

TECHNICAL SPECIFICATIONS OF DeFI-BOX 2.0 CHARGING STATIONS



DeFI-BOX 2.0 CHARGING STATION



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ABOUT DeFINE

DeFINE is the manufacturer and supplier of charging stations for electric cars. We offer several standardised types, but we will also prepare an individual design suitable directly for your project. Our charging stations differ primarily by their advanced control units, which we are continually innovating and expanding to include further functions. From the beginning of the development of our own control units and our own stations, we have placed an emphasis on the power management of charging stations according to the needs of the building. This allows us to share the charging power between multiple chargers and save you power costs.

The latest DeFI-ARM 2.0 unit comes with a new local charging station power management architecture, the main advantage of which is the off-line power management mode.

Overview of our control units

DeFI-ARM 1.6

- OCPP 1.6 support
- Enables power management of charging stations (orchestration) using advanced PLC logic or in off-line mode with respect to locally set requirements
- Support for billing of public charging cleared through the OCPP server
- Internal memory for 5 RFID accesses that also work offline

DeFI-ARM 2.0

- OCPP 1.6 support, preparation for 2.0 integration
- Power management of charging stations (orchestration) over OCPP server or in off-line mode with respect to locally set requirements
- Support for billing of public charging cleared through the OCPP server
- Internal memory for 10 RFID accesses that also work offline

Options

The stations can be branded and painted according to your requirements. It is also possible to fit any length of charging cable, or add a 1f/230 V socket to the charging station. The integration of a security access system card reader is also possible.

DeFINE CONTROL SYSTEM

DeFINE offers two types of charging station management based on the individual needs of each project.

The control system ensures that the charging runs smoothly to allow maximum power while maintaining the reserved local electrical power consumption capacity. It brings considerable cost savings in the installation and operation of the charging infrastructure (optimisation of cable routes, common billing of power meter and circuit breaker). At the same time, it greatly increases user comfort by continuously regulating the charging of the car below the maximum available power. The system can be connected to an EPS to increase the safety standard – this function may be required by legislation in the future.

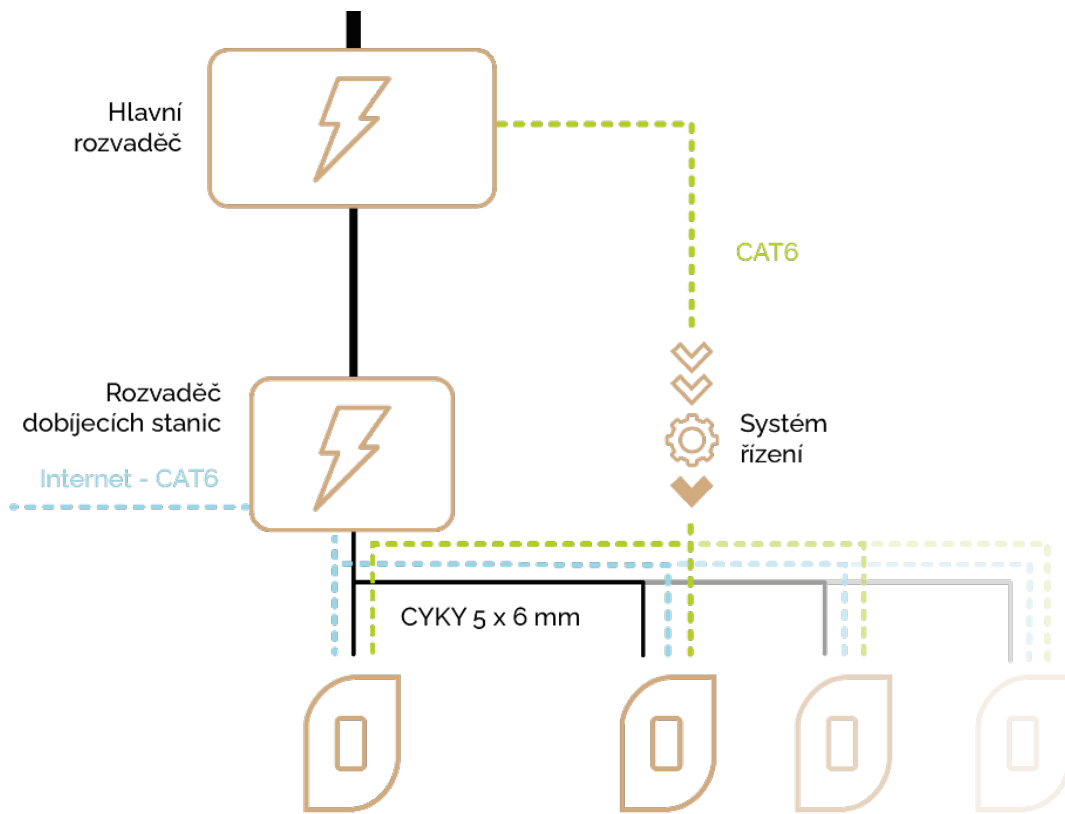
The system is developed in the Czech Republic, which allows us a high degree of flexibility and modularity. We can adapt it to every building and all client requirements. Frequent requests include secondary power limitations in the circuit, VIP charging, and local control without Internet communication for buildings with strict security rules.

Control over online OCPP server

Control by an OCPP Server is the ideal solution for projects with fewer stations and a lower budget, where there is reserved charging capacity. The charging stations send the current charging profile, including power, to the server through data cables, and the server evaluates the data and sends back the customised profiles as needed. The system requires a stable Internet connection and communicates with the stations based on the OCPP 1.6 protocol.

Dynamic local off-line control

In projects where high precision is required in the control, where there are many stations, or where you need to manage stations against the consumption of other technical equipment in the building, we recommend our system of dynamic off-line control. It ensures that the charging runs smoothly to allow maximum power while maintaining the limited local electrical power consumption capacity. Thanks to the system architecture, we can guarantee compliance with power consumption limits on the most demanding projects, even with a large number of stations. The system communicates with the stations in real time, one cycle of queries and responses on the current charging power takes less than one second. The control takes place on the level of the hardware installed in each building and is independent from external communication.



Main distributor

CAT6

Charging station distributor

Control system

Internet - CAT6

CYKY 5 x 6 mm

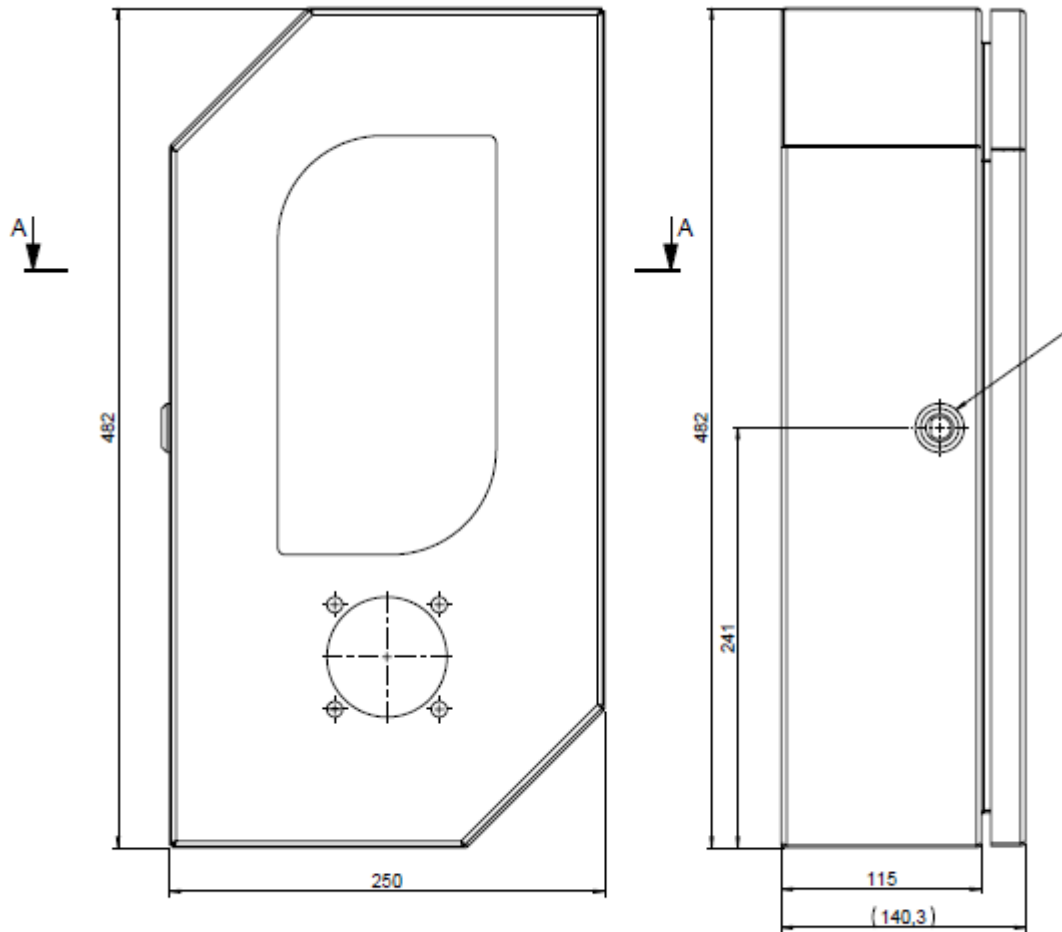
TECHNICAL SPECIFICATIONS OF DEFI-BOX 2.0

MAIN FUNCTIONS

- Charging station with a controllable charging power of 3.6 to 22 kW.
- The station is compatible with all vehicles available in the EU
- The station communicates with the OCPP 1.6 J protocol – the connectivity standard for remote management and billing of charging
- The station is standardly equipped with a type 2 - Mennekes socket or with a cable with a type 2 - Mennekes connector
- An LCD display and user-friendly interface ensure easy operation when charging
- High-quality metal construction with semi-gloss lacquer ensures long life even when outdoors
- Installation is possible on a wall or on a base
- The charging station supports the highest standards of safety and detection of DC and AC current leakage

	TECHNICAL PARAMETERS
CHARGING POWER	up to 22 kW
RATED VOLTAGE	3 f 400 V AC, 50 Hz
MAXIMUM CURRENT	32 A
SAFETY	RFID 13.56
CONNECTIVITY	PWM (CP+PP), Wi-Fi/LTE/Ethernet
SUPPORTED PROTOCOL	OCPP 1.6 J
MEASUREMENT OF CONSUMPTION	DIN three-phase meter with MID certification and seal
DEGREE OF PROTECTION	IP55
VANDAL RESISTANCE	IK10
MATERIAL	steel
ASSEMBLY	on a wall or column
CHARGING OUTPUT	Type 2 Mennekes, socket or connector
THE CHARGING CONNECTOR LOCK	servo
HEIGHT	550 mm
WIDTH	230 mm
DEPTH	140 mm
OPERATING TEMPERATURE	-30 °C – +50 °C
OPERATING ALTITUDE	up to 2000 m
OPERATING HUMIDITY	5-95%
WEIGHT	18 kg
CERTIFICATION	CE, EN 61851-1-2001; EN 61851-21-2001; EN 61851-22-2001
CHARGING STANDARD	IEC 61851-22

DIMENSIONS OF THE CHARGING STATION



A-A