NovaCarts Charger

Checking, charging and discharging vehicle traction batteries

10%

55%

100%

» **Test station for charging and discharging traction batteries for hybrid or electric vehicles**
» **Simulation of voltages and CAN messages**
» **Discharge of batteries for transportation and charging for the BBD extension**

The NovaCarts system is used to control, charge and discharge vehicle traction batteries. The compact device is operated on a three-phase industrial supply network and can be used flexibly due to its construction on rollers. When charging a battery, power is taken from the mains, when discharging, the power withdrawn from the battery is fed back into the mains.

Vehicle traction batteries that gradually discharge slightly due to longer storage periods can be recharged to defined State-of-Charge (SOC) values in a controlled manner with the aid of the charging and discharging device (extension of service life). In order to minimize transport risks, the batteries can also be discharged to a required SOC (e.g. for air freight).

In order to charge or discharge a battery, the battery control unit is supplied with voltage and the necessary CAN messages. This is done with the help of the so-called rest bus simulation, which must match the respective traction battery.

Technical Data

Designation	Type	Description
Emergency stop	Black snap-in pushbutton with red status display	Emergency stop = deactivated → System ready, display is off Emergency stop = activated → HV components not active, indicator lights up
Main switch	Rotary switch Siemens lockable	Main switch = OFF → Test bench switched off Main switch = ON → Test bench switched on
Bender FP200	Front panel for ISOMETER® iso685-S-B	The ISOMETER® is an insulation monitoring device for IT systems.
Circuit breaker L1-3	10A Typ C	Overcurrent protection device for the protection of the internal single-phase consumer as well as the Schuko socket outlet
PC Button	Push-button with blue status display	Button for starting/switching off the PC Short operation = switching on the PC Long operation (approx. 5 s) = switch off the PC
System start	Start, stop button with white status display	Push-button for activating and deactivating the system (self-locking of the emergency stop chain)
Terminal display	Green LEDs	Status display of on-board network simulation KL 30, KL 15, KL 30C
Fuses	Automotive fuse	Fuse protection KL 30/KL 15/KL 30C with 5A each
Diagnosis	OBD2 socket	Connection option for diagnostic tools such as ODIS, VAS-Tester or DiagRA®
CAN 1 – CAN 3, T-CAN	D-Sub 9-pin connector	Connection option for diagnostic tools such as CANalyzer etc.
LAN port	RJ45 socket	network connection
Socket grey	Schuko socket outlet 230V / 10A	The voltage depends on the position of the main switch