

Use cases Power Supplies and Loads (eMobility)

Institution	Focus	Supply	Load	bidirektional	Examples customer
Manufacturer charging stations	Testing DC-charger (development/production)		X	X	Mennekes, Sorotec
Manufacturer battery cells	Testing, Formation & Aging Zellen (developm./production)	X	X	X	Panasonic, Tesla, LG Chem, Samsung SDI, BYD, JCI, GS Yuasa Corporation, Amperex Techn., Lishen
Manufacturer HV batteries	Testing battery (developm./production)	X	X	X	BMW, BMZ
Manufacturer 48V batteries	Testing battery (developm./production)	X	X	X	BMZ
Manufacturer 48V starter/alternator	Testing engine (developm./production)	X	X	X	Bosch
Manufacturer on HV board charger	Testing AC/DC-charger (developm./production)		X	X	Kostal
Manufacturer Inverter	Testing (bidirektional) Inverter Testing (developm./product.)	X	X	X	Kostal, Hella, Bosch, Siemens VDO
Manufacturer HV heater	Testing heater (developm./production)	X			DBK
Manufacturer HV-cooling-systems	Testing cooling system (developm./production)	X			
Manufacturer fuel cells	Testing fuel cell (developm./production)		X		Ballard, AFCC Automotive Fuel Cell Cooperation
Manufacturer HV fuses	Testing HV fuses (development)	X	X		Littlefuse, SIBA
Manufacturer HV switches	Testing HV switches (development)	X	X		Tyco, Auto-Kabel
Manufacturer charging cables	Testing cables (developm./production)	X	X		Yazaki, Leoni, Mennekes
Manufacturer HV cables	Testing cables (developm./production)	X	X		Yazaki, Leoni, Autokabel, SY Systems
Manufacturer HV power distribution systems	Testing power distribution system (developm./production)	X	X		Yazaki, Leoni
OEM	Testing batterie and components (developm./production)	X	X	X	Tesla, BMW, Daimler, VW, Audi, Porsche
Testing institutes	Testing, qualification of HV-components	X	X	X	Phönix Testlab, EDAG, TÜV
Research and Development	Research focussed on eMobility	X	X	X	ISEA Aachen, IKA, PEM Aachen, TU München, TU Darmstadt
Operator of decentralised energy storage systems				X	STORNETIC, Sonnen GmbH
Companies for DC charging management				X	Verisco,
System integrators	Testing HV Power components in production-line	X	X	X	SOMA, ATW, Kratzer