

ECharger DC-Bus

The main feature of this class of chargers is powerfulness and reliability. We developed it for city bus depots, internal city logistics, and heavy-duty machineries. Usually, the main standard is CCS Combo2, others are optional.

Typically, it is installed in electric buses depot, track depot, airport internal infrastructure etc. ECharger DC-Bus charges the vehicle with DC current up to 350kW electric power (with pantograph up to 600kW). Automatic charging process make the service easy and comfortable to execute.

Due to high power, there is a risk to generate harmful harmonics and pay for unnecessary reactive power. To avoid this risk, we developed a special active harmonic filter which effectively terminates harmful harmonic distortions.

We included in this solution a lot of software options providing charging monitoring and managing charging process:

- Charging sessions overview and reporting.
- Remote control and monitoring.
- Load balancing, prioritization, possibility of reservation.
- Integration with the existing software.



Datasheet

General

- Ambient temperature: -40 ... +55°C
- Humidity: 5 ... 95%
- Installation: on the ground
- Enclosure: IP54, IK10, vandal-proof
- Power factor at full load: >0,95
- Efficiency: >94%
- Noise level: <60dB
- Cable length: 5m

Communication

- Protocols: OCPP, XML, TCP/IP, ModBus RTU, ModBus TCP, NTP
- Interface: GPRS/GSM/CDMA/3G/4G LTE/LAN/RS-485/Wi-Fi/USB/Bluetooth
- Remote control: Full wireless control and monitoring

Protection

- RCCB Type A (30mA) with RS-485 control
- MCB with RS-485 control
- IMD (Earth leakage detection)
- SPD Class 2 Type2
- PFC at the input (Active harmonic filter)

Control panel

- Control buttons: START/STOP, Emergency STOP button
- Authorization methods: RFID Reader ISO 14443 A&B MIFARE Classic / MIFARE DESFire
- Visualization: RGB led status

Input parameters

- Input voltage: 3x400V
- Input frequency: 50/60Hz
- Input current: 80A at each 50kW

Output parameters

- Power: up to 350kW
- Charging speed: up to Level 3
- AC output: optional

DC charging output

- Number of outputs: 1
- Output voltage range: 1000V
- Charging current: up to 400A
- Plug type: CCS Combo 2
- Protocol: PLC

Documentation

- Installation manual, Service manual, User manual, Passport, Warranty certificate
- Spare Parts Catalogue

Standards and directives

- Standards IEC 61851-1:2019, IEC 61851-21-2:2021, IEC 61851-23:2014, IEC 61851-24:2014, IEC 62196-3, EN62052-11, DIN SPEC 70121, EN 50160, EN 60204-1
- Directives 2014/30/EU, 2014/35/EU, 2014/53/EU