

This one-pager briefly indicates the main relevant elements for the installation of the HVC bus charger. It can be used as a basic to determine the requirements for a site.

General:

- The electrical installation should be designed and constructed according to local laws, safety and electrical regulations.
- A ground electrode should be installed in the earth close to the pole. The ground-resistance must be $\leq 10 \Omega$.
- More detailed information is available in the installation manual.

Electrical installation

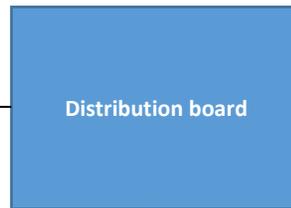


Physical installation



Main AC Power supply:

- 1x power switch 3P: 150kW
- 3x fuse 3P: 300A (no neutral required)
- Option: 1x Surge Protected Device type 1



Distribution board

Input power cable:

- 1x AC power cable 3P+PE: 4x240mm² maximum



HVC 150

Specification:

- Nominal input voltage: 480V AC $\pm 10\%$
- Nominal frequency: 60Hz $\pm 1\%$
- Nominal input current: 192A
- Real input power: 165kW
- Power Factor (cos ϕ): ≥ 0.95
- 3G connection integrated



Site requirements:

- The road inclination in driving direction of the bus should not be greater than 5.0°.
- Distance between bus and pole has to be 900 to 1800 mm.
- Recommended to make markings on the road for parking assistance.

Fast Charge Station

- 1x HVC-150

Dimensions: 2077 x 1170 x 770 mm (HxWxD)
Weight: 1340 kg

Placement (two options):

- Concrete foundation block
700 x 1170 x 1300 mm (HxWxD)
- Support frame for on existing floor

Cables between cabinet and charge control set:

- Placed in conduit 1:
 - 2x DC power cable: 1x185mm² (maximum)
- Placed in conduit 2:
 - 1x Interlock cable: 2x1.5mm²
 - 1x PE wire: 1x35mm²
 - 1x AC utility power: 4x2.5mm²
 - 4x communication: 8x glass fiber



Maximum distance between Fast Charge Station and charge control set: 150 m.

2x conduit of \varnothing 140mm between Fast Charge Station and charge control set.

Charge control set:

- ACS Control Module
- Pantograph (ACS)
- WiFi communication unit (for the bus)
- Charge state indicator light

Optional

- Pole construction



Mechanical pole:

Dimensions

Height: 5240 mm
Outreach: 4670 mm
Mast with: 1040 x 300 mm

Weight: 1500 kg

Placement (three options):

- Concrete foundation block
680 x 2400 x 2400 mm (HxWxD)
- Tube foundation
- Support frame for on existing floor