCS2 cables, CCS1 cables, GB/T cables, CHAdeMO cables, AC socket
Input AC power rating	
Input voltage range	400 VAC +/- 10% (50 Hz or 60 Hz) - CE Version
DC output power rating (max)	60 kW / 80 kW / 120 kW / 160 kW / 180 kW / 240 kW/ 320 kW / 400 kW
AC output power rating (optional)	22 kW
DC output voltage	150-1 000 Vdc
Number of EV served	2, simultaneously
Cable length	Standard: 3,5 m Optional: 4,5 m / 6,5 m
CCS2 cables maximum current	Air cooled: 400 A – 15 minutes (250 A permanent) Liquid cooled: 700 A - permanent
CCS1 cables maximum current	Air cooled: 400 A – 15 minutes (250 A permanent) Liquid cooled: 700 A - permanent
GB/T cables maximum current	Air cooled: 400 A – 15 minutes (250 A permanent)
CHAdeMO cables maximum current	Air cooled: 400 A – 15 minutes (250 A permanent)
Network type	TN-S, TN-C, TN-C-S, TT (Requires external RCD)
Connector types	3-phase, neutral, protective earth (CE models)
Protection	Overcurrent, overvoltage, undervoltage, ground fault including DC leakage protection, integrated surge protection

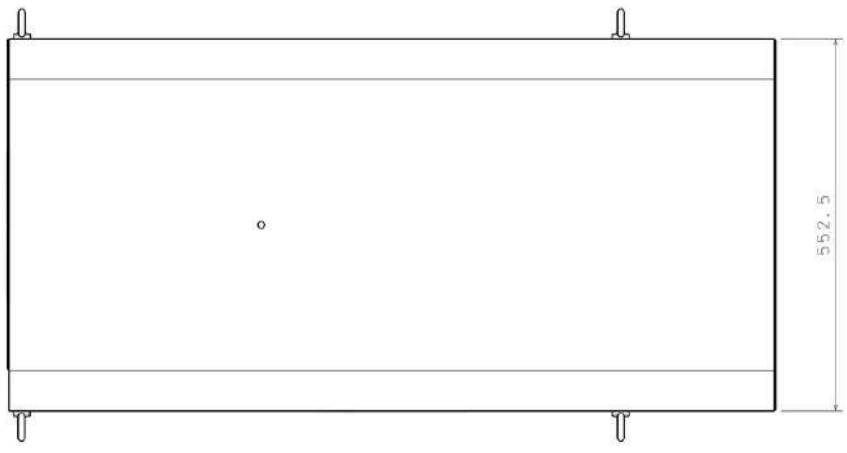
Overvoltage category	Type II
Power factor (full load)	> 0.96
THDi	< 4.5%
Efficiency	> 96,25%
Standby power	80 W (up to 160 kW unit)160 W (up to 400 kW unit)
Short circuit current	10 kA (CE models)
Pre-charge current	< 1 A
Inrush current	< 100 A
Leakage current	0.8 mA
Energy metering	Optional: MID metering for AC and DC outlets Optional: Eichrecht/PTB compliant metering solution for AC and DC outlets
Cellular communication	GSM / 4G / LTE
User interface	
Connectivity	Online connection using Ethernet/WiFi/4G
User authentication	QR code, Legic RFID, mobile app, ISO 15118
User interface	10'' LCD high-contrast screen
Communication protocols	OCPP 1.6 / 2.0
RFID reader	Legic, Mifare Classic, Mifare DesFire, 13,56MHz based on ISO14443
Emergency button	Yes
Configuration	
Software update	Remote updates via ejoin web interface
Control and configuration	ejoin web interface, communication through OCPP 1.6 / 2.0.1
Multilanguage system	Slovak, Czech, English, German. More languages configurable

General characteristics	
IP and IK rating	IP54 and IK10
Enclosure type	Stainless steel
Operational altitude	Up to 2 000 m
Operating temperature range	-35 ˚C to +55 ˚C
Storage temperature range	-40 ˚C to +70 ˚C
Humidity	20-95 % Rh non-condensing
Mounting	Free standing cabinet
Dimensions (H x W x D)	210 x 58 x 114 cm
Mass	303 - 405 kg (depends on the amount of power modules and type of cables)
Certification and standards	
Charging system	IEC 61851-1 ed 3, IEC 61851-21-2 ed 1, IEC 61851-23 ed 1, IEC 61851-24 ed 1, IEC 62196-2, IEC 62196-3, IEC 61000
Communication to the EV	DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM
Communication to the backend	OCPP 1.6 JSON / 2.0.1
Safety	Risk assessment
Warranty	24 months basic warranty, extended warranty available for an extra fee

DRAWINGS







CONTACT

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