# 5 good reasons to decide for **M&P Charging Stations**

- Flexible solutions customized by your individual needs.
- Power electronic and storage devices designed and made by M&P.
- Modular design with different options for best performance.
- Expert know-how to fulfill maximum safety regulations and standards.
- Fully automated charging process with fastest start sequence in its class.





Power Electronics GmbH

# Safe and fast: **M&P Charging Stations**for electric public transportation

# Innovative, flexible solutions for storing and converting electric energy.

Charging stations of M&P enable automatic recharging of traction batteries in electric buses and trams at selected bus stops along the route, final stops or the depot. Our modular system design and expertise will help you to achieve a cost effective solution matching your special demands.

#### **General Specifications**

Input voltage (nominal) 400  $\rm V_{AC}$  or 750  $\rm V_{DC}$ 

Output voltage range	0 – 750 V <sub>DC</sub>
Output power range	35 – 500 kW
Efficiency	> 95%
Connection Standard	pantograph or CCS plug (IEC 62196)
Charging Standard	IEC 61851 - 1/23/24 (Mode 4)



## Safety and Availability

- Completely automated vehicle identification and charging process.
- No additional driver intervention required.
- Safety functions of charging process certified by TÜV Rheinland.
- Monitoring of station data as well as vehicle data by operating panel and remote control access.

### **Options**

- Input supply from DC power line, e.g. from tramway electrification systems.
- High power pulse charging and peak shaving of grid input power with integrated energy storage module, e.g. Supercapacitor modules.
- Extended output voltage range from 0 – 750 V.

